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by

Keith H. Ashley
Angela
ACKNOWLEDGMENTS

I have benefited from many people over the course of my dissertation research. I begin with my committee members, who each in their own way contributed to this study. Kathy Deagan, a historical archaeologist, remained on my committee even after my research moved away from a postcontact focus. She served as a constant reminder of the generalizing aspects of anthropology. Charlotte Porter was a late, yet welcomed, addition to my committee. She offered a historical and outside perspective of considerable help. Ken Sassaman was a great influence on my dissertation, probably more than he realizes. He was always available for discussion, and in our conversations he always challenged me to address theory and to look at northeastern Florida with an eye also on broader anthropological issues. Buzz Thunen provided frequent counsel, and discussions with him help to refine my understanding of northeastern Florida archaeology. Buzz also helped to keep me employed at the University of North Florida during the writing stage of my doctoral pursuit. I thank them all.

I am profoundly indebted to Jerry Milanich, who served as my committee chair. I couldn’t have asked for a better advisor. He gave me tremendous freedom to pursue my research, even if it brought me to conclusions that differed from his. He was quick to respond to my questions and requests, and availed me to his resources. His insights into Florida archaeology were of invaluable guidance. I also thank him for securing money to keep me employed during my first few years of graduate school.

Special thanks go to student colleagues and professional peers, who helped me in various ways. Myles Bland of Bland and Associates shared his opinions on a variety of topics, and was always an upbeat source of encouragement. Archaeologists at Environmental Services, Inc. (particularly Greg Smith, Marsha Chance, Greg Hendryx, and Brent Handley) kept me abreast of
their ongoing work in the area and allowed me access to their data. I profited greatly from a symposium on the Shields site, and I thank all of the participants: Rochelle Marrinan, Vicki Rolland, Tom Penders, Myles Bland, Duke Beasley, Buzz Thunen, and Jim Brown. I am particularly grateful to Vicki Rolland, who willingly shared her thoughts on the technological aspects of pottery, contributed substantially to Shields site excavations and faunal analysis, provided constructive commentary on several chapters, and used her raffle winnings to pay for several radiocarbon dates reported in this study.

Several colleagues provided references, unpublished information, and access to artifact collections. Frankie Snow of South Georgia College opened his ceramic collections and allowed me free range. Keith Stephenson funded several radiometric assays on soot from Swift Creek pottery; and he unselfishly allowed me to use his unpublished Ocmulgee phase dates. Dwight Kirkland also supplied a variety of unpublished site information. Together, these three scholars shared freely their ideas and increased my knowledge of Ocmulgee Big Bend and southeastern Georgia archaeology. Although not always agreeing with my interpretations, they were staunch in their support. I am very grateful to each of them.

At the Florida Museum of Natural History, Elise LeCompte, Scott Mitchell, and Al Woods were instrumental in allowing me access to the museum’s collections. Dave Dickel facilitated my examination of potsherds at the Bureau of Archaeological Research. Hugh Palmer of the Jacksonville Museum of Science and History allowed me to examine artifacts from Mayport Mound 1 and Mound 2 and to scrape sherd soot for AMS dating. Darden Hood and Lethia Cerda (of Beta Analytic, Inc.) graciously calibrated a large number of radiocarbon assays for me. Brian Floyd is responsible for drawing Figure 8-4, and I thank him for allowing me to include it in my dissertation.

I extend gratitude to others who have assisted in some way or another: Louis Tesar, Duke Beasley, Mike Russo, Becky Saunders, Greg Heide, Dennis Blanton, John Cottier, Ray Crook, Lucy Wayne, Jon Endonino, John Worth, Rhonda Kimbrough, Adam King, Karen Walker, Jeff
Mitchem, Ann Cordell, Donna Ruhl, Marion Smith, John Whitehurst, Diane Kloetzer, Rob
Patton, George Luer, Shanna Schofield, Brad Biglow, Neill Wallis, and Jamie Waggoner.

I owe a great deal of appreciation to several landowners who allowed us to shovel test on
their property and/or to examine their artifact collections: they include the Reeves, Wells,
Simmons, Pearsalls, Sares, Masucci, Simmons, David, and Klechak families; Tommy Abood,
Craig Morris, Jerry Hyde, and Richard Hamrick. I especially wish to thank Kinzey Reeves for
making his yard available for archaeological excavation. I appreciate the help of volunteers from
the local community, University of North Florida students, and members of the Northeastern
Florida Anthropological Society, who served diligently as dependable and efficient field workers.
I would particularly like to thank Mike Tarlton, Dave Bishop, Walter Wells, Jim Freel, Brian
Floyd, Steve Ferrell, and Bob Richter.

Two Florida Archaeological Council (FAC)-John W. Griffin Student Grants provided
funding for radiocarbon dates. Another FAC-Griffin Grant along with an Archaeological
Neutron Activation Analysis Support Grant from the University Research Reactor, University of
Missouri helped reduce the cost of neutron activation analysis of pottery. I would like also to
thank Michael Glascock and Hector Neff with their invaluable assistance with the INAA data.

My family has been steadfast in their support. My affinal kin, Jo Ann and David Mynatt,
who have always treated me as a son, were both instrumental in the production of all figures; I
couldn’t have put the final version together without them. My parents and brothers have always
been there for me. My mom has been among my staunchest and most vocal supporters. My
father passed away in 1999, and I wish he were here to share in my achievement. My children,
Avery and Kyle, have been patient and understanding, allowing Dad to finish his dissertation.
Finally, I owe my greatest debt to Angela Ashley, who has sacrificed more than she should have
to allow me to pursue this goal. Her love and faith in me, kept me going during moments when I
felt overwhelmed. She is simply the best. I repeat my thanks to everyone.
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This dissertation details the late prehistory of northeastern Florida (A.D. 900-1500) by interrelating the political economy of local and extralocal social relations. Specifically, it explores how broad-scale processes, like exchange and migration, unfold over time and impact a particular local history. Around A.D. 900, a demographic shift, sparked in part by the reemergence of far-flung communication and exchange networks across the Early Mississippian world of eastern North America, resulted in the northward movement of St. Johns people into northeastern Florida. Over the next few centuries, St. Johns II communities, such as Mill Cove Complex and Mt. Royal, were active participants in exchange relations that exported marine shell and other coastal resources and brought in nonlocal objects of stone, metal, and mineral.

Eschewing a traditional prestige goods interpretation, this study uses available settlement and mortuary data to argue for a communal political economy among St. Johns II societies, but one that availed itself of social inequality.

Situated between the St. Johns II fishers of northeastern Florida and the farming chiefdoms of the Mississippian world were Ocmulgee hunter-gatherers of southern-central Georgia. These
foraging groups served as key contacts in St. Johns II participation in Mississippian-period exchange. Direct interactions among these groups are evidenced by the presence of Ocmulgee Cordmarked pottery on St. Johns II sites in northeastern Florida and at Mt. Royal. Results of instrumental neutron activation analysis are presented to corroborate this interpretation.

Changing historical circumstances altered the extent to which St. Johns II societies participated in long-distance relations. As a result, by A.D. 1250, most St. Johns II people appear to have abandoned northeastern Florida and moved upriver (south). A century or so earlier, Ocmulgee groups had begun to leave their homeland and resettle in southeastern Georgia, perhaps merging with other foraging peoples. By ca. A.D. 1250, these groups—known to archaeologists today as St. Marys II—expanded southward into northeastern Florida, a move roughly concurrent with the retreat of St. Johns II peoples. The descendents of these foraging immigrants became the sixteenth-century fishers and part-time cultivators of maize who encountered French and Spanish interlopers.
human populations construct their cultures in interaction with one another, and not in isolation (Wolf 1982:xv).

These simple, yet telling words, penned by Eric Wolf in his now-classic tome, *Europe and the People Without History*, remind modern anthropologists that human collectivities are interarticulated at various scales in complex and dynamic webs of interaction, with each having a direct bearing on cultural formation. Even the least-complex societies do not live apart from the broader world around them, as convincing ethnographic evidence worldwide has shown (e.g., Grinker 1994; Headland and Reid 1989; Leacock and Lee 1982; Woodburn 1988). In fact, most anthropologists today would consider the idea of a primitive world where societies were completely isolated from each other a myth long expunged from scholarly thinking (cf. Lesser 1961).

Most archaeologists would also regard the topic of intersocietal contact and interaction as nothing new (a subject that has long garnered their attention). However, despite any latent knowledge or recognition of such interconnections, many prehistoric archaeologists still tend to use analytical methods that abstract social groups from their broader spatial and sociohistorical contexts without any consideration for those around them. As a consequence, these researchers ignore, downplay, or simply fail to account for the processes by which extralocal interactions and linkages shaped local societies and affected local histories. To deny these interconnections and their consequences is to liken societies, in Wolf’s (1982:6) words, to “billiard balls” that carom off each other, yet remain “internally homogeneous and externally distinctive and bounded objects.”
Human interaction is a social process whereby people act on each other, thus invoking a reciprocated action or effect. Such interactions exist simultaneously at multiple social scales and under varied circumstances; with each created, denied, and recreated through practices of individuals, operating within and upon their historically derived culture. In this light, culture is not envisioned in a normative sense as a fixed and bounded entity composed of members who possess the same sets of beliefs, values, and customs. Rather, while having large-scale collectivity structure that is historically contingent and fairly widely shared, culture also fosters a dynamic that both constrains and facilitates the actions of people (Bourdieu 1977; Giddens 1979; Hodder 1982; Ortner 1984). Human agents possessing divergent interests, agendas, and worldviews actively and simultaneously reproduce and transform culture through social negotiation. While most social action is routine or structured in a traditional sense and rarely given conscious consideration, change is always pending due to human agency, although outcomes are not predetermined. In studying culture, we must be cognizant of the complex and recursive interplay between structure and agency, “the activity of human subjects in structured contexts that are themselves products of past activity, but as structured products, exert determinative pressures and set limits upon human activity” (Roseberry 1988:172).

Individuals also interact with the natural environment. While humans must necessarily draw on the resources of the natural world for subsistence and existence, their dynamic interactions with the natural environment are socially mediated and reproduced (Bender 1985, 1990; Marquardt and Crumley 1987; Wolf 1984). Such a stance directs attention toward social relations, but it does not reject the importance or relevance of ecology and the natural environment in the lives of all people, past and present. The natural environment constitutes a vital variable in the survival, reproduction, and transformation of human societies. Yet, the manner in which people decide to live their lives (given the constraints and opportunities afforded by their environment) is a product of human interactions guided by culture and history; and not merely a programmed biological response.
A concern for the extralocal does not render local conditions, processes, and phenomena irrelevant or epiphenomenal. To the contrary, we must remain centered on local-level cultural factors as we consider ever-broadening spatial dimensions of interactions. While it is true no society can be understood apart from those around them, we must refrain from overemphasizing extralocal interactions as the primary cause of culture development and change. In other words, we must focus on endogenous as well as exogamous factors in order to achieve a holistic understanding of culture change. I agree with Schortman and Urban (1987, 1992, 1998) and others (e.g., Cobb 2000; Cobb and Nassaney 1995; Nassaney and Sassaman 1995; Stein 1999, 2002) who contend that a historically situated approach that complements local and increasingly widening scales of analysis is needed to model realistically instances of cultural construction and social change.

There is no doubt that spatial and temporal scales of inquiry greatly affect archaeological pattern detection and explanations thereof. Broadening our spatial scale beyond the community level or locality allows us to recognize different webs of relations and processes denied at finer scales of analysis. Patterns recognizable at one scale acquire new meanings when visualized at progressively larger geographical scales. Thus, it is important to constantly move back and forth between local and extralocal scales in order to discern discrepancies or contradictions in existing social arrangements or material distributions among alternative spatial scales (Cobb and Nassaney 1995; Marquardt and Crumley 1987; Nassaney and Sassaman 1995). Such an approach fosters the simultaneous concern for similarity and variation. Moreover, the cultural patterns, connectivities, and understandings discerned at each scale in this dialectic approach must be “preserved” and “compared” in order to attain a “broad understanding of the dynamics—the ‘process’—of past social formations” (Marquardt 1992:108).

While a multiscalar approach seeks to account for the complex and multidimensional array of human relationships that comprise a dynamic world, it is a difficult method to operationalize in an even-handed manner (i.e., to treat each spatial scale equitably) (Terrell 1993). As Cobb
(2000:7) points out, in practice, multiscalar research tends to highlight one dimension along a sliding spatial scale, “while at the same time attempting to recognize and reconcile the various levels of interconnectiveness.” Some theoretical models or methods may work more effectively at one scale, whereas others provide a better fit at another scale (Kowaleski 1995:155; McGuire 1992:170). For instance, agency-centered approaches are most insightful when fine-grain spatial data are available, while certain other approaches work best in dealing with long-term environmental and technological issues at the macroscale (Trigger 1991). However, it is important that results generated at different temporal and spatial scales of analysis be juxtaposed in order to compare and resolve differences in scale.

Since societies are not created in isolation, their connections with others, near and distant, require attention if we are to acquire a holistic understanding of their existence. Moreover, these relations are rooted in time and molded by history, rendering each bundle of relations geographically and historically unique. In agreement with historical anthropologists (e.g., Mintz 1985; Roseberry 1989; Wolf 1982), I believe that the explanatory power of anthropology is seriously diminished without consideration of history. Social phenomena are inherently historical, meaning “the relationship among events in one ‘moment’ can never be abstracted from their past and future setting” (Mintz 1985:xxx). By emphasizing historical process, we can distinguish what underlying social relations and circumstances engendered what specific action or process, such as resistance, accommodation, warfare, migration, trade, and ethnogenesis (Roseberry 1989:141; Shortman and Urban 1998:103; Stein 2002). By focusing on the proximate causes of cultural continuity and change, we glimpse the real lived experiences of real people (Cobb 2000; Pauketat 2001a, 2000b).

My emphasis on historical process should not be misread as a summons for the revival of historical particularism. In fact, I reject hyperrelativism and interpretive self-absorption, approaches that fail to award any value to generalizations and cross-cultural comparisons in our interpretation of archaeological data. Rather, research must strive to maintain a balance between
historical contingency and more general processes through comparative analysis (Cobb 2000; Marquardt 1992; Stein 1998; Trigger 1989). Historical contingency provides the structural possibilities of human action. Patterns do exist in the historical process, and they can be used to make generalizations outside particular examples. An important goal of historical anthropology is to produce generalizations that will aid in our understanding of specific historical situations. While cross-cultural regularities and structural parallels certainly can provide insights into the “prior conditions, actions, and consequences” of relevance to understanding cultural change in specific instances, they do not “predict what direction or path that change will take” (McGuire 1992:167-176). Generalizations are necessary to orient and guide research and discovery, but they must be used in a judicious manner “that does not overshadow the importance of agency and the reproduction of local systems” (Cobb 2000:10-11).

**Dissertation Problem**

Northeastern Florida, narrowly defined as coastal present-day Nassau, Duval, and northern St. Johns counties, is known as the locus of archaeological cultures traditionally interpreted as peripheral to (and somehow cutoff from) the activities and developments of interior southeastern North America (Figure 1-1). It would be misleading to assert that archaeologists viewed these native societies in complete isolation, since several researchers noted the restricted occurrence of nonlocal items of metal, mineral, and stone on northeastern Florida sites and attributed their presence to long-distance trade (Goggin 1952:53-57, 70; Milanich 1994:268-272; Mitchem 1996: 229-235; Thunen and Ashley 1995:7-8; Williams and Goggin 1956:47-50). These general observations and other vague references to outside “influences” notwithstanding, the general tenor of past research has been inward-focused, leaving the impression that northeastern Florida cultures were merely local coastal systems well adapted to the estuarine-marsh environment of the Atlantic seaboard (Russo 1992; Smith 1982; cf. Crook 1986).
Figure 1-1. Northeastern Florida.
Because no society has ever endured for any meaningful span of time in isolation, no culture can be adequately described “without taking into account the influences that have penetrated its very character from without” (Nassaney and Sassaman 1995:xxxiii). Building on this theme, my study explores the late prehistoric archaeological cultures of northeastern Florida (ca. A.D. 900-1500) and shows that their very existence was the outcome of myriad and multiscalar interactions and other regional processes such as migrations. Specifically, I examine how late prehistoric social groups in northeastern Florida interacted with those around them; and how these interactions structured those societies and influenced the history of the region. From the tidal creeks adjacent to their villages, these natives were intertwined in ever-widening ripples of interaction that at times reached the macroscale of the Mississippian world (i.e., southeastern and midwestern North America). At each scale, interactions had their own expression and dynamic, affecting the social, political, and economic dimensions of those involved. These social relations were not fixed or static, but rather were routinely formed, altered, reformed, and disrupted through interactions and social negotiations by individuals and social groups.

An important goal of my study is to elucidate the late prehistory of northeastern Florida (A.D. 900-1500) by widening the spatial scale of analysis to incorporate the geopolitical milieu of northern Florida, southern Georgia, and the broader Mississippian world. In doing so, however, I recognize that all extralocal interactions are predicated on local political relations, cultural perceptions, and ideologies. While archaeologists have previously commented on the occurrence of extralocal materials on archaeological sites in northeastern Florida, they have seldom shown more than a passing interest in trade and exchange. Tendency has been to treat exotic raw materials and artifacts as mere trade goods that loosely linked St. Johns people in some unknown way to geographically distant places or peoples. To date, few inroads have been made into understanding the nature of the underlying social relations and the political dimensions of these connections.
I argue that mere recognition of extralocal linkages is not enough. We must detail the social and political processes of interaction and their effects on local groups, particularly with regard to production and exchange. Herein lies my interest in political economy, specifically a concern with the social relations of surplus labor and how they relate to social power. I draw on Saitta’s (1994, 1997) definition of communal social formations to help account for the St. Johns II political economy of northeastern Florida. This theoretical abstraction unlinks power, labor, and wealth, permitting each to vary independently of one another. Thus communal or collective social groups are allowed to manifest themselves in a variety of ways. For instance, some communal formations are essentially egalitarian, whereas others display more pronounced social inequality and even political hierarchy.

I have elected to focus on a specific area, rather than a specific archaeological group, in order to illustrate how broad-scale processes (e.g., exchange and migration) can be played out over time across a broad geographical area and can impact a particular local history. It has been said “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” (Blitz and Lorenz 2002:120; Cobb and Garrow 1996:21-22). The rate and development of Mississippianization across the Southeast was an uneven process affected by local histories and environments. In fact, I contend that the ancestry of some late prehistoric societies in northeastern Florida derived from outside the local area.

In this regard, Mississippian-period northeastern Florida provides an excellent arena for studying how broad-scale political and economic developments within a core region were internalized and affected development and change among societies in a periphery. Specifically, I examine the interconnecting of the pan-regional phenomenon known as Mississippian with the local cultural tradition known as St. Johns II. Although situated on the periphery of the Mississippian world, northeastern Florida St. Johns II communities were among the earliest
participants in broad-scale exchange networks established during the emerging century of the Mississippian period (ca. A.D. 900-1000). They were active agents in these interactions by selectively incorporating certain Mississippian ideas and traits within their own sociohistorical tradition.

Unidirectional models of interaction that assume periphery dependence on the core cannot explain the dynamics and outcome of this specific geographical alignment (Mintz 1985; Wolf 1982). It is wrong to presuppose that peripheral groups were always simple pawns under the political and economic control of more politically complex groups comprising the core region. It is also incorrect to assume that peripheral groups always strive to be exactly like core groups. Rather, we should expect the relationships between peripheries and cores to “vary under different structural conditions and historical contingencies” (Stein 2002:906). To understand ultimately why specific social groups were similar to or different from those around them will come about “only through the cumulative, and painstaking, data-rich, multiscalar studies of proximate causation” (Pauketat 2001b:87).

My study outlines and explores the historical conditions (constraints and opportunities) that intertwined the St. Johns II peoples of northern Florida and the Ocmulgee peoples of southern-central Georgia. These populations appear to have had a long history of interaction that extended back into the Late Archaic period. Evidence of their interaction, however, is most apparent in the archaeological record of the early Mississippian period (A.D. 900-1250), a time coincident with the movement of some St. Johns II peoples into northeastern Florida. By A.D. 1250 (if not before) most St. Johns II people appear to have abandoned northeastern Florida and moved upriver (south), paving the way for a significant movement of Ocmulgee-derived groups into northeastern Florida via southeastern Georgia. The coastal manifestation or archaeological culture of these immigrants is known as St. Marys II (Ashley and Rolland 2002).

By placing northeastern Florida within a broader temporal and spatial arena, and by focusing on the dynamic issues of internal political organization, a new version of northeastern
Florida late prehistory is conceived. This revised account privileges historical process, permits people to move across the landscape, and interrelates extralocal interactions and local processes. Because of its extended temporal focus and lack of fine-scale temporal and spatial data, my research does not lend itself to the analysis of daily interaction at a microscale (i.e., at the level of human agency). But we must remember that agency is only part of the equation; structure is the other necessary element. As Marx (1963:15) proclaimed, “Men make their own history, but they do not make it just as they please; they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted from the past.” My emphasis is centered more on social relationships and the collective aspect of agency and social identity, although I acknowledge the power of individuals both to promote persistence and effect change. Analysis at the microscale of agency reflects another important dimension that complements the multiscalar approach advocated herein.

**Dissertation Data**

To accomplish the objectives of this study, I rely on a variety of databases, most notably published and unpublished archaeological information on all suspected St. Johns II mound-midden sites (A.D. 900 to 1250) in northeastern Florida; data on the Mt. Royal site and other coeval St. Johns II sites along the middle St. Johns River; existing information on the Ocmulgee Big Bend Phase of prehistory in southern-central Georgia (A.D. 900 to 1250); and available archaeological evidence on St. Marys II manifestations in northeastern Florida and southeastern Georgia (A.D. 1250 to 1500). Considerable effort was placed in mining information from the gray literature of cultural resource management and incorporating underused data generated by archaeologists over the past half century. These databases are synthesized through a historically-oriented political economic framework that recognizes and accounts for extralocal economic contacts and political linkages.

Because extralocal connections are a vital dimension of my research, empirical measures are needed to document contacts and to trace exchange networks in the archaeological record.
Archaeologists have long known that late prehistoric natives of northeastern Florida were the recipients of mica, galena, copper, and other exotic materials from far-flung areas of the Southeast, and perhaps the Midwest (Goggin 1952; Milanich 1994; Moore 1894; 1895, 1896). Based on stylistic characteristics, archaeologists have also assumed that certain ceramic pots were traded over great distances, eventually ending their use-life in Florida mounds or middens. But are these suspected nonlocal wares actually trade wares from distant areas, or are they local reproductions? Such questions have arisen over the production origins and cultural affiliation of two cordmarked pottery types pertinent to my research: Ocmulgee III Cordmarked (A.D. 900-1250) and St. Marys Cordmarked (A.D. 1250-1500).

To this end, my study reports the recent results of Instrumental Neutron Activation Analysis (INAA) of raw clay and pottery sherd samples from archaeological sites in Florida, Georgia, and South Carolina (Neff and Glascock 2001, 2002). INAA is a quantitative chemical technique that offers the potential to distinguish the production location of ceramics within an analytical database, enabling researchers to discern locally manufactured wares from imported wares. While INAA has found widespread application in other areas of the Americas and abroad, southeastern archaeologists generally underutilize this valuable analytical tool (Bishop and Canouts 1993:176). The results are promising, though larger and more varied samples are needed. My goal here is to translate these preliminary geologic and ceramic technological data into human action of individual, social, and political dimensions that can be used to address questions concerning broad-scale interactions and migrations.

**Organization of the Dissertation**

Chapter 2 spotlights the theoretical and conceptual concerns of this study. First, I make clear my emphasis on historical contingency, and outline my approach that frames history as a consequence of power relations contested and mediated in a variety of ways at multiple scales (McGuire 1992:169-170; Pauketat 2001a; Roseberry 1989:11; Wolf 1982). This rendering views history as a material social process in which conflict and change are considered outcomes of
opposing interests within and among social groups (Cobb 2000:7). I next examine three dimensions of human interaction that I find fruitful to the study of the late prehistory of northeastern Florida: exchange, population movement or migration, and political economy. To this end, I explore Saitta’s (1994, 1997) notion of a communal social formation, and compare and contrast it to corporate and network strategies of political power. I next review the central tenets of a prestige goods model of exchange, the prevailing paradigm applied in various ways to Mississippian period exchange and political-economic interaction. Although these models are informative (and may actually provide a good fit in some cases), I argue for the need of a more open-ended approach to account for the northeastern Florida data and patterning.

Regardless of one’s theoretical proclivity, any investigation of culture change is contingent on a solid chronological framework built on stratigraphic evidence, radiocarbon assays, and temporally diagnostic artifacts. Chapter 3 discusses the natural environmental setting of northeastern Florida, introduces the reader to the sociohistorical contexts of northeastern Florida, and reviews the most salient characteristics of the broader Mississippian world. Because antecedent events play a vital role in my interpretation of Mississippian period interactions and politics, Chapter 3 is devoted to chronological refinement and revamping the Late Woodland chronology of northeastern Florida.

Chapter 4 picks up where Chapter 3 left off by reassessing the Mississippian period ceramic chronology of northeastern Florida. Chapter 4 also presents the results of Instrumental Neutron Activation Analysis (INAA) on cordmarked pottery and raw clay samples from northeastern Florida and areas of Georgia. Chapter 4, along with Chapter 3, allows for a revised historical sequence, enabling a new consideration of the developments and processes of the late prehistory of northeastern Florida.

Chapter 5 establishes the St. Johns II settlement landscape and built environment of northeastern Florida and the Mt. Royal vicinity to the south. It synthesizes the results of a variety of surveys and excavations of St. Johns II sites in northeastern Florida, including my recent
testing at the Shields site. The Shields and Grant mound sites are considered together and introduced as the Mill Cove Complex. Mt. Royal (another major St. Johns II site to the south) is also examined, with an emphasis placed on its Early Mississippian component and that of coeval sites in its immediate vicinity. My intent here is not to rehash old information, but rather to present details on St. Johns II villages not previously reported in published form. The northeastern Florida and Mt. Royal localities dominated the St. Johns region during the Early Mississippian period, and evidence indicates that the two were connected culturally, as further discussed in Chapter 8.

The geographical focus of the study shifts from northeastern Florida to the Ocmulgee River valley of southern-central Georgia in Chapter 6. The chapter details the Early Mississippian period chronology, material culture, and environment of this understudied section of the Southeast. Ocmulgee groups were hunters-gatherers whose territory was strategically centered at the juncture of the Ocmulgee, Altamaha, and Oconee rivers, an invaluable contact that provided St. Johns II groups access to the interior Mississippian world. Moreover, as argued in Chapter 7, the historical roots of the coastal St. Marys II culture of northeastern Florida are found partly in the Ocmulgee peoples of the Georgia hinterlands. Mention is also made of Macon Plateau, a major early Mississippian period chiefdom and mound center with possible ties to the St. Johns II inhabitants of the St. Johns River valley and adjacent coastline.

Chapter 7 examines aspects of St. Johns II domestic economy, namely subsistence and craft production. St. Johns II groups of the period A.D. 900-1250 were full-time fishers, with a subsistence economy focused on small estuarine fish and shellfish. No evidence exists for maize cultivation. Chapter 7 further discusses the production of St. Johns and Ocmulgee Cordmaked pottery as well as the manufacture of other craft items.

Chapter 8 focuses on the dynamics of early St. Johns II life (AD 900-1250) along the St. Johns River and Atlantic coast; considering origins, external interactions, and internal political organization. It is suggested that marked demographic and economic changes prevailed...
throughout the St. Johns River valley around A.D. 900, which fostered the rise of Mt. Royal north of Lake George and the Mill Cove Complex at the river’s mouth. The presence of exotic materials on St. Johns II sites is discussed, and local and nonlocal ceramics are examined to track the movement of pottery and people across Florida and Georgia. My ultimate concern here is not with pottery types per se, but rather with the people who made them. Which ceramic types were produced locally and which were imported? What social groups were involved in population movements and interactions, and what were the social and political motives for exchange or migration? The results of INAA discussed in Chapter 4 play a part in answering these questions. Finally, available data on early St. Johns II societies are compared with the expectations of a Mississippian prestige goods economy model, where the two are shown to be incongruent. An alternative, historically based communal political economy model is proposed for St. Johns II societies in northeastern Florida.

Chapter 9 explores broad-scale developments surrounding the emergence of the St. Marys II archaeological culture around A.D. 1250. I argue that this transition is the result of the movement of groups from southeastern Georgia whose ancestral heritage can be traced partly to the Ocmulgee region of southern-central Georgia. A large-scale perspective adds to an understanding of the specific pull and push factors involved in this demographic shift or diaspora. Such a perspective further focuses attention on the cultural processes and social relations experienced by emigrating and receiving populations. The coastal St. Marys II culture does not reflect an effortless transposing of Ocmulgee culture on the coastal landscape; rather, continuities, discontinuities, and reformulations are evident. The end of Chapter 9 sets the stage for European arrival in the sixteenth century. The study concludes with a summary of my dissertation research and suggestions for future research (Chapter 10).

Human collectivities are not tightly bound and closed entities that can be examined apart from one another. Although culture is clearly shaped by its practitioners, it is also inhibited or influenced to some degree by the broader social networks of its members. To understand fully
the history of any one area or culture, we must pay close attention to both internal dynamics and external connections (and how they were internalized): an approach followed in this study. We must concern ourselves with the connections between individuals and social groups that constructed the past. I believe the study of the social world should start and end with real people; that is, we should try to understand, as best as we can, the lived or real-life experiences of people. Humans “do create social structures, and do endow events with meaning, but these structures and meanings have historical origins that shape, limit, and help to explain such creativity” (Mintz 1985:xxx). It is true that the study of historical process involves a concern for rich details relating to particular human instances, but this does not deny the search for pattern in historical process or the ability to make generalizations beyond particular cases.
CHAPTER 2
THEORETICAL AND CONCEPTUAL CONCERNS

Human societies are not closed systems sealed off from external contact, but are open and
dynamic social formations involved in an array of interactions that include intermarriage,
emulation, trade, migration, alliance, warfare, and the diffusion of ideas and information (none of
which are mutually exclusive). As such, the structural features and distinctive characteristics of a
given culture derive from both its internal history and its involvement in broader sociopolitical
and economic relations (Stein 1999, 2002; Terrell 1993; Wolf 1982). Mere belief in the
universality of intersocietal interaction, however, tells us very little about social life unless we can
detail the nature of these encounters and their effects on local affairs (Terrell 1998:204-205).
While all societies are open to receiving and transmitting cultural influences across social
boundaries, some at times have proven better able than others to resist the outside world. It is
therefore a challenge of researchers studying a given society or locality to determine how and to
what extent specific local events and developments were constrained or conditioned by processes
operating at regional or macroregional scales.

My study focuses on two dimensions of broad-scale interaction: exchange (i.e., the
movement of materials, individuals, and information across social boundaries) and population
movement or migration. A third and related dimension of inquiry is politics or the means by
which individuals or groups use power to achieve goals (Lewellen 1992). Because all cultures
are historically constituted, a mixed outcome of multiscalar interactions between individuals and
social groups living in a specific region at a specific time, my study embeds the natives of
northeastern Florida in their historical context and stresses the importance of antecedent events as
explanation in order to understand fully and appreciate their lives. In addition, because all
societies have the potential to be linked to and influenced by those around them, the northeastern
Florida societies are examined within the broader context of the Mississippian world of A.D. 900-1500.

Although this study maintains a concern for the multiplicity of external relations in which the late prehistoric societies of northeastern Florida were engaged, it aims never to lose sight of the local or internal dynamism of those societies. Too often, formal models of cultural development and social change privilege either endogamous (local) or exogamous (extralocal) interactions, when in fact the two are mutually constitutive. As Cobb (1993:173) reminds us, “external relations do not occur in a disembodied vacuum, but rather shape, and are shaped by, internal relations.” Thus, this study attempts to “strike a balance between the recognition that no society can be understood in complete isolation from its neighbors and the assumption that contact with the outside is the main factor explaining a society’s development” (Stein 1999:4). This chapter discusses the theoretical and conceptual concerns of my research, such as historical process, exchange, migration, and political economy.

**History Matters**

A reemerging trend among American archaeologists is a serious interest in historical process (e.g., Cobb 1991, Pauketat 2001b), paralleling a similar development within the broader field of anthropology (e.g., Mintz 1985; Roseberry 1989; Sahlins 1985; Schire 1980; Wolf 1982). History as a descriptive concern for chronology building and regional time-space syntheses was a perennial focus in Americanist archaeology during the first half of the twentieth century. But as study of the particular, history lost much of its appeal during the early fervor of the New Archaeology as it was downplayed as mere detail to the juggernaut of anthropological generalizing (Patterson 1989:557-558; Trigger 1991:553). Currently, historical process—though considered a necessary and valuable descriptive step—was deemed the antithesis of evolutionary process; a bastion of processual archaeology and part and parcel of a positivist, generalizing science that sought laws of cultural development (Binford 1967). My objective here is not to setup processual archaeology as a straw man; for this strand of archaeology in its own way has
made and continues to make certain valuable contributions to the discipline (Redman 1991; Trigger 1991; Watson 1991). Instead, I argue for the explanatory power of history (i.e., antecedent events and proximate causes) in archaeological interpretation, and further believe that the time has come to “remove the stigma applied to history by some archaeologists” (Peebles 1991:113).

Privileging historical contingency need not signal a return to the cultural-historical approach of the mid-twentieth century and its narrow focus on constructing regional time-space syntheses in which chronologically ordered sequences are created on the basis of stylistic and frequency changes in artifact assemblages over time (Willey and Sabloff 1993:188-204). However, I consider a sound space-time framework (the centerpiece of the cultural-historical school) to be essential to all archaeological inquiry. Moreover, I believe that some of the broad-scale and historically contingent issues raised by the cultural-historical school (such as diffusion and migration) are worthy of our attention today. But we must move beyond the unscientific and excessive use of these terms as nothing more than a “lazy person’s explanation for culture change” and strive to highlight the specific mechanisms and processes underlying the concepts of migration and diffusion (Anthony 2002:554).

Eschewing the cultural historical school’s normative view of culture, I recognize culture as participatory and the product of human action, with history bestowing the structural possibilities for such action. Culture is historical in that it is negotiated and passed down intergenerationally within society. To capture this dynamic, some anthropologists have incorporated the concepts of structure and agency into their study of cultural construction and change (Giddens 1979). Structure is similar to the traditional notion of culture in anthropology (in that it consists of the rules and resources of social action), but structure does not render individual human behavior the predetermined enactment of cultural norms and rules (Ortner 1984:150). Structure allows for human agency; i.e., action that can conceivably run contrary to cultural norms and rules. To paraphrase Binford (1965:205), culture is not necessarily shared, but rather is participated in
differently by members of society. Because of this, structure is not passed on or reproduced in its exact form, although human actions are certainly constrained by their structural context. Additionally, social change does not deny facets of cultural continuity (Burke 1992:159). This duality of structure (or recursiveness of structure and agency) attends all human experience (Giddens 1979:4-5).

In recognizing individual actors, however, we must be careful not to let a focus on agency overwhelm our understanding of social life and take away from the “wider social structures that create individual subjectivities and shape a wider variety of self and social consciousness” (Saitta 1994:204). These normative structures or recurrent social practices are the “long-term derivatives of agency” that lead to material patterning in the archaeological record (Sassaman 2000:149). Moreover, the collective actions of individuals comprise the social dynamics and political process of a collectivity, which is an integral part of historical process. From this perspective, history is recognized as the dialectical outcome between agency and structure or between human action and constraints on that action (constraints that can be environmental, social, cultural, or economic) (McGuire 1992:118). Here, culture, structure, and human agency are all implicated as important elements of the history-making process.

This view of history, however, is not a history-as-narrative approach, popular among many postmodernists. According to a history-as-narrative view, the archaeological record constitutes a text that can be interpreted in a multitude of ways depending on the inherent biases of each researcher (Hodder 1986, 1991; Shanks and Tilley 1987). But as Pauketat (2001a:4) points out, while we could view history as a linked chain of narratives, we must recognize that these individual narratives were constructed relative to one another and thus form “something concrete and very different from a single narrative.” Moreover, as multiple lines of evidence are brought to bear on specific archaeological cases, a position of total relativism in which any given interpretation of the past is as valid as another begins to unravel, as some (or many) archaeological interpretations are completely contradicted by data and others gain credence as

The interdependence of structure and agency (e.g., Dobres and Robb 2000) or structure and practice (e.g., Pauketat 2001a, 2001b) in culture renders history important as a source of explanation. In fact, Pauketat (2001b) uses versions of these concepts to develop a historical-processual paradigm in archaeology that endeavors to answer questions of how culture changes in specific instances by focusing on how meanings, traditions, and cultural structures were constructed and transmitted. Here practice (i.e., any enactment, embodiment, or representation of one’s dispositions) and tradition (i.e., any process of cultural construction) refer to “what people do and how they do it, with no strings attached to functional equations of why people do it” (Pauketat 2001b:76). Materiality, the principle that the construction of culture is a real material process that occurs in every realm of social life, is another key aspect of a historical-processual paradigm (Pauketat 2001a, 2001b). Hence the historical process of human interaction is embodied in the culturally constructed environment and the domestic sphere of material remains. Said differently, human groups and their material culture do not exist as discrete entities apart from the relations they form (Cobb 2000:24).

A historical-processual approach is important because it is sensitive to dimensions of material culture, time, and space. It highlights the explanatory capacity of history, yet also seeks generalizations about processes that led to different histories. As a consequence, a historical-processual approach does not require that we discard notions of cultural regularities, but rather casts human universals “as the moorings for an overarching framework of human history” that work to connect prehistoric and historic societies (Nassaney 2001:171-172). Emphasis on historical context does not mean that social groups facing similar historical and ecological constraints and opportunities cannot develop broadly similar or parallel structural features, but in their totality they will not be identical (Bender 1990; Brumfiel 1992; Trigger 1991). At any moment, ostensibly similar synchronic cultural entities may abruptly diverge and follow different
developmental trajectories due to the unexpected circumstances and the capabilities of human agents. In this regard it may be more fruitful to consider each society or social collectivity as a “unique combination of elements each of which has parallels elsewhere,” rather than as entirely unique (Burke 1992:2).

The distinctiveness of a given social formation becomes apparent through cross-cultural comparison, as we are “able to see what is not there, [or] in other words to understand the significance of a particular absence” (Burke 1992:23). Such a comparative framework leads us away from an overly relativistic study of any human society or culture, and enables us to ascertain both the particular and general aspects of recurring phenomena or processes. Not only do particular expressions of regularities need to be explained, so do larger trends and broad similarities in social processes and material culture. Such is the case in the Mississippian Southeast in which many different groups with their own unique histories converge to share aspects of material culture and organizational structure (see Chapter 3). Thus, variation fostered by local histories and regions lay immediately beneath the panregional semblance of cultural correspondence among Mississippian communities (Cobb and Garrow 1996). Regardless of how one defines culture, it is still something that must be reproduced, and reproduction is a historically-contingent dynamic always open to change “under the impact of multiple processes operative over wide fields of social and cultural connections” (Wolf 1984:396).

Common to the renewed interest in historical process in archaeology is the notion of social power. Until recently, the role of power in human relations had largely been downplayed or ignored (Paynter and McGuire 1991:1). When traditionally employed it had been construed in the Weberian sense as “the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance, regardless of the basis on which this probability rest” (Weber 1964:152). Here power is a negative action, one that is forceful and threatening and typically considered the sole possession of elites and those ensconced in formal sociopolitical institutions. Those outside this domain of society, such as commoners, were
viewed as lacking power. In archaeological interpretation power has conventionally been
envisaged as a quantity that some people in society had and others did not (Paynter and McGuire
1991:x). In contrast, however, Wolf (1999:66-67) has recently argued that we must think of
power relationally as an aspect that attends all human relations.

A frequent and useful distinction made today is between *power over* and *power to* (Benton
1981:176; Miller and Tilley 1984:8; see also Bender 1990; Cobb 1993; McGuire and Saitta 1996;
Paynter and McGuire 1991). *Power over* is negative and coercive and represents power in the
Weberian sense of the term; that is, the ability to influence or control others. *Power to*, on the
other hand, involves the general ability to act and alter an outcome, without necessarily
influencing or controlling others. This form of power attends all human action and renders all
people active; it is an intrinsic part of human agency. *Power over* derives from and necessitates
*power to* (Miller and Tilley 1984:5). The latter, a more inclusive version, embeds power in all
social relations, including those between husband and wives, parents and children, and factory
workers and owners, as well as between families, interest groups, and social classes (Miller and
Tilley 1984:6). In fact, power does not exist as an abstract quantity outside these relations
(McGuire and Saitta 1996:208). Power, therefore, is heterogeneous and can assume many forms,
meaning that it cannot be reduced to a single thing. Moreover, control over one form does not
necessarily translate to control over other forms. For example, economic power does not
necessarily guarantee political power; we should not conflate the two, and any linkages between
them must be demonstrated not assumed.

Because power is found in all human relations, power relations are at the core of social
change, whether induced by individuals or collectivities. Even in small-scale societies, some
individuals or groups by virtue of their gender, age, or heritage may exhibit ‘power to’ on a more
consistent basis than do others (Cobb 1993:51). But we must bear in mind that simply reducing a
relationship, event, or phenomena down to power relations is not explanation. In fact “something
is lost…if we reduce all meaning and social relations to power” (McGuire 1992:139). We must
seek to understand how such conditions existed and what brought them about, questions that can only be answered through historical contextualization. McGuire (1992:118-119) argues “a true dialectical understanding of the process of change is best achieved when investigators start by examining power (the universal ability of all humans to act) and ask how power shapes all social relations.” Here, conflict and change are the outcome of myriad social relations within and between cultural groups (McGuire 1992:169; cf., Mintz 1985; Roseberry 1989; Wolf 1982, 1990). Power relations are not taken as the sole engine driving history, but are spotlighted as a significant nexus for tackling questions of anthropological interest (Cobb 2000:7).

Exchange

For the purpose of this study I use the term exchange generally to denote interaction involving the movement of material goods, services, personel, and information from one person or group to another. This usage includes the specific acts of trade, sharing, gift giving, loaning, tribute, and the like. As a form of interaction, exchange can take place at many scales, from sharing at the intrasettlement household level to long-distance exchange in which nonlocal goods and services are brought to the local community. Extralocal exchange involves the flow of material goods and/or information across social boundaries. Driving such external interactions is an internal sociopolitical dynamic that must be given strong consideration in any study of exchange and interaction. Exchange, regardless of form, is one facet of economic activity, which along with the production and distribution of goods, constitutes an important component of the politics all societies.

Saitta (2000:151-152) has noted that recent studies of prehistoric exchange in Americanist archaeology have come to a general agreement on three important points. First, social factors propel exchange relations as much as economic factors (e.g., Bender 1985, 1990; Renfrew 1986; Sahlins 1972; Schortman and Urban 1987, 1992, 1998). Previous models of exchange founded on ecofunctional premises argued that broad exchange networks were formed primarily as a means by which local social groups buffered themselves against food shortages or environmental
fluctuations (Braun 1986; Braun and Plog 1982). But studies have shown that while intersocietal interactions can serve to function against subsistence failure, the cultural role of exchange consists of far more than ecological adaptation (Bender 1985, 1990; Earle 1994:420). Moreover, while items or resources of exchange are economically important to those involved, there is also an underlying social and political dynamic that is equally, or perhaps more, important (Mauss 1990:5). Said differently, exchange is more than the flow of desired goods across the landscape. It also includes the formation and maintenance of social obligations and political alliances as well as other internal and external interests among the parties involved (Bender 1985, 1990; Dalton 1977; Sahlins 1972). Such linkages are often solidified through marriage and the creation of kinship ties along with the exchange of culturally valued gifts. Thus, exchange cannot be understood apart from its social context.

Second, archaeological evidence has shown that precontact exchange in the Americas was quite variable with regard to what was exchanged, how often things were exchanged, and the social contexts of exchange (Earle 1994:420). For example, in the southeastern and midwestern North America, long-distance trafficking of exotica appears to have been episodic with three major periods of florescence: Late Archaic, Middle Woodland, and Mississippian periods (Cobb 1991:205-209; Johnson 1994:100). From this, however, we should not infer that local native societies lived completely insular or isolated lives during other periods of prehistory. Rather these intervals mark periods of increased flow of exotica outside their source area. As Nassaney and Cobb (1991; Cobb and Nassaney 1995) have clearly shown for the Late Woodland period, while there was a marked decline in the panregional movement of copper and other nonlocal materials compared to that of both the previous Middle Woodland and later Mississippian periods, groups still actively communicated ideas (diffusion) and moved more utilitarian goods beyond their local catchment areas and social boundaries. Therefore, a dearth of material evidence for contact and exchange does not automatically translate to isolationism, since such
evidence may be relatively invisible owing to sampling and preservation biases (Brown et al. 1990:252).

Third, due to the social and historically contingent nature of exchange, the specific form and scale at which exchange operate do not precisely correspond with other structural aspects of social organization, such as kinship and level of sociopolitical complexity (Saitta 2000:151-152). Any social formation can manifest myriad forms of exchange at multiple scales depending on ecological, social, and historical conditions. Because of the variability in specific historical manifestations, formal models, such as peer polity interaction, world systems perspective, and prestige goods economy—while providing a degree of guidance—should not be misconstrued as comprehensive theories or covering laws to explain all exchange and economic interactions throughout time and space. In considering intersocietal communications and interactions, models must be open enough to account for historical circumstances and the interplay between social structures and the concerns of human agents, whether they be individuals or social amalgams such as factions, interest groups, or classes (Brumfiel 1992; Saitta 2000; Stein 1998, 2002).

My primary focus here is on external or intercommunity exchange at both regional and long-distance scales. From an archaeological perspective, extralocal exchange is most discernible through evidence of the movement of durable goods, but this form of exchange is only one facet of a society’s external affairs (Brown et al. 1990:251). Tracing the flow of materials can help recreate the structure of the exchange system and interpret the relationships among social groups involved (Ericson and Baugh 1994:10). Reconstructing extralocal exchange/trade networks largely comes down to identifying which groups were interacting with one another and in what way(s). Paramount to this task is the determination of the origins of the items being traded, be they metal, mineral, stone, shell, or pottery. The sourcing of materials has relied on both stylistic approaches and more sophisticated chemical and mineralogical analyses of artifacts (Bishop and Canouts 1993; Schortman and Urban 1987:49-50).
Identifying an artifact or material as foreign to an archaeological site at times can be straightforward. For instance, the mere presence of either marine shell on an inland site far removed from the seashore or a stone artifact on a site within a region void of lithic sources can indicate these items were derived from outside sources. Such an approach has been common in archaeology, and typically has resulted in the creation of artifact or trait lists that serves as a relative measure of nonlocal trade. However, the task of determining the precise source and/or production location of an exotic raw material or artifact is a far more difficult task. While at times materials may be precisely linked to a specific source locality, in other cases a material such as pottery may only be characterized according to broad mineralogical groups. But even in the latter instances, such analytical groupings can be relied upon to distinguish local from nonlocal pottery (e.g., Arnold et al. 1999; Bishop and Canouts 1993:174-179; Lynott et al. 2000; Neff 1992; Rice 1987:371-405; Steponaitis et al. 1996).

Taken as a whole, the widespread distribution of exotica across the Mississippian Southeast marks the existence of complex exchange networks that linked many communities and mound centers throughout eastern North America. This should not be surprising since Indian-authored maps of the early historic period indicate southeastern Indians possessed subcontinental-wide geographic knowledge (Lafferty 1994:179; Waselkov 1989), and there is no reason to doubt that late prehistoric groups held the same geographic acumen. Consensus among archaeologists, however, suggests that long-distance exchange was accomplished primarily in a down-the-line manner, meaning that the extensive and intricate exchange network consisted of short and overlapping trading links, some of which were well orchestrated while others were loosely connected (King and Freer 1995:270; Milner 1991:39; Muller 1995, 1997). This does not rule out the possibility that some items were acquired directly or through some other mode of exchange (see Renfrew 1977).

Following Brown et al.’s (1990:251) plea to “upgrade” the status of intergroup exchange in the study of late prehistoric societies, researchers have begun to integrate such interactions into
models of Mississippian-period social change (e.g., Cobb 2000; King and Freer 1995; Peregrine 1992, 1995). Moreover, they are beginning to explore the processes by which broad-scale interactions were mediated by the cultural traditions and varying social structures of interacting parties. As a dynamic, exchange consists of fluid sets of political, economic, and social linkages actively seized upon and engaged by the intentional actions of social actors and interest groups (Cobb 1993:61). Researchers are becoming aware that exchange, like diffusion and migration, can serve as an agent of social change. Because exchange relations accomplish a variety of goals, any attempt to model such interaction must be attentive to the many sociopolitical, economic, and ideological possibilities (Kirch 1991:160). Moreover, such models must also take into account the prior history of the exchange networks as well as the peoples involved, since the communication process did not “evolve out of conditions in which it was absent” (Lesser 1961:47). Situation, social relations, and history all figure prominently in determining direction, amount, and quality of the movement of resources or goods.

**Population Movement**

Another form of interaction that requires a broad-scale analytical approach is population movement or migration, since migrations are always movements in space (Burmeister 2000:544). In America, migration has long been invoked as explanation for patterns in the archaeological record, as witnessed by the speculations of various travelers, savants, and fledgling archaeologists who claimed that the earthen mounds of the eastern North America were built by immigrants from far-off lands such as Egypt, Israel, China, and even Atlantis (Feder 2002:153-160). In fact, some posit that the general public has long considered explanation of migrations to be a primary aim of archaeology (Thomson 1958:v-vi). The anthropological concept of migration, however, picked up momentum during the zenith of culture historical studies in Americanist archaeology (Classificatory-Historical Period), a time when researchers depended heavily on time-space typologies and processes like diffusion and migration to explain discontinuities in the archaeological record (Trigger 1989:194; Willey and Sabloff 1993:188-207).
To distinguish between these two processes of "culture contact" in the archaeological record, Willey et al. (1956:7-8) introduced the concepts “site unit intrusion” (migration) and “trait unit intrusion” (diffusion). The former was modeled archaeologically as a homogeneous occupation level different from the level that preceded it, whereas the latter was merely the spread of material traits via trade or borrowing. At this time, archaeologists tended to assert migration as a more or less *ad hoc* explanation for abrupt changes in material culture assemblages (Adams et al. 1978:483). Thus, changes over time were viewed simply as resulting from the rather mechanical displacement and replacement of one group (or culture) by another.

In the late 1950s, Irving Rouse (1958), summarized and critiqued a series of case studies that involved the use of archeological and/or ethnographic data to explain instances of either colonization or population replacement in particular areas of the New World (Thompson 1958). As a result, he proposed a list of five conditions that must be demonstrated in order to infer migration. These criteria included: (1) identify migrating group as intrusive to an area; (2) trace migrants back to their homeland; (3) determine the contemporaneity of all lines of evidence used to infer site unit intrusion or migration; (4) show that the proper environmental and cultural conditions for migration existed; and (5) eliminate all other alternative possibilities (e.g., diffusion, trade, *in situ* development) (Rouse 1958:64-67). Moreover, Rouse and others emphasized the need for multiple lines of evidence (e.g., artifact, osteological, linguistic, architectural, social organization) in support of specific instances of migration. However, much of what Rouse had to say was seemingly lost for the next 25 years or so (Rouse 1986), as the theoretical current of Americanist archaeology shifted from time-space studies that accommodated notions of migration and diffusion to an emphasis on cultural evolution, ecofunctionalism, and a conceptualization of culture as an extrasomatic means of human adaptation (Burmeister 2000:540).

With the emergence of New Archaeology in the 1960s, migration as an explanatory framework for social change fell into disfavor among most processual archaeologists. In fact,
Binford (1965) and others condemned the use of migration as an explanation for culture change; this view of migration was part and parcel of the anti-historicism of New Archaeology. Migration was frequently downplayed as the cause of spatial anomalies and radical changes in material culture in favor of explanations that stressed \textit{in situ} systematic changes over long periods of time. Also contributing to the decline in the popularity of migrationist explanations was the emergence of radiocarbon dating, which began to show that some major changes in the prehistoric archaeological record were gradual and the result of internal transformations rather than sudden and attributable to diffusion or migrations (Trigger 1989:305). In retrospect, although processual archaeologists were correct in their criticism of the excesses of previous diffusionist and migrationist theories, their responses appear to have been an overreaction, as the pendulum swung too far in the opposite extreme and research became overly endogenous in its focus.

For the past decade or so, archaeological studies of migration have been undergoing somewhat of a revival due in part to increased interests in historical process and interregional interaction (e.g., Anthony 1990; Blitz and Lorenz 2002; Burmeister 2000; Clark 1994; Cameron 1995; Pauketat 2003; Snow 1995). Although there were clearly exceptions (e.g., various papers in Thompson 1958), a major problem with past studies was few researchers explicitly defined what they meant by migration and how they operationalized and recognized it archaeologically (Clark 1994:309-310). In fact, many times the notion of migration was implicitly used to intimate the actual movement of people over an unspecified distance. Such a broad and vague definition subsumes various forms of human movement, some of which may have been part of a group’s structured seasonal settlement-subsistence cycle. In this study, I use the term \textit{population movement} to mean the migration and resettlement of people in which there are changes both in their physical and social milieu (Andresen 2000:554). As such, a migration does not have to cover a great distance; it merely involves the intentional and permanent movement of people beyond their recognized social boundaries or normal settlement-subsistence range.
Attending the resurgence of migration as a viable explanatory framework is a belief among researchers that migration is not a haphazard historical occurrence, but rather a structured cultural process with recurrent principles. Drawing heavily on geographic and demographic models, Anthony (1990) argues that migrations are structured events that evince patterning in the archaeological record. Following a uniformitarian line of reasoning, he suggests behavioral processes of past migrations function in ways similar to those of the present. Furthermore, archaeological test implications for particular kinds of migration (e.g., short-distance, long-distance, return) can be generated using contemporary ethnographic and geographic data. At the core of Anthony’s (1990) argument are the geographic concepts of push and pull. Cultural anthropologists and geographers have found that migrations commonly occur when “negative push factors” at the point of origin combine with “positive pull factors” at the destination, provided the benefits of moving outweigh transportation costs. Typically, when migration is considered, potential movers search for new homes in areas where they themselves have kinship ties or allies, or to a location in which they have some degree of familiarity, either through interaction or actual residence (Anthony 1990:900). Likewise, it is unlikely migrants move to locations about which they had information. These are important considerations that must be taken into account when specific instances of migration are explored.

Chapman and Dolukhanov (1992:170) reject Arnold’s general premise claiming that it rests on an “ahistorical uniformitarian argument.” Anthony (1992:174) counters by insisting his theoretical construct does not necessarily discount history and local context, since the information flow element of his model is contingent on context-specific factors such as kinship and social relations regarding decisions on possible migratory routes and destination points (Anthony 1992:174). Critics of a uniformitarian notion of migration also question whether specific features of recent migrations, such as social network structure and decision-making process, can be projected onto landscapes of the past (Cameron 2000:555; Chapman and Dolukhanov 1992:170; Clark 1994:305). Clearly, more data are needed to determine whether prestate kin group or
community migrations are structured the same as twentieth-century individual or nuclear family migrations. While many researchers doubt that a single model of migration can be developed to fit all times and places, examination of multiple specific case studies should help develop sophisticated methods for studying and recognizing archaeological signatures of prehistoric migrations (Cameron 2000:556).

Migration is a viable explanatory consideration for interpreting discontinuity in the archaeological record, provided it can be demonstrated empirically. Too often, however, particular claims of migration rest on either negative or inconclusive evidence. Integral to any argument for population movement is the demonstration that historical or antecedent conditions existed for its occurrence. To understand instances of migration, we must examine the process within the entire social matrix in which it occurred; that is, within both the place of immigration as well as the place of emigration (Cameron 2000:555). Inferring population movement based on radical changes in local development or history demands that archaeologists draw upon as many lines of evidence as possible. If migration and rapid replacement of antecedent cultural patterns have occurred, it should be reflected archaeologically in a wide array of characteristics, including material culture, subsistence strategies, settlement patterns, architecture, refuse disposal, and other material reflections of social organization.

I am not advocating the use of migration as a panacea to explain all cases of change in the archaeological record. Indeed, there are countless potential causes of social change. As Rouse (1986) points out, when assessing alterations in the composition and distribution of material assemblages, we must consider and critically examine other possible causes such as acculturation, interaction, emulation, or local development. But we must keep in mind that if we choose to ignore the possibility of migrations, we may be forced to explain how, for example, Culture A developed into Culture B when in reality Culture A was replaced by Culture B, which itself developed elsewhere. Because migration can alter historical trajectories and create cultural
variation, it can serve as an explanation of causation, as recent Mississippian-period studies have argued (Blitz 1999; Blitz and Lorenz 2002; Cobb and Garrow 1996; Pauketat 2003).

A final point that we must keep in mind is that migration is a dynamic process that can bring about organizational or structural changes within the group on the move. It is somewhat naïve to think of migration simply as the superimposing of the culture at the point of origin onto the new landscape at the point of destination. Alterations are likely to occur, as people begin to adjust culturally and technologically to their new social and environmental milieu. These changes may involve certain material traits or even weakly held ethos. Additional modifications to aspects of material and nonmaterial culture may take place, if the receiving populations add dimensions of their culture to that of the migrants, or vice versa. Over time, this melding may lead to the creation of an entirely new culture in which its members identify themselves as distinct from their multiple cultural roots, a process known as ethnogenesis (Moore 1994a, 1994b).

**Political Economy**

Another important research interest of this study is political economy. As a theoretical concept both in economics and social science, political economy has had multiple, and at times, disparate meanings over the past few centuries. In this paper I follow Cobb’s (2000:5) definition of political economy as “the study of power relations and how they mediate access to wealth and basic resources.” Such a definition, based on the provocative works of Wolf (1982) and Roseberry (1989), maintains an explicit concern for the multiscalar dynamics of power and social asymmetry that generate historical change. Attending this approach to political economy is a concern for processes that bring about surplus production and the ideologies and symbols that legitimate its appropriation. In some societies, ideology and its manipulation assumes a greater role in how surplus labor is mobilized than the use of brute force or direct control over economic production. Since all societies generate surplus labor, the processes through which it is taken and

**Mode of Production**

Structural marxists have approached political economy through the concept of mode of production. Although many scholars have quibbled over what Marx ultimately meant by mode of production, as reflected in the numerous types of “mode of production” proposed over the past 30 or so years, marxists today tend to agree that it involves two types of relationships: the means of production and the social relations of production. The former includes things like raw materials, technology, costs, and human labor, whereas the latter consists of the human relations regarding the way labor is appropriated, transformed, and reproduced as well as how products are consumed and distributed within society (Roseberry 1989:156; Sahlins 1972:76). Although other factors were important, Marx (1904:11) maintained that “the mode of production of the material means of existence conditions the whole process of social, political, and economic life.”

Beginning in the 1960s, French structural marxists initiated a concerted effort to apply the concepts of Karl Marx to the study of noncapitalist societies, a path not well traveled by Marx (Godelier 1977; Meillassoux 1972; Terray 1972). In fact, the appropriateness of marxist concepts and strategies to the examination of noncapitalist social formations was bitterly debated among marxists and non-marxists alike for several decades beginning in the late 1960s. Rather than viewing society as a set of interrelated systems tending toward homeostasis, structural marxists considered social formations to be composed of a hierarchy of autonomous structures that condition human action. Accordingly, the forces that shape society rest not within technology or the natural environment, but within certain structures of social relations (i.e., mode of production).

For structural marxists, kinship, descent, marriage, and exchange were all considered embedded in the political economy of noncapitalist groups. Moreover, they argued that power struggles and exploitative relations are (and were) present in all societies, and that these
relationships frequently go unrecognized due to the masking affect of traditional custom and ideology. All social formations embody contradictions and conflict at some level between various segments of society, such as kinship networks, interest groups, or gender groups, who compete for power and control in society (Brumfiel 1992). In many small-scale societies power over others is achieved when one segment is able to manipulate marital alliances and other exchanges, and ultimately to control labor (Godelier 1977; Meillassoux 1972; Terray 1972). As Kahn (1981:60) puts it, in studying classless societies “one must inevitable turn to the relations of kinship, marriage, and alliance through which reproduction is secured.” Kinship, in this respect, structures social relations and represents a fundamental source of power in noncapitalist societies (Wolf 1982:91).

Structural marxists, however, were heavily criticized for reifying the abstract concept of mode of production and for portraying societies as largely ahistorical and peopleless modes of production (Ortner 1984:140; Roseberry 1989:160-161). Although in agreement with these critics, Wolf (1982:76) argues the value of the mode of production concept does not lie in classification but as an important analytical or heuristic tool for highlighting “the strategic relationships involved in the deployment of social labor organized by human pluralities,” without imposing evolutionary or ideal labels on them. Its use reveals the political-economic relations that motivate, guide, and constrain interaction by simultaneously drawing attention to human-nature relations, human-human social relations, the recurring social structures that direct these relations, and the ideas through with these relations are expressed (Wolf 1997:xi).

In line with other marxist-inclined thinkers, Wolf (1982:75) assumes the primary human activity is social labor, which he defines as “a specific, historically occurring set of social relations through which labor is deployed to wrest energy from nature by means of tools, skills, organization, and knowledge.” With an emphasis on historic process and cultural creation by active agents, Wolf describes three modes of production or abstract ways of deploying social
labor - capitalist, tributary and kin-ordered. Each mode or set of social relations may exist individually or in novel combinations within any particular society.

In the capitalist mode, capitalists own the means of production, with workers denied access to such ownership (Wolf 1982:77-79). In order to ensure survival, workers must sell their labor to the capitalists, producing surpluses of wealth for the capitalists, who either retain these surpluses for themselves or put it back into production to increase output and generate further surpluses. Thus, the labor process is fashioned and reproduced by economic market conditions.

In a tributary mode of production, the primary producers, either individually or collectively, are able to gain direct access to the means of production, but their activities are directed by political or military force independent of kinship ties (Wolf 1982:79-80). Wealth is generated by elites through the exploitative appropriation of surplus in the form of institutionalized taxation, tribute, or direct coercion of the primary producers. Often such a social system is supported by an ideology that justifies earthly domination of some (e.g., commoners or workers) by others (e.g., rulers and elites) as part of the natural order of things.

In a kin-ordered mode of production kinship (and residence) establishes rights to peoples’ labor as well as to all the necessities of life (Wolf 1982:89, 91). Social labor is mobilized via appeals to kinship affiliation (consanguineal and affinal), meaning that through kinship social labor is “embedded” in specific relationships between people in order to transform nature. In this respect, kinship relations serve as the relations of production that allow a particular mode of production to take place. Individuals acquire power through the manipulation of the productive output of their kin group and by alliance building with other kin groups, typically through marriage. These kinship relations, however, set a broadly consensual ceiling on the amount of power that can be gained. Wolf (1982:91-92) identifies two variants of the kin-ordered mode; one in which resources are widely available to all able bodied members of the community (e.g., food collecting bands) and one in which access to resources is structured by established kinship rights favoring some social factions over others (e.g., chiefdoms). Tremendous variation can take place
within kin-ordered modes, depending on how kinship is actually used to either exclude or include individuals in demands on social labor.

**Class Analysis**

Control of labor as a source for building power is also an integral part of Saitta’s (1987, 1994, 1997, 2001; Saitta and Keene 1990) model of political economy based on class processes and the communal social formation. This neomarxist theoretical tack stresses the embeddedness of economics in the context of historically-derived sociopolitical, ecological, and ideological processes and rejects the economic determinism of certain versions of marxism. It places emphasis on the economic relations of surplus labor production and distribution in the form of goods or services, and further presupposes that its appropriation at the local level is paramount to social reproduction. Many researchers, including some marxists, have rebuffed the idea that a class approach can be used to study noncapitalist societies (Bloch 1985:162-163; Trigger 1990:120). Instead, they assume a dichotomous position in which stratified societies have class and nonstratified societies lack class; the latter are viewed as structured on the basis of kinship relations not class relations.

Saitta (1987, 1994, 1997, 2001) and others (Cobb 1993:79-80; 2000:22-28; McGuire 1992:182-187; Resnick and Wolff 1987), however, contend that a class analysis marks an important analytical pathway by which to explore differential access to wealth and power in all social formations. Class here is not defined in the conventional sense of the term, as distinct social groups defined on the basis of a shared level of economic resources, wealth, and power, but rather as a social process that stems from the appropriation and distribution of surplus labor in the form of either direct labor or material products (Resnick and Wolff 1987). Surplus labor refers to “the time and energy expended beyond the amount required (necessary labor) to meet the subsistence needs of individuals” (Saitta 1994:226). If one accepts this definition of surplus labor, along with the corollary that surpluses exist in all societies for the purpose of satisfying various social needs, then the notion of class process becomes an acceptable means through
which to study small-scale egalitarian bands, large industrial states, and all social formations in between. With the existence of surplus labor comes the differential placement of individuals or groups with regard to the processes through which it is appropriated and distributed, leading to tensions and “class struggles.” Thus, use of class in this way allows researchers to distinguish kin from class and to examine social inequality and power relations in all social formations (McGuire 1992:182).

While many have argued over whether class is a process or thing, Cobb (2000:22-28) reminds us that class is actually both. It is a process—both in a general and specific historical sense—that involves relations between groups of people in the production of surplus labor, and it is a thing with attributes that “can either take a material form or be manifested as cultural categories” (Cobb 2000:24). Individuals do form social categories and identities that distinguish and reinforce perceptions of themselves from others. These groupings (e.g., gender, class, interest group) and the objects they create have a pronounced effect on relations of power and gender, issues of identity and political factionalism, and control of surplus labor (Brumfiel 1992:553; Cobb 2000:24; Wolf 1990:586). Researchers must then focus simultaneously on relationships and on the social groups (e.g., interest groups, classes) both involved in and defined by those relations (Cobb 2000:25-26).

Resnick and Wolff (1987) propose a unique notion of class process as an entry point into social analysis. In doing so they recognize that members of society are producers, appropriators, distributors, and recipients of surplus. With these four class differences in mind, Resnick and Wolff make an important distinction between two forms of surplus flow referred to as fundamental class process and subsumed class process. The former involves the initial production and appropriation of surplus labor or products, whereas the latter involves the distribution and reception of already extracted surplus labor or products (Resnick and Wolff 1987:117-118). Thus, the makers and takers of surplus labor comprise the fundamental class,
while the distributors and beneficiaries of surplus make up the subsumed class. The two are mutually constitutive, with each providing for the existence of the other.

We can apply the notion of fundamental class process both to the communal (e.g., kin-order) and class divided (e.g., tributary and capitalist) social orders mentioned above. Within a capitalist system, fundamental classes include both those who purchase the labor power of others (capitalists) and those who sell their labor power (workers or wage earners), while in a tributary society fundamental classes consist of the tribute takers (e.g., nobles, elites, lords) and the tax or tribute payers (e.g., commoners, peasants). In a communally-based society, the primary producers are simultaneously the makers and extractors of surplus labor, meaning that the community (commune) collectively appropriates surplus labor for the benefit of the whole group.

While a communal or kin-ordered society may manifest a measure of social inequality, and perhaps even political hierarchy, it is not a class divided society, as are tributary and capitalist social forms, since the performers and takers of surplus are one in the same (Saitta 1994:207).

A subsumed class refers to those specific members of society who receive shares of already appropriated surplus and provide the political, economic, and cultural circumstances that allow for the existence of a particular fundamental class process (or set of coexisting fundamental class processes) (Saitta 1994:207). Within each type of social form, a variety of subsumed class positions can potentially exist at any given time, and the distribution or receipt of surplus labor can occur in a number of different ways. For example, in middle-range societies subsumed classes can include chiefs, trade facilitators, ritual functionaries, and craft specialists, as long as their services are funded by communally generated and distributed surplus labor (Saitta 1994:207-208; 1997:9).

A class analytical approach acknowledges that social life consists of more than class processes. It further understands that all social formations entail nonclass processes, which can include, for example, power relations, exchange relations, land holding or property relations, ceremonial and ritual relations, and various processes involved in the creation of cultural meaning
and social identity (Saitta 1994:208). While nonclass processes do not directly involve the movements of surplus labor within society, they do have a bearing on the production and distribution of surplus (Saitta 1994:208). It is important to note that individuals often participate in a variety of class and nonclass processes, meaning that their interests and alliances with others are shaped by “all processes of social life, not only the various kinds of class processes” (Resnick and Wolff 1987:110). Through their membership in and involvement with different social groups, individuals may be pulled in a variety of directions creating multiple loci of possible tension and conflict within society. Thus, the interaction between class and nonclass categories is of utmost concern to a class analytical approach, which assumes inequalities and complexity in the internal dynamics, developmental processes, and everyday lives of members of societies of all sizes and forms.

**Communal Social Formation**

Building on this theme, Saitta (1987, 1994, 1997, 2001) provides constructive insight into the notions of communal social formation and communal class process. Among his central arguments is that social power, labor relations, and surplus flows must be unlinked in our analysis of all social formations, with each granted relative autonomy so that one can vary independently of the other. When these are conflated, as is often the case, the taking of surplus tends to be interpreted *a priori* as coercive or exploitative. For instance, in Mississippian societies the appropriation of surplus is almost invariably interpreted as elites forcefully exacting the labor of subordinates for their own benefit, without entertaining other alternative options in which surplus labor could have been mobilized without exploitation. The decoupling of the exercise of power and processes of labor flow along with an increased emphasis on the role of human agency and historical contingency permits a more varied and complex awareness of the organizational structure and internal dynamics of all social formations, particularly the diverse lot that fall between small-scale, acephalous foragers, and stratified states.
Ethnographic and archaeological studies of these so-called middle-range societies have revealed that many tend to maintain a basically communal political economy. As Saitta (2001:248) states:

In these communal societies means of production are held in common, and access to strategic factors of production is guaranteed. Surplus labor—required for care of the sick and infirm, replacement of strategic factors of productions, and maintenance of socioceremonial life, among other activities—is collectively appropriated. Primary producers participate in decision-making about the amounts of surplus produced, its form (products or labor service), and its conditions of production. Such conditions of production can be quite variable, involving different ways of dividing labor, organizing work, producing goods, redistributing products, exercising authority, and regularizing access to positions of authority.

This “thin definition of a communal social formation,” as Saitta (1997) puts it, recognizes the heterogeneity and relative autonomy of various forms of power and embraces the varied social differences and conflicts that can result as historically specific individuals and groups struggle over power, class, and cultural meaning. Despite arguments to the contrary (e.g., Emerson 1997:14-15; Feinman 2000:46), this rendition of a communal society does not promote the notion of an invariant social formation and need not be “egalitarian” or “communal” in the utopian sense of the terms since all production and guaranteed access to products is not necessarily shared equally. Competition over management, conflict between elders and juniors, and discord in gender relations can contribute to the existence of social inequality and political hierarchy, although expressed in different ways depending on historical circumstances (Brumfiel 1992, 1995; Crumley 1995; McGuire 1992; Paynter 1989). Thus a degree of social differentiation unavoidably attends the extraction and allocation of surplus labor (Saitta 1994, 1997).

Taking it a step further, Saitta (1997:10) brings focus to the possibility that both cooperative (nonexploitative) and competitive (exploitative) social relations could be subsumed within an otherwise homogeneous notion of communal society. Thus, no matter how uneasy, multiple socioeconomic forms, such as tributary and kin-ordered, could coexist for a time, with “the only stipulation for describing a society as communal being that most of its surplus labor is
collectively produced and distributed” (Saitta 1997:10; emphasis in original). This allows for tremendous variation in the sociopolitical organization of communal societies and provides the potential in some societies for the co-occurrence of traditionally-defined features of egalitarian and hierarchical societies (Crumley 1995; McGuire and Saitta 1996; Nassaney 1992; Rautman 1998; Saitta 1997, 1999). Different mixes elicit different sorts of sociopolitical organization and paths of developmental change, rendering historical process essential to the study of political economy. Here Saitta challenges researchers to describe how multiple forms of surplus flow could have existed side-by-side in the same social setting and to detail the internal social dynamics, tensions, and outcomes of these in specific historical cases.

Saitta has applied this thin definition of communalism to the prehistoric chiefdoms at Chaco Canyon (Saitta 1997, 1999, 2000) in the American Southwest and to Cahokia (Saitta 1994) in the American Midwest. While the social, political, and ecological conditions of the two cases are distinctive, both studies detail how subsumed classes, functionaries such as ritual specialists at Chaco Canyon and exchange brokers at Cahokia received distinct quotas of already extracted surplus labor as material support for their necessary role in social reproduction. And, how over time elites and their followers (subsumed classes) in both regions, yet under different time and space specific circumstances, attempted to build more exploitative tributary relations by altering community politics, ideology, and aspects of material culture. Ultimately, these tactics failed and what resulted in each region was a new communal political economic order, distinct from what had existed before. The particular tensions and potential conflicts between fundamental (primary producers) and subsumed classes and among subsumed class members themselves over the social distribution of necessary and surplus labor are highlighted in both cases.

Within all societies there are aggregates of people that share the same interests and compete, to varying extents, with other coalitions for power (Brumfiel 1992). However, intragroup members should not be construed as like-minded clones, since each understands the world based on one’s own life experiences. Competition among these interest groups or classes
gives rise to tensions manifested and mediated through an array of socially dynamic responses, such as negotiation, cooperation, exploitation, resistance, compliance, or indifference. These strategies and their consequences vary among and within societies according to historical context. For example, some tensions may lead to overt power struggles and social change, whereas others are ephemeral and easily defused, although the potential to resurface is embedded in these social relations. The debate over whether class is an appropriate conceptual tool to study noncapitalist societies notwithstanding, the point to be made here is that differences among factions can be understood by examining the social groups that come together through the processes involved in the appropriation and distribution of surplus labor (Cobb 2000:27).

**Dual Processual Theory**

In another attempt to capture variation in political-economic strategies among societies, Blanton et al. (1996) have recently introduced dual processual theory, an actor-centered approach that focuses on two differing strategies of political leadership: corporate and network (also see Feinman 1995, 2000; Feinman et al. 2000; Peregrine 2002). These strategies rest on the way leadership’s political power base is created, manipulated, and manifested. Political leaders, employing one strategy over the other draw upon various sources of power, both objective (e.g., wealth, sources of production) and symbolic (e.g., cognitive code, ritual, religion) to effect control over a polity (Blanton et al. 1996:2-3). While the two strategies are not necessarily mutually exclusive and can be mixed in a variety of ways by actors or groups within any given society, one mode tends to dominate (Blanton et al. 1996:5-6; Feinman 2000:35). Corporate and network are not meant to constitute new societal types or evolutionary stages of sociopolitical development, but instead represent general organizing principles that crosscut societal variation and take place in all varieties of societies, ranging from bands to states (Feinman 2000:31). Thus, the dual processual approach provides a continuum for examining the structure of sociopolitical organization.
A corporate strategy expresses political power that is shared collectively by different segments of society, such as kin-based lineages or clans (Blanton et al. 1996:5-7). It stresses the importance of the larger collectivity or polity over individual wealth and prestige-building, making it less individualized than a network strategy. Hierarchy and social ranking can exist, but political control is held jointly by social groups of some sort rather than investing exclusive power in a single individual. As with communal social formations, safeguards against too much individual control exist and leaders are often held in check by governmental bodies such as councils, assemblages, or other horizontally arranged sociopolitical organizations. Corporate-based states and chiefdoms with hierarchy should not be viewed as egalitarian or without political and economic inequality. Certain individuals are often more likely to achieve a leadership position over others based on their bloodline. As Feinman and others (2000:454) state, corporate structures can be nonhierarchical or “hierarchical with certain social groups, societal segments, and or personages having more influence and authority than others.”

Corporate leaders work to create a power base by conceiving and implementing activities and ideologies that reinforce corporate solidarity and integrate separate social or kin groups, including elites and commoners (Blanton et al. 1996:6). The interdependence of social or kin groups is perceived as part of the natural order and promoted through corporate avowing ritual events often involving the mobilization of surplus labor and food for monumental public construction and feasting. Additionally, mortuary practices often emphasize the corporate nature of the polity by having members interred in a common grave or cemetery (Blanton et al. 1996:7). Leadership power ultimately tends to derive from the size and strength of one’s kin or social group rather than based on access to exotic prestige goods, as is the case with a network strategy.

Peregrine (2002:37-38) discusses several archaeological expectations with regard to the organization of production within corporate-oriented societies. First, production should be spread across the polity and lack any unmistakable centers of control. Second, production should be geared toward group not individual consumption. Moreover, these consumption activities should
transpire at “points of group articulation,” such as loci of solidarity-building communal rituals and feasts. He also suggests that shared stylistic patterns in pottery and architecture, among other features, may have been encourage by corporate leaders and ruling bodies “to promote common bonds of relationships” among lineages, clans, or other social groupings (Peregrine 2001:37-38). As will be shown in subsequent chapters, such features are manifested in the St. Johns II and St. Marys II archaeological cultures of northeastern Florida.

In network strategy power flows through individuals and their personal web-like networks of kin groups, clients, political allies, and trade partners (Blanton et al. 1996:4-5). External ties link aspiring political leaders to others in spheres of peer polity interaction that establish means through which to secure exotic goods, labor, knowledge, or other socially relevant wealth items, which can be used locally to attract followers and reward supporters. Entrée into these local and extralocal matrices of exchange and alliance are restricted, as political leaders pursue the monopolization of power. Because this mode of leadership promotes individual advancement and works to exclude others from positions or sources of political power it is also referred to as exclusionary (Blanton et al. 1996:2).

Polities with a network-oriented political economy place tremendous importance on what some archaeologists refer to as wealth finance, which often involves “the procurement of items of symbolic value, either through long distance exchange or patronized craft production, and their bestowal on supporters” (Earle 1991:3). In fact, differences in prestige and wealth are evident as elites flaunt what they have and others do not. Thus, network-based strategies are typical of those chiefdoms characterized by prestige-goods economies, in which material symbols of individual wealth and status are conspicuously worn by elites to signify their superior status. Authority or right to the exclusionary use of political power is legitimized through possession of these symbols in conjunction with ideology and ritual, often centered on the common ancestors of the ruling elite family. Interaction among elites in which prestige goods or other symbols of status are commonly circulated often leads to the creation of a shared symbolic vocabulary or international
style which binds elites together in exchange relations that legitimizes their lofty social position in the eyes of one another and distinguishes them from commoners (Blanton et al. 1996:5). The dual processual approach has recently been applied to the study of the Mississippian-period political economy of Cahokia (Trubitt 2000) and Etowah (King 1999, 2002).

To recap, a corporate strategy with a purely collective mode of power and a network strategy with a purely individualizing mode of power are diametrically opposed and situated at polar ends of a continuum in which power bases are expressed in a variety of ways to create different institutional patterns (Blanton et al. 1996; Feinman 1995, 2000; Feinman et al. 2000; King 1999, 2002; Peregrine 2002; Trubitt 2000). According to the dual processual model, a political economy is structured primarily by either a network or corporate organizing principle depending on the sources of power and how they are controlled. For example, do elites monopolize sources of power (network strategy) or is power shared across different social groups (corporate strategy)? Another important structuring feature is political action and whether it is geared toward external exchange alliances among elites (network strategy) or toward intragroup social relations (corporate strategy). While touted as a framework that can accommodate a wide range of societal diversity the full implication of this goal is has yet to be revealed. In fact, most applications thus far have focused on whether a group is characterized by a network or corporate strategy and have not generated much thought on how specific polities shifted or cycled from corporate to network, or vice versa.

There is clearly a strong degree of similarity between Saitta’s communal social formation and Blanton and colleagues corporate political strategy in that both recognize the sharing of power and discourage interpretations predicated on assumed linkages between political leadership, centralization of power, and hierarchy. In fact, proponents of dual processual theory appear to have little problem with the application of Saitta’s communal model as a framework to the study of small, mobile groups, but have expressed discomfort with its overly consensual decision-making structure and question its ability to capture accurately the political economy of
hierarchically structured middle-range societies, with populations in the hundreds or thousands, like Cahokia and Chaco Canyon (Emerson 1997:14-15; Feinman 2000:46). With regard to Cahokia, Pauketat and Emerson (1997:273, 289-290) charge class theory with obscuring the power divide between commoners and elites and downplaying the hegemonic sway held by Cahokian lords over the general populous. A potential operational weakness of a class theoretical approach that demands attention concerns the concept of surplus and how does one distinguish unequivocally between exploitative and nonexploitative relations exclusively on the basis of archeological evidence (Emerson 1997:15; Saitta and Keene 1990:211).

Saitta (1997, 1999, 2000), on the other hand, insists dual processualists have yet to detach themselves fully from dichotomous thinking and to consider seriously the very real possibility that aspects of network and corporate strategies, and their respective ideologies, were frequently combined in unique ways within what ultimately amounts to a communal society. It is his contention that a class analytical approach helps to flesh out specific instances of corporate strategy by imaging the potential existence, in some middle-range societies, of a variety of communal elites or subsumed classes (e.g., political leaders, ritual specialists, exchange agents), each with their own managerial duties and funded by communally exacted and distributed labor. Ethnographic evidence suggests that subsumed classes are a salient characteristic of the political economy of many kin-based societies, with their authority constrained by a variety of controls that hinder privileged rights to the means of production (Cobb 2000:28).

