FROM SANTA ELENA TO ST. AUGUSTINE: INDIGENOUS CERAMIC VARIABILITY (A.D. 1400–1700)

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AND

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Proceedings of the Second Caldwell Conference
St. Catherines Island, Georgia
March 30–April 1, 2007

ANTHROPOLOGICAL PAPERS OF
THE AMERICAN MUSEUM OF NATURAL HISTORY
Number 90, 229 pages, 77 figures, 42 tables
Issued August 26, 2009

ISSN 0065-9452

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ABSTRACT

Archaeologists have long known that important changes took place in aboriginal ceramic assemblages of the northern Florida, Georgia, and South Carolina coast after the arrival of Europeans. New pottery designs emerged and aboriginal demographics became fluid. Catastrophic population loss occurred in some places, new groups formed in others, and movements of people occurred nearly everywhere. Although culturally and linguistically diverse, the native inhabitants of this region shared the unwelcome encounter with Spanish people and colonial institutions, beginning in the early decades of the 16th century and continuing into the 18th century. Spanish missions and military outposts were established at native communities throughout the area, and these sites have been studied by both archaeologists and historians for decades. As a consequence, the lower southeastern Atlantic coast offers one of the most intensively studied episodes of multicultural colonial engagement in America.

The Second Caldwell Conference was organized to bring researchers working in South Carolina, Georgia, and Florida together to address and more precisely define aboriginal ceramic change throughout the region as a baseline for approaching a more broadly based anthropological perspective on the consequences of encounter. The scope of inquiry was restricted to late prehistoric and early historic (A.D. 1400–1700) aboriginal ceramic wares from Santa Elena (South Carolina) to St. Augustine (Florida). The primary objective was to more precisely establish the technology, form, and design of the archaeological ceramic evidence. Without devolving into semantic and/or taxonomic wrangles, we examined how well (or poorly) archaeological labels used throughout the region to identify pottery serve as reliable proxies for the physical examples of those ceramic traditions.

We also attempted to define the time-space distribution of the various ceramic traditions and pottery types throughout the south Atlantic coast. Specifically, we asked:

(1) Did the indigenous ceramic complexes change fundamentally with the arrival of the Spaniards?

(2) Or did indigenous ceramic traditions essentially persist, and merely shifted geographically?

The eight contributions of this volume examine, on a case-by-case basis, the most important aboriginal ceramic assemblages from Santa Elena southward to St. Augustine, across the region, contextualizing each assemblage with the relevant physical stratigraphy, radiocarbon dates, associations with Euro-American wares, and documentary evidence. We also attempt to situate the physical ceramic evidence from the northern Florida-Georgia-South Carolina coastline with the contemporary archaeological assemblages in the immediate interior. The volume concludes with an epilogue that summarizes the results and general contributions of the conference, relative to archaeological practice in the lower Atlantic coastal Southeast, and also to the larger cultural and methodological issues raised by these papers.

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Participants in the Second Caldwell Conference, St. Catherines Island, March 30–April 1, 2007: *(left to right):* Royce Hayes, Dennis Blanton, Keith Ashley, Gifford Waters, Matt Sanger, Lori Pendleton, Carl Hilbert, Dave Thomas, Kathy Deagan, Becky Saunders, Mark Williams, John Worth, Ginessa Mahar, Anna Semon, Elliot Blair, and Chester DePratter (photograph by Jen Hilburn).

Becky Saunders (at left), Chester DePratter, Kathy Deagan, and Anna Semon examining ceramics during the Second Caldwell Conference (meeting room, St. Catherines Island; photograph by Anna Semon).

PREFACE

KATHLEEN DEAGAN AND DAVID HURST THOMAS

Since the days of Joseph Caldwell, archaeologists have known that important changes took place in aboriginal ceramic assemblages of the northern Florida, Georgia, and South Carolina coast after the arrival of Europeans. New pottery designs emerged and aboriginal demographics became fluid. Catastrophic population loss occurred in some places, new groups formed in others, and movements of people occurred nearly everywhere. Although culturally and linguistically diverse, the native inhabitants of this region shared in common the unwelcome encounter with Spanish people and colonial institutions, beginning in the early decades of the 16th century and continuing until their demise or departure of the Spaniards in the 18th century. Spanish missions and military outposts were established at native communities throughout the area, and these sites have been studied by both archaeologists and historians for more than half a century. As a consequence, the lower southeastern Atlantic coast offers one of the most intensively studied episodes of multicultural colonial engagement in America.

The Second Caldwell Conference was organized to bring together researchers working in South Carolina, Georgia, and Florida to address and more precisely define aboriginal ceramic change throughout the region as a baseline for approaching a more broadly based anthropological perspective on the consequences of encounter. During the past 25 years there has been a major increase in the volume of new archaeological and documentary research in this region, stimulated both by cultural resources management concerns and by academic programs. In the process, sampling methods have evolved, chronologies have been refined and diversified, taxonomies and terminologies for basic data categories have been altered and multiplied, and research questions have changed. Recognizing this, the Second Caldwell Conference was also organized to help establish a common understanding of the tools and data essential for a regional comparative archaeological synthesis and interpretation.

The papers in this volume were presented at that conference, which was sponsored by the American Museum of Natural History and held on St. Catherines Island (Georgia), March 30–April 1, 2007. The inquiry focused on late prehistoric and early historic (A.D. 1400–1700) aboriginal ceramic wares from Santa Elena (South Carolina) to St. Augustine (Florida). The initial objective was to more precisely establish the technology, form, and design of the archaeological ceramic evidence for this period and place. Without devolving into semantic or taxonomic wrangles, we attempt to examine how well (or poorly) archaeological labels used to identify pottery throughout the region serve as reliable proxies for the physical examples of those ceramic traditions (in other words, we conducted an old-fashioned, Caldwellian-era communal exercise in comparing ceramic type and tradition labels to actual potsherds identified by those labels with such questions as, Is your "Altamaha" the same as my "Altamaha"?).

With consensus (or at least common understanding) about our units of ceramic comparison achieved, our next objective was to define their time-space distribution across the target area: the basics of *what, when,* and *where* for ceramic traditions and types. This effort was focused by asking: Did the indigenous ceramic complexes in the region change significantly with the arrival of Europeans? or did indigenous ceramic traditions essentially persist, and merely shift geographically?

The revised papers in this monograph examine, on a case-by-case basis, the direct archaeological evidence that addresses these questions. They illustrate numerous examples of aboriginal ceramic assemblages from across the region, along with the relevant archaeological data that contextualizes them, including physical stratigraphy, radiocarbon dates, associations with Euro-American wares, and so forth. This inquiry proceeded with detailed consideration of temporal antecedents and distributional context, but without recourse to assumed social, political, and/or temporal associations based on Euro-American documents. These papers also attempt to situate the physical ceramic evidence from the northern Florida-Georgia–South Carolina coastline with the contemporary archaeological assemblages in the immediate interior.

The ultimate objective of *From Santa Elena to St. Augustine: Indigenous Ceramic Variability*

(A.D. 1400–1700) is to understand the "who" and "why" behind the archaeological ceramic assemblages. The volumes concludes with a detailed articulation of the "what," "when," and "where" revealed by the physical evidence of archaeology with the "who," "when," and "where" of these ceramic-making people as revealed through written documents, and attempts to address (if not answer) the larger cultural "why?"

By updating and mapping these two independently considered material and textual datasets against one another in time and space, we expected to achieve a considerably more rigorous characterization of Native American ceramic production, practice, and change after the arrival of Europeans. With that understanding, we hoped in turn to ultimately gain a better-informed understanding of population movements, demographic reconfigurations, and changes in traditional practice in the dramatically altered social landscape of our region after 1500.

Chester DePratter begins the volume with a consideration of the aboriginal ceramics associated with the Spanish settlement of Santa Elena, South Carolina, at the northern extent of the study area. Santa Elena was occupied from 1567 to 1587 in the territory of the Orista/Escamaçu people. DePratter provides a systematic overview of the long and often confusing history of archaeological ceramic taxonomy for the post-Columbian period in this area. He also provides a detailed taxonomic assessment of the ceramic sequence from the "Irene" to "Altamaha" traditions, showing that they overlapped during much of the 16th century, and occurred together at Santa Elena.

David Hurst Thomas synthesizes the results from three decades of multidisciplinary research on St. Catherines Island, Georgia, studying indigenous occupation spanning the Archaic period through the 17th century A.D. Thomas defines two critical transitions in the pre-Columbian aboriginal lifeways on St. Catherines Island: the relatively abrupt shift from an egalitarian ethos to inherited asymmetry prior to the adoption of maize agriculture (sometime shortly before European contact) and an apparently rapid transition from forager to forager/farmer during the Irene period (post- A.D. 1300). This was the Guale heartland, and the location of the principal Franciscan mission to the Guale between 1597 and 1680. By calibrating a massive database of new radiocarbon dates from St. Catherines with the late pre-Columbian ceramic sequences, Thomas addresses the life span and overlaps between the two dominant late pre-Columbian ceramic traditions of the area, Irene and Altamaha. New data suggest that Altamaha ceramics appeared during the late 14th or early 15th century on St. Catherines, and had almost completely replaced ceramics of the Irene tradition by 1597, when the mission was established. Thomas considers the implications of these early dates for Altamaha in the light of conflicting documentarily derived and archaeologically derived information, posing the possibility that the notion of the "Guale Coast" may not have represented a homogeneous indigenous ethnic or material tradition, but rather a Spanish interpretation.

In chapter 3, Rebecca Saunders examines the fairly dramatic changes that transpired in Irene ceramics between about A.D. 1580 and 1600. This study describes and considers the pottery crafted by the Guale people of coastal Georgia from the late prehistoric era through the end of the mission period in northeastern Florida. Saunders argues that the changes from the Irene ceramic tradition to the historic type Altamaha were somewhat abrupt, and suggests that they may have represented an invented tradition. She shows that the Altamaha ceramic complex continued to be produced essentially unaltered, even as the Guale population was forced southward into Florida by political mayhem. Emphasizing this continuity and the adoption of this ceramic type by native groups unrelated to the Guale, Saunders considers market forces and intertribal marriage as possible explanations for the stability and ubiquity of the type.

The Mississippian societies of interior Georgia are discussed by Mark Williams (in chap. 4), who considers the potential relationships of the early post-Columbian groups of that region to those of the coastal region. Williams hypothesizes that population movements took place among the interior Georgia Hitchiti-speaking Creeks in response to economic trade opportunities offered by the Spanish presence. However, he notes that there is no archaeological indication that this association led to influence or exchange between the interior groups and the coastal Guale and Timucua people in contact with the Spaniards. He notes that although the ceramic traditions of both areas initially derived from the Lamar tradition of the Piedmont, the Altamaha/San Marcos tradition that dominated the coastal regions did not spread into the interior.

Keith Ashley moves the discussion (in chap. 5) southward to the St. Marys region—extreme northeastern Florida and southeastern Georgia—occupied by Mocama-speaking Timucua people when Pedro Menéndez arrived in 1565. His discussion highlights the very distinctive indigenous ceramic traditions of this area during the late pre-Columbian and early post-Columbian periods, which contrast markedly with those of regions to the north and to the south. He explains that from about A.D. 1100 until the mid/late 15th-century St. Marys series ceramics, consisting of sand-tempered plain and cord marked types, were the dominant wares produced in the region. Grog-tempered San Pedro pottery added to the ceramic repertoire during the 15th century, and by the early 16th century, San Pedro had replaced St. Marys as the region's signature ceramic ware. By the mid-17th century, however, San Pedro pottery had virtually ceased to be manufactured, as Altamaha/San Marcos became the primary ware made by all Mocama-speaking Timucua, Guale, and Yamasee Indians living in Atlantic coastal missions north of St. Augustine.

The papers by Kathleen Deagan and Gifford Waters address the indigenous ceramic assemblages of the people in the immediate vicinity of St. Augustine, Florida. In chapter 6, Deagan summarizes the results of ongoing archaeological research at the Fountain of Youth Park site in St. Augustine, which was occupied from the late Archaic period through the 17th century. It is also thought to be the site of the initial encampment of Pedro Menéndez and his colonists in 1565–1566, as well as, subsequently, the initial site of the Franciscan mission of Nombre de Dios, established in 1587. At the time of Spanish arrival in 1565 the Timucua people located south of the St. Marys region and the St. Johns River produced and used chalky-textured St. Johns pottery, associated with the region for more than 2000 years. The pre-Columbian ceramic assemblage at the Fountain of Youth Park strongly indicates local isolation until the latter part of the St. Johns II period (late 15th or early 16th century). By the early 16th century, ceramics suggest that its inhabitants were probably engaged to at least some degree with the larger southeastern coastal area that was eventually to become the primary coastal Spanish mission region. There is no ceramic evidence, however, for interaction with people of interior Florida or the interior southeast. Chronology at the Fountain of Youth Park indicates that some Guale-associated Altamaha/San Marcos ceramics were present at the site just prior to European contact. Although these wares increased significantly after 1565, they never entirely replaced the indigenous St. Johns ceramic assemblage as was seen among the Mocama Timucua and the Guale.

Gifford Waters demonstrates in chapter 7 that similar circumstances pertained also in the 18th-century Christian Indian towns of St. Augustine. The fortunate convergence of detailed Spanish census data and archaeological excavation results allowed Waters to compare the ceramic assemblages from three communities occupied by people whose tribal/ethnic/linguistic affiliations were documented in detail by the Spanish. He argues that although Altamaha/San Marcos wares are numerically dominant at all sites, the ceramic assemblages of the respective Timucua, Guale, and Yamasee communities can be recognized and distinguished by the nature of non–Altamaha/San Marcos indigenous ceramics. He suggests that both market forces, and the use of multiple social identities (including that which might be termed "Mission Indian") shaped the ceramic patterns seen in these 18th-century urban Indian communities.

The final chapter by John Worth provides a broad and far-reaching synthesis of the conference topics. Worth considers the entire region addressed by the participants, articulating the "what", "when," and "where" of the ceramic assemblages, with the "who" of the historically documented Native people associated with them. Tracking movements of people and pottery during the post-1550 period, he argues that after the early 17th century, this dominant Altamaha/San Marcos ceramic tradition cannot be associated with a specific Native American tribal or ethnic group. Instead, it represents diverse groups of people under mission influence who adopted and probably produced a distinctive pottery tradition that was originally associated with the Guale and Orista people. Worth extends his discussion to consider the interior Florida mission regions, where a similar pattern of ceramic transformation and replacement occurred, and addresses the potential roles of post-Columbian aboriginal cultural identity in the region.

The volume concludes with an epilogue that considers the general contributions of the conference, both to archaeological practice in the lower Atlantic coastal Southeast, and to the larger cultural questions raised by these papers.

ACKNOWLEDGMENTS

We express our sincere thanks to the Trustees of the St. Catherines Island and Edward John Noble Foundations for their long-term commitment to archaeological research on St. Catherines Island. We are especially grateful to Ms. June Noble Larkin and the late Frank "Yoke" Larkin for their friendship, their guidance, and their willingness to stick with us over the decades. We are also grateful to Mr. Jeremy Smith (President, St. Catherines Island Foundation), Mr. Noble Smith (Executive Director, St. Catherines Island Foundation), Mr. David Smith (formerly President, St. Catherines Island Foundation), and the late Mr. Bradford Smith (formerly Co-Chair, St. Catherines Island Foundation); each has made unique contributions to our archaeology program.

Our sincere thanks go to Mr. Royce H. Hayes (Superintendent of St. Catherines Island) who facilitated the Second Caldwell Conference in countless ways. We are likewise grateful to the members of the St. Catherines Island staff, past and present, helping out in the hundreds of ways that made our archaeological investigations more productive (and more fun). In particular, we thank Ms. Jenifer Hilburn and Ms. Mary-Margaret Macgill for on-island assistance and support. We are also extremely grateful to the staff of the St. Catherines Island Archaeological Project: Mr. Elliot Blair, Ms. Lori Pendleton, Ms. Ginessa Mahar, Mr. Matt Sanger, and Ms. Anna Semon; each made numerous behind-the-scenes contributions that made the Second Caldwell Conference run so smoothly.

DePratter (chapter 1) gratefully acknowledges the assistance and contributions of Mr. Stanley South and Dr. Charles Cobb (South Carolina Institute of Archaeology and Anthropology), Mr. James Legg, Ms. Lisa Hudgins, and Mr. Kristopher Asher (Santa Elena Project) and Dr. Steven Wise and Dr. Bryan Howard (Parris Island Museum).

Thomas (chapter 2) acknowledges the long-term support of the Edward John Noble and St. Catherines Island foundations for making possible the archaeological research described here. Mr. Royce Hayes (Island Superintendent) worked with us every step of the way. Special thanks also go to Ms. Madeline del Toro Cherney for preparing all of the artwork that accompanies this chapter, Mr. Dennis O'Brien and Ms. Debby Mayer O'Brien for taking the field photographs. Ms. Angela Sharp (American Museum of Natural History) and Mr. Dan Schultz (Fernbank Museum of Natural History) photographed the ceramic vessels. We also thank Ms. Christina Friberg and Mr. Matthew Napolitano for assistance in preparing ceramic frequency tables.

Ashley (chap. 5) acknowledges Vicki Rolland for helpful comments on an earlier draft of his paper, Buzz Thunen for sharing ceramic data from the Armellino site, and Elizabeth Benchley and Janet Lloyd of the Archaeology Laboratory at the University of West Florida for graciously allowing access to the pottery collections from 8DU634 and 8DU669.

For the archaeological research at the Fountain of Youth Park (chap. 6), Deagan acknowledges support of the Special Category Grant and Historic Preservation Matching Grant-in-Aid assistance provided by the Bureau of Historic Preservation, Florida Department of State, assisted by the Florida Historical Commission, as well as Historic Preservation Advisory Council. Major financial support was also provided by grants from the St. Augustine Foundation at Flagler College and the Fountain of Youth Park, Inc., the Lastinger Family Foundation, the National Geographic Society, the Institute for Early Contact Period Studies at the University of Florida, the Florida Museum of Natural History, and the Florida State University Department of Anthropology. A great many individuals and agencies over the years have made this work both possible and productive, and Deagan particularly thanks the family of John W. Fraser and the staff of the Fountain of Youth Park for their gracious permission to work at the site, their logistical support of the excavations in many large and small ways, and their patience and good humor over the years of research. The Fraser family also helped to provide pertinent information and photographs relating to the recent history of the property and the changes that have been made over the years. Deagan is also grateful to St. Augustine City Archaeologist Carl Halbirt and the City of St. Augustine Public Works Department for consistently providing support, assistance, and advice over the years.

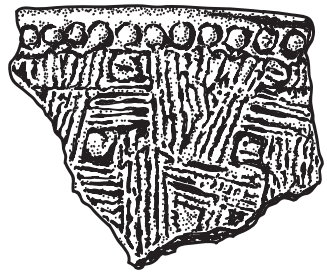
For the research results reported in chapter 7, Waters thanks the Florida Department of State Historic Preservation Grants-in-Aid Program,

the St. Augustine Foundation, the Fountain of Youth Park, Inc., the Lastinger Family Foundation, and the Florida Museum of Natural History for funds supporting the research on which this paper is based.

John Worth (chap. 8) expresses his gratitude for the opportunity to visit St. Catherines Island and participate in the Second Caldwell Conference, noting "this is the only remaining major barrier island in the study area that I had never visited personally before". He expresses his thanks to the other participants for their open sharing of ideas, interpretations, and raw data, both during the preparation of this manuscript and in many cases for years and even decades previously. While there may remain differing interpretations among and between both present and past researchers in the study area, Worth notes, he believes that this volume fundamentally reflects a remarkable and very commendable spirit of scholarly openness and cooperation relative to a very difficult and sometimes controversial subject.

