Archaeological reconnaissance in portions of Dixie County and selected adjacent sections of Taylor and Levy Counties, Florida, resulted in the description of 28 sites that, along with the region's previously known sites, represent occupation from the Archaic to the Historic periods. Of particular interest are one Taylor County site that has a pure Swift Creek assemblage, and several Dixie County sites containing pure or dominant Alachua Tradition components. Prior to this reconnaissance, pure Swift Creek sites were apparently unreported on the Florida peninsula, and Alachua Tradition sites were thought to be rare outside North-central Florida. Future work will attempt to provide an absolute chronology for the region, then focus on determining the relationships between the Alachua Tradition groups and the region's Weeden Island-related peoples.

Present and Past Environment

This part of the North Peninsular Gulf Coast region lies within the Gulf Coastal Lowlands province (Puri and Vernon 1964) and presently consists of planted slash pine flatwoods to the northwest and extensive cordgrass-dominated salt marsh to the southeast that end in a narrow strip of sand beach. Tidal creeks flow from small freshwater ponds in the flatwoods down an extremely shallow gradient through the marsh and into the Gulf. Higher, better drained areas in the flatwoods and dune ridges near the edge of the marsh once supported oak-hickory-magnolia hammocks, although many now are in planted slash pine. Some higher areas on the offshore islands and coastal peninsulas support stands of cabbage palm, saw palmetto, and zamia. Such stands are often present on prehistoric shell middens.

While the climate does not appear to have changed substantially over the last 5000 years (Watts 1969), changes in the depth of the water table and in the amount of inundation resulting from changes in sea level would have greatly affected the distribution and composition of plant and animal communities, and
therefore would likely have affected the location of human settlements. The pattern of past sea level change is currently the subject of debate. While most researchers accept a model of gradient rise to present levels over the last 7000 years (e.g., Gagliano 1984:15-17), possibly slowing in the last 3000 years (Tanz 1977), a competing view suggests that between about 3000 B.P. and 2000 B.P. seas fluctuated from about one meter below to two meters above their present levels (Missimer 1980:20; see also Fairbridge 1974). The model of gradual rise appears to be more in accord with local archaeological evidence since sites such as Shired Island (8Di7) occupied in part before 2000 B.P. would have been largely destroyed had the Gulf waters been much higher than their present level.

**Previous Archaeological Research**

Archaeological investigations have been conducted for more than a century in the area that presently encompasses Taylor, Dixie, and Levy Counties, Florida. During the second half of the nineteenth century, Daniel G. Brinton observed numerous mounds along the Suwannee River from Alachua County to the Gulf (Brinton 1859); Jeffries Wyman (1870) and R.E.C. Stearns (1870) visited and described several mounds and shell middens on Cedar Keys, a group of islands just off the Levy County coast; and A.W. Vogdes (1879) and S.T. Walker (1885) conducted excavations in some of the Cedar Keys sites (see Brose 1984:179; Willey 1949:15-35). During the early 1900s, Clarence B. Moore and his party steamed along the peninsular Gulf Coast and part way up several of the major rivers in his boat, the Gopher, excavating nearly all of the mounds that they located. Among these many sites were the Aucilla River mound (8Tal), the Horseshoe Point complex (8Di1), the Fowler's Landing site (8Lvl), and several other mounds near the mouths of the Warrior and Steinhatchee Rivers, along the Suwannee River for 50 miles, and on the Levy County coast (Moore 1902, 1903, 1918; see also Willey 1949:301-316).

After Moore's expeditions, little archaeological work was done in the area until the 1940s. From then until the early 1960s, John Goggin and his students located, surface collected, tested, and described the cultural materials from several sites, including the Garden Patch complex (8Di4), the Shired Island site (8Di7), Hughes Island mound (8Di45) and shell midden (8Di44), Oven Hill (8Di15), and Hodgeson's Hill (8Lv8). Some of this work has been described in student papers (e.g., Christman 1954; Silbereisen 1954) and graduate theses (e.g., Goldburt 1966). Other work conducted during this period includes Ripley Bullen's (1953) excavations at the Manatee Springs site in Levy County, and Montague Tallant's excavations at several sites in Dixie and Levy Counties (Willey 1949:306, 308).