Such societal constrains, however, may have engendered tensions and conflicts between various members over the proper amount of surplus compensation and the processes surrounding its production. For example, conflicts may have arisen as specific individuals or groups attempted to take advantage of any variety of time and space sensitive social or ecological circumstances in order to enhance their social and economic position by altering existing communal political-economic conditions and ideologies that supported more exploitative
relations and a new mode of production. It is believed that such tensions and struggles “create the social dynamics of the communal formation” (Saitta 1999:140)

**Prestige Goods Models**

A recurring feature of the political economy of noncapitalist societies is the conspicuous role played by distribution and exchange in the management and manipulation of social labor (Arnold 1993, 1996, 2000; Bender 1985, 1990; Cobb 1993, 2000; Dalton 1977; Sahlins 1972; Saitta 1994, 1997). In societies where primary producers own the means of production and are not readily forced to forfeit surpluses, certain individuals or groups may engage in extralocal trading by tactically amassing and giving certain socially-valued materials (i.e., prestige goods) to distant peers in an attempt to facilitate political alliances, enlarge exchange networks, and boost their prestige and power. In some cases, these social agents and their kinfolk are able to successfully parlay extralocal trafficking of prestige goods into social relationships that engender differential access to resources and power and the ability to mobilize surplus labor, even though they may lack direct control over the means of production (Bender 1985, 1990). Thus, a prestige goods system is established, and it is “intrinsically linked to the mobilization of surplus labor and the development of social inequality at the local level” (Cobb 1993:61).

Over the years, a variety of archaeological prestige goods models have been developed that spotlight exchange as a means of achieving and maintaining power and prestige through external alliance networks (e.g., Frankenstein and Rowlands 1978; Friedman and Rowlands 1977; McGuire 1986). In southeastern North America, archaeologists have traditionally modeled Mississippian societies as chiefdoms that articulate causal linkages between centralized political authority, social ranking, and a prestige goods economy (e.g., Anderson 1994; Brown et al. 1990; Pauketat 1992, 1994; Peebles 1987; Peregrine 1992, 1995; Rogers 1996; Scarry 1996; Smith 1986; Steponaitis 1986; Trubitt 1996, 2000; Welch 1991, 1996). To assess a prestige goods economy model for St. Johns II societies of northeastern Florida, we must first define what is
meant by a prestige goods system, both in general and specifically, as applied in the southeastern United States.

Prestige goods (also referred to as primitive valuables, elite goods, status goods, and display goods) have been defined as those “products which are not necessary for material subsistence, but which are indispensable for the maintenance of social relations” (Ekholm 1977:119). These items are imbued with ideological connotations that render them valuable to members of society. Some prestige goods serve as badges of authority or status, with their distribution controlled by a specific individual or segment of society. However, other items function as requisite elements of daily rituals and other public ceremonies such as life-cycle events (Ekholm 1977:119). Specific examples of prestige goods vary worldwide, but they typically consist of durable items. Peregrine (1992:51) has partitioned prestige goods into four general categories: bead goods; cloth and blankets; furs; and status symbols made of precious and often colorful materials.

Marxist anthropologists conducting ethnographic research in west-central Africa were the first to formulate prestige goods models (Ekholm 1972, 1977; Meillassoux 1978, 1981). In general terms, the prestige model based on these studies proposes that male members of society acquire increasing amounts of respect as they pass through different life stages, ultimately becoming elder men responsible for important political decisions. Seniors hold power over younger men and dominate access to marriageable women by controlling the flow of certain prestige goods (local and nonlocal preciosities) needed for payments associated with initiations, fines, deaths, and bridewealth to arrange marriage exchanges. Senior men therefore maintain high social status and direct the labor of younger men due to their privileged access to prestige goods necessary for social reproduction.

Several British archaeologists embraced the notion of a prestige goods system as part of an “epigenetic model” of social evolution that explained the rise of complex societies in prehistoric Europe (Frankenstein and Rowlands 1978; Friedman and Rowlands 1977). Prestige goods
economies were viewed as having their origins in tribal societies as local systems that became spatially broader, more elaborate, and institutionalized as societies evolved into states. From this perspective, emerging elites manipulated and eventually converted traditional valuables used in social payments into powerful and exclusive sources of political and economic power that legitimated social inequality between elites and commoners. With its structural emphasis on the exchange and movement of prestige goods within and between regions, some archaeologists further melded prestige economy models with tenets of Wallerstein’s world systems theory (Ekholm and Friedman 1982; Rowland et al. 1987). In this incarnation, elites in core regions maintained centralized control over prestige goods, whereby the only way peripheral elites could gain access to them was through alliances with the core elites. Thus peripheral elites were dependent on core elites for luxury items that reinforced their privileged status at home and abroad.

Following his overview of ethnographic data on prestige goods systems, Peregrine (1992:25; cf. Frankenstein and Rowlands 1978:76-77) concluded “the most fundamental aspect of all prestige goods systems is that those with power control others’ ability to socially reproduce by controlling the means of social reproduction: prestige goods.” He further identified four elements common in all prestige goods systems (Peregrine 1992:25; cf. Friedman 1982:184). First, prestige goods are moved through generalized exchange. Second, those individuals occupying the highest political level maintain a monopoly over prestige goods. Third, kinship structures are reproduced through the political structure. Fourth, eldest members of society control political power and prestige goods as they distribute them down the social hierarchy. Another common aspect of prestige goods systems is they are unstable since they are contingent upon the tenuous and capricious nature of exchange relationships and political alliances, both at local and extralocal scales. Specifically, because prestige goods come from distant sources local leaders often have little or no direct control over their production and trade (Cobb 2000:33; Saitta 1999:136).
As stated, aspects of prestige goods economy have been incorporated into the various models of Mississippian life whereby elite power hinges upon their control of access to exotic goods and raw materials as well as associated esoteric knowledge (e.g., Brown et al. 1990; Pauketat 1992, 1994; Peregrine 1992, 1995; Rogers 1996; Scarry 1996; Trubitt 1996; Welch 1991, 1996). These prestige goods are assigned high value through elite manipulation, gained only through external trade, and circulated among elites to establish solidarity and preserve social alliances at various geographical scales. Elites, who possess and display these material sources of power that legitimate their lofty status, are able to appropriate surplus goods and services to fund pursuit of their own agendas. The development of Mississippian prestige goods systems has been modeled to include an early stage in which local social groups (i.e., lineages, clans) competed for control of locally produced prestige goods, and a later stage in which elite and commoner distinctions were institutionalized and a panregional interaction network developed through which prestige goods were exchanged and marriage alliance were sought among elites (Brown et al. 1990:256-257; Trubitt 1996:39-42). Some researchers have wedded aspects of prestige goods systems with reformulated notions of world systems theory in modeling social evolution during the Mississippian period (Peregrine 1992, 1995, 1996).

A specific example of a Mississippian case study is Welch’s (1991) examination of the organization of production, exchange, and consumption of utilitarian artifacts, prestige goods, and subsistence items within the Moundville chiefdom of northwestern Alabama, ca. AD 1050-1550. According to his model, the Moundville chiefdom included a three-tiered settlement system composed of domestic units (farmsteads), secondary or local mound centers, and the paramount center at Moundville. Choice cuts of venison and maize, produced by “commoners” living in scattered farmsteads, were given as tribute to local elites at secondary centers, who, in turn, passed a portion on to higher-level elites living at the paramount center. The chiefly elites at Moundville maintained control over all status-displaying prestige goods obtained through nonlocal exchange or produced locally for foreign trade. Because evidence of craft production
was restricted to Moundville, he speculates that Moundville elites supplied subsidiary chiefs at satellite centers with finished sumptuary goods through prestations and feasting, to ensure their loyalty and continued support. Welch (1991:4, 178) considers the political economy of Moundville to have been “a form of prestige goods economy.” Although he warns the model is specific to Moundville, many researchers have either implicitly or explicitly accepted its general tenor as the Mississippian way.

With the above data in mind, several authors have developed a series of archaeological hypotheses or expectations for testing the existence of a Mississippian prestige goods system. According to Peregrine (1992:69-71), prestige goods should be much more abundant at mound centers where elites reside than at outlying settlements. Proportionally, there should be more individuals buried with prestige goods at mound centers than in other areas, and individuals at the centers should have a higher average number of prestige goods associated with them. Burial data should also reflect a bias toward prestige goods and male interments. Regionally, prestige goods should not be randomly distributed, but should have a “highly constrained distribution” (i.e., restricted to certain individuals or communities).

Trubitt (1996:36-39) expands on this by developing archaeological correlates for early and late stage manifestations of a Mississippian prestige goods economy. In the early stage prestige goods should be made of local materials and found at a variety of villages within the region, but their occurrence should be restricted spatially within sites as a reflection of incipient social differentiation. The late stage should be characterized archaeologically by significant increases in foreign goods at the expense of local items; elite controlled craft production confined to major centers; circulation of exchange among elites of different villages; and social ranking and marked differences in status revealed in burials and domestic residences (Trubitt 1996:38).

Interestingly, not all Mississippian mound sites with nonlocal exotics conform to these archaeological expectations. Blitz’s (1993) analysis of a two-tiered Mississippian polity in the Tombigbee watershed of western Alabama revealed the widespread occurrence of elite craft items
such as fine ware ceramics, marine-shell beads, lithic microdrills, and stone discoidals at both the single mound center at Lubbock Creek and small scattered farmsteads. These results led Blitz (1993:183) to conclude “[p]roduction and consumption of craft products may be more dispersed and less centralized than current models suggest.” Furthermore, we must avoid “[t]eleological reasoning that automatically transforms any ‘superordinate’ artifact’s provenance into an ‘elite’ context” (Blitz 1993:183).

Recently, researchers have begun to challenge some of the problematic assumptions and inadequacies behind prestige goods models (e.g., Blitz 1993; Cobb 1993, 2000; Douglas 2000; Kowalewski 1996; Muller 1995, 1997; Robb 1999; Saitta 1998, 1999). A common complaint is that archaeologists fail to search for diversity within and among prestige goods systems, and instead mechanically apply the model without concern for social or historical contexts (Cobb 1993:64; 2000:31). Along these same lines, while researchers may identify various kinds of prestige goods within a single community or society, they often conflate them under the rubric of prestige goods and treat them in an undifferentiated manner that suggests they were equally valued and served the same roles (Lessure 1999). However ethnographic research, as noted above, has revealed different kinds of prestige goods are used in a variety of ways and carry different meanings, with some serving as mere markers of social positions or status, others assuming roles in ordinary domestic ritual, and still others representing elite paraphernalia that are a source of power used to compel commoners to pay tribute or perform work.

It is therefore critical that archaeologists demonstrate a genuine concern for the meaning and symbolism behind prestige goods and other social valuables (Marcus and Fisher 1987; Roseberry 1989). Hodder (1991:63) has chided prestige goods models for treating ideology as epiphenomenal and disregarding the active role of material culture in social relations. If prestige goods are to serve effectively as symbols of power or legitimization of elite positions and social status, they must be laden with socially recognized meaning. The symbolism and meaning behind valuables are not merely reflective but constitutive, with social identities and relationships
created through the use of material symbols (Robb 1999:10). However, the meaning of particular symbols can be manipulated, reworked, and changed over time. Thus symbols are open to different interpretations and often contested, and their meanings do not automatically and passively persist in the present. As Kowalewski (1996:31) states, “symbols… need constant inputs of human time and energy for their maintenance, renewal, and reinterpretation.”

For archaeologists to gain a better understanding of the role played by different prestige goods and other valuables, analysis needs to highlight context of production, and the use and discard of such items (Cobb 2000:35). With regard to nolocal items or materials, researchers also must seek out the causes of prehistoric exchange and examine the nature and distribution of valuables within and among sites. How and where prestige goods were consumed on sites is pivotal to our understanding of their specific uses and functions in a given society? As Peregrine (1992:69) points out, “prestige-goods systems are defined in terms of social patterns and political strategies, not in terms of material goods themselves.” But in achieving this goal we must avoid the tautology of some prestige goods arguments; for example, “we know these are elite individuals because they have goods with them that we know are elite because they are with elite individuals” (Muller 1997:47).

Saitta’s (1994, 1998, 1999) primary criticism of prestige goods models is its power essentialism that assumes surplus mobilization is always exploitative. Such models unproblematically link prestige goods, control over labor, and social power in rigid manner, whereby prestige goods are cast as “instruments of power” that enable elites to appropriate the labor of subordinates (Saitta 1999:136). He further believes too much attention has been directed toward what occurs to surplus once it has been extracted, while not enough consideration has been given to identifying the processes by which it is appropriated. That is, distinguishing between exploitative and nonexploitative flows of labor.

With regard to prestige goods acquisition, elite-subordinate relationships do not always have to be exploitative, there are nonexploitative ways in which surplus can be mobilized. For
example, labor can be performed by the broader community for elites as payment for elites’ role in acquiring prestige goods. Here these socially important valuables are understood as “communal social entitlements” needed for reproduction of the whole community and not sources of elite power, as customarily interpreted (Saitta 1999:137). This perspective squares with Saitta’s notion of a communal social formations discussed in the previous section. Alternatively, the performance of subordinate labor in return for social valuables supplied by elites can be comprehended as the “reciprocal exchanges of equivalents” (Saitta 1999:137). Thus we must be careful not to view prestige goods exchange uncritically as “solely serving a human proclivity for hierarchy” (Douglas 2000:200). More open-ended approaches are needed that acknowledges both exploitative and nonexploitative means of extracting surplus as well as various mixes of the two.

A final criticism is prestige goods models place almost exclusive weight on exotic items drawn from far-flung areas and downplay the importance of more prosaic artifacts and locally available materials in political economy of middle-range societies. In addition, the simple dichotomy between prestige and utilitarian goods has been put into question (Lessure 1999). Cobb’s (2000) study of lithic hoe production among Mississippian communities in southwestern Illinois provides insight into how the control of local Mill Creek chert procurement, production, and exchange contributed to local elite power. Additionally, Pauketat’s (1994:174-179) research in the American Bottom emphasizes local production and intraregional trafficking of craft items imbued with symbolic meaning controlled by the local Cahokian elite. A comprehensive understanding of the political economy of any social formation requires the analysis of all types of material goods, utilitarian and exotic (Cobb 1993:64).

As Cobb (2000:31) indicates, these criticisms do not weaken the significant role of exchange in the recruitment of labor in middle-range and small-scale societies, nor do they require us to reject all aspects of prestige goods models out of hand. What they do point to is the need for stronger concern for the historical, social, ideological, and environmental contexts in
which the production, exchange and consumption of “prestige goods” are situated. As will be demonstrated in subsequent chapters, the archaeological patterning of foreign materials and exotic items associated with the St. Johns II societies of northeastern Florida belies the deterministic expectations of a prestige goods economy model. This incongruence requires us to reconsider some of our assumptions regarding the native political economy of northeastern Florida societies during the Mississippian period.
CHAPTER 3
ENVIRONMENTAL AND SOCIOHISTORICAL CONTEXTS

The native societies that thrived between A.D. 900 and 1500 are among the most intensively studied by archaeologists in southeastern North America. Long known to archaeologists as the Mississippian period, this interval was a time of hierarchical chiefdoms, intensive maize agriculture, and long-distance interaction and exchange networks (see Smith 1986; Steponaitis 1986). Societies that incorporated these cultural traits are often loosely referred to in the literature as “Mississippian.” If one were to draw a boundary encompassing Mississippian societies, as many have done, it would enclose a broad area, extending from the Atlantic coast to eastern Oklahoma and from the northern Florida panhandle to the northern American Bottom (Figure 3-1). As such, it would omit northeastern Florida and southern Georgia, a coastal zone of fisher-hunter-gatherers. Although they may have been situated on the edge of the Mississippian world, these coastal groups were not kept out, and as I shall demonstrate, were active participants in two-way interaction and exchange spheres that moved exotica, utilitarian items, information, and personnel across the eastern United States.

There is no doubt many Mississippian-period societies shared some general cultural features, organizational as well as material and ideological, due to situations of contact and interaction. But the southeastern United States was far from being a socially and politically homogenous landscape during the six centuries prior to European arrival. In addition to peripheral societies, nestled within the frontiers and backwaters of the Mississippian world, were non-Mississippian hunters and gatherers (Jenkins and Krause 1986:82-85; Muller 1995:320; King 2003; Stephenson et al. 1996). Moreover, recent research throughout the Southeast has begun to
Figure 3-1. Northeastern Florida and the Mississippian world (adapted from Payne and Scarry 1998).
emphasize that individual chiefdoms and other communities were historically constituted and that considerable variability underlies the veneer of Mississippian uniformity (e.g., Blitz 1993, 1999; Cobb 2000; Cobb and Garrow 1996; Knight and Steponaitis 1998; Lorenz 1996; Maxham 2000; Nassaney 1992; Pauketat 1994; Peebles 1987; Rees 1997). What existed in the Southeast during the Mississippian period was a diverse and dynamic world that included intensive farmers, part-time horticulturalists, hunter-gatherers, and fisher-shellfish collectors.

If we are to achieve a more realistic and thorough understanding of the Mississippian-period Southeast, we must reconstruct its development in specific sociohistorical contexts. This means that we must not only focus our attention on those varied groups that fit the conventional definition of Mississippian but also showcase those who do not. But in doing so we must refrain from examining societies as ahistorical and isolated entities, for throughout prehistory those societies were interconnected in webs of every-changing interaction. As we begin to understand variation at the proximate level, we can ultimately strive to comprehend why both broad similarities and variations developed across the greater Southeastern United States during the period A.D. 900-1500. A brief overview of the Mississippian period from a broad Southeast perspective is provided at the end of this chapter to acquaint the reader with the wider geographical context in which northeastern natives were situated.

The primary objective of this chapter is to lay the groundwork for a revised understanding of the Mississippian-period in northeastern Florida. To place the events and cultural dynamics of this era into proper perspective, however, we must first establish the historical trajectory that led to its development. The current chronology of northeastern Florida is sketchy and inadequate for the purpose of this study. In the following, I review and critique past views on the region’s archaeological chronology, usher in new archaeological data, and cast in a new light existing evidence in order to present a refined late Woodland archaeological sequence that will set up the next chapter on the region’s Mississippian-period chronology. While this revised chronology is informed by and builds upon earlier chronologies and interpretations (e.g., Ashley 1994, 1995;
Goggin 1952; Milanich 1994; Russo 1992; Sears 1957), it departs from them in a number of significant ways, namely, in its specific chronological sequencing, taxonomy, and stronger consideration for external social inputs via interactions and population movements. Moreover, it provides the guiding culture-historical sequence that will enable me to proffer a new view on the late prehistory of northeastern Florida.

**Geographic and Cultural Setting**

From a geographic perspective, the focus of this study is *northeastern Florida*, herein defined to include coastal present-day Nassau, Duval, and northern St. Johns counties, including the lower reaches of the St. Johns, Nassau, and St. Marys river systems (Figure 3-2). This portion of Atlantic coastal Florida was once subsumed geographically within the boundaries of the St. Johns archaeological region to the south. As such, prehistoric cultural developments were assumed to follow the same St. Johns I-II sequence (Goggin 1952:15; Milanich and Fairbanks 1980:28-30). Recent research incorporating both new information and a reassessment of old data, however, has clearly demonstrated that this was not the case (Milanich 1994:248-254; Russo 1991, 1992). Because of its lack of chronological fit, northeastern Florida was extracted from the St. Johns region and combined with coastal Camden County, Georgia to form the St. Marys region, which encompasses the coastal mainland and adjacent barrier island zone extending from the Satilla River, Georgia south to below the St. Johns River, Florida (Russo 1992).

The archaeological record of the St. Marys region reveals a unique prehistory that at times paralleled that of the St. Johns region, at other times resembled that of the Georgia coast, and at other times had its own local developments. In this study I have decided to focus on northeastern Florida, rather than the broader St. Marys region. This decision would appear to run counter to Russo’s (1992:107) stated intent for creating the St. Marys region, which was “to promote research among areas of Florida and Georgia that are linked by a common cultural heritage.” I agree wholeheartedly with this aim, but also recognize that societies are dynamic and
Figure 3-2. Map of northeastern Florida, including the lower St. Johns River.
hard to bound precisely. Boundaries are social constructs that are fluid and fluctuate as different groups or influences move in and out of an area.

While the Atlantic coast of northern Florida and southern Georgia followed a similar prehistoric chronology, current archaeological evidence points to intraregional differences in the sequencing and timing of ceramic changes not isomorphic with the boundaries of the St. Marys region. For instance, some manifestations, such as Colorinda, appear to have been very localized and confined to northeastern Florida, while others like St. Johns II were never as long-lived or as pervasive in southeastern Georgia as they were in northeastern Florida. What sets northeastern Florida apart from the remainder of the St. Marys region is its geographic position, which prehistorically provided direct and simultaneous links to both Atlantic coast peoples and inland Florida societies via the St. Johns River. Readers should be advised that the northern portion of the St. Johns River, in northeastern Florida, is correctly referred to as the lower St. Johns River, while its southern extent is known as the upper St. Johns River (see below). For the purposes of this study, distinguishing northeastern Florida from the broader St. Marys region provides better spatial control. However, throughout the study my scales of spatial analysis will be broadened as needed to include regional and extraregional factors.

**Natural Environment**

Northeastern Florida, with its long, warm humid summers and mild winters, occupies the southern part of the Georgia Bight or Georgia Embayment, a remarkably dynamic and resource-rich ecosystem (Davis 1997:158; Hayes 1979; Hayden and Dolan 1979; Howard and Frey 1986; Nummedal et al. 1977). The Georgia Bight seaboard consists of an outer rim of barrier islands fronting a fractured coastline of ever-changing coves, inlets, and river mouths. The Intracoastal Waterway, a mostly estuarine lagoon system bordered by salt marshes, separates the mainland from the barrier islands. From south to north, the primary river systems of northeastern Florida include the St. Johns, Nassau, and St. Marys; the latter forms the present-day Florida-Georgia boundary. Located between the St. Johns and St. Marys rivers are Fort George Island, Black
Hammock Island, Big and Little Talbot islands, and Amelia Island; several smaller islands are peppered between these barrier islands and the mainland.

The physiography of northeastern Florida is the byproduct of marine deposition and erosion that resulted from fluctuations in Pleistocene and Holocene sea levels (White 1970). Primary landforms within the region consist of relict beach ridges, erosional ridge remnants, marine terraces, and low-lying areas (Brooks 1981). Under natural conditions, the coastal uplands are covered by maritime forest, whereas the coastal lowlands exist as estuaries and salt marshes. Estuaries or brackish-water biomes exist at river mouths and in semi-enclosed coastal areas where seawater is diluted and mixed with freshwater from rivers or runoff from the land (Pritchard 1967). Inland waters are directly connected to the ocean by inlets, rivers, or creeks, permitting estuaries to extend up the lower course of waterways that empty into the ocean.

The primary river system in northeastern Florida is the St. Johns River, one of the few major rivers in the United States to flow north (Figure 3-3). The lower course of the St. Johns River, roughly from present-day Jacksonville east to the Atlantic Ocean, is a tidal estuary. However, tidal effects are known to reach as far as south as Lake George, some 106 miles upstream from the ocean (Anderson and Goolsby 1973:1-2). The river covers a distance of approximately 315 miles (507 km) from its central Florida headwaters to its northern mouth. From an archaeological standpoint, oyster-dominated shell middens are found along the banks of the river from Jacksonville east to the ocean, whereas freshwater shell middens dot the shoreline from the vicinity of Palatka southward. For the most part the intervening area, lacks shell deposits since the waters there are not saline enough to support estuarine shellfish species and too brackish to sustain freshwater species.

Salt or tidal marshes, consisting of expanses of grasses, rushes and sedges laced with diverging tidal creeks, dominate the banks of river mouths and coastlines of low wave-energy (Johnson et al. 1974:68). These marshes are maintained either directly or indirectly by tidal effects, but are protected from the ocean by barrier islands and other landforms that enclose
Figure 3-3. St. Johns River.
marsh-lined coves and lagoons. Thus, tidal marshes border inland waters, including estuaries, rather than the outer beaches or ocean itself. The grassy salt marsh and shallow tidal creeks serve as nurseries to numerous species of fish and shellfish and as habitat for an array of waterfowl and other fauna (Johnson et al. 1974:72-85). At low tide, extensive mud flats are exposed along the coastline and lower river margins, facilitating the capture or collection of a variety of vertebrate and invertebrate fauna. Based on shell midden data, it can be confidently concluded that the estuaries and marshes along the northeastern Florida coast were the focus of St. Johns II subsistence pursuits.

Estuaries, tidal creeks, and salt marshes comprise a dynamic and complex coastal ecosystem subject to the vagaries of nature. Factors such as oscillating ocean tides, wind, rainfall, and estuarine currents shape life within an estuary (Hackney et al. 1976:273-276). Water temperature along with levels of dissolved oxygen and salinity tend to vary by tidal system location and season of the year, depending on factors such as rainfall levels and climatic conditions (Hackney et al. 1976). These differences have an effect on the number, age, and diversity of fishes found within the various parts of a tidal system. Although these variations may be slight and have a negligible effect on the aquatic vertebrate and invertebrate life of the estuary, storms such tropical cyclones and hurricanes are known to cause massive ecological disruptions requiring years before the ecosystem can recover. Extended periods of productivity decline would undoubtedly have affected the food supply and economy of the local natives during certain periods of prehistory.

**Revamping the Late Woodland Chronology (ca. AD 500-900)**

**Reconsidering the St. Johns I Chronology**

With regard to chronology, Goggin (1949, 1952:36) divided the St. Johns tradition into two periods (St. Johns I and II), each further partitioned into a series of subperiods. Over the next half century, some temporal revisions were made to Goggin’s sequence, but its essence remained intact (Milanich 1994:247; Milanich and Fairbanks 1980:148). The current St. Johns chronology
is based primarily on ceramic seriations and the presence of nonlocal artifacts and aided, surprisingly, by a small number of radiocarbon assays (Milanich 1994:247). As presently perceived, the St. Johns I period dates from ca. 500 B.C. to A.D. 750, and the St. Johns II period follows from A.D. 750 to 1565 (Table 3-1). These roughly correspond to the Woodland and Mississippian periods, respectively. As expounded upon in the following section, I contend that the St. Johns archaeological culture in northeastern Florida was restricted to approximately three and a half centuries between A.D. 900 and 1250.


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<tr>
<th>St. Johns I Period</th>
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<tr>
<td>St. Johns I</td>
<td>500 B.C. to A.D. 100</td>
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<tr>
<td>St. Johns Ia</td>
<td>A.D. 100 to 500</td>
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<tr>
<td>St. Johns Ib</td>
<td>A.D. 500 to 750</td>
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<th>St. Johns II Period</th>
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<tr>
<td>St. Johns IIa</td>
<td>A.D. 750 to 1050</td>
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<tr>
<td>St. Johns IIb</td>
<td>A.D. 1050 to 1513</td>
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<tr>
<td>St. Johns IIa</td>
<td>A.D. 1513 to 1565</td>
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As the conventional chronology goes, there was a gradual in situ development of the St. Johns culture out of the Late Archaic Orange culture across the entire St. Johns river basin and adjacent coastal sector (Goggin 1952:44-45; Milanich 1994:243). This transition, around ca. 500 B.C. marked the beginning of the St. Johns I period, which came to an end a little more than a millennium later (ca. A.D. 750). Evidence supporting an in-place cultural evolution includes continuity in settlement locations and a continued reliance on an aquatic based hunting-fishing-gathering way of life. The production of simple bone and shell tools during the Late Archaic persisted into St. Johns I times. Lithic artifacts continued to be manufactured, but typically in fewer numbers, as groups began to restrict their mobility to the river and coastal regions devoid of stone. Projectile point types found on St. Johns I sites are the same as those recovered from coeval sites elsewhere in Florida, although salvaging of Archaic points from local sites appears
to have been common practice. The increase in the number of St. Johns I sites compared to earlier times has been used to foster an argument for expanding population numbers (Miller 1998:79-85). Mortuary ceremonialism involving the construction and use of low earthen mounds also became commonplace along the St. Johns and adjacent east coast during the St. Johns I period. The interment of nonlocal pottery styles (or local copies) such as Deptford, Swift Creek, and Weeden Island has been used to assign burial mounds to the St. Johns I, Ia, and Ib, respectively.

The most distinguishing characteristic of St. Johns I material culture is pottery, which exhibits a signature “chalky” tactual quality attributed to the presence of microscopic sponge spicules within the clay paste used by St. Johns potters (Borremans and Shaak 1986). The technological character of this ware is in stark contrast to the thicker, mostly hand-molded fiber-tempered pots of the Late Archaic Orange period. However, the fact that some of the earliest St. Johns I ceramics display incised exterior decorations very similar to those found on Orange period vessels bolsters claims for an in situ cultural transition from Orange to St. Johns (Bullen 1972:17; Goggin 1952:45; Rouse 1951:70), as does the occurrence of spiculate paste Orange pottery (Cordell n.d.; Rolland 2004; Sassaman 2003). Although acknowledging the production of incised, red-filmed, and stamped varieties during the St. Johns I times, Goggin (1952:47) characterizes this interval as a “predominately plain chalky ware period.” Milanich (1994:257) takes this one step further by stating in middens “the majority type in the St. Johns I period is always St. Johns Plain.”

I have no problem accepting the basic tenets of this cultural sketch for the St. Johns River heartland, but writhe in its failure to capture the cultural chronology and dynamics of northeastern Florida. It must be noted that several modern patriarchs of Florida archaeology made similar arguments years ago. Following their non-systematic site survey of selected areas of Amelia Island in which they recorded 46 sites, Ripley Bullen and John Griffin (1952:50) asserted that “in no case is there an[y] suggestion of a plain chalky period (St. Johns I) before the advent of [St
Johns] check stamping.” They further bemoaned the fact that they were unable to “correlate the archaeological situation at Amelia Island” with that proposed by John Goggin (1952) for the St. Johns area to the south (Bullen and Griffin 1952:62).

A few years later William Sears (1957) sank test units into a series of shell middens on six sites (8DU58-62, 66) along the south side of the lower St. Johns River, the results of which led him to virtually the same conclusion as Bullen and Griffin. He also compared his ceramic seriations to the chronological outline established by Goggin for the broader St. Johns region, but failed to find a good fit. Sears (1957:2) thus concluded “due to the fact that the mouth of the St. Johns River seems to have been on the boundary between the Georgia coast and Northern St. Johns culture areas, we have replacement of, additions to, or modifications of the ceramic complexes in all periods.”

With respect to the Woodland period, rather than finding a classic plain chalky ware assemblage, Sears’ excavations yielded a low frequency occurrence of St. Johns Plain sherds in midden contexts dominated by sand-tempered plainwares (Sears 1957:33). Dissatisfied with Goggin’s chronology, Sears formulated a region-specific ceramic sequence for the lower St. Johns region. His Woodland period ceramic chronology opened with the Deptford complex, followed by a lengthy sand-tempered plain complex, and concluded with a sherd-tempered complex known as Colorinda. Swift Creek Complicated Stamped was seen as a minor, yet persistent, part of the sand tempered plain complex. The St. Johns II complex followed Colorinda and marked the beginning of the local Mississippian period.

Following an initial flurry of archaeological investigations in the region during the late 1950s and early 1960s, few systematic surveys or intensive excavations were conducted in the 1970s. But things change in the 1980s as contract archaeology exploded onto the local scene. The year 1980 also marked the publication of Florida Archaeology by Jerald Milanich and Charles Fairbanks, which was an impressive state-wide synthesis of archaeological data offered to reflect the current state of knowledge. In this treatise, northeastern Florida’s unique prehistory
was masked with the area included within the boundaries of broader St. Johns culture of East and Central Florida. Although slight modifications were made in the specific dates of individual periods, the St. Johns chronology developed by Goggin survived intact, providing the temporal framework for how archaeologists would interpret archaeological data in northeastern Florida.

A reading of the many archaeological survey and excavation reports penned since Sears’ work leaves one somewhat perplexed with regard to the region’s archaeological chronology. The archaeological record reveals a lot of sand-tempered plain pottery mixed with small amounts of similarly tempered check stamped and complicated stamped wares along with some chalky plainwares. But one thing that does stand out is there are no reported contexts, with appreciable quantities of pottery, in which St. Johns plainwares predominate. Also the dominance of sand-tempered plainwares on sites in northeastern Florida has typically been downplayed, since such generic-looking wares provide little temporal aid. As a result, sites have been assigned a cultural affiliation based on recovered minority wares (e.g., Deptford, Swift Creek, St. Johns), with St. Johns often given primacy. Other than citing Sears’ aforementioned comments and possibly noting that the area might represent a frontier, transitional zone, or cultural ecotone, most authors continued to present a local culture history with St. Johns I being the primary Woodland period, following early Deptford. In fact, this is still a common theme in gray literature reports.

In a way, however, the mixed pottery assemblages seemingly matched Goggin’s original (1952:48-50) and Milanich’s revised (1994:247; Milanich and Fairbanks 1980:148) profile of St. Johns Ia and Ib subperiods. Pottery of the St. Johns I period (500 B.C – A.D 100) is mostly St. Johns Plain, but includes some St. Johns Incised and Deptford series wares. The following St. Johns Ia subperiod (A.D. 100-500) is represented by primarily St. Johns Plain in middens, but Dunns Creek Red as well as Deptford and Swift Creek trade wares or local copies in mounds. The terminal St. Johns Ib subperiod (A.D. 500-750) once again consists primarily of St. Johns Plain in middens, with Late Swift Creek-Weeden Island pottery and influences in mounds; Dunns
Creek Red pottery continues in mounds, but Deptford ceramics are no longer part of mound assemblages.

After reviewing the archaeological literature and site file data, I now believe that many archaeologists working in northeastern Florida have tended to conflate mound and midden ceramics and use the types assigned to each period as a straightforward dating tool, regardless of the actual number and ratio of pottery types recovered. Thus, St. Johns I components were represented by St. Johns Plain and Deptford wares; St. Johns Ia by St. Johns Plain, Dunns Creek Red, Deptford, and Early Swift Creek; and St. Johns Ib by St. Johns Plain, Dunns Creek Red, Late Swift Creek, and Weeden Island. If this level of specificity could not be attained, a site was often simply assigned to St. Johns I period or deemed as having a St. Johns I component. On state site forms it is common for sites yielding a large number of sand-tempered, a few St. John Plain (maybe only one sherd) to be assigned a St. Johns I cultural affiliation.


With a large database to draw upon, Russo stressed the fact that sand-tempered plain pottery is often the preeminent ware on Woodland period sites, with Deptford, Swift Creek, St. Johns, and Colorinda also occurring in varying amounts and ratios depending on context. On many sites, some or all these types are mixed due to the multicomponent nature of the site, thus linking the plainwares to a specific culture or period in time becomes problematic (Russo
Unfortunately, Russo (1992:14-16) was unable to reconcile the amalgamation of so many different Woodland pottery types in the St. Marys region and develop a coherent Woodland and Mississippian period chronology. He suggests the term St. Marys I should be used to signify the presence of Deptford, St. Johns I, Swift Creek and Colorinda in the St. Marys region, but admits that the designation does nothing to explain why all these types converge in the region.

The designation St. Marys I for the period 500 B.C. to A.D. 900 is constructive to an extent, since it sets the Woodland period dynamics of the area apart from that of the St. Johns heartland. But groups occupying the two regions were connected by the St. Johns River and thus did not live their lives isolated from one another. The use of the term St. Marys I does not mean, as Russo (1992:116) insisted, that one culture was necessarily responsible for all or most of Woodland period pottery types in northeastern Florida, it merely serves to underscore the fact that Woodland period pottery assemblages in the St. Marys region are different from those to the south in the St. Johns heartland, with only the latter marked by the predominance of St. Johns plainwares. It further does not deny the presence of small amounts of St. Johns Plain pottery in northeastern Florida (St. Marys) Woodland-period assemblages. The challenge now is to partition St. Marys I into subperiods defined on the basis of ceramic, subsistence, and social information.

Subsequent to Russo’s study, Johnson (1994:52-69) reported finding and testing the first “pure St. Johns I period” site in northeastern Florida. The Wood-Hopkins Midden (8DU9185) is described as a small freshwater shell midden situated in a low “depressional area,” some 200 m from a freshwater creek (Johnson 1994:52). It is located in the Dames Point vicinity, approximately 15 km (9 miles) west of the mouth of the St. Johns River (Figure 3-4). Its areal extent was limited and estimated at 15 by 25 m on the basis of probing with a metal rod. Testing of the deposit took the form of 2 50-cm square shovel tests, a 50-cm square column sample, and a 1 by 2-m unit. The midden, composed of a dense accumulation of banded mystery snail.
Figure 3-4. Location of Wood-Hopkins Midden (8DU9185).
(Viviparus georgianus) shells and scattered oyster shells, was encountered mostly intact beneath a plowzone.

The shovel test placed near the edge of the deposit revealed a sparse and mixed midden layer, whereas the more centrally located test yielded a large quantity of shell, aboriginal sherds, and animal bone fragments. To better sample the midden a 1 x 2-m unit was placed near the center of the small site. The unit was excavated in three levels that corresponded to perceived natural strata. Level 1 represented the disturbed plowzone and it produced 5 St. Johns sherds along with miscellaneous metal and brick fragments. Level 2, which varied from 12 to 34 cm in thickness, was viewed as the primary midden layer. It maintained a “fairly complex structure” consisting of a Viviparus shell midden and an inclusive oyster-dominated shell deposit with scattered Viviparus shells. Disregarding the diminutive sherds under 2 cm in size, a total of 111 sherds was recovered during site testing, and all were St.Johns (plain, redfilmed, mat-impressed, simple stamped, and eroded). Abundant vertebrate faunal remains, mostly fish, were also recovered.

The Wood-Hopkins Midden stands out not only for its St. Johns I cultural affiliation, but also for being the only recorded freshwater shell midden (Viviparus georgianus) in northeastern Florida to date. The next closest freshwater shell midden is the Bubba Midden Site (8CL84) on Fleming Island in northern Clay County, itself the only known freshwater midden between downtown Jacksonville and Whetstone point in Putnam County (Hardin et al. 1988:34). The presence of a very small St. Johns I deposit well outside its normal distributional range combined with evidence of procuring a food source for which there is no other example in the region suggest the site represents a one-time encampment by a nonlocal St. Johns I band or family from the south. Because Viviparus snails are highly intolerant of saltwater intrusion, the snails may have been transported to the site from the group’s homeland with oysters procured locally. Alternatively, the snails may have been taken from a local freshwater source free of saltwater intrusion, or possibly during a period of vastly different tidal and ecological conditions.
With the previous discussion in mind, let us turn our attention back to the St. Johns I chronology. When Goggin (1952) originally formulated the sequence he used site/mound data from the entire northern St. Johns region that included northeastern Florida. His Woodland period database was composed primarily of information derived from C.B. Moore’s (1894, 1894) mound excavations conducted during the 1890s. Goggin (1952:47) lamented the fact that little information derived from St. Johns I middens contributed to his chronology due to limited site excavation and the professed inability to distinguish St. Johns I from St. Johns II occupations on multicomponent sites where only surface collections had been made. Contract archaeology has resulted in the recording of additional St. Johns I sites in the heartland region since Goggin’s time, but it still remains that few St. Johns I period sites have been extensively investigated (Milanich 1994:256). Thus, even Milanich’s revised St. Johns chronology is heavily biased toward the seriation of pottery assemblages recovered from mounds scattered across the entire St. Johns region.

Goggin (1952:48) noted that of the 21 mounds dug by Moore in northeastern Florida, 16 were dated to the St. Johns Ib, based on the presence of Swift Creek or Weeden Island pottery. In contrast, only 3 of the 16 mounds to the south could be assigned to the earlier St. Johns Ia period. Moore (1894, 1894) infrequently encountered Swift Creek pottery south of the Duval-St. Johns County line, with its southernmost occurrence being in Mound 1 near St. Johns Landing in Putnam County (Moore 1894:174). Goggin (1952:48) took this to indicate a population shift to the northern reaches of the river during the St. Johns Ib period. But this does not appear to be the case. What St. Johns Ib actually signifies here is a distinct group of peoples whose mortuary practices (and culture?) were different from those of coeval groups to the south in the middle and upper St. Johns regions. If we eliminate northeastern Florida sites from the St. Johns culture area database, we begin to see a breakdown in the St. Johns I subperiod ceramic chronology. While the current chronology may not necessarily need to be completely abandoned, inclusion of the northeastern Florida site data compromises its precision.
If we can now agree that the St. Johns I period, as recognized by the dominance of St. Johns plainwares in middens, is not reflective of the Woodland period in northeastern Florida then the question is--what is the proper ceramic chronology of the region? The juxtaposition of northeastern Florida between the north-flowing St. Johns River and Atlantic coast of Georgia has rendered difficult the task of partitioning Woodland period ceramics into a neatly stacked vertical sequence. Although sorting ceramics into broad temporal blocks can conceal short-term, stochastic events and mask episodes of cultural pluralism, it can also serve as a worthwhile dating tool in the absence of absolute dates.

As presently perceived, the Woodland period in northeastern Florida began with the appearance of Deptford series ceramics, which, early on, are primarily check and simple stamped with grit or coarse sand tempering (Kirkland and Johnson 2000; Russo 1992, Sears 1957:28; Vernon 1984:108). Dates are lacking, but the few fit within the generally assumed range of 500 B.C. to A.D. 1 (see Stephenson et al. 2002). What followed was a half-millennium or so period in which sand-tempered pottery was the predominant ware. During this broad interval, similarly tempered check stamped and complicated stamped wares seemed to have undergone episodes of florescence as minority surface finishes; St. Johns Plain was also made in limited amounts and/or acquired via trade (Ashley 1998:2000; Russo 1992:115; Sears 1957:29). Charcoal-tempered plain and complicated stamped pottery was produced for a short period between A.D. 300-500. Experimentation with other tempering agents may have occurred at various times as well.

From A.D. 500 to 850, sand tempered plainwares continued to predominate, but Late Swift Creek Complicated Stamped assumed a more conspicuous role in pottery assemblages. The local Woodland period terminates with the little known Colorinda period, ca. A.D. 850-900. Although slightly modified and better dated this chronology is strikingly similar to that initially proposed by Sears (1957:30) (Figure 3-5). The final two periods of the Woodland sequence are crucial to this study, and thus require further illumination.
Figure 3-5. Late prehistoric chronologies, northeastern Florida (Milanich 1994; Russo 1992; Sears 1957).
Late Swift Creek Period (A.D. 500-850)

Goggin (1952) was among the first to equate the complicated stamped wares recovered by Moore (1894a, 1894b) from sand mounds along the lower St. Johns River with the Swift Creek pottery type. Indeed, all it takes is a quick examination of C.B. Moore’s ceramic illustrations from anyone vaguely familiar with Swift Creek pottery to reach the same conclusion. Goggin (1952:106) further commented that the complicated stamped ware “occurs throughout the whole region but is most numerous on the lower St. Johns River.” Due to the paucity of midden excavations conducted in the region at the time, Goggin (1952:49-50, 70 106) was excessively dependent on Moore’s mound excavation data, which left him with the impression that Swift Creek Complicated Stamped was not among the “local forms of pottery” and that its was a trade ware found only in mound contexts. Sears’ (1957) midden testing later demonstrated that the occurrence of Swift Creek pottery in northeastern Florida was not exclusive to burial mounds, and that it was a minor part of the local sand-tempered pottery complex.

Before proceeding, a brief statement is necessary on my use of the term Swift Creek. As stated elsewhere, I employ Swift Creek generally to refer to Woodland-era peoples who made and used Swift Creek Complicated Stamped pottery (Ashley 1998:197). In this sense, Swift Creek is not perceived as a monolithic entity or single Woodland culture. Rather it is viewed as a pottery style that covered much of the lower Southeast, yet had various regional manifestations (see Williams and Elliott 1998). Its popularity spread through interaction networks that linked many Woodland peoples. Such webs of interconnectedness undoubtedly led groups to share other cultural features, giving Swift Creek a kind of pan-regional flair. But what constitutes Swift Creek in northeastern Florida should not be seen as correlative to that in northwest Florida, for example.

Two varieties of Swift Creek Complicated Stamped have been reported in northeastern Florida. The earliest is a locally produced charcoal tempered plain and complicated stamped ware, with lip treatments that include classic early forms such as notched, nicked, scalloped and
The designs associated with this local Early Swift Creek pottery tend to be sloppy and unlike the Late Swift Creek style of the Atlantic coast (Frankie Snow, personal communication, 2002). The charcoal-tempered complex was short-lived, probably dating A.D. 300-500, and restricted mostly to sites along the lower St. Johns River. It is found in both midden and mound contexts. In the former, it is rarely found in association with Late Swift Creek pottery, but the two frequently occur together in continuous-use burial mounds.

Our concern here is with Late Swift Creek pottery, which is found in northeastern Florida, along the Atlantic seacoast of Georgia, and within the hinterland of southern Georgia. With regard to temper, Swift Creek wares from sites on the northernmost Florida coastal islands (e.g., Amelia Island, Martin Island) are mostly grit tempered, and similar in paste to those found in southeastern Georgia, whereas in the lower St. Johns region the ware is most often sand tempered. Weeden Island types, such as Weeden Island Incised and Punctated, Keith Incised, and Carabelle Punctuated are recovered in small numbers at some sites, as is Crooked River Complicated Stamped. In northeastern Florida, Late Swift Creek Complicated Stamped pottery appears to have become popular around A.D. 500 at which time it was added to the local sand-tempered plain pottery making tradition as the dominant decorative type. The exact relationship between Late Swift Creek pottery and the earlier charcoal-tempered ware is unclear, but the co-occurrence of the two types in continuous use mounds suggests ceramic continuity. In both northeastern Florida and southeastern Georgia plainwares typically outnumber their complicated stamped counterparts in middens.

Pressing a carved wooden paddle onto the exterior surface of an unfired and still-wet clay pot, Swift Creek potters created intricate complicated stamped surface designs. Various researchers, most notably Frankie Snow (1975, 1977, 1998), have attempted to reconstruct complete designs from sherds in order to identify an individual design’s unique character or signature. Snow and others have successfully traced the geographic distribution of some
complicated stamped designs, indicating the movement of people, paddles, or pots, depending on circumstances. Along these lines, Snow has identified matches for two separate designs linking two sites in northeastern Florida with one near the mouth of the Altamaha River in Georgia (Ashley 1995a:32, Ashley 1998:206-207). Snow has also demonstrated design contacts linking sites in southeastern Georgia with those in the inland Ocmulgee region of southern Georgia.

To date, in northeastern Florida Swift Creek pottery has been recovered from large shell middens and small artifact scatters (Ashley 1992:130-133; 1998:208-218). At extensively occupied multicomponent sites, the structure of a Swift Creek settlement is often difficult to discern, but this is not always the case at single component sites or those with minimal evidence of occupation other than Swift Creek. At Ocean Reach Site (8NA782) at least 22 individual middens were identified, and all were thought to represent individual household refuse deposits (Johnson et al.1997:56). At the Honey Dripper site (8NA910), excavators hypothesize that refuse disposal initiated with the formation of discrete piles that over time came to form a diffuse sheet midden (Hendryx and Smith 2001:63). The Swift Creek Midden Area at 8DU5544/45 was a non-mounded, horseshoe shaped shell midden along with two interior household middens (Smith and Handley 2002). Similarly shaped shell middens in association with Swift Creek pottery have been identified at Kings Bay, Georgia and in other areas of Georgia and northwest Florida (Bense 1998; Desjean et al. 1985; Milanich 1994:144; Saunders 1998:62-63; Stephenson et al. 2002). These middens, at least in some instances, may reflect refuse disposal associated with an arc-shaped arrangement of houses. Figure 3-6 depicts the distribution of selected Late Swift Creek sites in northeastern Florida.

Swift Creek pottery has been recovered from at least 14 Woodland-period mounds along the lower St. Johns River (Ashley 1998:208-209). A suspected fifteenth Swift Creek burial
Figure 3-6. Distribution of selected Late Swift Creek sites.
mound (Greenfield Mound C) has recently come to light, but has yet to be fully excavated (Johnson 1998a:114-116). In these earthworks, Swift Creek pots along with sand-tempered plainwares tend to dominate, with St. Johns Plain, Dunns Creek Red, and Weeden Island wares also occurring. Locally, St. Johns chalky wares are much more prevalent in mounds than they are in coeval middens. A conspicuous aspect of the Swift Creek Complicated pottery from local mounds is that many exhibit evidence of use in the form of wear and exterior soot (Ashley 1995a; Wilson 1965). Aside from pottery and human burials, nonlocal stone, mineral and metal artifacts or raw materials are interred within local “Swift Creek” mounds (Ashley 1998:211-213). Absent are true Hopewllian artifacts, which were in circulation in areas of the Southeast during an earlier era. Local Swift Creek mounds appear to represent accretionary cemeteries used by all members of local kin groups (Ashley 1998:213-214; Thunen and Ashley 1995:5).

Previously, I reported two radiocarbon assays on shell from the Dent Mound (8DU68), with C-13 adjusted ages of A.D. 340±70 and A.D. 590±60 (Ashley 1995a, 1998). Recent calibration of these assays yielded one-sigma results of A.D. 695-865 and A.D. 990-1080, respectively. The latter date is well outside the accepted temporal range of Swift Creek, as previously noted (Ashley 1995a:26), and appears to date a later St. Johns II shell midden that covered the flanks of the Woodland burial mound. The former calibrated date, along with eleven other radiocarbon assays fit within the A.D. 500 to 750 date range for Atlantic coastal Late Swift Creek (Table 3-2).

How do we interpret Swift Creek manifestations in northeastern Florida? In previous overviews, I posited that Late Swift Creek sites in northeastern Florida were the result of immigrants from the north based on the presence of such sites in southeastern Georgia (Ashley 1992:134, 1998:220). This, however, may not have been the case. Swift Creek pottery, along with other cultural traits, appears simply to have been in vogue along the Atlantic coast during Late Woodland times, presumably the consequence of intensive interaction networks. The
Table 3-2. Calibrated radiocarbon assays for Early Swift Creek, Late Swift Creek, and Colorinda contexts in northeastern Florida.

<table>
<thead>
<tr>
<th>Site</th>
<th>Beta #</th>
<th>Material</th>
<th>C13/C12 ratio (o/oo)</th>
<th>Conventional C14 age (BP)</th>
<th>Calibrated 1 Sigma (AD) with intercept</th>
<th>Reference</th>
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<tbody>
<tr>
<td>Early</td>
<td>8DU68</td>
<td>182333</td>
<td>Soot</td>
<td>-24.2</td>
<td>1940 ± 40</td>
<td>30 (65) 95</td>
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<td></td>
<td>Stephenson</td>
</tr>
<tr>
<td>Swift</td>
<td>8DU68</td>
<td>182332</td>
<td>Soot</td>
<td>-24.7</td>
<td>1690 ± 40</td>
<td>330 (385) 410</td>
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<td>Stephenson</td>
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<tr>
<td>Creek</td>
<td>8DU96</td>
<td>168177</td>
<td>Soot</td>
<td>-24.5</td>
<td>1570 ± 40</td>
<td>430 (460, 480, 520) 540</td>
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<td>Stephenson</td>
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<tr>
<td></td>
<td>8DU96</td>
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<td></td>
<td>8DU5545</td>
<td>163598</td>
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<td>-3.2</td>
<td>1390 ± 60</td>
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<td>Smith and Handley 2002</td>
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<td></td>
<td>8DU81</td>
<td>181303</td>
<td>Oyster</td>
<td>-3.6</td>
<td>1810 ± 70</td>
<td>540 (610) 670</td>
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<td>Ashley 2003</td>
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<tr>
<td>Late</td>
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<td>163597</td>
<td>Oyster</td>
<td>-2.3</td>
<td>1350 ± 60</td>
<td>620 (670) 700</td>
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<tr>
<td>Swift</td>
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<td>1270 ± 40</td>
<td>685 (720, 745, 760) 780</td>
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<td>182335</td>
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<td>126313</td>
<td>Oyster</td>
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<td>1180 ± 60</td>
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<td></td>
<td>8NA910</td>
<td>159965</td>
<td>Tagleus</td>
<td>0.0</td>
<td>1120 ± 60</td>
<td>780 (870) 920</td>
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<td>159964</td>
<td>Soot</td>
<td>-23.4</td>
<td>1150 ± 40</td>
<td>790 (880) 900</td>
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<tr>
<td>Colorinda</td>
<td>8DU81</td>
<td>180189</td>
<td>Soot</td>
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<td>1190 ± 40</td>
<td>780 (870) 890</td>
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<td></td>
<td>Ashley 2003</td>
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<tr>
<td></td>
<td>8DU81</td>
<td>180188</td>
<td>Oyster</td>
<td>-5.2</td>
<td>1520 ± 60</td>
<td>800 (890) 960</td>
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<td></td>
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<td>Ashley 2003</td>
</tr>
<tr>
<td></td>
<td>8DU472</td>
<td>47532</td>
<td>Oyster</td>
<td>-3.7</td>
<td>1510 ± 60</td>
<td>820 (900) 980</td>
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<td></td>
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<td></td>
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<td>Russo 1992</td>
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presence of numerous small burial mounds containing Swift Creek pottery sets the lower St. Johns region apart from areas of southeastern coastal Georgia, where few have been reported. The Swift Creek mounds in northeastern Florida seem to represent a continuation of and elaboration upon a mound building and sand-tempered pottery making tradition that had long been a part of local Woodland period life (Thunen and Ashley 1995:3-5).

Thus I now believe that as local populations became more involved in the trafficking of exotics and interacting with Swift Creek pottery making peoples to the north along the Atlantic coast and inland southern Georgia, they themselves began to make Swift Creek Complicated Stamped wares. In this way a Swift Creek veneer was cast over northeastern Florida and southeastern Georgia, but one with local histories. The sharing of a common pottery style may indicate cultural connections or alliances of some kind among the Swift Creek pottery makers of northeastern Florida and southeastern Georgia.

Design matches also suggest that local groups may have acquired some pots via trade with groups to the north. Alternatively, it may have been the paddles that found their way into northeastern Florida, possibly along with a female potter who married into the local group. Based on ceramic tempering, those groups living on the northern-most Florida coastal islands are more similar to those of southeastern Georgia with their grit-tempered pottery than they are to those living near the mouth of the St. Johns River, suggesting intraregional population groupings or simply differing clay sources. The increase in the number of mounds and sites of the Swift Creek period compared to earlier Woodland times in northeastern Florida suggests a population increase, but one that may well have involved increased local birth rates and influxes of people from either the south or north.

Evidence for the fading years of Swift Creek pottery production in the Southeast is found along the Atlantic coast. In Georgia, waning Late Swift Creek has been referred to as the Kelvin phase by Cook (1979, 1981), based on his work on St. Simons Island. Pottery of this phase is thought to differ from Late Swift Creek in several notable ways. There is a decline in the
workmanship and application of the paddle stamped vessel designs, and several key motifs, such as the barred snowshoe, are absent during the Kelvin phase. Common Kelvin motifs include “spirals, concentric circles, rectangular motifs, and chevrons,” and incising and punctuating appear as common forms of surface decoration (Cook 1977:84-85). Also grog tempering apparently became more common, and rim folding became less common, replaced by “unfused rims or a false rim fold” (Cook 1979:77). With regard to mortuary practices, Cook (1979:73-76) uses archaeological information uncovered by Preston Holder during his WPA-era excavations at the Airport site on St. Simons Island to suggest that mound building was no longer practiced and that mass secondary burials and extended prone individuals were standard modes of interment. In the absence of radiocarbon assays, Cook (1979) tentatively assigned the Kelvin phase to A.D. 600 to 900.

Several of the pottery traits described by Cook for Kelvin phase aptly characterize pottery from a few Late Swift Creek sites in northeastern Florida, most notably the Honey Dripper site on Amelia Island, where ceramics included curvilinear and nested chevron motifs (Hendryx and Smith 2001). The former were described as poorly stamped and as lacking known paddle designs, whereas the former were typed as Crooked River Complicated stamped. No rim folds were recovered and a partly reconstructed Crooked River vessel displayed an incision below the lip giving the impression of a fold (i.e., false fold). Two Weeden Island Punctated sherds were also recovered. Two radiometric assays were obtained from the site. An AMS date on soot from a Crooked River vessel yielded a one-sigma calibrated date of A.D. 790-900, whereas shell from a Late Swift Creek feature produced a one-sigma calibrated date of A.D. 780-920 (Hendryx and Smith 2001:63). To date, these are the latest (most recent) radiocarbon dates for Late Swift Creek occupations on the Atlantic coast.

Cook’s data from St. Simons Island along with the archaeological evidence from the Honey Dripper site suggest a breakdown in the Late Swift Creek pottery making tradition of the Atlantic coast during the ninth century A.D.; a time in which other concomitant cultural changes
presumably took place as well. Although Cook (1979:67-68) contends that Kelvin is not Late Swift Creek, I submit that it is reflective of waning Late Swift Creek along the Atlantic coast. The question now is: what replaced Late Swift Creek along the Atlantic coast?

**Colorinda Period (A.D. 850-900)**

In the arena of Florida archaeology, Colorinda is northeastern Florida’s little secret. The “archaeological culture” as well as the pottery type has received little attention outside this restricted area of the state. Even within northeastern Florida it is only occasionally mentioned and rarely discussed in any detail. Russo (1992:116; Russo et al. 1993:67) attempted to come to grips with its chronological placement by securing a radiocarbon date on oyster shell from a midden associated with Colorinda pottery at Coffee Mound, 8DU7472 (Figure 3-7). The “C13/14 corrected date” was reported as A.D. 450+60, which did nothing to clarify its temporal placement other than reinforcing its perceived contemporaneity with Deptford, St. Johns I, and Swift Creek in the region. Apparently frustrated by these results, Russo (1992:109) tentatively assigned Colorinda to a broad interval, A.D. 1 to 800.

Colorinda has not always been so underpublicized, however. Following his excavations in the late 1950s, Sears (1957:28-31) boasted that it was one of the four major ceramic complexes in the lower St. Johns area. He was the first to report its occurrence, and he formally defined Colorinda Plain (Sears 1957:25-26). The name comes from Colorinda Creek, a tidal creek in the vicinity of sites 8DU58-62 where Sears worked. It is a sandy ware tempered with large, angular crushed St. Johns sherds; the only variety Sears reported is plain. The specific use of crushed St. Johns pottery fragments as a tempering agent is the hallmark characteristic of Colorinda pottery. Microscopic examination of Colorinda sherds clearly reveals sponge spicules in the sherd tempering material, but not in the Colorinda paste itself.
Figure 3-7. Distribution of Colorinda sites.
Colorinda Plain pottery prevailed in units dug into middens at three (8DU59, 8DU62, 8DU66) of the six sites Sears (1957) investigated. It was always associated with sand-tempered and St. Johns Plain pottery along with lesser amounts of St. Johns Check Stamped. Sears’ (1957:30) ceramic seriation positioned Colorinda between an earlier unidentified sand-tempered complex and a later St. Johns II complex. Based on this analysis and without the aid of radiocarbon dating, Colorinda was assigned to the period, circa A.D. 700-1000.

Following his initial investigation, Sears (1959) returned to the lower St. Johns region to excavate the Browne Mound (8DU62), which he had previously tested by digging a 1.5-m wide trench through the low sand tumulus. The mound was 1.2 m-high and about 15 m in diameter. His approach this time was to peel away slowly a layer of mound fill at a time in order to expose large horizontal areas. Excavation revealed a 1.5 m-foot wide shell ring that enclosed a formalized arrangement of burials within an area about 10.6 m in diameter. According to Sears (1959:9-11), mound construction initiated with the excavation of a central pit lined with some unknown organic material. Next as many as 30 individuals were placed into the pit, with some primary interments laid in “shingle fashion,” and the pit was covered with a small core mound. A series of mass bundle burials and a cremation were added to the surface of the core mound and a few extended interments were laid along the edge of the core mound. All human remains were then covered with sand, and the shell ring was laid down along the mound periphery, partially covering one extended burial. In conclusion, Sears (1959:10) states “I see no real alternative to acceptance of this mound as the product of a single, continuous, short-term ceremony.”

In terms of grave goods there were only two items, both found within the central mass grave. These included a cymbal-shaped copper ornament with a central perforation and a greenstone celt. Conspicuously absent are complete ceramic pots, although sherds classified as Deptford, Swift Creek, Weeden Island, and sand-tempered plain were dispersed randomly throughout mound fill. Testing of nearby shell middens revealed a sand-tempered component with a jumbled array of Deptford and Swift Creek decorated sherds surmounted by a Colorinda-
dominated shell midden. Such a sequence corroborated Sears’ previously established Woodland chronology.

Sears (1959:9) used these midden results in conjunction with the near absence of Colorinda in mound fill to “pinpoint mound construction as occurring during the Colorinda Period.” This interpretation, however, is seemingly lost in the report, as Sears elected to tout the Browne Mound as a Weeden Island burial mound, apparently in order to make it more comparable to other Florida mounds alleged to be contemporaneous. The Browne Mound is a unique burial facility in the region, and its character differs markedly from the continuous use type mounds of earlier Swift Creek times or later local St. Johns II period earthworks (Thunen and Ashley 1995; Ashley 1998:210-213).

Despite extensive survey coverage in many areas of the lower St. Johns region in the ensuing years, Colorinda was infrequently reported in the archaeological literature. It is scattered across the Greenfield Peninsula on the south side of the St. Johns River, immediately west of the Intracoastal Waterway, and scattered on some of the marsh and barrier islands of northeastern Florida to the north (Hemmings and Deagan 1974; Johnson 1996, 1998a, 1998b; Poplin and Harvey 2000; Russo et al. 1993). A few Colorinda sherds have been recovered from the Grant Mound vicinity (Hendryx and Smith 2002), but none have been reported for the Shields Mound area. Of the over 80 sites investigated within the Timucuan Ecological and Historic Preserve, 8 yielded a total of 90 sherds. Over half of these were recovered from the Coffee Mound, radiocarbon date to A.D. 450±60 (Russo et al. 1993). Colorinda pottery is reported in large amounts at the Turner-McGill Middens (8DU7495) on Black Hammock Island, but I believe the sherd-tempered wares there are later San Pedro pottery based on the variety of surface decorations and the dearth of St. Johns pottery (Ellis 1995). Colorinda pottery may very well be part of the grog-tempered background noise that goes unexplained on some sites, but even in these cases the frequency of grog-tempered sherds is generally very low.
Another reported site that has yielded appreciable amounts of Colorinda pottery is Walker Point. When excavated in the early 1970s, the Walker Point site (8NA28) on Amelia Island was manifest as two linear shell middens bracketing a conical sand mound (Hemmings and Deagan 1973:30-53). Though the tumulus had been damaged by past looting activities, an original height of 3 m was estimated, with a base diameter of approximately 21 m. Testing of the earthwork was limited to an approximate ten percent sample. Intact sections of the mound revealed a final mound construction episode that involved the deposition of a pink sand mantle discolored “by disseminated fine hematite particles” (Hemmings and Deagan 1973:37). Six individual burials were excavated, and all were single primary interments. A few isolated human bones and teeth were reclaimed from undisturbed areas of the mound, whereas an assortment of miscellaneous human bone was encountered within the disturbed center of the mound. No whole vessels or grave goods were recovered, and only 34 potsherds were recovered from mound fill. The latter included mostly sand and chalky plainwares along with a few St. Johns Check Stamped sherds and one piece of Swift Creek pottery (Hemmings and Deagan 1973:42).

Tests dug within both shell middens and other nonmound loci produced mostly sand-tempered plain, St. Johns Plain and Check Stamped, and Colorinda ceramic fragments. I suggest that the mound dates to the Colorinda period based on: (1) the presence of Colorinda pottery (2) the dominance of St. Johns Plain over St. Johns Check Stamped, (3) the absence of cordmarked wares in associated with St. Johns pottery, (4) and the types of pottery found in mound fill. Not one cordmarked sherd was recovered from the site by Hemmings and Deagan nor were any found during Bullen and Griffin’s (1952:42-43, 54) earlier surface reconnaissance. Grit-tempered cordmarked wares are always present on local St. Johns II period sites and sand tempered cordmarked pottery dominates on later St. Marys II sites. Their nonappearance indicates that St. Johns II and St. Marys II components are not present at the Walker Point site.

In an attempt to better date the site, a complete oyster shell oyster from mound fill was submitted for radiocarbon dating. The oyster was part of a cluster of “articulated oyster valves, a
hard shell clam valve, a knobbed whelk, and bony elements of at least one black drum and one
searobin” (Hemmings and Deagan 1973:39). The lack of midden material in mound fill in
tandem with the positioning of the animal remains adjacent to a human burial led the authors to
conclude that it seemed “probable” the collection was an intentional “food offering placed at the
feet of Burial 2 at the time of interment” (Hemmings and Deagan 1973:40). The articulated
oyster shell yielded a 1-sigma calibrated radiocarbon date of A.D. 570-680 (intercept date of A.D.
640) - a solid Atlantic Coastal Late Swift Creek date.

The presence of a Swift Creek sand mound atop a shell midden that contained St. Johns
Plain and Check Stamped and Colorinda pottery runs contrary to the secure stratigraphic evidence
form the McCormack site (8DU66), which demonstrated Swift Creek features well below
Colorinda-dominated shell middens (Sears 1957:20-22). Although the mound was only partially
sampled, one would expect more than 9 Swift Creek sherds from a Swift Creek mound site, since
they are known to contain large quantities of whole and fragmented vessels. Also the Walker
Point Mound is at least a meter or more taller than any other reported Swift Creek mound, and no
Swift Creek mound has been reported with such a thick and pervasive hematite-impregnated sand
cap (Ashley 1998:208-213). Thus, the “food offering” might represent shell midden refuse
associated with an earlier Late Swift Creek occupation of the site, and inadvertently incorporated
into mound fill during construction. More chronometric dates are needed from the mound to
determine its precise chronological placement.

A truism with respect to Colorinda pottery is that in all locations where it has been found it
was always associated with sand-tempered and St. Johns plainwares. In the past, researchers
have focused too narrowly on Colorinda as a single pottery type and have failed to consider it as a
ceramic complex. Although Colorinda Plain is the featured type of the complex, it is only a part
of a diverse assemblage. Admittedly, on multicomponent sites the sherd-tempered Colorinda
ware may be the only type that can be unequivocally correlated with a Colorinda occupation.
As exemplified by Sears’ (1957; 1959) test units dug into densely packed shell middens at the McCormack site (8DU66) and Browne Mound (8DU62), Colorinda Plain, sand-tempered plain, and St. Johns Plain and Check Stamp comprise the Colorinda ceramic complex. The presence of crushed St. Johns sherds in Colorinda pottery strongly suggests that the two types were being manufactured concurrently, particularly in light of the fact that there is no evidence at these sites of earlier St. Johns refuse deposits from which Colorinda potters could have scavanged St. Johns sherds to use as temper. From a stratigraphic standpoint, sand-tempered appears to be numerically dominant early on followed by Colorinda then St. Johns. Over time, St. Johns and Colorinda increase in frequency, with St. Johns Check Stamped added to the mix. The scale of the Colorinda component at the site was revealed by a recent surface collection of over 1100 Colorinda sherds following construction activities (Richter 1993).

As a ceramic complex, Colorinda consists of three distinctively tempered plainwares and St. Johns Check Stamped; the latter is always in the minority. To date, only a few simple stamped, check stamped, and complicated stamped designs have been recognized on Colorinda paste (Richter 1993; Russo et al. 1993:68). But in none of the test units dug by Sears, or those at Walker Point, do we see the archetypal St. Johns II assemblage of the subsequent period. During the following St. Johns II period (A.D. 900-1250), Colorinda pottery was no longer manufactured; St. Johns Check Stamped was as at least as popular as St. Johns Plain, if not more so, and grit-tempered cordmarked and various punctuated and incised chalky types were important minority wares.

The recent results of testing at the Cedar Point site (8DU81) at the south end of Black Hammock Island has begun to clarify Colorinda’s place in northeastern prehistory (Ashley 2003). The site consists of a series of shell heaps that range from round to linear. An AMS date of A.D. 780-890 on soot from a Colorinda sherd and a radiometric date of A.D. 800-960 on oyster shell from a Colorinda shell midden places site occupation during the late ninth century.
Returning to Russo’s (1992:110, 116) Colorinda date of A.D. 450+60 from the Coffee site, it is an corrected date, not a calibrated date. In order to render the date consistent with those gathered in this study, the assay was recently calibrated. Its 1-sigma date range was calibrated to A.D. 820-980, which is consistent with two from the Cedar Point site. In fact, the calibrated intercept dates for the three are A.D. 870, A.D. 800, and A.D. 900 (see Table 3-2). These calibrated dates fit comfortably nicely between Late Swift Creek and St. Johns II calibrated date ranges. Swift Creek contexts at the site yielded calibrated intercept dates of A.D. 610 and 775.

Of the 265 Colorinda sherds recovered from the Cedar Point site, the overwhelming majority are undecorated and tempered with crushed St. Johns sherds. As much as 30 percent of the Colorinda wares fragments, were tempered with non-spiculate sherds, indicating that Colorinda potters used both spiculate (St. Johns) and nonspiculate (sand-tempered) sherds as tempering agents. With respect to the Colorinda pottery assemblage, it irrefutably consisted of sand-tempered plain, Colorinda Plain, St. Johns Plain and St. Johns Check Stamped. Although approximations, evidence from the Colorinda shell midden suggests that a little more than 40 percent of the pottery from the midden was sand tempered, a little less than 40 percent was Colorinda, and just less than fifteen percent was St. Johns wares (plain outnumbered check stamped 2.7:1). Again no cordmarked pottery was recovered.

The tested section of Cedar Point site appears to represent the scene of limited episodes of occupation during Colorinda times (Ashley 2003). Impressed odosomes from a Colorinda shell midden were measured and a warm weather growth profile was revealed, suggesting oysters were collected during the summer and possibly early fall. Fish were clearly the most exploited resource on site, with catfish representing the dominant catch. Smaller amounts of mullet, flounder, and sea trout were taken from the shallow estuarine waters. Fish size data also indicate and summer occupation and suggests the Colorinda inhabitants were targeting small fish, although several of the catfish were quite large.
In sum, the Colorinda phase was brief and occupations were few and localized, marking a significant population reduction in northeastern Florida compared to that of earlier Late Swift Creek times. Based on the restricted distribution of Colorinda pottery combined with the paucity of material items of a nonlocal nature, these groups appear to have been more insular than both earlier Swift Creek and later St. Johns II peoples. This may be reflective of the panregional decline in the long-distance trafficking of exotics that characterized the Late Woodland Southeast (Nassaney and Cobb 1991; Cobb and Nassaney, 1995:212). At present, Colorinda sites do not appear to extend beyond the St. Marys River into southeastern Georgia. It is presently uncertain whether or not Late Swift Creek continues in Georgia and temporally overlaps Colorinda or is supplanted by another archaeological culture. However, establishing Colorinda as terminal Late Woodland is pivotal to understanding the history and cultural dynamics of the subsequent Mississippian period in northeastern Florida.

The Mississippian Southeast (A.D. 900-1500)

Before concluding this chapter and beginning the next on the Mississippian period chronology of northeastern Florida, a discussion is warranted of the broader world in which the native peoples of northeastern Florida interacted. The “Mississippian world,” as it has come to be known by archaeologists, encompassed much of the southeastern and midwestern United States during the period A.D. 900 to 1500. My use of the term Mississippian world is intended merely to reflect the wide geographical extent of Mississippian societies in eastern North America, and does not carry the theoretical baggage that attends a world systems model. Similarly, I use the term Mississippian period to denote a specific period in southeastern prehistory (ca. A.D. 900-1500), a time in which all natives of the Southeast lived, not just those who fit the conventional definition of Mississippian. The Mississippian period is universally viewed as the high watermark in the sociopolitical development of the prehistoric southeastern United States.

What is Mississippian? The answer to this simple question has varied over the years, and the specific criteria used to define it have been debated (e.g., Griffin 1967, 1985; Knight 1986;
“Mississippian” referred to “the wide variety of adaptations made by societies [within the Mississippi River valley] which developed a dependence upon agriculture for their basic, storable food supply.” Though he associated Mississippian societies with other characteristics such as shell tempered pottery, wall-trenched houses, long distance trade networks, and platform mounds, Griffin’s (1967) emphasis was clearly on maize agriculture. In the following years, researchers either added traits to Griffin’s list or emphasized certain core characteristics as indicative of “Mississippian” in the southeastern United States. Rather than dwell on trait lists of specific artifacts, construction features, or ecological zones as Mississippian, Griffin (1985:62-63) later revised and broaden his definition to “reflect the continuing areal interaction of ideas and practices over the broad eastern wooded area” between A.D. 900 and 1700.

Generally speaking, Mississippian refers to ranked and hierarchically organized societies with institutionalized inequality and marked status distinction, time and again classified as chiefdoms (Smith 1986; Steponaitis 1986). From a subsistence standpoint, they cultivated maize, beans, and squash along rich alluvial floodplains throughout the river valleys of the greater Southeast (Smith 1978). “Mississippian chiefdoms” are often modeled to include a hierarchy of different kinds of sites, ranging from paramount “towns” with massive and numerous earthworks and populations estimated to have been in the thousands to mid-sized subsidiary mound centers to small, numerous and dispersed rural farmsteads. Mound centers contained one or more platform mounds and other corporately constructed earthworks arranged around one or more large plazas; many towns were fortified (e.g., Lewis and Stout 1998; Smith 1978). Warfare was endemic in areas of the Mississippian world, and reasons for it occurrence may have included control over productive farmland (alluvial floodplains), revenge, or prestige building (DePratter 1991a). Though these cultural features were writ large during the Mississippian period, their seeds began to germinate in earlier periods of southeastern prehistory.
The Mississippian period heralded the florescence of far-flung networks of social interaction that provided access to information and resources separated by tens, hundreds, and even thousands of miles (e.g., Brown et al. 1990). It is generally assumed that down-the-line exchange was the most probable mechanism involved in the movement of information and exotic raw materials and finished products over great distances. Items of frequent exchange included marine shell from the Atlantic and Gulf Coasts, copper from the Appalachians and Great Lakes region, and various other minerals and stones from localized sources scattered throughout the eastern and western U.S. (Brown et al. 1990; Griffin 1967).

A series of styles and motifs belonging to a widely distributed family of religious iconography frequently appears on exotic media of stone, shell, and copper. Warfare, fertility, and ancestor worship are the three major themes emphasized (various authors in Galloway 1989), although some researchers now suggest the primary theme is the “otherworld” (Knight et al. 2001). This symbolic ritual paraphernalia, collectively referred to as the Southeastern Ceremonial Complex or Southern Cult, emerged in the eastern North America around the tenth century A.D. and climaxed between circa A.D. 1200 and 1400 (Galloway 1989; Muller 1989:13-18). The exotics most often ended their use lives as grave offerings marking the death of individuals of high status, suggesting to many that these societies were participants in some sort of prestige-goods economy (e.g., Peregrine 1992, 1995, 1996; Pauketat 1994; Welch 1991).

Researchers agree that there are a series of key cultural traits and artifact types that define Mississippian, but most also acknowledge that there is a degree of historically-derived idiosyncrasy that sets individual societies apart. Indeed, the social landscape of the Mississippian period was nuanced and varied. With a reformulated Late Woodland sequence in place and a brief overview of the Mississippian Southeast, we can now turn our attention to the Mississippian period of northeastern Florida.
CHAPTER 4
SOLVING THE MISSISSIPPIAN PERIOD CERMAIC DILEMMA
OF NORTHEASTERN FLORIDA: CORDMARKED POTTERY AND
INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS

This chapter begins with an overview and critique of various past reconstructions of the Mississippian-period ceramic chronology of northeastern Florida. Although their sequencing has been the subject of controversy, the St. Johns II and Savannah ceramic series have figured prominently in previous late prehistoric chronologies. My critical assessment draws upon recent archaeological evidence and radiometric assays to introduce a new pottery sequence that is vital to a better understanding of the late prehistory of the region. The St. Johns II and St. Marys II descriptions that follow are intended at this time purely to familiarize the reader with new taxonomic nomenclature and to provide basic background on the local Mississippian period. Aspects of these two archaeological cultures will be detailed more fully in subsequent chapters.

While pottery typology is a focus of this chapter, I am most interested in the cultural affiliation of those who made the distinctive wares found on late prehistoric site in northeastern Florida, particularly with respect to two distinctive cordmarked wares: Ocmulgee Cordmarked and St. Marys Cordmarked. Thus, a major question is: which types were produced locally and which were imported? Answering this question has major implications regarding population movements, social interactions, and material exchanges. In agreement with others (e.g., Lynott et al. 2000; Neff 1992; Steponaitis et al. 1996), I believe the best way to approach this situation is empirically through chemical analyses of the clays used in pottery production. Toward this goal, the second part of the chapter reports the recent results of Instrumental Neutron Activation Analysis (INAA) on sherd and raw clay samples from Florida, Georgia, and South Carolina.
St. Johns-Savannah Dilemma

In his seminal study of “Northern St. Johns” archaeology, Goggin (1952:70; 1953) argued that the archaeological manifestation of the historic-period Timucua of northeastern Florida was the St. Johns II tradition. Like Goggin, Larson (1958) also associated the presence of St. Johns II pottery in Camden County, Georgia with contact-era Timucua groups. Over the past half century, St. Johns II assemblages, evinced by plain and check stamped chalky wares, have been reported on sites in the St. Marys region. Also found have been sand-tempered cordmarked pottery sherds most often interpreted as Savannah or a local derivative of the Savannah series. Indeed, a review of the available archaeological literature indicates that some late prehistoric sites contain pure pottery assemblages, either St. Johns II or Savannah, whereas others contain varying ratios of the two types (e.g., Adams 1985; Bullen and Griffin 1952; Cook 1977; Cordell 1993; Deagan 1978; Dickinson and Wayne 1987; Goggin 1952; Johnson 1988; Kirkland 1979; Larson 1958; Lee et al. 1984; Russo et al. 1993; Sears 1957; Smith et al. 1981).

The co-occurrence of St. Johns II and Savannah pottery has baffled archaeologists for the past fifty years, evoking an array of interpretations. Some have suggested that as a consequence of living in a “transitional area” between the St. Johns region of Florida and the lower coast of Georgia the two pottery types were both made by a single cultural group (Deagan 1978:93; Espenshade 1985:333; Smith 1982:354-357; Smith et al. 1981:598-600). Robin Smith (1982:356) offered two possible scenarios that might account for such a “bitypical ceramic assemblage.” The first was predicated on a hypothesized transhumant lifestyle that brought potters into contact with mineralogically distinct clay sources, some of which naturally contained sponge spicules, the perceived clay constituent that gives St. Johns pottery its characteristic chalky feel (Borremans and Shaak 1986). The second possibility suggested the two wares served different functions. This technological argument was analogous to the grit-tempered check stamped and grog-tempered cordmarked functional dichotomy suggested for Savannah-period assemblages on Sapelo Island to the north (Crook 1980:89-100; Saffer 1980:101-108). A parallel
functional relationship between St. Johns Check Stamped and Savannah Cord Marked wares, while suggested, was never tested.

Other researchers have considered the two wares products of culturally distinct peoples that occupied either the same area or adjacent and partially overlapping regions (Bullen and Griffin 1952:61; Saunders 1989:3-4; Sears 1957:34-35). According to this line of reasoning, the mixing of the two types on sites is seen as the byproduct of trade, with the numerically dominant type representing the cultural affiliation of the assemblage and the other being a tradeware. A variation of this theme is that separate cultural groups manufactured the wares and that their co-occurrence in middens came about as a result of rapid site reoccupation by separate groups; St. Johns then Savannah, or vice versa (Ashley 1995b; Borremans 1985:284; Larson 1958a:16-18). Finally, in at least one instance, archaeologists have claimed that the sand-tempered cordmarked wares on two sites (8DU634, 8DU669) in northeastern Florida were not Savannah, but rather Prairie Cord Marked (Alachua series) or some other inland pottery type made by seasonal migrants to the coast (Lee et al. 1984). This interpretation, however, has been mostly ignored, and cordmarked ceramics from the site have been viewed as Savannah by most researchers.

