AN OUTLINE OF WEEDEN ISLAND CEREMONIAL ACTIVITY IN NORTHWEST FLORIDA

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A Preliminary Note on Weeden Island Ceramic Effigies

From Moore's earliest reports to the social interpretation of Kolomoki (Sears, 1958, 1973) the elaborate ceramic effigies from Weeden Island mounds have riveted our attention. Yet, it is not the simple presence of ceramic zoomorphic effigies that distinguishes these Weeden Island ceremonial ceramics. Plastic representations of birds and quadrupeds show far broader spatial distribution than the Weeden Island Mortuary complex, however defined or interpreted. They are present earlier (viz. Sears, 1958), and last well beyond any reasonable definition for the Weeden Island period. What seems characteristic of these Weeden Island effigies (here interpreted to include Kolomoki effigies) is the style or styles of execution. Interrelationship of varying combinations of rim adornment, full and three-quarter modeling, latticework, pedestaling, and the execution of the accompanying surface decoration are not only unique to Weeden Island but, we suggest, can be carefully analyzed to demarcate, by their variations, internal Weeden Island regional and temporal divisions. We suspect that these variations might be investigated as evidence for what may represent the reification of socio-ethnic styles symbolic of the articulation of specific ceremonial communities. The particular biological referents of these effigies (in many cases stylized beyond definitive identification) are likely representative of widespread ideological constructs. Such ideational symbols might, among differing groups, show graphic representation in other, non-ceramic media (e.g., Key Marco). This

might well be seen as another cognitive variable in the creation of stylistically distinctive socio-ceremonial community symbols, or as markers for what Barth (Barth et al., 1969) would consider developing ethnic boundaries. The normally perishable nature of such media urges our caution in the interpretation of reported frequencies of particular biological referents seen in ceramic effigies. We have attempted to compare these specifically (or generically) identifiable Weeden Island effigies to the nature of faunal materials recovered from mound-associated middens (Wing, 1967, 1973) in order to investigate the suggestion of totemic clans (Fairbanks, 1961). It was thought that we might find a significant negative correlation suggestive of food-avoidance taboos. Available faunal data are either insufficient or poorly associated with mound effigies. The sample of effigies is also too limited for most sites.

Using a rough chronological framework of Early (A.D. 400-700), Middle (A.D. 700-850) and Late (A.D. 850-1000), the frequencies of Weeden Island ceramic effigies within Northwest Florida were investigated across general geographic zones by a two-way analysis of variance. Several significant parameters could be identified. Mounds with more than four effigy ceramics tend to be coastal (although this may well be sampling error). These are evenly distributed from Choctawatchee to Ochlockonee Bay. Mounds with two, three or four ceramic effigies display no significant geographical trends. Mounds with a single ceramic efficy are again predominantly coastal, and appear randomly distributed (Brose, n.d.) throughout the area from Pensacola to St. Marks Bay.

Looking at the distribution of Weeden Island ceramic figures through time, we attempted to investigate the relationships between ceramic effigies by biological reference, by stylistic and technological nature and frequency, and to test those variables against the presence of special intra-mound structures, patterned burial groups, east side ceramic caches or pavements. The major problem in such analyses is the small number of tightly dated mounds of any type. A significant temporal trend without spatial significance seems to be the decrease through time in the absolute frequency of effigies present within a single mound. There are thus strong (but statistically non-significant) positive correlations between the presence of ceramic effigies and the presence of other early forms of ceremonial activities, such as described by Moore, Willey and others. Kolomoki Mounds D and E, which were not included in these analyses, corroborate these trends (see Table I), as do the Aspalaga mounds if these can be considered a basically Swift Creek or Early Weeden Island group.

In terms of the stylistic variables associated with Weeden Island effigy ceramics, we suggest several trends, none of which can be supported statistically due to sample sizes: The number of fully-modeled free effigies decreases dramatically outside of the center of our area. Even within this region most effigies are bowl rim attachments. Many of the free-standing effigies which were recovered without sufficient control are difficult to place. Our best estimate is to see them appearing in the middle of the temporal sequence with many of the rim-adornment effigies appearing later on vessels with incised and punctate surface decoration. These vessels, as well as

their site contexts, can be considered as approaching a Fort Walton style.