More recent work in the area has included excavations at the Garden Patch complex (8Di4) by Timothy Thompson in 1969 and 1970 and by Timothy Kohler in 1974 (Kohler 1975), Stephen Gluckman and Christopher Peebles' (1974) report on the underwater component at the Oven Hill site (8Di15), Ben Waller and James Dunbar's (1977) report on the distribution of Paleo-Indian projectile points recovered from rivers, lakes, and sinkholes in the area, and Alan Dorian and James Stoutamire's (1981) inventory of archaeological resources in the Chassahowitzka, Cedar Keys and Lower Suwannee federal wildlife refuges. Finds by amateurs have also occasionally been reported (e.g., Lien 1986).

These studies have provided only a general and as yet not absolutely dated outline of the prehistory of the area. According to the cur-
rently accepted culture sequence, lithic artifacts recovered from lakes, ponds, and sinkholes evidence early occupations (Waller and Dunbar 1977), while later periods are represented primarily by coastal shell middens containing Deptford series ceramics and earlier fiber-tempered types (e.g., Goldburt 1966), several mounds and middens containing Weeden Island series ceramics (e.g., Kohler 1975; see also Fairbanks 1965:59), and a few sites, particularly along the Suwannee River, that have Seminole materials (e.g., Gluckman and Peebles 1974). Little is known about the time between the Weeden Island-related and Historic period occupations. Virtually no Safety Harbor or Fort Walton ceramics are known from the area, and prior to our reconnaissance only a few ceramics resembling Alachua Tradition types from North-central Florida had been noted (Bullen 1953).

Methods

In order to locate as many sites as possible during the short time available, we solicited information from residents familiar with some of the many local sites. Since the use of this technique resulted in the collection of information about a sample of sites that is almost certainly not representative of the range of archaeological resources, future reconnaissance conducted with a probabilistic design is highly desirable. Most of the sites we located are on dry areas in hammocks or flatwoods and are easily approached using sand or paved roads. Many are on lands owned by two large timber companies, Georgia-Pacific and Buckeye Cellulose Corporation, and in areas currently owned by the Nature Conservancy but soon to be transferred to the State of Florida. Unfavorable tides and inclement weather prevented our visiting probable sites on some of the offshore islands.

We generally collected all cultural materials present on the surface of each site. In the few cases in which sites were too large and materials too abundant to permit total collection, as at the Northwest (8Di89), South (8Di90) and Northeast (8Di91) Sand Pond sites, we obtained a sample of materials that we believed to be characteristic of those sites; however, no formal sampling procedure was used.

Following the fieldwork, we sorted, washed, labeled, and analyzed all cultural materials. Treatment of the ceramic materials was mainly classificatory, using traditionally recognized types (Milanich 1971; Willey 1949). These types typically occur in series believed to reflect traditions, and may permit some temporal subdivision of those traditions. Analysis of the lithic materials was concerned with determining the reduction technology represented at each site, including a consideration of the geologic context from which the raw material was obtained, the possible heat treatment of the material, and the knapping techniques employed (see Johnson 1985). We avoided using morphological typology to classify formal tools, including "projectile points," because rejuvenation, differential use, and many other problems may prevent such typologies from providing satisfactory functional or temporal information (e.g., Ahler 1971; Flenniken and Raymond 1986).

Results and Discussion

During our reconnaissance, we recorded 26 sites in Dixie County and one each in Taylor and Levy Counties (Figure 1). These sites are located primarily near the coast and along the Suwannee and Steinhatchee Rivers. This distribution may reflect a bias in the expertise of our informants that may
be due to greater site visibility in these areas. The possibility of a higher site density in these areas remains to be rigorously tested.

Based on the ceramics present, the majority of the sites can be classified as Deptford, Weeden Island-related, Alachua Tradition, or Seminole; several sites have materials from two or more of these ceramic traditions. The few sites that lack ceramics, such as the Tiger Ridge site (8D181) in northern Dixie County, or that appear to have a nonceramic, such as the Kenny Land...
Figure 2. Deptford ceramics. Top row, l-r: check stamped (3); bottom row, l-r: Deptford Simple Stamped, Deptford Linear Check Stamped, Deptford Simple Stamped.