For those favoring separate occupations by distinct groups, the chronological sequencing of the two was still problematic. Were the two different groups occupying the region simultaneously or consecutively? If occupations were sequential, which occurred first: St. Johns II or Savannah? Or, did the two wax and wane in alternating fashion? Bullen and Griffin (1952:37) broached these same questions some 50 years ago, in which they concluded that sites with mostly St. Johns II pottery predated those in which Savannah Cord Marked predominated. Of the 46 sites they recorded during a walk-over survey of portions of Amelia Island, six (8NA6, 8NA7, 8NA9, 8NA9A, 8NA12 and 8NA31) were considered “early” or St. Johns II period sites and six (8NA4, 8NA19, 8NA29, 8NA30, 8NA37 and 8NA41) were deemed “later” cordmarked dominated sites (Bullen and Griffin 1952:58-59). Five additional sites (8NA10, 8NA13, 8NA18, 8NA23, and 8NA42) lacked chalky wares altogether, and each only contained a couple
cordmarked sherds. At the Old Town site (8NA9 and 8NA9a, now 8NA238) and 8NA12, two of the few locations where excavations were actually conducted, the authors noted the tendency for “chalky sherds” to be deeper than cordmarked wares (Bullen and Griffin 1952:49-50, 51, 52).

In his synthesis of St. Johns II and Savannah archaeological manifestations in the St. Marys region, Russo (1992:116-119) reviewed the St. Johns II-Savannah dilemma. He argued that St. Johns II and Savannah ceramic assemblages, as conventionally defined, do not characterize the region. Instead, mixed assemblages are common, some Savannah wares contain low-frequency sponge spicule inclusions, some St. Johns wares are sandy, and many assemblages are dominated by sand tempered plainwares. In the end, he opted to treat the two contemporaneously over a 700-year span of time (A.D. 800-1500) that he referred to as the “Savannah/St. Johns II” period. As demonstrated below, this convenient temporal label is no longer warranted

**Ocmulgee and St. Marys II Alternatives**

The recent recovery of grit-tempered cordmarked sherds with folded rims from several sites in northeastern Florida sites has prompted me to question the deeply entrenched notion that cordmarked wares from the St. Marys region are Savannah or a local version of that type (Ashley 2002; Ashley and Rolland 2002). Indeed, an alternative interpretation exists that does not involve Savannah pottery, peoples, or influences, but rather looks to inland Ocmulgee groups of southern-central Georgia as a source for cordmarking in northeastern Florida. It has been proposed that there are in fact two technologically separate cordmarked pottery types occurring in the region; a distinction having chronological and cultural significance (Ashley and Rolland 2002:26). The first of these two wares is a thick grit-tempered variety (cf. Ocmulgee) associated with local St. Johns II assemblages (cal A.D. 900-1250). The second is a thin sand-tempered ware, now called St. Marys Cordmarked, which represents the principal decorative type in a ceramic assemblage that supplanted St. Johns II around cal A.D. 1250.
Knowledge of the presence of grit-tempered pottery on northeastern Florida sites is nothing new. As early as the 1950s, archaeologists were reporting grit-tempered cordmarked wares and typing them as Savannah Fine Cordmarked (Bullen and Griffin 1952; Sears 1957, 1959). In fact, Sears (1957:24) asserted that the description of northern Georgia Savannah Fine Cord Marked pottery “fits...perfectly well for the grit-tempered variant” recovered from several sites near the mouth of the St. Johns River. These early interpretations set the tone for how cordmarked wares from the region would be treated in the future. Although various references to grit-tempered cordmarked pottery are interspersed throughout the archaeological literature of northeastern Florida, little had been made of their presence until recently (Ashley 2002; Ashley and Rolland 2002). At best, researchers noted the occurrence of grit-tempered cordmarked pottery, but invariably combined them with similarly decorated sand-tempered wares under a single type designation, most often Savannah Fine Cord Marked. Moreover, when noted, the difference between the types was either implicitly or explicitly reasoned to represent intratype variation (e.g., Cordell 1993).

In a recent inspection of several unanalyzed or unreported pottery collections at the Florida Museum of Natural History gathered in 1950s and 1960s from northeastern Florida sites, I observed the presence of gritty cordmarked sherds among thousands of St. Johns pottery fragments. In fact grit-tempered cordmarked appeared to form a small yet persistent percentage of the examined St. Johns II pottery assemblages. Some of the cordmarked sherds displayed rim folds, or more accurately, an added coil or appliqué strip. This modification, however, is a minority rim treatment, with most vessels displaying simple rounded lips. With regard to paste, these wares are tempered with angular to subangular coarse grit particles. A technological study of a sample of gritty cordmarked sherds from the Shields site (8DU12) indicates that some also contained grog inclusions or coarse sand rather than grit; mica is also commonly seen under magnification in Ocmulgee wares (Rolland 2000, 2003; Frankie Snow personal communications, 2002). It is important to note that in northeastern Florida gritty cordmarked pottery is always
recovered from archaeological contexts in which St. Johns II pottery types dominate (Ashley and Rolland 2002:27).

As noted elsewhere, Ocmulgee III Cordmarked pottery of southern-central Georgia is the only type in the vicinity of northeastern Florida marked by grit-tempering, cordmarking, and folded/appliquéd rim forms (Ashley and Rolland 2002:29; see Chapter 6 for a discussion of the Ocmulgee pottery series of Georgia). Examination of gritty cordmarked sherds from northeastern Florida by archaeologists very familiar with Ocmulgee Cordmarked pottery suggests the former falls well within the typological definition of the latter (Frankie Snow personal communications, 2002; Snow 1977; Stephenson 1990). In fact, they are indistinguishable. Now that it is known that grit-tempered cordmarked pottery is found on nearly every site in northeastern Florida in which appreciable amounts of St. Johns II pottery occurs, the question arises—is it locally made or an Ocmulgee tradeware? The results of neutron activation analysis will be brought to bear on this question later in the next section.

There is no doubt that the grit-tempered cordmarked wares are temporally and technologically different from St. Marys Cordmarked, which is thin, fine-sand tempered variety that often has a micaceous paste; grit inclusions have been noted but tend to be rare (Ashley and Rolland 2002; cf. Cordell 1993). St. Marys Cordmarked is made locally and is overwhelmingly the predominant pottery type found on northeastern Florida sites between A.D. 1250-1500. The label St. Marys II also has been introduced as a temporal replacement for Savannah, to signify sites or site components marked by St. Marys Cordmarked pottery (Ashley and Rolland 2002; cf. Russo 1992). Justification for dividing the Mississippian interval of northeastern Florida prehistory into the St. Johns II and St. Marys II periods is supported by archaeological evidence, including a series of 34 calibrated radiocarbon assays from 16 sites. Sixteen of the 34 radiocarbon dates come from secure contexts at nine different sites in which St. Johns II wares dominated (Table 4-1), whereas 18 dates derive from St. Marys Cordmarked-dominated proveniences at six other sites (Table 4-2).
Table 4-1. Calibrated radiocarbon assays for St. Johns II contexts in northeastern Florida.

<table>
<thead>
<tr>
<th>Site</th>
<th>Beta #</th>
<th>Material</th>
<th>Measured C14 age (BP)</th>
<th>C13/C12 ratio (o/oo)</th>
<th>Conventional C14 age (BP)</th>
<th>Calibrated 1 Sigma (AD) with intercept</th>
<th>Reference</th>
</tr>
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<tbody>
<tr>
<td>8DU97</td>
<td>167858</td>
<td>Soot</td>
<td>1090 ± 40</td>
<td>-23.0</td>
<td>1120 ± 40</td>
<td>890 (910, 920, 960) 980</td>
<td>Ashley 2002</td>
</tr>
<tr>
<td>8DU12</td>
<td>137818</td>
<td>Oyster</td>
<td>1080 ± 80</td>
<td>-2.5</td>
<td>1450 ± 90</td>
<td>865 (975) 1035</td>
<td>Ashley 2002</td>
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<tr>
<td>8DU14</td>
<td>131314</td>
<td>Oyster</td>
<td>1060 ± 60</td>
<td>-3.7</td>
<td>1430 ± 60</td>
<td>905 (985) 1025</td>
<td>Thunen 2001</td>
</tr>
<tr>
<td>8DU12</td>
<td>141594</td>
<td>Oyster</td>
<td>1000 ± 80</td>
<td>-2.4</td>
<td>1370 ± 60</td>
<td>990 (1030) 1070</td>
<td>Ashley 2002</td>
</tr>
<tr>
<td>8DU68*</td>
<td>54644</td>
<td>Oyster</td>
<td>990 ± 60</td>
<td>*</td>
<td>1360 ± 60</td>
<td>990 (1035) 1080</td>
<td>Ashley 1995</td>
</tr>
<tr>
<td>8SJ14</td>
<td>105269</td>
<td>Oyster</td>
<td>950 ± 60</td>
<td></td>
<td>1360 ± 60</td>
<td>1000 (1035) 1085</td>
<td>Dickinson &amp; Wayne 1997</td>
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<tr>
<td>8DU66</td>
<td>167857</td>
<td>Soot</td>
<td>940 ± 40</td>
<td>-25.3</td>
<td>940 ± 40</td>
<td>1030 (1040) 1160</td>
<td>Ashley 2002</td>
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<tr>
<td>8SJ14</td>
<td>105270</td>
<td>Oyster</td>
<td>850 ± 50</td>
<td></td>
<td>1260 ± 60</td>
<td>1065 (1160) 1220</td>
<td>Dickinson &amp; Wayne 1997</td>
</tr>
<tr>
<td>8DU12</td>
<td>165353</td>
<td>Oyster</td>
<td>870 ± 60</td>
<td>-2.0</td>
<td>1250 ± 60</td>
<td>1070 (1170) 1230</td>
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</tr>
<tr>
<td>8NA59</td>
<td>126311</td>
<td>Oyster</td>
<td>820 ± 60</td>
<td>*</td>
<td>1230 ± 60</td>
<td>1105 (1190) 1250</td>
<td>Dickinson &amp; Wayne 1999</td>
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<tr>
<td>8DU636</td>
<td>180802</td>
<td>Oyster</td>
<td>820 ± 60</td>
<td>-1.8</td>
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<td>850 ± 50</td>
<td>-3.4</td>
<td>1210 ± 60</td>
<td>1160 (1220) 1270</td>
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<tr>
<td>8DU1</td>
<td>120267</td>
<td>Clam</td>
<td>790 ± 60</td>
<td>-0.6</td>
<td>1195 ± 65</td>
<td>1170 (1235) 1285</td>
<td>Ashley &amp; Thunen 1999</td>
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<td>Oyster</td>
<td>770 ± 60</td>
<td>+0.9</td>
<td>1190 ± 60</td>
<td>1170 (1230) 1285</td>
<td>Ashley 2002</td>
</tr>
<tr>
<td>8DU12</td>
<td>165352</td>
<td>Oyster</td>
<td>750 ± 60</td>
<td>-2.8</td>
<td>1120 ± 60</td>
<td>1240 (1290) 1310</td>
<td>Ashley 2002</td>
</tr>
</tbody>
</table>

* C13/C12 ratio estimated by Beta Analytic, Inc.
** Uncalibrated date previously interpreted as Swift Creek (Ashley 1995:26, 1998:200)
Table 4-2. Calibrated radiocarbon assays for St. Marys II contexts in northeastern Florida.

<table>
<thead>
<tr>
<th>Site</th>
<th>Beta #</th>
<th>Material</th>
<th>Measured C14 age (BP)</th>
<th>C13/C12 Ratio (o/oo)</th>
<th>Conventional C14 age (BP)</th>
<th>Calibrated 1 Sigma (AD) with intercept</th>
<th>Reference</th>
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<td>8DU669</td>
<td>6633</td>
<td>Oyster</td>
<td>840 ± 10</td>
<td>*</td>
<td>1250 ± 70</td>
<td>1070 (1180) 1250</td>
<td>Lee et al. 1984</td>
</tr>
<tr>
<td>8DU669</td>
<td>6634</td>
<td>Oyster</td>
<td>830 ± 80</td>
<td>*</td>
<td>1240 ± 80</td>
<td>1070 (1190) 1265</td>
<td>Lee et al. 1984</td>
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* C13/C12 ratio estimated by Beta Analytic, Inc.
** Uncalibrated date previously interpreted as Swift Creek (Ashley 1995:26, 1998:200)
Although I contend that St. Johns II and St. Marys II occupations are sequential, it must be emphasized that I do not believe that mixing due to reoccupation is the sole factor responsible for the co-occurrence of St. Johns II wares and cordmarked pottery in all cases. As mentioned, evidence does exist for trade between local St. Johns II groups and coeval Ocmulgee III people to the north during the period A.D. 900-1250. Similarly, secure St. Marys II contexts contain variable quantities of St. Johns Check Stamped intimating local production by St. Marys potters or exchange relations between local St. Marys II groups and contemporaneous St. Johns II peoples to the south, between ca. A.D. 1250 and 1500. In fact, St. Marys Cordmarked does occur in small quantities on St. Johns II sites as far south as St. Augustine. Additionally, there is the possibility that some St. Johns II peoples stayed in the area, intermixed with the St. Marys II immigrants, and continued to produce small quantities of St. Johns pottery. These data indicate that the interpretation of the cultural affiliation of cordmarked wares in northeastern Florida is contingent upon the specific contexts in which they are found since the extreme range of variability among Ocmulgee and St. Marys cordmarked wares may overlap, particularly in the case of small body sherds.

As detailed in Chapter 9, the replacement of St. Johns II series ceramics by St. Marys pottery in northeastern Florida was also accompanied by distinct changes in household disposal patterns and burial mound construction techniques, suggesting an intrusion of peoples from coastal southeastern Georgia that breached the present-day Georgia-Florida State line around A.D. 1250 (Ashley 2002; Ashley and Rolland 2002; Russo 1992). Clearly, by A.D. 1300 the cordmarked pottery-making groups in the St. Marys region were ceramically distinct from coeval Muskhogean-speaking populations to the north, who were making Lamar derived Irene pottery, and other Timucua-speakers to the south, who were making St. Johns series ceramics (Braley 1990:94-95; Caldwell and McCann 1941; Milanich 1994: 262-263; Saunders 2000:39-45). It is now obvious that the longstanding belief that the St. Johns tradition is the archaeological manifestation of the late prehistoric and contact-era Timucua Indians of northeastern Florida is no
longer valid. That distinction now appears to belong to the San Pedro archaeological culture, which replaced St. Marys II in northeastern Florida and southeastern Georgia some time in the early sixteenth century (Ashley 2001; Ashley and Rolland 1996a).

**Instrumental Neutron Activation Analysis (INAA)**

The above discussion is based on the outward stylistic characteristics of cordmarked vessels in northeastern Florida. Since extralocal interactions are of utmost importance to my research, empirical data are needed to shed light on the question of local versus nonlocal production of Ocmulgee Cordmarked pottery. Chemical compositional studies of prehistoric pottery have proven beneficial in recognizing both interregional and intraregional contacts and reconstructing exchange and interaction between coeval settlements (e.g., Arnold et al. 1991, 1999; Bishop et al. 1988; Lynott et al. 2000; Neff 1992, 2000; Steponaitis et al. 1996). To this end, Instrumental Neutron Activation Analysis (INAA) was conducted of a sample of pottery sherds and raw clay materials in order to characterize and compare their elemental signatures and to detect chemically homogenous groups within the sample. Hector Neff and Michael Glascock at the Missouri University Research Reactor (MURR) performed the analysis and coauthored the reports of results (Neff and Glascock 2001, 2002).

In all, INAA analysis included 64 sherds from 22 sites in Florida; 16 sherds from 14 sites in Georgia; and 6 sherds from 5 sites in South Carolina (Figure 4-1 and Table 4-3). In addition, 5 raw clay samples were examined. By pottery type, the sample consists of 44 Ocmulgee Cordmarked sherds from Florida and 12 from inland southern-central Georgia; 5 St. Marys Cordmarked from northeastern Florida; 3 Prairie Cord Marked sherds from Alachua County, Florida; 3 Savannah Cord Marked sherds from coastal Georgia and 6 from inland South Carolina; 11 St. Johns sherds from Florida and 1 from southeastern Georgia; and a single San Marcos sherd from northeastern Florida. The clay samples derived from sources on Amelia Island in northeastern Florida; along the Ocmulgee River in south-central Georgia; in the red clay hills of
Figure 4-1. Distribution of sites involved in INAA study.
Table 4-3. Provenience and compositional group membership of pottery types and raw clays used in the INAA study.

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<th>PCM</th>
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<td><strong>Total</strong></td>
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<td>3</td>
<td>6</td>
<td>5</td>
<td>91</td>
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</tr>
</tbody>
</table>

Oc–Ocmulgee Cordmarked       PCM–Prairie Cord Marked
St.M–St. Marys Cordmarked   SCCM–South Carolina Cord Marked
SJ–St. Johns                Clay–raw clay sample
Sav–Savannah Cord Marked    UA–unassigned

the Florida panhandle near Tallahassee (Leon County); and along coastal Charleston County, South Carolina. A final clay sample came from a St. Johns II cultural feature at the Grant site (8SU14) in northeastern Florida. Because this is a moderate-sized sample, some of the results should be considered preliminary; refinements will undoubtedly be generated as the sample size is enlarged in the future.
INAA is a form of chemical composition analysis founded on the physical properties of the atomic nucleus. Specifically, it is based on the counting of gamma rays released from a prepared sample that has been bombarded with neutrons (i.e., irradiated) within a nuclear reactor (Glascock 1992:11-12). With the addition of neutrons to their nucleus, the atoms of the various constituent elements become radioactive isotopes that decay with characteristic half-lives and gamma-ray energies. By measuring these gamma rays, INAA is able to retrodict the amount of each element originally in the sample (Glascock 1992:12). Thus, it is a highly sensitive multi-elemental technique that determines the chemical composition of various geological materials, including clay. In the following discussion, “chemical” or “elemental” data denotes “a matrix of quantified major, minor, and trace element constituents” (Arnold et al. 1999:83).

The present INAA study focused on the bulk composition of each sherd or clay sample; for sherds, it included the chemical composition of fired clay and temper combined. We must be mindful that pottery is a complex chemical and physical mixture influenced by an array of things such as clay, water, natural aplastic constituents of clay(s), and temper added to the mix by potters (Arnold 1992:159). Potters can also physically alter clays by sieving and levigation. Both natural and cultural factors therefore render pottery inherently heterogeneous in chemical and mineralogical composition (Rice 1987; Neff et al. 1988, 1989). In fact, problems can conceivably arise if the added temper contains high amounts of elements commonly used to discriminate between potential clay sources. However, Neff and colleagues’ (1988, 1989) simulation research and the results of other studies (e.g., Elam et al. 1992) suggest that an enormous amount of temper heterogeneous in minereralogy must be added to obfuscate a clay’s elemental signature and create a single chemical group.

The aim of INAA is to arrange sherd and clay samples with similar homogeneous compositional profiles into hypothetical groups with the aid of multivariate statistics. Its application is founded on the provenance postulate, which states “there exist differences in chemical composition between different natural resources that exceed, in some recognizable way,
differences observed within a given source” (Weigand et al. 1977:24). However, it does not necessarily mean that intragroup specimens were made of clay from the same deposit. As Arnold reminds us, we must be careful to “conceive ceramic paste as a chemical and mineral composite coming from a particular area or geological region—not the product of a ‘clay’ source” (Arnold 1992:160). Although identifying a specific source from INAA data may be quite difficult, it is “clear that chemical analysis do reveal the exploitation of resources within a geographical resource area” (Arnold et al. 1999:63).

Methodology

The procedures used in the present study followed methods outlined in detail by Glascock (1992) and Neff (2000) and reported specifically for this study in an abridged version in Neff and Glascock (2001:2-3). Briefly, a small piece of each sherd was detached, burred with a silicon carbide burr to erase all surfaces, rinsed with deionized water, air dried, and ground to a fine powder. The power samples were then placed in an oven at 100° C for 24 hours to remove excess moisture. Approximately 350 mg of each sample was taken for neutron activation analysis; a 150 mg sample was subjected to “short irradiation” and a 200 mg was subjected to “long irradiation.” The “short” samples were subjected to a 720-second gamma count after 5 seconds of irradiation in a nuclear reactor. The “long” samples were irradiated for 24 hours and allowed to decay for 7 days before being subjected to a 2000-second gamma count (middle count). The long samples were allowed to decay an additional three or four weeks before being subjected to a final gamma count of 9000 seconds. Decay time was contingent on the half-life of the measured elements.

The two irradiations and three gamma counts on high-purity germanium detectors allowed the recognition of the chemical element composition of each sample based on the gamma ray energy and the determination of the gamma ray energies detected for each chemical element (Glascock 1992:13-15; Neff and Glascock 2001:2-3). The 32 chemical elements identified in the present study included: aluminum (AL), arsenic (As), barium (Ba), calcium (Ca), cerium (Ce), cobalt (Co), chromium (Cr), cesium (Cs), dysprosium (Dy), europium (Eu), iron (Fe), hafnium
(Hf), potassium (K), lanthanum (La), lutetium (Lu), manganese (Mn), sodium (Na), neodymium (Nd), nickel (Ni), rubidium (Rb), antimony (Sb), scandium (Sc), samarium (Sm), strontium (Sr), tantalum (Ta), terbium (Tb), thorium (Th), titanium (Ti), uranium (Ur), vanadium (V), ytterbium (Yb), zinc (Zn), and zirconium (Zr). Although these procedures register values for 33 elements, nickel (Ni) was below detection in many of the present samples, and therefore omitted from quantitative data analysis (Neff and Glascock 2001:2-3).

Quantitative analysis performed by MURR involved converting INAA raw data to base-10 logarithms of concentration, to offset differences in magnitude between major and trace elements. This conversion also produces a “more nearly normal distribution for many trace elements” (Neff and Glascock 2001:3). The aim of quantitative analysis is to determine the parts per million of the above 32 mineralogical elements for each sherd and raw sample in order to identify groups within the sample that share a consistent compositional make-up presumed to represent geographically restricted sources or source zones (Neff and Glascock 2001:3). To reiterate, we are not necessarily trying to tie sherds to specific clay sources, but rather to link them to broad, yet distinguishable, regional mineralogical compositions. Thus, INAA should allow us to address, directly and empirically, the question of local vs. nonlocal production of cordmarked pottery.

A statistical technique used to identify compositional groups in the present data sample is Principal Component Analysis (PCA), a mathematical procedure that converts a number of possibly correlated variables into a smaller number of uncorrelated variables called Principal Components (PC). Here, PCs are linear combinations of measured variables (chemical elements) (Neff and Glascock 2001:3-4). The first PC accounts for as much maximum variance in the data as possible and each successive PC accounts for as much of the remaining maximum variance as possible until the number of principal components is equal to the number of original dimensions (Glascock 1992:17-18; Neff and Glascock 2001:3-4). The reason for doing this is to condense
the variation from all measured variables (chemical elements) into a smaller number of variables (i.e., Principal Components).

PCA can be employed either to seek out patterns (i.e., groups) in an undifferentiated data set or to test the consistency of hypothetical groups developed on the basis of other criteria such as archaeological provenience, decorative attributes, etc. By and large, it can be anticipated that compositional dissimilarity will be greater for specimens between different groups than within the same group, which further suggests that groups should be recognized as “distinct areas of high point density on plots of the first few components” (Neff and Glascock 2001:4).

An advantage of PCA is that it can be employed as a simultaneous R- and Q- mode technique in which both objects (individual specimens) and variables (chemical elements) can be depicted on the same set of PC reference axes. As Neff and Glascock explain (2001:4):

The two dimensional plot of element coordinates on the first two principal components is the best possible two-dimensional representation of the correlation or variance-covariance structure in the data: Small angles between vectors from the origin to variable coordinates indicate strong positive correlation; angles close to 90° indicate no correlation; and angles close to 180° indicate negative correlation. Likewise the plot of object coordinates is the best two-dimensional representation of Euclidean relations among the objects in log-concentration space (if the PCA was based on variance-covariance matrix) or standardized log-concentration space (if the PCA was based on the correlation matrix). Displaying objects and variables on the same plots [i.e., biplots] make it possible to observe the contributions of specific elements to groups separation and to the distinctive shapes of the various groups. Such a plot is called a “biplot” in reference to the simultaneous plotting of objects and variables.

To compare data arranged in groups, a distance matrix must be calculated. The “Mahalanobis distance” is a metric variable used by MURR researchers to describe the generalized distance separating groups or individuals and groups on multiple dimensions (Glascock 1992:18-19; Neff and Glascock 2001:5). Its use helps to assess statistically the separation between groups by taking into account variances and covariances in a multivariate group, which can be further converted into “probabilities of group membership” for each sample specimen (Bieber et al. 1976; Bishop and Neff 1989; Harbottle 1976; Neff and Glascock 2001:5). Application of the Mahalanobis distance requires a group size in which the number of specimens...
in the group is greater than the number of variants (PCs) under consideration (Glascock 1992:19). In the present study, however, group sizes are smaller than the total number of variants, hampering the full-potential use of the Mahalanobis distance (Neff and Glascock 2001:5). Specifically, more variants than objects render the group variance-covariance matrix singular, which does not permit calculation of the Mahalanobis distance formula.

With such group-size problems, the only way to apply the Mahalanobis distance is to reduce the dimensionality of the groups. Selecting from several alternatives, Neff and Glascock (2001:5) elect to reduce dimensionality and calculate Mahalanobis distance using scores on Principal Components obtained from the variance-covariance (or correlation matrix) of the entire data set. This approach, however, entails one “reasonable” assumption: “most group separating differences should be visible on the largest several components” (Neff and Glascock 2001:5). They further contend that “[u]nless a data set is highly complex, with numerous distinct groups, using enough components to subsume 90% of the total variance in the data may be expected to yield Mahalanobis distances that approximate Mahalanobis distances in the full elemental concentration space.

**Ceramic Composition Groups**

Seven distinct composition groups are recognized within the INAA data (Neff and Glascock 2002:1). General group membership information is presented in Table 4-4. The 7 groups are based on 4 Principal Components, with a fraction of each element’s variation represented by each component. Principal Component 1 appears to have strong contributions from rare earth elements along with zinc, cobalt, uranium, chromium, rubidium, and many other elements. Principal Component 2 is most strongly represented by calcium concentrations in the data, but also by strontium and sodium, and much smaller amounts of zinc, manganese, and rare earth elements. Principal Components 3 and 4 have these same elements but in different amounts; i.e., more of some elements and less of others (Michael Glascock personal
communication, 2003). For the most part, much of the differentiation between the 7 groups relies on varying concentrations of calcium (Figure 4-2).

Table 4-4. Group membership information.

<table>
<thead>
<tr>
<th>Oc GA</th>
<th>Oc FL</th>
<th>St M</th>
<th>SJ</th>
<th>SM</th>
<th>Sav</th>
<th>PCM</th>
<th>SCCM</th>
<th>Clay</th>
<th>Total</th>
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<td>5</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>17</td>
</tr>
<tr>
<td>Group 1b</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>4</td>
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<td>25</td>
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<td>1</td>
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<td>-</td>
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<td>-</td>
<td>11</td>
</tr>
<tr>
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<td>7</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Group 3</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Group 4</td>
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<td>12</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>91</td>
</tr>
</tbody>
</table>

Oc–Ocmulgee Cordmarked  PCM–Prairie Cord Marked
St.M–St. Marys Cordmarked  SCCM–South Carolina Cord Marked
SJ–St. Johns  Clay–raw clay sample
SAV–Savannah Cord Marked  UA–unassigned

As a general guide, composition groups should have at least three times as many sample members as the number of variables being considered, before probabilities of group membership are deemed reliable (Michael Glascock personal communication, 2003). With four Principal Components used in this study, the minimal number of samples needed in each group to stabilize probabilities is 12. In instances where group membership is below the minimal size threshold, simply adding or subtracting a single sherd could drastically change probabilities of group membership. Additionally, because compositional data are often structured hierarchically, some major divisions (i.e., groups) may not be completely homogeneous, but rather subsume possible partitions referred to as subgroups (Hector Neff, personal communication 2003). In some instances, particularly with small group sizes, subgroups may be difficult to demonstrate statistically, although INAA data plots in concert with archaeological information (e.g., context, pottery type, etc.) suggests their existence. Because of the group-size problem, Mahalanobis distances were only calculated with respect to Group 1 and Group 2. Considering these caveats, membership in Groups 1b, 2b, 2c, 3, and 4 is presently viewed as tentative. In contrast, because
membership in Groups 1 and 2 exceeded the minimal sample size, more confident interpretive statements can be forwarded concerning these two groups.

Group 1 is characterized by samples relatively low in calcium (Figure 4-2), with Group 1b specimens possessing the maximum low of calcium (Figure 4-3). Group 2 and Group 2b are high in calcium, with Group 2c situated between Group 1 and Groups 2 and 2b with regard to calcium concentrations. Neff and Glascock (2001:6) suggest that the high contribution of calcium in Group 2 may be due to the calcareous nature of the Pleistocene and recent marine and estuarine clay deposits in coastal northeastern Florida. The two-dimensional projection of data in Figures 1 and 2 reveal that there is considerable overlap between Group 2 and Group 2b, although their metal profiles are quite different (Figure 4-4).

Group 3 is a highly cohesive group of 3 sherds marked by high levels of uranium, chromium, and antimony that clearly distinguish it from the other compositional groups (Figure 4-5). Samples in Group 4 are marked by high amounts of many elements including potassium, manganese, rubidium, sodium and rare earth elements (Figure 4-2 and Figure 4-5). Finally, there were a series of samples that do not appear chemically related to the other 7 groups. These unassigned specimens are projected into the space of the first three principal components on Figure 4-6 and Figure 4-7.

Discussion

A few preliminary statements can be made regarding associations between composition groups and archaeological contexts. Statistical tests on the probabilities of membership in Group 1 and Groups 2 were based on the first four principal components of the data, which subsume
Figure 4-2. PCA biplot of Principal Components 1 and 2 derived from PCA of the data set variance coverage matrix. Ellipses represent 90% confidence level for members in various groups (Neff and Glascock 2002).
Figure 4-3. Bivariate plot of calcium and iron concentrations in data set (Neff and Glascock 2002).
Figure 4-4. Bivariate plot of cobalt and chromium concentrations in data set (Neff and Glascock 2002).
Figure 4-5. Biplot of Principal Components 2 and 3 derived from PCA of data set (Neff and Glascock 2002).
Figure 4-6. Same PCA space as Figure 4-2, but without element coordinates and with unassigned specimens labeled (Neff and Glascock 2002).
Figure 4-7. Same PCA space as Figure 4-5, but without element coordinate and with unassigned specimens labeled (Neff and Glascock 2002).
76.4 percent of total variance in the data (Neff and Glascock 2001:6-7). The Mahalanobis
distance calculations strongly suggest that the two groups represent distinct geographical source
areas. Sample provenience information intimates that Group 1 is concentrated away from the
coast in the hinterland of Georgia, whereas Group 2 is coastal and situated in northeastern
Florida. Groups 2b and 2c “are obviously concentrated in northern Florida, and Group 2b is
firmly tied to the Duval County area by the [Grant site] clay sample” (Neff and Glascock 2002:1).

Group 1 consists of Ocmulgee Cordmarked sherds from 8 Georgia sites along the
Ocmulgee-Altamaha River drainage and 3 northeastern Florida sites, all located on barrier islands
(Table 4-5). Also present within this group are 2 Ocmulgee Cordmarked sherds from Mt. Royal
along the middle St. Johns River in Putnam County, Florida. Four Savannah Cord Marked sherds
from South Carolina round out the group; 2 are from sites along the Middle Savannah River and 2
are from the Atlantic coast. The South Carolina wares are probably local products made from
clays similar to the southern Georgia clays. These results suggest that some Ocmulgee
Cordmarked wares made in southern Georgia found their way on to sites in northeastern Florida
and Mt. Royal to the south.

Table 4-5. Group 1 members.

<table>
<thead>
<tr>
<th>Analytical ID</th>
<th>State</th>
<th>Site Name</th>
<th>Pottery Type</th>
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</thead>
<tbody>
<tr>
<td>KHA008</td>
<td>Florida</td>
<td>Mt. Royal (8PU35)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA009</td>
<td>Florida</td>
<td>Mt Royal (8PU35)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA015</td>
<td>Florida</td>
<td>Old Towne (8NA238)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA054</td>
<td>Florida</td>
<td>Black Hammock Island (8DU52)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA055</td>
<td>Florida</td>
<td>Black Hammock Island (8DU52)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA064</td>
<td>Florida</td>
<td>Big Talbot Island (8DU80)</td>
<td>St. Johns Check Stamped</td>
</tr>
<tr>
<td>KHA025</td>
<td>Georgia</td>
<td>Falling Rock (9AP10)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA028</td>
<td>Georgia</td>
<td>Halfmoon Landing (9JD31)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA029</td>
<td>Georgia</td>
<td>Paradise Park (9WY8)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA031</td>
<td>Georgia</td>
<td>Davis Old Field (9AP15)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA075</td>
<td>Georgia</td>
<td>Williams Creek #4</td>
<td>Ocmulgee Cordmarked</td>
</tr>
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<td>KHA076</td>
<td>Georgia</td>
<td>Pike Phillips</td>
<td>Ocmulgee Cordmarked</td>
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<td>Georgia</td>
<td>Oglethorpe Bluff</td>
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<td>KHA086</td>
<td>South Carolina</td>
<td>Groton Plantation</td>
<td>Savannah Cord Marked</td>
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</table>
Group 1b is small and consists of 3 Georgia sherds and a raw clay sample from the panhandle of western Florida, near Tallahassee (Table 4-6). Most likely this group represents “a widespread compositional signature of clays found in western Florida and north into Georgia” (Neff and Glascock 2001:2). Interestingly, one Georgia sherd is a Little Manatee (St. Johns) ware fragment assumed to have been manufactured in Florida. The group’s small sample size precludes any further discussion at this time.

Table 4-6. Group 1b members.

<table>
<thead>
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<th>Pottery Type</th>
</tr>
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<td>KHA088</td>
<td>Florida</td>
<td>near 8LE151</td>
<td>raw clay</td>
</tr>
<tr>
<td>KHA026</td>
<td>Georgia</td>
<td>Falling Rock (9AP10)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA030</td>
<td>Georgia</td>
<td>Lower Sansavilla (9WY3)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA080</td>
<td>Georgia</td>
<td>Double Firebreak (9WE36)</td>
<td>Little Manatee (St. Johns)</td>
</tr>
</tbody>
</table>

With a sample size of 27, Group 2 is the largest composition group (Table 4-7). All but two are Ocmulgee Cordmarked sherds from 7 northeastern Florida sites, including 16 from the Shields site (8DU12). The two remaining samples include a St. Johns Check Stamped sherd from northeastern Florida and a Savannah Cord Marked fragment from the Lewis Creek site near the mouth of the Altamaha River, Georgia. The former is assumed to be a locally produced St. Johns ware, whereas the production origin of the latter is more problematic. Although classified as Savannah Cord Marked, macroscopically it is very similar to Ocmulgee Cordmarked wares from the Shields site, suggesting it could actually be from an Ocmulgee Cordmarked vessel manufactured in northeastern Florida and traded north to the Lewis Creek site. Alternatively, it could be a local coastal Georgia wade made of clays chemically similar to some northeastern Florida.

Group 2b includes 11 sherds, 10 of which are from northeastern Florida sites and one from Flagler County in eastern-central coastal Florida (Table 4-8). It consists of St. Johns, Little Manatee, Ocmulgee, and San Marcos series sherds, which are all assumed to be local northeastern Florida wares. This group also includes the aforementioned clay sample, perhaps
processed paste, from a St. Johns II feature at the Grant site. It is doubtful that the eastern-central Florida specimen is a tradeware, since it was recovered from a St. Johns pottery-dominated site.

It thus appears to be a local ware constructed of clays similar to ones in northeastern Florida.

Table 4-7. Group 2 members.

<table>
<thead>
<tr>
<th>Analytical ID</th>
<th>State</th>
<th>Site Name</th>
<th>Pottery Type</th>
</tr>
</thead>
<tbody>
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<td>KHA001</td>
<td>Florida</td>
<td>Shields site (8DU12)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA038</td>
<td>Florida</td>
<td>Shields site (8DU12)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
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<td>KHA039</td>
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<td>Ocmulgee Cordmarked</td>
</tr>
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<td>KHA040</td>
<td>Florida</td>
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<td>Ocmulgee Cordmarked</td>
</tr>
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<td>KHA041</td>
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<td>Ocmulgee Cordmarked</td>
</tr>
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<td>Florida</td>
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<td>Ocmulgee Cordmarked</td>
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<td>Florida</td>
<td>Shields site (8DU12)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA005</td>
<td>Florida</td>
<td>Grant site (8DU14)</td>
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</tr>
<tr>
<td>KHA006</td>
<td>Florida</td>
<td>Grant site (8DU14)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA073</td>
<td>Florida</td>
<td>Grant site (8DU12)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA090</td>
<td>Florida</td>
<td>Grant site (8DU14)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA011</td>
<td>Florida</td>
<td>McCormack-Goodman (8DU66)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA059</td>
<td>Florida</td>
<td>McCormack-Goodman (8DU66)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA012</td>
<td>Florida</td>
<td>Dent Mound (8DU68)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA014</td>
<td>Florida</td>
<td>San Juan del Puerto (8DU53)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA062</td>
<td>Florida</td>
<td>Big Talbot Island (8DU80)</td>
<td>Little Manatee (St. Johns)</td>
</tr>
<tr>
<td>KHA010</td>
<td>Florida</td>
<td>Mayport Mound (8DU97)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA081</td>
<td>Georgia</td>
<td>Lewis Creek</td>
<td>Savannah Cord Marked</td>
</tr>
</tbody>
</table>

Group 2c is composed of 13 sherds, with 12 from Florida and one from Georgia (Table 4-9). Save for a pottery fragment from Mt. Royal, all other Florida specimens are from northeastern Florida. The former is an Ocmulgee Cordmarked sample that might have been manufactured in northeastern Florida and traded south to Mt. Royal. Alternatively, local Mt. Royal clays may possess chemical signatures similar to those in northeastern Florida. The single Georgia sherd is a Savannah Cordmarked specimen from a site on St. Simons Island. As was the case with the Lewis Island specimen, it may be a local ware made of clays similar to those in
northeastern Florida or an Ocmulgee Cordmarked tradeware from northeastern Florida. The northeastern Florida samples in the Group 2c include St. Johns, Ocmulgee, and St. Marys series wares.

Table 4-8. Group 2b members.

<table>
<thead>
<tr>
<th>Analytical ID</th>
<th>State</th>
<th>Site Name</th>
<th>Pottery Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>KHA003</td>
<td>Florida</td>
<td>Shields site (8DU12)</td>
<td>St. Johns Check Stamped</td>
</tr>
<tr>
<td>KHA004</td>
<td>Florida</td>
<td>Shields site (8DU12)</td>
<td>Little Manatee (St. Johns)</td>
</tr>
<tr>
<td>KHA032</td>
<td>Florida</td>
<td>Grant site (8DU14)</td>
<td>clay from cultural feature</td>
</tr>
<tr>
<td>KHA013</td>
<td>Florida</td>
<td>Dent Mound (8DU68)</td>
<td>St. Johns Check Stamped</td>
</tr>
<tr>
<td>KHA056</td>
<td>Florida</td>
<td>Old Towne (8NA238)</td>
<td>St. Johns Check Stamped</td>
</tr>
<tr>
<td>KHA060</td>
<td>Florida</td>
<td>McCormack-Goodman (8DU66)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA061</td>
<td>Florida</td>
<td>Big Talbot Island (8DU80)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA063</td>
<td>Florida</td>
<td>Big Talbot Island (8DU80)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA065</td>
<td>Florida</td>
<td>Big Talbot Island (8DU80)</td>
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</tr>
<tr>
<td>KHA067</td>
<td>Florida</td>
<td>Mt. Royal (8PU35)</td>
<td>St. Johns Check Stamped</td>
</tr>
<tr>
<td>KHA087</td>
<td>Florida</td>
<td>Grand Hammock Haven (8FL181)</td>
<td>St. Johns Check Stamped</td>
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Table 4-9. Group 2c members.

<table>
<thead>
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<th>Pottery Type</th>
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</thead>
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<td>KHA042</td>
<td>Florida</td>
<td>Shields site (8DU12)</td>
<td>Ocmulgee Cordmarked</td>
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<tr>
<td>KHA007</td>
<td>Florida</td>
<td>Grant site (8DU12)</td>
<td>St. Johns Check Stamped</td>
</tr>
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<td>KHA074</td>
<td>Florida</td>
<td>Grant site (8DU14)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA017</td>
<td>Florida</td>
<td>Brown I (8DU58)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA056</td>
<td>Florida</td>
<td>Brown I (8DU58)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA020</td>
<td>Florida</td>
<td>Greenfield Site 9 (8DU5545)</td>
<td>St. Johns Check Stamped</td>
</tr>
<tr>
<td>KHA021</td>
<td>Florida</td>
<td>Cinco de Mayo (8SJ3251)</td>
<td>St. Marys Cordmarked</td>
</tr>
<tr>
<td>KHA037</td>
<td>Florida</td>
<td>Armellino site (8DU631)</td>
<td>St. Marys Cordmarked</td>
</tr>
<tr>
<td>KHA057</td>
<td>Florida</td>
<td>Old Towne (8NA238)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA058</td>
<td>Florida</td>
<td>McCormack-Goodman (8DU66)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA069</td>
<td>Florida</td>
<td>Mt. Royal (8PU35)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA027</td>
<td>Georgia</td>
<td>Double Firebreak ((WE36)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA082</td>
<td>Georgia</td>
<td>Indian Field</td>
<td>Savannah Cord Marked</td>
</tr>
</tbody>
</table>

Three Prairie Cord Marked sherds from 2 sites in Alachua County comprise Group 3 (Table 4-10). Although group size is very small, these Alachua series sherds appear to have been made of local clays very distinct from any others in the larger sample.

Group 4 is another small collection involving a single Savannah Cord Marked sherd from St. Simons Island, Georgia and another from the Middle Savannah River in South Carolina (Table
4-11). The third specimen in the group is a raw clay sample from coastal South Carolina.

Unfortunately, like Group 3, Group 4 suffers from small sample size. Table 4-12 lists those samples that were not part of any compositional group.

Table 4-10. Group 3 members.

<table>
<thead>
<tr>
<th>Analytical ID</th>
<th>State</th>
<th>Site Name</th>
<th>Pottery Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>KHA022</td>
<td>Florida</td>
<td>Colclough Hill (8AL8)</td>
<td>Prairie Cord Marked</td>
</tr>
<tr>
<td>KHA023</td>
<td>Florida</td>
<td>Rocky Point (8AL27)</td>
<td>Prairie Cord Marked</td>
</tr>
<tr>
<td>KHA024</td>
<td>Florida</td>
<td>Rocky Point (8AL27)</td>
<td>Prairie Cord Marked</td>
</tr>
</tbody>
</table>

Table 4-11. Group 4 members.

<table>
<thead>
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<th>Analytical ID</th>
<th>State</th>
<th>Site Name</th>
<th>Pottery Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>KHA083</td>
<td>Georgia</td>
<td>Couper Field</td>
<td>Savannah Cord Marked</td>
</tr>
<tr>
<td>KHA085</td>
<td>South Carolina</td>
<td>Groton Plantation</td>
<td>Savannah Cord Marked</td>
</tr>
<tr>
<td>KHA089</td>
<td>South Carolina</td>
<td>38CH42</td>
<td>raw clay</td>
</tr>
</tbody>
</table>

Table 4-12. Unassigned members.

<table>
<thead>
<tr>
<th>Analytical ID</th>
<th>State</th>
<th>Site Name</th>
<th>Pottery Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>KHA002</td>
<td>Florida</td>
<td>Shields site (8DU12)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA072</td>
<td>Florida</td>
<td>Grant site (8DU12)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA071</td>
<td>Florida</td>
<td>Spanish Point</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA068</td>
<td>Florida</td>
<td>Mt. Royal (8PU35)</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA066</td>
<td>Florida</td>
<td>Mt. Royal (9PU35)</td>
<td>St. Johns Plain</td>
</tr>
<tr>
<td>KHA017</td>
<td>Florida</td>
<td>Thundercrack (8NA43)</td>
<td>St. Marys Cordmarked</td>
</tr>
<tr>
<td>KHA018</td>
<td>Florida</td>
<td>Quercus (8DU625)</td>
<td>St. Marys Cordmarked</td>
</tr>
<tr>
<td>KHA019</td>
<td>Florida</td>
<td>Greenfield Site 9 (8DU5545)</td>
<td>St. Marys Cordmarked</td>
</tr>
<tr>
<td>KHA091</td>
<td>Florida</td>
<td>Amelia Island</td>
<td>raw clay</td>
</tr>
<tr>
<td>KHA033</td>
<td>Georgia</td>
<td>Deens Landing</td>
<td>raw clay</td>
</tr>
<tr>
<td>KHA078</td>
<td>Georgia</td>
<td>Abbeville Mound 1</td>
<td>Ocmulgee Cordmarked</td>
</tr>
<tr>
<td>KHA034</td>
<td>South Carolina</td>
<td>38AK228</td>
<td>Savannah Cord Marked</td>
</tr>
<tr>
<td>KHA035</td>
<td>South Carolina</td>
<td>38AK753</td>
<td>Savannah Cord Marked</td>
</tr>
</tbody>
</table>

Before concluding, I would like to review briefly some of the results of a recent refiring project by Rolland (2004), which provides another perspective by which to view patterns in the chemical composition data. In her study, 130 prehistoric potsherds from northeastern Florida and southeastern Georgia were subjected to controlled refiring in an electric kiln in order to achieve standardized firing conditions. Important to the success of such an undertaking is the requirement that all sherds be refired to temperatures well above that which all had been subjected to during
their use life to ensure equal footing for comparative purposes. The premise is that any color differences among sherds refired in the same environment (kiln) under equal temperature and time settings reflect differences in their mineralogical composition, particularly with respect to weathered iron (Rice 1987:343-345). In sherds, this means the mineralogical composition of the processed paste (not just the clay), which potentially includes temper and perhaps involved sieving and levigation. Color measurements are taken at temperature intervals (maximum temperature of 800° C) and recorded with respect to variations in value, chroma, and hue, with the aid of Mussel color charts.

Pieces of many of the same northeastern Florida and southeastern Georgia Ocmulgee Cordmarked sherds subjected to INAA were refired, along with other similar pottery fragments from the Shields site (8DU12). The latter were taken from a series of contexts securely dated radiometrically in an attempt to record any changes in ceramic pastes over time at the site (Rolland 2004). The Ocmulgee sherds in this study were divided into subgroups on the basis of temper, including (from most to least common) grit, grit/grog, sand/grog, and micaceous sand. Additionally, Orange, St. Johns, Little Manatee, and St. Marys series sherds from a variety of northeastern Florida sites were refired to establish a baseline for local clays (processed pastes).

Refiring revealed that over 90 percent of the 37 St. Johns sherds were characterized by low-iron color levels (i.e., very pale through very light), whereas the majority of the 45 Ocmulgee series sherds were marked by iron-enriched colors (i.e., strong or light), but included some at the light to pale end (Rolland 2004). As Rolland reports, however, with respect to hue, value, and chroma, there is great diversity within the Georgia cordmarked sample compared to that of the cordmarked sherd sample from the Shields site in northeastern Florida. Three of the 4 St. Marys Cordmarked sherds demonstrated refired colors comparable to the primary colors among Ocmulgee sherds, with the fourth assessed as very light. These data intimate that there are major differences between St. Johns and Ocmulgee (and St. Marys) wares in refiring color, a situation
probably attributable to different clays, paste processing activities, or a combination of both (Rolland 2004).

Examination of the refiring color data from a stratigraphic perspective at the Shields site also yielded some interesting results. With respect to St. Johns pottery, there is tremendous uniformity in refired sherd colors from the various radiometrically dated proveniences, spanning 350 or so years (A.D. 900-1250), suggesting consistency in clay use and processing over time among St. Johns potters at the site (Rolland 2004). With regard to the range and number of hue and value color measurements at the site, there is much more diversity in Ocmulgee pottery from earlier contexts than from later contexts. Based on these results, Rolland (2003:17) posits that some Ocmulgee vessels were manufactured early on at the Shields site, as represented by a few color readings similar to those for locally produced Orange, St. Marys, and a sandy version of St. Johns wares, while others (perhaps more) were produced nonlocally and brought to the site, as represented by a wide range of outlier hue colors that are markedly different. A tighter clustering of the “local” color ranges in latter site contexts intimates increased local production of Ocmulgee cordmarked at the site. While local potters may have experimented with local clays, they remained loyal to traditional tempering agents and cordmarked surface treatments (Rolland 2004:15).

Summary

The two studies provide a compelling argument for both local and nonlocal production of the Ocmulgee Cordmarked wares recovered from northeastern Florida sites dated to A.D. 900-1250. For INAA measurements, this is reflected in the distinction between Group 2 (local) and Group 1 (nonlocal) samples. The significance of INAA results is heralded by the fact that we presently cannot differentiate macroscopically Group 1 and Group 2 Ocmulgee sherds from sites in northeastern Florida. These results have important implications regarding exchange, interaction, marriage arrangements, and other socially-relevant issues discussed in Chapters 8 and 9. While both the INAA and sherd refiring studies are in need of larger data samples, these
preliminary results mark an important step toward creating both a regional INAA data bank and a refiring color index.

Notes:

1. A concern that MURR did not consider in analysis is the potential effect that calcium leaching might have on sherds deposited in densely packed shell middens for approximately 1000 years. There is the possibility that calcium can be deposited in the pores of porous, low fired pottery in wet environments. By the same token other elements might leach out. When the question was posed to Hector Neff (formerly of MURR), who conducted INAA on the present sample, he was uncertain of the effect having never considered the situation. He suggested it might represent an example of an extreme diagenetic effect. Two potential ways to deal with this would be to: 1) remove the calcium component (by a mathematical method [Cogswell et al. 1998]) and rerun all calculations; 2) thin section sherds with a laser ablation-ICP-MS or and electron microprobe and determine where within the sherds calcium is concentrated. If the calcium occurs within the pore spaces and near the surface, then diagenetic enrichment could be a real possibility (Hector Neff personal communication, 2003). Unfortunately, MURR was unable to perform either option at this time. However, it is an issue that must be addressed.

2. To reiterate the calcium enrichment concern, the sherds from the Shields site were recovered from a densely-packed 80 cm thick shell midden. It seems unlikely that there would be a consistent blanket saturation of all sherds with calcium, or even all portions of a sherd (Paullette Bond personal communication, 2003). While leaching was probably continuous over the approximately 1000-year period from deposition to excavation some areas of the midden may leach more than others and some sherds may be ore porous than others, thus affecting the rate of calcium enrichment. The calcium component of the sherds from the Shields site in this group range from 8 to 16 percent of the 32 measured elements. Other shell midden sherds include those from Big Talbot Island, Grant site, Browne I, Spanish Point, and Thundercrack; middens at these sites, however, were generally not as thick nor as densely accumulated as those at the Shields site. Group 2 and 2b are the most likely candidates to be impacted by a potential of calcium enrichment.
CHAPTER 5
ARCHAEOLOGICAL OVERVIEW OF THE ST. JOHNS II PERIOD LANDSCAPE OF NORTHEASTERN FLORIDA AND MT. ROYAL (A.D. 900-1250)

This chapter provides a synthesis of St. Johns II sites in northeastern Florida and in the vicinity of Mt. Royal to the south. Emphasis is placed on locales that may have served as villages at some point during the period, A.D. 900-1250. I draw particular attention to the major mound centers of Shields Mound, Grant Mound, and Mt. Royal. The former two, while separate earthworks, are part of a larger contemporaneous complex that I have termed the Mill Cove Complex. In compiling this chapter I culled the existing archaeological literature, including often overlooked CRM reports. Some of this information is being presented for the first time, and other data are being looked at in a light quite different than that of previous excavators. Original data presented in this chapter include my recent excavations in middens adjacent to the Shields Mound. For the most part, much of the information presented in this chapter is descriptive. More interpretative statements on interactions and politics are proffered in subsequent chapters.

St. Johns Region Settlement Data

As detailed in Chapter 3, I believe the mere presence of St. Johns pottery on sites in northeastern Florida has led researchers to assign St. Johns cultural affiliations to sites not warranting such ascription. A further problem is our current inability to date St. Johns II sites on the basis of ceramic data alone to other than a broad period of A.D. 750-1500+. Additionally, it is difficult to distinguish a St. Johns I site from a St. Johns II site in situations where only a few chalky ware sherds were surface collected. The skewed regional database combined with the absence of fine-grained St. Johns II subdivisions cause me to question how much importance we can give to the straightforward statistical examination of Florida site file data in this study.
However, some admittedly impressionistic comments can be made based on site file studies that have been performed to date (Miller 1998; Sassaman et al. 2000).

Regional site distribution data suggest that St. Johns II sites are dispersed along the entire course of the St. Johns River (Figure 5-1). Miller (1998:85) observed there were more St. Johns II sites than St. Johns I site in his distributional study of archaeological sites north of Lake George. In contrast, Sassaman et al. (2000:70-71, 109-111), working with more recent site file information and including a broader area that encompassed the entire St. Johns River valley, noted fewer reported St. Johns II site components than St. Johns I components (i.e., 567 St. Johns II and 962 St. Johns I site components). This observation changes to some extent if we eliminate those northeastern Florida sites misclassified as St. Johns I (i.e., 567 St. Johns II and 795 St. Johns I site components. Even with the above biases taken into consideration, there are currently more reported St. Johns I sites than St. Johns II sites, particularly along the upper and middle parts of the St. Johns River and adjacent Atlantic coast. This may reflect more intensive site occupation and less settlement movement during the St. Johns II period, and not population decline.

Clearly there is a settlement shift from St. Johns I to St. Johns II times, with St. Johns sites first appearing in any real numbers in northeastern Florida during early St. Johns II times, ca. A.D. 900. At this time, early St. Johns II sites (ca. AD 900-1250) north of Lake George are concentrated in two sections of the St. Johns River; at its mouth and immediately north of Lake George (Miller 1998:84). Although no mound complexes are present, St. Johns II sites abound along the Atlantic seaboard from St. Augustine to Cape Canaveral. Examination of St. Johns II site distributional maps (Miller 1998:83-84; Sassaman et al. 2000:111) reveals that a smaller number of sites assigned broadly to A.D. 750-1500+ are along the main channel of the river between these two site concentrations. While Moore (1894, 1895) investigated numerous sand burial mounds along this stretch of the St. Johns River few appear to date to the St. Johns II period (see Sassaman et al. 2000:94), and none can be unequivocally assigned to the early St.
Figure 5-1. Distribution of St. Johns II sites (Sassaman et al. 2000).
Johns II period at this time. Some sites in Clay and northern Putnam counties might be related to late prehistoric and contact-era Outina Timucua settlement of the region (Johnson 1991; Milanich 1996).

Although far from conclusive, the distributional data suggests that early St. Johns II (A.D. 900-1250) populations along the northern segment of the river were polarized at its northern and southern geographical edges, in the general vicinity of the Mill Cove Complex and Mt. Royal, respectively. This situation likely is a product of the strategic contact these areas provided within Mississippian exchange networks. The section of the river between these two settlement hubs appears to have been sparsely inhabited during early St. Johns II times, although that was not the case during the Woodland and late prehistoric periods. Could the settlement fluctuation in this region represent outmigration to the mouth of the river during the early St. Johns II (Mississippian) period, then a population reflux back to the general area after A.D. 1250, and establishment of the St. Johns population that would come to be known to the French and Spanish as the Outina Timucua? Future research involving extensive survey coverage, site sampling, and radiometric dating is soundly needed to answer this question.

**St. Johns II Sites in Northeastern Florida**

The current archaeological record of the St. Johns II period in northeastern Florida indicates habitation sites that are manifest as variable-density shell middens, variously interpreted as either small, short-term resource procurement loci or camps or more permanently occupied settlements or villages, depending on size (Goggin 1952; Sears 1957; Russo 1992). Figure 5.2 depicts the location of large St. Johns II sites in northeastern Florida and southeastern Georgia. Regrettably, data on intrasite community patterning at most sites are lacking at this time. While features such as shell middens, hearths, refuse pits, burials, and possible postholes have been excavated at several sites, complete structure outlines remain elusive. Dickinson and Wayne (1997:141; 1999:82) have suggested that at least some St. Johns II buildings may have been circular wattle and daub buildings, based on their findings of numerous postholes and daub
Figure 5-2. Locations of selected St. Johns II sites.
fragments at both the Mabry Mound site (8SJ14) in northern coastal St. Johns County and the Crane Island site (8NA59) on Crane Island west of Amelia Island.

The most extensive and intensive evidence of St. Johns II occupation in northeastern Florida is found on the south side of the St. Johns River, between Reddie Point, where the river channel makes a sharp eastward turn, and the river’s mouth, particularly along the high-ground fringes of what today is known as Mill Cove (Ashley and Johnson 1990:93-95; Johnson 1988:62-137). Situated on the west side of the cove, among a sweeping spread of St. Johns II refuse deposits, are the Shields (8DU12) and Grant (8DU14) mounds, located less than 1 km apart (Thunen and Ashley 1995:5-8). Another high density area of St. Johns II pottery occurs on the east side of the cove at the McCormack-Goodman site (8DU66), which prior to its destruction in the early 1980s, included the presence of a small St. Johns II burial mound (Johnson 1988:133-137; Jordan 1963;24-44; Recourt 1975; Sears 1957:20-22). Although cordmarked sherds occur on sites along Mill Cove, their numbers are overshadowed by the predominance of St. Johns II pottery types (e.g., Johnson 1988:62-137; NEFAS n.d.; Richter 1993; Rolland 2000; Sears 1957:20-22).

Unfortunately, little is currently known archaeologically about the area west and south of Mill Cove, between Reddie Point and southern Duval County. However, locations to the east of Mill Cove along the south side of the river have been extensively investigated. Testing by William Sears (1957) at a series of shell middens on the Willie Browne property (now the Theodore Roosevelt Preserve) resulted in the identification of a few sites (e.g., 8DU58, 8DU61) where St. Johns II pottery greatly outnumbered cordmarked wares; most of the latter were grit-tempered. Farther east, archaeological survey and testing has recovered St. Johns II pottery types from various contexts dispersed intermittently across almost the entire northern end of the Greenfield Peninsula, immediately west of the Intracoastal Waterway. Distinct middens dating to the St. Johns II period have been identified at 8DU5541 (FAS 1994:63-68) and at 8DU78/5544/5545 (Johnson 1998a:127-128, 130-132; Poplin and Harvey 1999; Smith et al.
Finally, on the southern banks of the river, St. Johns II middens have been located near the river’s mouth in the vicinity of Mayport (Kirkland and Johnson 1999; Wilson 1965:11).

North of the St. Johns River, good-sized St. Johns II sites have been recorded on Fort George Island, Black Hammock Island, Pelotes Island, Big Talbot Island, Crane Island, and Amelia Island (e.g., Ashley and Richter 1993; Ashley and Thunen 2000; Bullen and Griffin 1952; Dickinson and Wayne 1987, 1999; Hemmings and Deagan 1973; Russo et al. 1993; Smith 1998). All of these sites also yielded appreciable quantities of grit-tempered cordmarked wares. Smaller sites, such as Piney Point (8NA31), are also known to occur on Amelia Island and elsewhere (Bullen and Griffin 1952; Hardin and Russo 1987).

Across the St. Marys River in Camden County, Georgia, St. Johns II pottery is reported to have a widespread distribution, although its frequency at individual sites is typically low (Adams 1985; Cook 1977; Kirkland 1979; Larson 1958a; Smith et al. 1981). However, at least one large St. Johns II site is known for the Kings Bay vicinity. At the Kings Bay Site (9CAM171), chalky pottery was scattered intermittently over a broad area, with a heavy concentration in an area designated 9CAM171b (Smith et al. 1981:405-527; Smith 1982:179-363). Testing resulted in the recovery of St. Johns II series ceramics (plain, check stamped, punctated) as well as Little Manatee varieties. In addition, 15 St. Johns II features were exposed that included 11 shell-filled refuse pits, 2 postholes, a distinct midden lens, and a human burial (Smith et al. 1981:477-506; Smith 1982:282-286). Unfortunately, mixing of midden deposits has rendered interpretations of the St. Johns II materials at Kings Bay problematic, although their presence in coastal southeastern Georgia reflects, in some instances, occupation by St. Johns II groups.

Various St. Johns II pottery types also have been found on sites along the Satilla, and Ocmulgee rivers and in the Okefenokee Swamp (Blanton 1979; Snow 1977a, 1977b; Trowell 1978, 1979; Weisman et al. 1998). Their presence in the hinterland appears to have been the result of trade rather than occupation by St. Johns II peoples.
South of the lower St. Johns River, Florida Site File data in Tallahassee indicate that numerous small shell middens yielding St. Johns II pottery extend along the banks of the Intracoastal Waterway into extreme northern St. Johns County (Ashley and Smith 1996; Dickinson and Wayne 1997; Griffin 1982). At the Mabry Mound site (8SJ14), St. Johns II pottery types, including the various punctated forms, were retrieved from shell deposits radiocarbon dated to between A.D. 850 and 1160 (Ashley and Smith 1996; Dickinson and Wayne 1997). The nearby Cabana Club site (8SJ1) consisted of coquina-dominated shell middens with a high percentage of St. Johns II pottery, although “a harder sand-tempered ware, most of it plain” was also recovered; no cordmarked wares were reported (Griffin 1982). The southernmost extent of coastal St. Johns II sites in northeastern Florida appears to have terminated in northern St. Johns County where, prior to modern dredging and rechanneling, the Intracoastal Waterway naturally “petered out” and was less navigable. In fact, this general vicinity may have created a natural boundary separating prehistoric developments in the northeastern Florida from coastal areas to the south at various times throughout prehistory. The presence of St. Johns II sites along the Atlantic coast reemerges to the south in the vicinity of Guana River, where the natural channel was once again more distinct and navigable.

For the most part, due to insufficient excavation data and a lack of radiocarbon dates, it is difficult to determine precise contemporaneity among these St. Johns II sites, except, of course, at a gross period level (A.D. 900 to 1250). Overall, both the number and size of St. Johns II sites in northeastern Florida are greater than that of the previous Late Woodland Colorinda period, suggesting an increase in the local population, a trend also observed to the south in the St. Johns region (Bullen and Griffin 1952:58; Milanich 1994:255-256; Miller 1998:85).

Several of the large St. Johns II habitation sites also included sand burial mounds. Most notably are the large Shields and Grant Mounds that are now part of what is known as the Mill Cove Complex. In addition, a handful of small St. Johns II burial mounds, 1 to 3 m in height, formerly existed along the lower St. Johns River and its tributaries and on the barrier islands to
the north. As described below, those dating to St. Johns II times include the Mayport II Mound, Greenfield Mound B (maybe Mound A also), McCormack-Goodman Mound on the south side of the St. Johns River; Chappelle Midden-Fort George Mound on Fort George Island, the Grand site on Big Talbot Island; and Cedar Point-Merman Mound and the Black Hammock Island Midden-Mound on Black Hammock Island. On Amelia Island, the Old Town site appears to have been the scene of a large St. Johns II settlement, while the Lighthouse Mound and the mound dug by Mitchell (1875) may date to St. Johns II times. It is possible that other previously documented mortuary earthworks date to St. Johns II times, but due to insufficient excavation information provided by Moore (1894, 1895, 1896) their cultural affiliation is uncertain.

A mound conspicuously lacking from the list is the Walker Point Mound (8NA28) on Amelia Island, which has previously been interpreted as a St. Johns II earthwork (Thunen and Ashley 1995:8; Hemmings and Deagan 1973:30-53; Milanich 1994:269). As reviewed in Chapter 3, ceramic and stratigraphic data cast doubt on this burial mound dating to the St. Johns II period; at present a Late Woodland Colorinda period date is suggested.

Although most of the recorded St. Johns II burial mounds have been destroyed by twentieth-century urban/suburban development, those described below were all partially excavated (though not necessarily by professional archaeologists) and situated adjacent to middens containing large quantities of St. Johns II ceramics. Based on available data, locations marked by the coupling of St. Johns II mounds and middens are suspected to represent villages, with the tumuli reflecting village or kin-based, accretionary cemeteries (Thunen and Ashley 1995:8). In the following descriptions I try to bring together all pertinent published and unpublished information of each St. Johns II village-mound site in northeastern Florida.

Mill Cove Complex

The Shields (8DU12) and Grant (8DU14) mounds are spaced about 750 m apart on the western edge of Mill Cove (see Figure 5.2). Physiographically, the southern shoreline along this stretch of the lower St. Johns River encompasses Pleistocene beach ridges and paleo sand dune
fields. The area is described as undulating, which is unusual for this part of Florida where the land surface typically has less than one percent slope (Brooks 1981). The northern face of the high sand ridges fronting the river is manifest as steep bluffs that rise some 16 m above the water. These bluffs have been subject to severe scouring by river flow, and the rate of erosion has been exacerbated over the past century or so by intentional channel modification to facilitate ship traffic. The Shields Mound on the east and the Grant Mound on the west were erected upon the two highest points along the west side of Mill Cove, each perched with a magnificent view of the river.

The upland ecology of the Mill Cove vicinity can be characterized as a maritime hardwood community, consisting of large live oak, laurel oak, red bay, and magnolia trees. Turkey oak and other xeric vegetation, however, dominate on the higher, excessively well-drained sand ridges. The natural vegetation has been altered to varying degrees in the past half century due to suburban development. The properties situated between the two mounds currently consist of two types of residential development. The areas surrounding the Shields Mound and immediately east of the Grant Mound consist of long linear, wooded lots, with minimal damage other than a riverfront house, a garage or two, and a septic field. These are representative of the traditional house lots that formerly gave the entire Mill Cove vicinity a bucolic air. More recent residential communities, comprised of tightly clustered houses, have claimed much of the Grant Mound itself and loci to the south as well as an approximately 200-m wide wedge situated between the two mounds.

The most distinguishing ecological feature of the area is Mill Cove, a natural indentation or oxbow meander within the south side of river channel, approximately 15 km west of its mouth. The eastern half of the cove is bordered by expansive salt marshes, whereas its western shoreline consists mostly of mucky tidal flats with a thin marsh border. The ecology of Mill Cove has been greatly altered over the past century due to river maintenance, channel dredging, and spoil island formation activities that have caused extensive siltation. During the early decades of the
twentieth century, Mill Cove was the scene of a thriving local fisheries industry. But what was once “a fish-laden body of clear water whose depths ranged up to 18 feet” with white sandy beaches is now a mucky slough less than a half-meter in depth at low tide (Anonymous 1986). The presence of shell middens and mounds along the river banks attests to the former productivity of Mill Cove and to the broader St. Johns River estuary, a rich and diverse aquatic environment that provided the local natives with resources above and beyond their immediate needs.

To date, over 40 prehistoric midden and mound sites of various time periods have been recorded along the upland fringes of Mill Cove. Of the 18 St. Johns II sites reported in the Florida Master Site File, 15 are tightly clustered between the Shields and Grant mounds on the west side of the cove, whereas two, including the McCormack-Goodman site (8DU66) occur on the east side of the cove. It is quite obvious that the Shields and Grant mounds dominated not only the cultural landscape of the Mill Cove vicinity, but all of northeastern Florida during the period A.D. 900-1250.

**C.B. Moore and the Grant Mound**

Situated on a high bluff overlooking the river to the north, Moore (1894:200) described the Grant Mound (8DU14) as a “truncated cone” about 8.1-m high, with a base diameter of approximately 65.8 m and a summit plateau diameter of 7.3 m (Figure 5-3). He further reported that approximately one-third of the mound “had fallen into the stream [St. Johns River]” due to erosion (Moore 1894:200; 1895:473). Despite such damage, in 1895 he still considered Grant Mound to be one of the most symmetrical mounds that he had visited to date.

The eastern slope of the mound was the steepest (with an angle of 28°) and descended into an “abrupt dip of the land,” giving the mound’s summit a more elevated appearance when viewed from the east (Moore 1895:473). The lower bluff, immediately to the east, exhibits a large, bowl-shaped depression that has long been interpreted as a borrow pit associated with the Grant Mound. Moore (1895:473) noted what he perceived as “causeways” or “approaches” that
Figure 5-3. Grant Mound, ca. 1894 (Moore 1894)
consisted of “[t]wo low ridges, one somewhat better marked than the other, almost parallel, [that] start a short distance from the southern most portion of the mound, and after a time, merge in the surrounding level.” Although different in form, earthen causeways were also documented by Moore (1894:17-18; 1895:454) at Mt. Royal and the Shields Mound.

His initial field season at the mound began in November (1893) and lasted 6 days, with the aid of 16 men (Moore 1894:200-204). Excavation, combined with an inspection of the exposed northern mound face, revealed mound fill that consisted “of yellow sand with a base blackened by fire, containing a heavy percentage of charcoal” (Moore 1894:200). Beneath the western margins of the mound was “several feet of dark loamy sand and scattered shell,” an apparent reference to shell middens (Moore 1895:474). Localized areas or layers of colored sands were encountered throughout the mound, and in most instances were associated with “human remains and aboriginal relics.” These included natural colored sands that were gray and white, as well as various shades of red that represented hematite-impregnated sand. In one instance, he identified a “cherry” colored zone of sand, twelve to eighteen inches thick, along the outer base of the mound that “gradually ascended” before being replaced by “an irregular stratum of pure white sand with a maximum thickness of about two feet” (Moore 1895:474). This layer may represent a cap associated with a specific episode of burial or mound building. “Single shells” were lightly scattered throughout mound fill, although “masses of oyster shells” were met with beneath the summit surface, suggestive of either a shell cap or platform (Moore 1894:200).

Moore (1895:473) returned for more intensive, 5-week investigation in March and April of 1895, during which time 40 men “totally demolished” the Grant Mound. Later archaeologists will demonstrate that more did not actually “demolish” the entire mound. With regard to mound stratigraphy he again came across predominantly yellow sand with localized strata or deposits of colored sand. In the west central part of the mound, a “striking combination of shades” were revealed that were not representative of other portions of the mound.” As described by Moore (1895:474):
Above the shell base was a layer of sand black in color through admixture of loam, six inches in thickness. This was surmounted by a band of white sand about ten inches through, above which was a stratum of sand of a chocolate tint, about three-quarters of a foot in breadth. Next came a layer one foot in thickness of sand of stone color, which was surmounted by seven inches of sand tinged a bright cherry. Above these layers were masses of yellowish sand with occasional strata of brown sand and of blackish sand containing oyster shells.

Human burials encountered during Moore’s (1894:200) first field session were exclusively secondary interments that consisted of “bundles of bone without reference to anatomical order.” He failed to find any complete skeletons, and one of the bundle burials contained the remains of at least four individuals. The situation was a little different during his second go-around, where “burial in anatomical order [both extended and flexed] largely predominated” (Moore 1895:475). This seems to have been particularly true along the base of the mound. The conditions of preserved bones varied from very good in the vicinity of accumulated shell to that of “putty” elsewhere. None of the exposed crania were preserved enough to allow measurement, but he noted the presence of long bones that evinced platycnemia, inflammation, fracturing, and pilastering.

It is unclear from Moore’s writing as to how many burials he came across, but he does bemoan the fact that human remains were “singularly disproportionate in number to the vast bulk of material present, and emphasize more clearly than ever before in our experience how much needless labor was sometimes undertaken by the aborigines for their dead” (Moore 1895:474). Apparently no interments or grave goods had been placed within the eastern part of the mound, and nowhere “had any interments been made within nineteen feet from the margin of the base” (Moore 1895:475). Thus, it seems that human remains and artifacts were unevenly dispersed throughout the mound, with the majority of finds restricted to the center and west-central part of
the mound. Although some mound artifacts were directly associated “with human remains,” the overwhelming majority apparently were not.

Artifacts of both local and nonlocal origin were recovered from the mound, and included polished celts, chipped stone tools, steatite elbow pipes, shell drinking cups, pearls, shell beads, bone pins and tools, and pottery vessels to name a few artifact categories. Some of the ceramic vessels were of unusual shape, which led Moore to refer to them as “freak wares.” The high number (n=147) of ground stone celts taken from the mound during his two excavations is astonishing (see Mt. Royal discussion on celts). They were fashioned mostly of igneous rock, though a few of sedimentary and metamorphic origin were noted; none was made of stone found in Florida (Moore 1895:480). Only one of the celts was illustrated, and it has a petaloid shape. Also reclaimed were various mineral and metals such as galena, mica, and copper, the latter of which included beads, sheets with repoussé bosses and beaded lines, two Long-nosed god maskettes, and a variety of wood and stone items overlaid with sheet copper.

The most attention-grabbing items from the Grant Mound are the two copper Long-nosed god maskettes, both of which were under 7 cm in size (Moore 1895:485-488). Though considered rare objects of the Southeastern Ceremonial Complex, similar maskettes of copper have been recovered from seven other sites, distributed from Wisconsin to Oklahoma to Louisiana to Florida (Brown et al. 1990:264; Kelly 1991:73-74; Williams and Goggin 1956). Long- or Short-nosed God maskettes, made of either shell or bone, also have been found on at least 12 sites, covering an even wider geographical range. These artifacts are though to represent ear ornaments, based on their depiction as such on embossed copper plates, engraved shell gorgets, and the Big Boy effigy stone pipe from Spiro (Kelly 1991:73-74; Philips and Brown 1978:91; Williams and Goggin 1956:34-35). Taking the collection of maskettes as a whole, some researchers consider them to be the result of various production localities, though others see enough similarity among the copper specimens to suggest that they were manufactured at a single workshop, perhaps in the greater Cahokia area (Williams and Goggin 1956:34). Hall (1989:240-
suggests a link between Long-nosed god maskettes and a semidivine Winnebago culture hero known as Red Horn or “He-who-wears-human-heads-as-earrings.”

Another Grant Mound find by Moore (1895:485) with possible connections to Cahokia or at least the Midwest region, are two copper covered “cones of wood” that together form a biconical ear ornament. This double-coned item is similar to the spindle ornaments from the Powell Mound at Cahokia and the Booker T. Washington site in Illinois as well as Spiro in Oklahoma (Griffin 1946:88; Kelly and Cole 1931:322, 335; Sampson and Esarey 1993:463-464).

Recognition of the likeness between Grant Mound and Cahokia artifacts is not an original observation on my part. Kelly and Cole (1931) first mentioned this over 70 years ago, and Goggin (1952; Williams and Goggin) voiced it more loudly in the 1950s.

In terms of chronological placement, both the Long-nosed god maskettes and biconical ear spools appear to fall firmly in the period, A.D.900 to 1200 (Brown et al. 1990:264; Kelly 1991:73-75; Sampson and Esarey 1993:463-464). These exotic items along with other artifact evidence warrant the temporal placement of the Grant Mound in the Early Mississippian period or St. Johns IIb according to Milanich’s St. Johns chronology.

**Grant Mound after C.B. Moore**

Save for the destructive activities of local collectors, no excavations were conducted at or near the Grant Mound for 80 years or so following Moore’s work (Thunen 2001). The mound, however, was of great interest to archaeologists of the 1940s and 1950s, who were trying to identify cultural connections and establish culture-historical maps and sequences for local regions as well as the greater Southeast. In fact, both the Grant and Shields mounds and their associated artifacts figured prominently in Goggin’s (1952) formulation of the St. Johns II “tradition.” A small pottery sample from the Grant Mound under curation at the Florida Museum of Natural History (FMNH) is attributed to a surface collection made at the site by Goggin or one of his students in the 1950s. William Sears also appears to have visited the site in the late 1950s, but neither dug at the mound or in adjacent shell middens.
In March of 1986, state archaeologist Calvin Jones arrived at the Grant Mound in order to assess the potential impact of house and pool construction to the western part of the mound. Jones (1986) estimated that “a little more than half” of the mound still existed and that the balance had eroded into the river to the north. A series of deep, linear depressions that cut across the top of the mound, where interpreted by Jones (1986) as the remnants of C.B. Moore’s excavation trenches. Based on his inspection of numerous “pot holes” dug into the tumulus by looters and the exposed northern face of the mound, Jones (1986:4) ascertained that shell midden deposits both “underlay… and extend partly above” the mound’s west edge, “indicating that refuse or village garbage continued to accumulate on and beside the mound after it was first established, hence continued occupation [of the bluff].” This observation is supported by Thunen’s (2001) later work at the site, and provides insight into mound construction, as discussed below.

At the time of Jones’s (1986) investigation, the mound covered parts of two contiguous residential lots scheduled for house development. Approximately one-fifth of the extant mound was contained in the western lot, with the remainder in the eastern lot; Jones’ excavations were restricted to the latter. He dug two test pits on the highest part of the existing tumulus in the western part of eastern lot and a third test pit in the southeastern part of the mound; all units were 100 by 50 cm. In the northeastern unit, along the eastern and central property line, he encountered intact mound loci that included human remains, deposits of red ochre, and varving of colored sands, whereas the other two tests revealed “fill from Moore’s excavation” (Jones 1986:5-7). Inspection of northern face of the mound revealed “varve-like laminae stratification and also some red ochre sand lenses” that led to the conclusion that a 5 to 10-m wide strip of mound along the bluff was intact and mostly unaffected by Moore’s excavations.

Although no artifact inventory was provided, it appears that the only artifacts recovered during this investigation were a few St. Johns sherds. However, Jones (1986) reported that local residents had recently been finding small stone pendants and figurines that included the head of a “human figure with a hair bun” from fill eroding from the north face. A letter and photograph on
file at the Florida Master Site File from a local resident, purports the recovery of small oval pendant of stone with an engraved depiction of a spider bearing an engraved cross on its back. Other residents report finding “stone figurines” in the form of owl, turtle, and human effigies, all of which were supposedly found around the time of Jones’ investigation. Although Jones’s was apparently shown a few, professional archaeologists have yet to examine any. To my knowledge, all remain in private hands.

Jones’ (1986:8) concluded that within the eastern lot, the top 60 cm or so of the mound were disturbed, but below this point, in certain locations, was intact mound fill. He recommended that archaeologists be present to monitor any construction that impacts portions of the mound below the 14-m grade, as revealed in the existing bluff profile. Within a year or so, however, a house and pool were built atop the eastern part of the mound, with no archaeological work performed prior to construction.

The next formally reported investigation in the Grant Mound vicinity was during a grant-sponsored survey of the greater St. Johns Bluff Area of Jacksonville (Johnson 1988). In 1988 Johnson recorded 13 new sites between the Grant and Shields mounds, three of which are near the mound (Figure 5-4). The discontinuous distribution of these sites reflects both limited shovel testing and incomplete survey coverage, since fieldworkers were at times denied access to some properties. Unfortunately, the exact location and number of shovel tests dug during Johnson’s (1988) survey are not reported.

In addition to refuse deposit observed along the western edge of the mound (8DU14), additional shell middens were noted to the west (8DU5597), southwest (8DU5598), and southeast (8DU5599) (Johnson 1988:70-75; 78-85). The area immediately south and southeast of the mound was not inspected due to cul-de-sac construction and landowner refusal, respectively. However, other landowners living south of the mound report little oyster shell but abundant check stamped pottery (Walter Wells, personal communication, 2002). Although recorded separately, the vast majority of artifacts from the three sites are St. Johns II wares, along with trace amounts
Figure 5-4. Location of archaeological sites in the vicinity of the Grant and Shields mounds.
of Deptford and Swift Creek sherds, which renders the middens grossly contemporaneous with the Grant Mound. These deposits indicate that a continuous spread of St. Johns II material radiated out from the mound for a distance of approximately 100 m to the west, south, and east. Though shell midden density is variable across the rolling relict dunal landscape, shell and refuse accumulations were thickest (in excess of 1 m in some loci), immediately west and southwest of the mound.

In January of 1989, construction of the aforementioned western lot began, with almost the entire segment of mound on that property removed by earthmoving equipment (Thunen 2001). Robert Thunen and students from the University of North Florida (UNF) were permitted on the property during bulldozing, but were not allowed to stop the removal of mound fill. Though much of the upper section of the mound appeared disturbed, Thunen (2001) observed areas of colored sands and “what appeared to be secondary burials” as mechanical earth-moving operations got closer to the mound base. In at least two locations, lenses of colored sands were displayed that arced upward from the base of the mound to define the outline of small mounded features, perhaps erected during early stages of mound construction and covered by later episodes of building (Thunen 2001:6).

Following the mechanized removal of mound fill, UNF crews were able to excavate four 2-m square units (Thunen 2001). Two were placed in areas where the mound once stood in anticipation of uncovering either intact basal remnants of the mound or submound features. The other two units were placed outside mound boundaries to sample midden deposits and search for domestic features. These excavations revealed substantial cultural deposits both beneath the mound and along the bluffline to the west. A thick, organic midden was encountered that extended more than 1.5 m below the base of the mound. While the amount of discarded shell, mostly oyster, was variable, one unit revealed an approximately 50-cm thick stratum of densely packed shell. Vertebrate faunal remains were abundant, as were potsherds, most of which dated to the St. Johns II period. Five basin-shaped refuse pits were excavated at the midden-subsoil
interface. An oyster sample from Feature 1, which contained several Papys Bayou sherds, was radiocarbon dated to A.D. 905 –1025 (Thunen 2001:8)

From top to bottom, the shell midden beneath the mound yielded predominately St. Johns II ceramics, although a few Woodland period sherds were mixed in. Thus, the thick midden adjacent to and beneath the mound dates almost exclusively to the St. Johns II period, A.D. 900-1250. Since the radiocarbon-dated feature was situated at the base of the midden, we can estimate when the midden began to accumulate, but we presently do not know how long it took to build up. Based on the artifacts recovered from the mound by Moore (1894a; 1895) we can infer that the mound and midden date grossly to the same era, and that it is likely that some midden and mound related activities were precisely coeval.

