

WEEDEN ISLAND ECOLOGY, SUBSISTENCE, AND VILLAGE LIFE IN NORTHWEST FLORIDA

by

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[Note: this paper has been scanned and appears as close as possible to the form in which it was originally typed and photocopied for the last 30 years. Interestingly, the title of the presentation as shown in the SAA program, shown above, was slightly different -N. White, 2006]

This paper is concerned with the concept of Weeden Island in the Panhandle region of Florida and the lower Flint and Chattahoochee river valleys in Georgia and Alabama. This is a traditional culture area in Southeast archaeological studies, but its validity in this sense for different times in prehistory is questionable. Thus, it is treated here only as a familiar topical area.

The area lies entirely within the East Gulf Coastal Plain section of the Coastal Plain Province. Its northern half is predominantly an upland zone of rolling hills with few sizable areas of level land. Vegetation over the southern half of the uplands is mostly open pine forest; over the northern half mixed hardwood and pine forest is more characteristic. Southward trending river valleys and many small creeks cut through the upland mass, but the only major break is provided by the Marianna Lowlands, a topographically low area formed by stream erosion and characterized by flat to gently rolling surfaces. This area is part of the Dougherty River Valley Lowlands, which extend into Georgia and Alabama along the lower reaches of the Flint and Chattahoochee.

The southern half of the Panhandle is separated from the northern by a relict marine scarp and belongs to a single unit called the Coastal Lowlands. Most of this area is poorly drained pine flatwoods with many swamps and marshes. Fringing the

coastline of the eastern Panhandle are extensive areas of tidal marsh, in front of which are low dunes and short beaches which extend out into the Gulf of Mexico or shallow water bays, sounds, or lagoons. Bays are common all along the coast and offer estuarine conditions. In the western Panhandle, coastal marshes are generally absent, and the flatwoods extend up to the dune areas bordering shorelines. In the tidal marshes and flatwoods, the most suitable places for settlement are river levees and other slightly elevated areas called hammocks on which the dominant vegetation consists of various hardwoods (magnolia, hickory, oaks, etc.) and a variety of bushes, shrubs, vines, and herbs.

Flora and fauna are abundant throughout the entire Panhandle though the greatest density and variety occur in bottomlands and on hammocks; the pine forests are comparatively less rich. Soils are generally sandy, except along larger streams, and are poor for agriculture except under modern management. Climate is moderate and seasonal.

Weeden Island was originally defined by Gordon Willey as the next to latest in a sequence of prehistoric cultures or periods in the Florida Gulf Coast area. His data base (from the area

under consideration here) consisted of 109 sites, including 68 burial mounds, many of which had been previously dug by Clarence B. Moore. Willey himself conducted stratigraphic test excavations at only 5 sites with Weeden Island components; all were middens. (This does not include the sites he reported from the Central Gulf Coast region.) He distinguished Weeden Island principally on the basis of a ceramic complex, and divided into two subperiods, I and II, also on the basis of ceramics. Except for this change, Willey apparently saw Weeden Island as a rather stable culture, extending over the area in question without identifiable regional or chronological variation. He estimated Weeden Island to last from circa AD 1000 to AD 1500. Other aspects of his definition are well known and are not repeated here.

Although Willey's definition is valuable in a pioneering sense, it has some important deficiencies which have not been fully appreciated. Most important: His site sample was heavily biased in favor of immediate coastal regions and did not represent the Panhandle as a whole; the flatwoods, interior highlands, and Marianna Lowlands were almost entirely unrepresented. Secondly, his emphasis was on constructing ceramic sequences, and other kinds of cultural information were poorly developed. Thirdly, he treated Weeden Island artifact complexes from burial mounds and middens as equally susceptible to chronological ordering in

terms of the two ceramic subperiods defined from midden excavations.

Many new sites have been recorded since Willey, but the overall sample for Weeden Island still suffers from the same deficiencies. Surveying has been unsystematic with no real effort devoted to obtaining adequate samples of different geographic and environmental areas. Most inland regions are still unknown. The only well surveyed areas are the coastline of Wakulla and eastern Franklin counties; the shoreline of Choctawhatchee Bay in Okaloosa and Walton counties; the area around Tallahassee in Leon County; and portions of the upper Apalachicola River basin along the west side of the Chattahoochee in Jackson County and in the uplands east of the Apalachicola in northwestern Liberty and southwestern Gadsden counties. Surface survey data at individual sites are also deficient, because little attention has been given to controlled surface collection or careful site descriptions and estimates of size; additionally, the ceramic collections obtained by haphazard or "grab-sampling" methods are still rigidly sorted according to Willey's original types and chronological scheme without regard to unusual stylistic variations or varying type frequencies in different collections.