We thank Dr. Jerald T. Milanich and Dr. John Scarry for their thoughtful and critical reviews of the entire draft manuscript. Ms. Molly Trauten took the cover photograph. We also personally thank Ms. Madeline del Toro Cherney for her expertise and good spirit in working through the various graphics contained in this diverse volume; we also thank Mr. Elliot Blair, Ms. Christina Friberg, Ms. Chelsea Graham, Ms. Ginessa Mahar, Mr. Matthew Napolitano, Ms. Lorann S.A. Pendleton, Mr. Matthew Sanger, and Ms. Anna Semon for assistance in producing the ceramic tables, the figures, and the bibliography. We acknowledge the contribution of Ms. Brenda Jones and Dr. Mary Knight for their editorial efforts and Ms. Jennifer Steffey for her skill and patience in designing the cover and assisting with the final artwork.

PART I
CERAMIC VARIABILITY ALONG THE SOUTH CAROLINA–GEORGIA COASTLINE



CHAPTER 1
IRENE AND ALTAMAHA POTTERY FROM THE CHARLESFORT/ SANTA ELENA SITE, PARRIS ISLAND, SOUTH CAROLINA

CHESTER B. DEPRATTER

In this paper, I discuss the aboriginal ceramics recovered during long-term excavations at the Charlesfort/Santa Elena site on Parris Island, South Carolina. These ceramics provide a critical baseline for understanding the late prehistoric and early historic period indigenous ceramics along the South Carolina/Georgia/northern Florida coast.

HISTORY OF EXCAVATION

The Charlesfort/Santa Elena site (38BU51 and 38BU162) is located on Parris Island on the southern South Carolina coast. Although the site has evidence of human occupation spanning more than 10,000 years, most of the archaeological excavations there have focused on the 16th-century French and Spanish components.

Beginning in the 18th century, fort remnants on Parris Island were believed by locals to be French Charlesfort that had been built there by Frenchman, Jean Ribault, in 1562 and abandoned in 1563 (DePratter et al., 1996). By the early 20th century, historians were convinced that those remains were part of the Spanish town of Santa Elena, which occupied the same site between 1566 and 1587 (Salley, 1919; Ross, 1925; Connor, 1927). It was not until 1957 when National Park Service historian Albert Manucy (1957) identified archaeological materials from the site as being Spanish in origin, that the settlement was confirmed as the location of Spanish Santa Elena.

Stanley South, archaeologist at the University of South Carolina, began excavating at Santa Elena in 1979, and he and colleagues have worked there nearly every year since then. Although there were at least four, and possibly five, forts built and used during the 21-year Spanish occupation, only two of those have so far been discovered. The first, Fort San Marcos (occupied from 1582 or 1583 to 1587), still had an open, water-filled moat when the English began settling the surrounding area in the 18th century, and it still looks much the same today (South, 1982). The second known Spanish fort, Fort San Felipe (occupied 1566–1570), was discovered by Stanley South (1980, 1984, 1985) in his first field season on the site (fig. 1.1).

During the three decades that South has worked on the site, parts of Forts San Felipe and San Marcos have been excavated, as have the two town lots believed to belong to Governor Gutierre de Miranda (occupied 1580–1587; DePratter and South, 1995). Other large block excavations have uncovered structural remains, wells, and numerous refuse-filled features that cannot be attributed to specific occupants (South, 1982). In 1993, Chester DePratter and Stanley South discovered and excavated a Spanish pottery kiln dating to the 1580s, and in 1996 they announced the discovery of French Charlesfort, which is located beneath Spanish Fort San Felipe (DePratter et al., 1996). A shovel testing project conducted in 1994 defined the limits of the Spanish town that still covers approximately 15 acres (6 ha) despite erosive loss of approximately 150–200 ft (46–61 m) of land along the entire eastern margin of the site (DePratter and South, 1995).

Excavations at the Charlesfort/Santa Elena site have led to recovery of tens of thousands of Spanish artifacts, plus an immense amount

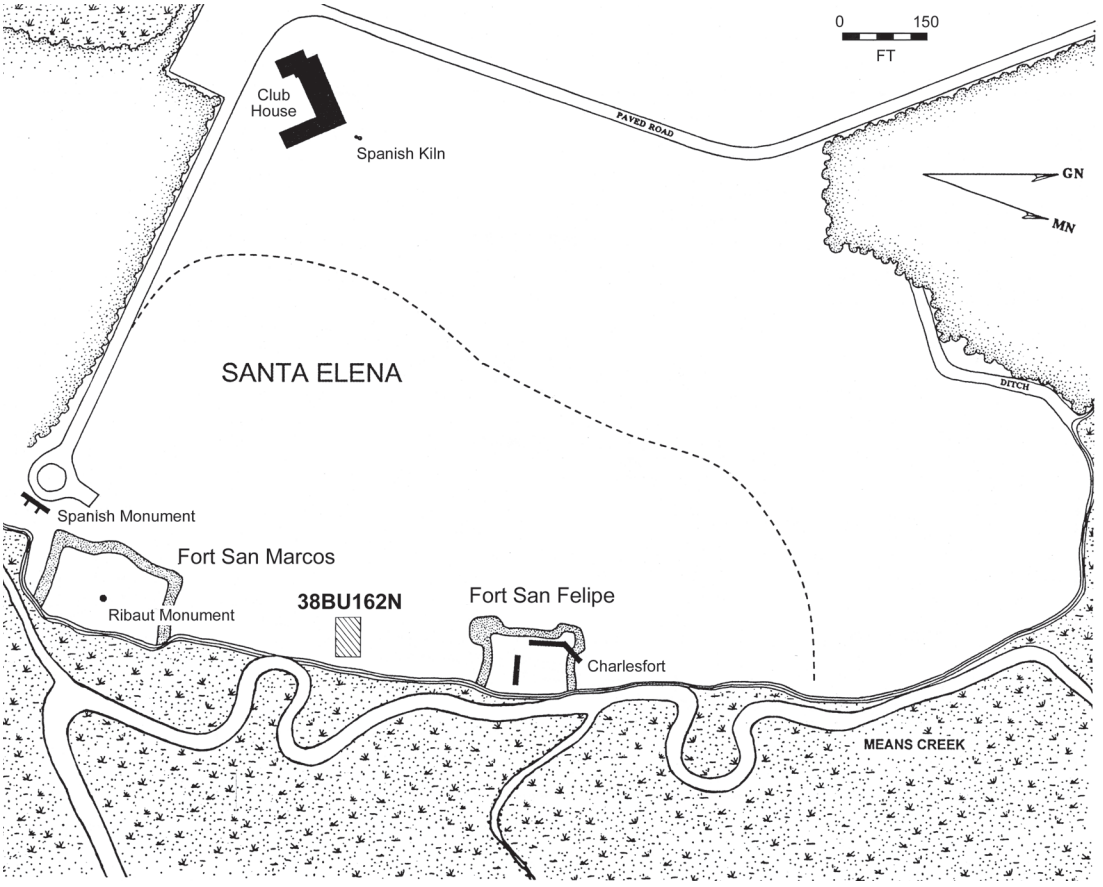


Fig. 1.1. The Charlesfort/Santa Elena site (38BU51 and 38BU162) showing the location of the 38BU162N block.

of material dating to both earlier and later occupations (DePratter and South, 1995). Shovel testing and block excavations have provided detailed information on the distribution of the various Native American occupations on the site spanning the past 4500 years (earlier occupations are scattered and not well represented). The same shovel testing and excavations have also provided abundant evidence of the 18th- and 19th-century plantation occupation of the site including the location of at least two main houses, two slave rows, and a cemetery.

There is also limited material on the site dating to the Freedman occupation of the island after the Civil War, though much of the Charlesfort/Santa Elena site was in land set aside as a School Farm. During World War I, the site was developed as the "Maneuver Grounds" for training Marines, and evidence of that occupation including tent platforms, roads and walkways, and building foundations covers the entire site. Following World War I part of the site became an artillery and bombing range, which had minimal impact, though small practice bombs and fragments of artillery projectiles are common finds in excavations. In 1947, the site became part of the Parris Island golf course, and that use of the site continued to 2000 when the seventh, eighth, and ninth holes were relocated off the site (DePratter et al. 2003). In 2001, the sites of Charlesfort and Santa Elena were made a National Historic Landmark.

DEFINING THE IRENE CERAMIC COMPLEX

The Spanish-contemporary Native American pottery found at the Charlesfort/Santa Elena site is part of the broader Lamar pottery horizon that spans all of Georgia, most of South Carolina, and parts of North Carolina, Alabama, and Florida (Williams and Shapiro, 1990). This pottery

horizon, first recognized and called the "South Appalachian Group" by William H. Holmes (1903), was subsequently renamed Lamar by archaeologists working on relief projects around Macon, Georgia, in the 1930 (Kelly, 1938; Jennings, 1939; Willey, 1939). Clarence B. Moore (1897) referred to pottery of this period as "the ordinary type."

Subsequent work on the Georgia coast in the late 1930s and early 1940s by work relief crews resulted in recovery of large collections of pottery spanning a period of time now known to include more than 4000 years (Caldwell and McCann, 1941; DePratter, 1991). In an effort to provide a chronological framework for many of the pottery types being recovered, Joseph Caldwell and Antonio J. Waring published a series of type descriptions and a chronology in 1939 (Caldwell and Waring, 1939a, 1939b). They called this coastal Lamar-like pottery the "Irene" series, naming it after the Irene Site in Chatham County (Caldwell and McCann, 1941). Their original type descriptions included Irene Filfot Stamped (now Irene Complicated Stamped), Irene Incised, and Irene Plain (Caldwell and Waring, 1939a; see fig. 1.2). They placed these three types into their newly formulated Irene I "complex." The fact that Caldwell and McCann designated this complex/phase as "I" suggests that they anticipated the identification of later phases of Irene, but they did not subsequently identify such phases. More recent research has shown that there are other minority types including Irene Check Stamped, Irene Cord Marked, and Irene Corncob Impressed that sometimes show up in Irene I contexts (Cook, 1978; Pearson, 1984; Larson, 1984; DePratter, 1991).

We now know through radiocarbon dating that the Irene pottery from the Irene type site, and from surrounding Chatham County sites excavated by WPA crews, dates to from about A.D. 1325 to 1450 (DePratter, 1991). In about 1450, the middle and lower portions of the Savannah River and adjacent portions of the coast were abandoned for reasons that are not currently well understood (Anderson, 1994; DePratter, 1994). Native Americans outside this abandoned corridor continued making Irene/Lamar series pottery (DePratter, 1984; table 1).[1]

Charles Pearson (1977), Chester DePratter (1979), and Fred Cook (1980a) have subdivided the period in which Irene pottery was made into two phases. The Irene I phase, as was described originally by Caldwell and Waring (1939a, 1939b), includes complicated stamped, plain, and burnished plain types (see DePratter, 1991 for updated type descriptions). At about A.D. 1450, incising was developed as a decorative technique, and the addition of this type is a marker for the beginning of the Irene II phase (Pearson, 1977; Cook, 1978, 1980a; DePratter, 1979; DePratter and Howard, 1980).

While working on the Pine Harbor site on the central Georgia coast, Lewis Larson recognized differences between the pottery he was finding and that which had been described by Caldwell and Waring (1939a, 1939b) at the mouth of the Savannah River. Based on the differences he observed, Larson (1978) created the Pine Harbor phase. The most marked differences noted by Larson were in the incising, and as a result he created the type, McIntosh incised, though he never provided a full type description for this material. He does state that it was a fine incised type "used for [Southern] cult symbolism on pottery" (Larson, 1978: 130). Larson's Pine Harbor Phase is the equivalent of the Irene II phase previously recognized by Cook, DePratter, and Pearson, and in more recent publications I have called the Irene II phase the Pine Harbor Phase (DePratter and South, 1995: table 1).

More recent publications by Braley et al. (1986) and Braley (1990) attempt to further subdivide the Irene period. Braley (1990: 71–72) suggests that the Irene I phase, which lacks incised pottery, dates to A.D. 1300 to 1350. His Irene II, or Pipemaker's Creek, phase dating to A.D. 1350–1450, is characterized by bold incised motifs consisting of "two or three lines." His final Irene phase, Pine Harbor, dates to A.D. 1450–1575. Pine Harbor phase is in part characterized by small jars with intricate incised motifs. The final phase in his sequence is Altamaha/Sutherland bluff dating to A.D. 1575–1700 (Braley, 1990: 72; Larson, 1952). This later phase corresponds to the Altamaha phase in my sequence (DePratter, 1979, 1991) and to Ray Crook's (1983, 1984a, 1984b) Irene San Marcos phase.

DEFINING THE ALTAMAHA AND SAN MARCOS CERAMIC COMPLEX

I must first comment on the terminology problems associated with Altamaha and San Marcos ceramics. Most archaeologists working along the southeast U.S. coast from South

Carolina to Florida would agree that these materials develop directly from earlier Irene types and that they are directly associated with the period of Spanish colonial settlement and missionization.

The earliest description of this late material was provided by Joseph Caldwell based on this work on the central Georgia coast. While working at a Spanish mission site (the Fort King George Historic Site, Darien [Georgia] and likely mission Santo Domingo de Talaje) located at the mouth of the Altamaha River, Caldwell (1943) recovered an assemblage that differed from the Irene material that he had excavated at the Irene site.

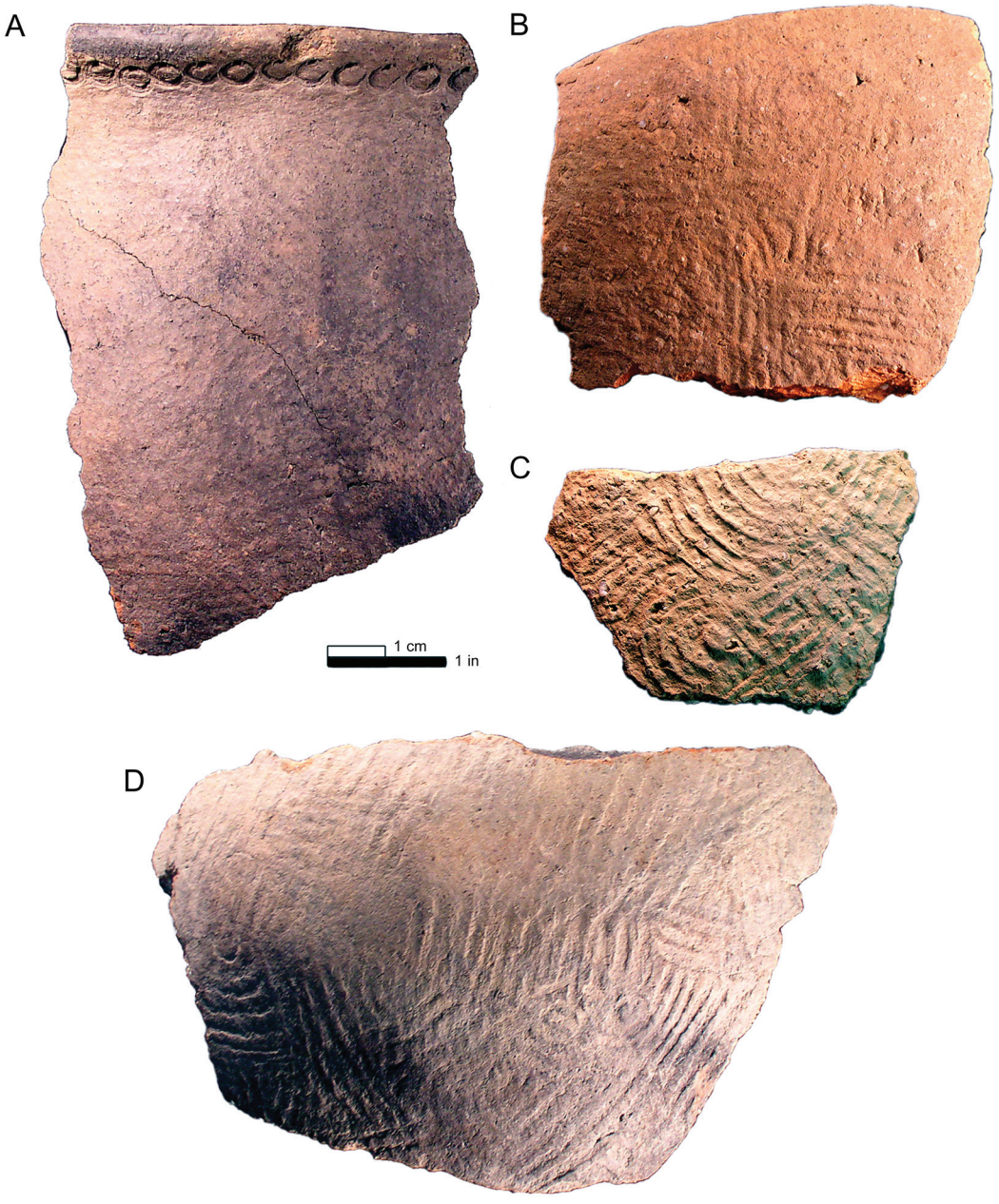


Fig. 1.2. Irene Complicated Stamped. **A.** 38BU162L-135. **B.** 38BU51C-64A(21). **C.** 38BU51C-64. **D.** 38BU162C-27B.

This mission period assemblage included incised and punctated, check stamped, and red-filmed types in association with paddle stamped pottery that was predominantly line block stamped, simple stamped, and cross-simple stamped. The curvilinear stamping that predominated in earlier coastal assemblages had been replaced by these new stamping forms. Faced with these marked changes, Caldwell (1943: 41–44) placed these new types into what he called the King George Series: King George Malleated (all stamped forms except check stamped), King George Check Stamped, King George Incised, King George Red Filmed, and King George Plain. Because Caldwell's type descriptions for this series appear only in his master's thesis, they were never widely used. When Sheila Caldwell worked on the same site in the early 1950s, she called the mission-associated collection the Altamaha series and added complicated stamped, cross-simple stamped, and line block types that were not included in Joseph Caldwell's King George series (S. Caldwell, n.d.; Williams and Thompson, 1999). Sheila Caldwell's Altamaha series nomenclature has been retained by at least some archaeologists working along the Georgia coast (DePratter, 1979, 1991; see fig. 1.3). Others have provided their own names for this series including Larson's (1978) Sutherland Bluff which was retained by Braley (1990) and his colleagues (Braley et al., 1986), and Morgan Crook's (1983, 1984a, 1984b) Irene San Marcos Series based on his work on Sapelo Island.

While some have suggested that Lewis Larson was the one who first identified the Altamaha series (Saunders, 2000a: 45), it was clearly Sheila Caldwell, who first described this series based on her 1952 excavations at the Santo Domingo de Talaje mission (who first described this series, though the type descriptions were contained in an unpublished manuscript at the Georgia Historical Commission in Atlanta (S. Caldwell, 1954, n.d.). When Lewis Larson conducted his coastal survey to identify additional mission sites in 1952–1953, there were no published type descriptions available for Altamaha series types, so he called the mission period ceramics that he found "Sutherland Bluff," although he was aware of Sheila Caldwell's Altamaha series (Lewis H. Larson, Jr., personal commun., Oct. 31, 2008). Larson did not publish a description of his Sutherland Bluff types, though they were contained in another unpublished manuscript at the Georgia Historical Commission (Larson, n.d.).

Another ceramic series contemporaneous with Sheila Caldwell's "Altamaha" and Larson's "Sutherland Bluff" was described by Hale Smith in 1948. Smith's "San Marcos" series was based on material that he recovered during excavations in the Castillo de San Marcos moat (dating post-1686) in St. Augustine, Florida. While recognizing that there were similarities to Joseph Caldwell's King George series (and therefore to Sheila Caldwell's Altamaha series from the same site), Smith chose to use a different series name for reasons he does not detail (Smith, 1948: 315). Perhaps it was the distance between the central Georgia coast and St. Augustine, or perhaps he was simply following the trend of the time to provide different type name for similar pottery found in different states. As several papers in this volume argue, it now clear that San Marcos is the temporal equivalent of Altamaha, both originating in the late 16th century and lasting into the 18th century.

Given this plethora of series names applied to late coastal ceramics, individual archaeologists have been left to select which series name they chose to employ. Thus some archaeologists working in Georgia have chosen to use Altamaha or some combination of Altamaha and Sutherland Bluff series (DePratter, 1979, 1991; Braley et al., 1986; Braley, 1990) to describe contact period assemblages (see fig. 1.4). Others, such as Ray Crook (1983, 1984a, 1984b, 1990), have chosen to call the same materials Irene San Marcos or San Marcos Altamaha. Those working in Florida have generally called their late materials San Marcos (Hemmings and Deagan, 1973; Otto and Lewis, 1974; Saunders, 2000a), though Saunders refers to Georgia material in her analyses as Altamaha and contemporary material from Florida, San Marcos.

