

FLORIDA'S CULTURAL HERITAGE:

A VIEW OF THE PAST

Prepared by the Division of Historical Resources
Florida Department of State

Draft Version of
September 28, 1993

Note:

This version of *Florida's Cultural Heritage: A View of the Past* was created for the express purpose of improving the overall usability of the documents provided by the Division of Historical Resources. The contents of the original documents were not altered, except to correct typographical errors, and to remove references to figures which are not present in the documents. The originals are available from the Division of Historical Resources website (<http://www.flheritage.com/facts/reports/contexts/>).

The original documents were written almost twenty years ago, and some of the contents may be outdated. Ideally, this would only be a first step toward a complete revision of the archaeological and historical contexts, to bring them up to date. This version provides the advantage of being able to use PDF tools to navigate the document, including using the bookmarks as a table of contents. This is a long way from being a polished document, and even farther from being a press-ready document, but it does offer some advantages over the disaggregated chapters that are currently available for download.

Some figures have been added to this text, to show the distributions of different archaeological sites. The figures were created from a shapefile that included all archaeological sites listed in the Florida Master Site File, prior to sometime in July of 2006. The sites were classified according to Jenks' natural breaks. The figures were classified to create unique categories; but, in some cases, there is only a single county in a particular class. Since this is not truly a finished version, some of the figures were inserted in places that may seem a bit awkward, and the rough classifications were allowed to remain as indicators of general distribution.

PREFACE

Florida has a rich and fascinating past; it was the gateway to the New World as it is the threshold to space. Its cultural heritage represents the presence and activities of people for over 12,000 years. This heritage is embodied in historic buildings and other structures, prehistoric and historic archaeological sites, artifacts, documents, and public records, as well as in the traditions and folkways of the state's diverse citizenry. All of this evidence of our past makes up Florida's cultural and historical resources. Historic resources provide not only continuity with our past, but create jobs, improve housing, enhance our quality of life, and along with the state's unique natural resources, draw hundreds of thousands of visitors annually. Despite the growing public appreciation of both cultural and historical resources, each year irreplaceable buildings are bulldozed, historic public records are lost, archaeological sites are destroyed, and cultural traditions are forgotten.

The mid-1960s to the present witnessed the passage of federal and state laws, as well as local ordinances, to protect cultural and historical resources. While Florida has an adequate framework of laws to protect these resources, much remains to be accomplished to fully implement provisions of existing laws and to acquire the abilities and funds to ensure these laws are enforced.

The loss of resources continues to occur because their nature and extent have not been systematically assessed statewide. Less than 10% of the state's land area has been surveyed for archaeological and historical sites, and a survey of Florida's folk heritage has only begun in recent years. Notwithstanding these preservation efforts, Florida's unprecedented growth generates thousands of environmental altering activities by the government and by the private sector each year; many of these have the potential of diminishing the state's cultural and historical resources.

The Division of Historical Resources is required by Section 267.061(3)(b), Florida Statutes, to develop a statewide comprehensive historic preservation plan. This mandate was

developed to comply with the National Historic Preservation Act of 1966, as amended, as well as to meet recognized state cultural resource management and planning needs. In our effort to satisfy these requirements established by law, we must keep in mind our purpose: to develop a plan that will assist the public and governmental agencies in achieving preservation goals and objectives at the state, regional and local levels.

These goals and objectives are reflected in Section 267.061, Florida Statutes, which parallels Sections 106 and 110 of the National Historic Preservation Act; in Section 253.034(4), F.S., which requires that the location, identification, evaluation and protection of historic resources be considered in all state land management plans; in Chapter 187, F.S., which makes historic preservation an integral part of the State Comprehensive Plan; and in Chapter 186, F.S., which implements Chapter 187 through the preparation of state agency functional plans and regional comprehensive plans; in Chapter 163, F.S., which makes historic preservation an integral part of local government comprehensive planning; and in a number of state environmental review laws, including Chapters 253, 380 and 403, F.S.

Florida's comprehensive historic preservation planning effort is presented in three major sections: Historic Contexts, Programs and Opportunities, and Preservation Goals. The Historic Contexts section provides a general organizational framework for the cultural resources in the state, and is the subject of this volume. The other two sections are the subject of a separate volume.

The major goals of preservation planning are to identify, evaluate, register, protect and manage the significant historic resources of our state. This includes prehistoric and historic archaeological sites, historic buildings and other structures and associated features, and folklife resources. To plan usefully for the protection of these resources, they need to be categorized into a manageable number of units. These units are referred to as historic contexts.

The historic contexts describe the significant broad patterns of cultural development which have occurred through time in an

area. Contexts are a tool for organizing information about historic resources into a form which helps us to understand the significance of the resources and how these have changed through time. Once the relationships between the historic resources within a particular context are understood, decisions about the identification, evaluation, registration and treatment of properties and other resources within that context can be made more intelligently.

Identification activities can be organized to ensure that research and survey activities include sites and related cultural intangibles representing all aspects of the historic context. Evaluation can use historic contexts as the framework within which to apply the criteria for National Register evaluation of specific types of sites, properties and intangible resources. Decisions about the treatment of sites and other resources can be made with the goal of treating the range of resources in the context. The use of historic contexts in organizing major preservation activities ensures that those activities result in the preservation and conservation of the full range of properties and folklife that represent our cultural heritage.

The development of historic contexts is a continuing process. Existing contexts may be modified as new information becomes available. The process of developing a historic context can be summarized in a few basic steps.

- Identify the concept, time period and geographical limits for the context.
- Synthesize information about the historic context in a written narrative, supplemented with maps and graphics.
- Identify research goals that will fill gaps in our knowledge of the context.
- Identify preservation goals that will help to protect the range of site types known and expected for the context.
- List general references which are important to the context.
- List sites which are recorded for the context along with their National Register status, and their known and expected distribution.

It is useful to distinguish contexts represented by prehistoric archaeological sites from those represented by historic archaeological sites, historic structures, and documents; although they do overlap to some extent during the first few centuries of Florida's written history. Prehistoric resources, those pertaining to native cultures of Florida before the time of European contact, are only known through their archaeological remains. For this reason, the types of information we can expect to collect from sites of such contexts and the knowledge we have about the original inhabitants of our state are archaeological in nature. Historic period contexts, on the other hand, are generally understood from historical documents, supplemented by archaeological and structural evidence. The types of sites that represent historical period contexts will often be standing structures or other above-ground remains, while the types of sites included in prehistoric contexts will generally be buried archaeological deposits. The structure and content of the two types of contexts will be different as a result of the different kinds of information available as well as the types of sites that are included. Before presenting the individual contexts that form the foundation of the comprehensive plan, it will be helpful to review briefly the two types of contexts to be discussed. These reviews are included in introductions to Parts 2 and 3 (i.e., chapters 1 and 19).

Chapter 1

A SUMMARY OF ARCHAEOLOGICAL CONTEXTS

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Archaeological sites are of interest both for humanistic and scientific reasons. From the humanistic point of view, archaeology can enlarge our awareness of what humans were like hundreds or even thousands of years ago. Here, archaeology is like any of the other humanities; it enriches the quality of life and our capacity to experience it. As a branch of the humanities, archaeology attempts to reconstruct the mainstream of events and developments that have led to the cultures of today. In this sense, preservation of archaeological sites saves bits or pieces of the past for people to understand and compare with their own modern world.

Archaeology is also a science with the aim of studying changes in culture through time to understand what causes changes and developments of different kinds. For example, what happens to the organization of society when groups of people approach the carrying capacity of their natural environment? Is the conservation of natural resources a recent social movement or is it an ancient practice? When do people decide to conserve? What are the cultural limits on population growth? These fundamental questions are not only important to archaeology, but to the study of history and to the modern world as well.

Modern archaeology is basically the systematic study of the material remains of human behavior in the past. Past human behavior can be partly reconstructed from artifacts or objects, but much more can be learned when the context or position of an

artifact is known in relation to other artifacts, features, and associated remains. Position, also called association, is an essential component of archaeological information. By understanding the relationships between objects and their surroundings it is possible to determine whether the objects were related in space and time when they were deposited or left behind in an archaeological site, as well as to understand the depositional processes and activities associated with site formation. Much of the importance of archaeological sites is dependent on association or context, and a site that has not been disturbed since the time of its formation will be much more significant than a similar one in which the relationship between artifacts is confusing or destroyed. Further, determining the functional and developmental interrelationships of sites and site types is important to understanding the cultural-historical development of an area.

Archaeologists use a number of different techniques for studying objects and their contexts. In fact, these archaeological techniques are becoming so rapidly refined that the results of older archaeological excavations are often of little use in answering some types of questions. For example, archaeologists working in the first half of this century did not save charcoal because it wasn't until 1949 that the radiocarbon dating method was developed. Likewise, when excavated soil was screened to recover artifacts, the screen size generally was too large to recover smaller artifacts, thus biasing site functional interpretations. Further, the practice of recovering and analysing animal bones, shells, and plant remains from sites is relatively recent. As new techniques are developed, archaeological sites are more increasingly recognized as precious sources of very detailed information about past people and their environments. Archaeologists are constantly refining their craft in order to extract the most information possible from each archaeological site with the least amount of damage to the site.

In the study of the human past, archaeology has had three primary objectives: the construction of cultural chronology; the reconstruction of past lifeways; and the discovery of the

processes which underlie and condition human behavior (Thomas 1979). Archaeological contexts are bounded with a chronological and geographical setting and identified by cultural attributes. For comparative purposes the cultural attributes of each archaeological context are discussed within the framework of 1) the setting, 2) material culture, 3) subsistence, and 4) settlement patterns. Further, for each context, there is a listing of important sites, research questions and preservation goals.

Archaeological remains and evidence may be thought of as being from some specific point in time and space. Spatial relations are relatively easy to recover, because sites are found at specific locations on the landscape and artifacts are found at specific locations within a site. Determining the age of a particular thing is more difficult, but equally important. The changes in culture represented by different types of artifacts and different types of sites cannot be understood without knowing when the events that left these kinds of evidence occurred. It would be impossible, for example, to examine the development of social organization or of technology without knowing which examples represented in the archaeological record came first. To reconstruct an archaeological or historical time line on which events can be placed is to establish a chronology. There are two basic methods by which this can be accomplished, relative dating and absolute dating.

Absolute dating techniques determine age on a specific time scale: days, years, centuries, or millennia. Such dates are normally expressed in years before present (B.P.) or years before Christ (B.C.). To avoid confusion in this plan, dates before the time of Christ will be counted as years ago (B.P.); dates after that will be given their calendar date (A.D.) A number of techniques have been developed over the past 50 years to provide absolute ages of objects, but many of them are not in wide use or may not be too reliable. The particular dating technique used by the archaeologist will be determined by the type of material available.

The best known and most commonly used dating technique is radiocarbon dating. It measures the relative abundance of two different isotopes of carbon, one of which is stable, and the other

of which decays at a known rate. Radiocarbon dates form the foundation for most archaeological chronologies. Because the counting method depends on the random and somewhat unpredictable decay of the unstable isotope, radiocarbon dates are always expressed as a range rather than as a single age. It is understood that there is a certain probability that the real age of the specimen is within the stated range, usually two chances in three. For this reason, it is helpful to have a large number of dates from a single site in order to eliminate those that are in error (i.e., contaminated specimens, or relic carbon introduced as fill in later deposits, thus yielding younger or older dates, respectively).

The other approach to dating is called relative dating. Relative dates are not fixed in time, but rather are expressed as whether one thing is older or younger than another. Before the advent of radiocarbon dating in the 1950s, most archaeological chronologies were relative. It was generally known which events occurred in what order, but the estimates of absolute age were often wrong by many thousands of years. The two most useful means of establishing relative dates are stratigraphy and seriation.

Stratigraphy is basically the order in which cultural sediments are deposited into layers or strata. Although simple in principle, stratigraphy is one of the most important, and sometimes one of the most complicated, aspects of an archaeological site. It tells us which objects are older or younger than others. This is the reason that archaeologists are so concerned with the context or association of artifacts in a site. If the context is disturbed, the interpretive value of the archaeological remains will be limited. Archaeological stratification, then, refers to the observed layering of deposits in a site. These layers, or strata, represent an observable sequence which reflects the order of deposition, from earliest on the bottom to latest on the top, provided the strata have not been mixed since the time of their original deposition.

Seriation, another relative dating method, attempts to order cultural material chronologically based upon stylistic changes

which occur in artifact types through time. For example, as a particular pottery design becomes popular, the frequency of that style will increase through time until it is gradually replaced by another. When this kind of data is graphically displayed it indicates the relative ages of the pottery as well as the other artifacts in the same strata.

Cultural chronologies are difficult to construct. They involve the analysis of data from many sites and strata of different ages in a region and will often involve a combination of relative and absolute dates. Chronologies are continually being refined as new information becomes available from additional deposits, but in general, the basic cultural chronologies for Florida are fairly well known. The historic contexts in this preservation plan are based on a general chronological framework that assumes that cultural developments at the broadest scale of interpretation were consistent throughout the state in different time periods. In later prehistoric times, beginning around 3000 years ago, it is possible to recognize geographic variation among cultures, and separate contexts are discussed for different parts of the state.

Although dating archaeological sites and placing prehistoric cultures in a coherent chronological sequence are important to our understanding of prehistory, they are only the first steps in achieving the archaeologist's goal of explaining the changes which take place within cultural groups. The next step involves the study of cultural attributes and changes in those attributes through time.

Knowledge of archaeological cultures is cumulative; it therefore changes in response to the results of archaeological surveys and excavation projects. Constant evaluation of new data and re-evaluation of older site data is essential.

In order to reconstruct the lifeways of past cultures, archaeologists must gather as much information as possible about the day-to-day life of those populations. For organizational purposes we can divide the various aspects of past lifeways into a few categories. These are: the setting, material culture, subsistence, and settlement patterns.

The Setting

People are affected by the geographic setting in which they must live. It is within this setting that they established their subsistence and settlement patterns, maintained and developed their social and religious organization and behavior, as well as their technology. If needed natural resources were not available, they either sought alternative resources, such as using shell in place of stone tools, or established trade relationships with neighboring peoples to obtain the desired material. An understanding of paleoenvironmental and environmental conditions is essential to correctly evaluating cultural maintenance and development in an area.

Material Culture

The next category of information archaeologists use to reconstruct past lifeways is material culture--that is, what kinds of tools people made and used, how they made these tools, what they made with those tools, what items were traded and with whom, and so forth. The study of material culture, like that of subsistence and settlement patterns, can give us a much clearer picture of how people adapted to or modified their environment, how they were organized socially, and what was their ritual behavior.

The material culture of a particular archaeological context can be determined by many factors, and is constrained and reflected by the environment, available natural resources, social organization, ritual behavior, and economic practices. Studies of material culture, thus, begin with the gathering of information about the past environment and the natural resources available, and then identifying and analyzing the artifacts and objects made from available natural resources and used to exploit that environment. Economic practices broaden the range of available natural resources and social organization affects technological limitations--that is, what can be done by individuals or their families versus community-wide efforts. Environmental conditions limit material culture studies by affecting what is preserved for study; that is, stone and ceramics are generally

preserved while bone, shell, wood, leather, fiber and other organics generally are not.

Lithic technology studies have long been a hallmark of archaeological investigations of past lifeways. These studies often have focused on methods of manufacture, form, and use, as well as more recently on the variety and source of stone utilized, and the curation techniques used for finished products. Of those, form and use are the best known to the general public, although previous nonrecognition of manufacture and reduction sequences has resulted in confused artifact identification linkages. This problem is being resolved through a more detailed analysis of the full range of lithic artifacts, as well as through replication studies.

In coastal areas of Florida, and especially in South Florida where chert for tool manufacture was scarce, shell tools were used as a substitute for lithic tools. This provides an opportunity to do comparative studies, as with lithic procurement studies elsewhere, on cultural responses to natural resource availability, preference, manufacture techniques, limitations, and utilization. A range of different available shell types were used to make tools.

Lithic and shell tools provide keys to understanding the manufacture of perishable organic objects--from houses and dugout canoes to spears, bows and arrows, to leather, wood and fiber containers, and the like. This indirect evidence has been reinforced by direct evidence in shell middens where bone is preserved, and in wetlands and inundated conditions where bone, wood, and other organic remains have been preserved. These serve to remind us of how much technological information on past lifeways has been lost to environmental deterioration. Failure to recognize the loss of organic artifacts has resulted in misinterpretations, such as the presumption that a past culture was not as rich and diversified as it likely was.

Like lithics, ceramics have received considerable study because of their resistance to deterioration, their quantity, and their variety. Thus there is a 4,000-year sequence in ceramic manufacture and transition. The ceramics show responses to available natural resources, social and religious identity, and linkage with or influence from contemporary regional cultures.

Archaeologists study these factors by investigating methods of ceramic manufacture, temper, form, design and so forth. The results of such studies are a recognition of changes through time, identification of "sacred" and "secular" wares, identification of the direction and intensity of response to cultural interaction, and recognition of the linkage of regional and local variation in ceramic types with "tribal" and larger ethnographic groups.

A technique often used in both lithic and ceramic analysis is that of seriation--that is, the evaluation of the relative frequency of artifact types and varieties chronologically, between sites, and within sites. That information gives insights into changes through time, as well as inter- and intra-site differences. The latter provide information on boundaries between with respect to activities conducted, and to social and religious activities and organization.

Replication studies are also used by archaeologists to provide a better understanding of technology and other aspects of material culture. These studies, when combined with chemical, physical and other analyses, provide an understanding of technology and technological changes, and thereby furthering our understanding of material culture.

Material culture is a key to understanding social organization and ritual behavior. Social organization is reflected by the quantity and quality of material goods distributed within the members of a community. Thus, an archaeological culture, which appears to be essentially uniform in site types, the classes of artifacts represented at such sites, and the ritual behavior evidenced, would be interpreted as basically egalitarian. However, one which evidenced a more complex setting, such as clusters of simple households in an area in which such sites appear to be linked to a more complex site with higher status units would indicate ranked social organizations. Higher status sites would be distinguished by more finely made ceramics, exotic trade goods, (perhaps) platform mounds or larger residential units, and often by associated ritual activities, e.g., ritual structures and differential burial customs, such as primary burials without grave goods versus bundle burials with grave goods.

Ritual behavior is evidenced by material remains found in contexts of human interment or otherwise ceremonial-like circumstances. Ritual behavior may be used to imply a ritual belief system, but the reconstructed belief system may be in error; that is, a change in burial patterns may be in response to a catastrophe and not reflect a change in belief systems. Further, only that which is "obviously" ritual behavior is recognized as such—that is, the intentional interment of human remains is recognized as ritual behavior, while household ceremonial actions are likely to be unrecognized. Thus, caution must be used when drawing behavioral conclusions from the contexts in which material culture items are found in archaeological settings.

Archaeologists study ritual behavior primarily through an evaluation of how people treat and dispose of their dead, and secondarily through the occurrence of "ritual features," such as "temple" mounds, within village areas. Interpretation of the latter, often depends on recognition of "sacred" versus "secular" artifacts; although care must be taken not to confuse such artifacts with those from high-status versus those from low-status areas. This problem is further complicated by the so-called "priest-chiefs." Thus, care in the manner in which data is collected and analyzed is essential. Archaeologists must be able to recognize distinctions between and combinations of ritual behavior and social organization in their interpretation of past lifeways.

Subsistence

In reconstructing subsistence practices, archaeologists are basically trying to determine what people ate and how they got their food. Information must be gathered about the past environment and the resources available there. In addition, information about the particular culture's technology must be known so the archaeologist can determine the potential for extracting the resources within a particular environment, as well as the manner in which the resources are processed. There are a number of techniques available for reconstructing past

subsistence practices. Two of the most important are faunal analysis and floral analysis.

Faunal analysis involves the study of animal bones and shells from archaeological sites. This kind of analysis can tell us which animals were hunted or collected and in some cases how the animals may have been hunted and butchered, and processed as food. Some bones and shellfish remains can yield information about the season a particular archaeological site may have been inhabited. Faunal remains also yield information on the environment in the area around the site, based on a knowledge of the habitats occupied by the animals represented.

Floral analysis involves the study of the plant remains which may be present in an archaeological site. Such remains may be either the carbonized parts of the plants or the pollen and spores. The information gained from the study of these plant remains is valuable not only because it gives us insight into the diet of the culture being studied, but also because it helps in the reconstruction of past environments, the season in which remains were collected, and relative dating of archaeological sites.

Floral remains are usually recovered from a site using a technique known as flotation. Soil samples are placed in a receptacle containing water. As the samples are agitated, the plant remains float to the surface of the water where they are skimmed off using a very fine mesh screen. This technique is also useful for recovering small animal bones and charcoal.

In order to reconstruct past subsistence practices, the archaeologist must be able to reconstruct the past environment to determine what the potential resources were. Then the technological capabilities of the culture must be analyzed to determine whether and how the available resources could have been exploited.

Settlement Patterns

The next category of information necessary in order for the archaeologist to reconstruct past lifeways is settlement patterning—that is, where people lived and why they lived there.

The study of settlement patterns can give us a much clearer picture of how people adapted to or modified their environment.

The settlement pattern of a particular culture can be determined by many factors, including the environment, economic practices, and the level of technology. The study of settlement patterns can be accomplished on three levels. First, there is the individual dwelling or structure; second, the arrangement of the individual structures within a community; and finally, the distribution of the communities within a region which a particular cultural group occupies.

In addressing individual structures, we are concerned not only with dwellings but other kinds of structures as well, such as temples, storage facilities, or other public buildings. At this level we want to determine how the various areas of the structure were utilized. For example, where did they cook their meals, or where did they sleep? We would also want to know what the structure was made of and how it was designed and constructed. Further, we are concerned with whether the structure represents a long-term residential unit, or a seasonal camp.

On the community level we want to know how the various structures or features were arranged within a community and what their relationships were; whether the community was temporary or permanent; or whether certain activities, such as pottery making, occurred in specific parts of the community. Studies of settlement patterning on this level can provide the archaeologist with important information on social stratification, economic specialization and political organization.

The broadest level of settlement analysis involves the study of the density and distribution of sites within a cultural region. This type of regional approach has been a major focus of American archaeology over the last few decades. Such factors as landscape suitability, natural resource availability, proximity to others, and technology play a major role in establishing where and why sites occur within a region.

With the regional approach we want to study a representative sample of all site types for a culture, e.g., large communities, small farmsteads, kill sites, ceremonial sites, or lithic

procurement sites. This type of analysis can provide us with an overall picture of how cultural groups interacted with one another and adapted to their particular environmental situation.

Important Sites

In each of the archaeological contexts, certain sites will be mentioned. These sites are important for their contribution toward our understanding of the cultures discussed in the text. Many of them are open for public visitation, although some in more remote areas have restricted access because of the threat of vandalism.

Research Questions

Another aspect of the presentations for each archaeological context is the formulation of pertinent research questions. After reviewing what is known about each topic, archaeologists have identified the kinds of data expected to be represented, but which is lacking or incompletely represented. The result has been phrased in the form of research questions.

Preservation Goals

The types of archaeological sites representing the archaeological contexts in each chapter have been evaluated to determine whether a reasonable sample is being protected and the types of preservation activities needed to assure the continued preservation of these resources. The result has been presented as preservation goals.

A Summary of Prehistoric Contexts

At the end of the Pleistocene, all of North America, including Florida, experienced dramatic environmental changes. As the glaciers retreated, the sea level rose, precipitation increased, water tables rose, and the vegetation changed. Many of the plants and animals that had lived in Florida when the Paleoindians entered the peninsula disappeared as a result of environmental changes. The culture of the Paleoindians changed in response to environmental changes. This transition is reflected in

technological subsistence, settlement, and other changes. Paleoindians had access to natural resources and a wide range of environmental settings in a land more than twice the size of present-day Florida (Figure 1). However, because of factors related to sea-level rise, our knowledge of Paleoindian peoples has been limited to sites located in the then drier interior uplands.

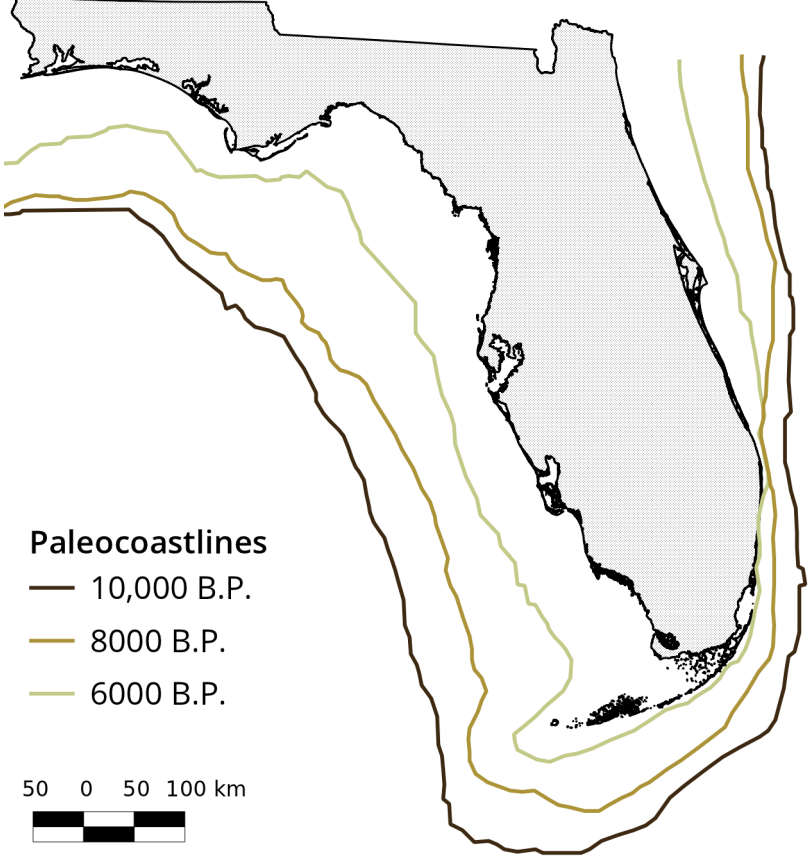


Figure 1. Former Extents of the Florida Coastline

Paleoindian site types include base camps, possibly shell middens, and special procurement sites (e.g., hunting camps and quarries). Paleoindian sites occur in interior drainage basins and have been identified in now inundated river valleys, such as Tampa Bay, and along submerged relic river courses in the Gulf

of Mexico. Most of our knowledge of Paleoindian sites comes from karst drainage systems where artifacts have been exposed, facilitating their collection but providing only a restricted view of Paleoindian culture.

By 7000 B.P. Florida looked much as it does today. Sea level had risen to near modern levels so the peninsula was similar in size and shape to modern Florida. The vegetation over much of the state was what it would be now, if we allowed it to revert to natural conditions. The large animals of the Pleistocene had disappeared, leaving a modern fauna as the dominant species. These changes in the environment were mirrored by changes in the cultures of Florida's inhabitants. When the Paleoindian culture had changed sufficiently to be distinguished by notched and stemmed projectile points, which evolved from the earlier lanceolate points, and other technological changes, archaeologists identify the changed culture as the Archaic.

We know more about these more recent inhabitants, the Archaic people, than we do about their Paleoindian ancestors. Nevertheless, there are still many gaps in our knowledge. As is the case for the Paleoindians, most of what we know about the Archaic people is derived from analyses of their stone tools, augmented by data from the rare but extremely important sites where organic materials have been preserved.

It is believed that the Archaic people were also hunters and gatherers who relied on wild plants and animals for their subsistence. By 6000 B.P., large shell mounds began to be created along the St. Johns River, as the Archaic people of that region intensified their exploitation of the food resources of the river. It appears that the Archaic people exploited the fish and shellfish of Florida's waters to a much greater extent than their Paleoindian ancestors, although this observation may be biased by a lack of information from sites now under water.

It is also believed that the Archaic Indian societies were egalitarian systems like those of the Paleoindians. Mortuary data from Archaic sites reveal no great social distinctions among individuals. Archaic social groups appear to have been larger and more sedentary than Paleoindian groups, however. This may

have been the result of increasing population densities or the patterns of resource exploitation practiced by the Archaic people.

Through time the stone technology of the Archaic people became quite different from that of the earlier Paleoindians. The well designed and finely crafted Paleoindian tools, intended to be portable and useful for a variety of tasks so they could be used in areas where replacement was difficult, were replaced for the most part by simpler, more expendable tools. This is not to say that the Archaic people were less skilled in tool making than their ancestors. They simply had less need for highly portable, difficult-to-replace tools. The Middle Archaic stemmed projectile points are as finely crafted as any stone tools found in Florida.

In addition to stone tools, the Archaic people used a wide range of bone, shell, and wooden tools, ornaments, and utensils, as well as woven mats, cloth, and other items of fiber. Pottery was first made in Florida about 4,000 B.P. in the St. Johns River Valley, and appeared throughout the state by 3,000 B.P. This earliest pottery was not well made, at least compared to later pottery from Florida. Nevertheless, its presence is important, for it reflects the more sedentary lifeways of the Late Archaic people, as well as the continued exchange of ideas and materials over a wide area.

Archaic site types include base camps, shell middens, and special purpose sites (e.g., hunting camps, quarries, and cemeteries). Archaic sites occur throughout the state, although they appear to be rare in extreme southern Florida. Most of our knowledge of the Archaic peoples comes from sites in north central Florida, the Hillsborough County area, and the St. Johns River Valley.

Archaic sites are found along the major rivers, particularly the St. Johns. Inland, they are also found near smaller streams, ponds, and sinkholes. They appear on the coasts, but are not common. Along the Gulf coast, several submerged Archaic sites have been found in near-shore areas, where they are associated with karst topography and former stream channels now inundated by higher sea levels.

During Middle Prehistoric times, from about 3,000 to 1,000 years ago, cultural diversity increased in Florida (or at least it becomes much more evident in the archaeological record). We can distinguish manifestations that are clearly different from those in other parts of the state. These regional cultures include the St. Johns culture of northeastern Florida, the Glades culture of south Florida, the Deptford culture of northern Florida, the Swift Creek culture of northwestern Florida, the Manasota culture of the central Gulf coast region, and the Weeden Island culture of north Florida, northwestern Florida and the central Gulf coast (Figure 2). These were also times of population growth, increasing sedentism, and increasing complexity in economic, social and political organization. Subsistence practices gradually changed and domesticated crops appeared, although they did not become important until later.

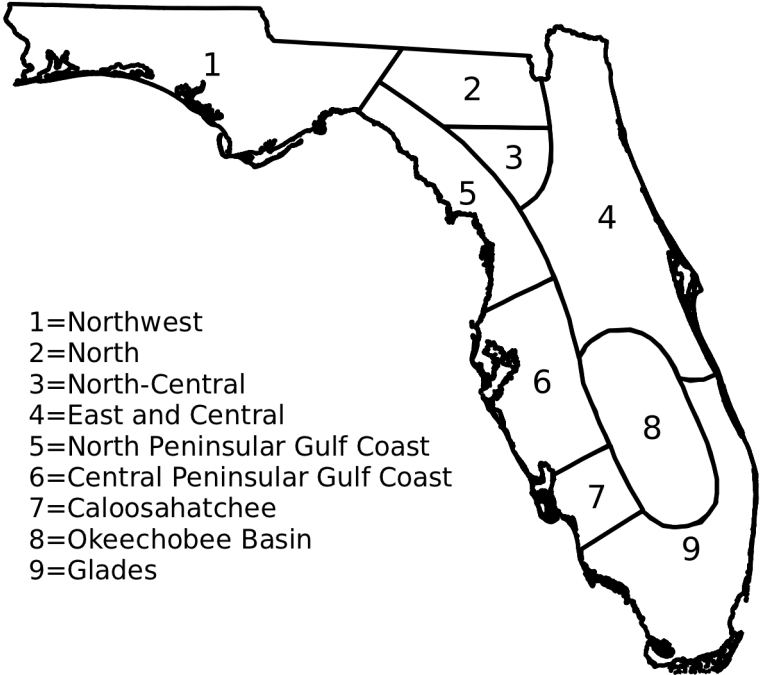


Figure 2. Cultures Areas Discussed in Chapters 4 - 12

Hunting and gathering of wild foods continued to provide the bulk of the diet throughout Middle Prehistoric times, although by A.D. 1000 maize and squash were being grown in many areas of the state. Compared to earlier times, there appears to have been a greater reliance on marine shellfish. The first domesticated plants used in Florida were gourds and squashes. They appeared early in Middle Prehistoric times. Indeed, gourd seeds and husks have been found preserved in inundated Paleoindian and Archaic sites (i.e., Page/Ladson and Little Salt Spring sites). Maize may have been used in the Lake Okechobee area by 2,500 years ago, although this is not certain. In northern Florida the first clear evidence of maize appears in Late Swift Creek and Early Weeden Island sites, perhaps as early as A.D. 250.

The social and political organizations of groups living in Florida during Middle Prehistoric times were more complex than those of earlier peoples. Tribal and big-man societies appeared during these times. These societies and their settlements were larger than those of earlier times. Leaders had more formal authority and prestige. Clear differences in personal status, unrelated to age and sex, appear during these times. For the most part these differences seem to reflect the achievement of a secular or religious position or office. In the archaeological record, increased social differentiation is reflected in the size and complexity of sites, in burial treatments and funerary offerings, and in the construction of group labor projects such as earthworks and shell mounds.

Middle Prehistoric sites are found in all parts of the state. They are found along streams, lake shores, and all sections of the coast. Site types include permanent villages, burial mounds, large earthworks, shell middens, quarries, and special purpose temporary camps. Villages are larger and more numerous than earlier habitation sites, reflecting the greater population of the state and larger social groups. Along the St. Johns River, there are large, thick shell middens that date to Middle Prehistoric times. These consist of the remains of freshwater shellfish, animal bones, pottery, and other evidence of the people who lived there such as hearths, storage and refuse pits, and postholes from their

houses. Other shell middens can be found along the Gulf and Atlantic coastal strands. Large earthwork sites are found around Lake Okeechobee and in the Kissimmee River Valley. These sites include mounds connected by raised ridges and causeways and ditches. Archaeologists have speculated that the ridges were raised agricultural fields, needed to grow maize in the poorly drained soils of the area. These spectacular sites resemble the Adena and Hopewell earthworks of the midwestern United States. There are large complex shellworks along the southwestern Florida coast, particularly in the Charlotte Harbor-Pine Island Sound area. These sites, constructed by the ancestors of the Calusa, are poorly known. Burial mounds are found throughout the state. They are generally small structures, 50-100 feet in diameter and 1-5 feet high. They frequently contain funerary offerings such as pottery and food remains, in addition to burials. They provide invaluable information about the social organization and religious beliefs of the peoples who constructed them.

Ceramic technologies were elaborately developed during Middle Prehistoric times. Vessels were generally well made. Vessel forms and decorations were highly diversified. This variability reflects the many uses to which the vessels were put, the different cultural groups which made them, and the changing of decorative styles over time. Archaeologists use this variation to identify archaeological phases and cultures, chronological and geographical units distinguished by particular ceramic traditions and assemblages.

Many Middle Prehistoric sites are known, but few have been investigated thoroughly. Since the total number of sites is so much larger than for the earlier times, it is possible to be more discriminating in deciding which sites are the most significant. There are many gaps in our knowledge of the various Middle Prehistoric cultures of Florida, however, and no area of the state or culture of this time is so well known that additional sites do not need to be preserved, protected and investigated.

During Late Prehistoric times, after A.D. 1000, Florida's population continued to grow, societies became larger and more

complex. As it had in Middle Prehistoric times, cultural diversity continued to mark Florida's aboriginal people. Among the Late Prehistoric cultures recognized by archaeologists are the St. Johns culture of northeastern Florida, the Fort Walton and Pensacola cultures of northwest Florida, the Alachua culture of north central Florida, the Safety Harbor culture of the central Gulf coast region, and the Glades culture of south Florida.

Subsistence economies also became more diversified in Late Prehistoric times. In north central Florida and in certain portions of northwestern Florida, people practiced cleared field maize agriculture and the products of that agriculture—maize, beans, and squash—were the dietary mainstays of the people. Along the St. Johns River, people continued to use the shellfish and other wild resources of the river valley, although they grew domesticated crops also. The shell middens left by the St. Johns people are among the largest found in the United States. In southwestern Florida, the ancestors of the Calusa relied on the extremely productive marine environments between Charlotte Harbor and Florida Bay to support their complex society. Massive shell middens characterize the larger sites of this area. In the Lake Okeechobee region, agriculture (if it was practiced earlier) was abandoned, and hunting, fishing and wild plant foods formed the subsistence base of people in this area.

The social and political organizations of many of the societies of the Late Prehistoric times were even more complex than those of Middle Prehistoric societies. Chiefdoms, societies with formal political offices, hereditary elite, and leaders who possessed some power to command people and resources, appeared in Florida during Late Prehistoric times. The Fort Walton societies of northwestern Florida were organized as chiefdoms. The Calusa of southwestern Florida were also a chiefdom, as were the Safety Harbor peoples of the Tampa Bay area and many of the peoples in north central Florida. Indications of the political organizations of these complex societies can be seen in settlement hierarchies, in differential mortuary treatments accorded individuals of different status, and in the symbols of office associated with the ruling chiefs.

Late Prehistoric site types include all of the site types found in earlier times as well as major political centers not found earlier. The major centers contain large mounds, many of which served as substructures for temples and chief's residences. These centers served as capitals or administrative centers within larger societies. Many Late Prehistoric sites are known. Nevertheless, no area of the state is so well known that additional sites do not need to be preserved, protected, and investigated. It is possible, however, to be more selective in identifying significant sites for the Late Prehistoric context.

Chapter 2

THE PALEOINDIAN PERIOD

Nina T. Borremans

The Paleoindians of Florida were descendants of the first humans to enter North America. Toward the end of the late Pleistocene geological epoch, perhaps at various times, groups of people crossed a land bridge connecting Asia and North America that was exposed when sea level was about 120 m lower than today. Although we cannot pinpoint the dates of these migrations, the maximum drop in sea level, corresponding to the greatest advance of the late Pleistocene ice masses, occurred about 18,000 years ago (Watts 1975). We know that by 12,000 B.P. Paleoindian populations had radiated to all parts of the New World, and were successfully exploiting nearly every available habitat.

Archaeological evidence indicates that, in addition to hunting small game and gathering wild plants and shellfish, Paleoindians stalked now-extinct Pleistocene megafauna; however, the role these large animals played in the day-to-day business of making a living varied considerably across the continent. Large, stemless, stone spear points, the most diagnostic of the artifacts made by Paleoindians, are time-markers used by archaeologists to identify Paleoindian sites. Due to the ravages of time, erosion, and decomposition of perishable artifacts, projectile points and other stone artifacts are often all that remain to represent these early prehistoric people and their hunting-gathering way of life.

The environmental repercussions of climatic change and glacial melting provided a dynamic background for cultural response during the Paleoindian period, which lasted about five thousand years. The end of the Paleoindian way of life is difficult

to identify archaeologically and may have been one of gradual transition. About 10,000 years ago, changes in the Florida landscape and environment coincided with new developments in subsistence technology and settlement patterns, leading to the next archaeologically defined stage, the Archaic.

Less than 100 Paleoindian sites are recorded in Florida. These known sites are scattered around the state and their recording is primarily a result of accidental discoveries. Many more Paleoindian sites undoubtedly exist, but they are located offshore on the continental shelf, in terrestrial wet areas, or are deeply buried. These inaccessible locations constrain our ability to identify Paleoindian sites, and our ignorance of them has biased our interpretation of Paleoindian culture.

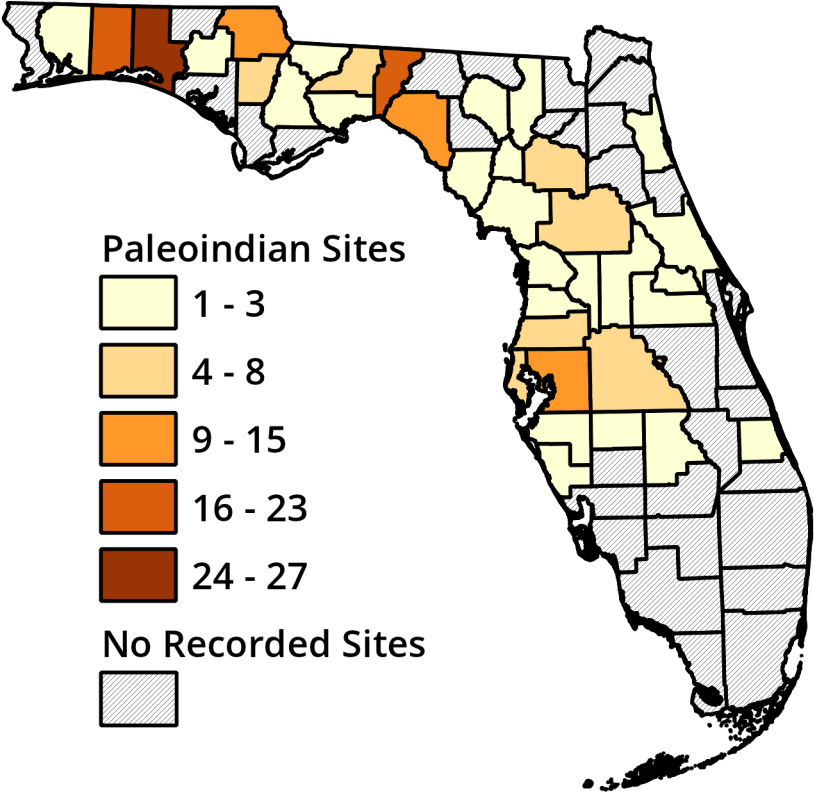


Figure 3. Distribution of Paleoindian Sites (by county)

The Setting

The Paleoindians lived in a Florida twice the size it is today. At the time they lived, sea level was 60-100 m lower, exposing vast expanses of the present continental shelf (Gagliano 1977; Blackwelder et al. 1979). Present-day coasts were inland, even upland, areas. The late Pleistocene shorelines in the Gulf of Mexico were located as much as 120 to 150 km seaward of their present locations. It is not difficult to see why Paleoindian period coastal sites have yet to be discovered in Florida—they are submerged beneath scores of fathoms of ocean water, tens of kilometers offshore (Stright 1986; Garrison 1989).

Pollen and paleontological studies have provided us with evidence of the climate and environment at this time. They indicate that Florida was considerably drier than it is today. Vegetation of north Florida highlands at about 14,000 B.P. generally was open pine forests giving way to oak/hickory stands and local prairies. The central and southern peninsula had open xeric scrub vegetation. Climatic condition of the coasts is still a subject for debate among paleoecologists. The most common view is that the coastal strips remained arid throughout the Paleoindian period, supporting savannahs and dune scrub except where springs and rivers brought life to the dry conditions.

Paleoecological reconstructions focusing on macrobotanical and paleontological samples give us a picture painted with a finer brush. They suggest that the environmental mosaic was more diverse than the pollen studies can indicate. Mesic vegetation punctuated the forests and savannahs. Seepage and runoff from springs and rivers provided water for moisture-loving trees and shrubs, which were limited elsewhere by lack of groundwater. These hammocks supported a suite of animal and plant life that exceeded what would have been available in the dry forests alone. By 10,000 B.P., the forests became denser, while oaks and pines filled in previously unforested areas. Oak savannahs replaced much of the scrub vegetation of the lower peninsula.

Material Culture

Of all of the materials used by the Paleoindians for clothing, shelter, tools, weapons, ornaments, containers, etc., only stone has stood the test of time. Artifacts made of organic materials such as skin, shell, bone, wood, and plant fiber have long since perished in the acid Florida soil, with the exception of those that have been preserved in submerged deposits. As a result, our knowledge of the Paleoindian artifact assemblage is largely limited to lithic tools and the by-products of their manufacture and use. The Paleoindians had a marked preference for high quality chert (silica-replaced limestone) and fine workmanship.

Paleoindian research has, until recently, focused on the definition and description of projectile points. As more sites are found with intact stratification, however, investigators will be able to give more attention to the lithic complex as a whole. By studying chipped stone remains, archaeologists learn how chert was quarried from limestone outcrops, how the raw material was modified to produce tools, and to what uses these artifacts were put. Of equal interest is how each of these activities and processes may have varied from site to site and regionally in Florida, and how they changed through time.

Large, lanceolate projectile points have been recognized by archaeologists as the hallmark of the Paleoindian period. Some of these points may have been used as hafted knives. The Suwannee point is the most commonly reported lanceolate in Florida, but several other types and varieties have been defined to incorporate the stylistic and temporal variations in form. Common traits include lateral rather than basal thinning, basal grinding, and straight to slightly waisted lower sides. Based on technological and stratigraphic investigations, some temporal trends in projectile point shape have been documented. Point length and thickness appear to decrease in time, while waisting increases.

Analyses of Paleoindian artifact assemblages show that most tools were generalized in nature. They appear to be multi-functional and do not represent the specialized forms one might

expect if only certain kinds of animals were hunted and processed to the exclusion of others (Daniel and Wisenbaker 1987).

A number of unifacial lithic tools have come to be considered formal Paleoindian artifact types because they display regular morphological features, reflect substantial effort in manufacture, and can be recognized in assemblages from other Paleoindian sites in Florida and the rest of the Eastern United States. Typically, these tools are plano-convex, exhibit steeply flaked working edges, and appear to have been used primarily for scraping.

Paleoindian unifacial scrapers vary widely in shape and size, presumably reflecting the wide variety of tasks for which they were employed. By analyzing length measurements and length:width/length:height ratios, a rough typology has been developed. The Paleoindian artifact assemblage from the Harney Flats site (8HI507), probably the most complete assemblage known from Florida, has been described in detail by Daniel and Wisenbaker (1987). Among the categories of unifacial tools they discuss are endscrapers (including thumbnail scrapers) and discoidal scrapers (Daniel and Wisenbaker 1987:65-74).

Also found in the Paleoindian tool complex is an array of tools that do not exhibit diagnostic traits. The majority show only slight modification and use wear. These artifacts are often interpreted as informal and expedient tools. Blade knives, flake knives, graters, and bifacial knives are recovered. Small retouched flakes, flake debitage, cores, and hammerstones are also frequently found at intact Paleoindian sites.

Few of the artifacts found at Paleoindian sites are made of material other than chert. Sandstone hones or abraders are probably part of the tool kit. Egg-shaped objects made of ground stone may have been used as bola weights in the hunting of water birds and other game (Milanich and Fairbanks 1980:39).

Bone and ivory foreshafts and bone pins recovered from springs, lakes, and rivers constitute the majority of artifacts made of organic materials. The two-piece foreshafts were used in hafting projectile points to wooden shafts. Double-pointed bone implements are commonly found in rivers near kill sites.

Hypotheses concerning their use range from leisters or harpoon tips to awls to fish hooks. These interpretations suggest that fishing may have been of greater economic importance than current subsistence models allow. Rarer than the bone points and foreshafts are other bone tools, socketed antler projectile points, worked shell, and worked fossil shark's teeth.

Plant materials must have played an important role in Paleoindian technology because they do in every other sub-Arctic culture. Underwater excavations at Little Salt Spring (8SO18) resulted in the recovery of several wooden artifacts, including a stake used to impale a now-extinct species of giant land tortoise, a carved oak log mortar (for grinding seeds or nuts), and a nonreturning boomerang made of oak (Clausen et al. 1979). Recent excavations at the submerged Page-Ladson site (8JE591) on the Aucilla River have resulted in the recovery of preserved plant remains that are a valuable source of paleoecological information (Dunbar et al. 1988). Continued searching for Paleoindian wet sites may someday lead to the discovery of a complete archaeological assemblage representing the breadth of techniques and materials employed.

Subsistence

The Paleoindians have conventionally been characterized as hunting and gathering nomads, moving seasonally as the availability of game and wild plant foods changed, settling only for brief periods when resources such as nuts or fruits were temporarily plentiful. Although most reconstructions of Paleoindian subsistence have emphasized the role of large now-extinct Pleistocene animals like mastodons, many researchers now suggest that the Paleoindian diet was more generalized and included smaller game, fish, shellfish, and plant foods. We now know from studies by Daniel and Wisenbaker (1987) and others that Paleoindians were not as nomadic as previously believed.

Our perceptions about the Paleoindian lifestyle in Florida have been colored by the emphasis on the Paleoindian Big Game Hunting Tradition described for the Western United States. We now think that their diet included much more than elephants

and bison on a day-to-day basis, although faunal and botanical remains are rarely recovered in direct association with Paleoindian artifacts in residential sites (spring and sinkhole sites constitute an important exception). Models of Paleoindian lifeways in Florida should consider physiography, climate, vegetation, and animal populations in assessing the potentials for food and raw material resources. In addition, these assessments should be undertaken on regional and local scales. In Florida, late Pleistocene savannahs supported grazing herds somewhat analogous to those found on the Plains, but many other animals (large and small) lived in the hammocks surrounding the rivers, lakes, and sinkholes that were important locations for Paleoindian activities (Webb and Martin 1974).

Evidence of extensive interaction with other groups can be seen in the uniformities observed in artifact types across the continent. Projectile points of this period show only minor regional variations in form. Occasional pieces of exotic materials are found at Paleoindian sites in Florida, suggesting interregional travel and trade. However, most utilitarian artifacts found in areas where chert is accessible were made of materials found nearby, suggesting that the lifestyle of these early Floridians may not have been quite as nomadic as we have supposed (see Goodyear et al. 1983).

Major factors in questions of sedentism in Paleoindian settlements are the reliability and richness of the resource base. Although human population density is thought to have been very low, putting minimal strain on prey populations, the seasonal vagaries of terrestrial resource availability would have been a major factor affecting sedentism. Aquatic ecosystems, on the other hand, have been shown to provide a relatively stable, nutrient-rich food base when compared with terrestrial habitats. The role of aquatic resources is rarely included in discussions of the Paleoindian lifeway despite the fact that sites of this age are most frequently found in or near water. Freshwater fish, turtles, alligators, and shellfish may have been as important to the Paleoindians as they were for their successors, but a lack of preserved faunal remains prevents an evaluation of this thesis.

The hypothesis that Paleoindians developed or brought with them a tradition of maritime adaptation is also difficult to document (or refute) at this time. Both the Atlantic and the Gulf coasts of Florida would have provided fish and, perhaps, shellfish, and it is unlikely that such potentially important resources were ignored. As our means of underwater site detection and testing improve, we may well find 10,000 year old shell middens 120 km offshore.

Settlement patterns

The predictive site location model developed by Dunbar and Waller (1983) focuses on the close correlation between known Paleoindian sites and the distribution of chert-bearing limestone outcrops. While the availability of chert for tool production was certainly a factor in site location, the site clusters identified are also correlated with surface water availability. With a dry climate and sea level 60-100 m below its present stand, inland water tables were also low, (recognizing that there may not be a direct correlation between coastal sea level elevations and interior local groundwater levels) resulting in a scarcity of available water. Most of the sites within the mapped distribution are located in or near sources of permanent fresh surface water, which must have been a valuable resource for people and game animals alike.

Chert is most accessible in many of the same locations where sites have been found but also where ancient sites have the best chance of being discovered. These include: 1) where erosion has removed an overlying mantle of clastic materials, such as along inland waterways, 2) where the rate of sediment accumulation is low, such as on the tops and slopes of hills, 3) where karst features puncture the sedimentary overburden, such as sinkholes, and 4) on the central Gulf coast, where erosion due to sea level rise has bared limestone bedrock. Paleoindian sites have a higher probability of being found in these situations than in other areas where thick deposits of sands have accumulated.

As demonstrated at Harney Flats, testing in areas where Paleoindian artifacts have been found can locate sites even if

they are buried under thick sand deposits. To date such testing has been limited in Florida.

Modern alterations of the Florida landscape to increase the amount of dry land available for buildings, farms, and roads have resulted in increased access to early prehistoric sites. Many sites would not be discovered using accepted survey techniques due to their location in former swamps. This points out the high probability that most Paleoindian sites will be missed by conventional surveys since most sampling strategies target only land that is well to moderately drained. If most early prehistoric sites are deeply buried, surveys are unlikely to identify Paleoindian sites because shovel tests are generally too few, too small, and too shallow to intersect them. Unless exposed by bulldozing, road cuts, or natural erosion, most buried Paleoindian sites will be found because they happen to underlie younger, more accessible sites. Clearly, we must revise our testing strategies.

The lanceolate projectile points characteristic of this time period are uncommon along the coasts of Florida with the exception of the north central Gulf coast where Tertiary karstic terrain brings both chert and water to the surface (Dunbar and Waller 1983). Quite probably, many terrestrial Paleoindian sites remain undiscovered along the coasts because they occur below the current water table and have been covered by soils in these lowlying areas.

Some archaeologists are giving increasing attention to the high probability of locating drowned Paleoindian and Archaic sites on continental shelves worldwide. Geologic studies of drowned riverine, lagoon, and marsh deposits indicate that estuarine resources may have been continuously available from Paleoindian through Archaic times. Recent efforts devoted to the discovery of coastal sites have met with some success using a site location model focussing on drowned rivers and submerged limestone outcrops. Word-of-mouth networking with fishermen and sport divers has resulted in the identification of submerged shell midden sites (not Paleoindian) in the Tampa Bay area and in the drowned channel of the Aucilla River (Ruppé 1980; Dunbar

1989). Diagnostic projectile points dredged from Tampa Bay and the Atlantic coast provide evidence that submerged Paleoindian sites exist, although the search for maritime sites must look farther offshore (Goodyear et al. 1983). Remote sensing techniques employed in the Gulf of Mexico have identified Pleistocene sinkholes on the outer continental shelf, attesting to the potential for locating deeply submerged Paleoindian sites in the future in this manner (Garrison 1989). Archaeologists may eventually identify potential site locations with side scanning sonar, sub-bottom profiling, and a host of other sophisticated techniques, then sample them using submersibles.

Base camps and villages

These sites are generally found near both fresh water and chert outcrops. They are most often multicomponent sites (e.g., the Harney Flats site) because later peoples continued to return to the area for the same reasons Paleoindians inhabited them. Residential sites are important sources of information on site size (population size) and site structure (social organization) when components can be isolated stratigraphically. There is also an increased likelihood of finding formal tools and non-utilitarian artifacts for information on trade, inter-group contact, and group mobility or sedentism. Technological analyses are enhanced when all categories of artifacts are present in the assemblage. The artifacts recovered from large camps and villages generally include tools in various stages of manufacture, and debitage from primary nodules (with cortex) and secondary modification (shaping and sharpening). Important base camp sites include the Harney Flats site (8HI507) in central Florida and the Butler site (8SU2/8GI1) at the mouth of the Santa Fe river in north Florida.

Quarries

Quarries are locations where raw material (chert) was mined and processed for tool manufacture, and they occur in the vicinity of outcrops at or near the ground surface. In addition to large chunks and nodules of chert, cores, flakes, and other evidence of first stage manufacturing are generally recovered. When outcrops

occur near a water source, a residence site is often found nearby. Quarry sites are common in north central Florida (especially Marion and Alachua counties) (Purdy 1975, 1981), in the central Gulf coast area (especially Hillsborough County), in north Florida along the Santa Fe, Suwannee, and Aucilla Rivers, and in northwest Florida along the Chipola River.

Short term camps

These sites are small and often are described as lithic scatters. They are generally interpreted to have been occupied while hunting and gathering. Many may be kill sites where the bones of the prey have long since disappeared. Artifact samples consist of expedient tools and debitage from resharpening or shaping. As is always the case, a site cannot be identified as Paleoindian without the recovery of at least one diagnostic projectile point. Although these sites are more likely than base camps to consist of a single archaeological component, they commonly underlie Archaic lithic scatters (e.g., the Scott Springs [8MR1875], Silver Springs [8MR59], and Bolen Bluff [8AL439] sites).

Kill sites

Paleoindian artifacts have been found in association with animal bones in a number of locations in rivers, sinkholes, and spring runs (e.g., the Guest Mammoth [8MR130] and Little Salt Spring [8SO18] sites). Animals were killed and/or butchered at these sites. The artifact inventory is similar to the short term camp including projectile points, utilized flakes for cutting and scraping, and waste flakes from use or resharpening. Most of the river finds are thought to have come from kill sites; however, because they are found in deflated, mixed contexts the association of the bones and artifacts is often in question.

Isolated projectile points

Most of the diagnostic Paleoindian artifacts are recovered without associated materials. While they provide little in the way of information, they are useful indicators of human geography and technological diversity. Isolated projectile points are often found in the rivers and sinkholes of north central Florida, and on the

surfaces of river banks and hilltops. Projectile points are also occasionally dredged from marine channels or found on sand bars at low tide by fishermen in the Gulf of Mexico (Goodyear et al. 1983).

Important Sites

The Thomas Creek Archaeological District (8SR338) containing Paleoindian sites is located in Santa Rosa County and is also listed on the National Register. Other important sites include the Page-Ladson site (8JE591) in northwest Florida; the Butler site (8SU2/8GI1), the Silver Springs site (8MR59) (Neill 1958; Hemmings 1975), Bolen Bluff site (8AL439) (Bullen 1958a), and Guest Mammoth site (8MR130) in north central Florida; the Harney Flats site (8HI507) in central Florida; and the Cutler Fossil site (8DA2001) in Dade County (Carr 1986).

Research Questions

In general, testing programs geared toward locating Paleoindian sites, which may be deeply buried, are needed. One strategy might be to retest known Archaic sites to determine if Paleoindian sites are underneath.

Chronology

Trends in artifact patterning (distribution and morphology) are largely undocumented within the period. Diachronic studies of artifacts from stratified sites will be required to address these questions.

Stratigraphically secure archaeological contexts containing diagnostic artifacts and datable materials are needed in order to reinforce or modify our beginning and ending dates for the Paleoindian period.

Technology

Although our knowledge of the Paleoindian artifact assemblage is essentially limited to items made of stone, organic materials were certainly used for tools and tool-making, clothing, shelter, ornaments, ritual objects, and containers. Skins, wood, and plant fibers were probably important raw materials. Marine shell may

have been an important resource on the coast. It is necessary to discover and excavate wet sites with preserved organic materials in order to assess these hypotheses.

Now that the typology for Paleoindian projectile points and other associated lithic tools is well-developed, artifact analysis should focus on the assemblage rather than the item. Discovering and interpreting varieties and variation in technique and form should be a goal if we are to address questions of human interaction and patterns of behavior. Emphasis should be placed on increasing our perception of variation in artifact patterning through morphometric analysis. We are not yet so knowledgeable about Paleoindian assemblages that we can afford to lose this kind of information.

Settlement patterns

Most known sites have been found near water and chert outcrops, areas of karst erosion.

- Does this pattern accurately reflect Paleoindian settlement behavior?
- What is the range of Paleoindian site types and how do they reflect behavior (e.g., do kill sites and base camps both really exist)?
- How much do factors introduced by archaeologists (e.g., ease of survey and site detection and expectations of site location) affect our perception of Paleoindian settlement patterns?
- We know that most sites are found on high ground near water, but how many are not?
- How nomadic or sedentary were the Paleoindians? Did mobility vary from region to region? What were the rhythms of movement?
- What were the ranges of movement and site catchment size? Did the settlement pattern involve moving in and out of a wide diversity of habitats?
- When living in riverine, lacustrine, and/or coastal (now submerged) areas, were groups more sedentary and socially circumscribed than in other areas?

Subsistence

The hunting of large game has been considered an important aspect of Paleoindian subsistence. In recent years, other models emphasizing smaller game, and plant and maritime resources have been suggested.

- What proportion of the diet was provided by plants and by aquatic foods?
- Was there a Paleoindian maritime tradition?
- How important was the meat from large (now extinct) animals in the everyday diet? What proportion of the diet was provided by small game animals?
- Was there regional variation in subsistence strategies, and if so, how did this affect cultural development?

Social organization

Although we have no information on social, political, or religious systems, it is generally believed that Paleoindian social structure was egalitarian (social distinctions were based on age, sex, and personal abilities). This assumption is based on surveys of ethnographic hunting/gathering societies in which the majority are simple, band level groups. Factors generally associated with the development of more complex societies—high population density, competition for resources, social and environmental circumscription—were lacking. Therefore, most investigators believe that the Paleoindians operated at a band level of organization since they had a low population density and relatively unlimited access to resources.

- How might Paleoindians have marked social status, if distinctions were made?

Among contemporary hunters and gatherers, women often eat less meat than men. Even though they often contribute the largest proportion of calories to the group diet through the collection of plant foods and some easily collected animals, women do not share equally in consumption of meat. If meat from large game (megafauna) was not an everyday fare, it may have acquired a higher value than other, more common, foods. In this respect, big game hunting may have played a role in the

social organization of the group beyond the scope of subsistence by reinforcing unequal access to a preferred item (big game meat). Anthropologists have documented in scores of societies the ascription of value to rare or hard-to-obtain goods.

As with most archaeological research, these and other research questions should be addressed through interdisciplinary methodologies such as employing fossil pollen studies or dating buried land surfaces through geological interpretation, or by analysis of human skeletal remains.

Preservation Goals

High on the list of preservation goals should be the location, evaluation, and conservation of intact, stratified residential or special purpose Paleoindian sites, especially in areas where information about this time period is poorly represented or absent. Traditionally, maximum survey effort is expended in geographic areas where site potential is thought to be greatest—i.e., where sites have been found in the past. By changing this pattern we can avoid the trap of reinforcing entrenched notions of Paleoindian lifeways at the expense of gathering new information and developing new ideas.

We have little data from the coasts and continental shelf or from the interiors of south and northeast Florida, and a special effort should be made to locate sites in these areas. Surveys employing appropriate sampling strategies should target areas where sites are predicted to occur based on paleoenvironmental reconstructions. Rather than write off potentially productive areas because of high water tables or thick sediments, new techniques and tools should be developed.

Because of their potential to yield the preserved organic remains necessary for paleoenvironmental reconstruction and artifact analysis, Paleoindian wet sites constitute an archaeologically significant site type in Florida at this time. Although none have been discovered yet, inundated intact Paleoindian sites in marine contexts are waiting for us, curating evidence of late Pleistocene coastal lifeways, and, perhaps, maritime adaptations. Deeply buried, stratified terrestrial sites

contain information about both site structure and artifact patterning that is one of the least understood aspects of Paleoindian archaeology. The discovery and evaluation of these kinds of sites should be a priority for everyone interested in improving our knowledge and understanding of the first Floridians. The excavation of various types of sites, e.g., base camps, short term camps, special use sites, quarries, and kill sites, in all environmental settings, is essential. Significant sites representing various types should be nominated to the National Register.

Chapter 3

THE ARCHAIC

Michael Russo

The Archaic tradition (10,000-3000 B.P.) is divided into three parts: Early (10,000-7,000 B.P.), Middle (7000-5000 B.P.), and Late (5000-2500 B.P.) (Milanich and Fairbanks 1980:54, 60). These divisions are based largely on stylistic changes in stemmed projectile points and the presence of fiber-tempered pottery in the Late period. Data on corresponding changes in social organization, economy, and ritual behavior are severely limited. Throughout the Archaic period, lifestyles were generally characterized by a dependence on fishing, hunting, and gathering; increasing sedentism from early to late periods; and, an egalitarian form of social organization.

The Setting

Approximately 1500 Archaic sites are recorded throughout Florida (Figure 4). In some counties (Jefferson, Pasco, and Hillsborough) over 100 sites are known. This variability is undoubtedly dependent in part on the extent of survey coverage in any given area. In general, most Archaic sites are found in the interior highlands, along the Atlantic coast, in the St. Johns River Valley, along the southwest coast, in the Everglades, along the Gulf coast near Tampa, and along the coast of the panhandle, although isolated Archaic points are found throughout the state. Because sea levels continued to rise during the Archaic, many more Archaic sites are undoubtedly located on the continental shelf off the coast of Florida.

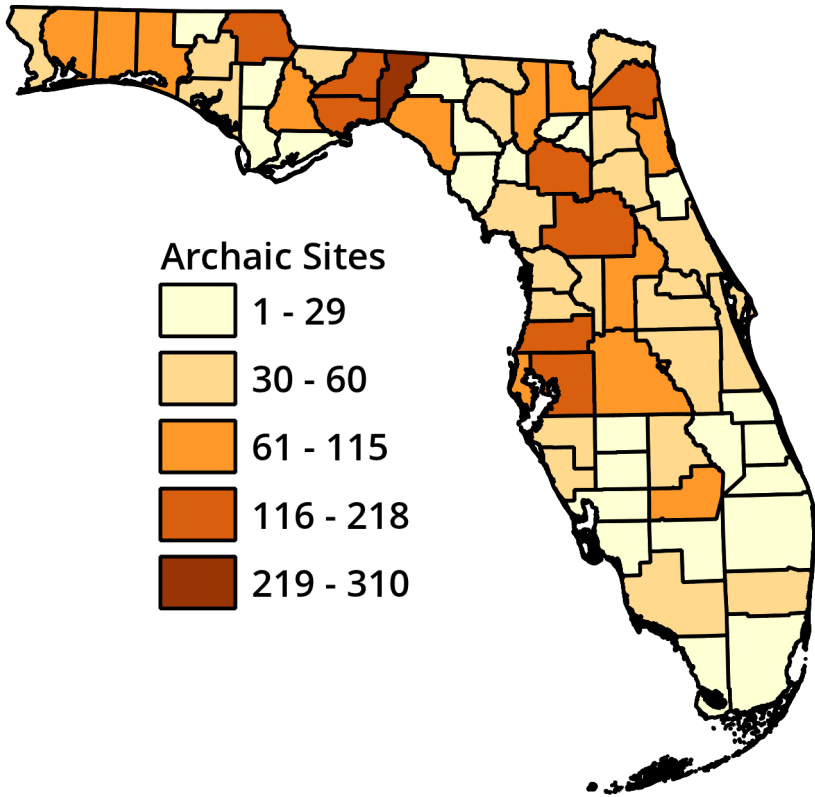


Figure 4. Distribution of Archaic Sites (by county)

Material Culture

There are a number of artifacts, mostly lithic, which characterize the Archaic period, but except for projectile points, there are relatively few that are distinctive to the period. Bullen (1975) has developed a comprehensive listing of Archaic projectile points, but attribute analyses, stratigraphic excavations, and chronometric dates have yet to confirm their chronological relationships. Early Archaic points include side-notched and stemmed, basally chipped types such as Bolen, Dalton, Arredondo, Hamilton, and Kirk Serrated. Middle Archaic points are characterized by their stemmed "Christmas tree" shape and include Levy, Marion, Newnan, and Putnam types. Late Archaic

points are generally smaller, stemmed, and corner notched, and include Culbreath, Clay, and Lafayette types.

Use-wear analysis suggests that Archaic points were used as tips for projectiles and as hafted knives. They were undoubtedly used to inflict damage on persons (Jahn and Bullen 1978), but their direct association in subsistence production has yet to be demonstrated. The chronological placement of lithic points also remains untested, and they are frequently found out of expected chronological order (e.g., Bullen and Dolan 1959; Jahn and Bullen 1978; Russo 1982). Supposed Archaic points found in ceramic period contexts are frequently explained as heirlooms or curios, or ignored as being out of context. The large number of points found out of context suggests that controlled stratigraphic excavations are needed to refine the temporal use of "Archaic" points across Florida (cf. Ste. Claire 1987).

Other tools of the Archaic include stone scrapers, knives, perforators, drills, choppers, flake knives and scrapers, gouges, and hammerstones (Milanich and Fairbanks 1980; Purdy 1981a). Large cores, blanks, and a variety of lithic debitage are also characteristic of Archaic sites, especially the upland sites.

A large microlith tool complex is known from the Nalcrest site (8PO15), located on Lake Weohyakapka in Polk County (Bullen and Beilman 1973). The tiny artifacts (1-4cm in length) recovered from underwater around the edge of the lake include stemmed points, drills, end scrapers, hafted scrapers, spurred graters, cores, etc. Artifacts like these have been found elsewhere in association with Early Archaic Bolen points, although similar specimens have been recovered from younger Archaic contexts as well (Milanich and Fairbanks 1980:48). Thermal alteration, or heat-treatment, of chert and silicified coral also seems to be a technological trait of the Archaic, especially of the Middle Archaic (Ste. Claire 1987). The use of this technology, which increases the ability of chert to flake easily, enabled Archaic people to exploit a wider range of chert resources, and hence, a wider range of environments.

Bone tools include socketed antler points, antler atlatl hooks, bipointed and simple points, barbed points, fish hooks, and a

variety of bone pins. Shell adzes are common, and, as wet sites are excavated, worked wood, wood stakes, and canoes are being recovered along with baskets, cloth and clothing, and woven bags. Shell, bone and lithic beads, perforated shark teeth, wooden knife handles, shell and stone pendants and plummet, bone needles, and sandstone abraders have all been recovered in Archaic contexts. None of these items can be attributed solely to Archaic cultures, however, and a formal chronology has yet to be developed for them.

Pottery first appeared in the Late Archaic around ca. 4000 B.P. in the form of fiber-tempered Orange wares (Bullen and Stoltman 1972; Bullen 1954, 1972). The primary center of Late Archaic Orange ceramics is along the St. Johns River, but Orange pottery can be found throughout the state. In the panhandle and along the Gulf, fiber-tempered pottery has been called Norwood (Phelps 1965) and differs from typical Orange pottery of east Florida in its greater sand content. Some Norwood pottery is also simple-stamped, while some Orange pottery is incised. There have been suggestions, based on the distinctions in ceramic wares, that the Norwood cultures were somehow distinct from the Orange cultures. Recently, however, as a result of technological analysis, George Shannon (1986) has called into question the distinction between fiber-tempered pottery types. He suggests that the minor differences between Norwood and Orange wares are due to differences in geographical sources of clays rather than cultural differences. This does not, however, explain differences in surface decorations.

Settlement Patterns

Many Archaic site types are known, including lithic scatters, presumed villages, quarries, caves, cemeteries, and middens. These categories, however, are tentative. A final definition of Archaic site types must come from additional research.

Lithic scatters occur throughout the state along the coast and rivers as well as in sandy uplands. They are characterized by wide variation in size and density. Some sites extend for many acres, while others are relatively small in areal extent. Lithic tools and

debitage diversity also are variable. Small lithic scatters may have been special purpose sites or hunting camps. A few lithic scatters, such as Lake Kanapaha (8AL172) (Hemmings and Kohler 1974), Deerstand (8HI483A) (Daniel 1982), 8HI483B (Gagel 1981), Tampa Palms (8HI557) (Austin and Ste. Claire 1982), Diamond Dairy (8HI476) (Chance 1983), and Ranch House (8HI452) (Estabrook and Newman 1984) have been well studied.

In the uplands, villages or base camps are larger and contain larger amounts of lithic refuse and a more diverse tool assemblage than do the smaller, limited activity sites. There appear to be two types of Archaic village. Although base camps have been tentatively identified (Bullen and Dolan 1959; Clausen 1964; Milanich and Fairbanks 1980:57-58), adequate tests have not yet been applied to determine if they differ significantly from sites identified as special purpose sites. The apparent diversity of tool types may be related more to mixed cultural contexts and extended use of the site than to greater diversity in site function at any one time (Russo 1982).

Middle and Late Archaic villages also appear to lie along the St. Johns River and the Gulf and Atlantic coasts. A few of these middens and midden areas have revealed post molds that may represent structures (e.g., McMichael 1982), but no definitive description of how an Archaic village would be manifest archaeologically has been offered (Goggin 1952b; Milanich and Fairbanks 1980; Rouse 1951; Sigler-Eisenberg et al. 1985). Increased depth and areal extent of midden materials, longer-term (e.g., year-round) occupation observable through the faunal and botanical record, and an increased artifact inventory have all been suggested as signatures of permanent and semi-permanent base camps. No village site has yet been adequately excavated using these criteria, although current excavations on Horr's Island, Collier County, are yielding evidence of all of these markers (Russo 1990). Quarry sites (Chance 1981, 1982b; Purdy 1975, 1981a, 1981b) are mainly located in the interior uplands although some are found along the central peninsula Gulf coast from Tampa Bay north [e. g., Weatherington Island (8HI473); see Chance 1981, 1892b]. Quarries can easily be distinguished from

lithic scatters by the occurrence of natural outcroppings of chert materials and a different assemblage of debitage.

Bullen and Benson (1964) identified two Archaic "caves" in the uplands near Ocala. One is actually a sink or cenote. The other is a limestone cave which is littered with Archaic period lithic and faunal remains. It is probable that Archaic peoples used the cave for shelter, but cave shelters are probably not a predictable feature of Archaic settlement.

At least five types of Archaic cemeteries/burial patterns have been identified: wet cemeteries, cemeteries, midden burials, mound burials, and burials in solution pockets. At the early and middle period sites of Republic Groves (8HR4), Little Salt Spring (8SO18), Hazeltine (8SO79), Windover (8BR246), and probably Bay West (8CR200), primary, flexed burials were placed in peat-producing ponds or sloughs, pinned down with wooden stakes, and interred with burial goods ranging from finely constructed fabric to antler atlatl hooks (Beriault et al. 1981; Clausen et al. 1979; Doran and Dickel 1988; Wharton et al. 1981). At Warm Mineral Springs questions have been raised regarding whether the human remains on the submerged ledges represent intentional interments or drowning victims. These sites are situated adjacent to larger wetland environments, such as rivers and marshes, and are found from central to south Florida.

The Gauthier site (8BR193), a Middle to Late Archaic site, differs from the others in not being placed directly in a peat-producing pond. Wetland environments are nearby, however, and the cemetery may have been placed in a slough between a pond and Lake Poinsett. The Gauthier burials were primary and flexed. Adults and children, males and females, were interred in the same burial pit. The distribution of the few grave goods suggests limited variation in status.

The Tick Island cemetery (8VO24), a Middle Archaic site north of Gauthier along the St. Johns River, was placed directly in a shell midden, although it is similar to other Archaic cemeteries in that it was located within a wet environment. Interpretations of the cemetery (Jahn and Bullen 1978) suggest that a large shell midden was dug into. A number of primary, flexed group burials

were placed into pits over an extended period of time (suggesting the use of a charnel house); and a sand mound was then placed over the burials and sealed with a layer of muck. It is hard, however, to reconcile known Archaic burial patterns with those at Tick Island. Although this is not to say that Archaic peoples did not bury their dead in middens along the St. Johns River, either singly or in groups. A number of other sites hint that midden burials may have been a common burial pattern (Moore 1892; Rouse 1951:239). The question of Archaic midden burials along the St. Johns River has yet to be adequately explored.

Recent excavations on Horr's Island have revealed human burials in intentionally built, Late Archaic shell mounds (Russo 1990). The Tick Island cemetery may have been originally a similar shell burial mound overlying burials.

A final type of Late Archaic cemetery is found in south Florida where Late Archaic burials are found in solution depressions and middens, with rocks covering the interments. Apparently the burials were primary, extended and flexed, but may have also included secondary burials (Carr et al. 1984). The late temporal placement of these sites and perhaps the geographical placement within the Everglades suggests a different pattern than that associated with earlier, more northerly Archaic pond burials.

Interior upland Archaic middens containing bone and/or shell are virtually non-existent. This seems contradictory since one model of Archaic subsistence suggests high intensity upland hunting and collecting (Milanich and Fairbanks 1980:146). However, the absence of such middens in the uplands is usually explained by the high acidity of the soil, the subsequent poor preservation of organic remains, and the lack of extensive shellfish populations.

Freshwater Archaic middens are common along the St. Johns River basin and its tributaries and to a lesser extent elsewhere in Florida along major bodies of water. There are two types of midden along the St. Johns: shell middens and bone middens. Shell middens, consisting principally of freshwater shellfish and animal bones, vary in size and are found in the middle and lower reaches of the river and (to a lesser extent) the upper reaches.

Bone middens seem to be restricted to the upper St. Johns River marsh areas, are relatively small, and consist of dense thicknesses of animal bone with only an occasional presence of shellfish. In the shell middens, mussel dominates in the upper St. Johns sites while apple and mystery snail are more common in the middle reaches (Russo 1986; Sigler-Eisenberg et al. 1985).

Coastal Archaic middens consisting principally of marine shellfish have been tested from the panhandle to southwest Florida. These are located along estuaries, beaches, and the mouths of rivers. Along the east coast, Late Archaic middens are known from the Florida/Georgia border to the Indian River as far south as Jupiter Island (Russo 1988a, 1988b; Miller 1992). Preceramic Archaic middens have also been identified along the northeast coast (Bond 1988a, 1988b). These middens consist of shellfish common to both beach and brackish estuarine environments as well as small components of freshwater shellfish. They are also characterized by the significant presence of small and large marine fish and, to a lesser extent, terrestrial vertebrates. They range from shell heaps to linear ridges and include occasional shell rings.

Subsistence

All Archaic peoples were undoubtedly hunters. The evidence from both coastal and riverine middens is convincing that terrestrial animals were frequently hunted and consumed, and their by-products fashioned into tools. These animals include deer, raccoon, and waterfowl, among many other species. In the interior uplands, the evidence for hunting is less direct and comes in the form of projectile points and other lithic tools assumed to be produced for hunting and preparing animals.

Fishing was a common activity during the Archaic along the coasts and rivers. The kinds of fishing, however, may have differed through time and across geographical regions. At Horr's Island (8CR37-42) on the southwest coast of Florida, Alan McMichael (1982) suggested (based on size) that bottom-dwelling estuarine fish such as catfish and sheepshead were commonly caught on lines. Smaller fish were apparently netted (Russo

1990). At the Useppa Island site (8LL51) a wide variety of species of fish were being captured (Milanich et al. 1984). At the Meig's Pasture site (8OK102) along the panhandle Gulf coast, the size and kinds of fish in the midden indicate that netting was a common method of capture (Curren et al. 1987). At the Cotten site (8VO83) on the Atlantic near Daytona, both large and small sharks were being captured along with other fish, suggesting a variety of capture techniques (Hale 1984).

Along the upper St. Johns River, within the marshlands and along shallow lakes, small fish, many as small as minnows, were the dominant species in Late Archaic middens, suggesting mass-capture techniques (Russo 1986). Farther downstream, large fish may have been more common than the small fish that characterize the upper portions of the river. In short, the Archaic peoples were capable of capturing both small and large fish through the use of a variety of capture techniques which probably included nets, hooks, gigs, and traps.

Shellfish also played an important part in the subsistence of Archaic peoples. At the Cotten site, coquina was the dominant shellfish species (Hale 1984). A variety of species including oyster, quahog, and crossbarred venus were also used in the Late Archaic and earlier (Russo 1988b). Along the middle St. Johns River, mystery and apple snail were commonly used along with a variety of freshwater mussel. Along the Gulf coast marine shellfish, such as quahogs, whelks, and conchs, were common food items, as were oysters and other locally abundant shellfish such as *Rangia* (in northwest Florida) and scallops. Coquina were apparently not used along the Gulf coast to the degree that they were along the Atlantic coast. Also along the Atlantic, freshwater shellfish have been found in coastal middens in small amounts, suggesting a different aquatic regime than exists now.

Shellfish has been suggested as one of the resources that allowed the beginnings of semi-permanent and permanent village life. The reliability, attainability, and predictability of the food source perhaps allowed people to collect significant sources of animal protein, which in turn allowed increased sedentism. Shellfish represented a natural "stored" source of protein next to

which people could settle for long periods of time. This food source could have allowed predictable movements of large numbers of people for extended periods of time, when seasonally abundant shellfish, such as coquina and scallops, became numerous.

These hypotheses regarding Archaic sedentism have yet to be adequately tested. One test suggests that, contrary to predictions, in the upper St. Johns River, the intensive use of shellfish seems to come after the Late Archaic, not during or before (Sigler-Eisenberg et al. 1985). Elsewhere, criteria for determining permanent versus semi-permanent settlement through the increased use or seasonal use of shellfish have yet to be developed or adequately explored. Shellfish seasonality studies, however, have been employed at several Archaic sites, including Horr's Island (Russo 1990).

Collecting has often been viewed as an activity dominated by women, children, and the aged in foraging and hunting societies. In reality, all age and sex classes are involved, although the reliance on the contribution by women is probably greater. Therefore the identification of collected resources is potentially important in understanding social structure and economic contribution by various classes of Archaic peoples. Typical resources collected include shellfish, small and slow game, and certain classes of fish and other aquatic organisms. Also included are plants which yield seeds, nuts, fruits, roots, or greens.

