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Explanations of Mississippian origins are sometimes presented as a choice between in situ cultural developments versus population movement. We examine these contrasting perspectives in the context of interaction among three regional populations with disparate material culture traditions and differing degrees of organizational complexity. We argue that population movement was the mechanism that established the initial Mississippian communities in the lower Chattahoochee-Apalachicola region, and subsequent cultural developments among neighboring indigenous populations were influenced by the presence of immigrant settlers. We propose that the different ways in which regional populations responded to interaction across a geographical, cultural, and sociopolitical frontier placed them on divergent paths to Mississippianization.

One problem currently challenging North American archaeologists is to understand the emergence and spread of the Mississippian cultural phenomenon: the adoption of intensive maize agriculture, hierarchical decision-making institutions, and ascriptive ranking. Although regionally diverse in population size and material culture content, Mississippian societies shared many technological, economic, and organizational patterns, and specific ceramic vessel styles, architectural forms, and iconographic imagery had wide geographical distributions. These pan-regional commonalities cannot be explained by reference to local adaptive conditions considered in isolation. Instead, complex historical connections between populations are implicated.

In the 1950s, the iconoclastic archaeologist Donald Lathrap, among others, proposed that radiation, drift, and other concepts from biological evolution had useful cultural analogs. Lathrap outlined a process by which populations with successful economic patterns behaved like radiating species in biology (cf. Sahlins and Service 1960). As competing populations with different economic patterns expand their range, “this competition forms the major part of the environment to which a society must adapt” (Lathrap 1976:528). Lathrap posited that population movement initiates the competition among human populations, which in turn results in cultural evolutionary change. At the time of Lathrap’s essay, a deep intellectual schism separated culture history from culture process, such that many anthropologists thought population movement a capricious historical event rather than a cultural process structured by recurrent principles. Lathrap argued against this perspective, however, and maintained that understanding population movement as a process is as fundamental to cultural evolution as understanding the processes of radiation and drift is to biological evolution. Yet the eco-demographic functionalism of processual archaeology, as practiced over the decades since Lathrap’s essay, merely reinforced the barrier between culture history and cultural process.

In this article, we examine how these issues have shaped archaeological debates about Mississippian origins in the lower Chattahoochee-Apalachicola River region (Figure 1). The lower Chattahoochee River extends from the Fall Line to the Flint River confluence, south which the river is known as the Apalachicola. In this region, in situ or local cultural development versus...
population movement as explanations of Mississippian origins have been at odds for 50 years. Newly available data on site distributions and chronology are marshaled to evaluate the two competing interpretations. We argue that population movement—the migration and resettlement of people from one location to another—was the mechanism that established initial Mississippian societies in the region. In the lower Chattahoochee River valley, a regional variant of Mississippian known as the Rood phase was the direct product of this population movement. Farther south in the adjacent Apalachicola River valley another regional Mississippian variant, Fort Walton, took form among indigenous Late Woodland peoples through a process of contact, interaction and competition with the northern Rood Mississippian settlers across a common frontier. Before we consider these specific circumstances, it is useful to briefly review the intellectual history of the opposition between population movement and local development as explanations for Mississippian origins.

Changing Perspectives on Mississippian Origins

Into the 1950s, a theory that the Mississippian cultural tradition developed first in the central Mississippi River valley and then spread throughout the Eastern Woodlands by migration was the majority interpretation of Mississippian origins (Ford and Willey 1941:350; Eggan 1952:29; Krieger 1951; Willey 1953:371-372; Willey and Phillips 1958:164-165). Given the pre-war "short chronology," the equation of Muskogean migrations as related by oral tradition with a Mississippian expansion seemed plausible. But by the 1950s the linking of archaeological remains to specific ethnic groups became less tenable with a growing awareness of the great time depth involved (Smith 1984). According to Smith (1984:19), with the publication of the Phillips, Ford, and Griffin (1951) volume, a picture of several distinct but interacting areas of core development began to replace the single area-migration scenario as the established interpretation of Mississippian origins. While no longer concerned with identifying a single geographical area of Mississippian origin, the seemingly abrupt appearance of the Mississippian cultural tradition in many local sequences, often without any demonstrable cultural continuity with indigenous Late Woodland traditions, continued to influence archaeological interpretations. Efforts turned to developing methods to determine whether cultural elements without local developmental precedent were the result of cultural borrowing through diffusion (i.e., "trait unit intrusion") or the result of population replacement through migration (i.e., "site unit intrusion") (Wauchope 1956).

Two studies from this era exemplify the new concern with "culture contact situations." Rouse (1958) presented criteria for identifying migration in the archaeological record: there should be evidence of discontinuity with earlier cultures as indicated by artifact styles and settlement patterns; a source culture or homeland for the immigrants should be identified; there should be independent dating to show that the source or donor culture is older than the immigrant derivative culture; and there should be evidence of an adaptive advantage that allowed the immigrants to successfully displace or compete with indigenous populations in the new territory. Willey (1953) developed a model of Mississippian "cultural colonization" in which initial Mississippian migration into the Southeast established "colonies" at such sites as Macon Plateau in Georgia. At first, indigenous cultural traditions remained unchanged by the presence of the Mississippian settlers, but after a period of time, new cultural traditions developed as a product of "diffusion-accluration" between the immigrant Mississippians and indigenes.

In the 1970s and 1980s, knowledge of regional Mississippian cultures grew rapidly (Smith 1978). Processual archaeologists rejected earlier migration and diffusion scenarios of Mississippian development as simplistic, and the criteria for identifying population movements advanced by Rouse and Willey were dismissed as inadequate (Smith 1984:26-27). Local or in situ Mississippian development was attractive to processual archaeologists because they could discard older concepts such as "cultural hearth" and embrace some of the emerging tenets of cultural evolution. Much of the processual archaeology applied to Mississippian cultural evolution in the 1970s and 1980s de-emphasized or denied any causal role for population movement (e.g., Brose and Percy 1978; Peebles 1978; Schroedl et al. 1990; Smith 1984).

Migration, as an external, rapid, and "historical" input for change, ran counter to the internal, gradual, and "evolutionary" prime mover favored by processualists: local or in situ adaptation propelled by demographic stress. Populations grew but they did not move. In this view, external inputs from population movement carried little explanatory weight, for these "events" merely begged the question of where, when, and how the original adaptive changes had occurred, which returned the focus once more to the local sphere. But this line of reasoning betrays an anti-historical bias which is comfortable with the implication that the causes of initial Mississippian development are everywhere the same, rooted in local population-resource stress. In such a view, there is no need to trace historical relationships. If one were to accept this position at face value, then every regional Mississippian population
becomes a case of independent or primary chiefdom formation. Certainly this perspective is every bit as totalizing and reductionistic as the simplest Kulturkreise scheme, and harks back to the age-old myth of the primitive isolate.

Various scholars considered the origins and spread of Mississippian to be a complex problem unsuited to a single mechanism of change (e.g., Faulkner 1975; Smith 1984:21), and some were willing to consider population movement as part of their explanatory framework. For example, Morse (1977) applied two well-known models of cultural competition and colonization (i.e., Sahlin 1961; Willey 1953) to identify what he considered to be an intrusive Mississippian population in northeastern Arkansas. But Morse's interpretation went against the intellectual trend of the day because theoretical biases in processual archaeology both reinforced the historical event versus cultural process dichotomy and privileged local population growth as the ultimate explanation. In the synthesis volume The Mississippian Emergence, some authors argued that local eco-demographic stress was the primary cause of Mississippian emergence (e.g., Scarry 1990; Schroedl et al. 1990), while others suggested that both local and external forces shaped specific regional examples of Mississippianism (Smith 1990:2-3).