I recently made an inspection of the bluff face beneath the Grant Mound. This visual examination, together with the information provided by Moore (1894, 1895), Jones (1986), and Thunen (2001), allows for a tentative reconstruction of aspects of mound construction. Although the bluff that existed a thousand years ago has washed into the St. Johns River, the extant bluff profile suggests that the elevated riverbank reached its premound apex just east of the approximate center of the mound. Shell midden deposits underlay not only the western edge of the mound as reported by the three previous investigators, but are also visible today in the bluff profile beneath the far northeastern margin of intact mound. Moore (1895:475) apparently did not dig very deep in this part of the mound, since he stated that with respect to the eastern section of the mound “bordering the river…we are not in a position to speak.” Shell midden deposits, however, appeared to be lacking underneath the southeast corner of the mound.

This information suggests that construction of the Grant Mound initiated atop the highest natural point along the bluff. At the same time that early mound building was going on in this locus, or shortly before, midden material was being deposited in large quantities along the bluff a short distance to the east and west. As the mound accrued over time, it eventually came to surmount these refuse deposits, which in westerly areas had obtained a thickness in excess of 1 m.
With regard to mound stratigraphy, it is interesting that mound fill west of the natural (premound) high spot along the bluff exhibited conspicuous colored sands and other strata indicative of intricate mound construction, whereas the fill to the east consisted mostly of yellow sand. As mentioned previously, Moore recovered hardly anything, either relics or burials, from the eastern section of the mound. Could the western part of the mound have been the primary scene of mortuary activity, with the eastern portion representing cosmetic fill? That is, sand was simply piled up on the western side by natives to balance out or enlarge the western breadth of the mound. The fact that shell midden, still visible today, lies beneath this yellow sand attests to the fact that it is added fill and not a natural formation.

The most recent archaeological work conducted in the Grant Mound vicinity has occurred on two contiguous riverfront tracts, within an area of the site designated 8DU5599 by Johnson (1988). The first, undertaken in the summer of 1999 by members of the Northeastern Florida Anthropological Society, involved the testing of private property, located about 60 m southeast of the mound (NEFAS n.d.). This tract is situated immediately southeast of and slightly above the “abrupt dip of the land” mentioned by Moore (1895:493), but still at an elevation 3 to 5 m lower than the bluff on which the burial mound is perched. As previously mentioned, although the low area appears to represent a natural feature, it does contain a large, rather circular depression suggestive of a borrow pit.

Thirty-one 1-m square units were dug on a tight 10-meter grid across a residential yard along the river. In addition, a single 2-m square was dug to expose a feature encountered during grid testing. While shell was scattered over the entire area, only a few distinct shell deposits were encountered. A 1 by 2-m unit was excavated into one of these middens, which displayed a densely-packed shell zone, 15 to 30-cm thick. The unit yielded over 200 sherds, all characteristic of a St. Johns II pottery assemblage. An oyster shell from the midden was radiocarbon dated to A.D. 1170-1285 (NEFAS n.d.). Preliminary results, combined with my own inspection of the recovered artifacts, indicate a strong St. Johns II presence marked by St. Johns II and grit-
tempered cordmarked wares and Pinellas points; small amounts of earlier Woodland period and later St. Marys II pottery types.

Finally, a cultural resource assessment survey was made of an approximately 1.6-ha tract, 120 m southeast of the Grant Mound (Hendryx and Smith 2002). Approximately 75 percent of the 630 sherds from the site unequivocally date to the local St. Johns II period; inclusion of some of the nondescript plainwares could conceivably bring this figure up to about eighty percent. Little in the way of Woodland period pottery was recovered, with later St. Marys II and San Pedro ceramics being more common. Although occupational debris was dispersed over the entire area, discrete shell deposits or middens were few, limited in horizontal extent, and restricted to the area near the bluff. This tract appears to have sustained a fair amount of disturbance, although intact St. Johns II deposits may exist.

C.B. Moore and the Shields Mound

Either shortly before or after each field season at the Grant Mound, C.B. Moore spent time working at the nearby Shields Mound (8DU12). In 1893, he briefly visited and dug into an “Indian earthwork of great size” that he referred to as “Mound near Mill Cove” (Moore 1894:204-205). But intensive digging of this mound did not occur until the next year, when 31 men spent 17 7-hour days at the sand tumulus he now called the “Shields Mound” (1895: 452-468). According to Moore (1895:455), the Shields Mound was 5.5-m tall and structurally quite complex. It was “slightly oblong with rounded corners,” and had a base diameter of 65.2 m and a summit measurement of 40.5 by 35.1 m. He characterized it as “a great platform mound entirely unlike in form any aboriginal earthwork on the river.” Although a house atop the “platform mound” had recently burned, Moore (1894:205) was rather adamant about it being a flat-topped mound and asserted “it is not probable that the mound was in any way leveled for its [house] reception, since examination of the steep and symmetrical sides showed no appearance of deposits from above.”
The platform mound at Shields was situated upon “high rolling ground,” approximately 137 m south of the river bluff (Moore 1894:204; 1895:454). Admittedly, rolling does not often come to mind when one considers the topography of northeastern Florida, but, as previously discussed, it appropriately describes the relic dunal terrain that sweeps across this section of the south side of the St. Johns River. Figure 5-5 depicts Moore’s rendering of the Shields Mound (see Morgan 1999:210 for an idealized rendition of the Shields Mound based on Moore’s data).

A “carefully graded approach” or earthen ramp, 38.2 m-long and 26.7-m wide led to the mound summit from the north, whereas a series of “curious ridges” extended off the other side of the mound in a south-southwest direction. Of these, the main southern ridge is unique and shaped like a fishhook. It began at the base of the mound with an elevation of about 30 cm and continued for about 150 m where it rose to a maximum height of 4.1 m, before it turned northwest and gradually descended until it reached surface grade at the hook tip. According to Moore (1895:454), the interior slope of the hook was “so abrupt as to be difficult of ascent.”

Another ridge apparently continued southwesterly at the point where the main ridge began its hook turn. As this ridge continued to gradually descend for about 100 m it remained rather amorphous in shape, but eventually formed a discernible low ridge that was about 10-m wide and 15 to 25 cm high. Paralleling this is another low ridge that’s shape was clearly visible back closer to the hook. Although the two low ridges were soon “lost in the surrounding territory,” Moore (1895:454) speculated that together they “served as a covered way” about 20-m wide that led to a “small lake,” some 546 m from the platform mound.

Although the “platform mound” exists today, it has been impacted by the construction of a house along the summit’s southern edge. Connected to the house, at ground level, is a basement-like garage set into the southern slope of the mound. A dirt road has been graded into its eastern slope, with a cement wall erected along the western side of the road to curtail erosion from above.
Figure 5-5. Plan drawing of Shields Mound (Moore 1895).
According to one landowner, the summit was modified and scraped to a lower grade in the 1960s to accommodate construction of the house (Kinzey Reeves, personal communication, 1999). Portions of the “ridges” nearest the mound are also still visible as part of an open yard. The hook segment and its interior ravine are still observable, but is currently heavily overgrown with forest cover. Although partly obscured by vegetation, the layout of this area does not appear as well defined as Moore’s sketch leads us to believe. The southernmost extent, including the two low ridges, have been destroyed or altered beyond recognition by road construction and suburban development.

Moore (1894; 1895) perceived the mound complex to be solely the result of aboriginal construction, but this may not be entirely true. It appears that the mound and main ridge are part of a natural relic dunal formation that parallels the present Atlantic coastline. While a considerable amount of fill may have been added to create the platform mound, much of the main ridge may have already existed in some form as a sand ridge. However, the landform was sculptured to produce the desired shape. Thus, as was the situation with the Grant Mound, the builders of the Shields Mound may have taken advantage of a prominent natural feature in the creation of “monumental architecture.” If this was indeed the case, this may explain why the Grant Mound was positioned directly on the bluff and the Shields Mound was placed over 100 m away; they intentionally selected the highest points for mound construction.

Each mound clearly provided a commanding view of the river, and each was bordered on the east by a very abrupt and rather dramatic drop in natural elevation. However, this does not mean that native peoples did not add to, modify, or sculpture existing landforms; evidence clearly indicates that they did put substantial effort into building the mounds. By working the earthworks into the “rolling” natural topography, a grander edifice can be erected with less work. Depending on one’s vantage points, the Shields Mound exhibits varying heights and appearances, but is most impressive when viewed from the river to the north and the lower bluff to the east.
Moore (1895:455) dug the bulk of the eastern slope of the Shields Mound, including the easternmost 3 m of the summit plateau, to a depth of approximately 5.2 m below the summit. From that point, the entire mound top was excavated to depths between 1.8 and 2.4 m below summit surface. Although “no uniform stratification” was apparent, Moore, in his own convoluted and at times contradictory way, did describe three general strata. The deepest stratum (herein referred to as Zone III) was a light yellow sand described as both “free from admixture of any foreign substance” and “with occasional particles of charcoal.” Although Moore’s measurements varied, depending on location, it appears that Zone III was encountered between 2.4 and 4.3 m below summit, and represents sterile subsoil.

Surmounting this stratum, beneath the center of the summit, was a “stratum of dark yellow sand,” 0.9 to 1.5-m thick, with considerable charcoal flecking (herein referred to as Zone II). The basal section of this zone contained a thin charcoal-rich layer “taken as indicating the base of the mound.” (Moore 1895:45). Within the eastern slope area, however, he describes Zone II as containing “irregular and local strata” consisting of yellow sand, charcoal, shell, and gray sand darkened by fire. Here Moore (1895:456) claimed that the stratum extended from 0.8 to 4.3 m below the eastern summit floor. In his sum, burials in this stratum lacked burials and displayed strata of shell midden and fireplaces, “all the marks of prolonged occupation” (Moore 1895:467). It was his belief that “these strata probably extend through the mound.”

In support of this argument, Moore cites his discovery of “a large bed of oyster shells” near the center of the summit, about 2.1 m below its surface, in which he discerned a posthole, 20-25 cm in diameter and 1.4 m deep. He attributed this to “domiciliary” activities that preceded the summit’s use as a mortuary facility (1895:467). Contrary to Moore’s belief, the shell midden may represent either a premound surface related to initiation of mound use or a deposit related to a specific episode of mound activity. Because of the ambiguity of some of Moore’s statements, it is unclear whether Zone II represented mound fill free of interments or premound contexts, but it appears that Moore favored the latter interpretation.
Above Zone II was “mortuary” mound fill (herein referred to as Zone I) that consisted of an eclectic assortment of colored sands that included yellow, dark yellow, chocolate, white, and red, all of which “varied at every stage of the digging.” He encountered both pockets and thin lenses of colored sands, as well as an irregular layer of “light chocolate to brick red” sand that covered much of the central and eastern part of the summit. The latter stratum, colored various hues of red through the addition of hematite, approached a thickness of 1.5 m in certain areas of the summit.

With regard to burials, Moore ran across a “few interments” along the outer margins of the mound, “possibly two dozen” burials within the eastern slope-summit area, and an undisclosed number of human remains at over “150 points” within the main part of the mound. With regard to the latter two loci, burials were restricted to Zone I. In fact, all human remains were met with within 0.9 m of the summit surface, except for four interments that were encountered at a depth of 1.8 m below surface. Unlike Grant Mound, secondary or disarticulated burials appear to have outnumbered primary interments in the Shields Mound. Unfortunately, due to Moore’s vagueness, the actual number and distribution of burials in the Shields Mound are uncertain. A few pathological bone specimens were observed as were a number of “platycnemic tibiae,” but no intact crania were recovered (Moore 1895:456-457). Unfortunately, we are unable to glean any sex or age information from Moore’s descriptions of the burial population at either Shields or Grant.

As was the case at Grant Mound, Moore’s excavation at Shields Mound produced a variety of artifacts. With regard to artifacts, he uncovered a wide array of local and nonlocal materials, including various items and fragments of copper; smaller amounts of galena and mica; 119 stone projectile points; polished stone celts, and other ground stone implements; marine shell beads; whelk cups; ceramic and stone pipes; and nine ceramic pots, a tureen shaped clay pendant, and a bird shaped clay vessel.
Moore (1895:457) mentioned coming across occasional sherds, especially in association with “midden refuse.” Plain sherds predominated, but check stamped and complicated stamped were also found. According to Moore, these latter sherds exhibited patterns unlike those found at other nearby mounds (i.e., Late Swift Creek). The specimen illustrated in Moore’s volume is a classic example of charcoal-tempered Early Swift Creek, which indeed typically displays design patterns of poor quality compared to that of Late Swift Creek. Although ambiguous, it appears that these pottery fragments were coming form both Zones I and II, and represent either unintentional inclusions in mound fill or submound refuse or perhaps cases of both.

Among the most impressive Shields Mound finds were two long stemmed spatulate celts or what Moore (1895:461) termed “spade-shaped implements.” The Shields Mound specimens, “probably of Saussurite,” each demonstrated a broad round bit with four tick marks on each side, pronounced barbs, and a slender, elongated poll or stem with a rough or unfinished end. Moore (1895:461) provided a drawing of the larger specimen, whereas Goggin (1952:Plate 10) presents a photograph of each. Spatulate celts, erroneously called spuds due to the early belief that they represented an agricultural tool, have been found in mounds throughout the greater Southeast and often have been interpreted as badges or emblems of office or high status (Brown 1976:126; Brown et al.1990:264; Larson 1971; Pauketat 1983; Pebbles 1971). Moore also recovered three spatulate celts from Mt. Royal (see Mt. Royal discussion on celts below in this chapter). The presence of these and other exotic materials from the Shields Mound indicates the existence of external exchange relations that allowed the acquisition of a variety of non-local metal, stone, and minerals from far-flung areas of the eastern United States during the period, A.D. 900-1250. We will return to a discussion on what the implications of the presence of these and other exotic goods in the both the Shields and Grant mounds might mean in Chapter 8.

Shields Mound after C.B. Moore

Like the Grant Mound, the Shields Mound garnered the attention of several archaeologists, but always from afar (e.g., Goggin 1952; Milanich 1994; Milianich and Fairbanks 1980; Williams
and Goggin 1956). Either the mound’s unique layout or its unusual artifacts were used in cultural syntheses on the St. Johns II culture or on the Mississippian period in general, with total reliance on information generated by Moore’s investigations. Additionally, in his synthesis of Hopewell traits in Florida, Brose (1979) used Moore’s excavation results to misclassify the Shields Mound as Middle Woodland. No formal testing or professionally run excavations were undertaken until 1988, when limited shovel testing was performed in the vicinity of the mound (Johnson 1988). During this grant-sponsored project, residential yards surrounding the Shields Mound were subjected to surface reconnaissance and random shovel testing that resulted in the documentation of 6 previously unrecorded sites, 8DU5603-5608 (Johnson 1988:93-106). The small size and intermittent distribution of these sites, more appropriately middens, is the byproduct of limited shovel testing, since it appears that a only day or two was spent in the Shields Mound vicinity.

The Shields Mound (8DU12) itself was also visited and sampled, but no mention was made of the investigative strategy involved in the collection of 32 artifacts, the “majority” of which “came from the earthwork” (Johnson 1988:68). The presence of a dirt road along the eastern edge of the mound along with other areas of exposure exist around the house atop the mound suggest that the artifacts were surface collected. Although recorded as seven separate sites, all are contained within an area that measured approximately 300 by 300 m (Figure 5-6). As discussed below, recent testing of this same location has shown that they are all part of one large St. Johns II site.

**Testing of the Shields site, 1999-2002**

While worthwhile information can be gleaned on exchange networks and ceremonial life of the St. Johns II people by examining C.B Moore’s mound data, he provided no information on villages or habitation contexts at either the Shields or Grant mound sites. To remedy this void, archaeological testing of nonmound loci at the Shields site was initiated in July 1999 and continued intermittently until February 2002. This has been a joint venture that involved, at one time or another, graduate students from the University of Florida and Florida State University,
Figure 5-6. Archaeological sites near the Shields Mound.
undergraduate students from the University of North Florida, and local residents and other volunteers under my direction. Episodes of fieldwork were typically restricted to long weekends, although a three-week field school was conducted at the site in the summer of 2001.

In total, 69 half-meter square shovel tests (1-m deep) were excavated within a riverfront section of the Shields site, encompassing five contiguous house lots north and west of the burial mound. In general, shovel tests were placed 25-m apart, although some adjustments were made to compensate for areas of disturbance (e.g., paved driveways, fences, septic fields, garage, etc.) and to sample certain loci. The investigated section of the site measured about 300 m (E-W) by 250 m (N-S) and was bounded by the river to the north, a dramatic drop in elevation to the east, a marked decline in artifact density to the south, and recent residential development with tightly spaced houses to the west. In addition to shovel testing, 8 1 x 2-m units have been excavated within midden concentrations located on one of the lots. Finally, limited coring of the Shields Mound was performed with the aid of a geoprobe.

The location of the various tests excavated at the Shields site is shown in Figure 5-7, which also reveals the amount of modern disturbances associated with house-related construction. A few early to mid-twentieth century houses and outbuildings were located in the area, but none are standing today. The topography undulates, but the general trend is for a gentle southward downslope from the high bluff shoreline that, after about 125 m, begins a fairly steep ascent. Much of the area is open and maintains a grass yard appearance, although large live oak and hickory trees are scattered about. Situated closer to the houses are smaller planted trees and shrubs. The southernmost portion of the sampled area is covered by secondary forest vegetation. This segment of the site is representative of the older, linear lots mentioned earlier in the chapter. All roadways are dirt and have been created via continuous use, although a loose limerock layer has been laid down to increase traction.

Standard field procedures were employed throughout fieldwork. Shovel tests were dug in arbitrary 20-cm levels, whereas larger units were excavated in natural levels that did not exceed
Figure 5-7. Shovel test and shell midden locations, Shields site.
10 cm in thickness. Fill from all units was screened through 6.35 mm hardware cloth, with all cultural materials retained according to provenience (e.g., unit level, area, feature). The total volume of shell from each shovel test or unit level was measured in liters in order to develop shell density and distribution maps. Soil samples of varying sizes were taken from selected features and shell midden contexts and subjected to either fine mesh (1.19 mm) water screening or flotation. To date, none of the fine mesh faunal materials has been analyzed.

Sixty-four shovel tests were dug across the site on a 25-m grid to sample for the presence or absence of cultural materials and to gain a better understanding of the spatial organization of the site. Five additional shovel tests were dug in specific areas to test distinct rises, suspected to represent shell deposits or other anomalies. Across the sampled section of the site, shell density per shovel test ranged from a trace to over 100 liters (l). Using 20-l per shovel test as a criterion for high shell density, three high concentration loci were delineated (see Figure 5-7). From north to south, these shell middens are designated Bluff Midden, Reeve’s Rise, and Kinzey’s Knoll. All three are partially discernible today as low rises in a grass yard. Outside of these three concentrations, only two shovel tests yielded a shell volume of 10-l or more, and both were determined to represent very localized deposits of shell refuse. As expected, vertebrate faunal remains density was positively correlated with shell density; a consequence of the acidity reducing quality of calcium leaching from the accumulated masses of shell refuse. There was also a positive correlation between ceramic frequency and shell midden density, although high and moderate concentrations of pottery occurred in areas of little or no shell.

Of the 69 shovel tests, 66 yielded artifacts. Ceramic distribution data indicate an unbroken spread of St. Johns II wares over the entire area, and the recovered pottery types are grossly contemporaneous with the Shields Mound, given Moore’s results. To date, no pre-St. Johns II and only a few post-St. Johns II period artifacts have been identified among the over 5000 sherds retrieved to date. Based on his earlier testing of this same area, Johnson (1988) reported finding small amounts of Deptford (n=45), Swift Creek (n=1), and San Marcos (n=3) types among the
over 600 sherds from sites 8DU12 and 8DU5603-5608; St. Johns (n=448) and cordmarked (n=96) wares were by far the most dominant. The high incidence of Deptford Check Stamped pottery is somewhat perplexing, since we have sampled the same loci as Johnson and have yet to find a single Deptford sherd. I suspect that the Deptford Check Stamped sherds recovered by Johnson are actually sandy St. Johns, a type we have recovered and recognized microscopically. The three mission-period San Marcos sherds recovered by Johnson were from the far northwestern part of the site; an area not sufficiently sampled during our investigation. The Swift Creek sherd was recovered well back from the river and away from our primary loci of testing.

Thus, the area surrounding the Shields Mound represents an almost pure St. Johns II site. The few St. Marys, San Marcos, and Swift Creek sherds evince short-term site use such as resource procurement encampments. More substantial Swift Creek refuse deposits and sand burial mounds were previously documented a short distance south of the main concentration of St. Johns II refuse situated between the Shields and Grant mounds. In an attempt to gain a better understanding of the site’s St. Johns II component, 3 areas of the Shields site were subjected to additional unit investigation. These loci were Kinzey’s Knoll, Reeves Rise, and Bluff Midden.

**Kinzey’s Knoll**

Kinzey’s Knoll is a distinct dome-shaped rise of densely packed shell midden that measured about 15 m in diameter. However, shovel testing and subsurface probing revealed that the distribution of thickly deposited shell midden was actually much larger and continued downslope to the west and north, eventually covering an area that measured 30 m (N-S) by 25 m (E-W). This locus is consistent with the location of site 8DU5606, which Johnson (1988:100-102) described as a 1.2-m thick midden measuring only 30 by 25 m.

In the summer of 1999, two closely-spaced 1 x 2-m units (Units 1, 2) were dug into the northern and highest section of Kinzey’s Knoll, approximately 50 m northwest of the Shields Mound. The following summer, we expanded Units 1 and 2 with the excavation of two more 1 x 2-m units (Units 3 and 4). Together the four form two staggered, yet contiguous, 2-m squares.
Units 5 and 6, also 1 x 2 m in size, were excavated in the summer of 2001 and were placed south and west of Kinzev’s Knoll (Units 1-4), respectively.

The excavation of Units 1-4 on Kinzev’s Knoll revealed an approximately 80-cm thick shell midden that contained an abundance of pottery and large quantities of vertebrate fauna (Figure 5-8). The top of the shell deposit occurred immediately below the grass and thin layer of humus. The shell midden consisted primarily of an upper stratum of dark brown sand followed by a slightly lighter lower stratum of brown sand. For the most part, the shell was densely packed, although pockets and areas of more loosely accumulated shell were documented. Within the four investigative units, a high shell to soil ratio was documented, and a total shell volume of 3864 liters was recorded. Thus, shell, not dirt, formed the matrix within which the overwhelming majority of artifacts were recovered.

Oyster was by far the dominant shellfish constituent within the midden, with much lesser amounts of quahog clam, Carolina marsh clam, Atlantic ribbed mussel, and stout tagelus. Small amounts of whelk debitage were also recovered. Occasional lenses of these minority species were noted, but no distinct concentrations were recorded. A small, intrusive pit containing a mason jar, nails, and other twentieth-century debris was encountered within the shell midden. A few other historic items were recovered from the upper 20 cm of the units.

Several features were identified at the shell midden-subsoil interface, the most notable of which included a small bell-shaped pit surrounded by a series of 8 possible postmolds, 2 thin, amorphous stains of heat-altered sandy clay, and an approximately 10-cm diameter stain of finely ground hematite and sand (Figure 5-9). The pit contained small amounts of shell and bone and a few St. Johns sherds, and the dispersal of postholes appeared random with no discernible pattern. Also identified were a small pocket of shell refuse, a dip or low spot in the overlying shell midden, and a dark area of leachate soil. The function, distribution, and precise relationship of these features to the overlying shell midden are uncertain due to restricted areal extent of excavations to date.
Figure 5-8. Unit 4 and 2, south wall profile, Kinzey’s Knoll.
Figure 5-9. Features at shell midden-subsoil interface, Kinzey’s Knoll.
The shell midden, replete with preserved vertebrate faunal remains, contained an impressive variety of fish, deer, bear, canid, bobcat, turtle, small mammal, and bird bones. Marine and freshwater fish, widely diverse in size, were by far the dominant class of animal within the assemblage. The quantity of deer and other small mammal remains such as rabbit and squirrel was higher than what is normally expected for a northeastern Florida St. Johns II coastal shell midden (O’Steen 1999; Russo et al. 1993:136-173). However, we must bear in mind that the number of analyzed faunal assemblages from St. Johns II sites is currently low. The vertebrate faunal species that comprise the midden’s faunal assemblage are not necessarily unique, but taken together the diversity in the sizes and kinds of animal bones is considered atypical of general domestic refuse on northeastern Florida sites (Dunbar 2000). With regard to plant remains, while formal ethnobotanical analysis has not been carried out, cursory examination of both large and fine mesh screen samples has failed to identify any preserved maize cobs, kernels, or cupules.

Pottery from the Kinzey’s Knoll midden consisted mostly of St. Johns Plain and Check Stamped, but chalky punctuated, red filmed, and Little Manatee varieties were also found. Most conspicuous among the nonspiculate wares was grit-tempered Ocmulgee Cordmarked, several of which possessed interior red filming, an unusual trait combination also reported by Moore (1895) on two partial vessels from the Shields Mound. A recent technofunctional study by Rolland (2000, 2001) of over 2100 sherds from two of the four excavation units indicated that portions of over 350 separate vessels were represented. At least 30 were grit-tempered cordmarked pots, including vessels that displayed both folded and simple (unfolded) rims. One red filmed vessel possessed a unique calcareous clay paste suggestive of a north-central Florida production origin. While no complete vessels were identified, sizes for some were ascertained on the projected diameter of large rim sherds. The majority of vessels for which orifice diameter was estimated were medium sized, with mouth openings between 20 and 39 cm in diameter (Rolland 2001).
In addition to ceramics, a striking array of other items made of shell, bone, stone, and metal were retrieved. Bone and shell artifacts were common and included a variety of formal and informal tool forms (Penders 2001). Items of modified bone consisted of undecorated and incised pins or pin fragments, awls, shark centrum beads, dolphin tooth abraders, and shark tooth gravers/scrapers and drills. There were also several informal tools crafted of mammal bones as well as two antler tine fragments. Shell artifacts were primarily beads, but a scraper, a pendant, and a few columella punches or burnishers were part of the midden assemblage. What is most interesting about the bone and shell artifacts is the high ratio of decorative objects to tools, which led Penders (2001) to conclude that these items were not routine domestic or living area garbage.

One bone pendant, referred to by some as a dagger form, exhibits an incised design on both sides consisting of three eye motifs horizontally stacked and each linked by four ladder motifs. James Brown (personal communication, 2001) has commented that the design is reminiscent of Muskogean cosmology that envisions three worlds (human, middle, lower) connected by four cosmic cords. This incised piece along with a broken pin engraved with a bird’s head design contained remnants of finely ground hematite powder in the incisions.

Lithic material from the midden included sandstone abraders and abrader fragments, a sandstone hone, 2 greenstone celt fragments, several projectile points, a large heat treated chert core, and a small amount of debitage (Bland 2001). The 2 pieces of greenstone appear to represent celt fragments, one of which exhibited red pigment (iron oxide) embedded in surface and edge pores. Of the 12 projectile points recovered from the site to date, 11 have come from the Kinzey’s Knoll shell midden. These included 7 small triangular Pinellas points, a Citrus point, a Santa Fe point, and an unusual side-notched point that may represent a crude attempt to copy a Cahokia point (Bland 2001). The notched point, the Santa Fe, and three of the Pinellas points came from lower shell midden levels, whereas the remainder of the stone points was recovered from contexts immediately below the shell midden. However, all are associated with levels yielding abundant St. Johns II pottery. The Citrus and Santa Fe points are earlier point
types that were probably scavenged from Archaic sites elsewhere. The same may be true of the flakes, many of which were heat treated, used to manufacture the Pinellas points (Bland 2001). Moore (1895) recovered over 100 projectile points from the Shields Mound and many of those illustrated are Archaic types (Bland 2001). The scavenging of earlier point types to use in ritual or ceremonial contexts appears to have been a common practice among St. Johns II peoples in northeastern Florida and at Mt. Royal.

Other exotics included three small scraps of copper, a small copper bead, and several small hematite nodules, all of which provide direct evidence of the acquisition of raw materials derived from areas beyond northeastern Florida. Copper was recovered from depths of 20 cm, 40-50 cm, and 60-70 cm below surface. The bead is a piece of rolled sheet copper that may have been manufactured on site, and the scraps may be pieces left over from working sheet copper (e.g., as covering for wood, stone, or bone artifacts). Finely, several small fragments of iron oxide or hematite (Fe₂O₃), a well-known source of red pigment, were recovered. In addition, hematite powder or dust (ochre) was observed on shells and in the cracks and crevices of certain artifacts, such as sherds and a fragment of greenstone.

Because St. Johns II pottery types dominated all excavation levels from top to bottom, the Kinzey’s Knoll shell midden was dated broadly to the period, A.D. 900 to 1250. In an attempt to narrow this span of time, oyster shell recovered from a depth of 15 cm below surface and another from 67 cm below surface were submitted for radiocarbon dating. The one sigma calibrated assays were A.D. 865-1035 and A.D. 990-1070, respectively, with a calibrated intercept date of A.D. 975 for the former and A.D. 1030 for the latter. These radiocarbon dates, combined with a lack of sherd cross-mending between excavation levels, suggest the midden was laid down in distinct deposits over a relatively short period of time (ca. 50-100 years). The two dates bracket the previously cited radiocarbon date from a St. Johns II feature beneath the base of the Grant Mound, suggesting contemporaneity between these areas of the Shields and Grant sites during the period cal. A.D. 900 to 1100 (see Table Figure 4-1).
Abutting the Kinzey’s Knoll shell midden to the west and south was a low-density spread of midden refuse. To sample this peripheral area of shell midden, a single 1 x 2-m unit was placed both to the west (Unit 5) and to the south (Unit 6). Unit 5 intersected a locus of disturbance associated with the construction and subsequent filling of a mid-twentieth century well. Chert gravel and other historic debris were abundant within the top 40 cm of soil. However, undisturbed contexts below 40 cm indicated an organic midden with scattered oyster shell, little vertebrate bone, and St. Johns II pottery. A thin shell deposit was partially exposed within the western section of the unit. Probing indicated that this St. Johns II feature was oval and measured 1.68 by 1.22 m. The shell deposit was 11 cm thick along the unit’s western wall, and thinned to a tapered point that formed its eastern edge. This suggests that it represents a small shell midden deposited on a former ground surface. The only unusual artifact from Unit 5 was a portion of a greenstone celt recovered from a mottled leachate zone beneath the organic midden in the eastern part of the unit.

Unit 6 was positioned about 30 m south and slightly downslope of the apex of Kinzey’s Knoll at the base of a southward rising slope. This locus of investigation corresponded to Johnson’s (1988:102-104) site 8DU5607, which he described as a circular shell midden rise that measured only 20 m (E-W) by 15 m (N-S). Unit 6 revealed a thick, dark grayish-brown earth midden with occasional whole and fragmented mollusk shells and large amounts of St. Johns II pottery and vertebrate animal bone. A large pit feature, more than 1 m in diameter, was partially exposed at the midden-submidden interface. The feature extended into the western and northern walls of Unit 6, such that only a small portion within the unit was excavated. The sloped walls and round bottom of the 1.1-m deep pit was aligned with a layer of well-packed shell midden along with flecks and small chunks of charcoal.

An oyster shell from the base of the feature yielded a one sigma calibrated radiocarbon assay of A.D. 1240-1310, with a calibrated intercept date of A.D. 1290. This represents the latest (most recent) radiometric date associated with a St. Johns II context in northeastern Florida.
Cultural materials recovered from the pit feature was similar to that recovered from the overlying midden, which consisted mostly of St. Johns II pottery and vertebrate bone. Due to partial excavation, the precise function of the pit is uncertain but it may have been constructed for some form of food processing or cooking and later used as a receptacle for refuse.

**Reeves Rise**

This shell midden was located about 25 m north of and upslope from the northern edge of the Kinzey’s Knoll shell midden. Its size (ca. 20 m in diameter) was delineated via probing, but it stood out visually as a high spot directly in front of the southern entrance to the Reeves’s house; the northern quarter of the midden extended beneath the elevated house. Testing here was at first restricted to a single 0.5-m square on the midden peak, since the landowner was somewhat apprehensive about having a large unit opened in this part of his yard. Following the success of the first shovel test, however, he allowed us to excavate two more shovel tests in close proximity to the first. Each was dug to a terminal depth of 1 m. These shovel tests produced shell volumes of 72-l, 70-l, and 29-l. The former tests were positioned roughly along the same north-south axis but 3 m apart, whereas the later test was situated 3 m south of the western test, per the landowner’s direction. Areas further to the north and west were suspected as impacted by house construction and the building of an earlier cement pond that was filled in the 1960s.

The two northernmost shovel tests contained small amounts of glass, metal, construction rubble, scattered and broken mollusk exoskeletons, and a few prehistoric potsherds in the top 15 cm of soil. Beneath this disturbed layer was a consolidated oyster shell stratum that extended from 15 to 48 cm below surface. Maximum shell volume was documented between 30 and 40 cm below surface. A radiocarbon assay on shell taken from near the base of the mound, at a depth of 45 cm below surface, produced a one-sigma calibrated date range of A.D. 1160-1270 (A.D. 1220 intercept date). This puts the shell midden at Reeve’s Rise about a century of so after the one deposited at Kinzey’s Knoll. The southern shovel test revealed a loosely packed shell midden that contained material down to a depth of 40 cm below surface.
Cultural material from the three shovel tests consisted exclusively of St. Johns II pottery types along with small amounts of grit-tempered cordmarked pottery. The most unique find was an effigy adorno from a St. Johns Plain pot. Unfortunately, only a small section of the vessel was recovered. The adorno is a small animal head, with a thin snout, a slit for a mouth, two small punctuations for eyes, and distinctive pointed ears. It appears to most closely resemble a dog, fox, or some other canid. Only a few pieces of modified bone and no lithic artifacts were recovered. Formal bone tools and decorative pins, so conspicuous in the Kinzey’s Knoll shell midden, were absent. Copious quantities of vertebrate faunal remains were removed from the shell midden, including fish, bird, turtle, deer, and small mammal. Oyster was the dominant shellfish constituent with trace amounts of Carolina marsh clam, stout tagelus, and Atlantic ribbed mussel, and whelk shell fragments noted.

**Bluff Midden**

The Bluff Midden was distributed along a section of the undulating bluff that overlooks the St. Johns River to the north. It was bounded on the basis of five shovel tests, with shell volumes that ranged from 10 to 32 l (mean volume of 17-l). The Bluff Midden, which measured 90 by 25 m, was less dense and more variable in shell volume than the other two shell middens. This locus was previously sampled by Johnson (1988) and designated 8DU5605. He described it an “artificial rise and associated shell midden…approximately 30 meters in diameter” (Johnson 1988:97-98). Recent testing revealed that the rise is not artificial but part of the rolling bluffline and that the shell midden extended downslope to the west. In fact, shovel testing indicated that the shell midden was thicker and more consolidated along the slope than on the apex of the bluff.

The midden is dispersed along a bluffline that rises from west to east, with a 2.8 m differential between highest and lowest surface elevations. A 2-m square, consisting of two contiguous 1 by 2-m units (Units 7 and 8), was excavated in the lower, western part of the shell midden, where shovel testing showed the shell stratum was more consolidated. The unit was placed on a slope in which the ground surface along its western edge was approximately 20 cm
lower than along its eastern edge. The unit was dug to a depth of 1-m below its southwestern or lowest surface corner.

The various strata revealed in the northern wall profile and followed the sloped contour of the ground surface (Figure 5-10). Beneath the grass and humus layer was an approximately 27-cm thick layer of very dark grayish brown sand with a loose amalgam of molluscan exoskeletons, which overlay an approximately 36-cm thick layer of moderately packed shell within a very dark grayish brown sand matrix. Although the latter demonstrated a higher shell to dirt ratio than the surmounting stratum, it was not nearly as consolidated as the sampled portions of the Reeves Rise and Kinzey’s Knoll shell middens. Below the lower midden was a leachate zone that was followed by yellow brown sand, with rare shell. There was much less pottery, bone, and shell within these lower zones.

Like Kinzey’s Knoll and Reeves Rise, all contexts sampled within the Bluff Midden yielded mostly, if not exclusively, St. Johns II period ceramics. However, this midden yielded a higher incidence of sandy St. Johns wares and Little Manatee sherds than the other two middens (Vicki Rolland, personal communication, 2002). In addition to large quantities of chalky pottery and grit-tempered cordmarked sherds, several lithic flakes and pieces of iron oxide were recovered along with a few bone tool fragments and other pieces of modified animal bone and whelk shell. The most unique items were a small piece of sheet copper from the shell midden and a small, rolled sheet copper bead from the leachate zone beneath the shell midden. Vertebrate animal bone refuse was recovered in massive amounts that included mostly fish with occasional deer, turtle, and bird. Other than the two pieces of copper, the remains from the Bluff Midden appear to represent typical domestic refuse. Once again, oyster was the primary shellfish species with marsh clam, stout tagelus, Atlantic ribbed mussel, and whelk scattered in small amounts throughout the midden.

An oyster shell from near the base of the midden was radiocarbon dated to A.D. 1070-1230, with a calibrated intercept date of A.D. 1170. Temporally, this places the Bluff Midden
Figure 5-10. Unit 8, north wall profile, Bluff Midden.

- very dark gray (10 YR 4/3); little shell
- very dark grayish brown (10 YR 3/2); loose shell
- very dark grayish brown (10 YR 2.5/2); moderately dense shell
- light brownish gray (10 YR 6/2), w/light gray (10 YR 7/1) mottling, rare shell
- yellowish brown (10 YR 5/6), w/brownish yellow (10 YR 6/6) mottling, no shell
between the earlier Kinzey’s Knoll and the later Reeve’s Rise radiocarbon assays. Based on the one-sigma chronometric dates from these middens the three loci appear sequential, although the Bluff Midden and Reeve’s Rise assays overlap during the years A.D. 1160 to 1230. Presently it is not known how much erosion has taken place along this section of the bluff, so it is difficult to discern how far he midden may have once extended to the north.

**Concluding Remarks on Recent Testing at the Shields site**

Because we have yet to uncover any direct or indirect structural evidence, such as arrangements of postholes, pits, or hearths, the precise nature and distribution of the St. Johns II domestic structures and other buildings at the Shields site cannot be ascertained. However, shovel testing and unit results contribute important data on the dispersal of refuse across the site. This spatial information in concert with the kinds and range of materials recovered from specific site contexts can be used to offer preliminary suggestions on site activities and community layout.

Shovel test results indicate that there is a continuous spread of St. Johns II ceramics across the sampled section of the Shields site. The ubiquitous distribution of quantities of pottery contrasts with the dispersal of shell refuse. Shell midden concentrations are restricted to three discrete loci, although two other small shell features were encountered during shovel testing. Oyster is the by far the dominant shellfish species within in all sampled middens. As expected the density of vertebrate faunal materials is positively correlated with density of shell.

Of the 69 shovel tests dug on site, 57 (83%) yielded 8 liter or less of shell, and 46 (67%) produced 1 liter or less of shell. Though a trace scattering of shell is present throughout the site, a distinct mantle of shell midden is not pervasive nor are individual house middens peppered over the site, as is the case with latter St. Marys II sites. Compared to the amount of shellfish refuse documented on sites to the east closer to the coast or on the barrier islands, much more shell was expected at the Shields site than was actually encountered, particularly considering the fact that the site may have been occupied for several centuries, as the radiocarbon dates suggest.
Factors contributing to the patterning of shell refuse at the Shields site include the possibility that oysters were not consumed as much by site inhabitants as they were by groups inhabiting sites near the coast. Alternatively, perhaps a good deal of oyster processing occurred off site, possibly near the locus of exploitation. An interesting fact regarding the location of both the Grant and Shields sites is that expansive salt marshes do not front the river shoreline as is the case farther to the east. Both the Mariano de la Rocque map of 1791 and the Charles Vignoles watercolor map of 1822 provide a detailed sketch of the lower St. Johns River, and each shows that the distribution of marsh habitat terminated within the center of Mill Cove, east of the Shields sites (see maps in Ward 1985:87, 126-127). It is very likely that the dispersal of salt marsh biomes coincided with that of viable oyster beds, meaning that oyster populations may not have been immediately available to the occupants of the Shields and Grant sites. Along the St. Johns River west of the Grant Mound, known sites are characterized by either very low density scatters of shell or no shell at all.

From the Shields Mound, site occupants may have had to travel at least 2 km before they would have encountered expanses of marsh, according to the earlier maps. However, reports from the early twentieth century indicate that Mill Cove was a deep-water cove that was less brackish then it is today (Anonymous 1986). According to local fishers whose families have been fishing these waters for the past century, certain freshwater fishes were once more common in Mill Cove than elsewhere along the lower St. Johns River (Walter Wells, personal communication, 2002). In fact, prior to major rechannelization efforts in the 1930s, freshwater eelgrass grew along the banks of Mill Cove and oysters beds were absent. The salinity level of the cove may have been lower prehistorically due to a higher rate of freshwater intrusion caused by north-flowing freshwater within the original channel moving into Mill Cove, or the salinity level could have been variable due to hydraulic or climatic conditions. In either case, it may have had a pronounced effect on oyster populations in the cove, meaning the occupants of the Shields site may, at times, have had to travel even farther downstream, to gather oysters.
Another factor that we must keep in mind with regard to interpreting the spatial distribution of shell midden refuse was site cleaning. If people were living at the site continuously, instead of periodically, there may have been a need to dispose of large amounts of non-biodegradable refuse (e.g., oyster shell) in a way that would not have impinged upon site activities or living and work spaces. Thus, people may not have been able to throw or sweep trash anywhere they wanted, and there may have been an emphasis on keeping large sections of the site clean or free of bulky refuse, such as shell, meaning that secondary communal dumps would have been localized and situated away from houses. There may have been less concern for where sherds and other smaller pieces of refuse were discarded, particularly if these items could have been recycled. This may have been a common pattern at village sites, but such a distribution becomes obscured on multicomponent sites with a high degree of subsequent reoccupation.

With this in mind, how might the three discrete shell midden loci be interpreted? Were they all simply communal loci for the dumping of domestic garbage or did they serve different purposes? The location and material content of the three suggest that they may have been formed as a result of at least two different disposal activities. The Bluff Midden was situated along the high bluff fronting the St. Johns River. Artifacts from tests excavated within this deposit are, for the most part, most indicative of general domestic garbage. The two small pieces of copper are exceptions, although they may have simply been lost rather than intentionally deposited with other refuse. The large quantities of invertebrate and vertebrate remains and pottery along with flakes, modified pieces of bone, and shell, indicate that the Bluff Midden functioned as a secondary trash dump for the people living in that part of the site. It could also have served as an oyster and fish-processing area, where such fauna were cleaned before being brought to the site and transported to individual domestic loci. More radiocarbon dates are needed from other areas of the Bluff Midden to determine if its use was restricted to circa A.D. 1070-1230, as the single
radiocarbon date suggests, or was it used over a more extended period of time. One radiocarbon assay from a deposit that measured 90 by 25 m is insufficient for dating the entire midden.

Reeves Rise is difficult to interpret due to limited sampling and impact due to past and recent house construction. The recovery of a pottery effigy adorno and a small pocket of hematite suggests a possible ceremonial function, although a general domestic dumping area. The single date from this midden partially overlaps with the Bluff Midden suggesting the two may have been coeval dumping loci during the late twelfth and early thirteenth century.

Kinzey’s Knoll stands out among site loci. The juxtapositioning of Kinzey’s Knoll and the platform mound, which are separated from one another by only 50 m or so, combined with the quantities and types of aboriginal pottery and other artifacts including exotic stone, mineral, and metal fragments recovered suggest its apex reflects refuse associated with special-use activities such as ceremony and ritual. It may represent the byproduct of periodic public displays of group identity such as renewal ceremonies and rites of purification or the promotion of elite power and status through feasting and ritual (Blitz 1993:85-97; Knight 1986:680-683; Lindauer and Blitz 1997). Moreover, the recent identification of a portion of a human innominate bone from the Kinzey’s Knoll shell midden suggests the area may also have served mortuary purposes, such as a ritual staging area for funerary activities and burial preparation.

An important question is whether Kinzey’s Knoll was the actual scene of the activities that created the shell midden or was it simply the locus of dumping, with the ritual and ceremony responsible for generating the material taking place on the sand mound itself or elsewhere. More work must be conducted in this area of the site as well as in other domestic refuse contexts throughout the area between the Shields and Grant Mounds, so we can determine how comparable the materials from Kinzey’s Knoll are to those from other midden contexts throughout the site.

Finally, the Shields Mound itself is the most conspicuous feature on site, and it is part of the built environment. It appears that the native builders took advantage of the natural
topography, but the mound’s final form still bears witness to a considerable amount of human labor. Because Moore (1895) uncovered human burials the Shields Mound was a mortuary facility, and the large number of burials from different areas of the tumulus suggest it was used episodically over an extended period of time. The exact length of use is not known, but it may have served as a cemetery for much of the local St. Johns II period. We know when Moore excavated the mound it had a flat top, but due to his excavation strategy and reporting style we can not ascertain whether a truncated summit was maintained during each episode of construction and burial interment. If a flat summit surface was maintained, it very well may have served as a stage for ritual or a ritual building or dwelling may have existed on it. We will return to a discussion of the three middens and ceremonial aspect of the Shields Mound in Chapter 8.

**Mill Cove Complex**

With the data on hand, how might the spatial relationship between the Grant and Shields mounds be interpreted? Traditionally, the two have been discussed as separate St. Johns II constructs (Goggin 1952:54-55), although, in recent years, we have alluded to the possibility that the two may somehow be related (Thunen and Ashley 1995:6). With a battery of radiocarbon dates and the results of recent archaeological testing now available, it is proposed that the two large mounds are indeed contemporaneous and spatially connected. Positioned about 750 m apart, the two are linked by an almost continuous spread of St. Johns II refuse, which is not present only along steeply sloped and low landforms not conducive to human settlement (Hendryx and Smith 2002; Johnson 1988; NEFAS n.d.; Thunen 2001). Current data indicate that shell midden deposits and discarded refuse are most heavily accumulated in close proximity to each mound, with variable density midden interspersed between the two. More data are needed from loci midway between the two mounds, although these areas have been heavily impacted by recent residential development. Clearly, the Mill Cove Complex was not a vacant mound center.

The two sites appear coeval or at least so closely separated in time as to be statistically indistinguishable during the period A.D. 900-1250. For instance, one of the radiocarbon assays
from a shell midden near the Grant Mound is statistically equivalent to an assay from a refuse deposit near the Shields Mound. In another case, one of the Grant Mound dates (i.e., Feature 1) is tightly bracketed by two dates from Kinzey’s Knoll. With respect to the mounds themselves, both the Long-nosed god maskettes from Grant Mound and the long-stemmed spatulate celts from Shields Mound are considered early Mississippian and dated to circa A.D. 1000-1200. Admittedly, we still do not know the precise physical layout or extent of the village community at any one time during the three and a half century span of the local St. Johns II period.

The term *Mill Cove Complex* is proposed to refer collectively to the Grant and Shields mounds and the widespread dispersal of St. Johns II middens scattered between them (Figure 5-11). The names Shields Mound and Grant Mound will continue to be employed to denote each respective earthwork. Additionally, the word “mound” is dropped and replaced with “site” when referring specifically to nonmound areas adjacent to each mound (e.g., Shields site, Grant site).

Although a detailed discussion of how the mounds may have functioned within the Mill Cove Complex, and how the complex itself related to other sites in northeastern Florida and beyond is reserved for Chapter 8, a couple general statements on the mounds and middens are offered here. First, a reminder for those unfamiliar with the Mill Cove Complex vicinity, its topography is atypical of northeastern Florida. The landscape is very undulating, with marked changes in relief. Topographic features consist of rolling hills, ridges, and ravine-like declivities, all representative of ancient marine terraces, ridges, and dunal fields. The builders of both the Grant and Shields mounds apparently utilized the natural terrain to their advantage and grafted their earthen monuments onto the most prominent natural formations in the immediate area.

Second, an interesting distributional aspect of the area is that St. Johns II artifacts are overwhelmingly concentrated along the bluff, whereas Woodland-period Swift Creek materials are much more prevalent in middens or artifact scatters away from the river on the sand ridges. Refuse dispersal data suggest that St. Johns II peoples were distributed linearly along the river,
Figure 5-11. Location of Mill Cove Complex.
staying within a 200 m or so of the bluff. That the shoreline has undergone considerable erosion in the past century or two indicates portions of the site’s St. Johns II component has also eroded into the river.

The Shields site is virtually a pure St. Johns II site, with the few non-St. Johns II ceramics routinely recovered within 20 cm of ground surface. The Grant site, however, has demonstrated a little more mixing in the form of Deptford, Swift Creek and Colorinda wares. But it is safe to say that these Woodland period wares have been recovered only in trace amounts thus far. At the Grant site, there is a little more evidence for post-St. Johns II occupations in the form of St. Marys, San Pedro, and San Marcos series ceramics. Once again these pale in comparison to the number of recovered pottery types related to St. Johns II period habitation of the sites.

Other St. Johns II Village-Mound Sites in Northeastern Florida

McCormack site /Goodman Mound

The McCormack site (8DU66), first recorded by Sears (1957:20-22), was described it as a site of “considerable size,” with middens containing “a fair quantity of shell.” The site had two distinct spatial loci, an upland terrace of about 4 ha and a lower terrace of 2 ha situated closer to the salt marshes. Surface collections were made in both areas, and a single unit was dug within the upper terrace. The chief cultural components represented at the site were Colorinda and St. Johns II. The McCormack site has produced more Colorinda pottery than any other site, and it appears to reflect a transition from Colorinda to St. Johns II. The unit excavated by Sears (1957:21) yielded mostly sand-tempered plain and Colorinda Plain pottery; smaller amounts of St. Johns Plain; and only a few St. Johns Check Stamped sherds, all from the shell midden. Collectively, these wares intimate the presence of a Colorinda-period shell midden. Deptford and Swift Creek ware fragments were recovered from deeper, sub-shell midden contexts.

In a collection of over 6000 sherds gathered from the McCormack site (8DU66) during construction activities in 1991, more than 2500 St. Johns sherds (e.g., plain, check stamped, zone punctuate, Little Manatee) were identified compared to only nine cordmarked vessel fragments
More than 2000 sand-tempered plain sherds and about 1300 Colorinda sherds were also surface collected from the site. Johnson (1988:133-137), who earlier retrieved more than 200 sand-tempered plain and 62 Colorinda sherds during limited shovel testing of the site, encountered similar results. St. Johns pottery, however, dominated the assemblage and eclipsed cordmarked sherds by a count of 305 to 7. Because of the nature of these investigations it is difficult to gain a precise spatial understanding of how the site’s Colorinda and St. Johns II components relate to one another.

At the time of Sears’ investigations he was apprised by the landowner of the existence of a small sand mound on adjacent property (Jordan 1963:24). According to the state site form filled out by Sears, there were actually two mounds. Mound A was a sand tumulus with some shell, whereas Mound B was composed of mostly shell. Mound A was reportedly 2-m high and 45 m in diameter. In 1961, as the area to the north was being divided into house lots in anticipation of residential development, Jordan (1963) was allowed to conduct excavations at Mound A (renamed the Goodman Mound). As a result, six 1.5 x 3-m units were combined to form a block to sample the center of the mound; a single 1.5 x 3-m unit was placed in the southwest, southeast, and northeast quadrants of the mound to sample its flanks; another 1.5-m square was dug into the northeastern section of the mound; and two 1.5-m squares were excavated in nonmound loci immediately to the west.

In terms of pottery, St. Johns II wares dominated and comprised 88 percent of the 2264 sherds. Grit- and sand-tempered cordmarked wares were represented by nearly 100 sherds. Surprisingly, only 3 Colorinda fragments were recovered, despite its abundance at the “McCormack site only a few hundred yards to the [south]west” (Jordan 1963:37). Because St. Johns II pottery dominated all contexts sampled by Jordan, there is little doubt that the mound and adjacent shell middens date to the St. Johns II period. In contrast, Colorinda wares were much more common to the south at the McCormack site. Soot from a St. Johns Check Stamped sherd originally recovered Trench 1 (0.8-1.2 m below surface), dug into the north-central part of
Goodman Mound by Jordan, yielded a recent AMS assay of A.D. 1030-1160, placing the mound solidly within the local St. Johns II period.

Aside from pottery, a variety of other artifacts were recovered from the burial mound. The most striking grave goods were 10 bone pins (Jordan 1963:39, 50). Each was about 25-cm long, with a tapered and pointed distal end and a pegged or tenoned proximal end, onto which could fit a bone ring or ferrule. Six of the bone pins were associated with rings that were made out of hollow bird bones. The rings were incised with parallel lines or diamonds or a combination of the two. The pins themselves were fashioned from deer cannon bones, deer tibiae, and alligator mandible (Jordan 1963:39). A black residue, thought to be pitch, was found adhering to the interior of the bone rings as well as on the tenon end of the pins.

A few other pieces of worked bone were unearthed as were ten perforated panther (*Felis concolor*) canine teeth (Jordan 1963:40). Bone and shell beads were numerous, and constituted the most common grave good. Shell beads included whelk disc and barrel beads and modified olive shell. Two whelk-cutting tools and a columella fragment round out the shell artifact collection. Finally five stone projectile points and a piece of graphite were also recovered from the mound. The former included a Pinellas point, a Woodland period point, and three Archaic types, indicating the scavenging of earlier lithic material, as was the case at Shields Mound.

The Goodman Mound contained a central burial with at least 10 individuals and other isolated interments, all of which were analyzed by Adelaide Bullen (1963:61-71; Jordan 1963:28-34). The outlying burials included two adults and two children presumably under 10 years of age, whereas the central mortuary feature was a “large multiple grave of infants-to-small-children,” all of whom were believed to have been under the age of 3 at the time of death (Bullen 1963:64; Jordan 1963:30). Within the multiple burial, at least four individuals were directly associated with grave goods (shell beads, perforated canine teeth, hair pins, stone points), and most of the 10 were primary flexed burials.
Adelaide Bullen (1973:65-70) equated the mass burial with a scene depicted by Jacques LeMoyne, a French artist who lived near the Timucua at Fort Caroline in the 1560s, entitled “The Sacrifice of First Born Children.” In addition to the LeMoyne drawing, she based her “sacrificial hypothesis” on the differential breakage of bone (i.e., badly fragmented condition of skulls) compared to postcranial elements) combined with the age of the children at the time of death (most were a year or less in age). She also believed that a wood club similar to one depicted in another LeMoyne sketch was used to bring about the deaths. Bullen further argued that the age distribution of the children in the multiple burial failed to support an epidemic-related interpretation.

Before the Goodman Mound was leveled for house construction in 1974, a local anthropological society initiated salvage excavations, but not before a backhoe had dug a deep, 3-m wide trench through the mound and strewn the removed fill across the remainder of the tumulus (Recourt 1975). This salvage project documented basically the same mound stratigraphy reported by Jordan (1963:27-28); that is, a yellowish brown sand interspersed with a series of strata ranging from shell midden lenses to clean white sand to ochre-stained red sand, followed by a preexisting shell midden, gray sand, and then sterile yellow sand (Recourt 1975:86). Three areas of human skeletal material were encountered and represented the remains of two children and one adult.

One presumed child burial was incomplete and lacked grave goods. The other “small child” burial was discovered in the gray sand beneath what was interpreted as a premound shell midden (Recourt 1975:86). Near the burial were two bone pins with ring caps similar to those recovered by Jordan as well as 5 perforated panther canines and a broken greenstone celt. The celt was in splintered into several pieces, each partially covered with black pitch suggestive of repair. Recourt (1975:88), following the lead of Bullen, posited that the celt was used to sacrifice the child represented by the human remains. Although it evokes a vivid image, this specific child sacrifice interpretation is considered conjecture at this time.
The third interment consisted of a tightly flexed adult associated with two bone pins positioned adjacent to the temporal bone; their location suggests that they may have served as hair pins (Recourt 1975:90-92). In addition, a section of an incised human parietal bone was recovered amongst the individual’s ribs (Recourt 1975:89, 92). The almost 9.5-cm square section of human parietal bone, examined by Adelaide Bullen, was described by Recourt as follows:

Eight holes are drilled through it, one at each corner and one halfway each side, except for the hole on the left side which is located ¾ of the distance from the top to the bottom... The front of this plate has an incised line drawing of a face. The incision is about 1.5 mm. deep. The face is outlined by a straight line on top, and a concave line on each side. A curl on the outside of each concave line represents the ear. Two circles, one slightly larger than the other, represents the eyes. From each eye two lines run on an angle to the side of the face... A pursed mouth is located between these two sets of lines. Countless scrape-marks running in all directions over the ornament suggest that the flesh was removed from the skull with a tool, rather than to wait for nature to take care of it through decomposition.

Other artifacts recovered from the mound included a granite pendant from disturbed wall fall, a greenstone plummet, a modified outer whorl of a whelk shell that resembles a scoop, and a multicompartment vessel of chalky St. Johns paste. The vessel contained six container sections arranged in a “cinquefoil-like design” (Recourt 1975:93-94). This vessel was not associated with human remains, and it appears that no whole pots were directly interred with human remains in the Goodman Mound.

Because similar pottery, bone pins, drilled animal canines, and human burials were recovered from both mound fill and the gray sand layer beneath the shell midden, Recourt (1975:94) questioned whether the shell stratum was actually a premound midden or a “purposefully” constructed mound feature. This is plausible given that fact that Jordan (1963:27) stated that the “preexisting midden... while underlying all of the mound, did not extend to the west as far as Trenches 6 and 7,” located immediately west of the mound.

In 1992, a series of burials were excavated from nonmound contexts on a portion of the McCormack site now owned by Holy Spirit Catholic Church (Thunen and Ashley 1995:9). Although a report on the results of the burials was never released, some comments can be offered based on field notes. Ten interments containing at least 23 individuals were excavated within an
8 by 10 m area. Most notably, a mass secondary burial contained at least 8 individuals, and another multiple burial consisted of 4 individuals extended in the prone position. Of the latter, 3 were placed adjacent to one another along the bottom and lower side slope of a burial pit, with the fourth laid directly atop and in contact with one of the three. At least one other interment was placed face-down.

The remains of two males and two females from four different burials were made available for a larger bioarchaeological study of skeletal remains from Florida and Georgia (Hutchinson et al. 1998, 2000). Stable carbon and nitrogen isotope ratio data indicate a marine-oriented diet, with no evidence of corn consumption (Hutchinson et al. 1998:403, 407; 2000:106, 110). Elsewhere I attributed these burials and the isotopic results to the St. Johns II period (Ashley 2002:165), although I am now inclined to affiliate them with the site’s Colorinda component based on the reported occurrence of face-down burials in pits on sites associated with grog-tempered pottery along the lower Georgia coast and tentatively dated to the nine or tenth century A.D. (Cook 1979:73; Holder 1938:8; Martinez 1975:51-57).

In sum, the McCormack site appears to have been a diffuse site represented by variable density shell middens that dated to Woodland and Mississippian times. The key cultural periods at the site were Late Woodland Colorinda and early Mississippian St. Johns II. The two components appear to have overlapped in parts of the eastern section of the site, but to the west where the Goodman Mound was located, habitation and mortuary activities were mostly restricted to the St. Johns II period. The most unique aspect of the Goodman Mound is the high incidence of child burials compared to that of adults, including a centrally-located interment of 10 subadults. Excluding the mass interment, the excavated burials included four small children (under 10 years of age) and three adults. Because of the high incidence of infant remains in the mass burial, Bullen has suggested that the interment represented dedicatory sacrifices; an interpretation that cannot be dismissed without consideration. It is unfortunate that more of the
mound was not examined prior to its destruction. It is also regretful that Mound B was never excavated, particularly since it is believed destroyed by subdivision development.

**Greenfield Peninsula**

The Greenfield peninsula is bordered on three sides by salt marshes, with Greenfield Creek to the west, Pablo Creek (Intracoastal Waterway) to the east, and the St. Johns River to the north. It lies approximately 10 km east of the Mill Cove Complex and 6 km southwest of the river mouth. Although recorded as 6 separate sites, primarily for managerial purposes, an almost continuous spread of cultural materials, ranging from Archaic to historic times, blanketed the northern end of the peninsula. Both St. Johns II and St. Marys II pottery was dispersed over broad portions of the area, but distinct middens dating to one period or the other were identified during Phase II testing at 8DU5544 and 8DU5545 (Johnson 1996, 1998a, 1998b; Smith et al. 2001) and at 8DU78 (Poplin and Harvey 1999).

St. Johns II concentrations were most prevalent within the northeastern part of site 8DU5545 and the northwestern part of contiguous site 8DU78 (Johnson 1998a:122-123, 128, 130-132; Poplin and Harvey 1999:89, 108). To date, sampling of these areas consisted mostly of shovel tests and scattered 1 by 2-m units. However, a small block covering 8 m$^2$ was excavated that ran from the center of a small shell midden, measuring 14 by 6 m, south into the adjacent non-midden area (Smith et al. 2001:95-98). This refuse deposit yielded St. Johns II wares, but was more mixed than indicated by previous shovel testing. Orange, Swift Creek, St. Marys, and San Pedro wares were also recovered, and shell from the midden produced a Woodland period radiocarbon date (Smith et al. 2001:95-98). Additional St. Johns II middens on the site remain to be tested.

Within the northeastern section of 8DU5545, Johnson (1998a:141-143) identified a low sand burial mound referred to as Greenfield Mound B. It measured 8 to 12 m in diameter, with a height of approximately 1 m. A small depression was observed to the northwest and interpreted as a borrow pit. A single 0.5 m-square shovel test was dug into the mound and revealed a 75 cm-
thick mantle of oyster shell, over about 25 cm of sand, which surmounted a submound shell
midden. In addition to sherds, 32 g of human bone were recovered from between 30 and 50 cm
below surface within the “shell cap” (Johnson and Basinet 1998a:141-143). Three additional
tests placed adjacent to the mound to the south and east yielded more human bone. The discovery
of human remains immediately adjacent to the mound, combined with extant tumulus
morphology, prompted the authors to ponder the possibility that the mound was once larger and
included the nonmound burials. Once the bone was formally identified as human, testing in the
vicinity of the mound ceased.

The authors assigned the mound to the St. Johns II period based on several lines of
evidence. First, St. Johns II pottery was recovered from both the submound midden and from all
shovel tests that produced human remains. Second, St. Marys Cordmarked and San Pedro wares
were not recovered from any of the shovel tests in the vicinity. Finally, St. Johns II shell middens
were predominant in the area, especially to the south, where they formed “a cluster suggestive of
a hamlet or small village” (Johnson 1998a:128, 142).

Two other mounds are located to the southeast. Greenfield Mound C appears to date to the
local Swift Creek period, whereas the cultural and temporal affiliation of Greenfield Mound A is
less certain. However, St. Johns II middens were identified in the vicinity of Mound A, a 1 m
high tumulus with a diameter of 10 m, located about 260 m southeast of Mound B. In addition,
human skeletal material and ornate bone pins with ferrule caps, similar to those from the
Goodman Mound (8DU66), were taken from Mound A by the landowner’s family in the 1960s
(Charles Potter, personal communication, 1999). In sum, what we appear to have at the north end
of the Greenfield peninsula was a St. Johns II settlement, with midden concentrations
immediately surrounding the mound and other St. Johns II refuse deposits and artifacts scattered
over a broad area. A second St. Johns II mound may have existed to the southeast as well.
Mayport Mound 2

In June 1964, Rex Wilson of the National Park Service conducted excavations at the Mayport Mound (8DU96) in attempt to uncover “archaeological evidence of contact between the Timucua Indians and the French at Fort Caroline on the St. Johns River” (Wilson 1965:1). A month of testing revealed a Woodland-period mound containing human skeletons, Swift Creek and St. Johns I pottery, and other items of local and nonlocal origins. Pertinent to this study, Wilson reports the presence of a nearby mounded shell midden referred to as the Mayport Midden Mound or simply Mayport Mound 2 (8DU97). Wilson (1965:11) tersely states that:

A single 5-foot test pit was excavated in the midden area of Du 97, a 10- to 15-foot high shell mound located about 550 feet southeast of the Mayport Mound [8DU96]. Material recovered in that test indicates that a substantially later time period is represented there than at Du 96. Also, a much longer period of occupation is suggested by the thick mantle of oyster shells.

Unfortunately, Wilson provides no other information on the Mayport Mound 2 in his 1965 publication. However, a few more pieces of information are provided on the state site form completed by Wilson in 1964. He stated that the site was a “shell mound and midden,” approximately “50-75 ft. [15-23 m] in diameter.” It had been heavily impacted on its north side, with “much shell midden” removed. The site form further mentioned that a test pit was “placed in the midden between Woodland Dr. and the mound; [and that] amateurs claim that much of the shell on the tip of the mound is heavily stained with red ochre.”

Members of the local archaeological society who had assisted Wilson subsequently excavated the Mayport Mound and the Mayport Mound 2 between 1965 and 1973. While excavations were in progress, Ripley Bullen visited the site and offered advise on methodology and on interpretation of mound stratigraphy. Artifacts and other materials recovered from the mound were eventually dispersed among excavation participants, although the majority wound up in the possession of Dr. Thomas Gouchnour and his family. This collection, which included artifacts from other Florida sites, was eventually given to Joe Sassar of the Florida Community College at Jacksonville (FCCJ). Upon the retirement, Mr. Sassar conveyed the Gouchenour
collection to the Jacksonville Museum of Science and History (MOSH) in 1993, where it currently resides.

I have inspected the extant MOSH collection, which includes a number of complete St. Johns Plain and St. Johns Check Stamped vessels in a variety of forms as well as a whole grit-tempered cordmarked jar. Also in the collection are thousands of potsherds, most of which are St. Johns Plain and Check Stamped wares; smaller amounts of St. Johns Punctate, Little Manatee, Papys Bayou and grit-tempered cordmarked are present. Collectively, the pottery types comprise a typical early St. Johns II pottery assemblage. I also observed hundreds of shell beads, both barrel and disk shaped, a tubular limestone bead, drilled shark teeth, drilled bear teeth, a fossilized mastodon tooth, two fossilized alligator scutes, over twenty projectile points or point fragments, most of which are Archaic, and few small pieces of sheet copper. Whelk shells are numerous and present in a variety of conditions that include whole shells, modified hammering and cutting tools, and columellas. Provenience information is documented for many of the artifacts, although field forms, notes and profile sketches are wanting.

I have reviewed the notes and sketches, at a cursory level for now, and have spoken to Irv Quitmyer of the Florida Museum of Natural History, who participated in some of the excavations as a young adult. The mound had a maximum diameter of 20 m and a height of 4.5 m, although the center had been severely damaged as a result of earlier looting. An article in the local newspaper tells the plight of two high school students, who, in 1960, dug up a burial from a mound in Mayport, glued it together, covered it with shellac, and entered it in a local science fair (Brown 1960:32). The reported location of the mound matches the area of the two Mayport Mounds, but it is unknown from which mound the skeleton was taken. The article concludes with this disheartening note: “Sunday the boys went back to the mounds and dug up some more relics.”

In terms of its internal structure and stratigraphy, the mound was a fairly complex piece of architecture. Alternating layers of colored sand and shell lensing were quite common throughout
mound fill. Sloping and arcing layers of hematite-impregnated sand and shell appear to have marked mound construction episodes, perhaps former surfaces. This sounds similar to what Thunen (2001) observed at the Grant Mound. The mound summit, as it existed in the 1960s, was capped with a mantle of oyster shell, save for the places that had previously been disturbed. A ramp or some sort of approach was believed to have led to the mound top. At the base of the mound was evidence of extensive burning in the form of charred wood and heat-altered sand. Amongst the charred rubble were human skeletal remains, which led the excavators to interpret it as a burned charnel structure (Irv Quitmyer, personal communication, 2002).

Within the mound, Gouchnour, a thoracic surgeon, identified burials of both sexes and all ages, including infants. Both primary and secondary burials were uncovered, as were a few prone or extended face-down burials. The official number of excavated burials is not known, but Quitmyer attests to numerous interments. Artifacts unearthed, in addition to those previously discussed, included greenstone celts, a steatite elbow pipe, and small pieces of sheet copper. Grave goods were found both associated with burials and in mound contexts unassociated with human bone.

Following mound excavations, Mayport Mound (8DU96) was leveled to accommodate subdivison development, and Mayport Mound 2 (8DU97) was razed as a result of the combined forces of looting and land clearing activities that included construction of a convenient store. Within the past five years a retention pond was dug where the Mayport Mound 2 once loomed large. In anticipation of road widening and pond construction, an archaeological survey was undertaken of a narrow corridor situated between the two Mayport mounds (Ashley 1993; Kirkland and Johnson 1999). Although St. Johns II pottery was recovered, shovel testing revealed extensive site disturbance within the survey area. However, intermittent patches of possibly intact midden were encountered a 100 m or so northwest of where the St. Johns II mound once stood (Ashley 1993). These refuse deposits, undoubtedly related to the two mounds, were given a third site number (8DU1552).
Secondary testing at 8DU1552 involved the excavation of nine 1 by 2 m units within an area of the site that measured 190 m (E-W) by 15 m (N-S) (Kirkland and Johnson 1999). These units demonstrated multicomponent deposits mixed partly by modern disturbances and partly by site reoccupation. St. Johns Plain and Check Stamped along with St. Marys Cordmarked were the most commonly recovered pottery types, with Swift Creek, Colorinda, and San Pedro found in trace amounts (Kirkland and Johnson 1999). Two radiocarbon dates were obtained on shell from perceived St. Johns II contexts. Although one calibrated assay indicated a Mississippian period date (A.D. 1230-1310), the other produced a Woodland period date (A.D. 240-430). The former assay, however, is difficult to interpret; it could be either a very late St. Johns II or an early St. Marys II, since both types are well represented on the site.

Today, the two mounds as well as the associated middens have been completely destroyed. There is no doubt that the Mayport Mound 2 was a St. Johns II burial tumulus. Furthermore, dense shell midden deposits appear to have existed in rather close proximity to the mound, whereas refuse deposits were more scattered and localized across broad areas away from the tumulus. Evidence suggests that the mound accrued episodically over time. To better date the Mayport Mound 2, soot from a St. Johns Check Stamped pot was recently submitted for chronometric dating. The carbonized sample yielded an AMS date of A.D. 890–980, making this the earliest St. Johns II date from northeastern Florida; however, it is very close in age to the earliest date from the Shields site. Additional radiocarbon assays are needed to determine how late into the St. Johns II period the Mayport Mound 2 continued to be used.

**Chappelle Midden and Fort George Island Mound**

The Chappelle Midden (formerly 8DU651, now 8DU1542) is the only substantial St. Johns II site on Fort George Island (Dickinson and Wayne 1986:6.26-6.30; 1987:13; Hart and Fairbanks 1981:83-87). While the island has been intensively surveyed, archaeological work at the site has been limited to 76 posthole tests (30 cm in diameter), 38 0.5-m square shovel tests, and two 1-m square units, all excavated in an area 500 by 275 m (Dickinson and Wayne 1987:6.28). Testing
revealed dense shell middens and shell scatters dated to the St. Johns II period, below which were Orange period middens. Refuse deposits in the form of thick oyster shell accumulations distributed over broad areas characterized the site’s St. Johns II component. This contrasted with the thin and scattered individual house middens dated to the later St. Marys II and Mission periods on the west side of the island (Dickinson and Wayne 1987:7.3). Portions of the site were disturbed by late nineteenth-early twentieth-century island occupations and activities.

A “low shell capped mound” was documented within the western part of the site (Dickinson and Wayne 1987:6.26). It measured 25 by 30 m at the base and had a height of about 1 m. Fourteen posthole tests, placed 5 m apart in a cruciform shape, were excavated across the mound. Items recovered included shell, bone, and St. Johns and Orange pottery. No mention is made of the recovery of human skeletal material, and it is unclear whether this is a shell capped burial mound or simply a mounded area of shell midden. Although ambiguous, the authors seem to imply that the latter was the case.

Of the 375 potsherds recovered from the site, 258 (69%) were St. Johns. Unfortunately, there was no further breakdown by chalky ware type, but the authors stated at one point that “check stamped is most common” (Dickinson and Wayne 1987:5.5). Forty-three “Savannah” sherds were also recovered. Once again there was no further dividing of this category by surface treatment. In this study, Savannah represented a “cluster” that was mostly cordmarked, but could also have been simple stamped, check stamped, and complicated stamped; its temper could have been sand, grit, or clay (Dickinson and Wayne 1987). Because of the broadness of this category, it is uncertain whether Ocmulgee Cordmarked or St. Marys Cordmarked or both are represented on site. Smaller amounts of Orange, Deptford, and San Marcos ceramics were also found. No mention was made as to what other categories of artifacts relate to the site’s St. Johns II component.

The Fort George Island Mound (8DU4) is within the extreme north-central part of the Chappelle Midden (Dickinson and Wayne 1987:6.26, 6.28). In the late nineteenth century
Mayberry (1878:306) noted the mound presence on the island, but never excavated. Hart and Fairbanks (1981:27-28) next visited the sand mound in 1981, and recorded its diameter as approximately 12 m and its maximum height as 3 m. A depression, 13 m in diameter, was located to the southwest of the mound and thought to represent a borrow pit associated with mound construction. The authors further observed that the mound exhibited two, roughly 3-m square depressions, one on its apex and the other along its eastern flank; both were interpreted as looter’s trenches. Of the two St. Johns sherds recovered from the surface of the mound, one was check stamped, which led the authors to assign the tumulus to the St. Johns II period. Although this assessment was based on scanty evidence, it still seems reasonable since St. Johns II middens are the most prevalent in the immediate area.

Though no human remains were identified, Hart and Fairbanks (1981) believed that it “probably” was a burial mound. Dickinson and Wayne (1987) did not investigate the mound during their later survey of portions of the island, since it was positioned outside the proposed development area. In the 1960s, however, an avocational archaeologist excavated two extended burials within the Ft. George Island Mound (Charles Potter, personal communication, 1999). Associated with the two interments were several elongated ground stone celts and a copper-bitted axe. The copper artifact, a ceremonial item, was laid across the chest of one of the individuals. Vegetal fibers and portions of what appeared to have been a wooden shaft were partially preserved. The artifacts were taken to Florida State University, where they were measured and photographed and later returned to the excavator (Charles Potter, personal communication, 1999). The whereabouts of these artifacts today is uncertain.

The St. Johns II settlement at the Chappelle Midden appears to have been markedly similar to those at 8DU5545 on the Greenfield peninsula and at Mayport Mound 2 (8DU97). These three sites are characterized by a pervasive spread of St. Johns II pottery and scattered refuse, with denser midden deposits situated close to a sand burial mound.
Cedar Point-Merman’s Mound

Along the extreme southern tip of Black Hammock Island is an extensive multicomponent deposit divided into two contiguous archaeological sites: Cedar Point West (8DU63) and Cedar Point North (8DU64). St. Johns II pottery types along with grit-tempered cordmarked were recovered from both sites, but were more dominant on the latter. Russo et al. (1993:41) identified small shell heaps, interpreted as house middens, peppered throughout Cedar Point North as well as a series of high shell ridges and mounds separated by areas of little or no shell in the north-central part of the site. Based on the prevalence of St. Johns II pottery types from shovel tests, it was suspected that many of these deposits dated to the St. Johns II period, but so far little excavation has taken place.

Located within the southwestern part of Cedar Point North is Merman’s Mound (8DU626), a heavily disturbed sand burial mound (Nidy 1980:51; Russo et al. 1993:49-51). Today, only a portion remains of the 1-m high mound; its original size is estimated at 17 by 14 m. Limited testing revealed a series of colored sands - white, brown, and various shades of pink due to the addition of hematite - that suggested the outer periphery of the mound was still intact (Russo et al. 1993:49-50). Artifacts from mound fill included sand-tempered plain, charcoal tempered plain, St. Johns Plain, and St. Johns Cordmarked. In an attempt to date the mound, two 50-cm square shovel tests were recently dug into the earthwork (Ashley 2003). One test dug near the approximate center of the mound resulted in the recovery of a few small mica fragments, several small sherds, and a human tooth; the latter was immediately reburied. The second test, placed along its northern toe slope, revealed a thin lens of hematite-impregnated sand containing whole oyster shells. Shells from the artificially red sand layer yielded a calibrated radiocarbon date range of A.D. 1125-1275, with an intercept date of A.D. 1215.

Separated by palmetto-dominated lowlands, the Jones site (8DU7498) is located 150 m north of the Cedar Point North (Russo et al. 1993:87-88). Testing at this site was limited to 9 shovel tests and a single 2-m square unit. The Jones site, along with Cedar Point North, were the
only sites encountered during Russo and colleague’s (1993:87) survey of the Timucuan Ecological and Historic Preserve “at which St. Johns ceramics were both numerous and dominant.” At both sites, check stamped outnumbered plain chalky wares, indicating a St. Johns II component. Subsurface testing exposed a “dense shell/black earth midden” buried under fill recently spread over the area by the landowner to level the land. Unfortunately, at the time of testing, the site, located on private land, was in the process of “being scraped away, buried, removed, or otherwise disturbed” (Russo et al. 1993:88). In short, available evidence points to the presence of a large St. Johns II settlement with a sand burial mound at the south end of Black Hammock Island.

**Black Hammock Island Mound and Midden**

William Jones and John Goggin originally documented the Black Hammock Island Midden (8DU52) and Mound (8DU67) in the 1950s. The shell midden was described as stretching for 300 m along the bluff at the north end of Black Hammock Island. It was further reported that shell midden was eroding from the bluff due to wave action. Jones collected a large number of sherds from the extensive shell deposits surrounding the mound. These materials are now under curation at FLMNH. I have looked through the collection and observed large quantities of St. Johns II pottery and, to a lesser extent, grit-tempered cordmarked, with some sherds having folded rims. In the 1950s, the mound was said to have been about 1.8-m high, with a base diameter of 6 m.

Twenty-five or so years later, Nidy (1980:36, 40) briefly visited the area and remarked that houses had been built on the midden and that the mound had been heavily vandalized. In 1995, 8 50-cm² shovel tests were excavated along a narrow roadside corridor prior to installation of subsurface electrical cables (Ashley and Chance 1995). Testing revealed a St. Johns II shell midden followed by a sub-midden scatter of Orange pottery. The sampled shell midden had a maximum thickness of 40 cm and contained a large quantity of preserved vertebrate faunal
remains, mostly fish and turtle. This area was south of and peripheral to the shoreline deposits reported by Jones and Goggin (William Jones, personal communication, 1995).

As reported elsewhere, information on the mound was recently brought forward by Arthur Lafond, a member of a local anthropological society that excavated portions of the mound in the mid-1970s (Ashley and Chance 1995:8-10). According to field notes, the mound was situated in an oak hammock, approximately 15 m from the bluff, overlooking the Nassau River Sound to the east. The mound, which had been heavily looted prior to excavation, was composed primarily of loose yellow sand with occasional oyster shells. Shell midden, with abundant St. Johns II and cordmarked pottery, partly covered the periphery of the mound. Few grave goods were encountered, save for a complete ceramic pot, several shell beads, and a portion of a fossilized mastodon femur head. In addition, at least 10 human interments and scattered human bone were found within the excavated portion of the sand tumulus. Burial mode information and photographs were available for five of the interments. All were flexed, some more tightly than others, with three laid out on a bed of oyster shell.

The most unique interment was Burial 3, which contained a flexed individual situated on a bed of oyster shells and covered with yellow sand partly tinged red in areas by the admixture of hematite. A large horse conch shell was placed near the head, and a cache of 82 Florida Crown Conch shells was positioned adjacent to the individual’s skull. Because of its association with shell, skeletal preservation was excellent. Burial 4 was also well preserved due to its proximity to a dense deposit of oyster shell. The human skeletal remains associated with three of the six burials were recently conveyed to the Florida Bureau of Archaeological Research in Tallahassee. Several of the conch shells from the cache were made available for radiocarbon dating.

Subsequent to conveyance, David Dickel (1998) conducted limited analysis of the osteological remains. He noted that Burial 3 actually contained the remains of two individuals, a nearly complete adult male (Burial 3) and the partial remains of a very young infant probably less than a year old (Burial 3A). Burial 2 was “estimated to be male,” probably older that 20 years of
Finally, Burial 4 was another nearly complete male thought to be between 50 and 65 years old. Burial 3 suffered from an advance periosteal infection, most developed in the individual’s left tibia and fibula. The infection may or may not have been the cause of death, but it was probably a contributing factor (Dickel 1998).

