ABSTRACT

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This thesis presents the results of a systematic shovel test put survey along the northern shoreline of Lake Phelps, Washington County, North Carolina in the effort to understand prehistoric adaptation to a changing environment. In the mid-1980s, 30 ancient dugout canoes were discovered inundated in the waters of Lake Phelps and ranging in age from the Late Archaic period (3000-1000 B.C.) to the Late Woodland period (A.D. 800-1650). Since their discovery, archaeological surveys in the waters just off of the lake's northern and western shorelines have produced artifacts ranging as far back as the Late Paleo-Indian period (8500-7900 B.C.), showing that Lake Phelps was a place of utility and occupancy for people throughout much of prehistory. Our understanding of the changing uses of the lake for prehistoric peoples is limited, however, by the lack of controlled survey or excavation of the inland forested shoreline. To address this gap, I conducted shovel test pit surveys along selected portions of the Lake Phelps northern shoreline with the goal of finding in situ materials to help answer questions concerning Lake Phelps's utility to prehistoric peoples and the changing forms of prehistoric occupancy at the lake. My findings support the interpretation of the site as a central location in Early Woodland period and a more peripheral one in the Middle Woodland period.

2016 Archaeological Survey of the Lake Phelps Northern Shoreline

by
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BIOGRAPHY

Robert Andrew Jordan grew up in the small town of Amherst, Virginia. He has been fascinated with the past his entire life and has wanted to be an archaeologist since he was in Middle School. Prior to his time at NCSU, Robert was an honors student at Longwood University in Farmville, Virginia, where he received his Bachelor of Science in Anthropology. After his time at North Carolina State University, Robert hopes to continue his education and pursue a PhD in Anthropology.

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CHAPTER 1: INTRODUCTION

In the American Southeast, the Woodland Period (1000 B.C.-1650 A.D.) is defined by key changes in prehistoric lifeways. Specifically, these changes include the gradual shift from nomadic hunting, gathering, and foraging to more sedentary lifestyles, often in relation to early plant domestication. The most fundamental changes in behavior and settlement began, in most regions, in the Early Woodland period (1000 B.C. – 300 B.C.), with plants being cultivated on a small scale and small groups beginning to repeatedly occupy areas on a seasonal schedule. As plant domestication advanced and populations grew during the Middle Woodland (300 B.C. – A.D. 800) settlement patterns continued to shift to larger, more permanent forms, with large villages becoming common in most regions by the Late Woodland period (A.D. 800 – 1650). Decades of archaeological research have helped to elucidate these transitions, as well as regional variation in their timing and nature (Anderson and Mainfort, Jr. 2002; Custer 1994; Steponaitis 1986).

Our understandings of inland Woodland populations, in areas such as Tennessee, have been well fleshed out through a heavy archaeological focus on such areas (Steponaitis 1986: 380). Coastal regions, however, stand out in that they exhibit different trends in cultural development, with adaptations to agriculture, particularly maize agriculture, taking place later than in more inland regions (Hutchinson 2002: 29; Thompsons and Worth 2011). As such, the larger ranked societies and patterns of permanent sedentism associated with maize agriculture also appear later in the coastal regions than elsewhere (Hutchinson 2002: 30).

In the coastal plain of North Carolina the timing of the transitions from mobile to sedentary lifestyles remains poorly understood. This has largely been the result of a lack of

research focused on the region by archaeologists (Phelps 1983:1). This has started to change as Cultural Resource Management projects have increased in the region after a recent boom in coastal development (Ewen 2011: xvi). Regardless, much of the archaeological interpretation of this region is reliant on surface findings, with stratified deposits being a rarity. Given the sparseness of the archaeological record, there remain persistent questions about the timing of the transitions to sedentism, large villages, domestication of local cultigens, and the adoption of maize agriculture. Phelps (1983:35) used pollen cores to demonstrate the arrival of maize agriculture in the northern coastal plain around 2,000 years ago, at the start of the Middle Woodland. However, the evidence for maize agriculture and major increases in sedentism in the coastal plain during the Middle Woodland is sparse. Herbert (2002:302), for example, sees a continuation of Early Woodland practices of residential mobility during the Middle Woodland. Similarly, Hutchinson (2002:30) suggests that the transitions to maize agriculture and permanent sedentism did not take hold in the coastal plain until after A.D. 1300-1400.

This thesis aims to clarify the 'when', 'why', and 'how' of the Woodland transitions towards sedentism in the northern coastal plain by investigating one site of long-term occupation. Lake Phelps, located in Washington County, North Carolina (Figure 1), is an ideal site for researching Woodland-period transitions. It is an archaeological site that shows diagnostic evidence of prehistoric occupation from the Paleoindian period through the Late

Woodland.

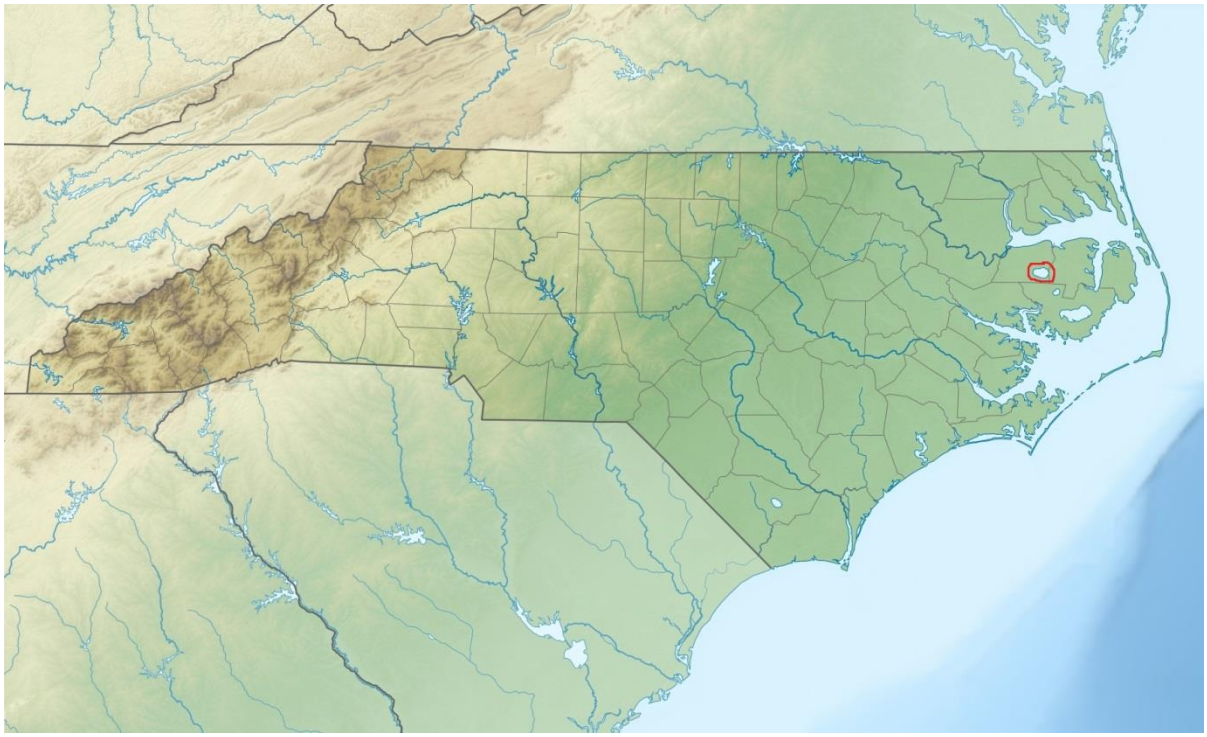

Figure 1: Lake Phelps's Location in North Carolina

Our current understanding of the lake's occupational history is that it was a central place during the Early Woodland period, when it served the purpose of a seasonally-occupied base camp, and that its occupation became more decentralized and peripheral during the Middle Woodland, when people settled in more sedentary systems elsewhere. The basis of this interpretation lies in findings accumulated from the past thirty years of research at the site, most notably the 30 dugout canoes, preserved in the lake's waters and providing a window into the timing and intensity of occupation at the lake over thousands of years (Pierce 2010). The goal of this project is to test this interpretation through controlled inland excavations.

Focusing on coastal plain research is important for more than academic reasons alone. Residential and commercial development continues to increase in the region. Additionally,

global climate change is having a noticeable effect on coastal regions: sea levels are rising at unprecedented rates, contributing greatly to the erosion of coastal landscapes and the destruction of archaeological sites (Ewen 2001: xvi, Klein et al. 2001: 531-532). Thus, our opportunities for understanding the variety of changes that occurred in the region are dwindling.

CHAPTER 2: BACKGROUND

To put Lake Phelps in context, I begin with an overview of each of the cultural-historical periods associated with the North American Southeast, the northern North Carolina coastal plain, and Lake Phelps respectively. I highlight the evidence of how and when settlement patterns have changed over time from more mobile to more sedentary systems (Anderson and Mainfort, Jr. 2002). These patterns, and the evidence used to identify them, will serve as the basis for building my research questions and the particular methods I use to answer them at Lake Phelps.

Culture History of the Southeast

The Paleoindian period begins with the arrival of human settlers in the region between 10,000 and 9,000 B.C. and continues to about 7,900 B.C. (Ward and Davis Jr. 1999: 29-32). It represents the span of time when mobile hunter-gatherers arrived and spread throughout North America. These groups lived in an environment that was wetter and cooler than today and subsisted primarily through hunting, gathering, and foraging (Ward and Davis 1999: 32-36). Paleoindian groups moved their entire communities and camps from season to season to make the best use of concentrated resources, a pattern that is called residential mobility (Binford 1980). The most common types of artifacts associated with Paleoindian sites are lithic flakes and projectile points and animal bones from game animals (Milner 2004: 25-31).

The hunting and gathering lifestyle carried over into the Archaic period (8,000-1,000 B.C.), which was in part characterized by the warmer climates associated with the transition from the Pleistocene to the Holocene. Mobility patterns, however, shifted from residential mobility to logistical mobility. This latter concept was first introduced by Binford (1980) as a

contrast to residential mobility (Binford 1980). Logistical mobility describes a strategy of resource collecting in which residential bases are less frequently moved. Instead, after residential bases are established, small task groups move to known areas of resource-procurement for very specific resources. Smaller, temporary field camps may be established at the sites of resource procurement. Raw materials are collected in bulk and are often processed at these sites. Eventually, they are transported back to the residential base for storage (Binford 1980: 9-12).

Much like the Paleoindian period, most Archaic artifacts come in the form of stone tools or flakes (Ward and Davis Jr. 1999: 2-3), however, there are clear changes in settlements and settlement patterns. During the Late Archaic, especially, sites with multiple-house patterns start to appear in the archaeological record, often characterized by five or six oval-shaped structures (Custer 1994: 339). Large storage pits, earth ovens, and hearths are also found at these sites, indicating longer occupations and patterns of collecting and storing resources. It has been suggested that these sorts of Late Archaic bases are the first examples of multi-family living spaces, and that they are the precursors to the later Woodland-period movements towards sedentary lifestyles (Custer 1994: 339). Finally, the Late Archaic period also shows the first signs of plant cultivation in the North American Southeast (Steponaitis 1986: 373). The first cultivated plants were cucurbits originating from wild species originating in Texas and Mesoamerica. Plants such as goosefoot, maygrass, knotweed, and sunflower were also cultivated for their seeds at this time.

The subsequent Woodland period is often divided into the Early Woodland (1000-300 B.C.), Middle Woodland (300 B.C.- A.D. 800), and Late Woodland (A.D. 800- 1650). The start of the Woodland Period is commonly marked by the widespread presence of pottery in

the archaeological record (Anderson and Mainfort Jr.2002: 5; Ward and Davis Jr. 1999: 3-5). Generally speaking, the Early and Middle Woodland periods exhibit increases in populations, as indicated by the increased number of sites and the increase in overall site size (Custer 1994: 340). These changes may be linked to observable increases in cultigens as part of the diet (Steponaitis 1986: 379). Such cultigens include the previously utilized maygrass, knotweed, goosefoot, and sunflower. Domesticated sumpweed was also utilized (Steponaitis 1986: 379). There is some evidence to suggest that the Early Woodland period also saw the introduction of small-scale maize agriculture, although this is disputed (Steponaitis 1986: 379). The earliest unquestionable occurrence of maize comes from Florida at around A.D. 300, during the Middle Woodland period (Steponaitis 1986: 379). Although cultigens did increase in importance throughout the Southeast during the Early and Middle Woodland, they still represented a minor part of the diet. Subsistence was still primarily centered on hunting and gathering (Anderson and Mainfort Jr. 2002: 9; Steponaitis 1986: 379).

Early Woodland settlement patterns in the Southeast, generally speaking, consisted primarily of small communities of between fifty to sixty individuals. These communities were often highly mobile foraging communities, although seasonally occupied settlements were also present (Anderson and Mainfort Jr. 2002: 6). Such seasonally occupied sites in the Duck, Elk, and Cumberland River drainages consist of circular, oval, or rectangular structures that were often occupied by single-family units (Steponaitis 1986:380). Similar sites are also present throughout the Southeast from North Carolina to Florida and Mississippi (Steponaitis 1986: 380). In certain parts of the southeast, such as central and eastern Kentucky and North-Central Mississippi, burial mounds are present in the Early Woodland (Anderson and Mainfort Jr. 2002: 7). In some areas, these mounds acted as

communal burials. In others, they appear to have been reserved for smaller groups, indicating the possible occurrence of social status differentiation in some places (Anderson and Mainfort Jr. 2002: 7-9).

Throughout the southeast, the Middle Woodland period saw a marked increase in burial mound construction. Like in the preceding Early Woodland, the status systems represented by these mounds were diverse, with some areas consisting of communal burial mounds and others consisting of mounds specifically for higher status individuals (Steponaitis 1986: 382-383). This shows that social status differentiation occurred at different times in different places.

Middle Woodland settlement systems showed some significant increases in sedentism throughout the southeast. As was mentioned before, the Middle Woodland period sees the first undisputed use of maize by prehistoric peoples in the southeast (Steponaitis 1986: 379). Sunflower, chenopod, and marshelder were also grown (Anderson and Mainfort Jr. 2002: 14). The manufacture of hoes, use of storage facilities, and the practices of land clearing were all present to varying degrees throughout the southeast during the Middle Woodland (Anderson and Mainfort Jr. 2002: 14). By A.D. 400, some settlements were occupied year-round. These settlements contained greater investments in households, with structures built specifically for both cold and warm weather (Steponaitis 1986: 381). However, these year-round settlements likely only lasted for a few years before their inhabitants moved on to new areas (Steponaitis 1986: 381).

The Late Woodland period was a time of significant cultural change in various parts of the Southeast. Populations increased throughout the region at this time, and households and small communities spread across the landscape (Anderson and Mainfort Jr. 2002: 15).

There was an increase in the diversity of exploited animal and plant food sources (Steponaitis 1986: 384). This may have been related to the introduction of the bow and arrow during this period (Anderson and Mainfort Jr. 2002: 15-16).