Population movement, as a process of cultural change or source of cultural variation, was of little concern to most authors in the volume.

Some influential processual models of Mississippian development did not neglect population expansion and inter-societal competition as sources of stress, risk, and information that fostered new institutional responses (Ford 1977; Peebles and Kus 1977). However, expansion and competition were considered lesser components or consequences of local subsistence, environmental, and demographic factors, such as access to agricultural land. Because the analytical focus of these models was the population in a localized ecosystem, culture change was portrayed as a gradual adaptation through adjustments generated within the cultural system. This perspective left little room for interest in the large-scale, rapid, and contingent transformations sparked by population movement, culture contact, and inter-societal competition that an earlier generation of archaeologists had deemed so important.

The isolationist population-resource stress model explained widespread similarities in Mississippian material culture and organization as analogous responses to similar problems by populations with similar subsistence needs. But if population-resource stress were the ultimate cause of Mississippian, then the rapid appearance of regional Mississippian populations would mean that local population pressure climaxed uniformly in a short interval across the Southeast among Late Woodland populations in diverse environments. Why this should necessarily be so remains unexplained, and there is considerable evidence to the contrary. Some regions, such as the lower Mississippi valley and central Alabama, have abundant, large Late Woodland period sites, while in other areas, such as northern Georgia, Late Woodland sites are widely dispersed or even absent from seemingly adequate environments (Nassaney and Cobb 1991). Proponents of the local population-resource stress model never grappled with the implications of emigration as a solution to local demographic stress or, in the case of immigration, as a potential cause of stress.

Over the last dozen years, accelerated research in some regions, especially the lower Southeast, has failed to uncover the in situ developmental prototypes for initial Mississippian material culture predicted by the local population-resource stress model (Blitz and Lorenz 1999; Lorenz 1992; Payne and Scarry 1998; Williams 1994). Instead, radical discontinuities in ceramic style, community plan, settlement patterns, architecture, and subsistence indicate rapid replacement of antecedent cultural patterns. In some locales, these new cultural elements are found as additions to the antecedent indigenous pattern, and in other cases appear as spatially distinct, yet apparently contemporaneous archaeological assemblages (Cobb and Garrow 1996; Jackson 2000; Little 1999; Little and Holstein 2001; Seckinger and Jenkins 2000; Sheldon et al. 2001).

These researchers interpret this diversity in regional material culture and settlement patterns as evidence of co-existing, interacting, Late Woodland and initial Mississippian populations. The emerging picture of the Late Woodland-initial Mississippian transition, at least in some regions, is more akin to a cultural mosaic of competing, expanding populations with disparate technological, organizational, and economic patterns, as presented in Lathrap's essay, than to the gradual in situ adaptation of the population-resource stress model. If this is indeed the case, then archaeologists investigating the emergence and spread of the Mississippian cultural phenomenon must construct models of cultural change and variation that include cultural pluralism and uneven development (e.g., Lightfoot and Martinez 1995; Rice 1998).

There are reasons to suspect that the movement of people, as well as products or ideas, is implicated in the evidence for uneven Mississippian development (Anderson 1997:266). For example, research in Georgia has revealed a complex process of occupation, use, abandonment, and reoccupation at Mississippian mound centers (Hally 1996; King 1996; Williams and Shapiro 1996). These discoveries imply that aggregation and dispersal of populations was a common pattern sparked by both sociopolitical and environmental factors. Political instability, created by disputes over succession to chiefly office or similar schisms between factions (Anderson 1994), was one possible cause of community
fission and population movement (Blitz 1999). Mississippian agricultural practices may also have necessitated frequent site abandonment and population movement (Baden 1987).

Nevertheless, population movement and its consequences of rapid cultural change through replacement, contact, competition, and interaction are not yet adequately revived and integrated into models of Mississippian emergence and development. Interpretations of Mississippian origins throughout the Southeast are still presented as a choice between local adaptation (e.g., Schroedl 1994) and population movement (e.g., Williams 1994). The problem of “Mississippianization,” defined as “the process whereby regions were incorporating general Mississippian traits,” requires explanatory frameworks that consider the local, regional, and interregional movements of people, products, and information (Cobb and Garrow 1996:21-22). Potentially useful concepts for achieving such a goal may be found in anthropologically informed studies of abandonment, population movement, resettlement, culture contact, and ethnogenesis (e.g., Burmeister 2000; Hegmon et al. 1998; Kopytoff 1987; Shennan 2000).

Mississippian Origins in the Lower Chattahoochee-Apalachicola River Region

Explanations of Mississippian origins in the lower Chattahoochee-Apalachicola River region have long been expressed as a dichotomy between population movement and local development. In these debates, the emphasis is on spatially distinct distributions of sites associated with different ceramic styles. As other researchers have done, we must rely on ceramics and settlement patterns as the primary evidence because no other categories of the archaeological record are sufficiently abundant for comparative purposes. As a caveat, we stress that ceramic style may not reflect the full range of contact and interaction between groups nor map neatly onto all social and political boundaries. But on the basis of considerable ethnographic evidence, we insist that ceramic style can reveal shared or divergent social histories and material culture traditions (Conkey and Hastorf 1990; Hodder 1985; Weissner 1983; Wobst 1977).

Radiocarbon and stratigraphic evidence (Scarry 1990; Schnell et al. 1981) confirms that two archaeological phases, Rood and Cayson (also known as Early Fort Walton) in the contiguous Apalachicola River valley, are the oldest Mississippian components in the region (Figure 1). Rood and Cayson are the focus of a debate over the cultural dynamics responsible for initial appearance of Mississippian chiefdoms in the region and the origins of the Fort Walton archaeological “culture.” Radiocarbon dates from the lower Chattahoochee-Apalachicola region for Rood and Cayson phases are roughly contemporaneous, from AD 1100 to 1250 (see Lorenz and Blitz 2002; Scarry 1990, and Schnell et al. 1981). Both Rood and Cayson populations established mound centers at the beginnings of their respective developmental sequences. Occupation spans and mound construction episodes are known for some centers, but others remain undated. On the upper Apalachicola, the earliest Fort Walton phase, Cayson, is found at the single-mound centers of Curlee (8JA7), Cayson (8CA8), and Yon (8LI2) (Scarry 1984, 1990; White 1982, 1996). Another Fort Walton phase is centered on the Lake Jackson site (8LE1) in the Tallahassee hills area (Griffin 1950; Payne 1994). Rood has sometimes been included with Cayson as a regional phase of the Fort Walton archaeological culture (Scarry 1990; Scarry and Payne 1986; White 1982). However, as we demonstrate below, these two archaeological constructs represent contemporaneous populations with origins in different cultural traditions.