Collected game such as snake and tortoise have been recovered in virtually all Archaic middens investigated in Florida, although their relative contributions to the overall economy of Archaic peoples have not been well studied. Collected plants are less well-known due to poorer preservation. In dry and inundated sites, hackberry, sabal palmetto, hickory, acorns, squash, and bottle gourd are some of the most noteworthy plant species recovered. The latter two may represent semi-domesticated or "tame" varieties and have been obtained from Early through Late Archaic sites (Newsom 1988). Non-food botanical specimens include a variety of woods such as pine and oak that were used for fuel and for tool manufacture. A variety of fibers has also

been recovered that were collected for use in the manufacture of clothing and baskets (Andrews et al. 1988). In short, collecting activity was a major part of the economy of the Archaic peoples and its contribution warrants further investigation.

Important Sites

Eleven sites that have Archaic components are listed on the National Register of Historic Places. These are the Windover site (8BR246) and Jupiter Inlet Archaeological District (8PB34) on the Atlantic coast; the Bowers Bluff Middens Archaeological District (8LA88), the Kimball Island Midden (8LA89), and Mount Royal (8PU35) sites along the St. Johns River; the Upper Tampa Bay Archaeological District (8HI2271) and the Osprey (8SO2), Little Salt Spring (8SO18), and Warm Mineral Springs (8SO19) sites on the Gulf coast; and Thomas Creek Archaeological District (8SR338) and Waddells Mill Pond (8JA65) in northwest Florida.

In addition to these, other important sites include the Gauthier (8BR193) and Tick Island sites in the St. Johns Valley, the Cotten site (8VO83) on the Atlantic coast; the Cutler Fossil site (8DA2001) in South Florida; the Horr's Island (8CR37-42), Useppa Island (8LL51), and Bay West (8CR2000) sites in southwest Florida; the Republic Groves site (8HR4) in Hardee County; the the Page/Ladson site (8JE591) and Meig's Pasture site (8OK102) in northwest Florida; Newnan's Lake in north central Florida; and the Diamond Dairy and Myakkahatchee (8SO397) sites in the central Gulf coast region.

Research Questions

Chronology and technology

We need stratigraphically and chronologically (via chronometric dating) controlled excavations to establish formal typologies and chronologies for Archaic tools. In particular, lithic points or bifaces (many of which may be knives) and other tools, fiber-tempered ceramic designs and technological attributes, and (with the advent of wet site archaeology) perishable artifacts, such as wooden and reed implements, need to be placed in time and space in order to overcome temporal inadequacies in the current

typologies. We need also to examine Archaic lithic assemblages and assemblage variability through time and among different types of sites.

- Do point/biface types overlap through time and from one place to another? Are there temporal or geographical differences in non-point/biface lithic artifacts?
- Are cultural distinctions reflected in the differences between Orange and Norwood ceramics assemblages?
- Are cultural distinctions reflected in the differences between lithic assemblages?
- Are temporal or cultural distinctions reflected in bone, wood, reed, and other organic artifacts?

Settlement patterns

We need to understand better the settlement structure and seasonal movements of Archaic peoples. More emphasis should be placed on identifying chert types and sources of lithic artifacts. Similarly, more data should be gathered on the use of shell and bone artifact types and sources. Such data can inform us about the movements of Archaic peoples and interactions among regions of the state.

- Are there really base camps in the uplands? Can seasonality of site occupations be determined?

To answer these questions we need to undertake more than just lithic studies in the uplands. Innovative techniques, such as phosphate and pH testing, need to be employed to help determine intensity of site use. Thermoluminescence and radiocarbon dating will help us determine when and how long lithic scatter, quarry, and base camps were used when diagnostic artifacts are not present. Seasonal analyses of midden and burial sites away from the upland lithic centers should be undertaken in order to determine where Archaic peoples gathered throughout the year.

- What archaeological evidence constitutes a village along the coasts or rivers and what sets it apart from a seasonal camp?
- Were Archaic peoples in Florida chiefly upland dwellers or coastal and river dwellers? What is the distribution of variation of Archaic sites?

We need to study a variety of different types of lithic scatters in order to better understand settlement systems. We also need to determine how lithic scatter sites are formed so that we can unravel their depositional histories. Sites may represent a series of short-term occupations rather than a single long-term occupation. Both cultural and non-cultural formation processes should be considered.

Economy

The notion that over thousands of years, Archaic people slowly and gradually evolved from the semi-nomadic lifestyle of Paleoindian hunter-gatherers into village dwellers and ultimately incipient horticulturists, needs to be reexamined in light of recent finds along the east coast of Early Archaic peoples whose economic strategy was apparently geared to marine resources, the growing of squash and gourds, and the production of intricate fabrics requiring involved loom-work.

Lithic point/biface typology implies that influence from the Southeast largely directed the development of point types in Florida. It has been suggested that Poverty Point and other cultures directed stylistic influences on the Late Archaic in Florida. Conversely, some of the earliest sedentary villages, ceramics, and gourd and squash dates in the Southeast have been found in Florida, and the direction and influence of cultural development must remain open to question.

- Were Archaic peoples mainly hunters or largely fisherfolk or both?
- What types of plants were used for food, fiber, wood, and so forth?
- Was the evolution from Paleoindian to Late Archaic village dweller gradual, or did the transition to a semi-permanent village life occur relatively early in the Archaic, and then slowly evolve?
- Was the Late Archaic a time of incipient agricultural development?
- Were there trade and exchange connections with the different regions of Florida and with the rest of the Southeast?

Social organization

We need to understand better burial and ritual patterns of Archaic people. Burial goods, population distributions, and physical anthropology should tell us whether there existed ascribed or achieved status distinctions, differences among age and sex classes, or differences in physical conditions among groups of Archaic peoples. Distinctions in tool and ceramic designs, ritual behavior as exhibited in burial patterns, and economies as exist in midden materials indicate whether distinctions between larger social groups of Archaic people existed across Florida.

Five types of burial patterns are known. Do these represent temporal or regional variations? Excavation and chronometric dating of more burial sites should be done.

Drowned terrestrial and wet sites

We need to look under the water. It is now known that that is where some Archaic cultures buried their people. Due to rising water levels, Early through Late Archaic middens also should lie underwater, in whole or part, along the St. Johns River, the Atlantic coast, and the Gulf beaches and estuaries. We can no longer limit ourselves to testing terrestrial components of survey tracts. Minimally, probes should be used in testing shallow water areas of known high potential for Archaic sites. Augers or postholes in shallow lakes and ponds can reveal the presence of Archaic sites, even though provenience data may not be recoverable in controlled contexts. With the use of sandbags and pumps, however, contexts can be well controlled, and important data, such as wooden tools and plant foods, can be recovered from small-scale excavations. Terrestrial development has the potential for altering drainage patterns, introducing adverse mechanical action on sites, and adding pollution to the water environment, all of which may adversely affect the condition and preservation of drowned sites. Experiments are needed to quantify and qualify such changes and factors affecting them.

Preservation Goals

Locate unrecorded Archaic sites, especially in areas endangered by development, altered drainage patterns, or pollution.

- Evaluate previously recorded but unevaluated and inadequately evaluated Archaic sites to determine their National Register eligibility.
- Acquire and/or protect endangered sites. Immediate action for threatened sites that meet National Registry criteria is needed.
- Excavate and preserve sites of various types, e.g., lithic scatters, base camps, quarries, cemeteries, freshwater shell middens, and coastal shell middens.
- Nominate sites representing various types to the National Register.

Chapter 4

NORTHWEST FLORIDA, 2500 B.P. – A.D. 1000

George Avery

The cultures of northwest Florida during the Woodland period are known as Deptford (2500 B.P.-A.D. 100), Santa Rosa (A.D. 100-300), Swift Creek (A.D. 100-300), and Weeden Island (A.D. 300-900). As elsewhere in the Southeast, these post-Archaic cultures are characterized by the appearance of elaborate ceremonial complexes, mound burial, permanent settlements, population growth, increasing reliance on cultigens, and increasing sociopolitical complexity.

The Setting

Northwest Florida consists of the sixteen counties west of the Aucilla River and includes two distinct physiographic regions: the coastal lowland zone and the interior uplands. The coast is dominated by open beaches with dune ridges backed by lagoons. The low numbers of older reported archaeological sites on the coast, in contrast to the many more recent sites, may be in part related to the rise in sea level that probably inundated many sites. It is estimated that sea level on the Gulf coast of northern Peninsular Florida has risen two meters over the last 2000 years.

The upland areas in northwest Florida are drained by a number of rivers, the largest of which are the Apalachicola and the Escambia. Most reported Woodland period sites in northwest Florida are associated with riverine and coastal environments, while inland non-riverine areas were thought to be virtually barren of Woodland period occupation (an exception is the Torreya Ravines region). Recent cultural resource management

(CRM) surveys in the Apalachicola National Forest have demonstrated that resources associated with the inland pine forests supplemented the subsistence needs of populations in the river valleys to varying degrees through time (Forney 1985; White 1981).

Archaeological Research in Northwest Florida

The first published account of archaeological remains in northwest Florida is found in William Bartram's (1928) description of his travels along the northwest Florida coast in the 1770s. Other early accounts include descriptions of shell mounds at Inerarity's Point near Pensacola (Sternberg 1876) and sites on East Bay and Choctawhatchee Bay (Walker 1880a, 1880b, 1883, 1885). The work of Clarence Moore (1901, 1902, 1903a, 1918) and W.H. Holmes (1903) formed the basis for Gordon Willey's (1949a) classic *Archeology of the Florida Gulf Coast*. Forty years of archaeological investigations by universities and museums in Florida, Alabama, North Carolina, and Ohio, as well as by the Florida Division of Historical Resources and CRM firms, have made northwest Florida one of the most studied areas in the state. Unfortunately, the Woodland period has not been as intensively investigated as the Mississippian and historic periods. Over the last ten years or so, the requirements of CRM-related work have helped to focus attention on some of the lesser known Woodland cultures.

Political boundaries between Florida, Georgia, and Alabama have challenged archaeologists trying to develop a coherent chronological sequence for cultural manifestations located in northwest Florida and its borderlands. Archaeologists are often obligated by their funding sources to be constrained by political boundaries which have little or no relevance to the prehistoric context. Recently, the efforts of Nancy M. White have drawn attention to this (White 1985, 1988). Along with a call for increased integration of the prehistoric cultural history frameworks from the three states, White points out that the "cultures" of Deptford, Santa Rosa, Swift Creek, and Weeden Island are, in effect, pottery assemblages (1985:163, 165). She

recommends focusing more on non-pottery tool assemblages, as well as on subsistence strategies, settlement patterns, and social interaction to define the various cultural manifestations of the Woodland period in northwest Florida.

Deptford (2500 B.P.-A.D. 100)

The Early Woodland period in northwest Florida is defined by the Deptford culture (2500 B.C.-A.D. 100)(Figure 5). Deptford in

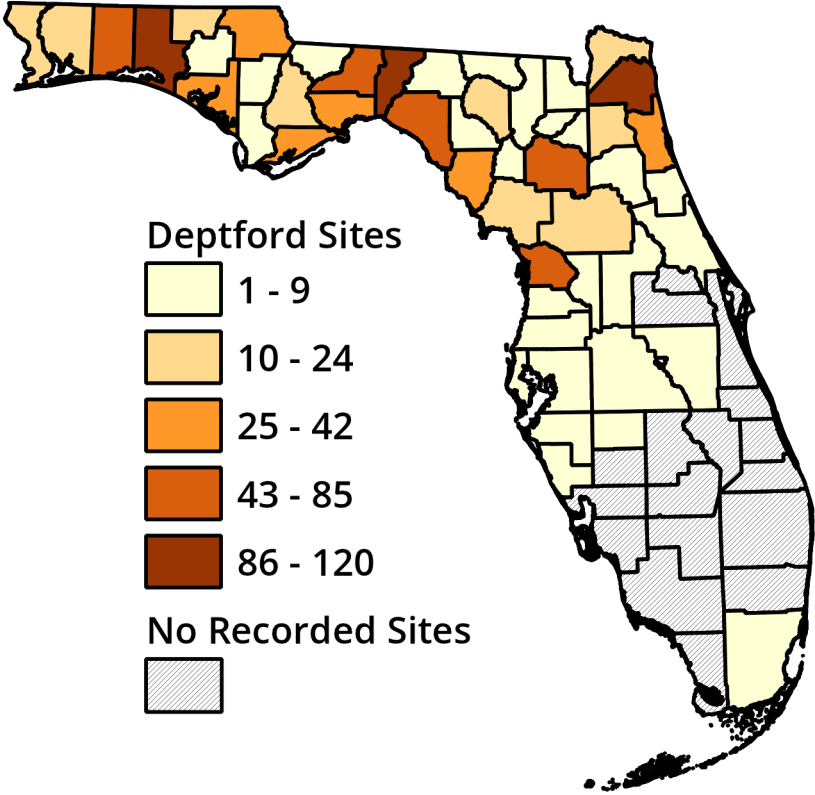


Figure 5. Distribution of Deptford Sites (by county)

Florida follows the general pattern for Early Woodland people elsewhere in eastern North America (i.e., increasing sedentism, population growth, mound burial, and primary reliance on wild foods with increasing importance of domesticates). Over 500 Deptford sites are recorded in northwest Florida.

The origins of Deptford are not clear. Most archaeologists argue for in situ development (Tesar 1980:680). There are differing views regarding the chronological divisions for Deptford. Tesar (1980) recognizes three phases (Early, Middle, and Late) based on Sears's (1963) excavations at the Tucker site (8FR4) in Franklin County, while Jenkins (1978) and Walthall (1980) define only Early and Late phases. In this latter framework, Early Deptford is characterized by fabric impressed pottery, which is replaced by simple stamped and cordmarked wares during Late Deptford. While some recent work supports the two-phase division, there is not enough evidence to reject the three-phase division (Thomas and Campbell 1985a:25).

Material culture

Artifacts diagnostic of Deptford occupation are largely pottery types: Deptford Bold Check Stamped, Deptford Check Stamped, Deptford Simple Stamped, and Deptford Linear Check Stamped. Other types whose Deptford affiliation has been debated include Deptford Complicated Stamped, Deptford Cross Stamped and net, dowel, and fabric impressed types. Little is known about the non-pottery Deptford tool assemblage. Milanich and Fairbanks (1980:76) suggest that throwing stones, spears, traps, and nets were used to take game; there is no good evidence for the presence of the bow and arrow. Shell and bone tools are found occasionally at Deptford sites, but so infrequently as to lead Milanich and Fairbanks (1980:77) to argue that perishable wooden tools were preferred. However, recent finds of shell and bone tools at the Pirate's Bay site (8OK83) may change that perception (Thomas and Campbell 1985b:118). The presence of cordage and basketry is inferred from impressions on clay pots (Milanich and Fairbanks 1980:75). Recently, microlithic stone tool industries have been tentatively identified in Deptford components at the Van Horn site (8FR744) in the Apalachicola Valley and the Pirate's Bay site in Okaloosa County.

Late in the Deptford period (or early in the Santa Rosa and Swift Creek periods) exotic items associated with the Yent complex are found at the Yent Mound (8FR5) on Apalachee Bay

and Pierce Mound A (8FR14) west of Apalachicola. These items include copper panpipes and cymbal-shaped ornaments, stone plummets, carnivore (bear, wolf, puma) teeth, and rectangular stone gorgets (Sears 1962a:6-8).

Settlement patterns

Only three types of Deptford sites are known in northwest Florida: shell middens, inland middens, and burial mounds.

The most common sites are coastal or estuarine shell middens, such as the Hawkshaw site (8ES1287) in Pensacola and the Pirate's Bay site on Choctawhatchee Bay.

Recent discoveries suggest that non-shell midden Deptford sites may exist in considerable numbers in the interior in a variety of different locations. Interior sites are found around lakes and along rivers in the Tallahassee Hills (Tesar 1980:77) and in the pine flatwoods of the Apalachicola National Forest (Forney 1985:101) to the south. They are also found on past and present river channels of the Upper Apalachicola River (White 1981) and near ponds, rivers, creeks, swamps, and lakes in the Lower Apalachicola River Valley (Henefield and White 1986). Sites occur around springheads on tributaries of streams flowing into Choctawhatchee Bay (Thomas and Campbell 1985a:73) and on tributary streams in the Escambia River Valley (Bense 1985:163). In contrast to the relatively substantial shell middens, interior sites are somewhat ephemeral, often consisting of artifact scatters or shallow middens.

What this distribution of sites represents in terms of settlement patterns is not entirely clear. Milanich has suggested a primary occupation along the coast with sporadic seasonal use of inland sites (1973:56). Recent researchers (White 1986:203; Tesar 1980:78), however, argue for a more intensive interior occupation.

The third Deptford site type is represented by burial mounds. These occur late in the Deptford period, and only a few are known. The Yent Mound and Pierce Mound A are located on the coast (Sears 1962:6); the Oakland Mound (8JE53) is found in inland Jefferson County (Tesar 1980:75). The Yent and Pierce mounds

contain large numbers of burials and artifacts associated with the Yent Complex (Sears 1962a:5-8). Both of these mounds may date from the post-Deptford Santa Rosa and Swift Creek periods. The Oakland Mound, however, although approximately the same size as the other two, is clearly of the Deptford period. It yielded only four bundle burials and no Yent complex artifacts (Morrell 1960).

Subsistence

Our knowledge of Deptford subsistence comes almost exclusively from coastal sites. Excavations at the Hawkshaw, Moccasin Mound (8SR85), and Tucker sites indicate that Deptford peoples exploited such estuarine resources as oyster, *Rangia*, marsh clam, and several species of bony fish (Bense 1985:161; Claassen 1985:128; Milanich 1973:57). Land animals, including deer, small mammals, and reptiles were also used (Bense 1985:161; Milanich 1973:57). At the Hawkshaw site, we have evidence of nut collecting in the form of hickory nuts and acorns (Bense 1985:162). We have no indication of the cultivation of domesticated plants from any Deptford sites in northwest Florida. Our understanding of Deptford subsistence is severely hampered by a lack of data from a range of sites and by the limited number of zooarchaeological and, especially, paleoethnobotanical studies.

Santa Rosa and Swift Creek (A.D. 100-300)

Santa Rosa and Swift Creek represent Middle Woodland period cultural manifestations in northwest Florida and are characterized by innovative pottery technology, mound burial, and a ceremonial complex which appears to have been influenced by cultures to the north. Santa Rosa and Swift Creek are defined both as pottery series and as cultural manifestations. It is thought that Santa Rosa pottery designs are the result of influence from the Lower Mississippi Valley (Marksville) and Mobile Bay, while Swift Creek appears to have originated in Georgia. Santa Rosa and Swift Creek pottery series co-exist west of the Apalachicola Valley (as far as Mobile Bay) where they are referred to as Santa Rosa/Swift Creek; only Swift Creek materials are found east of

the Apalachicola Valley, except in mortuary contexts where Santa Rosa ceramics occur as exotic grave goods (Figure 6).

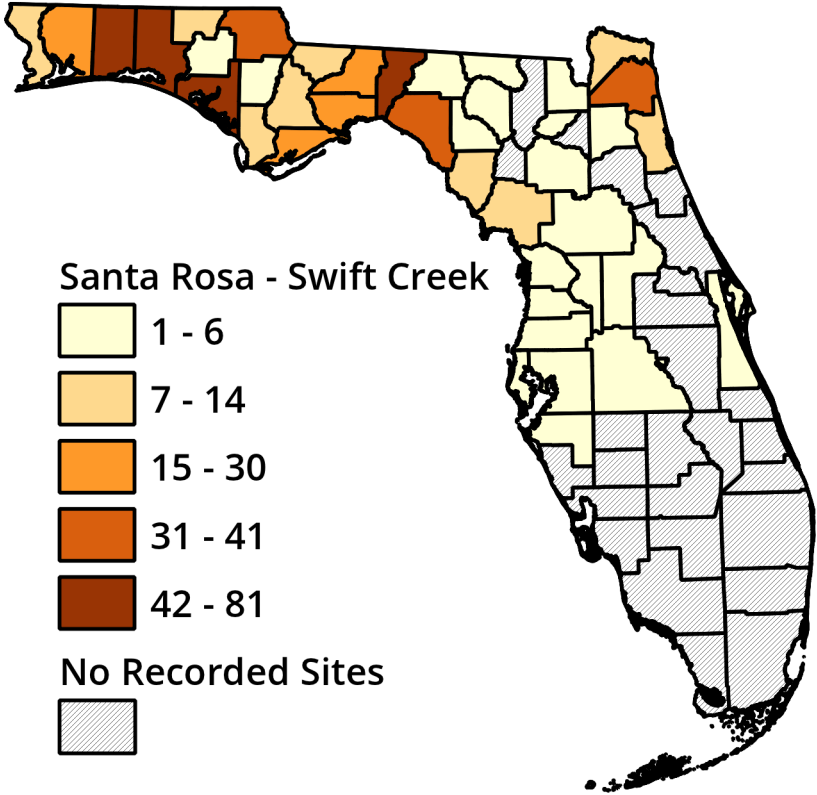


Figure 6. Distribution of Santa Rosa-Swift Creek (by county)

Our knowledge of Santa Rosa and Swift Creek in northwest Florida is extremely limited. Compared to earlier and later periods, fewer sites are known (400 Santa Rosa/Swift Creek compared to over 500 Deptford and almost 1000 Weeden Island sites). Moreover, few excavations have been conducted at Santa Rosa or Swift Creek sites, and many of these are small-scale or took place more than twenty years ago. Compounding the problem, most investigations have been carried out at coastal sites, thus skewing our understanding of the complete picture and leaving us uninformed about the inland manifestation.

Material culture

The Santa Rosa pottery series includes the following types: Alligator Bayou Incised, Basin Bayou Incised, Santa Rosa Stamped, Santa Rosa Punctated, and fine paste, thin-walled plain ware. Swift Creek pottery types include: Swift Creek Complicated Stamped, St. Andrews Complicated Stamped, New River Complicated Stamped, West Florida Cordmarked, and Crooked River Complicated Stamped. Basal sherds with tetrapods and scalloped and/or crenallated-edged rims are also diagnostic of Swift Creek pottery. It was generally thought that the Santa Rosa series predominated in the area west of the Apalachicola, but recent work has located Santa Rosa/Swift Creek components where Santa Rosa types comprise less than 50% of the pottery assemblage.

The Yent Complex artifacts mentioned above in the discussion of Deptford may actually belong to the Santa Rosa and Swift Creek cultures.

Swift Creek lithic assemblages are characterized by imported chert and occasional exotic items, such as fossils and micaceous schist (White 1986:209). Projectile point types include Savannah River and Bakers Creek; both are stemmed. Local raw materials are used as well, but the nonlocal lithic materials are attributed to participation in the Hopewell interaction sphere.

Settlement patterns

Most of our information about Santa Rosa or Swift Creek sites comes from coastal shell middens. These come in various forms and sizes. The larger ones are circular (e.g., Bird Hammock [8WA30]), horseshoe-shaped (e.g., Snow Beach [8WA52]), or rectangular (e.g., 8BY73), with cleared interior areas; smaller ones are often linear (Milanich and Fairbanks 1980:118). Coastal sites may be located directly on the beach (as at Third Gulf Breeze [8SR8]), in estuaries (as at 8BY73 and Depot Creek [8GU56]), or slightly inland in coastal hammocks (as at Bird Hammock).

We know of fewer inland sites, but as Tesar (1980:596) has pointed out, this may be a function of survey coverage. In the Apalachicola River Valley, where we have our most complete

information about inland sites, most sites are located near the river (e.g., 8JA205, 8JA227), but some are on high bluffs (e.g., Beaver Dam Creek [8LI208]) or on the edge of swamps (e.g., the Roy Whitfield site [8GU52]) (White 1986:204; Henefield and White 1986:123). In the Tallahassee Hills, Swift Creek sites are commonly located near lakes and swamps (e.g., 8LE471, 8LE484) (Tesar 1980:595).

Burial mounds often occur in conjunction with the larger coastal shell middens (e.g., the Porter's Bar site [8FR1]). Some are characterized by an east side deposit of pottery (Sears 1962a:11, 17; see the Deptford discussion above). Our knowledge of inland mounds is negligible.

Subsistence

What we know of Santa Rosa and Swift Creek subsistence comes from a limited number of coastal sites—Third Gulf Breeze, Snow Beach, Refuge Tower (8WA14) and 8BY73. Their inhabitants seem to have exploited primarily estuarine resources, including oyster, scallops, and various kinds of fish (Phelps 1969:15; Bense and Watson 1979:109). Deer and smaller mammals, reptiles, and birds are also represented at these sites. The faunal assemblages from the Third Gulf Breeze, Refuge Tower, and Snow Beach sites suggest to Phelps (1969:15) a summer exploitation of coastal resources.

Our information about plant foods used by Santa Rosa and Swift Creek peoples is sketchy. Bense and Watson (1979:109) report a few hickory nuts and acorns from 8BY73. Other evidence for the use of wild plant foods is lacking. We have one report of a squash seed (from the Refuge Tower site) (Phelps 1969) but no other evidence of cultigens.

Weeden Island (A.D. 300-1000)

Weeden Island components and sites are more widely represented than any other Woodland period cultural manifestation in northwest Florida; almost 1000 Weeden Island sites are recorded here (Figure 7). The Weeden Island period includes the flourish

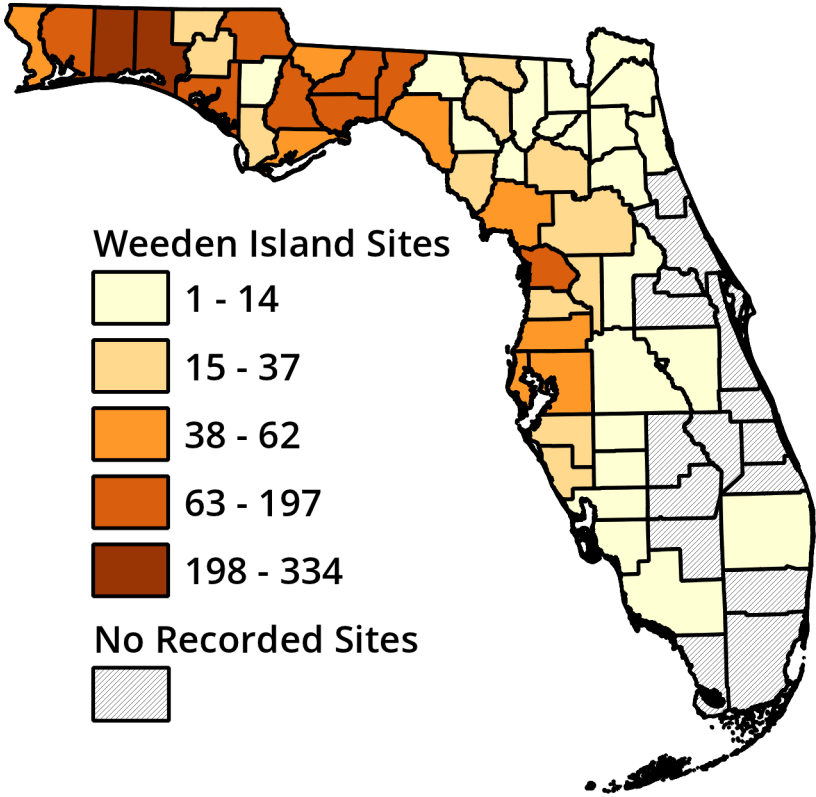


Figure 7. Distribution of Weeden Island Sites (by county)

and decline of Middle Woodland tradition ceremonial complexes and the subsequent population growth and increased sociopolitical complexity associated with the in situ development of ranked societies of the Mississippian period. Willey (1949a) initially recognized Weeden Island I and Weeden Island II as representing the Middle Woodland and Late Woodland traditions in Gulf coast Florida. Willey's Weeden Island I includes late Swift Creek. More recent work has delineated five (Percy and Brose 1974) or three (Thomas and Campbell 1985a) divisions for Weeden Island on the basis of varying percentages of Weeden Island pottery types. The Early/Late Weeden Island distinction (White

1986) is similar to Willey's I and II, except Early Weeden Island does not include Swift Creek.

It is generally thought that Weeden Island represents an in situ development. Early Weeden Island is characterized by mound burial and elaborate burial goods, usually imported, which in turn are lacking for the more dispersed settlement patterns of Late Weeden Island occupations. The events during the late period which resulted in the development of the Mississippian chiefdoms of northwest Florida are thought by some to have been precipitated by an invasion of Mississippian groups from the north. Others acknowledge the possibility of some migration from the north, but argue that it was internal change influenced by Mississippian groups which resulted in the Mississippianization of Late Weeden Island groups.

Material culture

Weeden Island pottery types include the following: Carrabelle Incised, Carrabelle Punctated, Keith Incised, Weeden Island Incised, Weeden Island Punctated, Wakulla Check Stamped, complicated stamped, and corncob marked. Early Weeden Island is characterized by primarily incised and punctated varieties, including painted and cutout effigy vessels, while Late Weeden Island is represented by predominantly stamped varieties, with none of the finely-crafted effigy vessels of the early period. It has been suggested that the effigy vessels and other fine wares of the early period were made by pottery specialists, but recent investigations of Weeden Island pottery at the McKeithen site (8CO17) in north Florida have found little supporting evidence for this idea (Cordell 1984). As for the stone tool assemblage, a small triangular projectile point with a flat or sometimes concave base appears to be diagnostic of Late Weeden Island. Other types of stone tools include scrapers, choppers, knives, and hammerstones (Milanich 1974:22). In addition, a microlithic tool assemblage has been identified at the Weeden Island Palm Court site (8BY43) in Bay County (Tesar 1965; Morse and Tesar 1974).

Settlement patterns

Weeden Island site types are similar to those of the preceding period: coastal shell middens, inland middens, and burial mounds.

Coastal shell middens are located directly on the coast (such as the Tucker site) or near estuaries and coastal swamps (such as the Mound Field site [8WA8]); they may be accompanied by one or more burial mounds.

Inland middens sometimes have accumulations of freshwater shell (White 1986:208). These sites are located in many different settings including on riverbanks, around lakes, along creeks, and on ridgetops near springs (White 1986:209; Tesar 1980:603; Percy and Brose 1974:18; Percy and Jones 1976:113).

The inland Weeden Island sites may represent small, seasonal villages (Milanich 1974) or year-round settlements which moved every few years (Percy and Brose 1974:20). The Torreya site (8LI8), for example, consists of several houses situated in a crescent around a springhead (Percy and Brose 1974:18). The Sycamore site (8GD13) seems to represent a single household. At Sycamore, Milanich (1974:28) uncovered an oval house about 6 m x 9 m; a nearby structure may have been a summer house.

Mound sites, of which there are many (Willey [1949a:397-401] lists over fifty), are found mainly along the coast and the Apalachicola River, usually in conjunction with habitation sites. One of the most important of these is located inland on the Apalachicola River. The Aspalaga site (8GD1) includes an associated crescent-shaped village, midden, and three or four mounds grouped in a triangle or square (Milanich 1974:1). The Aspalaga site may represent a regional center similar to, though earlier than, the Weeden Island McKeithen site in north Florida (Milanich et al. 1984:191-192).

Subsistence

It has been suggested that Early Weeden Island settlement was more intensive on the coast, while there was a shift to primarily inland settlement during Late Weeden Island times as a result of agricultural activities (particularly maize cultivation) (White 1986:206). Inland soils are better suited for maize horticulture.

Others suggest that the apparently less intensive occupation of inland areas during Early Weeden Island is due to the lack of systematic inland surveys; recent work has located significant numbers of inland as well as coastal Early Weeden Island sites (New World Research 1984). It is currently thought that Late Weeden Island subsistence was not based on maize horticulture, but rather on a broad range of aquatic and terrestrial fauna and flora; maize appears to have been a secondary resource. Freshwater molluscs seem to have been increasingly popular during the Late Weeden Island period; the harvesting intensity of coastal shellfish continues at levels roughly similar to earlier times. The Sycamore site in the upper Apalachicola Valley has yielded evidence of deer, numerous other mammals, shellfish, fish, nuts, acorns, fruits, and maize (Milanich 1974:33). That site, and the Scholz Steam Plant site (8JA1040) (Percy 1976), both contained corncob impressed pottery.

Important Sites

Four Deptford sites are listed on the National Register of Historic Places in northwest Florida: the Fort Walton Mound (8OK6), the Waddells Mill Pond site (8JA65), the Yent Mound (8FR5), and the Pierce site (8FR14). All of these sites also contain later archaeological components. One archaeological district containing Deptford sites, the Thomas Creek Archaeological District (8SR338), is also listed. In addition to these sites, other important Deptford sites include the Trestle Bridge, Hawkshaw, Pirate's Bay, Tucker, Carrabelle (8FR2), and Oakland Mound sites.

Santa Rosa or Swift Creek components are found at all the Deptford sites listed on the National Register. Other Santa Rosa/Swift Creek sites listed include the Porter's Bar, Hartsfield (8LE120A), Yon Mound and Village (8LI2), and Bird Hammock sites. Some other important sites are the Green Point (8FR11), 8BY73, Refuge Tower, Snow Beach, and Third Gulf Breeze sites.

All five Weeden Island sites and one archaeological district listed on the National Register have earlier (and some later) components. The sites are the Porter's Bar, Pierce, Yon Mound and Village, Fort Walton Mound, and Bird Hammock sites. In

addition, the Thomas Creek Archaeological District also includes Weeden Island sites. Other important Weeden Island sites are the Aspalaga, Torreya, Sycamore, Refuge Tower, and Tucker sites.

Research Questions

Gaps in the database

Considering the large number of Woodland sites in northwest Florida, the number of excavated sites is exceedingly small. In the last twenty years, the panhandle has received considerable survey coverage (although this is still biased somewhat towards the coastal and riverine environments), but almost no large scale excavations have been undertaken. This limits our ability to make in-depth interpretations of Woodland societies.

Chronology

One basic Woodland research question deals with whether or not there is a "pure" Deptford or a "pure" Swift Creek. As noted earlier, many Woodland sites have components from several time periods; there are few single component sites. Radiocarbon dates from clearly identifiable components would help to clarify the chronology.

Economy

A major problem regarding Woodland subsistence results from the excavation bias towards coastal sites. This is only slightly remedied during Weeden Island times by a few excavations at inland riverine sites (Milanich 1974; Percy and Brose 1974). Seasonality studies would prove useful in answering the question of whether seasonal shifts between coastal and inland sites occurred.

- How does coastal resource exploitation change through time? How does inland resource exploitation change through time?
- Do coastal and inland sites represent seasonal shifts by one population or several populations adapted to different environments?
- When do domesticates first appear in northwest Florida and which are earliest?

- Are inland Weeden Island horticultural sites characterized by seasonally shifting settlements or by longer term villages characterized by swidden horticulture?
- The nature and quantity of exotic items varies considerably throughout the Woodland period. At present, we have only the sketchiest view of what this means in terms of regional or interregional exchange.
- How do the Yent, Green Point, and Weeden Island complexes differ in their material culture? What are their chronological relationships? What are the sources of the exotic goods associated with each?
- Is there evidence of craft specialization?

Settlement patterns

Other than site distribution (which is often skewed by survey bias), we have little information on settlement patterns. We have no data on structures, for example, until Weeden Island. Our only information on community pattern comes from coastal Weeden Island sites. Percy and Brose (1974:14) suggest these may be clustered into "communities" composed of several small (three to four nuclear families) sites and a burial mound.

- What do Woodland houses look like?
- What kinds of public or community structures exist?
- What are the sizes of Deptford and Santa Rosa/Swift Creek communities?
- How do settlement patterns change through time?
- Within a time period, how do settlement patterns vary regionally?
- Are there different settlement patterns for coastal populations and for inland populations?

Social and political organization

For lack of information, we have been able to say little about the complexities of Woodland social and political organization. However, the increased survey coverage of recent years and the presence of several burial populations is enough to allow us to attempt to draw some conclusions in this regard.

Are there regional artifact or ritual stylistic boundaries in Northwest Florida over time? Do they reflect social groups? Do they change through time? These questions can be addressed through material culture studies and detailed analyses of site distributions.

- What evidence is there for either egalitarian social organization or the beginnings of ranked social organization?
- How does political organization change through time? For example, do community sizes change through time? Are there shifts in alliances (represented by shifts in material culture)?
- How do political and social organization vary regionally?

Ritual behavior

Different ritual complexes have been postulated for Deptford, Santa Rosa/Swift Creek, and Weeden Island. The Yent, Green Point, and Weeden Island ceremonial complexes vary in their distribution, artifact assemblage, and burial behavior.

- Is any, part, or all of the Yent complex, with its exotic items, the result of influence from outside the area?
- What do the variations in ritual complexes mean?
- How does the Green Point complex relate to the later, somewhat similar, Weeden Island complex?
- There are significant changes in mortuary ceremonialism during the Weeden Island period. Late mounds are less elaborate and seem to lack central features and the deposits of mortuary ceramics. Do these changes reflect differences in social organization?

Health and nutrition

Almost no bioarchaeological studies have been conducted to date on northwest Florida Woodland populations. This is unfortunate, for such studies could fill in many gaps in our knowledge.

- Does health and nutritional status vary through time? In particular, does health status change at the time domesticates are introduced?

- Does health and nutritional status vary between regions (e.g., coastal vs. inland populations)?
- Are there dietary differences between populations through time or across regions?

Preservation Goals

Locate unrecorded Woodland sites, especially in the upland areas away from major river valleys and in coastal or riverine areas endangered by development or erosion.

- Systematic survey to relocate and evaluate the sites previously excavated by C.B. Moore. The data from these sites are an important database for future work.
- Public acquisition and/or protection of important Woodland sites, such as the Aspalaga site.
- Excavation of sites of various types, from various time periods.
- Nomination to the National Register of sites representing varying types.
- Institution of cultural resource management plans by metropolitan areas, government reservations, and state forests.

Chapter 5

NORTH FLORIDA, 2500 B.P. – A.D. 1700

Jerald T. Milanich

During the post-Archaic period the northern portion of peninsular Florida can be divided into two regions, north and north-central Florida. In each region ceramic assemblages have been used to define culture sequences. Following the Deptford culture (2500 B.P.-200), poorly represented in both regions, the two sequences of ceramic assemblages are different enough to allow recognition of separate, but related regional cultures. In north Florida these post-Deptford cultures are McKeithen Weeden Island (A.D. 200-700); a post-McKeithen Weeden Island assemblage tentatively called Indian Pond which appears to last into the late prehistoric or early historic period (A.D. 700 to ca. 1585); and a mission period assemblage associated with the Leon-Jefferson ceramic complex (ca. A.D. 1585 to ca. 1700). No Mississippian culture, such as Fort Walton, is present in north Florida.

At the time of European contact in the sixteenth century, Timucuan-speaking peoples organized into chiefdoms lived in north and north-central Florida. But unlike contemporary chiefdoms in northwest Florida and much of the Southeast United States, the late prehistoric societies in northern Florida were not associated with Mississippian archaeological cultures. The evolutionary trajectories of the two northern Florida regions were not the same as that present among Mississippian peoples, although the northern Florida societies did share some Mississippian traits with their southeastern U.S. neighbors. The anthropological significance of north and north-central Florida

derives in part from this uniqueness. By studying exceptions to the rule (i.e., the evolution of non-Mississippian archaeological cultures in northern Florida versus the development of Mississippian societies elsewhere), we have the potential to better understand and explain the appearance, nature, and evolution of the Mississippian culture pattern.

The Setting

North Florida lies east of the Aucilla River (and northwest Florida), north of the Santa Fe River, and west of the St. Johns River drainage. The latter eastern boundary is placed along an arbitrary north-south line drawn from Macclenny down to Lake Santa Fe, about halfway between Lake City and the St. Johns River (Milanich and Fairbanks 1980:22, 32-33; Milanich et al. 1984:26-27). Lower, wetter topography is found both on the eastern side of north Florida (e.g., in the Osceola National Forest and portions of Baker, Union, and Bradford counties) as well as on the southwestern side of the region (San Pedro Bay in Lafayette and Taylor counties).

The central area of the eastern portion of this region (east of the Suwannee River) is part of the Middle Florida Hammock Belt, a zone characterized by hardwood forests mixed with pines. These higher, hammock lands were located in a north-south band between Lake City and Live Oak. Soils tend to be loamy and reasonably good for agriculture. Similar forests are found in the western portion of the region (west of the Suwannee River) across northern Madison County.

A number of modest streams drain these highland forests, flowing eventually into the Suwannee or Aucilla rivers and their tributaries. Numerous lakes, ponds, and other wetlands dot the landscape, and probably were more extensive in the past than they are today.

Within the hammock areas the resultant pattern is a mosaic of forests and wetland habitats cross-cut by rivers and streams. Such a mosaic of resources presented aboriginal peoples with many potential village locations. The lower, wetter forested areas were less suitable, but still offered resources and attracted

aboriginal settlement, especially within the pockets of mesic forest adjacent to water sources. An overview of the north Florida environment can be found in Milanich et al. (1984:29-35).

Deptford (2500 B.P.-A.D. 200)

Almost nothing is known about Deptford sites in north Florida. The only site with a Deptford component that has been studied is the McKeithen site (8CO17) (Milanich et al. 1984:62). Most likely, Deptford in north Florida is very similar to Deptford in north-central Florida, but that remains to be proven.

McKeithen Weeden Island, An Early Weeden Island Period Culture (A.D. 200-700)

McKeithen Weeden Island was first described as a result of the Florida Museum of Natural History's research in north Florida in the late 1970s (Milanich et al. 1984). Prior to that time almost no archaeological work had been done in north Florida, excepting small surveys and tests at riverine sites.

Material culture

The ceramic assemblage of the McKeithen Weeden Island culture is early Weeden Island, as originally defined in the 1940s (Willey and Woodbury 1942; Willey 1949a:407-448) and subsequently used and refined by a host of archaeologists. Ann S. Cordell (1984) has published the results of a detailed analysis of Weeden Island ceramic technology, comparing different ceramic types as well as samples from different social contexts (i.e., village middens versus ceremonial mounds).

In north Florida, Weeden Island pottery is found both in village sites and in mounds, as it is also in northwest Florida (see Milanich et al. 1984:195-196). The Weeden Island ceramic series in both regions are, at least at this time, indistinguishable from one another; other cultural similarities also exist (e.g., horseshoe-shaped villages). The biggest difference is that in northwest Florida, Weeden Island develops out of the Swift Creek culture (which is not present in north Florida), while in north Florida Weeden Island apparently is derived from Deptford. Both

McKeithen Weeden Island (in north Florida) and northwest Florida Weeden Island have been designated "heartland region" cultures (Milanich et al. 1984:16, 22), as opposed to "Weeden Island-related" cultures that exhibit a classic Weeden Island ceramic assemblage in mounds but not in village middens.

The north Florida Weeden Island lithic collections from the McKeithen site have been studied by Tim Kohler (in Milanich et al. 1984:69-75) and in detail by G. Michael Johnson (1985). The latter is the most comprehensive study of lithic artifacts available for any Weeden Island culture. Lithics and other artifacts are mentioned in Willey (1949a:449-450).

Settlement patterns

Our knowledge of settlement patterning traits comes from the work at the McKeithen site and from archaeological surveys carried out by Brenda Sigler-Lavelle (1980a, 1980b; see also Milanich et al. 1984:37-44, 187-195). In north Florida seven types of sites have been recognized: continuous use sand burial mounds with no adjacent village evident; continuous use sand burial mounds with adjacent village; mound-village complexes (two or more mounds associated with a village); villages with a mound within 4.5 km from a mound (which, together with the mound, form a community); task-specific sites apparently associated with hunting or another activity; lithic quarries; and clay quarries (probable sites).

The densest distribution of mounds, mound-village complexes, and communities is within the central hardwood hammock belt that runs north-south from the Santa Fe River between Lake City and Live Oak extending southward. Presumably, the largest Weeden Island populations were also in this zone.

All of the Weeden Island sites, both those in the central hammock and those in the lower areas to the east and west, shared similar localities: access to water sources; location in mesic forest; within 0.8 km of aquatic habitats (including ponds, creeks, lakes, wet prairies, swamps, or marshes; good site drainage; within 1.6 km of the total range of vegetation diversity

present in north Florida (i.e., easy access to multiple forest habitats); and, within 3-5 km of a burial mound. Many locations fulfilling these prerequisites exist in north Florida, and each offers a potential village location. As would be expected, the McKeithen Weeden Island peoples tended to select the best of such locations, those with the best access to hardwood hammocks and wetland habitats and their respective resources. The distribution of such prime locations is much greater in the central hammock zone.

Social organization

Much has been written about Weeden Island political and social organization and whether or not the Weeden Island region was organized as a chiefdom or a more complex society (e.g., Sears 1952, 1954, 1962), or was a series of independent groups of small villages, each made up of households and organized along lineage ties. In the latter model each group of villages and lineages functioned as a community. Within a community, because of control of resources, one lineage might become dominant for a time. Its lineage head would function as a big man whose village served as an interlineage center. The importance of lineages, big men, and villages rose and fell as a lineage and its big man were able to garner (or lose) resources and status. Within such communities, as lineages increased in size, groups of people (portions of lineages) budded off, forming new villages (Milanich et al. 1984:41-43, 188-192). Such tribal level societies were not of the same scale as the later, complex chiefdoms of the Mississippian period.

Subsistence

A major piece of knowledge concerning McKeithen Weeden Island that is missing is subsistence data. Acidic soils and an almost complete absence of charred plant remains at every Weeden Island site studied in north Florida, including McKeithen, have made it very difficult to present any syntheses. Timothy Kohler's work in the McKeithen village middens produced a very limited amount of food bone, shellfish remains, and floral remains (in Milanich et al. 1984:75-76). Identified animal species that were

present include Busycon, oyster, mussel, several species of freshwater fish, alligator, several turtles, bird, squirrel, and a relatively large amount of deer. The mound excavations similarly produced a large amount of deer bone, as well as duck and rabbit. The only food plants identified (from the village) were hickory and persimmon. The overall assemblage is what one would expect from the north Florida hammock and freshwater habitats, except for the marine shellfish that must have been brought to the village from the coast.

Post-A.D.700 Cultures in North Florida

As noted above, our knowledge concerning the archaeological cultures that follow McKeithen Weeden Island in north Florida is still being developed. Some information was gathered during the 1970s from sites in Columbia and Suwannee counties (e.g., Leslie Mound and Village, Johnson Pond (8SU128), and Carter Mound I Village; see Milanich et al. 1984:201-208). Those sites were tested as a part of the Florida Museum of Natural History's north Florida Weeden Island project. Consequently, research questions were centered on their relationships to the McKeithen Weeden Island culture.

Recently other post-A.D. 700 sites in north Florida have been located and tested as the result of research projects that are focusing on the sixteenth and seventeenth century occupations of that region. The Florida Bureau of Archaeological Research's project in Ichetucknee State Park directed by Brent Weisman located such sites, as has the Florida Museum of Natural History's Hernando de Soto Trail project (Johnson 1987; Johnson, Nelson, and Terry 1988). Pertinent sites include Fig Springs (8CO1), a site immediately south of Fig Springs, Indian Pond (8CO229), and Baptizing Spring (8SU65) and several small sites in the immediate vicinity. We may now have a sample of sites that span the temporal range from the end of early Weeden Island, ca. A.D. 700, to the time of Spanish mission efforts in north Florida that begin in 1585. These sites all exhibit a similar ceramic assemblage, which is tentatively called Indian Pond. The assemblage follows early Weeden Island and lasts until it is replaced by the mission

period Leon-Jefferson (mission Lamar) ceramic complex (Figure 8). There is no Fort Walton-related Mississippian period culture in north Florida. Indian Pond, consequently, is contemporary with the late Weeden Island and Fort Walton cultures in northwest Florida, the St. Johns II period in east Florida, and the Alachua tradition in north-central Florida.

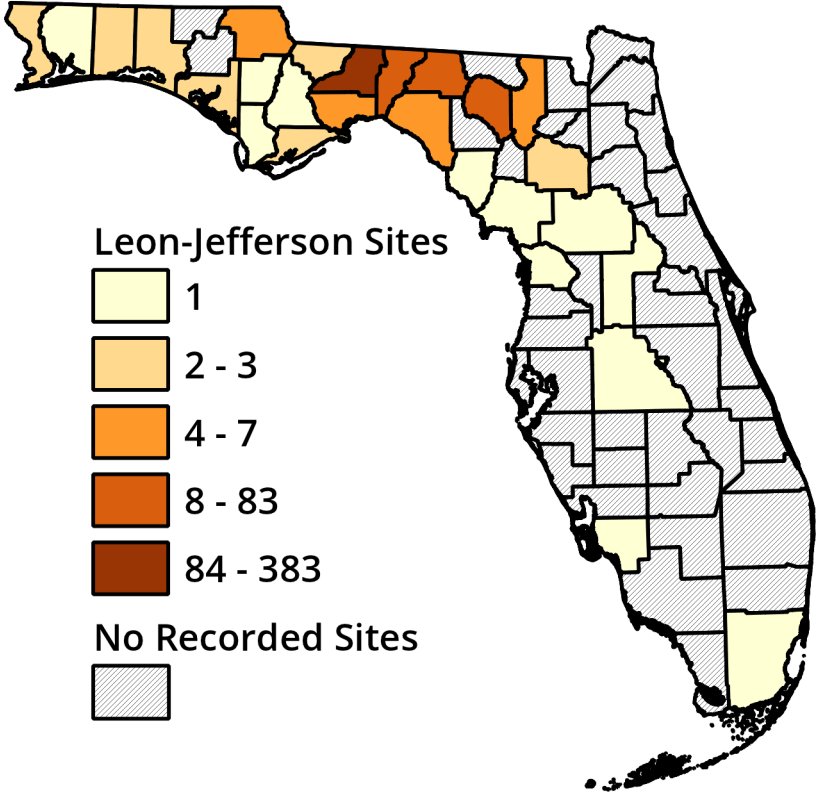


Figure 8. Distribution of Leon-Jefferson Sites (by county)

Material culture

Milanich et al. (1984:201) have described the late Weeden Island/Indian Pond ceramic assemblage as "characterized by large amounts of undecorated pottery with varying amounts of check stamped, cord marked, incised, and Lochloosa Punctated-like pottery.... Some potsherds have a simple stamped-like motif

that occasionally resembles brushing or incising (and may be). At times, the eroded surfaces of some sherds make distinguishing simple stamping, brushing, and incising almost impossible." Cob marked sherds are also a part of the assemblage.

Some of the cord and cob marked and Lochloosa Punctated-like sherds of the assemblage greatly resemble sherds of the Alachua tradition. However, relative frequencies and the total assemblages are quite distinct. The work by Weisman and his associates and by Kenneth Johnson of the Florida Museum of Natural History promises to define the Indian Pond assemblage formally and to begin to order it temporally for use as a chronological tool.

Pinellas points and other small bifacial tools or points have been recovered from sites. Definition of the lithic assemblage associated with the Indian Pond ceramic complex, however, remains to be done.

Several mounds believed to be associated with the Indian Pond complex have been tested. Leslie Mound and Carter Mound I (Milanich et al. 1984:202-207) both are believed to date closer to A.D. 700 than 1585. Leslie Mound, a small continuous use mound, contained several sherds from a Weeden Island Incised vessel that was red-slipped on the interior. All human remains were bundle burials or disarticulated. Carter Mound I contained two greenstone celts, a Carrabelle Punctated bowl, and a collared Carrabelle Punctated bowl with pinching encircling the collar. It also contained bundle burials.

Settlement patterns

There appears to be little or no difference between the environmental settings of the McKeithen Weeden Island culture and the sites associated with the Indian Pond ceramic assemblage. However, if the post-A.D. 700 population of north Florida was agricultural (and cob marked pottery is known to be present), we would expect differences to exist. Obviously there is much to be learned about early Weeden Island and post-early Weeden Island subsistence and settlement systems in north Florida.

Previous Research

As noted above, almost nothing is known about the Deptford occupation in north Florida, except its temporal position relative to the McKeithen Weeden Island culture.

The definitive work on Weeden Island in north Florida resulted from the Florida Museum of Natural History's (then the Florida State Museum) surveys and excavations carried out in the late 1970s. An overview of the results of the research has been published (Milanich et al. 1984) and contains a complete bibliography of papers, articles, and dissertations that resulted. To that list should be added Johnson's (1985) study of the lithics from the McKeithen site.

At the same time that the Weeden Island research was ongoing, L. Jill Loucks (1978) carried out a survey of areas around a mission-period site in southern Suwannee County. Included among the small sites found were several from the Weeden Island period.

More recently Kenneth Johnson (1987) surveyed mission-period sites in Columbia and Suwannee counties and, in the process, located late prehistoric sites as well. His work, as well as that of Brent Weisman at and in the vicinity of the Fig Springs site, is beginning to define the post-McKeithen Weeden Island and pre-mission occupation of north Florida that has tentatively been labeled the Indian Pond assemblage.

Important Sites

The dearth of archaeological research in north Florida prior to the present makes almost any sites located and tested important to the archaeological record. Such sites include McKeithen (Milanich et al. 1984), which contains information on the Deptford and McKeithen Weeden Island cultures. The site also is important because it extends just into the late Weeden Island period, past the A.D. 700 date that is so important through Florida and the Southeast because it represents the point at which cultural changes apparently occur, changes reflected in new archaeological assemblages. Other important sites are Indian Pond and the Leslie Mound and village as well as the complex of

sites surrounding Fig Springs in Ichetucknee State Park. No prehistoric sites in north Florida are listed on the National Register of Historic Places.

Research Questions

Chronology

Chronological concerns are of particular importance for the period after A.D. 700 for which we have little data. Moreover, the Weeden Island chronology, based primarily on the McKeithen site, needs to be further refined. Radiocarbon dates are needed for all periods.

- What is the evolutionary relationship of Deptford to the succeeding McKeithen Weeden Island? Why, at ca. A.D. 200, is there a seemingly rapid change from a small Deptford population to the larger populations and villages of the early Weeden Island McKeithen culture?
- Can we refine the three-fold temporal scheme derived by Kohler for the McKeithen site, providing tight chronological controls against which other data can be compared?
- Does the Indian Pond assemblage indeed last from the end of early Weeden Island times, ca. A.D. 700, to the sixteenth century? What artifact-related attributes can be used to establish intra-period phases? The basic temporal and spatial taxonomy remains to be defined.

Economy

We have very little data on subsistence in north Florida. This is a result of the extremely limited number of excavations in the region.

- What was the economic base of the interior Deptford peoples in north Florida? Were they hunter-gatherers?
- Did Deptford peoples occupy the northern forests on a seasonal basis? Are they the same Deptford population that inhabited the Gulf coast to the west?
- What was the subsistence economy of the McKeithen peoples and was it unchanged through time?

- Was horticulture practiced and, if so, what was its importance?
- What was the economy of the human occupation associated with the Indian Pond assemblage and how does it differ from that of the earlier McKeithen Weeden Island period?
- Were these post-A.D. 700 peoples maize farmers?
- Do the changes in the archaeological assemblage that occur at ca. A.D. 700 reflect economic changes?

Settlement patterns

As with subsistence, our knowledge of settlement patterns in north Florida is constrained by our limited data. So little data exists for Deptford that almost any information, even on the presence of sites, would be welcomed. We are much better informed about Weeden Island, as a result of the excavations at the McKeithen site and related surveys, but the period after A.D. 700 is almost as unknown as Deptford.

- What is the range of site types at different time periods?
- How do settlement patterns differ temporally and regionally?
- What is the post-A.D. 700 settlement system and how is it alike or different the early McKeithen system? Does it change through time?

Social and political organization

The model developed for Weeden Island in north Florida is important to our understanding of the nature of Woodland stage cultures in the Southeast and their relevance to the development of the later Mississippian societies with their complex social and political organization and extensive horticultural practices. McKeithen Weeden Island studies should thus focus on two areas: testing and refining of the settlement-subsistence-social organization model developed out of the North Florida Weeden Island Project and gathering data that allows comparisons between McKeithen Weeden Island and contemporary and later societies. The macro-question might be stated as: Why did not

Mississippian societies develop in north Florida? How was the evolutionary trajectory different than in northwest Florida? What additional evidence exists for lineages, lineage ranking, the presence of village big men, village ranking, lineage mound interment, and village fissioning?

- Is there any evidence, i.e., in burial mounds, to suggest that women held status positions? If not, how is the transition to historically-documented matrilineal systems and cacicas explained?
- When Hernando de Soto passed through north Florida in 1539 it is clear that chiefdoms were present.
- When did they appear and what are their archaeological correlates?
- How do they resemble Mississippian chiefdoms?
- Why is north Florida different from regions of the southeast where Mississippian archaeological cultures developed?
- Can the Uzachile (west of the Suwannee River) and Aguacaleyquen (east of the Suwannee River) chiefdoms be distinguished archaeologically? What are their respective configurations?

Health and nutrition

Few skeletal remains have been recovered from north Florida. We have data only from Mound C at the McKeithen site. This is unfortunate, because bioarchaeological studies nicely complement subsistence and social complexity studies. Should the opportunity present itself, biological anthropologists should gather pertinent data from burial sites as part of studies that also focus on other aspects of Weeden Island culture, e.g., information on lineage burial. Comparative studies among early and late Weeden Island period populations and post-contact populations are needed to help answer questions regarding presence or absence and relative importance of maize within the diet, and the impact of European diseases on health.

- How does the health and nutrition of farming peoples compare to that of the earlier non-agricultural peoples of

the early Weeden Island period (or early portion of the period of the Indian Pond assemblage)?

- Are there differences related to social status among the people of the Indian Pond-associated chiefdom?

Preservation Goals

Some archaeological sites have been preserved on state-owned lands, such as within the Ichetucknee State Park and at Peacock Springs. Others are included in lands now being considered for state-purchase (e.g., localities on the Suwannee River in Suwannee County). Still other sites are preserved within the Osceola National Forest. Those state and federal-owned lands that have not been inventoried should be inventoried in order to draw up a list of preserved sites to see if a cross section is represented.

- Locate unrecorded sites, especially in Madison, Taylor, and Lafayette counties.
- Excavate various types of sites to evaluate their significance and obtain interpretive data.
- Nominate to the National Register key sites, including the McKeithen site, Indian Pond site, and Fig Springs site(s).

Chapter 6

NORTH-CENTRAL FLORIDA, 2500 B.P. – A.D. 1702

Jerald T. Milanich

In north-central Florida the post-Archaic culture sequence is well-known: Deptford (2500 B.P.-A.D. 200), Cades Pond (a Weeden Island-related culture, A.D. 200-700), and the Alachua tradition (Hickory Pond, Alachua, and Potano I and II periods, A.D. 700-1702). The Potano II period overlaps with the time of the Spanish Franciscan missions among the Timucua Indians.

The Setting

North-central Florida's northern boundary is the Santa Fe River. Its eastern boundary is a line drawn north-south through Putnam and Marion counties, excluding the St. Johns River drainage (e.g., the Oklawaha River), but including the many lakes of the Florahome Valley in western Alachua and eastern Putnam counties. The western boundary is marked by the onset of the coastal flatlands. The Middle Florida Hammock Belt extends south from north Florida through the central portion of north-central Florida. Its end at about Belleview in Marion County demarcates the southern boundary of the north-central region (Milanich and Fairbanks 1980:22, 30-32).

As in north Florida, the hardwood forest was a major area of prehistoric settlement. Loamy soils and many lakes and wetlands also provided important resources. Many sites are also found adjacent to the extensive lakes and wetlands in the Florahome Valley area, but these have been little studied. Portions of north-

central Florida are characterized by karst topography, and many sinkholes as well as chert outcroppings are present.

The environment of the region remained unchanged throughout the post-Deptford period into the colonial period. Modern agricultural and development activities, however, have greatly reduced the natural forests, lowered water tables, and, unfortunately, destroyed a large part of the archaeological record. In late prehistoric times, north-central Florida probably was one of the most densely populated areas in the state.

Deptford (2500 B.P. to A.D. 200)

Deptford sites in north-central Florida are recognized by the ceramic complex that includes Deptford Check Stamped and Deptford Simple Stamped pottery and which dates after 2500 B.P. (for descriptions of ceramic types see Caldwell and Waring 1939a, 1939b; Milanich 1971b:161-172; Willey 1949a:353-360). But unlike coastal sites characterized by distinct middens and relatively large amounts of pottery and other debris, the inland Deptford sites of north-central Florida are quite small with few artifacts (nearly all of which are potsherds). Most sites appear to be small camps that were reoccupied as later period sites.

We can suggest that the Deptford population of northern Florida was quite small and initially was not associated with year-round occupation of the interior forests (Milanich and Fairbanks 1980:71-72). Approximately 70 sites with Deptford components are recorded for north-central Florida, but the actual number of artifacts from any one site is often only a handful, as evidenced by collections at the Florida Museum of Natural History and by excavations (e.g., Fradkin and Milanich 1977:170, 173; Mullins 1977:20, 24).

An exception to these small, presumed part-time sites occurs in north-central Florida in the late Deptford period (ca. A.D. 100-200) and is presumably related to a change in settlement pattern associated with the development of the Cades Pond culture. The River Styx site (8AL458), a mound with an associated horseshoe-shaped embankment and an adjacent village, was studied by Ripley P. Bullen and by E. Thomas Hemmings

(Hemmings 1978). Deptford pottery came from the mound and was also collected from the village (but in small quantities).

Cades Pond, A Weeden Island-Related Culture

This north-central Florida culture was first recognized by John M. Goggin (1949:25), who established its temporal position relative to the Alachua tradition (Figure 9). An overview of Cades Pond appears in Milanich and Fairbanks (1980:96-111) and serves as a basic introduction.

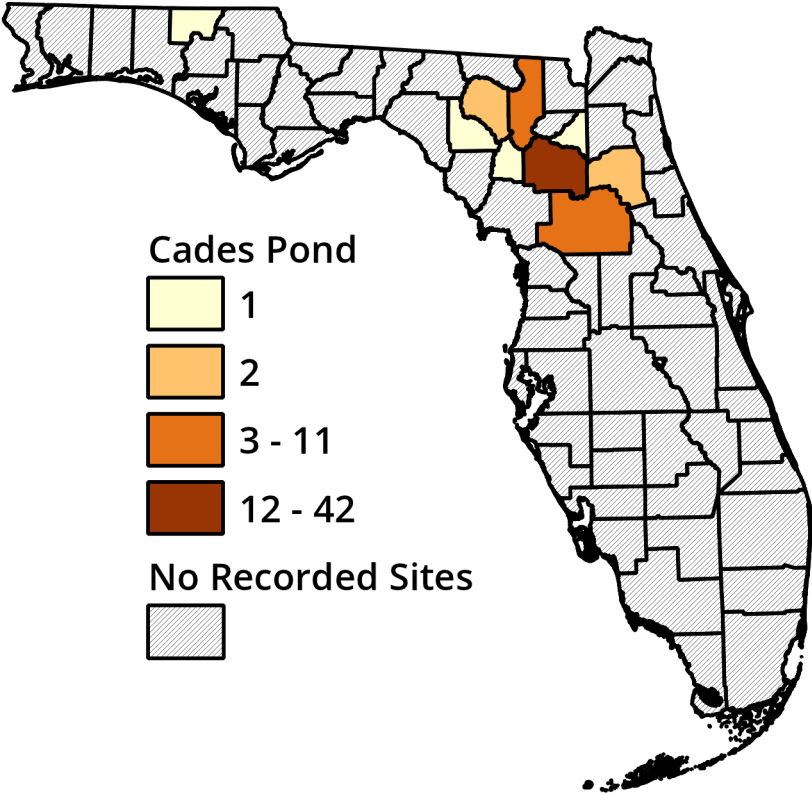


Figure 9. Distribution of Cades Pond Sites (by county)

Material culture

The distinctive nature of its ceramic and lithic assemblages (relative to the preceding Deptford complex and subsequent

Alachua tradition material assemblage), along with site patterning, make the recognition of Cades Pond relatively easy. At village sites, ceramics are largely undecorated (more than 90%) large bowls and either have quartz inclusions in the paste or they exhibit a St. Johns paste. St. Johns Plain sherds are a minority ware at villages, ranging from a high frequency of 24% (of total sherds) at the Hawthorne Village site (8AL462) to a low of 3% at the Melton village site (8AL69) and the nearby Olster site (8AL346) (Milanich 1978c:164). Percentages of undecorated ceramics with quartz particle inclusions at those same three sites are 65, 94, and 89, respectively. Other minority pottery types, usually comprising less than 1% each of the total ceramic inventory from any one site, include Dunn's Creek Red, various Weeden Island decorated and plain types, and St. Johns Check Stamped. We do not have a workable seriation for Cades Pond ceramics and do not understand if the relative differences in ceramic types are temporal or geographical.

The Cades Pond lithic assemblage contains a number of tools, including Pinellas-like projectile points (thought to be late [Milanich 1978c:165]) and a variety of stemmed "points" that might be classified as Duval, Bradford, Columbia, Taylor, and Jackson types in Bullen's typology (1975:13-14, 19-21). These "points" might better be described as hafted knives and scraping tools in various stages of use. As tools are resharpened or reshaped, they often change shape and size (e.g., Taylor specimens are probably worn down Columbia types). Other lithic tools are Cross Creek perforators (Smith 1971:128), triangular knives and perforators, manos and metates, sandstone abraders, and large amounts of debitage (Milanich 1978c:154, 159, 162). Cumbaa's (1972) excavations at the Melton village site produced a large number of bone tools, including double-pointed leisters, splinter awls, perforators, flakers, deer ulna awls, scrapers or fleshers, punches, and fids. Some leisters showed hafting stains, probably from pitch. Shell columella and shark's teeth tools are also known from Cades Pond sites.

Settlement pattern

Cades Pond sites are centered among the various lakes and wetlands in eastern Alachua County and extend eastward into western Putnam and Clay counties (from Paynes Prairie east past Orange and Lochloosa lakes and Lake Santa Fe to the many lakes in the Florahome Depression around Putnam Hall, Melrose, and Interlachen). This latter eastern area is little known archaeologically. What are believed to be Cades Pond sites are also found in northwest Alachua County in the Santa Fe River's natural bridge and Buzzard Roost Prairie and Swamp locality.

Cades Pond village sites are often located near mounds. Hemmings (1978) has summarized information on Cades Pond settlement patterning, as has Milanich (1978c). Site types include: complex mound-villages (some, such as River Styx, Cross Creek [8AL2/3], and Ramsey Pasture Mound [8AL78], have earthworks associated with mounds and burial areas); villages with no adjacent mounds; mounds not at villages; and camps, probably used to procure specific resources, such as chert-quarry sites around Paynes Prairie. The size of village middens and the density of artifacts within them varies.

The richness and density of material remains at the Cades Pond village sites studied thus far suggest long-term occupations. Large storage pits and evidence of structures were found at the Melton village and Hawthorne village sites, although no complete house patterns have been found.

Milanich (1978c) developed a model for Cades Pond settlement patterning that grouped the various types of sites into six nexuses. Each nexus contains a variety of sites, occupies a specific territory about 5000 hectares in size, and includes a variety of aquatic habitats. The relationship of these nexuses to the adjacent marsh-prairie-pond-lake systems strongly suggests a dependence on aquatic resources, and this is borne out by the data from 8AL169 summarized in the discussion of subsistence below.

Each nexus probably represents a community bound by social ties and each has a center, the major complex mound-village site at any point in time (Milanich 1978c:170). Each nexus may

represent a community with individual sites representing villages in varying stages of occupation, growth, fissioning, and abandonment.

The Cross Creek nexus, with the River Styx site as its center, is probably the oldest group of Deptford/Cades Pond sites in north-central Florida. This nexus might be the community from which other communities and nexuses budded as populations and pressure on resources increased. Cades Pond offers excellent opportunities to formulate research questions concerning demography, economic pressures, and social and political organization among pre-Mississippian non-farming peoples. The richness of the Cades Pond archaeological record and the preservation of floral and faunal remains in some village sites will allow archaeologists to test these models.

Subsistence

Stephen Cumbaa's (1972) thesis on the Melton village site has produced a wealth of quantified data. His zooarchaeological analysis demonstrates Cades Pond reliance on aquatic habitats; 85% of the 1500 individual animals used for food at the site came from aquatic habitats. Included were snails, clams, 12 species of fish, frogs, 7 species of turtles, 5 species of water snakes, alligator, 7 species of water birds, otter, and muskrat. Mesic hammock fauna were also important in terms of meat volume; these included deer, black bear, panther, opossum, rabbits, squirrel, skunk, rats, and foxes. Identified plant remains include hickory (especially mockernut hickory), pine nuts, acorns, Chickasaw plum, persimmon, and wild cherry. No cultigens have been identified from Cades Pond villages. The metate-manos that are in collections were possibly used to grind nuts or wild seeds. As noted above, the preservation of floral and faunal remains in some Cades Pond sites can provide an excellent data base. The significance of any village site is greatly enhanced by excellent preservation, a fact that should be taken into consideration in planning any archaeological investigations of Cades Pond sites.

Chronology

Several radiocarbon dates are available for Cades Pond sites. The earliest, as might be expected, is from River Styx (1770±85 radiocarbon years: A.D. 180 [N-2170]). Others are from the Melton village (1730±90: A.D. 220 [N-2169]) and the Hawthorne village (1460±70: A.D. 490, 1675±65: A.D. 275, and 1740±70: A.D. 210 [UM-1781-1783, respectively]). The dates support the accepted chronology for Deptford and Cades Pond in north-central Florida.

Alachua Tradition: Post-A.D. 700 Occupation of North-Central Florida

The Alachua tradition was originally defined by John Goggin (1947, 1948a, 1948b, 1949) who recognized the distinctive nature of the Alachua archaeological assemblage, especially the ceramic complex. He divided the tradition into temporal periods based on relative percentages of three ceramic types: Prairie Cord Marked, Alachua Cob Marked, and Alachua Plain. The Hickory Pond period was defined as having more cord marked than cob marked pottery, the later Alachua period having more cob marked than cord marked. The onset of the Potano period is marked by the appearance of Spanish artifacts in Alachua tradition village sites.

Building on Goggin's work, Milanich has refined the ceramic seriation for the Alachua tradition and the period designations (1971a:28; Milanich and Fairbanks 1980:170-171). The present chronology is: Hickory Pond period (A.D. 700 to 1250), Alachua period (A.D. 1250-ca. 1585), Potano I period (A.D. 1585-1630 [decline of Alachua tradition ceramic assemblage and appearance of Leon-Jefferson and other complexes at missions]), and Potano II period (A.D. 1630-1702 [the time of the demise of the indigenous ceramic assemblage and its replacement by the Leon-Jefferson ceramic assemblage]). Summaries of the Alachua tradition can be found in Milanich (1971) and Milanich and Fairbanks (1980:169-1890).

Material culture

Other ceramic types beyond the three mentioned above have also been defined for the Alachua tradition and fitted into the ceramic

seriation (Lochloosa Punctated, Prairie Punctated-over-Cord Marked, Prairie Fabric Impressed, and Alachua Net Impressed; see Milanich 1971a:28-36). The overall ceramic assemblage is distinct from similar, contemporary ceramic assemblages to the north in north Florida and to the west in interior Dixie and Levy counties. Sherd discs and sherd hones are also common at Alachua tradition sites.

The lithic assemblage associated with the Alachua tradition has also been defined (Milanich 1971a:37-40, 50-52). The assemblage is remarkably similar at Hickory Pond, Alachua, and Potano I sites, and includes Pinellas points, small blades and flakes perhaps used as scrapers or knives, perforators and burins made from flakes, drills, unifacial and bifacial knives of several types, large unifacial scrapers, spokeshaves, hammerstones, mortars, and hoes.

Bone tools (awls and pins) and shell ornaments (ear pins) have been found at Alachua tradition sites, but in many fewer numbers than lithic artifacts. *Busycon* cup fragments are also known, but rare. All the studies of Alachua tradition material culture were done nearly two decades ago or earlier; certainly new analyses are warranted.

Settlement patterns

Alachua tradition village sites are ubiquitous in that portion of the Middle Florida Hammock Belt that ranges from about Belleview in Marion County into northern Alachua County at the Santa Fe River (Figure 10). Villages tend to occur in clusters, perhaps representing abandoned and new villages, and are usually found on high ground adjacent to lakes and ponds, often with sinkholes or small streams nearby. This pattern of settlement is very unlike that of the earlier Cades Pond culture which has a much more aquatic orientation.

Site clusters occur on the east side of Orange Lake (8AL100, 101), between Levy Lake and Paynes Prairie (8AL30-36, 47, 48), on the northwest end of Paynes Prairie (8AL19, 20, 27, 28, 30, 57), the north side of the prairie (8AL17, 49, 52, 54 and 8AL8, 29, 56), at the Moon Lake locale on the west side of Gainesville (8AL330-337),

west of the Devil's Millhopper (8AL272-274, 279), near Alachua (8AL166), and in the Robinson Sinks locale in northwest Alachua County. Other sites are near Rochelle south of Newnan's Lake and north of Orange Lake. The linear arrangement of these clusters mirrors the linear distribution of hardwoods, but it also may reflect site placement along aboriginal trails. Small campsites, perhaps for the procurement of specific resources, have been found in Alachua County, and almost every site in the county contains at least several Alachua tradition potsherds.

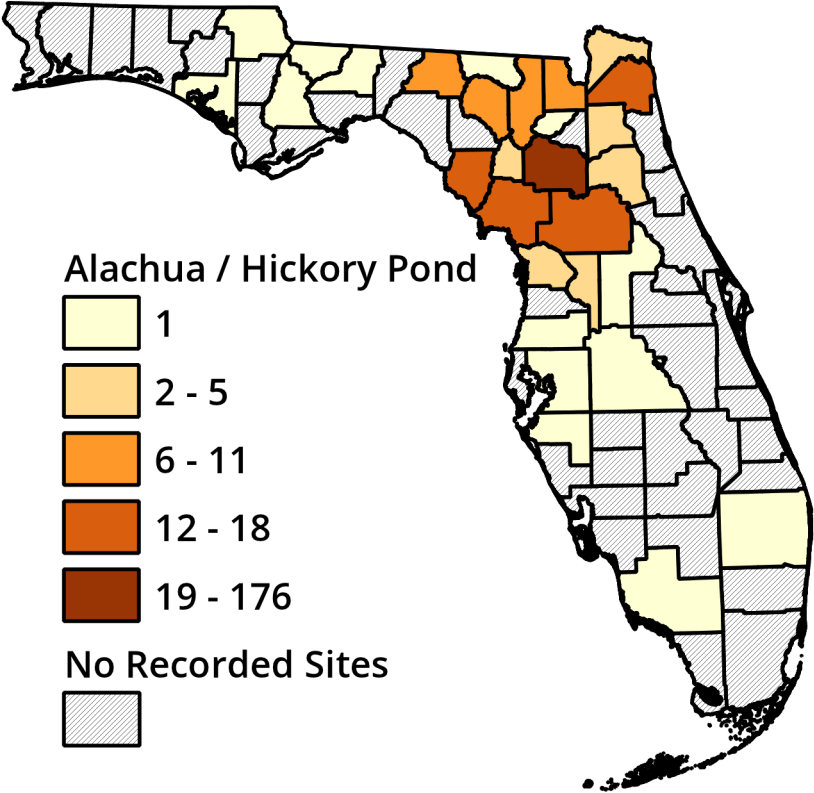


Figure 10. Distribution of Alachua-Hickory Pond Sites (by county)

Several of these clusters (Orange Lake, Moon Lake, Millhopper, Alachua, Robinson Sinks, Rochelle) contain Spanish materials from the mission period, although missions have not as

yet been identified except in the Rochelle, Millhopper, and Robinson Sinks locales. As yet no differences in settlement pattern have been noted during the nine centuries of Alachua tradition occupation. In fact, except for relative percentages of ceramic types, the same way of life appears to have persisted to the time of the early Spanish missions.

Many burial mounds have been found within the Alachua tradition region, but only three have been excavated (Woodward Mound [8AL47], Henderson Mound [8AL463], and Law School Mound [8AL297]; see, respectively, Bullen 1949, Loucks 1976, and Fradkin and Milanich 1977). Consequently, it is uncertain which mounds are Alachua tradition and which are Cades Pond. Both cultures are associated with burial mounds that are not located immediately adjacent to villages. The Woodward Mound is next to a village, while the other two excavated Alachua tradition mounds are not. Loucks's excavations at the Henderson Mound revealed a non-random distribution of females, perhaps a reflection of matrilocality and lineage burial.

Storage pits and other features indicative of structures have been found at villages. Our best information on community and household patterning comes from the Richardson site (8AL100), where a portion of a circular house was uncovered (Milanich 1972).

Subsistence

The Alachua tradition peoples used the resources of the hardwood hammocks and the nearby lakes. Studies of subsistence thus far carried out have tended to center on zooarchaeological analysis of the bones of animals, focusing on minimum numbers of individuals, as opposed to meat weights or caloric intake (the research was done prior to the early 1970s). Milanich and Fairbanks (1980:171-172) and Milanich (1972) have provided overviews on subsistence, including information on butchering and meat distribution, based on data from the Richardson site.

Maize kernels have been identified from the Richardson site, a Potano I village. Corn cob impressions on Alachua Cob Marked potsherds indicate that maize was present. That no changes in

settlement patterning occur between the Hickory Pond and Alachua period suggests maize agriculture was present throughout both periods. A limited number of other charred plant food remains have been recovered, but there has not been a concentrated effort to recover plant remains from any Alachua tradition site.

Previous Research

No problem oriented studies of the Deptford culture in north-central Florida have been carried out. There have been, however, studies of coastal Deptford sites, and these are pertinent to future work in interior peninsular Florida. Standard references include: Caldwell 1952, 1971; Caldwell and Waring 1939a, 1939b, 1939c; Milanich 1971b, 1973a, 1973b; 1980; Willey 1949a:353-361, 507).

In north-central Florida, a great deal of archaeological research has been carried out, the result of four decades of work by University of Florida archaeologists and students. The groundwork for all subsequent research was laid by John M. Goggin in the late 1940s and 1950s (1947, 1948a, 1948b, 1950, 1953). During that same period Goggin's students surveyed a number of tracts within north-central Florida, providing collections and reports that are curated at the Florida Museum of Natural History. Their information also provided the data base for the Florida Master Site File records for much of Alachua County. Archaeological surveys of a portion of the Paynes Prairie tract (Mullins 1977) and an area just south of Lake Tusawilla (Milanich 1974) also have provided information on the post-Deptford occupations of north-central Florida.

Goggin's original taxonomy and syntheses for north-central Florida, including Cades Pond and the Alachua tradition, were refined and added to by Milanich (1968, 1969, 1971a, 1972, 1978c) and other University of Florida students. Notable is the work on Cades Pond done by Samuel Smith (1971), Steven Cumbaa (1972), and E. Thomas Hemmings (1978). Mound excavations of Alachua sites have been reported by Bullen (1949), Loucks (1976) and Fradkin and Milanich (1977).

These various studies, summarized in Milanich and Fairbanks (1980), provide firm bases on which new, more modern studies should be undertaken, especially in north-central Florida. The archaeological record of north-central Florida is a very rich one that has great potential for providing new knowledge.

Important Sites

Many sites have been studied in north-central Florida. Key excavated Cades Pond sites are the Cross Creek-River Styx nexus; the Levy Lake nexus (including the Wacahoota mound-village complex [8AL58/59] excavated by Goggin, but never published), the North Paynes Prairie nexus (including the Melton village and mounds), and the east Lake Lochloosa nexus (the Hawthorne village site; adjacent mounds remain unexcavated). More details on these sites can be found in Milanich (1978).

Excavated Alachua tradition sites that are important to our understanding of the prehistory of north-central Florida include Woodward Mound and village (8AL47/48), Rocky Point (8AL27), Richardson, and 8AL273. Surface collections from a number of other sites are curated at the Florida Museum of Natural History (as are collections from nearly all sites in north-central Florida).