Non-avian effigies (whether free modeled or rim adornos) occur only from the St. Marks area north and west. Reptiles and amphibians (where such can be reasonably identified) appear to be later than mammalian effigies. The former appear more frequently in non-coastal mounds. Human effigies, however, are known from the Buck Mound (Lazarus, 1972) and Aspalaga: neither is well dated, but both, on our theory, are Early.

Elaborate latticework effigies are everywhere relatively uncommon (outside of Kolomoki) and become even rarer west of Panama City and south of the Suwanee. The chronological evaluation of such pre-fired cut-outs must to some extent depend upon the temporal placement of Kolomoki. Otherwise such latticework appears to be Middle to Late in local Weeden Island sequences.

We must clearly note that there are inescapable and important difficulties in fixing the chronological boundaries for most Weeden Island mound and/or village complexes (which we have earlier documented). Also, we note the probability that temporal differences in ceramic seriation may, in some areas, be reflected in a ceremonial-secular dichotomization (Sears, 1973). We also note, with misgivings, that the earlier excavation techniques (and many of the later presentations of data) were less than rigorous or complete, so that the reconstruction of context for many of the ceramic effigies is, at best, ambiguous. Nonetheless, having issued our "truth in packaging" statement, the following table is included.

WEEDEN ISLAND

Northwest Florida Ceramic Effigy Clusters

No effigy present: 53 mounds	Late	= 11
	Middle	= 24
	Early	= 18
Single ceramic effigy present: 12 mounds	Late	= 4
five duck; two vulture; two gourd	Middle	= 4
one ibis; two unidentified bird	Early	= 4
Two ceramic effigies present: 5 mounds	Late	= 1
duck + other bird = 4;	Middle	= 2
unidentified bird + other = 1	Early	= 2
Three ceramic effigies present: 6 mounds	Late	= 1
bird only = 2;	Middle	= 4
two birds + 1 quadruped = 3	Early	= 1
one bird + two quadrupeds = 1		
Four ceramic effigies present: 4 mounds	Late	= 1
three birds + one quadruped = 4	Middle	= 2
	Early	= 1
Five ceramic effigies present: 0		
Six ceramic effigies present: 3 mounds	Late	= 0
five birds + one quadruped = 2;	Middle	= 2
four birds + two quadrupeds = 1	Early	= 1
Seven ceramic effigies present: 1 mound	Late	= 0
six birds + one quadruped = 1	Middle	= 0
	Early	= 1
Eight ceramic effigies present: 2 mounds	Late	= 0
seven birds + one quadruped = 1;	Middle	= 1
six birds + one quadruped, one fish(?) = 1	Early	= 1

Nine ceramic effigies present: 0

Ten ceramic effigies present: 1 mound
nine birds + one quadruped

Late = 1
Middle = 0
Early = 1

Out of 113 mounds analyzed, 87 could be tentatively assigned to the following periods:

Late = 19
Middle = 33
Early = 25

Mounds with ceramic effigies reported are tentatively assigned to the following periods:

Late = 8
Middle = 20
Early = 6

The mean number of effigies in all mounds assigned by period is as follows:

Late = 0.68
Middle = 1.43
Early = 1.88

The mean number of ceramic effigies in mounds with effigies assigned by period is as follows:

Late = 1.53
Middle = 2.40
Early = 7.67

An estimate of sampled coefficient of variation (sample deviation/mean) is as follows:

Late: s = 1.7 cv = 1.12
Middle: s = 3.4 cv = 1.43
Early: s = 4.7 cv = 1.54

A Systemic Hypothesis for Integrating Weeden Island Ceremony and Culture

In addition to the presence of elaborate effigy and pre-fire killed ceramic forms, which have led some investigators (e.g. Sears, 1958) to the postulation of craft specialization and thus to inferences of highly stratified Weeden Island societies, it is apparent that both spatial and temporal change exists in the Weeden Island ceremonialism within Northwest Florida itself. It is further clear that several different types of secular sites exist within differing micro-environments, and that these articulate with several types of Weeden Island ceremonial mounds with widely differing contents. Much of the detail of subsistence settlement systems changing through a series of ceramically defined phases has been presented in our previous paper. In this section we summarize those economic and demographic patterns as a background for the discussion of ceremonial activities represented in the mounds. Due to the problems of ceramic disequilibria, both regional and functional, it will be possible only to make temporal assignments only in terms of broad temporal subdivisions.