Archaeologists working in St. Augustine have known for more than a century that the St. Johns Series, made and used by coastal Florida Indians for many centuries prior to the arrival of the Spaniards, was replaced very quickly by a new pottery series that is very much like the materials that were being found on the Georgia coast by Joseph Caldwell and others. In 1948 Hale Smith (1948) published a description of a sample of pottery that he had recovered from the moat of the Castillo de San Marcos in St. Augustine, Florida (fig. 1.5 and also Deagan, chap. 6, this volume). Smith dated the moat fill to the post-1686 period, though he states that other material of the same

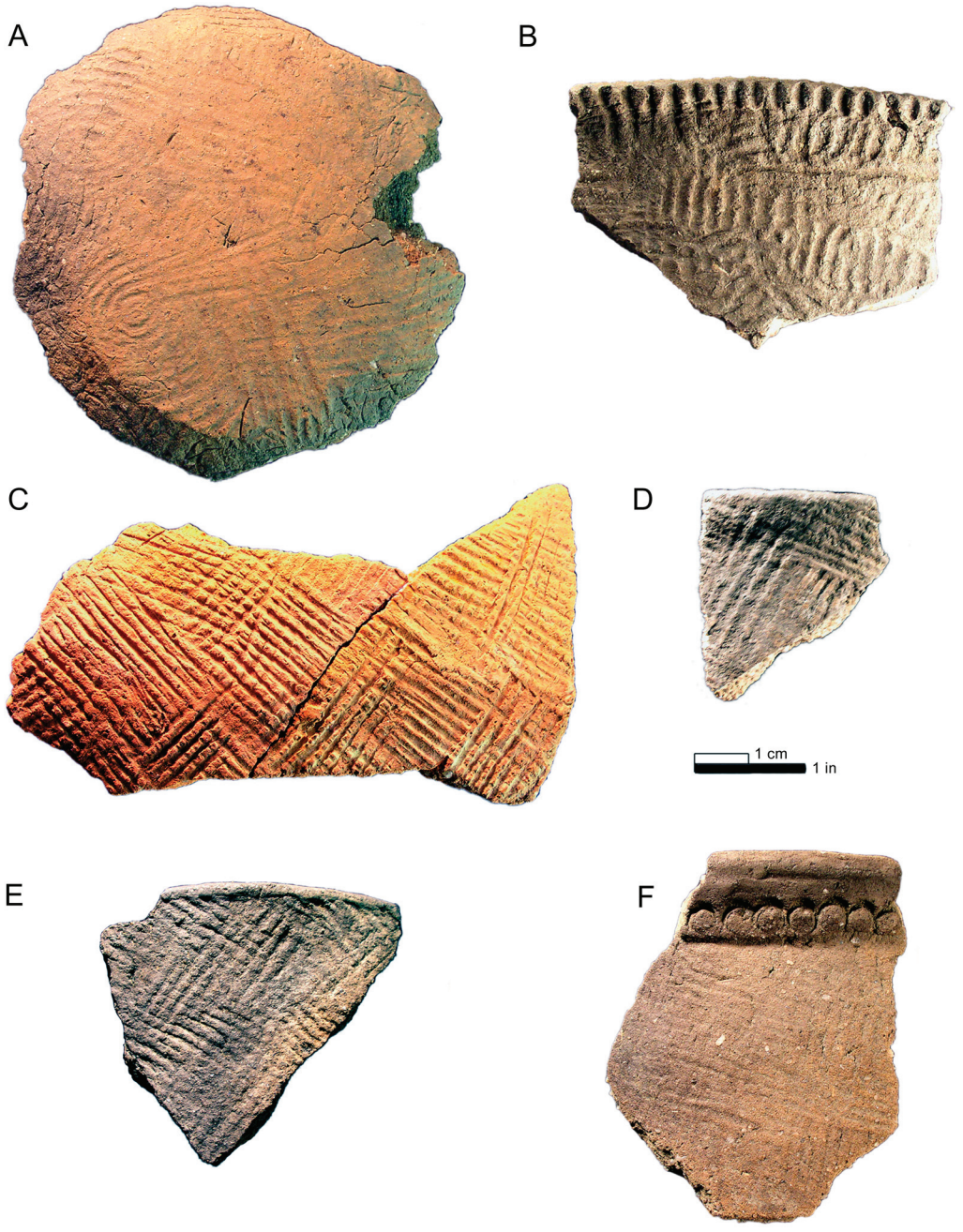


Fig. 1.3. **A, B.** Irene Complicated Stamped. **C.** Altamaha Cross Simple Stamped. **D–F.** Altamaha Line Block Stamped. **A.** 38BU162C-168B. **B.** 38BU162H-304A. **C.** 38BU51C-64D(94). **D.** 38BU162N-86. **E.** 38BU162M-284A. **F.** 38BU162N-67.

series was found in St. Augustine in contexts dating back to the founding of the town in 1565. Smith named this series of pottery "San Marcos" and provided a detailed type description for San Marcos Stamped, which included simple, cross-simple, check, and complicated stamped varieties. He notes in his description that the "distinctive cross-simple stamping is the dominant design

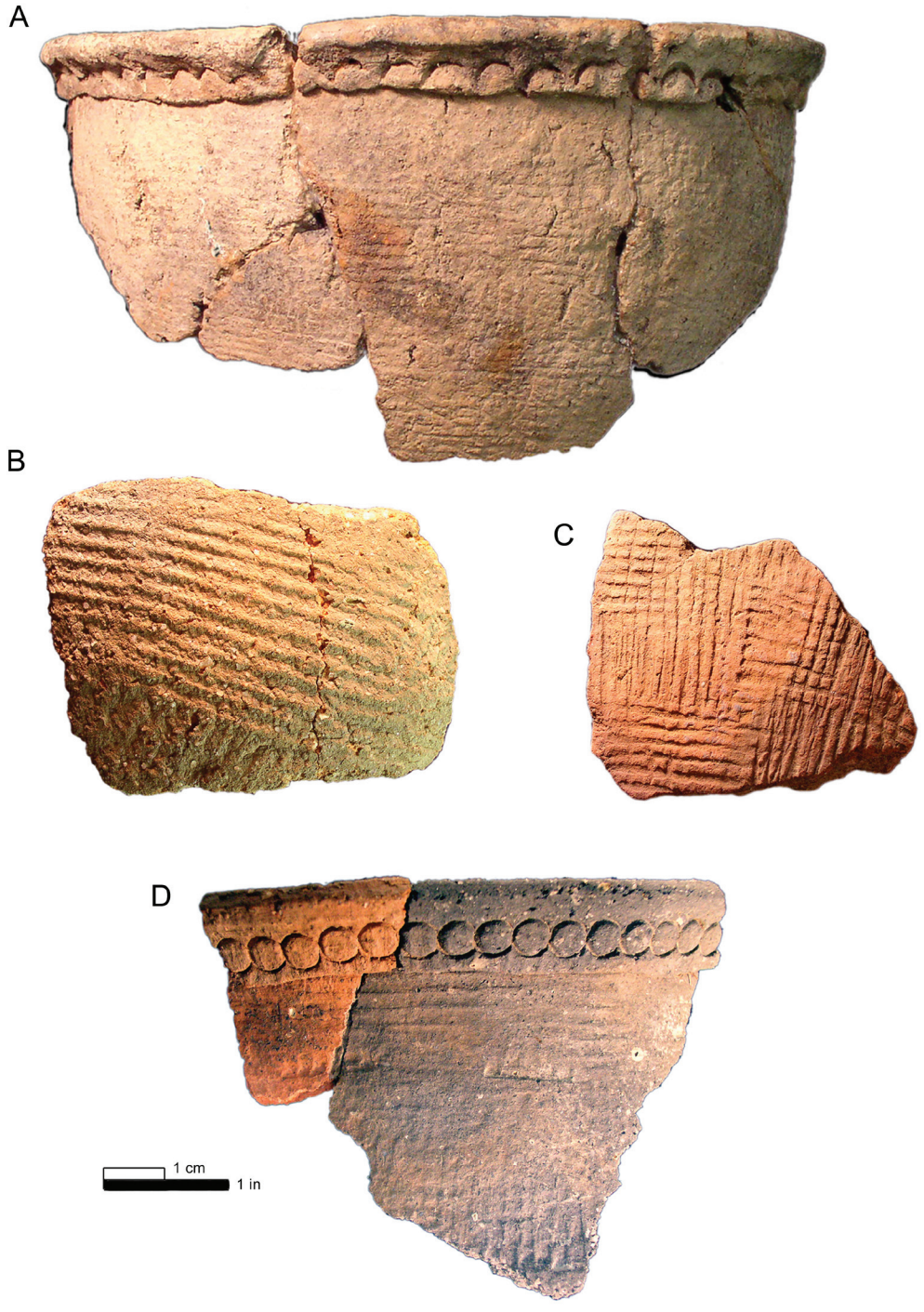


Fig. 1.4. **A.** Altamaha Simple Stamped. **B, C.** Altamaha Line Block Stamped. **D.** Altamaha Cross Simple Stamped. **A.** 38BU162D-67. **B.** 38BU51C-64C. **C.** 38BU51C-61C. **D.** 38BU51C-64J(144).

motif at late sites" (1686–1750; Smith, 1948: 315). He also makes passing mention of red-filmed, plain, and incised pottery that was contemporary with San Marcos Stamped, but he does not specifically refer to them as San Marcos types. Smith also notes that there was St. Johns pottery mixed in with the San Marcos material in some areas, and this is consistent with what we have found at the Santa Elena site (1566–1587) on the South Carolina coast where there is a fair amount of St. Johns pottery that could only have been brought up from the St. Augustine area (figs. 1.6 and 1.7).

The sherds chosen for illustration in Smith's (1948) paper are an interesting mix. Some included in his Plate XXXI are identical to sherds found on the Georgia coast in mission period (1580 to 1683) sites (fig. 1.5). These would include image "d" (that is line block stamped), "e" (cross-simple stamped), "g" (check stamped), "h" (curvilinear

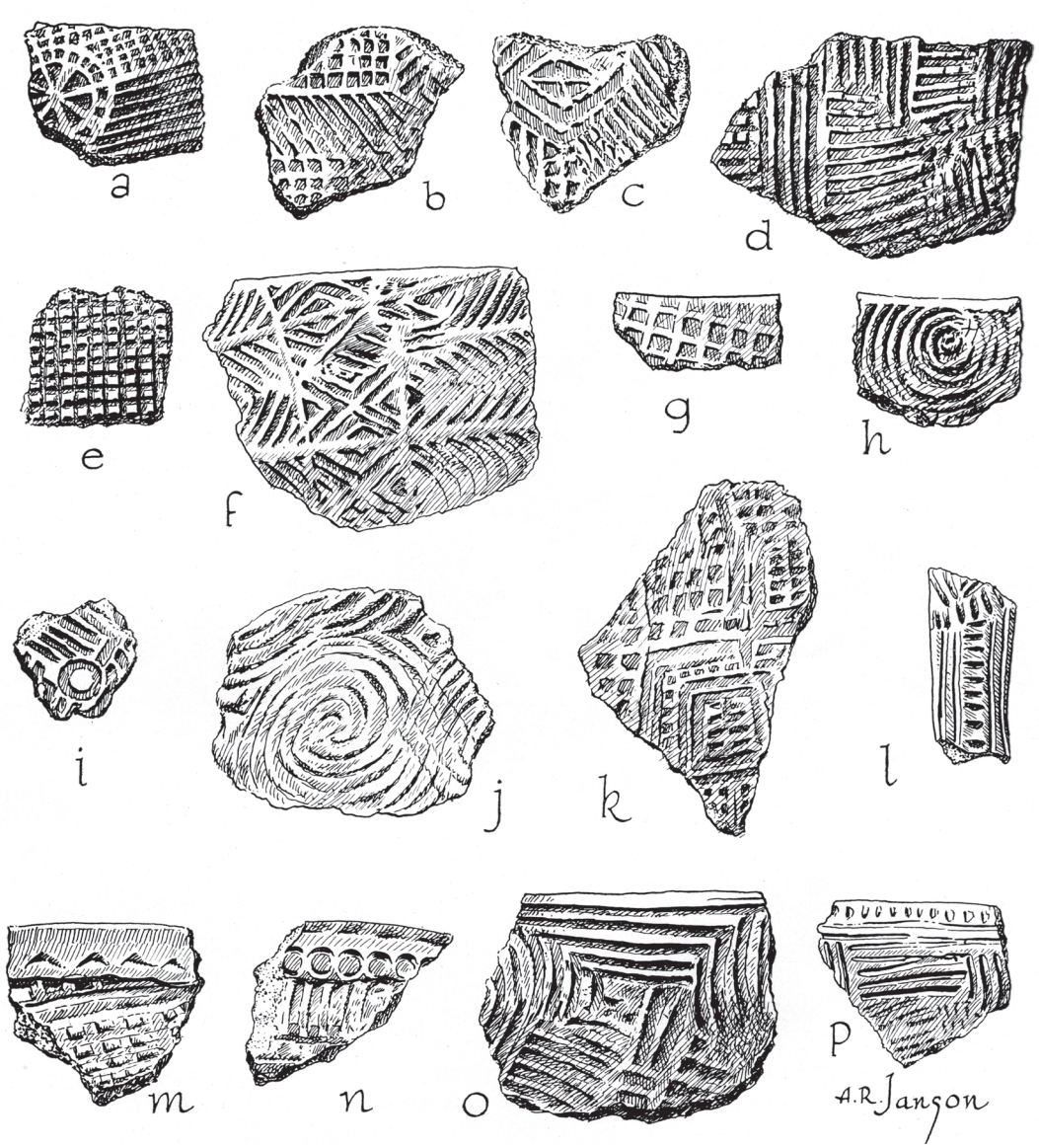


Fig. 1.5 San Marcos pottery as defined by Hale G. Smith (Reprinted with permission, American Antiquity 1948 13(4): 317. Plate XXXI.)

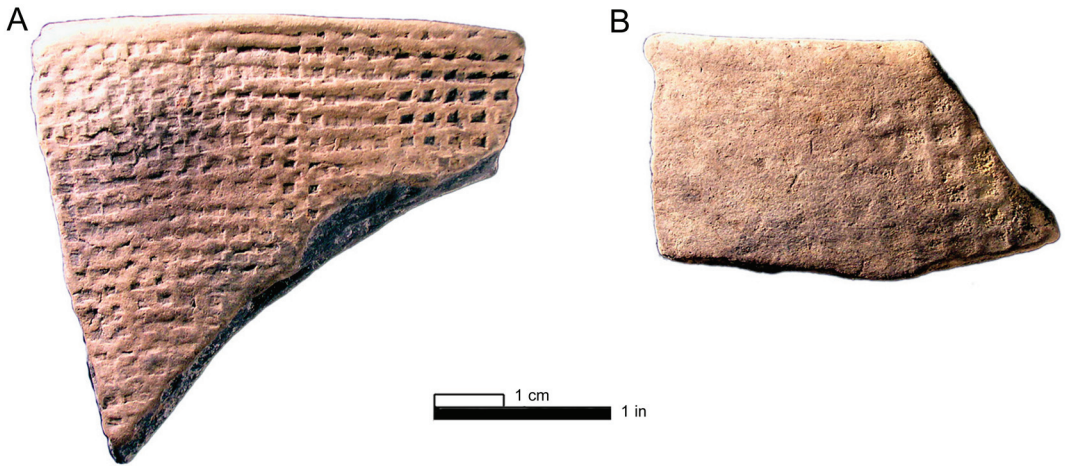


Fig. 1.6. St. Johns Check Stamped. A. 38BU162N-66B. B. 38BU162N-3A.

complicated stamped), "l" (apparently an incised and punctated handle), "m" and "n" (typical stamped sherds with folded and punctated rims), and "o" and "p" (incised or incised and punctated with stamping on the lower portion of the vessel wall). The remaining seven sherds in his pottery plate include an odd array of complicated stamped sherds that are likely unique examples chosen to show the range of variability in stamping.

Recent work (discussed elsewhere in this volume) has shown that very soon after the 1565 arrival of the Spaniards in St. Augustine, the local Indians began replacing their traditional St. Johns series pottery with pottery like that being made on the Georgia coast at that time (i.e., Altamaha series pottery). The mechanism for this rapid replacement is not currently understood, but it may have involved relocation of at least some coastal Georgia Indians to the vicinity of St. Augustine very soon after the arrival of the Spaniards. In any event, the pottery that was made in St. Augustine in the decades after 1565 is identical to coastal Georgia Altamaha series pottery.

It is clear from Smith's 1948 paper that he had seen an abundance of this Altamaha-like pottery from early contexts in St. Augustine, and he makes reference to specific examples in his description. But the bulk of what he describes and illustrates apparently comes from his excavations in the post-1686 moat. The interesting thing about the dating of his sample is that the coastal Georgia missions were abandoned by the Spaniards in 1683, with at least part of their Native American populations relocating south to the vicinity of St. Augustine. The pottery that these people were making, which was recovered from the Castillo de San Marcos moat, was called the San Marcos series by Smith. Pottery made by those same Indians on the Georgia coast before their southern migration would have been called either King George by Joseph Caldwell or Altamaha by Sheila Caldwell or Sutherland Bluff by Larson. And to complicate the picture even further, those coastal Georgia Indians who did not migrate southward in 1683 moved north to the southern frontier of South Carolina where they were known as the Yamasee. They remained in South Carolina until 1715 and the pottery that they made while living there has consistently been identified as Altamaha series (McKivergan, 1991; Green, 1991; Green et al., 2002; Sweeney, 2003).

TYPE/SERIES NAMES

Caldwell and Waring (1939a, 1939b) provided good type descriptions for most of the major Irene types, and those have been modified by DePratter (1991) and South and DePratter (1996). There are no good published type descriptions for the Altamaha series, though the descriptions Caldwell (1943) provided for his King George series are, for the most part, adequate for what I prefer to call the Altamaha series (fig. 1.8). Caldwell's King George Malleated combines what I would call Altamaha Line Block, Altamaha Simple Stamped, and Altamaha Cross Simple Stamped. Good type descriptions need to be written for each of the Altamaha series types.