A number of Potano I and II sites in Alachua County are probably related to Spanish missions and/or ranches (as are several of the late Indian Pond assemblage sites in north Florida); they are discussed in another section of this plan.

No prehistoric sites in north-central Florida have yet been listed on the National Register of Historic Places.

Research Questions

Gaps in the database

Because of the nature of the Deptford sites in north-central Florida little information has thus far been collected, and nothing is known about most aspects of the Deptford period in northern Florida. For the later Cades Pond culture, however, and the Hickory Pond, Alachua, and Potano I periods, the archaeological record is extremely rich and offers excellent opportunities for research.

Chronology

The relative chronology for Deptford seems firm, but more radiocarbon dates are needed to establish a Cades Pond chronology that is tied to artifacts and can be used to provide an absolute chronology for inter- and intra-nexus village sites. Such a chronology would require technological and attribute analyses of ceramics. Moreover, the generally accepted chronology for the Alachua tradition periods needs to be tied to radiocarbon dates and phases within the various periods established.

Economy

While we have relatively good subsistence data from the Cades Pond period, very little information exists for the earlier and later time periods. Moreover, most of our subsistence data are derived from zooarchaeological studies; the role of plants, particularly cultigens, in north-central Florida is very unclear.

- What was the economic base of the interior Deptford peoples in north-central Florida? Were they hunter-gatherers?
- Did Deptford peoples occupy the northern forests on a seasonal basis? Are they the same Deptford population that inhabited the Gulf coast to the west?
- Is the intensive harvest economy documented for the Cades Pond Melton village present at all other villages? Is it consistent through time?
- What crops were cultivated after A.D. 700, and were they present from the beginning of the Hickory Pond period?
- Is there any reliance on cultigens during the Cades Pond period?

Settlement patterns

The collection of baseline data on settlement patterns is of primary importance for the Deptford period. For the latter time periods, more sophisticated and detailed questions may be addressed.

- Why, at ca. A.D. 200, is there a change from (seemingly) small Deptford populations and campsite-size sites to the larger populations and villages of the Cades Pond culture?

- Is the nexus model of Cades Pond settlement correct?
- Can we seriate villages within nexuses to establish the actual sequence of village growth, fissioning, and abandonment?
- Can we use such data to estimate actual population growth?
- Cades Pond was apparently the first year-round human occupation of north-central Florida. Did its population enjoy an extremely high rate of growth through time?
- Can we identify early and later nexuses?
- As with villages, did nexuses bud off from one another after a certain level of population (or villages) was reached?
- Are centers within nexuses sequentially occupied (e.g., does Cross Creek follow River Styx)?
- How can a center be identified?
- What other types of occupation sites besides villages are present?
- What do the clusters of Alachua tradition village sites represent?
- How are they alike or different?
- Within clusters are the villages sequential or contemporary?
- Is each cluster a single group through time?

Social and political organization

Information on social and political organization in north-central Florida is very limited, especially for the Deptford period.

Does the lack of Deptford burial mounds versus their presence in the Cades Pond culture reflect differences in levels of social organization, with Deptford society organized as bands and the Cades Pond society organized in lineages or other kin-based intervillage units?

- What do presumed Cades Pond centers represent?
- Who was interred in mounds?
- Are mounds associated with lineages?

- Does the McKeithen Weeden Island model of big men affiliated with ranked lineages (Milanich et al. 1984:41-43, 188-192) hold for Cades Pond?
- How do the archaeological correlates of such a system compare with those of later chiefdom systems?
- Do the Alachua tradition site clusters represent separate political units? Were they chiefdoms?
- Were chiefdoms present in prehistoric times? What are their archaeological correlates?
- Did European contact help to confederate the Potano peoples?
- Did changes in social and political organization occur after contact?
- Do burial mounds represent matrilineal lineages (as suggested from the Henderson Mound)?

Health and nutrition

Bioarchaeological studies provide a wealth of information regarding subsistence, health and nutrition status, and social organization. It is important that we examine existing burial populations and make provisions for future bioarchaeological studies.

- How does the health of the Cades Pond people (with their aquatic economic orientation) compare with that of later agriculturalists in north-central Florida? Chemical analyses of human remains from Cades Pond and later peoples are needed to establish a database to answer questions regarding the relative importance of maize in diets.
- Are dietary differences detected through time or within populations the result of social differences?
- Can we detect epidemics in Potano I populations (or other impacts of European contact, such as dietary stress)?

Regional and temporal relationships

Evolutionary trends are still unclear for the north-central Florida region. Further, there are many unanswered questions regarding interactions between populations with the region and outside it.

- What is the evolutionary relationship between Deptford and the succeeding Cades Pond culture?
- A major area of research is the origins of the Alachua tradition and its relationship to Cades Pond.
- Does the Alachua tradition really represent an intrusive population?
- Did Hickory Pond period agriculturalists displace the late Cades Pond peoples?
- What happened to the latter? Were they forced into the wetlands of eastern north-central Florida, an area not settled by the Alachua tradition peoples because of a lack of suitable agricultural lands?
- The relationships of the Alachua tradition to sites with similar (but not the same) ceramic assemblages located to the west in Levy and Dixie counties (Chiefland north to Cross City) need to be established. Collections from the latter region suggest a separate taxonomy is needed and the assemblage should be defined. Still another area for research is the impact of European contact in the early sixteenth century.
- Can we detect changes in mound building, village size or numbers, burial patterns (cf. Smith 1987)? North-central Florida (and north Florida) is an obvious area to apply Marvin Smith's model developed for the post-contact interior of the southeast.

Preservation Goals

A number of archaeological sites have been preserved on state-owned lands in north-central Florida, such as within the Paynes Prairie and San Felasco preserves. Others are included in lands now being considered for state-purchase (e.g., Prairie Creek and Cross Creek parcels in Alachua County). Those state-owned lands that have not been inventoried should be surveyed in order to draw up a list of preserved sites to see if a cross section is represented.

- Locate unrecorded sites, especially in the Putnam Hall and Melrose areas and in the Ordway Preserve, which is state-controlled.

- Complete Florida Site File forms for all new and revisited sites, especially those located in the last three years as a result of the de Soto Trail project.
- Excavate sites of various types, especially Deptford sites, to assess their National Register eligibility and obtain interpretive data.
- Nominate to the National Register clusters or nexuses of sites and key sites, including the Cross Creek site (if not in a district), Hawthorne Mound and Village site, and River Styx site.

Chapter 7

EAST AND CENTRAL FLORIDA, 3200 B.P. – A.D. 1565

Michael Russo

The east and central Florida area encompasses a large region that stretches from the Florida border with eastern Georgia to the northern terminus of the wetlands of the Kissimmee River drainage and west to within thirty miles of Tampa Bay. That the region in prehistory represented a unified and distinct cultural entity throughout its geographical extent is more of a convention adopted by archaeologists than a true picture of social, political, and cultural uniformity. In reality, at least seven distinct culture regions border east and central Florida, creating a number of "transitional" archaeological assemblages characterized by mixtures of St. Johns cultural traits with those of adjacent cultures.

The primary trait that is common throughout the area, both within its heartland and along its varied borders, is the distinctive St. Johns pottery. Outside the heartland, however, along the borders, the distribution of St. Johns pottery decreases, and it often becomes a minority ware or changes in technological attributes. Other traits such as mound building, modes of subsistence, and seasonal movements also differ along the regional borders.

The St. Johns periods are distinguished from the Late Archaic by the adoption of mound construction for burial, increased sedentism, increased agricultural production including corn, and a more stable environment from which to exploit resources. However, due to the faunal and floral abundance of the St. Johns

River and the estuaries of the Atlantic coast, the northern St. Johns region remained largely unaffected by the dramatic social and economic changes sweeping the rest of the Southeast during Hopewellian and Mississippian times. Full-fledged agricultural production probably never occurred in most of the region and the hunting/fishing/gathering way of life that characterized 5000 years of Archaic occupation was sufficient to support viable populations during the 2000 years of the St. Johns cultures (Milanich and Fairbanks 1980).

A number of southeastern and Hopewellian traits are found in the St. Johns area in the early periods. The adoption of burial mounds, placement of Yent complex trade items with burials, and the use of charnel structures all point to mainstream southeastern influence in the realm of ceremonial activities. This influence continued throughout Mississippian times as the adoption of Weeden Island check stamping became the dominant motif on St. Johns II pottery; as large ceremonial truncated, pyramidal mounds with ramps and mound complexes were developed along the St. Johns River; and as exotic trade items were included in burials (Goggin 1952b). Outside these limited ceremonial contexts, however, the influence from the rest of the Southeast was minor.

Based largely upon the results of archaeologists working in the area from the 1950s through the 1970s, Milanich and Fairbanks (1980) have offered the clearest chronology of the St. Johns cultures. The St. Johns cultures evolved from the Transitional period (3200-2500 B.P.) to the St. Johns I period (2500 B.P.-A.D. 800) to the St. Johns II period (A.D. 800-1565). Check stamped St. Johns chalky ware provides a *terminus ante quem* for the St. Johns II period. The period ends with the arrival of the Spanish in St. Augustine in 1565, although large areas of the region may have remained essentially unaffected by the Spanish arrival for an indeterminate period of time. The St. Johns I and II periods are further subdivided into smaller periods demarcated chiefly by changes in ceramics, including the adoption and abandonment of incising, red-filming, and a variety of trade wares.

St. Johns Heartland

The St. Johns heartland is what Goggin (1952b) called the northern St. Johns area. Amended slightly here, this subregion stretches from the mouth of the St. Johns River south along the river and the Atlantic coast to Lake Harney and the north end of the Indian River (Figure 11). The St. Johns cultures arose out of the Late Archaic Orange period cultures of the region.

Continuities in incised design motifs exist in the fiber-tempered ceramics from the Orange period into the chalky and incised wares of the Transitional and, perhaps, the early St. Johns periods (Bullen 1972; Rouse 1951).

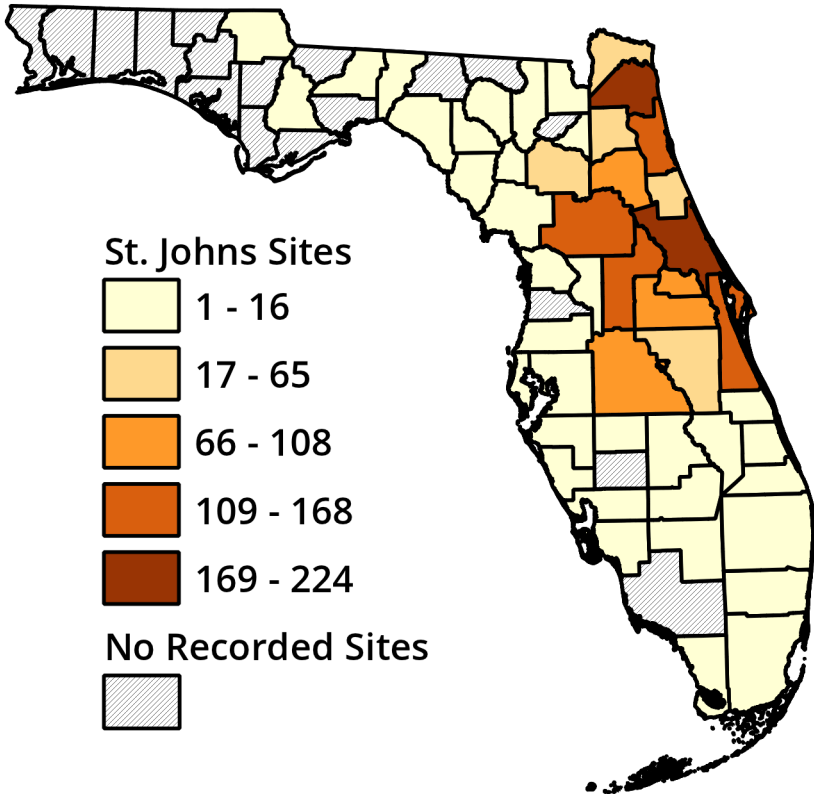


Figure 11. Distribution of St. Johns Sites (by county)

Material culture

In all St. Johns periods from the Transitional to St. Johns II, the distinctive St. Johns plain chalky ware is the dominant pottery type. Incised linear motifs characterize many early Transitional and St. Johns II design motifs. In addition to these types, there is some suggestion that the earliest chalky wares may have occasional inclusions of fiber-tempering, suggesting a direct development of St. Johns wares out of the Late Archaic Orange fiber-tempered wares. The incised design motifs typical of the Orange period have also been recognized on Transitional ceramics, providing additional evidence for the development of St. Johns types from Orange types (Bullen 1972; Rouse 1951; Cordell 1985).

Other St. Johns period ceramics include Dunn's Creek Red, which is limited to the St. Johns I period. Exotic ceramics, copies of exotic ceramics, or locally made types indistinguishable from exotics are also common in the region, especially in ceremonial contexts. These include Deptford, Glades, Belle Glade, Swift Creek Complicated Stamped, Weeden Island, Savannah Cord Marked, Safety Harbor, and Fort Walton types.

Except along the western boundary, the heartland region lacks significant deposits of lithic materials. Chert projectile points are fairly common in the region, but not common enough that a formal typology of St. Johns tool types has been developed. The area seems to have borrowed or continued to use point types from other areas and times of Florida prehistory. In St. Johns contexts, point types typical of the same period elsewhere in Florida include Pinellas, Ichetucknee, and Tampa types. Archaic stemmed points are also common in St. Johns contexts. Although the presence of these latter types has been suggested to represent salvaged or heirloomed points not typical of the period (Bullen 1975), their widespread distribution in St. Johns contexts combined with evidence for a lifestyle not unlike that of the Archaic suggests an alternative interpretation for their use and manufacture during the St. Johns periods.

Other lithic tools found in St. Johns contexts include coquina rock and sandstone abraders. Both of these soft rock types

represent the only abundant lithic resources naturally occurring along the east coast of Florida. Numerous artifacts manufactured from exotic stone sources include steatite potsherds, ground stone celts, hammers, net weights, pendants, pipes, and plummets. Other "stone" and metal artifacts include hematite often found interspersed throughout burial mounds, gold and silver artifacts most often in protohistoric contexts, and copper artifacts including pendants and rolled beads.

Bone and shell implements are the most common artifacts found in St. Johns contexts. The use of these raw materials for tool manufacture can be linked to the paucity of natural stone and mineral deposits in the region and represents a long continuity of shell and bone use dating back to at least the early Archaic. Bone ornaments and tools include tubular beads, fish vertebra beads, incised decorated pins thought to be used for ornamentation and leather and clothing manufacture, plummet shaped pendants, turtle shell rattles, whistles, spatulas, bipointed pins, simple points, socketed points, awls, chisels, needles, fish hooks, and hammers. Many of these same artifacts were also manufactured from a variety of shellfish species. Cups, dippers, celts, adzes, gouges, picks, rings, and columella pendants were also made from whelks, conch, clams, and other marine and freshwater shellfish.

Wooden artifacts in the region have been found in submerged sites due to the preservation provided by the anaerobic deposits. The examination of St. Johns period inundated sites at this time is minimal, but a few artifact types are known. These include dugout canoes made chiefly from cypress and pine, possible atlatl handles, wooden carvings of animals, and a variety of timbers possibly associated with house or other structure construction, brush clearing, collecting firewood, or other unknown activities. These latter can be distinguished from naturally deposited woods by the presence of shell adze marks and other manufacturing marks.

Textiles are known in the area for the Archaic period, but have yet to be found in well documented St. Johns contexts. One possible exception is a number of St. Johns sherds that are

impressed with the markings of twined reed mats. When the clay was still wet, the impressions were probably made accidentally when newly constructed vessels were placed on mats during pottery manufacture.

Settlement patterns

Small scatters of pottery and lithic debitage occur in the western uplands, among the piney flatwoods between the St. Johns River and the Atlantic coast, and in and near bottomland marshes, swamps, and cypress domes. What role these sites played in St. Johns settlement patterns is difficult to determine, and thus they often are conveniently termed temporary hunting, collection, or extraction sites, or less descriptively, they are called artifact scatters.

Larger shell middens are the best known St. Johns sites. Sites such as Turtle Mound (8VO109) on the Atlantic coast near New Smyrna rise as much as thirty feet above the surrounding sea level. Other "sheet" middens extend for up to a half mile along the St. Johns River. Numbers of large mounded St. Johns middens occur in clusters at the confluence of streams and channels within coastal and riverine estuaries. They may represent long occupied stratified sites dating back to the Archaic, or single component sites representing different St. Johns periods. Thus some clusters may be temporally unrelated. Nonetheless, large middens and midden clusters are often viewed as "villages." These villages may or may not be associated with burial or ceremonial, truncated pyramidal mounds. When they are, they are often termed base camps, village centers, ceremonial centers or some other name indicative of a range of maintenance, subsistence, and ceremonial activities wider and more permanent than those associated with other site types.

Burial mounds of the St. Johns period are marked by a variety of construction techniques and interment traits. Due either to poor preservation, builders' intentions, or accident, many St. Johns sand "burial" mounds have no trace of burials in them, only ceramic sherds to indicate the period of construction. Early St. Johns I mounds often have few burial goods and few burials

(Rouse 1951). Burial goods, size of the mound, and number of burials generally increase by the St. Johns II period, but mostly after European contact (Goggin 1952b:55). Interments of groups of people are common and indicate that burials occurred within the mounds over an extended period of time. Burials in all St. Johns periods can be either extended, flexed, or bundled. In some mounds, burials were placed in a spoke fashion around the center of the mound and then capped with sand, while others were placed head to toe in a circle in the center of the mound (Jennings et al. 1957; Rouse 1951:253). Loose human bone is common in mound fill and may represent cleanings from charnel activity or disturbance of old burials when new burials were interred. A number of burial mounds are capped with sand containing hematite.

Subsistence and seasonality

There is some debate about the role that agriculture played in the subsistence economies of St. Johns peoples. Milanich and Fairbanks (1980) suggest that corn and other agricultural products were grown along the St. Johns River during warm weather months, and during the cold weather months coastal marine resources were relied upon. This is a pattern characteristic of the Spanish period Indians of the region (Deagan 1978). There is some question whether this hypothesized contact period pattern can be extended to prehistoric contexts. As of yet, no direct evidence of corn agriculture in prehistoric St. Johns periods has been recovered, although corn was undoubtedly grown at the time in cultures to the west and north. It is also known that gourds were grown within the region from the Archaic through the St. Johns periods, although it is doubtful that these contributed significantly to the subsistence regime.

One line of evidence against large scale or continued agricultural production in the region is the location of all significant sites within or near wet environments such as swamps, marshes, estuaries, rivers, and beaches. None of these environments are conducive to intensive or extensive agricultural techniques. It is obvious that this settlement pattern was

designed to take advantage of wetland resources. Ultimately, we may discover that agriculture played a significant role in the St. Johns economies only in part of the archaeological area and for a restricted period of time (cf. Larson 1980; Russo 1988a).

Along the Atlantic coast many St. Johns middens are known, but few have been investigated in the realm of subsistence economies. Beyond the fact that St. Johns people exploited oysters, hard clams, and other estuarine and marine shellfish, little is known. At the Palmer and Fletcher sites, the beach clam, coquina, was exploited by St. Johns II period people during the fall months (Miller 1980). Freshwater fish and turtles, marine fish, and deer were also exploited.

Piney Point (8NA31) on Amelia Island, another St. Johns II small, short-term midden yielded a large number of small estuarine fish and shrimp remains, indicating a warm weather occupation of the site. In addition, biometric analysis of hard clam remains and oyster indicate that these species were collected in the fall and winter. Thus, based on its size, this small "seasonal" short-term site may not have been permanently occupied, but based on the faunal remains, it may have been repeatedly returned to throughout the year (Hardin and Russo 1987).

The subsistence remains from larger coastal St. Johns II sites have not been as thoroughly investigated as these seasonal encampments. At the Walker Point site (8NA28), an early St. Johns II village site near Piney Point, Hemmings and Deagan (1978) suggested that a large variety of species and sizes of estuarine fish were exploited. Excavations at Green Mound (8VO90) (Bullen and Sleight 1960), Castle Windy (8VO112) (Bullen and Sleight 1959), and Crescent Beach Midden (Bond 1988) have yielded data on the relative importance of shellfish contents, but no detailed analyses were undertaken. Most information on the subsistence contents of coastal middens comes from brief notes in survey and site reports suggesting, for example, that specific sites are primarily oyster middens, or that unusual lenses of hard clams occur in a midden, or that a large number of shark vertebra were found.

Our understanding of subsistence and seasonal movements of St. Johns people along the St. Johns River is based on limited data similarly presented as that data obtained from the coast. That is, it is mostly derived from incidental notes in survey and site reports. A few detailed faunal reports for the freshwater portions of the St. Johns River do exist. Wing and McKean (1987) suggested that freshwater mystery snail, fish, and turtles provided most of the edible meat at Hontoon Island (8VO202), and that based on the seasonal behavior of captured fauna, the site was probably occupied throughout the year. At the Rollestown Midden (8PU64C), shell and vertebrate faunal species are listed and a seasonal occupation of the site is suggested though not tested (Chance 1982). Bubba Midden (8CL84), located on the banks of Black Creek, a tributary of the St. Johns River in Clay County, was a very small, short-term collection station in which freshwater mussel, snail, and variety of fish and terrestrial animals were exploited (Hardin et al. 1988). The Alderman site in Volusia County has been interpreted as a sporadically occupied St. Johns period camp with an associated midden. A number of midden samples have been analyzed, but the interpretations of subsistence economy have been equivocal, some suggesting the site represents a hunting camp while others think it was a fishing camp (cf. Stewart 1979; Fradkin 1979).

Northeast Coastal Florida

Northeast coastal Florida lies just outside the heartland area, from the mouth of the St. Johns River north along the Atlantic coast to the Georgia border and beyond. This is an area in which St. Johns period cultures are abundant but in which non-St. Johns cultures are also present. The chronological and geographical relation of these cultures to the St. Johns cultures in the area is unclear, but apparently the different cultures alternately occupied similar environments. Single and multicomponent Deptford, Swift Creek, and Savannah sites have been found in this region in direct or nearby association with St. Johns sites (Goggin 1952b; Lee et al. 1984; Bullen and Griffin 1952; Saunders 1987; Hardin and Russo 1987; Wilson 1965; Sears 1959b).

The Savannah presence from coastal Georgia is very strong in the area and may supersede early St. Johns II period cultures in late prehistory. Savannah sites are well-known on Amelia Island and extend as far south as Jacksonville. These sites probably represent a southern limit of Savannah culture in north Florida rather than the borrowing of trade items by St. Johns cultures, since St. Johns wares are minority wares or absent at many of these sites. At sites where St. Johns and Savannah ceramics are mixed, however, interpretation of site function and cultural association is often difficult. In these areas Savannah sites can be distinguished from St. Johns sites by different dominant pottery types, which include sand- and grit-tempered plain, burnished, cord marked, and check stamped wares. Villages are often distinguishable from what have been called St. Johns villages, in that discontinuous individual subterranean house middens intrude into sterile sand areas or beneath sheet middens, unlike the mounded and continuous sheet middens common to St. Johns villages (Larson 1958). It is unclear how the subsistence and seasonality schedules differ between the cultures since little work has been done, but there are a great many similarities in the modelled subsistence patterns, including an hypothesized winter occupation of the coast for Savannah cultures and the production of maize.

The Indian River Area

In the late 1940s and early 1950s, a number of archaeologists suggested that the area beginning at the northern headwaters of the coastal Indian River lagoon and extending to its southern opening at the St. Lucie Inlet differed significantly from the heartland St. Johns culture area to the north in a number of ways (Rouse 1951; Goggin 1952b). These included the apparent absence of corn production (noted in Spanish accounts), the unrelatedness of languages, and differences in religion and social make-up during the Spanish periods of contact. Archaeologically, however, the only observable differences existed in the inclusion of significant amounts of sand-tempered wares in the ceramic assemblages in the Indian River area. Nonetheless, Rouse (1951)

considered the region a distinct archaeological area and suggested the cultural periods be classified as Malabar I and II with minor subdivisions. These periods roughly paralleled those of the St. Johns periods, with St. Johns Check Stamped pottery likewise serving as the *terminus ante quem* for the Malabar II period. Since there were so few discernible differences between the two regions, however, the Indian River area concept was not widely adopted by later archaeologists.

It was not until the late 1970s and 1980s that interest in the area by professional archaeologists forced a reappraisal of the region. A series of contract and research reports questioned the inclusion of the region within the larger east and central Florida archaeological culture area. Some associated the sand-tempered plain ceramics with the Glades and Belle Glade cultures to the south of the region and felt the area should be linked to the Glades culture area (Chance 1980). Like Rouse, others, seeing the predominance of sand-tempered ceramics in the southern portion of the region and the predominance of St. Johns ceramics in the northern portion of the region, viewed the Indian River area as a transitional zone between the Glades and St. Johns areas (Campbell et al. 1984; Levy 1984). Others included it by default in the St. Johns region (cf. Milanich and Fairbanks 1980).

A few ceramic studies have taken another tack. Instead of linking the ceramics of the region to those of surrounding cultural areas, they have started from ground zero and attempted to establish precisely what kinds of ceramics are found in the area. For example, there is some confusion and much subjectivity in separating sand-tempered plain pottery from Glades pottery. A sherd should not be called Glades ware simply because it is found close to the Glades region and exhibits coarse to medium-grain temper in its paste. Because nearly every region in Florida has its own sand-tempered wares, it should be expected that the Indian River region would have its own distinctive plain sand-tempered potteries also. Technological analyses have been designed to separate paste categories and the coarseness of sand tempering on plain sherds in the area, in order to overcome the presumptions of cultural affiliation that arise when plain pottery

is compared to what has previously been described as Glades and Belle Glade pottery. In addition, these studies have been employed to determine if the ceramics were made locally or had to have been traded in. So far analyses suggest that both St. Johns and sand-tempered wares of the region could have come from indigenous clay sources. In addition, base technological studies of Indian River ceramics have been established for future comparison to the St. Johns region ceramics and Glades areas ceramics (Cordell 1985; Espenshade 1983).

Burial patterns are not well known but some seem to resemble traits of the St. Johns region—i.e., sand burial mounds with a variety of interment types including the spoke pattern, group burial, individual burial, flexed, extended, and bundled burials with few grave goods in the earlier Malabar I and more in the Malabar II. Unlike the St. Johns area, however, non-mounded cemeteries have been identified at Gauthier (8BR193) and Cemetery Hammock (8BR252) within the upper St. Johns River valley.

Due in part to the changing nature of the river as its headwaters are approached, the Indian River area exhibits site types that differ in structure from those found in the St. Johns heartland. Mounded shell middens are composed principally of freshwater mussel rather than snail. Large "village" shell middens occur less frequently and are replaced to a large extent by non-shell, smaller "household" middens composed primarily of large amounts of bone from aquatic animals. These "household" middens are spread randomly throughout the marsh (rather than linearly along river channels) because recognizable channels disappear within the marsh of the St. Johns headwaters. Dramatic differences in shellfish use, sizes and kinds of exploited fish, and inferred technologies and economic social units occur as the subsistence economy of the freshwater Indian River area becomes one dependent upon marsh resources rather than the riverine, lake, and swamp resources characteristic of the St. Johns people to the north. Unlike the model of the St. Johns area, there is strong evidence of cold weather occupation of the interior portion of the Indian River area (Russo 1986). Dry land, especially

in the wetter growing season, is scarce in these interior areas, and no evidence of corn agriculture has been recovered.

The Central Lake District

In many ways the little-studied central lake district (the region from southern Marion, Lake, Seminole, and Orange Counties extending down into Osceola County) is similar to the Indian River area. Since St. Johns ceramics have been recovered at many sites and are most often the dominant ceramic, the area has been included within the east and central Florida region. Also, like the Indian River area, large numbers of Glades and Belle Glade ceramics are typically found at these sites, increasing in number in the most southern portions of the region. Sand burial mounds have been identified but few have been investigated (cf. Sears 1959b). Both large and small freshwater shell and black earth middens have been identified along the Kissimmee River and its associated lakes (Austin and Hansen 1988). Subsistence and seasonality studies have not been undertaken in areas west of the St. Johns River. Evidence of agriculture has not been found in the region. Shorelines of the many lakes and streams most often yield small scatters of St. Johns and other ceramics and lithic debitage (e.g., Austin and Hansen 1988; Hardin et al. 1984).

The current model for the Indian River posits the cultures there, at least in the realm of subsistence, as autonomous and not venturing into the central lake district. The model for the St. Johns heartland area sees parts of the central lake district as being occasionally used by St. Johns peoples for hunting. However, that model views the people along the major streams and lakes as following an evolutionary course similar in terms of ceramic manufacture and subsistence economy to the St. Johns populations along the St. Johns River. The situation is unclear.

To help solve this problem, Austin suggests that the presence of chalky St. Johns ware needs to be examined locally in the central lake district to determine whether chalky and sand-tempered ware manufacture are independent phenomena unconnected with either the St. Johns region or the Okeechobee basin. That is, we must consider whether the ceramic technology,

the subsistence pattern, the settlement pattern, and other cultural traits differed sufficiently as to require separate classification from the St. Johns area either for cultural or heuristic archaeological reasons. On the other hand, in terms of ceramics, the central lake area seems roughly to parallel the patterns to the east. That is, purer St. Johns ceramic assemblages are found in the northern portion of the region (Sears 1959b), and that area may be more closely associated with the heartland St. Johns area, whereas in the south, a gradation of Glades type ceramics parallels the developments in the Indian River area. It may be useful to study separate areas of the central lake region in terms of their closest cultural affiliations.

Important Sites

Five St. Johns sites are listed on the National Register of Historic Places. These are the Grand site (8DU1) in the northeast coast area and the Ross Hammock Midden and Mound (8VO130-131), Mount Royal (8PU35), Nocoroco (8VO82), and Turtle Mound sites in the St. Johns heartland. In the St. Johns heartland, other important sites include the Palmer, Fletcher, Hontoon Island, Rollestown Midden, Edgewater Landing (8VO115, 8VO1705), Green Mound, Castle Windy, Crescent Beach (8SJ43), and Cotten (8VO83) sites. Important sites in the Indian River area are the Alderman, Gauthier, Cemetery Hammock (8BR252), South Indian Field (8BR23), Middle Indian Field (8BR21), Mulberry Midden (8OR9), Moccasin Island (8BR16), Fort Taylor (8OS3-4), and Dead Bird Island (8BR47) sites. The other two areas are less well-known, but a few important sites can be listed: the Santa Maria de Guale (8NA41), Liana (8DU136), Chapelle Midden (8DU1542), Fort George Island Midden (8DU5) sites, 8DU634 and 8DU669 in the northeast area, and the Reedy Creek Mound (8OS51), Mound near Brown's Landing (8OS21), Fischer (8PO1044), Walker Mound (8OS102), Black Snake Mound (8PO1046), Zellwood (8OR17), and MacKenzie Mound sites in the central lake district.

Research Questions

Gaps in the database

Much archaeological work on the St. Johns region of east and central Florida was done in the 1960s and earlier. That work, plus a limited number of ethnohistoric accounts, has provided today's archaeologists with a working hypothesis for testing the seasonal movements, subsistence strategies, and social complexities for peoples of the St. Johns region. Unfortunately, much archaeology currently undertaken in the region have been short term cultural resource assessments. The political and economic necessities of such work often results in minimalist, formulaic descriptions which plug into the hypothesized model without testing its accuracy. With better recovery and new archaeometric techniques available today, we should expect our predictions and assumptions about St. Johns behavior and settlement to be challenged.

Material culture and chronology

We need to develop technological attribute lists for chalky and sand-tempered plain ceramics across the regions in order to compare intra-regional differences in ceramic manufacture. This will help determine cultural boundaries more precisely. In addition, formal chronologies of ceramic, lithic, and other tool types need to be developed for each of the four sub-regions to determine whether the rate and kinds of artifact change are uniform throughout the region.

Subsistence and seasonality

Despite the great commonality of cultural traits throughout the area, we need to treat the specific sub-regions outlined above as separate and autonomous units of study in order to illuminate specific regional adaptations. Seasonal, subsistence, and settlement patterns are not uniform throughout the region. Apparently corn was not produced in large parts of the region, and we need to search for evidence of agricultural production throughout the region in order to determine its extent and importance. We do not know the seasonal movements within or

across environmental zones and we need to develop and use biometric techniques to determine seasonality. We do not have a clear picture of what resources were exploited at different site types. Since all cultures in the area relied upon aquatic resources, we need to employ fine-grained recovery techniques in determining subsistence patterns so as not to overlook the contribution of shrimp, nursery fishes, and other small but numerous animals common to aquatic environments.

Settlement patterns and social organization

We need to investigate changes in burial patterns and settlement structure between the early and late St. Johns periods. As it stands now, few differences—aside from the adoption of check stamping on pottery and the inclusion of different trade items—separate St. Johns I from St. Johns II. We need to examine the extent to which the dramatic social changes occurring in the Southeast affected cultural development in east and central Florida. In order to accomplish this we need to determine site structure from all St. Johns periods.

- What constitutes a village?
- How do we separate a midden visited seasonally over a number of years from one occupied year-round?
- Do differences in burial patterns reflect social complexity?
- Is the paucity of grave goods in early St. Johns burial mounds an indicator of a more egalitarian society than later St. Johns cultures? What does it reflect?

Border regions

Border regions in archaeology are extremely difficult to deal with. When traits from two or more cultures are present at a site and are apparently unstratified or otherwise non-patterned in their distribution, the nature of the relationship among the cultures is hard to determine.

- Do the border zones and mixed deposition of artifacts represent a fluctuating border between cultures, each alternately advancing and retreating geographically in synchronization to the influence of the other culture? If

so, then the border areas may belong simultaneously (at least in archaeological time) to two or more culture areas and may be rightfully termed "transitional" areas.

- Or are the border zones separate culture regions with real social and political groups distinct from bordering cultures, but exhibiting traits commonly associated with their neighbors?

Preservation Goals

- Locate unrecorded St. Johns sites, especially in areas endangered by development or erosion and in the central lake district.
- Excavate sites of various types, e.g., small artifact scatters, shell middens, shell mounds, burial mounds, and pyramidal mounds.
- Evaluate sites of various types to determine their National Register eligibility.
- Nominate to the National Register sites representing various types. Because some sites are quite large and extensive and include mounds and middens, some sites may be grouped in archaeological districts.

Chapter 8

NORTH PENINSULAR GULF COAST, 2500 B.P – A.D. 1600

Nina T. Borremans

The north peninsular Gulf coast region reaches from the Aucilla River in Taylor County southward to Pasco County, north of Tampa Bay (Milanich and Fairbanks 1980:24). Approximately 300 sites are recorded here from the time period 2500 B.P.-A.D. 1600. This stretch of the Gulf coast has received less archaeological attention than perhaps any other in Florida. The region is also notable for its lack of environmental and cultural homogeneity through both space and time. Because of these factors, the prehistory of the area is poorly known and resists definition as a single archaeological culture area.

Few systematic surveys or formal excavations have been undertaken in this region. This review is drawn primarily from the following sources: Willey (1949a) and Milanich and Fairbanks (1980) for the entire region; Weisman (1986) for the Cove of the Withlacoochee; and Bullen and Bullen (1953, 1963) for the Crystal River area; Dorian (1981) and Borremans (n.d.) for the Gulf Hammock and Cedar Keys area; Kohler and Johnson (1986) for the Dixie County area.

The Setting

From a broad physiographic perspective, the north peninsular Gulf coast lies within the Gulf Coastal Lowlands province defined by Puri and Vernon (1964:12). Inland from the Gulf, a series of old dune lines runs parallel to the coast and interrupts the gentle westward slope. A mantle of Pleistocene and Holocene sands is

pierced in places by sinkholes and springs. Several rivers expose older limestone and clay formations along their banks. In the north, the entrenched Aucilla and Suwannee rivers cross the plain, draining the surrounding landscape and providing a travel corridor into the interior. The Waccasassa and Withlacoochee rivers empty into the Gulf toward the south. Near the coast, the rivers resemble inter-connected swamps, marshes, and tidal creeks.

The interior coastal mainland is a patchwork of upland hammocks and ridges and low-lying wetlands, including sawgrass marshes, vast cypress and hardwood swamps, and bayheads (e.g., the Cove of the Withlacoochee). Unlike the rest of Florida, much of the north peninsular coastline has not been ditched, diked, graded, filled, or otherwise altered by modern development, giving us a glimpse of what a soggy place the Gulf coast of Florida used to be. Much of the interior lands have been drained for sand pine cultivation, but in prehistoric times, because of low fertility and poorly drained condition, the soils of the area would not have been well-suited to aboriginal horticulture.

In contrast to the central Gulf coast region, the islands that fringe the north peninsular coast are not barrier island formations. South of the Cedar Keys, from Gulf Hammock to the Withlacoochee River, the coastal islands are low in elevation and underlain by limestone bedrock. From the Cedar Keys northward to the Big Bend area, the islands appear to be relict Pleistocene dunes, the highest occurring within the Cedar Keys area. Seahorse Key is over 15 m in elevation, the highest on the Gulf coast, located 10 km from the mainland.

The coastal waters of the region comprise well-mixed estuaries. Fed by rivers and runoff, they support a rich and diverse marine biota. The abundant fish and shellfish available throughout the year have supported maritime economies from prehistoric through historic times. Variations in habitats can be found as one leaves the swampy mainland and enters a vast complex of brackish to salt marshes, shallow seagrass flats, and tidal channels continuing out into the open shallows of the Gulf

of Mexico. Two uneven tides with amplitudes of up to a meter complicate definitions of land and sea.

Vegetation on the outer keys is dominated by maritime live oak forest (oaks, cedar, bay laurel, cabbage palm) with occasional patches of xeric scrub. The inner keys and upland areas of the mainland support, in addition, stands of hickory and sand pine. The keys in the southern portion of the section are surrounded by limited red mangrove swamps and salt marshes on the lee sides, and low energy sandy beaches on the more exposed shores. Toward the north, mangroves are not found and salt marshes are more extensive. Oyster bars, mud flats, sand shoals, and seagrass meadows surround the keys and make water travel at low tide very difficult for anything but very shallow-draft vessels.

Material Culture

A dichotomy between ceremonial/prestige and utilitarian ceramics is found in all of the subareas of the region. Pottery from domestic contexts (village sites, shell middens) is overwhelmingly undecorated. In the absence of absolute dating, this makes it difficult to establish the age of most sites or components within sites. The definition of a pottery chronology has eluded archaeologists, due to the dearth of stratigraphic excavations and radiocarbon dates. Lacking new information with which to test it, the chronology defined by Willey (1949a) has remained largely unaltered.

Types and quantities of paste inclusions vary widely within the region and even within single assemblages for all time periods. South of the Suwannee River, limestone tempered Pasco ware is, however, the dominant paste category in most contexts throughout the post-Archaic span of occupation. North of the Suwannee, Pasco ware is restricted to Deptford and early Weeden Island assemblages. Sandy ware dominates pottery collections north of the Suwannee, but makes up a smaller, but significant percentage of assemblages to the south. Among sandy paste sherds, the size(s) and quantity of quartz grains varies and occurs in combination with other inclusion materials. Sponge spicules and mica flecks are often found in pastes where quartz and/or

limestone is the primary tempering agent. St. Johns series spiculite paste is a minor but persistent component of most assemblages. Variation in paste types defined on temper attributes may have temporal significance. Stratigraphic excavations, radiometric dating, and seriation of ceramic attributes may eventually lead to a much-needed chronology of undecorated wares for each subarea within the region.

Despite a lack of good baseline analyses, some trends and disparities among subareas have been noted and are repeated here as food for thought. These notes are grouped by county because the counties are separated by major rivers, and ethnohistoric information shows that rivers also formed ethnic boundaries between coastal Indian groups along the coast. We suspect that prehistoric territories may have been similarly circumscribed.

Swift Creek complicated stamped sherds are ubiquitous minor components of early Weeden Island period pottery collections. In south Taylor County, Kohler and Johnson (1986:14) located what may be the southernmost "pure" Swift Creek site (35% Swift Creek ceramics in the mound, 10% in the midden, and a lack of other diagnostic types). There is also some evidence that the late prehistoric pottery in this section is primarily Fort Walton-related.

In Dixie County, late prehistoric sites appear to be Alachua tradition-related. Kohler and Johnson (1986:24) defined Alachua components when the dominant sherd types were indistinguishable from types present in late prehistoric period sites in the Gainesville area: cob marked, cord marked, fabric marked, punctated over cord marked, punctated over cob marked and Lochloosa Punctated. They noted that Lochloosa Punctated sherds are more common in Dixie County sites than they are in most Alachua County sites. There also appears to be a pattern, revealed in the change from cord marked to cob marked sherd ratios, that may reflect a temporal trend.

In Levy County, Weeden Island period occupations seem to be the most archaeologically visible. Check stamping is a common mode of surface treatment, as is dentate stamping. Carrabelle

Incised sherds are frequently recovered from shell middens. Sherds characteristic of well-known late prehistoric cultures (e.g., Alachua tradition, Safety Harbor, Fort Walton) are not found in sufficient quantities to help identify and define the local pottery suite. At a burial (possible platform) mound site near Cedar Key, fabric/cord marked pottery was recovered from shovel tests in the village area, but Carrabelle Punctated sherds were also found. Lochloosa Punctated sherds were collected from a small shell scatter site in Gulf Hammock that may be late prehistoric in age (Borremans n.d.). Although no cob marked pottery was found, stratigraphic tests at these relatively intact sites should be undertaken to see if Alachua tradition occupations can be identified or, more likely, if a local Mississippian period manifestation can be defined.

South of Gulf Hammock, in Citrus, Hernando, and Pasco counties, the early Woodland pottery complex is similar to that of Levy County, with the exception of Perico type sherds, which are more typical of the southern coast. Late prehistoric pottery in the area shows greatest affinities to the Safety Harbor culture of the Tampa Bay region (Mitchem 1989a, 1989b).

Ceremonial ceramics, confined largely to burial contexts, include fancy classic Weeden Island punctated, incised, and zoned red pots. Many vessels are composite in form and animal effigy adornos are common. Before burial in the mounds, vessels were often "killed," sometimes before firing took place. Pots were also broken before interment and the sherds placed in caches in the mound margins.

Next to potsherds, the most common artifacts found in coastal sites are shell tools. More than the byproduct of subsistence activities, shell was an important raw material for tool-making. A wide variety of shell tools have been recognized, including hafted hammers and pounders, perforators, scrapers, anvils, adzes, celts, cups, dippers, etc. Many of these tools were formal in nature, but others, more difficult to identify, were informal or expediently used. Hafted tools are generally made from lightning whelks, crown conchs, and horse conchs. Clam shells were used as anvils and scrapers. The columellae of marine

snails were used for pounding and gouging, while the columellae of small snails were used as awls, perforators, engravers, etc. Columellae were also fashioned into shell "pendants" that may have served as net weights or composite fish hook weights.

Shell was also used for ceremonial or decorative artifacts, such as gorgets and beads. The outer whorl of the lightning whelk was used to make a dipper for Black Drink ceremonies or to accompany the dead.

Other mortuary goods include stone and clay pipes, ground stone celts, bone pins, copper artifacts, stone "pendants," perforated shark and canine teeth, sheet mica, hematite ore, red ochre, and lump galena.

Bone artifacts are found in small numbers in mounds and middens. Bone pins, often described as projectile points, may have functioned as fish hook barbs or throat gorges (Walker 1989).

Tertiary limestone outcrops in the north peninsular Gulf coast region occur at the water's edge and in the rivers, solution cavities, and springs. Chert is more readily available south of the Suwannee River, and the distribution of chert artifacts reflects this pattern. Despite the availability of raw material, however, the post-Archaic coastal stone tool industry was rudimentary at best. Chert flakes are rare in shell middens located on islands. Projectile points or other formal tools are uncommon, but small stemmed points, scrapers, drills, and knives have been found. In the interior mainland, chert artifacts are more frequently recovered. Lithic scatters are found in the uplands, often without associated pottery. It is unclear whether all of the sherdless sites are Archaic in age or whether they are younger, special-purpose hunting camps where pots were not often used.

Settlement Patterns and Site Types

Although significant differences exist geographically among subareas of the north peninsular Gulf coast, several consistencies can be noted. Sites of all ages are larger and more numerous on the coast than in the interior, except along the major waterways.

Although some survey bias is certainly reflected, this probably indicates that population centers were located on the coast.

Many of the archaeological sites in the coastal area are linear shell middens which fringe the shorelines. Almost all are actively eroding into the Gulf, attesting to the continuing rise in sea level that has occurred since 2500 B.P. In the Cedar Keys area, Weeden Island age components have been observed overlain by intertidal and beach sediments. Sites of greater antiquity have certainly been drowned or eroded and lost to the waters of the Gulf.

Most of the large maritime shell midden sites investigated represent relatively consistent use of the area from Deptford through at least Weeden Island times. Zooarchaeological evidence from the Cedar Keys demonstrates intensive maritime adaptation and permanent year-round occupation of two of the outer islands, Seahorse and North Keys (Borremans n.d.). In this subarea, linear shell midden sites that date primarily to the Weeden Island period have been found to cover many of the island shores and mainland peninsulas. These sites, which vary in size from a few tens of meters to many hundreds of meters in length, may be sequential seasonal camps or village accumulations. Small islands are often capped entirely by shell midden and occupational debris. On the larger landforms, sets of circular and ridged shell middens are found, some of which are sizable mounds (e.g., areas around Horseshoe Point, Shired Island, Shell Mound, Cedar Key). These areas of high site density are spaced with some regularity along the coast (ca. 5-10 km apart) and are thought to represent permanent village or town sites. The distribution of these site complexes may reflect catchment size as well as political centralization.

Multiple burial mounds, generally of Weeden Island age, are associated with these large site complexes, although we do not have the evidence to suggest which, if any, may have been in use at the same time. Isolated burial mounds are also found along the rivers and dotting the islands and mainland coast. Most of our information about mounds in the region comes from C. B. Moore (1903b, 1907, 1918), Montague Tallant (cited in Willey 1949a), S. T.

Walker (1880), and Gordon Willey's 1949 synthesis of Gulf coast archaeology.

Unfortunately, early mound explorers and local artifact hunters were very thorough in their excavation techniques. Few mound sites are still intact (except for those least accessible by car or boat), but historic records, maps, photographs and reports can help us reconstruct their archaeology. From the information provided by Willey (1949a), we can generalize that most mounds were circular, 1 to 3 m in height. The number of burials per mound seems to increase from north to south along the coast. Also, the amount of ceremonial construction appears to increase from north to south.

Mounds in Taylor County were often capped with limestone slabs, and limestone was also placed in the mounds, sometimes serving as cairns. Mounds in the central portion of the region often contained shell midden layers or sand mixed with shell. In the Cedar Key aboriginal cemetery (8LV4), some burials were placed in sand pits capped with shell midden, while others were placed in a matrix of shell. Several small sand burial mounds are known to exist in the Gulf Hammock. One low sand mound is located adjacent to a small freshwater pond. It is about 12 m in diameter and "paved" with Weeden Island period sherds. No village occupation could be found through testing and surface inspection (Borremans n.d.)

Burials were often secondary bundles or single skulls, but primary flexed and extended interments were also common. Although grave goods are reported to have been associated with individual burials in some mounds, it was more common to have sherds and other artifacts scattered in the mound fill or concentrated in one or more caches.

Along the interior waterways, lakes and freshwater marshes, fresh and brackish water shell midden sites are commonly found, reinforcing the prehistoric importance of aquatic resources. Numerous thin oyster shell middens occur adjacent to the (now) fresh to brackish streams in Gulf Hammock (Levy County). The land is very poorly drained with less than a meter of soil accumulation overlying limestone bedrock. Longtime residents

say that the streams used to produce oysters, but now they support populations of freshwater clams (*Polymesoda caroliniana*). This is a surprising reversal of the fresh-to-salt sequence that is caused by the Holocene marine transgression, and one that deserves an explanation.

Small artifact scatters have been found in interior upland areas and may represent temporary hunting camps.

Subsistence

Shell midden sites containing domestic refuse are composed primarily of oyster shell, but significant quantities of quahog clam, scallop, whelk, and conch are present as well as a host of other molluscs in varying amounts. Also recovered are blue crab and stone crab shells. Vertebrate remains are predominantly fish, including sharks, rays, catfishes, mullet, trout, sea bass, pinfish, pigfish, sheepshead, jacks, drums, etc. Sea turtle and land tortoise bones have been found, along with snake, alligator, and salamander. Deer bones are the most frequently identified terrestrial mammal. Our recognition and understanding of the nuances of subsistence pattern through space and time will improve as more fine-screened shell midden samples are analyzed.

To date, no direct evidence of plant cultivation has been found in the north peninsular Gulf coast region. Cob marked pottery and other Alachua Tradition pottery found at numerous sites in Dixie County suggest late prehistoric affinities with interior horticulturalists, but site distributions with respect to soil characteristics do not change appreciably through time (Kohler and Johnson 1986:25). In the southern portion of the region (Hernando and Pasco counties) horticulture may have begun in Weeden Island times and then assumed a prominent role in the late prehistoric economy: we know that maize horticulture was practiced at the time of Spanish contact.

Evidence from the Cove of the Withlacoochee suggests that a shift in primary settlement type and location from permanent year round riverine shell middens to non-shell upland seasonal villages took place sometime after A.D. 500, possibly reflecting a

transition from a riverine subsistence strategy to one focused on horticulture (Weisman 1986:20). Unfortunately, we cannot confidently identify Mississippian period occupations along much of the coast unless exotic diagnostics are present. It is difficult, therefore, to characterize late prehistoric settlement and subsistence patterns.

Important Sites

Most of the known important mound sites have been destroyed by indiscriminant excavation/looting. Many of the collections, although unprovenienced, are curated in museums and are available for study (e.g., Hog Island Mound [8LV2], Crystal River Mound [8CI1]). The mounds at Garden Patch (8DI4) (Kohler 1975) and Parodie Hill (8LV267) are still largely intact, as are many of the smaller interior mounds.

Many of the most impressive shell midden sites have been robbed for road building material (e.g., Shell Mound [8LV42], now a park). A few, however, have escaped destruction by virtue of their inaccessibility. A recent survey of the Levy County coast has revealed the existence of several very large, complex village sites that have been neither looted nor "borrowed." They are found on Seabreeze Island, Richard's Island (8LV137), and an unnamed island immediately south of Shell Mound, on Dennis Creek. All of these sites contain intact stratigraphy and site structure.

The famous Crystal River site (occupied from A.D. 1 to ca. A.D. 1200) is certainly one of the most significant on the coast (Moore 1907; Bullen 1951a, 1953, 1966; Weisman in press). It contains some of the earliest evidence of ceremonialism on the Gulf coast. Although its mounds have been excavated and portions of one destroyed, much of the site has been preserved as a park. The Crystal River site is the only one in the area that is listed in the National Register of Historic Places.

Most of the sites in the Cove of the Withlacoochee, Gulf Hammock, and other interior wetland and upland areas are well-preserved. Together they represent an important database about which we know very little.

Research Questions

Gaps in the Database

Formal stratigraphic excavations of all types of sites, coastal and interior, shell middens and mounds, are needed to provide data that can be synthesized and compared with that from other regions. To date, no modern large-scale excavation has been accomplished in the region. Reanalysis of collections in museums using current techniques and instrumentation will be a necessary part of a research strategy aimed at bettering our regional perspective, since many of the sites no longer exist to be re-excavated.

Chronology

The picture of cultural trends painted above is both sketchy and ambiguous because each subarea of the coast appears to have its own trajectory. Intraregional diversity in pottery style, manufacture techniques, and raw materials is to be expected in a heterogeneous region. Each area should be addressed individually, using securely dated stratigraphic samples. The north peninsular Gulf coast was home to three (or more) protohistoric ethnic groups. We should expect these, and other, distinctions to be visible archaeologically.

Settlement patterns

That the prehistoric economy of the region was maritime-oriented is well-documented. Interior sites need to be studied in order to ascertain the role of inland, terrestrial resources and that of cultivated plants.

- What is the relationship between interior and coastal sites?
- Is the lack of intact Late Archaic sites and the paucity of Deptford period sites a reflection of the truncation of the settlement pattern by sea level rise or the result of survey bias?
- Were there shifts in site location over time within the Weeden Island period, as suggested at Seahorse Key?

- Does the large increase in site density after A.D. 1 represent a population increase?
- Does the increase in midden thickness reflect increasing permanence of occupations and the growth of village life?
- Does the apparent decrease in numbers of sites identified as post-Weeden Island indicate a shrinking population, an abandonment of the area, or is it a consequence of ceramic conservatism and a lack of defined typological time markers for the local late prehistoric culture phase?

Social and Political Organization

The social and political systems of the north peninsular Gulf coast are almost totally unknown.

- What level of social and political organization was present during Deptford, Weeden Island, and post-Weeden Island time periods?
- Does the appearance of mound burial reflect changes in social organization?
- Does the differential treatment of individuals at death (e.g., burial in mound or outside of mound, interment with or without grave goods, burial in shell or sand) indicate differential status during life?
- Does variation in the distribution of Weeden Island decorated sherds in domestic contexts indicate the existence of elite households?
- Does the apparent nucleation of large domestic sites and burial sites at regular intervals along the coast represent territorial spacing of integrated polities?

Health and nutrition

More information about diet and health is needed to assess hypotheses of social status differentiation. Human skeletal populations are an important source of information about nutrition and health, through morphological, isotopic, and trace element analysis.

Intensive, detailed bioarchaeological studies of carefully selected and excavated samples are necessary for reconstructions

of diet, economy, and environmental conditions. Special emphasis should be placed on the recovery and analysis of plant remains.

- Did environmental changes occur that resulted in increased productivity at the time of apparent population increase?
- How much variation exists in subsistence strategies along the coastline from Pasco County to Taylor County, and can these differences be accounted for environmentally?
- Were the coastal people full-time fisher/foragers in Levy and Dixie counties? In Taylor County? In Citrus, Hernando and Pasco counties?
- Do interior upland sites represent hunting forays? Swidden gardens?
- If, in the same time period, horticulture is found to be present in the southern counties and not in the northern counties, how does the health of the people compare?

Regional relationships

The cultural variability throughout the region suggests ties with other areas, but the nature of these ties is not at all clear.

In view of the environmental and cultural variations observed along the Gulf coast, can inferred differences in social organization be correlated with or attributed to differences in physiography and/or resource bases?

How might interaction with interior horticultural groups have affected the course of cultural development on the coast?

Preservation Goals

Loss of sites to construction, road building, and looting is an ongoing process, and one that is reaching critical proportions in Cedar Key. The pace of this loss, however, is not as rapid as elsewhere in the state. This means that there is hope that with enforcement of local, state, and federal historic preservation laws and ordinances, the destruction can be stopped or at least mitigated. The archaeology of the region needs to be reconstructed using extant artifact collections, historic documents, and local informants.

A more insidious source of site destruction—the natural process of shoreline erosion due to ongoing sea level rise—is claiming unabatedly most of the coastal sites that still exist. Massive volumes of shell midden have been lost to the Gulf waters, even within the last five years. The pace is generally slow but sure, and surges with each hurricane. Even sites that are protected from development are at risk. We need to assess the vulnerability of all significant coastal and riverine sites and set about systematically sampling them in order to mitigate their eventual and unavoidable loss.

- Locate unrecorded sites, especially in those areas threatened by development or erosion.
- Assess the National Register eligibility of all identified sites.
- Excavate representative site types, e.g., coastal shell middens, shell midden complexes, freshwater shell middens, inland artifact scatters, and burial mounds.
- Nominate to the National Register significant sites of various types.

Chapter 9

CENTRAL PENINSULAR GULF COAST (The Manasota Region), 2500 B.P – A.D. 800

Jerald T. Milanich

The central peninsular Gulf coast region extends from Pasco County in the north southward to Charlotte Harbor, encompassing Tampa Bay as well as Pinellas, Hillsborough, Manatee, and Sarasota counties (Milanich and Fairbanks 1980:22, 24-26). During much of the post-Archaic, pre-Safety Harbor period it was the region of the Manasota culture, defined and described by George Luer and Marion Almy (1979, 1982). Less than 50 Manasota sites are recorded in the Florida Site File.

Manasota (which subsumes the Perico Island and Weeden Island designations in this region) can be divided into early (2500 B.P.-A.D. 400) and late (A.D. 400-800) periods, based both on changes in secular ceramics and on the presence of Weeden Island pottery in late Manasota mounds. Late Manasota is not a Weeden Island culture, although archaeologists recognize that Manasota burial ritual is related to that of the more northerly Weeden Island culture(s) (Milanich et al. 1984:14-15). A Weeden Island cultural manifestation apparently follows a late Manasota (ca. A.D. 800-900), but this needs to be verified.

Manasota Culture

The Manasota culture derives its name from Manatee and Sarasota counties where it was first recognized. Because the village ceramics associated with Manasota sites are largely undecorated wares with quartz (sand) inclusions, the traditional practice of equating a ceramic assemblage with an archaeological

culture was not feasible. Instead, Luer and Almy (1979:40-41) used a constellation of traits to define Manasota and distinguish it from the earlier Archaic culture(s) and later Safety Harbor culture:

...Manasota culture is characterized by...sites which yield evidence of an economy based on fishing, hunting, and shellfish-gathering. The sites yield evidence of burial practices involving primary, flexed burials.... Ceramic manufacture was limited to sand-tempered, undecorated...pottery such as...flattened-globular bowls and pots with a converged orifice. Many shell tools were used...including fighting conch shell hammers, left-handed whelk shell "spokeshaves"...columellae, and hammers.... There was little use of stone tools.... Bone tools include barbs and simple points made from longbones.

The Manasota population probably evolved from the late Archaic transitional period populations of the region. By A.D. 800 or shortly afterwards, Manasota developed into a late Weeden Island culture and, shortly thereafter, into Safety Harbor, a Mississippian period culture.

The Setting

Within the central peninsular Gulf coast the coastal strand is typified by narrow bays adjacent to well-drained pine flatwoods that extend from the shoreline inland to the uplands of interior south-central Florida (Luer and Almy 1982:37-39). Narrow, long barrier islands form a line paralleling the coast. Although some mangroves and coastal marshes are present on the coast, their limited distributions are in sharp contrast to the southwest Florida stands of mangroves and the north peninsular Gulf coast saltwater marshes. The eastern limits of the region are roughly placed at the Peace River (Figure 12).

Numerous streams flow into the region's narrow bays and into Tampa Bay, including the Hillsborough, Alafia, Manatee, and Little Manatee rivers. The shallow waters of the Gulf and the adjacent estuaries provided habitats for a variety of fish and molluscs, as did the freshwater streams and bayheads within the

pine forests. Compared to northern Florida, the soils within the region were not well suited to aboriginal agriculture.

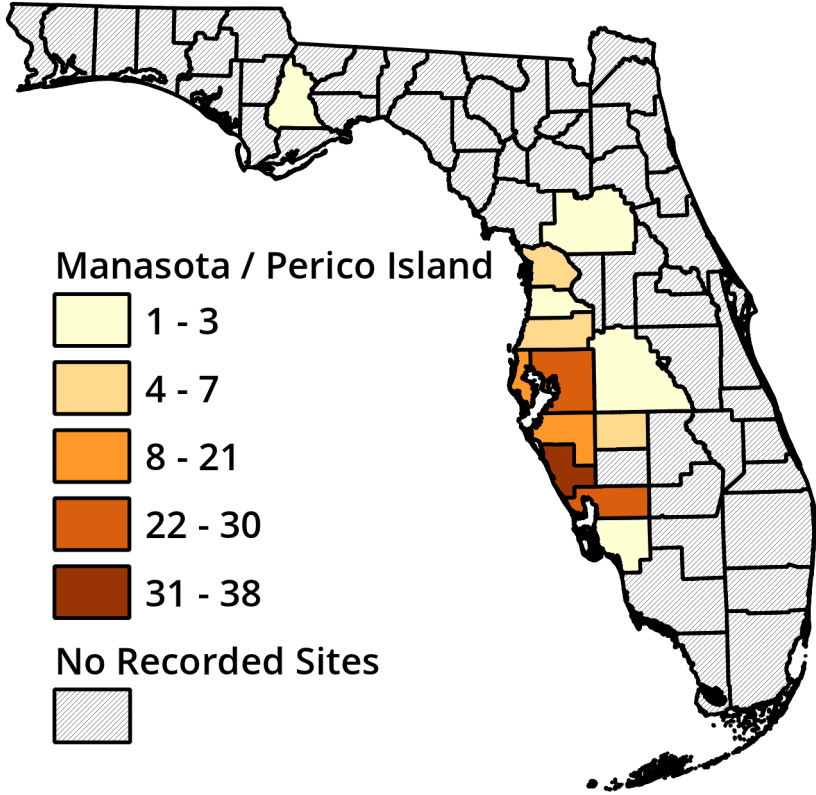


Figure 12. Distribution of Manasota-Perico Island Sites (by county)

Inundated shell middens, some of them postdating 2500 B.P., are known from the peninsular Gulf coast, including Tampa Bay, and it is likely that some Manasota sites are now located beneath coastal waters (Bullen and Bullen 1950, 1953, 1963; Ruppé 1980; Warren 1964, 1970). An understanding of the coastal geomorphology of the region is essential to future studies of Manasota.

Material Culture

Manasota ceramics are almost all undecorated, and studies of temporal changes have had to rely on attributes other than pottery decorative styles (Luer and Almy 1980, 1982:41, 44-45). Flattened globular bowls with inward-curving rims and chamfered (beveled) lips help to define the early Manasota period, 2500 B.P.-A.D. 400. After A.D. 400 the globular bowls are replaced by pot-shaped vessels with straight rim and rounded lip. Another early Manasota vessel form is a pot with a slightly incurving rim and rounded lip with a slightly converged orifice, dating from ca. 2200 B.P.-A.D. 700. Simple bowls with outward-curving rim and flattened lip are very late within the Manasota period. The early forms tend to be relatively thick, often more than 1 cm thick. After A.D. 400 the pottery vessels are thinner, a trend that continues up to the Safety Harbor period.

Luer and Almy (1982:41-42, 44, 45) have also studied the shell and bone tool assemblages from Manasota village sites. Marine shell, heavy and durable, provided ready raw material for a variety of tools, some probably hafted in wood, including *Strombus* two-holed hammers (apparently limited to ca. 2300 B.P.-A.D. 700); *Busycon* spoons, pounders, celts, columellae, columella barbs, cutting-edge tools, and hammers; *Pleuroploca* and *Fasciolaria* columella "planes"; *Noetia* (valves) net weights; and *Mercenaria* anvils, choppers, hammers, scrapers, and digging implements. *Busycon* shells were also fashioned into gorgets, and beads were manufactured from *Oliva* shells.

Shark vertebrae were drilled for use as beads, and bone was also used to make projectile points, barbs, and awls. Stingray spine points and sharks' teeth tools (scrapers and knives) have also been identified.

Within the central peninsular Gulf coastal strand, stone is relatively rare and shell was more commonly used to make tools. However, some chert and agatized coral was available and used to manufacture tools (or, more likely, the tools were made elsewhere and brought to the coastal strand). Tools of these materials include scrapers, knives, drills, and projectile points (Sarasota, Hernando, and Westo points; see Bullen 1975).

Mineralized (fossilized) sharks' teeth and dugong (an extinct sea cow) ribs were also used for tools.

Settlement Patterns

The largest number of Manasota sites have been found adjacent to the waters of the region's narrow bays and Tampa Bay, providing access to fish and shellfish (Luer and Almy 1982:fig. 1, 39-40, 43). Such coastal sites include large and small shell middens (often components within sites that include earlier and/or later components) that are believed to be village locations, and sand burial mounds. Large shell middens are linear deposits, some forming ridges, paralleling the shoreline. At some, shell refuse was used to construct ramps leading to the middens. The large middens tend to be spaced along the shore at distances of 5-10 km, perhaps reflecting coastal catchment requirements. Smaller middens are also found on the coast. Coastal sites had immediate access to the resources of the pine flatwoods and their freshwater habitats.

Presumed short-term village sites (without extensive shell middens) and special use sites are present away from the coast in the pine flatwoods near water sources. These sites tend to be placed on higher ground such as scrub oak terrain (Austin and Russo 1989). In some instances the height of the terrain was enhanced by purposeful construction (Almy n.d.) Non-coastal sites include lithic and ceramic scatters like Curiosity Creek (8HI480), shell scatters like Catfish Creek (8S0608), lithic workshops like Rock Hammock (8HI556). Dirt middens may also be present, as suggested by the Myakkahatchee site (8S0397) (Luer et al. 1987).

Subsistence

Our knowledge of Manasota subsistence is based largely on George Luer's excavations at the Old Oak and Roberts Bay sites near Sarasota (Luer 1977a, 1977b), analysis of zooarchaeological remains from the Venice Beach site (8S026), an inundated site just off the present shoreline (Fraser 1980), Brooks's analysis of collections from the Bayshore Homes (8PI11) and Weeden Island

(8PI1) sites (Brooks 1974), and Russo's analysis of the faunal remains from Catfish Creek (Austin and Russo 1989). Luer and Almy (1982:43) note that fishing was the most important subsistence activity; fifteen species of bony fish and 10 of sharks and rays have been identified. The variety of bottom, open-water, and surface fish suggests diverse fishing methods were employed. Dolphins and other cetaceans were also taken, as were sea turtles.

Shellfish, gathered from the shallow waters adjacent to coastal villages, were also important within the Manasota diet. Luer and Almy (1982:43) report fifteen species collected from a variety of habitats, including barrier island beaches, turtle grass tidal flats, and mangrove forests. Middens are known that contain primarily either oysters or clams, suggesting specialized collecting from habitats.

The coastal Manasota peoples hunted and collected in the adjacent pine forests and freshwater habitats. Deer, wolf, dog, opossum, raccoon, rabbit, rat, reptiles, and amphibians have all been identified among the animal remains in shell middens, as have the red-breasted merganser and bald eagle.

Chronology

A number of radiocarbon dates have been secured from Manasota sites (see Bullen 1971:13; Bullen and Bullen 1976:25, 41; Luer 1977b:127; Luer and Almy 1980:216; Sears 1971:56; Austin and Russo 1989:Table 7). Those dates, coupled with dates from the post-Manasota Safety Harbor culture (Luer and Almy 1982:53) securely date the development of Manasota and its evolution into late Weeden Island and Safety Harbor. The idea that a late Weeden Island manifestation was present between Manasota and Safety Harbor appears to be valid (e.g., Milanich and Fairbanks 1980:26).

Burial Practices

Human burials during early Manasota times (2500 B.P.-A.D. 200) were made as primary, flexed interments in shell middens. During the period A.D. 200-400, similar interments were made, but within constructed burial mounds located adjacent to village sites.

These early continuous-use mounds largely contained locally-made, undecorated pottery. Occasionally interments were extended or semi-flexed. During the period A.D. 400-600, Weeden Island pottery appears in the mounds. After A.D. 600 the relative amount of Weeden Island ceramics increases, and secondary burials were made (Luer and Almy 1982:42, 46-47).

Previous Research

Our basic knowledge of the Manasota region was synthesized by Gordon R. Willey in the 1940s (Willey 1948, 1949a), who incorporated information from the excavation of a number of sites dating back into the nineteenth century. Many of the turn-of-the-century and early twentieth century federal archaeological projects provided baseline data that are still important today (see Willey 1949a:15-35, for an extensive overview of Gulf coastal sites excavated during the century preceding 1946; also Bullen 1952).

Over the next two decades a number of archaeologists published the results of excavations at both mound sites and shell middens (e.g., Bullen 1950, 1951b, 1971; Bullen et al. 1978; Bullen and Bullen 1976; Bullen, Partridge, and Harris 1970; Sears 1960, 1971b). During the 1970s and 1980s archaeologists also began to investigate non-coastal sites (Almy 1976, 1982, n.d.; Hemmings 1975; Welch 1983; Austin and Russo 1989) and to undertake more problem-oriented studies of the shell middens and Manasota region ceramics (Luer 1977a, 1977b; Luer and Almy 1979, 1980; Austin and Russo 1989). Also during the 1970s cultural resource management surveys began to be carried out on a large scale (see, for example, the bibliographic citations in Luer and Almy 1982, and the discussion in Welch 1983:20-21). Data from these investigations provided a basis for reinterpreting the information gleaned from previous excavations. The result has been a synthesis and reformulation of our taxonomy and definitions of the cultures of the central peninsular Gulf coast (Almy 1976; Luer and Almy 1982).

Important Sites

Several Manasota sites--the Osprey Archaeological and Historical site (8SO2), the Weeden Island site (8PI1), the Prodie Shell Midden (8SO617) at the Keith Residence at Phillippi Estate Park, and the Bickel Mound (8MA83B), and one archaeological district containing Manasota sites, the Upper Tampa Bay Archaeological District (8HI2271), are listed on the National Register of Historic Places.

Many of the important mound sites excavated by C.B. Moore (1903) and others have long been destroyed, although the collections exist and are curated in various museums (e.g., Thomas Mound [8HI1], Safford Mound [8PI3]). Such collections provide a very important database. Extant mounds include Palmer Mound (8SO2) (Bullen and Bullen 1976) and Prine (8MA83C) (Bullen 1951).

Similarly, many shell middens have been totally or partially destroyed. Important remaining sites include the extensive middens at the Weeden Island site in Old Tampa Bay (8PI1) (see Brooks 1974; Fewkes 1924; and Sears 1971b), middens along the south shore of the Little Manatee River (Sellner site [8HI30]) (see Bullen 1952), shell middens on Siesta Maria Key (Luer and Almy 1979), middens on the mainland in and near Sarasota (e.g., the Old Oak [8SO51] and Roberts [8SO56] sites) (Luer 1977a, 1977b), small shell scatters on the mainland (e.g., Austin and Russo 1989; Almy n. d.) and middens adjacent to the Palmer Mound near Osprey.

Important inland sites include Cypress Creek (8HI471) on the north side of Tampa Bay (Almy 1982) and the now-destroyed Curiosity Creek (8HI480) in southern Hillsborough County (Almy n.d.), and the Myakkahatchee site (8SO397).

Research Questions

Because our knowledge of the Manasota culture has been summarized by Luer and Almy, research questions can be posed that take advantage of their synthesis.

Gaps in the database

Modern excavations of coastal middens, both large village sites and smaller middens, and excavations of noncoastal sites are needed to provide additional data important to understanding the types of Manasota sites and their distributions and to answer some of the questions posed below. Reanalysis of extant data from the many sites already excavated (and since destroyed) should be undertaken as appropriate as future archaeologists carry out problem-oriented studies. Within the Manasota region, museum collections provide a very important database, especially as archaeological sites in the greater Tampa Bay region continue to be destroyed as development expands.

The concept of Manasota needs to be further refined, especially vis-a-vis earlier and later cultural manifestations, e.g., the old concept of Perico Island and the transition into Safety Harbor.

Chronology

Emerging data suggest that Manasota developed into a late Weeden Island and, thereafter, into the Safety Harbor culture after ca. A.D. 800. This sequence needs to be verified.

The relationships of Manasota to the preceding culture needs to be addressed. What is its relation to the earlier ceramic-making cultures associated with fiber-tempered and Perico Island pottery? Analyses of Manasota ceramics by Luer and Almy (1980) and by Mitchem and Welch (1983) need to be expanded, and the results tied to radiocarbon dates to provide attribute lists correlated with chronometric dates.

Settlement patterns

Clearly the Manasota culture has a coastal orientation. However, many inland, noncoastal sites exist, and the entire realm of sites needs to be studied as a system. Also, very few late Archaic sites with extensive fiber-tempered pottery components are present in the central peninsular Gulf coast region relative to Manasota, suggesting a population increase after 2500 B.P. However, such sites may have existed, but are presently inundated.

- What do the inland sites represent? Are they special-use camps occupied for short periods of time or are they longer-term villages?
- What are the relationships between coastal and inland sites?
- What are the relationships between pre-Manasota and early Manasota settlements?
- Was there indeed a large population increase after 2500 B.P., as apparently reflected in an increase in the number or extent of sites?
- Are there changes in Manasota settlement patterns over time? Or are many pre-Manasota, late Archaic sites inundated or buried under shifting sands or more recent sites, and demographic growth within the bounds of an expected increase?
- Are there differences in settlement patterns between the late Manasota and early Safety Harbor cultures, and what do these similarities or differences represent?

Social and political organization

To date, almost nothing has been written about the level of social and political organization of the pre-Safety Harbor societies of the central peninsular Gulf coast.

- What level of social and political organization was present in the Manasota culture?
- Does the appearance of mound burial reflect changes in social organization, i.e., the development of lineage-based kin groups as an integrative unit?

Health and nutrition

Human skeletal collections from Manasota mounds offer an excellent database for studies of social status and health and nutrition. Such data are very important as comparative information to aid in our understanding of the nutritional effects of chiefdom organization in the later Safety Harbor period. More detailed dietary studies based on excavated collections are also needed; such studies should include evidence of plant use.

- How important was the estuarine system of Tampa Bay to the subsistence of Manasota peoples relative to, for example, the coast near Sarasota?
- Are there environmentally-related reasons (i.e., the onset of more propitious estuarine conditions) for the apparent increase in the number of Manasota sites over those of earlier late Archaic peoples?
- How does the health of the Manasota, presumed village-dwelling peoples, compare with that of the peoples of the Archaic and Paleoindian periods (e.g., from Little Salt and Warm Mineral Springs), who presumably were fulltime hunter-gatherers?

Regional relationships

The Gulf coast of Florida, 1280 km in length from Perdido Bay to Cape Sable (more than 8600 km of indented shoreline), exhibits subtle environmental and cultural diversity during the period 2500 B.P. to A.D. 800.

- Can we correlate such cultural diversity among the northwest, north peninsular, central peninsular, southwest, and Ten Thousand Island regions to differences in coastal and adjacent inland environments?

Technological studies of Manasota Weeden Island ceramics from mortuary contexts are needed to determine if they are locally produced or represent items brought from more northerly Weeden Island cultures.

Preservation Goals

The destruction of archaeological sites in the central peninsular Gulf coast region has been ongoing since the nineteenth century, when shell middens along the shoreline of Tampa Bay were mined for shell to pave the roads of nearby towns. Commercial shell-mining of inundated middens in the bay has also occurred. The phenomenal growth in Pinellas, Hillsborough, Manatee, and Sarasota counties in the twentieth century, especially over the last few decades, has probably resulted in the destruction of more of the archaeological record in this area than in any other part of the state. Extraordinary efforts need to be made to protect

the little that is left. This is especially true along the coast, where the shell middens that remain are only remnants of the extensive deposits once present in the nineteenth century.

A major task is to document the destruction of sites that has occurred. This will both provide a case study of what has been and is happening to Florida's archaeological record, and it will allow archaeologists to begin to reconstruct the archaeological record before most of it was destroyed by modern development and commercial shell mining. Such a reconstruction is important to many of the research questions stated here.

- Locate unrecorded sites and evaluate the significance of all sites, especially those endangered through erosion or development.
- Inventory extant artifact collections.
- Document the fate of sites observed by archaeologists in the late nineteenth and early twentieth centuries (up into the 1930s), many of which were recorded in the Florida archaeological site file in the late 1940s and early 1950s.
- Excavate sites representing varying types.
- Nominate representative sites of varying types for listing in the National Register.
- Cooperate with state agencies and conservation organizations to acquire lands which contain significant archaeological sites.
- Initiate an educational campaign on the importance of protecting the archaeological record. Ideally, this would be a joint effort of the Division of Historical Resources and local historical and anthropological organizations, museums, corporations, and foundations. Such a project could be a pilot for similar programs elsewhere in the state.

Chapter 10

THE CALOOSAHATCHEE REGION

Karen Jo Walker

Delineation of the southwest Florida Caloosahatchee culture area, along with other areas of southern Florida, has drawn differing opinions that have produced variously drawn boundaries (e.g., Bullen 1969; Carr and Beriault 1984; Goggin 1947, 1949a; Griffin 1988, 1989; McGoun 1984; Milanich and Fairbanks 1980; Sears 1967; Widmer 1988). Because the spatial configuration of any culture area surely underwent constant change over time, it is not crucial to establish rigid demarcations. Yet even a rough definition is useful for organizational purposes (Griffin 1988:119). John Griffin's updated approximation of south Florida culture areas places the Caloosahatchee region northern boundary slightly north of the mouths of the Peace and Myakka rivers and the southern boundary just south of Estero Bay (1988:121). An eastern boundary is arbitrarily drawn half way between Charlotte Harbor and Lake Okeechobee. Carr and Beriault (1984:12) and Widmer (1988:79) concur. These artificial boundaries encompass all of Charlotte and Lee counties.

Ethnohistoric Perspective

Spanish explorers entering Estero Bay and Charlotte Harbor in the sixteenth century encountered the populous and sedentary maritime Calusa Indians governed by a paramount chief named "Carlos." Written accounts of these meetings record first-hand observations of Calusa life. Principal archival sources include the documents of Solís de Merás (1923), Vargas Ugarte (1935), True (1945), Zubillaga (1946), Laudonnière (1975), and Hann (1991).

The chronicles frequently focus on the Calusa capital, "Calos," believed to have been located at Mound Key in Estero Bay (Goggin and Sturtevant 1964:182-183; Lewis 1978:19, 40-41) and consistently depict the area of Estero Bay/Charlotte Harbor as the heartland of the Calusa people whose political influence extended over all of south Florida. The densest population in south Florida occurred at this coastal "center" (Goggin and Sturtevant 1964:186; Milanich and Fairbanks 1980:246).

The Calusa have been variously identified by researchers as a society at the level of complex hunter-gatherer, chiefdom, and state. Anthropologists, using Spanish descriptions, characterize an elaborate level of cultural complexity for the Calusa based on a fishing economy (Goggin and Sturtevant 1964; Lewis 1978; Marquardt 1986, 1987, 1988; Widmer 1988). To date, archaeologists have not demonstrated conclusively whether or not this historic Calusa society originated in the coastal region (Luer 1986a:154-155; Widmer 1988:97).

Environmental Perspective

The southwest Florida coastal area of the Charlotte Harbor estuarine system, encompassing Charlotte Harbor proper south to San Carlos Bay and Estero Bay, represents a culmination of biotic productivity resulting from the climatic, physiographic, and hydrographic nature of the lower half of the Florida peninsula. Located between 26° and 27.5° north latitude, the Caloosahatchee Area lies at the northern limit (thus, often referred to as "subtropical") of the tropical wet/dry savannah as classified in the Köppen system (Oliver and Hidore 1984:186-189). The barrier effect of the Atlantic coastal ridge, plus the general southwesterly slope of the peninsula, creates a great nutrient flow that eventually concentrates in the shallow inshore marine waters of the Charlotte Harbor system (e.g., Estevez 1981; Taylor 1974:205-209; White 1970). Three major rivers, the Myakka, Peace, and Caloosahatchee, drain interior lands to the north and east, emptying into Charlotte Harbor and San Carlos Bay. Combined with the circumscribing nature of sand barrier islands and ocean to the west, relatively unproductive savannah

environments to the north and east, and swamps to the south and southeast, the Charlotte Harbor locale can be viewed as an optimal center for natural food production. The high biotic productivity of the Charlotte Harbor ecosystem locally results from the existence of expansive mangrove and seagrass biological communities (Harris et al. 1983; Odum et al. 1982; Taylor 1974; Zieman 1982).

History of Archaeological Research

The early period of archaeological interest in southwest Florida spanned the latter half of the nineteenth century and the first three decades of the twentieth. It was marked by visits and explorations by such figures as Kenworthy (1883), Simons (1884), Douglass (1885), Durnford (1895), Cushing (1897), Moore (e.g., 1900, 1905, 1919), Hrdlicka (e.g., 1917), Collins (1929), and Stirling (e.g., 1931, 1935). By far, the most significant event of this period was the discovery and excavation of the well-preserved Key Marco site (8CR48) (Cushing 1897; Gilliland 1975, 1988). This site is now thought to lie outside the Caloosahatchee area proper (Carr and Beriault 1984:4-5; Griffin 1988:135, 137).