Excavation data are equally deficient. Intensive excavations have been conducted at only five Weeden Island middens in all of the area under consideration. These five are inland sites.

Not one coastal midden has ever been thoroughly or even largely excavated, and analysis of test excavation data from coastal sites has been uninspired, focusing on simple surface treatment typologies of ceramics and form classifications of some of the more obvious lithic artifacts, neglecting other types of attributes and other classes of evidence. Careful analyses of floral and faunal materials or structural remains, for example, are almost nonexistent.

Granting the severe limitations on data, it still seems possible to suggest some revisions of Willey's Weeden Island concept as it applies to the Northwest Florida area. These suggestions are based on a general review of available published data and large amounts of unpublished data from Weeden Island middens in the area covered by this paper. Other suggestions, based on a review of burial mounds, will be presented in our other paper.

First of all, a refinement of the chronological subdivision of Weeden Island which discards the traditional subperiods, I and II, seems indicated (contrary to Milanich's opinion). Over the eastern Panhandle, at least as far west as Panama City, Weeden Island is preceded by Early and Late phases of Swift Creek, as

defined by David Phelps. Ceramically, the two phases are distinguished by early and late varieties of complicated stamped pottery, primarily the type Swift Creek Complicated Stamped. Phelps has proposed these phases take the place of Willey's Santa Rosa-Swift Creek period, since Santa Rosa ceramics are absent from middens in this part of the Panhandle. Farther to the west, as in the area of Escambia and Pensacola bays, Santa Rosa types are present in middens, and Santa Rosa-Swift Creek still seems to be a viable concept.

The earliest phase of Weeden Island is characterized by a few Weeden Island series incised and punctated types (Carrabelle Incised, Carrabelle Punctated, Keith Incised, and Weeden Island Incised) and a dominance of late variety Swift Creek Complicated Stamped in middens. In Weeden Island 2, a much greater variety of Weeden Island pottery types is present, excluding only specialized mortuary classes such as effigies and cut-out vessels, which never occur in middens. In Weeden Island 3, Wakulla Check Stamped appears, and there is a slight decline in the importance of complicated stamped. In Weeden Island 4, complicated stamping disappears. In Weeden Island 5, there is a dominance of check stamping in middens, a very limited representation of incising and punctating, and a minor occurrence of corn-cob marked pottery.

This general ceramic sequence -- and this is only a brief outline of it -- fits quite well with available excavated and surface collections from the Panhandle, southwestern Georgia, and southeastern Alabama, though it may not accurately describe ceramic trends in the far western Panhandle, where at least in surface collections cord marking seems quite important. Thus, the sequence we are proposing is somewhat hypothetical. It will need testing and will probably have to be refined, at least to account for some degree of regional variation. However, the important point here is that our sequence more accurately characterizes ceramic trends than Willey's I-II sequence and it offers the possibility of arranging midden collections more precisely for purposes of studying sequences of change in other aspects of Weeden Island culture. We emphasize that our sequence applies only to middens. Problems of burial mound chronology are distinct and will be discussed in our other paper.

Presently available radiocarbon dates from Northwest Florida indicate a general time range for this sequence of circa AD 500 to AD 900 or 1000. Weeden Island 5 appears to date circa AD 800-900 (or 1000). Absolute dates cannot be assigned to the other phases as yet.

The only well described set of data with which the new sequence conflicts is the one for the Kolomoki site in Georgia.