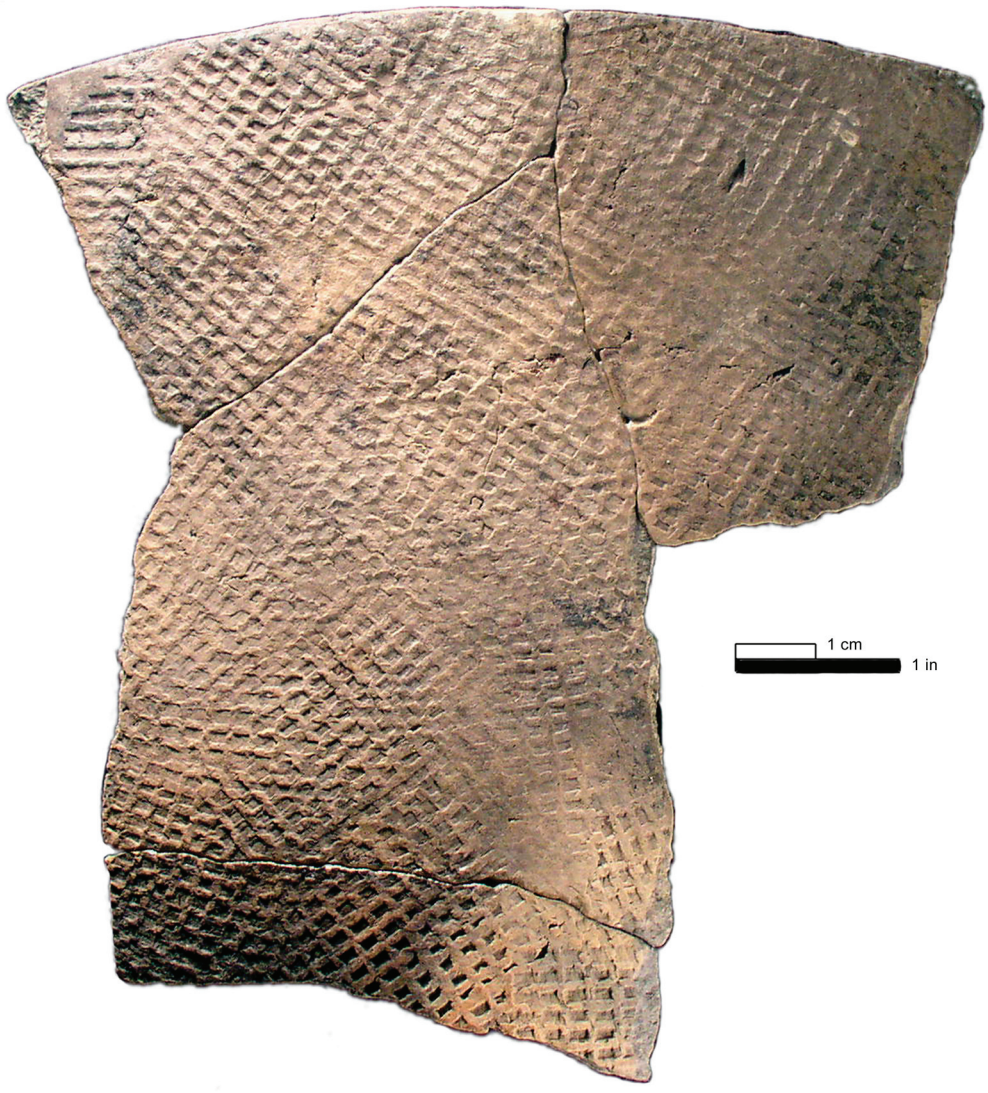


Fig. 1.7. St. Johns Check Stamped. 38BU162D-22B.

In sorting a collection of pottery from a site with a long occupation spanning the Irene and Altamaha phases, how does one sort earlier from later ceramic types? This is a difficult problem with no simple solution. With respect to complicated stamping, we know that earlier Irene Complicated Stamped is thin, well made, with moderate amounts of fine to medium grit tempering, and with the filfot cross as the predominant motif. Over time, what we call Irene Complicated Stamped undergoes a number of changes, including a coarsening of the fabric, an increase in the size of grit inclusions, larger and less carefully executed filfot crosses, and the addition of new motifs. These changes are part of a continuum that starts in early Irene and runs into the Altamaha phase. I prefer to use the Irene Complicated type name for all of these sherds, because I think that it would be impossible to consistently separate the early Irene from the later complicated stamped sherds made and used during the Altamaha phase.

The same problem arises with incised pottery (see figs. 1.9–1.13). In the early Irene,

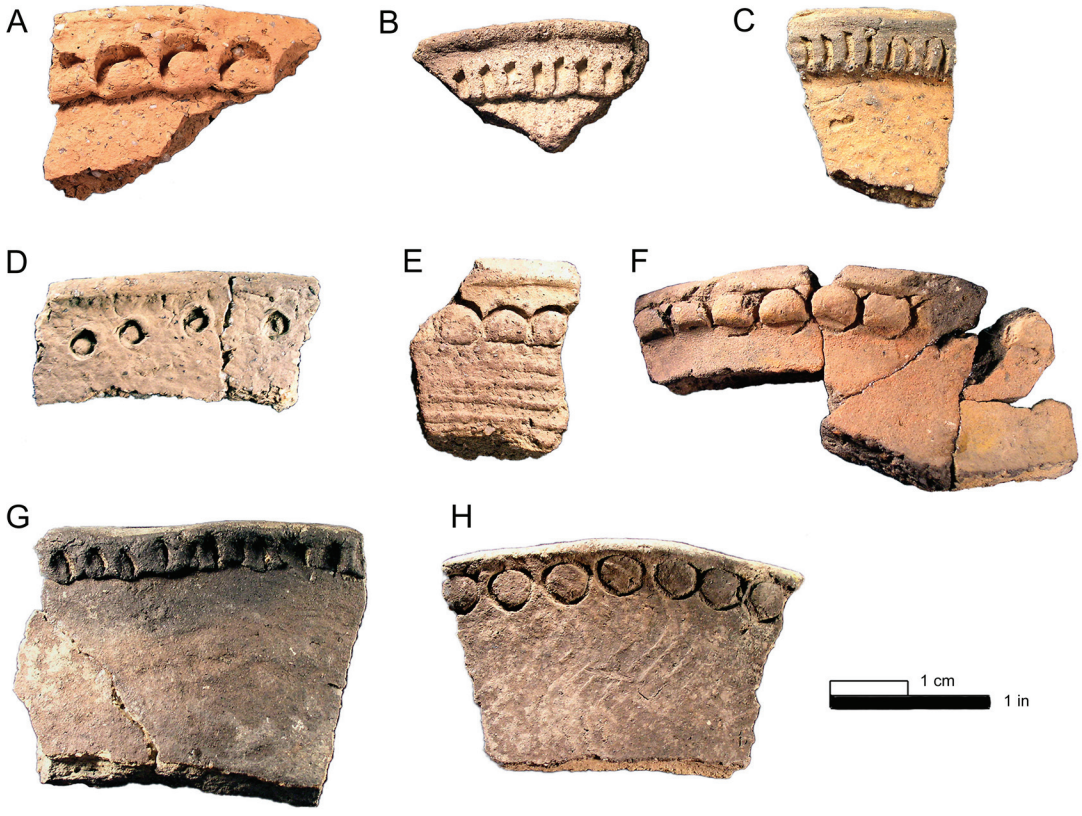


Fig. 1.8. **A–E.** Rims with unidentified Irene/Altamaha stamped bodies. **F.** Rim with Irene Burnished Plain body. **G.** Rim with smoothed-over stamped body. **H.** Rim with Irene Complicated Stamped body. **A.** 38BU51C-64C(124). **B.** 38BU162R-27B. **C.** 38BU51F-482A. **D.** 38BU162N-67. **E.** 38BU162N-43. **F.** 38BU162H-146F/G. **G.** 38BU162H-304A. **H.** 38BU162G-172B.

or Irene I, phase, there is no incising, at least in my way of thinking (see Braley, 1990, for a contrary opinion). The earliest Irene Incised pottery contains simple motifs consisting of few elements generally restricted to the area just below the rim. Over time, the motifs become more complex, include more elements, and often cover more of the vessel surface. Because these changes occur gradually over a period of time, it would be hard to consistently sort incised sherds into an early Irene Incised type and a later Altamaha Incised type. I therefore call all incised pottery in these phases Irene Incised. The undescribed (but readily identifiable) type "Irene Incised and Punctated" does reflect decorative innovation that began during the late Irene phase (Pine Harbor Phase) and that continues on into the later Altamaha phase.

Because there are developments in this ceramic sequence that first appear at or near the beginning of the Altamaha phase, I have consistently called those Altamaha types. This would include Altamaha Check Stamped, Altamaha Red Filmed, Altamaha Line Block Stamped, Altamaha Simple Stamped, and Altamaha Cross Simple Stamped.

As can be seen in table 1.1, this means that during the Altamaha phase, there are identifiable types that bear both Irene and Altamaha type names. This is not problematic, so far as I am concerned, and it is preferable to trying to force sherd identifications into types that would be impossible to distinguish from one another under most circumstances.

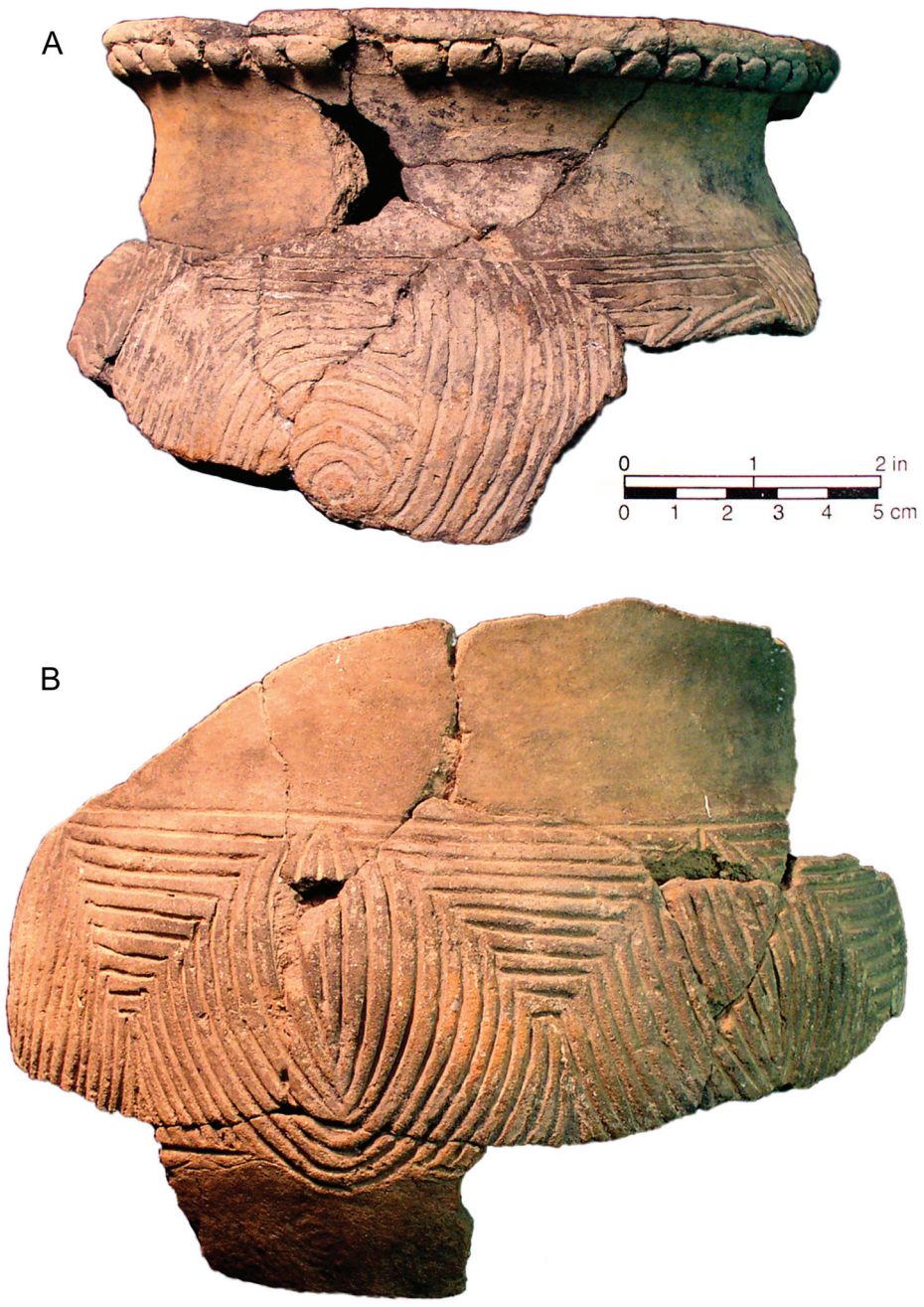


Fig. 1.9. Irene Incised on burnished jars. **A.** 38BU162G-51A, 146B, and 146C. **B.** 38BU162C-75, 155B.

THE SANTA ELENA SAMPLE

The late prehistoric/early historic period occupation of concern here begins with the early Irene occupation of Santa Elena. We know from a shovel testing project implemented in 1994 (DePratter and South, 1995) that there is material of this phase scattered over the 35 acres that were sampled as part of that project. Given the small samples of sherds that were recovered from

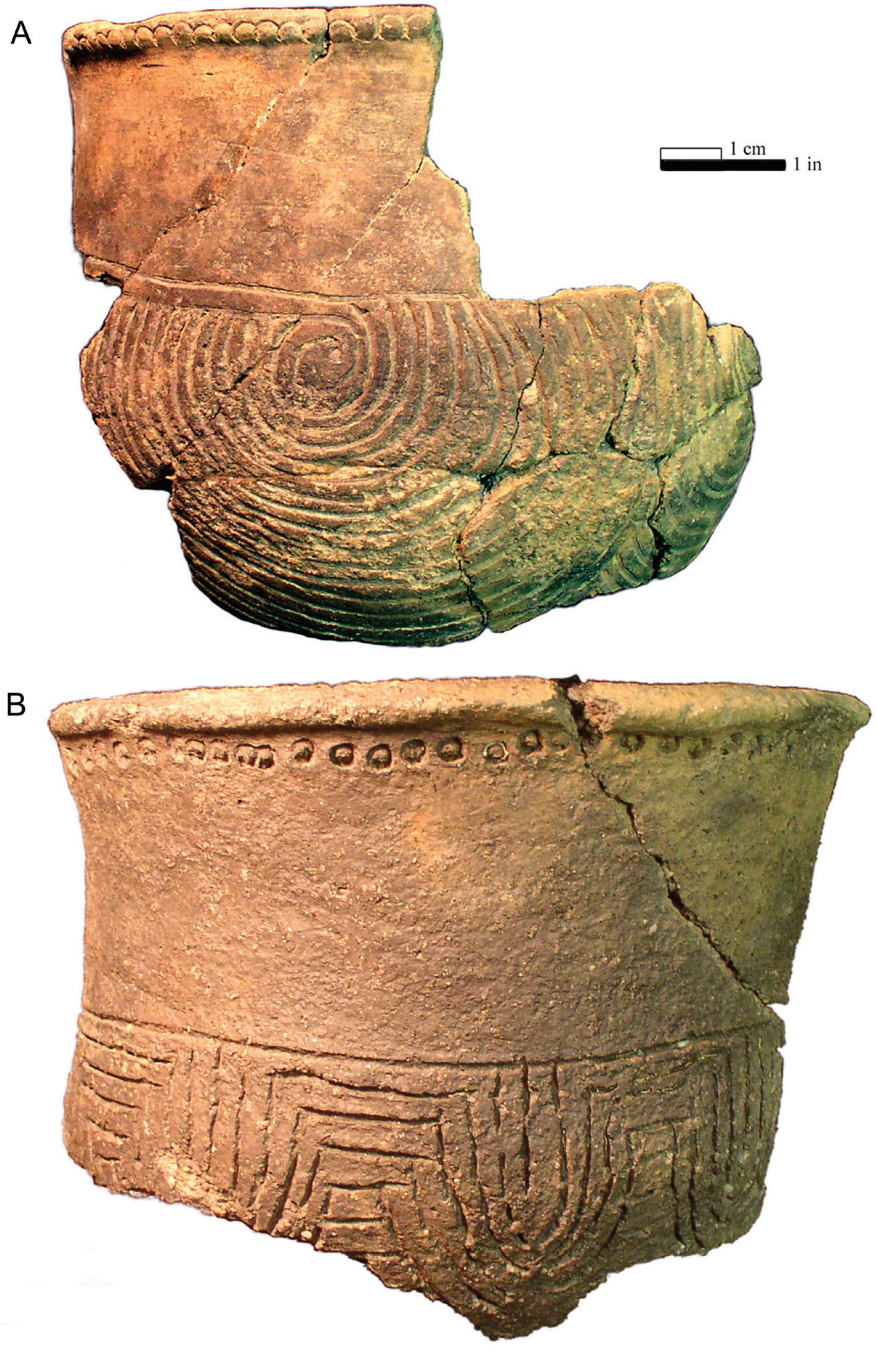


Fig. 1.10. **A.** Irene Incised on burnished jar. **B.** Irene Incised on plain jar. **A.** 38BU162M-110A. **B.** 38BU162E-42D/E, 43E.

Fig. 1.11. Irene Incised on complicated stamped bowl, 38BU162R-66D/E.

individual shovel tests, it has not been possible to delineate occupation distributions down to the phase level for these later occupations. So while we know that there was Irene/Altamaha material found over the entire 35 acres tested, it is not possible to know the differences between areas occupied in Irene I, Irene II, and Altamaha phases.

We also know that the occupation during this late prehistoric/early historic time period was not continuous. While there is surely an Irene I phase occupation on the site, such an occupation may have ended at the time when the Lower Savannah River Valley (and adjacent parts of the Georgia and South Carolina coasts) was abandoned in about A.D. 1450. Even if this site was not abandoned at that juncture, we know that it was abandoned at some point, because when first the French and then the Spanish arrived to colonize Port Royal Sound in the 1560s, there were no Native Americans residing on Parris Island (Thomas, 1993b). In each instance, the European commanders had to travel four to five leagues inland to find local population centers, and both times those commanders, Jean Ribault for the French and Pedro Menéndez de Aviles for the Spanish, were told that Parris Island was the ideal place for settlement, presumably in part because there were no native inhabitants there to displace.

Once the Frenchmen and then the Spaniards built their settlements at the chosen location, there must have been a steady flow of Native Americans visiting those sites for trade or simply out of curiosity. Some of these interactions may well have resulted in deposition of pots from the periphery of Port Royal Sound, as materials such as bear or hickory oil, corn, nuts, or other foodstuffs were brought to the site for trade or as gifts. When the French lost the contents of their storehouse to a fire not long after it was finished in spring, 1562, they may have sought pottery from local groups to replace the items they had brought with them (Quinn, 1979: 2, 304–305). However, no sealed contexts associated with this French occupation have been found to date. And when the inhabitants of Santa Elena waited long months without the arrival of supply ships during the two decades that they were there, they undoubtedly obtained and used pottery made by local Native Americans to supplement their inadequate supplies. The result of this trade and interaction can be seen in the fact that throughout the excavated portion of Santa Elena, approximately 50% of ceramics found

in Spanish refuse deposits are locally made Native American types (South, 1984; South and DePratter, 1996).

Rather than consider all Irene/Altamaha ceramics from Santa Elena, I will focus on the assemblage recovered from the 38BU162N block excavated in 1993 (South and DePratter, 1996). The 162N block is located adjacent to the present marsh edge between the two known Spanish forts, San Felipe (1566–1570) and San

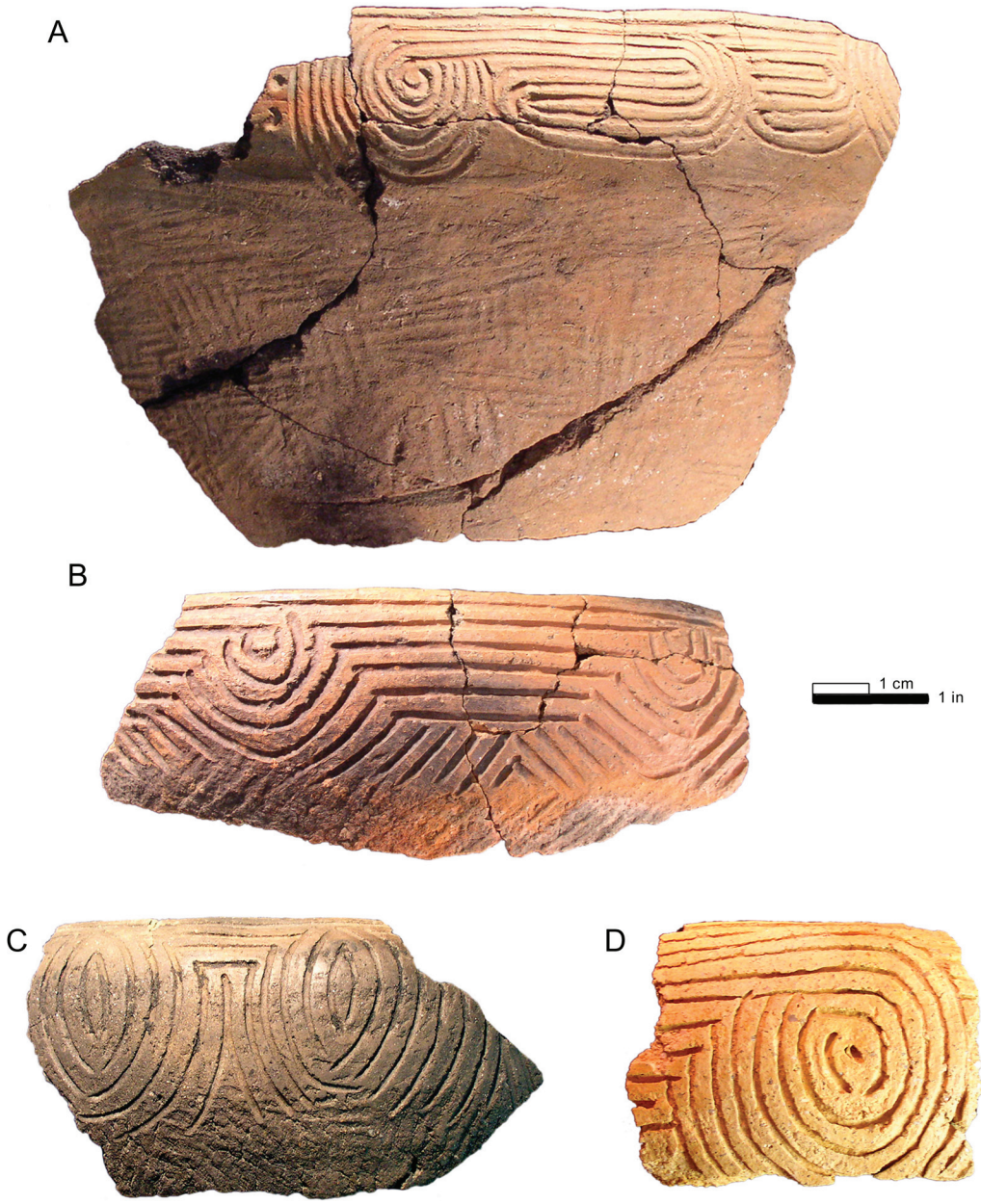


Fig. 1.12. **A.** Irene Incised on curvilinear stamped bowl. **B, C.** Irene Incised on stamped bowls. **D.** Irene Incised bowl. **A.** 38BU162A-12B, 70, 90. **B.** 38BU51D-315. **C.** 38BU162R-279. **D.** 38BU51C-64D(71).