John Goggin's work of the 1940s and 1950s (e.g., 1939, 1940, 1947, 1949a, 1949b, 1950b, n.d.a, n.d.b) was vastly important in that it focused on establishing archaeological spatial and temporal relationships in south Florida. His contributions to south Florida chronology remain a "bedrock" for subsequent amendments, refinements, and comparative study. Although Goggin's chronological work focused on areas other than the Caloosahatchee, one of his most influential papers, co-authored with William Sturtevant, spotlighted the Calusa as a complex society that existed without the benefits of agriculture (Goggin and Sturtevant 1964).

A new era of archaeological investigation emphasizing evolutionary concerns is underway. Randolph Widmer's published dissertation (1988) offers a testable cultural materialist model for the Caloosahatchee region. Most recently, a large interdisciplinary research project, aimed at understanding the emergence of Calusa complexity through the consideration of

both material and sociohistorical forces, operates under the direction of William Marquardt at the Florida Museum of Natural History (Marquardt 1984, 1986, 1987, 1988, 1989).

Chronology

To date, only one Early Archaic site has been discovered in the Caloosahatchee region (Hazeltine 1983:98-100). Isolated Early and Middle Archaic projectile points are occasionally found along the shoreline (e.g., Hazeltine 1983). Small lithic scatters have been found in the interior of the region (Almy and Deming 1987), and several researchers have speculated about an Archaic period affiliation for these sites (Beriault 1973; Austin 1987a:49). By 2700 B.P. (750 B.C.) Gulf coastal estuaries were "fully established" due to the slowing of a transgressing sea (Griffin 1988:47; Widmer 1988:213). Zooarchaeological evidence from Useppa Island, however, indicates that a rich estuarine environment was already intensively exploited at Charlotte Harbor as early as 5625 B.P. (3675 B.C.) (Milanich et al. 1984:270, 273-275). This finding demonstrates the potential of these sites to answer questions of when modern estuarine areas were first occupied permanently and how extensive were such populations. Ongoing paleoenvironmental investigation of site seasonality, based on the quahog clam, can aid in this endeavor (e.g., Quitmyer and Jones in prep).

Sand-tempered plain pottery came into use around 2700-2500 B.P., marking the beginning of the Glades Tradition in south Florida (Goggin 1949a:28; Widmer 1988:73). Widmer proposes that by A.D. 500 the Caloosahatchee Area was characterized by a ceramic "trajectory," the Caloosahatchee sequence, distinct from the rest of south Florida (Widmer 1988:78), and that as early as A.D. 700/800 the basic economic, social, and demographic pattern of the prehistoric Calusa was established as evidenced in part by the construction of large non-mortuary ceremonial mounds (Widmer 1988:94, 97, 216, 223).

Widmer hypothesizes that sometime after A.D. 800, when village fissioning could no longer relieve the population stress, a regional (greater south Florida) system of Calusa hegemony came

into existence that lasted into the historic period. Marquardt (1986:67), however, challenges this viewpoint, presenting the possibilities that late prehistoric climatic conditions or the protohistoric introduction of European artifacts may have triggered the complex Calusa sociopolitical developments.

Sixteenth and seventeenth century Spanish activity in southwest Florida was minimal compared to more northern parts of Florida. Although the predominant view is that the de Soto expedition entered *La Florida* at Tampa Bay (e.g., Milanich 1987), Williams (1986) recently published an argument for Charlotte Harbor as the landing location. The 1566 to 1570 encounters between the Calusa of Charlotte Harbor and Pedro Menéndez de Avilés are well-documented from the Spanish perspective and have been discussed in considerable detail (Goggin and Sturtevant 1964; Lewis 1978; Marquardt 1987, 1988, 1989; Hann 1991). Although Carlos was killed in 1567 and Felipe (his successor) in 1568 by the Spanish, and Calos was abandoned temporarily in 1569, Calusa ideology and political hegemony in south Florida was still firmly rooted during the seventeenth century, indicating the system's resilience (Lewis 1978:30; Marquardt 1987:108-109, 1989:185). As late as 1743 traditional ideological elements were evident even though only a few Calusa remained as part of a remnant native group in the Miami area (Marquardt 1987:110). The last Calusa families departed the Florida keys for Cuba in 1763 (Sturtevant 1978:141).

Building a ceramic chronology for the Caloosahatchee region is a difficult task because its prehistory is dominated by undecorated sand-tempered pottery. Recent studies by Luer and Almy (1980) and Milanich et al. (1984), nevertheless, demonstrate the chronological potential of southwest Florida ceramics. As more excavation takes place, the applicability of Goggin's Glades ceramic sequence to the Caloosahatchee region is being scrutinized thoroughly. Widmer (1988:83-87) outlines what he calls a "Caloosahatchee Sequence" that now serves as an initial ceramic synthesis for the culture area.

Widmer's Caloosahatchee I (2450 B.P. to A.D. 700) is characterized by sand-tempered and laminated sand-tempered

plain pottery, and perhaps most importantly, an absence of Belle Glade ceramics. The appearance and increase of Belle Glade ceramics among the sand-tempered plain wares distinguishes Caloosahatchee II (A.D. 700-1200). Caloosahatchee III (A.D. 1200-1400) is represented by the addition of occasional St. Johns and Englewood ceramics, the former thought to be a tradeware, while the latter is believed to have belonged to a specialized ritual-mortuary context. Caloosahatchee IV (A.D. 1400-1513) is identified by the addition of sporadic occurrences of Glades Tooled (generally associated with areas to the south), Safety Harbor Incised, and Pinellas Plain (both generally associated with the central Gulf coast to the north). Safety Harbor ceramics, widely thought to be associated with more northerly cultures, are increasingly found in the Caloosahatchee region, indicating that they should no longer be conceptually confined solely to the greater Tampa Bay region (Widmer 1988:86). Mitchem (1989:304), upon extensive examination of Charlotte County and Lee County artifact collections, concurs with this thesis.

Widmer's Caloosahatchee V (A.D. 1513 to A.D. 1750) consists of period IV pottery but is marked with European artifacts and, during latest times, with Leon-Jefferson ceramics (e.g., Bullen and Bullen 1956). Current research by Cordell (in prep.) is resulting in significant refinements of Widmer's Caloosahatchee Sequence based on extensive study of characteristics of paste and decoration, as well as technological and formal variability.

Subsistence

With the development of estuaries, semi-enclosed shallow-water mangrove and seagrass environments provided rich marine "gardens" allowing the growth of sedentary human populations. An essential element of aboriginal coastal life was a near-shore maritime fishing-gathering-hunting subsistence base. Ethnohistoric accounts depict the Calusa as a fisher folk above all else and explicitly note the absence of agricultural foodstuffs.

The quiet, near-shore marine tropical waters of the Charlotte Harbor/Estero Bay area produce a remarkable abundance and diversity of fish and shellfish (Estevez 1981; Harris et al. 1983;

Taylor 1974; Wang and Raney 1971). Fishing with nets, hook and line, spear, and probably tidal traps accounted for the largest nutritional portion, roughly 80 to 90% meat biomass, of the Indian animal diet (Walker in prep.). Analysis of faunal samples from five variously located sites indicates that the species, size, abundance, and diversity of fishes procured varied according to village location, targeted micro-environment, and spawning cycles (Walker in prep.). Although seemingly unimportant from the perspective of meat, shellfish-gathering (including crabs) was extremely significant in the aboriginal diet as evidenced by the abundance and diversity of species in the massive middens (Walker in prep.). Spatial studies of archaeological mollusks indicate that shellfish were collected on a very local scale (Walker in prep.). Supplementary animal foods included the white-tailed deer, small and medium-sized mammals, ducks and other fowl, alligator, turtles, siren, and sea urchin (Fradkin 1976; Milanich et al. 1984; Walker in prep.).

Wild plant foods reported either ethnohistorically (e.g., Fontaneda 1944; Zubillaga 1946) or archaeologically (Scarry and Newsom in prep.) include various wild roots (Hann 1986:91-93; Widmer 1988:232-233), mastic fruit, prickly pear cactus fruit, palm fruits, sea grapes, hogplum, and cocoplum. Additionally, there is the possibility that *Chenopodium* (goosefoot) and other starchy grasses archaeologically identified in the Caloosahatchee region were used as food resources (Scarry and Newsom in prep.).

The role of horticulture in prehistoric southwest Florida is presently contested among anthropologists (Dobyns 1983:126-130; Gilliland 1975:35; Lathrap 1987:349-350; Keegan 1987:334-335; Milanich 1987; Widmer 1988:229-234). Identification of the coontie plant (*Zamia* sp.) as the bread root of Fontaneda's memoir now has fallen out of favor. Hann (1986:91-93), Widmer (1988:233), and Griffin (1988:298) suggest other possible identifications. In any event, there is no indication that roots were cultivated, only that they were collected as food items (Marquardt 1986:66). Most recently Scarry and Newsom's research (in prep.) would seem to support the prevailing view that plant foods overall played a minor role in the native subsistence system, yet these authors

acknowledge the potential gap in the archaeobotanical record due to the non-preservability of root foods.

Settlement patterns

Little is known about interior sites of the Caloosahatchee region, due to a paucity of systematic survey and excavation. A number do exist, though, as evidenced by Austin's (1987a) Lee County site inventory. Most concentrate along the banks of the Caloosahatchee River, occurring above the river's mouth. These approximately 27 sites are described as sand burial mounds and shell/dirt middens (Austin 1987a:17). Examples include River's Edge Shell Midden (8LL129), Moody's Mound (8LL758), and Beautiful Island Burial Mound (8LL73). Another interior site type in Lee County is the small dirt midden occurring in "oak/palm hammocks or palm islands associated with freshwater marshes" (Austin 1987a:17). Austin's inventory locates roughly fourteen of these sites including the Sentinela Site (8LL746), Maranda's Site (8LL731), and Halfway Pond Site (8LL743). A third site type, of which there is presently only one recorded for the interior areas, is the canal (8LL756) that cuts through present-day Cape Coral (Luer 1989:105-108). Unfortunately, only one site, Oil Well Road Site (8CH66), has been recorded for the interior areas of Charlotte County. It is located in freshwater marshlands.

Another interior site type is shell scatters. These small, shallow sites are common in the sandhill scrub from Collier County north to Sarasota County (Beriault 1973; Deming and Almy 1987, 1988; Almy 1988; Estabrook and Austin 1989). In the Caloosahatchee region they are most often found near shallow ponds or bayheads. Contents consist primarily of shell refuse (principally oyster and quahog clam), occasionally shell tools (left-hand notched quahog clam shells are common), and sherds of sand-tempered plain or St. Johns Plain ceramics. Excavations of shell scatter sites in other regions (e.g., Austin and Russo 1989) have provided important information on site structure, shell tool technology, and technological organization (Estabrook and Austin 1989).

Coastal middens containing shell, bone, and other culturally-deposited debris are distributed along Pine Island and the estuarine perimeter and dot many mangrove-fringed islands in Pine Island Sound and Charlotte Harbor proper (Austin 1987:17; Edic 1987; Kennedy 1978; Luer 1988; Wilson 1982:3).

Approximately 90 coastal sites are recorded for Charlotte County while 146 are recorded for Lee County. A continuum of site types is found beginning with small amorphous middens and ending with elaborate village complexes comprising platform mounds, plazas, "water courts," causeways, and canals. A few sites have been mapped, some very recently (Luer 1988; Marquardt in prep.).

Shell middens are by far the major coastal site type, with 100 recorded for Lee County. Examples include Buck Key Shell Midden 1 and 2 (8LL721 and 8LL722), Cabbage Key (8LL71), and Calusa Island (8LL45). At the larger village complex sites, mounds seem to be of two types. Many mounds represent undisturbed accumulations of debris over time, while others show stratigraphic evidence for mound-building using midden materials previously deposited elsewhere. These extensive planned shellworks concentrate along the estuarine fringe. A few of the larger, better-known midden/mound complexes include Big Mound Key (8CH10) (Luer et al. 1986; Marquardt in prep.), and Boggess Ridge (8CH16) (Luer and Archibald 1988), Cash Mound (8CH38) (Bullen and Bullen 1956; Marquardt in prep.), Pineland, (8LL33, 8LL34, 8LL36, 8LL37) (Luer 1986b; Marquardt in prep.), Josslyn Island (8LL32) (Marquardt 1984, in prep.), Galt Island (8LL27, 8LL81) (Marquardt and Beriault 1988), Useppa Island (8LL51) (Griffin 1949; Marquardt in prep.; Milanich et al. 1984), Wightman (8LL54) (Fradkin 1976; Wilson 1982), and Mound Key (8LL2, 8LL3) (Lewis 1978).

Intra-site settlement information is scant. What is known comes from two ethnohistoric sources and one archaeological excavation. In a 1566 meeting, the paramount Carlos received Menéndez in his own house, a building large enough to hold 2,000 people (Solís de Merás 1923:145). A priest in 1697 described a Calusa temple called a "mahoma" as a long, wide, and tall building with only one door (Marquardt 1987:109). The only

known archaeological evidence for a structure was excavated at the Solana site (8CH67) on the Peace River and has been interpreted as a possible dwelling built on pilings (Widmer 1986:41).

The abundance and enormity of sites in the Caloosahatchee coastal area denote a large population, probably the densest of prehistoric south Florida. The middens, some in the form of mounds, are at times overwhelming in their depth, height, and extent. Mound Key, for example, covers roughly 70 to 80 acres reaching an elevation of 31 feet (Goggin and Sturtevant 1964:183). Widmer uses late prehistoric site size and frequency to estimate a contact-period Calusa (including the Ten Thousand Islands area) total population of 10,250 and only 4,800 for the Charlotte Harbor estuarine area (Widmer 1988:260). Other total estimates for the Charlotte Harbor and Ten Thousand Island areas at contact include 4,000 to 7,000 (Goggin and Sturtevant 1964:186-187), 10,000 to 15,000 (Milanich and Fairbanks 1980:246), and 97,600 (Dobyns 1983:131). Such estimates remain in the realm of speculation.

Material Culture and Technology

Study of temporal variation in bone, shell, and stone artifacts in the Caloosahatchee region has been very limited. Additionally, little intra-regional spatial variation has been detected and so these artifact classes have been treated largely on a south Florida regional basis. Goggin (n.d.a), noted some intra-regional differences in artifact classes as did Bullen and Bullen (1956). These observations need to be tested with increased sample sizes.

Bone and marine shell are prominent media in south Florida for a great variety of utilitarian and decorative items. The major sources for shell artifact typologies are Goggin's unpublished manuscript (n.d.a) and Griffin's recent synthesis (1988). Complementing these are research papers focusing on specific shell tool types (e.g., Luer et al. 1986; Luer 1986a; Masson 1988; Estabrook and Austin 1989). Vessels such as dippers, cups, and spoons varying in size were fashioned from a number of different marine gastropod species. Cutting-edge tools and hammers are

common tools generally made from thick-walled gastropods. Perforated bivalves, notched clam fragment weights, gorgets, beads, and "pendants/plummets" are also found. Goggin also presents a descriptive typology for bone artifacts (n.d.a) and most recently, a large collection from the Granada site near Miami has been studied (Richardson and Pohl 1982). Awls, beads, pendants, pins, gorges, barbs, and points are just a few of the many forms. The functions of several of these shell and bone artifacts are being reinterpreted as more is learned about Florida's prehistoric fishing technology (Walker 1989).

The most common stone artifacts are perforated rocks (sometimes shaped) of limestone, thought to have been weights, and limestone plummets (Goggin n.d.a; Griffin 1988:98-100, 110). A third important group is the incised stone (non-native material) ceremonial tablets, most of which are from Collier and Monroe counties (Allerton et al. 1984; Luer 1985). Unfortunately, chronological context is unknown for the tablets but a late prehistoric time is suspected.

Artifacts of wood and cordage are known from the Key Marco site located south of the Caloosahatchee region (Cushing 1897; Gilliland 1975, 1988). The degree of material technology exhibited by the well-preserved artifacts nevertheless can be extrapolated for northern neighbors and may be closely associated with the Calusa, especially if the Key Marco site dates to late prehistoric times as argued by Milanich (1978a). Artifacts document a diverse and sophisticated use of woods, including a knowledge of functional properties and an elaborate artistic expression. Additionally, toy wooden canoes suggest the construction and use of water-going vessels for different purposes (Cushing 1897:364-365). The most extensive use of cordage (probably of palm fiber) was in the manufacture of fishing nets of varying mesh sizes and shapes. Remains of gourds of a type similar to modern ornamental specimens have been identified from Key Marco (Cutler 1975:255-256) and more recently from Buck Key (Scarry and Newsom in prep.). These gourds are thought to have been used for net floats or containers (e.g., Gilliland 1975).

Little systematic study of post-contact European or European-influenced native artifacts has been undertaken. This is largely because many if not most burial mounds of this period have been looted and artifacts are scattered among private collectors or were melted down years ago (Goggin n.d.a). Goggin (n.d.a) describes various artifact classes and discusses their distribution as they were understood around 1949 and Mitchem (1989a) provides an updated survey of known contact-period European artifacts for southwest Florida.

Of importance is work exemplified by Allerton et al. (1984) who provide an excellent descriptive and illustrative inventory of all known contact-period metal ceremonial tablets with a subsequent addition by Luer (1985). Their research resulted in an important study of pattern and variation in an artifact type that is unique to south Florida. The incised tablets, based upon their chronological and geographical contexts, surely signify high status positions closely associated with the spread and maintenance of the historic-period Calusa hegemony (Griffin 1988:311-312; McGoun 1981).

Belief System and Mortuary Behavior

A ranked set of three deities representing rule in the realms of the celestial, the earthly terrestrial polities, and war were most important to the Calusa (Goggin and Sturtevant 1964:197). Religious specialists who had the power to summon the winds (Sturtevant 1978:147) and who controlled the idols were a prominent element of Calusa society. Human sacrifice, usually with Spanish victims, was related to the needs of various idols. One type of idol was a painted, flat board depicting an animal figure. Beautifully carved and painted wooden masks such as those found at Key Marco (Cushing 1897; Gilliland 1975, 1988) were used in complex ceremonies that were religious in nature. At Calos, the paramount chief's town, wooden masks and other religious paraphernalia were kept in a temple on top of a mound. There are also ethnohistoric suggestions of charnel houses and burial mounds that were feared but closely guarded and located away from the main village complex. Rogel notes that the Calusa

believed that each person had three souls, one of which was in the pupil of the eye and remained in the body after death (Zubillaga 1946:278-281). For this reason, people visited the burial grounds to gain counsel from the dead.

Knowledge of prehistoric mortuary practices is limited, but Widmer (1988:94-97) has sketched an initial chronology based on early excavations. Sand burial mounds excavated at Captiva Mound (8LL57) (Collins 1929:151-153) and the Pine Island 8 site (8LL40) (Moore 1900:363) have components tentatively assigned to the Caloosahatchee II period (A.D. 700-1200), characterized by continuous use over time, flexed primary with secondary burials, associated charnel houses, and no grave artifacts except for the placement of pottery sherds around the skull (Goggin n.d.a:296-298, 307-308; Widmer 1988:94-95). Burials of the Caloosahatchee III and IV periods (A.D. 1200-1513) differ only in that they contain ceramics such as Safety Harbor and Englewood styles as grave offerings. Mounds with these components are near Punta Rassa (8LL8), the Pine Island 8 site (8LL40), and the Aquí Está Burial Mound (Widmer 1988:96). A single burial excavated from the sand mound on Buck Key (8LL55) (Hutchinson in prep.), dates early in this period but does not contain artifacts (Marquardt in prep.). Caloosahatchee V (A.D. 1513-1750) burials follow a similar pattern except for the addition of European artifacts. The Mound Key (Moore 1905) and Pine Island (Moore 1900, 1905) sites contained aboriginal burials with European grave goods (Goggin n.d.a; Luer 1985; Widmer 1988). The most striking feature of the Caloosahatchee mortuary pattern, to the extent that it is known, is its continuity through time and general lack of grave goods.

Sociopolitical Organization

That the sixteenth century Calusa sociopolitical formation was highly complex has been clearly demonstrated (Goggin and Sturtevant 1964; Lewis 1978; Marquardt 1986, 1987, 1988, 1989; Widmer 1988). Marquardt (1987:99) notes that although most researchers consider the level of Calusa cultural complexity to have been that of a chiefdom (e.g., Widmer 1988), the society falls into an "early state" category under one anthropologist's

typology and a "weak tribute-based state" under another. Almost all that is known about the sociopolitical realm of the Caloosahatchee region is due to ethnohistoric documentation; thus, we are largely limited to the protohistoric and early historic periods. These documents have been used in depth by Goggin and Sturtevant (1964), Lewis (1978), and Marquardt (1987, 1988, 1989) to characterize sociopolitical organization.

Calusa status differentiation was well developed as described by the sixteenth-century Spanish. Chroniclers perceived a rigid social hierarchy that operated under the paramount chief's authority. Close to the paramount were two powerful advisory figures, the chief priest and the *capitán general*. The paramount's principal wife was normally his full or classificatory sister. Royal succession to the paramountcy was maintained through this practice of sibling marriage. A supported nobility and military elite were not required to work. Noble women participated in public ceremonies along with the men. Commoners, denied access to certain privileges and material surpluses, constituted the bulk of the population. Captives were made to work, at least in historic times.

The political authority of Carlos was ideologically melded with his spiritual authority (Marquardt 1988:174-175). There existed a tight link between his absolute power and the insurances of environmental productivity, intra- and inter-regional sociopolitical order, and spiritual order. Ceremonies performed in secret by the paramount and his associates maintained the availability of food in abundance. Alliances with other south Florida polities were cemented by the taking of a noblewoman to be Carlos' bride and by engagement in a system of tribute extraction (e.g., food, hides, mats, feathers, captives, salvaged European materials) Luer (1989) discusses the probable role of artificial canals in the Calusa hegemony. The paramount chief could call on the armies of any subservient town to take part in the frequent warfare conducted with his rivals, the Tocobaga. One of three principal gods described by Rogel (Zubillaga 1946:280) was said to help gain victory in these wars.

Important Sites

There are approximately 279 recorded prehistoric, protohistoric, and early historic aboriginal sites in the Caloosahatchee region. Six of these, four in Lee County and two in Charlotte County, have been placed on the National Register: Mound Key (8LL2), Demere Key (8LL31), Josslyn Island (8LL32), the Pineland site (8LL33), Big Mound Key (8CH10) and Boggess Ridge (8CH16). Many others are important, including extensive midden and mound complexes such as Cash Mound (8CH38), John Quiet Mound (8CH45), Galt Island (8LL27, 8LL81), Useppa Island (8LL51), Indian Field (8LL39), and Hooker Key (8LL30). Other significant coastal shell midden sites include Catfish Point (8CH9), Coral Creek (8CH15), Buck Key (8LL721 and 8LL722), Fisherman's Key (8LL10), Howard Mound (8LL44), Pineland Midden (8LL37), Calusa Island Midden (8LL45), and Mondongo Island (8LL52). Important sand burial mounds include Boggess Ridge (8CH16), Mound Key (8LL3), Buck Key (8LL55), Galt Island (8LL81), Beautiful Island (8LL73), Pine Island 8 (8LL40), and Pineland (8LL36). The Pineland (8LL34) and Cape Coral (8LL756) canals are of great significance. Examples of important riverine or interior marshland sites are Solana Site (8CH67), Cape Haze Mound (8CH347), Hickey's Creek 1 (8LL22), and Hickey's Creek 2 (8LL23), River's Edge (8LL129), and Halfway Pond site (8LL743).

Research Questions

Mechanisms underlying the emergence of complex social formations in aboriginal populations are currently an important anthropological concern for the Caloosahatchee region. In the past, archaeologists themselves have been a great source of bias in understanding the evolution of south Florida cultures. Scholars have begun to recognize that theoretical mindsets originating from long-held cultural trajectories based on southeastern U. S. prehistory or Caribbean migrations are not appropriate for the southern half of Florida. The common core of these evolutionary mindsets is a prerequisite of food surpluses in the form of aboriginal cultivation of plant foods, whether they be corn or root crops, for the rise of cultural complexity. South Florida

extends southward from the North American continent into the tropical latitudes, immediately distinguishing it environmentally from its northern neighbors. It differs from the Caribbean islands in that it is part of a large peninsula giving rise to productive estuarine and interior wetland environments. The notion that south Florida stands on its own environmentally and culturally as a region characterizes the present direction of research (Griffin 1974, 1988; Marquardt 1986, 1987, 1988; Widmer 1988).

At the heart of this matter, then, is whether or not the rich, inshore marine resource "gardens" of the Calusa coastal center of power were analogous to the agricultural fields and horticultural gardens of interior complex chiefdoms, as Goggin and Sturtevant have suggested (1964:207). Goggin and Sturtevant (1964) and Widmer (1988) argue that this was the case. The Calusa example is part of a growing list of non-agricultural, complex societies that habitually have been dismissed as anomalies because they do not fit traditional unilinear evolutionary schemes. Populous, sedentary prehistoric coastal groups are increasingly recognized in a variety of climatic and geologic settings around the world (e.g., Moseley 1975; Renouf 1984; Suttles 1968; Yesner 1980). Viewing the Calusa from a maritime south Florida perspective as opposed to a terrestrial one is a major turning point in understanding the evolution of south Florida cultural systems.

A second major shift in south Florida research is recent attention given to sociohistorical as well as environmental factors in the emergence of social complexity (Marquardt 1986, 1987, 1988). Marquardt believes that environmental richness may indeed be the base for a complex Calusa chiefdom, but suggests that the Calusa's atypical, state-like, tributary power witnessed by the Spanish at the time of their brief encounters might not have been attained until the early sixteenth century. The protohistoric infusion of exotic European goods salvaged from early shipwrecks into native economies may have provided the impetus for change in the Calusa power structure (Marquardt 1986:67). On the other hand, Widmer (1988) sees this power structure emerging much earlier. Luer (1989) also sees it emerging earlier and suggests that canoe canals may be evidence

of it. With these new perspectives taking form within the past five years, a new directional course has been set for future field research in the Caloosahatchee region of south Florida.

Chronology

Widmer (1988) has provided the most comprehensive cultural evolutionary model for the Caloosahatchee region to date. Marquardt (1986 and ongoing research) is testing various assumptions of Widmer's model, as well as creating a data base for general refinement of the Caloosahatchee chronological framework. In addition to traditional study of ceramic and settlement pattern seriation, archaeologists now recognize that environmental chronologies on a local scale also must be constructed. For example, recent geological advances allow the construction of localized sea level curves for the Holocene Epoch. Fluctuations in sea level, such as have been documented by Stapor and his associates (1988) for Charlotte Harbor, translate into significant changes in estuarine resources during the Late Holocene. Archaeologists have begun investigating the effects of subtle sea level fluctuations on aboriginal south Florida (e.g., Griffin 1988; Hale 1985; Walker in prep.; Widmer 1986, 1988).

- How should paleoenvironmental continuity and change over time be investigated?
- How do the paleoclimatic and paleoecologic records relate to patterns of settlement, subsistence, and ultimately political organization?
- How can ceramic, bone, shell, and stone artifact types be refined to permit their use in chronological studies?

Subsistence

Despite significant advances in zooarchaeological and archaeobotanical analytic procedures and considerable recent work in the area, our understanding of subsistence practices is incomplete. The presence of agriculture of any sort, for example, is still unsupported.

- Were domesticated crops grown? If so, which crops and to what extent were they important?

- To what extent were wild plant foods, especially roots, utilized?
- Can techniques be developed and applied to detect the presence of wild or cultivated roots in the prehistoric diet?
- Were the maritime Calusa subsisting at the environmental carrying capacity by around A.D. 800, as Widmer contends?
- How does subsistence at riverine and marshland sites differ from that at coastal or estuarine sites?
- How do subsistence patterns in each of these environments change through time?
- Are subsistence patterns affected by overexploitation of resources?
- Are interior and coastal subsistence patterns affected by long-term climatic or sea level fluctuations?
- To what extent were white-tailed deer important to both interior and coastal inhabitants?
- Can differences in social status be detected in archaeological food remains?
- How early were residents exploiting estuarine resources on a year-round basis?
- Is there any evidence for offshore fishing? Where? When?
- What was the nature of estuarine fishing strategies?
- Can we detect territorial rights in estuarine fishing practices?
- What role did shellfish play in the aboriginal diet? Were molluscs more important at certain times of the year?
- Why are there so few mullet bones in the shell middens, when we know that this is a common fish today and the Spanish mention a Calusa mullet fishery?
- Were anchovy, the most abundant fish in Charlotte Harbor, not utilized, or are their skeletal parts not preserved?

Settlement patterns

Extensive field research and radiocarbon dating of stratigraphic deposits are critical before reliable diachronic patterns of settlement can be determined. Widmer, for example, points out that the common assumption that the extensive midden/mound complexes represent a late prehistoric adaptation influenced by Mississippian culture is an invalid one (1988:88). It is now known that large complexes such as the Wightman and Pineland sites were operating in earlier times as well. Few Archaic site components such as Useppa Island (Griffin 1949; Marquardt in prep.; Milanich et al. 1984) and Horr's Island (Russo 1990) have been inventoried (e.g., Austin 1987a:33; Edic 1987), largely because only surface collection or limited excavation has taken place at the massive mounds. We know surprisingly little about the large, coastal midden and mound complexes. Additionally, little is known about sites that occur in various interior environmental locales. Investigation of these would contribute much to an understanding of site function and intra- and inter-regional relationships.

- Are differing settlement patterns typical of coastal and inland areas?
- Do settlement patterns change through time? Are they affected by long-term climatic change and sea level fluctuations?
- Do interior sites concentrate along major streams as is indicated, or is this a product of our unsystematic site records?
- Were interior sites occupied seasonally or year-round?
- How do community patterns vary through time? For example, how far back in time do the coastal midden and mound complexes extend?
- What is the nature of public architecture (e.g., mounds, plazas, etc.) at the large coastal complexes and how does it change through time?
- What functional purpose existed for the features commonly referred to as "water courts" found at a number of the coastal village sites?

- What mound formation processes took place to create the large shell mounds?
- Can we detect evidence for domestic and other structures at the shell middens and mounds or elsewhere?
- What was the nature and probable function of the numerous, small to moderately-sized shell middens that are found on the mangrove islands and along the estuarine fringe?
- Eighteenth-century Cuban fishing ranchos should be located and studied. What are the archaeological assemblages associated with such sites and their associated aboriginal villages?

Material culture and technology

All existing typologies, ceramic and non-ceramic, should be revised and refined with the study of larger sample sizes.

- Where are the source clays for pottery manufacture located?
- Why was there so little interest in pottery decoration compared to culture areas to the north and south of the Caloosahatchee region?
- Why do Safety Harbor and Englewood pottery assemblages occur in this region? Are they imported or locally produced?
- What artifacts are related to the sophisticated fishing industry?
- How are they distributed spatially and temporally?
- What spatial and temporal variation at both intra-areal and intra-regional scales occurs in shell tool manufacture and use?

Mortuary practices and bioarchaeology

Testing and refinement are needed of Widmer's mortuary sequence with larger samples. Additionally, bioarchaeological studies are generally lacking in the Caloosahatchee region. This lack should be remedied, because such studies can provide us with useful information that may aid in answering questions of diet, status, mechanical stress, and epidemic disease. The need for

research in these areas is especially critical because almost every burial mound in the region has been damaged by looters.

- Are there differences in health status between coastal and inland groups?
- Are there differences in health and nutritional status after contact with Europeans?
- Does health status vary through time?
- Can differential access to resources be documented in Caloosahatchee region burial populations? If so, when did it begin?

Social and political organization

Little archaeological information exists to complement the ethnohistoric documents or give us a diachronic understanding of sociopolitical organization in the Caloosahatchee region. Widmer offers a testable environmental model of cultural development, while Marquardt takes issue with various features of that model and proposes that sociohistorical factors were equally important. There is a great need for large-scale excavation to generate significant data sets before such issues can be resolved.

- What is the form of prehistoric political organization? For example, is the historic Calusa complex political organization a prehistoric feature as well?
- How does political organization change through time?
- What are the archaeological correlates of complex sociopolitical organization? Do they include metal artifacts and canoe canals, as has been hypothesized?
- Can social status be detected through dietary and dress preferences?
- How early and at what frequency do large construction projects, such as non-mortuary platform mounds built of secondary fill and canals, appear in the coastal area?
- What is the extent and nature of Calusa political alliances? How far back in time do these alliances extend?
- What is the significance of the comparatively late appearance of Belle Glade pottery in the Caloosahatchee region?

- Is there a prehistoric trade network comparable to that of the historic Calusa?
- How do the nature and boundaries of prehistoric networks shift through time?
- What roles do coastal and inland sites play in the trade networks?
- Does the presence of Safety Harbor pottery in some sites reflect shifting sociopolitical boundaries between groups north of Charlotte Harbor and the prehistoric ancestors of the Calusa? Or were the latter only using these ceramics in mortuary contexts?

Preservation Goals

- Locate unrecorded sites, especially inland sites and sites in all areas endangered by development, erosion, or vandalism.
- Encourage and assist county governments in the development of preservation ordinances.
- Excavate various types of sites, e.g., sand burial mounds, shell/dirt middens, inland dirt middens, coastal shell middens, shell mounds, stratified mounds, and mound complexes.
- Assess the National Register eligibility of sites of various types.
- Nominate to the National Register coastal archaeological sites as a thematic group, and individual sites as appropriate.

Chapter 11

LAKE OKEECHOBEE BASIN/KISSIMMEE RIVER, 3000 B.P – CONTACT

William G. Johnson

The Okeechobee Basin of south Florida corresponds to the Belle Glade culture area. It is bounded by the Western Flatlands (Davis 1943:43-48), the Allapattah Flats, and the Big Cypress Swamp (DeLorme 1987:102, 113-114). There is some evidence to suggest that Lake Kissimmee and the Kissimmee River drainage should be included in this area. Cultural affinities represented in burial mounds, earthworks, and ceramics are found as far north as Lake Tohopekaliga (Milanich and Fairbanks 1980:26). Similarly, both areas are characterized by relatively poor, sandy soils, relatively low elevations with little relief, and numerous ponds and sloughs. The vegetation cover consists primarily of pine and palmetto flatlands, wet prairies, and occasional hammocks of live oak usually mixed with cabbage palm. Cypress swamps are found bordering larger lakes and ponds, and a wide assortment of wildlife exists in the area. Approximately 70 Belle Glade sites are recorded in the Okeechobee Basin, primarily in Glades and Palm Beach counties.

Prehistory

Several researchers have attempted to build a chronology for the Okeechobee Basin, but the lack of comprehensive surveys, coupled with very limited excavations, leaves this area of Florida one of the most poorly known regions of the state. To date, the most comprehensive chronology for the Belle Glade culture area has been developed by Sears (1971a, 1977b, 1982) based primarily

on his excavations at the Fort Center site in Glades County. His is a four period chronology that is roughly coeval with the Transitional period as defined by Bullen (1959, 1970) and the Belle Glade I and II periods as defined by Willey (1949b:70-72) (Figure 13).

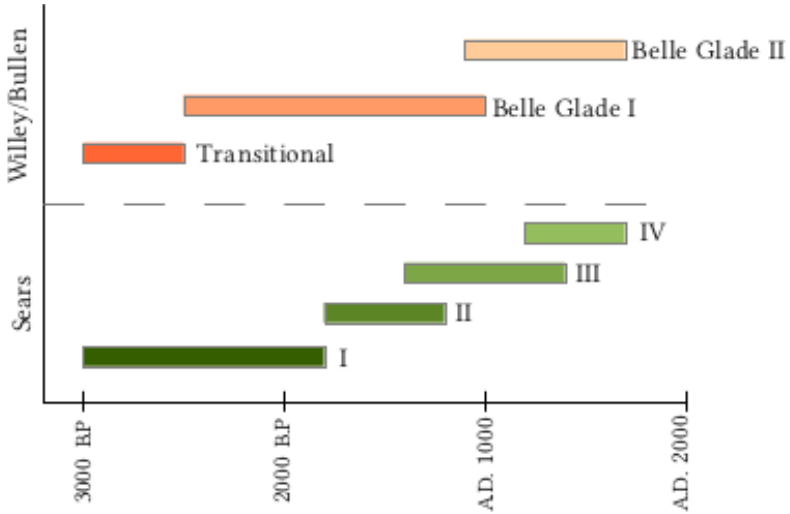


Figure 13. Belle Glade / Okeechobee Basin Chronologies

The Okeechobee Basin was apparently first settled during the Transitional period, ca. 3000-2500 B.P. (Milanich and Fairbanks 1980:23). Evidence for an earlier Archaic period population is found nearby in the upper St. Johns River drainage west of the Indian River (Edwards 1954; Sears 1977b:3). Only a few sites in the Okeechobee Basin have been assigned to this period and they are late. Hale (1989:51-70) assigns several midden sites to the Late Archaic period. However, the earliest of these (dated 4650+/- to 3030+/- B.P.) contained a semi-fiber-tempered sherd. Thus, the earliest well-documented occupations come from the Fort Center site (8GL13) where semi-fiber-tempered ceramics have been found in limited numbers (Goggin 1952a:58; Griffin 1952:329; Sears and Sears 1976:53; Sears 1982:26).

Tantalizing evidence for an Archaic and possibly Paleoindian presence in the Kissimmee River drainage has been found by

Watson (1948) and Austin (1987b). Collectors have found Archaic period sites around lakes and ponds in the karstic Lake Wales Ridge area (Robert J. Austin, Personal communication).

Sears's (1982:26, 185) Period I (ca. 3000-2800 B.P. to A.D. 200) at Fort Center is approximately contemporary with the Transitional period. At the early end of Period I, small populations of perhaps one or two families lived along the riverbank on small house mounds. Fish and turtle were particularly important to the diet. Only semi-fiber-tempered pottery was in use during this time, but by the end of this period most of the pottery was sand-tempered plain ware (Sears 1982:192-193). According to Sears (1977:7, 1982:192-193), this initial occupation is coeval with the construction of the earliest of the Okeechobee Basin's spectacular earthworks—the circular ditches. Sears (1982:193-194) believes these functioned as drained fields for maize cultivation.

Sears's (1982:26-31, 186-189) Period II (A.D. 200 to about A.D. 600-800) closely resembles Willey's Belle Glade I except that there are no Glades decorated wares at Fort Center. According to Willey (1949b:125), evidence for the Belle Glade I period consists of Belle Glade Plain and Glades Plain ceramics with small percentages of Glades decorated wares (see also Widmer 1988:87-88). There are no defining dates associated with the Belle Glade I period, but, by inference, Widmer (1988:87) provides a terminal date at A.D. 900-1000.

The Belle Glade II period is defined by the presence of Belle Glade Plain and Glades Plain ceramics coupled with a lack of Glades decorated wares and the appearance of Biscayne (St. Johns) Check Stamped (Willey 1949b:125). Sears's (1982:27, 31, 189-190) Periods III and IV most closely resemble this period. Period III lasts from A.D. 600-800 to A.D. 1200-1400 and is characterized as a period of time which experienced minimal cultural change (Sears 1982:199). Period IV (A.D. 1200/1400 - historic contact), on the other hand, is described as a time of greater craftsmanship, revived focus for authority, and participation in a larger social system than the one existing on the site. The introduction of linear embankments accompanies

this period, as does the first appearance of European objects. Sears (1982:200) believes that during this period, Fort Center was operating as a part of the sixteenth- and seventeenth-century Calusa empire.

A chronology for the Kissimmee River region is non-existent due to the lack of excavations. Many researchers have felt that this region was related in some way to the Okeechobee Basin (e.g., Griffin and Smith 1948:33-34; Milanich and Fairbanks 1980:26; Austin 1987b:287, 295-298), but without substantive data with which to test this hypothesis, it remains mere speculation. Austin (1987b) provides a brief synthesis of the region's prehistory and summarizes the similarity in material culture and settlement patterns between the two areas. The larger dirt middens along the Kissimmee River contain fiber-tempered, sand-tempered, St. Johns, and Belle Glade ceramics. Most of the known burial mounds contain a dominance of Belle Glade ceramics and Spanish contact artifacts; for example, the Goodnow mound (8HG6), the Daugherty Mound (8HG3), and the Thomas mound (8HG7). This may indicate a radiation of Belle Glade culture up the Kissimmee River during late prehistoric and protohistoric times spurred by Calusa expansionism. This argument is somewhat supported by the late appearance of Belle Glade ceramics in the stratigraphic sequence at the Fischer site (8PO1044), a large dirt midden near Lake Hatchinita at the north end of the Kissimmee drainage (Austin and Hansen 1988:33-34).

Little is known about the end of Belle Glade culture. Few ethnohistoric accounts exist, and only one is widely publicized. Fontaneda's (True 1945) account of the sixteenth century south Florida native groups refers to a people who lived around a large lake known as the Mayaimi. His narrative provides scanty information on population density, subsistence, environment, and political affiliations with the coastal Calusa. Archaeologically, many Belle Glade sites, including Ortona (8GL15), Belle Glade (8PB40-41), and Fort Center (8GL13) contain European artifacts and European-derived raw materials such as silver, iron, and gold. Thus, there exists ample evidence to indicate Belle Glade

participation in a larger economy than existed solely in the Okeechobee Basin.

The demise of the Belle Glade peoples was probably linked to their participation in this larger economy. The introduction of European diseases is well-documented throughout the Southeastern U.S. and is considered a major cause in the death of the south Florida native groups. Many researchers think that by the time the Seminoles arrived in this part of Florida, all of the south Florida aboriginals were extinct.

Material Culture

The defining archaeological assemblage for Belle Glade culture is the presence of Belle Glade Plain and Glades Plain wares. Lithic tools such as stemmed and basally notched projectile points are found at some of the sites, e.g., Fort Center (Steinen 1982:75-76), Belle Glade (Willey 1949b:34, Plate 6), and Bluff Hammock (Austin n.d.) but not at others, e.g., the Barley Barber sites (8MT19, 28, 29) (Carr 1973; Williams 1975). Wooden artifacts have been found at two Belle Glade sites, Fort Center (Sears 1982:38-58) and Belle Glade (Willey 1949b:53-59). As research in the region continues they may be found at other sites, but their currently known limited distribution precludes them from being considered part of the defining archaeological assemblage. Similarly, shell and bone tools have been found to have a limited distribution, i.e., Fort Center (Steinen 1982:68-102), Belle Glade (Willey 1949b:37-53), and Platt (8GL14) sites (Goggin 1952a:55). Griffin and Smith (1948:18) report shell bowls or dippers made from *Busycon* at the Goodnow Mound. Perforated sharks' teeth have been found in midden deposits at Bluff Hammock (Austin n.d.) and King's Bay (Seabury, Ballo, and Marden 1985:35). However, any conclusions on the Belle Glade archaeological assemblage are preliminary at best, due to the very limited sample of excavated sites in the region.

Chronological distinctions in Belle Glade ceramics have been hampered by a lack of decorative motifs on surfaces. Virtually all Belle Glade wares are plain. However, Sears (1982:200) indicates that some technological distinctions are related to chronological

differences. Rita K. Porter (1952) believes that rim forms can serve as chronological distinctions in Belle Glade ceramic assemblages. Finally, Williams (1975:39) suggests that pottery disks (both perforated and non-perforated types) can indicate chronological distinctions in the Belle Glade chronology. Unfortunately, operationalization of these distinctions has not been realized.

Settlement Patterns

Archaeological sites in the Okeechobee Basin and Kissimmee Region include earthworks (Carr 1975:14-36; Sears 1982:130-183; Willey 1949b:73-77; Allen 1948; McGoun 1987, 1988; Austin 1987b:297), burial mounds (Griffin and Smith 1948; Willey 1949b:20-23; Carr 1973:14; Williams 1975; Sears 1982:130-183), and habitation mounds or middens (Sears 1982:130-183; Willey 1949:19-20; Goggin 1952b; Griffin 1956; Austin 1987b, n.d.; Seabury, Ballo and Hardin 1985; Johnson, Austin, and Ballo 1989). Among the more spectacular sites are the large earthworks found in the open savannah, often bordering creeks or major environmental zones (see Hale 1984:181). These include circular ditches, linear embankments, and combined mound and embankment complexes.

Sears (1982:185) provides evidence that the circular ditches are the earliest earthworks at Fort Center, dating earlier than 2450 B.P. His research shows that some of the habitation middens are coeval with these structures. Habitation mounds are believed to have been built during his Periods I and II (Sears 1982:186, 195-199) and again during his Period IV, but the latter include linear embankments (1982:199-201). Burials in mounds date to his Period I, possibly II, and IV (Sears 1982:140-141, 200-201). Willey (1949b:125) was unable to ascertain the date of the burial mound at the Belle Glade site but believes it is coeval with the habitation mound. Williams (1975) obtained a radiocarbon date of 2200 B.P. under one of the burials he excavated, but he believes the date is erroneous.

The combined mound and embankment complex known as Big Mound City (8PB48) (Willey 1949b:73-77) is thought to have

been laid out according to a master plan, although no conclusions have been made as to whether it was built all at once. However, a collection from one of the mounds at the site indicates a coeval existence with the late period of occupation at the Belle Glade site. Other mound and embankment complexes include the Big Circle Mounds, also known as Tony's Mound (8HN3) (Allen 1948), the Boynton Mound Complex (8PB100) (McGoun 1987, 1988), and others (Hale 1984:181; Carr 1975, 1985). Some have yielded European artifacts, such as the Ortona Mound (8GL35-37) in Glades County (Goggin n.d.a:329) and the Daughtry (8HG3) and Goodnow (8HG6) mounds in Highlands County (Conklin 1875; Griffin and Smith 1948). Such artifacts indicate a late occupation, but most have not been dated.

Generally, in terms of settlement practices, we find, according to Sears (1982), an adaptation to the open savannah with artificially raised areas occupied during flooding. The main occupation takes place at large sites (such as Fort Center) though Sears (1982:175) acknowledges occupation of "the small midden sites on higher land throughout the sand country." On the other hand, Willey (1949b) suggests that Belle Glade influence extends from the Okeechobee Basin to all of south Florida from the Florida Keys (Willey 1949b:26 cites Goggin n.d.a) to Melbourne (Ferguson 1951). Thus, his scenario depicts a wide range of adaptation to a number of environments.

Recent surveys in the Kissimmee Region have provided limited data on settlement patterns there, and these have been summarized by Wharton and Williams (1981) and Austin (1987b). Large midden mounds are found in oak hammocks along major drainages and around marshes and lakes. These include the Gaging Station (8HG18), Dead Cow site (8Hg27), and Bluff Hammock sites (Austin 1987b, n.d.). Fresh water shell middens such as the Eberback (8PO1008) and Barker (8PO1007) sites are also present (Austin 1987b). Artifact scatters consisting of ceramics and lithics are common in both the Nuer Valley and around ponds and lakes on the Lake Wales Ridge (e.g., Austin and Piper 1986; Austin 1987b; Austin and Gallo 1987, 1989) (Figure 14).

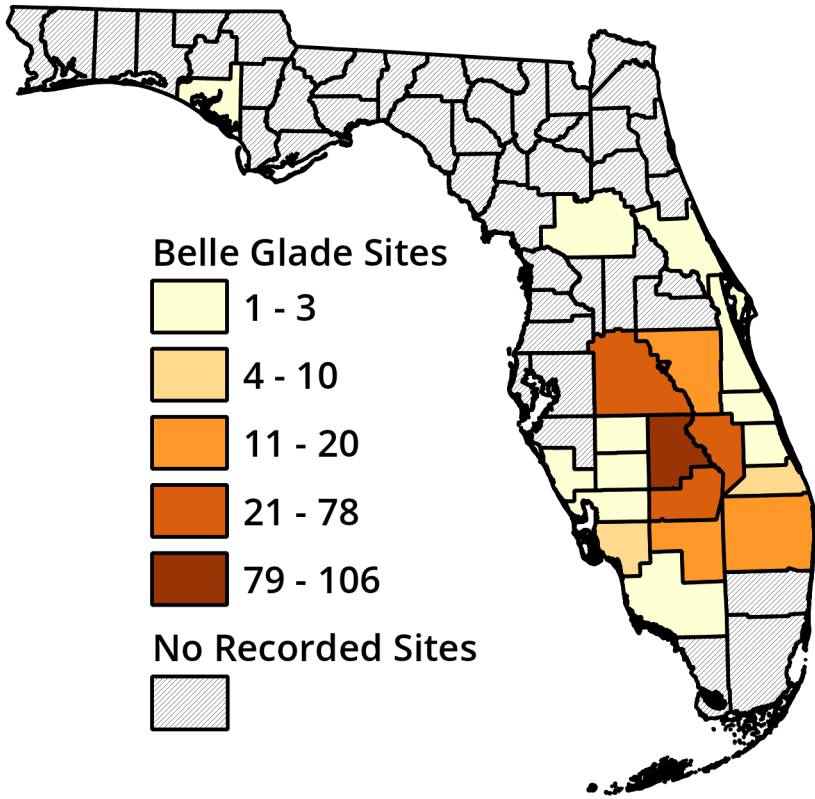


Figure 14. Distribution of Belle Glade Sites (by county)

Subsistence

Subsistence practices among the Belle Glade peoples have been interpreted to be based either on wild foods (Willey 1949b) or on maize agriculture supplemented with wild foods, especially turtle (Sears 1982). This debate has been examined by numerous researchers (e.g., Dobyns 1983; Milanich 1987; Keegan 1987; Lathrap 1987). However, recent investigations of the soils at the Fort Center site (Johnson and Collins 1989) indicate that maize probably could not have been grown in the large quantities necessary to support the complex developments of the area as proposed by Sears (1982; but see Milanich and Ruhl 1986:2).

Analysis of faunal remains from middens along the Kissimmee River indicate that a wide range of terrestrial and aquatic animals were exploited, including deer, turtle, snake, fish, and freshwater molluscs (Austin and Piper 1986; Austin n.d.).

Social and Economic Organization

A discussion of social organization provided by Sears (1982) indicates that an egalitarian population inhabited the Fort Center site during his Period I. This was followed by a marked degree of social stratification in subsequent periods. Trade with other Florida groups is apparent by the number of exotic items he found. Furthermore, the presence of corn pollen and the earthworks suggest to him that the Fort Center inhabitants had periodic contact with a South American population (and, indeed, he traces their ancestry to this population). Dominance of the Fort Center peoples by the historic period Calusa of southwest Florida is believed to have occurred in the final aboriginal occupation of the Fort Center site (his Period IV).

Goggin and Sturtevant (1964) suggest that Calusa dominance occurs earlier. They hint at the possibility that the Belle Glade peoples represent an inland population of the Calusa culture. However, theirs appears to be a minority view.

Belief System

Little information on belief systems has been presented by archaeologists. Sears (1982) suggests that the Fort Center inhabitants had strong totemic beliefs (as represented by carved wooden figures of animals and birds). He also argues for a belief in an afterlife (as represented by burial practices). Such beliefs would not be surprising given the material remains found in the Belle Glade area.

Previous Research

Relatively little archaeological work has been carried out in the Lake Okeechobee Basin. Few excavations and even fewer surveys provide us with a very limited view of the Belle Glade culture.

In the 1930s, excavations were carried out by Matthew W. Stirling at the Belle Glade and Big Mound City sites (Willey 1949b). In 1948 John Griffin and Hale Smith (1948) published results of their work at the Goodnow Mound. Later, John Goggin (1952a) examined the area around Fort Center along Fisheating Creek, and Ross Allen (1948) described the Ortona and Tony's Mounds. More recently, William H. Sears (1971a, 1982) carried out a long-term program of excavation at the Fort Center site.

In the early 1970s, Robert S. Carr (1975) identified 16 prehistoric sites including mounds, middens, and earthworks, largely through the examination of aerial photographs and field checking of possible site locations. Carr's survey is one of the most comprehensive listings of archaeological and historic sites in the Lake Okeechobee Basin, but it was limited to areas that were to be inundated by the Army Corps of Engineers proposal to raise the regulation range of Lake Okeechobee from 13.5-15.5 feet above mean sea level to 15.5-17.5 feet. In 1983, much data about ceremonial tablets and other metal artifacts was compiled and analyzed (Allerton, Luer, and Carr 1984; see also McGoun 1981). Some of those data are relevant to Belle Glade area sites.

In the Kissimmee region, the picture is bleaker still. Only one major excavation has been conducted--at the Goodnow Mound by Griffin and Smith (1948). They also placed a trench through the nearby Skipper site (8HG8). The only other known excavations are the limited testing conducted by Austin (n.d.) at the Bluff Hammock site on the Kissimmee River and the Fischer site at Lake Hatchinika. The latter is located at the northern periphery of the Kissimmee region.

More recently, cultural resource surveys in both the Okeechobee and Kissimmee River regions have provided much needed information on the smaller, less spectacular campsites and middens that are located away from the major centers. As more of the sites are investigated, they will provide us with a much clearer picture of Belle Glade settlement and culture.

Important Sites

Only one Belle Glade site is listed on the National Register of Historic Places. This is the Big Mound City site in Palm Beach County. Other important sites in the Okeechobee Basin include the Fort Center site and the Ortona Mound in Glades County, Tony's Mound in Hendry County, and the Belle Glade Mound and Midden site in Palm Beach County. A listing of most known prehistoric sites in the Okeechobee Basin can be found on a map provided by Hale (1984:181). However, this figure does not include earthworks such as Barley Barber I (Carr 1973:9-11), Lakeport Earthworks (formerly known as North Fisheating Creek I [8GL40]) (Carr 1975), West Okeechobee Circle (8GL57) (Carr 1985:295-297), and others.

In the Kissimmee River region important sites include the Daughtry (8HG3), Goodnow Mound (8HG6), Lake Kissimmee, Gauging Station (8HG18), Bluff Hammock, and Fischer (8PO1044).

Research Questions

Chronology

Probably the most important research question for the Belle Glade culture area is what exactly is the chronology of settlements in the Okeechobee Basin and Kissimmee river drainage? Much remains unknown about settlement distribution and site construction chronology. One way to begin to resolve this question is to type and seriate the earthworks and middens and test the seriation with other dating methods. This would provide a framework to discuss the evolution of technological, sociological, and possibly, ideological changes in Belle Glade cultural adaptations.

Economy

The issue of maize horticulture is still being debated, and further information is needed to resolve this question. Furthermore, we have extremely limited data on other subsistence practices.

- Was maize grown starting around 2450 B.P.? If so, why did the practice die out (there is no mention of it in documents from the early sixteenth century)?

- Were other crops, such as root crops, grown? What were these crops?
- What wild foods were used and how much did they contribute to the diet?
- How did subsistence practices change through time?
- Sears (1982:200-201) has suggested that the Belle Glade people were part of a regional network in late prehistoric and historic times. Indeed, he views the inland Belle Glade people as important participants in the coastal Calusa economy. What evidence do we have for a coastal-inland trade network? For example, what Belle Glade items are found in coastal sites and vice-versa?
- What was the role of Belle Glade communities in this trade network?
- What was the temporal extent of this network?
- Did the nature and boundaries of this network shift through time?
- Leader (1985) has suggested that some form of craft specialization existed at the Fort Center site. What is the nature of specialization in the Okeechobee Basin?
- What is the temporal extent of specialization?
- How can we identify the presence of specialists at Belle Glade sites?

Settlement patterns

Our knowledge of Belle Glade site types, numbers, and locations is extremely limited; we are unable at present to formulate research questions beyond those relating to the acquisition of baseline data.

- What was the entire range of site types?
- Were there certain patterns typical of different time periods?
- What was the nature and function of the circular earthworks found throughout the area?
- What was the nature of ordinary habitation sites and how do they change through time?

Social and political organization

Our data on social and political organization for the Okeechobee Basin are extremely limited. The basic question of the degree of complexity remains unanswered, though hinted at. Hale (1984:183), for example, suggests that occupants of the Mound-Pond complex at the Fort Center site had preferential access to resources such as deer.

- Is there evidence for unequal distribution of wealth and status items?
- What evidence is there for complex political organization?
- How did political organization change through time?
- Were there boundaries between social groups in the Okeechobee Basin?

The social, political, and economic relationship between the Okeechobee Basin and the Kissimmee River are poorly known. The assumed homogeneity of cultural traits is speculation based on the smallest amount of data. Determining whether the Kissimmee River region was part of the greater Belle Glade cultures area, or was instead the region of a distinct local culture with ties to the St. Johns cultures as well as Belle Glade, should be a major research focus in the future.

Health and nutrition

Bioarchaeological studies of Belle Glade populations would be a useful supplement to subsistence studies. No such studies have been undertaken to date, perhaps because few Belle Glade populations have been recovered.

- Is there evidence of nutritional stress and infectious disease in contact period Belle Glade populations?
- Were there differences in health status between groups, e.g., between populations at complex sites and those at less complex sites, or between populations adapted to different environments within the Basin?
- Did health and nutritional status vary through time?

Preservation Goals

- Locate unrecorded Transitional and Belle Glade sites, especially those in areas endangered by agriculture, development, and/or land alteration for water management.
- Acquire and protect the Fort Center, Tony's Mound, Ortona, and Lakeport Earthwork, Daughtry, and Lake Kissimmee sites.
- Excavate representative types of sites.
- Determine the National Register eligibility of all circle sites and other important earthworks (e.g., Nicodemus Earthworks [8GL9], Lakeport Earthworks [8GL26], and North Fisheating Creek, Daughtry, and Lake Kissimmee).
- Nominate sites of various types for listing in the National Register.

Chapter 12

SOUTH AND SOUTHEAST FLORIDA (The Everglades Region), 2500 B.P. – CONTACT

Laura Kozuch

South Florida east and south of the Belle Glade/Okeechobee and Caloosahatchee regions offers archaeologists and planners a number of opportunities and challenges. Extensive coastal and interior wetlands, and a largely subtropical environment have resulted in the development of a cultural system unique within the United States. Data from large field projects, county surveys, and syntheses published in the last decade, along with a half-century-long tradition of scientific archaeology, provide a core of knowledge on which to build future studies and preservation and management programs.

The Everglades region contains localities that are presently among the most densely populated and developed in the state (e.g., Dade and Broward counties), as well as the least developed (e.g., large portions of Hendry, Collier, and Monroe counties). While sections of interior Palm Beach County and much of Hendry County are little known archaeologically, Everglades National Park and the Big Cypress Swamp have been the focus of much archaeological research, as have the eastern Everglades and coastal areas of Dade and Broward counties.

A recent synthesis of Everglades archaeology has been prepared by John Griffin (1988). That study and the earlier work of John Goggin (e.g., n.d.a; see also the popular overview by McGoun 1989) provide a basis for future, problem-oriented research and for management activities. The excellent preservation of floral and faunal remains in some South Florida

sites offers the potential for a variety of dietary-related studies (e.g., see Griffin 1985:379-389, 1988:341). The possibility that wooden artifacts, netting, food remains, and other materials not usually preserved in archaeological sites may be found in anaerobic muck or other deposits in the Everglades region (such as the Key Marco site, 8CR48-50) increases the responsibilities of archaeologists and planners, as does the continued modern development of both coastal and inland locales.

The Setting

John Goggin (1947) originally included all of this area in his "Glades" region, which he defined as including "all of the southern tip of the state south of Boca Grande Pass on the west coast, and below Fort Pierce on the east coast" (Figure 15). Since that time archaeologists have realized that Goggin's Glades area can be divided into several related regions (also called areas or districts) based both on geographical considerations and differences in archaeological assemblages (Carr and Beriault 1984; Griffin 1988).

Although some taxonomic differences exist among the archaeologists working in southern Florida, most agree on the general geographical outline of the Everglades region. It is also agreed that the present boundaries and taxonomic system is a dynamic one, subject to revision and refinement as new data and interpretations are forthcoming. Both the Belle Glade/Okeechobee Basin region, including the Kissimmee River drainage, and the Caloosahatchee region (the southwest sector including the coast and adjacent portions of the interior from Charlotte Harbor to the Lee-Collier County boundary) can be separated from Goggin's Glades area. The resulting large portion of south Florida, the Everglades region, contains at least one variant locally, the Ten Thousand Island district, which encompasses those islands and the adjacent portion of the mainland below the Caloosahatchee region south to about Cape Sable. The Ten Thousand Island district, including much of Collier and northwestern Monroe counties, contains most of the Big

Cypress Preserve and the northwest portion of Everglades National Park.

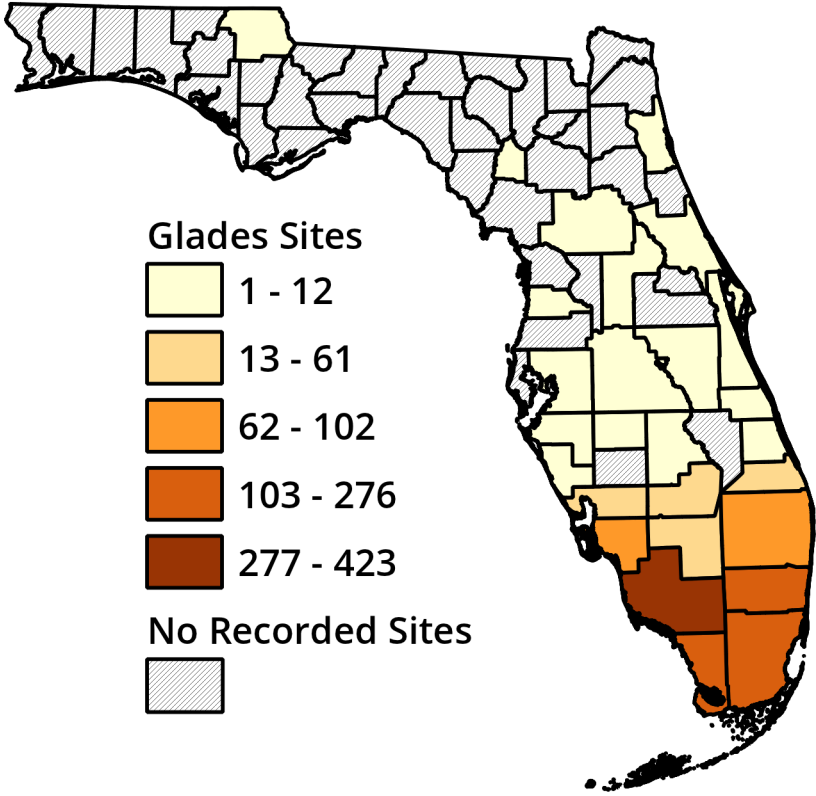


Figure 15. Distribution of Glades Sites (by county)

Another geographical district might also be designated. The East Okeechobee district, as its name implies, includes portions of Martin and Palm Beach counties east of the Belle Glade region. The remainder of south Florida—Broward and Dade counties and portions of Monroe and Palm Beach counties—are the Everglades region proper. Whether or not the Florida Keys, especially the Keys beyond Florida Bay, should be designated a separate district within the Everglades remains to be determined (see Goggin 1950b; Goggin and Sommer 1949).

In the Everglades region, water has played a dominant role in shaping the environment and the natural resources available to

the precolumbian native peoples who lived there. Although in the distant past, fluctuations in water availability led to environmental differences in south Florida, the environment of the Everglades region has remained essentially the same for the last 2500 years. The level of the sea in relation to land has not varied more than about 0.5 m since A.D. 400. From A.D. 1 to A.D. 400 it was 2 m lower than present sea level (Fairbridge 1984). Although sea level does affect the Everglades, the water level of the Everglades can also vary due to changes in rainfall (MacVicar and Lin 1984).

Much of the central and eastern portions of southern Florida are dominated by the Everglades marsh, which is mostly sawgrass. The Big Cypress Swamp is a major physiographic zone west of the Glades. Cypress forest, pine forest, and hammock forest also exist in interior areas, while extensive saltwater marshes and coastal mangrove forests line the coasts. The mangrove system supplies many of the nutrients which provide the basis for the food chain in the coastal estuaries. The Atlantic coastal ridge supports pine flatwoods and hardwood hammocks and is an important physiographic feature. Still other environments are found on and adjacent to the Florida Keys (see Griffin 1988:5-28, for a discussion of Everglades region environments). Coastal resources include sharks, rays, bony fish, and shellfish. About 400 species of birds, 43 species of freshwater fishes, and 35 species of mammals, of which the deer, raccoon, mink, and muskrat were the most important as food to prehistoric humans, have been documented. The reptiles most important as food sources are the alligator and the various turtles, including the softshell and sea turtles. (For detailed information on the fauna of south Florida, consult Gleason [1984] and the bibliographies contained in that volume. See also Griffin [1985, 1988]).

Chronology and Material Culture

The chronological sequence for the Everglades region was originally defined by John Goggin, who continued to refine it as more information on specific ceramic types (decorated types)

was collected. John Griffin's work at the Bear Lake site (8M033), previously excavated by Goggin, has provided chronometric dates and further refinement of the sequence (Griffin 1988:181-226). That latest sequence is followed here.

The Glades ceramic sequence begins at ca. 2500 B.P. with the appearance of two undecorated ceramic wares, Glades Plain and Goodland Plain, both of which contain quartz paste inclusions (perhaps as temper), but which are much finer in the latter. Earlier ceramics, most notably fiber-tempered pottery, have been found at scattered sites in the Everglades region, but are extremely rare, for instance, in the Everglades National Park itself (Carr and Beriault 1984; Griffin 1988:132). Quartz tempered ceramics probably also exist in portions of the Everglades region and, if they are temporally comparable to northern Florida, appear by ca. 2500 B.P. The period from roughly 2500 B.P. to A.D. 1 is often referred to as the pre-Glades period because it precedes the Glades ceramic sequence. As research progresses, a taxonomy for these pre-A.D. 1 cultural assemblages will no doubt be forthcoming.

Ceramics made of Glades paste, which is characterized by a temper of medium-sized, white, water worn, quartz sand and fine grit (Willey 1949b), first appear in the Glades I early period (A.D. 1-500). Plain ceramics are present in this and all subsequent Everglades periods, making it difficult to establish ceramic-based chronologies for sites that contain only plain ceramics.

The Glades I late period (A.D. 500-800) is marked by the presence of a number of incised and punctated types. Griffin (1988:139) suggests that in south Florida, the practice of incising pottery originated in southwest Florida. Approximately 170 sites are recorded in south and southeast Florida for the Glades I period.

Incised pottery continues in the Glades IIa (A.D. 800-900) and IIb (A.D. 900-1100) periods, but is abandoned, along with other types of decoration, in the Glades IIc period (A.D. 1100-1200) (Griffin 1988:141). About 270 Glades II sites are recorded from this time.

During the Glades III period incised ceramics (differing in motif, however, from those of Glades IIb) are found in the Glades IIIa period (A.D. 1200-1400), but not in Glades IIIb (A.D. 1400-1600). St. Johns Check Stamped and Glades Tooled are found in the Glades IIIb and c periods; some European artifacts are present in the sixteenth century and increase in the Glades IIIc period (A.D. 1600-1700). Around 280 Glades III sites are known.

Because there are no chert outcrops in south Florida, lithic artifacts are sparse. Stone artifacts, other than those made of limestone and some sandstones and similar material, should be considered non-local. Chipped stone (chert) artifacts are not numerous. Griffin (1988:99) states that the chert seems to have been traded from the Tampa Bay area. Limestone artifacts are more frequent and include grooved pebbles, plummets or net sinkers, hones, and hammerstones. Artifacts made of pumice are assumed to have been made from material that drifted ashore from the Caribbean or Mexico. Due to the paucity of lithic material, there have been no studies of stone tool type variation through time.

An alternative to stone tool usage was utilization of shell tools, of which many kinds occur (Griffin 1988:80-88; Luer et al. 1986; Reiger 1981). Picks, hammers, adzes, celts, gouges, chisels, awls, and knives or scrapers were made primarily from *Busycon*, *Strombus*, and *Pleuroploca* (Griffin 1988:82-88). These genera were also used in the manufacture of shell vessels of various types, including cups, saucers, dippers, and spoons. Perforated bivalve shells may have served as weights or sinkers (Griffin 1988:88). Shell beads also are found, but relatively infrequently (Griffin 1988:89).

Bone tools include awls and points, and are frequently made of deer bone or antler (see Griffin 1988:91-98). Fish spines were fashioned into punches, and cartilaginous fish vertebrae were used as ornaments. Stingray tail spines were also fashioned into implements, which may have been used for tattooing. Shark teeth were important as cutting and engraving tools (Furey 1977; Richardson and Pohl 1985; Steinen 1982). From the Key Marco site, Gilliland (1975) illustrates "Turtle Bone Rectangles," which

were formed from turtle plastron fragments. These have been identified from several sites and are now thought to be net gauges (Walker 1989). Various perforated mammal teeth also are found, and were probably ornaments. An excellent study of bone tools from the Granada site was completed by Sue Richardson and Mary Pohl (1985).

Wooden items and cordage are unlikely to survive long in the humid south Florida climate, but they were undoubtedly used, as indicated by the collections preserved in muck at the waterlogged Key Marco site (Cushing 1897). Artifacts made of cypress, buttonwood, and gumbo limbo were found in the anaerobic muck of the site (Gilliland 1975:47-168). Wooden items include trays, cups, bowls, mortars, pestles, plaques, adze and axe handles, masks, and stools. Masses of tangled cordage were also recovered, often in association with pierced *Arca* shells, gourd fragments, and wooden pegs (Gilliland 1975:237).

Subsistence

The Everglades area is characterized by an economic reliance on the shellfish and marine resources on the coast, the freshwater resources of the interior, and on hunting, fishing, and plant gathering (Carr and Beriault 1984). Fish remains were numerically most abundant among faunal remains from the Big Cypress National Preserve (Wing 1984). The small size of the fish remains suggest a netting technique. In addition, use of marine animals was shown to decrease as the distance from the coast increased. The species of animals exploited did not change through time. Griffin (1988:284-288) gives a useful presence/absence list of the faunal remains recovered from south Florida sites. Faunal analysis from the Granada site in Miami (in Griffin et al. 1985) revealed that over 50% of the biomass represented came from sharks and rays, 28% from sea turtle, and 11% from deer, with the other categories contributing less than 10%. Vertebrate usage was virtually unchanged from Glades I to Glades IIIb, with aquatic resources far outweighing the other categories. Molluscan utilization has not been formally examined to determine the percentage of animal flesh which contributed to the diet,

although shell middens reveal that a wide range of both gastropods and bivalves were used.

Floral remains are preserved far less often than faunal remains, making it difficult to discover which plant resources were targeted. C. Margaret Scarry (1985a) analyzed botanical remains from the Granada site and concluded that a limited number of plants (false mastic, cocoplum, cabbage palm, saw palmetto, sea grape, and hog plum) were collected. These results should be seen as preliminary. Many more studies of botanical remains need to be done in order to recognize patterns of plant use.

The analyses of faunal and floral remains from the Granada site both suggested great stability in subsistence patterns throughout the period A.D. 1 to historic contact (Griffin 1988:384). Such stability may reflect environmental conditions which were unchanging over that same period.

Settlement Patterns

Athens (1983) defines four types of south Florida sites: primary habitation, secondary habitation, resource procurement/processing, and mound sites. Griffin's (1988) summary of the Everglades National Park survey showed that 77.5% of the sites were earth middens, 19% were shell middens, and 12% were shell works. Of special interest are mounds and circular earthworks; for instance, the circular earthworks in south Florida studied by Carr (1985). Although most of these are in the Okeechobee area, two are known from Dade County (Carr 1985) and many more may be present in south Florida.

Griffin (1988:263) has plotted most of the known sites in the region. Many more shell middens occur in the Ten Thousand Islands region than anywhere else along the coast. The Big Cypress Preserve east of the Ten Thousand Islands also has a concentration of sites. Along the freshwater Shark River there is a cluster of small sites which may link up with a cluster of sites in central and eastern Dade County (Griffin 1988:264; also see Carr 1981b). Much of the area south of Shark River Slough appears to have been sparsely populated.

Bioarchaeology

Most of the biological anthropology which has been done on material from south Florida in the past has focused on either the antiquity of the material, or the pathology of the bones. This is changing, however, with the application of modern bioanthropology analytical techniques (Carr, Iscan and Johnson 1984; Iscan 1983; Kennedy and Iscan 1987).

Important Sites

Ten archaeological sites are listed on the National Register for south and southeast Florida. Most of these are in Collier County and result from the extensive survey undertaken in the Big Cypress Preserve and the Everglades National Park by the National Park Service. These include the Turner River (8CR8), Sugar Pot (8CR172), Halfway Creek Midden (8CR176), Hinson Mounds (8CR180), Platt Island (8CR182), Burns Lake (8CR259), and Plaza (8CR303) sites. The Arch Creek site (8DA398) in Dade County and Rock Mound (8MO26-27) in Monroe County are also listed. In addition to these, other important sites include the Key Marco and Goodland Point (8CR45-46), and Horr's Island (8CR208-209) sites in the Ten Thousand Islands region; the Bear Lake site (8MO33) north of Florida Bay; the Granada (8DA11), Snapper Creek (8DA9), Cutler Mound and Midden (8DA7-8), and Madden's Hammock (8DA45) sites in southeast Florida; and Upper Matecumbe Key (8MO17) in the Keys.

Research Questions

John Griffin's synthesis of Everglades National Park archaeology offers conclusions that are important in helping to guide future research throughout the Everglades cultural region (Griffin 1988:324-347). Many of them are incorporated here. As appropriate, his study should be consulted in conjunction with future research and planning.

Chronology and Spatial Variation

A detailed ceramic chronology exists for the Everglades region, one tied to stratigraphically ordered ceramic types and

chronometric dates from Bear Lake and from the Onion Key (8MO49) and Granada sites (Griffin 1988:127-129). The applicability of that sequence to some areas of southern Florida needs to be determined (e.g., the Ten Thousand Island and East Okeechobee districts). Chronometric dates tied to excavated ceramic collections from those and other possible districts and locales are needed.

Economy

Due to the often excellent preservation of floral and faunal remains, south Florida presents many opportunities for subsistence studies.

- What types of plant and animal resources were used? How do these vary through time and between regions?
- What are the relative contributions of plant and animal foods to the diet?
- What are the most important economic resources among types of sites?
- Was horticulture practiced? If so, what crops were grown?
- What is the identity of the "bread of roots" described by Fontaneda (1944)?

In the sixteenth and seventeenth centuries, the Calusa of southwest Florida held sway over much of south Florida. The nature of that dominion is unclear. The situation in earlier time periods is even more indistinct, although there appear to have been ties to other areas. For example, chert tools found in south Florida apparently originated in the Tampa Bay region, but there have been no formal sourcing studies of chert. Griffin (1988:277) suggests that the Miami River-Lake Okeechobee-Caloosahatchee River corridor formed an easy communication route between southeast Florida and the Calusa area. The question of contact between prehistoric Florida and the Bahamas also should be resolved (Bullen 1974; Lathrap 1987; Marquardt 1987; Steward 1947; Sturtevant 1970; Willey 1949b). Within the region, Griffin (1988:277) suggests (based on site distribution and environmental considerations) that the Shark River and Shark River Slough form a logical route across the peninsula.

- What areas of south Florida were under Calusa control? When?
- What is the source of south Florida chert tools?
- What communication routes across or around the peninsula were used? Do these vary through time?
- What evidence is there for contact with the Bahamas? What is the nature of this contact?
- What evidence is there for exchange between the east and west coasts of south Florida?

Settlement patterns

Because of extensive survey by the National Park Service (Ehrenhard et al. 1978, 1979; Ehrenhard et al. 1980; Ehrenhard et al. 1982; Ehrenhard and Taylor 1980; Taylor 1984, 1985; Taylor and Komara 1983) and others (Carr 1981b) in south Florida, we have a relatively clear picture of site distribution, although there is some problem assigning sites to particular time periods because of the lack of diagnostic pottery. However, large areas outside National Park properties remain unsurveyed, limiting our view of spatial variation in settlement pattern.

- What are the site types for each area? Are certain types found only in certain areas or times? Were certain types of sites occupied seasonally?
- How do settlement and community patterns vary through time and between regions?
- What are ordinary habitations like? Did they vary regionally or through time?
- What kinds of public structures were there?

Social and political organization

One or more chiefdoms may have existed prehistorically in the Ten Thousand Islands District (see Griffin 1988:309). Moreover, documents from the early colonial period imply that a hierarchical form of political organization existed in other parts of south Florida (Griffin 1988:309). Some question arises, however, about the form of political organization in earlier times. The extent of the historic chiefdoms is also unclear. The small,

dispersed, undifferentiated sites of the Shark River Slough, for example, do not support the contention that a chiefdom operated here.

- What archaeological evidence is there that reflects the documented chiefdoms which were located along the south Florida coast in the historic period?
- Is there evidence for unequal distribution of wealth and status items?
- How did political organization vary regionally?
- How did political organization change through time?

Health and nutrition

Many burial sites are known for south Florida but few bioarchaeological studies have been conducted. This constitutes a major gap in our knowledge; burials discovered in the future should be protected or subjected to careful bioarchaeological studies.

- Were there differences in health and nutritional status between coastal and inland populations?
- Were there differences in health and nutritional status among areas?
- Does health and nutritional status change through time?
- Does health status change after contact with Europeans?

Preservation Goals

- Large geographical expanses of the Everglades region are under Federal control. An effort should be made to coordinate research and preservation planning and activities to maximize management of cultural resources.
- Locate unrecorded sites, especially those in areas endangered by development, agriculture, drainage, or coastal erosion.
- Acquire and/or protect a representative sample of sites, including waterlogged sites.
- Protect human burial sites, preferably through preservation in place and excavation of threatened remains.

- Excavate any waterlogged sites in danger of being drained or destroyed.
- Evaluate the National Register status of sites representing varying types and geographical locations (and see Griffin 1988:328-334) and nominate to the National Register eligible sites. The nature of the Everglades settlement system, i.e., correlations between sites and wetlands, lends itself well to the preservation of groups of sites within National Register districts that also encompass preservation of wetland locales.

Chapter 13

THE PENSACOLA CULTURE, ca. A.D. 1300 – 1700

Claudine Payne

The Pensacola culture (ca. A.D. 1300-1700) of northwest Florida is incompletely understood and suffers greatly from lack of adequate archaeological investigations. Most of the work on Pensacola has been in the Mobile Bay area of Alabama. The Florida area is much less well-known.

Terminological changes in the last 50 years further add to the difficulty. In the 1940s, Gordon R. Willey defined the Fort Walton culture of northwest Florida (Willey and Woodbury 1942; Willey 1949a). Named after the site of Fort Walton (80K6) on Choctawhatchee Bay, Fort Walton encompassed the late prehistoric and protohistoric periods. In the eastern part of the area, Fort Walton groups exhibited typical Mississippian characteristics, including platform mounds, cleared field agriculture, ascribed ranking, and hierarchical political organization. The western Gulf coast showed certain material similarities to the eastern area, leading Willey (1949a:452-458) to subsume the two regions under the Fort Walton rubric. This grouping, unfortunately, implied similarities in economy and social organization when, in fact, the two regions are dissimilar.

Recent researchers (Sears 1977a; Knight 1984; Scarry 1981a; Fuller 1985; Stowe 1985) prefer to separate the agricultural eastern groups from the people living along the Gulf coast west of Choctawhatchee Bay. These western cultures have been termed Pensacola after Willey's Pensacola ceramic series, its major material manifestation. But the situation in Florida may be even

more complex with Pensacola overlying early Fort Walton west of the Choctawhatchee Bay.

The Pensacola ceramic complex is found along the Gulf coast from Choctawhatchee Bay to the Mississippi River delta (although it is recognized that Pensacola pottery is found in Fort Walton sites as far east as the Apalachicola River Valley and beyond). The distribution of this ceramic complex defines the geographical extent of the Pensacola culture (Knight 1984:199-201).

Other characteristics also help to distinguish Pensacola from Fort Walton. Fort Walton societies possess cleared field agriculture and a ranked hierarchical political system (Scarry 1981a:19). Pensacola groups, despite some similarities in their pottery assemblages, apparently possess neither of these characteristics. Pensacola is not Fort Walton nor is it Moundville, but "a distinct variant of Mississippian culture" (Fuller 1985:150).