Sears's sequence here has generally been rejected, but the authors feel no satisfactory argument has ever been presented in response to his point that the Kolomoki period, distinguished by Kolomoki Complicated Stamped and an absence of check stamping, is a regional variant of late Weeden Island. We suggest that Sears's interpretation of Kolomoki is still a possibility, however we prefer the interpretation that the midden area was occupied from Early Swift Creek through early Weeden Island, before the elaborate burial mounds, D and E, were built. Subsequently, the midden was abandoned, and the site became strictly a ceremonial center. Mounds D and E were built by late Weeden Island people living in small support villages around the center, and midden ceramics were similar to those in late Weeden Island middens in the Panhandle. This is a hypothesis; whatever the midden sequence, we agree with Sears that Mounds D and E are late and represent an accommodation of elements of Weeden Island ceremonialism to new Mississippian patterns. The significance of this will be discussed later in this paper and in our other one. It should be mentioned here that we do not feel there is any evidence for the hypothesis that the apparent Mississippian characteristics in D and E are actually early Weeden Island innovations which were formative to later Mississippian traditions.

The remaining sections of this paper will be devoted to a summary of Weeden Island subsistence, settlement patterns, and village life. In coastal regions, the great majority of Weeden Island sites tend to occur in immediate shoreline positions around estuaries, lagoons, sounds, and small salt water bays. The topographic situation varies depending upon local landforms, but most sites are on low dunes behind short bayfront beaches; important exceptions would be the sites on or between high dunes on Santa Rosa Island and the peninsula along the south shore of Pensacola Bay. Practically all sites are near a fresh water source, which may be a tidal creek, larger stream, or small spring-fed lake or pond, and are not more than several hundred feet from brackish or salt water. This accurately describes the present environmental situation of these sites; very little is known about conditions at the time the sites were occupied.

Very little can be said about the composition of middens, because of the lack of excavation data. Shellfish seem to be the dominant subsistence remain (for sheer physical volume, if not nutritional importance) with Rangia being the most popular in some places, as around Ochlockonee Bay, and oyster in others, as around Choctawhatchee Bay. Ecological conditions underlying these preferences are not well documented, nor are preferences for these two species, as well as many others which occur in lesser numbers,

well quantified. Fish, turtle, and bird bones are present in some abundance, but species identifications and estimates of dietary importance are almost entirely lacking. Terrestrial fauna seem to be unimportant; even deer remains are minimal. Plant remains are unreported, but this may be a function of poor sampling. Also, there is a general absence or low incidence of structural remains and features, such as hearths and storage pits. Artifact density is frequently light, and a wide variety of tool types does not appear characteristic. Distinctive artifacts such as fish-hooks and net weights generally seem to be absent.

Where survey data are detailed enough, many sites appear to consist of separate small refuse piles, suggesting individual domestic units; in some of these cases, piles are discrete, while in others they are overlapping and form a continuous midden ridge. Unfortunately, a lack of data prevents generalizations about the average size, number, and spacing of midden piles, their composition and internal structure, seasonality in their use, the period of time over which they were utilized, and chronological and regional variations in site plan. Data from around Choctawhatchee Bay suggest that late Weeden Island midden sites consist of from one to seven refuse piles, the average being three or four with individual piles generally less than 50 feet in diameter. One has the overall impression that these shoreline sites represent

seasonal fishing and shellfishing stations, occupied by rather small groups of people, but this may not be accurate because of severe lack of data.

Some chronological and regional variations in settlement patterns can be recognized. Phelps's surveys of Wakulla County have discovered a class of sites situated away from the immediate coastline at the interface of the flatwoods and coastal marshes. In general, these are U-shaped or ring middens in use from Early Swift Creek through early Weeden Island (no later than Weeden Island 3). Each seems to be occupied by a small number of people, organized into small family or household groups; probably there are less than ten households at anyone time. Structural remains in the form of postholes, pits, and hearths are present, suggesting at least seasonal sedentism. Subsistence remains are dominated (Phelps estimates 95%) by estuarine and marine products, including large amounts of oysters, scallops, and conchs, none of which are available in the immediate vicinity of the site. Small percentages of a variety of terrestrial fauna, emphasizing deer, are also represented. Plant remains in the form of charred hickory nuts and a single squash seed (Cucurbita sp.) have been identified from Early Swift Creek units. These sites seem to serve as base camps for exploiting a number of environmental zones in close proximity. Specialized camping stations surrounding them do not

seem to have been too important, though this may be a function of poor survey. Small shellfishing stations in shoreline positions apparently occur. On present evidence, the base camps are occupied at least in late summer and early fall, and there is nothing against occupation at other seasons.