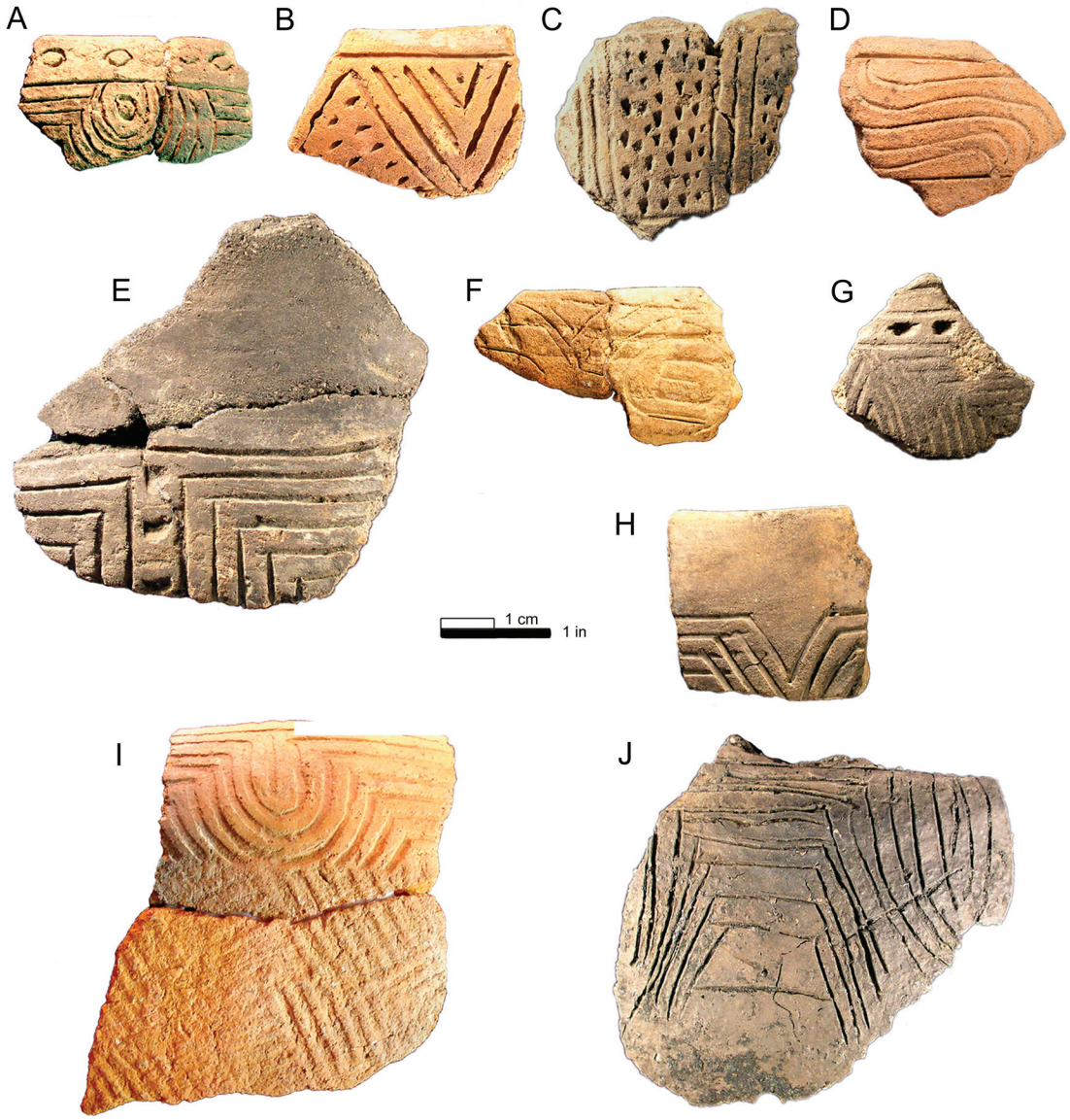


Fig. 1.13. **A–C, E, G.** Irene Incised and Punctated. **D, F, H, J.** Irene Incised. **I.** Irene Incised on line block stamped body. **A.** 38BU162C-50B, 117. **B.** 38BU162G-65B. **C.** 38BU162N-4A, 11A. **D.** 38BU162G-56A. **E.** 38BU162N-18A. **F.** 38BU162N-14A, 28A. **G.** 38BU162G-55A. **H.** 38BU162G-38A. **I.** 38BU51C-64C, 64D. **J.** 38BU162N-67.

Marcos (1583–1587: fig. 1.1). South conducted excavations in and around the 162N block beginning in 1979 and continuing through 1982 (South, 1979, 1980, 1982, 1983). South and DePratter returned to that area and opened additional block units in 1991 and 1992 that revealed the remains of what was the home and outbuildings on the two town lots belonging to Governor Gutierre de Miranda between 1580 and 1587 (South and DePratter, 1996; Paar, 2000). The 162N block, which measured 40 by 70 ft (12.2 by 31.3 m), is located on the back half of one of those two lots. All plow-zone soils were removed by 10 ft square and screened through 1/4 in. hardware cloth; all feature soil was processed through 1/8 in. screen.

TABLE 1.1
Late Prehistoric to Early Historic Pottery Sequence

Periods	Phases	Ceramic types	Dates (A.D.)
			1686
Irene	Altamaha	Altamaha Simple Stamped	
		Altamaha Check Stamped	
		Altamaha Red Filmed	
		Irene Incised	
		Irene Complicated Stamped	
		Irene Burnished Plain	
		Irene Plain	
			1550[a]
	Pine Harbor	Irene Incised	
		Irene Complicated Stamped	
		Irene Burnished Plain	
		Irene plain	
			1450[a]
	Irene	Irene Complicated Stamped	
		Irene Burnished Plain	
		Irene Plain	
			1325[a]
Savannah			
			1200[a]

[a] Date estimates in uncorrected radiocarbon years.

Typological Analysis

Table 1.2 summarizes the counts for imported wares versus Native American wares. In the 162N block, sherd counts for both the squares and the underlying features have about the same ratio of nearly two sherds of imported ware for every sherd of locally made Native American pottery. This ratio differs from the near 1:1 ratio that South reported from other contexts on the site (see above); this difference likely reflects the high status of the governor and his more ready access to imported ceramics.

The imported ceramic assemblage in this block (table 1.2) consists of about 11% majolica (tableware), 1.3% lead-glazed earthenware (cooking pots, *bacines,* etc.), 9.5% unglazed earthenwares (bowls and other utilitarian forms), 42.9% olive jar and storage jar (shipping and storage containers), and 0.8% porcelain (tableware). These imported wares were accompanied in the assemblage by 34.2% Native American pottery including 33.5% locally made Irene/Altamaha types (fig. 1.13) and 0.7% imported St. Johns ware (from the St. Augustine area).

No vessel form analysis has been undertaken for the Native American material from the BU162N block, though this would be a desirable future project to determine which vessel forms were used to complement the imported wares

TABLE 1.2
Imported and Locally Made Ceramics from 38BU162N

	Squares		Features		Total	
	N	%	N	%	N	%
Spanish and Imported						
Majolicas	664	11.0	194	12.5	858	11.3
Lead glazed earthenwares	83	1.4	15	1.0	98	1.3
Unglazed earthenwares	442	7.3	278	17.9	720	9.5
Olive jar & storage jar	2683	44.6	560	36.1	3243	42.9
Ming porcelain	41	0.7	16	1.0	57	0.8
Total	3913	65.1	1063	68.5	4976	65.8
Spanish Contemporary Native American						
Local	2053	34.1	481	31.0	2534	33.5
St. Johns	49	0.8	7	0.5	56	0.7
Total	2102	34.9	488	31.5	2590	34.2
Grand Total	6015	100%	1551	100%	7566	100%

available to the governor's household. Later in this paper I discuss the Native American vessel forms from the entire Santa Elena collection, because that larger collection is more likely to represent the entire range of forms that existed in the locally made assemblage.

So what did the Native American vessels in the 162N collection look like when classified by our existing typology (table 1.3)? As already noted above, St. Johns pottery from the area around St. Augustine was present, though rare, in this collection. Approximately 2% of the Native American pottery collection was identified as St. Johns plain or check stamped (figs. 1.6 and 1.7); the remaining 98% was composed of Irene/Altamaha types.

The most common type of Irene/Altamaha surface treatment within the assemblage is "stamped." Unlike the carefully applied, distinct stamping in early Irene assemblages, by the mid-16th century the stamping is generally shallow and overstamped, and therefore motifs are difficult to discern. Thus, in the 162N assemblage, 859 (33.9%) of 2534 Irene/Altamaha sherds are classified as "Indistinguishable stamped," meaning that these sherds were stamped but the motif was not identifiable (fig. 1.8A–E, G). This group of 859 sherds includes one that was used as an abrader.

The remaining stamped sherds include 102 (4.0%) Irene Complicated Stamped including both curvilinear and straight-line elements (figs. 1.2 and 1.3A, B, fig. 1.8H). For the most part, stamped motifs on these sherds were filfot crosses. Also, an additional 87 (3.4%) sherds in the 162N block were identified as Altamaha stamped types. These included 14 (0.6%) Altamaha Simple Stamped (fig. 1.4A), 30 (1.2%) Altamaha Cross Simple Stamped (figs. 1.3C, 1.4D), and 43 (1.7%) Altamaha Line Block Stamped (fig. 1.3D–F, 1.4B, C). An additional 37 (1.5%) were identified as Altamaha Check Stamped (fig. 1.14A–E). The tempering material in all of these stamped sherds was medium to coarse grit with no apparent differences in the Irene and Altamaha stamped categories. Other sherds from elsewhere on the site contain combinations of complicated stamping and

check stamping (fig. 1.14F).

The 162N collection included 711 (28.1%) Irene Plain sherds and 213 (8.4%) Irene Burnished Plain sherds (fig. 1.8F); most of these were from plain and incised bowls, though many were from burnished necks of small incised jars.

A total of 260 (10.3%) sherds consisted of Irene Incised (figs. 1.9–1.13) and Irene Incised and Punctated types (fig. 1.13A–C, E, G). While earlier Irene sherds would not typically have combined incision and punctuation, by the mid-16th century, this combination was often found on both bowls and jars. Sherds found beyond the 162N excavations contain combinations of incising and stamping on the same vessel (figs. 1.11, 1.12A–C, 1.13I).

Limited numbers of Irene Cord Marked (n = 3; 0.1%), Irene Corncob Impressed (n = 48; 1.9%), Irene Shell Scraped (n = 2; 0.08%), and Irene Fabric Impressed (n = 1; 0.01%) sherds were recovered from the 162N block. These are minority types that are present in most Irene collections, but they are not always identified as distinct types by analysts.

The remaining 211 sherds include one (0.04%) lug handle, 116 (4.6%) rims (all with rim folds, appliqué strips, or punctations) for which no surface treatment or decoration was discernible, and 94 (3.7%) sherds with exterior surfaces too eroded or damaged for identification, though there is no doubt that these "eroded" sherds are part of the Irene/Altamaha assemblage.

Elsewhere on the site, a context dating to the same period as the 162N sample contain sherds of a "child's" pot. These fragments of small pots (fig. 1.5), generally 10–15 cm in diameter (though occasionally larger), I believe to have been made or used by children. They have rim modifications typical of the period, in combination with incisions, punctations, and cord marking.

Vessel Forms

The rim profile drawings and vessel forms (figs. 1.16–1.20) are from vessels found across the Santa Elena site. These are all from the Santa Elena period occupation, and they should be representative of the assemblage of vessels in use at that time. Most profiles are drawn from sherds, because there are very few complete or reconstructible vessels in the collection.

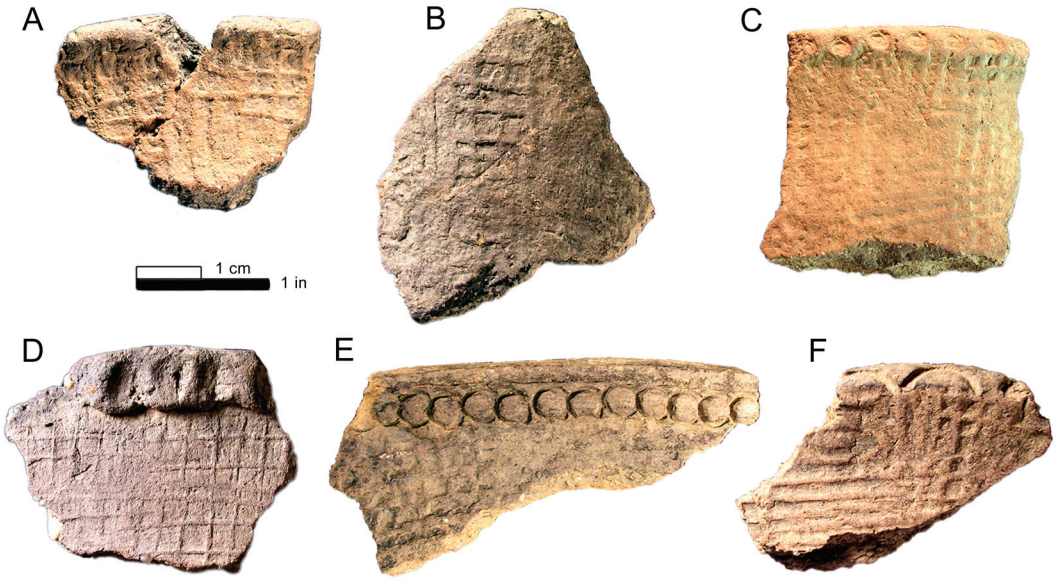


Fig. 1.14. **A–E.** Altamaha Check Stamped with assorted rim treatments. **F.** Irene Complicated Stamped/Check Stamped. **A.** 38BU162G-57A. **B.** 38BU162G-58B. **C.** 38BU162G-53A. **D.** 38BU162N-38. **E.** 38BU162W-16C. **F.** 38BU162G-68A.

TABLE 1.3
Tabulation of Native American Sherds from Squares and Features, 38BU162N

	Squares	%	Features	%	Totals	%
St. Johns Series						
St. Johns Plain	33	1.57%	2	0.41%	35	1.35%
St. Johns Check Stamped	16	0.76%	5	1.02%	21	0.81%
Altamaha Series						
Altamaha Stamped						
Simple Stamped	12	0.57%	2	0.41%	14	0.54%
Cross Simple Stamped	26	1.24%	4	0.82%	30	1.16%
Line Block Stamped	24	1.14%	19	3.89%	43	1.66%
Altamaha Check Stamped	24	1.14%	13	2.66%	37	1.43%
Irene Series						
Irene Complicated Stamped						
Curvilinear Stamped	32	1.52%	12	2.46%	44	1.70%
Rectilinear Stamped	27	1.28%	31	6.35%	58	2.24%
Irene Incised						
Incised	197	9.37%	41	8.40%	238	9.19%
Incised-plate form	1	0.05%	0	0.00%	1	0.04%
Punctated	2	0.10%	0	0.00%	2	0.08%
Incised and punctated	8	0.38%	0	0.00%	8	0.31%
Incised & punctated above burnished	7	0.33%	0	0.00%	7	0.27%
Incised above indist. stamped	3	0.14%	0	0.00%	3	0.12%
Incised hone	1	0.05%	0	0.00%	1	0.04%
Irene Plain	633	30.11%	75	15.37%	708	27.34%
Irene Burnished Plain	165	7.85%	48	9.84%	213	8.22%
Irene Cord Marked	2	0.10%	1	0.20%	3	0.12%
Irene Corncob Impressed	44	2.09%	4	0.82%	48	1.85%
Irene shell scraped	2	0.10%	0	0.00%	2	0.08%
Irene/Altamaha Miscellaneous						
Indistinguishable stamped	668	31.78%	190	38.93%	858	33.13%
Indistinguishable stamped abrader	1	0.05%	0	0.00%	1	0.04%
Unique fabric impressed	0	0.00%	1	0.20%	1	0.04%
Lug handle	1	0.05%	0	0.00%	1	0.04%
Plain disks	1	0.05%	1	0.20%	2	0.08%
Rims	83	3.95%	33	6.76%	116	4.48%
Plain hone	0	0.00%	1	0.20%	1	0.04%
Eroded	89	4.23%	5	1.02%	94	3.63%
Total	2102	100.00%	488	100.00%	2590	100.00%

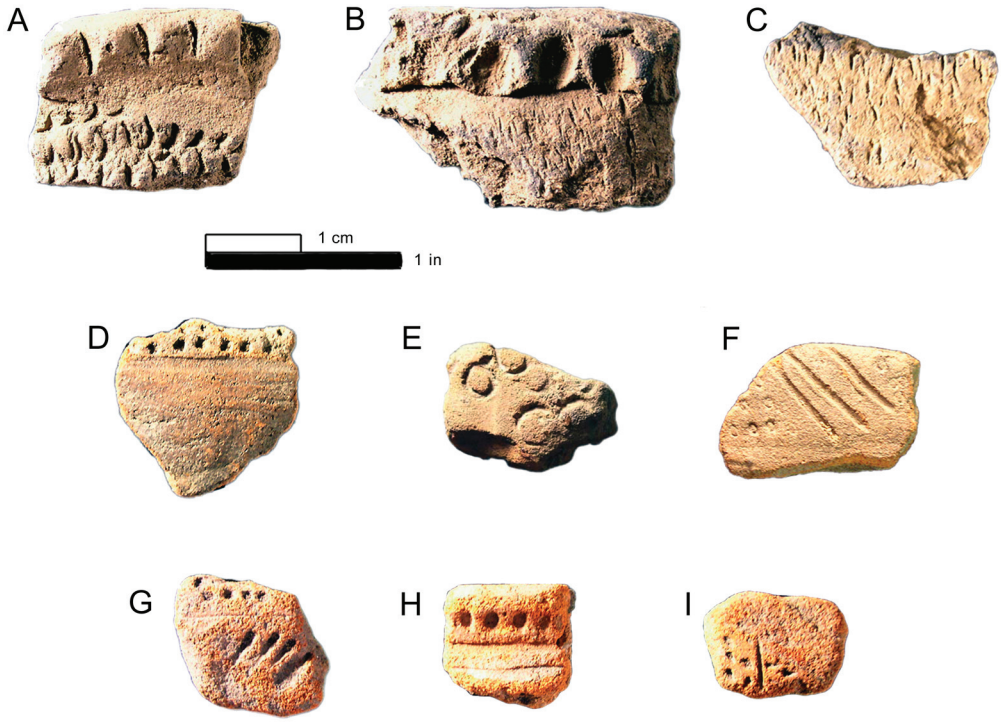


Fig. 1.15. Sherds from Irene "child's pots." **A–C.** Irene Corn-cob impressed. **D, F–I.** Irene Incised and Punctated. **E.** Irene Punctated. **A.** 38BU162N-71. **B.** 38BU162N-14A. **C.** 38BU162N-20A. **D.** 38BU162V-61A. **E.** 38BU162Y-29B. **F.** 38BU162Y-20B. **G.** 38BU162Q-1040B. **H.** 38BU162G-149. **I.** 38BU162V-59B.

