Chapter 8. NORTH PENINSULAR GULF COAST, 2500 B.P.-A.D. 1600

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

Athough 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 prominant 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 ocucupations 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 unkown.

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.