As a side note, a drawing of a tibia and fibula from the Lighthouse Mound (8NA3) on Amelia Island, a suspected St. Johns II mound excavated by C.B. Moore, exhibits an uncanny resemblance to those from the Black Hammock Island Mound (Bullen 1963:86; Lamb 1898:64). Burial 5 at 8DU67 displayed evidence of degenerative joint disease (arthritis), most pronounced on the right patella and along the vertebral column below the second cervical vertebrae. The severe bend and compensational adjustments in the vertebral column probably resulted in an alteration in posture and an abnormal gait. Dickel (1998) noted that the presence of individuals with such pathologies suggests that the economy was “certainly robust enough to support individuals with diminished capacities.”

The cultural affiliation of the Black Hammock Island Mound (8DU67) warrants further discussion, since it has been previously misclassified (Ashley and Chance 1995:16-17). Because cordmarked pottery was recovered from the site and because three of the six interments were placed on or directly below shell deposits, a trait often associated with both coastal and inland cordmarked sites, it was concluded that the mound represented a local Savannah (St. Marys II) burial mound (Ashley and Chance 1995:17). However, this assessment was made nearly 8 years ago and since then important information has come to light. First, there is now reason to believe that burying individuals in association with oyster shell deposits was not exclusive to the St. Marys II period, since the trait has been noted in association with St. Johns II mound burials. Second, I have recently examined the pottery from mound fill and the adjacent shell middens and found that St. Johns II types dominate in both contexts. Smaller amounts of cordmarked pottery are present, with the vast majority being grit-tempered. Therefore, the preponderance of St. Johns II and Ocmulgee ceramics combined with the lack of St. Marys II pottery and the results of a
radiocarbon assay on a conch shell from Burial 3 (A.D. 1170-1285) suggest that its cultural affiliation is not St. Marys II but St. Johns II. In fact, the calibrated date is statistically identical to the one from the St. Johns II shell ring at the Grand site on nearby Big Talbot Island and very close to the one from Merman’s Mound at the south end of Black Hammock Island (Ashley and Thunen 2000:32-38; Ashley 2003).

**Grand Site**

The Grand site (8DU1), a shell ring and sand burial mound complex on Big Talbot Island, some 16 km northeast of the Mill Cove Complex, is a one-of-a-kind piece of St. Johns II architecture (Ashley and Thunen 2000). The ring, with a diameter of 45 m, is not by any means a perfect circle. Its vertical prominence varies along its circumference, reaching a maximum height of approximately 1 m above surface. Ring walls, consisting of densely-packed shells, range from 10 to 15 m in thickness. The sand burial mound, positioned within the western part of the ring, rises an additional 2 m above the shell feature. According to local informants, human burials were removed from the mound in the late 1960s (Charles Potter, personal communications, 1999). Several sherds from the mound are in collections under curation at the Bureau of Archaeological Research in Tallahassee. I have examined them, and all date to the St. Johns II period.

Three stratigraphically controlled shovel tests (50 cm$^2$) dug into the ring revealed an intact and thick, 1-m deep shell deposit filled with abundant faunal remains (deer, fish, and turtle) and large potsherds (Ashley and Thunen 2000:32-38). The ring contained St. Johns II materials throughout (126 St. Johns sherds compared to 1 cordmarked sherd), and it currently represents the only known Mississippian-period shell ring along the Atlantic coast (Mike Russo, personal communication, 1999). Shell from the ring was radiocarbon dated to A.D. 1170-1285 (one-sigma calibration). It is tempting to consider the shell ring ceremonial and its construction a byproduct of ritual feasting. More excavation data are needed to determine both site and ring function within the regional settlement system.
The Middle Midden (8DU627), a diffuse scatter of cultural remains that covered 10.5 ha, envelopes the ring-mound complex (Ashley and Thunen 2000:46-48). For the most part this site consisted of a low-density scatter of shell and pottery that included Swift Creek, St. Johns II, St. Marys, San Pedro, and San Marcos wares. Located about 100 m east-southeast of the shell ring within the Middle Midden was Area A, a locus of mounded shell midden deposits that formed an irregular, undulating landscape, approximately 60 m in diameter. Signs of previous digging were evident, especially within the taller accumulations of mollusk shells, undoubtedly a consequence of past shell-mining activities (Ashley and Thunen 2000:46). Pottery from tests dug into the shell heaps was mostly St. Johns and included plain, check stamped, punctuated, and Little Manatee varieties.

A little more than 100 m north of the shell ring is the Talbot Island site (8DU80), another multicomponent site with a strong St. Johns II component (Ashley and Thunen 2000:39-42). Negative shovel test results distinguished the Talbot Island site from the Middle Midden to the south. While shell density varied across the site, a 50-75-m wide band of dense shell midden, that included several distinct shell heaps, was encountered along the northern and western margins of the cove in the southern part of the site. St. Johns Check Stamped was the predominant ware on site, with smaller amounts of gritty cordmarked also recovered. Several whelk shell tools and an incised bone pin were reclaimed from St. Johns II midden contexts.

In sum, three significant St. Johns II sites have been recorded on the southeastern end of Big Talbot Island. The shell ring and mound complex at the Grand site, the mounded and overlapping shell heaps and ridges in Area A of the Middle Midden, and the thick mollusk-dominated refuse deposits along the cove at the Big Talbot site. In between these high shell concentration loci are areas of scattered shell and artifacts that include St. Johns II wares. Although the entire area was shovel tested on a tight 25-m grid, no large unit excavations have been undertaken yet. While these areas are grossly contemporaneous, how they articulated with
one another in time and space is uncertain at this time. However, there seems little doubt that a substantial St. Johns II habitation and mortuary complex existed on the south end of the island.

**Old Town**

At the extreme northern end of Amelia Island is the National Register site of Old Town (8NA238), a 14.4-ha tract that includes the remains of the early nineteenth-century town of Fernandina. This area includes or lies immediately adjacent to the prehistoric archaeological sites of 8NA9-12. As Bullen and Griffin (1952:49-50) observed:

Nearly all of Oldtown, the original settlement of Fernandina, is built on an Indian village, located on a high bluff overlooking the Amelia River. Shells and occasional sherds are scattered over forty acres, but the heaviest concentration and greatest depth are at or near the Plaza lot…The main shell deposit, consisting of oysters plus a few clams, and other shells of the region…as well as bones of edible animals (deer, fish, bird, and turtle), produced St. Johns Plain, St. Johns Check Stamped, Savannah Fine Cordmarked, textile impressed, and plain, sand-tempered sherds…These data suggest a priority of chalky pottery over sand-tempered Savannah wares…In no case is there an [sic] suggestion of a plain chalky period (St. Johns I) before the advent of check stamping.

More than 1400 St. Johns series sherds were recovered from Old Town (8NA9, 9A, 12), the preeminent St. Johns II site on Amelia Island (Bullen and Griffin 1952:49-52). Limited testing at the multicomponent site suggested that levels in which St. Johns II pottery dominated underlaid mixed St. Johns II and Savannah deposits. Although intact refuse deposits were revealed, much of the site had been disturbed by earlier construction activities that included the building of a Spanish lookout post and the original town of Fernandina (Bullen and Griffin 1952:49; Smith and Bullen 1971). Almost 30 years later, Griffin and Steinbach (1991:10-11,23) conducted an auger survey of the Old Town site and concluded that “the lack of deep stratified aboriginal deposits coupled with the disturbed nature of most of the shell midden encountered suggests that little new information could be expected on these prehistoric periods [i.e., 1000 B.C. – A.D. 1565].” St. Johns II pottery was by far the dominant aboriginal ceramic type recovered during fieldwork.

While the augur investigation met with disappointing results, a recent archaeological monitoring project at the Old Town site (8NA238) revealed a large number (n=159) of intact
subsurface features within a series of freshly graded roadways, each about 6-m wide (Smith 1998). Thirty-two features, including hearths, shell pits, and large enigmatic shell trenches, contained St. Johns II pottery types, either exclusively or predominantly. The trenches (n=5) were substantial subterranean constructs filled with shell midden refuse that varied from roughly 80 to 150 cm in width and from 4 to 5.5 m in length; depths ranged from 46 to 86 cm (Smith 1998:22). Three of these were grouped together, with two extending beyond the limits of the graded roadways. All five maintained straight-edged profiles with slightly sloped sides and flat bottoms.

While uncertain of their function, Smith (1998:22) suggested that they “may represent periodic cleaning of the area around a residence by scraping shell into a large rectangular pit,” an interpretation previously forwarded for similar-looking features in coastal North Carolina. Alternatively, these may represent some form of wall or building trenches. In addition to the trench features, 55 postholes were revealed, with one cluster of five arranged in a “a slight arc” and another six forming “a 3-m diameter semicircle...that included a central pit filled with compacted charcoal and burned shell” (Smith 1998:31).

Although no mortuary mounds have been identified to date, several burials have been encountered at 8NA9, 8NA12, and 8NA248 within the boundaries of the Old Town site (Bullen and Griffin 1952:50-51, 52; Smith 1998:25-27). The possibility exists that a mound may have existed prior to development of nineteenth-century Fernandina (Old Town). Travelers and naturalists such as Bartram (1958:42-43, 349-350) and Brinton (1869), however, did not report the presence of any sand burial mounds in the Old Town district, although they noted several to the south in or near the later (and modern) location of the town of Fernandina.

The nature of the archaeological work conducted at Old Town to date, combined with the amount of disturbance to the area as a result of colonial-period activities, has constrained our ability to gain a handle on the structure and precise layout of the St. Johns II component at Old Town. However, the shear volume of St. Johns II pottery, in concert with the discovery by Smith
(1998) of what appear to be grossly contemporaneous the postholes, trenches, hearths, and refuse pits, intimate the archaeological remains of a substantial St. Johns II settlement.

**Mound dug by Augustus Mitchell (Mitchell Mound)**

In 1848, Augustus Mitchell (1875), a medical doctor on vacation, dug a burial mound on the south end of Amelia Island. He was provided laborers and assisted by “Dr. R. Harrison.” Mitchell depicted the mound as “moderate” in size, with a diameter of 9 m and a height of 4.5 m. He dug two perpendicular trenches, each an approximately 1.2-m wide, through the center of the mound, composed of “light sandy, yellowish loam,” and concluded the mortuary program involved the excavation of a large pit that was filled with oyster shells (Mitchell 1875:390). Above the pit flexed interments were laid down before being covered with sand. The mound was later reopened and subsequent burials were added and covered with shell. Mitchell (1875) estimated that the mound contained 400 individuals and claimed all were adults, but bemoaned that “the weak and slender framed had returned to dust” (Mitchell 1875:390-393). He further provided some commentary on the condition and nature of the human bones, and stated that the teeth had sustained extensive attrition and that “not one carious tooth” had been found.

The number of grave goods recovered by Mitchell is difficult to ascertain. At one point in his report he stated “excavation revealed a number of relics,” but later proclaimed that “there were three distinct rude ornaments in the mound.” The discrepancy may be due to the possibility that he considered burials as relics. The three burial items described by Mitchell included fish vertebrae painted red with ocher, a hexagonal bead made from an alligator tooth, and shell beads painted red. These may simply represent the most unusual artifacts he recovered. He also briefly mentioned that there were two stone hatchets, a stone ax, and “little pottery.” With regard to the ax, he stated that it was the largest he had ever seen and “that had ever been found in that section of the country.” This appears to be the spatulate celt depicted by Goggin (1952:Plate 10b) and labeled as “spatulate celt, six miles south of Fernandina.” Unless it represented an heirloom, this
find suggests the mound is a St. Johns II construct, contemporaneous with Shields Mound and Mt Royal, each of which also produced spatulate celts.

In the 1890s, Moore (1896:22-23) excavated a tumulus he called “Low Mound at Dr. Harrison’s.” This mound, on the property of Dr. Robert Harrison, was small, less than 1 m in height and 9 m in diameter. Moore (1896:22) claimed that it had received little if any digging prior to his work and that he “totally demolished the mound.” He noted that the mound was composed of yellow sand, but observed that within the central portion of the mound layers of white “ran considerably below” non-mound grade. He appeared rather perplexed by the “curious” fact that the 12 or so burials he encountered were all “marginal and beneath the slope, [and that] no remains being met with in or near the central portion of the mound” (Moore 1896:22). Adelaide Bullen (1963:81) used Moore’s statements to suggest the possibility that the center of the mound was disturbed and that the mound was the same one excavated by Mitchell a half-century earlier. She also brought up the point that both Mitchell and Moore happened upon burials that lay beneath deposits of oyster shell. The only artifacts recovered from the mound by Moore (1896:22) were some olive shell beads and a shell pin.

Although a link between the mound investigated by Mitchell (8NA48) and the Low Mound at Dr. Harrison’s by Moore (NA9) is possible, there is a major size differential between the two. I believe another mound excavated and tersely described by Moore is a more likely candidate for the mound dug by Mitchell. At the “Mound South of Suarez Bluff” (8NA8), immediately north of the Harrison property, Moore (1896:23) dug a mound that was 2 m in height with a diameter of 13 m. He stated that the mound had been previously dug, and guessed that about 0.5 m or so of height had been lost due to this digging. He stated that the earthwork was “built on a shell heap of irregular surface,” which may correspond to the basal layer of oyster shell encountered by Mitchell. Moore dug about two-thirds of the mound and excavated nineteen burials, all in anatomical order. A cache of 15 whelk shells, areas of red stained sand, a few pieces of pottery, and shell beads with one interment were the only finds mentioned by Moore.
Based on landowner information, Bullen and Griffin (1952:48) were led to a mound that matched Moore’s narrative location of the Mound South of Suarez Bluff and that roughly resembled his description of the tumulus. It was surrounded by a “village” site (8NA50) manifest as shell midden “concentrations” that covered about 4-6 ha adjacent to the Harrison Creek marshes. They noted that the site yielded the highest percentage and the second highest amount of St. Johns Check Stamped pottery that they had encountered during their survey of Amelia Island. Unfortunately, the only archaeological work conducted at this site to date was the surface collection made by Bullen and Griffin.

Presently it is unclear whether the mound designated 8NA8 and associated with the St. Johns II site (8NA50) is the “Mound South of Suarez Bluff” excavated by Moore (1896) or is the mound excavated by Mitchell (1875). Moreover, there is the distinct chance that the three are all actually one in the same or that there were three distinct mounds. Due to the ambiguous nature of available data, the mound excavated by Mitchell that yielded the spatulate celt can only tentatively be assigned to the St. Johns II period.

**Fernandina Lighthouse Mound**

Southeast of Old Town was the Lighthouse Mound (8NA3), which Moore (1896:24) claimed to have completely “demolished.” In the mid-1940s, John Griffin visited the mound, located about 200 m south of the Amelia Island Lighthouse, and declared that is was no longer extant and that the shell middens surrounding it had been taken away (Mitchem 1999:39). A small surface collection from the badly impacted “shell fields” near the mound included mostly sand-tempered sherds (Bullen and Griffin 1952:43, 47). Although a small number of St. Johns Plain sherds were recovered, no St. Johns Check Stamped, St. Marys Cordmarked, or grit-tempered cordmarked fragments were retrieved. However, the recovery of a single chalky cordmarked along with a few punctuated St. Johns potsherds hints at the presence of a St. Johns II component. If much of the shell from the site had been “removed” as Griffin claimed, then it is quite possible that St. Johns II shell midden levels may have been carted away.
With respect to the Lighthouse Mound, Moore (1896:24-29) described it as 3.6-m high and 23 m in diameter at its base. Depressions thought by Moore to represent borrow pits were situated to the west and northwest. The main body of the mound was composed of yellow sand, but layers of darker sand, some with oyster shell, and pockets and strata of hematite-impregnated sand, in some locations reaching 30 cm in thickness, were documented. In addition to scattered human bone, a consequence of previous mound digging, and a “deposit of charred and calcined human remains,” Moore (1896:24-25) encountered 74 human burials, “all seemingly in anatomical order.” He was amazed at the high incidence of pathological bones in the mound, and sent several away for analysis.

Lamb (1898:63-64), a pathologist with the U.S. Army Medical Museum, examined 12 human bones unearthed by Moore and stated “I know of no disease other than syphilis in which a series of bones of the same skeleton show the lesions [previously described].” Lamb (1898:64) provided an illustration of the pathological tibia and fibula, and as previously stated, they closely resemble abnormalities on the same skeletal elements from a burial at the Black Hammock Island, a condition Dickel (1998) attributed to a general periosteal infection rather than syphilis specifically.

Moore also discovered a complete skeleton of what appeared to have been a prehistoric domestic dog. Artifacts from the mound included eight stone celts, various whelk shell tools and a cup, shell beads, a few bone implements, a large carnivore canine tooth, and two minute pieces of copper. Of these artifacts, only two were associated with human burials, a stone hatchet in one case and shell beads in another instance.

Unfortunately, the temporal affiliation of the Lighthouse Mound is equivocal. Moore unearthed only one ceramic vessel, a bowl with an “incised marginal decoration.” Moreover, sherds were “infrequently met with” within mound fill, and of those encountered were mostly undecorated. However, a few cordmarked and stamped pottery fragments were recovered from “marginal parts of the mound.” The mound seems too large to be a Deptford period construct and
Swift Creek tumuli always contain complicated stamped pottery. Thus, a late prehistoric date for the tumulus appears highly probable. The cordmarked and stamped sherds suggest a St. Johns II date, although these fragments may be inadvertent inclusions in mound fill. If the incised bowl had a chalky paste, then the mound could placed in the St. Johns II period, but Moore does not provide any information on temper or vessel texture. While a St. Johns II date appears likely, we presently cannot rule at an earlier Colorinda or later St. Marys II or San Pedro cultural affiliation.

**Mt. Royal**

…we landed at Mount Royal, and went to an Indian tumulus, which was about 100 yards in diameter, nearly round, and nearly 20 feet high; found some bones scattered on it. It must be very ancient, as there are live oaks growing upon it three feet in diameter. What a prodigious multitude of Indians must have labored to raise it. To what height we can’t say, as it must have settled much in such a number of years, and it is surprising where they brought the sand from, and how, as they had nothing but baskets and boards to carry it in. There seems to be a little hollow near the adjacent level on one side, though not likely to raise such a tumulus the 50th part of what it is. But directly north from the tumulus is a fine straight avenue about 60 yards broad, all the surface of which has been taken off and thrown on each side. This makes a bank of about a rod [varies from 5.5 - 8 yards] wide, and a foot high, more or less, as the unevenness of the ground required, for the avenue is as level as a floor from bank to bank, and continues so for about three-quarters of a mile to a pond of about 100 yards broad and 150 yards long north and south, which seemed to be an oblong square…By its regularity it seems to be artificial; if so, perhaps sand was carried from hence to raise the tumulus…Here had been a large Indian town; I suppose there is fifty acres of planting ground cleared and of middling soil, a good part of which is mixed with small shells. No doubt this large tumulus was their burying place or sepulcher (John Bartram in Cruickshank 1957:64)

…At about fifty yards distance from the landing place, stands a magnificent Indian mount. About 15 years ago [1766] I visited this place…At that time there was a very considerable extent of old fields around the mount; there was also a large orange grove, together with palms and live oaks, extending from near the mount, along the banks, downwards, all of which has been cleared away to make room for planting ground. But what greatly contributed towards completing the magnificence of the scene, was a noble Indian highway, which led from the great mount, on a straight line, three quarters of a mile, first through a point or wing of the orange grove, and continuing thence through an awful forest of live oaks, it was terminated by palms and laurel magnolias, on the verge of an oblong artificial lake, which was on the edge of an extensive green level savanna. This grand highway was about fifty yards wide, sunk a little below the common level, and the earth thrown up on each side, making a bank of about two feet high (William Bartram 1928:101-102).

Mt. Royal is located in Putnam County along the east side of the middle St. Johns River, between Lake George to the south and Little Lake George to the north (Figure 5-12). It is
Figure 5-12. Location of Mt. Royal.
situated on a broad upland above (north of) a meander in the St. Johns River, immediately west of a lush wetland associated with Beecher Run. Physiographically, this segment of the river is referred to as the St. Johns River Offset, a westward realignment of the original river channel that formed as an estuary cutoff from the northern and southern segments of the river during late Pliocene to early Pleistocene times (Brooks 1981; Schmidt 1997:12; White 1970). Today, the middle St. Johns River basin consists of a somewhat narrow, meandering channel linking a series of freshwater lakes, with Lake George being the largest at 23 km long and 6 km wide (McLane 1955:11-12). The river, lakes, and wetlands are productive and resource rich biomes that would have provided the natives with abundant and diverse aquifauna. Terrestrial game would have been widely available within the riverine uplands. To date, no evidence for maize production or consumption has been recovered from prehistoric St. Johns II contexts, although charred cob fragments have been reclaimed from later Spanish mission contexts at Mt. Royal (Jones and Tesar 2001). Today, Mt. Royal is located within the Mt. Royal Airpark, a rapidly growing subdivision with its own airstrip. The mound itself is contained within a 1-acre parcel that belongs to the State of Florida.

**Archaeology of the Mt. Royal Mound**

John Bartram, and his son William, first visited the Mt. Royal in 1766, with William returning to the site in 1774. As quoted above, each recorded their observations on the Indian mound and associated avenue, but neither dug at the site. This feat would have to wait until Clarence B. Moore burst on the scene in April of 1893. At Mt. Royal, Moore (1894:16) set his sights on a large sand mound situated “not 300 yards [91 m] from the water’s edge.” He noted that, according to a resident of nearby Drayton Island, the mound had been formerly plowed over, and Moore (1894:18) himself observed that slumping of the mound sides had resulted in the accumulation of sand along its base, raising the surrounding terrain such that “measurements taken from the apparent base to the summit are diverse and misleading.” Nevertheless, he estimated a mound height of 4.9 m, though it had “a much greater height in former times,” and a
circumference of 168 m (Moore 1894:18-19). He further remarked that the avenue described by
the Bartrams “is still readily traceable, though its point of union with the mound is no longer
visible.” The intact segment of the avenue consisted of “a depression from twelve to twenty
yards [3.6-6 m] in width…between embankments of sand with an average height of 2.5 feet [76
cm], and 12 feet [3.6 m] in breadth” (Moore 1894:18).

During a 17-day period in 1893, Moore (1894:138-157), along with 21 men, dug two, deep
inverted trapezoid-shaped trenches to the base of the mound, with much of its remainder
excavated to depths in excess of 2.1 m. He returned the next year and worked 22 days with more
than 30 men, during which time “over two-thirds of the base…was laid bare” and the other third
was “dug into a depth of seven feet [2.1 m]” (Moore 1894:137). Upon completion, the mound
was restored to its former state, so that such a “great and historical a land mark should not pass
from sight.”

Although Moore’s modes of excavation and documentation were neither as unequivocal
nor as precise as modern archaeologists would like, insights can be gained and inferences can be
made based on his descriptions and commentaries. With regard to mound stratigraphy and
composition, Moore’s report on his first field season of investigation is much more informative
than that on his second season, since the latter placed greater emphasis on artifact descriptions
than on interpretations of mound construction and structure. Moore (1894:19) hinted to the
possibility that some sort of conflagration preceded the construction of Mt. Royal by noting that
“the sand at the bottom of the mound [when encountered] was…mingled with pieces of
charcoal.” Though open to interpretation, this passage could imply Moore’s belief that the
burning was part of an initiatory mound building ritual, particularly since he made such an
interpretation explicit at other mounds based on similar evidence.

Along and above the base of the mound were localized areas and layers of white sand that
suggested distinct episodes of intentional lensing in combination with general mound filling. The
mound itself was composed mostly of yellow sand undoubtedly taken from the immediate area of
the mound, perhaps from the pond located less than a km to the north. As stated, Moore considered the pond to be artificial due to its rectangular shape. Throughout the mound, Moore encountered layers and deposits of hematite impregnated sand that ranged in color from crushed strawberry to brick red to even Indian red, depending on the amount of iron oxide mixed within the sand. A cap of red-colored sand covered the entire mound, and reached a maximum thickness of 2.1m on the “northeastern portion of the summit plateau and adjacent slope” (Moore 1894:19). While artifacts were found in the yellow sand, Moore stated that it was more common to find cultural remains in contexts marked by sand tinted red to some degree. Despite extensive excavation, Moore did not mention the recovery of any freshwater snail or mussel shells in the mound, though thick shell middens are found about 270 m to the south along the river edge.

With regard to the distribution of cultural objects throughout the mound, Moore reported that “nearly the entire collection made by us” was confined to the upper 2.1 m of the mound (i.e., ca. 2.7-4.9 m above ground surface). He went on to note that while all classes of artifacts (e.g., copper, stone, pottery) were infrequently encountered on or near the base of the mound, “almost nothing was met with” in the intervening area (i.e., ca. 0.3-2.7 m above ground surface). It is not possible to tell from Moore’s account if the same distributional pattern applies to human remains, though he tersely and vaguely stated that indications of burials were met with in “every portions of the excavations.” Preservation was a problem, with Moore bemoaning the fact that burials were always found in the “final stages of decay” and frequently represented only by teeth. Thus we are left with no demographic information regarding the age, sex, or health status of any human remains contained within the Mt. Royal burial population.

Anyone familiar with Florida archaeology has heard of Mt. Royal and the exotic metal, stone and ceramic artifacts unearthed there by Moore. The mound yielded what Moore boasted was a “considerable quantity” of copper, although it is difficult to discern the exact number and forms based on his accounts. He stated that none of the copper items were “exact duplicates in size and design,” which he interpreted as an indication of aboriginal rather than European
manufacture. Artifacts recovered from the two field seasons included square, disc, oblong, or oval shaped sheets of copper, some of which were embossed with decorations and have central perforations. Also reported were rolled sheet copper beads as well as shell, clay, and wood beads coated with copper. A few pins or piercing implements of copper, two copper-covered pulley-type limestone earplugs, an upper and lower gray fox mandible wrapped in a veneer of copper, and a variety of other wood objects wrapped in copper were retrieved. Moore further stated that it was common for pieces of copper in the mound to have been “wrapped in bark or some vegetal fabric.”

Perhaps the most spectacular finds from Mt. Royal were two copper plates with repoussé designs. The upper plate displayed a “forked eye and blade” relief image that was “almost identical in design and absolutely so in style” to one from the Spiro site in Oklahoma (Philips and Brown 1978:206-207). This piece of sheet copper had been damaged and repaired in prehistoric times with rivets. The lower plate was embossed with centrally placed concentric circles and a series of partially enclosed parallel and perpendicular lines in each of the four quadrants. These plates were found in association with fragments of human skull with teeth, two pearls, and the aforementioned copper-covered fox jaw.

After his first field season at Mt. Royal, Moore had several pieces of copper submitted for chemical testing in the hope of identifying the copper source. It was determined that the specimens were composed of copper and lead, which led to the conclusion that the metal was either of European origins or from a source other than Lake Superior, since previous analyses had never found lead in copper from the Great Lakes region. However, the following year these results were disqualified and deemed “valueless” due to contamination, since it was learned that lead was present in the sulfuric acid used to clean the copper specimens prior to analysis. More recent trace element analysis by Goad (1978) of Mt. Royal copper sourced the metal to multiple ore deposits in both the Appalachian Mountains and the Lake Superior region.
A final comment on the copper from the mound concerns its association with human remains. Specifically, Moore reported that “[t]he custom of placing teeth, unaccompanied by other remains, with objects of copper was very noticeable at Mt. Royal, where it was of frequent occurrence.” He entertained the notion that this was the result of bone decay and preservation bias, but eventually dismissed this interpretation because he believed that if additional bones had been placed adjacent to any items of copper they would have been preserved. As supporting evidence he ushered in his results of investigation at the “Sand Mound in Pine Woods” in Lake County, where a similar coupling of copper objects and human teeth unaccompanied with other human bone occurred, even though bone preservation throughout the mound was in a “much better state of preservation” than at Mt. Royal. Apparently, these were the only two mounds in the St. Johns River Basin in which he ran across this perceived association.

Moore also recovered a variety of items made of stone, all of which are imports since there are no lithic outcroppings in the middle St. Johns region. Ground or polished stone tools included hatchets (n=137), chisels (n=6), spade-shaped implements (n=3), a perforated tablet or gorget, and a boatstone fragment. Moore failed to identify each specimen by raw material but did mention that some were made of claystone and others greenstone. Over 100 flaked stone points were recovered, including 53 concentrated within a “yard of sand.” Other lithic objects included quartz crystals and pebbles, polished and unmodified fragments of hematite, pieces of iron pyrite, ferruginous sandstone beads, and a calcite pendant.

Ceramic pots and other uniquely shaped fired-clay items were found throughout the mound, and were far more common in Mt. Royal than either in the Shields or Grant mounds to the north. Many were broken, and some contained pre-fired basal perforation or “kill” holes. Conventional-sized vessels were frequently encountered, but large vessels were absent. Moore recovered many unusually shaped vessels, which he often referred to as “freak wares.” A perusal of Moore’s illustrations reveals plainwares as well as pots decorated with check stamping, incisions, punctuations, and impressions. Moore observed that the “presence of pottery, as a
general rule, marked an interment.” It is interesting that Moore did not mention an association between human teeth and ceramic pots, as was the case with copper artifacts.

Shell, in various forms, was a common occurrence in the mound. Moore reclaimed 1307 whelk (*Busycon*) shells from the main excavation trench, which appears to refer to the 27-m long (and varying from 4.4 to 12.1 m in length) trench dug along the southern part of the mound. The overwhelming majority of these were *Busycon carica* (knobbed whelk) as opposed to the *Busycon sinistrum* (lightning whelk), the latter of which was used to manufacture shell cups and gorgets. These were found primarily in the upper 2.1 m of the mound, rarely below this point, and often as caches, with the largest concentration containing 136 whelk shells. None of the shells were fashioned into drinking cups, and few had extensively battered or beveled beaks. Many, however, had perforated bodies, which Moore likened to that of the pottery with intentional kill holes, though, as Mitchem (1999:23) points out, these whelks may have been fractured or modified for purposes of hafting or snail meat extraction.

In addition to the large whelk shells, a considerable number of discoidal shell beads and fewer columella beads were recovered; these appear to have been made from whelk shells. Shell beads were “always in connection with human remains” and not just teeth. Finally, other miscellaneous objects included shark teeth, perforated catfish vertebrae beads, freshwater mussel pearls, sheets of mica, and bits of galena. Clearly, the inhabitants of Mt. Royal were involved in far-flung exchange networks.

**Archaeology of the Mt. Royal Village Area**

None of the earlier investigators, such as the Bartrams, Daniel Brinton (1859), Jeffries Wyman (1875), or C.B. Moore dug into middens or the village area at Mt. Royal. In fact, the first non-mound investigation at Mt. Royal by archaeologists did not take place until the early 1950s, when archaeologists from the University of Florida first formally recorded the site. According to information on file at the FMNH, John Goggin visited Mt. Royal and on several occasions sent students to “surface collect” artifacts from the site between 1951 and 1956.
Artifacts were gathered from the exposed ground surface in orange groves and other cleared areas positioned between the mound and the river to the south. This area was designated PU35a, and it included the main orange grove, but excluded the area immediately east of the main grove which was referred to “PU35a-English Area.” Later these areas were combined as the Mt Royal midden under the designation 8PU35A, with the mound itself referenced as 8PU35 (Goggin 1952:87-88). Another area was tentatively labeled PU35B, and it marked a small, enigmatic area “across the gully, upstream near old cistern,” where only 13 sherds were recovered. In 1997, the Florida Master Site File in Tallahassee “officially” dropped all suffix designations for the site, and retained 8PU35 as its state site number.

Goggin (or his students) subsequently analyzed the pottery collected from the Mt. Royal midden, with types and counts recorded on file cards. Table 5.1 provides an inventory of the aboriginal ceramics recovered from PU35 (including the English Area), based on Goggin’s analysis sheets. Not included on the list are the Spanish ceramics collected from the site, and thought to be associated with the seventeenth-century Spanish mission, San Antonio de Anacapé. While materials from the early collections are still under curation at FLMNH, it appears that the bulk of the sherds (i.e., St. Johns series) retrieved in 1956 were discarded after analysis. Although Goggin (1952:55) did not excavate the mound, he did note that while the avenue observed by the Bartrams and Moore was no longer visible on the ground (ca. 1950), the avenue ridges “stand out quite clearly in air photos.”

No other archaeological work occurred at the site until the early 1980s, although the Mt. Royal was nominated and accepted for listing in the National Register of Historic Places in 1973 (Milanich 1999:8). In 1983, and again, in 1994 and 1995 Calvin Jones of the State of Florida Bureau of Archaeological Research (BAR) performed a variety of field investigations within portions of the site, prior to planned residential development of the area (Jones and Tesar 2001). The 1-acre (0.4 ha) Mt. Royal Indian Mound parcel, which belongs to the State of Florida, was not examined. Excavation strategies included shovel testing; mechanical stripping of narrow
Table 5-1. Aboriginal potsherds collected at Mt. Royal by the University of Florida, Florida Museum of Natural History.

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<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Cob Marked</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Surface Worked</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Fabric impressed</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>-</td>
<td>-</td>
<td>21</td>
<td>-</td>
<td>21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10,240</td>
<td>807</td>
<td>725</td>
<td>8,116</td>
<td>19,888</td>
</tr>
</tbody>
</table>

1. All but 5 sherds were saved; remainder was discarded.
2. All but 6 sherds were saved; remainder was discarded.
3. Those on file at the FMNH are grit-tempered Ocmulgee Cordmarked.
linear cuts; and hand digging of larger blocks divided into smaller excavation units of various sizes. These investigative procedures centered on the former orange grove south and southwest of the mound, an area BAR referred to as the Mount Royal village area (Jones and Tesar 2001:81). Fieldwork focused on the site’s Spanish Mission component, particularly 7 Spanish structural areas, although materials spanning the Middle Archaic through the late St. Johns II period were recovered (Table 5.2).

The 1983 field season was confined to areas of proposed road construction, immediately south and southeast of the Mt. Royal mound. A series of exploratory shovel tests (50x100 cm) were randomly placed in or adjacent to proposed roads. One shovel test revealed a section of a large subsurface feature. Subsequent expansion of the shovel test through the excavation of a series of contiguous units—that ranged from 50 by 50 cm to 50 by 100 cm—revealed that the feature was an aboriginal structure of the Spanish Mission period. The expanded area was designated Structure 1 Block Excavation, and it was situated near the edge of the highest elevated point in the orange grove, about 73 m southeast of the mound. All units were dug in arbitrary 15-cm levels, with the upper 30 cm representing disturbed plowzone. A second mission-period structure was exposed in one of the monitored machine (front-end loader) cuts to the south within a proposed roadway. This area was expanded manually to reveal the structure (Structure 2) in its entirety.

In 1994, the scene of fieldwork shifted slightly southwest to an area of approximately 28 acres (11.2 ha) planned for residential development. To gain a general understanding of this area of the site, shovel testing was conducted on a 30-m grid, although not all “grid interval locations” were tested. In fact, only 52 shovel tests (35 x 35 cm squares) were dug on the 30-m grid. Based on these results, an additional 21 units, most of which were to 50 x 100-cm trenches, were judgmentally placed in areas that contained Spanish artifacts. Units were dug in arbitrary 35 cm levels and were discontinued once the midden/subsoil interface was encountered (ca. 60-80 cm below surface). However, the authors admit that “for many [of the shovel tests] excavation was
Table 5-2. Sherds Collected from Mt. Royal by the Florida Bureau of Archaeological Resources (Jones and Tesar 2001).

<table>
<thead>
<tr>
<th>Classification</th>
<th>1983</th>
<th>1994</th>
<th>1995</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Johns Series</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>St. Johns Plain</td>
<td>1072</td>
<td>1373</td>
<td>12304</td>
<td></td>
</tr>
<tr>
<td>St. Johns Check Stamped</td>
<td>1932</td>
<td>1464</td>
<td>13758</td>
<td></td>
</tr>
<tr>
<td>St. Johns Simple Stamped</td>
<td>-</td>
<td>-</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>St. Johns Cordmarked</td>
<td>1</td>
<td>5</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td>St. Johns Punctated</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>St. Johns Incised</td>
<td>3</td>
<td>7</td>
<td>52</td>
<td>62</td>
</tr>
<tr>
<td>St. Johns Incised/Punctated</td>
<td>-</td>
<td>1</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>St. Johns other¹</td>
<td>6</td>
<td>4</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>Dunns Creek Red</td>
<td>4</td>
<td>2</td>
<td>128</td>
<td>134</td>
</tr>
<tr>
<td>Little Manatee Shell Stamped</td>
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<td>2</td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td>Little Manatee Zone Stamped</td>
<td>-</td>
<td>-</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Mount Royal Drag and Jab</td>
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<td>-</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Mount Royal Bead Impressed</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Other Types/Series</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange Series</td>
<td>13</td>
<td>35</td>
<td>67</td>
<td>115</td>
</tr>
<tr>
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<td>Wakulla Check Stamped</td>
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<td>17</td>
</tr>
<tr>
<td>Weeden Island Series</td>
<td>-</td>
<td>5</td>
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<td>19</td>
</tr>
<tr>
<td>Swift Creek Complicated Stamped</td>
<td>-</td>
<td>-</td>
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<td>2</td>
</tr>
<tr>
<td>Pasco Plain</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Thomas Simple Stamped</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Leon Check Stamped</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Chattahoochee Brushed</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>San Marcos series</td>
<td>3</td>
<td>-</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Sandy Fiber-Tempered Wares</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Plain</td>
<td>34</td>
<td>28</td>
<td>293</td>
<td>355</td>
</tr>
<tr>
<td>Incised</td>
<td>1</td>
<td>-</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Sand-Tempered Wares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plain</td>
<td>101</td>
<td>123</td>
<td>965</td>
<td>1189</td>
</tr>
<tr>
<td>Cordmarked</td>
<td>-</td>
<td>6</td>
<td>41</td>
<td>47</td>
</tr>
<tr>
<td>Incised (cf. Safety Harbor, Ft. Walton)</td>
<td>1</td>
<td>-</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>-</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Grit-Tempered Wares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plain</td>
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<td>9</td>
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<tr>
<td>Cordmarked</td>
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<td>564</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Grog-Tempered Wares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plain</td>
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<td>6</td>
<td>9</td>
<td>37</td>
</tr>
<tr>
<td>Burnished</td>
<td>-</td>
<td>-</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Incised/Punctated</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>3282</td>
<td>3157</td>
<td>22603</td>
<td>29042</td>
</tr>
</tbody>
</table>

¹ St. Johns other includes brushed, moss/grass impressed, complicated stamped, fabric-pressed, mat-impressed, colonoware, and cob marked
terminated at the bottom of the first level” (Jones and Tesar 2001:82). All fill was screened through 1/8” mesh in an attempt to recover small artifacts such as glass beads.

In 1995, BAR returned to the same area sampled in 1994 to conduct a mitigation project. Fieldwork began with the excavation of 12 small shovel tests, south and southeast of the mound, to fill gaps in the grid not sampled during the 1983 or 1994 seasons. But the focus of the 1995 season was squarely on loci that had yielded high frequencies of Spanish artifacts during shovel testing in 1994. The primary area of investigation was in the south-central part of the 1994 project area. Mitigation strategies included a large excavation block gridded into 1-m squares and a series of narrow cuts made by heavy machinery. In all, 13 machine cuts were made that ranged from 1.5-2.5 m in width and 10-20 m in length. Five additional Spanish Mission structures were identified that included one interpreted as a convento; several cooking and/or trash pits were also excavated (Jones and Tesar 2001).

Mt. Royal (ca. A.D. 900-1300)

The present study is interested in the village and mound complex at Mt. Royal that was coeval with the Shields and Grant mounds to the north, A.D. 900-1250. Winnowing such information from the above data is difficult for several reasons. First, the sandy nature of the site combined with the fact that it was under periods of cultivation over the last 200 years has greatly disturbed the uppermost strata. Second, St. Johns Plain pottery was made over a two-millennia period (ca., 500 B.C.- A.D. 1500+), so differentiating St. Johns I from St. Johns II contexts in the absence of stratigraphy is not an easy task. Third, investigative methodologies employed by fieldworkers over the years have varied in precision and consistency, particularly those of C.B. Moore, and the most recent and systematic undertakings have tended to focus on the site’s Spanish Mission component. But all is not lost. In fact, valuable insights on the site’s early St. Johns II component still can be gleaned from the data on hand.

First, let’s begin with the sand mound. Moore (1894:16-35, 130-146) recovered from Mt. Royal many of the same kinds of metal and stone artifacts that he took from the Shields and Grant
mounds, including embossed pieces of sheet copper and polished ground stone celts of various sizes and shapes. The Mt. Royal mound has long been attributed to the Mississippian period of southeastern U.S. prehistory, based on the presence of such exotica (e.g., Goggin 1952:54; John Griffin 1952:331; Williams and Goggin 1956:48; Waring 1948:154; Waring and Holder 1945). Prior to the widespread application of radiocarbon dating, Goggin (1952:54) temporally tied the mound to the St. Johns IIb or Middle Mississippian period, which at the time was dated to ca. A.D. 1400-1500. He placed Mt. Royal later in prehistory than the Grant and Shields mounds, which he assigned to the St. Johns IIa period (ca. A.D. 1100-1400). Four decades later, Milanich (1994:269) assigned Mt. Royal and Shields Mound to the St. Johns IIb period, with a revised date range of A.D. 1050-1530. However, he attributed the “heyday” of Mt. Royal to the period A.D. 1050-1300, on the basis of the types and styles of mound artifacts and their accepted dates elsewhere in the Southeast (Milanich 1999:11).

So what is this evidence that Milanich vaguely points to that can be used to pinpoint the heyday of mound construction and use? First, the pottery depicted by Moore consists of plainwares, two incised pots, two zone impressed vessels, and a check stamped bowl. Although Moore failed to identify the temper or texture of any of these vessels, the general form of most pots along with the mode of decoration fall well within the accepted range for St. Johns II pottery (A.D. 750-1500+). In fact, one of the large rim sherds appears to represent Little Manatee Shell Stamped (Moore 1994:Plate VII:2), which is associated with A.D. 900-1250 contexts in northeastern Florida. The absence of any items of European origin suggests that mound use was restricted to the prehistoric phase of the St. Johns II period.

What can the lithic material tell us about the mound’s date? The polished stone celts recovered by Moore conform to two general varieties: petaloid and elongate. The former type tends to have broad slightly converging bits and narrow rounded or blunt polls; these are what Moore referred to as “hatchets.” He reported that many of the hatchets had edge damage, indicating usage, but not necessarily by the St. Johns II groups. Interior Mississippian peoples
may have exchanged exhausted stone celts to groups who lacked access to the hard stone but were willing to acquire the material in any condition. Unfortunately, this celt style, found on numerous Woodland and Mississippian period sites throughout the Southeast, is not temporally sensitive.

The second type of celts is elongate, which consists of those with very long and slender bodies and others with flared bits wider than the celt body. Moore referred to the former as “chisels” and the latter as “spade-shaped” implements. Brown (1996:477-478) considers both the unmodified elongate or chisel form and the modified or spatulate form to represent sociotechnic artifacts that might provide finer temporal resolution. Because these objects are most often found in burial contexts throughout the Mississippian-period greater Southeast and Midwest, they are frequently considered nonfunctional ceremonial implements denoting a person or position of authority or leadership (Brown 1976:126; Brown et al. 1990:264; Pauketat 1983).

In its classic form, a long-stemmed spatulate celt has a broad round bit with side notching, distinctive barbs, and a slender, elongated, and slightly tapering poll or stem. Two of the Mt. Royal specimens match this description, whereas the third has a much shorter and wider poll, with parallel sides. Long-stemmed spatulate celts are thought to have had a limited period of production and hence are a “possible time-marker” (Pauketat 1983). Such celts have been found in far-flung Mississippian mound centers such as Cahokia (Illinois), Spiro (Oklahoma), and Macon Plateau (Georgia) to name a few. Admittedly, not many burial pit or specific mound contexts containing spatulate celts have been directly dated via chronometric dating. The “Premound Precinct Complex Stage” at Cemochechobee site on the Chattahoochee River in Georgia, which contained a burial interred with a long-stemmed spatulate celt, was radiocarbon dated to A.D. 930±65 (MASCA corrected) (Schnell et al. 1981:37-39, 249). Two burials from Mound C at the George C. Davis site in eastern Texas each contained a spatulate celt and were radiocarbon dated to cal A.D. 630-850 and A.D. 1100-1200, respectively (Story 1981; Story and
Valastro 1977:86). Taken together these would suggest a Late Woodland-Early Mississippian timeframe, ca. AD 800-1200.

While providing a start, by no means do these three radiocarbon assays from two sites solidly date spatulate celts. Both Pauketat and Brown have attempted to date the celts indirectly using a cross-tie-dating approach. Pauketat assigns them to the A.D. 1100-1350-period, but notes that they may be earlier in the South Appalachian region. Brown (1996:161-162; personal communication, 2001), on the other hand, drawing heavily on his work at Spiro, assigns them to ca. A.D. 1050-1250. Remember, Moore’s excavation at Shields Mound yielded similar-looking spatulate celts and our recent excavations there indicate that the village area dates to A.D. 900-1250. Many would also place Macon Plateau, which also yielded a similar-looking spatulate celt, within this same Early Mississippian timeframe.

Another temporally diagnostic lithic artifact retrieved from the mound is a small tri-notched triangular point that strongly resembles a Cahokia Side Notched (Moore 1894:21, Figure 5). This is by no means a novel observation, since it was suggested early on by Williams and Goggin (1956:50). This uniquely-shaped point dates to between A.D. 900 and 1150 (Justice 1987:233). A cache of hundreds of projectile points, including a collection of Cahokia tri-notched points, were recovered from the retainer burials in the primary mound at Mound 72 in Cahokia that dated to ca. A.D. 1000-1100 (Fowler 1991:14). Recently, Fowler et al. (1999) have recently suggested that this mortuary event occurred “in the earlier half of the period…and even in a decade or two of that period.”

Finally, the copper objects from Mt. Royal “leave no doubt that the mound dates from the Mississippian period,” although embossed copper plates are also found in some Middle Woodland period mounds in the greater Southeast and Midwest (Mitchem 1999:24). It has been suggested elsewhere that the square to rectangular plates with a central embossed node at Mt. Royal are similar to the copper headdress plate from the Cummings-McCarthy site in west-central Illinois, which has an alleged date of circa A.D. 900-1000 (Sampson and Esarey 1993:463).
Although unembossed or simply embossed copper plates could have been produced any time throughout the Mississippian period, the more elaborately designed repoussé plates arguably date to middle to late Mississippian times. According to Brown (Brown and Kelly 2000; 2001 personal communications), the more spectacular repoussé copper plates from Mt. Royal contain elements of the classic Braden art style that may have arisen at Cahokia, some time after A.D. 1200, and very likely within the A.D. 1250-1350 time range. Taken together, the above data place Mt. Royal in the time slot, circa A.D. 900-1300, corroborating Milanich’s estimate and rendering it contemporaneous with the Shields and Grant mounds.

Turning our attention now to the village at Mt. Royal, what can be said about its occupational history? Jones’s excavations, combined with the earlier surface collections made by Goggin, clearly demonstrate that the site’s most salient period of occupation was during St. Johns II times, before and after European contact. The recovery of Orange series ceramics indicates a Late Archaic component, and the presence of Deptford, Pasco, and Swift Creek wares marks the existence of a Woodland or St. Johns I component. It is difficult, however, to accurately judge how extensive and intensive St. Johns I (500 B.C. – A.D. 750) habitations were at Mt. Royal, since St. Johns Plain, the hallmark ware of the period, was commonly produced during the later St. Johns II period as well. In general, check stamped generally comprises anywhere from 50 and 70 percent of the types in a St. Johns II assemblage on sites in the St. Johns region.

Using this as a rough guide, we can then assume that some of the chalky plainwares in the village area are attributable to the St. Johns I period, since St. Johns Plain outnumbers St. Johns Check Stamped. However, a distinct St. Johns I component or activity area was not detected by Jones, who reports that, based on shovel test results, “the distribution of…St. Johns Check Stamped sherds replicates that of plain [St. Johns] sherds” (Jones and Tesar 2001:95).

In an attempt to identify the extent of the site’s St. Johns II component, we can trace the horizontal dispersal of chalky check-stamped pottery. Jones’s 1983 field season recovered St. Johns Check Stamped sherds from loci immediately south and southeast of the mound. These
same wares were found to cover the entire sampling tract southwest of the mound during the 1994 and 1995 season. Together, the BAR investigations show that St. Johns II pottery types pretty much blanketed the entire area between the river and mound, some 16 ha. It should be pointed out that an approximately 60-m wide strip fronting the river was not tested due to the presence of houses. This linear strip contains shell midden deposits that have not been systematically investigated and dated, but check-stamped sherds have been found in this area by the landowners (Richard Hamrick, personal communications 2003). Finally, no sampling has been performed in areas to the east, west, and north of the mound, so the occupational history of these locations is unknown. However, a decline in topography combined with the fact that no landowners have reported finding artifacts in the lower areas enables us to propose a somewhat confident southeastern site boundary.

While check stamped pottery was dispersed over a large area, Jones and Tesar (2001) noted that the distribution was variable and punctuated by a series of high frequency concentrations. Because check stamped pottery was made over a lengthy period of time (A.D. 750-1500+), we cannot conclude that this distribution directly corresponds to the size of the village coeval with the mound. In fact, the dominance of St. Johns pottery in mission-period features makes obvious chalky St. Johns ceramics were produced by the local natives well into the seventeenth century. The appearance of San Marcos pottery at Mt. Royal denotes the arrival of Indians from missions on the Georgia coast and northeasternmost Florida, such as the Yamasee Indians, who, according to Spanish documents, reoccupied San Antonio de Anacampe in the late 1600s (see Jones and Tesar 2001:9-10).

By focusing on the distribution of certain minority wares produced only during the period A.D. 900-1250, we can gain some knowledge of the size and location of the village contemporaneous with the mound. I have examined some of the grit-tempered cordmarked pottery from both the BAR and Goggin (FLMNH) collections, and argue that they fall well within the range of Ocmulgee series wares found in northeastern Florida. In addition, several rims with
folds or appliqué strips were identified, which is a distinguishing characteristic of Ocmulgee series pottery of south-central Georgia (Snow 1977a; Stephenson 1990a). As detailed in Chapter 4, the production of this grit-tempered ware was restricted to the period in question. To better date this ware at Mt. Royal, I obtained soot from a St. Johns Check Stamped sherd recovered from the same context as cordmarked sherds and submitted it for AMS dating (none of the cordmarked sherds we had access to contained enough soot for dating). The resultant assay had a one-sigma calibrated date range of A.D. 1010-1050 and a 2-sigma result of A.D. 990-1160, a date precisely contemporaneous with midden deposits at both the Grant and Shields mound. Also dating to the A.D. 900-1250 era are Little Manatee Zone Stamped and Shell Stamped, which, at Mt. Royal, had the same distributional pattern as the cordmarked wares, but occurred in far fewer numbers.

In terms of their horizontal spread, none of these minority were found near or east of the mound, but were broadly scattered over the entire tract surveyed in 1994, an area approximately 240 m (N-S) by 200 m (E-W) or 5 ha (Jones and Tesar 2001:99). These spatial dimensions, however, omit the 60-m wide swath fronting the river, since it is presently unclear whether or not the landowners have found cordmarked or Little Manatee series sherds in this location. Thus, the village dating to the period A.D. 900-1250 appears to have been situated about 100 m slightly southwest of the mound, and possibly extending south to the river (Figure 5-13). It is unfortunate that this same location also housed the Spanish mission village. This latter occupation, coupled with extensive plowing and loose sandy soil conditions, adversely affected the stratigraphic integrity of the site, precluding the recognition of temporally distinct cultural strata. In areas of the site, intact features and burned structural remains did survive the ravages of time, but most features and all the buildings date to the mission period. The few features that definitively dated to the prehistoric St. Johns II period were simple refuse pits containing sherds, some freshwater shells, and occasional chert flakes.

Local St. Johns series pottery is the dominant ware on site, and, except for grit-tempered cordmarked ceramics, only a small amount of nonlocal early Mississippian period pottery has
Figure 5-13. Mt. Royal site boundaries.
been recovered. A few Sarasota Incised, Weeden Island, and Alachua series sherds may fit within this temporal slot, as might several sherds described as “Safety Harbor-like” and “Fort Walton-like.” Based on paste, the latter “appear to represent both trade ware and locally made copies” (Jones and Tesar 2001:258). A “bird-tail rim lug with micaceous sand-tempered” was also considered a trade ware (Jones and Tesar 2001:255). One unusual vessel fragment is a gritty sand tempered body sherd that retains a portion of a “strap handle” (Jones and Tesar 2001:263; Tesar personal, communication, 2002). Though it was typed as cordmarked, it is mostly plain with a series of thick, widely-spaced and indistinct impressions along one edge of the handle that may represent cordmarking. Save for mission-period colonowares, loop or strap handled vessels are rare for northeastern and northern Florida, though they are found on some Mississippian period wares, such as Bibb Plain from the Macon Plateau vicinity. While Macon Plateau may not be the ultimate source for this vessel, it is clearly an imported item. Unfortunately, the sherd, along with the entire BAR collection, has been returned to the landowner, at his request, and has been unavailable for further study.

Beside pottery, additional non-ceramic artifacts were recovered from the village area by BAR (Jones and Tesar 2001). Other than obvious items of European manufacture, assigning nonceramic artifacts to specific cultural periods is a dubious endeavor. This is particularly true for the many lithic flakes and expedient tools, as well as the generic-looking stone, bone and shell tools. Marine shell, mostly whelk (*Busycon* spp.) and some conch (*Strombus* spp.), was used to manufacture tools and ornaments. Items of shell from Mt. Royal included cutting edge tools, gouges beads, pins, pendants, plumments and earplugs (Tesar 2001:18-20). Though these cannot be linked specifically to the period A.D. 900-1250, the recovery of similar items along with over 1300 whelk shells from the mound makes it a strong possibility. The early Mississippian inhabitants of Mt. Royal undeniably had access to the coast, either via travel or trade. Tesar (2001:18) remarks that the Atlantic coast is closer to Mt. Royal than the nearest chert quarry locale, located to the west in the Ocala Uplift.
BAR excavations produced quite a few projectile points, collectively spanning Archaic, Woodland (St. Johns I), and Mississippian (St. Johns II) times. Those of interest to the present investigation include Pinellas and Tampa varieties, but production dates for these cover the entire St. Johns II period and may even have continued into early historic times. Tesar (2001:21) also identified what he considered to be a St. Johns II microlith assemblage at Mt. Royal that differed from the Late Archaic-Early Woodland microliths found on site. The former included “Cahokia-like and related microliths of the late Woodland to Early Mississippian period” (Jones and Tesar 2001:161). Though most of the lithic artifacts are only of broad temporal assistance, it appears likely that a significant portion of the assemblage dates to the early Mississippian period.

An interesting practice noted by Jones and Tesar (2001:159, 163, 168), but one that can not be tied specifically to A.D. 900-1250, is the apparent scavenging and reworking of Archaic period bifaces by later St. Johns site inhabitants. The authors argued that lithic evidence pointed to the existence of a Middle Archaic component at the site (Jones and Tesar 2001:157).

However, we must keep in mind that BAR excavation infrequently extended below 70 cm, meaning that deeper and early cultural strata, if present, were rarely tapped. If the site does contain a Middle Archaic component than the site’s St. Johns II occupants undoubtedly took advantage of lithic material already present on site. But, they very well may have also scavenged lithic material, flakes as well as points, from other nearby Archaic sites, mitigating the need to go to distant outcrops to secure stone. The collecting/heirlooming and/or reuse of Archaic period stone artifacts by St. Johns II peoples also has been documented to the north at the Shields site (Bland 2001).

**St. Johns II Sites in the Vicinity of Mt. Royal**

Outside Mt. Royal little serious archaeological attention has been given to the middle St. Johns River region, north of Lake George. Florida site file information reveals a cluster of St. Johns I and II sites, between the northern fringes of Lake George of the south and its confluence with Dunns Creek on the north, a distance of roughly 26 km (Miller 1998:81-84; Sassaman et al.
Save for sand mounds excavated by Moore, few sites have been subjected to subsurface testing. At best, small surface collections have been made, but no site has produced more than 10 St. Johns Check Stamped sherds. Although sampling of these sites has been limited, few give the impression of being villages, and most appear to represent the byproduct of a range of short-term activities, such as resource procurement.

With regard to sand mounds, Moore (1894a; 1894b) excavated eight within this area, including Mt. Royal. The Norwalk Mound (8PU38), situated across the river from Mt. Royal, was a St. Johns I construct, whereas testing of the Small Mound near Mt. Royal (8PU36) by Moore (1894:35) failed to produce any human remains or artifacts other than two partial stone projectile points. Near the confluence of the merger of the Oklawaha River and the St. Johns River, Moore dug the Bear Island Mound (8PU48), but met with negative results. The closest known St. Johns II mounds in the area to the north are the Davenport Mound (9PU50), 16 km away along the Oklawaha River, west of its confluence with the St. Johns River; the Murphy Island Mounds (8PU20-21) located along the St. Johns River near its confluence with Dunns Creek, about 26 km north of Mt. Royal; and the Dunns Creek Mound (8PU14), 5 km to the east of Murphy Island along Dunns Creek (see Figure 5-14).

Wyman (1875:40) and LeBaron (1884:773) mention several freshwater shell heaps (8PU34, 39-43, 46-47) and two mounds (8PU44-45). Antonio Waring (1944 in Goggin 1952:88) also appears to have visited the Norwalk Landing Mound (8PU38) and identified an adjacent midden (8PU37). At present, it is difficult to assign these sites to specific time periods due to a lack of reported site information. According to the Florida Master Site File, as of July 2002, no archaeological surveys have been performed on the east side of the river in the Mt. Royal vicinity. On the west side of the river, several cultural resources surveys, consisting exclusively of surface reconnaissance, have been conducted on U.S. Forestry Service timberlands by forest service archaeologists.
Figure 5-14. Location of Mt. Royal (8PU35) and nearby St. Johns II sites.
To the south of Mt. Royal, another area of interest is Drayton Island at the northern end of Lake George in the river channel. After visiting Mt. Royal, William Bartram (1928:103-104) moved south along the river and soon encountered Drayton Island, where he exclaimed that:

[it] appears, from obvious vestiges, one of the chosen residence of an Indian prince…commanding a comprehensive and charming prospect of the waters, islands, east and west shores of the lake, the capes, the bay and Mount Royal…On the site of this ancient town, stands a very pompous Indian mount, or conical pyramid of earth, from which runs in a straight line a grand avenue or Indian highway terminating at the verge of a large green level savanna. This island appears to have been well inhabited, as is very evident, from the quantities of fragments of Indian earthenware, bones of animals and other remains, particularly in the shelly heights and ridges all over the island.

Beasely (1995) equates the island with the location of the sixteenth-century Timucua village of Edelano, which was described by the French as having “an avenue about three hundred paces long and fifteen wide” (Bennett 1975:115; Lawson 1992:94). Based on these descriptions, the layout of the site on Drayton Island sounds remarkably similar to that of Mt. Royal; that is, each contained a large sand mound with a causeway that led to either a pond or some form of wetland (Beasely 1995:3). Beasely (1995) observed an anomalous circle, approximately 364 m in diameter, on various aerial photographs of Drayton Island that he believes is associated with the site of Edelano. A cursory walk-over of the island failed to discern the circle, although areas of intermixed shell and sand were observed. The site appears to have been “completely destroyed” by development activities during the early twentieth century, but the circle remains visible on aerial photographs as a distinctive vegetative growth pattern (Beasely 1995:1).

However, Beasely did identify “two parallel ridges,” 15 to 30-cm high, that he contends are the remains of the causeway described by Bartram and the French Huguenot René Laudonnière.

Although no subsurface testing was conducted, small amounts of St. Johns Plain and Check Stamped pottery were surface collected (Beasely 1995:4). Other than these finds and small artifact collections made at sites 8PU43, 8PU774, and 8PU745, little is known about the prehistoric occupation of Drayton Island. Presently, there is no information on what types of artifacts the sand mound may have contained.
If Edelano was indeed on Drayton Island as some suspect (Beasely 1995; Milanich 1999:12), then there was a late Mississippian-period St. Johns II village on Drayton Island. The presence of St. Johns Check Stamped pottery provides evidence for at least some activity on the island during the St. Johns II period. However, it is unclear as to whether Edelano or any St. Johns II site was located on the island during the Early Mississippian and coeval with the heyday of Mt. Royal. The archaeological site of Mt. Royal has been considered the location of the sixteenth-century Timucua village of Enecape or Enecaque (Bennett 1975; Lawson 1992). The primary reason for this supposition appears to be that the fact that both archaeological and documentary evidence exists linking the Mt. Royal site and the early seventeenth-century mission-period village of San Antonio de Anacape. Thus, continuity in village name is assumed to represent continuity in geographical space, a logical assumption.

If there is spatial continuity between the Early Mississippian-period mound center of Mt. Royal, the contact-era village of Enecape, and the mission-period village of San Antonio de Anacape, then the site would have been occupied continuously for over 700 years. While this is a possibility, it seems to represent a long time for a village to be in the exact same place, considering local resource demands and carrying capacity (e.g., food, wood, etc.) I wonder if perhaps Mt. Royal was abandoned around A.D. 1300, with seat of local power shifting (or people actually moving) to Drayton Island. If true, this would mean that Edelano was on Drayton Island in the 1560s and that the coeval village of Enecape was farther down river (north), possibly on Murphy Island. However, by Spanish mission times (late 1590s and early 1600s), the social geography had changed, as it had farther down river in the Utina and Saturiwa districts (Worth 1998), and Enecape had been relocated to Mt. Royal (now known to the Spanish as San Antonio de Anacape) and Edelano had been abandoned. More archaeological and documentary evidence are needed to test this hypothetical scenario.

In sum, though admittedly biased due to the paucity of work in the area, extant settlement pattern data suggest that St. Johns II midden-burial mound sites (villages) were few, and those
that existed to the north where found near the confluence of the St. Johns River and its major tributaries. However, all these sites paled in comparison to Mt. Royal. To the south, a large St. Johns II site appears to have existed on Drayton Island at the north end of Lake George, 6.4 km from Mt. Royal, but it is presently unclear as to whether it was coeval with or later than Mt. Royal. Thus, there is little doubt that Mt. Royal served as both the population and ritual center along the Middle St. Johns River during the period A.D. 900-1300. In fact, researchers have implicated the strategic location of Mt. Royal, immediately north of Lake George, as a major factor in its rise to prominence, perhaps as an exchange center (Milanich 1999:10-11; Mitchem 1996:234; Phillips and Brown 1978:207). This theme is explored in more detail in Chapter 8.

Because this study eschews an insular look at St. Johns II cultural developments in northeastern Florida, we must broaden our spatial scale of analysis to incorporate coeval native peoples living beyond the boundaries of present-day Florida. The presence of Ocmulgee Cordmarked pottery on St. Johns II sites intimates ties between Ocmulgee peoples of south-central Georgia and the St. Johns II groups in northeastern Florida. Moreover, the occurrence of certain nonlocal metal, mineral and stone artifacts in St. Johns II mounds suggests connections with early Mississippian chiefdoms, the closest of which was Macon Plateau situated upriver from the makers of Ocmulgee Cordmarked pottery. It is to the Ocmulgee-Altamaha river region that we now turn our attention.
CHAPTER 6
ARCHAEOLOGICAL OVERVIEW OF THE
EARLY MISSISSIPPIAN PERIOD IN THE OCMULGEE BIG BEND REGION
AND MACON PLATEAU VICINITY, GEORGIA (A.D. 900-1250)

Contemporaneous with early St. Johns II life in northeastern Florida were two distinctly
different cultural lifeways along the Ocmulgee River in southern-central Georgia. Of utmost
importance to this study are Ocmulgee Phase peoples, who occupied the Ocmulgee Big Bend
region as well as parts of the upper Altamaha, lower Oconee, and upper Satilla river drainages.
These were hunter-gatherers whose riverine-based foraging way of life persisted into the Early
Mississippian period (Stephenson and King 1992; Stephenson et al. 1996). Interactions between
Ocmulgee and St. Johns II peoples are evinced by the presence of folded rim Ocmulgee
Cordmarked wares in northeastern Florida and at Mt. Royal (Ashley 2002; Ashley and Rolland
2002).

Following a detailed archaeological review of the Ocmulgee Phase in the Big Bend region,
I present a brief archaeological overview of the Macon Plateau vicinity, where there arose the
Early Mississippian chiefdom of Macon Plateau. Its existence undoubtedly had an effect on
Ocmulgee Phase peoples and, quite possibly, on St. Johns II groups in Florida, although direct
evidence of the latter is lacking. Macon Plateau exemplifies a multimound Mississippian center,
and its physical layout provides a contrast to that of the Ocmulgee Big Bend and coastal St. Johns
II regions. Its inclusion helps round out the varied social landscape of southern Georgia and
northern Florida during the Early Mississippian period.

Ocmulgee Big Bend Region

Location and Natural Setting

As Hally (1994:1) points out, there is confusion over how the term “Ocmulgee” is used in
the archaeological literature. It has been employed variously to signify sites as well as any or all
federally-assisted archaeological excavations conducted during the 1930s and 1940s in the Macon vicinity. In addition, “Ocmulgee” has served to denote the Late Woodland/Early Mississippian phase, people, and cordmarked pottery of the lower Ocmulgee River area (e.g., Ashley and Rolland 2002; Snow 1977a, 1977b; Stephenson 1990a). For this study, I use the phrase *Ocmulgee Big Bend* to designate the Late Woodland/Early Mississippian-period cordmarked pottery-making people of the lower Ocmulgee-lower Oconee-Upper Altamaha rivers (Figure 6-1). Their heartland appears to have followed the course of the Ocmulgee-Altamaha rivers from roughly Hawkinsville on the northwest to the Ohoopee River on the southeast. I reserve the term *Macon Vicinity* for the region farther upstream at the Fall Line that includes Macon Plateau and other sites excavated during the WPA-era. The following environmental overview is brief and draws upon the more detailed work of Snow (Bracken et al. 1986:6-10) and Stephenson (1990a:4-13).

The Ocmulgee River originates in the Piedmont Province at the confluence of the Yellow and South rivers in Newton County, Georgia. The river flows southeast through the shoal-laden Fall Line at Macon, where the narrow channel widens and gives way to broad floodplains. Entering the Coastal Plain, it then meanders southward before beginning a sweeping eastward turn to form the Ocmulgee Big Bend, which ends at its confluence with the Oconee River. The Altamaha River is formed at the juncture of the Ocmulgee and Oconee rivers, and it continues southeastward, eventually emptying into the Atlantic Ocean near Darien. Over its 631-km course the Ocmulgee-Altamaha river system passes through the Piedmont, Fall Line, and Coastal Plain physiographic provinces.

In general, two primary environments characterize the Ocmulgee Big Bend region: river floodplain and adjacent uplands, both of which exhibit distinct microenvironments on the basis of local topographic, pedological, and hydrological conditions (Stephenson 1990a:5). On the south and west sides of the Ocmulgee-Altamaha rivers, within the Ocmulgee Big Bend region, high sandstone and limestone bluffs align the water’s edge for long stretches, with little or no
Figure 6-1. Ocmulgee Big Bend Region, with sites discussed in the text indicated (adapted from Snow 1977a).
floodplain, though swamps often occur in channel oxbows (Bracken et al. 1986:7). On the north side, the situation is different, and the channel is bordered by a broad alluvial floodplain that in areas is 3 to 4 km wide. The floodplain there is classified as a shallow-water swamp, since it is covered by river overflow for a period of less than six months a year (Wharton 1978:47). A natural levee, interrupted in places by sandy bluffs that front the river, runs along the channel.

In the floodplain, old river meanders cut off from the shifting channel form scars and, in areas, oxbow lakes. Within extremely low areas are deep-water backswamps and sloughs that hold water for long periods of time (Wharton 1978:47). Interspersed throughout the vast floodplain are fluvial rises, manifest as linear ridges or knolls rising 3 to 6 m above the surrounding bottomland. These water-deposited sand formations represent relict river levees or sand bars (Bracken et al. 1986:7; Stephenson 1990a:7). In downriver locations, floodplain terraces of alluvial origins bank the bottomlands, but occur at elevations lower than the uplands. Floodplains are highly dynamic environments due to a variety of factors such as river meandering, vertical alluvial buildup, sand accretion, overbank aggradation, and erosion (Wharton 1978:48-49).

The rich alluvial river floodplain offers a wide array of microenvironments marked by elevation differences. The native vegetational regimes of the floodplain reveal the topography and drainage capacities of the soils upon which they grow. The shallow-water swamps contain a hydrophytic vegetation cover of cypress, bays, and oaks with an understory of tangled shrubs, vines, ferns, and palmetto that currently (and prehistorically) extends across the floodplain. Annual floods inundate the lowlands or flats, depositing rich nutrient-laden silts derived from the Piedmont. Although flooded for only short episodes, the alluvial lowlands typically remain wet throughout the year due to poorly drained soils with impermeable clayey substrata. Mesic hardwood forests form on the better-drained sand rises in the bottomlands. The microenvironments of the floodplain harbor a wide spectrum of invertebrate and vertebrate fauna,
including both temporary and permanent inhabitants. Distinctive river bluff and upland slope vegetational communities separate the floodplain and the uplands, in areas along the river.

Bordering the floodplain are uplands consisting of gently rolling hills with broad sandy summits, drained by small creeks and spring-fed streams that pass either directly into the river or floodplain (Bracken et al. 1986:7; Cooke 1925). Extant upland ecological communities are typically not reflective of the Early Mississippian-period environment due to modern agricultural and silvicultural developments. In prehistoric times, the xeric uplands of the Coastal Plain would have supported a vast natural forest of primarily longleaf pine, with wire grass ground covering. The ability of this species to survive in the face of recurrent fires allowed it to dominate the landscape and precluded its replacement by successional oak-hickory climax forest (Larson 1980:38-47; Pessin 1933:11). Patches of mesic hardwoods, however, would have been interspersed in open areas throughout the longleaf pine belt, and swamps or other wetland environs would have existed in poorly drained lowlying areas. Some researchers believe that the “pine barrens” maintained a low density and diversity of animals important to native diet due to the lack of browse (Larson 1980:56). However, this would have varied locally depending on landform elevation, drainage, and soil conditions.

Native occupation and degree of sedentism in the alluvial floodplain would have been dictated by periodic flooding and landform elevation. Based on archaeological reconnaissance of the region, Stephenson (1990a:11) notes “the most important archaeological features in the floodplain on both sides of the lower Ocmulgee River are numerous sandy elevated landforms known as sand knolls.” These areas of well-drained high ground and hammock vegetation, when coupled with nearby streams or springs, appear to have been favored site locations that offered the natives simultaneous access to the fish, turtles, and other aquatic animals of the floodplain, as well as the flora and fauna of the uplands. Thus, as many others have noted, from a native perspective, the food potential of the coastal plain is not dependent on a single environmental zone, but rather in the availability of contrasting upland and floodplain ecosystems.
Dating the Ocmulgee Phase

Cordmarked pottery is the most distinguishing artifact of the Ocmulgee Phase, and its chronological placement has long been a concern of regional archaeologists. In the past, the estimated date of cordmarked pottery in the hinterlands of southern Georgia was frequently based on some form of cross dating, with routine reference to the date range of the Wilmington and Savannah phases or periods along the Atlantic coast. Thus it was suspected that the cordmarked pottery of the Ocmulgee Big Bend region dated to some time between circa A.D. 800 and 1200 (Snow 1977a; 1977b; 1990; Stephenson 1990a).

Initial attempts to chronometrically date cordmarked pottery were based on thermoluminescent (TL) assays on sherds from three sites. TL assays included dates of A.D. 200$\pm$50, A.D. 1460$\pm$50, and A.D. 1570$\pm$30 from the Lowe Site, 9TF139 (Crook 1987:58-61); A.D. 1360$\pm$60 and A.D. 1400$\pm$50 from the Telfair Mound (9TF2); and A.D. 1490$\pm$NR from Hickory Ridge (9TF73) (Bracken et al. 1996:75, 79). Together these pointed to a long period of cordmarked pottery production that spanned circa A.D. 200-1600.

Crook (1987:67) used the first set of TL dates from the Lowe Site to develop a three phase ceramic sequence for the lower Ocmulgee region that included the Early Ocmulgee Phase (2500 B.C. - A.D. 200), Middle Ocmulgee Phase (A.D. 200 -?900), and Late Ocmulgee Phase (A.D. ?900-1600). It was argued that cordmarked wares and small indented-base triangular stone points were manufactured during the latter two phases. However, following the subsequent release of TL dates from Telfair Mound and Hickory Ridge, the consensus among all researchers involved in the two studies was that these dates were too late and that the TL assays were in error (Bracken et al. 1986:91).

Although initially discredited in favor of the TL dates, Crook (1987:58-61) obtained radiocarbon dates on two charred wood samples from the Lowe site. As shown in Table 6-1, calibration of these two assays, combined with accelerator mass spectrometry (AMS) dates on soot from 10 potsherds from separate sites, now indicate a calibrated date range of A.D. 900-1250...
<table>
<thead>
<tr>
<th>Site</th>
<th>Lab. #</th>
<th>Material</th>
<th>C13/C12 ratio (o/oo)</th>
<th>Conventional C14 age (BP)</th>
<th>Calibrated 1 Sigma (AD) with intercept</th>
<th>Pottery Association</th>
<th>Reference</th>
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<tr>
<td>9TF139</td>
<td>Beta-16013</td>
<td>Soot</td>
<td>*</td>
<td>----</td>
<td>890 (980) 1020</td>
<td>Oc II CM</td>
<td>Crook 1987</td>
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<td>9W111</td>
<td>Beta-65346</td>
<td>Soot</td>
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<td>980 ± 40</td>
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<td>Beta-74324</td>
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<tr>
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<tr>
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<td>OxA-220299</td>
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<tr>
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<td>Soot</td>
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<td>----</td>
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<td>1220 (1280) 1300</td>
<td>BS CM</td>
<td>Schnell 1975; Price &amp; Tucker 2003</td>
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* C13/C12 ratio estimated (-25.0) by Beta Analytic, Inc.
for the Ocmulgee Phase (Stephenson 1990b; personal communications, 2002; Stephenson et al. 1996:21-23). The Ocmulgee Phase dates fit neatly between the earlier Late Swift Creek Phase (cal A.D. 600-950) and the later Pulaski Phase (A.D. 1275-1400) (Stephenson et al. 1996:21-23; Stephenson et al. 2002:326). A similar calibrated radiocarbon date of A.D. 1220-1290 was acquired on charcoal associated with folded rim cordmarked pottery at the Cannon Site in Lake Blackshear along the Flint River to the west (Schnell 1975:120).

Material Culture

The Ocmulgee Phase is easily distinguished from earlier Late Swift Creek and later Pulaski phase components by ceramic assemblages in which cordmarked pottery dominates. This ware was formally defined in the mid-1970s as Ocmulgee Cordmarked, and its three aerial variants were labeled I, II, and III, respectively. This taxonomy has created a modicum of confusion due to the mistaken perception by some that the ware is associated with Mississippian-period sites and occupations in the Macon vicinity to the north (Keith Stephenson, personal communication, 2002). To avoid any misunderstanding and make explicit what constitutes Ocmulgee pottery, a brief history on the taxonomy is furnished along with detailed type descriptions.

In the mid-1950s, at the request of a local landowner digging burials from a sand knoll in the lower Ocmulgee River floodplain, Joseph Caldwell undertook a brief investigation of the Fuller Site (now known as Big Evergreen site, 8DG8) near Abbeville (Snow 1977a:33; Stephenson 1990a:42-44). He reported that cordmarked pottery was the most common decorative type from the site and that plainwares were also found in large amounts. Because cordmarked pottery from the region had yet to be reported or formally defined, Caldwell (1955) ventured to call it Abbeville Cord Marked. But use of this type name appears not to have caught on at the time. In fact, in a passing reference to this site in his monograph Tend and Tradition, written only a few years later, Caldwell (1958:50) himself did not refer to it as Abbeville Cord Marked but rather implicated the ware as “a late Wilmington cord-decorated ware of the Northern Tradition which evidently came in from the Georgia coast.”
Ten years later Nielsen (1966) conducted an archaeological reconnaissance of a 9-county segment of the lower Ocmulgee and Oconee rivers, which represented the first extensive, archaeological investigation of the region. Seventy archaeological sites were recorded via surface inspection over an 8-week period, and three of the larger sites were subjected to additional testing. Artifacts of all time periods were recovered, but cordmarked pottery was the prevailing ceramic type on sites in the region (Nielsen 1966:28). Instead of treating the cordmarked pottery of the Ocmulgee Big Bend as a distinct type, the author elected to identify it as Savannah Cord Marked. This typological interpretation, combined with the presence of fiber-tempered and Deptford pottery, led Nielsen (1966:31-32) to conclude that the Atlantic coast was the source of tremendous “ceramic influence” in the hinterland of south-central Georgia at certain times in prehistory. I take this to mean that Nielsen considered the Ocmulgee cordmarked ware to have been locally produced, but stylistically similar to and inspired by Savannah Cord Marked pottery, which was being manufactured by coastal peoples.

In 1974 students from the University of Florida identified the Fitzgerald site (9BH21), situated along a high, relict sand levee within the southern floodplain of the Ocmulgee River in Ben Hill County (Milanich et al. 1976). Subsequent excavation of two 1.5 m-square units yielded 288 sherds, of which 146 (51%) were cordmarked and 120 (42%) were undecorated; trace amounts of complicated stamped, simple stamped, and cobmarked were also recovered. This assemblage, interpreted as the material byproduct of an inland Wilmington group, was compared to cordmarked assemblages from the Georgia coast (Wilmington) and north Florida (Alachua) in an attempt to demonstrate temporal and cultural affiliations among these peoples. According to the operative model of the time, Wilmington peoples were believed to have practiced a transhumant lifestyle in which they spent most of the year in villages along the interior rivers of southern Georgia, making seasonal forays to the coast. Additionally, population pressures, combined with competition over farmable land, eventually led to a southward Wilmington migration that resulted in the formation of full-time hinterland way of life some time after A.D.
800, known to archaeologists as the Alachua tradition of north Florida (Milanich et al. 1976:54). As was the case with Caldwell and Neilson, Milanich et al. (1976) still looked to the Atlantic coast as the source for the cordmarked wares.

In 1977, Frankie Snow made public the findings of his nine-year archaeological survey of mostly surface-disturbed lands in the floodplain and adjacent uplands of the lower Ocmulgee-lower Oconee-lower Alatamaha rivers; smaller portions of the nearby Upper Satilla and Alapaha river drainages were also inspected. Survey results were used to develop a Big Bend archaeological chronology that spanned Paleoindian through early historic times (Snow 1977a, 1977b). Of interest here is the fact that cordmarked pottery was found on 187 (58%) of the 320 sites located by Snow. He further noted that along the lower Ocmulgee River it is found on 2 out of 3 sites, making its occurrence almost ubiquitous in the region.

What set Snow’s analysis apart from that of his predecessors was that he extricated the local cordmarked pottery from the grips of the coastal Georgia ceramic taxonomy. He argued that the presence of folded rim vessels “typologically” distinguished the cordmarked pottery of the Ocmulgee Big Bend region from the Wilmington and Savannah cordmarked series of the Atlantic coast (Snow 1977a:31; 1977b:39, 50-51). To Snow, it seemed unlikely that Wilmington-Savannah peoples would have manufactured folded rim vessels only while living in hinterlands camps and not while inhabiting coastal settlements. In short, he envisioned separate cordmarked pottery-making peoples residing along the coast and in the interior river valleys.

Snow (1977a:33) proposed the type name “Ocmulgee” for the cordmarked wares of the Big Bend region, giving the pottery and its makers a local identity. He further suspected that Ocmulgee Cordmarked had three “areal restricted” variants. In order to draw out characteristics representative of each subtype, cordmarked sherds from sites near Abbeville, Jacksonville, and Lumber City were used to create a list of attributes for the Ocmulgee I, II, and III, respectively. Snow’s (1977a:31-43, 1977b) analysis focused on attributes such as temper, cord orientation, cordage thickness, and incidence of rim forms. For the most part, these are qualitative traits that
are difficult to replicate on an individual sherd basis, and in practice, the trinomial classification
is better operationalized on a broader site assemblage level (Table 6-2). The following
descriptions are rooted in Snow’s baseline ceramic data, but are supplemented with personal
statements based on my cursory inspection of cordmarked sherds from Snow’s survey, now under
curation at South Georgia College.

Ocmulgee I is the northwestern variant of Ocmulgee cordmarked pottery, and it is found on
sites from Hawkinsville to Jacksonville (Snow 1977a:35-36). It is a thin-bodied ware considered
“temperless” due to its smooth texture. Fresh breaks on selected sherds, however, suggest a very
fine-sand temper, with mica frequently observed in the paste. Cord impressions are most often
parallel to one another and perpendicular to the lip, but cross stamping occurs. Both cordage
diameter and spacing appear wider on Ocmulgee I than on Ocmulgee II and III sherds. Site
collections demonstrate that folded rimsherds clearly outnumber unfolded rimsherds. It is worth
noting that rim folds found on all three varieties appear to be added coils or appliqués and not true
folds. I will continue to refer to this type of rim modification as folding, since this is the
longstanding and accepted convention. A variety of vessel forms and sizes are suggested for
Ocmulgee I Cordmarked, ranging from small globular bowls to large round-bottomed bowls with
vertical sidewalls.