Approximately 200 Pensacola sites are known from the Florida panhandle (Figure 16). Because of the terminological confusion, these sites may be referred to, depending on the researcher, either as Pensacola or as Fort Walton. In this review, we accept the approach of Knight, Scarry, Fuller, and Stowe and refer to sites within the period A.D. 1200-1700 and located west of St. Andrew Bay as Pensacola rather than Fort Walton (recognizing that in Florida, Pensacola may have a later starting date and may actually overlie early Fort Walton; some sites may contain both Fort Walton and Pensacola components).

The Setting

The northwestern coast of Florida is composed of two general physiographic zones, the uplands and the coastal lowlands. Pensacola sites are found predominantly in the coastal zone, from Choctawhatchee Bay west as far as the Mississippi Gulf coast. In Florida, Pensacola sites do not apparently extend into the uplands in any numbers, although this may be a product of survey coverage.

The most important physiographic features for the Pensacola culture are the shallow coastal bays. From east to west these bays

are Choctawhatchee Bay, Pensacola Bay, and on the Florida-Alabama boundary, Perdido Bay.

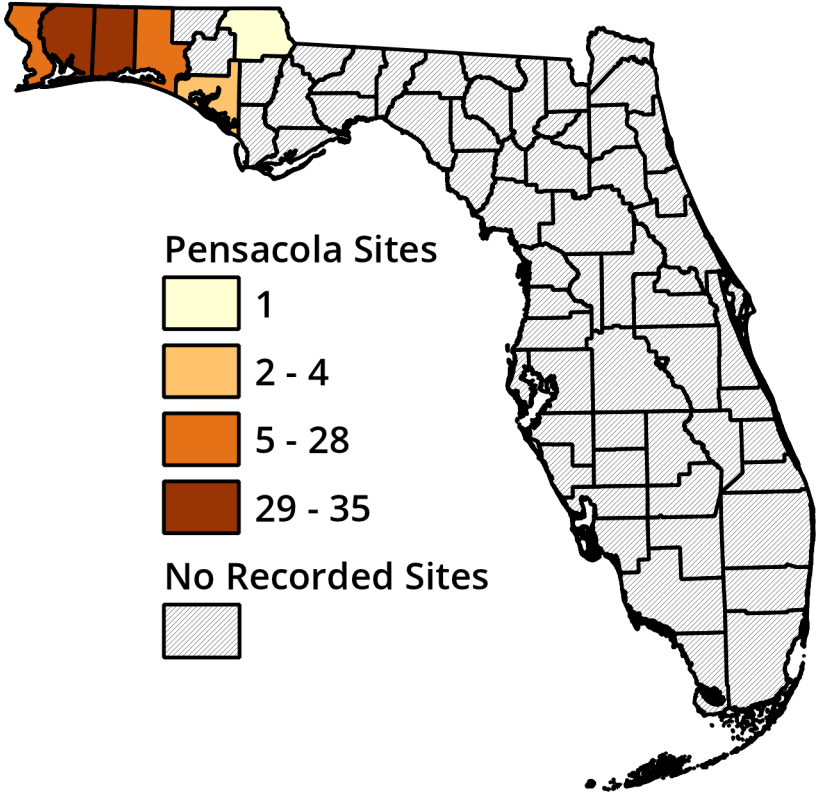


Figure 16. Distribution of Pensacola Sites (by county)

Choctawhatchee Bay is long and narrow, running about 50 km east-west and 10 km north-south. The only river draining into the bay is the Choctawhatchee River, but there are several creeks flowing into it, including Black, Alaqua, and Rocky creeks. These creeks drain the uplands north of the bay.

Pensacola Bay is about the same size as Choctawhatchee Bay, but shaped differently. It, too, is long, but it forks into two extensions that run northward from the east-west trending bay. The Escambia River flows into the western extension, Escambia Bay. The Yellow and Blackwater rivers drain into East Bay.

Perdido Bay is smaller than the other two and extends at an angle in from the coast about 20 km. The Perdido River, which forms the boundary between Florida and Alabama, flows into the bay.

Material Culture

Shell-tempered Pensacola series pottery is characteristic of the Pensacola culture. Fort Walton pottery is also found along the coast west of St. Andrew Bay, but in lesser amounts. William Lazarus (1971:42) plotted the proportions of shell-tempered to sand-tempered pottery in sites from Apalachicola Bay to Perdido Bay and found that the percentage of shell-tempered pottery increased from east to west. Sites near the Apalachicola River and on St. Andrew Bay showed only about 10% to 20% shell-tempered pottery. The average increased to 50% in the Choctawhatchee Bay area and to 80% in the Pensacola and Perdido Bay regions.

Almost nothing is known about the Pensacola lithic assemblage. A stemmed Archaic point found with a burial in the Fort Walton Mound (Fairbanks 1965:248) may indicate that, as in the Fort Walton area, Archaic-type points were used by later peoples as well. Clarence B. Moore (1918:538) reports 24 "lancepoints and arrowheads or knives" from the Hogtown Bayou Cemetery (8WL9) but gives no further description of them. Greenstone celts are known from the Hickory Ridge Cemetery (8ES1280) (Phillips 1989), and celts of "imported rocks" were found by Moore (1918:538) at Hogtown Bayou.

Other items found at Pensacola sites include mica, yellow ochre, shell beads and pins, columellae, bone awls, and copper objects (Fairbanks 1965:248; Phillips 1989; Moore 1918:538-540). Several sites (Point Washington Cemetery [8WL16], Bunker Cut-off Burial Mound [8WL21], Hogtown Bayou Cemetery, and Alaqua Bayou Cemetery [8WL73]) have yielded sixteenth-century European artifacts (Scarry 1989:2). These include glass beads, bells, scissors, an iron chisel, and a two-maravedi coin minted between 1532 and 1557 (Scarry 1989a:2-4; Moore 1901:478, 1918:538-540; Fairbanks 1965:259; Lazarus 1964:136).

Settlement Patterns

Our knowledge of Pensacola settlement patterns is extremely limited. We presently know of four site types in Florida: 1) pyramidal mounds; 2) burial mounds; 3) cemeteries; and 4) coastal shell middens. Inland sites presumably exist (although perhaps in smaller numbers than coastal sites), but we know virtually nothing about their nature and distribution.

Pyramidal mounds are known primarily from the Choctawhatchee Bay region. Only the Fort Walton Mound is clearly a platform mound (Willey 1949a:213-214; Lazarus and Fornaro 1975; Fairbanks 1965). Another site, the Jolly Bay Mound (8WL15), may also be a platform mound (Willey 1949a:224). Fort Walton and Jolly Bay are situated at opposite ends of the bay, suggesting a division of territory between the two groups. Scarry (1989a:7) has suggested that a third mound, the McBee Mound (8WL4) near Alaqua Bayou, may also be a platform mound, but notes that the evidence for this is sketchy (John Scarry, personal communication, 1989). In the Pensacola Bay region, according to Judith Bense (1985:15), "one low temple mound" may exist.

Burial mounds were also apparently present, although the Bunker Cut-off Mound is the only clear example (Willey 1949a:227; Moore 1918:519-520). The McBee Mound may also be a burial mound, although, as noted earlier, its identification is questionable (Willey 1949a:217).

A number of Pensacola cemeteries are known from northwest Florida. Again, many of these are in the Choctawhatchee Bay area. Only two, the Hickory Ridge Cemetery (8ES1280) and the Navy Liveoak Reservation Cemetery (8SR36), are known from the Pensacola Bay region. The Chambliss (8OK35), Hogtown Bayou, Point Washington, and Alaqua Bayou cemeteries all are located around Choctawhatchee Bay. These cemeteries are spaced about 10 km apart along the shore of the bay. This regular spacing led Scarry (1989a:7) to suggest that at least two more cemeteries are yet to be found. Moreover, he suggests that this spacing may represent communities or political units.

The fourth type of site is the coastal shell midden. Although a number of these sites are known (Moccasin Mound [8SR85],

Thompson's Landing [8ES950], Gilligan's Island [8SR143], Hickory Shores [8SR5], the Gulf Breeze sites [8SR6-8, 11], and La Casa [8SR12] in the Pensacola Bay area; Pickins [8WL9], Villa Tasso [8WL2], Piney Point [8WL5], and Mack Bayou [8WL8] in the Choctawhatchee Bay area), few have been excavated. Most of the shell middens are located directly on bay or estuary shores. They are usually composed of several small piles of oyster and clam shell, extend about 100-200 m, and are from a few centimeters to 1 m deep (Lazarus 1961, 1971; Willey 1949a; Claassen 1985).

Subsistence

The Pensacola culture appears primarily to be a coastal adaptation. Eighty-seven percent of the late prehistoric sites identified on Eglin Air Force Base (north of Choctawhatchee Bay), for example, were on the coast (Thomas and Campbell 1985:36), suggesting an orientation to coastal resources. Marine resources were clearly an important part of subsistence at sites such as Gilligan's Island and Moccasin Mound in Santa Rosa County and Thompson's Landing in Escambia County (Claassen 1985:124-127). All of these are located in the Escambia River estuary.

William Lazarus (1971:44) and, more recently, John Scarry (1989a:7-8) have postulated that cleared field agriculture did not play an important part in the subsistence of Pensacola peoples. They offer several reasons for this. First, sandy coastal soils are ineffective for agriculture on a large scale. Second, middens contain predominantly fish and shellfish remains. Third, burials from the Fort Walton site and others in the Choctawhatchee Bay area (e.g., Chambliss) show few dental caries and considerable wear (Adams and Lazarus 1960), traits characteristic of fisher-gatherer-hunters rather than agriculturalists. Finally, historic accounts of the first European expeditions in the area give no indication that large-scale agriculture was being carried out.

Nevertheless, it is possible that small-scale cultivation may have occurred as part of a fishing-gathering-hunting strategy, as suggested by Vernon J. Knight (1984:213) for the late Pensacola culture around Mobile Bay. Tesar (1980:157) suggests that late Fort Walton agriculturalists used coastal middens as their garden

plots, and sees "a direct relationship between the size and density of coastal Fort Walton sites and the availability of earlier midden site soils." No cultigens have been found at Pensacola sites in Florida to date, but recent excavations at a Fort Walton site (8BY150) on St. Andrew Bay (east of Choctawhatchee Bay) have recovered evidence for corn and beans (Mikell 1989).

Read Stowe, working in nearby Alabama, has suggested a seasonal round from gardening sites on the lower rivers and delta to oyster middens on the coast in the winter (1985:148). Several Pensacola sites at the mouth of the Escambia River were apparently occupied in late summer and fall (Claassen 1985:135), lending support to this hypothesis, although there is no evidence yet for horticulture at the Florida sites.

Social and Political Organization

We are constrained in our ability to interpret Pensacola social and political organization by the limitations of our data. Extrapolating from the ratio of mounds to midden sites and the appearance of platform mounds, Willey (1949a:455) claimed there was a "trend toward politico-religious cohesion in the Fort Walton Period" (this includes our Pensacola). This generalization, which lumped the agricultural, hierarchical eastern northwest coast societies with those west of St. Andrew Bay, was unfortunate. The most complex social organization indicated by the known range of site types is that of a small chiefdom. Indeed, Pensacola site types and distribution are more evocative of tribal or big man societies. Additionally, the mortuary data, generally a useful indicator of complexity, gives no evidence of ascribed ranking (Scarry 1989a:7).

Important Sites

Only one Pensacola site and one archaeological district containing Pensacola sites are listed on the National Register of Historic Places. Both of these are referred to as "Fort Walton," but according to the terminology used here, could also be described as having Pensacola components. The site is the Fort Walton Temple Mound in Fort Walton Beach and the district is the

Thomas Creek Archaeological District (8SR338) in Santa Rosa County. Other important sites include the Hickory Ridge Cemetery, Moccasin Mound, Thompson's Landing, and La Casa sites in the Pensacola Bay drainage basin, and the Hogtown Bayou, Point Washington, and Alaqua Bayou cemeteries, the Jolly Bay and McBee mounds, and the Bunker Cut-off burial mound in the Choctawhatchee Bay drainage basin.

Research Questions

Gaps in the database

The Pensacola area suffers from a lack of adequate excavation, particularly of habitation sites. Most previously excavated sites are cemeteries or mounds. Our picture of habitation sites is incomplete and unclear.

There is also a bias toward sites located on the coast, although this may reflect to some degree the nature of the settlement pattern (Thomas and Campbell 1985:36). We do need, however, to have a better view of the inland areas, especially along the rivers flowing into the three major bays.

Chronology

Fuller (1985) and Stowe (1985) have described two phases for the Pensacola culture, Bottle Creek (A.D. 1200-1450) and Bear Point (A.D. 1450-1700). These phases have been defined largely through work in Alabama, and it is not clear how they relate to the Florida area. Evidence exists that in Florida, Pensacola dates after A.D. 1350. It is a Mississippian manifestation that may have been adopted in northwest Florida west of the Choctawhatchee River, where it may post-date an earlier Fort Walton manifestation (Tesar 1980:145-146). This needs to be resolved.

We have very limited data on the chronological position of Pensacola sites in Florida. The clearest information comes from sites around Choctawhatchee Bay (Point Washington, Bunker Cut-off, Hogtown Bayou, and Alaqua Bayou) which contain European artifacts. These artifacts allow us to place these sites generally in the mid to late sixteenth century (Scarry 1989a). The identification of earlier sites is more problematical. Clearly, we

need a more accurate chronological scheme than is presently available. Radiocarbon dates and stratigraphic excavations would help to provide this.

Economy

Judging from the location and nature of sites, Pensacola peoples seem to have had an orientation to coastal resources. We have some information on species exploited (Claassen 1985) and on season of occupation for sites in the Pensacola Bay area, but we have no comparable information for Choctawhatchee Bay. Our knowledge of wild plants exploited and domesticated plants cultivated is even more sketchy. We are unable at this moment to say what the nature of Pensacola horticulture or agriculture was. Additional subsistence studies are essential.

- What was the role of maize horticulture in the economy? How intensively was maize cultivated, if at all?
- What domesticated crops, if any, were cultivated?
- What wild plants were used?
- What was the balance between fishing, gathering, and hunting?
- Are there regional differences in subsistence, e.g., between the Pensacola Bay area and the Choctawhatchee Bay?
- Are Pensacola sites seasonally occupied, as Claassen (1985:135) has suggested for Pensacola Bay? If so, what kinds of sites were occupied at other times of the year?

Settlement patterns

The data on Pensacola site types and settlement patterns is so limited that the collection of baseline data is imperative.

- What is the complete range of Pensacola site types?
- What are the nature and distribution of inland sites?
- How do inland sites differ from coastal sites?
- Are sites clustered around the bays along the coast?
- Is the range of sites in the Pensacola Bay area similar to that in the Choctawhatchee Bay?

Social and political organization

Scarry (1989a:7) notes that there is no evidence of unequal ranking from mortuary data from the Choctawhatchee Bay area. He does note, however, the regular spacing of cemeteries around the bay. Platform mounds are also distributed with some regularity around the bay. These regular distributions may indicate some clustering around important territorial markers or around residences of political leaders. Additional data are needed to determine whether Pensacola societies were chiefdoms or not.

- Are there boundaries between social groups, e.g., between Choctawhatchee Bay and Pensacola Bay, or between east and west ends of Choctawhatchee Bay?
- What evidence is there for egalitarian social organization or, alternatively, ranked social organization?
- How do social and political organization vary between regions (e.g., Choctawhatchee Bay vs. Pensacola Bay)?

Health and nutrition

Some burial populations have been excavated, but in most cases excavation occurred so long ago or in such a manner as to make adequate bioarchaeological studies difficult. Bioarchaeological analyses of complete mortuary populations would go far toward answering questions related to social/political organization and subsistence.

- Is there a difference in health and nutrition status across regions? Or through time?
- What evidence is there of nutritional stress or infectious disease?
- Are there dietary differences between populations?

Preservation Goals

- Locate unrecorded Pensacola sites, especially those inland and in areas endangered by development or erosion.
- Protect coastal cemetery and mound sites.
- Excavate sites of various types, e.g., mounds, cemeteries, coastal middens, inland sites.

- Evaluate the National Register eligibility of all platform mound sites, as well as sites of varying other types.
- Nominate eligible sites for listing in the National Register.

Chapter 14

FORT WALTON CULTURE, A.D. 900 – 1600

Claudine Payne

In the late prehistoric period (A.D. 900-1600), the eastern United States saw the appearance of a group of aboriginal societies that were roughly similar in configuration. Termed Mississippian, these societies were characterized by an increased population, a dependence on maize agriculture accompanied by exploitation of land and aquatic fauna, and a ranked form of sociopolitical organization (Peebles and Kus 1977; Griffin 1985). Mississippian groups are often identifiable archaeologically by the presence of large platform mounds, typical Mississippian pottery (e.g., collared jar with loop handles), and sites oriented to major river valleys. At some ceremonial centers, metal and shell items with motifs typical of the Southern Cult, or Southeastern Ceremonial Complex, can be found.

Fort Walton culture is a variant of Mississippian shared by a number of social systems in southeast Alabama, southwest Georgia, and northwest Florida (Willey and Woodbury 1942; Willey 1949a; Scarry 1980, 1981a, 1984a). These Fort Walton societies exhibit typical Mississippian characteristics, with the exception of one system (in the Tallahassee Hills) that is oriented to lakes rather than rivers. The Fort Walton culture area in Florida extended from the Aucilla River to west of the Apalachicola River (and, perhaps, well beyond) (Figure 17). Radiocarbon dates place the beginning of Fort Walton around A.D. 1000 (Scarry 1981a), approximately the same time that Mississippian societies were developing elsewhere in the Southeast. Fort Walton culture came to an end with the beginning

of a major Spanish presence in northwest Florida in the seventeenth century.

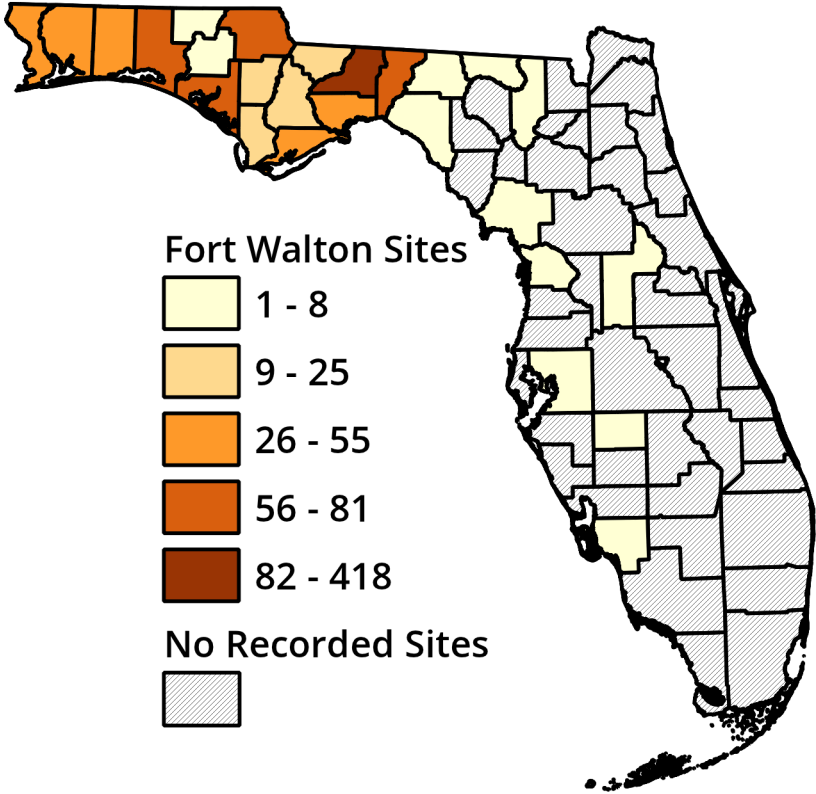


Figure 17. Distribution of Fort Walton Sites (by county)

The Setting

Fort Walton sites in Florida are found in the Tallahassee Hills, the Apalachicola River Valley, the Marianna Lowlands, and the coastal area between the Aucilla River and St. Andrew Bay. These different geographic areas define regional variants of the Fort Walton culture.

The Tallahassee Hills encompass the upland area around the city of Tallahassee, between the Ochlockonee and Aucilla Rivers. This region contains broad areas of fertile soil, abundant water sources, and large lakes that are home to many fish and waterfowl

species. Sites are concentrated between the two rivers, with a sharp decline in frequency immediately outside this area (Payne 1981). Over two hundred Fort Walton sites are recorded in the Tallahassee Hills.

West of the Tallahassee Hills is the Apalachicola River Valley. The Valley includes parts of six counties from the Florida-Georgia/Alabama state line to the Gulf of Mexico. This is a diverse physiographic region that includes low rolling hills, steeply dissected ravines, and low-lying flatlands. Excellent farming soils are found in the north. Sites are generally located along the course of the river or its tributaries. Indeed, to the east, very few Fort Walton sites are found away from the river; this sharp decline in frequency of sites between the river valley and the Tallahassee Hills suggests a buffer zone (Payne 1982). Approximately fifty sites have been recorded in the Apalachicola River Valley.

The Marianna Lowlands is a region of low hills located west of the northern Apalachicola River in Jackson and Calhoun counties. The Chipola River, a tributary of the Apalachicola, runs through this area. Some of the best farming soils in Florida are found here. Data are sketchy for this area, but sites appear to be located both away from the main course of the Chipola on tributaries and on the river proper. This area appears to have been less densely populated than either the Tallahassee Hills or the Apalachicola Valley. About twenty sites are known for the Marianna Lowlands.

The coastal area between the Aucilla River and St. Andrew Bay (and west) includes not only the coastal zone but the pine flatwoods just to the north. The coastal area is relatively unproductive for agriculture, but is a good source of game, wild plant foods, and marine resources. Fort Walton populations along the coast undoubtedly had ties to the other areas; the coastal area may have served as a source of supplementary food resources and raw materials, particularly for populations in the Tallahassee Hills, but for other interior peoples as well. Sites are mainly concentrated along the coastal zone; very few are found

in the pine flatwoods. Approximately fifty sites are recorded in the coastal area.

Material Culture

Most of our information on Fort Walton material culture comes from the study of ceramics. Certain general style characteristics are common to Fort Walton pottery in the various areas. These include incised and punctated designs through most of the period, with the advent of complicated stamping in the latter part of the period and check stamping is also present (Willey 1949a; Scarry 1985). Varying temper types (sand, grog, limestone, and sometimes shell), however, are characteristic of a given region and provide useful ways of identifying the general source of a particular specimen.

We know very little about Fort Walton lithic technology. Typical projectile points are small triangular arrow points, although larger stemmed points (similar to Archaic points) were also apparently used (Tesar 1980:791-792; Griffin 1950). Hammer stones and grinding stones are found at habitation sites. More exotic items come from mound sites; these include greenstone celts (White 1982), a carved limestone bowl, and spatulate-shaped axes (Jones 1982:13). Stone discoidals, scrapers, and whetstones are also found.

Copper artifacts are known from only a few sites in the Apalachicola Valley and the Tallahassee Hills. By far the most numerous and elaborate collection of copper was recovered during the salvage excavation of Mound 3 at Lake Jackson (8LE1) (Jones 1982); this includes large, elaborate repoussé breastplates, smaller decorated and undecorated plates of varying sizes and shapes, and headdress ornaments. Designs on the decorated items are Southern Cult motifs similar to those from the Spiro site in eastern Oklahoma and the Etowah site in northern Georgia.

Engraved shell gorgets with similar motifs are also found in Mound 3 at Lake Jackson (Jones 1982), and shell beads, pendants, pins, and cups are also reported. Several types of marine shell artifacts (including pins and beads) are found at the inland Curlee (8JA7) site on the Apalachicola River (White 1982), and shell

gouges, chisels, beads, and pins come from the Chipola Cut-off site (8GU5) (Moore 1903a).

Settlement patterns

Settlement in the Apalachicola River Valley is concentrated largely along the levees of the river itself. There are fewer sites away from the river. Large platform mounds and accompanying village sites (such as the Cayson [8CA3] and Yon [8LI2] sites) occur at fairly regular intervals along the river (Scarry 1980; Scarry and Payne 1986). In several cases, mounds are paired with apparently contemporary mounds across the river (Brose and Percy 1978).

A greater range and number of sites are found in the Tallahassee Hills. One very large platform mound group is located on Lake Jackson in the west; another large mound (the Letchworth site [8JE337]) is found in the east near Lake Miccosukee. (There is some question, however, regarding the assignment of the Letchworth Mound as Fort Walton; it is possible that this mound is earlier in time.) Eight smaller mound sites are found throughout the area. In the later Fort Walton period, platform mounds are apparently abandoned. Except for the Lake Jackson site, these mound sites are not apparently associated with villages but with dispersed farmsteads. We have some evidence for a hamlet site type (e.g., the Killlearn Borrow Pit site [8LE170]), but our greatest evidence, by far, is for small farmsteads which are found throughout the area generally on hill or ridge tops and clustered to some extent around lakes.

The Marianna Lowlands and the coastal area have received much less attention from archaeologists. Nevertheless, it seems clear that settlement in these two areas was much sparser than in other Fort Walton areas. Fewer sites and fewer site types are known in these areas.

In the Marianna Lowlands, site types include farmsteads, caves, and a single small platform mound. At least one site (the Waddells Mill Pond site [8JA65]) is stockaded, unlike most other Fort Walton sites. Although some sites are located on the Chipola

River (White and Trauner 1987), most sites seem to be situated away from the river.

The coast and lowland area is characterized by settlement largely focused on the coastal zone. The pine flatwoods between the coast and hills have very few sites; these may have functioned as special purpose extraction sites. A possible platform mound is situated where the Ochlockonee River enters the Gulf of Mexico (Brose and Percy 1978; Phelps 1967). Our knowledge of settlement patterns is particularly sketchy here as a result of lack of attention to this area.

Subsistence

Domesticated crops appear to have been a major food resource of Fort Walton people. There is good evidence from the Tallahassee Hills (Alexander 1984; Jones and Penman 1973) and the Apalachicola River Valley (White 1982; Bullen 1958b) that maize was grown. Moreover, Spanish explorers entering the Tallahassee Hills early in the sixteenth century describe large expanses of cleared fields and the cultivation of beans and squash in addition to maize (Varner and Varner 1951). It is unclear how much the populations of the Marianna Lowlands and the coastal area may have depended on agriculture.

Wild food resources were also exploited by Fort Walton peoples. Typical Mississippian game (deer, turtle, squirrel, turkey) are found at the Curlee site (White 1982). Judging from the preferred locations of Fort Walton sites near bodies of water, fish, and in the coastal area, shellfish, probably contributed to the diet. There is some suggestion that wild plant foods, especially nuts, were also gathered (White 1982; Alexander 1984). However, the picture of Fort Walton use of wild plant and animal resources is severely limited as a result of a general lack of zooarchaeological and paleoethnobotanical studies.

Previous Research

The bulk of archaeological investigations conducted in the Fort Walton area have been in the Tallahassee Hills and the

Apalachicola River Valley. In these two areas, considerable survey and excavation projects have been undertaken.

Tallahassee Hills

In the Tallahassee area, a series of investigations by archaeologists at the Florida State University and the Florida Division of Historical Resources (DHR) has resulted in fairly extensive coverage. The first major survey of the area was an investigation by DHR of the proposed I-10 right-of-way during the 1960s and early 1970s (Fryman 1971). Although a final report was never completed for this survey, collections and notes are housed at DHR in Tallahassee. Jeanne Fryman of DHR surveyed selected quarter sections of northern Jefferson county in 1975. This survey also remains unreported, but again the notes and collections are housed at DHR. In the mid-1970s, five large tracts of land in northern Leon county were surveyed by DHR as part of the Leon County Bicentennial Survey (Tesar 1980). In 1985 FSU surveyed a 40 square mile tract east of Tallahassee (Marrinan and Bryne 1986; Bryne 1986). The most recent large survey, conducted by Robert Johnson in 1988, focused on the escarpment zone east of Tallahassee. In addition to these major projects, approximately 75 small surveys have been carried out in the Tallahassee Hills.

A number of sites have been excavated in the Tallahassee area. These include the Velda farmstead site (8LE44) (Scarry 1984b), the Winewood habitation and cemetery site (8LE164) (Jones and Penman 1973), the Bear Grass farmstead site (8LE473) (Tesar 1980), the Killlearn Borrow Pit hamlet site (8LE170), the Martin dispersed village site (8LE853B) (Jones and Ewen 1987), and the Lake Jackson Mound Group (Willey 1949; Griffin 1950; Jones 1982).

Apalachicola River Valley

Clarence B. Moore explored the course of the Apalachicola River around the turn of the century, locating and excavating several mound sites (Moore 1902, 1903a, 1918). The Valley was subjected to limited survey in the 1940s and 1950s by archaeologists Gordon Willey (1949a) and Ripley Bullen (1958b). The most extensive surveys have been conducted by Nancy White (White 1979, 1981a;

Henefield and White 1986; White and Trauner 1987). Generally, these have focused on the immediate vicinity of the river.

Sites excavated in the Apalachicola Valley include the Chipola Cut Off Mound (Moore 1918), Yon and Cayson mound sites (Scarry 1984a, 1989b), the Curlee mound and village site (White 1981b, 1982), the Scholz Steam Plant Parking Lot hunting camp site (8JA201) (Brose and Wilkie 1978), and the Coe's Landing hunting camp site (8JA137) (Brose 1980).

Marianna Lowlands

The Marianna Lowlands have seen limited investigations. Calvin Jones surveyed the route of Interstate 10 in the 1970s. Nancy White and Audrey Trauner surveyed the Chipola River Valley in 1986 (White and Trauner 1987). Very few Fort Walton sites were recorded from either of these two surveys. William Gardner excavated the Waddell's Mill Pond site in the mid-1960s (Gardner 1966).

Coastal Area

Survey coverage in the coastal area has been very uneven. In the western section, Sandra Jo Forney and the U.S. Forest Service have maintained an extensive ongoing survey of the pine flatwoods in the Apalachicola National Forest (Forney 1985). Henefield and White's (1986) survey of the Lower Apalachicola River also covered parts of the flatwoods. The flatwoods to the east of the Forest and the coastal zone itself, however, have received very little treatment (Willey and Woodbury 1942; Willey 1949a).

Very few coastal area Fort Walton sites have been excavated. The Marsh Island site (8WA1) was excavated by Moore (1902) and the Nichols site (8WA3) (a possible Fort Walton site) was excavated by David Phelps (1967). The Fort Walton Temple Mound, which also contains a Pensacola component, has also been excavated (Fairbanks 1965; Lazarus and Fornaro 1975).

Important Sites

Five Fort Walton sites are listed on the National Register of Historic Places. These are the Lake Jackson Mounds in the

Tallahassee Hills, the Cayson Mound and Village and the Yon Mound and Village in the Apalachicola River Valley, Waddell's Mill Pond in the Chipola River Valley, and the Pierce site (8FR14) in the coastal area. A sixth is the Fort Walton Temple Mound. In addition to these, other important sites include the Martin, Borrow Pit (8LE170), Letchworth Mounds, Rollins Mound (8LE3), and Lake Lafayette Mound (8LE2) sites in the Tallahassee Hills; the Curlee (8JA7) and Chattahoochee Landing (8GD4) sites in the Apalachicola River Valley; the Smith site in the Marianna Lowlands; and the Nichols Mound (8WL3?, now destroyed) in the coastal area.

Research Questions

Gaps in the database

In general, baseline data are lacking or severely limited for the Marianna Lowlands, the coastal area, and the eastern part of the Tallahassee Hills. Systematic survey in the Marianna Lowlands and the coastal area (particularly the flatwoods to the east of the Apalachicola National Forest and the coast zone itself) is needed to provide us with information on site types and numbers. Furthermore, stratigraphic excavations are needed in all areas (though to a lesser extent in the Apalachicola River Valley) to provide us with a basic understanding of chronology. To increase our understanding of the Fort Walton way of life, excavations are needed in Tallahassee Hills hamlet and dispersed village sites, east Tallahassee Hills mound sites, dispersed villages, hamlet, and farmstead sites, Apalachicola River Valley farmstead and village sites and "paired" mounds, Marianna Lowlands mound and farmstead sites, coastal shell middens and mounds, and pine flatwoods camp sites. A clear understanding of chronology is a necessary element in constructing a picture of Fort Walton life.

Another issue for future research is correlations between Fort Walton cultural assemblages and the historic groups of the region.

Chronology

Tentative chronologies have been established for the two most intensively studied areas—the Apalachicola River Valley and the Tallahassee Hills. But for the most part, we lack good chronological control. This is due in part to an absence of absolute dates and in part to not enough stratigraphic excavations; the Apalachicola River Valley is the best represented in this regard. Establishing chronologies for the Fort Walton areas is therefore of prime importance. The temporal (and spatial) relationships of Fort Walton to the later (?) Pensacola culture west of Choctawhatchee Bay need to be established.

Economy

While we have good evidence of maize agriculture in the Tallahassee Hills and the Apalachicola River Valley, we have much less information on subsistence in the other areas. We also have relatively little data on game and fish hunted and wild plants utilized. The role of marine resources is similarly unclear.

- Were crops other than maize, beans, and squash grown?
- What were the relative contributions of hunting, fishing, and gathering of wild foods to the diet?
- How did subsistence practices vary within the Fort Walton region? For example, is there a lesser dependence on agriculture and a greater emphasis on marine resources in the coastal area? Did they vary over time?
- Chemical and osteological studies of human skeletal remains are especially needed because they can contribute important data on subsistence and diet.
- We know that a trade network existed, but the nature and extent of that network is unclear, as is the part played by leaders in the control of trade. Nor do we have adequate data on the nature of craft specialization.
- What part did Fort Walton communities play in a regional trade network?
- What areas do exotic goods come from?
- What items were sent out of the Fort Walton area?
- Did networks shift through time?

- What was the nature of craft specialization in Fort Walton communities?

Settlement patterns

Our existing data on site types, numbers, and locations allow us to sketch a picture of Fort Walton settlement for some areas, but there are many gaps and unanswered questions.

- How did community patterns vary within the Fort Walton area?
- Are there certain patterns typical of individual regions?
- How did settlement patterns change through time?
- What types of public buildings or structures are found?
- What was the nature of an ordinary habitation—how large was it, what shape was it, how was it constructed?

Social and political organization

Some Fort Walton groups were organized into chiefdoms, but it is not clear if this was the case for all areas or for all time periods. Examination of mound sites and burial complexes would assist in answering questions of complexity and unequal status.

- What evidence do we have for unequal distribution of wealth and status items?
- Can we see boundaries between social groups archaeologically, e.g., through studies of material culture style markers?
- Did the relationship among the different Fort Walton areas vary through time?
- What differences were there in political organization between Fort Walton areas?
- What differences were there in political organization through time?

Health

No bioarchaeological studies have been conducted for Fort Walton populations. This is partly due to poor preservation environments for human remains. Nevertheless, this is a major gap in our knowledge and should be corrected.

- What evidence for nutritional stress and infectious disease is there in Fort Walton populations? Does this vary within populations? For example, were there differences in health status between elite groups and ordinary people?
- Did health status vary between Fort Walton populations? Did this vary through time, especially between late Woodland groups and Fort Walton groups and between late prehistoric and contact period populations?
- What kinds of mechanical stresses were operating on Fort Walton peoples?
- Are dietary differences apparent between populations?

Preservation Goals

- Locate unrecorded Fort Walton sites, especially in the Marianna Lowlands and the coastal area, and also in areas endangered by encroaching development.
- Acquire and/or protect the entire Lake Jackson site.
- Acquire and/or protect the Letchworth site.
- Excavate sites of various types, e.g., farmsteads, hamlets, nucleated villages, dispersed villages, coastal shell middens, cave sites, lowland camp sites, especially sites with stratified deposits.
- Determine the National Register status for all mound sites, as well as sites representing other site types.
- Nominate eligible sites for listing in the National Register.

Chapter 15

THE SAFETY HARBOR CULTURE, A.D. 900 – 1725

Jeffrey M. Mitchem

Safety Harbor, a Mississippian-influenced archaeological culture coeval with the Fort Walton culture, was first defined by Gordon R. Willey (1949a:475-488), who noted that Safety Harbor sites tended to be located in the Manatee region of west peninsular Florida. Willey estimated that the culture dated from the period A.D. 1500-1725, but more recent studies and the availability of radiocarbon dates suggest that Safety Harbor sites may date as early as A.D. 900 (Mitchem 1989a:559-560). The Englewood period, which Willey (1949a:470-475) defined as transitional between Weeden Island and Safety Harbor, is now included as the earliest phase of Safety Harbor (Mitchem 1989a:557-559).

Recently, Jeffrey M. Mitchem (1989a:Chapter 2) has defined four phases and five regional variants for Safety Harbor, all of which are tentative. The four phases are Englewood (A.D. 900-1100), Pinellas (A.D. 1100-1500), Tatham (A.D. 1500-1567), and Bayview (A.D. 1567-1725) (Mitchem 1989a:557-567). The five regional variants, defined on the basis of artifact types and settlement pattern differences, include Northern, Circum-Tampa Bay, Manasota, Inland, and South Florida (Mitchem 1989a:567-579, Figure 18).

From documentary evidence we know that the inhabitants of west peninsular Florida were organized into chiefdoms in the late early contact period. The Tocobaga chiefdom was one of these groups. However, no single group can be solely associated with Safety Harbor material culture. For example, as Widmer (1988:86)

has noted, the Calusa of southwest Florida may also have been using Safety Harbor artifacts in mortuary contexts.

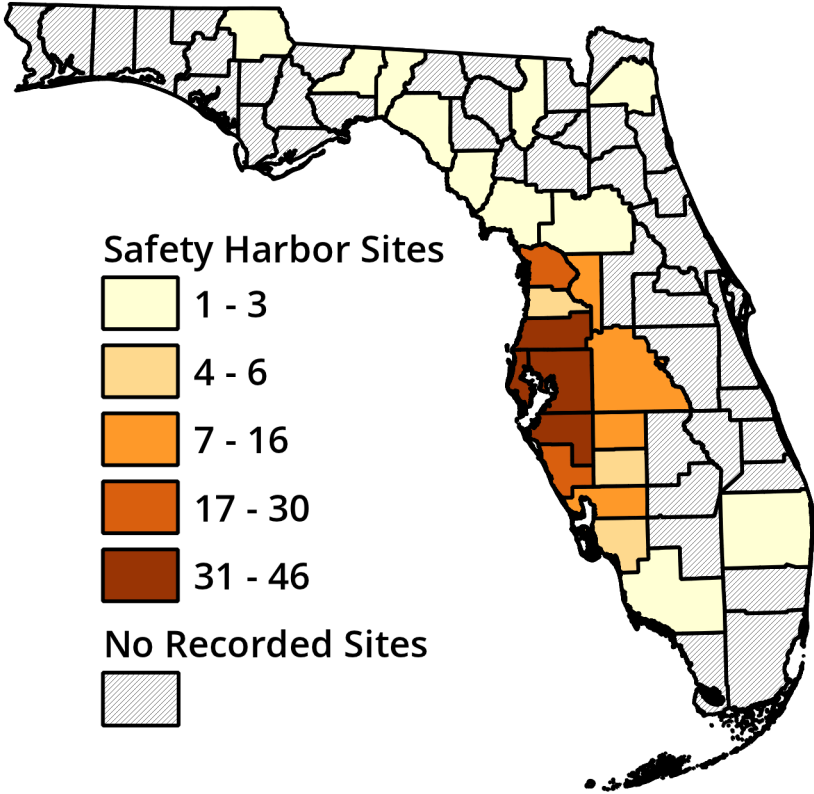


Figure 18. Distribution of Safety Harbor Sites (by county)

The Setting

Geographically, the culture area of Safety Harbor encompasses the region from the Withlacoochee River on the north to as far south as Collier County, and extends eastward at least as far as eastern Polk County (Mitchem 1989a:554).

The topography of this part of Florida is generally flat. Several small rivers are located in the region, and these are slow-moving waterways of the spring-fed or blackwater types. The rivers in west peninsular Florida do not flood and deposit alluvium as do rivers to the north, and the highly acidic nature of the blackwater

rivers results in relatively poor soils for agriculture in the watersheds (Estevez et al. 1984:100-101). As a result, large nucleated farming settlements did not develop in this region during Mississippian times.

Material Culture

The most recognizable Safety Harbor artifacts are the incised and punctated pottery types initially defined by Willey (1949a:472-475, 479-486). Most of these types exhibit much less precision in execution than the earlier Weeden Island types and appear to be Mississippian-influenced variations on Weeden Island designs. The most common decorated pottery types found on Safety Harbor sites are Englewood Incised, Sarasota Incised, Safety Harbor Incised, Point Washington Incised, and Pinellas Incised. The stylistic definitions of the latter two types are subject to debate (Mitchem 1989a:4-6; Sears 1967b).

Most of these decorated types appear to have been produced primarily for use in mortuary contexts. They are rarely recovered from domestic contexts, but this is at least partly due to a past bias in favor of the excavation of mortuary sites.

Other pottery types commonly recovered from Safety Harbor sites include various plain wares. These are usually recovered from domestic sites, although St. Johns Plain, along with St. Johns Check Stamped, is also found in burial mounds. There is clear regional variation in plain wares (Luer and Almy 1987). North of Tampa Bay, Pasco Plain is the predominant utilitarian ware. In the Circum-Tampa Bay region, Pinellas Plain is most common. South of the Tampa Bay area, sand-tempered plain and Belle Glade Plain predominate in domestic contexts.

The stone tool assemblage of the Safety Harbor culture is poorly known, but the predominant projectile point type recovered from Safety Harbor sites is the small triangular Pinellas point (Bullen 1975:8). These points, and the similar Ichetucknee and Tampa points (Bullen 1975:8-9), were undoubtedly used as arrowheads. A number of Archaic-style projectile points or knives (large, stemmed points) have also been found in Safety Harbor contexts (e.g., Willey 1949a:139-140). It is unclear whether these

were produced and used by Safety Harbor period inhabitants or were relics from earlier occupations. Other flaked chert tools (scrapers, worked or utilized flakes, etc.) have also been recovered (Willey 1949a:140). Some sandstone grinding stones have been found in Safety Harbor contexts, especially from the Safety Harbor site (8PI2) (Griffin and Bullen 1950:13).

Finely-made celts of ground and polished non-Florida stone are often recovered from Safety Harbor burial mounds. These were probably not utilitarian tools but functioned as symbols of status or rank.

Various styles of plummets and pendants, usually made from exotic stone and often carved to represent animals, have been found at a number of Safety Harbor sites (Bullen 1952:Figure 16). These objects, as well as quartz crystal pendants, occur most often in mortuary contexts (Mitchem 1989a:399-402, 580).

Shell tools and artifacts are very common at Safety Harbor sites. This is primarily because most Safety Harbor sites are concentrated along the Gulf coast. *Busycon* shell cups are a common item in Safety Harbor mortuary sites, reflecting the popularity of the black drink ceremony among Safety Harbor groups. Shell beads have also been found in large quantities in mortuary contexts. Other shell tools, including celts, pick-like objects, and hafted shells (often referred to as hammers), have been recovered from sites, especially in southern Florida, but little more than a basic typology has been proposed to classify and interpret these objects (Goggin n.d.a).

Preserved organic materials from the Tatham Mound (8CI203) and the Parrish Mound 2 (8MA2) suggest that wooden and bark objects, cordage, and textiles were commonly used by Safety Harbor groups (Mitchem 1989a:412; Willey 1949a:150-151). Unfortunately, such materials have generally not been preserved in sites due to the humid Florida climate.

Exotic materials are found in small quantities in Safety Harbor sites, almost exclusively in mortuary contexts. In addition to the previously mentioned non-Florida stone objects, copper artifacts (including a few Southeastern Ceremonial Complex artifacts), galena, and non-Florida mussel shells are recorded

from some sites, and provide evidence that Safety Harbor people were involved in long-distance exchange networks (Mitchem 1989a:408-416, 419-434; Mitchem et al. 1985:193).

Reworked and intact artifacts of European metal, glass, and pottery have been recovered from many Safety Harbor sites. These artifacts apparently resulted from both direct contact with Spanish explorers and from inter-regional aboriginal trade of materials salvaged from shipwrecks.

The Weeki Wachee (8HE12), Ruth Smith (8CI200), and Tatham burial mound sites have yielded very extensive collections of early sixteenth century (A.D. 1500-1550) glass beads (Nueva Cadiz and faceted chevron varieties), iron chisels, nails, an armor fragment, and beads and pendants of reworked silver, gold, and brass (Mitchem 1989a:436-467, 1989b; Mitchem et al. 1985).

Later European artifact types, including Spanish olive jar, majolica, lead-glazed coarse earthenwares, iron axes and scissors, late sixteenth century glass beads, and silver beads fashioned from coins (Mitchem 1989a:61-72), are known from sites around Tampa Bay, including the Safety Harbor and Bayview/Seven Oaks (8PI7) sites, and from the Philip Mound (8PO446) in eastern Polk County (Allerton, Luer and Carr 1984; Benson 1967; Karklins 1974; Mitchem 1989a:141-146).

Site Types and Settlement Patterns

As a result of the past bias toward work on mortuary sites, very little is known about Safety Harbor habitation sites. Willey (1949a:476) noted that most of these habitation sites are middens, especially shell middens, and few have been excavated. Excavations in presumed habitation areas of the Safety Harbor site, the Narvaez midden (8PI54), and the Bayonet Field site (8CI197) have failed to define the outlines of a single structure. Houses were apparently post-and-thatch structures, if the limited description of the town of Uçita near de Soto's landing camp is reliable (Smith 1968:23-24).

Though large nucleated settlements were present near the coast around Tampa Bay, small settlements (represented by dispersed middens) appear to have been the norm in most areas.

The available information indicates that sites occupied by small groups (possibly single families) were dispersed throughout western peninsular Florida, and these people were subjects of caciques who controlled larger areas. Scattered small settlements are prevalent in most inland areas, despite claims to the contrary (Wharton and Williams 1981).

Several models of Safety Harbor settlement patterns have been developed. Marion Almy (1978:87-88) and Joan Deming (1980:22-31) determined that the primary environmental determinants for site location in Sarasota and Hillsborough counties were distance to water and soil type (which may be interrelated characteristics in some cases). Goodyear (1972) developed a preliminary settlement pattern model for the Tampa Bay area based on ecological factors. Padgett (1976) proposed a model for the Tampa Bay and inland areas based on environmental zones and presumed site function. A study of platform mounds by George Luer and Marion Almy (1981) indicated that in Safety Harbor contexts, these features tend to be associated with large coastal villages, usually on the northern or eastern side of a plaza. These sites generally have at least one burial mound (Luer and Almy 1981:141).

Safety Harbor burial mounds are present in all parts of the culture area. While some of these are located near habitation areas (particularly in the case of the large coastal settlements around Tampa Bay), most appear to have been isolated structures. The criteria for burying an individual in a particular mound are not known (Mitchem 1988, 1989a:590).

Subsistence

Collections of faunal material excavated from unmixed Safety Harbor contexts are extremely scarce, and those data that are available are virtually useless due to the collection methods employed. Excavated faunal remains are known from the Safety Harbor, Old Oak (8SO51), Palm River (8HI108), Narvaez midden, Maximo Point (8PI19), and Bayonet Field sites (Mitchem 1989a:586-587). The most thorough zooarchaeological analysis of remains from a Safety Harbor context was conducted by

Fitzgerald (1987) on material from two probable hearths and associated column samples from Bayonet Field.

Floral remains are even less abundant. Although some early narratives mention maize cultivation by Safety Harbor groups, a single "fossilized" squash (*Cucurbita* sp.) seed from the Tatham Mound is the sole direct evidence for a cultigen from any Safety Harbor site (Mitchem 1989a:588).

In the absence of additional data, we can only suggest that most Safety Harbor groups subsisted by hunting, gathering plants and shellfish, and fishing. No data are available to indicate seasonal variations or relative importance of different resources. By the beginning of the sixteenth century, maize may have been grown, but it was apparently not a major crop among Safety Harbor groups.

Previous Research

Northern region

In the Northern region, most research has been done in the last two decades. Excavations at the Briarwoods site (8PA66) (Mitchem 1985) and the Tatham Mound (Mitchem 1989a:Chapter 3), along with analyses of collections from the Ruth Smith and Weeki Wachee sites (Mitchem 1989b; Mitchem et al. 1985), have yielded a significant amount of information about Safety Harbor mortuary practices and Spanish/Indian contact in the northern region. An early excavation by Rainey (1935) provided data about an atypical Safety Harbor burial site on Buzzard island (8CI2). The only controlled excavations on a Safety Harbor habitation site in the northern region were conducted at Bayonet Field (these are summarized by Mitchem [1989a:23-24]).

Circum-Tampa Bay region

The Circum-Tampa Bay region is the area where the greatest amount of Safety Harbor research has been concentrated. Early work by S. T. Walker (1880a, 1880b) at the Johns Pass (8PI4), Clearwater (8PI5), and Bayview/Seven Oaks sites began the tradition of excavating coastal Safety Harbor burial mounds. Clarence B. Moore (1900) later worked at Johns Pass, Maximo

Point, and the Thomas Mound (8HI1), coastal sites with Safety Harbor components. In the 1930s, WPA archaeologists excavated the Thomas Mound, Picnic Mound (8HI3), Jones Mound (8HI4), and Buck Island (8HI6) sites in Hillsborough County (Bullen 1952). Griffin and Bullen's (1950) work at the Safety Harbor site, along with earlier research by Smithsonian archaeologists at the site, contributed much to our knowledge of nucleated coastal villages.

William Sears (1958) conducted excavations at Maximo Point and the Tierra Verde Mound (8PI51) (Sears 1958, 1967). The Narvaez midden was another nucleated settlement which was partially excavated in 1964 (Bushnell 1966).

South of Tampa Bay, in the northern portion of Manatee County, the five Parrish Mounds (8MA1-5) were excavated in the 1930s (Willey 1949a:142-158). Three of these (8MA1, 2, and 3) were Safety Harbor mounds, and yielded important burial mound data.

Manasota region

The Manasota region includes portions of Manatee, Hardee, and DeSoto counties, along with all of Sarasota and Charlotte counties (Mitchem 1989a:Figure 33). Some of the earliest work in the area was mapping and collection at the Shaw's Point site (8MA7), a multicomponent complex of shell works (Mitchem 1989a:158-160; Walker 1880b:416-418, Plates I-III). The extent of Safety Harbor occupation at the site has not been determined.

Other early work in the area was the excavation by C. B. Moore (1905:302) of the Gasparilla Sound Mound (8CH2) and the Hickory Bluff Mound (8CH5), both burial mounds.

In 1934, Smithsonian archaeologists excavated at the Englewood site (8SO1) in Sarasota County (Willey 1949a:126-135). This mound provided the information upon which Willey (1949a:470-475) based his definition of the "Englewood period."

In the 1940s, as part of his Gulf coast survey, Willey studied a collection from the Arcadia site (8DE1), a burial mound in DeSoto County (Willey 1949a:346, Figure 63). In the 1950s, Ripley P. Bullen conducted investigations at four sites on Terra Ceia Island

(8MA83A-D) (Bullen 1951) and at the Harbor Key site (8MA13-15) (Bullen et al. 1952).

More recently, George Luer has investigated a number of sites in Sarasota and Charlotte counties, including the Aqui Esta Mound, Big Mound Key (8CH10), and the Old Oak site (Luer 1977a, 1980; Luer et al. 1986; Luer et al. n.d.).

Inland region

The Inland region is very poorly represented in the archaeological record. The only Safety Harbor site from the region for which a sizable corpus of data exists is the Philip Mound. This site was a burial mound used well into the late sixteenth century or later (Benson 1967; Karklins 1974).

South Florida region

The South Florida region is likewise poorly known. Many investigators have worked at the Mound Key sites (8LL2 and 3) in Estero Bay over a long period (Mitchem 1989a:258-266), and some Safety Harbor decorated ceramics have been recovered, along with great quantities of European material dating from the sixteenth and seventeenth centuries.

Within the last decade, William H. Marquardt and his colleagues at the Florida Museum of Natural History have conducted a long-term research program in the Charlotte Harbor-Pine Island Sound area. This work may help to clarify the nature and extent of Safety Harbor occupation there.

Important Sites

Three Safety Harbor sites and one archaeological district reportedly containing Safety Harbor sites are listed on the National Register of Historic Places. The sites are the Madira Bickel Mound (8MA83B) on Terra Ceia Island, the Safety Harbor site, and the Osprey Archaeological and Historic Site (8SO2). Other important sites include the Tatham, Weeki Wachee, and Bayonet Field sites in the Northern region; the Bayview/Seven Oaks Mound, Thomas Mound, Jones Mound, Tierra Verde Mound, Parrish Mounds, Snead Island, Narvaez midden, and Harbor Key (8MA13-15) sites in the Circum-Tampa Bay region; the Englewood,

Aqui Esta Mound, and Big Mound Key sites and the Terra Ceias site in the Manasota region; the Philip Mound in the Inland region; the Mound Key sites in the South Florida region; and the Bostwick Mound, Hardee County.

Research Questions

Gaps in the database

Two biases have affected archaeological research on Safety Harbor: a predilection among investigators for coastal sites and a tendency to excavate burial mounds. Surveys of inland areas and excavations of domestic sites, particularly interior ones, are essential to a complete understanding of Safety Harbor.

Chronology

In addition to research on chronology of various artifact types, additional radiocarbon dates from controlled contexts in Safety Harbor sites are badly needed. Such chronometric dates will increase precision in defining phases and will allow comparisons with events and processes underway elsewhere in the Southeast during Mississippian times.

The relationship between Safety Harbor and the earlier Manasota and Weeden Island-related cultures must also be investigated. Certain artifact types and archaeological characteristics reveal unmistakable Fort Walton or other Mississippian influences in later Safety Harbor, but other aspects indicate some continuity with Weeden Island-related cultures. This continuity is especially evident in some pottery decorative motifs and in the reuse of Weeden Island mounds by Safety Harbor groups. Little is known about the initial phase of Safety Harbor, the Englewood phase. Future research should be directed at examining the diachronic changes that can be detected archaeologically from late Weeden Island, through the Englewood phase, and into the later Safety Harbor phases.

Material culture

The ceramic typology for Safety Harbor is in need of revision. Data on vessel forms, specific decorative styles, and

manufacturing technology need to be gathered and examined, to revise the standard typology. A type-variety system might be warranted.

Technological studies of clays and pottery are needed to address questions concerning locus of manufacture, exchange, and general ceramic ecology. One specific area of inquiry which would benefit from such studies is the question of whether Calusa groups were producing Safety Harbor decorated ceramic types.

Stone tool assemblages from Safety Harbor sites need to be studied, especially in terms of edge wear, tool function, and typology. Such knowledge would be particularly helpful in the interpretation of small lithic scatters, which are common in the area east of Tampa Bay.

- What constitutes a "typical" Safety Harbor lithic assemblage?

Another artifact class that needs additional research is shell tools. Analysis of function, edge wear, and production of shell objects can lead to the development of an acceptable typology and allow testing of the functional categories used by some archaeologists. Studies of distribution and locus of manufacture are also needed.

- Were Safety Harbor groups involved in commerce in marine shells and shell products?

Although many European artifact types found in Safety Harbor sites are well-dated and identifiable, studies of late sixteenth-century and later artifacts from postcontact sites are needed. Once such assemblages are better known, they can aid researchers in dating sites and aboriginal artifact types by association.

Settlement patterns and subsistence

As mentioned previously, Safety Harbor domestic sites have received little attention from archaeologists. Consequently, we have little or no information about house sizes and patterns, faunal remains, use of floral remains (both utilization of wild species and horticulture), settlement size and population estimates, settlement hierarchies, duration of occupation in

individual structures and sites, intrasite activity areas, tool and ornament production (cottage industries?), settlement patterns, utilization of environmental zones, site specialization (craft specialization, exploitation of particular resources, etc.), or seasonality of occupation. The lack of domestic and subsistence information is so great that *any* data would be useful, but delineation and excavation of individual structures and associated midden materials would be most valuable. Chemical analyses of human skeletal material might also provide information about diet.

The construction sequences and uses of platform mounds at some Safety Harbor sites are not known. Unfortunately, many of these have been destroyed, but a few examples, such as the one at the Safety Harbor site, are still extant. Careful, controlled excavations in one or more of these mounds would reveal much about their function and construction.

- Were they built during Safety Harbor times or were they first constructed by Weeden Island-related groups and then reused by Safety Harbor people?
- Were they periodically capped with a clean layer of sand or soil?
- Were they substructures for elite residences?
- Were they platforms for charnel structures?
- Were high-status individuals buried in these mounds?

Geographic distribution

Although the northern boundary of the culture area of the Safety Harbor culture has been determined to be the Withlacoochee River, the eastern and southern boundaries can only be approximated on the basis of present knowledge. Intensive investigation of Safety Harbor sites in the interior region is badly needed. The area between central Hillsborough County and the Kissimmee River is archaeologically one of the least-known areas of Florida. Safety Harbor sites need to be studied in this region so that aboriginal chiefdoms can (hopefully) be examined, as well as the relationship of this interior area to adjacent regions. It would also be useful to know if the Kissimmee River forms part of the

eastern boundary of the Safety Harbor culture area, as Mitchem (1989a:Figure 33) has suggested. Mitchem's regional variants also need to be further verified.

Bioarchaeology

Even though the majority of work done on Safety Harbor sites has been on mortuary sites, surprisingly little physical anthropological analysis has been undertaken. The most unfortunate aspect of this is that the great majority of excavated skeletal material was either not collected or was later discarded. Most of the collections available in museums have little or no provenience information recorded. Modern archaeological projects on mortuary sites should provide for physical anthropological study of human remains, and this should be an essential part of the research design for any project where the excavation of Safety Harbor mounds is anticipated (including disturbed sites).

Bioarchaeological data can be used to address questions about health, dietary stress, and biological relationships of Safety Harbor groups. Such data also allow Safety Harbor populations to be studied in broader perspective, comparing them to contemporaneous populations in the Southeast and investigating diachronic changes (especially those related to European contact).

Ethnohistory and political organization

From ethnohistoric accounts, we know that at least some Safety Harbor groups (e.g., Tocobaga and Urriparacoxi) were organized at the chiefdom level. However, little is known about the evolution and interrelationships of various chiefdoms.

- Did settlement hierarchies exist?
- Were Safety Harbor groups involved in tributary relationships among themselves or with neighboring groups?

Some mortuary evidence (from the Tatham Mound, for example) indicates that Safety Harbor societies were ranked. Differential treatment of individuals and status/wealth differences are reflected in grave goods and burial context. Such

evidence should be sought whenever mortuary sites are excavated.

The nature of these political units, their evolution, and their relationships to the agricultural (and non-agricultural) chiefdoms elsewhere in Florida and the Southeast need to be examined. The opportunity exists to add to general knowledge concerning the ranked social systems present within chiefdoms. Additionally, studies to equate archaeological assemblages with ethnohistorically-defined political or ethnic units (e.g., Uçita, Tocobaga, Urriparacoxi) are needed.

Preservation Goals

- Locate unrecorded Safety Harbor sites, especially in the inland areas and in areas endangered by coastal erosion and development.
- Acquire and preserve mound and midden sites on Snead Island.
- Excavate sites of various types, e.g., small domestic sites, burial mounds, platform mounds, domestic areas associated with mound sites.
- Evaluate the National Register eligibility of all mound sites, as well as other site types.
- Nominate eligible sites of varying types for National Register listing.

Chapter 16

SPANISH SETTLEMENTS OF THE FIRST SPANISH PERIOD, 1559 – 1763

Kathleen Hoffman

Spanish settlement of Florida began in 1559 with Don Tristán de Luna y Arellano's ill-fated attempt to establish a permanent colony near present-day Pensacola Bay. Despite the failure of this first settlement, Spain did not give up its colonial effort; Spain made its second colonial effort in east Florida where it ousted the French settlement centered at Fort Caroline, and succeeded in securing a foothold in *La Florida* in 1565 at St. Augustine. For over two hundred years, the colony played a vital strategic role in the defense of Spanish shipping lanes between the New and Old Worlds. The town of St. Augustine was the major Spanish settlement in the colony following its founding in 1565. In 1763 Spain ceded Florida to England in exchange for Havana under terms of the First Treaty of Paris following the French and Indian War, ending the First Spanish period.

Spanish Florida was one of the most impoverished and isolated of the Spanish colonies in the New World and is often referred to by historians as the "outpost" of the Spanish Empire. Florida never produced the mineral or agricultural wealth of Hispaniola, *Tierra Firme* or New Spain. Throughout the First Spanish period, it remained dependent on the *situado*, an annual subsidy provided by the Crown (Bushnell 1981:5; Sluiter 1985). Most of the predominantly male Spanish population in St. Augustine and outposts were members of the garrison and received their salaries through this subsidy, but other goods were available through local merchants and through trade with the

Native population and other colonial powers (Lyon 1977:22; Harman 1969).

Archaeological research in St. Augustine has demonstrated a conservative pattern of social change throughout the First Spanish period (Deagan 1983:247-248). Towns were highly structured and laid out according to a formal grid pattern with a central plaza bordered by religious and governmental buildings. Individual houses were placed approximately 15 meters apart on the street front. Detached kitchens were located to the rear of the houses, and circular trashpits and barrel wells of a fairly uniform size were located near the kitchens. These spatial patterns remained remarkably consistent throughout the First Spanish period, a period of a little over 200 years.

Within St. Augustine, changes did occur in architectural details and the types of goods available to the colony. The most obvious differences were in the types of building materials used to construct houses (Deagan 1983; Manucy 1962, 1985). Through time, structures evolved from simple wattle and daub huts to vertical board structures. By the eighteenth century, tabby and finally coquina, which was quarried on Anastasia Island and ferried across the bay to the town, eventually replaced wood as the dominant building material.

Subsistence

Despite claims to the contrary, archaeological research demonstrates that the colonists did not suffer from a lack of food (Reitz and Scarry 1985). Because they were dependent on the rather unreliable *situado*, first from Spain and later from Mexico, shortages of what they perceived as the proper food did exist. But archaeological research indicates that the colonists almost immediately adopted Indian food preparation techniques and foodways. They incorporated new foods and modified their livestock and crops to suit their new environment.

Evidence of wild nuts, berries, and fauna (such as deer, mullet, and catfish) as well as imported food (such as cows, peaches, gourds, red peppers, and melons) is found in the archaeological record. In addition, the Spanish diet shifted from one centered

around wheat, barley, and rye to one focused on maize, squash and beans. Dependency on the native population to meet certain basic needs is evidenced not only by the use of native foods, but by the use of Indian vessels for cooking and storage as well as by the presence of manos and metates (Reitz 1985:58-62; Scarry 1985b:76-79).

Material Culture

First Spanish period sites are most obviously recognized by the presence of Spanish metal, glass and pottery, such as majolica, olive jar and other coarse earthenwares (Deagan 1987; Goggin 1960, 1968; Smith 1948). Majolicas constitute the most sensitive chronological markers and specific types can be associated with sixteenth, seventeenth, and eighteenth century occupations. The most common sixteenth century majolica types found in Florida include Columbia Plain, Yayal Blue on White, Santo Domingo Blue on White, and Sevilla Blue on Blue. Seventeenth century majolicas include Fig Springs Polychrome, Puebla Polychrome, San Luís Blue on White, Abó Polychrome, and Aucilla Polychrome, while San Agustín Blue on White, Huejotzingo Blue on White, Aranama Polychrome, and Puebla Blue on White generally signal eighteenth century occupations.

Other characteristics of First Spanish period sites in St. Augustine include a relatively high ratio of European to Indian artifacts, and a higher relative frequency of non-local versus local Indian pottery, especially during the seventeenth and eighteenth centuries (Deagan 1978, 1983; King 1981; Smith 1971). In addition to the material culture, distinct architectural features, such as barrel wells, square postmolds, sill and post building trenches, and foundations constructed of tabby, oyster shell, and coquina identify First Spanish period sites.

Site Types and Settlement Pattern

Spanish settlement of Florida during the First Spanish period was limited to only a few scattered towns, numerous outposts, several cattle ranches, and fishing ranchos (in the eighteenth century). The major area of occupation and influence centered along the

eastern coastal region. Townsites clustered predominantly along the east coast of North Florida in an area stretching north from Fort Matanzas to the St. Johns River near Jacksonville and along the Gulf Coast in the vicinity of present-day Pensacola Bay. Outposts were more widely dispersed, with sixteenth century forts extending as far south as present-day Miami and later forts concentrating around St. Augustine. Cattle ranches were located throughout the interior sections of northern Florida.

Townsites

Towns, only six of which ever existed, were concentrated either within the present limits of St. Augustine or in the Pensacola area (the Spanish mission system is discussed in a separate context). With the exception of St. Augustine and Pensacola, these towns were short-lived and therefore would exhibit only the most ephemeral archaeological remains. Beyond the dates of existence, little is known about any of the townsites, except St. Augustine, and few have been the scene of archaeological investigations. A brief synopsis, in chronological order, of the temporal range and location of the known townsites follows:

Luna's colony near Pensacola Bay

In 1559, Don Tristán de Luna y Arellano sailed from Mexico with 1500 colonists to establish a settlement near Pensacola Bay (Hudson et al. 1989; McGovern 1974:5-6; Priestly 1928). Shortly after landing, a fierce hurricane struck and destroyed the Spanish ships and almost all of their provisions. Expeditions were sent inland in search of food and supplies, but this proved fruitless as hunger, disease, and discord quickly decimated the colony. In 1561, after only three years, the expedition withdrew and returned to Mexico. The location of this site has never been found.

St. Augustine

Five years after Luna's failed attempt to colonize Florida, Pedro Menéndez de Avilés founded St. Augustine, the capital of Spanish Florida from 1587 until 1763. Extensive archaeological and historic research has been conducted on the sixteenth and eighteenth century occupations of St. Augustine (e.g.,

Boniface 1971; Bushnell 1981; Deagan 1977, 1981, 1983, 1985; King 1981; Lyon 1983; Manucy 1962). Consequently, much is known about initial Spanish adaptation and the spatial patterning of the settlement through time.

Although the exact location of Menéndez's landing site is uncertain, recent excavations at the Fountain of Youth Park site (8SJ31) in St. Augustine suggest that the original settlement was located within the boundaries of this park (Chaney 1987). The Spanish remained at this site for five years before moving to a second and more permanent settlement. A new town was established around 1570 and was situated south of the modern plaza, in an area bounded on the north and south by present day King and Bridge Streets and on the east and west by Cordova Street and the Matanzas Bay, an area encompassing approximately eight blocks (Deagan 1981; Deagan, Bostwick and Benton 1976). During the seventeenth century, the town expanded south to San Salvador Street, and by the end of the eighteenth century, St. Augustine had grown to the north of the plaza and included the area known today as St. George Street (Herron 1980).

Santa Maria de Galve

Santa Maria de Galve was established by Don Andres de Arriola in 1569 (McGovern 1974:3). This town, like the first attempt to settle in the Pensacola area, was also short-lived. In 1718, the Louisiana Governor, Jean Bienville, seized the locality of Santa Maria de Galve and began a French occupation that lasted until 1722. No excavations have been conducted at this site, which is situated on land currently belonging to the Naval Air Station in Pensacola.

Santa Rosa de Siguenza

In 1722, Spain repossessed northwestern Florida from the French and established a new town called Santa Rosa de Siguenza (8ES22), which was situated on the sound side of Santa Rosa Island, approximately one mile southeast of Fort Pickens (McGovern 1974:3; Coleman and Coleman 1982:6). A hurricane destroyed Santa Rosa de Siguenza in 1752 and forced the

townspeople to relocate to San Miguel, a blockhouse constructed in 1750. This site, which covered an area of approximately 12 acres, is the only eighteenth century settlement in Pensacola that has been located and investigated (Smith 1965; Tesar 1973).

Pensacola

After resettling at San Miguel, which is located in what is now known as Seville Square, the Spanish constructed a new town. In 1757, the Spanish crown officially established this area as the town of Pensacola (McGovern 1974:3). Although the approximate boundaries of colonial Pensacola are known, the original townsite has never been systematically investigated (Long 1976; Sutton 1976).

Cattle Ranches

Cattle ranches were first mentioned in the documentary record in 1657, and by the 1700s, four main clusters of haciendas existed (Arnade 1965:5). These ranches were established both to supply the colonists of Florida and for export purposes. They included: 1) at least six ranches (La Chua [8AL2327], la Rosa del Diablo, Acuitasique, Abosaya, and Tocaruz) in modern Alachua County near Gainesville; 2) approximately nine ranches in Apalachee province with Tallahassee as the focal point (including Asile, probably east of the Aucilla River); 3) an unknown number along the St. Johns River in the vicinity of modern Palatka; and 4) an unknown, and apparently small group of ranches north of St. Augustine (Arnade 1965:5; Bushnell 1978:411-418). The exact number of haciendas and their locations is unknown, and the extent of the cattle industry in Florida is poorly understood, both from an economic and spatial perspective.

Outposts

During the sixteenth century, Menéndez established several fortifications throughout Florida. In addition to the forts at St. Augustine and San Mateo on the St. Johns River in Jacksonville, Menéndez constructed two small outposts at the mouth of the St. Johns River to protect San Mateo (Chatelaine 1941:44-45). He also built several fortifications in South Florida (Smith 1956:8; Lyon

1983:140, 201-203). By 1573, all of Menéndez's outposts, with the exception of St. Augustine, had been abandoned (Chatelaine 1941:45). The south Florida outposts included:

1. Fort Santa Lucía on the Indian River near Cape Canaveral;
2. one on Biscayne Bay among the Tequesta, possibly at or near the Granada site (8DA11);
3. one at Tocobago in old Tampa Bay, probably the Safety Harbor site (8PI2);
4. San Antonio near Charlotte Harbor, probably at Mound Key (8LL2-3).

Additional fortifications were constructed during the seventeenth and eighteenth centuries to protect the colony from increasing foreign encroachment and pirate raids (Chatelaine 1941:46). These north Florida fortifications included:

1. San Francisco de Pupo (8CL10) on the St. Johns River;
2. Fort Picolata (8SJ67) on the St. Johns River;
3. Fort Mose (8SJ40) on Robinson Creek, approximately two miles north of St. Augustine;
4. Fort Matanzas (8SJ44A), eighteen miles south of St. Augustine on the Matanzas inlet;
5. Del Peñon on San Pablo Creek south of Fort Matanzas;
6. Fort St. Marks (8WA26), an important trade center near Apalachee Bay;
7. Fort St. Joseph on St. Joseph's Bay.

Only a few of these outposts have been the scene of archaeological investigations and most of this research has focused on architectural details (Arana 1977; Chatelaine 1941; Deagan 1976; Deagan and Benton 1975, 1980; Fairbanks 1952, 1962; Goggin 1951; Landers 1987; Marron 1988; Smith 1963).

Fishing Ranchos

In the early eighteenth century, small fishing settlements are documented for the Tampa Bay region, the southwest coast, and the Florida Keys. Presumably these were occupied by native peoples who served as laborers and small populations of Cuban-

based Spaniards. Nothing is known archaeologically about such sites.

Important Sites

Seven secular sites from the First Spanish period are listed on the National Register of Historic Places. The Castillo de San Marcos (8SJ9), site 8SJ10, the Avero property (8SJ61), the Rodriguez Avero Sanchez property (8SJ65), and the O'Reilly house (8SJ79) are located in St. Augustine. Other sites listed include Fort Caroline (8DU126) near the mouth of the St. Johns River, Fort Matanzas (8SJ44A) south of St. Augustine, and Fort San Marcos de Apalachee (8WA26) in northwest Florida. In addition to these, other important sites include the Fountain of Youth site and Fort Mose in or near St. Augustine, Fort Picolata and Fort San Francisco de Pupo on the St. Johns River, the Rancho de la Chua and Zetrouer (8AL66-67) sites in Alachua County, and San Luis de Talimali (8LE4) in northwest Florida.

Research Goals

Gaps in the database

Despite the seemingly abundant research that has been conducted on Spanish Florida, a considerable number of questions remain unanswered. On one hand, because of the historical record and the extensive work in St. Augustine, we are able to ask more detailed and sophisticated research questions concerning the First Spanish period than we can of some of the other contexts. But on the other hand, more basic information is also needed. Few sites have been investigated and even fewer have been located (including any of the period of French occupation of east Florida, 1562-1565). Information concerning non-mission Spanish settlements in Florida derives predominantly from St. Augustine, the only site that has been systematically investigated over a period of time. Consequently, our knowledge of Spanish colonization remains somewhat hampered.

Investigations centered on the other townsites, outposts, haciendas would elucidate Spanish adaptive strategies and

provide insights into the internal trade and social networks of the colony. They would also provide a comparative data base from which questions of acculturation and adaptation could be addressed. But, before these types of questions can be explored, the various sites must be located.

Economy

Few commercial sites in Spanish Florida have been investigated. Most research has focused on domestic sites and an investigation of commercial sites would provide information on a relatively unknown aspect of life in Spanish Florida. Specifically, it would be useful to explore trade networks between the east and west coasts, between towns, outposts, ranches and missions. Fishing ranchos also need to be located, documented, and studied.

- What was produced in St. Augustine for local consumption and how did it affect the local economy?
- How extensive were illicit trade networks between the colony, privateers, and the non-Spanish colonies and nations?
- What was the nature of inter-colonial trade?
- To what extent did the cattle industry affect the colonial economy and external trade?

Social and political organization

Social questions might focus on Spanish-Indian relations and the roles of Blacks, ethnic groups, and women in the colony. It would also be important to examine the pattern of cultural adaptation in the other towns and settlements to compare them to St. Augustine and to gain more insight into the formation of a Hispanic-American cultural tradition.

Other gaps include the role of the church in the colony and in various communities. Few non-mission sites have been excavated, so little is known about religious life in the towns and outposts and how it differed from the missions. Comparative studies between St. Augustine and other towns in Florida and in the Spanish colonial world are also needed. Research of this nature would shed light on Spanish adaptation to the New World and

reveal whether the conservatism evident in St. Augustine represented a typical or unique colonial pattern.

Preservation Goals

- Continued efforts to preserve the colonial period cultural resources of St. Augustine, a site of national and regional importance.
- Locate and preserve the various outposts founded by Menéndez on both coasts.
- Locate and preserve the site of Tristán de Luna's colony.
- Locate and preserve the sites of the St. Augustine forts.
- Locate and preserve the site of Santa Maria de Galve.
- Locate and preserve the cattle ranches that existed throughout northern Florida.
- Locate and preserve Gulf coastal and Keys fishing ranchos.
- Confirm the suspected location of Menéndez's landing and the first settlement of St. Augustine.
- Preserve sites of various types, e.g., townsites, outposts, ranches.
- Nominate sites representing varying types for listing in the National Register.

Chapter 17

SPANISH MISSIONS

Rebecca Saunders

Missionization was an explicitly recognized, integral part of the Spanish colonization program for the New World. Sponsored by the Spanish crown, the missions of *La Florida* were established to promote permanent settlements in strategic locations for the defense and supply of St. Augustine. The missionaries themselves were agents of directed culture change, reorienting 1) native subsistence practices to stress agricultural production; 2) social institutions, in particular replacing polygamy with monogamous marriage; and, 3) ideology; all to Spanish needs and preferences. With the missionary as a model and the mission village as milieu, the native inhabitants would *become* Spanish peasants, at which point the mission churches would be secularized and the missionaries would move on to a new frontier.

Though missionaries accompanied several of the conquistadores in the early and ill-fated entradas into Florida from 1513 to 1559 (Marrinan 1985:241), there were no successful conversions to the Catholic faith until St. Augustine was settled in 1565. Pedro Menéndez de Avilés, the founder of St. Augustine, established a series of blockhouses at St. Lucie, Biscayne Bay/Miami River, Estero Bay, and old Tampa Bay (Marrinan 1985:242). Each blockhouse was to be staffed by a lay priest who was to contact and convert the native populations. These initial outposts proved to be too isolated and understaffed; most were abandoned by 1568. Jesuit priests arrived in 1567 and used the remainder of these blockhouses as missions. However, from their arrival in 1567 to their departure in 1572, the Jesuits had

little success in persuading the intransigent Ais, Tequesta, and Calusa Indians to abandon their subsistence practices, social institutions, and the protection of their own gods.

The Jesuits were replaced by the Franciscans, a small contingent of whom first arrived in 1573. Like the Jesuits, the Franciscans had little success until around 1587, when, with reinforcements, they began a more successful incursion into native lifeways (Hann 1990:4). To provide some protection for Spanish shipping and to take advantage of the productive soils around Savannah, missions were first established among the Guale and Timucuan Indians along the Atlantic coast. By 1610, a chain of missions stood, more or less equidistant from one another, from St. Augustine to South Carolina. From their strategic coastal positions, the Franciscans began to make inroads into the interior populations. The Potano of interior north-central Florida received a missionary in 1597; Fray Martín Prieto converted substantial portions of three villages by 1607. This same evangelical force began missionization among the Apalachee in 1608 (Hann 1988:10), and permanent missions began to be established in Apalachee in 1633. The conversion of the Apalachicola in 1675 completed the other chain of missions across the Florida peninsula and panhandle from St. Augustine to St. Marks. From Apalachee there were less successful attempts to establish missions among the inhabitants of the western panhandle (to provide a buffer against the French) and those to the north along the Chattahoochee River in 1679 and 1681 (to inhibit English influences).

By 1675, after surviving two widespread nativistic Indian revolts, the mission system boasted some 40 missions serving some 25,000 Indians in Florida and Georgia. Beginning in 1680, however, English-inspired depredations on the Atlantic coastal missions and slave raids into the Florida interior began to weaken the system. By 1686, the missionaries had been forced to abandon all missions on the Georgia coast. The Guale and Yamassee were settled in missions below the St. Marys River, in Apalachee, Potano, and as far south as Mayaca territory. Very late in the period, around 1695, a last unsuccessful effort was made to bring

the Calusa into the fold (Hann 1991). Then, between 1702 and 1704, in an attempt to wrest Florida from the Spanish, Governor James Moore of South Carolina accomplished the destruction of most of the individual missions in Florida. There were several attempts to reestablish Franciscan missions in the early eighteenth century, but for all practical purposes the South Carolina raids had destroyed the mission system

In 1743 Jesuit missionary priests attempted to place a mission at the mouth of the Miami River. Santa Maria de Loreto was to serve the remnants of the south Florida native peoples, as well as to provide a refuge for shipwreck survivors. It was unsuccessful.

The Setting

If only the oft-cited 1675 map is consulted (Gannon 1965:64), the geographical extent of the mission system appears fairly restricted. However, this map represents the mission coalescence along the Mission Road, a response to population loss; earlier mission foundations were more widespread and random.

The mission system, then, must be seen as having affected a wide area of eastern, north-central, south (the ill-fated Calusa and Tequesta missions), and panhandle Florida, and coastal and southern Georgia. With the exception of cattle ranches and the odd wheat farm (the labor for which was often extracted from the missions), almost any Spanish and/or Indian settlement along the Atlantic coast dating from 1565 to 1702; any interior north-central peninsular settlement dating from the terminal years of the seventeenth century to 1702; and any Apalachee or closely related sites dating after 1600, all must be viewed as a mission period context. Very early and very late mission period contexts along the southeast and southwest coasts must also be expected. Hann (1990:2-3) has stated that for the sixteenth and seventeenth centuries, there are probably over 100 sites that were mission centers, *visitas* (native villages with a church but no resident friar), native villages that had a resident missionary, or European settlements frequented by the natives for religious purposes.

Timucua

First period, 1565-1607

During this period, Timucuan mission activity was restricted to the coast. Five missions were founded: Nombre de Dios (8SJ34) was probably established soon after 1573; San Sebastian, two musket shots from St. Augustine, was established by 1577; San Juan del Puerto (8DU53) on Fort George Island and San Pedro de Mocamo and San Pedro y San Pablo de Puturiba on Cumberland Island in Georgia were established by 1587 (for a complete summary of the missions see Hann 1990; Table 1). Further south, San Antonio de Enacape (8PU35, Mount Royal) was established among the Fresh Water Timucua as early as 1587. Though documentary evidence is not specific and archaeological evidence is lacking, it might be suggested that most of these missions were established in extant aboriginal towns; this does seem to be the case for Nombre de Dios. The terminal date for this period marks the beginning of the expansion of the mission effort south of St. Augustine and into the western interior.