Figure 3. Swift Creek ceramics. Top row, l-r: Swift Creek Complicated Stamped (3); bottom row, l-r: Swift Creek Complicated Stamped (2), St. Andrews Complicated Stamped.
Figure 4. Weeden Island ceramics. Top row, l-r: check stamped with Weeden Island rim and punctations, Weeden Island Plain rim, Swift Creek Complicated Stamped; bottom row, l-r: Carrabelle Punctated, Keith Incised, Carrabelle Incised.

Figure 5. Alachua Tradition ceramics. Top row, l-r: Prairie Cord Marked (2), Prairie Punctated-over-Cord Marked; bottom row, l-r: Alachua Cob Marked (2), Lochloosa Punctated.
site (8Di103) in the eastern part of the county, may represent Archaic period occupations. Excavation of datable materials from these sites is necessary to explore this possibility.

Deptford ceramics (Figure 2) are the major cultural component at the Butler Island South site (8Di97), a linear shell midden on the coast southeast of Horseshoe Beach that covers approximately 16,000 sq m and is composed primarily of oyster shells and has a dense accumulation of cultural materials. We also found Deptford ceramics at a few inland sites, as for example at Sand Point Northeast (8Di91), suggesting that some Deptford groups may have had inland residential locations, made logistical use of inland areas, or both.

A Swift Creek ceramic assemblage was present at the Stanaland site (8Tal27) in southern Taylor County (Figure 3). This site consists of a relatively undisturbed circular mound presently 1 m high and about 30 m in diameter, and a surrounding midden that covers at least 60,000 sq m and contains some oyster and a few other kinds of marine shell. The surface ceramic assemblage is composed of approximately 35% complicated stamped ceramics in mound contexts and 10% in midden contexts, with no other decorated types. This site is interesting because it ex-
tends somewhat further to the south the known distribution of Swift Creek sites (see Milanich et al 1984:14). Since such sites are apparently absent in Dixie County, it also suggests the possibility that an ethnic (or at least ceramic) boundary existed in the vicinity of the Steinhatchee River during the early years of the first millennium A.D.

Weeden Island-related ceramics (Figure 4) dominate the assemblage from five sites that we recorded: the Old Prison site (8Di85), the Roadcut to Nowhere site (8Di92), Swamp Buggy Mound (8Di93), and Hardman Middens I (8Di94) and II (8Di95); and are present in smaller numbers at a few other sites. The five predominantly Weeden Island-related sites are located both inland and adjacent to the salt marsh. They have up to 16.7% Weeden Island series ceramics (excluding check- or complicated-stamped types) with 9% as the mean. Hardman Midden II (8Di95) is particularly noteworthy because, in addition to extremely well preserved ceramics, it contains abundant and unusually well preserved faunal materials, including the remains of deer, turtle, and marine fish, that can potentially provide information concerning the subsistence practices of Weeden Island-related groups in the area. While few mounds, such as Swamp Buggy Mound, were recorded, midden sites were much more common. They cover from about 500 to 17,000 sq m, with an average of slightly more than 6000 sq m.

To our surprise, Alachua Tradition sites were the most abundant encountered. These sites were found throughout Dixie County, even almost directly adjacent to the coast. While Bullen’s (1953) work at Manatee Springs provided an early indication of the local importance of this tradition, most discussions (Milanich 1971; Milanich and Fairbanks 1980:23) emphasize its North-central Florida distribution. Alachua Tradition ceramics (Figure 5), including Lochloosa Punctated, Alachua Cob Marked, Prairie Cord Marked, Prairie Fabric Marked, and Prairie Punctated-over-Cord Marked, comprise the dominant component at seven sites: unnamed 8Di80, the Hill site (8Di84), South Fishbone (8Di86), North Fishbone 1 (8Di87) and 2 (8Di88), the Rick Thompson Road North site (8Di102), and the Kenny Land site (8Di103). Alachua Tradition ceramics occur with Weeden Island series ceramics at South Fishbone, North Fishbone 1, and Rick Thompson Road North. Both Weeden Island and Alachua Tradition series ceramics frequently co-occur with ceramics on a spiculate paste (St. Johns and Papy Bayou series sherds); however, the correlation of spiculate paste ceramics and Alachua Tradition ceramics is stronger. As with the Weeden Island-related sites, most of the Alachua Tradition sites that we recorded were middens. They were in general more dispersed than Weeden Island-related middens, covering from about 10,000 to, at the Kenny Land site, over 600,000 sq m, with an average of over 117,000 sq m. We located only one Alachua Tradition site that may have had an associated mound (8Di80). The possibility that mounds such as Hosie Pond Mound (8Di79), unnamed 8Di82, and Shacklefoot Mound (8Lvl39) are Alachua Tradition sites should be tested through excavation.