Both culture history and processual perspectives have shaped definitions of the Fort Walton concept. Fort Walton was initially defined as a ceramic complex, period, and culture in northern Florida (Willey 1949). Similarities in material culture and the presence of large settlements with platform mounds persuaded Willey that Fort Walton was derived from Middle Mississippian. The term “Mississippian” had come into use as an expedient label for late prehistoric agricultural societies with similarities in settlement pattern, subsistence, material culture, and social organization, and distinctive regional expressions were identified (Griffin 1967). The primary criteria Griffin and others used to define Mississippian variants were variations in material culture (especially ceramic styles) with distinct spatial distributions. Midcontinental Middle Mississippian was one such variant, often proposed as the developmental hearth in age-area explanations for pan-regional cultural similarities (Smith 1984). Fort Walton culture became a Gulf Coastal Plain Mississippian variant. When later definitions of Mississippian placed greater emphasis on social organization (Peebles and Kus 1977) and subsistence practices (Smith 1978), definitions of Fort Walton culture were reformulated. Fort Walton became a “Mississippian cultural adaptation,” organized as agricultural chiefdoms, and manifest archaeologically in several distinct phases (Brose and Percy 1978; Scarry 1981, 1984; White 1982).

In two thorough syntheses of Fort Walton, Scarry (1984) and White (1982) proposed that Fort Walton evolved in situ from indigenous societies through local adaptation. Population growth was identified as the primary mover for a cause-and-effect chain: resource stress, maize intensification, societal reorganization, and managerial elites. They identified ceramic style
continuities that bridged these developments. White applied the term Early Fort Walton to components with the earliest Fort Walton ceramic assemblages. Scarry preferred to designate the same ceramic assemblages the Cayson phase. These ceramic assemblages are dominated by high frequencies of sand/grit temper, check stamping, and the initial appearance of the ceramic type Fort Walton Incised (zone-punctated decoration usually applied to cazuela or shouldered vessel forms). Both Scarry and White argued that these earliest Fort Walton ceramic types and modes were derived from the indigenous Late Woodland period Weeden Island tradition antecedent to Fort Walton. In their studies, Scarry and White focused primarily on the Apalachicola River valley, but they extended the Fort Walton construct and developmental scheme north to the lower Chattahoochee River valley to include a regional concentration of Mississippian sites known as the Rood phase.

Familiar with the Rood phase from their extensive excavation of platform mounds at the Cemochchobee site, Schnell et al. (1981) held a different view of Rood origins. Unlike Scarry and White, Schnell and his associates did not interpret Rood as a regional phase of Fort Walton nor did they suggest that Rood was derived from Wakulla. Instead, these investigators considered Rood material culture to be derived from Middle Mississippian. Rood has in abundance what is rare in Fort Walton contexts: shell-tempered jars fitted with handles and incised with arcade or arch motifs. Because the nearest contemporary or antecedent Middle Mississippian phases are found to the north and west, they thought it prudent “to consider models involving population replacement in research bearing on the ’early Rood phase, even though such models are currently out of vogue” (Schnell et al. 1981:244). In other words, Schnell and his associates considered Rood Mississippian to be the product of an intrusive population movement with origins in the non-indigenous Middle Mississippian tradition, and thus distinct from Fort Walton. Scarry and White, on the other hand, both argued for local adaptation and cultural continuity with indigenous Late Woodland Weeden Island populations as the primary explanation for Mississippian origins in the region, and referred to these Mississippian components, including the Rood phase, as part of the Fort Walton concept.

Scarry presented the problem of Mississippian origins in the lower Chattahoochee-Apalachicola River region as two opposing hypotheses:

**Hypothesis 1:** The initial appearance of Mississippian societies in the Fort Walton area occurred as a result of an invasion of the area by Middle Mississippian populations.

**Hypothesis 2:** The initial appearance of Mississippian societies in the Fort Walton area occurred as a result of the internal reorganization of resident Weeden Island groups (Scarry 1984:107).

In posing the problem as a choice between intrusive and indigenous origins, Scarry (and White 1982:26-30) was codifying three decades of debate.

Prior to the 1980s, the strongest proponents of Hypothesis 1 were Caldwell (1955), Sears (1967), and Jenkins (1978a, 1978b). In these arguments, shared ceramic styles (and, to a lesser extent, other material culture traits) were considered the primary evidence of historical relatedness between archaeological phases. At Rood’s Landing site on the lower Chattahoochee, Caldwell (1955) identified a stratified sequence with shell-tempered Moundville-like pottery in the lowest levels, which he interpreted as evidence of a population movement from the west. In his influential synthesis, Caldwell (1958:65, 77) identified Rood as “early Mississippian,” separate from Fort Walton, which he classified as “mixed Gulf and Mississippian.” Rood was the product of a “Mississippian radiation” that represented “the arrival of a new people, bag and baggage, into various areas of the east” (Caldwell 1958:65). Like Caldwell, Sears viewed Mississippian origins in the lower Southeast as a clear case of population movement by peoples whose history was distinct from local indigenous inhabitants. Sears (1967:57-58) was impressed with the abundance of Moundville-like pottery at several lower Chattahoochee sites, in particular, the handled Mississippian jars with incised arcade motifs: shell-tempered Moundville Incised and its grit-tempered equivalent, Cool Branch Incised. Sears’s definition of the Cool Branch Incised type was stimulated by his knowledge of Huscher’s (1963) excavations at a lower Chattahoochee River site, Cool Branch, where Moundville Incised and Cool Branch Incised were prevalent in the deposits. Sears identified the Moundville archaeological culture in west-central Alabama as the most likely source of an intrusive population that replaced the indigenous Late Woodland Weeden Island peoples and initiated Fort Walton. Likewise, Jenkins (1978b:83) called attention to the similarity of the early Rood ceramic complex and Bessemer phase ceramics in north-central Alabama, and proposed that Bessemer and Rood were part of a “wave of Mississippian colonists” ca. AD 1000.

In contrast, other investigators found evidence of indigenous Fort Walton development. Fort Walton was somehow “related to the older cultures of northwest Florida,” but also had “Middle Mississippian connections” (Willey and Woodbury 1942:238). In the upper Apalachicola valley, Wakulla Check Stamped, the common pottery type of Late Woodland Weeden Island, was found in the same deposits with early Fort Walton assemblages (Bullen 1958). Continuity of ceramic modes of decoration and form were also said to characterize the Fort Walton sequence at Lake Jackson in the Tallahassee Hills (Griffin 1950). Such observations were difficult to reconcile with population movement and replacement. Reluctant to ignore a perceived Middle
Mississippian connection, a more indirect "influence" was proposed, "a pattern of diffusion-acculturation" (Willey 1953). It is important to note that archaeologists familiar with the Rood phase in the lower Chattahoochee valley were advocates of intrusive Mississippian population movement and cultural discontinuity, while those investigators working farther south in Florida supported some form of indigenous Fort Walton development and cultural continuity with Late Woodland Weeden Island populations.

This north-south geographical split in interpretation continued in the 1970s. Brose and Percy (1978) formulated a cultural evolutionary model of autochthonous Fort Walton development that drew heavily on systems theory and eco-demographic functionalism. In their view, local population growth was the prime mover that stimulated indigenous maize intensification, concentrated settlements near productive soils, and created a need for hierarchical organization. Although they rejected migration as an explanation for the origins of Fort Walton (Scarry's Hypothesis 1), Brose and Percy held open the possibility that under conditions of population stress, indigenous populations might adopt "Mississippian models" for subsistence practices and social organization, acquired through diffusion from distant populations.