Figure 1.16 includes Irene Plain bowls and jars with forms D, F, and H being the least common. The various forms of stamping occur on a narrow range of vessel forms. Stamping is most common on deep jars (fig. 1.17A–F, G, H, J, L), though it also occurs on bowls (fig. 1.17 G, I, K). Incising (often accompanied by punctations) is found on bowls (fig. 1.18) and jars (fig. 1.19) of the smaller variety.

St. Johns vessel forms from the Charlesfort/Santa Elena site are primarily deep bowls (fig. 1.20). Many of these vessels are heavily sooted on their exteriors, so it is likely that they were used as cooking pots by the Spaniards.

By way of comparison, figures 1.21 and 1.22 summarize various Irene and Altamaha vessel forms known from other important sites along the Georgia Bight (after Caldwell and Waring, 1939a, 1939b; Hemmings and Deagan, 1973: fig. 3b; Brewer, 1985: fig. 2).

To summarize, the Native American vessels recovered from Spanish contexts span the entire range of vessel forms known from Irene/Altamaha contexts on other sites. It seems that the Spaniards found uses for Native American vessels in a wide variety of forms including many that they would not have known before their arrival on the southeastern U. S. coast.

CONCLUSIONS

The Spanish residents of Santa Elena employed large amounts of locally made Native American pottery to supplement the vessels that they brought with them from Spain. In the forts and most parts of the town, the ratio of imported to locally made ceramics was close to 1:1. In the block that was located on the governor's lot, that ratio shifted to 2:1. Approximately 98% of the Native American pottery was Irene/Altamaha

TABLE 1.4
Summary of Irene versus Altamaha Pottery Types in 38BU162N

	Count	%
Altamaha Check Stamped	37	1.46
Altamaha Stamped	87	3.43
Irene Complicated Stamped	102	4.03
Indistinguishable stamped	859	33.90
Irene Plain	711	28.06
Irene Burnished Plain	213	8.41
Irene Incised and Punctated	260	10.26
Irene Cord Marked	3	0.12
Irene Corncob Impressed	48	1.89
Irene Shell Scraped	2	0.08
Irene Fabric Impressed	1	0.04
Lug handle	1	0.04
Rims	116	4.58
Eroded	94	3.71
Total	2534	100.00

types while the remaining 2% was St. Johns series from the St. Augustine area.

That said, it is clear that the overwhelming majority of native-produced ceramics at Santa Elena consist of Irene series pottery. Without doubt, Irene ceramics persist through the entire occupation of Santa Elena, from 1566 through 1587. As such, Santa Elena provides a critical baseline for understanding the spatiotemporal framework of the late prehistoric, early historic period of aboriginal ceramics along the northern Georgia Bight.

The 38BU162N collection from the Charlesfort/Santa Elena site clearly documents the beginnings of the Altamaha ceramics. This collection is predominantly composed of either Irene types or indistinguishable stamped sherds on which stamped motifs are not discernible. A total of only 124 of the 2534 locally made sherds can be identified as Altamaha types (table 1.4). The small numbers of Altamaha stamped (including simple stamped, cross-simple stamped, and line block types) and Altamaha Check Stamped sherds are indicative of the changes that are beginning to occur in the 1580s. The fact that there are no red filmed sherds, no European vessel forms, no European style handles, ring bases, etc., all of which are common in later Altamaha assemblages (Otto and Lewis, 1974; Brewer, 1985; Saunders, 2000a), are a further indication that we are seeing the beginnings of this transition. It is in the decades immediately following the end of the Santa Elena occupation that the shift from Irene to Altamaha types becomes more marked.

NOTES

1. The radiocarbon dates presented throughout this paper are expressed in uncalibrated radiocarbon years. Thomas (2008, chaps. 13 and 15) has calibrated these same age estimates into calendrical years B.C./A.D. and these results are reproduced in the subsequent chapter (Thomas, chap. 2, table 2.1, this volume).

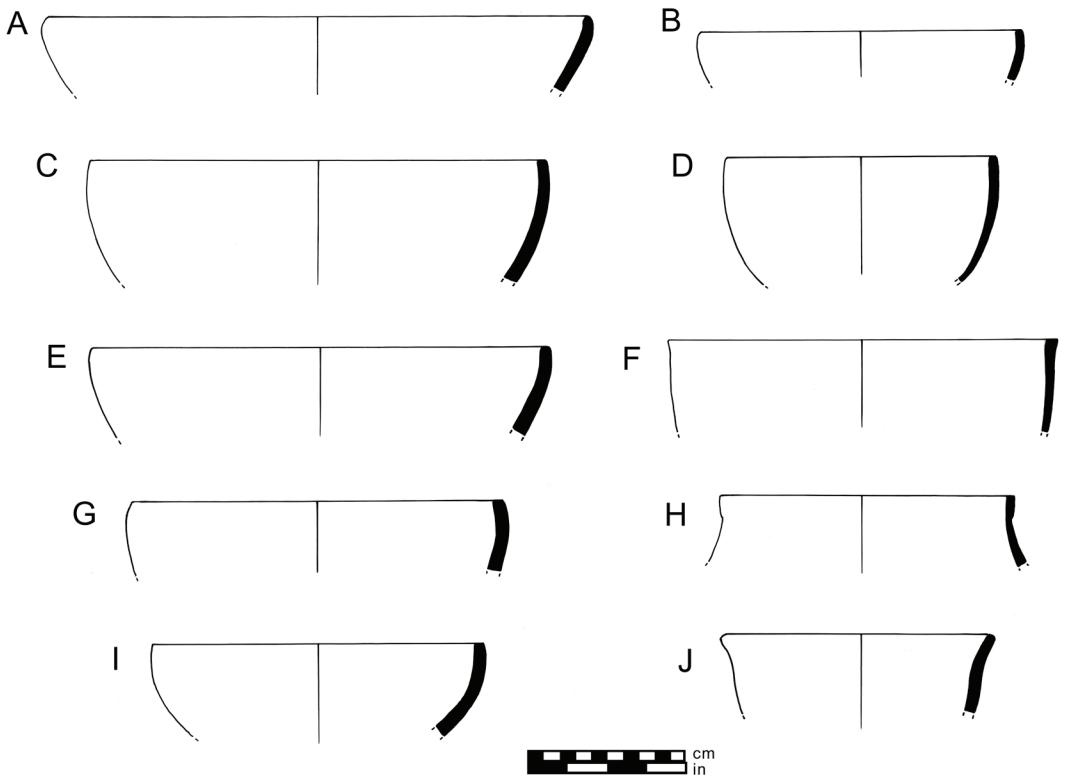


Fig. 1.16. Irene Plain vessel forms. **A.** 38BU162G-77B. **B.** 38BU162H-92A. **C.** 38BU162D-66. **D.** 38BU162H-304A. **E.** 38BU162D-70. **F.** 38BU162D-38. **G.** 38BU162G-45B. **H.** 38BU162C-206B. **I.** 38BU162C-27B. **J.** 38BU162E-40D.

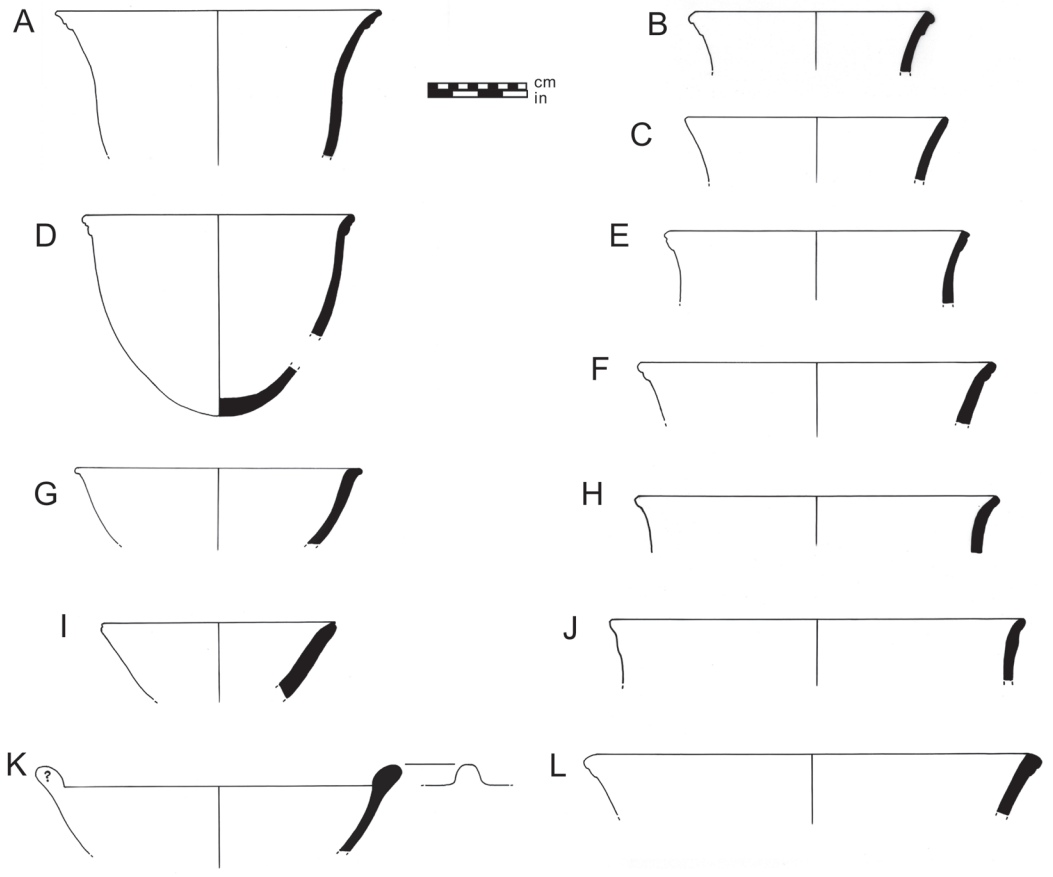


Fig. 1.17. Irene Stamped vessel forms. **A.** 38BU162C-117, 293. **B.** 38BU162C-157B. **C.** 38BU162E-38D. **D.** 38BU162D-63, 67. **E.** 38BU162A-89, 106B. **F.** 38BU162C-157B. **G.** 38BU162G-53B. **H.** 38BU162G-54A, 54B. **I.** 38BU162C-346B. **J.** 38BU162C-175. **K.** 38BU162C-123. **L.** 38BU162C-346B.

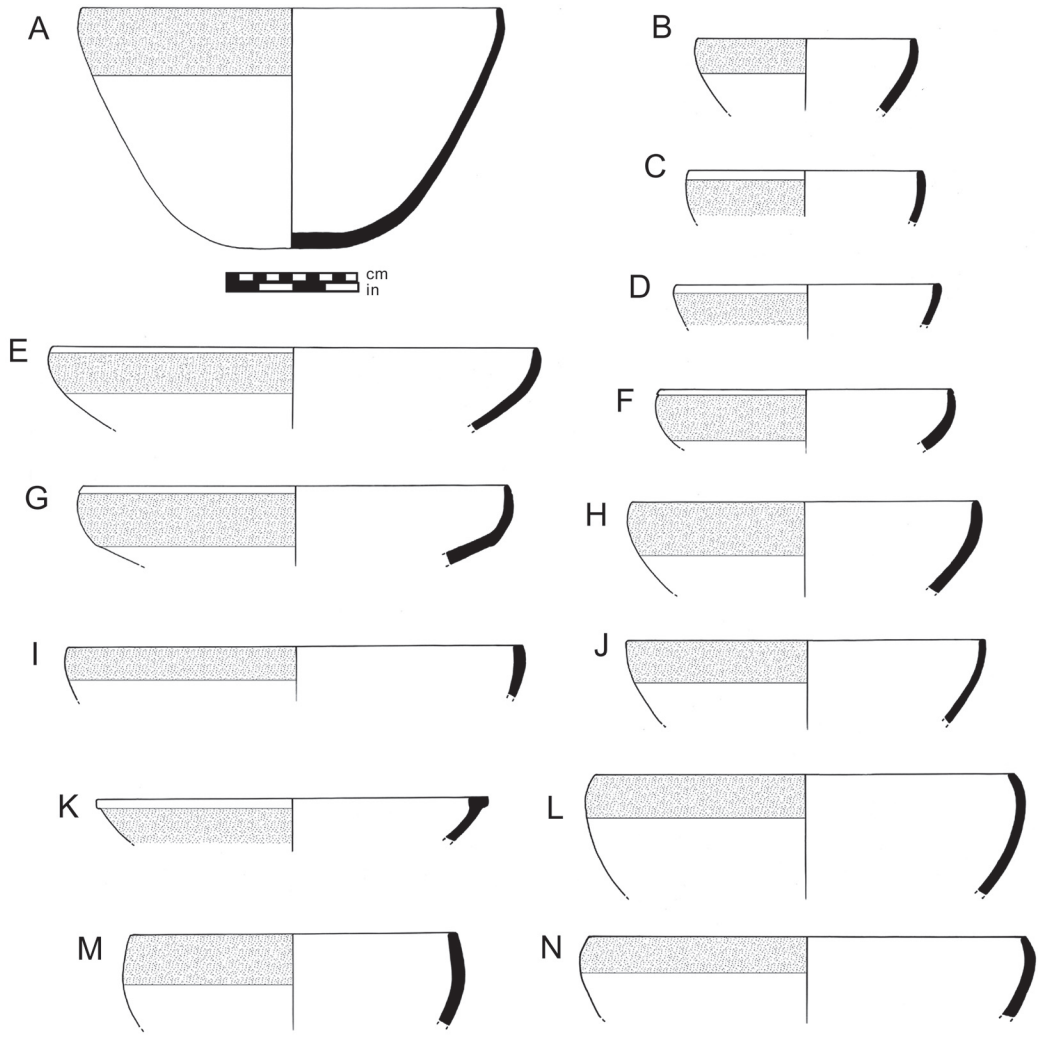


Fig. 1.18. Irene Incised bowls. **A.** 38BU162C-117. **B.** 38BU162E-32A. **C.** 38BU162E-40D, 42D. **D.** 38BU162C-50B, 117. **E.** 38BU162D-72. **F.** 38BU162J-75B. **G.** 38BU162H-65B, 87A, 111A. **H.** 38BU162C-126. **I.** 38BU162E-37D. **J.** 38BU162E-43D, 44E. **K.** 38BU162C-171. **L.** 38BU162E-44E. **M.** 38BU162D-66, 76. **N.** 38BU162J-143.

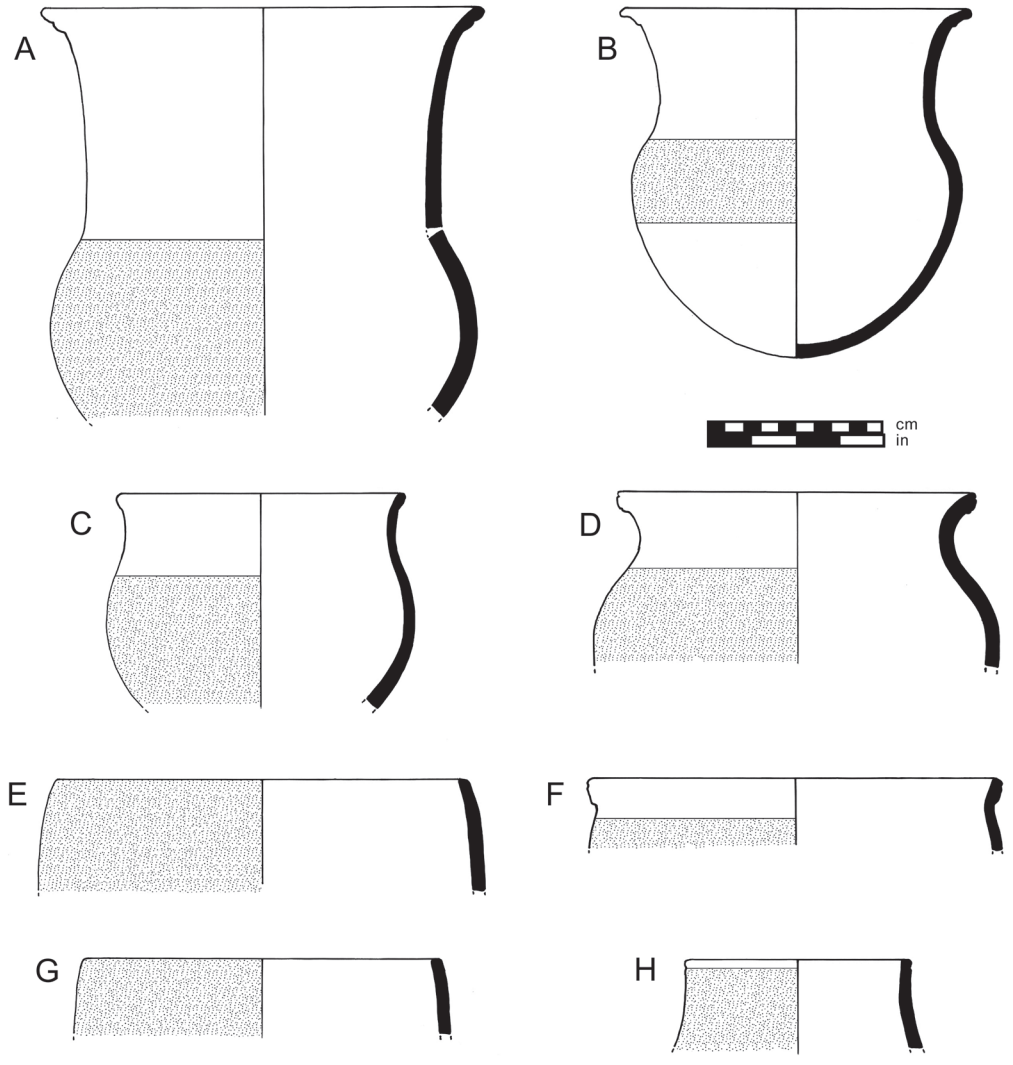


Fig. 1.19. Irene Incised jars. **A.** 38BU162C-21B, 75. **B.** 38BU162C-117. **C.** 38BU162E-42D, 42E, 43E, 44E. **D.** 38BU162G-146B, 146C, 146F, 146G, 51A. **E.** 38BU162A-193. **F.** 38BU162A-73, 82. **G.** 38BU162D-36, 76C, 139B. **H.** 38BU162C-117.