The pressures resulting from the increases in populations during the Late Woodland period led to significant changes in social systems. Ranked and hereditary status societies became common (Anderson and Mainfort Jr. 2002:17). Along with this came significant increases in maize cultivation. Maize in moderate amounts was present in south-central Tennessee in A.D. 600. By A.D. 800, maize agriculture constituted a dominating part of the prehistoric diet throughout the southeast.

Culture History of the Northern North Carolina Coastal Plain

The North Carolina coastal plain is part of the Atlantic Coastal Plain, which stretches north to approximately Long Island, New York, and southward to approximately Texas. The Atlantic Coastal Plain extends west to the Fall Line, which separates it from the Piedmont (Fenneman 1928: 290-291). In North Carolina, specifically, the Coastal Plain is often divided by archaeologists between the northern and southern North Carolina Coastal Plain. This distinction is made primarily to reflect cultural differences between prehistoric groups in the northern and southern portions of the state's coastal plain (Ward and Davis Jr. 1999:194). These cultural differences are first evident in the Early Woodland period, with distinctly different pottery wares being crafted in either part of the coastal plain. The northern and southern North Carolina Coastal Plain regions are separated by the Neuse River. The focus of this study is concerned with the northern North Carolina Coastal Plain, where Lake Phelps is located.

Our knowledge of prehistoric activities in the northern North Carolina Coastal Plain is fairly limited (Phelps 1983, 1), with most archaeological work having been in the form of pedestrian surveys and the collection of surface artifacts. Paleoindian projectile points are sparser in the North Carolina Coastal Plain than in the other physiographic regions; there are fewer than fifty total Paleoindian sites known in the region (Ward and Davis Jr. 1999: 36). It is postulated, however, that this is in part due to the smaller size of the region resulting from the rising sea levels over time which has decreased the area of the coastal plain (McReynolds 2005: 3). Nevertheless, there is little evidence to suggest that Paleoindian groups in the North Carolina Coastal Plain exhibited patterns of foraging or mobility that were different that those groups further inland.

Throughout the North Carolina Coastal Plain the number of archaeological sites increased over the course of the Archaic period. Archaic sites in the region come in the form of either semi-sedentary base camps or, more frequently, temporary resource procurement sites. This mirrors the types of logistical strategies present throughout other parts of the southeast at the time. Oftentimes, base camps are located near the confluences of streams while the resource procurement sites are normally located near any source of water (Ward and Davis Jr. 1999: 73). In the Late Archaic period, semi-sedentary fishing camps became more common towards the mouths of major rivers. Fishing and shellfishing were the primary means of sustenance at these sites, but mammals, birds, crabs, and select plants such as hickory nuts, acorns, and other edible seeds were also exploited (Steponaitis 1986: 375). It is at such semi-sedentary Late Archaic sites that we find the first appearances of pottery in the North Carolina Coastal Plain. Portions of fragile and rudimentary pottery vessels have been

recovered from these locations that date to around 2,500 to 2,000 B.C. (McReynolds 2005: 6).

Throughout the coastal plain in the southeast, lifestyles in the Early Woodland period were very similar to those of the Late Archaic, with local inhabitants maintaining a relatively mobile lifestyle (Steponaitis 1986: 380; Ward and Davis 1999, 200-203). Settlements that were present were only seasonally occupied. These seasonal settlements normally consisted of 5-10 oval, wooden households and 25-60 individuals. Additionally, these seasonal settlements were accompanied by shell middens (Steponaitis 1986: 380). The true distinguishing feature of the Early Woodland period in the coastal regions is the widespread adoption of ceramic pottery (Herbert 1999: 295).

Surveys and surface collections have established that Early Woodland sites in the northern North Carolina Coastal Plain increased in frequency near major streams and along the coastline (McReynolds 2005: 6), but few Early Woodland sites have been isolated stratigraphically, making detailed descriptions of Early Woodland lifeways in this region difficult (Ward and Davis Jr. 1999: 201). The northern North Carolina Coastal Plain in the Early Woodland is associated with several ceramic wares. These include the soapstone-tempered Marcey Creek series (Herbert 2002: 296), the clay and grog-tempered Croaker Landing series (Herbert 2009: 117), and the sand-tempered Deep Creek series (Herbert 2002: 296). Deep Creek ceramic surfaces are also characterized by cord-marking, fabric-impressing, and net-impressing (Martin 2008: 79-81).

In the northern North Carolina Coastal Plain's Middle Woodland period, fewer sites are found along small tributary streams. Instead, more sites are located along major inland streams and estuaries. Phelps postulated that the Middle Woodland in the northern North

Carolina Coastal Plain saw the start of larger sedentary villages, which may have been the result of an increased dependence on domesticated plants. Pollen cores from the Dismal Swamp lend credence to this idea, showing that maize was at least present in the region at the time (Phelps 1983: 33-35).

Unfortunately, no Middle Woodland sites in the North Carolina Coastal Plain have yet to be sufficiently investigated to make definitive statements on attributes such as settlement size and appearance. Other than the abovementioned soil cores, definitive evidence of horticulture has yet to be found (UNC Research Laboratories of Archaeology 2010). Indeed, many of the assertions of the North Carolina Coastal Plain's Middle Woodland period having increased sedentism, intensified horticulture, and increased social stratification are poorly illustrated in the archaeological record. Most Middle Woodland sites identified in the region are small in scale, often taking the form of short-term campsites or resource procurement sites (Herbert 2002: 302). This would appear to contradict Phelps's claims about the growth of sedentary villages, unless these campsites served the logistical purpose of gathering resources for the larger village (Binford 1980; Harris 2007; Kelly 1983). Overall, Middle Woodland sites are more numerous and more dispersed than Early Woodland sites, suggesting significant population growth accompanied by some possible cultural fragmentation. While burial mounds do become present in the southern North Carolina Coastal Plain, the northern North Carolina Coastal Plain is more associated with much smaller sites (Herbert 2002: 302-303).

The northern North Carolina Coastal Plain's Middle Woodland period is most often associated with the Mount Pleasant series of ceramic wares, which is seen as a continuation of the Deep Creek series. Mount Pleasant wares have fabric-impressions, net-impressions, or

cord marked surfaces and are primarily distinguished from Deep Creek wares by having gritty quartz inclusions in addition to sand temper (Ward and Davis Jr. 1999: 203). These quartz grit inclusions are often around 2mm in size or larger (Martin 2008: 90). Also found occasionally in the northern North Carolina Coastal Plain are the clay-tempered Hanover wares common in the southern North Carolina Coastal Plain (Phelps 1983: 32) and the shell-tempered and net and cord-impressed Mockley wares common in Virginia (Phelps 1983: 32).

The Late Woodland period (A.D 800 – 1650) in the North Carolina Coastal Plain is associated with the origins of key cultural, political, and linguistic differences among populations that persisted into the Contact period and today. The northern portion of the North Carolina coastal plain is associated with Algonkian-speaking groups (Ward and Davis Jr. 210). These groups primarily used Colington ceramic wares, which are shell-tempered and are fabric-impressed, cord-marked, or plain (Herbert 2002:311). The inland portion of the northern coastal plain is associated with Iroquoian-speaking Tuscarora (Herbert 2002: 311). The primary ceramic type associated with this group is the Cashie series. Cashie ceramics are fabric-impressed, simple-stamped, or plain with sand and large, well-rounded pebble-sized (around 4 mm) pieces of quartz in the paste (Phelps and Heath 1998: 7). Oftentimes in Cashie wares, these pebbles will protrude from both sides of the vessel wall (Ward and Davis Jr. 1999: 224). Additionally, Cashie wares are unique in the region in that they have a very fine silty clay paste with little to no gritty texture. The southern portion of the North Carolina Coastal Plain is associated with the Sioux (Ward and Davis Jr. 1999: 210-216). This region is most often associated with the shell-tempered White Oak ceramic series (Ward and Davis Jr. 1999: 217).

Accompanying this increase in territoriality is a marked increase in sedentism. Much of the estuarine landscapes that were frequently utilized in the preceding periods were abandoned and more permanent villages were established in areas where agriculture was possible (Herbert 2002: 311). This is a trend that is common in other coastal portions of the Southeast as well, as the Late Woodland period marks the most widespread adoption of maize agriculture in coastal regions (Steponaitis 1986).

Our understandings of Woodland-period transitions in settlement behavior in the North Carolina Coastal Plain require further refinement. This is especially the case when discussing the Early to Middle Woodland transition. Phelps (1983) laid out several goals for future archaeological research in the region. Among them was the "excavation of sites that represent the range of types for each phase of the regional sequences to provide a complete culture history as a platform from which processual studies can be launched" (Phelps 1983: 50). Lake Phelps, in Washington County, is a site that provides such an opportunity.

The Lake Phelps Site

Lake Phelps is the second-largest, naturally formed lake in North Carolina. The lake encompasses about twenty-five square miles and is about seven miles long and five miles wide (Shomette 1993: 2). It is landlocked, not connecting to rivers of other bodies of water, and is maintained by rainfall. Although the easternmost portion of the lake crosses the border between Washington and Tyrell Counties, the entirety of Lake Phelps is under the protection of Pettigrew State Park. This park also owns and oversees much of the northern shoreline.

The origins of Lake Phelps are still up for debate. Radiocarbon dates of Lake Phelps indicate that the lake dates back to, at a minimum, 36,000 B.C. (Holley 1989: 2). Lake Phelps is one of North Carolina's pocosin lakes, which also include Lake Pungo and Lake

Mattamuskeet. Some suggest that the lakes were formed as a result of the sustained burning of the highly organic soils present there (Modlin 1998) while others think they were formed from meteor strikes (Savage 1982).

The landscape of the region is far different today from what it was throughout prehistory. This change was primarily a result of agricultural alterations that began just after the American Revolution. Additionally, the southern shore of the lake today is highly developed. The northern shore today is mostly preserved forest with the exception of the Somerset Plantation, the campgrounds of Pettigrew State Park, and a small wind easement clearing along the shore across from Mountain Canal Road. First-hand written accounts from the lake's first Euro-American occupants provide us with some generalized understanding of the region's condition prior to the heavy agricultural interventions.

Lake Phelps was first encountered by English hunters on August 23, 1755. At the time, the area was locally known as "The Little Dismal" Swamps, a name that rightfully reflected the area's natural environment. At the time of the lake's European discovery, its prehistoric occupiers had long abandoned the site, leaving very little noticeable evidence behind. The area was a densely vegetated landscape that Europeans thought of as untouched and pristine (Shomette 1993: 33-34). Writing in 1790, Reverend Charles Pettigrew (for whom Pettigrew State Park is named) described the lake's surroundings as such:

> The trees are luxuriantly tall and shady, being dressed in a foliage of the richest verdure, while the fertile field, which lies extended along the verge of the Lake eastward, exhibits the vegetative power of nature in such a degree as arrests the attentive Eye from every terrestrial object (Shomette 1993: 34).

European accounts of the sort just cited are extremely important as they provide a glimpse of how the region once looked. Today the area is largely consumed by farmland. At the time, however, the lake's surroundings appear to have been so densely wooded that Europeans assumed that they were the first to occupy it.

The "pristine" landscape described by Europeans did not last. After the American Revolution, a businessman by the name of Josiah Collins founded the Lake Company with the objective of digging a canal from Lake Phelps to the Scuppernong River to the north. This canal, known as the Collins Canal, was to be used to drain Lake Phelps for the purposes of converting the landscape to the north into wetlands for rice production. The Collins Canal failed, however, to do this effectively. Later on, Collins founded a plantation on the northeastern shore of Lake Phelps and set to work at converting the surrounding landscape to agricultural uses (Shomette 1993: 33). This plantation was named Somerset Place and was active from 1785 to 1865. It is still preserved today as a North Carolina Historic Site and is located just a short walk away from the Pettigrew State Park campsites (North Carolina Historic Sites).

In terms of its prehistoric past, Lake Phelps is significant for northern North Carolina Coastal Plain archaeology in that it exhibits indications of repeated or continuous occupation from the Late Paleoindian period to the Late Woodland period. The site also exhibits great potential in researching the transitions in landscape use at aquatic sites, particularly with regards to the Early and Middle Woodland periods, which are heavily represented archaeologically at the lake.

In the spring of 1985, large quantities of water were pumped out of Lake Phelps to combat a nearby forest fire. As a result, the waterline lowered and the shoreline receded

significantly. Shortly after, fishermen began finding artifacts such as stone tools and ceramics with startling frequency. In November of that year, several prehistoric dugout canoes were discovered by personnel from Pettigrew State Park (Phelps 2002: 1). To date, 30 canoes been discovered at the lake along the northern and western shorelines, the most of any North American site (Wilde-Ramsing 1992: 3). The Lake Phelps canoes have been preserved remarkably well by the low-acidity content of the water (Wilde-Ramsing 1992: 3). The presence of these canoes has been significant because, prior to their discovery, only ten other dugout canoes had ever been discovered in the entirety of North Carolina (Pierce 2010: 1). Of the 30 canoes found, 23 of these have been fully recovered and analyzed. Nineteen have been radiocarbon dated (Figure 1, Table 1).

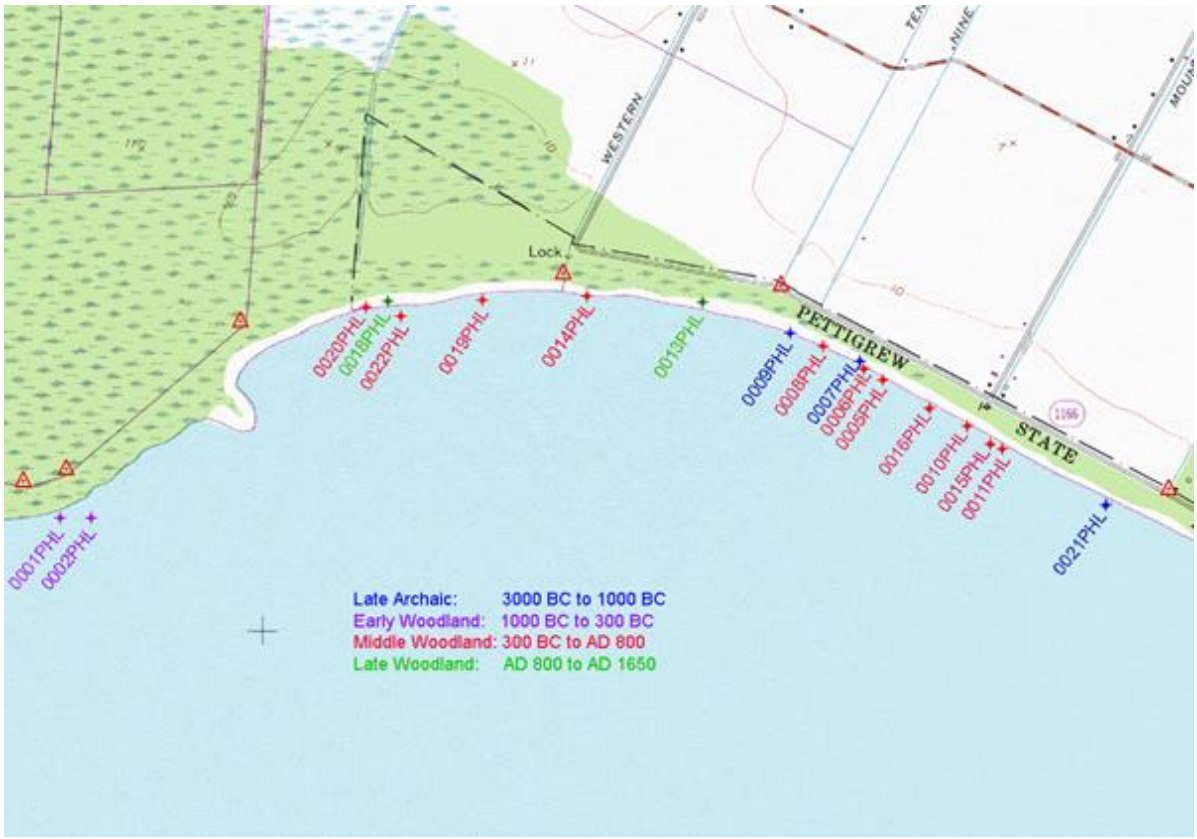

Figure 2: Map with locations of dated canoes

The results of the radiocarbon dating have been wide-ranging, with different canoes dating from 2430 B.C. to A.D. 1400, indicating that people occupied the region from at least the Late Archaic period (3000-1000 B.C.) to the Late Woodland period (A.D. 800-1650), just prior to European contact (Wilde-Ramsing 1992: 3) (Table 1).