Table 1. Timucua Missions

<u>Name</u>	<u>Status</u>	<u>Group</u>	<u>Site #</u>	<u>Est.</u>	<u>Term.</u>	<u>NR</u>
San Antonio de Enacape	Mission	Agua Dulce	8PU35	1587	1616 *	
San Julian	Mission	Agua Dulce		1602 †	1602 *	
Tocoy	Mission	Agua Dulce		1602 ‡	1606 *	
San Luis de Acuera	Mission	Agua Dulce		1616 †	1655 *	
Santa Lucia de Acuera	Mission	Agua Dulce		1655 †	1655 *	
San Salvador de Mayaca	Mission	Agua Dulce		1655 †	1655 *	
Señor Salvador de Mayaca	Mission	Agua Dulce		1680 †	1701 †	
Apalo	Mission	Agua Dulce?		1616 †	1616 *	
San Joseph de Jororo	Mission	Ais		1690s †	?	
La Concepcion de Atoyquime	Mission	Ais?		1693 †	1699? §	
Atissime	Mission	Ais?		1696 †	1697 §	
San Lorenzo de Ibiica	Mission	Ibi		c.1612	?	
Santa Cruz de Guadalquini	Mission	Mocamo		1680s	1695 *	
San Luis de Eloquale	Mission	Ocale?		1630 †	1630 *	
San Buenaventura de Potano	?	Potano		1607	?	
San Miguel de Potano	Mission	Potano		1607	1617 *	
San Francisco de Potano	Mission	Potano	8AL272	1607	1704	
Santa Fe de Toloco	Mission	Potano	8AL190	1616 †	1702	
Nombre de Dios	Doctrina	Saturiwa	8SJ31	c.1573	1706 ‡	
San Sebastian	Mission	Saturiwa		1577	1602 *	
San Juan del Puerto	Doctrina	Saturiwa	8DU53	1587	c.1655	✓
Chica Faya la Madalena	Visita	Saturiwa		1602 †	1602 *	
Potaya	Visita	Saturiwa		1602 †	1602 *	
San Mateo	Visita	Saturiwa		1602 †	1602 *	
Carabay	Visita	Saturiwa		1602 †	1602 *	

<u>Name</u>	<u>Status</u>	<u>Group</u>	<u>Site #</u>	<u>Est.</u>	<u>Term.</u>	<u>NR</u>
Chinisca	Visita	Saturiwa		1602 †	1604 *	
Santo Domingo	Visita	Saturiwa		1602 †	1606 *	
Veracruz	Visita	Saturiwa		1602 †	1606 *	
Hicachirico	Visita	Saturiwa		1602 †	1606 *	
San Pablo	Visita	Saturiwa		1602 †	1609 *	
San Antonio	Visita	Saturiwa		1602 †	1610 *	
Moloa	Visita	Saturiwa		1602 †	1610 *	
Santa Maria de la Sena	Visita	Saturiwa		1602 †	1636 *	
San Pedro de Mocamo	Mission	Tacatacuru	9CAM14	1585?	c.1655	
Puturiba	Mission	Tacatacuru	9CAM7	1587	?	
Alatico	Visita	Tacatacuru		1604 †	1604 *	
San Buenaventura de Guadalqui	?	Tacatacuru		1609	1680s	
San Juan del Puerto	Mission	Tacatacuru	8DU53	c.1660	?	
San Diego de Laca	Mission	?		1645 †	1689 *	
San Martín de Ayacatu	Mission	Utina	8CO1	1610 †	1656	
San Juan de Guacara	Mission	Utina	8SU23	1612 †	1689 *	
Santa Isabel de Utinahica	?	Utina		1616 †	1616 *	
San Agustín de Urica	Mission	Utina	8CO229?	1630 †	1657 *	
Santa Maria de los Angeles	Mission	Utina		1630 †	1662 ¶	
San Ildefonso de Chamini	Mission	Utina		1655 †	1657 *	
Santa Cruz de Cachipile	Mission	Utina		1655 †	1657 *	
San Francisco de Chuauquin	Mission	Utina		1655 †	1657 *	
Santa Catalina de Ajoica	Mission	Utina		1655 **	1685 ††	
Santa Cruz de Tarilhica	Mission	Utina?		1616 †	1689 *	
San Miguel de Asile	Mission	Yustaga	8JE106	1651 **	1689 *	✓
San Pedro y San Pablo de Potohiriba	Mission	Yustaga	8MD30	1630 **	1704	
Santa Elena de Machaba	Mission	Yustaga		1655 †	1704	
San Mateo de Tolapatafi	Mission	Yustaga	8MD5	1656 **	1689 †	
Santa Rosa de Ivitanayo	Mission			1678	1689 *	
Santiago de Ocone, island	Doctrina	Timucua		1587	1655 *	

Note: These are the missions named by Hann (1990). The mission's status, when known, is listed. The Indian group associated with the mission is noted, when known. Sites that have been listed in the Florida Master Site File (Site #) have their site numbers provided. Dates for the establishment (Est.), and termination (Term.), are provided, to the extent that the dates are known. Sites that are listed on the National Register of Historic Places (NR) are indicated.

* No mention after.

† Mentioned.

‡ Prior to.

§ Moved.

|| Early.

¶ Abandoned.

** After.

†† Destroyed.

No closed context ceramic samples are available for this period from mission sites, though the aboriginal component should be similar to that of the late prehistoric. Two ceramic traditions were encompassed in the early mission effort. The bulk of the missions were established among the Timucua, who had made St. Johns pottery for the last 2000 years. The Cumberland Island missions, however, were established among the Tacatacuru, who produced an as yet unnamed grog-tempered plain and cob-marked ware (Milanich 1971). According to

researchers in St. Augustine, this grog-tempered ware is apparently present in that city only in sixteenth century assemblages. However, the ware has been recovered from much later contexts, for instance from the post-1650 Yamassee and Guale missions on Amelia Island.

Temporally diagnostic Spanish earthenwares include majolicas such as Columbia Plain, Yayal Blue on White, and Isabella Polychrome. Other earthenwares likely to be present during these early years are El Morro and Green Bacín. Middle Style Olive Jar occurs throughout the mission period. Early Style Olive Jar was made until 1570; a Jesuit presence at the site might be indicated by the recovery of this ware, and curated specimens continued in use after 1570.

Documentary resources for this phase are lacking, particularly for the earlier years. Selected letters of the Jesuit friars have been published by Geiger (1937). Geiger has also put together a mission list for the year 1587, but many entries are questionable and the work is poorly referenced (Hann 1989 *passim*). The Canzo visitation (1603; Ross 1926) and that of Ibarra (1604; Serrano and Sans 1912) and Bishop Altamirano (1606; Geiger 1937; Hann n.d.) provide data on missions extant in those years.

Second period, 1608-1656

There are even fewer references for this 48-year interval. Only Oré's visitations (1614 and 1616; Geiger 1936) and the 1655 mission list provide much data. The 1655 list is especially valuable in that it provides a baseline against which to assess changes resulting from the Timucuan rebellion in 1656.

During this period, the mission system expanded into the Potano, Utina, and Yustaga territories; new missions and a great many *visitas*, most with churches, were established. The majority of *visitas* and several missions established during the early years of this interval apparently ceased to exist by the time of the Rebolledo visitation in 1657. Of the 47 foundations in existence at the beginning of this phase, over half (n=26) were not mentioned in the 1657 visitation record (this probably does not

include many missions whose population was substantially replaced by other aboriginal groups). Loss of religious establishments (probably reflecting population loss) was greatest along the east coast.

In order to maintain sufficient populations in the missions in crucial locations, the Spaniards were forced to move people from their traditional territories to fill missions along the roads (Hann 1986). This movement is reflected in a change of settlement patterns from that of late prehistoric times. For instance, the Potano had prehistorically occupied low areas with easy access to marsh and lake environments in southern Alachua County. By mid-century these environments were abandoned for hilltop locations in northwestern Alachua County (Johnson 1987).

Coincident with the depopulation of the Timucua, groups feeling British pressure in north Georgia were encouraged by the Spaniards to move south. Due to the increased movement of peoples, ceramic assemblages become more mixed. Leon-Jefferson wares from Apalachee begin to appear in Potano missions (Milanich 1978:79). These wares increase through time throughout this phase. Though the ceramic assemblage at the Fig Springs site (8C01) (probably the Utinan mission of San Martín) is not yet well understood, pottery there suggests affiliations with Lamar-related traditions of south-central Georgia; similar ceramics began to appear in Apalachee during the Velda phase (1540-1633; Scarry 1984). By the end of this phase or the beginning of the next, the movement of the Yamasee into Timucuan missions along the coast is visible in the ceramic assemblages of San Pedro de Mocamo (Milanich 1971) and San Juan del Puerto (McMurray 1973). Because so little is known archaeologically about these missions, relative amounts of foreign pottery cannot be used to date sites except possibly in Potano (Milanich 1978:79) and along the Atlantic coast. Presumably colono-wares began to be produced during this period; however, there have been no chronological studies of these copy wares that might result in data useful for seriating sites on the basis of frequency or style.

The principal majolicas for this phase are Santo Domingo Blue on White, Ichtucknee Blue on White, Fig Springs Polychrome and San Luís Blue on White. Other earthenwares should be El Morro and Middle Style Olive Jar; the production of Green Bacín ceased around 1600.

The end of this period is marked by the Timucuan rebellion of 1656. The rebellion started at San Martín and spread throughout the interior Timucuan missions. The mission structures at San Martín were burned as were most other missions in Utina, Yustaga, and Potano, but most were rebuilt and seem to have survived.

Third period, 1657-1706

Documents listing or describing Timucuan missions during this period include the Rebolledo visitation of 1657 (Pearson 1968); Calderón's visitation of 1675 (Wenhold 1936) and the Arcos enumeration (Boyd 1948) of the same year; the narrative of Jonathan Dickinson (1695; Andrews and Andrews 1945), and the visitation of Bishop Compostela in 1698.

After the Timucuan rebellion few missions were established in Timucua. There were attempts to secure territories to the south of St. Augustine; missions were founded among the Jororo and Mayaca. The bulk of new listings, however, are relocated missions. In missions along the Atlantic coast, St. Johns wares all but disappear, though the pottery associated with the Tacatacuru is present. In the interior, problems relevant to depopulation and population movements were only exacerbated in these later years. In addition, the Yamassees, who were allied with the British, began a series of destructive raids on the missions in the interior of Florida; San Juan de Guacara and Santa Cruz de Tarahica in Utina were both destroyed in these raids.

As noted, San Marcos ceramics began to appear in interior sites during the previous phase. Milanich (1978:79) noted that from 1660 to 1700 there was an influx of Guale into Potano, as evidenced by the ceramic assemblage of the Zetrouer site, in which 58% of the ceramics were San Marcos. Leon-Jefferson wares are not as frequent as in the previous phase. Production

dates for majolicas of the second phase end by 1650; new assemblages of primarily polychrome majolicas should be indicative of site occupation in the third phase. These include San Luís Polychrome, Aucilla Polychrome, Abó Polychrome, and Puebla Polychrome.

Apalachee

Villages in eastern Apalachee were influenced by missionaries as early as 1608, when Prieto engineered a reconciliation between the Utina and the Apalachee. The Apalachee asked for missionaries at that time and periodically thereafter, but because of distance from St. Augustine and a lack of personnel (see Hann 1988:12 note) Apalachee was not missionized until 1633. Initially two missions were founded; the mission effort expanded dramatically in the early 1640s (Hann 1988:16). By 1647 there were eight mission settlements in Apalachee. Like the missions in Guale and Timucua, foundation dates for these missions are not known, with one exception, that of San Cosme y San Damián de Cupaica (8LE120, Escambé; Hann 1989:76; Table 2). Dates for the foundation of the rest of the Apalachee missions must be inferred from mention in subsequent documents. Unlike the Guale and Timucua, the Apalachee seem to have weathered the Spanish pestilence without the fatal population loss of the other two groups (Hann 1986). Reasons for this are unclear at present; the major difference between the two areas would seem to be the agricultural potential of the Tallahassee Hills region. However, it has not yet been demonstrated that food shortages were a factor in the demise of the eastern populations. This difference between the two coasts should be a topic addressed in future research, particularly if mortuary contexts are involved.

Table 2. Apalachee Missions

<u>Name</u>	<u>Status</u>	<u>Group</u>	<u>Site #</u>	<u>Est.</u>	<u>Term.</u>	<u>NR</u>
San Pedro y San Pablo de Patale	Mission	Apalachee	8LE152	c.1633	1647 *	✓
San Lorenzo de Ivitachuco	Mission	Apalachee	8JE100	c.1633	1704 †	
San Cosme y San Damian de Cupaica (Escambe)	Mission	Apalachee	8LE120	1639	1704	✓
Santa Maria de Bacuqua	Mission	Apalachee		1647 ‡	1657 *,	
San Pedro y San Pablo de Patale	Mission	Apalachee	8LE157	1647	1704	

<u>Name</u>	<u>Status</u>	<u>Group</u>	<u>Site #</u>	<u>Est.</u>	<u>Term.</u>	<u>NR</u>
Concepcion de Ayubale	Mission	Apalachee	8JE2	1655 §	1704	
San Francisco de Oconi	Mission	Apalachee		1655 §	1704	
San Martín de Tomole	Mission	Apalachee	8LE1458	1655 §	1704	
San Joseph de Ocuia	Mission	Apalachee	8JE72	1655 §	1704 †	
San Antonio de Bacuqua	Mission	Apalachee		1657 ¶	1702 ¶	
Santa Cruz de Ytuchafun	Mission	Apalachee		1672 §	1704	
San Damian de Ilcombe	Mission	Apalachee		1686 ¶	1699 ‡	
Ivitachuco at Abosaya	Mission	Apalachee		1704		
Nativity of Our Lady	Mission	Apalachicola		1675 §	1675 ¶	
San Luis de Xinayca	Mission	Apalachee		1633 ¶	1656	
San Juan de Aspalaga II	Mission	Apalachee		1675 §	1697 ¶	
San Juan de Aspalaga I	Mission	Apalachee	8JE1	1655 §	1675	✓
San Luis de Talimali	Mission	Apalachee	8LE4	1656	1704 †	✓

Note: If a site has been listed in the Florida Master Site File (Site #), then that is noted. To the extent that the information is known, dates of establishment (Est.), and termination (Term.) have been provided. If a site has been listed on the National Register of Historic Places (NR), then that is indicated.

* Moved.

§ Mentioned.

† Abandoned.

¶ Prior to.

‡ After.

¶ No mention after.

The robustness of the population (and the soils) did not allow missions themselves to be any more stable than in Guale and Timucua. The documentary record evidences a confusing series of moves for almost all the missions established. Distinguishing the various incarnations of each mission from other missions will remain a major challenge for future archaeological research.

One event in Apalachee does provide archaeological data for distinguishing phases. This was the Chacato revolt of 1647. During this brief but violent episode, seven missions were burned, including San Antonio de Bacuqua where the revolt started, Cupaica, and probably San Luis (8LE4), Ivitachuco (8JE100), Oconi (8JE131), and Patale (8LE152) (Hann 1988:28), and one other unnamed mission. Another mission extant in 1647, also unnamed, was not destroyed (Hann 1988:27). Hann (1988:18) has suggested that the expansion of the mission effort in the 1640s was partially responsible for this revolt.

By 1648 the burned missions had been rebuilt (Hann 1988:18). Though tensions continued in the 1650s, the Apalachee did not participate in the Timucua revolt. By the end of the 1650s, "the mission system and the Spanish military presence in Apalachee appeared to be solidly rooted and acquiesced to by most of the natives..." (Hann 1988:23).

First period, 1633-1647

As noted, this is the initial period of missionization in Apalachee. Comprehensive documentation for this period in the form of mission lists or visitations is non-existent. Hann (1988:28) believed that the large size of extant towns in 1633 relative to those in Timucua and Guale, the sedentary nature of the subsistence system, the population density, and the compactness of the Apalachee territory negated the necessity for *reducción* of the population to new villages. Therefore we should expect mission settlements to be in the prime locations for late prehistoric Apalachee settlements. These were located several kilometers north of the Cody Scarp (the 25 m contour separating the coastal plain from the uplands) adjacent to lakes. This contrasts with the location of the mission period sites found to date in Apalachee, the majority of which have been situated close to creeks navigable to the coast (Jones and Shapiro 1987:9). The precedence of Spanish economic concerns is visible in this settlement pattern. At present, there is insufficient documentary and archaeological evidence to determine whether missions were established in extant villages in these more marginal environments or whether villages were moved to these locations, perhaps after a port was established in 1639 (Hann 1989:15).

During the Velda phase (1540-1633), before the first Apalachee missions were established, changes in vessel form, decorative techniques, and decorative motifs occurred that suggest a shift in external linkages of the Apalachee from the northwest to peoples living to the northeast (Scarry 1987:6). Other changes include a shift in settlement location to higher elevations and possibly a less hierarchical social system (Scarry 1984:389-390). Lamar Complicated Stamped ceramics enter the area for the first time, distinguishing this phase from the earlier Lake Jackson phase (Scarry 1984:392).

Ceramics in the San Luis phase (1633-1704), the range of mission occupation in Apalachee, are similar in manufacture to those of the Velda phase but are distinguished by their forms, which reflect attempts to copy European tableware forms. These include plate forms, annular ring bases, pitchers, and candlestick

holders. While the major ceramic types in the Velda phase are Lake Jackson Plain, Lamar Complicated Stamped, and Fort Walton Incised, in the San Luis phase Lake Jackson Plain and Lamar Complicated Stamped are associated with Leon Check Stamped and Ocmulgee Fields Incised (Scarry 1984:392, 399). Spanish majolicas and olive jar sherds appear in the San Luis phase. Principal majolicas are Fig Springs Polychrome and San Luis Blue on White.

Sites in the San Luis phase are more likely than Velda phase sites to be at higher elevations (Scarry 1984:397). In addition, "some data suggest that the bulk of the Apalachee population shifted closer to the mission locations, in effect moving the demographic center of the Province toward the southeast.... There is also a suggestion of population nucleation in the vicinity of the missions, producing fewer but larger sites" (Scarry 1987:8).

Second period, 1647-1704

The seven missions involved in the Chacato revolt were listed above along with the fact that they were promptly rebuilt. Whether or not most were rebuilt on the same site is unknown, though it has been suggested that the Patale I site (8LE152), where a burned wattle and daub church has been excavated, was moved to the Turkey Roost site (8LE157) following the revolt (Hann 1989:73). If all the sites were relocated, we should be able to discriminate seven burned mission sites from the later sites destroyed in 1704 by noting the type of European ceramics present. These seven sites will provide good closed context proveniences for studying the first phase. Only one first phase mission (the one not burned) could be inadvertently included with missions of the second phase. As noted, discriminating between the second period missions, not to mention their associated *visitas*, satellite villages, and *rancherías*, is a daunting task.

After 1647, mission foundation proceeded apace; available documentation for this period gives data on the number and location of missions in visitations, itineraries, and lists for 1655, 1657, 1675 (2), 1677, 1680, 1689, 1693, 1694 (2), and 1697 (another

list was made in 1716 after the end of the mission period proper, Hann 1988:28-69). Eight missions were re-established in 1648; ultimately eighteen missions were founded in Apalachee (Scarry 1984:395). Of the nine located, six are on hills between elevations of 55 and 67 m above sea level, near Orangeburg soils and a permanent water source (Jones and Shapiro 1987:8). The three that do not conform to this settlement model appear to have been located to provide access to the Gulf or to peoples outside of Apalachee (Jones and Shapiro 1987:9).

There have been no chronological studies of San Luis phase ceramic assemblages. Willey (1949a:490) noted that Alachua series ceramics are found in San Luis phase (formerly called Leon-Jefferson) assemblages; the relative frequencies of these wares, as well as other foreign types, might be helpful in determining the time period of occupation of the second phase sites. Principal majolicas of this second phase are Aucilla Polychrome, San Lu s Polychrome, Ab  Polychrome and Puebla Polychrome.

Mission Archaeology

The most basic problem encountered in the study of mission period sites is distinguishing mission sites from other First Spanish period sites. Jones and Shapiro (1987:4) stated that "rectangular floor plans, prepared clay floors, cemetery burials (extended and aligned with one another), and imported Spanish artifacts together provide a signature for mission sites." The operative word in this definition is "together"; except for cemetery burial, none of these traits could distinguish a mission compound from a contemporaneous *rancher a* or farm, in part because so little is known about these sites. Further, rectangular floor plans are infrequent but consistent attributes of the architecture of all three prehistoric aboriginal groups considered here; clay floors are not unknown. In Apalachee and Timucua, but not in Guale, the wattle and daub construction used in some missions can be used to distinguish aboriginal from Spanish structures, but not mission from secular structures. It may be that a cemetery must be found before attributing mission status

to a First Spanish period site. This makes the identification of *visitas* even more problematic, since their deceased should have been taken to the main mission for burial.

To date excavation in identified mission sites indicates that there was a formalized mission plan more or less rigidly adhered to depending on the time period of construction and the economic importance of the site (Saunders 1989). This plan consisted of three structures—a church, a convento, and a kitchen arranged around a small courtyard. These are usually conceived of as tied together with a covered walkway or fence; walls of some of the structures might be shared with this fence. Though a map or plan of a mission compound drawn up in 1691 depicts a garrison house as part of this "quadrangle plan," no garrison house has been identified yet within a mission compound.

Most of the data upon which this model is based comes from the inspired but limited excavations at a series of sites in Apalachee and western Timucua conducted by the Bureau of Historic Sites and Properties in Tallahassee (Jones and Shapiro 1987; Jones 1970, 1971, 1972). These sites were located by B. Calvin Jones by extrapolating the distance of missions from St. Augustine available in the documentary record, and by applying a model of site location emphasizing high elevation and permanent water sources. Because this model and the quadrangle model that is derived from it are atemporal and acircumstantial, both site location and settlement layout are best seen as hypotheses to be tested, rather than as facts. The model can only be tested if broad scale survey is routinely employed during the investigation of mission sites, a point that will be addressed below.

The best archaeological evidence for the quadrangle plan in Florida comes from San Luis de Talimali (8LE4) in Apalachee. Auger testing at San Luis predicted the locations of the mission compound, a village plaza, a native council house, and village deposits that appeared to be economically (and perhaps ethnically) stratified (Shapiro 1987; Shapiro and Poe 1984). A market or other activity area was hypothesized between the church and known location of the fort. Later excavation

confirmed the locations of the church, council house, and village, and has illuminated architectural aspects of all three components. Remote sensing was used to try to locate the cemetery and to delimit the church boundaries with poor results (Shapiro and Vernon 1989:5); excavation based on the model discussed above, and on the auger test results, ultimately located both features. Excavation has begun in the high status village area which may have been occupied by soldiers at Fort San Luis (Richard Vernon, personal communication 1989). Nothing is known of the aboriginal village component on the site.

Though the location of the convento has been predicted from a high concentration of daub to the northwest of the church, this has not been confirmed; the location of the kitchen is unknown, but may be due north. The quadrangle plan of the mission compound, then, has not been confirmed at San Luis. What has been confirmed at San Luis and what, therefore, must be tested for at other sites, is the location of the mission compound on a plaza area (distinct from the compound courtyard) typical of prehistoric southeastern Indian villages. The preservation of this feature at the San Luis site is extraordinary—the bank around the plaza is still visible topographically; however this feature should be recognizable at other sites as a regular (circular or square) area relatively free of debris.

While broad scale testing identified and suggested the quadrangle plan at San Luis, broad scale testing elsewhere has not identified so formal a plan. There are several possible explanations for this, such as noise from previous or subsequent occupation of the site, the differential preservation of building materials, or the construction of a less formal mission compound.

The aforementioned 1691 plan purports to be of the Santa Catalina de Guale mission on Amelia Island. Despite posthole testing at 5 m intervals, only the convento and cemetery of that mission have been identified. The church, kitchen, and garrison house (the latter is referred to in documentary records) might not have burned or might not have been built of wattle and daub, and so were less visible in the results than the burned wattle and daub convento. Alternatively, some 90 years after the mission

was destroyed in Moore's raids, a British planter moved to the site; his descendents occupied the site for almost 200 years. House and outbuilding construction and plowing of parts of the site, or erosion of the bank of the tidal creek adjacent to the site (known to have affected another occupation just south of Santa Catalina), may have destroyed the evidence of the other structures.

Marrinan, who also did extensive auger testing at 8LE152, had difficulty defining the mission settlement layout because of an intensive Lake Jackson phase occupation. The burned wattle and daub church with interior burials has been located, but the rest of the layout remains obscure (Rochelle Marrinan, personal communication; cf. Jones and Shapiro 1987).

Limited confirmation of the village plan of the Apalachee site of San Luis may have been discovered at the Santa Fe site (8AL190) (probably the Santa Fe mission) on the river of the same name. Surface survey, resistivity, metal detector surveys, and soil coring have identified the location of three structures and the cemetery. Though none of the structures has been completely excavated, the church appears to be opposite a possible convento across a courtyard. The hypothetical kitchen is not aligned with the convento as at Santa Catalina on St. Catherines Island, but is perpendicular to it. There is also evidence (in the form of a linear distribution of nails and spikes) for a fence line behind the convento. South of a possible plaza, the remains of one or two wattle and daub structures were found (Kenneth Johnson, personal communication, 1989).

A less formal plan may occur at the Fig Springs site (probably San Martín) (Weisman 1988). Extensive testing at that site has identified the cemetery, an open chapel, and a possible convento in close association, as well as an aboriginal village that may be separated from the mission-related features by a plaza. The only possible location for a mission kitchen on the eroded hilltop the site occupies is on the Indian side of the plaza. Excavation in the aboriginal component of a mission compound was completed at Fig Springs (Weisman 1989b).

A different sort of broad scale survey was conducted by Bryne (1986; Marrinan and Bryne 1986). He surveyed a transect of the Apalachee province to search for missions in all possible environmental and topographic situations. Significantly, no missions not already identified on the basis of the settlement location model described above were located.

Much of the excavation on mission sites has been done under less than optimal conditions. Nevertheless, useful data has emerged from these excavations. The Bureau of Historic Sites and Properties results in Apalachee and western Timucua have been mentioned. Loucks (1979) excavated an as-yet unidentified Spanish-related site in Suwannee County. Loucks believed the Baptizing Spring site (8SU65) to be San Agustín de Urica, but based on the distances from St. Augustine in the documentary record, Hann (1990:60a) believes that site to be in southern Georgia. Milanich has suggested that the site was a *visita* occupied from 1587-1611. Excavations at Santa Maria de Yamassee (8NA41) on Amelia Island (Saunders 1987) were done on a salvage basis, but excavation confirmed that burials at that late site (ca. 1675-1683) were within a church built on an oyster shell sleeper and that no Spanish structures were within 55 m east of the church. Milanich (1972) excavated at the Richardson site (8AL100), a possible *visita* for the San Francisco de Potano mission. Unlike the possible *visita* at Baptizing Spring, no Spanish structures were located; however, the lack of systematic subsurface testing at both these sites makes site function difficult to surmise. Excavation at the Richardson site did uncover historic period aboriginal structures which seemed unchanged from their prehistoric counterparts.

On the basis of distance from St. Augustine and the presence of Spanish materials, the San Francisco de Potano mission may have been identified as the Fox Pond site (8AL272) (Symes and Stephens 1965), though no structural evidence was uncovered in the judgmental testing done at the site. The Zetrouer site (8AL66-67) (Seaberg 1955), dated to 1660-1700, has long been described as a seventeenth century cattle ranch, though as discussed, there

are no criteria for distinguishing ranches from missions in the absence of structural remains or cemeteries.

Important Sites

Seven mission sites are listed on the National Register of Historic Places. All are Apalachee missions except San Juan del Puerto (8DU53) on the east coast. The Apalachee missions are San Juan de Aspalaga (8JE1), San Joseph de Ocuja (8JE72), San Miguel de Asile (8JE106), San Luis de Talimali (8LE4), San Damian de Escambé (8LE120), and San Pedro y San Pablo de Patale (8LE152 and 8LE157). Other important sites include the Charles Spring site (8SU23) (probably San Juan de Guacara), the Indian Pond (8CO229), Beaty (8MD5), Baptizing Spring, Santa Fe, Turkey Roost, Fig Springs, and Santa Maria de Yamassee sites.

Research Questions

The summary above highlights how little well-controlled data forms the basis for our current understanding of the mission period context. This situation severely limits an anthropological approach to understanding the period.

Settlement patterns

Because extensive systematic subsurface testing was not employed at most of the mission sites excavated to date, little is understood about intra-site settlement plan. The quadrangle mission compound plan remains an hypothesis; how this Spanish area was incorporated into aboriginal villages is unknown except at San Luis and at San Martín. That the best data we do have comes primarily from the largest, wealthiest missions is in many respects unfortunate; results from these studies cannot be extrapolated to smaller, rural missions. So few missions from the three different provinces have been comparably excavated and analyzed that it is impossible to determine whether or not there is any variation in mission layout or construction due to the different ethnic groups involved. The study of temporal change is similarly handicapped.

Recovery techniques like extensive systematic testing are also needed to address the problem of how to identify different

site types: missions vs. *visitas* vs. *rancherías* vs. "heathen" villages. We need examples of each site type through time in order to understand the progress of adaptation and acculturation. The record at present is biased towards larger, later sites—sites that conform to the locational model described above. Very early "missions of penetration" will be relatively invisible as compared to these other sites, and they may be in different geographical locations. Similarly, *visitas* and contemporaneous Indian villages without churches will be difficult to identify.

Finally, there has been an oft-cited bias towards excavation in the mission compound. Even so, only at San Martín has there been a systematic approach to the excavation of the aboriginal mission component. It is impossible to address the question of acculturation of aboriginals with materials recovered from the mission compound. This includes colono-wares from the compound; unless European forms were used by the Indian population, and were not simply made for the Spaniards, little acculturation is indicated.

Subsistence

Recovery techniques are also implicated in the poor understanding of subsistence practices at mission sites (and related sites). To date there are no published zooarchaeological or paleobotanical analyses of diet in mission period contexts. Though this is beginning to change, the lack of excavation in village areas renders the emerging picture of mission diet incomplete. Biocultural analysis of cemetery populations can partially redress this situation, but the interpretation of relative amounts of trace elements, for instance, is not without problems. Biocultural analysis and zooarchaeological and paleobotanical analyses are complementary methods that should be used in conjunction with each other to provide a comprehensive view of diet and dietary change throughout the mission period.

Health

A related topic, and one also addressed in mortuary studies, is the health of mission populations in general and with respect to their contemporaries in non-mission sites. We need to know

more about the incidence of epidemics in the proto-historic period to understand the acceptance of the mission system in *La Florida*. Knowledge of disease episodes during the mission period and their effects on the available labor force at the missions and for St. Augustine are crucial for understanding variation in the material remains of the mission period context.

Chronology

Answers to most of these questions are dependent on fine chronological control of the sites excavated. We need to refine our analyses of the materials recovered from mission contexts to get that control. Classification of aboriginal pottery will probably need to go beyond typological analysis to the classification of sub-typical variations in surface decoration and vessel form. A tighter understanding of the change in these attributes will help us chart the movements of different groups in La Florida, to determine the time period of occupation and movement of mission sites, and to date specific proveniences in order to assess change through time. In the past, however, there has been a bias in reporting the results of excavation in mission period contexts towards the description of architectural remains at the expense of other aspects of material culture, particularly the aboriginal pottery recovered.

Of course, one of the best sources of chronological control is the documentary record, with its narrative of specific events and trends that provides an interpretive framework for mission period contexts which is unavailable to researchers of the prehistoric periods. Documentary research should be a part of every mission period context excavation.

Acculturation

Since its inception, the goal of the study of mission period contexts has been the study of acculturation, yet little hard data has been recovered to address the issue. The deficits in the research described above are due in large part to the failure of archaeologists to develop bridging arguments between the material culture recovered and acculturation (Saunders 1986).

Preservation Goals

Wise management of mission period contexts can go a long way toward ameliorating the situation described above. When potential impact to sites must be mitigated, an excavation plan that is informed by the research questions discussed above should be devised. At the very least, all Phase I surveys in which a mission period context is expected should employ extensive systematic subsurface testing. The determination of the appropriate testing interval will depend on the size of the property under investigation. Given the average size of mission structures and other features, an interval of 5-10 m is optimum. This is clearly unrealistic for large tracts. Where large properties are involved, Phase II work should begin with the refinement of the mission period component boundaries and intrasite settlement pattern using systematic testing.

If a mission site will be destroyed by development, Phase III investigation should include both controlled excavation, recovery of special samples, and—where complete excavation is not possible—the mechanical exposure of large areas for the mapping of features. This last should be done after adequate samples of the artifact assemblage have been recovered, but it should be done. The windows opened in excavation units or even block excavations are not sufficient exposure to describe and interpret the relationship of the parts to the whole.

In order to begin to address aspects of acculturation in settlement pattern, diet, and material culture, at least half of the excavation time should be spent in the aboriginal component of the site. Funds should be made available for the recovery and analysis of special samples, including zooarchaeological and botanical samples. Funding should also be made available for archival research.

- Locate unrecorded mission sites.
- Acquire and/or protect all mission sites and endangered mission period sites.
- Excavate varying site types, e.g., missions, associated aboriginal villages, *visitas*, and contemporaneous non-mission villages.

- Evaluate the National Register eligibility of all mission sites, and other sites representing various types.
- Nominate eligible sites to the National Register.
- Develop interpretative sites.
- Develop a state-managed trust fund for archaeological and historical research on Spanish missions. Develop missions as historic sites to enhance tourism in Florida.

Chapter 18

THE SEMINOLE, A.D. 1716 – 1880

Claudine Payne

The earliest Seminole were Creek migrants who came into Florida in the early eighteenth century. These migrations were partly in response to Spanish appeals for settlers to resettle the depopulated mission areas and partly in response to British-Creek hostilities in Georgia (Boyd 1949:25; Fairbanks 1978:165).

The first recorded use of the term "Seminole" was in 1765 when William Gerard DeBrahm used it in his map of Florida (Weisman 1989:37). It is only after the late eighteenth century that the term is used with any regularity (Weisman 1989:10). The word is a derivation of the Spanish term *cimarrone*, meaning "wild" or "runaway," in the sense of leaving traditional lands and leadership (Sturtevant 1971:105; Fairbanks 1978:171).

Several scholars have formulated chronological schemes for the Seminole based on historical events (Fairbanks 1978:163; Sturtevant 1971; Weisman 1989:68; Kersey 1987). Although the chronologies differ in detail and terminology, they yield the following general divisions: 1) colonization, 1716-1760; 2) enterprise, 1760-1820; and 3) removal and withdrawal into south Florida, 1820-1880. The period following 1880 is that of the modern Seminole, who have been the focus of historical, ethnographic, and, to a lesser extent, archaeological studies.

The Setting

Originally, Creek immigrants settled principally in the old Spanish provinces of Apalachee (around Tallahassee) and Potano (in Alachua County). They also settled along the Apalachicola and

across Northwest Florida. Throughout the eighteenth and nineteenth centuries, the Seminole were continuously pushed by European and American expansion into ever more remote regions of peninsular Florida. By the late nineteenth century, they were settled in their present homeland—the Everglades of south Florida.

Approximately 260 Seminole sites are recorded in Florida (Figure 19). Over 80% of these sites are located in south Florida.

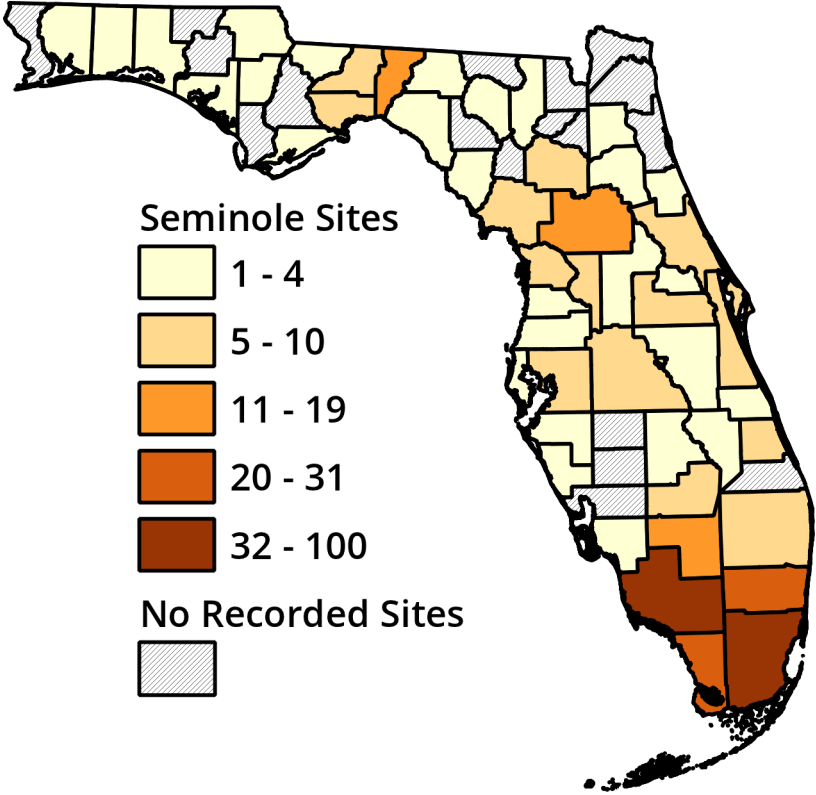


Figure 19. Distribution of Seminole Sites (by county)

The low numbers of sites in central and particularly in north Florida clearly reflect deficiencies in survey coverage or in our ability to identify archaeologically early Seminole sites. We know from documentary evidence that these areas were well-populated in the early time periods. The higher numbers of recorded sites

in south Florida are the result of the extensive surveys undertaken by the National Park Service in the Everglades and adjacent areas (e.g., Ehrenhard et al. 1978; Ehrenhard et al. 1982), and of the more limited settlement options in those areas versus those in central and north Florida.

Colonization, 1716-1760

The first Seminoles, or more correctly, proto-Seminoles, began to come into Florida following the Yamassee War in Georgia in 1715. Persuaded by Spanish agents such as Diego de la Peña, Creeks and the remnants of some Florida groups settled in north and north-central Florida (Milanich and Fairbanks 1980:253; Weisman 1989:7). They were attracted to the old Spanish provinces of Apalachee and Potano, presumably by the presence of fertile agricultural lands, old fields, and possibly by the feral cattle that were relicts of the seventeenth century Spanish cattle-ranching venture (Fairbanks 1978:168). Towns were established in or near the present-day city of Tallahassee by a Creek chief, Secoffee, and on the Alachua savannah by an Oconee chief, Cowkeeper.

Other settlements arose in nearby areas. East of the Tallahassee area, there were settlements around Lake Miccosukee. To the west, on the Apalachicola River, were small scattered settlements. West of the Alachua area, on the Suwannee River, was the town of the "White King" (Rolle 1977:48) (the Oven Hill site [8DI15]).

Material culture

Our knowledge of the Seminole archaeological assemblage is limited, and, perhaps, is the reason we have identified so few Seminole sites from this time period. The only aboriginal artifacts we know are brushed and incised pottery similar to that of the central Georgia Creeks (Fairbanks 1978:166). There were apparently few European items, especially at outlying sites (Weisman 1989:44, 51).

Settlement patterns

We have almost no archaeological information about Seminole sites in the early eighteenth century. Virtually all our

information comes from documents and maps. This is relatively extensive, but is focused mainly on the Alachua region. With some care, we may make some general comments about Seminole settlements in the Colonization period.

There appear to be two types of sites—towns, and hamlets or farmsteads. Towns appear to represent the "capitals" of the surrounding countryside (see Bartram 1928:168). There is some difference of opinion about the nature of these settlements. Based on archaeological evidence, Fairbanks (1978:175) describes them as "diffuse centers of settlement, without the formal arrangement of earlier southeastern Indian towns." Weisman (1989:43), however, concludes, based on documentation, that towns were important foci of political and economic interactions, and therefore the settlement pattern could not have been a dispersed one. This need not necessarily be the case. Sixteenth century Apalachee settlement patterns, for example, were characterized both by named "towns" and dispersed settlement (Smith 1968:46-47; Payne 1982). Seminole towns were clearly named entities where important events took place, and were just as clearly not compact nucleated settlements. We must expect that archaeological visibility of even the most important towns will be low.

The second type of site is the hamlet or farmstead. The site of 8AL296 near Newnan's Lake in Alachua County is the only Colonization period hamlet to be excavated (Sears 1959). Undoubtedly many more of these small sites exist, but are unrecorded or unrecognized.

Subsistence

The proto-Seminole made use of their new fertile homelands by growing native crops such as maize, beans, and squash (Boyd 1934:118). They also began to raise chicken and pigs, and perhaps cattle (Fairbanks 1978:168-169), although Lt. Philip Pittman claimed in 1767 that the Indians of the Apalachee area had no cattle (Boyd 1934:118). Wild plants and animals may also have been exploited, but we have no archaeological or documentary

evidence yet. The location of towns near lakes or rivers, however, suggests that they depended to a certain extent on fishing.

Enterprise, 1760-1820

The years 1760 to 1820 span the British period and the Second Spanish period. It was during this time that the Florida Indians took on an identity separate from their Creek predecessors and became known as the Seminoles (Fairbanks 1978:169; Kersey 1987:21-30). The advent of the British in 1763 occasioned great changes in Seminole society. Trading posts were established by the British in or near major Seminole towns. The economy changed from one based essentially on subsistence to one based on trade, herding, and cultivation of crops for export. Many individuals were able to acquire great wealth and considerable power. The material culture changed dramatically with the influx of European goods.

Population increased steadily and new areas were settled. In addition to the areas occupied in the Colonization period, we now find settlements in the Brooksville region north of Tampa, in the lake district northwest of Orlando, and in the Cove of the Withlacoochee north of Brooksville.

This prosperity began to decline toward the end of the period, however, with incursions by American troops into Seminole territory. The First Seminole War in 1817-1818 was the first of several American attempts to usurp the fertile lands of the Seminole. These efforts resulted, in the next period, in the destruction or removal of Seminoles from north and central Florida.

Material culture

Aboriginal pottery of the Enterprise period is similar to that of the Colonization period (Fairbanks 1978:174; Weisman 1989:70). Brushed and plain sand-tempered pottery are common. On occasion, imitations of European forms are found (Fairbanks 1978:176).

By far the most visible artifacts of this time period are British and Spanish trade goods. These include military buttons, razors,

knives, guns, gun parts, gunflints, buckles, earrings, glass beads, horse tack, European porcelains, earthenwares, pipes, and metal tools, utensils, and containers (Fairbanks 1978:172; Weisman 1989:57, 59).

We also know from contemporary documents that Seminole material culture included cloth, clothing, silver gorgets and chains, and headgear with feathers (Fairbanks 1978:172; Weisman 1989:40).

Settlement patterns

A great deal of documentary information exists for the Enterprise period settlement pattern, particularly for the earliest and latest years. More archaeological data are available for this period than for the earlier one, but information is still limited; most archaeological data result from surface collections rather than excavations. As in the Colonization period, most of the available information is for north-central Florida; very little exists for other areas.

Throughout this period, population and the number of towns increased steadily. In the Colonization period, only a few towns are mentioned by name in the documents (Cline 1974a:78-84, 1974b:81). By 1774, this number had increased to nine (Bartram 1928:367), and at the end of the period there were thirty-five Indian towns throughout the state (Cohen 1964).

In addition to an increase in the number of towns, we also see the shifting of town locations throughout this time. The Colonization period town of Latchaway (Alachua), for example, was moved to Cuscowilla in the late 1760s or early 1770s, and then to Paynestown (8AL366) in the 1790s (presumably) (Bartram 1928:169; Weisman 1989:77). Similarly, a town located on the west bank of the Suwannee River in the 1760s (the Oven Hill site [8DI15]) was relocated to the east bank as the town of Talahoschte about the same time as the move from Latchaway to Cuscowilla (Weisman 1989:62).

There are three types of sites in the Enterprise period—towns, hamlets or farmsteads, and trading posts. Towns were probably dispersed villages similar to those of the earlier period. These

villages may have varied in size from eight to ten habitations up to thirty (Bartram 1928:64, 168). Descriptions by Bartram (1928:163, 167-169, 193, 200-201) of Cuscowilla and Talahoschte in 1774 allow us to sketch a picture of the larger towns. These had about 30 habitations. Each habitation consisted of two apparently rectangular buildings—a dwelling and a reception/storage structure. The chief's house was larger than the ordinary dwellings. There was a public square, with a council house where the leaders met to conduct town business. Some towns (like Talahoschte) had a trading house established by British traders.

Archaeological evidence for towns is very limited. The site of Oven Hill (the west bank Suwannee River town), which spans the Colonization and Enterprise periods, is known, not from excavations in the town itself, but from refuse dumped or lost by its inhabitants in the Suwannee River (Gluckman and Peebles 1974). The Nicholson Grove site (8PA114) in Pasco County may be the town of Tomahitche, but the only archaeological investigations conducted there have been surface collections (Weisman 1989:69). Only at the site of Paynestown (8AL366) near Paynes Prairie in Alachua County have excavations been conducted, and these were limited in scope (Mullins 1977).

The second type of site is the hamlet or farmstead. These consisted of three to five habitations according to Bartram (1928:163, 180). Weisman (1989:66) suggests that the adult male buried at the Zetrouer site (8AL66) in Alachua County was an inhabitant of a hamlet connected with Cuscowilla (Goggin et al. 1949). Beyond these brief snippets of information, we have very little evidence regarding hamlets and the people who lived in them.

During the British period (1763-1784), trading firms established a strong foothold in north and east Florida. Consequently we have a third type of site in the Enterprise period—the trading post. These were sometimes established in towns (e.g., Talahoschte); at other times they were located away from towns (e.g., Spalding's Lower Store [8PU23]) to take advantage of transportation routes (Stacy 1967; Lewis 1968; Fairbanks 1978:172).

Subsistence and economy

Seminole economy of the Enterprise period was characterized by extensive agriculture, herding, and trading. Native crops such as corn, beans, and squash continued to be grown (Bartram 1928:96), and non-native plants such as melons, oranges, rice, peanuts, and peaches were introduced. Some of these crops (rice, for example) were grown for export (Weisman 1989:69).

Cattle herding was important in the Alachua area, a fact illustrated in the title of the most important chief of the area, Cowkeeper. Cattle were raised for food and for skins used in trade to the British and Spanish. Horses were kept for trade and prestige, and pigs were also raised (Craig and Peebles 1974:87). The extensive trade of the Enterprise period brought temporary prosperity to the Seminoles. The Indians provided deer and cattle skins, furs, dry fish, beeswax, honey, bear oil, and agricultural products to the British and Spanish (Bartram 1928:194). In return, they acquired guns, metal implements, clothing, ornaments, rum, and cash (Weisman 1989:59ff).

Removal and Withdrawal into South Florida, 1820-1880

In 1821, Spain ceded Florida to the United States. Under American rule, two events occurred that were to have far-reaching effects on the Seminole way of life. In 1823, the Treaty of Moultrie Creek provided for the removal of all Indians from their desirable agricultural lands to an inland reservation in central Florida. This reservation was so barren that their traditional methods of subsistence were useless (Mahon 1967:73; Fairbanks 1978:185). In 1832, the Treaty of Payne's Landing called for the complete removal of Seminoles from the territory of Florida (Mahon 1967:75ff).

These draconian measures precipitated the Second Seminole War of 1835-1842. This war and the removal which followed in its wake were responsible for a dramatic reduction in the population (from around 5000 in 1820 [Cohen 1964:45; Fairbanks 1978:184] to less than 500 in 1847 [Covington 1964:53]). A system of army forts was established in central and northern Florida in response to the Second Seminole War. Important excavations

have been carried out at several fort sites, producing both architectural and cultural data (Baker 1974, 1976; Fryman 1972; Piper, Hardin, and Piper 1982; Piper and Piper 1982).

The few Seminoles left in Florida after the 1840s fled to the hammocks of the Everglades. Despite conflict with American settlers, leading to the Third Seminole War in 1855-1858, and even further population reduction, a few small groups finally managed to establish themselves in the swamps of south Florida.

Material culture

As in the earlier time periods, plain and brushed pottery continued to be made. Since a considerable reduction in contact between Indians and whites occurred during this time, it is not surprising that European and American goods are found less frequently than in the previous period. Indeed, the assemblage at the Zellner Grove site (8CI215) in the Cove of the Withlacoochee contains no historic ceramics at all (Weisman 1989:116). Other sites contain small quantities of utilitarian goods, and it is clear from documentary evidence that Seminoles were able to obtain a few European and American items through raiding and pilfering (Sturtevant 1956:12-13). In the late 1870s, the material culture assemblage included bows and arrows, a few guns, beads of all sizes, and American cooking utensils (Sturtevant 1956:8, 13).

Settlement patterns

Information on settlement patterns for the Removal and Withdrawal period is limited and somewhat unclear. We do know, however, that this was a time of considerable stress and rapid forced change. Weisman has suggested that the Seminoles in central Florida reverted to a clan camp form of settlement from their previous towns (1989:84; for other sites of this period see Dickinson and Wayne 1985). Certainly, by the time that settlement shifted southward, this seems to be the case. In 1879, Lt. Richard Pratt described a village of "ten substantial buildings" near Fort Meade in Polk County (Sturtevant 1956:6) that appears to be typical. This is further borne out by Griffin's tabulation of population figures given by Clay MacCauley (1887) for camps in

the Everglades, in which there appears to be an average of about 10 people per camp (Griffin 1988:262).

In the Shark River Slough area of the Everglades, there are 52 Seminole sites recorded. These are limited to the freshwater tree islands. The large number and small size of the sites suggests that they were not all occupied at once (Griffin 1988:262). In essence then, what we find in south Florida is a pattern of shifting farmsteads or hamlets, with no evidence of the earlier squareground towns. Little archaeological work, other than surveys, have been carried out at Seminole sites in South Florida (Ehrenhardt et al. 1978; Ehrenhardt et al. 1982; and see Laxson 1954; Neill 1957).

Subsistence and economy

The first removal, to the reservation, and the second, to the Everglades, resulted in the occupation of land that was not suitable for the Seminoles' traditional form of agriculture (Fairbanks 1978:185). Moreover, the profitable deer and cattle hide trade with the British and the Spaniards was cut off after the Americans took over. Consequently, a shift in subsistence occurred. Fields were now small and hidden (Sturtevant 1956:6) and were devoted to subsistence-level gardening. Crops included corn, sugarcane, rice, sweet potatoes, melons, and zamia which, when made into coontie, was an important food source (Sturtevant 1956:6, 13). A few hogs, chickens, and cattle were kept. Coastal groups in the late 1840s grew corn, pumpkins, potatoes, beans, and peas, and caught deer, turkeys, sea fowl, fish, and oysters (Covington 1964:53). Raiding military stores and settlers' farms for cattle, horses, and supplies became common (Weisman 1989:106; Sturtevant 1956:12). After 1860 there was increasing trade with trading posts and stores, activities that continued into the period of the modern Seminole (Carr 1984a, 1982; Kersey 19??--add ref to Kersey, Pelts, Plumes, etc.

Important Sites

Five Seminole sites are listed on the National Register of Historic Places. Four of these are in south Florida. National Register sites include the C. J. Ostl (8CR163), Sugar Pot (8CR172), Halfway Creek Midden (8CR176), and Hinson Mounds (8CR180) sites. Other important sites include Oven Hill (8DI15), Paynestown (8AL366), and 8AL296 in the Alachua and surrounding regions; Spalding's Lower Store (8PU23) on the St. Johns River; Newman's Garden (8CI206), Zellner Grove (8CI215), Wild Hog Scrub or Powell's Town (8CI198) in the Cove of the Withlacoochee; Nicholson Grove (8PA114) and Fort Brooke Cemetery (8HI998) near Tampa; and Snake Creek in Dade County (8DA411). From the documents, we also know of some important settlements such as Latchaway (Alachua) and Cuscowilla in the Alachua region, and Tallahassee, Fowltown, and Hickstown in northwest Florida. None of these have been located archaeologically.

Research Questions

Gaps in the database

In general, there is a lack of archaeological knowledge of Seminole sites throughout the state. This lack is particularly glaring for the early part of the eighteenth century, and to some extent in the middle of the nineteenth century, when the Seminoles were under stress and in geographic transition. Little archaeological work, other than surveys, has been done on sites of the post-1880 modern period in south Florida. Moreover, there are certain areas which are less well-known than others. The Tallahassee area and the central Florida area would profit greatly from studies of Seminole sites.

Chronology

Because the entire Seminole period falls in the historic period, chronology can at times be quite detailed. Unfortunately, this detailed historic chronology cannot always be correlated with archaeological sites and artifacts. One important chronological technique, seriation of artifacts, needs to be applied to aboriginal

pottery, so we may date Seminole sites in the absence of European artifacts.

Economy

Virtually all our information on Seminole subsistence and economy comes from historic documents. While this is an extremely valuable source, the information contained in the documents must be confirmed archaeologically. Moreover, there are some gaps which need to be filled in.

- What form of subsistence was practiced in the Colonization period?
- Were there regional differences in the importance of cattle herding? How did this change through time?
- What changes in subsistence and adaptation occurred as the Seminoles were forced further southward?
- How did trading activities affect economic patterns in the late nineteenth century?

Settlement patterns

As with subsistence, most of our information on settlement patterns comes from historic documents. In general, we need archaeological evidence for the descriptions in the documents. In particular, we need to resolve the argument of whether early Seminole sites represent dispersed settlement (Fairbanks 1978:175) or towns (Weisman 1989:43).

- Were there regional differences in settlement patterns?
- Was there indeed a shift from squareground towns to clan camp farmsteads through time as Weisman (1989) has suggested?
- What did ordinary habitations, public buildings, and community areas look like at various times?

Social and political organization

Historic records give us clear evidence of shifts in social and political organization. The details of these shifts are not entirely clear however. To some extent we have made assumptions about social organization based on information about the ancestors of

the Seminoles. This is a dangerous practice; we should draw our conclusions based on the documents and archaeological evidence.

- Were there social distinctions between groups in different geographical areas?
- How did access to wealth and power change through time?
- Were there differences in social and political organization between areas?
- Can documented shifts in social organization be correlated with archaeological data?

Preservation Goals

- Locate unrecorded Seminole sites, particularly early sites and those in north and north-central Florida.
- Locate towns and sites named in documents, including in south Florida.
- Excavate sites of various types, including squareground towns, hamlets, trading posts, army forts, and clan camp farmsteads.
- Nominate Paynestown, Oven Hill, and Wild Hog Scrub sites, as well as sites representing different site types, to the National Register.

Chapter 19

INTRODUCTION AND HISTORICAL SUMMARY

Louis D. Tesar and William N. Thurston

The historic period in Florida begins around A.D. 1500 with the arrival of the European explorers. In its earliest contexts, there is considerable overlap between archaeological contexts and architectural contexts of the historic period.

In Part II, we dealt with archaeological contexts of Native American and Spanish origin. In Part III, the focus is historical/architectural contexts. While archaeologists rely primarily on material culture and physical remains as the basis for their cultural reconstructions, historians rely primarily on written and graphic records, supplemented with architectural and other remains.

Because of the different focus, archaeologists have developed a distinct approach to cultural-historical studies, in contrast to that followed by historians and architectural historians. Both are valid, but often have resulted in comparative difficulties. To close the gap, in recent years several interdisciplinary projects have been jointly undertaken by archaeologists, ethnologists, and historians. The result has been a more comprehensive product in which each discipline contributes elements generally missing in single-discipline research.

Settlement Patterns

As with purely archaeological contexts, settlement patterning—that is, where people lived and why they lived there—is important in understanding contexts of the historic period. The study of

settlement patterns can provide a clearer picture of how people adapted to or modified their environment. On the broadest level, settlement analysis involves the study of the density and distribution of sites within a cultural region. Factors such as landscape suitability, natural resource availability, proximity to others, and technology are important in determining where and why sites occur within a region.

In addition to being determined by environment and technology, settlement patterns in early historic period contexts reflect the struggle among European powers for control of the New World. Thus, military affairs, transportation routes, social organization, and economic development affected post-A.D. 1500 settlement patterns. Communities were often sited and organized around military outposts and --because of the focus on maritime transportation--around protected harbors with freshwater sources along the routes of sailing vessels and have maintained that location in more modern times to interdict aircraft. Later, as overland trails were developed as maintained roads to facilitate transport of produce from interior plantations, settlement patterns expanded in response. Transportation again affected settlement with the development of railroad, and finally with the development of a road network of cars and trucks.

Social Organization

An important element in understanding prehistoric and historic cultures is the study of social organization. Social organization is affected by environmental conditions, outside threats, technology and subsistence, and is reflected in settlement patterns and ritual behavior. Studies of social organization depend on an analysis of settlement patterns and the variety and type of artifacts, features, and structures within occupational areas. Ritual behavior is often interlinked with social organization. The First Spanish Period is an excellent example of such interlinkages, as are later Koreshan Unity and Shaker communities.

Statistical and demographic analyses are tools used by both archaeologists and historians to analyze social organization. Such analyses rely on interpretation of settlement patterns, defensive

needs, subsistence, technology and ritual behavior data within distinct geographical areas and chronological frameworks. Ethnohistoric data supplements other forms of data and serves as a means of testing the reliability of conclusions derived from archaeological data. In prehistoric settings, social organization interpretations are biased in their reliance on non-perishable artifacts and features, while in historic settings they have been biased by historic records--even when archaeological data raise questions about the accuracy of the historic records. Historic archaeologists and many historians now rely on a balance between archaeological data and historic documentation in social organization and other interpretations.

Economic Development

Economic development is linked to technology, social organization, settlement patterns, military affairs, and transportation, and is affected by environmental and resource availability. Florida's economic development is linked to its maritime heritage. Coastal areas served as military outposts, harbors for vessels, sources of seafood, and later as focus points for a developing tourist trade. Early lumber and naval stores operations were focused on coastal strands of pine. Interior north and north central Florida paralleled the development of plantation economies elsewhere in the southeastern U.S. Cotton, tobacco, and later citrus and cattle became important enterprises. Historic documents are the primary source for understanding Florida's economic development.

Military Affairs

The strategic location of the Florida peninsula has resulted in military affairs having a larger role in the historic development of the colony, territory, and state than would otherwise be expected. Early military concerns resulted in the Spanish settlements of Pensacola and St. Augustine, and the subsequent development of the North Florida mission system, to provide a protective buffer against English and French colonial efforts, and provide food and other resources to sustain military garrisons.

Later forts were constructed to respond to Native reactions against displacement by white settlers. The Spanish American War, World Wars I and II, and the following Cold War all continued the development of a military presence in Florida--a presence with a major economic impact on the state. The evolution of military forts and facilities reflects changing military technology.

Transportation

Transportation has played an important role on shaping the economic development settlement patterning in Florida. Transportation was focused on watercraft in early historic times, both ocean-going vessels and smaller river or nearshore barges, dugout canoes and the like. Overland routes consisted of generally-unimproved foot trails. Later, overland routes were expanded to accommodate wagons, horses, and pack animals. Ferry crossings, way stations, and ports became increasingly important. With the introduction of the railroad whole communities were affected as settlements shifted their focus to rail stations. More recently with the introduction and development of self-propelled cars and trucks, overland road systems have gained greater importance. Settlements focused on road travel sprang up at intervals that could generally be traversed in a day given the road conditions and the capability of early vehicles. Improved roads and vehicles have resulted in the demise of many such intermediate locations, while communities with multiple transportation alternatives (water, road, railroad, and air) have flourished. The development of transportation networks is closely linked with and influenced by military affairs, economic development, settlement patterns and subsistence strategies. In post-A.D. 1500 contexts, historic documentation is the primary tool in understanding the development of transportation.

Architecture

Architecture provides perhaps the most visible link with post-A.D. 1500 historic context material remains. Architectural styles

reflect the ethnic and social background of the architects, technological levels, available natural resources, and respond to maritime, military, commercial, personal, and other functional needs. Residential, public, and commercial buildings represent the majority of architectural examples. Bridges, roads, ports, monuments, and planned landscapes are also important features. Available natural resources and physical settings affected construction. Most early structures were made of wood and subject to rot and burning. Fewer were made of tabby, coquina, or limerock blocks, brick or later, poured concrete. While early structures were primarily functional, aesthetic qualities have become increasingly important. Ships and smaller vessels reflect the changing technology and needs of watercraft. Historic documents are useful in understanding historic architecture. Historic archaeology is an important supplement for evaluating structures of the First Spanish, British, Second Spanish, and Territorial contexts, as few examples remain for study other than as archaeological sites.

A brief historical narrative has been prepared to help understand the historic contexts presented in the following chapters. All of the chapters which follow in Part III were prepared by Paul S. George.

Historical Narrative

Although Native Americans had lived in Florida for thousands of years and although there is evidence of earlier contacts by European slave raiders, the "discovery" of Florida by Juan Ponce de Leon in 1513 provides the first recorded description of the region, including the existence of the Straits of Florida and the Bahama Channel. Subsequent exploration by de Leon, Narvaez and de Soto revealed that Florida lacked the mineral wealth that Spain sought in the New World, and the 1551 colonization effort by de Luna near Pensacola was shortlived. But with European expansion in the Caribbean region, the Florida Straits-Bahama Channel sea lane became virtually a one-way street for eastbound shipping, and Florida's strategic military importance soon became apparent.

In 1565, Pedro Menendez de Aviles repulsed a French incursion at the mouth of the St. John's River and established a Spanish colony at St. Augustine. For the next two hundred years Spain maintained possession of Florida as a military base from which to protect her shipping routes along the northern Gulf coast and through the Bahamas Channel. Other military posts were established at Pensacola and St. Marks. An intensive missionary effort in the mid-seventeenth century resulted in the concentration of the native Indian population in a series of mission towns along the East coast and across the North Florida farmlands. These areas became the food suppliers for the Spanish colonial effort (Arnade 1961; Barcia 1951; Boyd, Smith, and Griffin 1951; Diaz Vara Calderon 1936; Gannon 1965; Marrinan 1985).

Throughout this period, English-French-Spanish rivalry continued in Florida (Dunn 1917; TePaske 1964; Chatelain 1941), reflecting the struggle for power in both the New World and the Old. English raids on St. Augustine, notably by Francis Drake in 1586 and Robert Sears in 1668, led to the construction of a permanent major fortification, Castillo de San Marcos, in 1672 (Barcia 1951). A siege by English colonials under Carolina's Col. James Moore failed to crack the Castillo's coquina walls. But two years later Moore returned to wreck the Spanish mission system in northern Florida (Boyd, Smith and Griffin 1951), and Spain was left with little more than a precarious hold on her military posts at St. Augustine and Pensacola, or fishing villages in the Charlotte Harbor-Florida Bay area (Haring 1964; Harmon 1969; TePaske 1964; Chatelain 1941; Gannon 1965; Loucks 1979).

A climax came in 1763, when the Treaty of Paris ended the Seven Years War, in which England forced France out of North America. Spain, the unfortunate ally of France, ceded Florida to England. Most of the Spanish colonists and the few remaining native Indian allies departed, leaving the English in possession of a largely empty and undeveloped land in the northern half of the state. Those Spaniards who did not leave, established homes, developed enclave communities, and built lives in settlements such as St. Augustine and Pensacola (Proctor 1976a, 1976b; Tebeau 1980; Dunn 1917).

The English organized separate colonies of East Florida and West Florida, administered from St. Augustine and Pensacola respectively. Settlement and economic development in East Florida, based primarily on sugar, indigo, and citrus culture, extended from the Georgia border to Andrew Turnbull's New Smyrna colony in present day Volusia County, and was limited to the area east of the St. John's River. Large plantation owners imported slaves and indentured servants to work the land. Cultural influences from Africa, the Caribbean, and Europe continued to shape the lives of the new Floridians. Pensacola became the center of trade with the Creeks and other Indians of Alabama and southwest Georgia, but English settlements and economic development in West Florida were concentrated between the Iberville and Mississippi rivers, beyond the boundaries of the present state. The interior regions of the colony were left to the small but growing number of Indian inhabitants displaced by frontier expansion elsewhere, and to English trading companies (Coker and Watson 1925; Curley 1940; Dovell 1952; Gold 1969; Marcus and Fernald 1975; Mowat 1940; Patrick and Morris 1967; Proctor 1976a, 1976b; Stork 1766; Tebeau 1980).

But just as the English were attaining a firm economic foothold, the thirteen colonies to the North rose in revolt. Florida, lacking the traditions and the grievances that bound the northern colonies together, remained loyal to the English Crown, and became a haven for loyalists displaced by the revolution. Loyalists in East Florida contributed as best they could with limited resources and manpower to English efforts to subdue the rebellion, and defended their colony in several minor and indecisive skirmishes with similarly limited rebel invaders from Georgia. But in West Florida, Spanish forces, drawn into the conflict by the intervention of their French allies, defeated the English defenders of Pensacola. As a result, the Treaty of Paris in 1783, by which England acknowledged the independence of the thirteen American colonies, also provided for the retrocession of Florida to Spain (Mowat 1943; Proctor 1978a, 1978b; Starr 1976; Wright 1976).

All but a few British colonists left East Florida, abandoning indigo plantations, citrus groves, and sugar mills. However, Spain was in no position to settle the colony or develop its resources. A third of a century of chaotic intrigue and adventuristic freebooting ensued providing a fascinating, but extremely difficult, period of Florida's history to study. White settlement, often by Americans licensed by the Spanish authorities, expanded slowly around St. Augustine and Amelia Island. The Indian trade of Pensacola was revived by the English firm of Panton, Leslie and Company, also under Spanish license. Repopulation of the interior accelerated, with ever growing numbers of displaced Indians and increasing numbers of runaway slaves seeking refuge in the area. The Afro-, Anglo- and Native American peoples who made Florida their home brought important cultural attributes with them from the places of their origin and adapted their cultural patterns to the new land. The Jefferson Embargo of 1807 turned Fernandina into a boom town of illicit trade. The revolt and subsequent American annexation of West Florida (the coastal area of Mississippi and eastern Louisiana) inspired similar but unsuccessful efforts in East Florida. English intrigue with the Creek Indians of Alabama led to Andrew Jackson's expulsion of the English from Pensacola in 1814. In 1818, Jackson invaded the Apalachee region to subdue a revival of English-Indian intrigue, while American forces occupied Fernandina to bring order out of chaos in that area (Boyd 1934a, 1934b, 1935; Coker 1925; Dovell 1952; James 1933; Owsley 1981; Patrick 1954; Patrick and Morris 1967; Remini 1977; Tebeau 1980; Thurston 1972).

In the meantime, a classic exercise of diplomatic negotiation was carried out by the American Secretary of State, John Quincy Adams, and the Spanish envoy Luis Onís to settle the boundary between the the United States and Spanish America. Their treaty, signed in 1819, included provision for the transfer of Florida to the United States (Brooks 1939; Fuller 1964).

Sites of this period include Native American villages and encampments, Spanish, English, French and Anglo-American military encampments, fortifications, homesteads, plantations, trading posts, and commercial port and administrative centers,

as well as missions, wreck salvage camps, ship wrecks, and the like. While a few structures remain from this period, most sites are represented only in historic documents and in archaeological contexts. Sites of this period are significant; however, we can be more selective in our management alternatives.

Early National Summary, 1819 – 1865

The actual transfer of sovereignty occurred in 1821, and American expansion into Florida was characteristically swift. The West Indian pirates were swept from Florida's waters. Exploitation of timber resources increased, often with illegal cutting on public lands. Planters soon established cotton and tobacco culture in Middle Florida, and sugar plantations and mills along the St. John's River valley. A territorial capitol was settled at Tallahassee near the former site of the Spanish fortified mission town of San Luis. The territorial economy blossomed until the mid-1830's, when the Seminole War broke out. Six years of bitter guerrilla warfare destroyed the sugar industry, while the Panic of 1837 dealt cotton planters a staggering blow and contributed to the collapse of the territorial banking system (Bittle 1965; Boyd 1936; Buker 1975; Carter 1956-1960; Coe 1974; Cohen 1964; Covington 1982; Dodd 1929; Dovell 1952; Ferris 1941; Fuller 1964; Mahon 1967; Marcus and Fernald 1975; Martin 1944; Motte 1953; Mueller 1986; Patrick and Morris 1967; Porter 1943, 1964, 1967; Stein 1973; Tebeau 1980; Thompson 1961; Wright 1987).

Prosperity returned as the Seminole War wound down and the Armed Occupation Act of 1842 encouraged settlement of the central peninsula. In 1845, Florida became a State. Shipping increased at a number of ports. Pensacola prospered from its lumber trade and brickmaking industry. Apalachicola boomed as an outlet for Georgia and Alabama cotton. Middle Florida profited from its productive plantations. Jacksonville and Fernandina vied for the commerce of East Florida. Key West thrived on its sporadic but vital salvage industry and growing trade with Cuba. Exchange with the Caribbean brought numerous peoples and their distinctive folk traditions to south Florida. In 1855, the State Legislature established the Internal Improvement Fund, providing

a means to finance badly needed railroad construction (Akerman 1976; Doherty 1981; Dodd 1945; Pettengill 1952; Pyburn 1951a, 1951b; Smith 1973; Sprague 1964; Thurston 1972; Williams 1951).

However, the basic rail lines connecting Jacksonville with Tallahassee and Fernandina with Cedar Key, were barely completed when the Civil War erupted. The Federal blockade shut off maritime commerce. Union raids led to major skirmishes at Marianna, Natural Bridge and Gainesville, as well as minor skirmishes along the coasts in an effort to disrupt salt production. In February, 1864, the Battle of Olustee turned back the only full scale Federal offensive into the interior. Florida contributed heavily to Confederate forces and casualties in other areas, and the war resulted in economic devastation through depopulation, deterioration and depletion of resources (Barnard 1966 Bearss 1957, 1961, 1967; Coles 1985; Wm. Davis 1913; Durkin 1954; Itkin 1962; Johns 1963; Pettengill 1952; Proctor 1963-1965; U.S. Government 1894-1937).

Sites of this period include growing port communities, shipwrecks, the capitol, homesteads, plantations, railroad stations, lumber and naval stores camps, brickyards, fishing communities, forts and battle sites, salt works and mills of the Anglo-Americans and other settlers of European extraction, as well as Native American villages and associated trading posts. Many of these sites are considered significant, and all of them provide further insight into Florida's cultural and historic heritage.

Turn of the Century Summary, 1865 – 1920

Post war recovery was spurred by the demand for lumber to rebuild war torn towns and cities and to supply markets in Europe as well as the Americas, and by the growing recognition by Northern and European investors of opportunities for cattle, citrus, and winter resort development. But it was hampered throughout the 1870's by the lack of improvements in transportation. With the replenishment of the Internal Improvement Fund by the controversial sale of four million acres of public land to industrialist Hamilton Disston in 1881, railroad

construction was resumed. Forest industries, agriculture, tourism, and fisheries all boomed, especially after Henry Bradley Plant and Henry M. Flagler tied their expanding railroad systems to the national network. The state's economy was boosted further by the development of the phosphate mining industry in the 1890's. The Plant Systems rail and steamship facilities in Tampa enabled that city to serve as the port of embarkation for the Spanish-American War in 1898 (Wm. Davis 1913; Cory 1963; Proctor 1963-1965; Rerick 1902; Weeks 1977; Blakey 1973; Dovell 1955; Keuchel 1974; Massey 1960; Paisley 1968; Shofner 1974; Thurston 1972; Tischendorf 1954; Klingman 1976; Wallace 1964; Belknap 1915; Robertson 1903; Cushman 1965; Hall 1984; Barbour 1964; Brinton 1869; Fenlon 1966; Johnson 1965; Tebeau 1980).

The economic pace slackened in the first two decades of the twentieth century. Much of the best timber lands had been ruthlessly cut over. Citrus and vegetable production faced stiff competition from California and other areas. Chemical fertilizers reduced the worldwide demand for phosphates. A flurry of wartime training and defense activity in 1917 and 1918 included the reestablishment of the sugar industry and provided a foretaste of the impact of a future war effort, but the overall economic impact of the war was short lived. This period saw the beginning of some of the state's most enterprising ethnic communities. Among the immigrants who settled in the state were Czechoslovakians, Danes, Greeks, Italians, and others (Florida Department of State 1927; Nance 1962; Hopkins 1960; Paisley 1968; Proctor 1950; Weeks 1977; Blakey 1973; Dovell 1955; R.A. Nelson 1982; Shofner 1981a; McGovern 1976; Kendrick 1964; Tebeau 1980).

Boom, Depression, and New Deal Summary, 1920 – 1940

The economic slump that followed World War I was ended by the most spectacular bubble in Florida's history, the fabulous Florida Boom of the 1920's. Triggered by changing life styles, based on the development of automotive transportation and new approaches to outdoor recreation, the boom was statewide; although its most dramatic impact was seen in the explosive

development of resort and retirement communities on both the East and West coasts of southern Florida. But the bubble burst in 1926 when the vessel Prinz Valdemar, under conversion to a floating cabaret, capsized in Miami harbor, blocking the shipping channel. Rail shipments into the state had already been embargoed because the rail lines were choked with loaded cars waiting their turn at inadequate unloading and storage facilities. Although these transportation jams were cleared by late spring, the impetus of the boom was spent, and hopes for a resurgence were blown away with the hurricane winds that hit Miami on September 17 and 18. Florida plunged into economic depression three years ahead of the rest of the country. Private citizens were often left to depend on their own resources to survive. Many rural residents and those of coastal communities employed the folkways of their forbears to live off the land; folk crafts to generate income; and traditional arts including folk music, folksongs and folktales to chase monotony (Shofner 1981a; Kendrick 1964; Dovell 1952; Tebeau 1980).

Florida shared in the federal work relief programs of the New Deal era, which left a typical legacy of public buildings and structures. In addition, private industry entered the timberlands of Northern Florida, reorienting forest industries to the production of wood pulp and cellulose products. Full recovery came in Florida as elsewhere only with the outbreak of World War II in Europe (Federal Writers' Project 1939; Tebeau 1980; Sewell 1968).

World War II and After Summary, 1941– Present

World War II is a true watershed in Florida's history. It marked the end of a prolonged and often interrupted period of "frontier" settlement and development and provided the impetus for a major economic, social and political transformation that is still in progress.

The war itself brought hundreds of thousands of men and women from all parts of the nation to infantry, aviation and naval training stations established in every part of the state. Others served at the operating air and naval bases essential to

the defense of the Caribbean Sea and the Gulf of Mexico. Miami became the home base of an aerial logistics network stretching by way of South America and Africa to the Middle and Far East. Resort hotels were converted to provide housing for men stationed at operational and training bases, or hospital facilities for veterans. Forest industries provided lumber for military construction. The development of frozen concentrates for overseas shipment added a new dimension to the citrus industry. Sugar and cattle production increased to meet wartime demands. Transportation and shipping facilities were vastly improved and expanded. Few other states were as completely oriented toward the war effort, or as greatly changed by it, as was Florida.

The change is perhaps most dramatically symbolized by two post war events. In 1949, the Florida Legislature passed a law requiring the penning or fencing of livestock, marking the end of Florida's frontier open range. On July 24, 1950, the first test missile, inaugurating America's entry into the Space Age, was fired from the Air Force proving ground at Cape Canaveral (Akerman 1976; Billinger 1979; Chio 1964; Rogers 1960).

The advent of the Space Age coincided with the development of efficient and economical air conditioning, and Florida entered into yet another era of dynamic growth and development. Peoples from Asia, South America, the Caribbean and eastern Europe as well as Americans from the northern states have migrated to Florida, bringing diverse languages, beliefs, skills, knowledge--a wealth of folklife. Economic expansion has been led by the development of tourist and retirement related service and entertainment industries, and supplemented by continued growth in agricultural and industrial activity. It has been matched by the growth of governmental, educational, and social services sectors. All of which has, so far, absorbed a phenomenal increase in population.

This trend, while having its own benefits, poses a threat to the cultural legacy left to us by previous generations. This threat may be lessened by efforts to better understand our cultural heritage through the development of historic contexts, and through the evaluation of historic context information to make

meaningful decisions in the planning of future growth and in directing and evaluating developments to maximize the preservation of significant historic resources. It is the sensitive management of our historic resources, the tangible remains of our state's cultural heritage, as we grow and develop into the future which is the goal and purpose of this document.

Chapter 20

FIRST SPANISH PERIOD CONTEXT, 1513 – 1763

Paul S. George

The First Spanish Period began with explorations of the coast and its peninsula into North Florida. The most famous of these efforts is that of the de Soto expedition, which landed in the Tampa Bay-Charlotte Harbor area in 1539 and marched northward in search of gold, silver, and other New World riches such as those looted from Mexico and Central and South America. The expedition spent the winter of 1539-40 in the Apalachee town of Anauga, within present-day Tallahassee city limits, before marching northward across Georgia. While the expedition failed to find the riches it sought, it has left a wealth of information on native cultures, which it encountered and disrupted. The archaeologically investigated structural remains at the 1539-40 encampment are the oldest evidence of Spanish architectural efforts found in Florida. Shipwrecks prior to and from that expedition have not yet been identified.

Florida would have passed into obscurity following de Soto's failure, except for its strategic location. The wealth from Mexico and Central and South America flowed across and around the Gulf of Mexico, through the Florida Straits, and up the Florida east coast to near Cape Canaveral to catch the westerly winds to Spain. Protection of these shipping routes became important, as did preventing France and England from gaining a foothold in this vital area. Thus the colonial phase of Florida's First Spanish Period was begun.

In 1559, Don Tristán de Luna was sent from Mexico to establish a colony in the Pensacola Bay area. Shortly after his arrival there, a hurricane struck, destroying most of the colony's vessels and provisions. The survivors struggled on until 1561, when the project was abandoned in failure (Priestly 1928). While the location of this first colonial effort is believed to be near the site of the later historic fort, San Carlos de Barrancas (Tesar 1973), neither the townsite nor shipwrecks have yet been found.

Spain's next colonial effort was on the northeast Florida coast in response to a French effort to establish a foothold in North America at Fort Caroline. Pedro Menendez established a Spanish outpost in 1565 at St. Augustine. The storm loss of the French Reboute Fleet and the Spanish massacre of the survivors at Matanzas Inlet helped end the French effort. The Reboute shipwrecks have not yet been found.

From St. Augustine, Menendez expanded Spanish colonial efforts northward into Georgia and eastward. Spanish colonial efforts were accompanied by missionary efforts. The task assigned to Florida's Spanish governor was to protect Spanish shipping lanes, make the colonies productive, thwart English and French territorial expansion efforts, and aid religious orders in converting natives to Christianity. The history of this period is one of attempts to balance political and military needs in an underfunded colonial effort against the needs of the Church and its missionary efforts.

Initial Spanish mission efforts focused north and south of St. Augustine among Guale Indians, then westward among Timucuan groups. IN the mid-1600s efforts continued the westward expansion into Apalachee territory. First Spanish Period architecture includes the remains of churches, convents, native structures, and cemetery enclosures and associated features.

Because of the threat of English and French incursions, as well as the need to provision and maintain St. Augustine, Spanish garrisons and *rancheros* followed mission efforts. Fortifications (such as Fort San Marcos de Apalachee [8WA26] and Fort San Luis [8LE4]), landing and ports, and ranch houses evidencing both Spanish and native architecture remain, primarily as

archaeological features, as evidence of these activities which introduced domestic animals, European cultigens, tools and weapons, as well as Spanish ceramics and trade goods.

Communication and movement of goods and personnel to and from the missions was by overland trails, dugout canoes, and sailing vessels. Goods produced by the missions not only supplied St. Augustine, but Cuba and other Spanish outposts as well. In addition, Spanish vessels, sailing to and from Mexico and the western Caribbean, routinely sailed close to the Florida coast. Storms and other causes resulted in the wreck of many of these vessels. Salvors camps were a temporary feature associated with coastal wrecks. The system developed for over 100 years, before the threat of French and English encroachment again became an issue.