Brose's students, Scarry and White, rejected Hypothesis 1 for several reasons:

1. Early Mississippian populations were not numerous enough to supply immigrants for a rapid spread into new lands (Scarry 1984:114).

2. The Early Fort Walton ceramic complex is sufficiently distinct from the pottery found in other early Mississippian period populations to preclude direct migration or identify the parent Mississippian population (Scarry 1984:147).

3. Wakulla Check Stamped in Early Fort Walton assemblages demonstrates regional continuity from Late Weeden Island into Mississippian (Scarry 1984:147-148; White 1982:223-224).

4. Potential parent populations had to be older than Rood and Cayson, it was claimed, in order to identify them as the source of colonists, but the available radiocarbon dates suggested Rood and Cayson were of comparable age (Scarry 1984:124-139).

Many of these objections against support of Hypothesis 1 can be refuted and reconciled. First, Scarry compared Early Fort Walton ceramics to pottery found in other early Mississippian period phases: Moundville I in Alabama, Macon Plateau in Georgia, Banks in central Tennessee, and Hiwassee Island in eastern Tennessee. In each phase, he found vessel shapes, rim forms, or combinations of temper not present in Fort Walton, and concluded that initial Mississippian populations in the lower Chattahoochee, Apalachicola, and Tallahassee areas did not originate in these distant locales. In order to support the population movement hypothesis, Scarry insisted that an intrusive ceramic complex should duplicate the ceramics of the parent culture. However, this expectation of precise replication of the parent culture in the realm of material goods is unrealistic for pre-industrial pioneer groups (Adams 1968; Shennan 2000). Stylistic similarity should be close at the time of initial settlement, but divergence from prototypes will occur under conditions of reduced contact with the donor culture, different environments, contact with new peoples, and cultural drift (e.g., Clarke 1968:299-327).

Certainly, some of the ceramic complexes Scarry examined do not resemble Early Fort Walton pottery (i.e., Hiwassee Island, Macon Plateau), but his rejection of Hypothesis 1 was premature because he was unaware that early Rood sites such as Cool Branch have ceramic assemblages very similar to Middle Mississippian pottery elsewhere and dissimilar to the Fort Walton ceramic assemblages on which he based his definition of Fort Walton archaeological culture and phases. Scarry relied primarily on Cayson and other Early Fort Walton ceramic assemblages in the Apalachicola River valley for his ceramic comparisons and assumed that early Rood materials were equivalent. They are not. This failure to recognize that Rood and Cayson were rooted in separate material culture traditions renders the four reasons for rejection of Hypothesis 1 persuasive only when restricted to the Early Fort Walton Cayson phase of the Apalachicola valley of Florida. The Rood phase in the lower Chattahoochee River valley to the north is quite a different matter.

Knight (1980) noted the lack of antecedent indigenous styles in Rood pottery at Cemochechobee and identified "specific ceramic type equivalences" that connected Rood to the Middle Mississippian tradition. From these links and other similarities of material culture, he concluded that Rood was most likely founded by a population movement from the west. Knight (1980:2) did not identify a specific donor source for the Rood ceramic complex, nor did he think it necessary in order to establish Rood's non-local origins. Proponents of Hypothesis 2 countered that Rood ceramic modes were "eclectic," not homogeneous, and so unlikely to have been introduced by immigrants from a single source (White 1982:236-237; Scarry 1984:152). Whether or not there were single or multiple external sources, what is important to the debate, it seems to us, is that Rood ceramic style (and additional material culture, such as wall trench architecture and bastioned palisades) is the product of a non-local tradition.

Scarry (1984:155) did not deny Knight's evidence of Middle Mississippian input altogether, but attributed stylistic similarities to diffusion, which he dismissed as unimportant. The external links in material culture carried no causal significance because "the derivation of a specific ceramic type (e.g., Cool Branch Incised) is
not necessarily the same as the derivation of a cultural adaptation featuring hierarchical organization and subsistence economy based on intensive agriculture; certainly the ceramic type is not equivalent to the adaptation” (Scarry 1984:110). We agree, but must point out that if continuity in ceramic style is used as the primary evidence for linking Late Woodland Weeden Island to Early Fort Walton, as Scarry (1984:147-148) and White (1982:29) attest, then a similar continuity between Rood and external sources (and discontinuity between Rood and Weeden Island) must be considered in any explanation for the origins of the Rood phase populations.

Finally, two additional objections by Scarry and White to intrusive Mississippian origins can be rejected or reconciled with Hypothesis 1. It is contradictory to argue that population growth was insufficient to produce Mississippian immigrants for population movements, but necessary and sufficient to transform indigenous Late Woodland peoples into Fort Walton. Mississippians abandoned settlements and moved for reasons having little apparent connection to internal population growth or resource stress, such as attempts to resolve factional disputes or efforts to form intergroup alliances (Blitz 1999). We agree with Scarry that one supposed criterion of population movement identification that cannot be demonstrated with precision at this time is independent dating to show that the potential Mississippian source cultures are older than Rood or Cayson (Scarry 1984:124-139). The available absolute dates indicate broad temporal overlaps, however, so direct cultural ties through population movements were possible. If we restrict our focus to those aspects of material culture often identified with Middle Mississippian—specifically, shell-tempered pottery and wall-trench architecture—then these traits are known to occur at an earlier date outside the lower Chattahoochee-Apalachicola valley (Lafferty and Price 1996; McNutt 1996). The remaining factor cited by Scarry and White in rejecting Hypothesis 1, the presence of Wakulla Check Stamped in early Fort Walton assemblages, is applicable only to the Apalachicola region.

In rejecting Hypothesis 1, Scarry and White failed to realize just how different Rood is from Early Fort Walton Cayson. They dismissed the presence of Middle Mississippian cultural elements in Fort Walton components as having little or no direct bearing on questions of culture process. Consequently, they defined Rood as a local phase of Fort Walton culture and rejected protests to the contrary. However, the Rood and Cayson phases originated through different mechanisms of change: the origin of Rood is best explained by population movement (Scarry’s Hypothesis 1) and the origin of Early Fort Walton Cayson fits the evidence for in situ or local development (Hypothesis 2). Unlike Scarry and White, we do not think that the untested model of population-resource stress is necessarily the most probable mechanism for Cayson local development. Instead, another model (also untested) is equally plausible: the arrival of Mississippian pioneers in the lower Chattahoochee River valley created a security threat for neighboring indigenous groups in the adjacent Apalachicola River valley, whose collective response was to emulate newcomer technology and organization in a process of secondary chiefdom formation.