Table 1: Radio-carbon Dates for Lake Phelps Canoes (Pierce 2010: 47) (Calibration unidentified in text)

Canoe Number	UAU Location #	C-14 Date (BP)	C-14 Date (BC - AD)	Archaeological Period
7	0007PHL	4380 +/- 70	2430 BC	Late Archaic
9	0009PHL	3230 +/- 110	1280 BC	Late Archaic
21	0021PHL	3060 +/- 70	1110 BC	Late Archaic
2	0002PHL	2850 +/- 60	900 BC	Early Woodland
1	0001PHL	2720 +/- 70	770 BC	Early Woodland
17	0017PHL	2090 +/- 60	140 BC	Middle Woodland
16	0016PHL	1980 +/- 70	30 BC	Middle Woodland

Table 1 Continued

8	0008PHL	1840 +/- 60	110 AD	Middle Woodland
11	0011PHL	1790 +/- 70	160 AD	Middle Woodland
5	0005PHL	1760 +/- 60	190 AD	Middle Woodland
19	0019PHL	1740 +/- 60	210 AD	Middle Woodland
6	0006PHL	1729 +/- 60	230 AD	Middle Woodland
15	0015PHL	1630 +/- 60	320 AD	Middle Woodland
4	0004PHL	1610 +/- 60	340 AD	Middle Woodland
20	0020PHL	1580 +/- 50	370 AD	Middle Woodland
10	0010PHL	1530 +/- 60	420 AD	Middle Woodland
18	0018PHL	750 +/- 50	1200 AD	Late Woodland
13	0013PHL	560 +/- 60	1390 AD	Late Woodland
3	0003PHL	550 +/- 60	1400 AD	Late Woodland

Table 1 Continued

12	0012PHL	No date		
14	0014PHL	No date		
22	0022PHL	No date		
25	0025PHL	No date		

Thousands of other artifacts have also been discovered on the surfaces of the northern and western shores of the lake ranging from the Paleoindian to the Late Woodland periods (Pierce 2010, 12-28). The first major archaeological survey not focused on the canoes was the Claggett survey in 1986. Over the course of two days, Steve Claggett led a controlled collection of surface artifacts in the shallow waters in the vicinity of canoes 0001PHL and 0002PHL. These were the two westernmost canoes and they dated back to the Early Woodland. Claggett's survey covered 400 meters of the shoreline near Big Point, and only diagnostic artifacts were collected (Pierce 2010, 32). This project resulted in 346 diagnostic artifacts representing a range of dates from the Late Archaic period to the Late Woodland with most recovered finds being associated with the Early Woodland (2 Croaker Landing ceramic sherds and 234 Deep Creek ceramic sherds) (Pierce 2010, 30).

The next major survey of the northern shore occurred in the summer of 1987. Phelps led a group of 32 East Carolina University students in a pedestrian survey of the lakebed stretching almost three miles from the public boat ramp at Pettigrew State Park to the Big Point peninsula. In total, the survey procured 1,777 artifacts, of which 1,130 were temporally diagnostic (Pierce 2010, 36-39). Again, most of the diagnostic artifacts recovered dated to the Early Woodland period. These included 684 Deep Creek ceramic sherds, 45 Croaker Landing

sherds, and 1 Marcy Creek sherd. For the Middle Woodland period, 249 Mount Pleasant sherds were recovered along with 5 Hanover sherds and 5 Mockley sherds. Representing the Late Woodland were 143 Colington ceramic sherds and 1 Cashie sherd. Four Soapstone wares and 2 Savannah River projectile points dating to the Late Archaic were also recovered. Finally, the Phelps survey recovered one Hardaway projectile point dating back to the Late Paleoindian period (Pierce 2010, 30). This was the first, and as yet only, indication of a Paleoindian presence at Lake Phelps (Pierce 2010, 30).

The last major survey project on Lake Phelps's northern shore was the Pierce Survey in October of 2009. This survey project took place in the as yet uninvestigated stretch of shoreline between the Claggett survey and the Phelps survey. Survey transects went 50 meters south into the lake, with artifacts being collected in up to 0.5 meters of water (Pierce 2010, 43-44). Pierce's survey resulted in the recovery of 26 Early Woodland Deep Creek sherds, 125 Middle Woodland Mount Pleasant sherds, 64 Middle Woodland Hanover sherds, and 4 Late Woodland Cashie sherds.

In his Master's Thesis, Greg Pierce (2010) synthesized the data collected from each of the survey projects. Using this data, Pierce modelled occupational patterns throughout the lake's prehistory across four postulated areas of human activity (Figure 3). Area 1 is located on the lake's western shore and encompasses the entirety of archaeological site 31WH13. Area 2 is located on the northern shore in the central stretch of 31WH12. Areas 3 and 4 are also located within 31WH12 on either side of Big Point, with area 3 being just east of Big Point and area 4 being just west of it. Pierce's model of the occupation history begins with the fact that evidence of human activity at the Lake Phelps site is sparse for the Paleoindian and Archaic periods (Pierce 2010, 12-19). Late Archaic artifacts and canoes are all limited to

Area 2. More artifacts are associated with the Early Woodland than with any other period, and these artifacts are mostly concentrated in Area 2. Pierce attributed the increase in artifacts with population growth, though it could also indicate more frequent or intensive use of the area by the region's inhabitants. Pierce postulated that, during the Early Woodland period, Area 2 was a seasonally occupied base camp. Pierce's Areas 1 and 4 were also occupied for the first time during the Early Woodland, further showing the intensification of lake use (Pierce 2010, 73). Area 4 also has two Early Woodland canoes associated with it. These two canoes appear contemporaneous with one another.

Middle Woodland artifacts are less numerous overall, but more widely distributed. In terms of total artifact counts, there are fewer total artifacts associated with the Middle Woodland period than the prior Early Woodland as artifact counts within Area 2 drop significantly during the Middle Woodland. However, artifact counts increase in Areas 1, 3, and 4. Pierce asserted that this is an indication of decreasing intensification and an overall decentralization of the lake's use (Pierce 2010, 24-27). Eleven of the nineteen radiocarbon dated canoes also date to the Middle Woodland Period (Pierce 2010, 19-24). Although this is the majority of canoes at the site, the canoes exhibit a much wider range of dates than in the preceding period, meaning they were made at different times. Because they are not contemporaneous with one another, the high count of Middle Woodland canoes cannot be interpreted as an indication of increased intensity of lake use. To the contrary, Pierce claimed that the lower total artifact counts and wider artifact and canoe distributions over time indicate the opposite shift in the lake's use. Unlike canoes from earlier periods, which are found close to artifacts from the same time period, the Middle Woodland canoes are widely distributed across the northern shore. Furthermore, not all of the Middle Woodland canoes

appear to be associated with artifact concentrations. There are Middle Woodland canoes located in Pierce's Area 2 and Area 3 and there are Middle Woodland canoes located in the intervening space where there are no associated artifacts (Pierce 2010, 65). Additionally, the areas with the largest Middle Woodland artifact concentrations, Areas 1 and Area 4, have no canoes associated with them (Pierce 2010, 65-66).

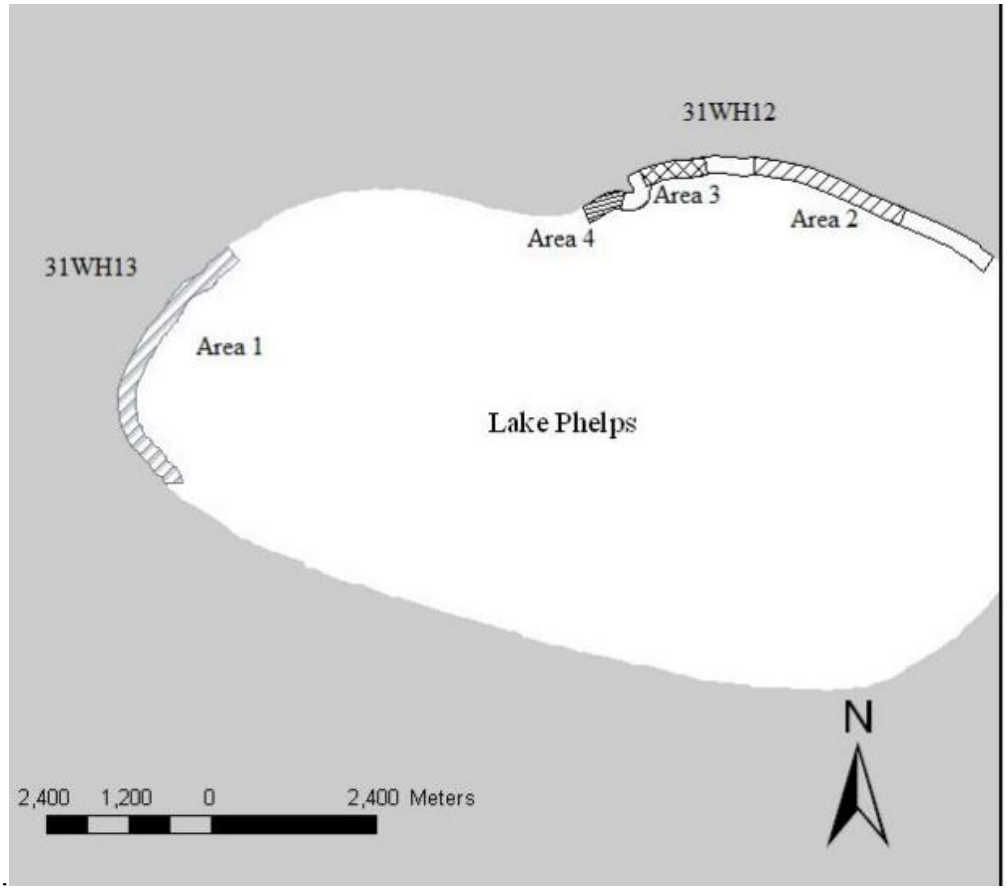

Figure 3: Map of Lake Phelps showing Pierce's (2010) four occupational areas

Pierce asserted that these transitional patterns in artifact and canoe distributions from the Early to the Middle Woodland period at Lake Phelps represent a shift from fewer, larger sites of seasonal occupation to temporary special-use sites that were not repeatedly occupied. This shift could be attributed to a broader shift towards dependence on domesticated plants,

as these special-use sites would have been associated with one or more larger sedentary villages located elsewhere. Furthermore, special-use sites would vary in location with each visit, depending on the local conditions and resources (i.e. locations of fish schools or shell fish beds) (Pierce 2010, 75-76).

The Late Woodland period shows a significant decline in artifact counts at Lake Phelps, which Pierce attributed to the continued decentralization of occupation and use of the lake (Pierce 2010, 66-67, 70-79). He postulated that increased numbers of sedentary villages, far from the lake, where people relied on agriculture made Lake Phelps a site of only rare use for the purposes of occasional resource exploitation (Pierce 2010, 76-78).

Pierce's model is based entirely off of the densities and distributions of surface finds. While surface finds can be of great value, they are also heavily subject to alterations through processes such as soil erosion (Flannery 1976), which has been very common throughout Lake Phelps's natural history. The possibility that the surface finds from the prior Lake Phelps projects have been altered and disturbed is further compounded by the fact that most were actually found below the waterline. This forces us to question the accuracy of the site boundaries Pierce gave and his inferences about site size, settlement density, and intensity of use. The waterline at Lake Phelps is also met by densely wooded marshland. This ground cover would have obscured many of the surface artifacts in these areas, leading to an incomplete dataset.

Overall, while Pierce and his predecessors have provided important datasets via their surface investigations, surface collecting offers only a limited view of past activities around the lake. They do not provide us with the stratified contexts that we would prefer for observing associations between artifacts and groups of artifacts. As such, Pierce's synthesis

and occupational model should not be seen as definite interpretation of the lake's prehistory so much as a starting point for planning future investigations. This is a point that Pierce himself makes (Pierce, 2010: 82).

After the analysis of the canoes and the numerous investigations of the lake's water line via surface collecting, the next logical step is to look inland for preserved, in situ stratified deposits of archaeological material that may alter or reaffirm our current understandings of the lake's changing use to prehistoric peoples, particularly with regards to the apparently vital transition from the Early to the Middle Woodland period. In conducting such a project, Pierce's occupational model should be used to guide the placement of survey areas so that the postulated occupational zones abundant in Early and Middle Woodland archaeological material are investigated in the inland surveys. Finding preserved and stratified deposits of Early and Middle Woodland materials inland of these postulated occupational zones would allow us to test the validity of the model's representation of this transition. Furthermore, using a systematic sub-surface sampling strategy may allow for more accurate delineations of site boundaries and better estimations of site size. Systematic sub-surface sampling in the intervening space between Pierce's postulated occupational zones can also test whether or not the pedestrian surveys missed archaeological materials present in those intervening areas.

CHAPTER 3: METHODS

In order to test Pierce's hypothesis about the decreasing intensity of lake use from the Early to Middle Woodland periods, I conducted dry land test excavations across the 4.6 km of lakeshore that encompasses site 31WH12 and occupational areas 2, 3, and 4. Area 1 fell outside of the park boundaries and was not currently available for investigation.

Given that the site is located in a forested area protected by Pettigrew State Park, the best methodology was a shovel test pit (STP) approach (Lovis 1976). This method entails the excavation of small test pits across a wide area. It is a minimally invasive way to collect artifacts and determine site boundaries in a systematic and controlled fashion. Because Woodland Period sites and structures do not follow a standardized layout (Custer 1955), a systematic aligned method of spacing STPs can often be used without the fear of completely 'missing' the site (Flannery 1976). This involves establishing, for each survey area, an artificial grid where test pits will be excavated at every grid point. The number of pits that are excavated depends on the total area covered by the grid and the spacing between points in the grid. Because STP's are used as a discovery technique to find archaeological sites, the area of investigation can be quite large, defined by natural boundaries (roads, lakes, rivers, property lines), and limited by the amount of time and resources available.