Ocmulgee II Cordmarked occurs on sites between Abbeville and Jacksonville, and its
geographical range overlaps that of Ocmulgee I to the west and Ocmulgee III to the east (Snow
1977a:38-39). Snow considers it an intermediate type that displays certain attributes of the other
two types, but in unique combinations. Fine-grain sand is more abundant in the paste of
Ocmulgee II Cordmarked, giving it a sandy texture compared to Ocmulgee I Cordmarked. Mica
is often recognized in the paste of this variant. Folded rim sherds are less common in site
assemblages, though, in general, they appear wider than those on Ocmulgee I Cordmarked
Table 6-2. Traits associated with Ocmulgee Cordmarked pottery (Snow 1977a:31-40; 1977b).

<table>
<thead>
<tr>
<th>Ocmulgee I Cordmarked</th>
<th>Ocmulgee II Cordmarked</th>
<th>Ocmulgee III Cordmarked</th>
</tr>
</thead>
<tbody>
<tr>
<td>cord impressions spaced further apart</td>
<td>35 percent of sample exhibited parallel vertical cord impressions</td>
<td>84 percent of sample exhibited crisscross cord impressions</td>
</tr>
<tr>
<td>largest cord diameters</td>
<td>65 percent of sample exhibited crisscross cord impressions</td>
<td>28 percent of rims are folded</td>
</tr>
<tr>
<td>cord impressions were deepest</td>
<td>45 percent of rims are folded</td>
<td>grit is a common tempering agent</td>
</tr>
<tr>
<td>clarity of impressions were best</td>
<td>sand is the common tempering agent</td>
<td>outflaring and incurving rims equally represented</td>
</tr>
<tr>
<td>only type displaying intentional obliteration of cord impressions</td>
<td>most sherds characterized by absence of temper; occasionally fine sand temper or unintentional clay inclusions</td>
<td>some sherds indicate Mississippian period jar forms with flaring rims and slight shoulders</td>
</tr>
<tr>
<td>80 percent of sample exhibited parallel vertical cord impressions</td>
<td>smooth texture</td>
<td>gritty texture</td>
</tr>
<tr>
<td>20 percent of sample exhibited crisscross cord impressions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>trace amount of cordmarked rims with fine punctuations and crude incising</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70 percent of rims are folded</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 percent of rims are unfolded</td>
<td></td>
<td></td>
</tr>
<tr>
<td>highest frequency of incurving rims</td>
<td></td>
<td></td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>


vessels. Cord impressions included both parallel and cross cordmarked. Vessel forms are similar to those described for Ocmulgee I Cordmarked.

Ocmulgee III Cormarked is the easternmost variant. Its distribution begins on the west near Jacksonville and extends down the upper Altamaha River, up the lower Oconee River, and across the upper Satilla River drainage (Snow 1977a:39-40; Blanton 1979:57-59). It is thicker and displays a higher frequency of oblique cross-cordmarking than the other two types. Cordage diameter appears narrower and spacing between cords appears closer than on Ocmulgee I and II Cordmarked sherds. The paste consists of coarse sand, with frequent grit-size inclusions, giving the ware a gritty texture. Folding is a minority rim treatment, though appliqué strips or folds are occasionally quite thick. Vessel forms are similar to those of the other two types, although small globular bowls seem less frequent. In addition, some sherds suggest a jar form with a flaring rim and slight shoulders, reminiscent of Mississippian period vessels (Snow 1977a:40, 109). This form has yet to be noted for Ocmulgee I and II.

In addition to Snow’s (1977a, 1977b) seminal study, other researchers have explored aspects of the region’s cordmarked pottery. Bracken et al. (1986:4) endeavored to examine measurable changes in attributes such as cord width and spacing over time, through stratigraphic testing at the Telfair Mound (9TF2) and nearby Hickory Ridge site (9TF73). Standardized statistical tests were run to analyze variance in cordmarking with respect to cord width and spacing among 10-cm excavation levels at the Telfair Mound. No statistically significant differences in these two variables were recognized, suggesting to the researchers that a single cordmarked type was represented at the Telfair Mound. Next, the researchers compared the cord width and spacing data from the Telfair Mound to that from the Hickory Ridge site. T-tests for statistical comparison were employed and indicated a statistically significant difference between the two samples. Since the authors considered the two sites to be contemporaneous, they suggested that the differences between the two assemblages perhaps reflected “the variation one might expect from group to group within the Late Woodland” (Bracken et al.1986:88).
The ultimate aim of the study was to test the supposition that the cordmarked sherds from the site were Ocmulgee I Cordmarked, as originally assessed by Snow (1977a). While a variety of attribute information was recorded for each sherd, the study failed in its attempt to test the validity of Snow’s identification of the wares as Ocmulgee I Cordmarked. The statistical analysis was designed simply to see if changes in two cordmarked attributes occurred over time at the Telfair Mound and to compare cord width and spacing data between Telfair Mound and Hickory Ridge. As Minar (1999:214) points out, the authors never explicitly defined the attributes of Ocmulgee I Cordmarked in a quantifiable way that would enable them to operationalize a statistical test for its presence or absence. The reader is merely informed that the occurrence of an Ocmulgee I Cordmarked assemblage would be (and was) confirmed on the basis of sherds with wider cord impressions and spacing, absence of temper, higher incidence of parallel stamping, and higher percentage of folded rims. But, what “wider” and “higher” actually meant is never defined or made explicit.

Stephenson (1990a:68-71) examined 1862 cordmarked sherds from 13 sites in the Ocmulgee Big Bend region. Of these, 1750 (94%) were fine-sand tempered, mostly parallel stamped Ocmulgee I Cordmarked sherds from six sites. The remaining 112 sherds were grit-tempered, primarily cross-cordmarked, and identified as Ocmulgee III Cordmarked. A sample of 102 sherds from 2 sites was subjected to more in-depth attributional analysis that focused on measures of cord diameter, number of twists per centimeter, cord spacing, and final cordage twist (Stephenson 1990a:70). With regard to the latter, it was determined that all were S-twist. However, this assessment was based on the direction of the twist impression on the sherd, not the cord itself, as is the standard convention (Keith Stephenson, personal communication, 1999). Thus, all 102 were impressed with cordage that had a final Z-twist. Although no statistical comparisons were made between the measured attributes of the Ocmulgee I and Ocmulgee III Cordmarked sherds in the study, Stephenson (1990a:69) reports that the results were consistent with Snow’s observations regarding alignment of cord impressions and variant type.
In her impression analysis of cordmarked sherds from sites throughout the Southeast, Minar (1999) made casts and recorded various attributes for 1413 sherds from 10 sites in the Ocmulgee Big Bend region. Of these, 1392 (99%) were impressed with Z-twist cordage, the signature trend found throughout southern Georgia and northern Florida. As part of her study, she also recorded information on cord diameter, twists per centimeter, measurable impression length, and tightness of twist. With respect to the Ocmulgee Big Bend specimens, she documented variability within and between sites, but was unable to discern any recognizable intraregional patterning of measured attributes (Minar 1999:200-261). This study was primarily stylistic and did not take into account any technological attributes (e.g., paste, temper, and interior surface finishing).

To date, ceramic analyses have concentrated on cordmarked wares and, for the most part, have not considered the broader Ocmulgee Phase ceramic series or complex. For Snow (1977b:37, 38) this is understandable since most of his site collections were acquired via surface reconnaissance in which “practically every site [was] marked by more than one occupation.” Limited testing by Milanich et al. (1976) at the Fitzgerald site (9BH21), Crook (1987) at the Lowe site (9TF139), Bracken et al. (1986) at the Telfair Mound (9TF2) and Hickory Ridge (9TF73), and Stephenson (1990a) at thirteen Ocmulgee Big Bend sites, has furnished some information on the subject, though all encountered varying degrees of disturbance during their respective investigations.

Other than cordmarked pottery, it can be confidently stated plainwares occur in Ocmulgee Phase assemblages, though the precise ratio of cordmarked to plainwares is less certain. Stratigraphic ceramic evidence from the Telfair Mound suggests that cordmarked pottery may have increased in popularity over time at the expense of similarly tempered plainwares (Bracken et al. 1986; Crook 1986:18). Whether this is a site specific or regional trend is unclear at this time. Fabric impressed and a turtle shell impressed appear as minority types in some Ocmulgee Big Bend assemblages (Stephenson 1990a:71-73). Although Crook (1987) suggested that simple
stamping and check stamping were minority finishes (or trade wares) associated with the Ocmulgee phase occupation of the Lowe Site, this interpretation may be marred by postdepositional mixing of culturally distinct ceramic assemblages.

Simple stamped wares are consistently found on sites that yield cordmarked pottery, but it is presently unclear as to whether these represent Vining or perhaps an as-yet defined simple stamped type (or even combinations of these). An AMS date of AD 1030-1170 was secured from soot scraped from a simpled stamped sherd at 9JD38, demonstrating contemporaneity with the Ocmulgee Phase. Although unreported in the archaeological literature, folded rim simple stamped sherds have been recovered on sites throughout the Big Bend region (Frankie Snow, personal communications, 2002), suggesting that simple stamping was part of the surface-decorating repertoire of Ocmulgee Phase potters. The folded rim simple stamped wares appear to display a degree of variance from site to site that require additional technological and stylistic study.

Other ceramic artifacts have been recovered infrequently and include a few hand molded pipe fragments and vessel adorns (e.g., bird and snake heads) from sites yielding Ocmulgee II Cordmarked (Nielsen 1966:26; Snow 1977). Similar items were purportedly found by looters on sites to the west in association with Ocmulgee I Cordmarked (Snow 1977a:38-39). A “clay game disk” was recovered from 9WL4, a site in which 100 of the 103 identified sherds were cordmarked (Nielsen 1966:14-15, 26).

Clearly, cordmarked pottery is the telltale ceramic marker for the Ocmulgee Phase. How have the 3 cordmarked types and their distributions been interpreted? Surprisingly, researchers have been rather mute with respect to the question. The emphasis thus far has simply been to distinguish Ocmulgee Cordmarked pottery as a local type and draw attention to the discernment of three spatial variants. Although the designations Ocmulgee I, II, and III were originally intended to highlight geographical variants, a chronological ordering from I to III was considered a possibility (Snow 1977a:34; Stephenson 1990a:23). In fact, Ocmulgee III Cordmarked was
viewed as potentially later than the other two since it was the only type known to display a Mississippian-period vessel form (Snow 1977b:51). On the Georgia coast, Wilmington Cord Marked pottery is characterized by “a vertical arrangement…quite different from the purposeful cross-stamping of [later] Savannah Fine Cord-marked” (Caldwell and Waring 1968:113). By analogy one then might argue that Ocmulgee I could be earlier than Ocmulgee III, although the battery recent chronometric dating suggests the three are contemporaneous.

Rather than promote a temporal sequencing for the three wares, one could use the available data to contend that the three variants represent contemporaneous, yet territorially distinct groups. If this was the case, then the co-occurrence of types on the same sites might simply reflect intraregional interaction. A third alternative could be that the three types simply represent ceramic technological variability within a single Ocmulgee Cordmarked type due to local factors such as raw clay sources. However, differences in clay source doesn’t explain why sand-tempered Ocmulgee I pots display a greater incidence of cross cordmarking than grit-tempered Ocmulgee III pots. It is quite common for archaeologists working both within and outside the Ocmulgee Big Bend region to drop the variant designations and speak generally of Ocmulgee Cordmarked pottery.

Though one could justifiably argue that the three type descriptions are based on somewhat subjective and impressionistic assessments, obvious differences exist between Ocmulgee I and Ocmulgee III Cordmarked pottery. Attributes defining the Ocmulgee II Cordmarked type are less distinctive, however. In fact, Ocmulgee I and II Cordmarked pottery are known to occur on the same sites where the spatial distribution of the two overlap, and the same is true for Ocmulgee III and II Cordmarked types. Snow (1977a:38; 1977b:51) himself admitted that Ocmulgee II Cordmarked assemblages might “merely represent areas occupied by both,” that is, Ocmulgee I and Ocmulgee III cordmarked-making people. However, because variances in the coupling of temper and cordage orientation deviated from those expected for either Ocmulgee I or Ocmulgee III Cordmarked Snow opted for the existence of a third type. In fact, for Snow (1977:38), the
melding of Ocmulgee I and III characteristics was somewhat expected of an intermediated type like Ocmulgee II, which fell (spatially or chronologically) between the other two.

Regardless of whether Ocmulgee II represents a distinct type, the question still lingers as to why the western-most ware is thin, very fine sand-tempered, and mostly parallel cordmarked, with a high incidence of folded rim vessels, and the eastern-most type is thick, grit-temped, primarily cross-cordmarked, with few folded rim vessels, and slightly different vessel forms. This is particularly intriguing if the two varieties are contemporaneous, as chronometric dating suggests. While we certainly cannot discount the possibility that the disparities reflect some degree of social distinction, other factors may have played a role. The ceramic technology of Ocmulgee III wares may have been influenced by groups living up the Oconee River and downriver at the mouth of the Altamaha River, as previously suggested (Snow 1977a:40, 109; Stephenson and King 1992:6-7). There may also have been a technofunctional reason, with the easternmost groups wanting structurally more robust vessels with thick dimensional folds (to facilitate orifice covering) for long distance trade. With this in mind, it is interesting to note that coeval cordmarked wares found on St. Johns II sites in northeastern Florida are stylistically and technologically very similar to Ocmulgee III Cordmarked. It is these easternmost peoples who are of utmost concern to this study, and we shall return to this issue and explore it in depth later in Chapter 7.

Stone tools were also part of Ocmulgee Phase material assemblages, but there are limitations regarding statements that can be offered on the lithic technologies of these peoples. As was the case with pottery, almost all the stone tools and debitage acquired by Snow (1977a, 1977b) was surface collected from sites that yielded cultural materials from multiple time periods. Similar problems attend excavated data as well, since most testing has taken place at multicomponent sites with some degree of mixing (Bracken et al. 1986:52-58; Crook 1987:48-58; Milanich et al. 1976:50-52; Stephenson 1990:74-79). In these cases, especially when Archaic components are represented, equating lithic debitage and generic looking bifaces and scrapers
with a specific occupation or period has proven to be problematic. In context-secure instances, more productive statements on the lithic tool technologies of specific groups can be generated. Taking a conservative stance, lithic materials associated with Ocmulgee Phase occupations include chert flakes (modified and unmodified), cores, bifaces, unifaces, and hammerstones.

A recurring connection reported by all excavators of Ocmulgee Phase sites links cordmarked pottery and small triangular stone points, most often identified as Hamilton or Hamilton-like (Snow 1977:36; Bracken et al. 1986; Crook 1987). Justice (1987:229) considers this point type to be associated with Late Woodland Hamilton occupations in Tennessee and Kentucky and dated to ca. A.D. 500-1000. Snow (1977a:36) states that those points occurring with Ocmulgee I Cordmarked typically consist of “an exquisite multi-colored triangular having incurvate edges and usually a slight concave base…Small equilateral, isosceles, and crude triangulars are also present, but the finely worked triangulars seem to have been their specialties.” Small marginally trimmed flake arrowpoints are also found on Ocmulgee II and Ocmulgee III sites, although those associated with the latter typically appear to have been more expediently manufactured than those found in association with Ocmulgee I Cordmarked pottery.

It has also reported that a notable change in lithic raw material takes place, from a multi-colored chert to a gray or yellow colored soft chert, as one moves downriver from the Abbeville area (Snow 1977a:39). The latter is a locally available stone, variously referred to as soft chert, siltstone, and silicified clay (Bracken et al. 1986:58; Crook 1987:5, 39; Snow 1977a:39; Stephenson 1990a:77). As part of Stephenson’s (1990a:78-79) Ocmulgee Phase study, a sample of “soft chert” was subjected to geological examination with the aid of an Electron Micoprobe. It was concluded that the material was indeed “chert” despite its lightweight and brittleness, traits possibly attributed, in part, to the presence of large interstices between silica crystals. Soft chert outcrops are found in the Ocmulgee Big Bend river bluffs in Wheeler, Telfair, Jeff Davis, and Coffee counties (Stephenson 1990a:76-77).
Soft chert, coastal plain cherts of various colors, and quartz river pebbles comprise the principal raw materials used in the manufacture of Ocmulgee Phase chipped stone tools, indicating a heavy reliance on local lithic resources (Crook 1987:49; Milanich et al. 1976:50; Stephenson 1990a:75). Items of quartz appear limited to hammerstones and small quantities ofdebitage. Exotic or extraregional stone has been found infrequently in unequivocal association with cordmarked pottery, and consists of black chert, steatite, and greenstone. While evidence for the use of pecked and ground stone tools such as celts exists, it is difficult to pinpoint the cultural affiliation of many of these artifacts due, once again, to their recovery on the disturbed surface of multicomponent sites.

Generally speaking, the chipped stone tool assemblage of Ocmulgee Big Bend peoples appears basic and predicated on an expedient flake tool technology rather than on a formal biface core technology, as was the case during the Archaic period. Emphasis was on the manufacture of informal expedient bifacial and unifacial tools made of local raw material for tasks such as hunting and scraping. Blades, drills, engravers and choppers have been noted on a few Ocmulgee Phase sites, but their occurrences are usually infrequent (Crook 1987:49). The sudden proliferation of small triangular points was coincident with the onset of the Ocmulgee Phase and presumably reflects a local manifestation of the diffusion of bow and arrow technology across the Southeast. As previously noted, the quality of chert and workmanship of the small points associated with Ocmulgee I Cordmarked is often superior to that of points found with Ocmulgee III Cordmarked. (Snow 1977a:39, 105).

The final category of artifacts found on Ocmulgee Phase sites are exotics that, to date, are restricted to a few burial contexts. From the Telfair Mound, a local collector unearthed several burials, three cordmarked vessels, shell beads, and a single piece of sheet copper shaped like an “otter” (Frankie Snow, personal communication, 2000). At the Sandridge site (9Cf17), Snow (1977a:40-41) excavated a flexed burial of probable Ocmulgee Phase affiliation in association
with three pieces of mica. Thus, it appears that small amounts of exotic metal and mineral were coming into the region and were consumed as grave goods.

**Spatial Distributions**

Folded rim cordmarked pottery has been recovered on sites within the Upper Satilla River area (Blanton 1979:57-59) and along the lower Oconee River as far north as Dublin (Smith 1978; Snow 1977a:32; Williams 1996), but the ware is most prevalent along the Ocmulgee Big Bend and upper Altamaha River (Snow 1977a:33-49; Stephenson 1990a; Stephenson et al. 1996:22). Its easternmost extent is difficult to discern since it appears to grade into (and possibly overlap) the upriver distribution of coastal Savannah II occupations, which at the mouth of the Altamaha River are marked by grit-tempered cordmarked, check stamped, and burnished plain wares (Crook 1986:42-43). The general trend is for the incidence of rim folding on cordmarked pottery to decrease as one moves down the Ocmulgee and Altamaha rivers, but such sherds have been found as far east as Jesup (Frankie Snow, personal communication, 2002). Although folded rim cordmarked sherds are not reported for Savannah sites along the Georgia coast, a single specimen, classified as St. Catherines Cord Marked, is depicted among photographed sherds recovered from the Evelyn site (9Gn6) near the mouth of the Altamaha River during WPA-era excavations (Chance 1974:Plate 1 G). The frequency of folded rim cordmarked vessels within the Evelyn site artifact collection is presently unknown.

To date, most of the cordmarked sherds reclaimed from sites along middle reaches of Altamaha River have been identified as Savannah. This section of the river basin, however, has suffered from inadequate systematic archaeological survey. In fact, the majority of known sites have been recorded through opportunistic surface inspection. Among the very few formal investigations conducted in the region is a recent surface reconnaissance and shovel test survey of a 526-ha tract within the north-side floodplain of the Altamaha River, six miles south of Ludowici (Gresham and Kirkland 1996). Cordmarked sherds, numbering about 50, were sparsely scattered over three sites, with most classified as Savannah, although some were deemed indeterminate.
Distinguishing Ocmulgee III from Savannah cordmarked wares within the middle reaches of the Altamaha is currently problematic. Sites containing both check stamped and cordmarked wares could represent either combined Deptford and Ocmulgee pottery types or, alternatively, the two could be coeval and part of a Savannah II ceramic assemblage. This difficulty is particularly true in situations where small sherd samples were surface collected or acquired via limited site sampling, as is the case thus far. Additionally, as noted elsewhere, differentiating Deptford Check Stamped from Savannah Check Stamped may not be an easy task due to the similar appearance of the wares (Anderson et al. 1982; Stephenson et al. 1996:14-15). Although we are presently ill-equipped to make confident statements regarding the cultural history of the middle Altamaha River region, we may eventually come to learn that this area was the scene of ephemeral down river procurement forays by Late Woodland/Early Mississippian folks living near the forks of the Ocmulgee-Oconee-Altamaha rivers.

With respect to the Upper Altamaha River, Snow (1977a:18, 42; 1977b:44) speculated that the cordmarked wares from Falling Rock site (9AP10) in Appling County, east of the confluence of the Ocmulgee-Oconee-Altamaha rivers, might be part of a Savannah II ceramic assemblage. Evidence ushered in to support this claim included the dual occurrence of check stamped and cordmarked pottery, the presence of cordmarked vessel forms similar to those known for coastal Savannah sites, and the complete absence of small triangular points so common on cordmarked sites in the Big Bend region. A subsequent archaeological survey of a small parcel adjacent to the Falling Rock site, however, yielded a small sample of cordmarked sherds and a “small triangular point of brown chert” (Wood 1984:17). These results, in union with the fact that several folded rim cordmarked sherds were recovered at the Falling Rock site during Snow’s (1977b:44) investigation and at Davis Old Field (9AP15) and elsewhere within the upper Altamaha River vicinity, intimate that the cordmarked wares are Ocmulgee III Cordmarked (Frankie Snow, personal communications, 2002).
It is important to note that archaeologists have documented the presence of Savannah-period sites along the upper Altamaha and lower Ocmulgee rivers (Frankie Snow, personal communications, 2002). These are not represented by cordmarked pottery, but rather by check stamped and complicated stamped (i.e., Etowah and Savannah) wares that date to the subsequent Pulaski Phase, A.D. 1275-1400 (Stephenson et al. 1996:23). Similar results are reported for the lower Altamaha region as well. For instance, Mound E at the Lewis Island site, a Savannah II (ca. A.D. 1200-1325) burial mound, yielded Savannah Check Stamped and Savannah Complicated Stamped vessels, many of which served as urns for cremated human remains (Cook 1966). Thus it is possible that some of the burial mounds visited by C.B. Moore (1899) along the Altamaha River, particularly those that yielded cremated remains, may date to the same Middle Mississippian period, although Larson (1998:59-65) recently was unable to assign a specific cultural affiliation to 31 of the 34 Altamaha River mounds documented by Moore.

Away from the Ocmulgee-Oconee-Altamaha rivers, folded rim cordmarked sherds are found on sites in the upper Satilla River basin. A walkover survey of select lands under silvicultural and agricultural preparation in Ware and Pierce counties resulted in the documentation of 115 sites, of which 32 yielded cordmarked pottery (Blanton 1979:57). Although unfolded rims predominated, folded rim cordmarked sherds were recovered, and the wares “most closely resembled Ocmulgee III Cordmarked” (Blanton 1979:57-59). Seventy-one percent of these cordmarked sites were situated within hammock environments on sand hills slightly inland from creeks, a site environment different from the vast majority of Ocmulgee Phase sites in the Ocmulgee Big Bend region.

For the most part, archaeological data suggest low density settlement of the Upper Satilla by Late Woodland/Early Mississippian peoples, although over 650 cordmarked sherds were surface collected from the Chatterton site (9CF1), situated on an eolian deposited sand ridge in the uplands between the Ocmulgee and Satilla river drainages (Snow 1977b:9-10, 46; 1977b:46-47). Subsequent limited testing of the site, however, yielded few additional cordmarked sherds.
(Blanton 1979: 57-58; Stephenson 1990a:58). This multicomponent site appears to represent the byproduct of numerous short-term encampments by various groups throughout prehistory.

Farther to the south, cordmarked sherds are known to occur on sites along the lower Satilla River drainage and within the Okefenokee Swamp, although folded rim specimens have yet to be reported (Carder 1989; Trowell 1978, 1979). While the cultural affiliation of these inland cordmarked sites remains unclear, Ocmulgee Phase occupations are a distinct possibility.

**Settlement Trends**

Based on extant site distribution data derived primarily from surface reconnaissance, Ocmulgee Big Bend sites are numerous and occur mainly in the floodplain on elevated relict sand formations, ranging from river bluffs to old river levees to alluvial terraces (Snow 1977a:36, 37,39; 1977b:39; Stephenson 1990a:11-13). Other sites are dispersed on upland summits adjacent to the floodplain, along high limestone bluffs fronting the channel, or atop sand ridges situated between the Ocmulgee and upper Satilla drainages (Blanton 1979:57-59; Snow 1977b:39-41). Though present, there are far fewer Ocmulgee Phase sites within the Satilla and Alapaha river basins than within the Ocmulgee-Altamaha-Ocone region (Snow 1977b:46-47).

The Ocmulgee River floods regularly, often overflowing its banks in the winter and spring, and the potential exists for overflow during other times of the year depending on the amount of rain received in the upper Ocmulgee River basin (Larson 1980:49). Such periodic and ephemeral stands of high water can transform the sand knolls and ridges into islands in the floodplain, requiring canoe travel across the inundated floodplain. As previously mentioned, these elevated landforms were preferred occupation loci for Ocmulgee Phase peoples in the Big Bend region. The floodplain itself appears to have been unsuited for long-term habitation due to frequent flooding, although no deep testing has been conducted in the local floodplain to test for the possible presence of alluvium-buried sites.

There is an increase in the number of Ocmulgee Phase sites compared to the previous Late Swift Creek Phase (Snow 1977a). For the Ocmulgee-Altamaha river basin section of his survey,
Snow identified 217 sites with 139 (64%) yielding cordmarked pottery and 86 (40%) producing Swift Creek. For the larger study area that included portions of the lower Oconee and upper Satilla and Alapaha river drainages, a total of 320 sites were investigated, with 187 (58%) yielding Ocmulgee Cordmarked wares and 128 (40%) producing Swift Creek pottery. The rise in the number of cordmarked sites has been attributed to an increase in population, although greater residential mobility also could have played a factor. Of the 86 Ocmulgee-Altamaha river sites with Swift Creek pottery, 71 (83%) also contained cordmarked ceramics, indicating a high degree of continuity in site location over time in the Big Bend region. However, a slightly higher percentage of cordmarked sites (75%) are located in floodplain environments compared to Late Swift Creek sites (66%). Snow (1977b:57) further noted that Swift Creek sites are consistently dispersed across both the Ocmulgee Big Bend and upper Satilla river drainages, while there is a marked decline in the number of subsequent Ocmulgee Phase sites in the Satilla River region and an increase within the Ocmulgee-Atlamaha-Oconee region.

Ocmulgee Phase sites in the floodplain are quite similar in their material expression, although some are larger than others. While the large sites may have served as base settlement, their size may simply be a reflection of reoccupation, the accrual of repeated episodic (seasonal) occupations over time. Data suggest that what we may have within the floodplain were loci used in a similar fashion as the scene of repeated resource procurement encampments. The small upland sites might represent functionally different short-term, task-specific activities that produced lesser amounts of cultural material. The large number of sites may point toward a degree of fluidity within Ocmulgee social organization, whereby similar subgroups (e.g., social units like families) moved about for individual, social, or subsistence purposes. For Ocmulgee Phase people in general, movement may have provided a means by which they could maintain cultural autonomy during a period when others around them were undergoing or succumbing to Mississippianization.
One thing that does set some Ocmulgee Phase sites apart from others is the presence of human burials. Some habitation sites located in the floodplain, such as the Telfair Mound (9Tf2), Little Evergreen (9DG9), Big Evergreen (9DG8), and Sandridge site (9CF17), also served as loci to bury the dead (Snow 1977a:36, 40-41). Though these sites are often referred to as mounds by local residents due to their elevated nature in the floodplain, they are actually natural sand formations that were used both for habitation and burial, perhaps serving as base camps or residential hubs. Currently, no artificial burial mounds are known that date to the Ocmulgee Phase. While far from common, the presence of at least two Swift Creek mounds in the Big Bend region, reflects a change in mortuary patterning from Swift Creek to Ocmulgee times (Stephenson et al. 2002:346). However, radiocarbon assays from both mounds dates them to the period, A.D. 300-600, suggesting that mound building may not have practiced in the Big Bend region during the two centuries or so prior to the Ocmulgee Phase.

To date, a limited number of cultural features attributed to the Ocmulgee Phase have been excavated, and these include postholes, sandy midden deposits, small mussel shell refuse deposits or scatters (no shell middens), and refuse pits (Brackens 1987:47-51; Crook 1987:58; Stephenson 1990a:28-65). As stated, a few probable Ocmulgee Phase burials have been encountered, all of which were primary (extended and flexed) interments, although a “partially cremated burial” of possible Ocmulgee Phase affiliation was exposed during road fill excavations at the Little Evergreen site (Snow 1977a:36).

Although Ocmulgee Phase settlement of the Big Bend region has been considered more “localized,” it does not appear to have deviated much from what is described in the literature for the Late Swift Creek Phase (Stephenson and King 1992:3). As Stephenson and colleagues (2002:345; cf. Snow 1977:31) recently stated:

…on the basis of surface collection density and diversity most [Late Swift Creek sites] appear as small, seasonal extraction sites, with several serving as central or base sites. These sites are usually situated in proximity to the floodplain where the stream flows into the river, or in the floodplain on topographically high, relict sand body landforms.
All told, settlement pattern data intimate a degree of continuity between local Late Swift Creek and Ocmlugee phase settlement patterns. In fact, the general tenor among archaeologists working in the Ocmlugee Big Bend region is that the Ocmlugee Phase represents a “Late Woodland persistence” in the early Mississippian period, although researchers tend to imply an intrusion of people rather than an in situ cultural development of Ocmlugee out of Late Swift Creek (Snow 1977a:61; Stephenson and King 1992). Because it is still unclear as to how much preservation and sampling biases are contributing to our present perception of Ocmlugee Phase settlement patterns, we must remain judicious in interpreting Big Bend settlement dynamics.

**Subsistence**

Few faunal and floral remains have been recovered from Ocmlugee Phase archaeological sites in the Big Bend region, a consequence of both poor preservation and a lack of systematic sampling. A series of flotation samples were processed from the Telfair Mound, with macrobotanical specimens subjected to paleoethnobotanical analysis (Bracken et al. 1986:35-37). Plant material from Ocmlugee Phase features includes hickory and acorn hull fragments, acorn meat, unidentified fruit fragments, blackberry, and numerous pieces of pine and hardwood (Bracken et al. 1986:58, 63-74). No evidence of maize or other cultigens was identified. Vertebrate faunal remains were also limited, with small amounts of deer bone and a few fox squirrel and cottontail rabbits elements identified (Bracken et al. 1986:75-77).

Presently, no evidence exists for Ocmlugee Phase maize production, although charred corncobs have been found on Big Bend sites that date to the later Middle Mississippian-period Pulaski Phase and the Late Mississippian-period Square Ground Lamar Phase (Snow 1990; Stephenson et al. 1996). Additional indirect evidence of corn from these later sites includes the presence of cob-marked pottery. In the past, researchers had considered the possibility that Ocmlugee Phase peoples were maize farmers, or at least part-time horticulturalists, due to site locations in or near the floodplain (Snow 1990:82), or simply by default, since it was assumed that everyone in the interior Southeast during the Mississippian period was involved in some form
of corn cultivation (Stephenson 1990a:68-69). More recently, however, the consensus among archaeologists is that these folks were generalized hunter-gatherers and fishers dependent on the exploitation of wild plant and animal foods (Bracken et al. 1986:9; Crook 1987:68-69; Stephenson et al. 1996).

Thus Ocmulgee Phase peoples in the Big Bend region persisted as riverine-based foragers, while Mississippian-period societies along the river to the north near the fall line made the switch to maize agriculture and chiefdom level sociopolitical organization (Stephenson and King 1992; Stephenson et al. 1996). We can only guess as to the mix of resources that comprised the Ocmulgee Phase diet, but it seems plausible to suggest that it was similar to their Woodland and Late Archaic predecessors. They would have harvested a mosaic of terrestrial resources available in floodplain, slope, and uplands ecosystem as well as the many microenvironments contained in each. Fish and other aquatic and semiaquatic species would have been taken from various wetland environs, and mussel and other invertebrates were have been collected along the rocky shoals of the river. Historically, shad have been bountiful in the Big Bend region during March, and it seems reasonable to suggest that natives also exploited these fish runs. Ocmulgee Phase peoples may have also traded with other groups for nonlocal foodstuffs.

What we appear to have had in the Big Bend region during the Ocmulgee Phase were groups of foragers who moved around and had “no densely settled villages, little surplus production, and no emergent elites” (Stephenson and King 1992). Their technology was rather basic, and they seem to have utilized mostly locally available materials. But they were not isolated from the Mississippian world that surrounded them. Contrary to popular opinion, I do not believe Ocmulgee Phase peoples were intruders to the region, but rather decedents of local Late Swift Creek populations. And like their Swift Creek predecessors, I argue, Ocmulgee Phase peoples continued a history of regional interaction that extended well beyond the Ocmulgee and Altamaha river floodplains, a topic we will return to in Chapter 8.
Final Note

I would be remiss for not mentioning that Ocmulgee Phase peoples were not the only manufacturers of folded rim cordmarked pottery in the interior of southern Georgia. Approximately 70 km to the west in the Lake Blackshear region of the Flint River, another localized group made similar wares (Schnell 1975; Schnell and Wright 1993:36-37). Of the more than 200 archaeological sites recorded along the margins or exposed bottom of Lake Blackshear, Schnell (1975:120) reported cordmarked pottery occurred at “almost every site,” where it was often “the predominate decorative mode.” Moreover, it was noted that a “highly significant percentage” of the rims were folded. As is the case in the Ocmulgee Big Bend region, Lake Blackshear cordmarked wares are associated with small triangular projectile points (Schnell 1975:120).

During the Lake Blackshear survey, a rectangular-shaped pit was excavated at the Cannon site (8CP108) that contained mussel shell, animal bone, cordmarked sherds, and charcoal. Though the pit consisted of midden fill, it was interpreted as a log tomb that housed five individuals, each interred at different times (Schnell 1975:121). Both primary and secondary burials were encountered, and grave goods included over 2000 shell beads (cut disc and whole marginella), a whelk shell cup, bobcat claws, cut wolf jaws, a raccoon baculum, turtle shell fragments (rattle?), and other materials thought to be associated with flint knapping kits. Charcoal from the feature yielded a one sigma calibrated radiocarbon date of A.D. 1220-1290 (Schnell 1975:121; Stephenson et al 1996:22).

Although no additional fieldwork has been conducted in the Lake Blackshear region since Schnell’s investigation, reanalysis of the artifactual and human skeletal remains from the Cannon site was recently undertaken (Price and Tucker 2003). Results of the more detailed ceramic analysis indicate that while similar in appearance to Ocmulgee Cordmarked certain attributes such as temper and cordmarked orientation distinguish the Lake Blackshear wares from the Ocmulgee Phase series (Price and Tucker 2003:11-16). In addition, Lake Blackshear pottery
vessels have much larger rim folds than those found on any of the Ocmulgee variants. The most intriguing aspect of the examination of human bone from the Cannon site was the high rate of dental caries, suggesting a higher consumption of carbohydrates than would be expected of a woodland foragers (Price and Tucker 2003:19). To date, however, no direct evidence of corn production or consumption has been uncovered at the Cannon site.

The presence of cordmarked pottery in the Lake Blackshear region is considered an isolated and localized occurrence, since only trace amounts of the ware have been found to the north or south along the Flint River or to the west along the adjacent Chattahoochee River (Schnell and Wright 1993:36). Stephenson and King (1992) have astutely observed that pockets or “enclaves” of hunter-gatherers making cordmarked pottery appear to have inhabited the coastal plain of Georgia, along the middle sections of major waterways, just below the fall line. Folded rim cordmarked wares have been recovered along the Ocmulgee, Oconee, Flint, and Savannah river drainages (Cabak et al. 1996:118-123; Sassaman et al. 1990:202-204; Schnell 1975; Snow 1977a; Stephenson 1990a; Stephenson and King 1992; Stoltman 1974). Outside of Georgia, the Cofferdam subphase (of Miller Three Phase) peoples of the Alabama coastal plain could be added the list, although their cordmarked pottery lacked folded rims (Jenkins and Krause 1986:84-85; Stephenson and King 1992:10). Thus, during the early Mississippian period, non-Mississippian hunter-gatherers, marked by the manufacture of cordmarked pottery, were tucked in the interstices of the Mississippian world.

Macon Plateau Vicinity

If I were to select a word to characterize the Macon Plateau site, based on our current state of knowledge, it would be enigma. Despite a lengthy history of archaeological excavation, it remains perhaps the least known and understood of the major early Mississippian mound centers in the greater Southeast. Moreover, while touted as among the earliest dated Mississippian mound complexes, its origins are steeped in controversy. The debate revolves around whether its emergence was the result of Mississippian immigrants who brought corn agriculture and a
chiefdom-level sociopolitical organization to Macon Plateau around A.D. 900 or was it the outcome of an *in situ* process of cultural development. My primary reason for including Macon Plateau in this study is not to solve these crucial questions, but rather to illuminate its presence within the Early Mississippian period social landscape and draw readers to its potential effect upon the histories of the Ocmulgee Big Bend peoples and perhaps upon the more distant St. Johns II folks of northeastern Florida (Figure 6-2). To accomplish this, we must first begin with a brief description and overview of the Macon Plateau site.

Perched high atop a peneplaned section of the Fall Line red hills, the Macon Plateau site (9BI1) includes 8 mounds spread out over approximately 70 ha (Fairbanks 1981:3; Kelly 1938:2; Hally and Williams 1994:84-85). The escarpment fronting the Ocmulgee River to the south is steep and abruptly rises some 15 m above the expansive floodplain. Though the upland upon which the site rests is referred to as a plateau, it is actually slanted and characterized by dramatic topographic variability. The general trend is for the terrain to rise gently from south to north, such that the northernmost mounds sit upon a ground surface some 20 m higher than the southernmost tumuli, located approximately 1000 m away (Hally and Williams 1994:84). In addition, two north-to-south flowing streams cut deep, steep-sided wedges or ravines into the uplands. The site’s location at the Fall Line provided its inhabitants easy access to the natural resources of the floodplain, shoals, and uplands of the Coastal Plain and Piedmont.

The first reference to the Macon Plateau site came from a ranger in General James Olgethorpe’s expedition to the Chattahoochee River, who, in the 1739, mentioned “three Mounts raised by the Indians” near their camp along the “Ocmulgas River” (Mereness 1916:200 in Fairbanks 1981:6). The site was later briefly described in 1773 by William Bartram (1928:68), as he crossed the Ocmulgee River. Sections of the site were destroyed in the 1840s and again in the 1870s when railroad easements were cut through the red hills and tracks laid down. Human skeletal remains, aboriginal artifacts, and quantities of burned corncobs were reportedly carted away as a result of railroad construction (Butler 1960:160). In 1873, Charles Jones (1873)
Figure 6-2. Location of Macon Plateau.
penned the first accurate map of the site, which depicted the location of four of the Macon Plateau mounds. He also reported on several mound burials exposed by railroad development.

Professional archaeologists, however, did not find their way to Macon Plateau until the 1930s. In an attempt to bolster a sagging economy and put Americans to work, the federal government sponsored a series of large-scale archeological projects. Between 1933 and 1938, excavations were carried out on an almost continual basis at Macon Plateau and other nearby sites, with funding provided by the Civil Works Administration (CWA) along with other local, state, and federal entities (Kelly 1938:1-2). Archaeological work at the Macon Plateau site, directed by Arthur Kelly, focused on several mounds, an earthlodge structure, and adjacent nonmound loci. Kelly (1935; 1938) and Fairbanks (1946; 1981) provided published reports on aspects of these investigations. Beyond this early work, the past 40 years have witnessed the undertaking of a few small projects at Macon Plateau as well as a series of analysis/reanalysis projects centered on artifacts and other data generated by the CWA-sponsored projects (e.g., Ingmanson 1964a, 1964b, 1965; Mason 1963; Nelson et al. 1974; Stoutamire et al. 1983; Walker 1969; Williams and Henderson 1974). For an in-depth review of the archaeological history of the Macon Plateau site, one should consult Walker (1994).

The most conspicuous cultural features at the Macon Plateau site are 8 earth mounds, most of which appear to have been flat-topped, and combined they served a variety of purposes. Situated along the upland bluff is the largest tumulus, the Great Temple Mound (Mound A). It rises 15 m above the plateau and soars over 27 m above the adjacent Ocmulgee River floodplain (Hally and Williams 1994:85). Based on excavation data, the mound underwent a series of construction stages marked by clay caps, and the plateau itself had been enlarged with artificial fill to accommodate mound expansion (Ingmanson 1964a:4; Kelly 1938:19-21; Stoutamire et al. 1983:13, 15). It has also been suggested that prior to the initiation of mound building the original ground surface was intentionally leveled (Walker 1969:30). Exposed mound features included several hearths, 2 suspected crematory pits, stepped ramps on two sides of the mound, and a clay
curb that encircled the final mound summit (Ingmanson 1964a:8-12; Hally and Williams 1994:87; Walker 1969:30). Along with scattered sherds, a few effigy figurines and two complete pottery vessels were recovered during mound excavations. It has been suggested that the entire structure was built during the Macon Plateau Phase (A.D. 900-1100).

About 40 m to the north is the Lesser Temple Mound (Mound B), which is believed to have been about 3.6-m high prior to railroad development. It is estimated that about 75 percent of the mound was removed during railroad construction (Ingmanson 1964a:13-14). A profile of a standing section of the mound was drawn in 1934 and intimates 5 construction phases, each covered or partially covered with red, orange, or yellow clay. As was the case with the Great Temple Mound, sections of the plateau were filled by the natives to facilitate mound growth over time (Imanson 1964a:4; Stoutamire et al. 1983:13, 15). To date, no human remains have been recovered and the exact function of the mound is uncertain.

Approximately 330 m northwest of the Great Temple Mound is the Funerary Mound (Mound C), a 7.6-m high tumulus partially destroyed in the 1870s by a second phase of railroad building. Excavation results from the 1930s initially reported “five distinct units of mound construction” (Kelly 1938:15), although Fairbanks’ (1981:24), in his later detailed analysis of the excavation data, determined that the mound “was originally composed of seven construction stages…each consisting of fill over the preceding stage with an additional finishing clay plate over the summit and sides of the mound.” The discrepancy is due to the fact that Fairbanks (1981:24) recognized two additional episodes of mound building restricted to the mound flanks.

Six burial pits, each containing the skeletal remains of multiple individuals, were encountered beneath the Funerary Mound (Fairbanks 1981:21-24). Two included log tombs, while 3 others were covered with wood or bark. Primary and secondary burial modes were recorded, and skeletal materials were identified as belonging both to males and females, as well as adults and children. Grave goods were associated with half of the burials and included 2 biconcave clay stone discoidal, 3 bone pins, a greenstone celt, whelk shell cups/dippers, and
shell beads. Of the latter, over 17,000 disk and barrel shaped whelk shell beads were associated with an extended female interment, and 26,000 modified olive shell beads were strewn across a grave containing 7 individuals (Fairbanks 1981:22-23). The bones of burial were described as stained with “red paint,” perhaps hematite, but the material was never formally analyzed (Fairbanks 1981:23). No complete pottery vessels were associated with the interments.

Within the mound itself, “burial pits” were associated with 6 of the 7 mound construction stages (Fairbanks 1981:24-33; Kelly 1938:16). Individual and multiple graves were recognized, and discernible burial modes consisted of flexed, extended, bundle, and perhaps skull only. Grave goods were present and included a Halstead Plain bottle, a Bibb Plain bottle, 2 Bibb Plain jars, 2 mussel shell spoons, a projectile point, a greenstone celt, and many shell beads. Burial 57 stood out from the rest. Although it was “represented by the fragment of one femur only,” it was accompanied by “2 copper plates, 2 copper covered puma jaws, fragments of cane matting, and something described in the field notes as ‘decayed fur’” (Fairbanks 1981:31). The copper plates were oval with an embossed design consisting of a “semi-circle with radiating rays.” It was purported that “a round copper gorget was present,” but it was not included in the artifact collection analyzed by Fairbanks (1981:31). Although not found in the Funeral Mound, a greenstone spatulate celt “with a bilobate [flattened] bit and cylindrical shaft which tapers to a blunted poll” was recovered in a pit adjacent to the mound. No human remains or other cultural material were associated with this item (Fairbanks 1981:45).

Situated about 546 m northeast of the Great Temple Mound is a circular 2.4-m high tumulus known as the Cornfield Mound (Mound D). It gets its name from the belief that it was erected over an earlier aboriginal cornfield manifest as “a series of artificially arranged rows of soil” (Kelly 1938:10). A 23 x 46-m section was exposed and, at the time, touted by Kelly (1938:10) as “the largest and best preserved plot of cultivated ground belonging to prehistoric American agriculture.” CWA-project photographs clearly show a ground surface feature with patterned ridges and furrows, although no direct evidence of maize cultivation was recovered.
(Kelly 1938:10, Plate 1a, Plate 3a; Nelson et al. 1974:22; Riley 1994). Recently, Reid (1999) obtained core samples from beneath Mound D in order to assess Kelly’s proposal that the mound was build on a native cornfield. While sedimentological analysis failed to identify any preserved corn phytoliths or pollen in the samples, Reid (1999:27) contends, “it cannot be concluded that the field was a cornfield, nor can its identity as a cornfield be ruled out.” Griffin (1994:54) considers the cornfield interpretation a “moot proposal” since evidence such as “maize detritus” and “hoes or hoe flakes” are absent at Macon Plateau.

With respect to the mound, Kelly (Nelson et al. 1974:5) only dug its southern half. The absence of a “large amount” of field notes pertaining to the excavation of Mound D hinders a clear-cut interpretation of its stratigraphy (Nelson et al. 1974:8). Though ambiguous, there appears to have been two primary construction phases (Hally and Williams 1994:88). The bulk of the mound consisted of “basket loaded” white and tan colored sands with occasional charcoal (Kelly 1938:10; Nelson et al. 1974:15-16). It was capped with a red clay mantle dotted with numerous postholes, some of which were aligned to form a circular structure. Immediately beneath the red clay was a stratum of blue clay, with a rectangular post-in-the-ground structure, containing clay-lined pits, discerned among over 300 scattered postholes (Kelly 1938:9-10; Nelson et al. 1974:10-13). A backed clay platform or “alter” was located nearby. Elsewhere, a rectangular structure (Terrace House), refurbished at least once, was revealed a top a platform of red clay that was eventually covered by the mound fill (Nelson et al. 1974:16-21). Beneath the mound, a “rather large” rectangular house was exposed (Nelson et al. 1974:23-25). Finally, 4 mound burials and one submound interment were encountered, with one containing part of a whelk shell.

The Southeast Mound (Mound E) is a small, dome-shaped, 1-m high tumulus excavated in the summer of 1934 (Ingmanson 1965:3). It is located about 350 m northeast of the Great temple Mound. No profile drawings or other field documents on the mound have been located, so its structure and stratigraphy are presently uncertain. Ingmanson (1965), however, provides some
information on artifacts recovered from mound fill, along with “meager” information on four
burials, none of which contained grave goods.

The Dunlap Mound, along with the McDougal Mound, appears to “lie outside the town
area,” but both belong to the same cultural period (i.e., Macon Plateau Phase) as the others
(Fairbanks 1981:17). Located about 1000 m northeast of the Great Temple Mound, the Dunlap
Mound was estimated as 1.8-m high prior to excavation (Ingmanson 1964b:2). It consisted of
compacted yellowish sand covered with a red clay plate that served as a foundation for a
rectangular structure, later dismantled before being covered over with earth. Ingmanson
(1964b:4) suggested that evidence exists for a second construction episode that consisted of the
same colored sand fill, again capped with red clay.

Today, the McDougal Mound, positioned about 1000 m north of the Great Temple Mound,
is about 4.5 m high. It is estimated that its original height was about 9 m and that about 60
percent of the mound had been destroyed over the past century and a half (Ingmanson 1964b:14).
It was a multiphase tumulus with a core mound that consisted of a 1-m high platform upon which
rested a rectangular building. Above this was at least one more construction layer (Ingmanson

The final earthwork is Mound X, which was formally designated some 35 years after
excavation (Willliams and Henderson 1974:38). Though trenches were apparently dug through
“sandy ridge in small mounded area” and a profile map was generated, no effort was put into
expounding upon either excavation results or mound stratigraphy. Williams and Henderson
(1974:40) considered Mound X to be a promising area for future excavation.

Hally and Williams (1994:88) provide the following summary regarding the 8 mounds at
Macon Plateau, all of which are thought to have dated to the period A.D. 900-1100.

Six of the eight mounds excavated provide evidence for the manner in which they were
constructed and used. All were erected in multiple stages, with Mound A having at least
five stages and Mound C, seven stages. Only Mounds C, D, Dunlap, and McDougal
yielded definitive evidence for summit buildings, but there is no reason to believe that the
remaining mounds did not also have them. Mound C is alone in having evidence for the inclusion of burials in construction stages.

Although the exact order in which the mounds were built is problematic, the initial formation of the site may have begun with the construction of Mounds A and B, with these mounds enlarged and other earthworks and site features added over the next few hundred years (Hally and Williams 1994:93-94).

In addition to the mounds, a series of other features were excavated that date to the Macon Plateau Phase as well. Most notably was a well-preserved earthlodge located about 30 m southeast of the Cornfield Mound (Fairbanks 1946; Kelly 1938:11; Nelson et al. 1974:40-43). The earthlodge – or more accurately an earth-embanked structure – was about 13 m in diameter, with a wall and roof framework of oak and pine logs. These were covered with cane matting and then an “earth shell.” Four interior support posts anchored the roof, and an approximately 4-m long tunnel provided entrance into the structure. The floor consisted of hard-packed river mud or clay, with a central hearth. Clay benches with molded seats ringed the interior wall. Along the wall opposite the tunnel entrance was a “specially prepared raised platform or dias molded in the form of an eagle, exhibiting a wingless body, shoulder, neck, head, beak, and symbolized [forked] eye” (Kelly 1938:11). A timber from the earthlodge was radiocarbon dated to A.D. 1015±110 (Wilson 1964). This assay, recently calibrated by Beta Analytic, Inc., has a 1-sigma calibrated date range of A.D. 1000-1220 (intercept date of A.D. 1040).

Besides this earthlodge, it is suspected that at least 7 others earth-embanked structures were excavated, or partially excavated, at Macon Plateau (Fairbanks 1946; Ingmanson 1964a). All are slightly different, a probably consequence of incomplete excavation and/or differences in structure function (Hally and Williams 1994:89). At least 7 other nonmound buildings attributable to the Macon Plateau Phase were excavated, but it is uncertain how many, if any, represent domestic structures (Hally and Williams 1994:90-91).
The main village area at Macon Plateau was partially surrounded by two parallel rows of deep, loosely connected pits or “dugouts” that individually ranged from 0.9 to 2.7 m in depth and 4.5 to 7 m in width (Hally and Williams 1994:91-93; Kelly 1938:13-14; Williams and Henderson 1974:32-37). The dugouts were replete with Woodland Period and Macon Plateau Phase pottery, and the basal section of some contained what were interpreted as fire pits or hearths. Kelly (1938:13-14) suggested three possible “theories” regarding the function of the dugouts, they could represent clay borrow pits, some kind of fortification, or an elaborate chain of pit houses. Though a fortification theory has several shortcomings, such as location of the dugouts, the shallow depth of some of them, and the absence of any evidence of a palisade, the prevailing hypothesis is that at least some dugouts represent “the remains of defensive ditches” designed to enclose a portion of the site, perhaps only Mound A, B, and D (Hally and Williams 1994:93; Williams and Henderson 1974:36). Fill from the dugouts were presumably utilized in mound construction, and may have been used to construct an earthen ridge with a palisade (Hally and Williams 1994:93).

Pottery assigned to the Macon Plateau Phase consists overwhelmingly of types that lack surface decoration, such as Bibb Plain, Halstead Plain, Browns Mount Plain, and McDougal Plain (Fairbanks 1981:79-80; Hally and Rudolph 1986:34; Jennings and Fairbanks 1940:2-5; Williams 1994:131-132). Bibb Plain is the by far the dominant ware of the period, and decorative types, like Macon Thick and Hawkins Fabric Marked, are always in the minority. Vessel forms vary by type, but together include bowls, loop-handled bowls, effigy bowls, jars, straight neck bottles, effigy bottles, and large open basins frequently referred to as saltpans. At present there is no apparent temporal trend in pottery type frequencies over the coarse of the Macon Plateau Phase. However, there are hints of a possible shift in ceramic temper, with grit-tempering increasing at the expense of shell tempering over time (Hally and Williams 1994:93). Based on ceramic evidence, most archaeologists have traditionally envisioned the Macon Plateau folks as Early
Mississippian homebodies, who interacted little with neighboring peoples (Fairbanks 1981:i, 153; Hally and Rudolph 186:35).

It now appears, however, that simple stamping, probably Vining Simple Stamped (formerly referred to as Mossy Oak Simple Stamped), is a Late Woodland ware that continued to be manufactured in northern Georgia during the early Mississippian Period and made its way into the Macon Plateau assemblage as a trade ware or local copy (Elliot and Wynn 1991; Pluckhahn 1997; Williams 1994:135; Worth 1996). Excavations at the Tarver site (9JO6) site, located about 10 km north of the Macon Plateau site, yielded two calibrated radiocarbon assays from Vining Phase features that “overlap in the narrow period from A.D. 1015 to 1035,” making the site contemporaneous with Macon Plateau. Thus Macon Plateau may not have been the cultural isolate that it has been portrayed as in the past.

Beyond the Macon Plateau site, there is currently only one other site attributed to the Macon Plateau Phase. The Brown’s Mount site (9BI5), situated 9 km southeast of Macon Plateau site, was excavated in the 1930s as part of the CWA project (Kelly 1938:23-25; Williams 1993). Excavations exposed a “ceremonial earth lodge similar to the one uncovered on the Macon Plateau” and resulted in the recovery of 2000 sherds, of which more than 99 percent were undecorated Macon Plateau Phase types (Kelly 1938:24). Based on local informants, Kelly hypothesized that a limestone and earth wall or fortification may have enclosed an area of 24 ha, but this proposal was never tested. The next work conducted at the site was in 1956, during which time a rectangular structure was excavated (Marshal 1971; Walker 1994:31; Wilson 1964). Charcoal from the house was radiocarbon dated to A.D. 1030±150, which has been calibrated to A.D. 960-1230, with an intercept of A.D. 1030.

In 1989 and 1991, Williams (1993) made surface collections and performed limited testing at Brown’s Mount. This work combined with that of previous investigators permitted Williams to proffer a few scenarios concerning the site and its relationship to Macon Plateau. First it was suggested that the rock wall surrounding the summit might have been built during the Middle
Woodland period since others such constructs are known for this earlier era; no evidence exists for their construction during the Mississippian period anywhere in the Southeast (Williams 1993:71). However, even if the wall had been originally erected during Woodland times, it was still standing and serviceable, thus would have attracted Mississippian peoples to the site, particularly as a refuge for defense. Williams (1993:71) also concluded that while Macon Plateau pottery covers the site it is thinly scattered and there is no midden, suggesting either ephemeral habitation or lengthy but limited use of the site. He hypothesizes that it may represent a ceremonial site or defense location, particularly since its isolated and elevated position far from the alluvial floodplains is not typical of Mississippian sites. Clearly, more work is needed to determine exactly what went on there.

There is little doubt that Macon Plateau was a major site and the seat of an early Mississippian chiefdom along the northeastern bank of the Ocmulgee River in central Georgia. At its zenith, it may have incorporated as many as 8 mounds and covered some 70 ha. It is among the few early Mississippian sites in Georgia, and perhaps the largest in the Southeast. Cahokia, of course was larger, but located in the American Bottoms in Illinois. Many researchers consider Macon Plateau to represent a break in the archaeological record of middle Georgia. Its emergence is not seen as a subtle change from late Woodland to early Mississippian, but rather viewed an abrupt discontinuity marked by changes in site location and layout as well as ceramic style and vessel forms. So overwhelming are these differences that many view these combined changes as heralding the arrival of immigrants to the Macon Plateau region (Kelly 1938:66-67; Fairbanks 1952:293-294; 1981:i-ii,55; Williams 1994). Northwestern Georgia and eastern Tennessee are frequently forwarded as potential locations from where migrant populations may have originally derived (Faribanks 1981:55). However, staunch critics of a migration hypothesis, envision an in situ evolution of Macon Plateau out of a local antecedent Late Woodland tradition (Schroedl 1994; Smith 1984).
The original idea for an influx of Mississippian immigrants to Macon Plateau was linked historically to a broader argument that migration by outsiders was the essential process responsible for the development of the Mississippian culture in the Southeast (see Smith 1984). While today we can categorically reject this latter proposal, we must resist explanations that deny history and foster a static social landscape void of processes such as population movement, settlement amalgamation, and ethnogenesis (Packetat 2001; Blitz 1999; Nassaney 2001; Nassaney and Sassaman 1995; Sassaman 2001). Putting the question of origins aside, once established the Macon Plateau chiefdom appears to have flourished for a few centuries and then, some time between A.D. 1100 and 1200, it collapsed, and the Macon Plateau and Brown’s Mount sites were abandoned. Since the sites were not reoccupied until much later in the Mississippian period Hally (1996:120) has suggested that “subsequent chiefdoms in the area had no desire to claim descent from the Macon Plateau chiefdom, and, in fact, wished to avoid association with it.” The rise and fall of Macon Plateau undoubtedly had a rippling effect on the peoples around them, a topic will return to in later chapters.
CHAPTER 7
ST. JOHNS II SUBSISTENCE AND CRAFT PRODUCTION

To build a model of St. Johns II political economy, we must first have a basic understanding of the domestic economy. In this chapter, I explore how St. Johns II (A.D. 900-1250) people in northeastern Florida made a living. Particularly, what they ate (subsistence) and what they made (craft production). Because of the lack of broad-scale excavations on St. Johns II sites in northeastern Florida, I must rely mostly on limited excavation, survey, and surface collection data. The various investigations conducted at the Mill Cove Complex collectively provide some information on the intrasite distribution of pottery and other craft items. An objective of this chapter is to examine distributions in subsistence remains, local and nonlocal artifacts, and exotic raw materials to garner insights into the organization of production. With this information, I seek to determine if any distinct concentrations suggestive of craft specialization or elite sites or precincts within sites exists in northeastern Florida, as the archaeological record of many Mississippian chiefdoms shows (e.g., Anderson 1994; Blitz 1993; King 2003; Knight and Steponaitis 1998; Pauketat 1994; Welch 1991).

Two glaring omissions in the northeastern Florida database hamper our understanding of prehistoric lifeways. First, no perishable artifacts such as wood, leather, basketry, fabric, textiles, and feathers have been recovered. References to the production and use of such items in the ethnohistoric record of the Southeast, including northeastern Florida, indicate that they were an important part of native material culture (Hudson 1976; Swanton 1946). Nondurable materials were used to make utilitarian containers, implements, and tools, as well as decorative items and clothing. Because of this bias, we presently lack knowledge about the production, distribution, and exchange (importation, exportation) of such items. Second, there is a dearth of evidence on domestic structures, which significantly thwarts attempts to investigate variation in size and labor
organization among households within and between St. Johns II villages. Although these shortcomings clearly preclude fine-grained resolution, available data allow for the coarser interpretations presented in this chapter.

**Subsistence**

St. Johns II subsistence was predicated on a mix of fishing, gathering, and hunting. Zooarchaeological and seasonality data derived from shell midden remains indicate that local St. Johns II populations occupied northeastern Florida on a year-round basis and centered their subsistence on the capture of small fish and shellfish, although deer and other mammals were also hunted and trapped to a lesser extent (Ashley 2002; Hardin and Russo 1987; O’Steen 1999:20; Russo 1992:118-119; Russo et al. 1993:172). Turtles, both aquatic and terrestrial species, were also gathered on a regular basis, and ducks and other waterfowl were hunted or netted.

An array of fish species were caught, including Atlantic croaker, sea catfishes, seatrout, flounder, sheepshead, spot, mullet, and a variety of drums, suggestive of a generalized coastal fishing strategy (O’Steen 1999; Russo et al. 1993:136-173; Wing 1963, 1977). While deep-water fish or sea mammal remains are occasionally recovered from sites, the majority of seafood was taken from the tidally influenced marshes and shallow creeks and sloughs. Size estimates suggest that mass capture devices such as weirs or fine mesh nets and seines were commonly employed to catch fish. Evidence suggests that bone hooks and leisters were used to some extent to catch larger fish.

Molluskan exoskeletons represent the most conspicuous constituent of St. Johns II coastal middens. Oyster was clearly the most targeted shellfish species. Seasonality measurements on impressed odostomes, a gastropod that attaches itself to and feeds off oysters, indicate oysters from several St. Johns II middens were harvested during the summer and autumn, and possibly spring (Hardin and Russo 1987; Russo et al. 1993:168). Other bivalves such as quahog clam, Atlantic ribbed mussel, and stout tagelus were also collected from the shallow tidal marshes and mud flats, while coquinas were gathered from the surf zone along the Atlantic beach. These taxa
often occur as thin lenses or distinct concentrations within oyster-dominated middens, occurrences often interpreted by archaeologists as the byproduct of single procurement and consumption episodes (i.e., individual meals). Seasonality data indicate quahog clams from St. John II refuse deposits were collected throughout the year, with spring and winter being prime collection times (Hardin and Russo 1987; Russo et al. 1993:168-170). Finally, whelks and other large gastropods were sought for their meat, and perhaps more so, for their hard shells, which were an important raw material source for tools and ornaments.

Maize horticulture has long been modeled as part of the prehistoric St. Johns II subsistence strategy, based largely on late sixteenth-century French and Spanish accounts that make frequent reference, either directly or indirectly, to corn farming among the contact-era Timucua of northern Florida (Hann 1996; Milanich 1996; Worth 1998). From an archaeological perspective, however, direct evidence of corn is “almost nonexistent” in the regional archaeological record (Milanich 1994:263). In fact, excavations at the Grant and Shields sites in northeastern Florida have failed to recovery any evidence of maize, despite extensive testing in shell middens containing abundant faunal and botanical remains (Ashley 2001; Thunen 2001).

Admittedly, formal paleoethnobotanical analyses of the plant remains from these sites were not performed. However, systematic and concerted inspections geared toward the identification of preserved cobs, cupules, or kernels on the part of the excavators failed to recover any such remains. The same can be said of Mt. Royal, where charred corncobs and other elements were restricted to Spanish mission-period contexts and not associated with the site’s prehistoric St. Johns II component (Jones and Tesar 2001). Indeed, the earliest evidence of corn consumption in northeastern Florida, thus far, comes from sixteenth-century sites marked by the presence of San Pedro pottery (Lee et al. 1984; Thunen 1999; Ruhl 1993:262; Smith et al. 2001).

Aside from the ethnohistoric record, a series of ceramic effigies from the Thursby Mound have also been marshaled in as support for farming among prehistoric St. Johns II communities (Moore’s 1894:67-81). Some have interpreted these pottery pieces in the form of a corncob,
acorns, and three others that may resemble scaled-down versions of gourds or squashes, as verification of the cultivation of prehistoric maize in the region (Milanich 1994:264). The mere presence of these items, in my opinion, does not necessarily mean that maize farming was practiced prehistorically, particularly during the Early Mississippian period (A.D. 900-1250). Moreover, Moore’s (1894:67) removal of an iron axe head from the Thursby Mound suggests that the mound may have a colonial component, and thus the ceramic vegetable effigies could conceivably post-date European contact.

It is worth reiterating that no archaeological evidence exists for maize production or consumption among Early-Mississippian St. Johns II populations, indicating that gathered wild plants were the main source of carbohydrates. In fact, available archaeological data intimate that maize was not part of the prehistoric subsistence economy of any native inhabitants of the St. Johns River valley until very late in prehistory (i.e., sixteenth century). However, preserved wild plant foods and encouraged species such as \textit{Cucurbita pepo} (squash) and \textit{Lagenaria siceria} (bottle gourd) have been recovered archaeologically on some St. Johns II sites in the middle St. Johns region (Milanich 1994:263-264; Newsom 1986, 1987). These items may have been grown for purposes other than food, such as use as fishing floats or bobbers (Fritz 1999). These plants and other quasi-cultigens might also have been grown or encouraged by northeastern Florida natives, although preserved remains have not yet been identified, probably owing to the dearth of formal paleoethnobotanical analyses of local plant assemblages.

In sum, St. Johns II inhabitants of northeastern Florida were not farmers, but rather fishers and shellfish collectors reliant on aquatic resources, with portions of their diet coming from gathered wild plants and terrestrial fauna. The bulk of their food then derived from estuarine waters and marshes, habitats widely distributed throughout northeastern Florida and assessable to all villages and their occupants. It is likely that all families were involved in subsistence practices, and there is currently no evidence favoring elite or suprahousehold control over the procurement of subsistence resources, perhaps due to the ubiquity and richness of coastal
habitats, which might have hindered the ability of local leaders to assume direct or coercive control over food supplies and the means of production.

**Craft Production**

I use the term craft production simply to refer to the manufacture of any item “with a specific form, objective, or goal in mind” (Costin 1998:4). This general definition brings a wide variety of materials under the umbrella of craft, and does not restrict the term to eye-catching novelty items, as popularly conceived. However, we must keep in mind that craft production is also a social act that can serve to create social identities, define social groups, and engender social relationships (Costin 1998:4). Craft production is distinguished from craft specialization, in that the former merely entails the transformation of raw materials into usable objects, whereas the later involves controlled production for exchange rather than domestic use (Costin 1991).

**Pottery Production**

Pottery assemblages from domestic refuse middens are stylistically homogeneous throughout St. Johns II sites of the Early Mississippian period, consisting mostly of “chalky” plain and check stamped wares (Goggin 1952:53; Milanich 1994:262). That is not to say there is no variability in workmanship, check stamped size, and stamping application, perhaps reflective of household production. A trace, yet persistent, percentage of chalky impressed, punctated, and incised types such as Papys Bayou and Little Manatee are also found on early St. Johns II sites. Most are heavily burnished and display rectilinear, triangular, or banded areas of punctation bounded by incised lines (Goggin 1952:56). These types are almost always restricted to larger settlements, and are rarely recovered at small sites described as extraction loci or ceramic scatters (e.g., Ashley and Thunen 2000; Johnson 1988; Jordan 1963; Richter 1993). Sand-tempered plainwares and Ocmulgee Cordmarked are also found in association with St. Johns II pottery, but their numbers always pale in comparison to those of chalky wares (e.g., Ashley 2002; Ashley and Thunen 2000; Dickinson and Wayne 1997; Johnson 1988; Jordan 1963; Richter 1993; Rolland 2000, 2003; Sears 1957; Smith et al. 1981).
With respect to mound pottery, C.B. Moore (1894, 1895) reports finding common pots and unusual vessel forms, or what he referred to as “freak wares,” quite different from domestic pottery in St. Johns II mounds. Several of his illustrations point to the presence of some nonlocal pottery types (or copies of them) in mortuary earthworks. Interestingly, pottery of nonlocal manufacture, save for Ocmulgee Cordmarked, is infrequently recovered in northeastern Florida village contexts. Unfortunately, Moore provided little detail with respect to technological aspects of mound pottery such as paste and temper.

Of the St. Johns II sites in northeastern Florida, the best information on intrasite pottery distributions comes from the Mill Cove Complex. Remember the Mill Cove Complex (defined in Chapter 5) consists of sites surrounding the Shields (8DU12) and Grant (8DU14) mounds along with 13 previously recorded sites (8DU5597-5609) dispersed among them within an area measuring approximately 750 x 350 m (see Figure 5-4). St. Johns Plain and Check Stamped were consistently the dominant types recovered from all sites comprising the Mill Cove Complex. Ocmulgee Cordmarked and sand-tempered plainwares were also recovered from each site, although in fewer numbers. Of the over 3000 sherds recovered via combined shovel testing of all sites, only 27 red filmed, 14 Little Manatee, 12 chalky punctated, 3 sand-tempered punctated, and 1 Paps Bayou were reported (Johnson 1988:66-75, 78-106; Rolland 2004). Subsequent limited excavations of midden deposits adjacent to the Grant Mound and Shields Mounds yielded additional specimens, but punctated wares were clearly still a minority.

Recently, Rolland (2000, 2004) has performed a detailed analysis of over 5800 sherds recovered from a 300 by 250 m section of the Mill Cove Complex west of the Shields Mound (includes sites 8DU12, 8DU5603-5608). Combined Little Manatee and Paps Bayou pottery accounts for less than one-half a percent of this assemblage, while red filmed sherds make up a little more than two percent of the collection. These wares were most prevalent at Bluff Midden and Kinzey’s Knoll, although these were also the most intensively tested site loci. As discussed in Chapter 5, the former might represent a general village dump over 200 meters from the Shields
Mound, whereas the latter is suspected to have been a locus of high-profile feasting and ritual situated within 50 meters of the mound. Few punctated or red filmed sherds were recovered from non-shell midden areas within this section of the site.

In sum, current information on pottery production, distribution, and consumption suggests wares produced on St. Johns II sites were organized at the family or domestic unit level. To date, no archaeological evidence has been reported for the presence of ceramic workshops or specialized production loci, represented by large numbers of tools, production failures, or firing facilities on St. Johns II sites. While this may be due to sampling bias, it might also be saying something about the intensity and organization of pottery production. Additionally, there presently is no intrasite distributional evidence to suggest that a segment of society (e.g., elites) were using finewares denied to other segments of society. However, this statement must be tempered with caution owing to the lack of broad-scale excavations in the region.

**St. Johns pottery**

St. Johns pottery is characterized by a tactual softness routinely characterized as “chalky,” a quality traditionally attributed to the natural occurrence of microscopic sponge spicules within raw clays used by St. Johns potters (Borremans and Shaak 1986; Cordell and Koski 2003). Under magnification, sponge spicules—the biosilicate endoskeletal structure of some freshwater sponges—appear as needle-shaped rods. Spicule inclusions are not restricted to St. Johns pottery, since they have been identified in rare and occasional frequencies in nonchalky specimens of other pottery types in Florida and Georgia (Cordell 1993:43–45; Rolland and Bond 2003:95). The long-held assumption that sponge spicules are naturally occurring constituents of certain Florida clays has recently been challenged. Rolland and Bond (2003) now argue that freshwater sponges were collected and purposefully added to clay as temper during paste preparation, a practice with precedent in regions of Africa and South America. Interestingly, the “natural versus added” spicule debate ensues in these areas as well (Adamson et al. 1989; Brissaud and Houdayer 1986; McIntosh and MacDonald 1989).
There is no doubt that sponge spicules occur naturally in some mucky clays as a result of the settlement and mixing of dead and decomposing sponges within accumulated sediments along the bottom of rivers, creeks, and lakes (Borremans and Shaak 1986:127; Cordell and Koski 2003:113). However, claims that St. Johns potters routinely used raw clays with enough naturally occurring sponge spicules to render the characteristically chalky wares are in my opinion unconvincing. To achieve the degree of chalkiness typical of St. Johns wares across the entire St. Johns River valley for over two millennia would require a pervasive distribution of spiculate-laden clays (i.e., clays with enough natural inclusions to produce St. Johns wares), given ethnographic data that suggest traditional potters tend to use raw clays from sources within 7 km of their settlement (Arnold 1985:39-44; Rice 1987:116).

To date, however, no spiculate-laden clays have been identified based on the limited reported investigations of raw clay sources in Florida and southeastern Georgia (e.g., Cordell 1984:57-77, 1992:113-127; Espenshade 1983, 1985:301; Mitchem 1986; Rolland and Bond 2003). Making this more astonishing is the fact that literally hundreds of thousands of St. Johns sherds have been recovered from sites throughout the St. Johns River valley and adjacent Atlantic coast. While negative evidence does not mean such clays do not exist, as argued by Cordell and Koski (2003:123), their unreported occurrence thus far suggests that if spiculate clays exist their locations are spotty across the landscape and spatially restricted. If true, then tempering with sponges would have compensated for the limited availability of spiculate clays.

I contend the nature and timing of St. Johns pottery in northeastern Florida favors the “added temper” side of the debate. As discussed in Chapter 3, St. Johns pottery occurs sporadically in minor amounts on northeastern Florida before A.D. 900 and after A.D. 1250. But during the local St. Johns II period, St. Johns is clearly the dominant ware on northeastern Florida sites. Its presence in such quantities during this time may indicate that: (1) spiculate-laden clays were available in northeastern Florida and frequently used by local potters; (2) spicule-laden clays were not available locally, so they had to be imported into northeastern Florida; or (3)
spiculate-bearing sponges were used as temper. If the former is the case, then potters before and after St. Johns II times intentionally chose, for the most part, not to use spiculate clays, despite their known presence in the area and use by groups to the south.

In a recent microscopic analysis of 45 raw clay samples from the banks of the lower St. Johns River in northeastern Florida, Rolland and Bond (2003) failed to identify any clays with sponge spicules. Interestingly, X-ray diffraction analysis of a sample of spiculate-bearing clay (processed paste?) from a St. Johns II feature at the Grant site (8DU12) yielded a kaoline signature “highly congruent” with that of a similarly tested and nearby raw clay source that lacked sponge spicules (Rolland and Bond 2003:100). Although not conclusive, this represents tantalizing evidence for the use of sponges as temper.

Another interesting discovery is the identification of sponge spicules in the paste of some fiber-tempered pottery from the middle St. Johns region (Cordell n.d.; Sassaman 2003:7). These findings are made more significant by the fact that spicules have yet to be identified in Orange vessels from northeastern Florida, despite microscopic examination of a large sample of fiber-tempered sherds (Rolland and Bond 2003:92, 95). Although Johnson (2000) originally reported Orange wares with spiculate paste from the Ribault Clubhouse (8DU76) near the mouth of the St. Johns River, reanalysis by Rolland found this to be untrue (Rolland and Bond 2003:92, 95). This information might suggest that Orange potters along the middle St. Johns River experimented with sponges during the Late Archaic, with sponges eventually supplanting vegetal fiber as the main tempering agent by St. Johns I times.

The alternative that spiculate clays were not present locally, but were brought into northeastern Florida from elsewhere via direct procurement or exchange presently has no archaeological support. An immense quantity of clay would have been required for local potters to manufacture the quantities of chalky pottery recovered from St. Johns II sites in northeastern Florida. Again, importation to such an extent appears to fly in the face of ethnoarchaeological data with regard to distances between traditional potters and their clays. Based on available
evidence, I submit that the most parsimonious interpretation is the third alternative—St. Johns potters in northeastern Florida used sponges as temper. This interpretation does not deny the existence of pockets of spiculate clay, but argues against its widespread availability and utilization as the sole source of all St. Johns pottery.

The extant restricted geographical distribution of freshwater sponges betrays their former widespread occurrence. Johnson (1945) and Poirrier (1965) had no problem locating them in certain waterways in Florida and Louisiana where their studies took place. However, sediment infiltration and pollution during the twentieth century have reduced sponge habitants and taken their toll on sponge populations. Prior to modern times, it is suggested that sponges (e.g., *Spongilla lacustris*, *Spongilla fragillis*, *Spongilla wagneri*, and *Ephydatia fluviatilis*) would have thrived in clean, low-pressure waterways, whereby some species extended as far north as Michigan. Certain species are also known to tolerate brackish water conditions. In short, sponges should have been widely available throughout the prehistoric Southeast.

Regardless of the outcome of the “naturally present vs. added temper” debate, a question that still remains to be answered is: Why did groups elect to use spiculate paste in pottery making? Some have claimed that there are technological and structural advantages of sponge spicules in ceramic paste. Shepard (1995:27) notes that in low-fired pottery (which is characteristic of St. Johns wares) sponge spicules can “have a reinforcing effect against cross fracture” as a result of their acicular or elongated (rod) shape. But she goes on to state that for the same reason spicules can also “cause weakness in their own plane.” Taken together, this suggests that the structural or impact benefit of spicule inclusions may not be as significant or straightforward as one might assume.

It has also been argued that spicules assist in the absorption of thermal stress that cooking pots endure as a result of sudden changes in temperature (McIntosh and MacDonald 1989:493). The most favorable tempering agents for cooking vessels are those with thermal expansion coefficients equivalent to or less than that of clay, such as grog, calcite, or crushed burned shell to
name a few (Rice 1987:229; 1976:113-121). Not to undermine the potential role of spicule inclusions in thermal shock resistance (i.e., exposure to rapid heating and cooling), but such material does not represent the optimal temper for cooking purposes. In fact, not only does temper type have an effect on thermal shock resistance and heating efficiency of a ceramic pot, but so too does temper shape, size, and density along with other technological factors such as vessel permeability, porosity, and wall thickness (Braun 1982, 1983; Schiffer 1990; Schiffer et al. 1994; Skibo et al. 1989, 1997). It is important to note that chalky wares were manufactured in a variety of shapes and sizes and used for purposes other than cooking or exposure to heat, such as serving, storage, and mortuary (ceremonial) (Goggin 1952:99-105; Heron 1986; Milanich 1994:248; Rolland 2004).

While a vessel with spicule inclusions may be more resistant to thermal shock, it may be less resistant to mechanical shock in the form of impact and abrasion. Anyone familiar with St. Johns pottery is well aware that it is often thin, somewhat brittle, and susceptible to exterior weathering (cf. Goggin 1952:101). For example, a sample of over 3500 St. Johns sherds from the Shields site exhibited a mean sherd thickness of 5.8 mm, whereas a sample of 629 Ocmulgee grit-tempered sherds from the same site had a mean sherd thickness of 7.9 mm (Rolland 2004). As rightfully described by Ferguson (1951:23), “[St. Johns] paste is rather soft, and disintegrates easily when wet, especially if rubbed or otherwise manipulated.” This appears to be the result of inadequate firing, which often fails to eliminate plasticity and allows the ware again to become plastic and malleable when saturated (Cordell and Koski 2003:122). Admittedly, these statements are generalizations, and we do not yet understand the technological properties of sponge spicules in pottery or the full effect of postdepositional processes on the structural integrity of chalky St. Johns wares recovered from archaeological sites.

Despite any perceived structural or technological limitations, the production of St. Johns pottery persisted uninterrupted in some areas of Florida for two thousand years. While one could argue that this was because only spiculate clays were available to them, this argument cannot be
applied to northeastern Florida since nontopiculate clays were clearly accessible, as evidenced by
the proliferation of various nontopiculate wares manufactured there during the Woodland and late
Mississippian periods. I believe the distinctive appearance and character (e.g., chalkiness) of the
pottery warrants another consideration; namely, that St. Johns II pottery was an aspect of the
materiality of identity (cf. Rolland and Bond 2003:101). We must begin to consider the question:
How does the archaeological manifestation of St. Johns II pottery assemblages across the entire
river valley relate to prehistoric cultural identity and social boundaries?

The geographical patterning of St. Johns pottery reflects a marked degree of gross internal
homogeneity and external differentiation. The routine and persistent production of spiculate
wares within a very restricted region of southeastern North America clearly had some social
meaning. My argument is not that the distribution of a pottery type or style is isomorphic with
the boundaries of a single culture, ethnicity, or political order, but that material culture, including
pottery, can be used in the creation and expression of social relationships and group identities
(Hodder 1982; Lindahl 1995; Weissner 1983). I affirm that there is no a priori reason to equate a
single artifact category with a particular society. Additionally, we must keep in mind the extent
to which any identified stylistic patterning (e.g., pottery) corresponds to some specific level or
kind of social organization or affiliation depends on its specific sociohistorical context (Conkey

Another consideration along these lines is it may not have been only the outward “style” of
St. Johns pots that served as a visible marker of community, but also the technical choices or
technological styles employed in rendering chalky wares. Here social identity (e.g., gender,
social groups, community, etc.) is perceived as expressed in pottery production (or crafting in
general), not just in the pots (craft item) themselves (see various articles in Costin 1998). Culture
construction is a very real material and social process that takes place in all realms of social life.

Along these lines, French ethnologist Pierre Lemonnier (1986:149; 1992) has shown that
insightful information on social relations and identity formation can be gleaned through
examination of technological styles or the *chaîne opératoires* (operational sequence) that “brings a primary material from its natural state to a fabricated state.” The premise here is that a group of individuals choose between a number of equally viable options, with choices going beyond mere technical logic or material efficacy (Lemonnier 1989:156). In some cases, different social groups create virtually identical end products, but it is the operational sequence or order in which sequentially (or simultaneously) tasks are executed that set them apart. Thus, it can be shared productive practices or technologies as much as outward styles that mark cultural traditions and link social entities together (Hegmon 1998:275).