During terminal Swift Creek and Early Weeden Island times (A.D. 400-700) we have described an apparent trend of population increase and a shift toward the intensification of increasingly semi-sedentary small scattered family groups utilizing a wide range of coastal and forest resources in coastal and inland ecotones, respectively. Small extractive villages or camp sites are clustered about a single large burial mound. The Fort Walton, Hall, Mound Field, and Bird Hammock sites are clear examples of this period. Some evidence for

squash horticulture is present but apparently of minimal importance. Ceramics from this period show general similarities over broad areas of the lower southeast (Caldwell, 1958; Ford, 1962) although there appear to be clinical [*clinal*] distributions of particular stylistic attributes (Sears, 1962; Broyles, 1958) suggesting rather fluid social organization, at least seasonally (see Brose, 1970).

The ceremonial complex shows significant changes from the earlier Swift Creek pattern (Sears, 1954) throughout this span of time. Previous phases and Early Weeden Island ceremonial constructions are characterized by multi-stage burial mounds with centrally placed interior sub-floor crypt as at Tucker (Moore, 1903) or Hare Hammock (Moore, 1903); or with platform primary interment of a limited number of individuals, such as in the Green Point complex (Sears, 1958) or as at Kolomoki Mound E (Sears, 1962). Specific grave goods are commonly associated with these individuals as well as with some secondary burials on early mound cap[p]ings or in subsequent mound fill as in the Davis Field site (Moore, 1918). Artifacts included with the "central" individuals are generally non-utilitarian and exotic and often stylistically reflect participation in an attenuated Hopewellian interaction (Sears, 1954, 1958, 1962). Apparently additional secondary and occasionally primary burials become more numerous through time (Sears, 1962) as at the ceramically subsequent West Bay Post Office site (Mo[o]re, 1918; Willey, 1949), or Bird Hammock Mound A (Moore, 1903; Willey, 1949). So do scattered semi-autonomous artifact caches unassociated with specific burials. These are clearly seen at Holley and Burnt Mill Creek Mounds (Willey, 1948). Later portions of this

phase, such as the Basin Bayou Mound (Moore 1918:457), show increasingly greater regional variations. Some mounds, such as the Mound West of Point Washington (Moore, 1903) seem to continue the emphasis of "central" individuals but with lesser amounts of Hopewe11ian exotica fewer autonomous artifact caches, and a larger number of "unpatterned" secondary interments. Log crypts, stone slab constructions and internal mound structures decrease (viz. Willey 1949:404-5; Sears, 1973). Most mounds of this phase, like the Auci1la River Mound (Moore, 1903) or the Rockey [*Rocky*] Bayou West Mound (Moore, 1903), contain little mortuary exotica and little evidence of either internal structures, or "central" primary individuals, or individual grave lots. Large numbers of secondary burials (e.g., Weeden Island Mound I, or Thomas Mound {Moore, 1903, 1918; Willey, 1949:406-8}) and the increasing importance of mass pottery deposits and the use of fire in mortuary ceremony are suggested at mounds and cemeteries such as Millers Field Landing (Moore, 1903), at Carrabe11e (Willey, 1949), or Bird Hammock Mound B (Moore, 1903; Willey, 1949).