STP sampling has come under some scrutiny because of disagreements over its effectiveness as a discovery tool. Michael J. Shott (1989: 396), in particular states that it "usually is employed to discover sites, and its use is predicated on the often-unstated assumption that it will discover most if not all sites within the survey region. In short, it is used as a discovery, not a sampling, technique and therein alone lies the problem." He felt that the method should only be used to sample known archaeological distributions within a

particular region and maintained that surface surveying by clear-cut forest tracts was a more effective and efficient means of site discovery at the time, but that better systematic methods needed to be developed.

Lightfoot (1986) found that, contrary to Shott's objections, subsurface surveys do not over-emphasize large sites and are likely to provide more accurate estimates of site densities. He compared and contrasted a surface survey and a subsurface survey of the same wooded region to address issues of site-size bias, density estimates, and labor intensity. The primary disadvantage to shovel test surveys, in Lightfoot's view, was its high level of labor investment when compared with surface surveys (Lightfoot 1986: 495-499). In wooded areas, however, surface surveys also involve considerable labor to mark and clear collection locations.

Because of their minimally invasive nature, and because finding stratified deposits was a key goal in this projects, I used the STP methodology in the Lake Phelps survey. In each survey area, we set a datum that served as the jumping off point for the establishment of an artificial grid set to the cardinal directions that we used to determine STP locations. STPs were placed on transects that followed a north-south orientation at 20 meter intervals, allowing for relatively easy communication between the individuals working along each transect. A 10 meter transect interval would have, admittedly, been more ideal for discovering smaller archaeological sites. Unfortunately, we did not have the time or manpower to survey each of the chosen survey areas with 10 meter transects. The 20 meter transect interval is fairly standard for eastern woodland survey projects, and so it was chosen as an alternative (Lightfoot 1986: 494). Along each transect, however, STPs were still placed 10 meters apart in an effort to increase the likelihood of locating the smaller archaeological

sites associated with the Woodland period that, according to Pierce, should be expected here (special-use sites, temporary camp sites, etc.) (Lightfoot 1989, 493-494; Pierce 2010). Each individual pit was labeled with a number that represented its point location on the grid. Within each area, transects were numbered consecutively, starting with 0, and moving either east or west, depending on the survey area's location. On each transect, each pit was labeled consecutively, starting with 0.0 as the datum point. Each subsequent pit was labeled as a point on the grid line (0.1, 0.2, 1.1, etc.). Datums and transects were mapped relative to USGS benchmarks using a SOKKIA total station. As a backup, the datum locations of each of the survey areas were also recorded with a handheld Delorme GPS unit. The datum coordinates can be seen in the following chart (Table 2).

Table 2: Datum UTM Coordinates for Each Survey Area

Survey Area	Datum UTM Coordinates
1	18S 367759 3962642
2	18S 367972 3962806
3	18S 369099 3963343
4	18S 369762 3963169
5.1	18S 370785 3962801
5.2	18S 371260 3962539
5.3	18S 371069 3962673

A park-supervised trail system runs along most of the northern shoreline of the lake about 100 meters from the lakeshore. This trail system was used to move and transport equipment between each of the survey areas. Within the survey areas, each transect ran from approximately the edge of the walking trail southward until the vegetation was too thick to press further or, preferably, until the lake's water or swampy terrain was reached.

On an ideal day each transect was surveyed by a team of two individuals. Prior to excavating each pit, crew members marked a 3-meter diameter circle around the pit. We then removed all brush and debris in an effort to find and collect any surface artifacts. The plan was to facilitate comparisons with previous pedestrian surveys. However, no surface artifacts were ever found or recorded during the field season in these cleared areas. We worked with park rangers to develop this strategy, making sure not to damage any living trees or shrubs in the process, aside from poison ivy.

After the initial search for surface finds, one volunteer would dig a 30 by 30 cm hole while the other sifted the dirt through a ¼" screen. As each team dug, they carefully watched the stratigraphy of their pit to look for any changes in the soil in terms of color (based on the Munsell system), texture, or moisture, which they recorded on a field form. The depths of soil changes were recorded and artifacts from each layer were separated into different bags. If a proposed spot for an STP was blocked by a tree or other barrier, the STP location was shifted to the closest spot in whichever cardinal direction made excavation possible. STPs were excavated to a minimum of 50 cm unless crews encountered ground water or obstructions like a thick tree root. If artifacts continued past 50cm, digging proceeded until 10cm of sterile soil was encountered or the depth was too great to dig further. Any artifacts recovered from the STPs were kept in plastic bags labeled with the test pit and stratigraphic

layer of the finds. At the end of excavating and recording the spatial data at each of the grids, all materials marking the shovel test points were removed. Upon leaving each survey area, only the two stakes marking the grid's datum point and back-sight were left behind.

The three occupational zones that Pierce identified that were within the bounds of Pettigrew State Park provided guidance for where to place each survey area. I wanted to make sure that we had placed survey areas within each of the hypothesized occupational zones (with the exception of zone 1 which was unavailable for survey). I also wanted to make sure that we had survey areas placed in the spaces between occupational zones. The result was the following preliminary plan for the general locations of survey areas (Figure 4).

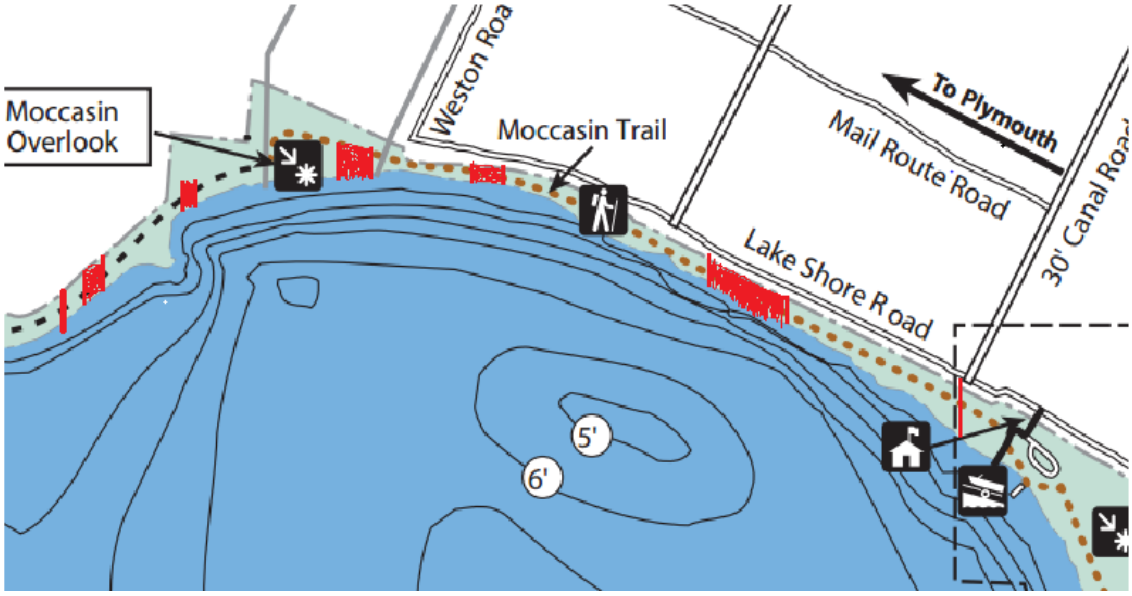

Figure 4: Preliminary Survey Plan

My original goal was to excavate 690 STP's across these five areas, however, adjustments were later made to account for changing circumstances on the ground. Our fieldwork was conducted during three weeks in July when stormy weather was frequent. There was not an opportunity to extend the field season, so we reduced the number of STP's.

We also found that the northern shoreline of Lake Phelps contained far denser vegetation and swampier terrain than we had planned for after a scouting trip in the spring. Despite these setbacks, we were able to excavate 119 STP's across all five areas.

Survey areas 1 and 2 were located in the vicinity of Big Point, a small swampy peninsula that extends into Lake Phelps. Prior to the summer's fieldwork I spoke with Nathan Henry at the Raleigh Office of State Archaeology. He informed me that extensive surface collections were procured from this peninsula from ECU students in 1986. Unfortunately, this collection was later lost when the then superintendent of Pettigrew State Park moved to Florida (Nathan Henry, personal communication). Additionally, surface collecting was conducted in the waters just west of the peninsula in 2008. These collections are housed at the Raleigh Office of State Archaeology and contain a few Deep Creek (Early Woodland) and Mount Pleasant (Middle Woodland) ceramic sherds, an unidentified projectile point, and a steatite bowl fragment (Nathan Henry, personal communication). This 2008 collection was located very close to the 1986 Claggett Survey, and the findings here are consistent with what was established before by Claggett. The only two Early Woodland canoes are also located in the vicinity of Big Point.

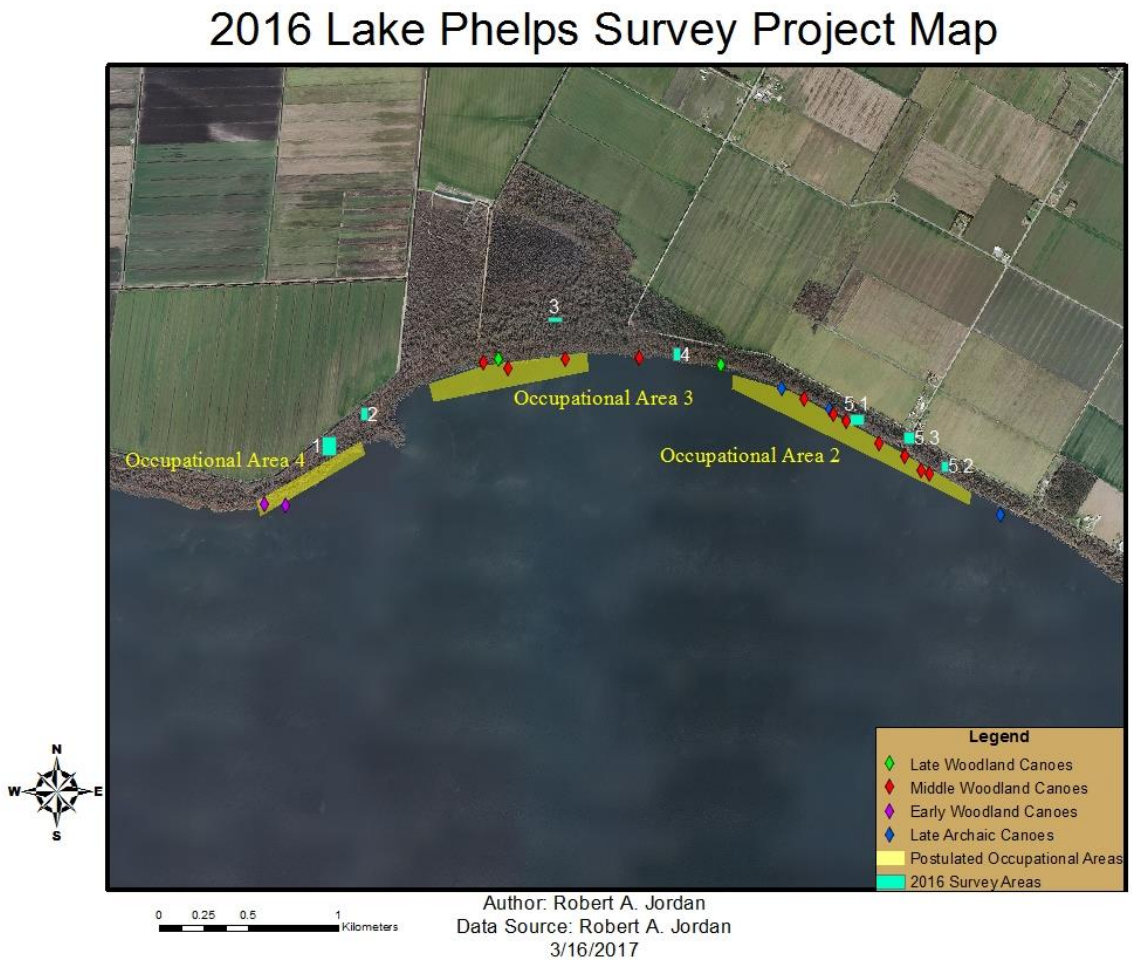

Figure 5: Project Map with Survey Areas, Canoe Locations, and Pierce's Occupational Areas

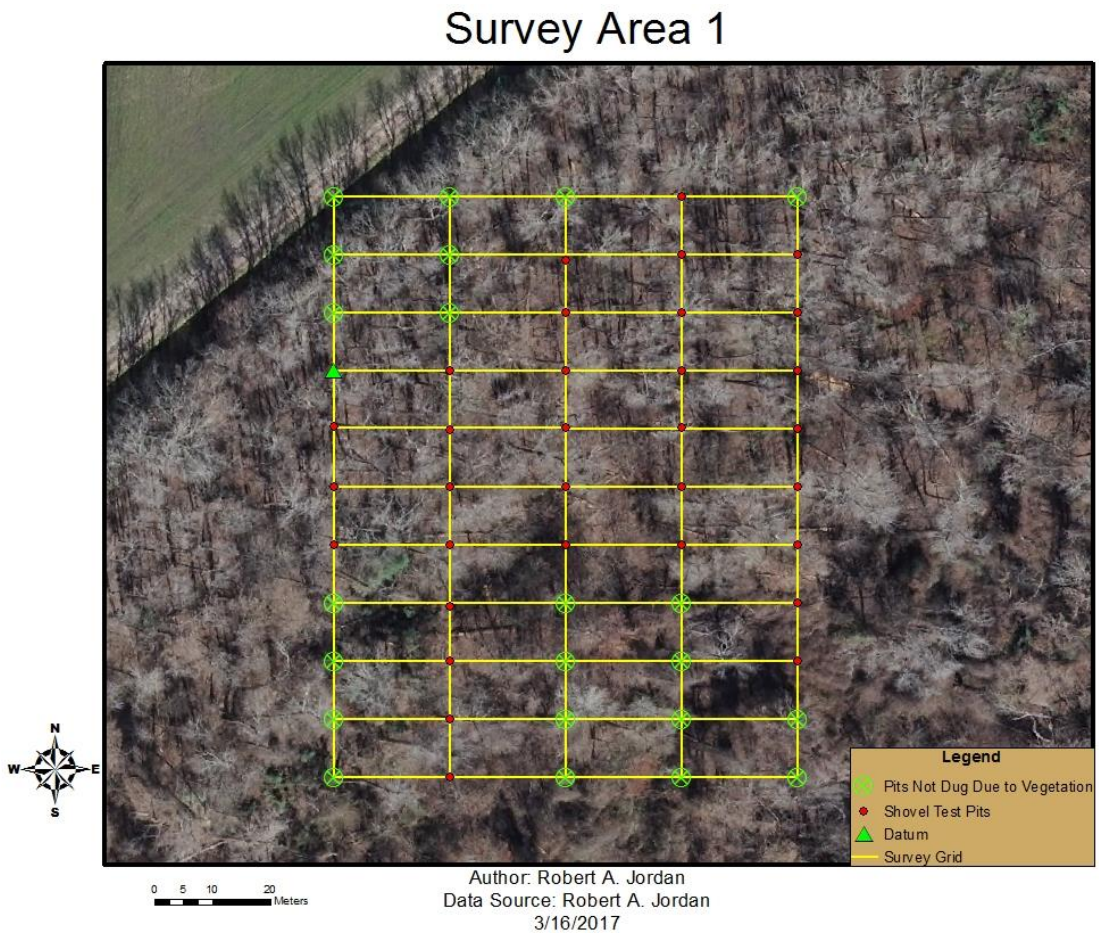

Figure 6: Survey Area 1

Survey area 1 was placed to the west of the Big Point peninsula in a stretch of the woods that was open enough to conduct survey work. This stretch of the shoreline entails a portion of Pierce's hypothesized occupational zone 4. Five transects were set up and a total of 31 shovel test pits were excavated here.