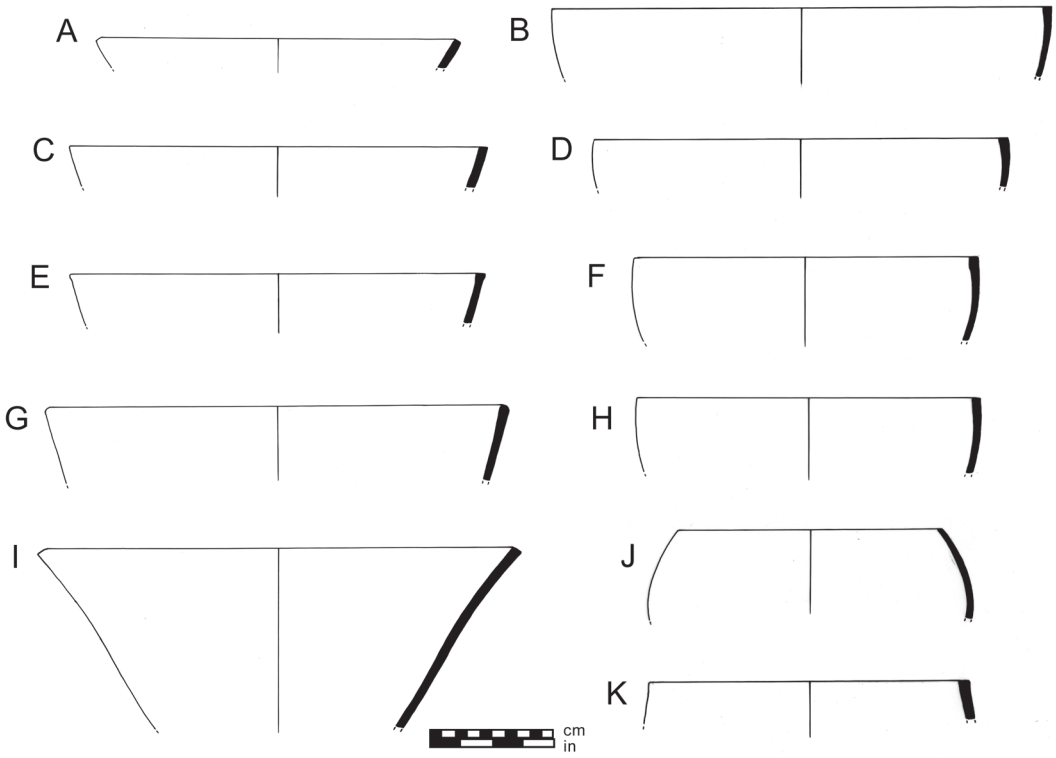


Fig. 1.20. St. Johns Plain and Check Stamped, various vessel forms. **A.** 38BU162D-115. **B.** 38BU162D-90. **C.** 38BU162C-171. **D.** 38BU162D-52. **E.** 38BU162A-89. **F.** 38BU162C-76. **G.** 38BU162A-89. **H.** 38BU162C-257. **I.** 38BU162D-22B. **J.** 38BU162D-90. **K.** 38BU162C-171.

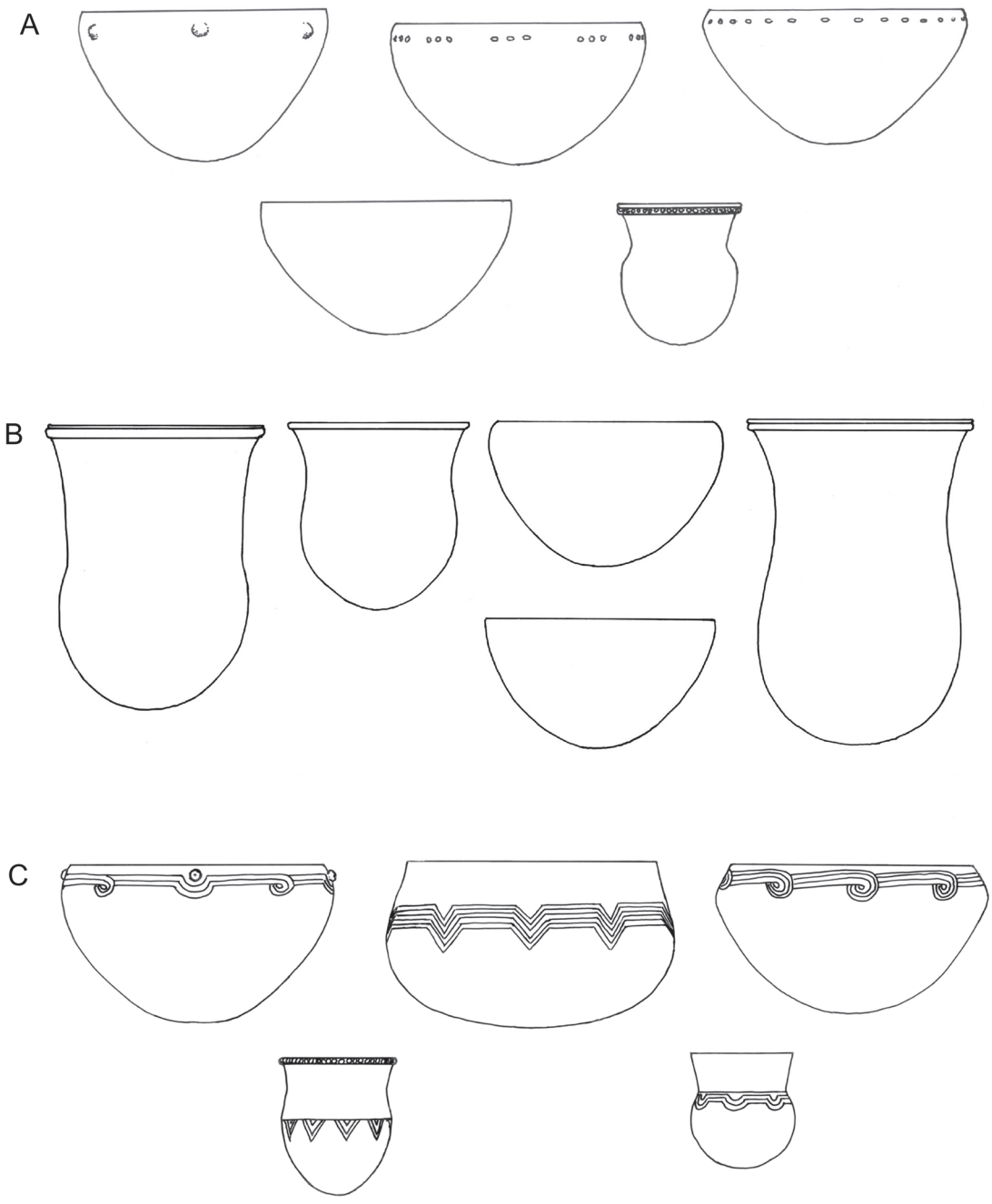


Fig. 1.21. Vessel forms after Caldwell and Waring (1939). **A.** Irene Burnished Plain. **B.** Irene Complicated Stamped. **C.** Irene Incised.

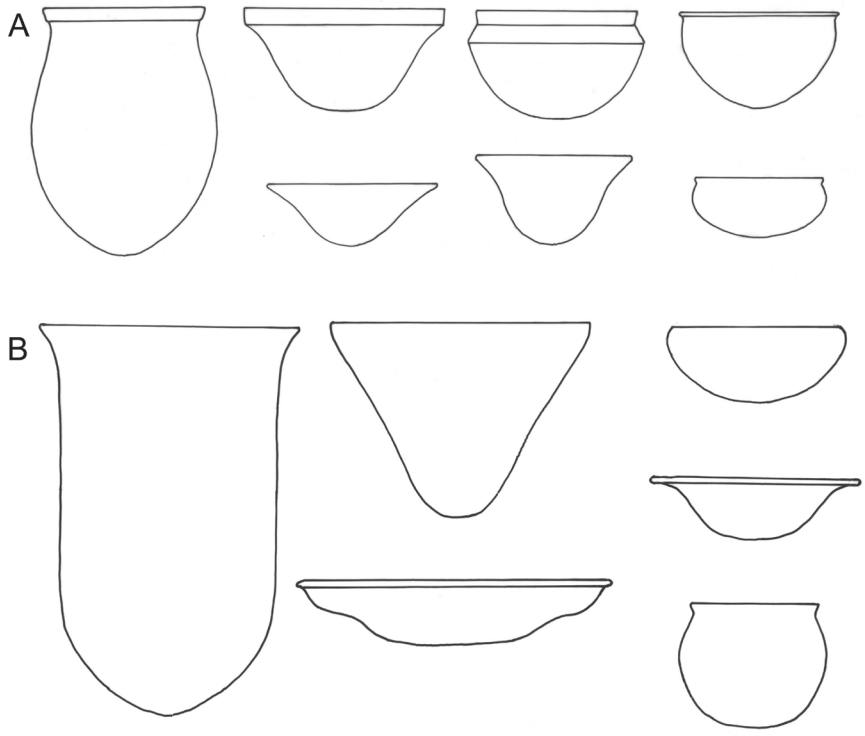
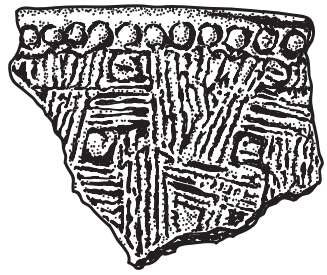


Fig. 1.22. Altamaha phase vessel forms. **A.** Harrison Homestead site, Florida (redrawn from Hemmings and Deagan, 1973: fig. 3). **B.** Wamassee Head, St. Catherines Island, Georgia (redrawn from Brewer, 1985: fig. 2).



CHAPTER 2
LATE ABORIGINAL CERAMICS FROM ST. CATHERINES ISLAND (CAL A.D. 1400–1700)

DAVID HURST THOMAS

St. Catherines Islanders have manufactured pottery for 5000 years.[1] This chapter synthesizes what we know about this aboriginal ceramic sequence, with particular emphasis on the interval from cal A.D. 1400 to A.D. 1700.[2]

AN ARCHAEOLOGY OF ST. CATHERINES ISLAND

We have recently synthesized the deep history of St. Catherines Island, and the most important points can be briefly recapped as follows (Thomas, 2008; see also table 2.1)[3]:

(1) St. Catherines Island is a "fake" barrier, an accident of sea-level history. It is vastly different from the typical beach-ridge barrier island. An ancient part of the island survives from the Pleistocene, coupled with a much more recent Holocene outgrowth. This large "composite" island hosts a rich maritime forest, a large freshwater swamp filled by artesian waters bubbling up from the Pleistocene core, and protects extensive estuarine salt marshes (one of the world's most productive environments). St. Catherines Island is one of the few places on the globe where the extraordinary confluence of sea levels past and present creates an immediate juxtaposition of three enormously productive ecosystems. The potential for aboriginal foragers is enormous.

(2) The first St. Catherines Islanders established a subsistence pattern that persisted for nearly five millennia, exploiting a broad range of vertebrate and invertebrate marine resources from the nearby estuarine and marine waters. They also hunted deer and collected numerous terrestrial food resources including hickory nuts and acorns, berries, and edible roots and tubers.

(3) Late Archaic foragers (3000–1000 cal B.C.) established central place settlements exclusively on first-tier habitats located on the Pleistocene island core. As human population increased, so did the progressive utilization of fragmented, second-tier habitats, suggesting a significant intensification in provisioning strategies.

(4) The biogeography of St. Catherines Island is such that foragers could systematically search and exploit resources in any patch on the island and return home each night. This generalization is based strictly on terrestrial modeling of effective foraging radia. Using watercraft (which we think was extensive during all time periods) would have vastly extended the effective foraging radius, enabling foragers to return to home base virtually at will.

(5) Central place foraging theory predicts that residential bases should be positioned so as to maximize the net returns (given the pursuit, handling, and transport costs of resources across different patches and effectively balancing out different fitness and foraging objectives of males and females). Primary *marshside* settlements were projected along the intersection of the two highest ranking patches (in this case, the high ground fringing the maritime forest and the salt marsh). The probabilistic, islandwide archaeological survey demonstrates that the placement of more than 80% of the archaeological components (from all time periods) is fully consistent with the marshside settlement model derived from central place foraging theory.

(6) The common scenario of increasing

sedentism through time does not seem to hold for the 5000-year-old record on St. Catherines Island. Seasonality indicators, settlement pattern distributions, and intensification of occupation proxies indicate that St. Catherines Islanders (during all periods) lived in virtually sedentary towns and villages until the Spanish *reducción* policy aggregated the aboriginal population at Mission Santa Catalina de Guale.

(7) Mortuary evidence reflects an egalitarian social network (involving leadership without inherited authority) during the Deptford and Wilmington periods (350 cal B.C.–cal A.D. 800), when St. Catherines Islanders were organized into tribal-level societies, likely living in economically self-sufficient, virtually sedentary, and politically autonomous villages. After cal A.D. 800 (the onset of the St. Catherines period), leadership and social status were ranked in a despotic system of inherited asymmetry, ascribing social positions and wealth at birth.

(8) Sometime during the Irene period (after cal A.D. 1300), St. Catherines Islanders began intensively cultivating maize and other domesticates. We believe that maize cultivation was adopted not because of increased caloric returns over foraging, but rather because Guale labor and the agricultural products it produced translated directly into the tribute payments that fueled both domestic subsistence and political power among coastal Irene chiefdoms.

(9) The combined archaeological and bioarchaeological evidence thus indicates that the ideological principle of inherited asymmetrical ranking predates significant maize cultivation on St. Catherines Island.

(10) Several proxy measures indicate that the aboriginal population of St. Catherines Island expanded exponentially from the earliest human footprint (about 3000 cal B.C.) to the abandonment of Mission Santa Catalina de Guale (in A.D. 1680). Bioarchaeology documents the progressive decline in health and spread of infectious disease among aboriginal foragers and farmers over the past 2000 years.

(11) Human behavioral ecology models predict that as human population densities increase, the availability of high-ranked prey species should decrease. This did not happen to white-tailed deer populations on St. Catherines Island, where venison remained a staple throughout the aboriginal period. There is a shift from larger fish (individuals weighing more than 1 kg) to smaller saltwater fish through time, but the reason for this change remains unclear. The adoption of maize cultivation during the Irene period (after cal A.D. 1300) probably does not represent a broadening of diet breadth—because for millennia, St. Catherines Islanders exploited several shellfish taxa (and probably terrestrial plant resources) with return rates comparable with those for maize cultivation.

(12) The bald cypress tree-ring sequence defines a dry, cool interval (the St. Catherines Period Drought, cal A.D. 1176–1220) that corresponds to a statistically significant gap in the cultural ^{14}C record of St. Catherines Island. This suggests a partial (or perhaps complete) depopulation of the island at the end of the St. Catherines period.

The archaeological and bioarchaeological evidence thus defines two critical transitions in the aboriginal lifeways on St. Catherines Island: the relatively abrupt shift from an egalitarian ethos to inherited asymmetry (between the Wilmington and St. Catherines periods) and an apparently rapid transition from forager to forager/farmer during the Irene period. It seems clear that ranked social status developed prior to the adoption of significant maize cultivation on St. Catherines Island.

ABORIGINAL CERAMIC ASSEMBLAGES FROM ST. CATHERINES ISLAND

The history of archaeological research on St. Catherines Island has been considered at some length elsewhere (Thomas et al., 1978: chap. 4; Thomas, 2008, chap. 1). This brief account emphasizes the genesis of the aboriginal ceramic assemblages discussed in this chapter (see fig. 2.1).

Charles Colcock Jones conducted the first known archaeological investigations on St. Catherines Island, a small part of his extensive activities across the coastal and interior portions of Georgia (Jones, 1859, 1873). We cannot document any specific ceramics that C. C. Jones actually recovered on St. Catherines Island (but we do illustrate, below, a complete Altamaha Line Block Stamped vessel recovered by Jones from nearby Colonel's Island).

Clarence Bloomfield Moore worked on St. Catherines Island during his five-month campaign in the fall and winter of 1896–1897 (Moore, 1897; see also Larson, 1998), during which he "demolished" (Moore's word) more than 50

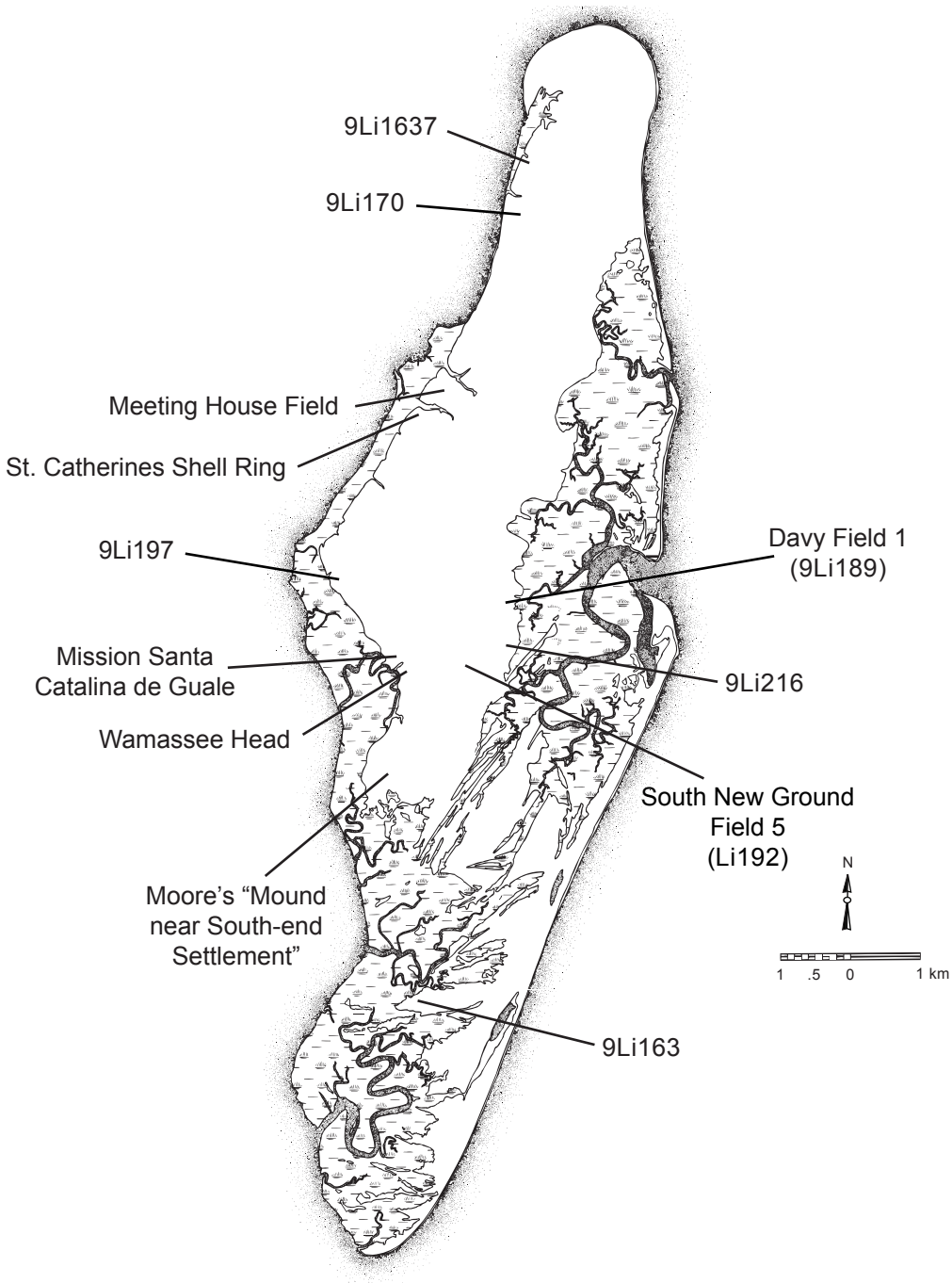


Fig. 2.1. Locations of St. Catherines Island archaeological sites discussed in this chapter.

mounds along the Georgia coastline. Seven of these mounds were on St. Catherines Island (for the exact locations, see Thomas, 2008, fig. 20.1; see also fig. 2.1). Of particular relevance here is Moore's "Mound Near South-End Settlement," an Irene period burial mound. Moore included a cross-sectional view of one of these Irene vessels (with burial) as the color frontispiece of his 1897 publication (as did Larsen, 2002). In all, Moore recovered six complete ceramic vessels from South End Mound, and these pots are discussed below (see also Larsen and Thomas, 1986).