It is possible, we feel, to view these data in more general processual anthropological terms. In recent years there have been several attempts to rethink "Hopewell." Having moved from Culture (Griffin, 1960) through Cult (Prufer, 1964) to Interaction sphere (Caldwell & Hall, 1965) the recent tendency has been to view these ceremonial activities in terms of more general cultural processes of subsistence, demography, and trade (Struever, 1968; Struever & Houart, 1972; Wright, 1972; Hall, 1973) operating throughout Eastern North America from at least 2500 B.C. (e.g., Winters, 1968; Fitting & Brose, 1971). We therefore join these attempts with the following model:

The scheduled utilization of local resources evidenced by Late Archaic hunting, gathering, and fishing populations with limited storage technologies (viz. Winters, 1963) represents, at best, a tenuous adaptation in marked contrast to Caldwell's (1958) Primary Forest Efficiency hypothesis. Annual variations within and between micro-environments, ecotones, and restricted edaphic communities provide cultural-ecological stability only if the utilization of adjacent social groups in different ecological situations can also be scheduled (viz. Ford,. 1973). "Primary Forest Efficiency" thus exists at the sufferance of widespread ceremonial trade which serves to maintain networks either for the actual exchange of subsistence resources (which, as Winters {1968} suggested, being perishable and consumable have left no obvious archaeological traces) or, possibly, for the maintenance of specialized alliances, as hinted at by Brose and Essenpreis (1972). We now speculate such structured exchanges were of essential socio-economic importance in their ability to insure the possibility of occasional access to otherwise restricted external subsistence resource areas. Ethnographic analogies (Berndt & Berndt, 1964; Harding, 1967; Barton, 1946) suggest that the local participant in such socio-symbiotic exchange systems, whether as "trade partner" or marriage broker, is often accorded special burial replete with the exotic ceremonial items whose constant flow structures the occasional utilization of the underlying mundane economic networks. Thus the ritual reifies the system and its players, and removes the exotica from circulation, thereby maintaining their value by preventing oversupply (viz. Malinowski, 1922; Barton, 1946). The achieved status of such a Big Man serves to structure supra- familial integration by marshalling occasional community

work effort 'over short periods of tlme (e.g., Sahlins, 1965; Fried, 1967). It may even be reflected in similar status ascribed to limited members of the immediate household unit. All such status is ephemeral.

This Kula Ring-like model of Hopewellian ceremony as an economic safety valve not only accounts for much of the observed archaeological data, but suggests a number of hypotheses: With the increased stability such a system provides, a greater degree of sedentism in the exploitation of specific localized subsistence resources might be expected. This is the type of minimal "kick" which Flannery (1968) has suggested is sufficient to initiate a positive feedback mechanism. As Lee (1972) and Dumond (1972) have suggested, the most probable consequence of such increased sedentism is population increase. One might thus predict the development of a nunber of distinct economically focused (in Cleland's {1966}sense) social units across a series of ecological zones with differing settlement-subsistence strategies. All of these social groups would display some degree of "secular" regionalism. All of these social units would participate in a rather unified pan-regional ceremonial system characterized by intensive but sporadic community effort associated with a small number of high status individuals within an egalitarian society (see Erasmus, 1965; Mendelssohn, 1974). Such individuals should be marked by special burial modes and associated with exotic ceremonial paraphernalia. Such a hypothetical model, we suggest, finds adequate archaeological expression in Northwest Florida in Sears ['s] (1962) Yent complex during the Late Swift Creek period, and in most of the succeeding mortuary complex of what we have defined ceramically as Early Weeden Island times.

During the succeeding Middle Weeden Island period (A.D. 700-850) we have suggested a relative population increase and an absolute increase in non-coastal occupation sites. Most sites are located in rather homogeneous ecological zones. Along the coast clusters of small seasonal sites are located directly on dunes overlooking bays, sounds, and/or estuaries. Inland sites are considerably more numerous than in the preceding phase and suggest greater seasonal permanence and larger commensual units at periods of population aggregation. Most inland sites are located on sterile sand elevations adjacent to accessible spring or creek mouth land. Increased recovery of Zea mays cobs, kernels and pollen suggest the intensification of maize agriculture. Ceramic assemblages from this period show clear (and sometimes rather sharp) clusters of stylistic attributes which appear to be separated into a number of geographically distinctive groupings (Willey, 1949:383ff). Sears (1973) has documented a strong dichotomy between sacred and secular ceramic assemblages during this period in most (but not all) Weeden Island regions.