These sites are abandoned after early Weeden Island, and many new sites are established in immediate shoreline locales. The basic characteristics of these shoreline middens have already been summarized. They appear to show a continuing heavy focus on marine resources with a shift in emphasis from oyster, scallop, and conch to Rangia. As mentioned, there is no specific data on changes in coastal environment to correlate with the shift in settlement pattern and shellfish preference. Other new sites, complementary to the shoreline ones, may be established in the marsh and flatwoods zones, but there is presently no evidence of this.

In general, from eastern Franklin County to the eastern border of Wakulla County, there appear to be at least seven or eight of what might be called "community areas." In Early Swift Creek through early Weeden Island there is a main base camp, one of the ring middens, in each of the areas. These may be supplemented by a few small shellfishing stations, but the settlement pattern is rather well nucleated. Each of the rings has one or more burial mounds associated, probably used only by ring occupants.

Where Early Swift Creek mounds occur, they are not used by later peoples, who construct their own mounds. In late Weeden Island, the geographic center of the population in each area shifts to the coastline, and there is a tendency for people to be dispersed through a larger number of sites -- a ratio of two or three to one would not be exaggerating -- which are smaller in average size than the earlier ring middens. These trends may be accompanied by an increase in population, but the number of people at individual sites seems no larger than the populations of the ring middens. The late middens appear to cluster into groups of varying size which share in the use of a single burial mound, which may or may not be directly associated with a midden. The mounds frequently contain large numbers of individuals, suggesting populations in residence at least on a long seasonal basis, if not year round. There is no evidence that the late Weeden Island middens in each area are nucleated around a single important village. In Fort Walton, the same shoreline focus appears to continue, but there is a shift back to a smaller number of sites and a more nucleated pattern, centering on small temple mound communities.

A similar late Weeden Island pattern seems to be represented along the coast to the west of Franklin County, though the pattern of ring middens in a different environmental situation for Early Swift Creek through early Weeden Island has not been recognized.

Around Choctawhatchee Bay and on the West Peninsula of St. Andrews Bay, near Panama City, Swift Creek and early Weeden Island sites are present in shoreline positions, as are later Weeden Island sites. The earlier sites are relatively few in number and seem to be more restricted in their distribution. Late Weeden Island sites appear in greater numbers at all points along the bay shores and seem to be smaller in average size. On Choctawhatchee Bay there appear to be at least 17 small late Weeden Island communities, each consisting of a cluster of several small midden sites, and each marked by a single small burial mound, containing from 3 to 11 burials. The average number of middens per community area is three or four, and each midden represents occupation by a very small group of people -- perhaps no more than three or four nuclear families on the average. There are apparently no main villages or nucleating centers, tying these community areas together. Details of subsistence and village life and relationships of the coastal communities to inland ones are unknown. The general impression from the smallness of the coastal sites is that they were not occupied year round, but this is speculation.

During Fort Walton, in the Choctawhatchee and St. Andrews bay areas, there is a trend back to larger sites and less dispersal of the population; also, temple mounds appear. The well known Fort Walton Temple Mound seems to be the nucleating center for all

of Choctawhatchee Bay (at least until very late Fort Walton, when a number of separate community areas, each marked by a cemetery or a burial mound and a large number of tightly clustered middens, seem to become important). William Lazarus suggested that Fort Walton villages in the Choctawhatchee Bay area consisted of individual small family house areas, interspersed with artificially prepared midden ridges used as garden plots. So far, this pattern has not been noted for Weeden Island, nor has it actually been proved for Fort Walton.

On present data, Weeden Island burial mounds containing large numbers of burials are not known west of Panama City. Whether this indicates that the western Panhandle is culturally marginal and occupied by fewer people, or only that the recorded sites reflect a more limited aspect of Weeden Island community life, is not known. Implications of burial mound data are treated at length in our other paper.

Not too much can be said about inland Weeden Island village life, because most inland areas are uninvestigated. The only real exceptions in the area being considered here are a few locales along the upper Apalachicola and lower Chattahoochee and Flint rivers.