Rood and Its Predecessors

What evidence is there for cultural and demographic continuity between the Rood population and the non-Mississippian indigenous populations that preceded them? In the lower Chattahoochee River valley, two indigenous, non-Mississippian archaeological cultures preceded Rood: Averett and Wakulla Weeden Island. These archaeological constructs are identified as spatially distinct distributions of sites associated with different ceramic complexes. In other words, Averett, Wakulla, and Rood ceramic assemblages have different characteristics of form, decoration, and temper (Figure 2).
The northern distribution is known as Averett, radiocarbon dated AD 900-1300 (Chase 1959, 1963; Ledbetter 1997). Averett settlement is limited to the upper portion of the lower Chattahoochee River valley, where sites include large, rich-in-artifact and feature concentrations that suggest intense or long-term habitation. Small triangular projectile points and maize remains are present. Apparently, Averett populations did not create fortified mound centers in the Mississippian pattern. Averett mound construction has been found at one site (IRU61), a low mound of habitation. Small triangular projectile points and maize remains are present. Apparently, Averett populations did not create fortified mound centers in the Mississippian pattern. Averett mound construction has been found at one site (IRU61), a low mound of habitation. Small triangular projectile points and maize remains are present. Apparently, Averett populations did not create fortified mound centers in the Mississippian pattern. Averett mound construction has been found at one site (IRU61), a low mound of habitation. Small triangular projectile points and maize remains are present. Apparently, Averett populations did not create fortified mound centers in the Mississippian pattern. Averett mound construction has been found at one site (IRU61), a low mound of habitation. Small triangular projectile points and maize remains are present. Apparently, Averett populations did not create fortified mound centers in the Mississippian pattern. Averett mound construction has been found at one site (IRU61), a low mound of habitation. Small triangular projectile points and maize remains are present. Apparently, Averett populations did not create fortified mound centers in the Mississippian pattern. Averett mound construction has been found at one site (IRU61), a low mound of habitation. Small triangular projectile points and maize remains are present. Apparently, Averett populations did not create fortified mound centers in the Mississippian pattern. Averett mound construction has been found at one site (IRU61), a low mound of habitation. Small triangular projectile points and maize remains are present. Apparently, Averett populations did not create fortified mound centers in the Mississippian pattern. Averett mound construction has been found at one site (IRU61), a low mound of habitation. Small triangular projectile points and maize remains are present. Apparently, Averett populations did not create fortified mound centers in the Mississippian pattern. Averett mound construction has been found at one site (IRU61), a low mound of habitation. Small triangular projectile points and maize remains are present. Apparently, Averett populations did not create fortified mound centers in the Mississippian pattern. Averett mound construction has been found at one site (IRU61), a low mound of habitation. Small triangular projectile points and maize remain...
specific architectural form, the details of which were not likely to be easily transmitted by casual observation or indirect sources. Furthermore, it has long been established that folk architecture carries a high symbolic load often emblematic of cultural identity and, therefore, resistant to change (Deetz 1977; Glassie 1975). For these reasons, we think wall-trench architecture was one element of the cultural blueprint carried by the Middle Mississippian pioneers who initiated the early Rood phase.

Viewed from the lower Chattahoochee River valley, the Mississippian tradition that most resembles Rood extends north and west, and cultural elements that coalesced into this new way of life—fortified political centers with platform mound-plaza arrangements, wall trench architecture, similar shell-tempered vessel forms, inferred chiefdom organization—have contemporary or antecedent links outside the region. Averett and Wakulla have none of these cultural elements. Early Rood and the Mississippian phases mentioned above are pan-regional expressions of shared material culture; these phases appear as widely spaced settlement clusters with greater material culture similarity to each other than to the local indigenous traditions that preceded them. Such a situation suggests that these far-flung populations were composed of communities linked together by shared histories. Although we disavow the simplistic notion that all Middle Mississippian populations or innovations originated at a single geographical homeland or point of dispersal, long-distance diffusion or local adaptation acting independent of other populations may not be the best explanation for such striking similarities in material culture. In many cases, such as the Rood phase, population movements are implicated.

Mississippian Population Movement into a Frontier

In the lower Chattahoochee River valley, the spatial distribution of Averett, Rood, and Wakulla sites has important implications for the identification of a Mississippian population movement. As mentioned previously, the beginning dates for Averett and Wakulla are both older than the beginning date of Rood, suggesting that these populations inhabited the region prior to Rood populations. However, Averett, Rood, and Wakulla sites are found in different physiographic zones along the lower Chattahoochee River (Figure 3). Distinct site distributions might be related to the potential of zones to sustain different subsistence strategies (Schnell and Wright 1993:4-11), or the presence of indigenous inhabitants in those zones may have restricted the settlement choices of immigrant populations. If the initial appearance of Mississippian sites occurred in an unpopulated location with few or no contemporary or immediately antecedent indigenous sites, the case for intrusive settlement is strengthened because there was no pre-existing local population base for cultural continuity.

A frequency histogram (Figure 4) illustrates the number of Averett, Rood, and Wakulla components recorded in each physiographic zone along the floodplain, from Oliver Reservoir in the north to the Chattahoochee-Flint river confluence (Lake Seminole) to the south. Components were identified from state site files and inventories compiled through CRM surveys, including sites recorded prior to reservoir construction (Belovich et al. 1982: Tables 10, 11; Chase 1963; Garrow and Associates 1995:45, Figure 11; Knight and Mistovich 1984: Tables 3.2, 3.3, 3.4, 8.1; Ledbetter 1997:260; McMichael and Kellar 1960: Tables 19, 20; White 1982: Tables 11, 12, 14). Interfluvial site locations away from the valley are excluded from the sample due to inadequate survey coverage; thus, any interpretations drawn from these site distributions apply only to floodplain locales.

Figure 3. Distribution of Averett, Rood, and Wakulla components across five physiographic zones of the lower Chattahoochee River valley: A=Lower Piedmont, B=Fall Line Sand Hills, C=Chattahoochee Red Hills, D=Fall Line Red Hills, E=Dougherty Plain. The Pelham Escarpment (F) and Tallahassee Highlands (G) form the southern boundary.
Averett components are concentrated in the physiographic zones on either side of the Fall Line at the northern end of the valley; Wakulla components dominate the two southernmost zones. Only the centrally located Chattahoochee Red Hills has both Averett and Wakulla components, including the southernmost Averett site (9SW124, the only Averett site in this zone) and the northernmost Wakulla site (1BR27); the two sites are separated by 5.6 km. There are only six Wakulla components in the Chattahoochee Red Hills zone (including 1BR27), widely dispersed along the river for a distance of approximately 50 km. Farther south, the number and density of Wakulla components increase dramatically. The Chattahoochee Red Hills is clearly peripheral to both Averett and Wakulla settlement distributions, but it contains the majority of Rood components.

The peculiar concentration of Rood sites in the physiographic zones between the demographic centers of Averett and Wakulla is further revealed when these same data are plotted on a regional map (Figure 3). As noted above, Averett and Wakulla site distributions exhibit no spatial overlap. Much of the Chattahoochee Red Hills appears to have been an uninhabited or underpopulated “buffer zone” (Hickerson 1965) between the two populations. Rood components are clustered in the spatial gap between Averett and Wakulla territories.