Regional variation in mortuary ceremony is also characteristic of this period (see Willey, 1949:404ff). Continuing earlier tendencies, several broad trends cross-cut these local traditions. In almost all areas, sub-floor or platform centralized primary burials seem to decrease dramatically. Pre-mound or intra-mound structures seem to disappear as do Hopewellian exotica. Scattered whole-vessel ceramic caches are replaced by fewer and larger pavements and caches of broken vessels, predominantly in the eastern portion of the mounds. Of numerous examples we cite the Dead River Mounds, Bear Point Mound, Pearl Bayou, Maester Creek Mound and perhaps Tucker (Moore, 1903, 1910, 1918; Willey, 1949). Individual grave lots are increasingly difficult to confirm and where

present, as at Douglas Bluff or Bear Point (Moore, 1903; Willey, 1949) are increasingly restricted in scope and munificence. Most workers have followed Willey (1949) or Sears (1962) in their suggested replacement of discrete event(s) mounds by continuous-use mounds with increasing numbers of non-distinctinctive secondary burials of all ages and sexes. This, in almost all cases, remains to be documented, however. Unpatterned partial bundle and isolated skull burials are common (Sears, 1953, 1954) at the Davis Point West (Moore, 1903) or the Mound West of Point Washington (Moore, 1901:467), as examples.

Regional ceremonial variations increasingly demarcate geographical expressions of Middle Weeden Island ceremonialism, as Willey and Sears have inferred. From Pensacola east to St. Andrews Bay, coastal sites are marked by single mounds or, rarely, small groups of low mounds many of which appear culturally sterile (see Willey, 1949:402-3) and none of which yield high ratios of grave goods per burial, although poor preservation and collecting biases have probably reduced the already low number of individuals reported. The quality and distinctiveness of included grave goods is minimal and, other than ceramics, appears to have become much less variable within any single mound. This seems especially true in regard to vessel shapes (viz. Willey, 1949; Sears, 1973). Exotic material is noteworthy by its absence.

The central portions of the Florida Gulf Coast, from St. Andrews Bay to the Suwanee display the greatest internal ceremonial variability of what we have defined as this Middle Weeden Island period. In addition to numerous small sterile mounds, some mounds such as Sowell (Dailey, Morse, n.d.) or the Warrior River Mound B are considerably larger than in the western panhandle with considerably larger secondary

burial populations. Pre- or intra-mound structures are rare although at Hall (Moore, 1902:282-303), Mound Field, Basin Bayou or Nichols (Moore, 1902:281) in the eastern portion of this region, secondary mound modifications (e.g., ramp approaches, flattened summits) may pertain to this period (Willey, 1949: 402-3). The large mounds seem located with reference to a number of village sites without mounds, such as the later occupations at the Pierce site. Larger numbers of mortuary ceramics appear with scattered sets of secondary burials at mounds such as Sowell (Percy, et al, n.d.), Parish Mounds (Willey, 1949:142-158) or perhaps the Gigger Point Mound (Moore, 1903:374-7; Willey, 1949:308-9) although the presence of individual artifact associations cannot be demonstrated. The dichotomy between sacred and secular ceramics is not strongly marked, especially in comparison to that which Sears (1973) has described for coeval Southern Georgia or peninsular Florida. Mortuary goods are predominantly group ceramic caches, although fragments of copper and cut conch shell cups and dippers occur scattered through the mound in cases such as Indian Pass (Moore, 1902:211-14) or Rock Bluff Landing. Burned areas within the mound are rather common (see Willey, 1949:400ff) and are unassociated with particular burials or artifact concentrations. Some form of post-mortuary ceremony group ritual purification is suggested by ethnographic analogy (Swanton, 1922).