Given ethnoarchaeological data on pottery production, we should expect a structured paste preparation sequence that probably involved much more than simple tempering. Processes such as levigation, sieving, and the mixing of different clays were undoubtedly a consideration in prehistoric pottery production. The manufacture of St. Johns pottery might constitute the byproduct of a complex sequence of clay processing and paste formation. In this vein, Rolland and Bond (2003:101) have outlined a hypothetical (and simplified) processing sequence that involved: (1) collection and processing of sponges to use as temper; (2) extraction of raw clay, which was levigated, sieved, and perhaps mixed with other clays, then allowed to dry before pounding into a uniform powder; (3) sponges and perhaps other tempering agents (e.g., sand) would be added to the processed clay in amounts related to anticipated vessel function (e.g., storage, serving, cooking).

Evidence of a standardized St. Johns II procedure is suggested by the results of Rolland’s (2004) refiring project. The refired color of her sample of St. Johns sheds from a variety of sites throughout the St. Johns region, including northeastern Florida, was remarkably consistent. Because these sherds were from vessels undoubtedly made of different clays, the degree of similarity appears to be the result of standardized or consistent clay processing and paste preparation. Thus, the most important aspect of St. Johns pottery may not have been in the
selection of clay, but in the processing of raw clay. That is not to say, however, that any clay will do, since they still had to acquire clay with suitable properties for forming and firing.

People are social actors, and through daily actions they create principles that organize their lives and establish their identities. The processes of identity formation is ongoing and predicated on repeated and habitual routines like organizing space and performing domestic tasks such as a pottery and other craft production (Costin 1998; Lightfoot et al. 1998:201). Making pottery is rooted in social relations and thus embedded in society. In other words, St. Johns pottery—in concert with other material remains, customs, and practices—was used to communicate a shared identity of some kind. We must continue to remind ourselves that pottery is “the product of people with goals, concerns, identities, and histories” (Johnson 2000:140-141). Future research should explore, in greater detail, technological and social issues of St. Johns pottery.

**Ocmulgee Cordmarked pottery**

The question now arises: How did Ocmulgee Cordmarked wares figure into the St. Johns II pottery assemblage? As demonstrated in Chapter 4, these heavy, mostly grit-tempered wares were produced both locally and in southern-central Georgia and imported to northeastern Florida. To anticipate the next chapter, I conclude that some Ocmulgee woman married St. Johns II men and moved into northeastern Florida villages, perhaps as part of alliance building, bringing with them their natal pottery-making tradition. That women were the exclusive potters is an assumption I make based on ethnohistoric information on historic-period Southeastern Indians (Hudson 1976:264) and on cross-cultural ethnographic data that indicate when pottery production is part-time, noncommercial, and performed at the household level women are almost always the sole potters (Arnold 1985:101-103; Skibo and Schiffer 1995:86).

Marriage is not simply a union between two individuals, but an alliance between social groups that involves a variety of concerns on the part of each group’s members. Notable are considerations of logistics and residence after marriage. Assuming that postmarital residence among early St. Johns II groups was matrilocal, an assumption not without merit based on the
practice of historic Timucua in the region but one still problematic in the absence of direct evidence for the A.D. 900-1250 period (Hann 1996; Milanich 1996; Worth 1998), women remained in their natal community and continued to interact with female kin throughout the course of their lives. With respect to pottery production and other female-based activities, this situation can promote generational continuity. However, an intergroup marriage that involved the movement of a woman to the distant community of her husband introduced, for better or worse, new ideas and techniques for doing certain things.

An Ocmulgee woman who married into a St. Johns II community brought her pottery-making tradition with her. While she may have been required to produce the local chalky ware after assuming residence in her new marriage community, she also may have been able to continue making Ocmulgee pots using traditional techniques and decorations, particularly if a demand for them existed within the community. St. Johns potters may have witnessed (or already had knowledge of) certain mechanical advantages of the thicker, heavy-duty grit-tempered wares (e.g., durability, transportability) and encouraged their production. Grit-tempered cordmarked and St. Johns wares may have complemented one another, with each better suited (mechanically or technologically) for certain activities than the other. While cordmarking is occasionally found on chalky wares and check stamping on grit-tempered wares, a dichotomous association is clearly evident.

In-marrying Ocmulgee woman may have taught their female affinal kin how to make Ocmulgee pottery. Daughters of Ocmulgee women may have been taught both techniques, one learned from their mother and the other from their grandmother or other female relative. The possibility also exists that Ocmulgee women in St. Johns communities may not have been allowed to produce chalky wares, particularly if it was a source of community identity. The fact that archaeologists are presently unable to discern local from nonlocal Ocmulgee wares without chemical composition data lends credence to the possibility that the local wares were produced by potters knowledgeable of the Ocmulgee way of making and decorating pottery.
One thing that appears likely, assuming St. Johns II societies were matrilineal and matrilocal, is that an in-marrying Ocmulgee woman would not have been considered a member of a lineage or clan within the St. Johns II community. Thus she would not have been afforded the rights and prerogatives that her daughters might receive. Her status and responsibilities as wife and daughter-in-law in a community quite different from her natal home certainly would have created instances of tension over social obligations, affiliations, and accepted behaviors, and possibly served as a locus of change in female-related technologies and activities (Sassaman and Rudolphi 2001). However, Ocmulgee women also would have created an important conduit through which exchanges could flow and alliances could be formed. An understanding of regional interaction must not discount local social contexts and relations of gender.

Other Craft Items

Pottery may be the most ubiquitous artifact class found on St. Johns II sites, but tools and ornaments of bone, shell, and stone have also been recovered from midden and mound contexts. Animal bone was commonly crafted into pins, awls, fids, needles, leisters, and other tools that served utilitarian functions. These are often recovered in fragmentary conditions in domestic refuse middens. Ornamental items are typically less common in middens and include bone beads, pins, and incised/engraved pendants (Penders 2001; Wheeler 1992). Some bone artifacts demonstrate ornate detail that would have required great skill. Hair pins are commonly found in association with human burials. Teeth, particularly those of shark, but also bear, panther, dolphin, and canid, were fashioned into beads, dangles, knives, engravers, scrapers, and drills. Evidence of birotational wear on some spike-shaped shark teeth points to their use as drills, perhaps used to perforate shell beads (Penders 2001). Antler was also modified into tools and decorative items.

Whelk cutting-edged and battering tools, columella gouges and burnishers, cups, scoops, pendants, earplugs, and beads comprise a partial list of shell artifacts (Penders 2001). Save for beads, the quantity and range of shell artifacts among St. Johns II groups pales in comparison to
those that make up the shell tool industry of the Calusa of southwestern Florida (Marquardt 1992; Patton 1994, 2001). The quantities of these items suggest that St. Johns groups were once again manufacturing shell artifacts at the household or domestic unit level. There is no evidence of mass or specialized production of shell artifacts for exchange; perhaps, it was merely shells (whole and fragmented) that were the primary export. Archaeologists in northeastern Florida have yet to uncover distinct loci of concentrated whelk shells and debitage suggestive of a shell tool workshop. However, poor preservation or disposal of tool making waste in domestic shell middens can make such production loci difficult to identify archaeologically. Whelks stripped of their outer whorls occur in shell middens, but rarely in inordinate amounts.

Flaked stone artifacts of poor to moderate quality chert include bifacial and unifacial tools. The absence of naturally occurring stone in northeastern Florida, the expedient nature of these artifacts, and the recovery of debitage suggest that flake stone tools were made on site out of imported stone. However, the quantity of chert flakes and stone tools on coastal St. Johns II sites is sparse and rarely concentrated. Small triangular points, often typed as Pinellas points (Bullen 1975:8), have a widespread and frequent distribution across the interior portion of the river valley at this time. Although far less frequent than on inland sites, these small stone points are found in middens and mounds on northeastern Florida St. Johns II sites (Bland 2001). Archaic period projectile points are occasionally found in St. Johns II middens and mounds, suggesting these stone tools were either scavenged from earlier sites or acquired via trade with groups to the south or west.

The small triangular points may indicate bow and arrow technology, knowledge of which may have diffused into the region via the same exchange routes that brought nonlocal Ocmulgee pots and exotica (Cobb and Nassaney 1995:208-209). It is presently uncertain whether the spread of such points suggests mere acceptance of bow and arrow technology related to new hunting strategies or evidence of heightened warfare and intersocietal conflict, as suggested elsewhere in the greater Southeast (Blitz 1988: Nassaney and Pyle 1999). Although relating to a later period,

Ground stone implements such as celts and axes along with decorative items like pendants, plummets, gorgets, and beads appear to have ended their use life in St. Johns II burial mounds. In fact, these items (whole or fragments) are rarely recovered in middens or other domestic contexts. Interestingly, the same can be said for Mt. Royal, where only one celt spall has been recovered despite extensive surface reconnaissance and excavation (Jones and Tesar 2001). The absence of unworked pieces, production failures, anddebitage implies that these goods made their way to northeastern Florida in finished form. Moreover, the fact that many of the burial mound finds exhibit battered and worn edges, or occur as broken and incomplete specimens, suggest they entered northeastern Florida in used conditions, but still socially valued, perhaps because of their nonlocal origins and association with distant lands.

To date, no minerals such as mica or galena have been recovered from nonmound contexts in northeastern Florida. A meager amount of scrap copper has been recovered from nonmound contexts within the Mill Cove Complex, but the vast majority was consumed in the Grant and Shields mounds. Four small pieces of copper and one rolled copper bead recovered from Kinzey’s Knoll and two copper flecks reclaimed from the Bluff Midden represent the only copper found within nonmound contexts at the Mill Cove Complex. Currently, no copper has been recovered from nonmound contexts at any other St. Johns site in northeastern Florida, but this may be a result of inadequate excavation.

Certain copper items probably arrived in finished form, although small sheets or scrap pieces might have undergone slight on-site modifications to suit particular needs. For instance, pieces of sheet copper could have been rolled into beads or cut and wrapped around locally produced artifacts. Additionally, scraps of copper may have been cobbled together to form larger pieces. C.B. Moore (1894, 1895) reports finding wooden, shell, and bone objects wrapped in copper foil from the Grant and Shields mounds as well as Mt. Royal. Existing evidence suggests
that late stage modification of exotic metals was restricted to certain areas of the Mill Cove Complex.

In short, available data lend itself to an interpretation that favors St. Johns II craft production not craft specialization. This does not deny instances in which a skilled person, admired by others for their mastery of a craft, could be called upon to manufacture something for an individual or the larger community. Except for the handling of copper, there is no evidence for the nucleation of production activities or centralized control of production. Thus, St. Johns II households appear to have been capable of producing the necessities of daily life, including the manufacture of all tools and ornaments. While self sufficient, households were part of the larger community, which obliged each to lend support to community activities, such as ritual, mound building, and perhaps even warfare.

Summary

In northeastern Florida, St. Johns II groups were coastal fisher-hunter-gathers who did not cultivate maize. As demonstrated, the lack of marked differences in domestic artifact assemblages and refuse suggests that individual family or household units were similar and self-sufficient in that each was able to produce the daily necessities of life. But we must bear in mind that individual domestic units were dependent on others for the creation and reproduction of the community. Paramount to this process are notions of ideology and cultural meaning. Was ideology among St. Johns II societies elite-driven with commoners dependent on elites who maintained exclusive control of surplus labor? Or was production and ideology more communally-based in which performers of surplus laborer were simultaneously the extractors?

To anticipate the next chapter, the final deposition of exotic items on St. Johns II sites was restricted to mounds and to a lesser extent to special “middens” in close proximity to mounds that I interpret as the byproduct of public ritual and feasting rather than the domestic refuse of elites. This interpretation suggests a relationship between ritual and the organization of production (or handling of) of exotic items bound for interment. While these contexts fostered ritual activity that
promoted corporate bonds and intergroup alliances, they simultaneously offered a context whereby certain groups could attempt to create debt obligations and undermine communalism in order to assert formal and institutionalized control over others. In the next chapter, information of domestic economy will be combined with data on external change and interaction to build a model of St. Johns II political economy.
CHAPTER 8
ORIGINS, EXTERNAL CONNECTIONS, AND SOCIOPOLITICAL ORGANIZATION: TOWARD A MODEL OF ST. JOHNS II POLITICAL ECONOMY

In the preceding chapters, I emphasized the need for multiscalar and historical perspectives in exploring local developments; reworked the late prehistoric chronology of northeastern Florida; synthesized the archaeology and social geography of northeastern Florida and southern-central Georgia during the Early Mississippian period (A.D. 900-1250); and examined St. Johns II subsistence and craft production in northeastern Florida. Considerable effort was placed in revamping the regional Late Woodland through Mississippian period ceramic chronology to allow the presentation of a new historical trajectory. I also presented the results of my excavations at the Shields site and reinterpreted the findings of earlier archaeological investigations in northeastern Florida. Crucial to my study is the identification through stylistic and chemical compositional analyses of the presence of Ocmulgee Cordmarked pottery on St. Johns II sites in northeastern Florida. I now attempt to weave these various strands of information together in a first-generation model of St. Johns II political economy that considers the local context of northeastern Florida, the regional context of the St. Johns River valley, and the macroregional context of the Mississippian world.

I view the emergence of St. Johns II communities in northeastern Florida as an unanticipated and historically-contingent outcome fostered in part by the intersection of a macroregional demand for a local resource. It is a specific instance of what Cobb (2000:200-201) calls the “pluralistic creation of Mississippian [period] identities,” with the local availability of widely-sought after coastal resources, like shell, bringing St. Johns II people into contact, either directly or indirectly, with communities and chiefdoms of the Mississippian world. However, involvement in these interactive networks was not merely the centripetal pull of macroregional
processes, it included the specific decisions and actions of local individuals and social groups that allowed St. Johns II communities to participate more intensively in Early Mississippian period exchange than many other Atlantic coastal groups. As such, St. Johns II groups actively took part in constructing their own social milieu.

**Origins in Northeastern Florida**

St. Johns II populations north of Lake George and Colorinda groups at the mouth of the St. Johns River lived at the twilight of the Late Woodland era. Change, however, was imminent, and sometime after A.D. 900 conditions permitted the pervasive spread and dominance of St. Johns II pottery assemblages throughout the entire St. Johns River valley (Goggin 1952:53; Milanich 1994:262). With the gross homogenization of pottery technology, we see for the first time since the Late Archaic Orange period, pan-river usage of a single ceramic tradition—St. Johns II. Although the causes of its abrupt appearance on a large-scale in northeastern Florida are presently not well understood, there is no evidence to support the direct development of St. Johns II out of St. Johns I, as detailed in Chapter 3. While we presently lack sufficient evidence to explain conclusively the origins of St. Johns II in northeastern Florida, I offer a possible scenario developed throughout the chapter.

The little known and short-lived Colorinda archaeological culture immediately preceded St. Johns II manifestations in northeastern Florida. Presently dated to circa A.D. 850-900, Colorinda is represented archaeologically by a particularly small number of sites compared to earlier Late Swift Creek and subsequent St. Johns II times. Moreover, there is a discontinuity in site location. Even at the McCormack site (Johnson 1988:133-137; Richter 1992; Sears 1957:20-22), which contains substantial Colorinda and St. Johns II midden deposits, there is no stratigraphic verification of an *in situ* transition from the former to the latter. This is profoundly evident at the Mill Cove Complex, where there is sparse evidence of earlier Colorinda activities. Additionally, no Colorinda vessels have been reported within any St. Johns II mounds, although
Moore (1894, 1895) failed to provide detailed descriptions of paste for vessels taken from the Shields and Grant mounds.

The Colorinda pottery assemblage consists of sand-tempered plainwares, sherd-tempered plainwares (Colorinda), and small amounts of St. Johns pottery; the latter includes mostly plainwares but minor amounts of check stamping (Ashley 2003; Russo 1992; Sears 1957, 1959). The ceramic assemblage is unique with the apparent blending of the local long-standing tradition of sand tempering, the sherd tempering of the Georgia coast (e.g., Wilmington), and the spiculate tempering (St. Johns) of the St. Johns River valley. At this time, available radiometric dates hint at the potential contemporaneity of Colorinda groups at the mouth of the St. Johns River and Late Swift Creek populations immediately to the north during the early to middle tenth century A.D.

Two possible Colorinda burial mounds (Walker Point and Brown) each appears to have been the scene of either a single interment episode or a limited number of separate burial events over a brief time (Hemmings and Deagan 1973:35; Sears 1959:10-11). This contrasts with the nature of Late Swift Creek mounds, which were built up incrementally and repeatedly used for long periods of time (Ashley 1995, 1998). Also, the presence of face-down interments and single episode, multiple body primary burials in nonmound pits at the McCormack site and the collective and simultaneous interment of several extended individuals in a pit at the base of the Brown Mound further distinguishes Colorinda mortuary practices from that of Late Swift Creek (Sears 1959:4-7). However, similar types of burials have been reported on Wilmington sites of the same time period on St. Simon’s Island (Cook 1979:73; Holder 1938:8; Martinez 1975:51-57).

Taken together, these data allude to a short period of strife and uncertainty in northeastern Florida during the tenth century, a time when some local groups might have moved out of the area, and those that remained underwent a crisis of community identity. It is against this backdrop that St. Johns II sites quickly sprang up across the northeastern Florida landscape sometime during the tenth century A.D. These new populations soon were actively involved in
long-distance exchange networks. One could argue for a gradual *in situ* development of local St. Johns II out of Late Swift Creek, with Colorinda reflecting a transitional stage. However, the rapidity and scale at which St. Johns II populations took over northeastern Florida in concert with the locational disjuncture of Colorinda and St. Johns II sites speaks of a settlement shift along the river; a shift heralded by an influx of St. Johns II populations to northeastern Florida. Immigrant populations may have absorbed local Colorinda communities, rendering northeastern Florida St. Johns II a mix of local and nonlocal populations. Alternatively, Colorinda groups might have completely abandoned the area.

If there was indeed a settlement shift, then we must consider the circumstances that provided the push and pull factors around A.D. 900 for the northward movement of some St. Johns II populations to present-day Duval and Nassau counties. As the excavations of C.B. Moore (1894, 1895) have clearly illustrated, northeastern Florida communities and St. Johns I societies to the south were actively involved in Hopewellian and later Woodland period (ca. A.D. 100-700) trade and interaction networks that brought far-flung exotic materials and artifacts to eastern Florida. However, much of the Southeast appears to have undergone a short lull in long-distance exotica exchange during the Late Woodland period, ca. A.D. 700-900 (Nassaney and Cobb 1991; Cobb and Nassaney 1995). In northeastern Florida, this may be reflected in the cessation of decorating pots with Swift Creek Complicated designs and the emergence of Colorinda pottery; Swift Creek design studies soundly demonstrate contacts between northeastern Florida groups and those to the north along the Georgia coast (Ashley 1995, 1998). Colorinda populations were smaller and perhaps more insular (though not isolationists) than their Swift Creek predecessors had been.

Although most southeastern archaeologist lash the start of the Mississippian period to A.D. 1000, archaeological evidence clearly shows that fundamental changes were taking place in areas of the Southeast by A.D. 900 (Cobb and Garrow 1996; Smith 1990). In fact, the century or so prior to the onset of the Mississippian period has been partitioned off by some archaeologists and
labeled Emergent Mississippian. This was a dynamic time in which interaction spheres were broadened and key Mississippian traits began to circulate along paths of communication and exchange. But responses to interactions over larger areas were mediated by local cultural traditions, processes that shaped variable and uneven rates and forms of Mississippianization (Cobb and Garrow 1996). Local histories and human agency are clearly implicated in the differential participation in this large-scale process. St. Johns II societies appear to have made a concerted and early advance toward involvement in these broad-scale interactions, as the exchange of nonlocal goods and materials was resumed under their control around A.D. 900 (as discussed below).

Thus, the larger currents of Mississippianization may have played an important part in the movement of St. Johns II peoples to northeastern Florida, as groups jockeyed to gain control of strategic locations and resources. The variety and availability of rich coastal resources combined with a small resident population may have made the river mouth a desirable location to groups to the south. What may have occurred at this time was an expansion of St. Johns II peoples and traditions into new areas coupled with a trend toward demographic nucleation in a few prime locations along the river, such as at the mouth and north of Lake George. Population pressure seems an unlikely cause for the settlement shift. We must remember that change is culturally mediated and the decision to move was a social one made by groups at the local level that took into account both local and regional economic and political considerations.

**External Connections and Exchange Networks**

In Chapters 4 and 5 connections were revealed between St. Johns II sites in northeastern Florida and far-off places in the form of copper, galena, mica, graphite, hematite, and lithic projectile points, as well as celts, pipes, beads, and other ground stone objects of nonlocal origins. Many of these same items are typical of Mississippian mound centers dispersed throughout eastern North America. It is important to point out that most of the exotica brought into northeastern Florida was consumed in St. Johns II burial mounds along with local items such as
unmodified whelk shells, shell beads and cups, pearls, shark teeth, bone points and pins, and ceramic vessels (Ashley 2002). Table 8-1 and 8-2 provide a list of exotica recovered from the Grant and Shields mounds by C.B. Moore (1894, 1895), respectively.

Trace element analysis of several copper artifacts from Grant Mound and Mt. Royal link the metals to sources in both the Appalachian Mountains and the Great Lakes region (Goad 1978:136-148). Additionally, Shields Mound and/or Grant Mound can be indirectly linked to Macon Plateau (spatulate celts, ground stone artifacts) and Cahokia (Long-nosed god maskettes, other copper artifacts), as well as to Mt. Royal to the south and to Gahagan in northwestern Louisiana (Webb and Dodd 1939). Notable mound artifacts include two copper Long-nosed god maskettes and a biconical ear spool from Grant Mound and two spatulate celts from the Shields Mound. Save for these items, however, specific “Southern Cult” items or iconography are lacking on any medium. This may be due in part to the fact that the local St. Johns II period predates the mature expression of the Southeastern Ceremonial Complex (see Galloway 1989; Knight et al. 2001). While the presence of exotica evinces participation in external exchange networks, it does not automatically equate to the existence of a Mississippian prestige goods economy (*in sensu* Peregrine 1992), as discussed shortly. Let us now explore the nature of these interactions.

**Shell as an Export**

That copper and other exotica were brought into northeastern Florida suggests other materials left the area as part of the exchange network. Although comestibles, yaupon leaves, shark teeth, feathers, textiles and other nondurable items might have gone out of northeastern Florida, marine shell may have been the principal export given its ubiquity along the coast and popularity among Mississippian peoples. Shell beads are ever-present and high-volume occurrences in St. Johns II mounds (e.g., Jordan 1963; Moore 1894, 1895; Recourt 1975). Flat disk types formed from the outer whorls of whelk shells are dominant, although columella barrel
Table 8-1. Artifacts recovered from Grant Mound by C.B. Moore (1894, 1895).

<table>
<thead>
<tr>
<th>Stone</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>126 polished celts</td>
<td>15 projectile points/knives</td>
<td>3 soapstone tobacco pipes</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1 diorite pendant</td>
<td>1 pear shaped quartz pendant</td>
<td>tubes of sandstone and coquina</td>
</tr>
<tr>
<td></td>
<td>several sandstone hones and a few loose pebbles and chips of chert</td>
<td></td>
</tr>
<tr>
<td>Shell</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>shell drinking cups</td>
<td>whelk columella</td>
<td>perforated pearls</td>
</tr>
<tr>
<td></td>
<td>shell beads in great abundance (disk and barrel shaped)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>olive shell beads</td>
<td></td>
</tr>
<tr>
<td></td>
<td>number of shell pendants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>objects of shell</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cockle shell with red pigment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>“graceful ellipsoidal ornament of shell”</td>
<td></td>
</tr>
<tr>
<td>Metal/Mineral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>galena masses</td>
<td>sheets of mica</td>
<td>spherical bead of sheet copper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 tubular beads of sheet copper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 oblong sheet of copper with central oval boss and perforation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 large oval bead of sheet copper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9 pieces of sheet copper with repousse bosses and beaded lines</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ellisoidal bead of copper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 elongated beads of copper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 bead of wood overlaid with sheet copper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 disc of limestone overlaid with copper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 discs of limestone overlaid with copper (ear plug)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 discoidal shell bead overlaid with copper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 copper Long-nosed god maskettes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>upon a number of occasions a single bead of sheet copper lay with many shell beads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>number of sheet copper ornaments in a fragmentary condition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>areas of hematite impregnated sand</td>
</tr>
<tr>
<td>Bone</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>great quantity of bone piercing implements and pins</td>
<td></td>
</tr>
<tr>
<td>Ceramic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>pottery vessels</td>
<td>earthenware tobacco pipes</td>
<td>bead/pendant</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>curious natural formations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 8-2. Artifacts recovered from Shields Mound by C.B. Moore (1895).

<table>
<thead>
<tr>
<th>Stone</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>119 projectile points/knives</td>
</tr>
<tr>
<td></td>
<td>12 polished celts</td>
</tr>
<tr>
<td></td>
<td>2 polished spade (spatulate) celts</td>
</tr>
<tr>
<td></td>
<td>2 cylindrical stone beads</td>
</tr>
<tr>
<td></td>
<td>2 pebbles of sedimentary origin (1 split and 1 pierced)</td>
</tr>
<tr>
<td></td>
<td>1 chisel of sedimentary clay rock</td>
</tr>
<tr>
<td></td>
<td>1 cutting implement of fine-grained sedimentary rock</td>
</tr>
<tr>
<td></td>
<td>1 clear quartz crystal fragment</td>
</tr>
<tr>
<td></td>
<td>1 soft claystone banner stone</td>
</tr>
<tr>
<td></td>
<td>1 gorget (schistose rock of slaty texture)</td>
</tr>
<tr>
<td></td>
<td>1 boat-shaped pendant soft claystone</td>
</tr>
<tr>
<td></td>
<td>1 soapstone tobacco pipe</td>
</tr>
<tr>
<td></td>
<td>1 double pointed chert biface</td>
</tr>
<tr>
<td></td>
<td>1 leaf-shaped implement of chipped chert</td>
</tr>
<tr>
<td></td>
<td>1 dagger/lance head of crystalline sandstone</td>
</tr>
<tr>
<td></td>
<td>1 sandstone bone</td>
</tr>
<tr>
<td></td>
<td>1 chipped chert hammer</td>
</tr>
<tr>
<td></td>
<td>1 pitted sandstone</td>
</tr>
<tr>
<td></td>
<td>1 red jasper bead/pendant</td>
</tr>
<tr>
<td></td>
<td>broken projectile points, chips, spalls of chert, bits of sandstone, and quartz pebbles found singly</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Shell</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>23 conchs (whelks)</td>
</tr>
<tr>
<td></td>
<td>2 modified whelks</td>
</tr>
<tr>
<td></td>
<td>large shell beads</td>
</tr>
<tr>
<td></td>
<td>olive shell beads</td>
</tr>
<tr>
<td></td>
<td>usual small discoidal beads</td>
</tr>
<tr>
<td></td>
<td>pendants of shell</td>
</tr>
<tr>
<td></td>
<td>modified whelk columella</td>
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<thead>
<tr>
<th>Metal/Mineral</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 cubes of galena</td>
</tr>
<tr>
<td></td>
<td>2 small sheets of mica</td>
</tr>
<tr>
<td></td>
<td>5 small copper sheets of familiar type</td>
</tr>
<tr>
<td></td>
<td>1 large undecorated copper sheet, centrally perforated (vegetable fibers adhering)</td>
</tr>
<tr>
<td></td>
<td>1 unidentified wooden object overlaid with copper</td>
</tr>
<tr>
<td></td>
<td>1 double pointed copper pin</td>
</tr>
<tr>
<td></td>
<td>number of fragments of sheet copper</td>
</tr>
<tr>
<td></td>
<td>areas of hematite impregnated sand</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bone</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4 shark teeth and 1 drumfish tooth</td>
</tr>
<tr>
<td></td>
<td>1 upper part of bear jaw</td>
</tr>
<tr>
<td></td>
<td>1 turkey leg bone and spur</td>
</tr>
<tr>
<td></td>
<td>bone pins in considerable numbers</td>
</tr>
<tr>
<td></td>
<td>many canine teeth of large carnivores, usually perforated (mostly bear; possibly wolf)</td>
</tr>
</tbody>
</table>
Table 8-2 continued.

**Ceramic**
- 9 pottery vessels
- 2 earthenware tobacco pipes
- 1 tureen shaped pendent or toy of earthenware
- 1 bird-shaped clay vessel
- portions of 2 cord marked vessels with red pigment

**Miscellaneous**
- 26 tubes of natural formation

beads are also reported. Whelk (*Busycon* spp.) was the primary shell of choice and used to craft beads, cups, plummets, pins, pendants, and various other ornaments; olive (*Olivella* spp.) shell beads were also made. Whole shells and whelk fragments are commonly found in St. Johns II mounds and middens. Moore (1895:466) reported that an interment from the Shields Mound was associated with “twenty conch [*Busycon*] shells.”

Marine shell was greatly desired by Mississippian peoples throughout the Southeast and Midwest, as evidenced by the sizeable numbers of marine shell artifacts, particularly beads, found on interior sites situated great distances from ocean or gulf waters. The presence of shell debitage and microlithic tools at mound centers and farmsteads points to on-site bead production (e.g., Blitz 1993; Kozuch 1998; Muller 1987; Trubbitt 1996; Yerkes 1989). Other items such as engraved cups and gorgets were apparently exalted possessions imbued with symbolism and restricted to leaders and other elites (Brown et al. 1990; Phillips and Brown 1978; Prentice 1987; Smith and Barnes Smith 1989). Several archaeologists have implicated coastal communities in trafficking marine shells from the Atlantic and Gulf coasts to the interior Southeast (e.g., Brown et al. 1990; Claassen and Sigmann 1993; Mitchem 1996; Muller 1987, 1997).

Indeed, northeastern Florida natives may have profited from the popularity of marine shells among Early Mississippian-period societies. Whole shells could have been collected from shallow waters or gathered from the beach following intensive storms and tidal surges. Even
whorl and columella fragments, ever-present along the seashore, would have been valued, since these pieces could have been exported as a source material for later bead making. Olive and marginella shells, both of which also occur as grave good ornaments in Mississippian mounds, are distributed along the Atlantic coast of Florida (Abbott 1974). At present there is no evidence of specialized or centralized production of shell artifacts for exchange. Based on their common association with local burials, shell bead production was most likely embedded in the domestic economy, and much of the shell collection, along with other coastal resources such as pearls and shark teeth, could have been subsumed within the course of daily subsistence activities (Brown et al. 1990:271). However, certain society members such as leaders or exchange brokers (subsumed class) may have played a pivotal role in amassing procured shells and getting them to inland communities.

The Early Mississippian chiefdom of Macon Plateau may have been a beneficiary of northeastern Florida marine shell. In fact, “shell was quite abundant in the Funeral Mound” at Macon Plateau, with grave goods including whole whelk shells, gorgets, cups, and beads of several types (Fairbanks 1981:46). Burial 48 consisted of a male and female interment adorned with over 17,000 disk beads cut from the outer whorl of whelk shells together with 387 columella barrel beads. Burial 69 had 26,000 olive shell beads scattered among the remains of at least 7 individuals (Fairbanks 1981:22-23). Fairbanks (1981:46) interpreted the abundance of shell artifacts at Macon Plateau as evidence of “rather extensive trade with the south Atlantic coast and possibly the gulf coast where these shells grow.” Perhaps coincidental, but the occupational duration of Macon Plateau is roughly coincident with the climax of the St. Johns II period settlement of northeastern Florida.

Another temporal trend is that gorgets, masks, and drinking cups, which would have required whole shells or very large sections of the outer whorl, are not as frequent in Early Mississippian period earthworks as they are in mounds that postdate A.D. 1250. Moreover, these items appear to have been made mostly from lightning whelks (*Busycon perversum*), a species
with greater frequency along the Gulf coast (Abbott 1974; Hale 1986; Kozuch 1998:3; Milanich 1979:85-86). Kozuch (1998) argues that since most gastropods are right-handed (dextral), left-handed (sinistral) whelks may have been targeted for their peculiarity. Moreover, she suggests that value or symbolism may have been tied to the direction of their spiral (cf. Mianich 1979:95).

The knobbed whelk (*Busycon carica*), a heavier and more robust dextral species, is more prevalent along northeastern Florida beaches (Abbott 1974; Hale 1976:68). In fact, its distribution is exclusive to the Atlantic coast. While knobbed whelk was a good source for beads, it may not have possessed requisite features for cup and gorget use. The eventual fall of Macon Plateau, with its relative proximity to northeastern Florida vis-a-vis other Mississippian centers, combined with a greater demand for lightning whelks among later Mississippian communities may have negatively impacted the role of St. Johns II communities as shell suppliers and dampened their involvement in Mississippian exchange. The outmigration of Ocmulgee groups from their homeland after the fall of Macon Plateau, may have compounded St. Johns II exchange woes, forcing them to look to new and perhaps more distant and westerly exchange partners.

**Ocmulgee Interactions**

Metals, minerals, igneous and sedimentary stones, and other exotica were not the only materials that made their way into northeastern Florida. As both INAA and sherd refiring have shown, Ocmulgee Cordmarked vessels came to be possessed by members of St. Johns II communities. Of the three Ocmulgee variants, those from northeastern Florida (tradewares and local copies) most closely resemble Ocmulgee III Cordmarked. To review, Ocmulgee III Cordmarked vessels are grit-tempered and thicker than the other two varieties (Snow 1977a, 1977b; Stephenson 1990a). As discussed in Chapter 7, their robustness and paste would have made them sturdy (impact-resistant) and abrasive-resistant vessels for transport. It is unlikely that vessels exiting the Ocmulgee territory would have been left empty. Here is where thick appliqué strips or rim folds would have been an asset, providing a raised support by which to securely fasten a textile or hide covering over vessel orifice. While transportability may have been a
consideration at times, I am not claiming that Ocmulgee vessels were manufactured in large amounts merely for exchange.

Ocmulgee groups were riverine hunter-gatherers whose southern-central Georgia homeland provided key access into broader regional exchange networks of the Mississippian world. As Figure 8-1 clearly shows, the Ocmulgee territory was situated between northeastern Florida and Macon Plateau, the dominant chiefdom in Georgia and closest Mississippian mound center to early St. Johns II communities. Because of their strategic location, Ocmulgee groups may have served as trade facilitators (e.g., middlemen) by securing materials of metal, mineral, and stone from upriver locales, perhaps directly from Macon Plateau or indirectly through intermediaries, and then passing them on to St. Johns II societies (Ashley 2002). From the hinterland, these materials could have been carried along the Altamaha River to the Atlantic coast, then south through the coastal sounds to northeastern Florida. Additionally or alternatively, Ocmulgee populations may have simply allowed St. Johns II groups or individuals to venture through their lands in order to reach more distant destinations.

Obtaining an unencumbered right of entry through the Ocmulgee territory would have been of utmost importance to St. Johns leaders or exchange agents and further would have required continuous diplomacy and negotiation. Emphasis may have been placed on securing alliance with the easternmost Ocmulgee III groups, since they were the first encountered as Atlantic coastal people moved up the Altamaha-Ocmulgee river system. That social ties were forged between these two groups is suggested by the occurrence of Ocmulgee pottery on St. Johns II sites in northeastern Florida.

As part and parcel of the alliance-forming process, mates may have been exchanged between the Ocmulgee and St. Johns II groups to create kinship ties. Throughout the world, marriage has been shown to be among the most operative means of forging intergroup alliances in small-scale and middle-range societies, because of the responsibilities and obligations that attend kinship relations (Kelly 1995:285-288; Sahlins 1972:222-223). Ties between Ocmulgee and St.
Figure 8-1. Northeastern Florida St. Johns II, Ocmulgee territory, and Macon Plateau.
Johns II groups formed through marriage would have facilitated down-the-line exchanges of raw materials and finished products. Since the total amount of exotic materials recovered from St. Johns II mounds to date is not overly immense, particularly considering the possibility the materials were amassed over a span of two to three centuries, intergroup marriages were probably an irregular occurrence. In fact, while contacts between the two groups were direct, they were probably intermittent, and the frequency of female out-movement via marriage unlikely created significant sex ratio imbalances in Ocmulgee societies.

After marriage, Ocmulgee women may have been required to assume residence in the community of her new St. Johns husband, bringing her pottery-making knowledge with her. As discussed in the previous chapter, such a situation could account for those locally produced Ocmulgee wares technologically and stylistically indistinguishable (at a non-chemical composition level) from ones from southern-central Georgia. At this time, there is no evidence to suggest that St. Johns potters were moving in the other direction. The scant amount of chalky wares in southern-central Georgia is more reflective of nonlocal pots acquired through trade. A unidirectional flow of women in alliance marriages should not be construed as odd, since such arrangements are quite common in the ethnographic literature, particularly in relationships between mobile foragers and more sedentary societies.

With such speculative involvement in exchange networks that brought exotica to northeastern Florida, the question logically arises: Why didn’t Ocmulgee groups consume trappings of the Mississippian world? That only a few items of mica and copper have been recovered from Ocmulgee sites would tend to suggest that they were uninterested in these items. While interaction can and has engendered emulation and cultural convergence, it does not have to. In fact, interaction can foster diversity, since groups define themselves in relation to others. From this perspective, group identity can be viewed as the expressive product of intercultural social relations rather than isolation (Emerson and McElrath 2001; Grinker 1994; Sassaman 2000). The ethnographic record abounds with cases of interdependence between foragers and
more sociopolitically complex societies, in which the interacting groups assert obvious cultural and material distinctions (e.g., Bahuchet and Guillaume 1982; Bird-David 1988; Grinker 1994; Kelly 1995:24-28; Nunley 1991; Spielmann 1991; Spielmann and Eder 1994; Woodburn 1988).

Ocmulgee peoples most likely did obtain something in return for involvement in exchange relations. For example, they may have received corn and other cultigens from Mississippian farmers and dried/smoked fish and shellfish from coastal groups. Acquiring food and other basic resources via extralocal exchange may have been a component of their opportunistic and flexible foraging strategy. It is presently unknown whether any of the interactions involved relationships of labor, or whether the participants viewed the other as equals or not. Additionally, external exchange may have played a role in Ocmulgee identity formation. In fact, the Ocmulgee way of life may be representative of an economy long accustomed to foraging and extralocal exchange. While some may feel uncomfortable with this interpretation, I believe it is tenable, particularly if greater attention is given to historical and cultural circumstances.

Settlement pattern data in concert with ceramic evidence, principally the manufacture of folded rim vessels, indicate that the Ocmulgee archaeological culture developed in situ out of Late Swift Creek in southern-central Georgia. Swift Creek design contact studies have painstakingly revealed that complicated stamped vessels (or paddles) crisscrossed broad areas, including the Atlantic coast to the east and Kolomoki to the west (Snow 1982, 1998; Snow and Stephenson 1998; Stoltman and Snow 1998; Stephenson et al. 2002). Interestingly, many Swift Creek vessels, like Ocmulgee wares, had appliqué strips or rim folds. At present, there is minimal evidence for the presence of exotica among the Swift Creek peoples of the Ocmulgee Big Bend region, even though these communities were interacting directly with the major Woodland ceremonial center of Kolomoki (Pluckhahn 2002; Sears 1956, 1992). If I am correct that Ocmulgee groups were descendants of the local Late Woodland-period Swift Creek peoples, then they may have had a history of extralocal interaction, perhaps as trade facilitators.
There is no evidence to suggest that Ocmulgee peoples could not have gone to the Atlantic coast themselves to procure shells or establish trading relations with other groups living along the Georgia coast. But, for whatever reason, natives of southern-central and northeastern Florida appear to have had a history of interaction, as indicated by Swift Creek design contacts between the regions and the presence of earlier St. Johns and Orange fiber tempered pottery on sites along the Ocmulgee Big Bend and Altamaha River (Ashley 1998:206-207; Blanton 1979; Snow 1977a).

The emphasis here has been on St. Johns II-Ocmulgee interactions, but it is very unlikely that Ocmulgee peoples were the only groups that St. Johns II populations interacted with. Gulf coast pottery types occur infrequently on some St. Johns II sites, and the inspiration for punctuated wares such Papys Bayou and Little Manatee may be rooted in the Weeden Island pottery tradition to the west and southwest. An amalgam of different kinds of social relations undoubtedly comprised St. Johns II external interactions. While these connections involved economic transactions, we cannot neglect the social dimensions of these relations. As Cobb (1993:65) reminds us, “motives for exchange do not arise merely from a perceived opportunity for gain by dealing with distant sources of valued goods, but involve a complex articulation of local and external interests related to social obligations, peer competition privileges of rank and a panoply of other factors.” While we may still be a long way from knowing the details and implications of these relations, I believe the task of identifying the existence of St. Johns II-Ocmulgee interaction has been achieved.

**Political Organization**

St. Johns II political organization is often categorized as a chiefdom, although it is typically couched in terms such as Mississippian-like or -influenced, implying variance with coeval societies of the interior Southeast (Milanich 1994:269). Conspicuously absent in the St. Johns River valley are sites with multiple mounds arranged around one or more plazas, site types that dot the river valleys of the interior Southeast (Thunen and Ashley 1995:6). However, exotic and elaborate grave goods, including some classic Southeastern Ceremonial Complex items,
found in several St. Johns II burial mounds has led to inferences of elite burials and social
stratification (Goggin 1952:57; Milanich 1994:269; Mitchem 1996; Moore 1894, 1895, 1896).
Although most discussions on the sociopolitical structure of St. Johns II communities are broad
brushed, a lack of dependency on maize agriculture is invariably viewed as the *raison d'être* for
the perceived attenuated or diluted Mississippian character of the Timucuan or St. Johns II culture
28; 1996:13).
This characterization draws partly on the prehistoric archaeological record and partly on
ethnohistorical accounts of Timucua chiefdoms in northern Florida. An implicit assumption
underlying this reconstruction is that the presence of exotic goods in burial mounds translates to
the existence of some form of prestige goods economy. I question whether this depiction, based
on part-time farming and a prestige goods economy, accurately captures the sociopolitical
structure of Early Mississippian-period St. Johns II societies of northeastern Florida (Ashley
2002). In the following, I explore mortuary and settlement pattern data to assess St. Johns II
political organization in northeastern Florida during A.D. 900 to 1250.

**Settlement Pattern Data**

Archaeologists often interpret the size of settlements and the way they are distributed
across the landscape as measures of sociopolitical organization (Johnson 1977). For example, a
hierarchical arrangement of settlement types in a region is considered an archaeological marker of
societal complexity. In the Mississippian Southeast, simple chiefdoms are correlated
archaeologically with a group of contemporaneous settlements with only one platform mound site
(political center), while complex chiefdoms are represented by multiple platform mound sites
interpreted as primary and secondary political centers (Anderson 1994; Smith 1978, 1986;
Steponaitis 1986). While some researchers see continuity in the life history of chiefdoms, a more
popular perspective is that they rose and fell (cycled) at various rates due to historical factors and
the intrinsic instability of chiefdom formations (Cobb 2003). Under the simple-complex model,
chiefdom scale and power is inferred on the basis of the number of subsidiary communities under the political sway of the paramount mound center, while the number of mounds on site is viewed as a yardstick of its political importance (Anderson 1996:232; Hally 1993:159).

The Mill Cove Complex with its large earthen mounds stands out among sites in northeastern Florida. Save for the Grand site (8DU1), a unique shell ring and burial mound complex on Big Talbot Island, St. Johns II sites in northeastern Florida are either habitation sites (villages) with single, small burial mounds or resource procurement camps. The distribution of St. Johns II sites suggests that most people chose to live in settlements with an attendant mound (this contrasts with the later St. Marys II settlement pattern). Except for the size and contents of attendant burial mounds, St. Johns II sites are relatively similar in material remains, suggesting that each produced and traded for its own daily needs, although they may have been linked ceremonially.

Table 8-3 lists ten possible St. Johns II village-burial mound sites and their distance from the Mill Cove Complex (Figure 8-2). The McCormack-Goodman site (8DU66) is closest at a distance of 4.5 km to the east, while Old Town site (8NA238) at the northern tip of Amelia Island is the farthest at 35 km to the north. Of the rest, five fall between 10 and 16 km, and three are located 20 or more km away. In total, there are four villages on the south side of the river (including Mill Cove Complex) and at least one village on each of the Florida barrier islands to the north. Amelia Island may have had three separate villages, although their contemporaneity is uncertain.

Hally’s (1993, 1996) study of the spatial distribution Mississippian sites in Georgia suggests that coeval platform mounds erected within 18 km of one another represent major and secondary mound centers affiliated with a single polity. He interprets this as indication of a chiefdom with at least two levels of political organization above the local community. Those platform mounds at a distance in excess of 32 km were part of separate polities. If all St. Johns II villages were contemporaneous then Hally’s model could intimate the existence two polities—
one on the south side of the river at the Mill Cove Complex and another to the north, possibly centered around the Grand site, with its shell ring serving a function similar to a platform mound.

Table 8-3. Possible St. Johns II villages in northeastern Florida and their straight-line distance from the Mill Cove Complex.

<table>
<thead>
<tr>
<th>Site</th>
<th>Distance from Mill Cove Complex</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>McCormack (8DU66)</td>
<td>4.5 km</td>
<td>south side of river</td>
</tr>
<tr>
<td>Greenfield* (8DU78, 5544-45)</td>
<td>10.0 km</td>
<td>south side of river</td>
</tr>
<tr>
<td>Mayport Mound 2 (8DU97)</td>
<td>13.0 km</td>
<td>south side of river</td>
</tr>
<tr>
<td>Ft. George Island Mound* (8DU4)-Chappelle Midden (8DU1542)</td>
<td>14.0 km</td>
<td>Fort George Island</td>
</tr>
<tr>
<td>Cedar Point North-Jones-Mermans (8DU64, 626, 7498)</td>
<td>15.0 km</td>
<td>Black Hammock Island</td>
</tr>
<tr>
<td>Grand (8DU1)</td>
<td>16.0 km</td>
<td>Big Talbot Island</td>
</tr>
<tr>
<td>Black Hammock (8DU52, 67)</td>
<td>20.0 km</td>
<td>Black Hammock Island</td>
</tr>
<tr>
<td>Mitchell Mound (8NA48)</td>
<td>28.0 km</td>
<td>Amelia Island</td>
</tr>
<tr>
<td>Fernandina Lighthouse* (8NA3)</td>
<td>34.0 km</td>
<td>Amelia Island</td>
</tr>
<tr>
<td>Old Town* (8NA248)</td>
<td>35.0 km</td>
<td>Amelia Island</td>
</tr>
</tbody>
</table>

*Cultural affiliation of mound uncertain due to inadequate excavation and reporting

Hally’s (1993, 1996) scheme, however, was developed to interpret the spacing of interior hierarchically organized, agricultural Mississippian chiefdoms, so its ability to assess the distribution and political organization of fisher-hunter-gather settlements in coastal northeastern Florida can be questioned. However, other studies have revealed similar spatial limitations on the political extent of chiefdoms (e.g., Johnson 1987; Renfrew 1975), suggesting that Hally’s polity boundary distance estimate (i.e., 36 km diameter around political center) can serve as constructive baseline for examining settlement data.

**Mortuary Data**

The distribution of certain nonlocal goods within and among villages can also offer insight into the sociopolitical organization of the region. In northeastern Florida, copper appears
Figure 8-2. Locations of possible St. Johns II villages in northeastern Florida.
mostly restricted to the Shields and Grant mounds, although a few pieces have been reported for Mayport Mound 2, Fort George Island Mound, and Fernandina Light-House Mound. While limited in number, other exotic stones and minerals (e.g., greenstone, graphite, mica) have been reported for several small mounds: McCormack-Goodman, Mayport Mound 2, Merman’s, and Ft. George Mound (e.g., Jordan et al. 1963; Recourt 1975; Ashley 2003). Mitchell (1875; Goggin 1952:Plate 10b) recovered a long-stemmed spatulate celt at 8NA48 on Amelia Island similar to ones from Shields Mound and Mt. Royal, but excavation details are wanting.

While the paucity of copper might suggest the Mill Cove Complex controlled the exotic metal, sampling bias cannot be ruled out. In fact, none of the St. Johns II mounds have been excavated using modern field methods, and only excavation of the McCormack-Goodman Mound has been formally reported (Jordan 1963; Recourt 1975; Thunen and Ashley 1995:5-8). Based on available data, the Mill Cove Complex appears to have been the primary, but not exclusive, recipient of exotic items. We also must keep in mind that Shields and Grant are the only St. Johns II mounds in northeastern Florida excavated by Moore. They are also bigger and used over longer periods of time than other St. Johns II mounds.

Although Moore’s (1894, 1895) excavation and reporting fall well short of today’s standards, his results hint at aspects of mortuary ritual. For the Grant Mound, Moore (1895:475, 476) stated “as in all other mounds investigated [including the Shields Mound], the great majority of skeletal remains was unaccompanied by relics of any sort,” although exceptions existed. The Shields Mound appeared to contain more burials associated with grave goods, but the exact number is uncertain. Shell beads and bone pins (probably hair pins) were frequent mortuary goods in both mounds, and their widespread occurrence in mounds throughout northeastern Florida suggests bone pins and shell beads were not symbols of high status. In fact, a few of Moore’s statements suggest that he did not consider beads or pins under his use of the term “relics,” but his ambiguity renders this interpretation tenuous. The two long-stemmed spatulate celts from the Shields Mound were each found “with human remains,” but burial mode and
number of individuals represented is not reported. Unfortunately, collapse of an excavation trench at Grant Mound obscured Moore’s discernment of any direct spatial relationship between the copper Long-nosed god maskettes and human remains, but an association appears likely.

In the Shields and Grant mounds, Moore (1894:200-205; 1895:452-468, 473-488) mentioned the presence of both “burial in anatomical order” and “bunched” interments. He furthered noted that in the Grant Mound the former burial mode predominated, while more frequent in the Shields Mound were bones “in unnatural juxtaposition indicating the interment of the remains when denuded of flesh.” In both mounds, remains in the ‘last stage of decay” were identified (Moore 1895:456, 475). Moore alluded to the presence of incomplete burials in both mounds, but it is unclear whether in each case this was an intentional burial mode or the effects of differential preservation. For the most part, Moore failed to report even basic paleodemographic information such actual number of skeletons in each mound (presumably due to decay and collective nature of many burials), age, and sex of mound interments. This is regrettable since archeologists often depend on such data to infer ascribed or achieved social status.

In general, when discussing any associations between grave goods and human burials, Moore tersely noted that certain items were “found with human remains.” These statements are problematical in that he does not specifically note if they are primary or secondary burials, or individual or collective interments. In his descriptions of the two mounds, only once does he specifically reference exotic grave goods in direct association with “a skeleton in anatomical order.” Although Moore’s discussion of burials and “relics” in the Shields and Grant mounds is marked by ambiguity and open to interpretation, the basic theme I take from his descriptions is that exotic artifacts were at times placed “with human remains,” but more often positioned away from burials or with multiple burials suggesting collective offerings.

One unequivocal conclusion drawn from Moore’s excavation results is that a large number of human remains were encountered in both the Shields and Grant mounds. The quantity and random placement of interments suggest that each earthwork was an accretionary cemetery
gradually built up over time (Moore 1895:24). As with earlier Woodland period mounds, St. Johns II mounds were burial facilities for entire communities or corporate groups (Goggin 1952:48; Milanich 1994:26; Thunen and Ashley 1995). Burial of certain individuals with nonlocal exotic materials implies some degree of differentiation in mortuary treatment, with some individuals set apart from others. But there is no evidence of individuals buried in log tombs, crypts, or other specialized mortuary features. Except for their size and quantities of exotic materials, Shields and Grant are similar in many ways to St. Johns I mounds, yet they are also different (cf. Goggin 1952:55). In short, St. Johns II mounds in northeastern Florida reflect a continuation of the St. Johns peoples’ history of mound building as community-based ritual, with Shields and Grant simply writ large.

Interpreting the Mill Cove Complex

The Mill Cove Complex conspicuously stands out among St. Johns II settlements in the region. Although the mounds long were considered as independent from one another, local archaeologists now conceive of the Shields and Grant mounds as bookends to the largest St. Johns II settlement in northeastern Florida, rivaled only in size by the contemporaneous site of Mt. Royal to the south (Ashley 2002; Thunen and Ashley 1995; Thunen 2001). The existence of two closely-spaced pieces of monumental architecture, both of which yielded numerous burials and an array of exotic artifacts, suggests that the Mill Cove Complex served as a mortuary and ritual center. The ubiquity of St. Johns II refuse between the two mounds further intimates the presence of a village, dispelling any notions of a vacant mound center. However, the precise layout and location of residential zones within the complex at any given time during its occupation must be worked out through additional research.

Another exceptional aspect of the complex is the Shields Mound, the only known platform mound in the entire St. Johns region. Its height (5.5-m high) falls within the “average” size range of main platform mounds at Mississippian centers calculated by Payne (1994:97), based on a sample of 353 mounds. Shields Mound, as described and mapped by Moore in the 1890s, had a
ramp to the north and another fishhook-like causeway that led to the summit from the southwest. Its construction marked a new form of architecture in northeastern Florida that, if reconstructed and interpreted correctly, would have provided an elevated platform to accommodate public rituals.

Elsewhere in the Southeast, the presence of a platform mound is assumed to signify a political center or administrative head of a Mississippian chiefdom (Hally 1993, 1996; Knight 1989, 2001; Lindauer and Blitz 1997). Upon these summits, ceremonies of various kinds were performed and structures were erected either for elites residences or buildings for communal political gatherings. In contrast, Knight (2001) suggests that Woodland period platform mounds, because of their lack of discernible posthole patterns and presence of hearths, middens, and other kitchen features, were not foundations for important buildings but stages for public food preparation and consumption (feasting). Mounting evidence suggests that platform mounds throughout the Southeast and Midwest were used for a variety of purposes that in each specific case must be evaluated through archaeological testing. Regardless of their specific function, the presence of such mounds clearly marks a ceremonial locus within a community (Lindauer and Blitz 1997).

Moore (1895:455) provided no evidence to suggest any residences or buildings were ever constructed on the summit of Shields Mound during the time it was used for mortuary purposes. However in the lower part of the mound, below all burials, he observed pockets and lenses of shell midden refuse and fire pits. He also mentioned a large oyster shell concentration and inclusive posthole (20 cm in diameter and 1.4 m deep) at a point 2.1 m below the center of the summit. He assigned this central feature and other refuse in the lowest levels of the mound to a time when the tumulus (relic beach ridge) was “used as a place of domicile” (Moore 1895:467). Moore’s description does not allow a determination of the relationship between the midden refuse at the base of the mound and initial mound construction. Nearby at the Grant Mound, St. Johns II middens and shell deposits were identified beneath the mound, with shell from one feature dated
to A.D. 905-1025 (Thunen 2001). Similar St. Johns II habitation or refuse disposal activities may have preceded the building of Shields Mound.

Among the only conclusive information we can take from Moore’s excavation results is that the upper 2 m of the Shields Mound was used exclusively for burial and that the mound was replete with human remains. These data cast doubt on the summit serving as a foundation for buildings or the locus of food processing, consumption, and deposition, as is the case elsewhere in the Southeast. But the causeway and ramp, if interpreted properly, suggest intricate construction, with approaches leading to a summit that could have served as a flat and elevated surface for ritual or other public announcements and performances. There is presently no evidence to indicate the existence of a formal plaza to the north or west, but testing has yet to be conducted immediately east of the mound.

A more intriguing location with respect to ritual and food processing and consumption, perhaps directly linked to the Shields Mound, is Kinzey’s Knoll. To review, shovel testing within a 250 by 300-m section of the Mill Cove Complex, immediately west and north of the Shields Mound, revealed a continuous spread of large quantities of St. Johns II pottery types. While shell and bone refuse were lightly scattered over this area, thick and consolidated shell midden deposits were restricted to three locations: Bluff Midden, Reeves Rise, and Kinzey’s Knoll (Figure 8-3). The distribution of cultural materials suggests that residential areas may have been keep relatively clean of shell midden refuse (but not broken and discarded pottery), with the much of the bulky household debris dumped elsewhere. All three middens are in ways both typical and atypical refuse deposits. Although there is slight temporal overlap, the dated portions of the three suggest sequential deposits. Kinzey’s Knoll’s is the earliest (calibrated intercept dates, A.D. 975, 1030) and Reeves Rise is the latest (calibrated intercept date, A.D. 1220); the Bluff Midden fits between the two (calibrated intercept date of A.D. 1170).

Kinzey’s Knoll (Johnson’s [1988:100-102] site 8DU5606) is a distinct and densely consolidated shell midden, about 30 m in diameter and a little less than 1-m thick. A higher dome
Figure 8-3. Location of Kinzey’s Knoll, Reeves Rise, and Bluff Midden.
of accumulated shell, measuring 15 m in diameter, marks its apex; it is situated about 50 m northwest of Shields Mound. Two adjacent 2 by 2 m-units placed on the highest point at Kinzey’s Knoll yielded copious amounts of pottery, a wide variety of other artifact types, and voluminous quantities of vertebrate animal bone. A small pit, an unpatterned array of postholes, a small concentration of hematite pigment, and areas of charcoal, ash, and heat-altered sands were encountered at the shell midden-subsoil interface. Two radiocarbon dates on oyster shell place the sampled section of Kinzey’s Knoll in the A.D. 950 to 1050 time range.

In some ways the material assemblage from Kinzey’s Knoll is ordinary, but in other ways it is exceptional. That it contained food and artifactual refuse dominated by fish bones, oysters shells, and broken pottery vessels make it rather ordinary. On the other hand, the frequencies of ornate bone pins, Pinellas and Archaic-period (Citrus, Santa Fe) projectile points, greenstone fragments, pieces of copper, shell beads, and modified shark teeth distinguish Kinzey’s Knoll from other middens on site or anywhere in northeastern Florida. Several of the copper fragments are bent and crumpled suggesting they are scraps left over from shaping or foiling (craft production). A few of the shark teeth evinced birotational wear intimating their use in drilling; perhaps used to drill shell beads (Penders 2001). Twelve sandstone abrader fragments and a sandstone hone hint at use in lithic and/or bone tool production (Bland 2001:11). In addition, hematite (Fe₂O₃) was recovered as small nodules and observed as powder concentrations and red residue adhering to shells, incised bone, and pottery. One greenstone fragment revealed hematite residue, suggesting it was used to grind nodules or chunks into red powder.

While the remains of fish dominated the faunal assemblage, deer, turtle, rabbit, squirrel, beaver, and bird (including migratory and non-migratory fowl) were represented. Additionally, predator species included canid, bobcat, raccoon, bear, alligator, shark, bluefish, barracuda, and bottle-nosed dolphin (Dunbar 2001). Deer skeletal elements included whole and shattered hind-limb, forelimb, and foot bones; few cranial pieces, ribs, or teeth were recovered. There was no apparent bias toward bones representative of choice cuts of deer meat. The vertebrate faunal
species from Kinzey’s Knoll are not necessarily unique, but taken together the high density of faunal material combined with diversity in sizes and kinds of animals, including much more terrestrial mammalian remains than usually found in northeastern Florida coastal middens, are considered atypical of general domestic refuse.

Rolland (2000, 2004) has estimated that over 350 vessels are represented among the 2535 sherds recovered from Kinzey’s Knoll. In her distributional analysis of 10 distinct site loci near the Shields Mound she noted subtle differences with regard to 3 vessel forms (i.e., globular bowls, simple bowls, and open bowls) that may reflect slight differences in food-related activities across the site. Kinzey’s Knoll contained the highest percentage of both small-sized (0-20 cm orifice) and large-sized bowls (41-60+ cm orifice). It also yielded the highest percentage of open vessels, although all three forms were well represented. Burnished and well-smoothed St. Johns storage and serving containers, thick-walled Ocmulgee Cordmarked pots, and sooted St. Johns vessels make up most of the Kinzey’s Knoll pottery assemblage. However, sooting was present on less than five percent of the St. Johns wares, and its buildup on most sherd surfaces was “ephemeral” and not “what one might expect with cooking pots” (Rolland 2000:63).

Several vessels were coated with a red slip, and others exhibited loose iron-oxide residue on interior vessel walls. Of the 120 red filmed pottery fragments in her sample of over 5800 sherds, 70 percent derived from Kinzey’s Knoll. However, we must keep in mind that a little more than 40 percent of the entire sherd sample was recovered from Kinzey’s Knoll. Red filming was not always evenly and completely applied across vessel surfaces, in some instances it appeared as droplets or streaked in a “pouring pattern” (Rolland 2004). Once again, while aspects of the Kinzey’s Knoll ceramic assemblage fall within the expected range for ordinary domestic assemblages, the density of broken vessels, range of vessel sizes, and quantity of certain types (e.g., red film, punctate) stand out.

Moore reclaimed almost all the same artifact types from the Shields Mound that we recovered at Kinzey’s Knoll. Bone pins, shell beads, scraps of sheet copper, cooper covered
items, and stone projectile points, including Pinellas and earlier Archaic points were among his discoveries. Deposits of hematite powder and strata of hematite-stained sand were frequently encountered as burial markers or mound lenses. Moore (1895:457) also reported finding portions of two cordmarked vessels “colored inside and out with crimson pigment;” similar Ocmulgee sherds were recovered from Kinzey’s Knoll. In fact, the presence of hematite nodules and hematite residues on both grinding implements and vessel interiors suggests that the initial processing of pigment took place at Kinzey’s Knoll prior to mound inclusion. Finally, the recovery of a large section of human pelvis from Kinzey’s Knoll further connects the midden with the burial mound.

Taken together I believe the artifact and subsistence assemblages from Kinzey’s Knoll do not reflect everyday domestic activities. While the location could conceivably be interpreted as accumulations of elite househod refuse, I consider it the accretional byproduct of mortuary ritual, given: (1) its setting in the shadow of Shields mound, (2) its artifact composition similar to that of the burial mound (3) the abundance and diversity of food remains, and (4) the presence of human bone. As previously discussed, Shields Mound was an accretionary cemetery for a large number of people, and its formation was undoubtedly marked by repeated building and interment episodes and attendant rituals. I propose that Kinzey’s Knoll was the scene of ritual activities such as preparation and sanctification of primary and secondary burials, mixture of symbolic ingredients for coloring mound strata, and the manufacture (or modification) of certain grave goods and other ritual paraphernalia. Within this reconstruction, the handling, shaping, and display of exotica in St. Johns II societies transpired at locations of group articulation such as public ritual and mound burial.

If we can borrow from ethnohistorical analogy, the presence of exotic items in concert with mineral pigments points to “magicoritual” materials, perhaps associated with “folk magic beliefs” (Emerson 1989:78). From Kinzey’s Knoll, an incised bone pin depicted, on both its reverse and obverse sides, a vertical alignment of three eye motifs each connected to the one below by four
ladder-like patterns (Figure 8-4). The overall design is reminiscent of Muskogeans cosmology that envisions three worlds (upper, human, lower) linked by four cosmic cords (James Brown, personal communication, 2001). Finely ground hematite residue is imbedded within some of the incisions, suggesting that the incisions were once filled with red powder. Hematite was primarily used for producing red pigment, and when mixed with water created red paint or slip. Quantities of hematite are often used to infer ritual contexts (Pauketat et al. 2002:270). That burials as far back as the Archaic period were associated with red ocher or hematite-stained sand indicate the color had long carried symbolic importance for Southeastern Indians (Hudson 1976). In fact, in some contexts the color red is equated with blood and life.

The preparation, consumption, and disposal of food accompanied ritual events at Kinzey’s Knoll. As demonstrated worldwide, feasting is an expressive form of ritual that can communicate information about people and their relations with each other. Like rituals, feasts are not invariant events, but can assume a variety of forms that can range from cooperative to competitive; at times they can serve simultaneously to unite and divide (see various articles in Dietler and Hayden 2001; Hayden 1995; Pauketat et al. 2002; Potter 2000). The materials from Kinzey’s Knoll suggest that feasting (ca. A.D. 1000) was not an overly ostentatious or “potlatch” display, but perhaps more of a “potluck affair” in which social integration and group affiliation was promoted and status differences were downplayed (Blinman 1989).

As a corporate burial facility, Shields Mound was not the exclusive resting place of elites or leaders, although such individuals would have been buried therein. Interment within a communal construct would have reinforced community or social group membership and linked the living to the world of their ancestors; earlier St. Johns I mounds likely served a similar function. Within such a social structure, surpluses in the form of foodstuffs and labor could have been extracted communally to finance rituals, feasting, and mound construction. For continuously built mounds that accrued incrementally over long periods of time, the amount of
Figure 8-4. Incised bone pin from Kinzey’s Knoll (left) and effigy adorno from Reeves Rise (right).
labor vested in each burial and construction episode could have been performed easily by a small work force (Earle 1987:290; Muller 1997:274). The intricate design of the Shields Mound, even if partially composed of a natural relic dunal formation, would have required planning and more construction effort, but not necessarily an inordinate amount.

Rituals conducted near the Shields Mound, however, need not have been restricted to mortuary, since this section of the site was likely a sacred landscape imbued with special meaning, rendering it an appropriate context for public ceremonies of all sorts and sizes. Rituals involving healing, divination, initiation, and other life-cycle events may have been performed in clear view of the mound. It could also have provided a symbolically-charged context for gift giving and receiving between intra- and inter-village social groups, as people came together to forge community and polity. In this vein, ceremony would have attracted outsiders and helped grease the wheels of community relations, both within the region and afar. Ocmulgee peoples themselves may have periodically attended certain festivals or rituals. Perhaps representatives of Mississippian chiefdoms were attendees at important political functions. Exotic artifacts or raw materials may have been formally conveyed to the community or to ritual specialists at this location. We must keep in mind that only a small part (little over 1%) of Kinzey’s Knoll has been excavated to date, so the full gamut of midden and disposal activities is unknown.

Located 25 m north of Kinzey’s Knoll is Reeves Rise, another shell midden, radiometrically dated to A.D. 1160-1270. Testing revealed an effigy adorno to a St. Johns Plain bowl (Figure 8-4) and a small concentration of hematite powder along with other shell midden refuse. Unfortunately investigation of this midden was limited to three 50 by 50-cm square tests because of previous house construction and the presence of an extant residence. The Bluff Midden (Johnson’s [1988:97-100] site 8DU5605), situated along the eroded Bluff edge 50 m north of Reeves Rise, is another area of accumulated shell midden. It yielded small quantities of Little Manatee and red filmed wares along with two small pieces of copper. Johnson (1988:100) also recovered a steatite fragment and a small nodule of hematite and limonite from this location.
The question naturally arises: Do these two loci represent other ritual locations postdating Kinzey’s Knoll?

At this time, interpreting this distribution with certainty is difficult due to both limited testing and too few radiometric dates. However, a few tentative statements can be made. First, aside from the three shell middens, shell and bone refuse was lightly scattered over the 300 x 250-m area shovel tested at 25-m intervals. Potsherds were abundant, however, although densities varied over the sampled area, suggesting that people were living in the area; however, residential zones near the mound were kept relatively free of accumulating piles of household garbage. Kinzey’s Knoll appears to have been a locus of ritual activity, and the same might be true for Reeve’s Rise. These two loci appear as distinct high spots, suggesting that refuse associated with ritual and feasting may have been left in place to create markers or even platforms for ritual.

The Bluff Midden is a little more difficult to interpret. It is more extensive than the other two, and may have been even larger prior to bluff erosion. Shell comprising sampled portions of this midden was not as consolidated as in the other middens, although densely packed pockets or lenses were encountered. The midden yielded simple, globular, and open vessel forms; the majority were in the medium size range (21-40 cm orifice), although all sizes were represented (Rolland 2004). It also contained higher percentages of grit- and sand-tempered wares than the other middens. In general, its shell midden structure suggests it was built up over a long period of time as the result of repeated dumpings. Artifacts intimate that the Bluff Midden may have served as a communal dump, although the combined presence of wares assumed to have special use (red film and Little Manatee) and a few nonlocal items indicates garbage resulting from other activities. We must bear in mind that all three middens are loci of refuse discard that might not be congruent with the primary location of the activities that produced the refuse.

What about the Grant Mound? Like Shields, it was a large mounded cemetery in operation by A.D. 1000. Radiometrically-dated middens near the two mounds are contemporaneous at different times over a three-century span, suggesting the mounds themselves were also
concurrently used. However, back-and-forth sequential use of the mounds cannot be ruled out. The existence of two closely-spaced, large corporate burial facilities is strongly suggestive of some form of duality or social division in the Mill Cove community, such as a moiety. At the time of contact, many Native American groups displayed some form of social dichotomy, whether it was a dual descent-based system or simple village division into two social groups (Hudson 1976:237; Swanton 1946:663-665). Moiety divisions often played a part in rules of marriage, and each moiety generally fulfilled prescribed social functions with respect to religious activities as well as economic and political organization.

Acknowledging the biases and shortcomings of trait list comparisons, there are potential quantitative differences between grave goods or “relics” recovered from the two mounds by Moore (1894, 1895). Both contained stone, shell, bone, ceramic, metal, and mineral artifacts or raw materials, and no material category appears exclusive to either mound (see Tables 8-1 and 8-2). Shell beads and both pins were the dominant burial inclusions in both mounds. Copper was found in both mounds, but Grant clearly yielded more repoussé plates and finished products (including Long-nosed god maskettes). Of more marked difference is the fact that Grant yielded 126 polished celts, whereas Shields produced only 12 (but 2 were spatulate celts). In addition, the 119 chipped stone projectile points or knives from Shields contrast with 15 from Grant. Many of the stone points depicted by Moore (1895:460, 463) are Archaic, including at least two nonlocal types, Pickwick and Turkey Tail. Interestingly, Mt. Royal yielded large quantities of celts (including spatulate forms), stone projectile points, and copper plates.

With respect to midden pottery, Papys Bayou sherds appear more common in middens near Grant Mound, whereas Little Manatee Shell Impressed was more prevalent in middens around Shields Mounds. Inconsistencies in how these wares have been recognized in the past, however, preclude quantification of this general observation. The significance of these artifact differences, if any, is unclear, but perhaps certain moieties (or clans or lineages within moieties) were
responsible for particular rituals that required distinct paraphernalia. This underscores the possibility that not all prestige goods served the same function or have the same social value.

What was the relationship between the Mill Cove Complex and other villages in northeastern Florida? Radiocarbon dates from the Mill Cove Complex indicate that some form of the site was occupied throughout the local St. Johns II period, ca. A.D. 900 to 1250. Establishing contemporaneity among the villages is still a major concern to be resolved with additional radiocarbon assays, although it appears highly unlikely that all ten were coeval over the entire 350-year span. The more northern island sites, such as the Grand site, Black Hammock Island Mound, and Merman’s Mound have been radiometrically dated to ca. A.D. 1150-1250, while those smaller mounds on the south side (Mayport 2, McCormack) are radiometrically dated to ca. A.D. 900-1050.

Based on available radiometric dates, one might infer that the initial and most intensive St. Johns II occupations in northeastern Florida took place on the south bank of the St. Johns River, perhaps along the bluff fronting the ecologically-rich Mill Cove. With this said, could the Mill Cove Complex represent a founding St. Johns II settlement in northeastern Florida? Blitz’s (1999) “fission and fusion process” of Mississippian sociopolitical formation might shed some light on St. Johns II development in northeastern Florida. This model, an alternative to the “simple-complex” cycle of Mississippian chiefdoms (Anderson’s 1994; Steponaitis 1978), implicates population migration, relocation, merger, and dispersal as major factors in the formation and disintegration of Mississippian polities (Blitz 1999). This conceptualization allows for a dynamic Mississippian landscape by viewing polities as historical entities formed in myriad and novel ways that included, yet not limited to, simple-complex chiefdom cycling.

The presence of two large, coeval St. Johns II mounds, located less than a kilometer apart, lacks precedence anywhere in the St. Johns River valley. A unique feature of the Mill Cove Complex is that it emerged quickly without antecedent Colorinda occupations. In fact, of the nearly 10,000 sherds collected from the sites comprising the Mill Cove Complex, less than 10
Colorinda sherds have been identified (Hendryx and Smith 2002; Johnson 1988; NEFAS n.d.; Rolland 2004; Thunen 2001). Other than the McCormack-Goodman village area, no St. Johns II site has an underlying Colorinda component. Earlier Late Swift Creek occupations, including mounds, while present in the Mill Cove area were mostly positioned farther back from the bluff than the later St. Johns II occupations. While the Grant Mound vicinity contains extensive St. Marys II middens, the Shields Mound vicinity is conspicuously marked by a virtual absence of later (and earlier) occupational components.

As discussed previously, as Late Woodland populations at the mouth dwindled and opportunities for involvement in emerging Mississippian exchange networks availed themselves, northeastern Florida became an important draw to St. Johns II groups to the south. Interestingly, the Mill Cove Complex, the largest St. Johns II site in northeastern Florida, arose along a section of the lower St. Johns River that is physiographically and morphologically similar to that found to the south at Mt. Royal, instead of more marsh-laden locations closer to the coast and beach where whelk shells may have been more readily procured. Perhaps immigrants from the south chose for their founding settlement a pristine and commanding location adjacent to the rich Mill Cove fishery, an environment they were already familiar with. Might the Mill Cove Complex then represent an attempt to emulate Mt. Royal?

Taking a bird’s eye view, could the resurgence in the popularity of long-distance trade among emerging Mississippian communities combined with the early success of Mt. Royal as distributor of shell have heralded a settlement shift along the St. Johns River, whereby some St. Johns II groups moved down river (north) to be closer to sources of marine shell and other coastal resources? Support for such a movement is marked by the first-time appearance, around A.D. 900, of sites in extreme northeastern Florida attributable to the St. Johns culture. If the Early Mississippian-period occupation of the Mill Cove Complex signals a migration of St. Johns II peoples to the mouth, how did local Late Woodland groups handle the influx of St. Johns II immigrants? Assimilation of some local peoples may have occurred. In addition, with the rapid
increase in northeastern Florida population after the mid-tenth century A.D., St. Johns groups from various areas to the south might have uprooted to the coast. As a consequence, the Shields and Grant mounds might represent the “fusion” of two or more formerly distinct polities, communities, or social groups, with the mounds representing emblematic corporate burial facilities. Blitz (1999:589) views such mergers as “a compromise between the desire for autonomy and the need for mutual security.”

Admittedly, more radiometric dates are needed to access the validity of St. Johns II migrations from the south and a founder settlement hypothesis for Mill Cove. To date, only one radiocarbon date has come from Mt. Royal (A.D. 1010-1050), so it is unclear whether Mt. Royal or Mill Cove Complex is earlier. However, both settlements were actively involved in Mississippian exchange networks by the eleventh century A.D. (if not earlier). Also, the Mill Cove Complex is not the earliest radiometrically dated St. Johns II site in northeastern Florida (earliest Mill Cove radiocarbon date is A.D. 865-1035). The Mayport 2 Mound, located within 3 km of the Atlantic coast, has yielded a slightly earlier tenth century A.D. intercept date (A.D. 890-980). Statistically, however, the temporal difference between the dates is negligible, and the Mill Cove Complex was unmistakably among the earliest, if not the earliest, St. Johns II settlement in northeastern Florida.

The Mill Cove Complex was clearly an early population hub. Quite possibly as its numbers increased, fissioning may have taken place as kin groups or factions left to establish new settlements. Later immigrants to northeastern Florida may have established other villages. By at least A.D. 1100, populations had grown and settlements were located on the Florida barriers islands to the north and in extreme southeastern Georgia at Kings Bay (Adams 1985; Smith 1982). With settlements spread out over such a broad area, it is likely that distinct polities existed. In fact, there is no evidence to support a claim that the Mill Cove Complex had political dominance over all St. Johns II villages in northeastern Florida. In other words, I do not see the political centralization and economic control implied in most models of Mississippian chiefdom
political organization. Instead of a neatly stacked political hierarchy with Mill Cove at the apex, 
villages may have been politically autonomous and integrated regionally through nonhierarchical 
or heterarchical means. Heterarchy connotes social interactions that are not inherently ranked, 
but connected through multiple and potentially overlapping power relations such as age, gender, 
and social group affiliation (Crumley 1987, 1995).

The Mill Cove Complex was the largest settlement in northeastern Florida and its shear 
size did not go unnoticed by others in the region. Its scale and possible founder’s status likely 
afforded the settlement certain distinctions and privileges. As such, it may have been responsible 
for hosting certain rituals, ceremonies, or presentations that established and perpetuated alliances 
II peoples in northeastern Florida may also have been linked through clan or moiety membership 
that likely crosscut villages. One-time residents of the Mill Cove Complex, who left the village 
for whatever reason, may have been returned after death for interment in either the Shields or 
Grant Mound, depending on social group affiliation.

Ritual activity at Mill Cove might also have attracted people beyond the region, such as 
Ocmulgee groups, in order to seal more distant alliances. As host to regional rituals and 
ceremonies, the settlement may have been at times in position to receive differential access to 
labor and distant resources. Over the course of its three-century existence, certain leaders or 
groups at Mill Cove may have tried (and temporarily succeeded?) to gain political sway over 
members of other villages, but these attempts apparently did not take hold. The Mill Cove 
Complex was likely the most influential community in northeastern Florida, but we must not 
conflated extent of political influence with extent of effective political control (Blitz 1999:580; 
Cobb 2003:66-67). In short, I contend the Mill Cove Complex was a regional center tied to other 
villages in a ritual or ceremonial capacity, but it was not the capital of a complex chiefdom. At 
most, it may have held a degree of control over the two closest villages, McCormack and
Mayport 2. Before developing a model of St. Johns II political economy, comparisons to Mt. Royal are warranted.

**Comparisons to Mt. Royal**

If we broaden our spatial scale to include the entire St. Johns River drainage, we see there are two monumental St. Johns II mounds in addition to Shields and Grant. Mt. Royal, immediately north of Lake George is undeniably contemporary with the Mill Cove Complex, while Thursby Mound, south of Lake George, appears to be slightly later in time (Moore 1894:64-82). Mt. Royal is located some 100 km upriver from (south of) the Mill Cove Complex (Figure 8-5). Although we lack precise temporal clarity, sometime during the early St. Johns II period (ca A.D. 750-1000) Mt. Royal became the major settlement and mound center in the vicinity of Lake George. While Mt. Royal was definitely inhabited during portions of the St. Johns I period, it was seemingly a small site lacking a mound. The dominant Woodland period mortuary and exchange center along this stretch of the St. Johns River was apparently on Murphy Island to the north.

Many of the same types of exotica taken from the Shields and Grant mounds were discovered at Mt. Royal (Moore 1894:16-35, 130-146). In addition to shark teeth, freshwater pearls, sheets of mica, and bits of galena, spatulate celts were found that were similar to those from mainstream Mississippian centers like Macon Plateau, as well as the Shields and Mitchell mounds in northeastern Florida (Figure 8-6). A copper plate embossed with a “forked eye and blade” design almost perfectly matches one recovered at Spiro in Oklahoma (Philips and Brown 1978:206-207). A small triangular point looks very much like a Cahokia Side Notched point, indicating another Mississippian world connection (Williams and Goggin 1956:50). Moore’s (1894:20) recovery of 1307 whelk (*Busycon*) shells from the main excavation trench, considerable numbers of discoidal shell beads, and fewer columella beads intimates that the Mt. Royal inhabitants had access to the coast and its resources, either via travel or trade. Jones also
Figure 8-5. Location of Mill Cove Complex and Mt. Royal.
Figure 8-6. Potential links to the Mississippian world.
recovered marine shell tools, ornaments, and production debris from village contexts (Tesar 2001:18-20).

Beside exotic artifacts, Mt. Royal shares several other things in common with the Mill Cove Complex mounds that intimate a cultural connection between them. At both settlements, large mounds served as corporate burial facilities where large numbers of individuals were interred; there is no evidence for nonmound village burials. With respect to mound burials, similar results were apparently encountered at Mt. Royal, since Moore (1894:21) noted “though objects of stone [e.g., celts, gorgets, points, etc.] were sometimes deposited near the dead, more frequently no traces of burials were apparent with them, and...objects seem to have been deposited in a general way to do honor to the dead as a whole.” Copper artifacts were found both with and without human bones at Mt. Royal, but in the majority of instances where human remains were identified, only teeth were present. Moore (1894:31) acknowledged that this may have been due to skeletal decay, but alluded to the possibility that the human teeth were intentionally placed “unaccompanied by other remains, with objects of copper.” Such deposits could also possibly represent “scraps” collected during cleaning or sweeping of a charnel facility (Milanich 1994:260).

Additionally, the inhabitants of each locality possessed a similar pottery technology, predicated on the production of chalky St. Johns pottery with the same range of surface decorations. Moreover, nonlocal Ocmulgee III Cordmarked sherds have also been recovered within the Mt. Royal village. In Chapter 4, I reported the results of INAA that revealed that two grit-tempered cordmarked sherds from Mt. Royal matched the chemical composition profile of vessels from southern-central Georgia (Group 1), highlighting connections between Ocmulgee peoples and St. Johns II people at Mt. Royal. While northeastern Florida groups could have facilitated ties, Mt. Royal traders may have dealt directly with hinterland Georgia groups, whereby goods exited the Altamaha River and moved south along the precursor of the historic Alachua Trail (Vanderhill 1977), and then east to St. Johns River and on to Mt. Royal (Figure 8-
7). Soot from a St. Johns sherd in association with cordmarked pottery yielded a calibrated AMS date of A.D. 1010-1050 (1-sigma), indicting precise contemporaneity among the three mounds and Ocmulgee peoples.