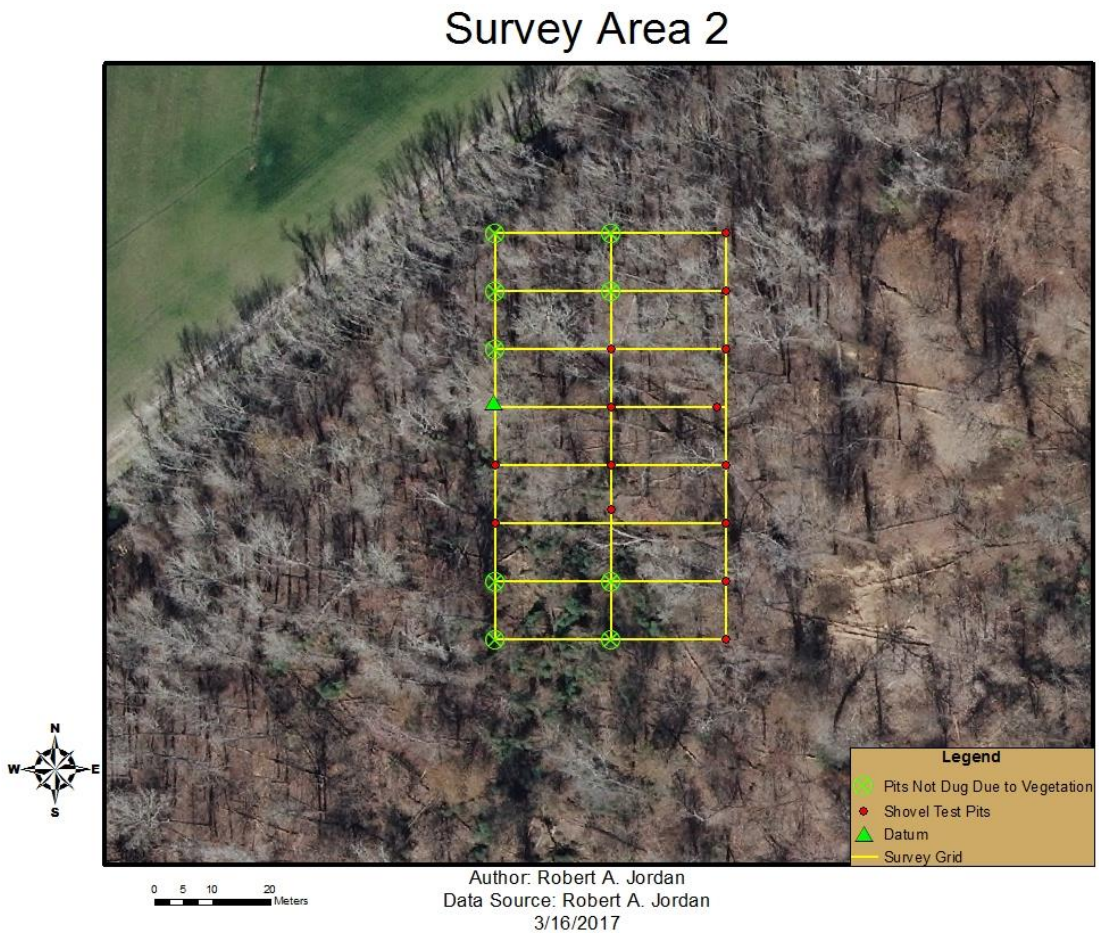

Figure 7: Survey Area 2

Survey area 2 was placed on the Big Point peninsula itself. This survey area was located between Pierce's hypothesized zones 4 and 3. Three transects were opened up and a total of 14 shovel test pits were excavated.

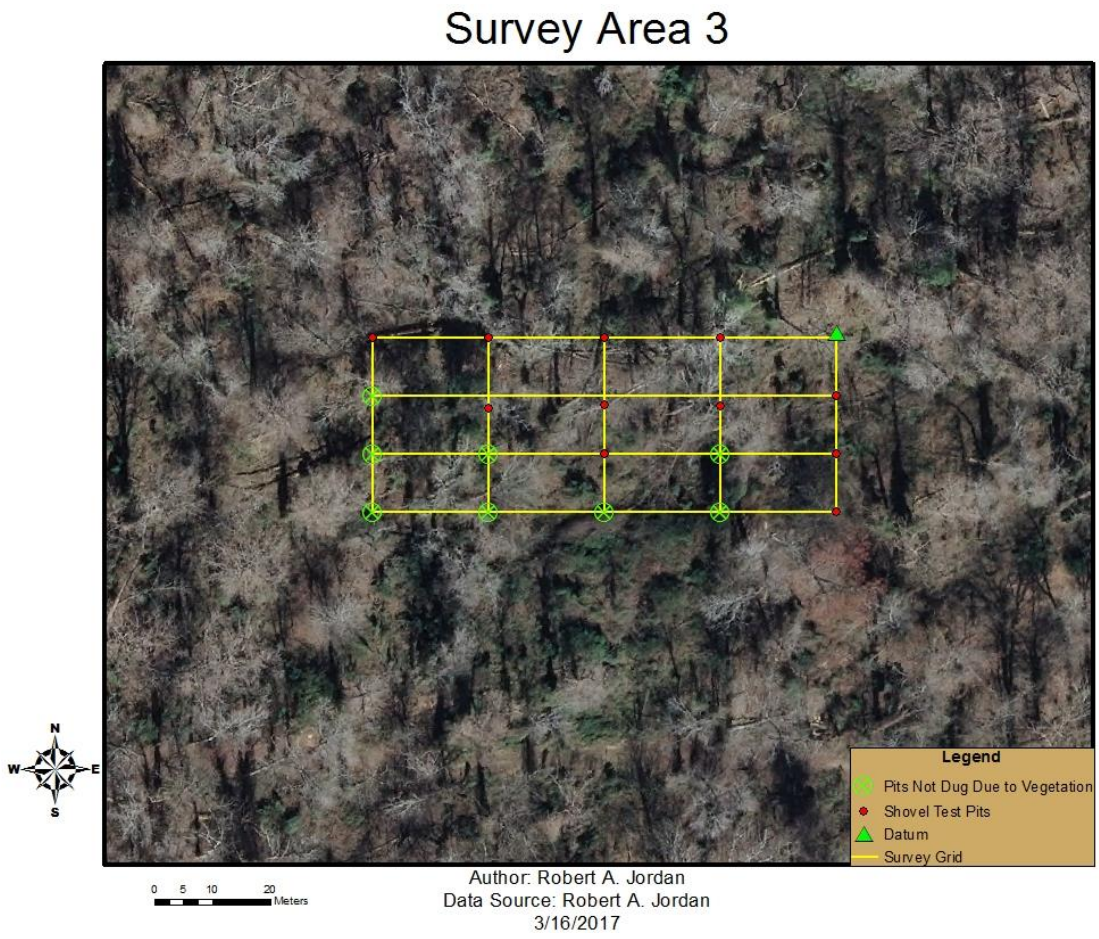

Figure 8: Survey Area 3

Survey area 3 was located to the east of the Big Point peninsula within Pierce's hypothesized zone 3. The vegetation was extremely dense here, more so than anywhere else in the project area. Unfortunately, this meant that only a very limited survey was possible. We found a partially accessible portion of the forest and opened up five transects. None of these transects were able to be extended to the lake water. In total, 11 shovel test pits were excavated at this location.

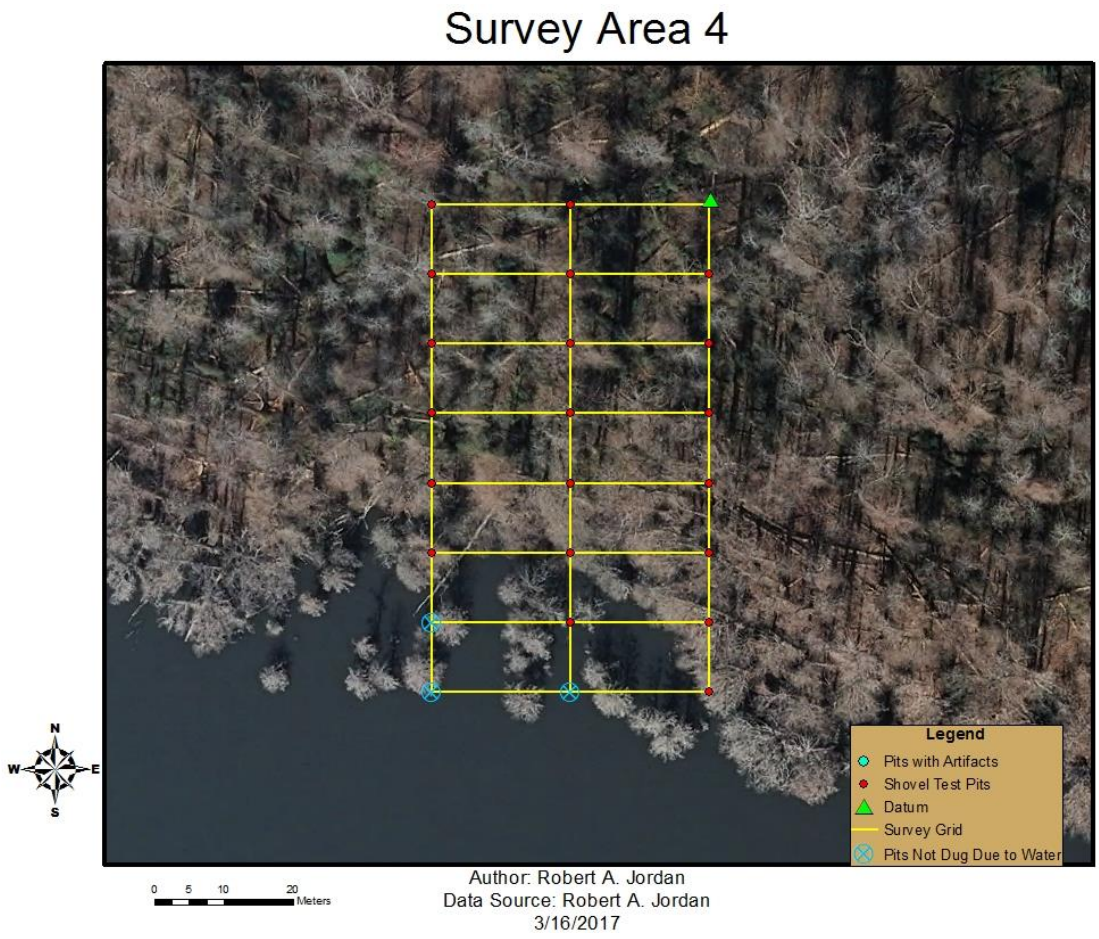

Figure 9: Survey Area 4

Survey area 4 was located east of survey area 3. It was placed in a stretch of land between Pierce's occupational zone 3 and zone 2. Three transects were laid out, all of which were able to reach the water line. In total, 20 shovel test pits were excavated at this location.

Survey area 5 was originally meant to be one long survey area designed to investigate Pierce's large occupational zone 2. Upon arriving at the site, however, it became apparent that the woods were too thick to allow for one continuous survey area. To make up for this, survey area 5 was split into three survey areas: 5.1, 5.2, and 5.3. This allowed us to cover roughly the same amount of area within Pierce zone 2 in our survey.

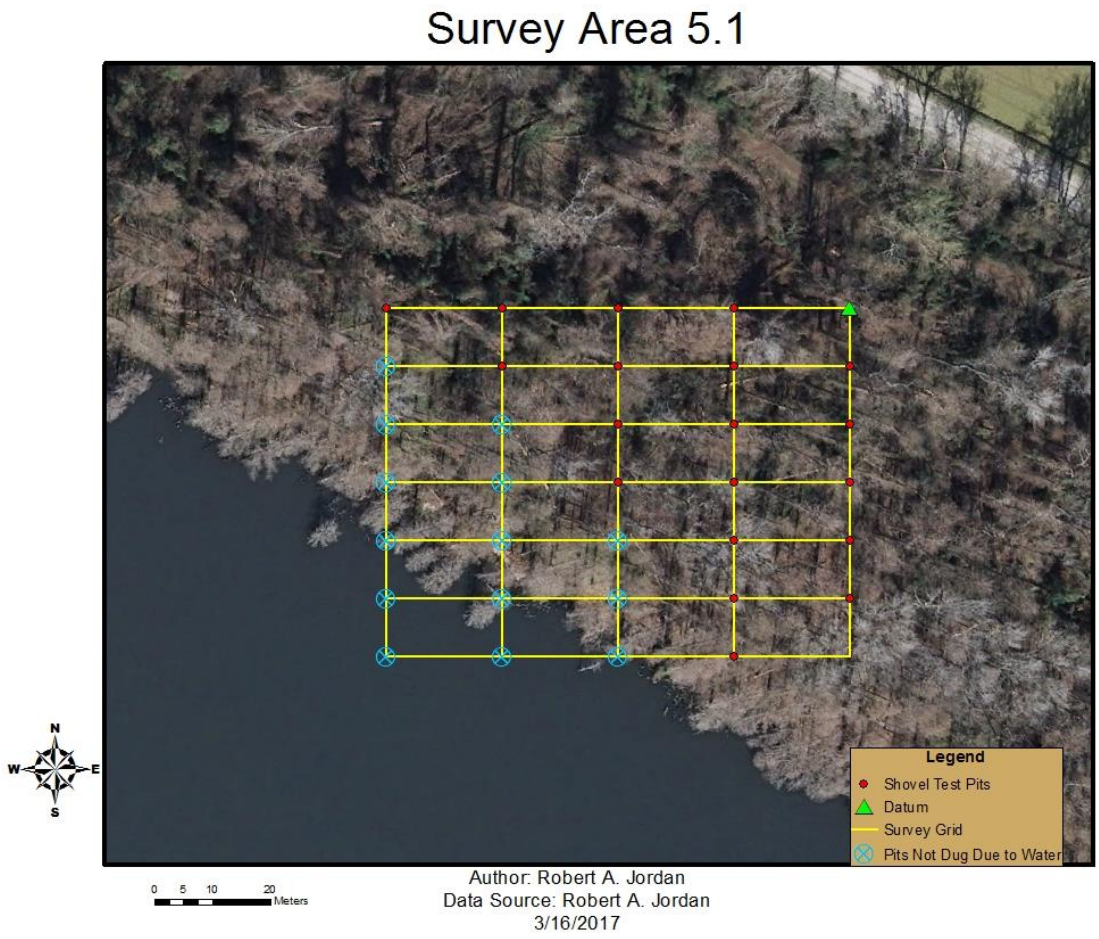

Figure 10: Survey Area 5.1

Survey area 5.1 was the westernmost of these three survey areas. Five transects were opened up. The first two transects were able to be excavated to the lake water boundary. The following three were excavated until they reached land that was too waterlogged for excavation. A total of 19 shovel test pits were excavated here.