Many sites have been located along the west side of the Chattahoochee in northeastern Jackson County. Early Swift Creek, Late Swift Creek, and early Weeden Island occupations are represented, and they tend to occur at or near the same places, as on the coast, though no ring-like middens have been recognized, except at the Kolomoki site. In late Weeden Island (Weeden Island 4 and 5) many new sites are established; there are at least five times as many late Weeden Island as early Weeden Island sites. The early sites generally seem to be abandoned, although a late Weeden Island site is usually established at a nearby place. Fort Walton sites are as numerous as late Weeden Island ones, but there is another shift to new site locations. Most Fort Walton sites are on the levees along the present channel of the Chattahoochee, while Weeden Island sites are mostly at a higher elevation at the western edge of the present floodplain or above it at the edge of the Marianna Lowlands. There is some indication that the Weeden Island sites are associated with an earlier, slightly more westerly channel of the Chattahoochee. The topographic situation of these sites would not necessarily be bottomland, but they would be more closely sited with respect to the river than at present.

There is a suggestion of community areas in the Weeden Island distribution, with several villages sharing in the use of a burial mound, but there is not really enough data to pinpoint

these accurately. There is essentially no data on the size, composition, and internal structure of the Weeden Island sites. Thus, it is impossible to treat such topics as community size and organization, village life, subsistence patterns, and yearly stability of occupation.

Many sites have also been located in a roughly 30 square mile area of northwestern Liberty and southwestern Gadsden counties. This is a pine upland region, extending east from the high bluffs along the east side of the Apalachicola River. Most sites located to date are late Weeden Island, mostly 4 and 5. Site density appears to "vary from one to two sites per square mile, depending upon the local topography. All sites are small and consist of clusters of a few small refuse areas. No Swift Creek or Fort Walton sites have been found, and survey has been very intensive.

Extensive excavations have been conducted at two midden sites. Sycamore (8Gd13) in Gadsden County is a single Weeden Island 5 house, radiocarbon dated at circa A.D. 900. The house is oval-shaped, approximately 30 by 20 feet, and appears to represent a single nuclear or small extended family dwelling. Refuse deposits indicate a variety of subsistence activities, including hunting, freshwater fishing and shellfishing, wild plant food gathering (of hickory nuts, acorns, walnuts, and wild plums), and corn agriculture. Milanich suggests the house is one of many

similar seasonal upland habitation units, utilized from late fall to early spring by family groups who moved to the bottomlands on the west side of the Apalachicola River for summer agriculture.

The *Torreya* site in Liberty County is also a habitation site with at least 13 distinct house and refuse-depositing areas, each approximately the same size as the one at Sycamore. The same range of subsistence activities is represented, although cultigens have not been found. The refuse areas are strung out in a roughly crescent-shaped line around springheads at the upper end of a small creek. Occupation begins in what seems to be Weeden Island 3 (as at Sycamore, where there was also a light phase 3 component) with five or six house units. The site is then abandoned and re-occupied in a spatially separate area in Weeden Island 5. At the end of Weeden Island 5, the site is again abandoned.

There are some interesting trends in settlement patterns in the data from the Apalachicola-Chattahoochee-Flint area. In Early Swift Creek through early Weeden Island, a small number of rather nucleated communities seems characteristic. Some sites occur near the main channels of the Flint, Chattahoochee, and Apalachicola. Others have been found along small creeks and around lakes throughout the Marianna Lowlands. A few mounds have been located, though not excavated, and essentially nothing is known about village life, although the pattern of individual small

family house units appears to be represented for early Weeden Island at least at one site in Calhoun County, Florida; (a Weeden Island 1 house area is present at the Parish Lake site and is spatially removed from a cluster of several later Weeden Island houses). No sites have been found in the uplands east of the Apalachicola.

In late Weeden Island there is a very significant increase in site numbers throughout the Marianna Lowlands and along the Apalachicola and lower Chattahoochee and Flint rivers. These two latter areas are not pioneered by late Weeden Island people, as is sometimes suggested, but they are much more fully settled. Many sites are also now established in the uplands of the Apalachicola drainage.