The permanent European occupation of the Pensacola Bay area began in 1692-some 133 years after de Luna's original effort. As with the earlier effort, the Spanish established their new fort (Castillo de San Carlos) and presidio (Santa Maria de Galve) (8ES1354) in a strategic mainland location. A labor battalion of "colored criminals" constructed a wooden redoubt and structure (Faye 1973:152-154). In 1699, a small French fleet under Pierre Le Moyne d'Iberville anchored in Pensacola Bay and upon observing the Spanish fort (which then had incomplete rear walls), sailed westward to establish Fort Maurepas in the Biloxi area (Faye 1972:154-155; Leonard 1972:30-31).

However, it was from the English colonies that open conflict came. In 1703-1704, English colonists and Creek Indians led by Col. James Moore raided the Spanish mission of North Florida, resulting in their abandonment. The Spanish burnt Fort San Luis de Apalache (8LE4) to prevent its use by the English (Boyd, Smith and Griffin 1951). The outpost in Pensacola remained the only Spanish holding on the northern Gulf coast, although it was beset by English instigated native attacks during the next decade.

In December 1718, England declared war on Spain, and was joined by the French in January 1718. In mid-1719, the French captured Pensacola, and transferred the Spanish garrison to Havana. In late 1719, the Spanish retook the presidio, sending

two French frigates in the process. However, later in 1719, the French returned, captured and burnt the fort and other Spanish structures (Manucy 1939:22-25). In 1722, following the signing of a treaty between Spain and France, the French ceded their claim to northwest Florida (Paris 1986).

A new Spanish settlement (Santa Rosa Punta de Siguenza [8ES22]) was established on the west end of Santa Rosa Island, where it remained until destroyed by a hurricane in 1752, following which the survivors relocated to the mainland site of present-day Pensacola (Tesar 1973:40). The new community developed around the San Miguel blockhouse (Faye 1972:163-164), until it was ceded, along with the rest of Spanish Florida, to the English in 1763 (Leonard 1972:43). Little beyond wrecks and foundation ruins remain of Pensacola's First Spanish Period legacy.

During all this time, Spanish St. Augustine in East Florida continued to grow from its founding through its cession to England in 1763, although it did experience some setbacks, such as the attack and burning of the city by the English led by Col. Moore.

Most of the architectural legacy of the First Spanish Period is preserved as archaeological remains. These include shipwrecks, fortifications, ports, *rancheros*, and mission structures, as well as native structures. Archaeological context chapters on "Spanish Settlements of the First Spanish Period 1559-1763" and "Spanish Missions" should be read for further information on archaeological resources.

The best preserved architectural remains of the First Spanish Period are concentrated at St. Augustine, and represented in the foundation ruins in Pensacola, and in the remains of mission sites across north Florida. Likewise, shipwrecks reflect the maritime commerce and architecture of the time. St. Augustine has long been famous for its colonial architecture. Colonial buildings were generally constructed at street line with walled courtyards and doors on the south side entering from the courtyard or loggia. Balconies, sometimes with corbeled supports as a functional or decorative feature, were another distinctive colonial feature.

Generalizations about the Spanish architecture of St. Augustine are difficult, given the extended history of the city. Nonetheless, a distinctive architecture developed during the period, growing more substantial and evolving from early rude shelters of wood, thatch, and wattle-and-daub to an era of masonry building that followed the burning of the city in 1702 (Tebeau 1980; Manucy 1985).

The oldest, and most outstanding, surviving structure in St. Augustine is the Castillo de San Marcos, which was constructed between 1672 and 1695. It was the first large scale structure built of locally quarried coquina stone. The oldest masonry fort in the United States, the Castillo is recognized today as a National Historic Landmark and conserved under the stewardship of the National Park Service.

Domestic architecture was the most common in colonial St. Augustine. It was functional rather than ornate. The thirteen extant residences that date from the First Spanish Period have been extensively enlarged and altered over the years. Distinctive features associated with the First Spanish period include projecting *rejas* and other wooden grillwork, interior shutters, arcaded loggias, and projecting rainspouts, known as *canales* on flat roofed buildings.

Some of the public buildings in Spanish St. Augustine were constructed on a grander scale. The facade of the Spanish Treasury had perhaps the most ornate coquina work ever done in the city. The treasury building, located at corner of St. George and Treasury Streets, stood at the corner of St. George and Treasury Streets until its demolition in 1880. Unfortunately, none of the major public or private buildings in St. Augustine have survived.

Building materials are a significant feature of First Spanish Period architecture. Wood has been the major construction element in St. Augustine for most of its history. Locally available heart pine, red cedar, and cypress all provide some degree of protection against decay and termites. After the destruction of the city in 1702, there was an emphasis on masonry rather than wood construction. Only about one-fifth of the buildings at the

end of the First Spanish Period had wooden walls. The principal masonry materials during the First Spanish Period were coquina and tabby.

Coquina stone is the most distinctive building material used along the east coast of Florida. Found mostly in the coastal regions of Florida and Cuba, this stone is formed from coquina or donax shells occurring in large deposits that, over the ages, have become cemented by calcium carbonate. It differs widely in texture and hardness. Coquina was known to the Indians, and it is from them that the Spanish learned of it during the late sixteenth century. Its first documented use occurred during the 1590s for construction of a powder magazine.

In 1671 the Spanish began quarrying coquina on Anastasia Island for construction of the Castillo de San Marcos. Upon completion of the initial phase of construction of the Castillo, the Spanish made available coquina for private construction in the city. Masonry construction became even more imperative after the destruction of much of the city in 1702 by English colonists from South Carolina. Coquina was typically cut into blocks. Because of its porousness, it admits large amounts of moisture. It was typically stuccoed for protection. All of the surviving First Spanish Period buildings are constructed of coquina.

A second important building material is tabby. Tabby, a corruption of the Spanish word *tapia*, is a building material made by mixing equal parts of sand, lime, water, and shell. It was poured into forms and allowed to harden in the desired shape, made into bricks, and was also used like daub in post and beam construction.

Tabby was extensively employed as a construction material in St. Augustine during the last sixty years of the First Spanish Period, after the city was sieged and burned in 1702. It was used not only for house walls, but for floors and sometimes roofs as well. The Puente map of 1764 shows that forty-six percent of the buildings in the city were constructed of tabby. Many of these were destroyed during the British period. Approximately, twenty years later, only about seven percent of the buildings in St. Augustine were tabby. None of those buildings survive today,

although a tabby wall south of 214 St. George Street and a small section of the wall that surrounds the St. Joseph's Convent grounds on Aviles Street are constructed of tabby. Archaeologists have uncovered tabby wall fragments and floors on St. George Street and other areas of the colonial city.

Besides the Castillo de San Marco, the most significant feature of the First Spanish Period is the town plan of St. Augustine. The plan, which prominently includes the plaza and the street pattern in the colonial section of the city, dates from the last decade of the sixteenth century and is accordingly the first town plan established in the United States. Much of St. Augustine's character is derived from the plan. According to 1563 and 1573 royal ordinances, the plaza in the Spanish town was to function as the principal area of the community and was to be surrounded by important governmental and ecclesiastical buildings. The town plan explains the location of the Cathedral and Government House, as well as the plaza itself, which in the colonial era was used as a recreational, meeting, and market place.

Research Goals

Settlement Patterns

Studies relating both to the extent and intensity of First Spanish Period settlement are needed. Topics include the interrelationship of military, colonial, and religious activities, and their effect on settlement options. What effect did native settlement patterns have on Spanish settlement? What effect did English and French settlement, trading, and military activities have on Spanish settlement? Where are First Spanish Period sites located?

Economic Development

Development of information on systems of trade, commerce and transportation, as well as products imported and exported, is important to understanding the First Spanish Period. What were the maritime routes and types of vessels used? What types of products were imported and exported, from where, and how?

Social Organization

Society in the First Spanish Period was organized around wealth and family lineage, and around religious orders. The history of the period reflects the power struggle between church and state. Further, the native population assumed a peasant role in New World societies. What factors affected social organization and how did Spanish colonial society change in response to those factors? How did native social organization change in response to the Spanish resources?

Military Affairs

There is a need for site specific research on the location, extent, and composition of First Spanish Period fortifications. How and why did they change through time? What other types of military property are recognized? What effect did English and French activities and settlements have on Spanish military activities? How did military considerations affect site selection and settlement organization?

Transportation

Identify the routes of First Spanish Period maritime, riverboat, and overland trail networks. Those systems provide clues to settlement patterns; political social, and economic interrelationships between coastal and inland communities; and likely shipwreck locations.

Architecture

Spanish townsites, cattle ranches, and outposts reflect civil and religious influence. How did architectural styles, forms, and materials respond to locate conditions, resources, and proximity to perceived threats? How was Spanish architecture affected by native architecture, and vice versa. How did period architecture reflect social status? What changes in construction material are documented?

Preservation Goals

- Locate and evaluate previously unrecorded First Spanish Period sites, including shipwrecks.

- Conduct archaeological test excavations at a range of First Spanish Period sites to assess their National Register eligibility.
- Acquire significant First Spanish Period sites through state and local government land acquisition programs.
- Interpret First Spanish Period sites for public appreciation and education.
- Nominate representative samples of First Spanish Period sites to the National Register of Historic Places.

Chapter 21

BRITISH PERIOD ARCHITECTURAL CONTEXT, 1763 – 1783

Paul S. George

The architectural legacy of the British Period, like that of the First Spanish, is concentrated in St. Augustine. St. Augustine has long been famous for its colonial architecture. Colonial buildings were generally constructed at street line with walled courtyards and doors on the south side entering from the courtyard or loggia. Balconies, sometimes with corbeled supports as a functional or decorative feature, were another distinctive colonial feature. During the British Period many Spanish buildings were altered or destroyed. The British added extra rooms or upper stories. On both new and previously constructed buildings, they placed doors directly on the street, used window glass, and constructed chimneys (Tebeau 1980; Mowar 1943).

The only extant building in St. Augustine that was constructed in its entirety during the British Period is the King's Bakery. The King's Bakery is an interesting adaptation of English Vernacular architecture to local building materials. It features a steeply pitched, side-gabled roof, in keeping with the post-medieval English tradition, but is constructed of locally quarried coquina stone.

The principal reason for the lack of buildings dating from the period was the predilection of the British toward using wood instead of stone in the construction of their buildings. At the end of the First Spanish Period, the great majority of buildings were constructed of masonry materials; twenty years later

approximately half were wooden. As a result of rot, insects, and fire, none of those buildings survive.

Resource types associated with the British Period include military fortifications, urban settlements at St. Augustine, Fernandina, and Pensacola, ports, shipwreck and docking sites, plantations, forest industries such as timbering, naval stores, and saw mill operations. The King's Bakery in St. Augustine is the only known standing structure of the period. Archaeological sites are rare and those that retain their integrity are considered very significant.

Resource types associated with the British Period include military fortifications, urban settlements at St. Augustine, Fernandina, and Pensacola, ports, shipwreck and docking sites, plantations, forest industries such as timbering, naval stores, and sawmill operations. The King's Bakery in St. Augustine is the only known standing structure of the period. Archaeological sites are rare and those that retain their integrity are considered very significant.

Research Goals:

Settlement Patterns

Documents pertaining to maritime routes and ports, and to land grants and survey maps, should be studied to develop a predictive model for locating British Period sites. This information could serve as a basis for field survey of archaeological resources and for altering historic preservation organizations of areas potentially threatened by development or otherwise meriting preservation.

Economic Development

Research efforts should consider the continuity and further development of agricultural products and forest products. What systems of commerce, trade, and transportation existed? How did they develop? What products were imported and exported?

Social Organization

Demographic studies are need to identify and quantify the diverse racial, ethnic, and social groups inhabiting Florida during this period.

Military Affairs

What factors influenced the location, extent, and composition of fortifications and other military-related properties? Where are fortifications, battle sites, and other sites located that are associated with the military?

Architecture

How was British architecture influenced by existing First Spanish Period architecture and craftspeople remaining in Florida? What are the distinguishing qualities of British architecture?

Preservation Goals:

- Locate and evaluate previously unrecorded British Period properties, including shipwrecks.
- Acquire significant British Period sites through state and local government land acquisition programs to protect them and to interpret them for the public.
- Nominate British Period sites to the National Register of Historic Places.

Chapter 22

SECOND SPANISH PERIOD CONTEXT, 1784 - 1821

Paul S. George

The benchmark dates in the Second Spanish Period, as in the two previous colonial periods, were defined by political events. At the close of the Revolutionary War, Britain returned Florida to Spain, a direct result of Spain's alliance with the United States and its military occupation of West Florida. Spain's inability to populate and adequately defend Florida resulted in the Adams-Onís Treaty of 1819, in which Spain agreed to transfer Florida to the United States.

Although a change of flags occurred, many of the distinguishing features of British Florida continued during the subsequent period. The Spanish retained the British policy of trade with the Indians and the head-rights system for granting land. The plantation system dominated commercial agriculture and the population reflected a strong British component. Citrus cultivation, timbering and cattle ranching, all of which had their roots in the First Spanish Period, remained standard agricultural practices. For administrative purposes, Florida remained divided into East and West, with the seats of government at St. Augustine and Pensacola (Arnade 1961; Manucy 1985).

A common feature of Florida history has been the boom and bust cycles that have resulted from wars, economic collapse, and changes in sovereignty. That pattern continued in the Second Spanish Period. The transfer of flags resulted in an exodus of British subjects, who left the colony for the United States or the Bahamas and other parts of the British Empire. The population of

East Florida fell to less than 2,000. Numerous plantations and other developments were abandoned. Emulating the British, the Spanish crown adopted liberal immigration and land policies in order to encourage development of Pensacola, St. Augustine, and undeveloped regions. An oath of loyalty to the Spanish government was the only requirement for land ownership. Furthermore, contrary to official royal policy elsewhere in the Spanish empire, the crown permitted non-Catholics to settle the colony.

The population of Florida during the Second Spanish Period was diverse, particularly in comparison to the former British colonies to the north. Florida contained a mixture of Spanish, Minorcan, Indian, British loyalists and immigrants from the British Isles, some United States immigrants, and blacks--both free and slave. The black population featured Spanish and English cultural influences.

Most of Florida was unsettled. The only concentrated settlements were at St. Augustine, Pensacola and Fernandina. The rural population was small, scattered and devoted to subsistence or plantation agriculture, timbering, citrus cultivation, and cattle ranching. Throughout the Second Spanish Period the number of farms and plantations in Florida increased, mainly along the principal waterways of northeast Florida and in the vicinity of St. Augustine and Pensacola. Land grants, many of which were confirmed as private landholdings after the United States acquired Florida, reflect the settlement patterns of those living under Spanish authority. Other groups, whose settlements patterns are less understood, included the Seminole Indians, escaped slaves, and Cuban fishermen, who occupied parts of the Gulf Coast on a seasonal basis.

During the Second Spanish Period timbering and the naval stores industry remained important components of the economy of East and West Florida. Spanish subjects such as Zepheniah Kingsley and Francis P. Fatio participated in development of the naval stores industry along the St. Johns River. The industry also developed in the vicinity of waterways surrounding Pensacola in West Florida. Timbering constituted an important economic

activity. A number of large sawmill grants were given by the Spanish governors, Cartographic sources provide evidence of several mill sites and areas where large scale timbering occurred (Eisterhold 1973; Massey 1960).

Trade with the Indians was a significant feature of the economy. Panton, Leslie and Company and Forbes and Company were British companies licensed by the Spanish, who controlled the trade. The two companies operated stores on the St. Johns River and at Ft. San Marco. Their administrative offices and warehouses were based at St. Augustine and Pensacola (Coker and Watson 1925).

Maritime trade occupied a significant place in Florida's economy. Naval stores, hides, citrus, and other products were exported from the port towns of Pensacola, St. Augustine, and Fernandina. Fernandina, with the best natural harbor on Florida's east coast, became one of the busiest ports in the Western Hemisphere during the years following Thomas Jefferson's Trade Embargo of 1807.

The military remained an important force in Florida during the Second Spanish Period. A general atmosphere of lawlessness prevailed, fueled by sentiment among expatriate Americans and former British subjects for annexation by the United States. The unsettled nature of the frontier contributed to ferment in the colony, resulting in several major rebellions. During the Patriot Rebellion of 1812, United States forces under the command of General George Mathews invaded East Florida (Owsley 1981; Patrick 1954). Andrew Jackson invaded West Florida in 1814 and 1818 (Remini 1977). In reaction, the Spanish established and elaborate, albeit weak, defense system, centered at St. Augustine and Pensacola. It extended throughout Northeast Florida, particularly along the riverline system, which largely defined the extent of effective settlement. There were five major fortifications or posts within or near the present limits of St. Johns County, and others at Jacksonville, Fernandina, and additional scattered locations. They included the Twenty Mile House, near the headwaters of the Tolomato River, fortifications at Picolata and Buena Vista (probably in Putnam County), a

fortified house known as Pellicer's in the vicinity of Pellicer's Creek, Ft. Matanzas on the Matanzas River, Ft. San Nicholas, Ft. San Carlos at Pensacola and Ft. San Marco at the confluence of the St. Marks and Wakulla Rivers.

Throughout the Second Spanish Period East Florida was the focus of numerous international intrigues, several small scale armed conflicts, and guerrilla warfare involving Seminole Indians. The Spanish continued to view the province as one of secondary importance. They were preoccupied during much of the period with the Napoleonic wars on the Iberian Peninsula and wars of independence in more economically important regions of their colonial empire. Although firmly entrenched at St. Augustine and Pensacola, Spain's ability to hold and police the remainder of Florida was limited by lack of manpower and material resources (Wright 1968, 1987).

Meanwhile, the United States, growing in strength, was anxious to acquire both East and West Florida. The vast, largely undeveloped area provided a source of temptation for the expansionist government and for private land speculators. A Spanish-dominated Florida also presented a haven for runaway slaves and for Seminole Indians locked in intermittent conflict with settlers residing along the southern limits of the United States. East Florida provided a setting for contraband trade and slave smuggling, both of which were in conflict with the policies and laws of the United States government during the period. Finally, because of their strategic importance, the Floridas under foreign domination potentially threatened the national security of the United States. They could serve as a base for attacks against the United States if acquired by a foreign power, particularly the British (Proctor 1978a, 1978b; Starr 1976; Wright 1976).

When Andrew Jackson invaded Florida in 1818 as part of the First Seminole War, it became clear that Spain could no longer hold the provinces. Mounting pressures from the United States forced the signing of the Adams-Onís Treaty in 1819, although diplomatic delays postponed actual transfer of the Floridas until 1821 (Fuller 1964; Brooks 1939).

Resource types associated with the Second Spanish Period are similar to the British Period. They include military fortifications, urban settlements at St. Augustine, Fernandina, and Pensacola, ports, shipwreck and docking sites, plantations, land grant settlements, and forest industries such as timbering, naval stores, and saw mill operations. Only 16 of the 24,041 properties assigned contexts date from the Second Spanish Period. The distribution of known and expected sites is shown on the accompanying map. Standing structures of the period are extremely rare and clearly significant. Archaeological sites are rare and those that retain their integrity are highly significant.

With the exception of the Kingsley Plantation at Ft. George Island and the Lavalle House at Pensacola, the remaining examples of the architectural legacy of the Second Spanish Period is concentrated at St. Augustine. St. Augustine has long been famous for its colonial architecture. Colonial buildings were generally constructed at street line with walled courtyards and doors on the south side entering from the courtyard or loggia. Balconies, sometimes with corbeled supports as a functional or decorative feature, were another distinctive colonial feature. During the Second Spanish Period, as had been true in the British Period, doors were placed directly on the street. Window glass and chimneys also were distinctive features of the later two colonial periods. The reasons for the British influences on the architecture of St. Augustine and East Florida are several. Building materials were imported from the United States, the Bahamas, and other existing or former British dominions, and the population of East Florida contained a number of former British subjects, including Minorcans skilled in English construction techniques.

Residential architecture was functional rather than ornate, and the existing Second Spanish Period buildings reflect that intent. But some public buildings were constructed on a grander scale. The only building dating from the Second Spanish Period that went beyond the functional was the parish church, constructed in 1797. Its facade was inspired by the Neo-Classical

style popular in Latin America in the late eighteenth and early nineteenth centuries.

Building materials are also a significant feature of Second Spanish Period architecture. Coquina rock, a native shellstone, found its main use also as a building material in St. Augustine. It is the most distinctive building material used along the east coast of Florida. Found mostly in the coastal regions of Florida and Cuba, this stone is formed from coquina or donax shells occurring in large deposits that, over the ages, have become cemented by calcium carbonate. It differs widely in texture and hardness. All but one of the surviving Second Spanish Period buildings are constructed of coquina.

A second important building material is tabby. Tabby, a corruption of the Spanish word *tapia*, is a building material made by mixing equal parts of sand, lime, water, and shell. It is poured into forms and allowed to harden in the desired shaped. It was popular in other southeastern coastal towns, using the available oyster shell from both natural and artificial deposits. Extant examples of tabby buildings can be found in Beauford, South Carolina; Darien, Sapelo and St. Simon Island, Georgia; and Fernandina and Ft. George Island, Florida.

Only two examples of Second Spanish Period architectures exist outside of St. Augustine. They are the Kingsley Plantation and the Lavelle House. The Kingsley Plantation, located at the north tip of Ft. George Island in Duval County, includes some of the few remaining tabby structures in Florida. Most of the examples in St. Augustine were built during the First Spanish Period and virtually all of them have been destroyed. The Kingsley Plantation is also the only example of its type remaining in Florida from the period. It includes a two story plantation house, a tabby foundation, and a frame structural system. An adjoining house is constructed of tabby on the first floor and frame on the second. There is also a large brick and tabby barn, a tabby and brick house, and the remains of twenty-four slave cabins.

The Lavelle House, constructed c. 1803, is the second standing structure remaining from the period and the only one yet

documented in West Florida. It is a frame vernacular, raised Creole cottage, and an excellent example of the early Gulf Coast Vernacular tradition.

Research Goals:

Settlement Patterns

Documentation, particularly survey maps and land grant records, exists to develop a predictive model for locating official sanctioned settlement during the Second Spanish Period. The model could serve both as a basis for field survey of archaeological resources and for alerting preservation officials to high probability areas when development threatens potential sites. Other topics of inquiry related to settlement patterns include the relationship between British and Second Spanish site development; the location of land and water transportation and communication networks; the location and identification of unsanctioned settlements by Indian, Blacks, Cubans, and squatters; and the quantity, nature, and extent of agricultural developments.

Economic Development

Research efforts should address the continuity and further development of key agricultural practices, with antecedents in early periods, such as citrus, harvesting and exploitation of forest products, and cattle ranching. Development of systems of commerce, trade, and transportation and the identity of import and export products are also important research themes.

Social Organization

Demographic studies, much of which can be developed from land grant, census, and church records, are needed to identify and quantify the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important are the studies of the Native American, escaped slave, and Hispanic groups which occupied areas of Florida beyond official Spanish control.

Military Affairs

The most critical need here is site specific research to identify the location, extent, and composition of fortifications, sites of battles, and other military related properties.

Architecture

While the influence of the remaining British residents and craftsmen on Second Spanish Period architecture has been noted, additional documentary and archaeological research is needed to fully understand the architecture of the period.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded Second Spanish Period properties, including shipwreck sites.
2. Conduct archaeological test excavations at a range of Second Spanish Period context sites to determine diagnostic artifacts and recognize the archaeological manifestations of various resource types.
3. Acquire significant Second Spanish Period sites through the state's land acquisition programs.
4. Interpret Second Spanish Period sites statewide for public appreciation and education.
5. Encourage local government acquisition of sites.
6. Nominate Second Spanish Period sites statewide to the National Register of Historic Places.

Chapter 23

TERRITORIAL PERIOD, 1821 – 1844

Paul S. George

The Territorial Period in Florida history extends from 1821 to 1844. Those dates are defined by political events: In 1821, the United States assumed control of the Territory; in 1845, Florida joined the Union. The Second Seminole War (1835-1842) constituted the most significant political and military event of the period. The Territory's population grew steadily, forcing constant political change. The number of counties established by the Territorial legislature rose from two in 1821 to twenty-six by 1845. Like much of the Old South, to which it belonged, Florida's economy was dominated by agriculture. Slavery prevailed and slaves participated in production of cash crops, including sugarcane, tobacco, indigo, and cotton. Subsistence farming was a common means of support. Additional historical themes found in Florida during the period include politics, military, commerce, industry, transportation, and settlement. By 1845, Florida had developed into an important political region, and to maintain the balance between free and slave states, Congress admitted Florida to the Union (Carter 1956-1960; Dovell 1952; Marcus and Fernald 1975; Martin 1944; Tebeau 1980).

The United States Territory of Florida was established in 1821 and Andrew Jackson named provisional governor (Thompson 1961). In July, Jackson created St. Johns and Escambia counties as the first two political subdivisions in the newly-formed territory. St. Johns County initially encompassed all of Florida east of the Suwannee River, with Escambia County lying to the west. Speculators and settlers soon began arriving, envisioning great

opportunity in the underpopulated and undeveloped territory. Real estate speculation fueled an economic boom during the early years of the Territorial Period, despite poor transportation and health problems. The first territorial census in 1825 found that within the twelve counties there were 5,780 persons living west of the Apalachicola River; 2,370 between the Apalachicola and Suwannee rivers; and 5,077 in East Florida. By 1830, the population of the territory had grown to 34,730. A number of communities were established during the era, including Tallahassee, Jacksonville, Key West, Middleburg, St. Joseph, Tampa, and Apalachicola. Many were located either along the Atlantic Ocean, Gulf of Mexico, St. Johns River basin, and waterways throughout the state. By 1840, the population had increased to 54,477.

Such growth inspired legislative subdivision of the state into smaller county districts. By 1833, seventeen counties had been established, a large percentage of them in the panhandle area of West Florida, reflecting the economic prosperity and expanding population of that region. By 1845, twenty-six counties had been created (Alderman 1946; Stein 1973).

Florida's communities featured general stores selling dry goods, blacksmith shops, liveries, and taverns. Local and county governments constructed their own buildings and rented space in commercial buildings. In rural areas, trading posts were typical commercial ventures. John Forbes and Company, successor to the trading firm of Panton, Leslie and Company, operated a chain of posts along the Apalachicola River and at Pensacola (Rucker 1988).

The economy of antebellum Florida was based on the plantation system and the production of cotton and tobacco (Smith 1973). Middle and West Florida contained numerous large plantations. In 1845, eighty percent of the cotton crop was produced in Jackson, Gadsden, Jefferson, and Leon counties (Shofner 1976). Small plantations and subsistence farms nevertheless dominated agricultural practice. Commercial citrus production, a part of the Florida economy since the First Spanish Period, was moderately successful, though a serious freeze

devastated groves in 1835 (Davis 1937). The naval stores industry was important throughout the state. Saw mills and turpentine operations were found in many communities and rural districts of Middle and West Florida (Massey 1960). Along the St. Johns River and Atlantic seaboard, the harvesting of timber from coastal stands was a thriving industry. The live oak tree was especially prized for its extremely hard wood. Logging operations ranged throughout coastal regions and river areas. For a time the production and processing of sugar occupied an important place in the economy of East Florida (Sitterson 1953). Many of the plantations were located in Mosquito County, presently comprised of sections of present-day Brevard, Volusia, and Flagler counties.

Beginning about 1843, cattle ranching expanded throughout the peninsula. Cattlemen from North Florida migrated southward and opened new range. Herds grazed in the upper St. Johns basin, the Kissimmee Prairie, and the Peace and Caloosahatchee river valleys. Tampa became a shipping point for 1,000 head per month. The herds of Jacob Summerlin, Florida's first cattle baron, grazed from Ft. Meade to Ft. Myers (Akerman 1976).

The era of agricultural development and prosperity that prevailed throughout much of Middle Florida during the first decade and more of the Territorial Period ended amid the devastation wrought by the Second Seminole War. Many plantations, along with smaller farms, fell victim to Indian attacks, burned to the ground during the conflict. Hostilities, which lasted from 1835 to 1842, raged throughout much of Florida, with bloody engagements ranging from Duval County, near Jacksonville, to the Suwannee River, and southward to Lake Okeechobee. The conflict, one of three so-called Seminole Wars, resulted from long-standing differences between settlers, Indians and the United States Government involving, among other issues, runaway slaves who sought refuge with the Seminoles and white encroachment upon reservation lands (Bemrose 1966; Buker 1975; Coe 1974; Cohen 1836; Covington 1982; Mahon 1967; Porter 1943, 1964, 1967; Wright 1987).

The "Dade Massacre," a successful ambush by the Seminoles in December 1835 of a military column near present-day Brooksville, initiated the warfare. Numerous engagements followed. The fiercest encounters occurred along the Withlacoochee River, at Kanapaha Prairie, near Lake Okeechobee, and near the Lochahatchee River. Forts and supply depots were established throughout the peninsula. The war devastated much of peninsular Florida. By 1836, according to one source, "The whole of the country south of St. Augustine has been laid waste during the past week, and not a building of any value left standing. There is not a single house now remaining between this city and Cape Florida, a distance of 250 miles. All has been burned to the ground." The Seminole War resulted in some benefits. Land was cleared, roads constructed, and military facilities that occasionally became permanent communities established throughout the peninsula. Expeditions during the war had resulted in the exploration and mapping of large portions of the Florida wilderness, paving the way for eventual settlement. The war in general, however, proved a disaster for many settled regions. Production of local staple crops was disrupted when settlers abandoned their farms and fled to St. Augustine, perhaps the only safe haven during the war. Indians destroyed plantations, and in the process freed many slaves.

As the Seminole War ground to a close in 1842, settlers began to return to their homes. Much had been destroyed by Indians, leaving little choice for returning farmers and planters other than to begin anew. Costs of the war were estimated from thirty to forty million dollars. The Congress stimulated a demand for land in Florida by enacting the Armed Occupation Act, which guaranteed a grant of land to any volunteer over eighteen who enlisted to fight the Seminole Indians. Land development and speculation again became a significant factor in the state's economy.

Though farms and plantations were re-established, the area south of St. Augustine never regained its once prominent place in the production of sugar and other agricultural crops. The sugar industry never recovered. Population growth resumed after the

war. By 1845 approximately 70,000 people resided in Florida, a gain of over 16,000 in five years.

In 1824, the U.S. Congress authorized a public road from Pensacola to St. Augustine (Boyd 1935, 1936). The army constructed much of the road. Construction was slow, and into the 1830s much of the road remained a simple wagon trail. Another significant byway was King's Road, first established during the British Period, which extended from New Smyrna to the St. Marys River. That road was reopened about 1829. Private firms constructed a few roads during the Territorial Period. The army, however, constructed the bulk of Florida's early road network during the Second Seminole War.

Improved river channels permitted access to the interior. Federal appropriations provided for the clearing of logs and sand bars from the St. Johns, Apalachicola, and St. Marks rivers. Steamboat service became available in 1827 on the Apalachicola. Later, riverboat traffic began on the Suwannee and St. Johns rivers. River service grew during the Seminole War. Approximately forty steamboats operated in Florida waters during the conflict. The few canals that were constructed consisted generally of short, local arteries dredged by private individuals. Railroads were introduced in Florida during the period. In 1834, the Tallahassee & St. Marks Railroad was incorporated. Service began on the St. Joseph-Lake Wimico line in 1863 (Mueller 1962, 1986; Pettengill 1952; Thurston 1972).

The improved transportation network and results of the Seminole War spurred settlement and development in Florida. Responding to this growth, the territorial legislature created seven new counties between 1842 and 1845. The population increase made Florida eligible for statehood. After maintaining its status as a territory for twenty-four years, Florida was admitted to the union in 1845 as a southern slave state. Tallahassee became the state capitol, and sent to Congress its first senators, David Levy Yulee and James D. Westcott.

Important themes run through the Territorial Period of Florida history. Politics, military, commerce, industry, transportation, settlement, and agriculture constitute the most

significant developments of the era. Invention provided a theme of minor significance. Resource types of the Territorial Period context include military fortifications, facilities, and battle sites, urban and rural settlements, ocean and river port facilities and shipwrecks, railroad facilities, private plantations, state and local government facilities. Only 53 of the 24,041 components assigned to contexts of Florida are of the Territorial Period. The distribution of known and expected sites is shown on the accompanying map. Any standing structures of this period are clearly significant, particularly those outside St. Augustine. Any archaeological sites with sufficient integrity to retain meaningful association among artifacts and natural features should be regarded as significant.

The identified extant buildings and structures in Florida dating from the Territorial Period include churches, military buildings, rural and urban residences, and lighthouses. The buildings and structures associated with the period are found scattered throughout the peninsula, unlike those of the colonial periods, whose architectural legacy remains confined essentially to St. Augustine. The majority of such structures are located in the tier of North Florida counties stretching from St. Johns County (St. Augustine) on the east coast through Leon County (Tallahassee) across to Escambia County (Pensacola), the western extremity of the state and the Florida "Panhandle."

The architecture of the Territorial Period expressed both continuity and change. In St. Augustine, where a number of buildings from the period remain, the vernacular buildings resemble those of the preceding period in terms of materials, size, lot placement, and construction technique. Coquina, for example, continued to be used for foundation piers and chimneys, though it no longer was employed in walls. Balconies continued to appear on buildings.

Different ideas about architecture were brought in by settlers from other parts of the nation. The Greek Revival style became popular at the time, reflecting the democratic nationalism of Americans. The most elaborate and substantial buildings of the period exhibit the influence of the Greek and Neoclassical Revival

styles, though the remote location of Florida, the lack of many building materials, and the relatively limited scale of urban and rural architectural development resulted in a far less elaborate and ornate expression of the styles than exhibited elsewhere in the nation. The David G. Raney House, a two-story frame building in Apalachicola, constructed about 1840, displays the notable features of the Greek Revival style in its classical front portico and four fluted Doric columns. The Robert Gamble House in Manatee County, a two-story brick residence, built at the close of the Territorial Period, contains upper and lower verandas supported by 25-foot high columns surrounding the main structure. Even the vernacular buildings reveal the influence of the classical styles. The Joshua Davis House in Gadsden County, for example, has a full width, five-bay front porch, an element derived from the Greek Revival style.

Some fortifications and military sites from the Seminole War can be seen today, including the Fort Shannon Officers Barracks in Palatka, the Clark-Chalker House in Middleburg, The Burnsed Blockhouse in Baker County, and the reconstructed Fort Foster site near Zephyrills. The Burnsed Blockhouse is a rare remaining example of a log house. Most wood frame buildings of the period employed the post-and-beam method of construction, which consisted of vertical spaced members providing structural support with heavy cross-timbers carrying the upper floors. A modification to the primitive method of post-and-beam construction included a diagonal braced frame unit to support heavy corner timbers. The balloon frame method of construction did not appear in Florida until well after the Civil War.

The predominant building material used in the Territorial Period was wood. In many cases, Florida being a frontier region, buildings were thrown up in a hurry with little initial regard for permanence. The quality of frontier construction, subsequent wars, fires, weather, and insects ensured buildings from that era of Florida history a relatively short life. Florida offers a harsh climate for wood buildings. Thus in most cases only the most elaborate buildings have survived. The houses and commercial

buildings of the middle and lower classes no longer exist in appreciable number.

Research Goals

Settlement Patterns

Studies relating both to the extent and the intensity of settlement in Territorial Florida are needed as a basis for field survey for potential archaeological resources. Topics of inquiry include: the prevalence, dispersal, and products of subsistence farming, and its interrelationships with plantation agriculture and commercial communities; the development of water and road systems, and the communication network within the state; establishment and expansion of towns and commercial districts and accompanying construction of governmental, business, and residential buildings. Documentation, particularly maps, manuscripts, and public land records, exist to develop a predictive model for locating settlement during the Territorial Period. The model could serve both as a basis for field survey of archaeological resources and for alerting preservation officials to high probability areas when development threatens potential sites.

Economic Development

Research efforts should address the continuity and further development of key agricultural practices, with antecedents in earlier periods, such as citrus, harvesting and exploitation of forest products, and cattle ranching. Development of systems of commerce, trade, and transportation, and the identity of import and export products are also important research themes.

Social organization

Demographic studies, much of which can be developed from land grant, plantation, census, and church records, are needed to identify and quantify social mobility and persistence, as well as the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important are studies of the native American, escaped slave, and Hispanic groups which occupied areas of Florida.

Military Affairs

The most critical need here is site specific research to identify the location, extent, and composition of fortifications, arsenals, battle sites, and other military-related properties.

Transportation

Identify the extent of Statehood Period maritime, riverboat, railroad, and roadway networks. Those systems provide clues to settlement patterns, the extent of agriculture production and marketing, and the political, social, and economic interrelationships between coastal and inland communities.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded Territorial Period properties, including shipwreck sites.
2. Conduct archaeological test excavations at a range of Territorial Period context sites to determine diagnostic artifacts and recognize the archaeological manifestations of various resource types.
3. Acquire significant Territorial Period sites through the state's land acquisition programs.
4. Interpret Territorial Period sites statewide for public appreciation and education.
5. Encourage local government participation in preservation and acquisition of sites.
6. Nominate Territorial Period sites statewide to the National Register of Historic Places.

Chapter 24

STATEHOOD PERIOD, 1845 – 1860

Paul S. George

The Statehood Period in Florida history extends from 1845, the year Florida was admitted to the Union, to 1860, when the Civil War began. Significant changes and events occurred in the state during the period, including a growing population, the establishment of new communities, and the subsequent formation of additional counties. Transportation facilities were improved with the construction of new railroads. River navigation became a common form of transportation. Agriculture, commerce, and industry developed considerably during the period. Like other Southern states, the Florida economy rested principally on an agricultural base, supported by slave labor. The slave issue dominated national politics during the antebellum period, resulting in a southern revolt. In 1861, Florida seceded from the Union and promptly joined the Confederacy (Dovell 1952; Patrick and Morris 1967; Tebeau 1980).

Politics is an important theme in Florida's Statehood Period. Florida joined the Union in 1845 as the twenty-seventh state. Sharing many of the values and characteristics of the Deep South, it played an important role in national politics, which in the years following the Missouri Compromise of 1820 came to be dominated by the issue of slavery. A slave state, Florida supported the institution (Dodd 1945; Meador 1960; Williams 1951).

Tallahassee, the territorial capital, became the state capital, and sent to Congress Florida's first senators, David Levy Yulee and James D. Westcott (Adler 1973; Alderman 1946; Thompson 1954). The population of the state doubled from approximately

70,000 in 1845 to 140,424 in 1860. That increase resulted in the continuing subdivision of the state into geographically smaller and hence more manageable counties. Between 1845 and 1860, fourteen new counties were established. A large percentage of them appeared in the so-called "panhandle" or northwest area of Florida, reflecting that area's economic prosperity and expanding population.

Agriculture dominated Florida's economy during the Statehood Period. Cotton, produced principally by slave labor, was the principal cash crop. Expansion of cotton production was reflected by the number of bales exported from the state, rising from 40,000 in 1845 to 65,000 in 1860 and the number of slaves in Florida, which grew from 33,950 to 61,745 during the period. St. Augustine and Pensacola, which had hitherto served as political and economic centers, experienced a steady decline of importance as interior towns developed. Settlement towns and plantations spread towards the center and southern regions of the peninsula. The Florida cotton belt was centered in Middle Florida, between Apalachicola and Suwannee rivers in Gadsden, Jefferson, Leon, and Madison counties. Production also occurred in Alachua and Marion counties. Robert Gamble established an important plantation of the period near Bradenton, where he cultivated sugarcane and cotton (Schene 1975). A sugar mill was built at Yulee in the late-1850s. Striving to produce their own vegetables and meats, nearly half of the population resided on plantations and farms. Wealth was concentrated in the hands of plantation owners, who dominated the economic and political life of the state.

The average farm size grew from 370 to 444 acres during the period and the dollar value for all of Florida's farms increased from \$6,323,109 to \$16,435,727. The average value of a farm, however, increased from only \$1,469 to \$2,502. Corn, tobacco, and rice were important crops. Citrus production stagnated after a devastating 1835 freeze and played no significant economic role in the period. Cattlemen in North Florida moved their herds into new regions, along the upper St. Johns, Kissimmee Prairie, and Peace and Caloosahatchee river valleys. Tampa became a shipping

point for nearly 15,000 head of beef annually. Livestock value doubled from \$2,880,058 in 1850 to \$5,553,356 by 1860. The most common form of agricultural practice, however, was subsistence farming. The daily chores of feeding chickens, cultivating corn, potatoes, tomatoes, and lettuce, and tending to a few cattle or hogs constituted the existence of most Florida farmers.

Transportation expanded significantly during the Statehood Period. The construction of the early Florida rail network cut travel time, opened new and expanded existing markets, and caused a redistribution of settlement patterns. During the 1850s, eight railroads received charters and began construction. Railroading, in its infancy, often found it difficult to obtain financing and capital for construction. To alleviate some of the financial strain, the legislature offered qualifying railroad companies, through the Internal Improvement Fund, rights of way on state lands, and conveyed alternate tracts of land six miles square on both sides of the road bed. By 1861, the six existing companies had built lines from Fernandina to Cedar Key, Lake City to Quincy, Jacksonville to Lake City, the Alabama state line to Pensacola, St. Marks to Tallahassee, and St. Augustine to Toccoi, a total of approximately 400 miles. The rail system was incomplete between Tallahassee and Pensacola, and from Waldo to Tampa. The significance of that system lay in shorter travel time between communities that previously had been connected only by crude roads or trails. Settlement patterns followed the railroad network. Interior communities along the rails like Gainesville, Starke, and Bronson, were established, and agriculture, industry, and commerce flowed into those areas (Doherty 1980; Hildreth 1959; Pettengill 1952).

Florida's waterways and a rudimentary road system provided the only other transportation avenues during the Statehood Period. Maritime activity expanded. Steamships and riverboats transported people to points along Florida's coastline, and into the interior, resulting in the expansion and establishment of communities along Florida's coasts and rivers. Key West, Jacksonville, Tampa, and Pensacola gained importance as harbors. Communities, like Bradenton, appeared along the coast. Much of

the inland steamboat traffic operated on the St. Johns River. By 1845, riverboats cruised as far south as Lake Monroe and tourist accommodations developed on the river's banks. Jacob Brock constructed a tourist house at Enterprise for winter visitors. Magnolia, Green Cove Springs, and Palatka, also on the St. Johns River, sprung to life. Riverboats operated on the Apalachicola River and begun to appear on some of Florida's smaller rivers. Small communities sprouted on the banks Suwannee and Santa Fe rivers. Some communities, like St. Marks, benefited from both water and rail facilities. People relied more on water transportation than on the crude Florida road network. Much of the state's early road system had been constructed during the Second Seminole Indian War. In the 1850s, that system was marginally improved, and roads were constructed to serve the emerging communities in Middle and South Florida. Into the early twentieth century, however, many Florida roads remained little more than rutted sand trails (Mueller 1962; Thurston 1972).

Commercial districts became important centers for financial, professional, and businesses services. Few banks were located in the state in 1845 (Dovell 1955). By 1860, five state and thirteen private institutions operated in Florida (Doherty 1980). Most were located in Tallahassee, Pensacola, St. Augustine, and other larger cities. Provisions were made for opening banks in Lake City, Newnansville, and Tampa. General stores, trading posts, liverys, taverns, and private residences comprised most of the built infrastructure of Florida's communities. Barter with local merchants and neighbors characterized many financial dealings. Gold and silver were standard instruments. Paper money was generally considered worthless. In rural districts, planters often operated mercantile establishments. Public schools were located in many of those districts. In 1850, sixty-nine schools, containing 4,746 students, sheltered classrooms in Florida. The number of students rose to 8,494 in 1860. The establishment of private academies in Florida reflected the national trend during the 1850s. By 1860, 138 Florida academies existed, with an enrollment of 4,486 pupils (Adams 1962; Pyburn 1951a, 1951b).

Industry increased moderately during the Statehood Period. In 1850, the state contained 103 manufacturing establishments whose capital value totaled \$547,060. One decade later, the number of manufacturers had increased to 185. Their capital value nearly doubled in the same time. The number of wage earners nearly trebled in the 1850s to 2,454. Mechanics, blacksmiths, machinists, printers, and lumber workers were part of the manufacturing base. Timber became a significant industry. The first sawmill was delivered in East Florida in 1850. By 1853, fourteen sawmills were located at Jacksonville and six at Fernandina. The railroad played a significant role in the timber and naval stores industry. By the late-1850s, trains transported trees from the inland to mills located at ports. Traditionally trees had been cut near waterways, with the lumber dressed and marketed in communities near rivers. The jobs created by the transportation and timber industries helped to support the increasing population, which otherwise would have been dependent on subsistence agriculture. Cotton mills were of marginal importance. Three small mills operated at Milton (1846-1851), Madison (?-1857), and Monticello (1853-1865), but operated for only a short time, producing about \$30,000 annually.

During the Statehood Period, Florida reflected the development of other southern states, differing by degree not kind. Slavery dominated politics at the state and national levels. In Florida, slaves comprised a significant portion of the population. In the Gadsden-Leon county areas, more than seventy percent of the inhabitants were slaves, atypical of remaining parts of the state, where slaves constituted approximately thirty percent of the population. The year before the Civil War, the average size of a farm in the Florida cotton belt, located between the Apalachicola and Suwannee rivers and extending southward into Marion County, was between 600 and 800 acres. Throughout most remaining parts of the state, farm size ranged from less than 100 to approximately 400. Few farms were worth more than \$2,500; in Middle Florida some farms were valued as much as \$10,000 (Smith 1973).

Military themes exhibit some significance in the Statehood Period, invention little. In the 1840s, federal coastal fortification programs were initiated by the U.S. Government. Forts Clinch and Jefferson were constructed. In 1848, John Gorrie of Apalachicola designed an ice machine, the first in the United States. Gorrie failed, however, to patent the mechanical refrigeration device or to place the machine into production (Bittle 1965; Hawk 1986; Pearce 1980; Webb 1909; Wickman 1985).

Political events comprised the most significant events of the period (Doherty 1981). Florida entered the Union. Settlement accelerated as railroads and riverboats made inroads into the peninsula and Middle Florida. Population growth and the development of commercial towns serving rural agriculture led to a clamor for county subdivision and the establishment of county seats. The production of cotton and the plantation economy principally fueled the state's economic development, though it rested precariously on the institution of slavery, caught up in an increasingly inflamed political and social atmosphere. When, following the election of 1860, the South thought itself losing control of the issue at a national level, the southern states, Florida included, seceded from the the Union, ending the Statehood Period (Reiger 1968; Wooster 1958).

Resource types of the Statehood Period context include military fortifications and facilities, urban and rural settlements, ocean and river port facilities and shipwrecks, railroad facilities, private plantations, and state and local government facilities. As of January 1989, approximately 700 sites in Florida have been listed on the National Register of Historic Places. Only 47 of those sites relate to the Statehood Period context. The distribution of known and expected sites is shown on the accompanying map. Any standing structures of this period are clearly significant. Any archaeological sites with sufficient integrity to retain meaningful association among artifacts and natural features should be regarded as significant.

The identified historic buildings and structures that remain standing in Florida and have been nominated to the National Register of Historic Places are related to educational, religious,

military, transportation, architectural, and political themes. Like those of the Territorial Period (1821-1845), they are located primarily in North Florida. Reflecting the southward spread of the population during the period, however, additional sites may be found in the rural and urbanized sectors of Central Florida, particularly in Marion and Alachua counties. North Florida areas that have not been exhaustively surveyed and which may be expected to yield sites from this period include Columbia, Suwanee, Madison, Nassau, Gadsden, and Jackson counties.

Employment of classical architectural styles continued to dominate in the design of elaborate residential and urban buildings, which, for the most part, probably comprise the bulk of the remaining architectural resources. The Judge P. W. White House and the Quincy Woman's Club in Quincy (c. 1850s), Gadsden County, the Brokaw-McDougall House in Tallahassee (c. 1885), and the John S. Sammis House (1850s) in Jacksonville provide an outstanding examples of the use of classical revivalism in Florida residential architecture. Vernacular architecture, the stylistic classification that might have been applied to the large majority of buildings constructed in this period, often reflected classical elements in its design. Moss Hill Church (1857) in Washington County, to use one example, a simple rectangular frame building with a gable roof, reveals a return-on-the-cornice feature reminiscent of the Greek Revival style.

In a few cases, the introduction of other classical revival styles could be noticed. The Carpenter Gothic, a peculiarly American version of the Gothic Revival, is the first of the distinctively Victorian styles to appear in Florida. It was popularized nationally in writings and plan-books published from the 1820s through the 1850s by Andrew Jackson Downing, Alexander Jackson Davis, and Richard Upjohn. Characteristic of the style is extensive use of sawn wood ornamentation on the bargeboards and eaves of the roof, made possible by the invention of the jigsaw. Steeply pitched gables and lancet windows lent a pronounced vertical emphasis to the buildings. Upjohn's plans were widely used in the construction of Episcopal churches from the Territorial Period through the rest of the nineteenth century.

The so-called "River Churches" found in towns along the St. Johns River offer excellent examples of the genre and in cases may date from the period. St. Mark's Episcopal Church (1854) in Palatka, featuring the usual board-and-batten siding, offers a period example, though the earliest such building in the state is St. Augustine's Trinity Episcopal Church (c. 1824), atypically constructed of stone.

Wood remained the prevalent building material of the period. The post-and-beam system, usually employing a diagonal brace unit, was used in construction of wood frame buildings. Factories for making stone materials were primitive and few and a transportation network for importing finished building parts and materials did not exist. Local sawmills produced essentially rough-cut lumber. Fire, decay, termites, and human destruction have resulted in the removal of most buildings constructed during the period.

Research Goals

Settlement Patterns

Studies relating both to the extent and the intensity of settlement in Statehood Florida are needed as a basis for field survey for potential archaeological resources. Topics of inquiry include: the prevalence, dispersal, and products of subsistence farming, and its interrelationships with plantation agriculture and commercial communities; the development of rail, water, and road systems, and the communication network within the state; establishment and expansion of towns and commercial districts and accompanying construction of governmental, business, and residential buildings. Documentation, particularly maps, manuscripts, and public land records, exist to develop a predictive model for locating settlement during the Statehood Period. The model could serve both as a basis for field survey of archaeological resources and for alerting preservation officials to high probability areas when development threatens potential sites.

Economic Development

Research efforts should address the continuity and further development of key agricultural practices, with antecedents in earlier periods, such as citrus, harvesting and exploitation of forest products, and cattle ranching. Development of systems of commerce, trade, and transportation, and the identity of import and export products are also important research themes.

Social organization

Demographic studies, much of which can be developed from land grant, plantation, census, and church records, are needed to identify and quantify the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important are studies of the native American, escaped slave, and Hispanic groups which occupied areas of Florida.

Military Affairs

The most critical need here is site specific research to identify the location, extent, and composition of fortifications, arsenals, and other military-related properties.

Transportation

Identify the extent of Statehood Period railroad, riverboat, and roadway networks. Those systems provide clues to settlement patterns, the extent of agriculture production and marketing, and the political, social, and economic interrelationships between coastal and inland communities.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded Statehood Period properties, including shipwreck sites.
2. Conduct archaeological test excavations at a range of Statehood Period context sites to determine diagnostic artifacts and recognize the archaeological manifestations of various resource types.
3. Acquire significant Statehood Period sites through the state's land acquisition programs.
4. Interpret Statehood Period sites statewide for public

appreciation and education.

5. Encourage local government participation in preservation and acquisition of sites.
6. Nominate Statehood Period sites statewide to the National Register of Historic Places.

Chapter 25

CIVIL WAR PERIOD CONTEXT, 1861 – 1865

Paul S. George

The Civil War Period in Florida history extends from 1861 to 1865. In the former year, Florida seceded from the Union, and became one of eleven Confederate states. Florida devoted its resources to the war effort. Significant events and changes occurred during the period, including land and naval military engagements, the abolition of slavery which ended the plantation economy, and the depletion of agriculture and transportation. Florida developed cattle and salt industries, supplying many of the needs of the Confederacy by the end of the war. Like much of the rest of the South, Florida lay economically devastated at the end of the war (Dovell 1952; Marcus and Fernald 1975; Nance 1962; Patrick and Morris 1967; Shofer 1976; Tebeau 1980).

Politics forms an important theme in Florida's Civil War Period. Sharing many of the political and economic values of the Deep South, Florida also played an important role in national politics. The slave issue had begun to dominate national affairs in the 1820s. By the 1850s, the issue consumed the nation, and Florida was caught in the political maelstrom raging between slave and free states. Following the examples set by South Carolina and Mississippi, the Florida legislature voted sixty-two to seven on January 10, 1861, to withdraw the state from the Union. Clusters of loyal citizens located at Pensacola, Marianna, Lake City, and Milton had hoped to delay secession or postpone it indefinitely. Most Floridians, however, were anxious to sever the national bonds; Florida was the third state to secede.

Many Floridians willingly took up arms to defend the state. In March 1861, the Confederacy requested that Florida supply 11,700 troops for its armies. Many male citizens abandoned farms and communities to enlist. In 1862, federal troops captured Jacksonville and St. Augustine against little opposition, taking ships, forts, and materials. In May 1862, Pensacola surrendered. The disorganized Confederate forces could not restrain the Union troops where they enjoyed naval support. By late 1862, federal steamships had sailed the length of the St. Johns River, capturing rebel steamers and demoralizing local citizens. By early 1863, federal forces had established control of the Florida coastline. Union blockade squadrons raided coastal settlements, rarely meeting opposition. Apalachicola, St. Marks, and Tampa experienced numerous attacks. Jacksonville, which may have suffered the greatest devastation of any Florida city, was occupied and abandoned four times before the war ended.

Only the very mid-northern part of the state, immediately east and west of Tallahassee, remained relatively untouched by the war. In battles at Olustee, near Lake City, in February 1864, and at Natural Bridge near St. Mark's in March 1865, the Confederates threw back invading Union forces, preventing the destruction of interior railroads and agriculture, and the capture of valuable cattle herds. Tallahassee was also saved, one of a few significant Florida cities not taken by Union forces. Ultimately, Florida contributed approximately 15,000 troops to the Confederacy. At least 5,000 succumbed in battle or from disease (Barnhard 1966; Bearss 1957, 1961, 1967; Bittle 1965, 1971; Boyd 1950; Coles 1985; Wm Davis 1913; Johns 1963; Martin and Schafer 1984; Nulty 1986; U.S. Government 1894-1937, 1880-1901; Parks, Rick and Simons 1978; Proctor 1960-1963).

Florida contributed several professional soldiers and political men to the Confederate cause. Stephen Mallory served as secretary of the Confederate Navy (Durkin 1954), William Wing Loring was the senior Confederate major general in active field duty at war's end, and Edmund Kirby Smith assumed command of Confederate forces west of the Mississippi River between 1863 and 1865. John J. Dickson commanded the Second Florida

Cavalry, one of the states' most effective local defensive units. Dickison's regiment gained notoriety through its success and on one occasion captured a Union steamer on the St. Johns River (Dickison 1962).

Florida's most significant wartime role may have been in the area of food supply to the Confederacy, especially after the fall of Vicksburg in July 1863. South Florida became a prime source of beef, with an estimated 2,000 head of cattle being driven from the state each week (Akerman 1976; Taylor 1985, 1986, 1988). Salt, used in the preservation of meats and for tanning hides, gained importance. Florida's long coastline naturally lent itself to the establishment of salt works. Commercial operations centered on the Gulf Coast from Manatee to Pensacola, with concentrations around St. Andrew Bay and Taylor County. Some salt was also produced at New Smyrna and Oak Hill. Many of these salt works lay unprotected and came under constant federal attack. The Confederate government invested millions of dollars in salt production operations. Military facilities played important roles, especially at the beginning of the war. Before Florida had seceded, the Chattahoochee arsenal with its ordnance was confiscated on January 5, 1861. The single federal soldier occupying Castillo San de Marcos (then Ft. Marion) surrendered the facility two days later. Florida troops also took with little resistance Ft. Clinch on Amelia Island. Strategic forts located at Key West (Ft. Taylor), Pensacola (Ft. Barrancas, Ft. Pickens), and Ft. Jefferson remained in federal hands throughout the war (Groene 1976; Itkins 1962; Pearce 1980; T. Peters 1945; V. Peters 1979).

The Florida transportation network was incomplete when the war began. In 1861, the six existing railroad companies had extended lines from Fernandina to Cedar Key, Lake City to Quincy, Jacksonville to Lake City, the Alabama state line to Pensacola, St. Marks to Tallahassee, and St. Augustine to Tocoí for a total of approximately 400 miles. The rail system was incomplete between Tallahassee and Pensacola and from Waldo to Tampa. During the war the terminals of most such lines were destroyed, while the interior portions were neglected and fell into disrepair. Perhaps the most important link, that lying between Live Oak and Lawton,

Georgia, was not established until March 1865, too late to serve a useful function. Consequently, much of the produce, salt, and other Florida foodstuffs for the war effort had to be transported by wagon to rail heads in Georgia and Alabama or shipped from ports on blockade runners. Much of Florida's cattle were driven into Georgia to a railhead for shipment westward or northward (Doherty 1980; Pettengill 1952).

Agriculture remained the principal economic activity. The cotton growing counties were not invaded (Paisley 1968). Although the slave labor supply there remained intact, the blockade interfered with marketing. Corn, sugarcane, sweet potatoes, and pork continued to be produced (Sitterson 1953). Most of it was consumed locally or confiscated by federal and irregular forces.

The economy of Florida had developed significantly between 1850 and 1860. In the Civil War Period much of the economic was destroyed. It was not to be entirely rebuilt for decades. The center of the Florida cotton belt was between the Apalachicola and Suwannee rivers in Gadsden, Jefferson, Leon, and Madison counties. Alachua and Marion counties also contained cotton lands. Few communities in those areas were invaded, but their agricultural base was devastated. By 1870, the state economy had not yet achieved antebellum levels. The average farm size declined from 444 acres in 1860 to 231 in 1870. The value of Florida's farms fell by half from \$16,435,727 to \$7,958,336. The average value per farm plummeted even more dramatically, falling from \$2,502 to \$777 (Paisley 1968).

Commercial districts were vulnerable to attack and destruction and few remained untouched by the war. The economy suffered greatly when male clerks and laborers left to serve in the military. Few banks operated during the war and by 1865 paper script had become worthless. General stores, trading posts, liverys, taverns, and private residences comprised the bulk of the buildings located in towns and communities. Barter with local merchants and neighbors characterized many financial dealings. Gold and silver were standard but scarce instruments.

In rural districts, planters and farmers left their operations, and much of the state's agricultural production came to a halt.

Resource types of the Civil War Period context include military fortifications, facilities, and battle sites, urban and rural settlements and townsites, ocean and river port facilities and shipwrecks, railroad facilities, private plantations, and state and local government facilities. As of January 1989, approximately 700 sites in Florida have been listed on the National Register of Historic Places. Only 21 of those sites relate to the Civil War Period context in Florida history. The distribution of known and expected sites is shown on the accompanying map. Any standing structures of this period are clearly significant. Any archaeological sites with sufficient integrity to retain meaningful association among artifacts and natural features should be regarded as significant.

The disruptions of the war obviously prevented any serious or permanent architectural development in Florida during the period. Three buildings, two small residences and a small commercial establishment, have been identified and listed on the National Register of Historic Places. Military sites, particularly battlefields, are the most prevalent representatives of the period in the register listing. The most important extant fortification of the period is the Martello Tower, part of the Key West defensive works erected by federal forces. The outline of earthworks can still be seen at Yellow Bluff Fort in Duval County.

Research Goals

Military Affairs

The most critical need here is site specific research to identify the location, extent, and composition of fortifications, arsenals, battle and skirmish sites, lighthouses, and other military-related properties.

Settlement Patterns

Studies relating to continuity or changes in Florida's settlement patterns during the Civil War are needed as a basis for field survey for potential archaeological resources. Some small

communities may have suffered attack, and were not rebuilt following the end of the conflict. The extent of agricultural persistence geographically needs to be studied to determine from what locations and to what extent the state supplied products to the Confederacy. Other topics useful to understanding Civil War Florida, and leading to site specific information, include: the maintenance or disruption of interrelationships with plantation agriculture and commercial communities; rail, predictive model for locating Civil War skirmish or battle sites, and understanding community events. The model could serve both as a basis for field survey of archaeological resources and for alerting preservation officials to high probability areas when development threatens potential sites.

Economic Development

Research efforts should address the continuity or cessation of key agricultural practices, financial activity, and the increase in smuggling and blockade running on Florida's coastline. Salt works and cattle ranching developed during the interval. More studies are needed to understand the geographic distribution and extent of these industries. The persistence levels of these industries following the war needs to be examined to determine site specific information on postbellum ranches and salt works.

Social organization

Demographic studies, much of which can be developed from land grant, plantation, census, and church records, are needed to identify and quantify social mobility and persistence, as well as the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important are studies of the native American, escaped slave, and Hispanic groups which occupied areas of Florida.

Transportation

Identify the extent of Civil War Period riverboat, rail, and roadway networks in Florida. Those systems provide clues to engagements and skirmishes. Archaeological artifacts located on

these land and water channels represent important memorabilia which is part of the heritage of the Civil War.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded Civil War Period properties, including shipwreck sites.
2. Conduct archaeological test excavations at a range of Civil War context sites to determine diagnostic artifacts and recognize the archaeological manifestations of various resource types.
3. Acquire significant Civil War Period sites through the state's land acquisition programs.
4. Interpret Civil War Period sites statewide for public appreciation and education.
5. Encourage local government participation in preservation and acquisition of sites.
6. Nominate Civil War Period sites statewide to the National Register of Historic Places.

Chapter 26

RECONSTRUCTION PERIOD CONTEXT, 1866 – 1879

Paul S. George

The Reconstruction Period of Florida history began in 1866, following the end of the Civil War. On the basis of economic and social transformations occurring in Florida, the year 1879 has been selected to mark the close of the period, though historians have traditionally used the election of 1876, a political event, to draw down the curtain upon the Reconstruction Period in American history. In several respects, Florida's experience during the Reconstruction Period paralleled that of other states in the Deep South: The economic and social importance of "King Cotton" declined and the formerly enslaved blacks, having obtained their freedom, began to exert influence in the political process. Settlement of the central and southern parts of the peninsula quickened, though during the period development remained limited by lack of adequate transportation and by problems associated with the state's internal debt. Not until 1881, during the Post-Reconstruction Period, was the debt problem resolved (Wm. Davis 1913; Dovell 1952; Guenther and Roberts 1984; Klingman 1984; Marcus and Fernald 1975; Patrick and Morris 1967; Rerick 1902; Tebeau 1980).

The period is politically well-defined, beginning at the close of hostilities and ending with the so-called "Corrupt Bargain" between Republicans and southern Democrats which settled the disputed presidential election of 1876. Southerners accepted the presidential Republican nominee, Rutherford B. Hayes, in return for political home rule and the removal of federal troops from

the South. No sharp economic breaks mark the end of the period. Marginal expansion of agricultural and citrus production, the naval stores industry, land development, and railroad construction occurred. Not until the resolution of the debt problem in 1881 through what is historically known as the Disston Purchase did the state's economy truly begin to accelerate. That political development occurred following the return to power of Florida Democrats, commonly called Bourbons, following the 1876 settlement (Cash 1936; Cresse 1977; Shofner 1974; Theisen 1978; Woodward 1951).

Florida's population rose from 187,748 in 1870 to 269,493 by 1880. No new counties were formed, though New River County was absorbed by Baker and Bradford counties. Census statistics reveal that between 1873 and 1879 a number of county boundary lines were altered, probably as a result of population growth. In those ten years, large demographic increases were recorded for the populous counties of Duval, Escambia, Santa Rosa, and Jackson. Counties that were essentially rural in area also grew. The number of residents in Monroe and Manatee counties nearly doubled. Only Alachua County experienced a decline.

Residents welcomed the end of the war and the opportunity to return to a normal life, though with the state's economy in ruins times were difficult for most people. Property values throughout the state had dropped by nearly one-half during the war. Contrary to accepted belief about the Reconstruction Era, political and economic improvements did occur under the Republican regime. In 1869, a uniform tax-supported public school system and university were established. To reduce prison costs and promote business growth by providing cheaper labor to private enterprises, the convict lease system was implemented. In the early-1870s, the state government provided tax incentives for production of salt, cotton, paper, and sugar. Largely because of stock manipulations, little expansion of rail lines took place. Only 71 miles of track were laid between 1865 and 1877, bringing the total rail mileage at the end of the period to 485 (Ledyard 1869).

Agriculture remained the dominant economic activity, though signs of economic improvement were hardly visible. Average farm value rose only slightly during the period. Following an 1867 crop failure, farm foreclosures became frequent. The size of individual farms also declined, reflecting the creation of smaller farms, replacing plantations, and the effects of the share crop system. Livestock investment stabilized and corn production increased (Akerman 1976; Keeling 1982; Nelson 1962; Shofner 1972; Sitterson 1953; Weeks 1977).

Manufacturing and industry expanded throughout the state. Lumbering was carried on in seventeen counties, and was intensive in Santa Rosa, Escambia, Nassau, Duval, Bradford, Alachua, and Marion counties. In 1870, nearly one-fourth of 4,291 Florida manufacturing workers were employed at sawmills. Another 500 persons labored as cutters or turpentine workers. Operations resumed at lumber yards, cotton gins, printshops, and other manufacturing enterprises, as those enterprises took on new importance. The number of manufacturing establishments rose from 185 in 1860 to 426 by 1880. Capital investments in those industries doubled in the decade after 1870.

Brick works at Fernandina, Jacksonville, and Pensacola employed 125 people. Other types of workers found in Florida's towns and cities included carpenters, cabinetmakers, blacksmiths, printers, machinists, and shoemakers. The resumption of manufacturing and services at banks, liverys, taverns, and government agencies brought renewed life to communities after the war. Mercantile and commercial entrepreneurs, doctors, lawyers, teachers, and engineers comprised the professional sector of the state's populace. Dry goods stores, liverys, and boarding houses were located in most small rural communities. Cattle ranching showed signs of becoming an important industry. Cattle sales to Cuba stimulated production in South Florida. Tampa gained in significance as a port city, though it was equaled by Punta Rasa and Snead's Point (Buker 1983).

Rail companies employed over 300 people, river transportation about 850. Use of the St. Johns, Apalachicola,

Suwannee, Santa Fe, and Oklawaha rivers grew moderately. Much of any increase in river traffic was due to tourism. An estimated 33,000 tourists may have visited Florida during the 1874-1875 winter season. DeBary Hall in DeBary and the Brock House at Enterprise afforded examples of the large hotels developed for the emerging industry. In 1868 Jacob Brock began operating steamships on the St. Johns River between Jacksonville and Enterprise (Doherty 1980; Fenlon 1966; Hildreth 1959; Johnson 1965; Ledyard 1869; Pettengill 1952; Rambler 1964; Thurston 1972).

Nevertheless, the Florida economy remained limp, the war's aftermath persistent in its effect. As late as 1871, John Milton Hawks, a medical doctor who attempted to settle black soldiers on government land in Volusia County, reported: "The Public Schools are not yet in operation. We have no politicians; offices go beggin; two of my neighbors who have commissions as Justice of the Peace decline; the office of County Treasurer has been vacant for two years, seeking a man to accept it No clergyman resides within our borders." Many of the same conditions persisted throughout Florida.

The war had changed the economic system. Land became more valuable than laborers, according to recent interpretation. Production of labor-intensive agricultural crops replaced cotton. Lumber, transportation, and, eventually, citrus production grew in importance. Still, subsistence farming characterized most agricultural activity.

Resource types of the Reconstruction Period context include urban and rural settlements and townsites, ocean and river port facilities and shipwrecks, railroad facilities, private plantations and farms, and state and local government facilities. As of January 1989, approximately 700 sites in Florida were listed on the National Register of Historic Places. Of those sites, twenty-eight are identified with the Reconstruction Period context in Florida history. The distribution of known and expected sites is shown on the accompanying map. Any standing structures of this period are significant. Archaeological sites with sufficient integrity to

retain meaningful association among artifacts and natural features should be regarded as significant.

The identified historic buildings and structures that remain standing in Florida and that have been nominated to the National Register of Historic Places are related to arts and entertainment, medicine, religion, rural and urban residence, retail and wholesale activity, and transportation. The growth in population during the period and the emergence of new areas of economic activity suggest a need for thematic research in several areas of social and economic endeavor. They include principally transportation, lumbering, and tourism. Examples of sites that may be identified with transportation and tourism are hotels, boarding places, residences, river and ocean facilities, and railroad buildings. Few if any of the last named area probably remain from the period, however.

Architecturally, the Reconstruction Period was a transitional era in terms of the materials, methods of construction, types of buildings and styles of architecture found in Florida. Circular sawed-lumber became common as steam powered mills began to replace manually cut lumber operations. The balloon frame system was first introduced in Florida. With it came standardization of board size, which enabled relatively unskilled workers to erect frame buildings both quickly and soundly. Transportation improvements, principally steamboating and some limited rail facilities, led to the introduction and wider distribution of materials such as brick and finished wood products into Florida.

Identified building types indicate the initial stages of a maturing state. The Brewster Hospital in Jacksonville, constructed in 1878, the St. Augustine Lighthouse and Keeper's Quarters (1871), and the House of Refuge in Martin County are symbolic of improvements in the state's system of health care and transportation.

Buildings constructed during the period contained influences of the previous period and foreshadowed styles that appear in the subsequent era. Elements of the Greek Revival and other classically influenced styles are still evident in buildings

constructed during the early years of the period. Among these are the Palmer House in Jefferson County, DeBary Hall in Volusia, the Matheson House in Alachua, and the Dorr House in Escambia. The Carpenter Gothic and the Gothic in general remained an important influence, particularly with regard to churches. The latter type of building begs thematic research. The Episcopal Church expanded its reach considerably during this era; numerous churches exhibiting the Carpenter Gothic style probably can be identified with it. While the style itself first appeared in the Statehood Period (1845-1860), its use continued in the Reconstruction Period. Four churches identified with the Gothic which date from the period have been listed in the National Register.

The period also saw the introduction to Florida of styles associated with the Victorian era. Victorian era style, as opposed to the more conservative architecture of the pre-Civil War period, was exotic and eclectic. It was characterized by flamboyant use of decoration, irregular form, multiple roof types, and a variety of materials and colors. Greek and Roman influenced architecture began to be displaced by, in addition to Gothic, the Italianate, Queen Anne, and Second Empire. The Reconstruction Period witnessed the early flowering of a variety of materials, methods of construction, types, and styles of architecture in Florida that was to blossom in the following era.

Research Goals

Settlement Patterns

Studies relating to continuity or change in Florida's settlement patterns during Reconstruction are needed as a basis for field survey for potential archaeological resources. Some small communities may have not been rebuilt following the end of the Civil War. Some new communities were established. Expanding transportation arteries provide clues to emerging settlement patterns, and serve both as a basis for field survey of archaeological resources and for alerting preservation officials to high probability areas when development threatens potential sites.

Economic Development

Research efforts should address the persistence of key agricultural practices and financial, commercial, and manufacturing activities following the war. Cattle ranching also developed during the interval. Studies are needed to understand the geographic distribution and extent of these industries following the war and throughout Reconstruction in an effort to determine site specific information on postbellum towns, rural communities, ranches, saw mills and naval stores operations, rail and river facilities and operating equipment.

Social organization

Demographic studies, much of which can be developed from land grant, plat, census, and church records, are needed to identify and quantify social mobility and persistence, as well as changes or continuity in the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important are studies of the native American and Hispanic groups which occupied areas of Florida.

Transportation

Identify the extent of Reconstruction Period river, rail, and roadway networks in Florida. Archaeological artifacts located on these land and water channels represent important memorabilia of the heritage of the Reconstruction Period.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded Reconstruction Period properties, including shipwreck sites.
2. Conduct archaeological test excavations at a range of Reconstruction context sites to determine diagnostic artifacts and recognize the archaeological manifestations of various resource types.
3. Acquire significant Reconstruction Period sites through the state's land acquisition programs.
4. Interpret Reconstruction Period sites statewide for public appreciation and education.

5. Encourage local government participation in preservation and acquisition of sites.
6. Nominate Reconstruction Period sites statewide to the National Register of Historic Places.

Chapter 27

POST-RECONSTRUCTION PERIOD CONTEXT, 1880 – 1897

Paul S. George

The Post-Reconstruction Period in Florida history dates from 1880 to 1897. The presidential election of 1876, which signaled the end of Reconstruction, introduced an era of economic recovery and population expansion. The period proved politically and economically tumultuous. Among the significant occurrences were the rise and fall of the Farmer's Alliance and populist movements, agricultural development and depression, and the political disfranchisement of blacks, the construction of Florida's railroad system, the Disston Land Purchase, which paved the way for development of south Florida, the development of the citrus industry, growing in-migration from other states, the establishment of numerous towns, and the creation of new counties. The outbreak of the Spanish American War concludes the period (Davidson 1889; Deland 1889; Dovell 1952; Marcus and Fernald 1975; Nance 1962; Nelson 1962; Patrick and Morris 1967; Tebeau 1980; Tischendorf 1954).

The election of 1876 ended Reconstruction in Florida. Removal of federal troops and reestablishment of home rule accompanied the Democratic Party's resumption of political power. The Democrats rewrote the state's constitution in 1885 to suit their conservative philosophy and within a decade were largely successful in implementing a schedule of measures designed to strip political power from blacks. By 1890 the Republican Party, which had supported the freedmen's struggle for rights in the Reconstruction Period, was all but invisible (Akin

1974; Jackson 1974; Klingman 1984; Pavlovsky 1973; Wallace 1964; Williamson 1976).

Amid the political ferment, the state continued to grow in numbers, reaching a little over a half-million by the century's turn. Among the communities established during the period were Tarpon Springs, Sanford, DeLand, Aracadia, and Avon Park. Older cities, especially Jacksonville and Tampa, expanded and even added subdivisions. Six new counties, Citrus, Lake, Osceola, DeSoto, Lee, and Pasco, were created by the legislature in 1887. As the population grew, the buildings housing government services, commerce and industry, and the residents themselves expanded in commensurate number.

Agriculture remained the dominant economic activity. The number of farms increased from 23,438 in 1880 to 72,745,180 in 1890, but declined to 40,814 units ten years later, a measure of the great depression that struck agriculture in the 1890s. Farm value and agricultural income reflected the same trend. The price of cotton, for example, which constituted nearly one-quarter of the state's agricultural production, fell from eleven cents per pound in 1879 to six cents per pound in 1894. Agricultural income as a percentage of total state income fell dramatically during the period. Although cotton and corn remained the principal crops, the truck crop industry expanded, as farmers began to harvest snap beans, tomatoes, cucumbers, green peppers, watermelons, and other perishable fruits and vegetables for cash sale. The economic problems of farmers promoted the rise of agrarian populist movements, which reached their political apogee in the elections of 1892 and 1896 (Akerman 1976; Keeling 1982; Proctor 1950; Rosenberger 1962; Shofner 1981; Weeks 1977; Ziegler 1961).

Much of interior Florida consisted of wetlands and remained undeveloped in the 1870s. By an act of Congress in 1850 the federal government had given the state some 10 million acres of swamp and overflow land. To manage those lands and the 500,000 acres the state had received upon entering the Union in 1845, the Florida Legislature in 1851 created the Board of Trustees of the Internal Improvement Trust Fund and a trust fund in which title to the lands was vested. State law, however, prohibited sale of

any lands so long as the fund remained in debt. Not until 1881 did the trustees find a purchaser to relieve its indebtedness and permit sale of lands to proceed. That was Hamilton Disston, a Philadelphia manufacturer, who bought 4 million acres of land at a cost of 25 cents per acre. The so-called Disston Purchase enabled the state to clear its debt and to begin to distribute large land subsidies to railroad companies (Davis 1939).

Disston dredged stretches of the Kissimmee and Caloosahatchee rivers. Establishment of settlements at Kissimmee, St. Cloud, Runnymede, and Ashton followed. The drainage project culminated at Lake Okeechobee, and opened rivers and land in the region for navigation and settlement. Though Disston drained fewer than 50,000 acres of land, steamboat traffic became possible from Lake Kissimmee to Lake Okeechobee and out to the Gulf of Mexico via the Caloosahatchee. Disston eventually received 1,652,711 acres for his drainage efforts. The state retained title to the remaining 2.4 million acres, though much of that land later went to railroad projects (Dodson 1971).

One of the more important economic developments in the Post-Reconstruction Period was the expansion of Florida's railroad network. In 1877, 485 miles of track had been constructed, most in North Florida and across the panhandle. Lines subsequently lengthened throughout the peninsula. By 1890 there were 2,489 miles of track in the state. One national magazine commented that Florida had built more railway track in 1886 than any other state. In 1897, 3,149 miles of railroad track had been laid, extending as far south as Miami and Tampa. In some cases, railroad companies received 10,000 acres from the state for each mile of track constructed, an exchange for which a number of Florida governors received considerable criticism. Some populated towns and strategic geographic regions had more than one railroad company competing for business (Fenlon 1966; Hildreth 1959; Peeples 1980; Pettengill 1952; Williamson 1947).

Henry B. Plant and Henry M. Flagler financed and constructed much of the track. They typically acquired small independent

railroad companies as they stretched their own lines into new areas. Jacksonville became an important hub in the railroad network. Flagler, Plant, and the Southern Railway each maintained rails and services there. By 1897, the rail facilities in Jacksonville were among the largest in the South. Forty-six passenger trains passed daily through the complex (Akin 1988; Johnson 1965; Martin 1949; Pettengill 1952).

The Pensacola and Atlantic Railroad, formed in 1881, reached from Pensacola east to the Apalachicola River where it joined with other rail lines operating in Georgia and Alabama. Never profitable, the line was purchased in 1891 by the L & N system. It did, however, open previously undeveloped lands, permitting the establishment of naval stores along its length. Also, the L & N invested heavily in Pensacola, which helped the community to develop into a thriving port and rail head.

Railroad expansion also promoted the development of the tourism industry in Florida. Jacksonville became a hub for tourists entering the state by rail from the north (Doherty 1980). By the 1880s its hotels were among the largest and most magnificent in the south. In 1887-89 Henry Flagler extended his line into St. Augustine, where he constructed two grand hotels to accommodate the visitors his line served. Flagler originally intended to make the city the "Newport of the South." His vision soon reached southward in the peninsula. Hotels sprung up quickly along the east coast, paralleling the progress of his railroad. Hotels appeared in such cities as Ormond Beach, Daytona Beach, Rockledge, Lake Worth and, finally, Palm Beach and Miami at the very end of the period, in concert with the railroad's arrival. Henry Plant used the same formula of railroads and hotels on the west coast. Smaller communities, Tarpon Springs for example, also attempted to lure visitors with hotels and brochures. Even Avon Park, which had no rail service until after the turn of the century, issued circulars and brochures in the 1890s in an effort to capitalize on the tourist boom (George 1981).

As early as the 1850s, tourists in small numbers had appeared in Florida, where a riverboat cruise became the most popular

event for visitors. Steamboating up the St. Johns River and Oklawaha offered a sublime retreat into Florida's enchanting river culture. Towns along the St. Johns River, particularly Palatka and Green Cove Springs, developed a thriving hotel and tourist accommodation industry. The golden age of the river steamer extended from 1875 to 1887. One estimate placed the number of tourists in Florida at 33,000 for the winter of 1874-1875. While the railroad eventually eclipsed the steamboat as a tourist vehicle, leading to the decline of interior towns along the rivers, the tourist industry continued to thrive. Flagler and Plant cultivated the relationship between transportation and tourism, developing an industry that in the twentieth century became the dominant part of the state's economy (Thurston 1972).