The inland portions of Northwest Florida from Choctawatchee Bay to the A1achua region (discussed by Milanich) are poorly known. Weeden Island burial mounds which are attributed to this Middle period have been reported from portions of the Apalachicola-Flint-Chatahoochee and upper Chipola drainage systems (Calvin Jones, petsonal communication;

William Gardner, personal communication). These mounds are apparently small, relatively infrequent compared to preceding periods, and for the most part not well associated with occupation sites. Mounds are absolutely infrequent in view of the large increase in Middle period Weeden Island vi11age and campsites in this region. In the northern portions of this region several sets of small, culturally sterile mounds, such as those near Bristol or Chattahoochee (Willey, 1949; Bullen, 1958) may be associated with larger burial mounds containing few secondary and cremated burials and a widespread use of fire during mortuary activities. While cut conch shell dippers are encountered, exotic artifacts and cut-out or effigy ceramics are virtually nonexistent -- indeed, "sacred" ceramics are practically nonexistent also. Stone slab constructions appear to continue, however, at mounds such as Kemps Landing or OK Landing.

In viewing these data in processual terms we would continue our systemic model by noting that following the development of reliable maize agriculture in the Great Lakes-North East around A.D. 700 (Stothers, 1973; Struever & Vickers, 1973), there is clear evidence for the decline in importance of such long distance ceremonial interaction as a need to structure economic network opportunities. This, predictably, would reduce the ceremonialism of the Midwest to the distinctly regional or even local character of the early Late Woodland. In Northwest Florida the removal of this (speculative) Hopewellian economic safety valve must result either in population reductions with the establishment of demographic negative feedback mechanisms, or in some form of subsist-ence intensification {ed} 1972)[sic.]. Following Boserup (1965) and Smith and Young (1972) among others, we suggest the greater probability of the

latter course but we recognize the possibility of other strategies. Flannery and Coe (1964) have described a food procurement system in which population increases based on the resources of a single ecozone lead to the shift to a number of "daughter" populations occupying differing but adjacent ecozones and maximizing available resources through local or regional exchange systems. P.E.L. Smith (1972) has suggested that such changes lead to more ramified organizational structures, predominantly extended lineages among quasi-territorial groups which maintain loose contact in spite of seasonal fragmentation. Fried (1967) has suggested that such systems tend to develop ranked lineage or ramage systems with the need to control extra- group access to subsistence resources or structure exchange and distribution. In such a suggestive model we would expect to find considerably more region-alism in both socio-ceremonialism and in settlement-subsistence systems. We would predict the development of more diffuse regional economic adaptations with more clearly defined boundaries under conditions of increased pressure on the local resource base. This would accompany a change from more flexible and open social systems into more ranked and integrated systems through time. This is similar to what Fairbanks (1961) earlier hinted at. We would thus expect in some areas to find seasonal socially reintegrative ceremonial systems emphasizing increasingly ranked lineage segments. These would occur in regions of maximum population pressure or low carrying capacity due to ecological homogeneity. In regions with less subsistence pressure, the development of non-egalitarian socio-ceremonial modes might be retarded. We suggest that this general model is indicative of the archaeological manifestations, in basic nature and in their geographic variations, for what we have termed Middle Weeden

Island in Northwest Florida from perhaps A.D. 600 - A.D. 800.

We agree with P.E.L. Smith (1972) that, "once integrated social institutions that seem inherent in larger sedentary groups had developed ... there may have been reluctance to abandon them through a reversion to smaller groups; i.e., the system would thus tend to reinforce and perpetuate itself." As population increases and available ecological areas are occupied in specific regions, the intra-group specializations in resource utilization and exchange may become more formalized (viz. Rathje, 1971) and flow along highly structured ranked lineage systems (Dumond, 1972). An alternative adaptation would be that of subsistence intensification via a rescheduling emphasizing food production in the face of "... gradual reduction in productivity in relation to the traditional work effort needed to maintain the culturally approved standard of living and the traditional group size and social organization" (Smith and Young, 1972). We might thus expect to find regional variations showing, in some cases more intensive seasonal exploitation of local resources by small commensual units integrated along ranked lineage systems and displaying sharp socio-ethnic boundary marking mechanisms, while in other cases a population expansion into previously marginal areas would be accompanied by evidence of increased reliance upon an agricultural subsistence strategy and with less clear evidence for ranked social units. We suggest that such a model fits the respective variations seen in the archaeological data from coastal and inland aspects of our Middle Weeden Island period, and for the early portions of the Late Weeden Island period.