Given these site distributions, it is unlikely that Rood “emerged” in place as an autochthonous transformation of indigenous Averett or Wakulla parent populations. If Rood were merely a local expression of Fort Walton and thus the product of internal demographic growth out of local Late Woodland populations, as the adaptationist model would have it, then we would expect Rood mound centers to develop in the areas most heavily occupied by Averett or Wakulla. That did not happen. No early Rood mound center that has been investigated in any detail has evidence of Averett occupation. Wakulla Check Stamped is absent from excavation samples at such Rood mound centers as Cool Branch, Mandeville (Mound A cap), Singer-Moye, and Rood’s Landing, and is present only in trace quantities in mound-fill contexts at Cemochechobee (7 of 33,320 sherds, Schnell et al. 1981:240). Figure 3 reveals some spatial overlap of Rood components with Averett and Wakulla distributions, but it is doubtful that these specific components were contemporary. Rood populations probably did not occupy the Fall Line (a common pattern for Mississippian sites elsewhere in Georgia) because Averett groups were already there. It is improbable that Averett was the original donor population for Rood because radiocarbon dating and rare examples of exchanged or copied Rood pottery in Averett contexts indicates that Averett and Rood were contemporary (Ledbetter 1997). If Averett had been the donor population for Rood, then we would have to explain why some Averett groups retained their traditional material culture in their northern home territory while others moved a short distance to the south and developed into Rood Mississippian. If Wakulla was the donor population for Rood, then we must explain why Rood did not retain Wakulla-derived material culture (check-stamped pottery), as did their supposed Early Fort Walton Cayson phase brethren to the south.

We think the lower Chattahoochee River valley was a Mississippian frontier, a geographical space between settlements as well as a sociopolitical space where contact between distinct cultural groups could be initiated, or in some cases, avoided. Frontiers are visible in material culture distributions and settlement patterns. Frontiers may mark social and political boundaries, but these are hard to measure archaeologically. In this case, Rood sites appear without local precedent between the demographic centers of Averett and Wakulla settlement. In the Chattahoochee Red Hills, where Rood components cluster, there was no antecedent population source for local Rood emergence. The parsimonious explanation is that Rood populations did not originate locally, but instead belonged to a tradition that “emerged” elsewhere. It was the movement of Mississippian pioneers bearing the products of this non-local tradition into a frontier that created the initial Rood archaeological remains.

The Cool Branch Site:
A Mississippian Frontier Settlement

Located in the pre-existing buffer zone or uninhabited gap between Averett and Wakulla site distributions, the previously mentioned Cool Branch site (9QU5) represents an early Rood phase frontier settlement (Lorenz and Blitz 1999). An 850-m long palisade with tower bastions spaced 35 m apart was erected around a single platform mound early in the Rood sequence (Figure 5). Remains of wall-trench architecture, pre-mound structure patterns, and many
specifics of material culture are similar or identical to counterparts found at Cemochehee, and at Middle Mississippian sites north and west of the lower Chattahoochee valley. Indeed, these external similarities are more pronounced at Cool Branch than at Cemochehee, which is located 27 km to the south. The predominance of shell-tempered jar attributes, such as the incised arcade motif on lobed jars, and identical noded narrow-strap handle forms, bears a striking resemblance to ceramic assemblages from the Bessemer phase (DeJarnette and Wimberley 1941: Figure 62; Welch 1994:22), Moundville I phase (Steponaitis 1983: 323-326) and Langston phase (Walthall 1980:200-205).

These ceramic attribute similarities reinforce the impression of an early Mississippian period chronological placement (ca. AD 1100-1250) for the Cool Branch site. In fact, two radiocarbon samples have been dated: one from the pre-mound ceremonial precinct (Beta-130241, 840 ± 50 BP, wood charcoal, $\Delta^{13}C = -25.9$, cal AD 1040-(1210)-1280 at two-sigma); and one from an early mound building construction stage (Beta-130242, 740 ± 50 BP, wood charcoal, $\Delta^{13}C = -26.9$, cal AD 1210-(1280)-1300 at two-sigma). Thus, both dating ranges fall roughly within a two-sigma calibrated (Stuiver and Reimer 1993) range of AD 1100-1250, supporting an early Rood phase assignment for the site.

The effort devoted to palisade construction at Cool Branch is impressive. The multiple-mound centers of Rood's Landing and Singer-Moye also have evidence for fortifications, but these features remain undated. Fortifications have not been found at Averett or Wakulla sites. Fortification building may have played a critical role in successful Mississippian colonization. Because the Cool Branch settlement was established early in the Rood sequence, and because it exhibits a material culture without regional antecedents, perhaps the Cool Branch site represents a planned effort to establish a fortified community of immigrant settlers in a frontier buffer zone between the indigenous settlement clusters of Averett to the north and Wakulla to the south. There is no Averett or Wakulla pottery at Cool Branch. Efforts to expel the invaders were unlikely to succeed once such a fortress was erected, because fortified defenders held a tactical advantage over attackers in bow warfare (Hassig 1997), and there is no evidence that Southeastern peoples practiced siege tactics (Stout and Lewis 1998:175). Territorial acquisition would be the end result of these conditions and the indigenous people to the north and south of Rood phase settlements would be forced to adjust to the new situation. Viewed in this way, fortification building was more than a passive defense. Instead, we must consider the possibility that palisade construction was employed as a strategic technology to acquire and hold new territories on the Mississippian frontier.

**Rood and Fort Walton**

The principal evidence marshaled by proponents of indigenous Fort Walton origins is the presence of Wakulla Check Stamped in both Wakulla and Early Fort Walton assemblages. In the Apalachicola River valley, the appearance of Mississippian-derived ceramic styles identical to those of Rood, in assemblages otherwise dominated by Wakulla Check Stamped (and Fort Walton Incised), is diagnostic of the Early Fort Walton Cayson phase (Scarry 1984; White 1982). Such is not the case in the lower Chattahoochee region, where Wakulla Check Stamped pottery is rarely found in Rood assemblages, and then only in small quantities. A few other excavated sites have produced both Rood ceramics and Wakulla Check Stamped ceramics, but in every case the context is such that it is uncertain if the artifacts belong to the same or different components (Schnell et al. 1981: 240). In short, the high frequency of Wakulla Check Stamped in Early Fort Walton Cayson assemblages is interpreted as evidence of cultural continuity by investigators in the upper Apalachicola River valley, but in the lower Chattahoochee River valley there is no evidence of ceramic style continuity between Rood, Wakulla, or Averett.

The debate over the place of Rood and Early Fort Walton Cayson in regional Mississippian origins has lacked comparison of ceramic attribute frequencies between the two phases. With the competing origin hypotheses in mind, ceramic attribute frequencies in provenience unit samples at regional mound centers are compared to (1) clarify the distinctive composition of early Rood and Cayson ceramic complexes, and (2) identify temporal-spatial patterns in ceramic types or attributes that imply contact and interaction between early Rood and Cayson.}

**Figure 5.** Plan view of the Cool Branch site (9QU5).
As other investigators have done, we assume that a traceable continuity in the use of ceramic temper, decoration, and vessel shapes (as expressed in ceramic types) from earlier times through the advent of Rood and Fort Walton indicates some degree of cultural continuity in the region. The ceramic samples are drawn from these sources of early Rood and Cayson assemblages: Cayson (Scarry 1980), Cool Branch (this study), Curlee (White 1982), Mandeville (Kellar et al. 1961), Omussee Creek (Neuman 1961; this study), Rood’s Landing (Caldwell 1955; Schnell 1977, 1981), Singer-Moye (Knight 1979), and Yon (White 1996).

In Table 1, we compare the four most common decorated types in contemporaneous early Rood and Cayson assemblages. Shell-tempered Moundville Incised and its grit-tempered equivalent, Cool Branch Incised, are characterized by the incised arcade decoration found on standard Mississippian jars with handles. These types dominate early Rood, but occur in low frequencies in Cayson. Fort Walton Incised (zone punctation) and Wakulla Check Stamped are absent or rare in early Rood assemblages, but are the decorated majority types in Cayson. Clearly, northern Rood centers and southern Cayson centers have roots in separate material culture traditions, but there is evidence of interaction.