Moore (1894, 1895) also reported that the three mounds had causeway approaches, although the precise layout of each differed. Shields and Mt. Royal each had a long “avenue” that joined the mound to a distant pond presumed to represent a borrow pit from which mound fill was taken. Those at Grant Mound were less distinct, and appeared as two, low parallel ridges that extended off the mound for a short distance before eventually grading into ground level (Moore 1895:473). In addition to these mounds, St. Johns II sand tumuli at the south end of Murphy Island and at the Thursby Mound appear to have been associated with low earthen causeways (Moore 1984). Late-sixteenth century French accounts indicate the historic Timucua villages of Outina and Edelano along the St. Johns River had causeways (Milanich 1994:270, 1999:12). Such approaches may have been emblematic of St. Johns II monumental earthworks through the river valley.

Taken together this information intimates Early Mississippian-period links, albeit indirect, between Mt. Royal, Mill Cove Complex, Macon Plateau, Spiro, and perhaps even Cahokia (see Figure 8-6), as previously noted by Williams and Goggin (1956:49-50). While they were unquestionably involved in some of the same exchange networks as northeastern Florida communities, they also maintained connections with Florida Gulf coast populations. BAR excavations within the Mt. Royal village area yielded several Safety Harbor sherds and others possibly from areas to the southwest and northwest (Jones and Tesar 2001).

Mt. Royal’s strategic location along the St. Johns River, immediately north of Lake George and equidistance from the Atlantic and Gulf coasts, has been summoned by several researchers as a factor contributing to its rise during the Early Mississippian period (Milanich 1999:10-11; Mitchem 1996:234-235; Phillips and Brown 1978:207-208; Payne and Scarry 1998:46,47).
Figure 8-7. Location of the historic-period Alachua Trail.
The tremendous quantities of lightning whelk shells taken from the mound by Moore implicates Mt. Royal in the exchange of *Busycon* shells. Phillips and Brown (1978:207) consider Mt. Royal “a center of dispersal in the marine shell trade,” and further speculate that some of its inhabitants were “entrepreneurs in the shell trade.” Because Mt. Royal is not located along the coast, the site may have served as a center from which marine shells and other resources, procured from either south Florida or adjacent Atlantic and Gulf coasts, were accumulated and then funneled into the interior Southeast. Earlier generations of St. Johns peoples may have also benefited from the demand for shell during Middle Woodland (St. Johns I) times.

Mitchem (1996:233-234) specifically infers a relationship between Mt. Royal and both Tathum Mound and the Old Okahumpka site to the southwest, since these three represent the southernmost sites in Florida with copper artifacts embossed with Missississippian iconography. In south Florida, artifacts rendered in copper are limited to ear spools (Widmer 1989:169). A “route of shipment” that links Safety Harbor people to Mt. Royal to Lake Jackson in the Florida panhandle has been proposed (Mitchem 1996:234). Mt. Royal’s northwestern connections may have allowed the mound center to endure longer than the Mill Cove Complex, which may have sustained a tremendous blow with the fall of Macon Plateau and the movement of Ocmulgee peoples out of their homeland, as discussed in the following chapter. But for yet unknown reasons, Mt. Royal’s active participation in Mississippian exchange appears to have ended around A.D. 1300, at which time the site may have been abandoned for a century or more.

Mt. Royal is often viewed as a chiefdom involved in a prestige goods economy, based on the presence of some burials with exotic grave goods (Milanich 1994:269, 1999:10-11; Phillips and Brown 1978:207-208). Like Shields and Grant, Mt. Royal was clearly an accretionary and communal mortuary construct that was the final resting place for a large number of individuals, not only elites. I am struck by the fact that despite extensive surface reconnaissance in exposed-surface orange groves and excavation of the village area, no minerals, metals, or stone other than chert and a single greenstone celt fragment have been recovered (Tesar and Jones 2001). While
marine shell is frequently recovered from St. Johns II middens and mounds, it appears that distant exotica were consumed communally in mortuary contexts, as was the case in northeastern Florida. I am not making the claim that there was not inequality nor that elites did not exist at Mt. Royal. Rather I believe the Mt. Royal political economy can be characterized as largely corporate or communal with subsumed classes, as discussed below.

**Building a Model of St. Johns II Political Economy**

Once again, whether implicitly or explicitly stated, the portrayal of St. Johns II polities as chiefdoms is predicated largely on the recovery of exotic grave goods such as copper plates and spatulate celts in association with some mound burials and not others. The social inequality inferred from such a situation is often explained by invoking some form of “prestige goods” interpretation. Within a prestige goods economy model, elite power relies upon their control of access to exotic goods and raw materials, items awarded high value through elite manipulation and gained only through external trade (Frankenstein and Rowlands 1978:75; Peregrine 1992). Such goods are often circulated among elites to establish and preserve social alliances at various geographical scales. Elites possessing prestige goods are able to appropriate surplus goods and services to fund the pursuit of their own political agendas. In this model, prestige goods are envisaged as actual instruments of power or symbolic capital that allows them to exploit and control the actions of others (Bourdieu 1977; Saitta 1999).

Such a scenario might accurately portray the political economy of some (or many) Mississippian chiefdoms, but such an interpretation should not be invoked *a priori*, merely based on the recovery of exotic items or raw materials. In other words, mere possession or even control of the distribution of exotica by elites does not automatically translate into exclusive control of surplus labor and goods, as stipulated in prestige goods models. Additional lines of evidence must be summoned to demonstrate the coercive claims of elites to the surpluses of others and the “nonguaranteed access” of commoners to the products of social reproduction (Saitta 2000:160).
At present, I contend there is no evidence for institutionalized exploitative relations within St. Johns II society.

There is little doubt that exotic metals, minerals, and stone were highly valued mortuary and ritual goods. Their distribution across northeastern Florida indicates that they were almost exclusively consumed in burial contexts and ritual loci. The virtual absence of finished items of copper, mica, and ground stone in any village area throughout the region is remarkable. But these materials occur in the largest and smallest of mounds. For example, spatulate celts were recovered from both the monumental Shields Mound as well as the low, unassuming Mitchell Mound on Amelia Island. Outside northeastern Florida, copper plates bearing Mississippian iconography were recovered from Mt. Royal and the small mound at Okahumpka on the Oklawaha River. Differences in the quantities of exotics in mounds may in part be due to larger populations and longer periods of use as a burial facility.

In mounds, nonlocal grave goods at times occur in direct association with singular burials, but more often appear to be placed in multiple secondary interments or in contexts unassociated with human remains. Such a distribution suggests that some prestige goods may have served as symbols of office, although others may have played more of a communal role in mortuary activities and public ceremonials geared toward the maintenance of group identity and solidarity rather than the manifestation of the coercive power of elites. There is presently no unequivocal evidence for the existence of a formalized “elite-commoner” distinction, as suggested by some political economic models of Mississippian chiefdoms (e.g., Welch 1991; Pauketat 1994). In general, existing evidence intimates a degree of relative independence among St. Johns II societies that does not fit with expectations of a prestige goods model. The St. Johns II political economy appears to have been largely communal, with power shared collectively by different social groups within society, such as kin-based lineages or clans.

In Chapter 2, I discussed recent theoretical trends that have begun to loosen the long-held bonds linking economic centralization, political hierarchy, and social stratification, presumptions
inherent in traditional models of sociopolitical inquiry (e.g., Blanton et al. 1996; Feinman 2000; Feinman et al. 2000; McGuire and Saitta 1996; Mills 2000; Saitta 1994, 1997). By doing so, researchers are exploring the myriad and historically-contingent formations that societies of a communal or corporate nature assume, ranging from largely egalitarian to those with measures of hierarchy and political complexity. While all human societies maintain some form of inequality, certain forms of communalism espouse or even require the existence of hierarchy and elites. These individuals or social groups act in various ways depending on sociohistorical context, but are guided by a communal ideology “that emphasizes a corporate solidarity of society as an integrated whole, based on natural, fixed and immutable interdependences between subgroups” (Blanton et al. 1996:6).

A communal ethic further legitimates the mobilization of labor and appropriation of surplus goods for communal projects and facilitates the incorporation of outside social groups into the larger society (Blanton et al. 1996:6). Such a political strategy would have worked well for immigrant St. Johns peoples and fostered their rapid resettlement of northeastern Florida. The potential to become involved within the broader network of ideas, goods, and symbols that we have come to call “Mississippian” might have prompted some St. Johns peoples to uproot themselves and head north (cf. Cobb 2000:192; Muller 1995:319). Additionally, such a political strategy might have helped bring indigenous local Late Woodland groups (Colorinda) into the St. Johns II fold. The contemporary existence of the Shields and Grant mounds may somehow be linked to the merger of different social groups.

According to Saitta’s (1997:10) thin definition of communalism, “equal access to resources and power is not required; what matters is the maintenance of guaranteed access to socially determined portions of surplus labor or communal social entitlements…[that] can include subsistence goods as well as exotic prestige goods.” In this conceptualization, elites are a subsumed class that mobilize surpluses (goods or services) on behalf of the larger community to carry out acts of diplomacy and to acquire exotic artifacts or raw materials needed to validate
communal activities such as public feasts, rites of passage, and renewal or thanksgiving ceremonies. Prestige goods are thus rendered “communal social entitlements” within the realm of social reproduction, and not merely the material manifestation of elite ideologies and power (Saitta 1997:10, 1997:137). In this way, the communal consumption of grave goods in St. Johns II mounds could have served to bring together all members of the community as holders of these valued and distant items.

Even within a communal political economy, certain elites or communal class members may be afforded privileged access to ritual information and other esoteric knowledge by virtue of their social group (e.g., lineage, clan) affiliation. In addition, more direct involvement in external exchange networks as traders or alliance builders may have provided some the potential to garner personal power and prestige goods. Moreover, a communal political economy does not deny instances of exploitation in communal societies, but only requires that “most of its surplus labor is collectively produced and distributed” (Saitta 1997:10). The size of the Mill Cove Complex combined with the quality of certain nonlocal items intimates that some form of ruling body was needed to orchestrate ritual and ceremonial events, mobilize labor for communal projects (e.g., mound building), and negotiate political alliances and exchange interactions with neighboring and distant polities. Although the actual mechanisms by which these activities were marshaled are unclear, actual power invested in these individuals appears to have been limited by social constraints.

St. Johns II communities of the Early Mississippian period appear to have enlarged the geographical extent of social ties necessary for social reproduction by involving exotic goods and information. Elites responsible for forging local and extralocal alliances and establishing the means by which communities acquired nonlocal prestige goods needed for social reproduction may have been able to accrue a degree of economic or political clout. Access to exchange routes and social ties of alliance was of utmost importance, and perhaps a driving force behind the initial migration of St. Johns II groups to northeastern Florida. However, I dismiss the idea that goods
or resources were regularly transported into and out of northeastern Florida as part of any well-integrated mercantilist endeavor. While external connections were pivotal to social reproduction, we must not lose sight of the manner in which surplus was drawn at the local level to provision the acquisition of those materials and knowledge needed for social reproduction (Cobb 2001; Saitta 1994, 1997).

High-profile individuals may have received a cut of communally extracted surpluses as reward for their role as community spokesmen, ritual specialist, or traders (subsumed classes). The appropriation of surplus in this instance can be viewed as largely nonexploitative, as commoners willingly funded elites. Personal items garnered in life, above what was needed for social reproduction, may well have been taken with them in death, explaining such mortuary associations at Shields Mound, Grant Mound, and Mt. Royal. The same may be said of leaders or agents of exchange within the other smaller and largely autonomous St. Johns II villages. Certain emblems or items affiliated with a specific social group or cult may also have been buried with an individual whose death marked the actual end of that social group (i.e., last living representative).

A communal political economy is not a static entity, but rather a dynamic sociohistorical manifestation consisting of kinship definitions, status positions, religious beliefs and ideology, and politics, structures constantly created and reproduced through negotiation and subject to change. Over the three-century history of the Mill Cove’s Complex (as well as Mt. Royal), certain individuals or families, certainly may have attempted to use their strategic position as communal elites as a catalyst for more exploitative social relations. In the absence of direct authority over the means of production, the potential for “power over” lies in the control of exotic exchange and ritual knowledge and ideology, although such control is inherently tenuous, owing to the vicissitudes of long-distance relations (Cobb 2001; Pauketat 1994). Such actions would have required elites to appropriate aspects of the Mississippian ideology and manipulate communal symbolism and meaning embodied in exotic goods in an attempt to promote exploitative relations. In all likelihood such attempts to usurp societal constraints would have
been countered to some degree by the general populace, who would have resisted any attempts at exploitation.

Ritual and ceremony for the most part appear to have operated to promote communal bonds, establish and reinforce external social ties, and create group or community identity through nonexploitative means. In fact, a common practice in corporate societies is the mobilization of labor and goods for large public ceremonies and construction projects that draw members together in community-avowing endeavors (Blanton et al. 1996). I believe ritual provided an important context for the mobilization of labor beyond kinship ties in St. Johns II societies. But communal ritual can also contain the seeds of alienation and provide a stage where certain actors or groups, perhaps serving as host or ritual specialists, attempt to use these events for personal power construction (Emerson 1997:14). Quite possibly, those ritual elites invested with the storage and handling of ritual paraphernalia and knowledge and supported voluntarily and needed by the general populace were the ones most likely to change social order and redefine the cultural meaning of prestige goods by virtue of their strategic position. In some instances, institutional inequality may have been an unintended consequence of the need for communal elites (Emerson 1997:14).

Under certain historical conditions, some subsumed class members may have attempted to transcend the communal social structure and bring about social change. The ability of Mill Cove Complex residents to host rituals on a regular basis would have enabled them to secure an advantage in social and political relations. Thus, the most potentially opportune context to challenge community ethos in St. Johns II societies would have been ritual settings at the Mill Cove Complex, the same public arena used to integrate society. Some St. Johns II social groups (e.g., lineage, clan) may have been ranked with respect to the roles they assumed during high-profile rituals, which drew a measure of distinction to them. Even if this ranking was ceremonial and not equivalent to “power over” in everyday life, such a hierarchical conception provides a fracture that through manipulation could potentially develop into relations of obligation and
institutionalized social inequality (Knight 1990:7). In certain situations, ritual specialists or alliance makers may have tried to co-opt traditional rituals and feasting events meant to affirm solidarity and reproduce communal social relations for personal aggrandizement and the establishment of debt obligations.

Tensions between community ethos and the agendas of aspiring elites mixed with the multiple pathways in which power was negotiated as members assumed multiple identities along the lines of age, gender, and social or interest group affiliation meant that St. Johns II societies were often in a state of flux. Although episodes of success on the part of particular elites (families) may have taken place at Mill Cove and Mt. Royal, it appears that attempts to transform communal politics and ideologies into exploitative tributary relations were unable to take hold in the face of a stronger communal political economy. Present evidence points to a decentralized regional economy, meaning that each village controlled their own internal and external operations. Such autonomy would have worked against attempts by individuals or kin groups at the Mill Cove Complex to gain regional hegemony. Could the establishment of St. Johns II villages north of the river after A.D. 1100 represent fissioning and resistance to the demands of Mill Cove elites?

In the end, St. Johns II societies in northeastern Florida were unable to sustain themselves as historical circumstance wrought change to the macroregional landscape. The collapse of Macon Plateau, the dominant Early Mississippian center in the vicinity of northeastern Florida, along with the proliferation of smaller rival chiefdoms across the Southeast may have set into motion the dissolution of the St. Johns II culture in northeastern Florida around A.D. 1200-1250. Trade route disruptions followed by shifts in alliance and directionality of exchange networks may have activated internal struggles among St. Johns II villages and its members as they attempted to maintain the acquisition of the necessities of social reproduction. In the face of declining trade, communal elites may have implemented new strategies in order to establish new external contacts abroad that involved more exploitative relations at home. For reasons that are
not yet clear, most St. Johns II groups apparently abandoned northeastern Florida around A.D. 1250 and paved the way for immigrant cordmarked-making groups (St. Marys II) from southeastern Georgia, a topic to which we now turn.
The relationship between northeastern Florida and natives of Ocmulgee ancestry did not end with depopulation of the region by St. Johns II people. I propose that descendents of the Ocmulgee way of life in southern-central Georgia eventually took up residence along the Atlantic seaboard of southeastern Georgia and northeastern Florida. In Chapter 2, I argued that population movement can serve as a causative explanation of change and variation in the archaeological record. Interpretations predicated on the notion of migration must be contextually based and demonstrate that historical conditions existed for migration. Chronological continuity also must be established that links a population in their place of immigration (origins) at one point in time and in their place of emigration (destination) at another point in time. But we must bear in mind that changes to material and social aspects of a migrant’s culture can take place as a group reconstitutes itself in its new homeland. The onus is on the researcher to illuminate the social milieu in which the entire process occurred; that is, from locus of origin to locus of destination (e.g., Anthony 1990; Cameron 2000; Haury 1958; Rouse 1958, 1986).

Building on these themes, this chapter explores the historical circumstances and cultural processes that may have prompted Ocmulgee groups to leave their long-occupied homeland and trek to the coast, a large-scale movement that perhaps covered a number of years. By the time Ocmulgee-derived populations moved into northeastern Florida in the mid-thirteenth century aspects of their social and material culture had undergone changes, but cordmarked pottery and a hunting-gathering way of life still prevailed. Although first referred to as Savannah, today archaeologists refer to their new way of life in northeastern Florida as St. Marys II. I contend that
the St. Marys II archaeological culture, and that of the subsequent historic-era Timucua Saturiwa, cannot be justly understood without effective knowledge of its antecedents.

**Ocmulgee Primer**

The archaeological record of the tenth-century A.D. reveals a band of cordmarked pottery-bearing sites stretching from the Alachua region of northern-central Florida northeast to the central Savannah River valley of Georgia and South Carolina. Although slight material differences exist over this broad area, reflecting local resource availability, the overall structure and nature of these sites is remarkably similar. Sites are many, typically small, and those of significant size are often the byproduct of repeated use. Each exhibits a basic material culture inventory suggestive of a generalized hunting and gathering technology. The cordmarked pottery is similar looking (with areal variances in temper), and its distribution appears to reflect the dispersal and interaction of regionally-based woodland foragers. No evidence exists at this time for fledgling elite individuals or kin groups in control of interaction networks (Nassanay and Cobb 1991; Cobb and Nassaney 1995).

By the eleventh century A.D., marked changes had taken place as a Mississippian way of life emerged along stretches of the Chattahoochee, Ocmulgee, Oconee, Flint, and Savannah river valleys of Georgia. This was a socially dynamic time across the Southeast landscape, as some cordmarked groups may have begun to migrate to the coast via the Savannah, Ogeechee, and Altamaha Rivers. Others may have been assimilated into newly emerging chiefdom societies, while still others, like the Ocmulgee peoples of central Georgia groups, stood their ground and persisted as enclaves of “Woodland” foragers as the tide of Mississippianization rushed across the Southeast. The archaeological record suggests that the incorporation of Mississippian traits by local groups was an uneven and nuanced process of cultural change fostered in part by awakened interregional interaction, the effects of which must be assessed archaeologically at both local and regional scales of analysis (Cobb and Garrow 1996). One thing for certain is Ocmulgee groups endured not in isolation, but through interaction with others.
As discussed in Chapters 6 and 8, Ocmulgee populations occupied the upper reaches of the Altamaha River, the Ocmulgee Big Bend region, the lower portion of the Oconee River, and the upper Satilla River Basin to the south. Calibrated radiocarbon dates temporally place these people in this region of southern-central Georgia from approximately A.D. 950 to 1250, a time contemporary with St. Johns II societies in northeastern Florida and the Macon Plateau polity to the north. In the following I endeavor to reconstruct the geopolitical milieu in which Ocmulgee peoples lived and highlight conditions that may have precipitated their out-migration to the Atlantic coast.

Effects of Macon Plateau

The dominant Early Mississippian mound center along the Ocmulgee River was the Macon Plateau site (8BI1). The origins of this multimound center are still shrouded in mystery, despite extensive excavations at the site in the 1930s and later limited testing and reanalysis. It is stunning that at present only one radiocarbon assay derives from the site, obfuscating an adequate working knowledge of its full temporal duration. General consensus among regional archaeologists argues for a brief period of existence on the order of one to two hundred years, spanning the tenth and eleventh centuries, with site abandonment estimated at ca. A.D. 1150 (Fairbanks 1981; Hally and Rudolph 1986; Hally and Williams 1994; Williams 1994). Too few radiocarbon dates are available to rule out late twelfth- and early thirteenth-century occupations of some sort at the Macon Plateau site. One thing for certain is once the Early Mississippian inhabitants leave the mound complex, the site remains mostly unoccupied until the arrival of immigrant Creek Indians during the early seventeenth century.

Table 9-1. Calibrated radiocarbon dates from Macon Plateau (8BI1) and Brown’s Mount (8BI5).

<table>
<thead>
<tr>
<th>Site</th>
<th>Intercept Date</th>
<th>1 Sigma Calibrated Range</th>
<th>2 Sigma Calibrated Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>9BI1</td>
<td>A.D. 1040</td>
<td>A.D. 1000 to 1220</td>
<td>A.D. 890 to 1280</td>
</tr>
<tr>
<td>9BI5</td>
<td>A.D. 1030</td>
<td>A.D. 910-920 to 960-1230</td>
<td>A.D. 720-740 to 760-1300</td>
</tr>
</tbody>
</table>
For some researchers, the abrupt emergence of the Macon Plateau site in the Fall Line region of the Ocmulgee River around A.D. 900 marks a pronounced break in settlement type and material culture from what had preceded it locally and from what existed around it that speaks of population movement to the area, perhaps from the Tennesse River valley (e.g., Fairbanks 1981; Williams 1994). Others vehemently disagree and argue for in situ development out of indigenous Late Woodland groups (Schroedl 1994; Smith 1984). Putting the origin debate aside, everyone appears to agree that Macon Plateau was among the earliest Mississippian mound centers in the greater Southeast, and currently represents the only multimound center in central and northern Georgia predating ca. A.D. 1100 (Hally and Rudolph 1986; Hally and Williams 1994; King 2003:108).

Like most Mississippian centers the Macon Plateau site was a planned multimound community, but unlike most multimound centers it was not centered on a single plaza or integrated around a series of adjacent plazas (Hally and Williams 1994:94). Instead it appears to have grown to include a group of “subcommunities,” each perhaps marked by a residential zone and a civic and ceremonial mound complex (Hally and Williams 1994). Located less than 10 km away is Brown’s Mount (9BI5), the only other mound site that demonstrates a cultural affiliation with Macon Plateau. A single radiocarbon date from this site indicates eleventh-century contemporaneity with Macon Plateau (Wilson 1964) (Table 9-1). Few other sites of any size in the region exhibit a Macon Plateau cultural component. Although it is unclear as to what type of settlement Brown’s Mount actually represents, King (2003:108) intimates that it was perhaps tied to Macon Plateau, with the latter serving as the capital of a complex chiefdom.

A popular conception, stemming from early migration models, is that the peoples at Macon Plateau were immigrants to the area, who after overpowering indigenous populations lived their lives along the Ocmulgee River relatively divorced from those around them (Fairbanks 1981; Kelly 1938; Sears 1964; Willey 1953). However, I find it difficult to imagine the inhabitants of Macon Plateau as isolationists given the presence of marine shell beads and dippers, copper
plates, spatulate celts, shell-tempered pottery, loop handled jars, bottles, beakers, effigy rim adorno bowls, weeping-eye motif, wall-trench houses, palisades, and corn agriculture, a suite of key Mississippian traits circulating along Early Mississippian communication and exchange routes.

Recently, it has been demonstrated that Vining phase peoples were living on sites in close proximity to Macon Plateau during the late tenth and eleventh century (Pluckhahn 1997). Vining settlements contrasted with Macon Plateau in that they appear to have been small, autonomous communities dependent on hunting, gathering, and small-scale farming (Elliot and Wynn 1991; Pluckhahn 1997; Worth 1996). Pluckhahn (1997:48-49) suggests that much of the simple stamped pottery previously recovered at Macon Plateau and identified as Early Woodland Mossy Oak may actually be Vining Simple Stamped. Additionally, some of the simple stamped vessels from the Vining-phase Tarver site (9JO6), located about 10 km northwest of Macon Plateau, are made of a distinctive “bright orange paste” (oxidized firing color) characteristic of most Bibb Plain pottery from the Macon Plateau site (Pluckhahn 1997:41, 50). If these observations prove to be true then “considerable interaction” may have taken place between Macon Plateau and neighboring Vining peoples that perhaps involved “intermarriage” (Pluckhahn 1997:49-50; Williams 1994:132). Vining groups, like Ocmulgee groups to the south, may have provided vital links in a Mississippian exchange chain emanating from Macon Plateau.

Available evidence suggests that populations affiliated with the Macon Plateau culture were heavily concentrated at a few settlements. The presence of long, linear “dugout” features at Macon Plateau, long interpreted as the remains of palisades or some sort of fortification, intimates that the threat of attack loomed large at times during its existence as a major mound center (Kelly 1935, 1938; Hally and Williams 1994). Similar fortifications at other sites in northern Georgia, such as Woodstock 185 km to the northwest, suggest that Macon Plateau was ensconced within a volatile and contested landscape during the period A.D. 900-1100. Such a social milieu may have forced the inhabitants of Macon Plateau to ally themselves strategically with small-scale
societies, like Vining to the north and Ocmulgee to the south, who posed no offensive threat, but served as key exchange facilitators.

Ultimately, an answer to Macon Plateau’s origin and history dilemma may be found in the dynamics of Blitz’s (1999) fussion-fission process. Unrest brought about by competition, factionalism, or warfare (or the threat of it) may have drawn or fused together distinct polities or communities at Macon Plateau that resulted in the development of a completely new, planned multimound center, with each constituent group maintaining its own governing body and facilities. King (2003:111) contends that such confederacy-building can only take place within a social system employing a corporate political strategy in which authority is shared by different segments of society. The dominance of plain pottery, which contrasts with the complicated stamped wares of antecedent periods in the region, may represent an attempt by potters to bring about a sense of unity among diversity. Thus, the creation of Macon Plateau may have involved both endogamous and exogamous influences, rendering its formation a much more complex process than mere indigenous development or single group site-unit intrusion.

Regardless of origins, Macon Plateau was clearly a major Early Mississippian mound center that would have attracted a lot of attention and exerted a lot of influence, both direct and indirect. Some researchers consider its presence to have been a force behind the emergence of smaller rival chiefdoms to the north, as evidenced by the construction of small platform mound centers after A.D. 1100 (Anderson 1994; Hally and Rudolph 1986; King 2003). As mentioned earlier, platform mounds are assumed to signify the political or administrative head of a Mississippian chiefdom (Hally 1993). Carneiro (1981:66) theorizes that as chiefdoms attempt to increase their power and territorial control nearby groups are often under pressure to either incorporate themselves into the more powerful chiefdom or combine and reorganize themselves for defensive purposes. Communities within the Ocmulgee region, however, do not appear to have undergone any such reformulation, as was the case to the north (Stephenson and King 1991; Stephenson et al. 1996).
The timing of the demise of Macon Plateau chiefdom some time between A.D. 1100 and 1200 appears to roughly coincide with a general trend of downscaling or abandonment that occurred at some major mound centers throughout the Southeast and Midwest (e.g., King 2003; Pauketat 1994; Williams 1994). Because of their organizational structure, chiefdoms worldwide are (were) inherently unstable sociopolitical formations (Anderson 1994; Carneiro 1981; Earle 1987, 1991; Wright 1984). A significant factor contributing to this volatility was the hereditary nature of leadership in concert with factional competition, particularly at times of chiefly succession (Anderson 1994; Brumfiel 1992). Episodes of inept leadership, crop failures, and agricultural produce shortages, as well as external warfare are also billed as destabilizing forces in the history of chiefdoms. Within this dynamic, defeated, spurned, or resistant communities appear to have spread out to occupy abandoned or uninhabited areas or coalesced with others for defensive or offensive purposes as chiefdoms expanded, constricted, and repeatedly reformulated themselves to create a active and nuanced Mississippian landscape (Anderson 1994; Blitz 1999).

For whatever reason, Macon Plateau was abandoned and in its wake was the establishment of widely distributed small-scale chiefdoms or polities of some sort throughout northern Georgia. While two chiefdoms (8BI2 and 8BI12) developed within 12 km of Macon Plateau soon after its dissolution, neither manifest any stylistic affinities to Macon Plateau, suggesting that the inhabitants of Macon Plateau either fled the area or no longer existed as “a recognizable ethnic group” (Hally 1996:120). Important to our discussion is the fact that no such mounds or polities appeared in the Ocmulgee region to the south until ca. A.D. 1250-1300, a time coincident with (or immediately after) Ocmulgee groups abandonment of their homeland.

**Ocmulgee Population Movements to the Atlantic Coast**

Concurrent with Macon Plateau’s tenure as a Mississippian chiefdom, Ocmulgee groups persisted as hunter-gatherers. Admittedly, at present there is little evidence of direct interaction between Macon Plateau and Ocmulgee groups. Cordmarked pottery is rare at the Macon Plateau site, and the only potential Macon Plateau-derived artifacts in southern-central Georgia are
fragments of a loop handled vessel and a duck effigy adorno bowl from 9TF49 (Snow 1977a:46; Stephenson and King 1991:4). The few copper and mica pieces from the Ocmulgee Big Bend region hint at contacts with groups or sources to the north, but their presence cannot be indisputably tied to Macon Plateau. Although direct evidence is lacking, the occurrence of simple stamped pottery in Ocmulgee assemblages may intimate indirect interaction with Vining phase peoples to the north, who themselves may have dealt directly with inhabitants of Macon Plateau. Until more conclusive proof of interaction between Ocmulgee and Macon Plateau peoples comes to light, we must for now rely on more circumstantial evidence.

It is not until the breakup of Macon Plateau that a conventionally perceived Mississippian way of life came to the Ocmulgee Big Bend region for the first time (Stephenson and King 1991; Stephenson et al. 1996). Although in need of temporal refinement, available radiometric dates point to a time lag of 100 or more years from the demise of Macon Plateau to the emergence of the Middle Mississippian Pulaski phase, ca. A.D. 1275-1400 (Stephenson et al. 1996; Keith Stephenson personal communication, 2003). Three large Mississippian communities sprang up at this time: Sandy Hammock (9PU10), Georgia Craft No. 1 Site (9PU21), and Lind Landing (9WL7) (Figure 9-1). Each is marked by the presence of Etowah and Savannah Complicated Stamped pottery period and the absence of cordmarked wares (Stephenson et al. 1996:23). The ceramic assemblage from Lind Landing, the easternmost site, demonstrates “more coastal-oriented” Savannah II affiliations.

Another feature that distinguishes the Pulaski phase from the earlier Ocmulgee phase is the presence of maize. The Middle Mississippian inhabitants of the Ocmulgee Big Bend region were clearly Mississippian farmers. Based on site size, Stephenson et al. (1996:24-25) infer a two-tier settlement system made up of three large villages and a series of small outlying sites that might have functioned as farmsteads. A platform mound excavated at Sandy Hammock suggests it served as the center of a simple Mississippian chiefdom (Stephenson et al. 1990). Although the
Figure 9-1. Location of Puluski phase sites in the Ocmulgee Big Bend region.
other two sites presently lack evidence for extant mounds, future excavation may uncover mound remnants or other architectural features suggestive of simple chiefdom centers.

This begs the question: Where did these farmers come from? In response, Stephenson and colleagues (1996) entertained a series of scenarios. After a time lag, Ocmulgee peoples may have finally decided to adopt Mississippian social and subsistence practices and transform themselves into the Pulaski-phase Mississippian farming societies. Alternatively, immigrant Mississippian groups may have moved in the Ocmulgee Big Bend region, whereby the indigenous people either assimilated into the new way of life or fled the region. Although these researchers refrained from selecting among these or other alternatives, I opt for the latter interpretation that I believe becomes plausible once a bird’s eye perspective is taken.

I envisage migrant Mississippian farmers moving into a heavily depopulated or abandoned Ocmulgee region around A.D. 1275. As described above, the dynamic and politically-charged milieu of northern Georgia perhaps compelled small Mississippian populations to seek asylum in the Big Bend region. I propose that disruptions to long-established exchange routes in concert with mounting pressures from neighboring agricultural chiefdoms precipitated Ocmulgee evacuation of their homeland. Rather than submit to (or be absorbed by) expanding or newly emerging Mississippian chiefdoms in the Ocmulgee region, they chose to completely abandon the hinterland river valley around A.D. 1250.

As discussed in Chapter 2, anthropologists recognize that migrations often take place when negative push factors at the locus of origin (e.g., pressures from Mississippian chiefdoms) combine with positive pull factors at the locus of destination (e.g., available territory with abundant resources) (Arnold 1990:898). It is also common for potential migrants to search for new residence in areas in which they maintain a measure of knowledge through kinship or alliance ties (Arnold 1990:900; Wiseman and Roseman 1979:330-331). By the same token, movers rarely take off to locations about which they have no information.
Familiarity with the resource-rich, southeastern Georgia coastline through past and ongoing interactions may have provided a “pull” incentive, making the Atlantic coast of a prime destination for Ocmulgee migrants. In fact, movement of Ocmulgee peoples to the coast may have begun a century earlier with the breakup of Macon Plateau, perhaps as kin groups tired of the new and potentially hostile landscape of central Georgia. Stephenson and colleagues (1996; Stephenson and King 1991) proposed a somewhat similar “push” scenario, although they considered north-central Florida to have been a likely designation. Quite possibly, Ocmulgee population movements may have fanned out at different points in time and taken various routes to the south, west, and east. Importantly, the population movement I envision is not one in which a tightly bounded ethnic group moves in mass to a completely vacant region. Rather I recognize the permeable nature of boundaries that allows a degree of fluidity and even a mixture of peoples. Migration, amalgamation, and reformulation were not processes restricted to Mississippian farming communities.

**St. Marys II Culture of Northeastern Florida (cal A.D. 1250-1500)**

In northeastern Florida, pottery assemblages dominated by St. Johns wares were replaced around A.D. 1250 by ones in which sand-tempered St. Marys Cordmarked pottery was the preeminent type. As stated previously, the term St. Marys II is favored over and substituted for Savannah to highlight sites or site components with sand-tempered cordmarked pottery previously typed as Savannah. The shift in ceramic technology (from chalky check stamped to sandy cordmarked pottery) was attended by noticeable alterations in refuse disposal patterns and mortuary treatment, intimating the movement of people from outside the area (Ashley 1995b; Ashley and Rolland 2002; Saunders 1989; Russo 1992). The clinal distribution of St. Marys II sites across northeastern Florida in which more sites are situated north of the St. Johns River than on the river’s south side points to the southward expansion of cordmarked pottery-making groups from coastal southeastern Georgia (Russo 1992:118).
Southeastern Georgia Origins: More on Cordmarked Pottery

Although the St. Marys II period dates from A.D. 1250 to 1500 in northeastern Florida, I believe its origins lie a century or so earlier in southeastern Georgia (Figure 9-2). In Camden County, Georgia, testing associated with the Kings Bay Naval facility in the late 1970s and early 1980s revealed few contexts with mostly St. Johns pottery. More often, varying amounts of St. Johns wares were found in contexts overshadowed by cordmarked ceramics (Adams 1985; Borremans 1985; Smith et al. 1981; Smith 1982). Elsewhere in Camden County archaeological evidence indicates St. Johns II pottery is found on many sites, but always as a minority ware (Cook 1977; Kirkland 1979). An exception is a discrete section of the Kings Bay site designated 9CM171b (Smith et al. 1981:405-527; Smith 1982:179-363). There a variety of St. Johns pottery types and features denoted the locus of a probable St. Johns II settlement (Smith et al. 1981:477-506; Smith 1982:282-286).

A battery of radiocarbon assays was obtained on either shell or charcoal from archaeological contexts throughout the various sites at Kings Bay (Adams 1985:358-359; Smith 1982:279, 413). Although some late prehistoric dates derived from cultural features, most were run on samples taken from multicomponent shell midden layers containing cordmarked, St. Johns II, and other temporally unrelated pottery types. Calibrated radiocarbon dates for contexts yielding cordmarked pottery ranged from A.D. 600 to 1660, casting doubt as to whether or not individual dates correlated with a cordmarked component. Smith (1982:280; Smith et al. 1981:592) herself struggled with matching the radiocarbon dates from general midden strata with their occupational counterparts within the multicomponent deposits at Kings Bay. In fact, mixing caused many obvious dates to be inverted thus rendering problematic many of the radiocarbon assays from multicomponent shell midden zones. Later excavators at Kings Bay encountered similar problems (Adams 1985).

If we focus only on those radiocarbon dates from sealed features or essentially pure middens, a tentative trend emerges in which St. Johns II contexts date to the tenth and eleventh
centuries and cordmarked contexts date from the twelfth century onward. For example, a radiocarbon date on mussel shell from a St. Johns II feature (Feature 86, Beta-2115) at 9CM171b was recently calibrated to A.D. 880-1005, with an A.D. 950 intercept date. Recently calibrated radiometric assays from the nearby Killion site (9CM179) and Mill Creek Middens (9CAM166), both of which are suspected to represent single component house middens with mostly cordmarked pottery, yielded dates between A.D. 1005 and 1660; the overwhelming majority were concentrated between A.D. 1200 and 1500 (Smith 1982, Smith et al. 1981; cf. Saunders 1989).

While still far from clear, available radiocarbon dates suggest Swift Creek occupations occurred in Camden County until around A.D. 900 (Stephenson 2002; Stephenson et al. 2002:337). Immediately afterwards St. Johns II peoples may have settled in a few locations in the southeastern corner of the county. By A.D. 1100 or so, groups making primarily cordmarked pottery became the principle inhabitants of Camden County. However, St. Johns II pottery continued to be manufactured by cordmarked-pottery making peoples. Smith (1982:356) had difficulties resolving the mixed nature of St. Johns II pottery and non-spiculate cordmarked wares, and after entertaining a variety of scenarios opted to treat the two as part of a “bi-typical ceramic assemblage at Kings Bay.” Another trend that seemingly emerges as one scrutinizes the Kings Bay data is that grit occurs as a minority tempering agent in early cordmarked-dominated pottery assemblages, while later assemblages contain almost exclusively sand-tempered cordmarked wares. Also vessels in the later assemblages are typically thinner. This temporal shift is somewhat muted due to inconsistencies in temper identification and definition among the various researchers who have analyzed Kings Bay collections (Cordell 1993:34).

What does this all mean? Unfortunately, because of the mixed nature of the midden deposits and analytical inconsistencies in technological aspects of pottery identification, I can now offer only tentative statements on cordmarked pottery origins in southeastern Georgia. Twelfth-century ceramic assemblages in coastal Camden County appear to have consisted mostly of sand-tempered cordmarked, with lesser amounts of coarse sand- and grit-tempered variants.
Plainwares were also included as were some St. Johns II series ceramics; sand-tempered check stamped sherds infrequently occur and they are not a consistent part of the assemblage. Such a composition is almost the reverse of contemporary St. Johns II pottery assemblages in northeastern Florida, where chalky wares were the majority and cordmarked ceramics were invariantly the minority; also the latter were Ocmulgee Cordmarked or a local copy.

North of Camden County on the Georgia coast, Savannah phase sites emerged around A.D. 1000, replacing Wilmington phase sites. The former are signaled by the presence of sand- and grit-tempered cordmarked, check stamped, and complicated stamped wares, whereas the latter were grog-tempered (Crook 1986; DePratter 1979; Pearson and Crook 2003). Cordmarking appears to have been the hallmark type early in the phase, but gradually gave way to check stamping over time. Radiocarbon dates from secure coastal Savannah contexts are notoriously lacking, and the temporal placement of cordmarked pottery has been the subject of heated debate. Researchers on the northern Georgia coast justly argue that the Savannah phase was supplanted by the Irene phase by circa A.D. 1350 (Braley 1990; DePratter 1979, 1991b; Pearson 1979). Others working along the central Georgia coast insist that Savannah Cord Marked continued well into the fifteenth century (Crook 1986:38), while even others argue for the continued production of cordmarked wares on St. Simons Island into the early historic period (Milanich 1996:23-25; Wallace 1975). Recently, Pearson and Cook (2003:32) opined that in the vicinity of the Altamaha River mouth, including Glynn County and St. Simons Island, cordmarking had been eliminated from the Savannah pottery design repertoire by around A.D. 1250.

To the west, hinterland access to the Atlantic coast of Camden County is provided by the Satilla River drainage (see Figure 9-2). Survey work within the upper Satilla River basin reported that sand- and grit-tempered cordmarked wares were scattered across the area, whereas St. Johns pottery (e.g., plain, check stamped, Little Manatee) was sparse (Blanton 1979:57-59). Because of the recovery of a small number of folded rim cordmarked sherds, these wares were assigned an Ocmulgee III cultural affiliation. Accordingly, the northern reaches of the Satilla River fall
Figure 9-2. Selected areas in southeastern Georgia and northeastern Florida.
within the Ocmulgee territory. To date, only one folded rim cordmarked pottery fragment has been recovered from coastal Camden County; this includes the extensive survey and excavation work at Kings Bay. It was found along with 14 fine sand-, 16 coarse sand-, and 11 grit-tempered cordmarked sherds and 16 St. Johns ware fragments at the Shellbine Creek site (9CM24) near the mouth of the Satilla River (Kirkland 1979; personal communication, 2003). Immediately to the south, virtually no information is available on sites along the St. Marys River (both the Florida and Georgia side), owing to the lack of regional survey coverage.

Considering this information in total, it appears that during the twelfth century cordmarked pottery was made along the Atlantic coast from northeastern Florida into South Carolina and up, to varying extents, all of the major rivers between these points. But the specific assemblage composition of which cordmarked pottery was a constituent varied to some degree by major drainages, suggesting a broad regional ceramic pattern with local flavors (cf. Caldwell 1971). The production of cordmarked pottery may be part of a panregional gloss that identified these groups as hunter-gatherers and distinguished them from Mississippian farmers. But it is a mistake to assume these groups were alike in all aspects of culture, economics, and politics, although they certainly may have shared some broad coastal adaptations. By the mid-thirteenth century, the zone of primary cordmarked manufacture had constricted to include only the St. Marys region.

The immediate precursor of the cordmarked pottery assemblage in coastal Camden County appears to have been a short-lived and geographically restricted St. Johns II complex. This area may represent a frontier where people living on the fringes of the St. Johns II territory and those along the periphery of the Ocmulgee territory interacted and eventually melded. At this time, it is unclear who was making the chalky wares: St. Johns II people who had moved up from northeastern Florida or the immediate descendents of the coastal Late Swift Creek culture. The lack of a known St. Johns II burial mound at the Kings Bay site (9CM171b) might argue for a local expression. Regardless, the similarities between coastal Camden County pottery
assemblages and those found in the upper Satilla River drainage is compelling and suggests some type of cultural connection between them. Moreover, the lack of Savannah Check Stamped on Camden County sites sets the southeastern Georgia assemblage apart from the Savannah ceramic complex to the immediate north.

A mound of immense importance to the late prehistory of this area is the “Low Mound at Fairview” (9CM1) in Camden County west of Kings Bay. From this mound, C. B. Moore (1897:10) recovered fragments of an embossed copper plate depicting a falcon dancer with a human head in his hand. A very similar copper plate had been recovered 10 years earlier at the Etowah mound center (Larson 1958b:429-430; King 2003:68-69). A recent overview of Georgia coast mounds by Larson (1998) merely labels the mound as “Mississippian.” The style associated with the embossed copper design suggests a post-A.D. 1250 date, and the presence of cremated human remains both argue against a St. Johns II cultural affiliation for the mound. However, mound construction and its contents seem out of character for the cordmarked pottery-making, fisher-hunter-gatherers of southeastern Georgia. To date, no burial mounds in Camden County are attributed to cordmarked pottery-making groups, although this may be partly a result of inadequate mound investigations within the county.

I admit the above information is ambiguous and can be interpreted in a number of equally valid ways at this point in time. Additionally, some may point to the recovery of only one folded rim cordmarked sherd from coastal southeastern Georgia as evidence against Ocmulgee migrations. However, we must bear in mind that this vessel feature was a minority rim treatment in the upper Satilla and lower Ocmulgee river drainages. Moreover, we presently lack temporal evidence to indicate whether or not rim folding on Ocmulgee III vessels was produced over the entire breadth of cordmarked pottery production in southern-central Georgia. Rim folding may have dropped out of manufacture as groups moved toward the coast during the twelfth century or later. Perhaps this was somehow related to a decline in the need to cover vessels for transport.
To reaffirm my stance, I am not claiming that the presence of cordmarked pottery in southeastern Georgia was solely the byproduct of displaced Ocmulgee populations. Rather its emergence represented a conjuncture of different peoples, both indigenous and outsiders, who shared a hunting-gathering way of life. However, I attribute population increases that eventually precipitated the expansion of cordmarked pottery-making peoples (St. Marys II) into northeastern Florida, partly to influxes of Ocmulgee peoples via the Satilla and Altamaha rivers. As mentioned, knowledge of the area by hinterland peoples would have made southeastern Georgia a key designation for Ocmulgee peoples fleeing southern-central Georgia. The spread of St. Marys II populations into northeastern Florida appears to have coincided with the out-migration of the majority of St. Johns II peoples via the St. Johns River.

By the time Ocmulgee descendents moved into northeastern Florida, certain changes had occurred in their pottery-making tradition, although other aspects of their culture remained intact. Most notably, folded rims were discontinued, although they previously had been only a minority rim treatment in Ocmulgee III assemblages; grit-tempering was almost completely replaced by sand-tempering; and vessels walls became thinner. However, cordmarking remained the almost exclusive decorative mode, and vessel forms continued to be limited to simple bowls and jars of various sizes, as was the case in the Ocmulgee homeland. Devotion to a foraging way of life also continued along the coast, although emphasis shifted from terrestrial and riverine resources to the exploitation of coastal ones, most notably fish and shellfish. The shift in ceramic technology may very well reflect changes in diet associated with life along the coast.

The continuation of cordmarking and foraging, in my opinion, does not represent conservatism as much as it does an active manifestation of internal cultural unity and external separation; that is, cultural construction and maintenance. Could late prehistoric southeastern Georgia and northeastern Florida represent a refugee area for hunter-gatherers in a world of Mississippian farmers? Was it a geographical locus of aggregation, identification, and differentiation that brought displaced hunter-gathers from the hinterlands of Georgia and perhaps
even coastal Georgia together to sustain their long-held foraging way of life and in a way resist
the mainstream “Mississippian” life? It is interesting to note that the first archaeological evidence
of corn production in the St. Marys region is dated to the sixteenth century, a time coincident with
the discontinuation of cordmarking as the dominant form of vessel surface treatment. It becomes
a minority design, taking a backseat to cob marking and check stamping.

Site Types and Distributions

What types of St. Marys II archaeological sites have been reported in northeastern Florida?
Habitation sites typically occur as groupings of discrete shell-midden heaps that range from ca. 2
to 15 m in diameter. In height, individual middens vary from slightly discernible rises to distinct
mounds as high as 1 m. Such sites are known for the mainland (Ashley 1997; Johnson 1998a;
Lee et al. 1984; Smith et al. 2001) and for all barrier islands in northeastern Florida, including
Fort George Island (Dickinson and Wayne 1987; Jones 1967; Russo et al. 1993), Black Hammock
Island (Ellis and Ellis 1992; Russo et al. 1993), Big Talbot Island (Ashley and Thunen 2000), and
Amelia Island (Ashley and Rolland 1997a; Bullen and Griffin 1952; Hemmings and Deagan
1973; Saunders 1992). This is similar to what has been reported for mainland southeastern
Georgia (Adams 1985; Crook 1984, 1986; Smith et al. 1981) and Cumberland Island (Ehrenhard
1976, 1981) as well as along the central and northern Georgia coast for both Savannah and Irene
groups (Crook 1986; DePratter 1984; Larson 1978; Pearson 1979, 1984).

At some sites, individual heaps are dotted over areas up to 9 ha, although overall horizontal
size is suspected to have resulted from either repeated occupation or intrasite shifting of
household locations over time (Ashley 1995b, 1997; Crook 1984, 1986; Russo 1992:118; Smith
1982; Smith et al. 1981). Past plantation-period farming and/or other later twentieth-century
land-use activities may have leveled once discernible shell heaps in certain areas, rendering the
present landscape unlike that of the late prehistoric period. Nevertheless, shovel testing at some
St. Marys II sites lacking obvious mounded shell deposits has revealed small, localized shell
middens, distributed similarly to mounded shell heaps at other sites (Adams 1995; Ashley and
Rolland 1997a; Ashley and Thunen 2000; Smith et al. 1981). St. Marys II sites composed of individual shell heaps contrast markedly to the diffuse or large consolidated middens known for St. Johns II sites in the region.

In the absence of discernible shell heaps or shovel testing, small St. Marys II middens are often difficult to locate and identify in heavily wooded areas or at repeatedly-used, multi-component shell midden sites (Russo 1992:118). Moreover, testing at the latter sites has yielded mixed ceramic assemblages containing both St. Johns and cordmarked pottery, which, in the past, has confounded attempts to interpret the cultural affiliation(s) of deposits.

In northeastern Florida, St. Marys II sites have also been recorded slightly inland from the coast along the lower reaches of rivers (e.g., St. Johns and St. Marys). An unexpected find that yielded large quantities of cordmarked pottery was a large multicomponent site (8DU11626) located south of downtown Jacksonville, over 20 miles (32 km) from the mouth of the St. Johns River (Johnson 1997). Due to urban development, little archaeological information is available on sites in the vicinity of downtown Jacksonville, located between the river’s mouth and the location of 8DU11626. Finally, low-density ceramic scatters either containing sparse or no shell have also been recorded near the coast and slightly inland.

A site-file-based distributional analysis of cordmarked sites in northeastern Florida is impossible, owing to the fact that an appropriate cordmarked category is lacking on Florida Site File forms. Neither the newly named St. Marys II nor the long-used Savannah cultural designations are an option, so researchers have been forced to designate sites with cordmarked pottery as St. Johns II, thus conflating culturally and temporally distinct sites. Suffice it to say, a quick perusal of CRM reports and other results of investigations clearly reveals that cordmarked pottery is ubiquitous north of the St. Johns River, whereas its distribution is less abundant, immediately south of the river.

It had been suggested previously that mortuary mounds attributable to local St. Marys II populations are unreported for northeastern Florida (Ashley 1994:15) as well as for the broader
St. Marys region (Vernon 1984:117; Russo 1992:118). However, this may not be the case. Close examination of Moore’s (1896) late nineteenth-century report on his mound excavations on Amelia Island suggests at least one potential St. Marys II mound formerly existed on the island. The “Mound Northeast of Suarez Bluff” (8NA7), not to be confused with the “Mound South of Suarez Bluff” (8NA8), contained a thick, centrally positioned shell core similar to several Savannah and Irene mounds on the central and northern Georgia coast (Cook 1978; Larsen and Thomas 1986:40; Larson 1958, 1984:65; Wallace 1975). Unfortunately, Moore (1896), recovered no human remains or artifacts other than a single projectile point, casting some doubt on it being a burial mound.

Two other earthworks investigated by Moore (1896), Low Mound at Doctor Harrison’s (8NA9) and the Lighthouse Mound (8NA3), could possibly be St. Marys II constructs, but they could equally as well represent St. Johns II constructs. The brevity and vagueness of Moore’s artifact and mound descriptions confounds any attempt to assess the proper temporal and cultural affiliation of these mounds. If the St. Mays II people constructed mounds, they built very few low and unassuming sand mounds. At 8DU5544/45, a human burial uncovered adjacent to a St. Marys II shell heap radiocarbon dated to cal A.D. 1290-1390 and assumed to be a St. Marys II interment suggests the existence of nonmound burial practices (Smith et al. 2001:132-136).

Subsistence-Settlement Patterns

In the St. Marys region, zooarchaeology and seasonality data indicate St. Marys II groups, like earlier St. Johns II peoples in the same area, lived along the coast throughout the year and procured small estuarine fish, shellfish, and other aquatic resources (Russo 1992:118-119; Russo et al. 1993:172). The size of fishes and species represented in St. Marys middens point to extensive use of nets or other fine-mesh, mass-capture techniques. Terrestrial mammals such as deer, opossum, and raccoon were exploited to some degree, but in middens the remains of these animals always pale in comparison to those of fishes, shellfishes (mostly oyster and quahog
clam), and reptiles (mostly turtle). Variance in the specific mix of captured fish is due in part to seasonal differences in availability or numbers.

Presently, there is a bias with regard to plant species gathered and grown. Purportedly, small amounts of preserved corn (*Zea Mays*) were recovered from St. Marys contexts at 8DU634, located at the JEA Coal-Fired Plant along the north side of the St. Johns River (Lee et al. 1984). A narrow kernel of corn was recovered from an inclusive shell feature within a larger shell midden; shell from the former was radiocarbon dated to A.D. 1250-1310, whereas the latter yielded calibrated dates of A.D. 1405-1455 and A.D. 1490-1640. From the same site, a charred cob fragment was retrieved from an undated context within a nearby shell midden. A series of soil samples were subjected to palynological analysis but no corn pollen remains were preserved. No additional evidence of corn was found at 8DU634 or nearby at 8DU669.

The excavators’ interpreted 8DU634 as short-term resource procurement sites occupied by horticultural groups during the late prehistoric period, A.D. 1200-1500 (Lee et al. 1984). Included within tested middens were minor amounts of cob-marked, grog-tempered plain, and grog-tempered burnish (obliterated), all of which appear to represent San Pedro series pottery, ca. A.D. 1500-1600+ (Ashley and Rolland 1997b; Ashley 2001b; Milanich 1971, 1972). Shell middens at 8DU669, located less than 250 meters to the north and with radiocarbon dates comparable to those from 8DU634, yielded 149 cob-marked sherds. Inspection of several of these sherds suggests that are actually San Pedro Cob Marked.

The presence of cob-marked pottery actually led Lee and colleagues (1984) to interpret the two sites as Alachua, not Savannah, a cultural interpretation that has found no support among regional archaeologists. All dated contexts at the two sites were either general shell midden levels or inclusive concentrations of crushed/burned shell; no secure feature contexts were dated. Thus, the corn and grog-tempered and cob-marked pottery appear to correlate with the A.D. 1490-1640 calibrated radiocarbon date, whereas St. Marys II occupations are represented by the A.D. 1200-1500 calibrated assays.
For Mississippian groups along the Georgia coast, Crook (1978; 1986) has proposed a subsistence-settlement model whereby late prehistoric household groups are believed to have occupied distinct ecological zones at prescribed times of the year, depending on the availability of seasonally abundant resources. According to his “annual model,” social group size and composition differed during each of the four calendrical seasons, but the same settlement-subsistence cycle was repeated each year. Permanent villages were located on barrier islands, but only the chief and his retinue are modeled to have inhabited them throughout the year. Occupation of these residential bases by all members of the larger group is modeled to have taken place only during the summer. Matrilineages were dispersed throughout the mainland forests in the fall to hunt and gather nuts, and the same settlement groups moved to the coast in the winter to exploit estuarine resources. In the spring, small groups consisting of one or two nuclear families were dispersed throughout the oak forest and practiced swidden horticulture, although direct botanical evidence of maize cultivation is lacking at this time (Reitz 1988:152).

Crook’s (1986) model was conceived on the basis of modern fish trawl data and ethnohistorical information (ca. 1570) relating to the Guale, and it has yet to be rigorously tested with archaeological (seasonality) data. Moreover, its cultural materialist bent and rigid format do not appear to reflect the St. Marys II yearly cycle. Although some have tried to apply this model to northeastern Florida data (e.g., Lee et al. 1984), its precision and incorporation of horticultural practices causes it to be inappropriate. Because many resources along the Florida coast are not confined to a distinct season nor are they spatial isolated, temporary settlement fissioning may have taken place on a more ad hoc basis, and not necessarily during the same time each year (Ashley 1995b, 1997; Reitz 1988:139; Russo 1992; Saunders 1989). Moreover, social concerns undoubtedly played a big part in settlement strategies, but such factors take a back seat to resolutely ecological mandates in Crook’s model.

In sum, there is little doubt that the St. Marys II people were part of a sedentary coastal society that at times employed foraging mobility. Short-term ventures may have been made up
the St. Johns River for resource procurement reasons. St. Marys II groups were not farmers, or even part-time horticulturalists, but rather fishers and shellfish collectors dependent on aquatic resources and wild flora and terrestrial fauna (Russo 1992:182). What we have archaeologically for the St. Marys II period are a lot of structurally and artifactually similar sites, with some being larger than others. Presently it is unclear whether the larger sites, most of which are on barrier islands, are residential hubs or villages or merely the scene of repeated short-term occupations. While the specifics of the yearly cycle are still not fully understood at this time, groups appear to have moved across the coastal landscape as social and subsistence needs arose, with sites serving the same general purposes. Such an interpretation is congruent with other material culture data, suggesting a coastal-fishing-hunting-gathering way of life. It further contrasts with the earlier and more nucleated St. Johns II village-mound settlement structure.

**Material Culture**

What is most striking about St. Marys II sites is the apparent marked similarity in their artifact assemblage composition. Utilitarian pottery (mostly plain and cord marked/fabric impressed) displaying few vessel forms (simple bowls and conical jars) is the predominant artifact category found at all sites. The pottery assemblage affiliated with the St. Marys II period consists mostly of sand tempered plain and cordmarked wares; fabric impressed and net impressed are infrequent (Ashley and Rolland 2002). In the past, cob marked pottery has been considered part of the St. Marys II assemblage (Adams 1985; Borremans 1985; Lee et al. 1984; Smith et al. 1981). But, as discussed above, these wares appear to the sixteenth century and are part of San Pedro pottery assemblages.

St. Marys II vessels are typically thin and tempered with fine- to medium-sized quartz particles (Ashley and Rolland 2002; Cordell 1993). Coarse sand tempering is infrequent, and grit–tempering is rare. Micaceous inclusions are frequently noted in the paste of St. Marys Cordmarked pottery. Sponge spicules are also sometimes observed under microcopy in low numbers, but their presence may be in advertent. Small amounts have also been reported in
Savannah Fine Cord Marked sherds from Chatham County, Georgia and Prairie Cord Marked ware fragments from northern Florida (Cordell 1993:49). Vessel exteriors were stamped, often overtamped, with fine-gauge cordage with Z-twist. No specimens have been reported with rim folds or added appliqué strip, a la Ocmulgee Cordmarked. However, some poorly finished lips exhibit clay extrusion along the exterior that occasionally bears resemblance to a small, poorly formed fold. Finally, St. Marys vessel are typically dark, indicating that they were fired in a reduced atmosphere, as were Ocmulgee vessels (Rolland 2004)

St. Johns II pottery occurs on most St. Marys II site in varying amounts, but may have been more common on sites earlier in the period. For instance, at 8DU5545 on the Greenfield Peninsula, St. Johns typically accounted for less than ten percent of the pottery types from St. Marys II contexts radiocarbon to A.D. 1300-1400 (Smith et al. 2001). At 8DU634 and 8DU669, St. Johns accounted for less than one percent of the over six thousand sherds from the two sites. Six calibrated radiocarbon intercept dates from 8DU634 fall between A.D. 1285 and 1550, while four dates from 8DU669 partially overlap between A.D. 1180 and 1455. Similar results were met with at the Quercus site (8DU625), where 141 of the 165 (85%) diagnostic Mississippian-period ceramics were St. Marys Cordmarked, while the remaining 24 (15%) were either St. Johns Plain or Check Stamped (Ashley 1997). When sand tempered plain wares are factored in, the percentage of St. Johns diminishes greatly. A radiocarbon date of cal A.D. 1360 and 1455 was obtained on shell from a St. Marys II midden.

At the Thundercrack site (8NA43) on Amelia Island, St. Marys Cordmarked outnumbered St. Johns Plain and Check Stamped 83 to 7 (Ashley and Rolland 1997a). Moreover, no St. Johns sherds were recovered from a small St. Marys II midden at the site radiocarbon dated to cal A.D. 1490-1640. At 8NA703 on Martin’s Island, northwest of Amelia Island, Locus 1 excavations produced 184 St. Marys Cordmarked sherds compared to only one St. Johns pottery fragment (Hendryx et al. 2000:51). Wood charcoal from a cooking hearth containing 25 sand–tempered cordmarked sherds, was radiocarbon dated to A.D. 1280-1390 (Hendryx et al. 2000:53). In
another area of the site, charred wood from another St. Marys II cooking pit was radiocarbon dated to cal A.D. 1400-1440 (Hendryx et al. 2000:70-72).

Shell and bone tools and ornaments, all made of locally available materials, are recovered at habitation sites. At present, there is no evidence for a complex bone or shell tool industry; some formal types are found, but many are expedient forms. Lithic artifacts are rare and consist of small triangular (Pinellas) points, crude bifacial tools, and debitage, all of which are nonlocal. Some of these materials may have been scavenged from local Archaic sites, some of which do contain lithic points. Prestige goods seem to be completely lacking at any habitation sites as do other nonlocal raw materials or material byproducts.

In sum, what we seem to have for the St. Marys II archaeological culture is a generalized material culture inventory. Presently, there is no hint of any type of regional settlement hierarchy. While the location, distribution, and size of many St. Marys II sites in the region are known (or can be reasonably estimated with available data), what is lacking is detailed intrasite settlement patterning information for all site types. While shell middens, pits, hearths, and miscellaneous features have been identified at some sites, distinct activity areas (other than food processing and refuse disposal) and structures are lacking.

**Sociopolitical Organization**

Other than general comments, little can be said about the St. Marys II political organization with the data at hand. The same material assemblage, settlement-subsistence strategies, and refuse disposal patterns among sites intimate a shared way of life among similarly organized and culturally affiliated groups in the St. Marys region after A.D. 1250. The large number and widespread distribution of sites reflect a degree of autonomy and flexibility in St. Marys II social organization. There is presently no archaeological evidence to support a claim of regional control under a single individual or settlement. The absence of any discernible site hierarchy or material differences among sites or within middens on the same site points to band-level communal relations. Although one could argue for a site-size hierarchy, it is unclear whether this is a real
difference among coeval settlements or merely size augmentation due to more extensive use of
certain locations through repeated short-term occupations.

A communal political economy leaning more toward the egalitarian end of the spectrum is
indicated. Present data suggest that these groups were more insular, perhaps a reflection of the
more volatile Late Mississippian period landscape driven by raids and warring chiefdoms
(Anderson 1997:261). The paucity of nonlocal items suggests that long-distance contacts were
tenuous and fragile. This suggests that social reproduction among St. Mays II societies required
relations and interactions on a small geographical scale, such as the locality or, at most, the St.
Marys region level. The mobilization of labor was undoubtedly structured at the household or kin
group level. If St. Marys II heritage is tied to Ocmulgee groups and other hunter-gatherers of
Georgia, as I suggest, than they were a people with a long history of resistance to change. Their
way of life, based on ties of reciprocity, consensual-decision making, and a communal ethic, did
not erode easily. But this was not something that came about through some inherent human
drive, it was a way of life actively asserted and reproduced through the social actions of
individuals within the collectivity (Nassanay 2001:173; Sassaman 2001).

**Prelude to European Contact**

When French troops first waded ashore in the early 1560s, they encountered the Timucua-
speaking Saturiwa of northeastern Florida. Based on the writings of these French and later
Spanish explorers and settlers, we are left with an image of hierarchically-ranked coastal
chiefdoms with a subsistence economy based on the cultivation of corn, beans, and squash (Hann
does not square with the information set to paper by early European invaders. Before concluding
this study, a few comments on the archaeological record of sixteenth-century northeastern Florida
is warranted to begin to bridge the divide between the way coastal Timucuan societies are
portrayed on parchment and how they are manifest archaeologically.
It is now irrefutable that the longstanding belief that the St. Johns tradition is the archaeological manifestation of the late prehistoric and contact-era Timucua Indians of extreme northeastern Florida is wrong. There is little doubt that the St. Marys II archaeological culture marks the late prehistoric period in northeastern Florida and southeastern Georgia, from about A.D. 1250 until the early sixteenth century. I contend, however, St. Marys II is not the archaeological correlate of the historic Timucua of northeastern Florida and southeastern Georgia, such as the Saturiwa and Tacatacuru. That distinction actually belongs to the San Pedro archeological culture, which supplanted the St. Marys II archaeological culture some time around A.D. 1500.

The contact period in the St. Marys region is represented by San Pedro series pottery, a grog-tempered ware recovered at numerous coastal sites in Camden County, Georgia and Nassau and Duval counties, Florida (Ashley and Rolland 1997b). By early Spanish mission times it is also found on sites in northern St. Johns County, including several in and around St. Augustine (e.g., Ashley 2001b; Merritt 1977; Herron 1986). In terms of surface treatments, the series consists mostly of plain, check stamped, and cobmarked wares, and to a lesser extent, cordmarked, textile impressed, and complicated stamped types (Ashley and Rolland 1997b; Herron 1986; McMurray 1973; Milanich 1971, 1972). Cobmarking is the hallmark of the San Pedro series, although plainwares dominate numerically; some of the latter were originally stamped or impressed and later wiped over to obliterate (partially or completely) the design. Recent analysis indicates that while the overwhelming majority of vessels in assemblages are grog-tempered, the range includes sand- and sand/sparse grog-tempered wares (Ashley 2001b; Ashley and Rolland 1997b; Ashley and Thunen 2000; Smith et al. 2001).

The manufacture of San Pedro pottery has long been equated with the Mission-period Timucua of southeastern Georgia (Deagan 1978; Milanich 1971, 1972), but only recently have we begun to consider its production in northeastern Florida prior to European contact. Although San Pedro pottery, with its thick body and large grog inclusions, contrasts with the thin body and
fine sand tempering of St. Marys II wares, I believe the former developed locally out of the latter during the sixteenth century. Evidence supporting this contention includes continuity in site location, and similar refuse disposal patterns in the form of individual shell heaps. On some sites in northeastern Florida and southeastern Georgia, the mixing of St. Marys II and San Pedro pottery in midden contexts suggests a direct connection between the two wares (e.g., Adams 1985; Borremans 1985; Smith et al. 1981).

Present data suggest the transition from the St. Marys II to San Pedro archaeological culture was rapid and pervasive, affecting the entire St. Marys region. Available evidence also reveals the first appearance of preserved maize in the archaeological record of northeastern Florida is coincident with the emergence of San Pedro ceramic technology. In the past decade, several sites yielding large quantities of San Pedro pottery have also produced preserved corn cobs or kernels (Hendryx and Smith 2002; Smith et al. 2001; Thunen 2001). The amount of recovered corn is limited, however, and presently doesn’t indicate intensive corn cultivation, as the documents lead one to believe. I suspect the shift in pottery has technofunctional implications related to corn preparation and consumption. Research among some emergent Mississippian societies elsewhere in southeastern and Midwestern North America has shown abrupt technological changes in pottery assemblages coincided with increased maize agriculture. Specifically, vessels become thicker and large particle tempering becomes more common (e.g., Kelly 1990:108; cf. Ashley 2001b).

The archaeological manifestation of the contact-era Timucua of northeastern Florida and southeastern Georgia has been so difficult to pinpoint because of its short span of existence and our inability to distinguish early from late sixteenth century contexts, particularly in the absence of European artifacts. The way of life represented by the San Pedro archeological culture appears to have developed locally out of St. Marys II archaeological culture some time between A.D. 1500 and 1562. Late-sixteenth and early-seventeenth-century contexts (early Mission period) are unquestionably signaled by San Pedro pottery, preserved fragments of maize, and varying
amounts of European artifacts, typically only olive jar. The quantity and diversity of European goods is most evident at Spanish mission sites (McMurray 1973). St. Marys Cord Marked pottery has yet to be recovered in association with European artifacts. The San Pedro pottery-producing peoples on northeastern Florida and southeastern Georgia are the Mocama-speaking Timucua of the Spanish Mission period.

Historic archaeologists of the region are faced with an all-to-common dilemma: How do we arbitrate between two conflicting data sets? But, as alluded to above, part of the problem is we have used pre-sixteenth century archaeological evidence to portray the contact-era Timucua, and written history describes a native way of life that emerged in the sixteenth century. But biases on the part of both data sets confound the problem. Chroniclers provide a perspective filtered through European eyes, superimposing their worldview and system of categorization onto the native landscape, while biases of preservation, distribution, and recovery derive from archaeology.

If the organization of the coastal Timucua in reality bore any resemblance to that of “farming chiefdoms,” as some documents suggest, then such a way of life must have transformed quickly in the sixteenth century out of a long-history of foraging and resistance to cultural change. I conclude with this question for future researchers: Could the contact-era coastal Timucua way of life, as described in historic accounts, represent a protocontact development shaped to some degree by the ramifications of early European encounters in other areas of Florida and the southeastern United States?
CHAPTER 10
SUMMARY AND FUTURE RESEARCH DIRECTIONS

Dissertation Summary

This dissertation was girded to the premise that no society can be understood without references to antecedent conditions and external social relations. Emphasis on the latter was not at the expense of a concern for local (internal) social relations, since our models of the past must privilege both internal relations and external connections. I further support a more historical approach to modeling social change, one sensitive to the recursive interplay between social structures and human agency. To this end, I have attempted to detail the late prehistory of northeastern Florida over a roughly six-hundred year period (A.D. 900-1500) from a multiscalar perspective. Implicated in this history are three dimensions of human interaction: exchange, population movement, and political economy. The establishment of a refined Late Woodland through Mississippian-period chronology for northeastern, anchored with a battery of calibrated radiometric assays from local sites, served as a springboard for the novel interpretations expounded upon in this study. Below I summarize some of the key points of my dissertation.

I addressed the emergence of the St. Johns II period in northeastern Florida around A.D. 900 as a result of the movement of St. Johns people from the south, sparked in part by the awakening of far-flung communication and exchange networks. The Mississippian world of southeastern and midwestern North America was one of emerging sociopolitical complexity in the form of hierarchical, farming chiefdoms and interregional interaction (Smith 1986; Steponaitis 1986). A suite of key traits and ideas spread across the Southeast at this time, with local communities incorporating them in diverse ways and to varying degrees; some groups also resisted the social changes wrought by Mississippianization (Cobb and Garrow 1996). Painted with a broad brush Mississippian societies are depicted alike, but when local history and cultures

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are detailed far more diversity comes to light. The Early Mississippian Southeast was not a homogeneous culture area, but a mélange of floodplain farmers, part-time gardeners, riverine hunter-gatherers, and coastal fishers.

During the Early Mississippian period (ca. A.D. 900-1250), St. Johns II settlements appear to have been concentrated in at the mouth of the St. Johns River, including the Mill Cove Complex, and to the south, immediately north of Lake George at Mt. Royal. The strategic location of these centers combined with a panregional demand for shell, and perhaps other Florida resources, drew St. Johns fisher-hunter-gathers into the Mississippian world. For northeastern Florida groups, procurement of coastal resources for exchange appears to have been embedded in the domestic economy and not a highly specialized undertaking. Although situated on the southeastern periphery of the Mississippian world, St. Johns II communities were not mere pawns in these interactions, as certain unidirectional models of core-periphery interaction would have us believe. Instead, they actively took part in the creation of their social milieu.

Situated between northeastern Florida St. Johns II populations and the chiefdoms of the interior Southeast were bands of Ocmulgee hunter-gathers that inhabited the waterways of southern-central Georgia. Archaeological evidence suggests these foragers were well aware of the farmers and coastal fishers around them, but remained mostly uninterested in the trappings of Mississippian life. I contend these groups served as key contacts in St. Johns II participation in Mississippian exchange and communication network; a relationship that appears to have had considerable time-depth. Direct interactions between St. Johns II communities and Ocmulgee groups are evidenced by the presence of Ocmulgee Cordmarked pottery on St. Johns II sites in northeastern Florida and at Mt. Royal. Stylistic and ceramic compositional (INAA) data indicate that St. Johns II villagers acquired Ocmulgee wares via trade and produced them locally. Strong similarities between local copies and tradewares intimate the relocation of some Ocmulgee potters (women) to St. Johns II communities, perhaps a result of marriage alliances.
With connections to the Mississippian world, as purveyors of whelk shells and other coastal resources, St. Johns II communities obtained a variety of nonlocal raw materials and artifacts of stone, metal, and mineral. The nature of participation in long-distance exchange networks is fundamentally tied to how labor is appropriated at the local level (Cobb 1993:61). Within a prestige goods economy, the trafficking in exotics by elites is predicated on their ability to mobilize surplus labor and goods through tribute and exploitation. Exotica within such economies serve as sumptuary goods and sources of power that bring to life to and justify the superior social standing of those who possess them (i.e., elites). After reviewing available St. Johns II settlement, craft production, and mortuary data, I challenge past interpretations that consider the presence of these exotics as evidence of some form of St. Johns II prestige goods economy.

In my opinion, archaeological evidence points to the collective consumption of most exotica in corporate burial mounds and public ritual intended to bolster group solidarity. I argue for the existence of a communal political economy in which labor was mobilized communally to acquire so-called prestige goods for community-promoting activities and social reproduction (cf. Saitta 1994, 1997). This, however, did not preclude some members of St. Johns II society from benefiting more than others with respect to long distance exchange and ritual participation. Such differential involvement undoubtedly wrought tensions between communal elites (e.g., exchange and alliance negotiators, ritual specialists) and the general populace. The lack of unequivocal evidence for tribute-taking or outright exploitation of surplus labor and goods underscores the resilient nature of the St. Johns II communalism.

Changing historical circumstances altered the extent to which St. Johns II societies in northeastern Florida participated in long-distance relations. I contend that the twelfth-century demise of Macon Plateau, a major Early Mississippian center located at the fall line along the Ocmulgee River, had rippling effects as far south as northeastern Florida. Disruptions in trade routes and alliances, in concert with more localized, yet poorly understood, problems on how to
manage these changes, eventually resulted in upriver movement of northeastern Florida St. Johns II groups around A.D. 1250. Fallout from the abandonment of Macon Plateau also appeared to have spawned the formation of smaller rival chiefdoms across central and northern Georgia. Recent research has demonstrated that the Mississippian Southeast was a dynamic social arena in which societal fissioning and outmigration were important demographic processes in the sociopolitical diversification of the region (Blitz 1999; Hally 1996).

By A.D. 1275, Middle Mississippian chiefdoms appeared for the first time in the Ocmulgee territory, but by this time the makers of Ocmulgee Cordmarked pottery had abandoned the region, because of instability and turmoil. The Ocmulgee outmigration may have been initiated earlier, shortly after the fall of Macon Plateau, and was complete by ca. A.D. 1250. The descendents of Ocmulgee way of life resurfaced in southeastern Georgia, perhaps merging with other foraging peoples of the Georgia coast. These groups continued to manufacture cordmarked pottery, perhaps an emblem of their foraging way of life that linked them to their past and distinguished them from Mississippian farmers. By A.D. 1250, these groups—now know to archaeologists as St. Marys II—expanded southward into northeastern Florida, a move roughly concurrent with the retreat of St. Johns II peoples. Within this historical reconstruction, it was the descendents of these foraging groups that became the sixteenth-century fishers and part-time cultivators of maize that encountered French and Spanish interlopers.

Suggestions for Future Research

Like most archaeological research, this study has identified unresolved issues and generated new research questions that can only be answered through additional fieldwork and data analysis. At the risk of sounding cliché, this study is merely a prefatory step toward a comprehensive understanding of the history and political economy of prehistoric St. Johns II and St. Marys II societies that once thrived along the estuarine waters of northeastern Florida. Obviously there is much more work that needs to be done. Before bringing this research to a respite, I will highlight several critical concerns to be addressed as a result of this study.
First, more survey-level investigations are needed for many areas in which we have little or no site distributional information. Most notable is the St. Marys River drainage, which is currently a virtual unknown with regard to archeological sites. More surveys are also needed for the middle reaches of the Satilla River and the barrier islands of southeastern Georgia and northeastern Florida. These areas hold the potential to enrich further our understanding of the timing and route of movement of cordmarked pottery-making groups across the landscape. Locations upriver from the mouth of the St. Johns River require investigation to increase our knowledge of the distribution of St. Johns II sites between Mt. Royal and the Mill Cove Complex. We should not rely exclusively on CRM for this information, particularly since these investigations are often confined to narrow or small areas of proposed developmental impact that may not coincide with archaeological site locations. Instead, we must be proactive and initiate systematic, research-oriented surveys of broad sections of these various drainage systems.

Locating previously unrecorded St. Johns II and St. Marys II sites is only a piece of the puzzle. Sites must also be precisely dated, because timing is key to the interpretations proffered in this study. It is mandatory that we distinguish synchronic patterns from diachronic trends in the archaeological record. For example, more radiometric assays are needed from potential St. Johns II villages to determine which ones were contemporaries and over what period in time. Is the Mill Cove Complex a founding St. Johns II settlement in northeastern Florida? Does the St. Johns II village at Mt. Royal predate the Mill Cove Complex, or vice versa?

The question of when cordmarked pottery was first produced by groups in southeastern Georgia remains uncertain. Was its emergence, as I contend, a twelfth-century phenomenon? Or did it develop earlier under different historical circumstances? Additionally, with regard to Ocmulgee III sites, are those along the Satilla River contemporaneous with those in the Big Bend regions? Or are such sites later and reflective of population movement? These and other similar questions can be clarified only through radiometric dating. Perhaps AMS assays on sherd soot is the best approach in order to avoid problems of mixed contexts so common in multicomponent
shell middens and to overcome the absence of organic materials suitable for conventional radiocarbon dating that plagues hinterland sites with poor preservation.

Broad-scale site excavations are necessary at early St. Johns II villages, including Mill Cove Complex and Mt. Royal. Perhaps the most pressing need is for information on domestic structures. That not one complete and unequivocal St. Johns II or St. Marys II period house has been excavated is astounding. Beyond issues of preservation, part of the problem is site-testing methodology, which too often has been limited to shovel tests or scattered units, typically no larger than 2-m square. These measures are woefully inadequate for exposing large intrasite community patterns. Opening broad areas should avail the opportunity to identify, either directly or indirectly, domestic structures, ceremonial buildings, and other activity areas (including potential loci of craft production). This information is essential for inferring how labor was organized. A richer household database will also permit us to explore relations of gender, something lacking in this study.

Not all future research requires additional excavation, however. A variety of available materials are in need of first-time study, reexamination, or more-detailed analysis. Fine-mesh samples from shell middens in the vicinity of the Shields Mound contain abundant botanical and faunal remains that require analysis. A concerted effort must be made in the future to fund paleoethnobotanical studies to determine what specific plants the late prehistoric natives of northeastern Florida exploited. Did they encourage the growth of certain plants? Or was their plant diet based exclusively on wild species? When exactly did maize cultivation first appear in the area? We presently lack hard evidence on plant exploitation and consumption. Additionally, zooarchaeological data are needed from other St. Johns II contexts within the Mill Cove Complex and elsewhere in northeastern Florida to compare to and assees the uniqueness of the Kinzey’s Knoll faunal assemblage.

Ceramic technological analysis is recommended for several unanalyzed or underanalyzed pottery collections. For instance, the Mayport 2 Mound collection requires detailed study, as do
several site collections made in the 1950s. My research has stressed the need for specific temper identification to ensure standardization in pottery type identification. We must further move beyond simple sherd count approaches and invest time into technofunctional research. It is also imperative that we continue to build upon the INAA database established in this study to distinguish nonlocal from local wares. These results in conjunction with sherd refiring studies such as Rolland’s (2003) hold tremendous potential for examining issues of interaction, migration, and political economy. With regard to INAA, we must further explore the potential absorption of calcium by sherds within shell middens and its effect on INAA results, as suggested in Chapter 4. If this proves a problem then the calcium component may have to be removed statistically from composition calculations. Only through additional research, both in the field and the laboratory, can we test the interpretations forwarded in this dissertation.

In conclusion, the interpretations developed during this study challenge established points of view on the prehistory of northeastern Florida. Admittedly, some results are hardly conclusive and in need of empirical testing. Some researchers may be unconvinced by my interpretations and continue to argue for a gradual, in situ developmental sequence that connects local Late Swift Creek, St. Johns II, St. Marys II, and San Pedro archaeological cultures in a straight line to the historic-era Satiriwa Timucua. Nevertheless, a variety of empirical data has been brought to light to demonstrate that the late prehistoric societies of northeastern Florida were not merely conservative, inward-focused, and adaptive systems. Rather, I have attempted to connect these local groups to those people and processes around them. I have further sought to link material remains with people and people with history in order to reconstruct a past that was more nuanced and problematic than previously assumed. It is hoped that this specific case study can contribute to the circle of research that ties historical studies, comparative research, and empirical generalizations pertaining to issues of exchange, population movement, and political economy.
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