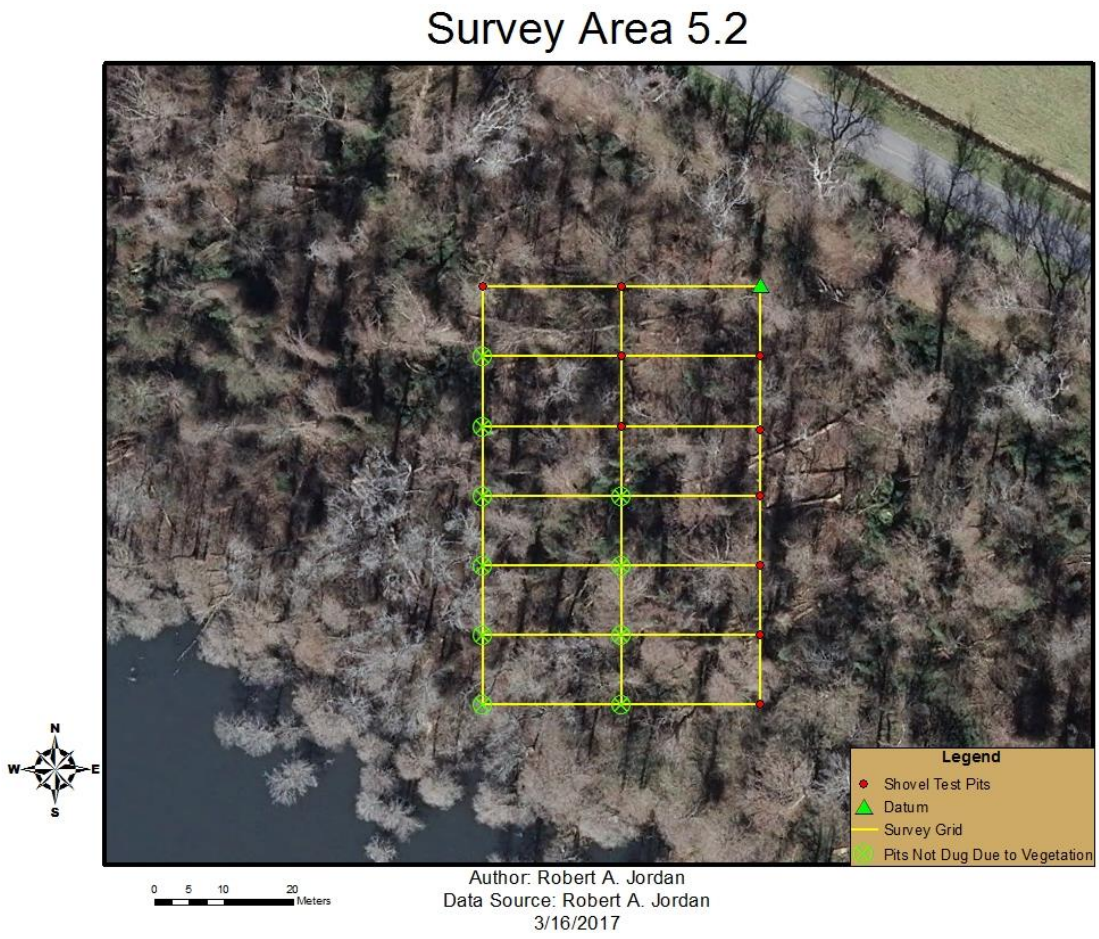

Figure 11: Survey Area 5.2

Survey area 5.2 was the easternmost of these three survey areas. Here, three transects were opened up. Only the first of these was able to be excavated to the water line. The other two were excavated until the vegetation was too thick to continue. A total of 10 shovel test pits were excavated here.

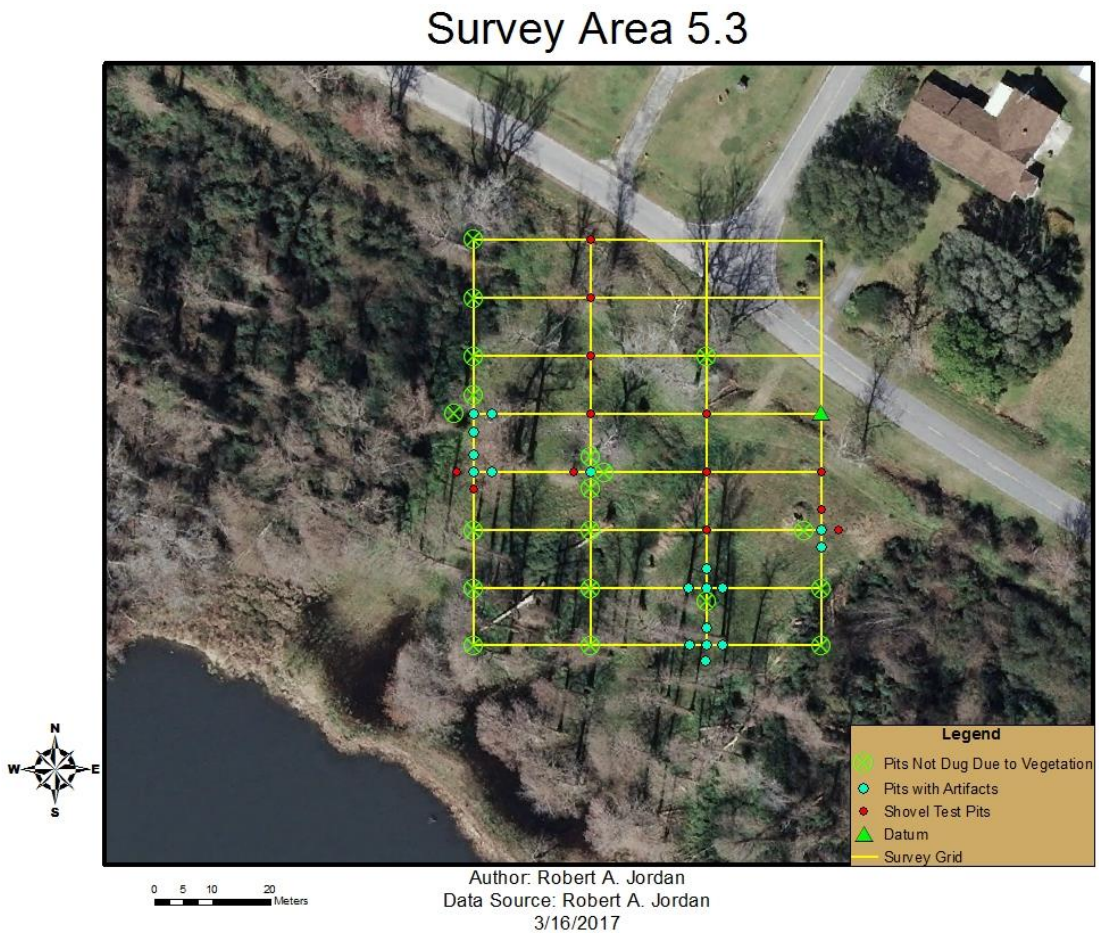

Figure 12: Survey Area 5.3

Survey area 5.3 was located in between areas 5.1 and 5.2 and was just across from Mountain Canal Road. This survey area entailed the survey of a wind easement constructed in the 1970s. There were very few trees and little vegetation within most of the easement. Dense brush vegetation was reached just prior to the lake's water line. Each transect in this survey area was excavated until it reached that dense vegetation. Four transects were opened up here and a total of 14 shovel test pits were excavated along these transects. Some of these test pits produced artifacts, so four additional pits, one in each of the cardinal directions were also excavated in association with the positive pits. Survey area 5.3 was the only survey area to produce artifacts. These artifacts were brought back to the lab at North Carolina State

University for analysis, the details of which will be discussed in the next section. Upon completion of this thesis, these artifacts will be curated and stored at the North Carolina Office of State Archaeology in Raleigh.

CHAPTER 4: RESULTS

The results of our STP survey of the north shore of Lake Phelps provides the data to test Pierce's hypothesis that Lake Phelps's utility for prehistoric peoples gradually reduced in intensity from the Early to the Late Woodland periods. If Pierce were correct, we might find evidence of seasonal base camps dating to the Early Woodland period, temporary special-use sites distributed across the northern shoreline dating to the Middle Woodland periods, and a decline in the number of special-use sites associated with the Late Woodland period. Of the seven survey areas examined with STP's, only survey area 5.3 produced any cultural material. A total of 204 small Woodland-period ceramic sherds were discovered here. For now, it would appear that most of the archaeology at Lake Phelps is within the lake itself in the shallow portions near the shoreline. It is important to note, however, that we were able to cover only a very limited portion of the northern shoreline in our STP survey. Future projects should, perhaps, continue to investigate the northern shoreline using a more thorough methodology.

It was surprising that survey area 5.3 was the only survey area to produce artifacts, as it was not in a well-preserved portion of the shoreline. I was initially worried that, in the process of the wind easement's construction, new soil was placed in the clearing. I spoke with the superintendent of Pettigrew State Park about the possibility that the soil was brought in from elsewhere. He referred me to a local farmer who was in charge of the easement's construction back in the 1970s. The farmer assured me that no outside soil was moved into the easement area. However, as was expected, the easement area was originally just as densely forested as the rest of the shoreline. The area was cleared of these trees and vegetation via a bulldozer. As such, while the artifacts found at this location do originate

here, it is likely that the soil beneath the surface of the easement has been heavily altered. Further analysis of the ceramic findings from area 5.3 support this conclusion.

Ceramic Analysis

Phelps's (1983) typology of ceramics for the North Carolina Coastal Plain provides the foundation of my typological research. Despite concern over the usefulness of typologies (Byrd 1999: 101-102), stratigraphic studies of coastal plain sites like the Davenport Site (31BR39) have shown that the Phelps typologies function effectively in representing temporal groupings (Byrd 1999).

Following from Phelps's typology, most of the ceramic wares found in prior projects at Lake Phelps consisted of Deep Creek wares (Early Woodland), Mount Pleasant wares (Middle Woodland), and Colington wares (Late Woodland). Each ware is distinguished by temper and surface treatment. Deep Creek ceramics contain primarily fine to coarse sand tempering and exhibit a number of possible surface treatments such as cord-marking, fabric-impressing, and net-impressing (Martin 2008: 79-81). Mount Pleasant wares also have fabric-impressions, net-impressions, or cord marks but are distinguished from Deep Creek wares by having gritty quartz inclusions in addition to sand temper (Ward and Davis Jr. 1999: 203). Colington ceramics have plain or simple-stamped exterior surfaces and shell tempering (Ward and Davis Jr. 1999: 211).

Early Woodland Croaker Landing wares and Middle Woodland Hanover wares have also been found at Lake Phelps. Additionally, Cashie wares have been found in very small quantities at Lake Phelps.

Based on the prior interpretations of the lake's shifting uses in prehistory, we should expect that most of the sherds recovered from survey area 5.3 will be diagnosed as Deep

Creek ceramics or will be characterized by Deep Creek features such as sand tempering. This is because survey area 5.3 is located within the occupational zone that Pierce has identified as a likely Early Woodland seasonal base camp. Sherds with Mt. Pleasant characteristics should be the second most abundant, as the Middle Woodland period saw a decrease in centralized lake use. Sherds with Late Woodland characteristics such as shell-temper (Colington) or large, pebble-sized quartz inclusions (Cashie) should be few, as it is postulated that the Late Woodland period saw the least amount of use of the lake by humans.

For the purposes of this study, the attributes of primary interest are tempering, surface treatment, and, when possible, ware. Each ceramic sherd was observed using a 10X Loupe hand lens. I assigned sherds to a ceramic ware only when I had a combination of two or more features characteristic of that classification (normally temper type and surface treatment). Because of the heavily eroded surfaces of these sherds, I was conservative in assigning surface treatments and I labeled ambiguous surfaces as "unidentifiable." The ceramic temper types that I identified in my analysis were sand-tempering and quartz-grit tempering. Sherds identified as "sand-tempered" could contain sand inclusions ranging in size from fine (0.1 to 0.25 mm) to medium (0.25 to 0.5 mm) to coarse (0.5 to 1.0 mm). These size classifications are from the Wentworth particle size classification system, commonly used for temper identification in the region (Martin 2008: 83; Wentworth 1922). "Sand-tempered" sherds contained only sand inclusions and nothing else. Sherds identified as quartz-grit tempered may also contain sand, but were identified as quartz-grit if quartz inclusions sized at 2mm or greater (again, using the Wentworth classification system) (Phelps 1981: 42) were included in the paste.

Chronological and Spatial Patterns

On the basis of identifiable wares, the ceramics from area 5.3 support Pierce's hypothesized pattern of lake use. Pierce's Area 2, which STP area 5.3 intersected, was supposed to contain a majority of Early Woodland-associated artifacts. We found eight Early Woodland Deep Creek sherds (Figure 13), each of which exhibited sandy temper and cord-marked surfaces. Three of these were refits found in the same pit and level.

Figure 13: Example of Deep Creek from the Collection

There were two Middle Woodland Mount Pleasant sherds, each with a gritty quartz temper and a fabric-impressed surface (Figure 14).

Figure 14: Example of Mount Pleasant from the Collection

Finally, there were two Late Woodland Cashie sherds in the collection (Figure 15). These sherds had the distinct silty paste associated with the ware and one contained temper consisting of large, pebble-sized chunks of quartz and a fabric-impressed surface.

Figure 15: Example of Cashie from the Collection

The numbers of sherds from each period are too low to infer anything about the intensity of occupation, but the presence of each of these diagnostic ceramic wares is significant in that it shows a continuity of knowledge at this part of the Lake Phelps site through each stage of the Woodland period.

In terms of temper categories for sherds without obvious surface treatments, it may be possible to make some inferences about change over time. The pattern of Early Woodland/sand temper, Middle Woodland/quartz grit temper, and Late Woodland pebble temper found at other southeastern sites is consistent at Lake Phelps. If this is the case, it may be possible to infer the relative scale, duration, or intensity of occupation during each period by comparing these tempers. Aside from the diagnostic sherds, no other sherds had Late Woodland pebble temper. Of the 192 remaining sherds, about two-thirds (n = 139) had sand temper that possibly dates to the Early Woodland, one-third (n = 51) had quartz-grit temper

that possibly dates to the Middle Woodland, and two had unidentifiable temper. From this perspective, Pierce's hypothesis is supported because the pattern suggests a more intensive use of the lake during the Early Woodland and a decrease in the scale or intensity of occupation during the Middle Woodland period. When considered in light of the duration of occupation represented by the radiocarbon dates associated with the canoes from each time period, the discrepancy is even more pronounced. The duration of Early Woodland use of the lake is much less than the duration of Middle Woodland use, it is the difference between 200 and 500 years. So, the greater number of sand-temper sherds may reflect more intensive and/or more frequent use of the lake by larger groups during the Early Woodland and the Middle Woodland.