Stratigraphic superposition and radiocarbon dating (Caldwell 1955; Knight 1979; Schnell et al. 1981) support the contention that, as a general temporal trend, assemblages with higher frequencies of shell temper are older than those assemblages with low frequencies. Shell-tempered pottery is found in the earliest Cayson deposits. Most likely, shell temper and the standard Mississippian handled jar passed from early Rood to Cayson, but shell temper was never as popular in Cayson as in early Rood. Although Early Fort Walton Cayson populations did adopt Mississippian jars as a minority ware, most were made with indigenous tempering agents, not shell temper. The origins of the type Fort Walton Incised are unclear, but the definitive zone-punctate treatment has deep antecedents in the Gulf tradition (Caldwell 1958). The fact that Fort Walton Incised diverges in temper, form, and distribution from Rood ceramics implies that it was not derived from that source. Hybrid combinations of intrusive and indigenous ceramic modes, such as handles added to indigenous vessel forms or shell-tempered equivalents of the decorated types Fort Walton Incised or Wakulla Check Stamped, are not in evidence. Without any such hybrids that could be interpreted as developmental prototypes, there is no basis to argue that the handled jar form or shell temper originated as localized in situ innovations. For the most part, Mississippian ceramics (primarily the handled jar form) were introduced into the Wakulla-Fort Walton continuum from elsewhere, with little alteration except the use of tempering agents other than crushed shell. In the realm of ceramic style, early Rood cultural boundaries were apparently rather resistant to stylistic inputs from Early Fort Walton, whereas Early Fort Walton cultural boundaries were more permeable. The relatively low-level, one-sided style transmission between early Rood and Cayson suggests the relationship was one of “negative reciprocity” (Hodder 1985). Even if the two groups were mutually antagonistic, transmission of ceramic styles could have occurred through marriage alliances or abduction of potters.

In addition to the temporal dimension, there is spatial patterning in the frequency of shell-tempered pottery in the lower Chattahoochee-Apalachicola region. For example, when ceramic samples from early Rood phase mound centers are compared, a north-south spatial cline in the frequency of shell-tempered pottery is evident:

| Table 1. Frequency (%) of the most abundant decorated pottery types in early Rood and Cayson phase samples. |
|---------------------------------|--|---|---|---|---|
| Site/Provenience                | Moundville Incised | Cool Branch Incised | Fort Walton Incised | Wakulla Check Stamped | Total N |
| Early Rood                      |                |                |                |                |        |
| Rood’s Landing                  | 100            | 0              | 0              | 0              | 3      |
| Pre-Mound D                     |                |                |                |                |        |
| Cool Branch Pre-Mound & Mound   | 83             | 12             | 3              | 0              | 135    |
| Mandeville                      | 73             | 20             | 7              | 0              | 44     |
| Mound A Cap                     |                |                |                |                |        |
| Singer-Moye                     | 67             | 22             | 0              | 0              | 8      |
| Mound C                         | 0              | 100            | 0              | 0              | 2      |
| Omussee Creek Pre-Mound         |                |                |                |                |        |
| Cayson                          |                |                |                |                |        |
| Curlee                          | 0              | 1              | 20             | 79             | 701    |
| Yon                             | 3              | 13             | 51             | 34             | 104    |
| Cayson Lower                    | 9              | 0              | 76             | 15             | 33     |
| Cayson Upper                    | 4              | 2              | 92             | 1              | 133    |

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highest frequency in the north at Rood's Landing and Cool Branch, lower frequency at Mandeville and Singer-Moye to the south and east (Figure 6). We can be confident that these frequency changes over geographic space are not the result of change over time because these lower Chattahoochee mound assemblages contain relatively high frequencies of Moundville Incised, a key marker type for the early Rood phase. Because early Rood ceramic assemblages are most like Mississippian phases to the north and west, this pattern suggests that the point of initial Rood immigration into the lower Chattahoochee would have been in the northern valley below the Fall Line. Perhaps these northern Rood sites maintained greater contact with their communities of origin to the north or west and had less direct interaction with early Fort Walton peoples to the south. Compare early Rood assemblages with contemporary Cayson assemblages farther south in the upper Apalachicola valley; shell tempering is present in Cayson, but in lower frequencies.

It is important to note here how confusion regarding assignment of the Rood phase to the Fort Walton culture came about in the first place. Researchers recognized relatively high frequencies of Fort Walton Incised pottery in some lower Chattahoochee valley mound site assemblages, but (before this study) fine chronological control was not yet established. Therefore, the Rood phase was linked to Fort Walton culture by virtue of similar ceramic styles (i.e., the Rood phase incised-arcade types Moundville Incised and Cool Branch Incised, and the Early Fort Walton Cayson phase zone-punctated type, Fort Walton Incised) found at the same site. But when each lower Chattahoochee valley mound site ceramic assemblage was examined in stratigraphic order, it became clear that Fort Walton Incised did not become a common type in the lower Chattahoochee valley until the Singer phase (ca. AD 1350-1450) (Lorenz and Blitz 2002; Schnell and Wright 1993), when it occurred with Lamar Plain, a rim mode of notched or pinched appliqué strips of clay added to the exterior of the vessel. Moundville Incised and Cool Branch Incised types declined to low frequencies. After ca. AD 1400, the stylistic vestiges of Rood's Middle Mississippian origins were replaced by the continued popularity of Fort Walton Incised and an infusion of Lamar (South Appalachian Mississippian) ceramic styles from the east. So unlike sites in the Apalachicola River valley, relatively high frequencies of Fort Walton Incised in the lower Chattahoochee River valley are a post-AD 1400 phenomenon.

<table>
<thead>
<tr>
<th>ROOD</th>
<th>NON-SHELL</th>
<th>SHELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rood's Landing</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Pre-Md D</td>
<td>N=60</td>
<td></td>
</tr>
<tr>
<td>Cool Branch</td>
<td>38%</td>
<td>62%</td>
</tr>
<tr>
<td>Pre-Md &amp; Md</td>
<td>N=4073</td>
<td></td>
</tr>
<tr>
<td>Mandeville</td>
<td>59%</td>
<td>41%</td>
</tr>
<tr>
<td>Md A cap</td>
<td>N=1006</td>
<td></td>
</tr>
<tr>
<td>Singer-Moye</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Md C</td>
<td>N=452</td>
<td></td>
</tr>
<tr>
<td>Omussee Creek</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>Pre-Md</td>
<td>N=249</td>
<td></td>
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</table>

<table>
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<tr>
<th>CAYSON</th>
<th>NON-SHELL</th>
<th>SHELL</th>
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<tbody>
<tr>
<td>Cayson Lower</td>
<td>79%</td>
<td>21%</td>
</tr>
<tr>
<td>N=298</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cayson Upper</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>N=1709</td>
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<td></td>
</tr>
<tr>
<td>Curlee</td>
<td>94%</td>
<td>6%</td>
</tr>
<tr>
<td>N=3633</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yon</td>
<td>97%</td>
<td>3%</td>
</tr>
<tr>
<td>N=1420</td>
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</tbody>
</table>