Terminal, Final or Late Weeden Island, for which we suggest dates between A.D. 850 and A.D. 1000, is difficult to isolate in

ceremonial contexts. In terms of villages there appears to be a trend toward clustering of coastal sites into large diffuse midden areas, such as documented by Lazarus (1961) or as at Hogtown Bayou near Choctawatchee Bay, with both coastal and inland village midden concentrations suggestive of intermittent movement of small villages within rather restricted areas with wide stretches of intervening, unoccupied territory such as the area of Leon and/or Jefferson Counties (Jones, personal communication). The intensive exploitation of coastal estuary resources is suggested. Small mounds, such as at Rock Bluff Landing or the Cayson site, or the Parrish Lake site (Brose, Percy et al., n.d.) Area G, are apparently associated with these Late Weeden Island occupations. They show little ceremonial changes from the previous period, although they are somewhat less frequent.

In these coastal or inland portions of Northwest Florida, large numbers of Final Weeden Island sites are now known, although ceremonial mounds remain rare. Our suggestions of major population increases, and an economic shift to the intensification of long-fallow swidden agriculture within restricted edaphic communities, and near permanent site occupation have been documented in our previous paper. With the possible exception of Kolomoki Mound D (Sears, 1953, 1956), large burial mounds which are clearly Weeden Island are unknown for this period.

We suggest, however, that many of the small mixed Weeden Island II-Fort Walton mounds reported throughout the coastal and interior regions may relate to this period which is clearly defined at present only from village excavations. Such mounds, like the Chipola Cut-Off Mound (Moore, 1903:445-466) or Marsh Island (Moore, 1902:274-281) contain regionally distinctive ceramic "types" (e.g., Hogtown Bayou White filled,

{Alachua}cob-marked, Lake Jackson Plain) of both the Weeden Island and Fort Walton periods. Cemeteries such as Hogtown Bayou or Point Washington (Willey, 1949) seem to show such transitional characteristics, as do actual mounds. While elaborate non-ceramic mortuary offerings and intra-mound constructions are rare, some mounds, such as Chipola Cut-Off, contain, in addition to scattered secondary burials, a number of scattered primary burials often associated with regionally specific Late Weeden Island or Early Fort Walton ceramics (albeit of limited quality and quantity). The small number of such mounds, we suggest, refers to the rapidity with which this ceremonial pattern of group mound burial shifts into the Mississippian pattern of socially segregated secondary temple mound and primary cemetery interment characteristic of the Fort Walton period after A.D. 1000. We would further hypothesize that many of the large accretional Temple mounds associated with nucleated Fort Walton village sites along the Apalachicola and Chattahoochee (and perhaps in other areas interior to the Northwest Gulf Coast) will reveal such Terminal Weeden Island mounds as their earliest construction stage. This would be a similar development to that reported by Willey (1949) and Sears (1962) for the Central Gulf Coast and Manatee regions.

In a general discussion of the consequences of food production, P.E.L. Smith states:

> "Although there is no innate necessity for food production to advance beyond the so-called incipient level of cultivation various pressures, especially pressures of population tend to encourage it in that direction. The process of agricultural intensification itself tends to be self-perpetuating since the gradual modification of the original brome requires increasing dependence on cultivated and domesticated foods rather than on wild resources. Once there is a commitment to this way of life the requirements of maintaining the food-producing economy transform the traditional basis of society, and sometimes the physical environment as well, and makes a return to the original state improbable."

The success of swidden agriculture insures both an increase in population and a tendency to more sedentary, larger villages, and increased pressures on the subsistence resources. One response is agricultural intensification as suggested by Boserup(1965). In inland Northwest Florida, however, areas with natural soils capable of sustaining short-fallow swiddening are limited (Fairbanks, 1965; Sellards, 1912) and would soon be occupied by expanding populations. With agricultural intensification populations in optimal regions will tend to come into competition for the most productive areas, unless further outward expansion is possible into areas of lower population density. Where such expansion occurs it may involve restructure of ranked social systems into occasionally strongly articulated segments, as in Sahlins' (1961) model of segmentary lineages. In more naturally diverse areas with less agricultural intensification, there is little pressure for structuring large populations to cope with an expansive predatory situation. Populations may simply emphasize territorial boundaries with limited access by outside groups (e.g., Barth, et al., 1969) and intensify the seasonal exchange of subsistence resources along the lines of ranked ramage systems (e.g., Flannery, 1969). In either case the social integration of such units may be strengthened by periodic ceremonialism structured by individuals representing the ramage hierarchy, and occasionally involving considerable community work effort over short periods (see Mendelssohn, 1974), with reification of ranking by conspicuous waste or material destruction in such ceremonial contexts (Barnett, 1965; Drucker, 1967).