As a hypothesis, the authors suggest that late Weeden Island is an unstable time. The cause is a basic change in subsistence patterns, involving significantly greater dependence upon agriculture. Agriculture, including at least corn and squash, first appeared in the Northwest Florida area during late Deptford times in a Hopewellian context. It was practiced on a small scale, probably small garden patches, owned by individual small families, and contributed relatively little to subsistence through early Weeden Island. Probably, it increased gradually in importance and was responsible for small, but constantly cumulative, population

increments. By the latter part of Weeden Island, the cumulative population increase had reached a critical point, where Weeden Island people were committed to agriculture in the sense that hunting and gathering alone could no longer support the growing population. The family-style garden patch agriculture was transformed through more intensive farming into a pattern of shifting cultivation. Small family groups filled up the landscape, farming small patches of ground more intensively than before, and farming a much wider variety of land. The more intensive farming of the sandy soils led to soil exhaustion in small locales after periods of a few years, and family groups were required to shift their locations. This pattern could explain the abandonment and re-occupation of Torreya. In the process of population growth and shifting cultivation, all land areas in any way suitable for farming were filled up either with fields actually in use or ones in fallow. All settlements were occupied year-round for periods of several years, and populations did not break up seasonally and move through a series of base camps, as Milanich has suggested. In particular, they did not move down from the uplands to the Apalachicola bottomlands for summer farming. Upland sites were as much agricultural base settlements as bottomland ones. Essentially all environmental zones were used for farming, and the natural resource potential of different zones became secondary to the

primary requirement of land. Occupants of upland areas would probably have been farming the small bottomlands associated with springheads; perhaps eventually they also used former midden areas.

During late Weeden Island, there were no major ceremonial centers and no main villages (unless in the sense of agricultural base settlements surrounded by transitory hunting, fishing, foraging, quarrying, etc., stations) tying together many communities over a large area. Community interrelations were based primarily on village exogamy and clan ties. Villages did not cooperate in major ceremonial cycles, though several villages may have shared in the use of a small burial mound and participated jointly in periodic mortuary ceremonies which involved very little wealth.

With continuing competition for land, the situation of many small autonomous villages was inadequate for controlling conflict among village groups. It was at this point that Weeden Island people began to adopt new models for social organization, presented to them by Early Mississippian communities in central Georgia, as at Macon Plateau. Details of this process are unknown, but it does not appear to have involved invasion of Weeden Island territory by Mississippian peoples. There is a great deal of continuity between late Weeden Island and early Fort Walton, and there is no evidence for an influx of new people. In Fort Walton, the community pattern seems to be strongly nucleated once again with

larger villages concentrated into bottomlands and organized into temple mound communities. It can be suggested that the change from Weeden Island to Fort Walton involved two main sets of developments, both needed to solve the problem of competition for agricultural land. One was a change in farming methods, including a shift to a more intensive cultivation system and also, perhaps, the introduction of new plants such as beans, which have a less destructive effect on soils than corn. A second development was the establishment of more efficient institutions of social control; it is suggested as a general hypothesis that this involved a shift from a tribal to a chiefdom level of social organization, to use Service's terminology.

It cannot be said that the developments hypothesized for Weeden Island in the Apalachicola-Chattahoochee-Flint area are general throughout the Panhandle. In fact, there is some indication of regional differences in subsistence patterns between coastal and inland locales. In Fort Walton, shellfishing is important at coastal, but not inland, sites. Thus, tentatively, it appears that coastal Fort Walton groups were not as strongly committed to agriculture, and the same may be true of late Weeden Island groups on the coast. There is no evidence that coastal Weeden Island and Fort Walton sites are seasonal stations of inland agricultural communities. Long distance seasonal movements do not

appear characteristic (on present meager evidence) of either Weeden Island or Fort Walton.

In conclusion, some interesting and significant modifications of Willey's original picture of Weeden Island seem possible, particularly as regards the later part of Weeden Island. However, most of the revisions are potential, and we do not have a large amount of new and concrete data on Weeden Island ecology, subsistence, settlement patterns, and village life. A new approach to archaeological research seems necessary, if our understanding of Weeden Island is to advance significantly. This approach should be an explicitly scientific one in which some of the ideas suggested in this paper are converted into testable hypotheses and tested. Also, it seems time to begin concentrating archaeological studies in specific regions for long periods of time, rather than scattering them around without regard to systematic data collection or particular prehistoric regions and community areas. In addition to obtaining information on many poorly known aspects of Weeden Island culture, it is necessary to ensure that data are representative in a statistical sense of geographic regions, environmental zones, and cultural communities.