Figure 6. Frequency (%) of shell-tempered pottery and non-shell-tempered pottery in early Rood and Cayson phase samples.
Conclusions

The competing hypotheses of population movement and local development have long been proposed to explain Mississippian origins in the lower Chattahoochee-Apalachicola River region. Invoking Rouse's (1958) criteria for evaluating evidence of population movement, the hypothesis that population movements into the lower Chattahoochee River valley established the Mississippian Rood phase could not be rejected for the following reasons:

1. There is regional discontinuity in material culture; Rood ceramic style and architecture have no precedent in the area of Rood settlement.
2. Rood site distributions reveal a demographic discontinuity with antecedent local populations because Rood settlements were established in an uninhabited area between indigenous populations. Rood sites rarely have indigenous Averett or Wakulla components.
3. In a general manner, the extra-regional source territory for Rood Mississippian settlers is identified on the basis of similarities in material culture and settlement pattern. These cultural elements appear first in the source territory.
4. The organizational capability of erecting fortifications to defend settlements is evidence of an adaptive advantage that allowed the immigrants to successfully displace or compete with indigenous populations in the new territory.

In contrast to Rood origins, the hypothesis that the Early Fort Walton Caysan variant of Mississippian originated from intrusive population movement can be rejected for the following reasons:

1. There is regional continuity in material culture with antecedent Wakulla populations, primarily in the form of ceramic modes of decoration, form, and temper.
2. Fort Walton Caysan site distributions reveal a demographic continuity with antecedent Wakulla populations. Early Fort Walton Caysan sites commonly have Wakulla components.

Additional evidence was presented which suggests that contact with Mississippian pioneers had a significant, long-term developmental impact on indigenous Late Woodland populations:

1. Regional temporal-spatial patterns in ceramic modes of decoration, vessel form, and temper indicate a limited, asymmetrical transmission between intrusive Mississippian and indigenous Wakulla groups. A seriation of ceramic samples from regional mound centers is presented to illustrate this pattern.
2. The relative lack of shared ceramic modes is interpreted as negative reciprocity or a low level of interaction between intrusive Mississippians and indigenous Wakulla and Averett groups.

We conclude that Rood originated as a series of occupations by Mississippian immigrants in a vacant or sparsely inhabited frontier zone between Averett and Wakulla settlement clusters. As proposed by Scarry, White, and others, the Fort Walton archaeological culture appears to represent the reorganization of indigenous, Wakulla-derived populations into mound centers, accompanied by both change and continuity in the ceramic complex. Did the intrusion of Rood settlers have long-term developmental consequences for the neighboring indigenous inhabitants? Unfortunately, the data are too fragmentary for definitive answers. There has been less excavation at Averett sites, so we know relatively little about the Averett response to the expanding Rood population, but we can tell that it was quite different from the Wakulla-to-Fort Walton transformation in the south. No significant changes in Averett material culture or settlement pattern have been identified. Perhaps Averett ceramic style was emblematic of cultural identity and thus resistant to external influence. Potentially, Averett occupation of the Fall Line was of strategic importance to intermediate trading partners with Mississippian chiefdoms located up and down the Chattahoochee River. Based on radiocarbon determinations, Averett populations co-existed with Rood populations, but the two groups do not appear to have had many interactions, as judged by the low frequencies of Rood phase ceramic types within the Averett assemblages and the total absence of Averett types in Rood assemblages. However, Averett people do appear to have been closely affiliated with populations located to the north that used complicated stamped pottery, and perhaps this northern connection was an alliance forged as a defense against intrusions from Rood populations. Whatever the case, Averett culture disappeared from the archaeological record around AD 1300.

Unlike Averett, the Wakulla-derived Early Fort Walton Caysan populations underwent profound changes. Because initial Rood settlement and the Wakulla-to-Cayson phase transition appear close in time and space, it seems to us that Mississippian population movements and the reorganization of indigenous, Wakulla-derived populations need not be viewed as mutually exclusive or unrelated developments. At the very beginning of the Fort Walton sequence, when the Wakulla-derived Early Fort Walton Caysan populations established their mound centers, there was an injection of Middle Mississippian material culture into the Apalachicola River valley: minor quantities of shell-tempered Mississippian jars are found in the lowest levels of Cayson phase deposits (Figure 6 and Table 1; also see White 1982:242-243). On present evidence, Cayson centers did not form prior to contact with Middle Mississippians. Rood and Early Fort Walton Caysan may represent different developmental paths to Mississippian, linked together in a sequential cause-and-effect relationship through contact and interaction across a common frontier. The intrusion of competitive Rood populations may be the primary causal factor in Fort Walton chiefdom formation. Perhaps Wakulla populations centralized into mound centers and initiated the
THE EARLY MISSISSIPPIAN FRONTIER IN THE LOWER CHATTahooCHEE-APALACHICOLA RIVER VALLEY

Fort Walton variant of Mississippian as a regional, defensive reaction to the real or perceived threat of intrusive Rood populations on their northern frontier.

Most investigators who championed indigenous Fort Walton origins have acknowledged some degree of external input, which they attributed to long-distance diffusion (Brose and Percy 1978; Scarry 1984:155-156). To them, this vague external input was not so dramatic as to indicate population movement, nor was it so important as to take precedence over local adaptive factors such as internal population growth. But in pre-industrial societies, long-distance diffusion is an unlikely mechanism for the complete replacement of utilitarian artifact styles, such as found in the contrast between Rood and its predecessors (Adams 1968:200-201). Furthermore, we doubt that long-distance diffusion was sufficient to impart the "Mississippian models" that may have aided the transformation of Wakulla into Fort Walton (Brose and Percy 1978:105). Instead, the fact that Rood and Cayson occupied a common frontier and shared a limited number of ceramic attributes suggests a more direct form of contact and competition (Schnell et al. 1981:244).

Much more archaeological data are required to document the local and external factors that produced the Early Fort Walton Cayson phase. Specifically, we need to collect more radiocarbon samples and decorated ceramic assemblages from stratified mound contexts in the Apalachicola valley to gain chronological control over changes in the archaeological assemblages from each mound center (Marrinan and White 1998). Identifying changes in the patterns of artifact, feature, and ecofact assemblages from mound centers should shed light on those factors related to the evolution of Fort Walton. However, the hypothetical cause-and-effect chain cited by proponents of the ecodemographic model—resource stress, maize intensification, societal reorganization, strong leadership, formation of mound centers—might just as plausibly be explained as a reaction to the external threat of Rood settlers on an expanding Mississippian frontier (cf. Willey 1953). Archaeologists attempting to understand the emergence and spread of the Mississippian cultural phenomenon cannot afford to ignore the observation offered by Lathrap and others years ago: migration, and more specifically the ensuing contact and competition between intrusive and indigenous populations, is a fundamental process of cultural evolution. Chains of antecedent cause-and-effect relationships are not necessarily confined to a single locality or region. Not every river valley is a pristine scene of primary chiefdom formation.

Notes

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While both Scarry and White reject population movement as an explanation for the origins of Fort Walton in the Apalachicola River valley, it is important to note that White rejects Scarry's Fort Walton phases as valid constructs because they are not based on published stratigraphic excavations (Marrinan and White 1998).

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