Carniero (1969), among others, has suggested that under conditions of agricultural intensification where population expansion

is circumscribed by other social factors, territorial demarcation and increasingly nucleated population aggregates are accompanied both by socially integrative political mechanisms which subordinate lineage structures, and by the rise of endemic warfare as (maladaptive)intra-community structuring. Under such circumstances strong territorial groups are demarcated with increasingly stratified (in Fried's {1967} terms) internal structures being likely to emerge. It is not clear what the details of social integration for such groups will look like in ceremonial contexts except that we would predict that certain socio-symbolic integration-structuring individuals will be accorded special treatment. We suggest that the model described for ranked ramages structuring the exchange of products derived from such local subsistence intensification should apply to Late Weeden Island in those ecologically heterogeneous coastal regions of Northwest Florida. The model suggestive of expansive segmentary lineages is possibly applicable to the inland populations in the earlier portions of what we have called Late Weeden Island period, but the system probably develops rapidly into Carniero's (1967) agricultural and circumscribed territorial political units, reflected archaeologically as Early Fort Walton as a local adoption of generally available Missippian patterns, by A.D. 1000.

The systemic model we have proposed seems adequate to explain (in general cultural terms) much of the Weeden Island archaeological manifestations in Northwest Florida. It is characterized by the suggestion of some degree of external influence seen in the participation of the Gulf Coast in the exchange networks associated with Late Archaic-Hopewellian ceremonialism between about 2000 B.C. and A.D. 300. Nor do we postulate invasions or radical population movement into the area

at any period. Most cultural developments we have argued for reflect the internal rearrangements of sociocultural and techno-environmental interrelationships following the creation of the deviation amplification mechanisms of socially structured exchange. In this sense we agree with earlier authors who have viewed Weeden Island as somehow derived from Hopewell.

We do not agree with earlier interpretations such as Sears (1958, 1962), that this Weeden Island period in Northwest Florida or earlier periods necessarily involve what Fried (1967) has characterized as stratified social systems with superordinate theocrats marked by retainer burial. The presence of unpatterned disarticulated secondary burials and/or isolated skull burials, even when associated in the same mound as centralized primary interments need not represent "chiefly" theocrats with retainers or charnel house storage and/or trophy skulls. Such differing mortuary modes for members of a single lineage are common in post-Archaic periods throughout eastern North America. We suggest that what is basically represented is the creation of a socially reintegrative, ceremonial community symbol via the reburial of lineage members during periodic population aggregations at central "sacred" locations. Further, more such activities are engaged in by semi-sedentary hunting and gathering and/or swiddening groups as well as by intensive horticulturalists. That ranking lineage heads may occasionally be accorded special mortuary treatment does not seem to us to imply either redistributive chiefdoms or stratified social systems (see Renfrew, 1973). These do not seem to have occurred in Northwest Florida until population pressures build in Final Weeden Island to create a system receptive to new Mississippian models of social reintegration (see Brain, 1970 for a

similar argument in the Lower Mississippi).

We further suggest that, while the model of Weeden Islandism presented here is indicative of a somewhat lower level of socio-political integration than has sometimes been inferred, it does not depart from numerous earlier interpretations by Willey (1949), Sears (1962) or Fairbanks (1964) although these may have been less holistically ambitious, and were certainly less opaque. What we hope we have done is to have presented a different evaluation of Weeden Island in Northwest Florida from a more processual framework. If this is simply old wine in new bottles, we at least hope it offers a clearer view of what we can distill from the ferment, aud a taste of what new vintage may come.

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