Guidebooks, brochures, pamphlets, and descriptive circulars were ancillary products of the tourist industry. Railroads, riverboat lines, cities, counties, and private authors published literature extolling the virtues of the state. Publishers often employed hyperbolic language to describe the natural beauty of Florida's woodlands and rivers. Some of the best literature was published at the beginning of the period, particularly Sidney Lanier's *Florida: Its Scenery, Climate, and History* (1876) [**1875 in bibliography**]. Charles Fairbanks, professor at the University of the South, published his *History of Florida* in 1871. Sales of the volume, probably to tourists, led to a reprint edition in 1898 (Barbour 1882; Henshall 1884; Lee 1887; Spivack 1982).

The number of manufacturing and industrial establishments rose from 426 in 1880 to 2,056 in 1900. Capital investment increased ten-fold, while the number of manufacturing wage earners climbed from 5,504 to 34,230. Lumbering remained the foremost industry, nearly trebling in capital investment by 1900 (Massey 1960; Shofner 1981a). Production of cigars and cigarettes gained, with warehouses and factories scattered throughout the state, and the largest plants located in Tampa and Jacksonville. In 1890, the seven leading industries in the state were lumber, cigar and cigarette production, turpentine, fertilizers, printing, ship and boat building, and railroad car and shop construction. They accounted for seventy-two percent of capital investment

statewide and over eighty percent of the value of all products produced in Florida (Campbell 1939).

Commercial districts developed and expanded. Significantly, between 1884 and 1897, the Sanborn Map Company of New York mapped thirty-six downtown commercial districts in Florida. Among them were large communities like Jacksonville, Pensacola, and Tallahassee, mid-sized cities such as Gainesville, Key West, and St. Augustine, and small towns like Green Cove Springs, DeLand, and Brooksville. Carpenters, cabinetmakers, blacksmiths, printers, machinists, and shoemakers comprised typical manufacturing wage earners in commercial districts. Banks, liveries, taverns, and government agencies further defined the commercial base of Florida towns. Railroad laborers, dock workers, and ship personnel were part of the labor force in most large cities and in many smaller towns. Mercantile and commercial entrepreneurs, doctors, lawyers, teachers, and engineers comprised the professional elite of the state's populace. Dry goods stores, liveries, boarding houses, and even hotels were located in most of the smaller rural communities.

In the pre-Civil War era and even the Reconstruction Period of Florida's historical development, the formation of towns and cities was often hurried and unplanned. Lack of transportation limited the available building material. Lack of capital and absence of large enterprises resulted in small-scale development. Buildings were by necessity wood frame and, in towns and cities, located in close proximity to one another. Eventually, in almost all such towns and cities, they burned. Major urban fires litter the landscape of late nineteenth and early twentieth century urban history in Florida. The wooden buildings were subsequently replaced with brick edifices, which in turn were protected by newly developed fire codes. Increasing wealth and scale of enterprise led to greater stylistic innovation in the design of such buildings.

Cities and towns in the interior developed to serve emerging industries, particularly cattle ranching and citrus production. Cattle sales to Cuba and to northern markets stimulated grazing in South Florida. The Port of Tampa profited accordingly (Baker

1983). For the first time in Florida history, citrus became a significant industry. By 1890, more than 150,000 acres were planted in citrus. Devastating freezes dealt the industry several economic setbacks in 1886, 1894-95, and 1899. The worst freezes occurred in December 1894 and February 1895. As far south as Avon Park, orange trees were destroyed by the cold temperatures. The number of trees under cultivation dropped from 2.6 million in 1886 to 88,355 in 1896. The industry move farther south in the peninsula. By 1890 no citrus trees remained west of the Suwannee River.

Phosphate was discovered in 1881 and the first commercial shipments of the rock sent out from the Peace River basin in 1888. Phosphate was used as a fertilizer. The late-nineteenth century freezes prompted use of fertilizers to restore citrus groves and spurred growth of the industry (Blakey 1973).

Education made gradual progress during the Post-Reconstruction Period. In 1889, the legislature returned school management to county and local boards. A normal school was established at DeFuniak Springs in 1887 and, in 1895, another, the South Florida Educational and Military Institute, at Bartow. The education system reflected the legalized segregation installed in other institutions of society throughout the state during the period. Separate normal schools for blacks were established in Lake City and Tallahassee in 1887. Several private schools originated in the late-nineteenth century, including Stetson University (1883), Rollins College (1885), St. Leo College (1889), and Florida Southern (c.1890) (Adams 1962; Kersey 1970b; Lane 1980; Laurie 1986; Lundrigen 1975; Lycan 1983; Provenzo 1885; Pyburn 1951b; Scott 1924; Shore 1937; White 1979).

Beginning about 1891, Floridians took an interest in the civil war in Cuba, where rebels were fighting for their independence from Spain. Although the United States was officially neutral, U.S. citizens sympathized with the rebels and occasionally offered them assistance. Numerous filibustering expeditions were launched from Florida. The sinking of the battleship *Maine* in Havana Harbor in February, 1898 precipitated hostilities between Spain and the United States, bringing the post-Reconstruction

phase of Florida's history to a close (R. Davis 1898; Poyo 1985; Schellings 1960).

Resource types of the Post-Reconstruction Period context include urban and rural settlements and townsites, ocean and river port facilities and shipwrecks, railway operating equipment and facilities, educational facilities, citrus packing houses, private farms, state and local government facilities, and hotels and other buildings associated with the tourist industry. As of January 1989, approximately 700 sites in Florida have been listed on the National Register of Historic Places. Of that number, 100 are related to the Post-Reconstruction Period context. The distribution of known and expected sites is shown on the accompanying map. Any standing structures of this period are clearly significant. Any archaeological sites with sufficient integrity to retain meaningful association among artifacts and natural features should be regarded as significant.

The Post-Reconstruction era was a period when Florida began changing from a largely undeveloped frontier to a slowly maturing state. Although still behind much of the nation, particularly the northeastern and eastern seaboard states, Florida architecture began to reflect national trends in materials, methods of construction, types of buildings and styles of architecture. Professionally trained architects appeared for the first time. Brick and machine-milled lumber, whose shipment was facilitated by the rapidly expanding rail transportation network, became widely distributed.

Identified buildings occupy a broad range of type, style, material, size, and design. They indicate a varied, more complex, diversified, and sophisticated society. They are located throughout the peninsula, their numbers probably paralleling the course of rail construction along the lengths of both coasts during the period. Educational institutions, local and state government, business and industry, and transportation developed as never before.

Transportation, particularly the spread of railroads across the Florida peninsula and along the Atlantic coast was the key to state's development. Railroad depots and stations were

constructed throughout Florida, among them the Orlando Railroad Depot (1889) and the Jacksonville Terminal Complex (1897). Maritime transportation, along the state's coastal region and river networks, continued to be of great importance. Lighthouses, such as those at Sanibel Island (1884), Boca Grande (1890), Crooked River (1895), and Ponce de Leon Inlet (1890) were constructed and facilitated maritime shipping.

Part and parcel with railroad construction in peninsula Florida was hotel development. The design, materials, and construction techniques of these hotels were the most advanced in Florida and were, in the instance of the Ponce de Leon and Alcazar in St. Augustine and the Tampa Bay Hotel in Tampa, of national significance. For the first time, formally trained architects, such as John M. Carrere, Bernard Maybeck, James Renwick, and Thomas Hastings, designed buildings in Florida. Their commissions were primarily for hotel owners and for a wealthy northern elite who constructed winter residences and came to Florida on a seasonal basis.

Industrial expansion was also a key development of the Post-Reconstruction era. Cigar manufacturing was perhaps the most significant industrial development. The Ybor Factory and the many other cigar factories in Tampa and other Florida cities are building types symbolic of the period.

Educational facilities, such as DeLand Hall at Stetson University, the state's first institution of higher education, appear in unprecedented numbers. With the development of rail transportation and population and economic and population growth, the need for government services increased. Given the importance of agriculture and the largely rural character of the state, the need was satisfied by the growth of county government. County courthouses, such as those in Clay, Osceola, Bradford, and Wakulla, together with jails, such as those in St. Johns and Hamilton, embody this development.

Religious architecture remained important as the number and types of religious buildings increased. The Gothic style remained the dominant influence, particularly for the design of

Episcopal churches. Even the state's oldest extant synagogue in Ocala was designed in the Gothic style.

Domestic architecture, particularly that associated with urban areas and wealthy Northerners, was heavily influenced by styles associated with the Victorian period. The architecture of the period was varied, exotic, and eclectic. It was characterized by flamboyant use of decoration, irregular form, multiple roof types, and a variety of materials and colors. Greek and Roman influenced architecture was displaced by, in addition to Gothic, the Italianate, Queen Anne, and Second Empire. The first great concentrations of domestic architecture developed in neighborhoods such as Springfield and Riverside in Jacksonville, Hyde Park in Tampa, North Hill in Pensacola, and Model Land Company and the Abbott Tract in St. Augustine. Commercial areas, such as those in Fernandina Beach and Sanford, were also heavily influenced by the architecture of the period.

Research Goals

Settlement Patterns

Studies relating to persistence in Florida's settlement patterns during Post-Reconstruction are needed as a basis for field survey for potential archaeological resources. Some small communities, Newnansville serves as one example, collapsed and development of another community, Alachua, occurred in the vicinity. Throughout the state, many new communities were established. Expanding transportation arteries provide clues to the disappearance or emergence of new communities and accompanying settlement patterns, serving both as a basis for field survey of archaeological resources and for alerting preservation officials to high probability areas when development threatens potential sites.

Economic Development

Research efforts should address the persistence of key agricultural practices and financial, commercial, manufacturing, and educational activities. Tourism developed significantly and led to the creation of ancillary facilities, especially hotels. Citrus

and cattle ranching also developed during the interval. Studies are needed to understand geographic distribution and extent of these industries throughout the Post-Reconstruction Period in an effort to determine site specific information on post-bellum towns, rural communities, ranches, saw mills and naval stores operations, rail and river facilities and operating equipment.

Social organization

Demographic studies, much of which can be developed from land grant, plat, census, and church records, are needed to identify and quantify social mobility and persistence, as well as changes or continuity in the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important are studies of the native American and Hispanic groups which occupied areas of Florida.

Transportation

Identify the extent of Reconstruction Period river, rail, and roadway networks in Florida. Those transportation channels provide clues to the locations of emerging communities, naval stores operations, and facilities used in the servicing of transportation equipment. Archaeological artifacts located on these land and water channels represent important memorabilia of the heritage of the Post-Reconstruction Period.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded Post-Reconstruction Period properties, including shipwreck sites.
2. Conduct archaeological test excavations at a range of Post-Reconstruction context sites to determine diagnostic artifacts and recognize the archaeological manifestations of various resource types.
3. Acquire significant Post-Reconstruction Period sites through the state's land acquisition programs.
4. Interpret Post-Reconstruction Period sites statewide for public appreciation and education.
5. Encourage and financially support local government

participation in preservation and acquisition of sites.

6. Nominate Post-Reconstruction Period sites statewide to the National Register of Historic Places.

Chapter 28

TURN-OF-THE-CENTURY PERIOD CONTEXT, 1898 – 1916

Paul S. George

The Turn-of-the-Century Period in Florida history dates from 1898 to 1916. The Spanish-American War, sometimes characterized as "The Splendid Little War," signaled the emergence of the United States as a world military power. Florida benefitted from the war with improved harbors at Tampa, Pensacola, and Key West. Progressive Era reforms brought advances in education and enactment of child labor legislation. Drainage of the Everglades promoted settlement and agricultural development of the southern part of the peninsula. Agriculture contributed in important ways to the Florida economy. Tourism made significant gains during the period. The population grew and manufacturing expanded. Railroads lengthened throughout the state and construction of a highway system began. The period started amid one war and ended as America prepared to enter another (Dovell 1952; Marcus and Fernald 1975; Nance 1962; Patrick and Morris 1967; Rerick 1902; Tebeau 1980).

The Spanish-American War occupied less than two months of the summer of 1898. A few Florida cities became armed camps during the conflict. Tampa was the closest port to Cuba served by adequate rail facilities and containing a population large enough to mobilize support capability. Over 60,000 troops moved through the city between April and August. Jacksonville, Fernandina, and Miami also served as troop camps, though none on as large a scale as Tampa. Key West became an important coaling station for naval ships. Forts Jefferson, Pickens, Taylor, DeSoto, and

Clinch were reactivated and in some cases received modern gun batteries. But the war was short-lived and little physical evidence of it remained in Florida at its end. The few remnants included improved harbors, expanded rail facilities, and rebuilt military installations. Florida also gained some national attention (Belknap 1915; Bittle 1965; Hawk 1986; McGovern 1976; Pearce 1980; Schellings 1958; Thomas 1978).

The true changes wrought during the period came not from the war but from domestic political and social reforms enacted by Florida's Progressive Era politicians (Colburn and Scher 1980; Green 1962; Pavlovsky 1973). Popular discontent and demand for reform had stirred beneath the surface of Florida politics since the 1880s. Significant reforms began in 1904 under the leadership of Governor Napoleon Bonaparte Broward, who campaigned as the champion of farmers, cattlemen, small business, and labor against growing urban corporate interests, especially the railroads. His platform included Everglades drainage, a primary election system, reorganization of higher education, railroad regulation, and conservation. The automobile had first appeared in Florida about 1900. Broward championed a movement to build good roads. Not all of his programs were achieved, but the vision he established became symbolic of the era. Broward is regarded by some historians as the most constructive governor in the history of the state.

Between 1900 and 1910, the population of the state rose from 528,542 to 752,619. St. Lucie and Palm Beach counties were created, reflecting growth along the Atlantic seaboard. By 1920, the population had jumped to 968,470 and seven additional counties were established. Over 2,500 miles of track were added to the state rail system, bringing the total to nearly 6,000 miles (Johnson 1965; Pettengill 1952). The Florida East Coast Railway, which actually completed an extension to Key West in 1912, continued to dominate the east coast of Florida (Branson 1984; Marks 1972). The Atlantic Coast Line and Seaboard Air Line railroads constructed elaborate systems throughout the peninsula, especially in Polk, DeSoto, Hillsborough, Alachua, and Marion counties, where they fed upon the phosphate and citrus

industries (Joubert 1935). By 1915, the Atlantic Coast Line supplied service to Sebring and Ft. Myers (Atlantic Coast Line Railroad 1915). The Seaboard Air Line ran as far south as Venice.

Around the turn of the century the automobile appeared in Florida and within a few years began to create widespread economic, social, and physical changes. City officials and road builders were compelled to review methods of constructing streets and roads and to reexamine their size. Early roads had been constructed with marl, a type of crushed limerock soil that was packed to a hard surface. Asphalt and brick soon came into demand. Construction of the Dixie Highway, which ran along the East Coast, began in 1912. Nearly complete by 1915, the road contained stretches of brick surface, but consisted mainly of graded dirt roads. Polk County was one of the first Florida counties to support and construct a countywide road system. By 1919, county authorities had constructed 217 miles of paved asphalt road (Kendrick 1964).

In October 1915, Florida established a State Road Department, charged with developing a coordinated state highway system (Dovell 1955). County contributions, derived in large part from gasoline taxes, fed its coffers. Convict labor leased to private firms generated some revenue for road construction. By 1918, 4,721 miles of paved road ran throughout the state, most of it in Dade, Palm Beach, Pinellas, Broward, Marion, Polk, and Duval counties.

The number of farms rose by twenty percent in the first decade of the century, reaching 50,016 in 1910. Farm value quintupled in the first two decades of the new century. The 1910 census established the value of farm land at \$17.84 per acre. St. Lucie County contained the most valuable farm land, priced at over \$125 per acre. Jackson and Suwanee counties contained some of the highest concentrations of farm land. Cotton remained an important commodity through 1910, when the crop finally reached antebellum production levels, though production thereafter began to drop dramatically. Corn remained a primary crop. At the same time the vegetable truck crop industry expanded. Improved roads and an extended rail service provided

farmers with quicker access to markets (Akerman 1976; Keeling 1982; Rosenberger 1962).

The citrus industry recovered from the devastating losses it had sustained from the great freeze of 1894-95. Approximately 5 million boxes of the fruit were shipped from the state in 1910. Lemons, grapefruit, tangerines, and pineapples constituted other important Florida fruit products. In 1909, citrus producers formed the Florida Citrus Exchange to consolidate marketing efforts (Hopkins 1960).

Much of interior Florida contained wetlands and remained undeveloped as the century began. The state government encouraged land reclamation projects and development. In 1905, the state legislature created a Board of Drainage Commissioners and enacted a comprehensive drainage law. The board established the Everglades Drainage District, an area containing approximately 4 million acres. Newly dredged canals and widened channels permitted development of lands below Florida's coastal ridge. Progress, initially slow, began to pick up after 1909. By 1914, 675,483 acres of land had been reclaimed from swamp and much of it planted in crops and citrus trees.

Railroads continued to contribute to the state's economic expansion. Passenger service made the greatest gains during the period. Tourism, a growing segment of the economy, became an important part of the expanding rail system. Railroad magnates created large hotels for visitors and their companies joined in efforts to publicize the state. River traffic fed by the tourist industry declined commensurately. Jacksonville, once the head of steamboat navigation for boat tourists entering Florida, became an important rail center. Indicative of the level of tourist activity, the Jacksonville facility handled 152 arrivals and departures daily during the winter season of 1913 (George 1981).

Capital investment in manufacturing and industry trebled during the first two decades of the century (Nelson 1962). The number of manufacturing establishments and employees rose about 40 percent between 1900 and 1920. Lumber and timber products remained the largest industry (Keuchel 1974; Massey 1960; Shofner 1981a). Cigar and cigarette production expanded,

especially in Tampa and Jacksonville (Long 1971). Other leading industries in the state included fertilizer production, printing, ship and boat building, distribution of illuminating and heating gas, and railroad car and shop construction. Cattle ranching, pursued for production of beef, was centered in DeSoto, Osceola, and Polk counties, though large herds were also raised in Alachua, Hillsborough, Manatee, Marion, and Orange counties (Akerman 1961).

Florida's urban population continued to grow in absolute numbers and as a percentage of the state's total population. Significantly, between 1901 and 1917, the Sanborn Fire Insurance Map Company of New York mapped 83 downtown commercial districts in Florida. Brick workers, carpenters, cabinetmakers, printers, machinists, and shoemakers comprised some of the manufacturing wage earners located in Florida's commercial districts. Banks, liverys, taverns, and government agencies further defined the commercial base of Florida towns. Automobile dealerships and garages began to replace liverys and stables. Railroad laborers, dock workers, and ship personnel remained a significant component of the labor force in large cities and in many smaller towns. Mercantile business owners, doctors, lawyers, teachers, and engineers comprised a small elite of the state's populace. Dry goods stores, liverys, boarding houses, and small hotels were found in most rural communities.

In 1905, the legislature approved the Buckman Act, reorganizing higher education and establishing the University of Florida, Florida State College for Women, and Florida Agricultural and Mechanical College. In 1910, departments in graduate studies and law were established at the University of Florida. Construction of public education facilities by local school boards kept pace with the growing population, though state expenditures on a per-pupil-basis lagged behind the national average (Adams 1962; Kersey 1970b, 1972; Lundrigan 1975; Neyland and Riley 1963; Proctor 1956; Provenzo 1985; Pyburn 1951b; Scott 1974; Shore 1937; White 1979).

Resource types of the Spanish-American War Period context include urban and rural settlements and townsites, buildings

associated with the tourist industry, ocean and river port facilities and shipwrecks, railway operating equipment and facilities, education facilities, citrus packing houses, private farms, and state and local government facilities. Of the approximately 700 sites in Florida listed in the National Register of Historic Places in January 1989, 108 are related to the Spanish-American War Period context. The distribution of known and expected sites is shown on the accompanying map. Any standing structures of this period are clearly significant. Any archaeological sites with sufficient integrity to retain meaningful association among artifacts and natural features should be regarded as significant.

The extant buildings in Florida identified with the period and listed in the National Register of Historic Places occupy a wide spectrum of uses and styles. Social clubs, educational buildings, government facilities, retail and wholesale establishments, and transportation buildings, among others, are represented in the list, though residences dominate. Significantly, reflecting the urbanization of Florida during the period, all of the residential buildings added to the list are located in towns and cities. A number of railroad stations or depots, symbolic of the state's expanding transportation system, have been accordingly recognized. The development of the state's southeastern counties and the steady progress of railroad construction along the coastlines during the period are also reflected in the geographic distribution of buildings contained in the list.

Florida architecture underwent substantial change during the turn-of-the-century period. The flamboyant architecture of the Victorian era gave way to more traditional, conservative influences represented by the Beaux Arts, Colonial Revival, and Classical Revival. Also present were Mediterranean influenced styles, including the Spanish Colonial Revival, Italian Renaissance, and Mission, which were to come into full bloom during the 1920s. Contrasting with the more traditional style of architecture were the first examples of the late 19th and early twentieth century American movements, such as the Prairie School, the Commercial style, and the Bungalow. Masonry materials,

particularly in commercial areas, became much more commonplace. Improved construction techniques, particularly the use of reinforced concrete and steel frame structural elements, resulted in the first Florida skyscrapers in cities such as Jacksonville and Tampa. Architecture as a profession became institutionalized during the period with the founding of the Florida Chapter of the American Institute of Architects. Significant changes in building styles occurred in Florida during the period. Middle class ownership of residential buildings increased proportionately as a result of innovative financial mechanisms.

Although not as spectacular as the previous period, economic and population growth, coupled with increasing stability, characterized the period. Educational, religious and social institutions, local governments, and transportation systems expanded and multiplied. They are represented by a number of property types identified and listed in the National Register.

Transportation remained a key to the state's development. Railroad depots and stations were constructed throughout Florida, particularly in previously undeveloped areas. The railroad, because of its speed and accessibility, supplanted shipping as the principal transportation system in Florida. Steamboating, particularly on the St. Johns River, virtually ceased to exist as a commercial enterprise. As an example of this trend, nine of the ten transportation-related National Register properties in Florida are associated with the railroad.

Industrial expansion continued during the Turn-of-the-Century Period. Cigar manufacturing and citrus processing were important activities. In Key West and Tarpon Springs, sponge diving and processing developed on a significant scale. Cigar factories, sponge warehouses, sponge boats, and citrus packing houses are important property types associated with the period.

Educational institutions continued to expand. The State of Florida made a significant commitment to higher education by passing the Buckman Act, which created the University of Florida, Florida Agricultural and Mechanical University, and the Florida State School for Women. Many of the original buildings of these

three university remain and are listed in or eligible for the National Register. Public and private schools of primary, secondary, and higher education have been identified in unprecedented numbers for the period.

Social institutions, a reflection of a maturing society and an improving quality of life, also proliferated. Examples of properties reflecting this trend include the Morocco Temple and Masonic Temple, Jacksonville; the Centro Espanol and Centro Asturiano in Tampa; and the Anderson-Price Memorial Library and Women's Club in Ormond Beach.

With the continued development of rail transportation and economic and population growth, local government proliferated. One of the prevailing themes of the political history of Florida during the period was county subdivision. As Florida's population grew and new communities developed, residents in outlying areas continually lobbied for the division of the state's larger counties into smaller, more manageable units. The tremendous size of many counties, the difficulty of travel, and the settlement of previously unpopulated or underpopulated areas following the construction of railroads made reorganization of county government essential. The construction of the Bradford County Courthouse and the Baker County Courthouse, together with that of many other municipal and county buildings, symbolizes the expansion of county government during the period.

Domestic architecture was quite different in character from that of the previous period. It was much more conservative and influenced particularly by classical precedents and historicism. The Beaux Arts Classical, the Colonial Revival, and the Classical Revival were major influences, even on vernacular architecture. Besides the vernacular, the Bungalow became the most frequent model for residential architecture. The Bungalow represented a clear break from the preceding period in terms of size, massing, and interior design. Together with the Prairie School, it symbolized the introduction of the early modern movement in Florida (Broward 1984). Prairie School design, never as numerous or as widespread as the Bungalow, was largely concentrated in Jacksonville, where it was popularized by Henry J. Klutho, the

state's first board certified architect. The influence of Klutho and other Florida architects can be seen in rapidly expanding residential neighborhoods such as Springfield and Riverside in Jacksonville, Hyde Park in Tampa, and North Hill in Pensacola.

Mediterranean architecture gained in popularity. Because of the various influences prevalent in the development of a style linked to the state's Mediterranean roots, which include Spanish, Moorish, Venetian, and Italian features, the name Mediterranean Revival has been popularly ascribed to it in Florida. Textbooks that employ examples from all parts of the nation exhibiting Spanish influences might term the style Spanish Eclectic. The style was introduced to Florida through St. Augustine in the Ponce de Leon and Alcazar hotels, constructed by railroad baron Henry Flagler in 1887-89. It was during the Spanish American War period generally applied to large and ornate residences and commercial buildings. Not until the following era was it widely adapted to small residences. The style was popularized at San Diego's Panama-California International Exposition in 1915. The outstanding Florida example of the style is the very ornate Villa Vizcaya, located in Miami and constructed in 1914-1916 for Chicago industrialist James Deering. Not long after, flamboyant architect Addison Mizner began applying the style in southeast Florida, especially in Palm Beach and Boca Raton (Curl 1984; Orr 1977).

Commercial architecture also proliferated and changed in character during the Turn-of-the Century Period. A trend toward masonry building materials and innovative construction techniques were major manifestations of the change. Brick and concrete business buildings replaced wooden structures in communities throughout Florida. One of the principal reasons for the trend toward masonry building materials was the actual or potential hazard of fire. As was true in virtually every community in Florida, the first commercial buildings were nearly always wood-frame, constructed of extremely flammable pine. As a result of this building practice, fires were common, particularly in commercial areas where buildings were situated in close proximity to each other. During the late nineteenth and early

twentieth centuries the business districts of a number of Florida cities burned. They included St. Augustine, Fernandina, Palatka, Arcadia, Cocoa, and Titusville. Perhaps the most spectacular of the fires occurred at Jacksonville, where 150 blocks and more than 2,000 buildings were destroyed. The hazard of fire was the principal reason for the rapid reconstruction, using masonry materials, of downtown areas throughout Florida during the early twentieth century.

Research Goals

Settlement Patterns

Studies relating to persistence in Florida's settlement patterns during the Spanish-American War Period are needed as a basis for field survey for potential archaeological resources. Some small communities (Newnansville serves as one example) collapsed and development of another community (Alachua) occurred in the vicinity. Throughout the state, many new communities were established. Expanding transportation arteries provide clues to the disappearance or emergence of new communities and accompanying settlement patterns, serving both as a basis for field survey of archaeological resources and for alerting preservation officials to high probability areas when development threatens potential sites.

Economic Development

Research efforts should address the persistence of key agricultural practices and financial, commercial, manufacturing, and educational activities. Citrus and cattle ranching also developed during the interval. Studies are needed to understand geographic distribution and extent of these industries throughout the Spanish-American War Period in an effort to determine site specific information on postbellum towns, rural communities, ranches, saw mills and naval stores operations, rail and river facilities and operating equipment.

Social organization

Demographic studies, much of which can be developed from land grant, plat, census, and church records, are needed to identify and quantify social mobility and persistence, as well as changes or continuity in the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important, are studies of the native American and Hispanic groups which occupied areas of Florida.

Transportation

Identify the extent of Spanish-American War Period river, rail, and roadway networks in Florida. Those transportation channels provide clues to the locations of emerging communities, naval stores operations, and facilities used in the servicing of transportation equipment. Archaeological artifacts located on these land and water channels represent important memorabilia of the heritage of the Spanish American War Period.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded Spanish-American War Period properties, including shipwreck sites.
2. Conduct archaeological test excavations at a range of Spanish-American War context sites to determine diagnostic artifacts and recognize the archaeological manifestations of various resource types.
3. Acquire significant Spanish-American War Period sites through the state's land acquisition programs.
4. Interpret Spanish-American War Period sites statewide for public appreciation and education.
5. Encourage and financially support local government participation in preservation and acquisition of sites.
6. Nominate Spanish-American War Period sites statewide to the National Register of Historic Places.

Chapter 29

WORLD WAR I AND AFTERMATH PERIOD CONTEXT, 1917 – 1920

Paul S. George

The World War I and Aftermath Period of Florida's history begins in 1917 with the U.S. entry into the war and ends in 1920, when the nation and the state began slipping into a short-lived economic depression. The war brought some change and a little national attention to the state, much as the Spanish American War had. Several military training camps were set up. They notably included training facilities for the armed services' fledgling air wings. Agricultural interests profited from the war to a great degree and ship building firms enjoyed a minor boom. Under Florida's last so-called Progressive governor, Sidney J. Catts, who served between 1916 to 1920, the reform movement initiated earlier in the century continued. The population grew slightly and two new counties, Flagler and Okeechobee, were created. The war's end accompanied the end of a reform era in American life and the beginning of a period of tumultuous social, economic, and political events (Dovell 1952; Florida Department of State 1927; Marcus and Fernald 1975; Tebeau 1980).

The war affected Florida in a number of ways. Army and navy flying schools set up at Arcadia, Pensacola, and Miami aroused interest in the recent invention of the airplane. Key West became the site of a submarine base and a naval training facility. Camp Joseph E. Johnston was constructed near Jacksonville. The University of Florida established a reserve officers training program. Protecting the state's long coastline became a matter of concern. Three defensive sea areas in Florida were established by

the federal government. Coastal patrols operated on land and in the air.

The war lasted until November 1918, too short a duration for major development of support services in Florida. The war nevertheless stimulated the state's economy. Ship building accelerated in Tampa and Jacksonville. War needs encouraged beef, pork, vegetable, and sugarcane production, which led to diversification in the state's agricultural economy, hitherto dominated by cotton and citrus products. Several industries experienced decline during the war. Exports of phosphate and lumber, most of which had been shipped to Germany, fell during the war but resumed after hostilities ended in 1918. A few months before the war's end an influenza epidemic struck the country. Thousands of people became infected and hundreds of deaths occurred. Jacksonville was struck hardest by the disease (Gray n.d.; Merrit 1949). Schools, motion theaters, amusement parks, and taverns in the city were forcibly closed.

Railroad construction resumed at war's end. By 1917, 5,930 miles of railroad track had been constructed statewide. The Florida East Coast Railway stretched along the entire east coast of Florida, having completed its Key West extension in 1912 (Branson 1984). The Atlantic Coast Line and Seaboard Air Line railroads continued construction of the rail network throughout the peninsula, concentrating in Polk, DeSoto, Hillsborough, Alachua, and Marion counties where they profited from the phosphate, citrus, and other developing industries. By 1918, the Atlantic Coast Line supplied service to Sebring and Ft. Myers. The Seaboard Air Line extended as far south as Venice (Joubert 1935).

Proliferating use of the automobile required efforts by city, county, and state officials, planners, and engineers to cope with its demands for street and highway construction and establishment of traffic controls. The automobile revolutionized American life in manifold ways. As society became increasingly mobile, the very nature of commerce and daily life in towns and cities changed. Assisted by federal support, construction of the Dixie Highway, along the east coast, began in 1912. Stretches of it

were paved with brick, though large portions of the highway consisted initially of dirt road.

In October 1915, Florida established a State Road Department, charged with developing a coordinated state highway system (Dovell 1955). County contributions, derived in large part from gasoline taxes, fed its coffers. Convict labor leased to private firms generated some revenue for road construction. By 1918, 4,721 miles of paved road ran throughout the state, most of it in Dade, Palm Beach, Pinellas, Broward, Marion, Polk, and Duval counties. Polk County was one of the first Florida counties to support and construct a countywide road system. By 1919, county authorities had constructed 217 miles of paved asphalt road.

Agriculture remained the dominant economic activity in the state. Farm interests in particular profited from the war. The number of farms in Florida rose only slightly in the 1910-1920 decade to 54,005, though average farm value more than doubled, probably in part due to the inflationary pressures of the war. By 1920 cotton had declined considerably in importance, production dropping by one-third in the previous ten years. Corn was the principal farm crop, though truck farming, the cultivation and sale of perishable fruit and vegetable commodities, continued to expand. Improved roads and the extended rail service provided farmers with quicker access to markets for distribution of their products (Keeling 1982; Rosenberger 1962).

The citrus industry, having rebounded in the previous decade from the devastating late-nineteenth century freezes, continued to grow in economic significance. About 6 million boxes of oranges were shipped from the state in 1920. Lemons, grapefruit, tangerines, and pineapples constituted other important Florida fruit products. In 1909, citrus producers formed the Florida Citrus Exchange to consolidate marketing efforts. Polk County accounted for over one-sixth of the state's citrus production in 1920 (Hopkins 1960).

Drainage of the Florida wetlands, a project initiated in the early part of the century, continued in an effort to open new land for agricultural and residential development. The Everglades Drainage District, created in 1906, comprised approximately 4

million acres. Dredges cut canals and widened river channels, permitting development of lands below Florida's coastal ridge. Practically all of the organized drainage companies operated in the southern and eastern parts of the state. Most of the drainage canals emptied either into the St. Johns River or the Atlantic Ocean. Projects in Polk, Pinellas, Manatee, and Lee counties promoted development in southwest Florida. Over 600,000 acres were drained between 1914 and 1920. Large tracts of timber were cut from drained lands and citrus groves and truck crop farms established on lands which previously had been unsuitable for cultivation.

Tourism continued to expand as a state industry. In the previous period (1898-1916) within the contextual analysis of Florida's history, the railroad had served as the major vehicle for transporting visitors into the state. Railroad magnates had earlier commenced and continued to participate in the construction of hotel and tourist facilities to accommodate the people they attracted to Florida. They also joined chambers of commerce, state, county, and city publicists, developers, and other propagandists in efforts to advertise the state as a visitor destination. Large hotels and smaller facilities appeared along the lines of railroad track stretching along both coasts (George 1981).

Steamer traffic declined as a vehicle for the tourist trade. Jacksonville, once the head of steamboat navigation for boat tourists entering Florida, became an important rail center. Indicative of the level of tourist activity, the Jacksonville facility handled 152 arrivals and departures daily during the winter season of 1913. By World War I its existing facility could not cope with the traffic. In 1919 the terminal company constructed a massive new structure, designed in the Neoclassical style, at Bay and Lee streets. It was hailed as one of the finest stations in the country.

As the new century progressed, the automobile began to exert an impact on the volume and nature of Florida's tourist industry. Even greater numbers of people began making periodic visits to the state. Those who came by automobile, however,

stayed for a much briefer time than those who arrived by rail and steamer and they were generally less wealthy. They could not afford the ornate hotels that railroad magnates Henry Flagler and Henry Plant, among others, had constructed for their clients, but sought out smaller facilities, located along highways. The motel probably began to make an appearance during this period or even earlier. Tourist related facilities accordingly diminished in size. Great hotels, designed in classical styles, were less frequently planned and constructed.

Persistent if uneven growth in manufacturing and industry was evident during the period. The number of industrial or manufacturing establishments rose from 2,159 in 1910 to 2,582 in 1920. Despite labor and material shortages experienced by some primary industries during the war, the manufacturing economy continued to grow. Capital investment tripled in the decade and the number of manufacturing wage earners grew by thirty percent to over 74,000 by 1920 (Choi 1964; Nelson 1962).

Lumber and timber products remained an important industry, employing 19,227 non-salaried workers. Cigar and cigarette production expanded, especially in Tampa. In 1920, the leading industries in the state included lumber, cigar and cigarette production, turpentine, fertilizers, printing, ship and boat building, distribution of illuminating and heating gas, and railroad car and shop construction. Those industries accounted for a significant percentage of the capital investment statewide. Florida cattle ranching, including beef and dairy livestock, was a 14 million dollar industry in 1920, dominated by the raising of beef cattle. The largest ranches existed in Alachua, DeSoto, and Polk counties. Osceola and Volusia counties also contained substantial herds (Ackerman 1976; Blakey 1973; Campbell 1939; Long 1968; Shofner 1981a).

Brick workers, carpenters, cabinetmakers, printers, machinists, and shoemakers comprised some of the manufacturing wage earners located in Florida's commercial districts. Banks, retail commercial stores and offices, and government agencies further defined the commercial base of Florida towns. Automobile dealers established sales outlets in

most cities. Garages and gasoline stations appeared in all of them, replacing liveries and stables. Motion picture theaters became ubiquitous. Restaurants and small hotels or motels catering to automobile-borne tourists began to appear along major thoroughfares. Mercantile and commercial ventures, doctors, lawyers, teachers, and engineers comprised a small but growing elite of the state's populace.

Resource types of the World War I Period context include military bases and facilities, urban and rural settlements, ocean and river port facilities, railway operating equipment and facilities, education facilities, citrus packing houses, private farms, buildings associated with the tourist industry, and state and local government facilities. Of the approximately 700 sites in Florida listed in the National Register of Historic Places in January, 1989, twenty-six are associated with the World War I Period context. The distribution of known and expected sites is shown on the accompanying map. Standing structures of this period may be significant. Any archaeological sites with sufficient integrity to retain meaningful association among artifacts and natural features should be regarded as significant.

In architectural terms, the period is too short to have encompassed any discernible changes in adoption of building style or use of materials. The transitions that began during the preceding era continued. Residential buildings that were not merely vernacular but exhibited a defined style tended to be of the Bungalow and, increasingly, a Mediterranean influenced style. The Bungalow was especially well adapted to middle class residences, for it could be employed on a relatively small scale. The typical Bungalow rose one to one-and-one-half stories and displayed a low pitched gable roof. Tapered columns often supported the porch roof. Some bungalows offered a gable over gable appearance to the street entrance; others a broad, sweeping roof slope that covered both the main portion of the building and the porch.

The influence of Mediterranean architectural features expanded. During the preceding era, what is in Florida often termed the Mediterranean Revival Style, a catchall term to

describe any building that revealed influences from that region, was applied generally to large residential or commercial buildings. Increasingly, the style was applied to smaller buildings, particularly residences. The buildings were characterized by a low-pitched gable or hip roof with wide eaves, capped by barrel tile. Another confirmation of the style was a flat roof with a parapet, employed generally on small buildings. The parapet was usually curvilinear, banded, or tiled and furnished an important decorative element to the elevation. Exterior walls were invariably stuccoed, with a smooth finish, textured with a trowel, rough cast or scored. Examples of the style from the period include El Jardin, in Coconut Grove, and the Bonnet House in Fort Lauderdale.

Research Goals

Military

The most critical need is site specific research to identify the location, extent, and composition of airfields, barracks, arsenals, naval facilities, lighthouses, and other military-related properties.

Settlement Patterns

Studies relating to persistence in Florida's settlement patterns during the World War I period should focus on developing urban neighborhoods. Expanding transportation arteries provide clues to the disappearance or emergence of new communities and accompanying settlement patterns, serving as a basis for field survey and for alerting preservation officials to high probability areas when development threatens potential sites.

Economic Development

Research efforts should address the persistence of key agricultural practices and financial, commercial, manufacturing, and educational activities. Citrus and cattle ranching also expanded during the interval. Studies are needed to understand geographic distribution and extent of these industries throughout the World War I period in an effort to determine site specific information on postbellum towns, rural communities, ranches,

saw mills and naval stores operations, rail and river facilities and operating equipment.

Social organization

Demographic studies, much of which can be developed from land grant, plat, census, and church records, are needed to identify and quantify social mobility and persistence, as well as changes or continuity in the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important are studies of the native American and Hispanic groups which occupied areas of Florida.

Transportation

Identify the extent of World War I period river, rail, and roadway networks in Florida. Those transportation channels provide clues to the locations of emerging communities, naval stores operations, and facilities used in the servicing of transportation equipment. Archaeological artifacts located on these land and water channels represent important memorabilia of the heritage of the World War I period.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded World War I Period properties.
2. Acquire significant World War I Period sites through the state's land acquisition programs.
3. Interpret World War I Period sites statewide for public appreciation and education.
4. Encourage and financially support local government participation in preservation and acquisition of sites.
5. Nominate World War I War Period sites statewide to the National Register of Historic Places.

Chapter 30

BOOM TIMES PERIOD CONTEXT, 1921 – 1929

Paul S. George

The Boom Times Period in Florida history dates from 1921 to 1929. The period was one of fanatical boom and bust in the real estate sector of the economy, attended by spectacular population growth and urban development. The citrus industry also experienced remarkable expansion. Highways, railroads, housing, and government developed in accordance with economic growth. The Florida real estate boom collapsed in 1926, with a dramatic impact on the people and the urban landscape. The Great Depression descended upon Florida, three years earlier than in the rest of the country. Nevertheless, the close of the period is associated with the event generally used to mark the beginning of the national depression, the collapse of the stock market in 1929 (Dovell 1952; Florida Department of State 1927; Marcus and Fernald 1975; Nelson 1962; Patrick and Morris 1967; Roberts 1926; Tebeau 1980).

Between 1920 and 1925, the population of Florida grew from 968,470 to 1,468,211, forcing, in part, a realignment of political subdivisions in the state. Seven new counties were organized in 1921, two in 1923, and four in 1925. Nine were carved out of existing counties in South Florida.

The Florida Land Boom was the most significant event of the period. A number of events conspired in the post-war period to turn a developing hunger for Florida land and land development into a veritable frenzy. The war and tourism had focused national attention on the state. Land reclamation projects had created hundreds of thousands of acres of new land for developers. Social

changes in the nation gave Americans retirement and vacation opportunities, which they often sought to exploit in Florida, a land of sunshine. Speculators, developers, and tourists accordingly began in the early 1920s to invest heavily in Florida real estate. They initially concentrated upon South Florida, particularly Miami, but eventually sought out most parts of the state.

From the colonial era to the present century Florida has historically endured episodic bouts of expansion and contraction, centering about various industries or sectors of the economy. In the 1920s real estate had a repeated turn and, like other cycles before and after, quickly exhausted itself. The great Florida Land Boom of the 1920s was spectacular almost beyond comprehension, however, and its crash devastating. Economic historians regard the phenomenon as one of the precipitating causes of the Great Depression that struck the nation at large in the early 1930s.

It is difficult to exaggerate the speculative proportions of the 1920s Boom in Florida real estate. Miami and Palm Beach are generally regarded as the areas of most intense activity, but few communities in the central and southern parts of the state failed to get caught up in the feverish rush for property. In early 1925 some 20-25 trains daily were arriving in Jacksonville, filled with eager buyers. The same city's Chamber of Commerce reported also that 150,000 automobiles passed through Jacksonville that season. Twenty thousand people were thought to be arriving daily in the state in December, 1924. That fall, the Florida Legislature issued an open invitation to wealthy investors with approval of a constitutional amendment prohibiting either an income or inheritance tax. The resulting capital influx further inflated an already overblown real estate market (Choi 1964; George 1986; W. Nelson 1962; Sessa 1950; Reynolds 1928).

The speculative bubble began to deflate in August, 1925, when the Florida East Coast Railway announced an embargo on freight shipment to South Florida. Rail lines and ports in the Miami and West Palm Beach area had become clogged with incoming building materials. Bankers and businessmen

throughout the nation had begun to complain about transfers of money to Florida (Dovell 1955). Newspapers suggested fraud in land sales. Florida's governor and a score of representatives from the state's press held a "Truth About Florida" meeting in New York in an effort to counter disparaging publicity. Not much helped, however. Property values that in some locations had soared to exaggerated levels during the Boom's peak fell precipitously, bringing over-extended speculators down with them. Conditions worsened in 1926 and construction activity in most parts of the state shut down in 1927. The Great Depression descended upon Florida, three years in advance of the rest of the country.

Fueling the state's population growth and infrastructural development was the growth in the tourist industry. Florida had for more than a century been one of America's favorite destinations for domestic travelers. Changes that began to occur in American society and in its workplace in the 1920s and 1930s encouraged tourism in Florida. The factors included greater wealth per capita; paid annual vacations for middle class workers, particularly those employed in eastern and midwestern industries, about two days' drive from Florida; a continuing rise in automobile ownership and use for vacation travel; and improved highways.

Florida experienced a subtle change during the 1920s and 1930s in the kind of tourist it received. At the turn of the century visitors to Florida arrived by train, usually on a seasonal basis, and stayed in expensive hotels or private houses. That seasonal nature and class identity of Florida tourism virtually turned over as the decades progressed. Once a winter residence for the wealthy, the state began drawing more of its visitors from the middle class and they arrived in the summertime packed in automobiles.

Florida's state and local governments strained to meet the demand for increased highway use. Expenditures upon road construction rose from 2 million dollars in 1922 to 11 million dollars in 1926. In 1923, a driver traveling the east coast of the state encountered roads paved with hard top, clay, shell,

limerock, brick, or simply graded. In 1916, on a good day a motorist might travel 125 miles; by 1925, 200 miles daily was the average, and in 1931 300 miles. Though portions of the interior had been paved, large stretches remained graded or unimproved. "Panhandle" residents drove primarily on graded roads. Polk County enjoyed the best system in the state (Dovell 1955; Kendrick 1964).

The automobile revolutionized transportation habits, residential patterns, and social lifestyles. Ownership became widespread. In 1922, 94,175 tags were issued to owners of passenger cars in Florida. That figure grew to 377,284 in 1926. The state road department could not build enough hard surfaced roads to meet demand, especially during the tourist season. Several counties issued bonds for construction and joined the state road department in an effort to improve the state road network. Over 3,000 miles of paved road had been created by 1930.

The completion of the Tamiami Trail in 1928 linked Tampa and Miami by highway for the first time (Davis 1979; Walker 1959). The Dixie Highway along the east coast, a part of U.S. 1, fed a steady stream of northern visitors and immigrants into the state. The opportunity for northern residents to travel to Florida and return home within a two-week period caused an explosion in the Florida tourist market. Importantly, tourism redefined Florida. Unquestionably, it helped to trigger the land boom and fed population expansion. Immigration from the north diluted Florida's southern cultural roots and fed its developing urban stratum. Between 1920 and 1930 the number of residents in Florida living in cities grew from 36 to 52 percent of the population.

Railroads added track in response to the development of new towns and expansion of existing urban places, providing greater capacity to more areas of the "Sunshine State." Over 2,500 miles of track were laid between 1917 and 1927 and double tracks or even two railroads operated in some communities. Most of the expansion occurred in Central and South Florida. Considerable railroad construction also took place elsewhere, however,

including Jackson and Suwanee counties (Bramson 1984; Joubert 1935).

The Seaboard Air Line (SAL), Atlantic Coast Line (ACL), and Florida East Coast (FEC) railroads competed for tourist dollars and freight revenue from transporting agricultural products, especially citrus. Beginning about 1925, the SAL constructed track from Coleman (near Wildwood) to West Palm Beach, then to Miami in 1927. That link eliminated the monopoly the FEC had enjoyed on the east coast since the 1890s. On the lower west coast, the SAL and ACL engaged in a race toward some unknown destination. Both lines extended rails to Naples in early 1927. The ACL reached Everglades later that year. The FEC expanded into the interior, with a branch operating from Maytown (near New Smyrna) to Pahokee on the shore of Lake Okeechobee.

The number of farms and their individual value rose slightly during the 1920s. The truck crop industry expanded slowly; many farmers harvested snap beans, tomatoes, cucumbers, green peppers, watermelons, and other perishable fruits and vegetables for cash sale (Rosenberger 1962). The beef cattle industry did not prosper at all during the decade and counted fewer cattle at pasture in 1930 than in 1920 (Akerman 1976). Citrus production expanded in company with the real estate boom, however. Groves were planted in former swampland as land was reclaimed by drainage projects. Production was centered in DeSoto, Orange, and Polk counties, though all of the southern parts of the peninsula participated (Hopkins 1960; Ziegler and Wolfe 1961). Improved roads and the extended rail service provided farmers with quicker access to markets for distribution of the products.

Disaster struck citrus growers near the end of the decade. A Mediterranean fruit fly infestation, discovered in 1929, forced destruction of 72 percent of the citrus trees in the state and resulted in a production decline of over 50 percent in one year. Still, so phenomenal had been growth in the industry that production at the end of the decade exceeded the 1920 level.

Drainage of the wetlands, begun in the early part of the century, continued in the 1920s. Land reclaimed from the swamps was used for expansion of citrus groves and cities. The drainage

activity occurred in the southern and eastern parts of the state, though projects in Polk, Pinellas, Manatee, and Lee counties promoted development in southwest Florida. Six hundred thousand acres of swampland were reclaimed in the decade.

Some parts of the state's economy stagnated or declined in the decade. Production of lumber, turpentine, fertilizers, and tobacco products grew slowly, and in some cases declined. When the land boom collapsed, other parts of the economy suffered. The number of manufacturers and wage earners in manufacturing industries actually declined from 1920 to 1930. Urban commercial districts reflected the fortunes of business, expanding and flowering in the early part of the decade and lapsing into decline at its close. The initial rise of urban development during the heady years of the land boom is reflected in the expansion of Sanborn maps of urban areas. Between 1920 and 1926, forty downtown districts were mapped by the company for the first time. Only two new communities were added in the following four years.

Brick masons, carpenters, cabinetmakers, machinists, and shoemakers comprised some of the manufacturing wage earners located in Florida's commercial districts. Banks, retail commercial stores and offices, newspapers, automobile dealerships, motion picture theaters, and government agencies further defined the commercial base of Florida towns and cities. Dry goods stores, boarding houses, and hotels were located in many small rural communities. Mercantile and commercial ventures, doctors, lawyers, teachers, and engineers comprised a small but growing elite of the state's populace.

When the stock market collapsed in 1929, leading into the Great Depression throughout the rest of the country, Florida was already three years into decline. Platted subdivisions, many with completed roads but empty lots, could be found in communities throughout the state, but particularly in the central and southern regions of the peninsula. Partially finished and vacant buildings stood in place for years as monuments marking the Great Florida Land Boom. Elaborate gateposts marking the entryway to ambitious subdivisions can still be found leading to vacant acres.

Nothing quite so quick and spectacular had ever before occurred in the history of American land development.

Resource types of the Boom Times Period context include urban and rural settlements, ocean and river port facilities, railway operating equipment and facilities, educational structures, citrus packing houses, private farms, tourist related facilities, and state and local government buildings. Of the approximately 700 sites in Florida listed in January, 1989 in the National Register of Historic Places, 166 are associated with the Boom Time Period context. The distribution of known and expected sites is shown on the accompanying map. Any standing structures of this period are clearly significant.

The buildings included in the list occupy virtually a full spectrum of uses and styles. Only buildings associated with the military and medical professions are absent. The relatively large proportion of the total list represented by buildings from this period, moreover, testify to the staggering physical development of the state in the 1920s. Numerous historic districts have found a place in the list, testimony to the ambitious large scale developments that were undertaken, a rehearsal for events that reoccurred in the Modern Period (post-1950).

The numbers of buildings and districts also reflects what was happening in Florida during the period. Relatively few buildings from the "Panhandle" region are listed for the period. On the other hand, southeast Florida, including Dade, Broward, and Palm Beach counties, and the Gulf West Coast, particularly Hillsborough, Pinellas, and Sarasota counties, dominate the list. Duval County (Jacksonville) and St. Augustine also experienced considerable development at the time, as did most communities strung along the highways that carried people into Florida and along its coasts. Towns in the interior, like Sebring, Lake Wales, and Lakeland, also participated in the Boom. Few communities south of Orlando were exempted from the speculative fever.

Building style was almost wholly dominated by the influence of Mediterranean architecture. Developers and architects attempted to capitalize upon Florida's Spanish heritage, probably because it offered a distinctive element to Americans from other

states who were reared in the English tradition. Buildings large and small were designed in the so-called "Mediterranean Revival" Style, a catch-all term employed in Florida to describe a building displaying features obviously derived from some part of the Mediterranean Basin. Textbooks would probably define the style as "Spanish Eclectic," though there were surely stylistic variations in Florida that had no parallels elsewhere in the nation.

The buildings invariably displayed barrel tile atop either a low-pitched gable or hip roof. Smaller residences, however, often contained a flat roof, which usually had a curvilinear parapet, which in turn was often banded or tiled for decoration. Exterior walls were usually stuccoed, with a smooth finish, textured with a trowel, rough cast or scored. Porches were integral elements of the style, frequently arcaded with semi-circular headed arches or containing a columned loggia. Elevations generally exhibited one feature that conveyed a vertical emphasis to the building, often in the form of a square tower. In smaller buildings a chimney was often capped with a red tile cover to resemble a bellcote. Examples of residences reflecting the style are strewn indiscriminately throughout the state, though the closest concentrations of them are located in the central, western and southeastern parts.

Other residential styles are found in abundance, for the development of Florida at the time was great enough to encompass every variety of building, large and small. The Bungalow style, introduced in previous periods, continued to find acceptance in Florida. The style was exclusively used in residential buildings and was characterized by a low pitched, gable over gable roof, a rectangular ground plan with the short, or gable end oriented toward the street. Elaborate forms of the Craftsman or Bungalow style of residence continued to appear, although in diminishing numbers. The typical Bungalow was smaller than earlier examples and exerted a strong influence on the domestic, vernacular architecture of the period as well.

In contrast to styles whose popularity was fading, examples of the Art Deco style began to appear. The Modernistic styles first gained attention in the early 1920s. Textbooks cite few examples

of the style applied to domestic architecture before 1930, though by the end of the decade it was becoming popular in public and commercial buildings. The first examples of the style are concentrated largely in the Miami Beach area.

Commercial buildings in Florida constructed at the time reflected a variety of influences. Many, of course, displayed the influence of Mediterranean styles in detailing. Examples abound: The Vineta Hotel in Palm Beach; the Gulf Stream Hotel in Lake Worth; the Miami-Biltmore Hotel in Coral Gables; and the Don Ce Sar Hotel in St. Petersburg. Classical architectural styling continued to be employed. Tampa's S. H. Kress and Company Building, a four-story Renaissance Revival building, offers a late example. Commercial architecture in Florida continued in general to employ the characteristics of two and three-part detailing developed at the turn of the century.

The materials used in construction turned increasingly to brick, stone, and steel, though numerous vernacular residences and some small commercial buildings continued to employ wood frame construction techniques. Hollow clay tile became ubiquitously used in many areas for the construction of exterior walls. Many residences were constructed of poured concrete. Concrete block came into common usage.

For the first time in Florida, truly planned residential communities appear. Prior to the 1920s, virtually all residential development in Florida had developed organically, largely on the basis of a grid-iron subdivision lay-out. During the 1920s, planned residential areas, which contained innovative layouts, designated parks, setback requirements, deed restrictions, and design guidelines, appeared for the first time. Among these were Coral Gables; Avondale, San Jose, and San Marco in Jacksonville; Davis Island in Tampa; and Davis Shores in St. Augustine.

Further research is in order upon buildings associated with the tourist industry, which continued in the 1920s to reflect the changes imposed by increasing use of the automobile. Other than hotels, few if any examples of attractions and other facilities developed expressly for the expanding tourist market are contained in the list. The identification of residences, however

scattered, that were built during the 1920s, may demonstrate the degree to which developments were planned, if not always fully carried out. The citrus industry is not represented, though it obviously was a major component of the Florida economy.

Research Goals

Settlement Patterns

Studies relating to persistence in Florida's settlement patterns during the Boom Time period are needed as a basis for field survey of architectural resources.

Economic Development

Research efforts should address the persistence of key agricultural practices and financial, commercial, manufacturing, and educational activities. Citrus expanded significantly during the interval. Cattle remained an important industry. Studies are needed to understand geographic distribution and extent of these industries throughout the Boom Time period in an effort to determine site specific information on urban and rural communities, ranches, saw mills and naval stores operations, rail and river facilities and operating equipment.

Social organization

Demographic studies, much of which can be developed from land grant, plat, census, and church records, are needed to identify and quantify social mobility and persistence, as well as changes or continuity in the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important are studies of the native American and Hispanic groups which occupied areas of Florida.

Transportation

Identify the extent of Boom Time period river, rail, and roadway networks in Florida. Those transportation channels provide clues to the locations of emerging communities, naval stores operations, and facilities used in the servicing of transportation equipment.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded Boom Time Period properties.
2. Acquire significant Boom Time Period sites through the state's land acquisition programs.
3. Interpret Boom Time Period sites statewide for public appreciation and education.
4. Encourage and financially support local government participation in preservation and acquisition of sites.
5. Nominate Boom Time Period sites statewide to the National Register of Historic Places.

Chapter 31

DEPRESSION AND NEW DEAL PERIOD CONTEXT, 1930 – 1940

Paul S. George

The Depression and New Deal Period in Florida history dates from 1930 to 1940. The beginning of the Great Depression is normally associated with the stock market crash of 1929 and its end with the effective entry of the United States into World War Two. In the intervening decade, virtually every measurable aspect of economic life remained stagnant. Large numbers of people were unemployed, as many as 25 percent of the population at the peak of the depression. Contrary to conventional belief, the economy did not, however, stay flat throughout the decade, but waxed and waned, rebounding in 1935-36 only to recede again a final time before higher public expenditures associated with rearmament gave it new life. The New Deal programs of the Franklin Roosevelt Administration alleviated some of the financial stresses, but full recovery failed to materialize until World War II provided jobs to support the war effort (Dovell 1952; Federal Writers' Project 1939; Marcus and Fernald 1975; Nance 1967; Patrick and Morris 1967; Tebeau 1980).

There was no single cause for the stock market crash or the Great Depression. Speculative excesses in the market are usually given as the reason for the drop in stock prices, but an underlying malaise in the economy had been evident throughout the latter part of the 1920s. A stagnant or bad farm economy provided one certain sign of trouble. Excesses appeared in industry and business as well as in the stock market. The automobile industry was grossly over built, for one example. The best example of such

excess was provided by the real estate market in Florida, which in the mid-1920s reached undreamed of speculative proportions before resoundingly crashing, bringing down much of the rest of the state's economy with it.

The state had suffered a disastrous fruit fly infestation in the late 1920s that devastated its citrus industry. Severe hurricanes added to Florida's distresses in 1926 and 1928. The events conspired to create a local depression that served as a portent of things to come nationally. Between 1929 and 1933, 148 banks in Florida collapsed. Deposits and investments fell, and annual income per capita declined from \$510 to \$289. More than half of the state's counties owed teachers back salaries. Some counties and cities implemented public welfare programs administered by social workers. None of those efforts were sustained by sufficient revenues.

Virtually every part of the economy in Florida suffered during the depression. Production of beef cattle and citrus declined. Manufacturing, though a relatively small part of the Florida economy, fell. The number of manufacturing firms in the state dropped slightly during the decade. Only Tampa experienced some improvement. Agricultural commodities in general experienced declines in production and prices. Projects to reclaim Florida swampland through drainage, initiated in the early part of the century, came to a halt. There was no need for land to develop, since no development occurred.

The railroad industry, which operated amid favorable economic conditions in the decade following World War I, suffered hard during the depression. Adding to its troubles were hurricanes that damaged rolling stock and tracks, especially that belonging to the Florida East Coast Railway (FEC). Schedules were reduced, personnel laid off, and rolling stock retired or sold. After several years of struggle, the FEC filed for bankruptcy and fell into receivership in 1931 (Stoesen 1973). In 1935 another severe hurricane struck South Florida, destroying so much of the FEC's "Overseas Railroad" to Key West that the company decided to sell what remained to the state. The Works Progress Administration (WPA), one of Franklin D. Roosevelt's "Alphabet

Programs," constructed a roadway on the former railroad bed, and the Overseas Highway reopened in 1938 (Hopkins 1986).

The Atlantic Coast Line (ACL) and Seaboard Air Line (SAL) railroads were less affected by events than the FEC, since their systems were more geographically diverse. Nevertheless, they were forced to lay off personnel and reduce services. The railroads in general experienced a drop in the business of hauling commodities and a decline in demand for passenger service. Adding to their problem was the increasing use of automobiles by Florida-bound tourists.

The tourist economy helped to buoy the Florida economy as the decade wore on. Tourist patterns continued to change as America's love affair with the automobile blossomed. Construction of highways leading into the state from the north gave people along the East Coast a straight shot into Florida. Federal laws governing hours in the workplace, generally designed in the 1930s to create greater distribution of jobs, resulted in more vacation time for middle class workers in northern industries, who began in growing numbers to look forward to an annual trip to Florida. The seasonal nature of tourism in Florida virtually turned over at the time. Once a winter residence for the wealthy, Florida began drawing more of its visitors from the middle class and they arrived in the summertime packed in automobiles. In 1936, over 2 million people visited the "Sunshine State," spending \$224,000,000 in the process.

As the national misery deepened in the 1930s the federal government, under the administration of President Franklin D. Roosevelt put into place a series of national relief programs. The importance of the New Deal in the economic and financial history of Florida can hardly be overestimated. Two important programs in Florida were the Works Progress Administration (WPA) and the Civilian Conservation Corps (CCC). The achievements of the WPA included construction of or improvements to public buildings, parks, playgrounds, highways, streets, and culverts. Employment was provided to professionally trained people, such as architects, historians, and archaeologists, as well as industrial

and service sector employees. The WPA assisted in the expansion of the Florida highway system, helping to build an 6,000 additional miles of streets and highways (Kendrick 1964).

Historians of the New Deal judge the Civilian Conservation Corps (CCC) to have been one of the most successful of Roosevelt's depression-era programs. Established as the Emergency Conservation Works, the CCC, as it later became known, operated from 1933 to 1942 and employed nearly three million men, most of whom were between ages of 18 and 25. They were put to work to improve and preserve America's forests, parks, and agricultural lands. Some of the tasks performed by enrollees included the prevention and fighting of forest fires, construction and maintenance of forest paths, and the establishment of camps and recreation areas in private, state, and national forests (Shofner 1987; Sweets 1963-67).

The New Deal gave life to a project as old as Florida's recorded history: An inland route from the St. Johns River to Tampa Bay. A ship canal project was announced by the President in September 1935, but the Congress failed to fund its construction. After World War II, the Cross-Florida Barge Canal, as it became known, was resurrected (Rogers 1957; Sewell 1968).

Resource types of the Depression and New Deal Period context include urban and rural settlements, tourist related facilities, including attractions designed for visitors, ocean and river port facilities, railway operating equipment and facilities, educational buildings, citrus packing houses, private farms, and state and local government buildings. Of the approximately 700 sites in Florida listed on the National Register of Historic Places in January, 1989, 32 are related to the Depression and New Deal Period context. The distribution of known and expected sites is shown on the accompanying map. Any standing structures of this period are clearly significant.

Little building activity occurred during the initial years of the Depression Decade of the 1930s. The construction that did take place from 1930 to 1937 was largely limited to two type of activities: tourism and public works projects funded by federal programs, such as the Works Progress Administration.

Private sector development was largely concentrated in a few tourist oriented areas, primarily Miami Beach, but also in Daytona Beach and several other coastal areas. The Art Deco style began to appear in large numbers, and as did the Art Moderne later in the decade. The Art Deco and Art Moderne are mainly concentrated in the Miami Beach Historic District, but also can be found in the Daytona Beach Historic District. A classic example of the Art Deco is the Kress Building in Daytona Beach. A similar example of the Moderne is Marineland near St. Augustine.

A further significant stimulus to building construction was associated with public works projects, particularly those funded by the federal government. Numerous post offices, federal buildings, auditoriums, armories, and municipal offices were constructed under federal auspices. The Civilian Conservation Corps developed parks at Ft. Clinch, Fernandina Beach; Torreya State Park, Calhoun County; Gold Head Branch, Keystone Heights; O'Leno, Ft. White; Highlands Hammock, Sebring; Myakka River, Sarasota; Hillsborough River, Zephyrhills; Florida Caverns, Marianna; and Ravine State Gardens, Palatka. These CCC parks formed the basis for the Florida State Park system, which absorbed them in subsequent years.

As the Depression wore on, the New Deal began introducing innovative mechanisms for financing housing construction, including federally guaranteed home loans. This stimulated home building, generally confined to relatively small houses designed for middle class incomes. Notable concentrations of late 1930s houses can be found in Miami, Fort Lauderdale, and Daytona Beach, all of which were popular tourist or retirement destinations. The architectural style of the buildings is confusing. Generally vernacular, the houses show elements of Bungalow, Art Deco, and Mediterranean Revival styles. They also offer a resemblance to the styles that were employed in the immediate post-World War Two era. Late 1930s domestic architecture offers a link between early nineteenth century and post-1945 styles.

Research Goals

Settlement Patterns

Studies relating to persistence in Florida's settlement patterns during the Depression and New Deal Period are needed as a basis for field survey for potential archaeological resources. Expanding transportation arteries provide clues to the disappearance or emergence of new communities and accompanying settlement patterns, serving both as a basis for field survey of archaeological resources and for alerting preservation officials to high probability areas when development threatens potential sites.

Economic Development

Research efforts should address the persistence of key agricultural practices and financial, commercial, manufacturing, and educational activities. Citrus and cattle remained important industries. Studies are needed to understand geographic distribution and extent of these industries throughout the Depression and New Deal Period in an effort to determine site specific information on towns, rural communities, ranches, saw mills and naval stores operations, rail and river facilities and operating equipment.

Social organization

Demographic studies, much of which can be developed from land grant, plat, census, and church records, are needed to identify and quantify social mobility and persistence, as well as changes or continuity in the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important are studies of the native American and Hispanic groups which occupied areas of Florida.

Transportation

Identify the extent of Depression and New Deal Period river, rail, and roadway networks in Florida. Those transportation channels provide clues to the locations of emerging communities, naval stores operations, and facilities used in the servicing of transportation equipment. Archaeological artifacts located on

these land and water channels represent important memorabilia of the heritage of the Depression and New Deal Period.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded Depression and New Deal Period properties.
2. Acquire significant Depression and New Deal Period sites through the state's land acquisition programs.
3. Interpret Depression and New Deal Period sites statewide for public appreciation and education.
4. Encourage and financially support local government participation in preservation and acquisition of sites.
5. Nominate Depression and New Deal Period sites statewide to the National Register of Historic Places.

Chapter 32

WORLD WAR II AND AFTERMATH PERIOD CONTEXT, 1941 – 1949

Paul S. George

The World War II and Aftermath Period in Florida history dates from 1941 to 1949. The period begins as the nation emerged from the Great Depression and ends in the post-war era. The great event of the period was, obviously, the war itself, which exerted a material impact on the state. Florida became during the conflict one of the nation's major training grounds for army, navy, and air force personnel. Its major industry, tourism, came to a virtual halt and major tourist facilities were placed into wartime service. Industry in the state, not previously a major component of the economy, expanded dramatically. Agricultural production rose dramatically. Significantly, hundreds of thousands of Americans were introduced to Florida as servicemen and women. Many remained or returned after the war (Dovell 1952; Marcus and Fernald 1975; Nance 1962; Patrick and Morris 1967; Tebeau 1980).

Increased defense spending, which in the early 1940s helped to bring the nation out of depression, had a significant economic impact in Florida, particularly in areas where large military installations were located. Construction of an army training center at Camp Blanding, near Starke, began in 1940. Key West was returned to active service as a naval base. The Naval Air Training Station at Pensacola was expanded. Every naval aviator who participated in the war spent time at that base. Military facilities were reactivated and expanded at the Drew, McDill, and Eglin airfields and a new naval air station established at Jacksonville (McGovern 1976; Rogers 1960).

In some cases, the armed services took over civilian facilities. The Ponce de Leon Hotel in St. Augustine, for example, was employed to house and train members of the Coast Guard. Marineland in Flagler County, a tourist attraction, was used by the Navy for research purposes. By April 1942, the Army Air Force occupied 70,000 hotel rooms on Miami Beach. The Hollywood Beach Hotel served as a naval indoctrination center, and hotels in Daytona Beach were employed to house members of the Women's Army Auxiliary Corps (WAAC) undergoing training there. Training activity reached its peak in 1943, after which the hotels were gradually converted to hospitals, convalescent homes, and redeployment centers.

Florida contributed an estimated 250,000 people to the armed forces. Civilians participated in defense efforts. The Florida Defense Council was reactivated in 1941, providing services ranging from aircraft spotters and air raid wardens to medical assistants and nurses' aides. Coastal defense became a serious matter. German U-boats lurked off the Florida coast, preying on vessels following the Gulf Stream. Sinkings were a frequent event. The Civil Air Patrol, Coastal Picket Patrol, and craft ranging from pleasure boats to dirigibles maintained watch for the German submarines.

Millions of servicemen and women were stationed for one period or another at some base in Florida during the war. They accounted for a substantial increase in the state's population, amounting to 46 percent from 1940 to 1950. Many servicemen chose to remain in Florida after their discharge. Others returned to take up residence after the war. Still more kept a memory of the state alive until their retirement years and returned at that time (Rogers 1960).

Railroads profited mightily during the war, transporting military goods and materials and servicemen. The larger lines especially prospered, though hard times returned at the war's end. The Florida East Coast Railway, bankrupt and in receivership since 1931, experienced profitable operations from 1942 to 1944, but suffered losses in 1945 and thereafter for a number of years. Gasoline shortages and curtailment of civilian automobile

production during the war forced civilian use of the railroads for passenger service. In 1946 automobile manufacturing resumed and Americans took to the highways once again, abandoning the railroad. Developing use of the airplane for passenger service also cut into railroad profits. Florida became a major airline destination and entrepot for international air travel in the post-war years.

The war also brought expansion of the highway system (Kendrick 1964). During the administration of Governor Spessard Holland (1941-1945), the State Road Department constructed 1,560 miles of highway, raising the total in 1945 to 8,000 miles. The Florida State Road Department continued to map Florida's counties, creating a permanent record of roads, rural buildings, and schools and other public structures in each county. Manufacturers in Florida produced only one percent of the nation's military goods. Shipbuilding was the principal industry. Facilities on the St. Johns River and in Hillsborough, Duval, and Bay counties accounted for almost half of Florida's industrial war contracts. Industrial production in Florida did not retreat at war's end, however. It continued to expand, while that in other parts of the nation declined.

Agricultural production, dominated in Florida by citrus and vegetable crops, increased considerably during the war. Development of a frozen concentrate process particularly spurred the citrus industry and established a basis for enormous expansion in the decades to come. Truck crop farming and beef cattle production gained notably and remained stable in the postwar period (Akerman 1976; Hopkins 1960; Rosenberger 1962; Sitterson 1950).

Significant changes in Florida's economic, social, and political fabric occurred in the 1940s. As the urban population in Florida increased, the state tended to lose much of its southern identity. Florida grew faster than any southern state and twice as fast as the national average. Native-born Floridians totaled just 52 percent of the state population. Fewer people in Florida gained their livelihood from agriculture than in other southern states and more were engaged in construction and the trades. Florida

politics also differed from other southern states. Racial and populist issues were relatively less important in Florida than in such neighboring states as Alabama and Georgia. The state contained geographic sections that maintained separate political outlooks. The electorate changed continually as immigration transformed the populace. As increasing numbers of people resettled in Florida after the war the pace of those changes intensified.

Florida emerged from World War II with a strong economy. Tourism quickly took its place as the dominant component of that economy. By 1947, approximately 32 percent of all Floridians earned their living through work related to the tourist industry (Wolff 1945). The demand by veterans for a university education prompted advances in Florida's program of higher education. State government became more active in economic and environmental concerns. Everglades National Park, the nation's only subtropical park, was officially dedicated in 1947. Fencing laws ended the open range era. A stiffer citrus code was enacted, preventing shipment of unripened fruit. Such measures were but a small example of what would be eventually required of state government in coming decades, when tourism and immigration reached floodtide.

Resource types of the World War II and Aftermath Period context include military bases and facilities, urban and rural settlements, facilities and attractions related to the tourist industry, ocean and river port facilities, railway operating equipment and facilities, educational buildings, citrus packing houses, private farms, shipwrecks, and state and local government facilities. Only five of the approximately 700 sites in Florida listed in the National Register of Historic Places in January, 1989, are related to the World War II and Aftermath Period context. The distribution of known and expected sites is shown on the accompanying map. Standing structures of this period may or may not have significance, depending upon their historical association and architectural quality.

Research Goals

Military Affairs

The most critical need here is site specific research to identify the location, extent, and composition of airfields, barracks, arsenals, naval facilities, lighthouses, and other military-related properties.

Settlement Patterns

Studies relating to persistence in Florida's settlement patterns during the World War II and Aftermath Period are needed as a basis for determining the impact of population change.

Economic Development

Research efforts should address the persistence of key agricultural practices and financial, commercial, manufacturing, and educational activities. Citrus and cattle remained important industries. Studies are needed to understand geographic distribution and extent of these industries throughout the World War II and Aftermath Period in an effort to determine site specific information on towns, rural communities, ranches, tourist related facilities, and rail and river facilities and operating equipment.

Social organization

Demographic studies, much of which can be developed from land grant, plat, census, and church records, are needed to identify and quantify social mobility and persistence, as well as changes or continuity in the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important are studies of the native American and Hispanic groups which occupied areas of Florida.

Transportation

Identify the extent of World War II and Aftermath Period river, rail, and roadway networks in Florida. Those transportation channels provide clues to the locations of emerging communities, tourist operations, and facilities used in the servicing of transportation equipment.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded World War II and Aftermath Period properties.
2. Acquire significant World War II and Aftermath Period sites through the state's land acquisition programs.
3. Interpret World War II and Aftermath Period sites statewide for public appreciation and education.
4. Encourage and financially support local government participation in preservation and acquisition of sites.
5. Nominate World War II and Aftermath Period sites statewide to the National Register of Historic Places.

Chapter 33

MODERN PERIOD CONTEXT, 1950 – PRESENT

Paul S. George

The Modern Period in Florida history dates from 1950 to the present. The state has changed dramatically in that period, its population expanding beyond predicted levels, its social fabric transformed by unexpected waves of immigrants from Cuba, Haiti, and other parts of the hemisphere, and its economy altered by developments in the tourist industry and installation of the national space program on the east coast of Florida. Migration into the state of residents, particularly retired individuals, from other parts of the nation continued to expand, adding to Florida's growing population, which tripled in the thirty years after 1950. In the 1970s, spurred by the development of Disneyworld, near Orlando, Florida became the second largest tourist destination in the world, drawing over 35 million tourists annually. Only the nation of Spain claims a greater share of the world tourist market. Most arrive by automobile, employing an extensive interstate highway system whose construction was begun in the late 1950s. The impact of the events of the period has exerted a profound effect on the physical appearance of Florida (Marcus and Fernald 1975; Nance 1962; Patrick and Morris 1967; Tebeau 1985).

World events precipitated a rapid expansion of America's space effort in the 1950s. The site selected for development of the nation's major military and civilian missile launching base was Cape Canaveral, located on Florida's east coast. A naval air station, established there in 1940, had been expanded in 1949 to include a long-range missile proving facility. In 1958, the National

Aeronautics and Space Administration (NASA) began operations at the Cape (Benson and Faherty 1978; Hartsfield 1966)

The development of the space industry dramatically transformed the surrounding communities, which principally included Eau Gallie, Cocoa, Melbourne, and Titusville. Their population expanded greatly, and all had to cope with the special demands of a suddenly enlarged work force for social and educational services. Satellite industries appeared on the periphery of the space facility. State and local governments strained to install the physical infrastructure required throughout the surrounding region to accommodate the population and the activity generated by events and operations at the Cape.

Tourism emerged as Florida's dominant industry in the Modern Period. Essentially stagnant during the war, the industry rebounded quickly as the civilian economy began to expand in the late 1940s. Critical to the industry's growth was the development of a transportation system to accommodate millions of visitors. Construction of the Interstate Highway System, initiated in the late 1950s, gave automobile-borne tourists easier access to Florida and sped transit within the state. The airline industry grew nearly apace with the highway system, especially after the introduction of jet passenger planes in the 1950s. Miami was the principal destination for tourists in the 1950s. The launching of space flights from the central East Coast began to draw attention the following decade. A 1957 survey revealed that most tourists came to Florida to enjoy the beaches and natural scenery; only 27 percent were lured by commercial attractions. That changed in the early 1970s with the opening of Disney World (Zehnder 1975). By 1980 the Orlando-based attraction was drawing over 20 million visitors annually. Other attractions, located in a belt that reached across the state from Tampa to St. Augustine, supported by hundreds of ancillary establishments, fed off the hordes of visitors attracted to Central Florida.

The flood of cash generated by tourism spurred expansion of the retail and banking industries. The number of banks and financial size of the institutions ballooned. Large urban and

suburban malls were created in the 1970s to serve the consumer culture that spun from the tourist industry. Manufacturing remained a small part of the economy, but nevertheless expanded, particularly in industries that supported the space effort. Florida particularly benefited from the development of technologies, such as those associated with the computer industry, that did not depend upon raw materials, which that state lacks.

Citrus products dominated agricultural output (Hopkins 1960; Ziegler 1961). Development of frozen concentrate processes especially helped the industry, which reached a peak of production in 1979, when 206 million boxes of fruit were harvested. Subsequent natural disasters, which included infestations of the fruit fly and canker disease and freezing temperatures, plagued the industry and resulted in a sharp drop in production in the 1980s. The harvesting of so-called truck crop vegetables thrived (Rosenberger 1962). Sugarcane production surged when, following the 1959 revolution in Cuba, the United States placed a trade embargo on trade with that island nation. Large plantations were developed in the Lake Okeechobee and Everglades regions. By the late 1970s Florida had also become a major beef and dairy producing state. Much of the expansion in the food industry resulted from a need to feed the millions of tourists that Florida received annually. The effective population of the state far exceeded the approximately 10 million residents counted in the 1980 census.

Politics in the state underwent a veritable revolution in the Modern Period. Desegregation and the move to equitable voter representation in apportioned districts promoted much of the change. Under the impact of northern in-migration, tourism, and urban development, Florida throughout much of the twentieth century had gradually lost its southern identity. That trend continued in the Modern Period. Population growth during the period was most intense along the coasts, especially in the southeastern and central-southwestern counties. Rail passenger service virtually expired after World War II. In 1971 the National Railroad Passenger Corporation (Amtrak) was established and

assumed control of passenger operating equipment. Consolidation of remaining freight lines proceeded throughout the period and led to the return of profitability for some lines.

The physical appearance and social composition of Florida has changed dramatically during the period. Strip and suburban development has led to the destruction of much of the state's historic infrastructure, particularly along the major highways, such as U.S. 1, U.S. 19, and U.S. 90. The historic fabric of towns like Marianna, Titusville, Lake Worth, and even St. Augustine that once lined those roads has virtually disappeared. The post-war flight to suburban residential developments has resulted in the physical decline of urban residential neighborhoods and downtown commercial districts. The financial costs of providing services to newly developed suburbs, strung far out along the periphery of cities, began to weigh upon Florida politicians. Arguments for redevelopment of the "inner city" are growing and will surely involve to great extent the rebuilding of much of the state's historic building fabric.

Resource types of the Modern Period context include urban and rural communities, ocean and river port facilities, railway operating equipment and facilities, education facilities, citrus packing houses, cattle ranches, private farms, space industry facilities and artifacts, tourists facilities, and state and local government facilities. As of January 1989, approximately 700 sites in Florida have been listed on the National Register of Historic Places. Only seven of these sites relate to the Modern Period context. The distribution of known and expected sites is shown on the accompanying map. Any standing structures of this period are clearly significant. Any archaeological sites with sufficient integrity to retain meaningful association among artifacts and natural features should be regarded as significant.

Research Goals

Settlement Patterns

Studies relating to persistence in Florida's settlement patterns during the Modern Period are needed as a basis for field survey for potential architectural resources.

Economic Development

Research efforts should address the persistence of key agricultural practices and financial, commercial, manufacturing, and educational activities. Citrus and cattle remained important industries. Studies are needed to understand geographic distribution and extent of these industries throughout the Modern Period in an effort to determine site specific information on towns, rural communities, ranches, rail and river facilities and operating equipment.

Social organization

Demographic studies, much of which can be developed from census records, are needed to identify and quantify social mobility and persistence, as well as changes or continuity in the diverse racial, ethnic, and social groups which inhabited Florida during the period. More difficult, but also important are studies of the native American and Hispanic groups which occupied areas of Florida.

Transportation

Identify the extent of Modern Period river, rail, and roadway networks in Florida. Those transportation channels provide clues to the locations of emerging communities, naval stores operations, and facilities used in the servicing of transportation equipment.

Preservation Goals in Priority Order

1. Locate and evaluate previously unrecorded Modern Period properties.
2. Acquire significant Modern Period sites through the state's land acquisition programs.
3. Interpret Modern Period sites statewide for public appreciation and education.
4. Encourage and financially support local government participation in preservation and acquisition of sites.
5. Nominate Modern Period sites statewide to the National Register of Historic Places.

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