As a test of the stratigraphic integrity of STP area 5.3, I examined temporally diagnostic sherds in their shovel pit contexts to see whether earlier sherds correspond to lower levels and later sherds to upper levels. The results were inconclusive. Most of the test pits exhibited no clear chronology in temper progression according to the accepted typology. Contemporary nails were found intermixed in with ceramics in test pits 0.2 and 0.2-S. Sherds of bottle glass were also found alongside prehistoric pottery in the second soil level of test pit 3.1-N. Additionally, while most sherds appeared around test pits 1.3 and 1.4, no other meaningful patterns in sherd type distributions across the survey area were evident.

CHAPTER 5: DISCUSSION

The results of the analysis described and detailed in the preceding section can be better interpreted once placed into context with prior studies and interpretations of the Lake Phelps site.

As I have already discussed, the ceramic collection produced from July's field session has consisted of mostly heavily eroded sherds measuring less than one inch in size. This fact, combined with the apparently heavily altered subsurface integrity of the easement in which the assemblage was procured, means that our ability to make accurate interpretations from this dataset are rather limited. With that said, a small and limited dataset is something that is often expected when engaging in a survey project, and there are still some significant contributions to our understanding of Lake Phelps's prehistory garnered from this survey project.

Perhaps the most important new finding for understanding the lake's use in the past is the fact that diagnostic sherds from each subset of the Woodland period were identified in survey area 5.3, indicating that people returned to the same specific part of the lake repeatedly over time. While it was already understood that Lake Phelps was occupied throughout the Woodland period, the results of this project show all three Woodland sub-periods being represented in a single location encompassing 60 meters of the shoreline and extending, at its greatest extent, about 40 meters towards the water. The presence of all three types suggests long-term continuity of knowledge related to the site. Excavation of the forested peripheries of the easement, which would likely show much more archaeological preservation and integrity, may further inform us of these temporal relationships.

The fact that the majority (68.1%) of sherds in the area 5.3 assemblage consisted of only sand temper, which is often indicative of the Early Woodland period, would seem to reaffirm the prior notion that the Early Woodland period saw the most centralized use of the lake's northern shore within Pierce's hypothesized area 2. With that said, the excavation of survey area 5.3 did not procure any evidence of the sorts of prolonged, seasonal occupation that Pierce hypothesizes for the Early Woodland period within occupational zone 2. Survey area 5.3 procured only small ceramic sherds. There was no evidence of built structures, shell or trash middens, or anything else that we would expect would accompany a site of repeated, seasonal occupation (Binford, 1980). However, it could be argued that the lack of such features is the result of the poor preservation evident in the survey area, and that excavating the preserved forests in the direct peripheries of the wind easement may procure such preserved features. Additionally, the use of the shovel test pit methodology may have been too limited to allow for the accurate identification of such features.

Equally important to interpreting the dataset of survey area 5.3 is how it relates to the other survey areas that we excavated. The lack of identifiable archaeological sites at any of the other survey areas is important. The increase in canoe counts and canoe distributions across the northern shoreline of Lake Phelps during the Middle Woodland period is not accompanied with an increase in inland Middle Woodland archaeological sites, as would normally be expected. The only inland evidence of Middle Woodland occupation comes from the Mount Pleasant ceramic wares found in survey area 5.3. Given that this survey area is also located in the vicinity of the densest collection of Middle Woodland canoes, it is reasonable to assume that, like in the preceding Early Woodland period, this was the spot of the lake's most intensive use to prehistoric peoples. The use of this spot appears to decline in

the Middle Woodland period, as there are far fewer ceramic sherds with Middle Woodland features within the survey area. Given that the shovel-test pit methodology is successful at identifying small archaeological sites, many of the other Middle Woodland occupations across the northern shoreline may have been so dispersed and so limited as to leave little archaeological trace. This would largely support Pierce's existing interpretation of the Middle Woodland occupations of the lake consisting of brief forays from an associated village site for the purposes of procuring needed resources. Given the limited nature of this survey project, however, this remains a tentative statement.

Overall, it appears that the Late Woodland period is poorly represented at area 5.3. This lines up with the results of prior projects at the site (Pierce 2010), and appears to support the prior interpretations of human use of the lake during the Late Woodland. Human activity at Lake Phelps decreased in the Late Woodland period, indicating that the lake was no longer heavily relied upon for subsistence resources. This may be the product of prehistoric peoples in the region finding new ways of acquiring their subsistence needs. The decrease of subsistence activities at the Lake Phelps site in the Late Woodland period adds to the growing amounts of indirect evidence that domesticated plants and agriculture played an increasingly important subsistence role for Late Woodland populations in the North Carolina Coastal Plain.

CHAPTER 6: CONCLUSIONS

Based on artifact counts alone, the results of the STP survey of the northern shoreline of Lake Phelps exhibited the expected results. The majority of artifacts recovered exhibit traits most often associated with the Early Woodland period, with artifacts decreasing in count in the subsequent periods. This lends credence to the prior interpretation of an intensive, centralized use of the lake in the Early Woodland period within Pierce's occupational zone 2, possibly in the form of a seasonally reoccupied base camp.

The results of the field surveys reaffirm the prior interpretations of the Middle Woodland period. Artifact counts from the successful survey area decrease from the Early to the Middle Woodland period. Additionally, the other survey areas spread out along the northern shoreline produced no signs of preserved cultural material. Given the dispersal of Middle Woodland canoes across the northern shoreline, we know that Middle Woodland activities were taking place all along the northern shoreline. If these activities took the form of small, briefly visited special-use sites, then, from Binford's descriptions of such sites, it is unsurprising that very little evidence (aside from the canoes) has been left over inland (Binford, 1980).

The results of my fieldwork have also supported the prior interpretations of Lake Phelps's Late Woodland history. Ceramic sherds with Late Woodland features exhibited the smallest portion of the archaeological ceramics recovered from survey area 5.3. This is the same trend that is seen in prior projects conducted at Lake Phelps, and is representative of a massive decrease in the lake's use for resource and subsistence procurement. As has been suggested before (Pierce, 2010), this may be indicative of prehistoric peoples at this time

shifting their focus to other subsistence strategies. These would likely include some forms of plant domestication.

In addition to reaffirming prior interpretations of the Lake Phelps site, this project addresses some of the past concerns with the shovel test pit methodology. Survey area 5.3 represents a very small archaeological site, where small ceramic sherds were the only identifiable leftover indicators of prehistoric human occupation. The successful identification of such a small archaeological site through the shovel-test pit methodology has its own significance in that it shows that, contrary to Shott's concerns (Shott, 1989), STPs can be and are an effective means of locating and identifying prehistoric sites of relatively low archaeological visibility.

There are several ways that research can be continued in order to expand on our understandings of the Lake Phelps site. The presence of contemporary nails and glass alongside prehistoric ceramics in this assemblage, as well as the lack of an expected chronological progression in temper types in the soil levels of most of the 5.3 pits, tells me that the integrity of inland archaeological deposits at this site is questionable. This is likely the result of the construction of the easement in the 1970s. If this is the case, it may be worthwhile to survey the still forested peripheries of the easement, as these may contain unaltered artifact deposits.

Additionally, it is worth noting that only the northern and western shorelines have been investigated. The southern and eastern shorelines remain untouched by archaeological research. At the time of my fieldwork, I was not allowed by Pettigrew State Park to pursue any investigations of the eastern shore, as it is apparently near a popular bear hunting area and it was bear hunting season. The southern shoreline has seen the construction of many

waterfront homes, and largely consists of private property. Future researchers should plan survey projects for these shorelines and should plan them around the limitations that I have just described. Until we have a full archaeological picture of the Lake Phelps shoreline our interpretations will remain incomplete.

Put into a regional context, Lake Phelps's nature as a site of prolonged occupation from the Late Archaic to the Late Woodland period makes it an important resource in researching prehistoric settlement transitions in the North Carolina Coastal Plain. This project reaffirms the prior notions that the lake was used less intensively over time, with the major trend of decentralization occurring in the transition between the Early Woodland and the Middle Woodland. Unfortunately, this project was unable to locate inland preserved stratified deposits or to locate evidence of structures (which may be the result of the limitations of the STP method). Because of this, it remains unclear whether or not the decentralization of the lake's use in the Middle Woodland is in the form of logistically mobile resource-procurement sites (associated with sedentary villages) or in the form of the sorts of scattered and small residentially mobile groups described by Herbert (Herbert 2002:302). Additional work must be conducted at Lake Phelps and at other sites in the region to further clarify this.

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APPENDICES

APPENDIX A: Ceramic Finds in STPs from Survey Area 5.3

		Ceramics						Other materials	
Pit	**Cm below surface**	**Sand**	**Quartz grit**	**Deep Creek**	**Mt. Pleasant**	**Cashie**	**Unknown**	**Metal nails**	**Glass**
0.2	0-50	1	1			1		1	
0.2S	0-15								
0.2S	15-50	1							
1.3	0-22	18	5	1					
1.3	22-25	1	1						
1.3	25-52	23	5						
1.3N	0-20			1					
1.3N	22-35	7							
1.3N	35-70	2					2		
1.3E	0-50		7	3	1				
1.3W	24-45	4	8						
1.3W	45-75	5	1						
1.4	25-50				1				
1.4N	40-63	10	3	1					
1.4S	13-25	2				1			
1.4S	35-65	4	3	1					

1.4E	24-49	6	3						
1.4W	30-55	2							
2.1	24-36	3	2						
2.1	39-57	4							
2.1W	0-50	4	1						
3.0	0-37	4		1					
3.0S	20-30	2							
3.0S	30-60	8	3						
3.0E	0-25	13	1						
3.1	40-43	1							
3.1N	20-55	4	2						5
3.1E	0-14	9	5						
3.1W	25-60	1							
Total		139	51	8	2	2	2	1	5

APPENDIX B: Soils in Survey Area 5.3 Pits

Pit	Cm below surface	Soil color	Soil texture	Artifact count
0.2	0-50	7.5YR 2.5/1	Fine Silty Loam	5
0.2S	0-15	2.5YR 2.5/1	Fine Dirt	0
0.2S	15-50	5YR 3/1	Loamy Clay	1
1.3	0-22	7.5YR 2.5/1	Fine Loam	24
1.3	22-25	10YR 5/2	sandy, fine	2
1.3	25-52	7.5YR 2.5/1	Fine Loam	28
1.3N	0-20	10YR 3/1	Fine Loam	1
1.3N	20-22	10YR 6/1	Grainy grit	
1.3N	22-35	10YR 2/1	Loamy Clay	7
1.3N	35-70	10YR 4/1	Clay	4
1.3E	0-50	10YR 2/1	Fine Loam	11
1.3E	50-60	10YR 3/2	Loamy Clay	
1.3W	0-25	10YR 2/1	Fine Loam	
1.3W	24-45	10YR 6/4	Fine Sand	12
1.3W	45-75	7.5YR 3/1	Fine Silty Loam	6
1.4	0-20	7.5YR 5/1	Fine Silty Loam	
1.4	20-25	10YR 5/4	Fine Silt	
1.4	25-50	7.5YR 5/1	Fine Silty Loam	1

1.4N	0-20	2.5YR 2.5/1	Gritty Sand	
1.4N	20-30	2.5YR 6/3	Gritty Sand	
1.4N	30-40	10YR 2/1	Loam	
1.4N	40-63	7.5YR 3/2	Clay	15
1.4S	0-13	7.5YR 2.5/1	Silty Loam	
1.4S	13-25	10YR 6/3	Sand	3
1.4S	25-30	10YR 2/1	Loam	
1.4S	30-35	10YR 5/3	Sand	
1.4S	35-65	10YR 3/2	Loamy Clay	8
1.4E	0-18	10YR 2/1	Fine Loam	
1.4E	18-24	10YR 4/2	Coarse Sand	
1.4E	24-49	10YR 2/1	Fine Loam	9
1.4E	49-60	10YR 3/2	Loamy Clay	
1.4W	0-12	10YR 3/2	Silty Loam	
1.4W	12-20	10YR 6/3	Sand	
1.4W	20-25	10YR 2/1	Loam	
1.4W	25-30	10YR 4/3	Sand	
1.4W	30-55	10YR 2/2	Loam	2
2.1	0-19	2.5YR 2.5/1	Fine Loam	
2.1	19-24	10YR 6/1	Sand	
2.1	24-36	7.5YR 3/1	Silty Loam	5
2.1	36-39	10YR 6/1	Sand	

2.1	39-57	7.5YR 2.5/1	Loamy	4
3.0	0-37	5YR 2.5/1	Fine Loam	5
3.0	37-57	5YR 3/1	Loamy clay	
3.0S	0-20	10YR 2/1	Sand	
3.0S	20-30	10YR 6/1	Sand	2
3.0S	30-60	7.5YR 3/1	Loamy Sand	11
3.0E	0-25	7.5YR 2.5/2	Loam	14
3.0E	25-50	7.5YR 3/2	Sandy Clay	
3.1	0-25	7.5YR 2.5/1	Fine Silty Loam	
3.1	25-30	10YR 6/1	Sand	
3.1	30-37	7.5YR 2.5/1	Fine Loam	
3.1	37-40	10YR 6/1	Sand	
3.1	40-43	7.5YR 2.5/1	Fine Loam	1
3.1	43-53	10YR 5/1	Sand	
3.1N	0-20	7.5YR 3/1	Sandy Loam	
3.1N	20-55	7.5YR 3/1	Loam	7
3.1E	0-14	2.5YR 2.5/1	Fine Loam	14
3.1E	14-63	7.5YR 3/2	Sandy Loam	
3.1W	0-25	7.5YR 3/1	Sandy Loam	
3.1W	25-60	7.5YR 6/2	Sand	1
2.1W	0-50	5YR 2.5/1	Fine Loam	5

APPENDIX C: Artifact Catalog

*Artifact #	STP	Soil Level	Sherd Portion	Typology	Temper	Surface Treatment	> 1" Y/N	Artifact Type
1	0.2	1	Body	UID	Quartz Grit	UID	N	Ceramic
2	0.2	1	Body	UID	Sand	UID	N	Ceramic
3	0.2	1	Body	Cashie	Sand	UID	Y	Ceramic
4	0.2	1	N/A	N/A	N/A	N/A	N/A	Nail
5	0.2-S	2	Body	UID	Sand	UID	Y	Ceramic
6	1.3	1	Body	UID	Sand	UID	Y	Ceramic
7	1.3	1	Body	UID	Sand	UID	Y	Ceramic
8	1.3	1	Body	UID	Sand	UID	Y	Ceramic
9	1.3	1	Body	UID	Sand	UID	N	Ceramic
10	1.3	1	Body	UID	Sand	UID	N	Ceramic
11	1.3	1	Body	UID	Sand	UID	N	Ceramic
12	1.3	1	Body	UID	Sand	UID	N	Ceramic
13	1.3	1	Body	UID	Sand	UID	N	Ceramic
14	1.3	1	Body	UID	Sand	UID	N	Ceramic
15	1.3	1	Body	UID	Sand	UID	N	Ceramic
16	1.3	1	Body	UID	Sand	UID	N	Ceramic
17	1.3	1	Body	UID	Sand	UID	N	Ceramic
18	1.3	1	Body	UID	Sand	UID	N	Ceramic