We located Seminole ceramics at only one site, McCrabb Landing (8Di101), where they were present with Weeden Island series ceramics along a 200 m long area atop a bluff overlooking the Suwannee River north of Old Town. The distance that materials extend away from the river could not be determined.

Preliminary analysis of the lithic materials from the sites we recorded indicates that the Weeden Island-re-
lated and Alachua Tradition knappers used the same basic reduction technology to make bifaces, flake tools, and hammerstones out of local cherts (Figure 6). They also occasionally made tools out of presumably local silicified coral. Several groups heat treated some of their lithic materials prior to reducing them into bifaces and possibly other tools, but in general heat treatment does not appear to have been an especially important part of the reduction technology. An apparent exception to this observation is found at the Kenny Land site (8Dil103), where about 23% of the debitage and 43% of the tools appear to evidence heat treatment; however, since this site contains a nonceramic component, it is unclear whether the Alachua Tradition knappers, earlier knappers, or both heat treated their stone. Archaic and Deptford peoples probably employed strategies of stone tool manufacture similar to those of the later groups, but more information is needed before preliminary interpretations can be made.

While lithic reduction techniques appear to have been similar for at least several hundred years, initial comparisons of the lithic assemblages from each site suggest an inland-coastal dichotomy in the pattern of stone tool manufacture. Sites located inland near the Steinhatchee and Suwannee Rivers have relatively abundant lithic artifacts and provide good evidence that the knappers at those sites removed flakes from blocky, angular, or tabular pieces of chert, then reduced selected flakes into tools. Conversely, sites near the coast contain fewer lithic artifacts and have less evidence of core reduction. This general pattern is consistent with the idea that inland groups made more extensive use of the region’s lithic materials than did the coastal groups because the inland groups were closer to the chert and silicified coral outcrops in and near the major rivers (see Purdy 1981:70-72) and therefore had easier access to them. Coastal groups may have made tools more often from flakes that they had made or obtained in another location, and perhaps made more use of non-lithic materials such as bone and shell.

Research Priorities for Dixie County

Much work remains to be done in the area. Among the first concerns is the establishment of an absolutely dated regional chronology. Only when the timing and duration of the Archaic, Deptford, Swift Creek, Weeden Island-related, and Alachua Tradition occupations are known can we begin to examine how large their populations were, the ways in which they adapted to their environment, and the processes through which they interacted with their contemporaries.

The next stage of our research will focus on the Weeden Island-related and Alachua Tradition occupations (Johnson 1987; Kohler 1987). We hope to conduct excavations to obtain datable materials that will determine when the two groups occupied the region and whether, as now seems possible, their occupations overlapped. Our long range research goals are to conduct more extensive excavations and analyses that will permit us to examine the social and ecological processes that might have structured interactions between the two societies and that, as in North-central Florida (Milanich 1971; Milanich and Fairbanks 1980:160-180), apparently resulted in the replacement of the Weeden Island-related residents by the Alachua Tradition immigrants. Paleoenvironmental studies of the region will help determine whether either group manipulated the environment through techniques such as controlled burning, and whether climatic change might have influenced the behaviors of and interactions between the two societies. Detailed analyses of floral and faunal remains will provide additional information on the
past environment and determine the relative contributions of food collecting and food producing in the subsistence economies of the two societies. Finally, detailed technological, stylistic, and spatial analyses of ceramic, lithic, and shell artifacts will provide comparative information on the economic, social, and ceremonial aspects of the two societies.

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