19	1.3	1	Body	UID	Sand	UID	N	Ceramic
20	1.3	1	Body	UID	Sand	UID	N	Ceramic
21	1.3	1	Body	UID	Sand	UID	N	Ceramic
22	1.3	1	Body	UID	Sand	UID	N	Ceramic
23	1.3	1	Body	UID	Sand	UID	N	Ceramic
24	1.3	1	Body	UID	Quartz Grit	UID	Y	Ceramic
25	1.3	1	Body	UID	Quartz Grit	UID	N	Ceramic
26	1.3	1	Body	UID	Quartz Grit	UID	N	Ceramic
27	1.3	1	Body	UID	Quartz Grit	UID	N	Ceramic
28	1.3	1	Body	UID	Quartz Grit	UID	N	Ceramic
29	1.3	1	Body	Deep Creek	Sand	Chord-Marked	Y	Ceramic
30	1.3	2	Body	UID	Quartz Grit	UID	N	Ceramic
31	1.3	2	Body	UID	Sand	UID	N	Ceramic
32	1.3	3	Body	UID	Quartz Grit	UID	N	Ceramic

33	1.3	3	Body	UID	Quartz Grit	UID	N	Ceramic
34	1.3	3	Body	UID	Quartz Grit	UID	N	Ceramic
35	1.3	3	Body	UID	Quartz Grit	UID	N	Ceramic
36	1.3	3	Body	UID	Quartz Grit	UID	N	Ceramic
37	1.3	3	Body	UID	Sand	UID	N	Ceramic
38	1.3	3	Body	UID	Sand	UID	N	Ceramic
39	1.3	3	Body	UID	Sand	UID	N	Ceramic
40	1.3	3	Body	UID	Sand	UID	N	Ceramic
41	1.3	3	Body	UID	Sand	UID	N	Ceramic
42	1.3	3	Body	UID	Sand	UID	N	Ceramic
43	1.3	3	Body	UID	Sand	UID	N	Ceramic
44	1.3	3	Body	UID	Sand	UID	N	Ceramic
45	1.3	3	Body	UID	Sand	UID	N	Ceramic
46	1.3	3	Body	UID	Sand	UID	N	Ceramic
47	1.3	3	Body	UID	Sand	UID	N	Ceramic
48	1.3	3	Body	UID	Sand	UID	N	Ceramic
49	1.3	3	Body	UID	Sand	UID	N	Ceramic
50	1.3	3	Body	UID	Sand	UID	N	Ceramic

51	1.3	3	Body	UID	Sand	UID	N	Ceramic
52	1.3	3	Body	UID	Sand	UID	N	Ceramic
53	1.3	3	Body	UID	Sand	UID	N	Ceramic
54	1.3	3	Body	UID	Sand	UID	N	Ceramic
55	1.3	3	Body	UID	Sand	UID	N	Ceramic
56	1.3	3	Body	UID	Sand	UID	N	Ceramic
57	1.3	3	Body	UID	Sand	UID	N	Ceramic
58	1.3	3	Body	UID	Sand	UID	N	Ceramic
59	1.3	3	Body	UID	Sand	UID	N	Ceramic
60	1.3-N	1	Body	Deep Creek	Sand	Chord-Marked	N	Ceramic
61	1.3-N	3	Body	UID	Sand	UID	N	Ceramic
62	1.3-N	3	Body	UID	Sand	UID	N	Ceramic
63	1.3-N	3	Body	UID	Sand	UID	N	Ceramic
64	1.3-N	3	Body	UID	Sand	UID	N	Ceramic
65	1.3-N	3	Body	UID	Sand	UID	N	Ceramic
66	1.3-N	3	Body	UID	Sand	UID	N	Ceramic
67	1.3-N	3	Body	UID	Sand	UID	N	Ceramic
68	1.3-N	4	Body	UID	Sand	UID	Y	Ceramic
69	1.3-N	4	Body	UID	Sand	UID	N	Ceramic
70	1.3-N	4	Body	UID	UID	UID	N	Ceramic
71	1.3-N	4	Body	UID	UID	UID	N	Ceramic

72	1.3-W	2	Body	UID	Sand	UID	N	Ceramic
73	1.3-W	2	Body	UID	Sand	UID	N	Ceramic
74	1.3-W	2	Body	UID	Sand	UID	N	Ceramic
75	1.3-W	2	Body	UID	Sand	UID	Y	Ceramic
76	1.3-W	2	Body	UID	Quartz Grit	UID	N	Ceramic
77	1.3-W	2	Body	UID	Quartz Grit	UID	N	Ceramic
78	1.3-W	2	Body	UID	Quartz Grit	UID	N	Ceramic
79	1.3-W	2	Body	UID	Quartz Grit	UID	N	Ceramic
80	1.3-W	2	Body	UID	Quartz Grit	UID	N	Ceramic
81	1.3-W	2	Body	UID	Quartz Grit	UID	N	Ceramic
82	1.3-W	2	Body	UID	Quartz Grit	UID	N	Ceramic
83	1.3-W	2	Body	UID	Quartz Grit	UID	N	Ceramic

84	1.3-W	3	Body	UID	Sand	UID	N	Ceramic
85	1.3-W	3	Body	UID	Sand	UID	N	Ceramic
86	1.3-W	3	Body	UID	Sand	UID	N	Ceramic
87	1.3-W	3	Body	UID	Sand	UID	N	Ceramic
88	1.3-W	3	Body	UID	Sand	UID	N	Ceramic
89	1.3-W	3	Body	UID	Quartz Grit	UID	Y	Ceramic
90	1.3-E	1	Body	UID	Quartz Grit	UID	N	Ceramic
91	1.3-E	1	Body	UID	Quartz Grit	UID	N	Ceramic
92	1.3-E	1	Body	UID	Quartz Grit	UID	N	Ceramic
93	1.3-E	1	Body	UID	Quartz Grit	UID	N	Ceramic
94	1.3-E	1	Body	UID	Quartz Grit	UID	Y	Ceramic
95	1.3-E	1	Body	UID	Quartz Grit	UID	Y	Ceramic
96	1.3-E	1	Body	UID	Quartz	UID	Y	Ceramic

					Grit			
97	1.3-E	1	Body	Mt. Pleasant	Quartz Grit	Fabric Impressed	Y	Ceramic
98	1.3-E	1	Body	Deep Creek	Sand	Chord-Marked	Y	Ceramic
99	1.3-E	1	Body	Deep Creek	Sand	Chord-Marked	Y	Ceramic
100	1.3-E	1	Body	Deep Creek	Sand	Chord-Marked	Y	Ceramic
101	1.4	3	Rim	Mt. Pleasant	Quartz Grit	Incised Lines and Rim Impressions	N	Ceramic
102	1.4-N	4	Body	Deep Creek	Sand	Chord-Marked	Y	Ceramic
103	1.4-N	4	Body	UID	Quartz Grit	UID	N	Ceramic
104	1.4-N	4	Body	UID	Quartz Grit	UID	N	Ceramic
105	1.4-N	4	Body	UID	Quartz Grit	UID	N	Ceramic
106	1.4-N	4	Body	UID	Sand	UID	N	Ceramic

107	1.4-N	4	Body	UID	Sand	UID	N	Ceramic
108	1.4-N	4	Body	UID	Sand	UID	N	Ceramic
109	1.4-N	4	Body	UID	Sand	UID	N	Ceramic
110	1.4-N	4	Body	UID	Sand	UID	N	Ceramic
111	1.4-N	4	Body	UID	Sand	UID	N	Ceramic
112	1.4-N	4	Body	UID	Sand	UID	N	Ceramic
113	1.4-N	4	Body	UID	Sand	UID	N	Ceramic
114	1.4-N	4	Body	UID	Sand	UID	N	Ceramic
115	1.4-N	4	Body	UID	Sand	UID	Y	Ceramic
116	1.4-S	2	Body	UID	Sand	UID	N	Ceramic
117	1.4-S	2	Body	UID	Sand	UID	N	Ceramic
118	1.4-S	2	Body	Cashie	Pebble	UID	N	Ceramic
119	1.4-S	5	Body	UID	Sand	UID	N	Ceramic
120	1.4-S	5	Body	UID	Sand	UID	N	Ceramic
121	1.4-S	5	Body	UID	Sand	UID	N	Ceramic
122	1.4-S	5	Body	UID	Sand	UID	Y	Ceramic
123	1.4-S	5	Body	UID	Quartz Grit	UID	N	Ceramic
124	1.4-S	5	Body	UID	Quartz Grit	UID	N	Ceramic
125	1.4-S	5	Body	UID	Quartz Grit	UID	N	Ceramic

126	1.4-S	5	Body	Deep Creek	Sand	Chord-Marked	Y	Ceramic
127	1.4-E	3	Body	UID	Sand	UID	N	Ceramic
128	1.4-E	3	Body	UID	Sand	UID	N	Ceramic
129	1.4-E	3	Body	UID	Sand	UID	N	Ceramic
130	1.4-E	3	Body	UID	Sand	UID	N	Ceramic
131	1.4-E	3	Body	UID	Sand	UID	N	Ceramic
132	1.4-E	3	Body	UID	Sand	UID	N	Ceramic
133	1.4-E	3	Body	UID	Quartz Grit	UID	N	Ceramic
134	1.4-E	3	Body	UID	Quartz Grit	UID	N	Ceramic
135	1.4-E	3	Body	UID	Quartz Grit	UID	Y	Ceramic
136	1.4-W	5	Body	UID	Sand	UID	N	Ceramic
137	1.4-W	5	Body	UID	Sand	UID	N	Ceramic
138	2.1	3	Body	UID	Sand	UID	N	Ceramic
139	2.1	3	Body	UID	Sand	UID	N	Ceramic
140	2.1	3	Body	UID	Sand	UID	Y	Ceramic
141	2.1	3	Body	UID	Quartz Grit	UID	N	Ceramic

142	2.1	3	Body	UID	Quartz Grit	UID	N	Ceramic
143	2.1	5	Body	UID	Sand	UID	N	Ceramic
144	2.1	5	Body	UID	Sand	UID	N	Ceramic
145	2.1	5	Body	UID	Sand	UID	N	Ceramic
146	2.1	5	Body	UID	Sand	UID	Y	Ceramic
147	2.1-W	1	Body	UID	Sand	UID	N	Ceramic
148	2.1-W	1	Body	UID	Sand	UID	N	Ceramic
149	2.1-W	1	Body	UID	Sand	UID	N	Ceramic
150	2.1-W	1	Body	UID	Sand	UID	Y	Ceramic
151	3	1	Body	UID	Sand	UID	N	Ceramic
152	3	1	Body	UID	Sand	UID	N	Ceramic
153	3	1	Body	UID	Sand	UID	N	Ceramic
154	3	1	Body	UID	Sand	UID	Y	Ceramic
155	3	1	Body	Deep Creek	Sand	Chord-Marked	Y	Ceramic
156	3.0-S	2	Body	UID	Sand	UID	N	Ceramic
157	3.0-S	2	Body	UID	Sand	UID	N	Ceramic
158	3.0-S	3	Body	UID	Sand	UID	Y	Ceramic
159	3.0-S	3	Body	UID	Sand	UID	Y	Ceramic

160	3.0-S	3	Body	UID	Sand	UID	N	Ceramic
161	3.0-S	3	Body	UID	Sand	UID	N	Ceramic
162	3.0-S	3	Body	UID	Sand	UID	N	Ceramic
163	3.0-S	3	Body	UID	Sand	UID	N	Ceramic
164	3.0-S	3	Body	UID	Sand	UID	N	Ceramic
165	3.0-S	3	Body	UID	Sand	UID	N	Ceramic
166	3.0-S	3	Body	UID	Quartz Grit	UID	N	Ceramic
167	3.0-S	3	Body	UID	Quartz Grit	UID	N	Ceramic
168	3.0-S	3	Body	UID	Quartz Grit	UID	N	Ceramic
169	3.0-E	1	Body	UID	Sand	UID	N	Ceramic
170	3.0-E	1	Body	UID	Sand	UID	N	Ceramic
171	3.0-E	1	Body	UID	Sand	UID	N	Ceramic
172	3.0-E	1	Body	UID	Sand	UID	N	Ceramic
173	3.0-E	1	Body	UID	Sand	UID	N	Ceramic
174	3.0-E	1	Body	UID	Sand	UID	N	Ceramic
175	3.0-E	1	Body	UID	Sand	UID	N	Ceramic
176	3.0-E	1	Body	UID	Sand	UID	N	Ceramic
177	3.0-E	1	Body	UID	Sand	UID	N	Ceramic
178	3.0-E	1	Body	UID	Sand	UID	N	Ceramic

179	3.0-E	1	Body	UID	Sand	UID	N	Ceramic
180	3.0-E	1	Body	UID	Sand	UID	N	Ceramic
181	3.0-E	1	Body	UID	Sand	UID	Y	Ceramic
182	3.0-E	1	Body	UID	Quartz Grit	UID	N	Ceramic
183	3.1	5	Body	UID	Sand	UID	Y	Ceramic
184	3.1-N	2	N/A	N/A	N/A	N/A	N/A	Glass
185	3.1-N	2	N/A	N/A	N/A	N/A	N/A	Glass
186	3.1-N	2	N/A	N/A	N/A	N/A	N/A	Glass
187	3.1-N	2	N/A	N/A	N/A	N/A	N/A	Glass
188	3.1-N	2	N/A	N/A	N/A	N/A	N/A	Glass
189	3.1-N	2	Body	UID	Sand	UID	N	Ceramic
190	3.1-N	2	Body	UID	Sand	UID	N	Ceramic
191	3.1-N	2	Body	UID	Sand	UID	N	Ceramic
192	3.1-N	2	Body	UID	Sand	UID	N	Ceramic
193	3.1-N	2	Body	UID	Quartz Grit	UID	N	Ceramic
194	3.1-N	2	Body	UID	Quartz Grit	UID	N	Ceramic
195	3.1-E	1	Body	UID	Sand	UID	Y	Ceramic
196	3.1-E	1	Body	UID	Sand	UID	Y	Ceramic
197	3.1-E	1	Body	UID	Sand	UID	Y	Ceramic

198	3.1-E	1	Body	UID	Sand	UID	Y	Ceramic
199	3.1-E	1	Body	UID	Sand	UID	Y	Ceramic
200	3.1-E	1	Body	UID	Sand	UID	Y	Ceramic
201	3.1-E	1	Body	UID	Sand	UID	Y	Ceramic
202	3.1-E	1	Body	UID	Sand	UID	Y	Ceramic
203	3.1-E	1	Body	UID	Sand	UID	Y	Ceramic
204	3.1-E	1	Body	UID	Quartz Grit	UID	Y	Ceramic
205	3.1-E	1	Body	UID	Quartz Grit	UID	Y	Ceramic
206	3.1-E	1	Body	UID	Quartz Grit	UID	Y	Ceramic
207	3.1-E	1	Body	UID	Quartz Grit	UID	N	Ceramic
208	3.1-E	1	Body	UID	Quartz Grit	UID	N	Ceramic
209	3.1-W	2	Body	UID	Sand	UID	N	Ceramic

***** Artifact numbers are tentative and do not reflect the accession numbers that will later be assigned by the Office of State Archaeology.