Lewis Larson visited St. Catherines Island in 1952, as part of the Georgia Historical Commission search for 16th- and 17th-century Spanish mission sites along the Georgia Coast. Among the "good candidates for the location of a mission," Larson (1952: 2) correctly listed "Wamassee Head on St. Catherines as the location of Santa Catherina de Guale" and he conducted the first archaeological investigations here in 1959. Larson found evidence of several aboriginal occupations, but most of the recovered ceramics date to the mission period (see Brewer, 1985; May, 2008). We now understand that Larson was digging in a midden positioned along the outskirts of the *pueblo* portion of Mission Santa Catalina de Guale, and this ceramic assemblage is discussed below.

Joseph Caldwell and students from the University of Georgia conducted three seasons of archaeological fieldwork on St. Catherines Island, excavating both burial mounds and shell middens (including a number of test pits in the Wamassee Head area). These limited excavations turned up Altamaha Line Block Stamped vessels associated with olive jar, majolica, and Spanish iron fragments. Caldwell (n.d.) concluded that "there is no reason to believe, at present, that this is not the site of the mission of Santa Catalina. So far, however, our excavations have yielded little structural detail." Joseph Caldwell was correct, and this ceramic assemblage is discussed below.

Archaeologists from the American Museum of Natural History began working on St. Catherines Island in 1974; we emphasized islandwide landscape archaeology, bioarchaeology, and broadscale excavations of selected sites (Thomas, 2008; see also Thomas et al., 1978; Thomas and Larsen, 1979; Larsen, 1981, 1982, 1984, 2002; Larsen and Thomas, 1982, 1986).

Between 1977 and 1979, we conducted a regional archaeological survey of St. Catherines Island with two primary objectives in mind:

(1) To generate a relatively unbiased sample of archaeological sites from all time periods drawn from all parts of the island; these data are fully discussed in Thomas (2008), and

(2) To pinpoint the exact location of the Franciscan mission Santa Catalina de Guale (Thomas, 1987, 1988a).

We spent 15 years excavating at Santa Catalina de Guale (Thomas, 1988a, 1988b, 1990, 1991, 1992; Blair et al., 2009; Francis and Kole, in preparation; Reitz et al., in press). Between 1981 and 1990, our research and excavations focused almost exclusively on the mission compound on St. Catherines Island. After that, we expanded the scope to address the Native American village (*pueblo*) at Santa Catalina. The ceramic assemblage from the mission and *pueblo* at Santa Catalina de Guale is considered below.

Samples of aboriginal ceramics are also available from more than 200 additional archaeological sites on St. Catherines Island: 122 of these were recorded and tested during the islandwide systematic transect survey (Thomas, 2008: chap. 20), 84 additional sites were mapped and surface collected during the shoreline survey (DePratter et al., 2008; chap. 19), a dozen additional mortuary sites were excavated (as summarized in Thomas, 2008, chap. 24), and ceramic assemblages were also recovered from Meeting House Field (Saunders, 2000a, Thomas, 2008: chap. 25) and the Fallen Tree site (May, 2008). The Irene and Altamaha period ceramics recovered in these operations are considered below.

Methodology: Classifying the Ceramic Assemblages

The ceramic chronology of the northern Georgia coast took shape during the extensive W.P.A. excavations in Chatham County and was synthesized by Joseph Caldwell and Antonio Waring (1939a, 1939b; Caldwell and McCann, 1941; Caldwell, 1958; see also DePratter, 1991: 157 and Williams, 2005: 181). Building on this pioneering research, several investigators (including several students of Caldwell) have modified the ceramic sequence including Waring (1968a; 1968b, Caldwell, n.d., 1971, Steed, 1980, DePratter, 1976, 1978, 1979, 1984, DePratter and Howard, 1980; Pearson, 1977, 1979; see also Larson, 1958, 1978; Stoltman, 1974; Martinez, 1975; Milanich, 1977; Cook, 1980a; Braley, 1990;

Williams and Thompson, 1999; Williams, 2005).

Particularly critical has been the work of Chester DePratter (1979, 1991) who provided the baseline for classifying the aboriginal ceramics recovered from St. Catherines Island, grouping the various types into a chronological sequence of archaeological periods and phases. He then synthesized this overall variability into a chronological sequence of seven major cultural periods, subdivided into nearly two dozen archaeological phases (table 2.1). Guerrero and Thomas (2008; table 14.1; see also Thomas, 2008: table 15.2) defined the protocols of this analysis, including the ceramic attributes employed and the appropriate type descriptions involved.

Methodology: Comparing the Ceramic and Radiocarbon Chronologies

We then took the analysis one step further by comparing the extant ceramic and ^{14}C chronologies (Thomas, 2008: chaps. 15 and 16). At the time, more than 250 radiocarbon dates were available from St. Catherines Island, 165 of which are "cultural" ^{14}C dates derived from archaeological

TABLE 2.1
Comparison of the Northern Georgia Coast (DePratter, 1979: table 30, as modified by DePratter 1991, table 1) and the St. Catherines Island Chronologies (after Thomas, 2008, table 15.3)

	Northern Georgia Coast	Northern Georgia Coast	St. Catherines Island
Phases	(uncalibrated)	(calibrated)	(calibrated)
	A.D. 1700[a]	—	A.D. 1700[b]
Altamaha			
	A.D. 1580	—	A.D. 1580[b]
Irene			
	A.D. 1325	A.D. 1310–1390	A.D. 1300
Savannah			Savannah phase deleted
	A.D. 1200	A.D. 1280	A.D. 1300
St. Catherines			
	A.D. 1000	A.D. 1050–1150	A.D. 800
Wilmington			
	A.D. 500	A.D. 630	A.D. 350
Deptford			
	400 B.C.	400 B.C.	350 B.C.
Refuge			
	1100 B.C.	1360 B.C.	1000 B.C.
St. Simons			
	2200 B.C.	2750–2860 B.C.	3000 B.C.

[a]Beginning and ending age estimates for the Altamaha period in the northern Georgia coast chronology are based on historical documentation, not ^{14}C dating.

[b]Uncalibrated.

deposits (Thomas, 2008: table 13.4). A subset of 110 radiocarbon dates—from 32 distinct mortuary and midden sites on St. Catherines Island—could be directly associated with ceramic assemblages from a single aboriginal period. Sixteen of these dates were derived from charcoal samples and the rest were processed on oyster or clam shells. All marine determinations were calibrated with a reservoir correction specifically derived for St. Catherines Island (as per protocols spelled out in Thomas, 2008: chap. 13). At the time, we felt that this diverse sample of ^{14}C dates, which spans more than four millennia, provided an important independent control on the aboriginal ceramic assemblages.

Figure 2.2 demonstrates that the temporal boundaries separating the Refuge-Deptford, Wilmington, St. Catherines, and Irene periods are relatively crisp and the overlapping probability distributions correspond roughly with two-sigma limits of the intersecting datasets (see Thomas, 2008: chap. 15).

Refining the post-Wilmington chronology is more complicated. For one thing, the cultural periods within the northern Georgia coast chronologies (as in most cultural chronologies) tend to become shorter through time. That is, whereas the earliest periods typically span several hundred years (and in the case of the St. Simons period, two millennia), the latest cultural periods last only a couple of centuries. While the fine-grained resolution of the late prehistoric era certainly provides superior chronological control, problems do arise when applying radiocarbon dating because the errors associated with ^{14}C dates can extend beyond the shorter duration of these later periods.[4]

We now have additional (previously unpublished) chronological information relative to the late prehistoric and early historic ceramic complexes of St. Catherines Island, and the rest of this chapter synthesizes this evidence.

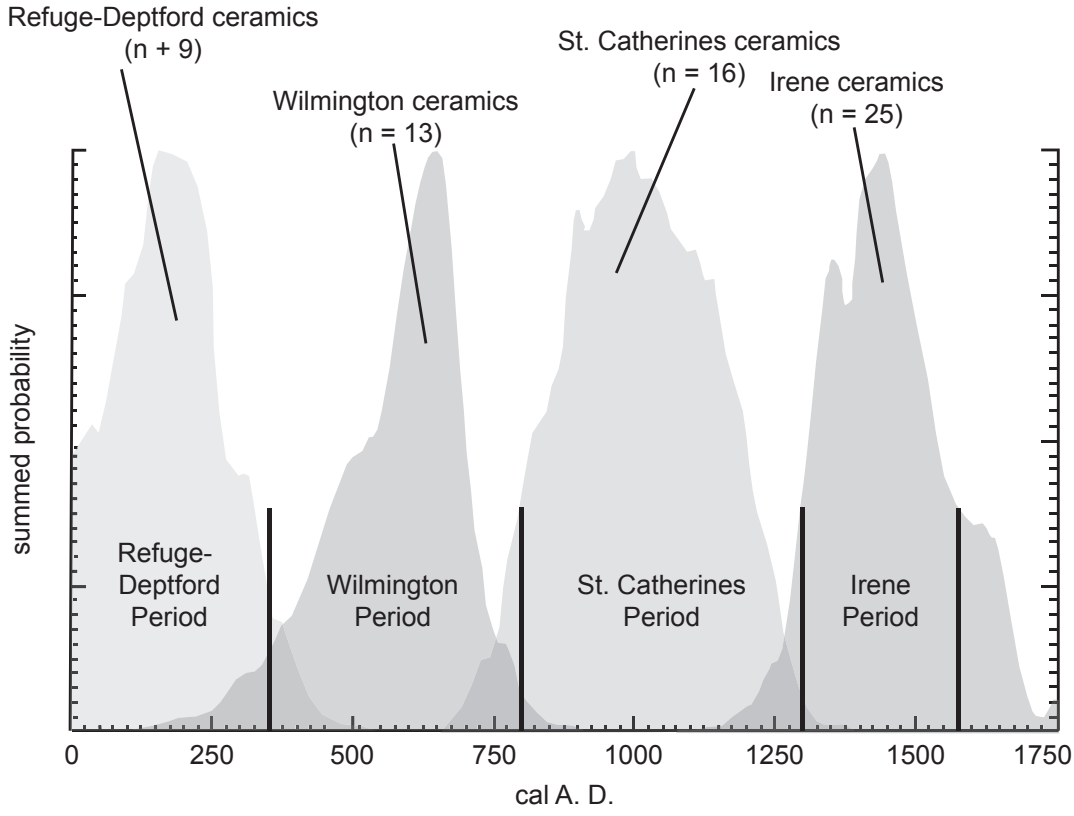


Fig. 2.2. Comparison of overall probability distributions for the late Deptford, Wilmington, St. Catherines, and Irene periods, with the between-period temporal cutoff points delimited (after Thomas, 2008, fig. 15.12).

IRENE PERIOD CERAMICS

To date, we have documented 52 archaeological components and 67 occupations known to date to the Irene period on St. Catherines Island (Thomas, 2008: table 30.2, fig. 32.13).[5] Evidence of seasonality exists in 42 of these archaeological components (Thomas, 2008: 878, fig. 30.6, table 30.4; fig. 2.3), and 32 of these have evidence indicating three or four seasons of occupation, distributed as follows: winter (29.8%), spring (27.4%), summer (25.0%), and fall (17.7%).

Irene assemblages tend to be larger and more frequent than those of earlier time period. Looking strictly at the probabilistic, islandwide survey results, Irene period occupations accumulated at a rate of 34 occupations/century (more than three times the rate for any other time period; see Thomas, 2008: table 30.2). The site testing protocols produced the highest percentage of large sites and the proportion of "smaller" sites is quite low (34 of 72), the smallest proportion from any aboriginal time period (Thomas, 2008: table 30.4).

Comparing the Ceramic and Radiocarbon Evidence

DePratter (1979, 1991) projected the temporal limits of the Irene period from A.D. 1325 (which calibrates to cal A.D. 1310–1390) through A.D. 1580, a historically derived date (and thus not subject to calibration; see table 2.1).

The St. Catherines Island research has now generated 44 radiocarbon dates directly associated with Irene ceramics (table 2.2). Several of these dates were previously published (Thomas, 2008: chap. 20, table 15.1, fig. 15.6), but the dates from Back Creek Village (9Li207), 9Li91, and 9Li1637 are reported here for the first time.

Meeting House Field (9Li21): Seventeen of the Irene period dates derive from Meeting House Field, a large, single-component Irene period site located inland from Cattle Pen Creek. Our excavations at Meeting House Field are described in May (2008; see also Saunders, 2000a; chap. 3, this volume). The ^{14}C samples were drawn from a broad range of proveniences, and with a single exception, the suite of available dates accurately brackets the cultural occupation of Meeting House Field.[6]

South New Ground Field 5 (9Li192): This medium-sized site is a low, subtle shell mound that roughly trends north-south and is apparently separated into three distinct areas that span the 100-m width of the 1979 transect. Three test pits produced a ceramic assemblage comprised almost entirely of Irene Complicated Stamped and Irene Plain ceramics, although a number of Savannah plain sherds occur here as well (Thomas, 2008: table 14.1). Most of the recovered *Mercenaria* (19 of 23) were harvested during the winter, with the rest collected during the early springtime. The presence of sea catfish remains further suggests an occupation between April and October.

Two statistically identical dates (Beta-20824 and Beta-20825) are available from Irene contexts at 9Li192.

Davy Field 1 (9Li189): This large site contains several areas of concentrated subsurface shell deposits, in a linear alignment roughly parallel to the marsh edge (although the shell does not extend all the way to the coast). Seven test pits produced mostly diagnostic Irene period sherds, in association with a number of Savannah check-stamped sherds. The available *Mercenaria* were harvested during the winter and summer/fall. The presence of sea catfish remains further indicates an occupation sometime between April and October, as do unfused deer actebular fragments, which indicate late summer/early fall harvesting. Both of these statistically distinct radiocarbon determinations date to the Irene period, as defined in the St. Catherines Island chronology (table 2.1).

9Li197: This large site consists of numerous shell mounds, surface scatters, and buried deposits. It contains a large Irene period component, with a smaller, underlying stratum of Late Archaic materials. Analysis of *Mercenaria* from the Irene component indicates that 30 of 51 clams were harvested during the winter, seven in the springtime, and 14 in the summer/fall. The presence of sea catfish remains suggests an occupation sometime between April and October.

One relevant ^{14}C date (Beta-20821) comes from the upper level of a test excavation unit dominated by Irene ceramics, with no Savannah sherds recovered. Beta-20821 readily falls into the conventional temporal range for the Irene period. Another Irene period radiocarbon date (Beta-20817) is available at 9Li194, associated with Irene Complicated Stamped ceramics.

9Li170: This small but very dense deposit of decomposing oyster shell is located inside Little Sams Field, an antebellum clearing now

TABLE 2.2
Irene and Altamaha Period Radiocarbon Dates from St. Catherines Island

Site no.	Site name	Lab no.	Material	Age ^{14}C yrs B.P.)	Calibrated age
Altamaha Ceramics					
9Li274	Mission Santa Catalina de Guale	Beta-20831	*Crassostrea*	540 ± 60	A.D. 1490–1810
9Li13	Pueblo, Mission Santa Catalina de Guale	Beta-20802	*Mercenaria*	580 ± 60	A.D. 1470–1700
9Li13	Pueblo, Mission Santa Catalina de Guale	Beta-20811	Charcoal	360 ± 60	A.D. 1440–1650
9Li274	Mission Santa Catalina de Guale	Beta-20830	*Crassostrea*	710 ± 60	A.D. 1390–1640
9Li13	Pueblo, Mission Santa Catalina de Guale	Beta-20804	*Mercenaria*	820 ± 70	A.D. 1290–1500
Irene Ceramics					
9Li170	—	Beta-20805	*Crassostrea*	530 ± 70	A.D. 1480–1820
9Li170	—	Beta-21395	*Mercenaria*	580 ± 60	A.D. 1470–1700
9Li170	—	Beta-20810	Charcoal	330 ± 60	A.D. 1450–1660
9Li21	Meeting House Field	Beta-30269	Charcoal	290 ± 60	A.D. 1450–1950
9Li21	Meeting House Field	Beta-21973	Charcoal	320 ± 60	A.D. 1450–1790
9Li216	—	Beta-217229	*Mercenaria*	670 ± 40	A.D. 1440–1630
9Li21	Meeting House Field	Beta-20808	*Crassostrea*	680 ± 60	A.D. 1420–1650
9Li21	Meeting House Field	Beta-20807	*Crassostrea*	690 ± 60	A.D. 1410–1650
9Li21	Meeting House Field	Beta-21972	Charcoal	440 ± 50	A.D. 1410–1630
9Li21	Meeting House Field	Beta-30268	*Mercenaria*	710 ± 80	A.D. 1340–1650
9Li21	Meeting House Field	Beta-30265	*Crassostrea*	730 ± 50	A.D. 1340–1570
9Li21	Meeting House Field	Beta-20806	*Crassostrea*	760 ± 60	A.D. 1320–1550
9Li170	—	Beta-21396	*Mercenaria*	740 ± 70	A.D. 1330–1620
9Li21	Meeting House Field	Beta-30266	*Mercenaria*	780 ± 60	A.D. 1310–1520
9Li21	Meeting House Field	Beta-30270	*Crassostrea*	790 ± 80	A.D. 1280–1560
9Li194	—	Beta-20817	*Crassostrea*	800 ± 60	A.D. 1310–1500
9Li216	—	Beta-217228	*Mercenaria*	830 ± 40	A.D. 1310–1460
9Li21	Meeting House Field	UGA-1009	Charcoal	580 ± 60	A.D. 1290–1430
9Li21	Meeting House Field	Beta-30264	Charcoal	540 ± 60	A.D. 1300–1450

TABLE 2.2 — (Continued)

Site no.	Site name	Lab no.	Material	Age ^{14}C yrs B.P.)	Calibrated age
9Li21	Meeting House Field	Beta-21974	Charcoal	590 ± 50	A.D. 1290–1420
9Li21	Meeting House Field	Beta-30262	*Mercenaria*	840 ± 60	A.D. 1290–1470
9Li197	—	Beta-20821	*Mercenaria*	860 ± 60	A.D. 1280–1460
9Li21	Meeting House Field	Beta-30263	*Mercenaria*	950 ± 60	A.D. 1190–1420
9Li21	Meeting House Field	UGA-1010	Charcoal	690 ± 60	A.D. 1220–1400
9Li21	Meeting House Field	Beta-30267	*Mercenaria*	990 ± 80	A.D. 1090–1420
9Li3	Moore's "South End Mound"	Beta-225478	Human bone	630 ± 40	A.D. 1290–1400
9Li3	Moore's "South End Mound"	Beta-225481	Human bone	490 ± 40	A.D. 1320–1470
9Li192	—	Beta-20824	*Mercenaria*	790 ± 60	A.D. 1310–1510
9Li192	—	Beta-20825	*Mercenaria*	820 ± 60	A.D. 1300–1490
9Li189	—	Beta-215815	*Mercenaria*	830 ± 50	A.D. 1300–1470
9Li207	Back Creek Village	Beta-242420	*Mercenaria*	890 ± 40	A.D. 1280-1430
9Li207	Back Creek Village	Beta-242241	*Mercenaria*	760 ± 40	A.D. 1340-1510
9Li207	Back Creek Village	Beta-242426	*Mercenaria*	600 ± 40	A.D. 1480-1670
9Li207	Back Creek Village	Beta-242422	*Mercenaria*	1070 ± 40	A.D. 1080-1290
9Li207	Back Creek Village	Beta-242423	*Mercenaria*	660 ± 40	A.D. 1450-1640
9Li207	Back Creek Village	Beta-242424	*Mercenaria*	680 ± 40	A.D. 1430-1620
9Li207	Back Creek Village	Beta-242425	*Mercenaria*	680 ± 40	A.D. 1430-1620
9Li207	Back Creek Village	Beta-242427	*Mercenaria*	740 ± 40	A.D. 1380-1540
9Li91		Beta-232113	*Mercenaria*	870 ± 60	A.D. 1270-1460
9Li91		Beta-232115	*Mercenaria*	830 ± 50	A.D. 1300-1470
9Li1637		Beta-242428	*Mercenaria*	590 ± 40	A.D. 1490-1670
9Li1637		Beta-242429	*Mercenaria*	680 ± 40	A.D. 1430-1620
9Li1637		Beta-424430	*Mercenaria*	560 ± 40	A.D. 1500-1690
9Li1637		Beta-242431	*Mercenaria*	700 ± 40	A.D. 1420-1620

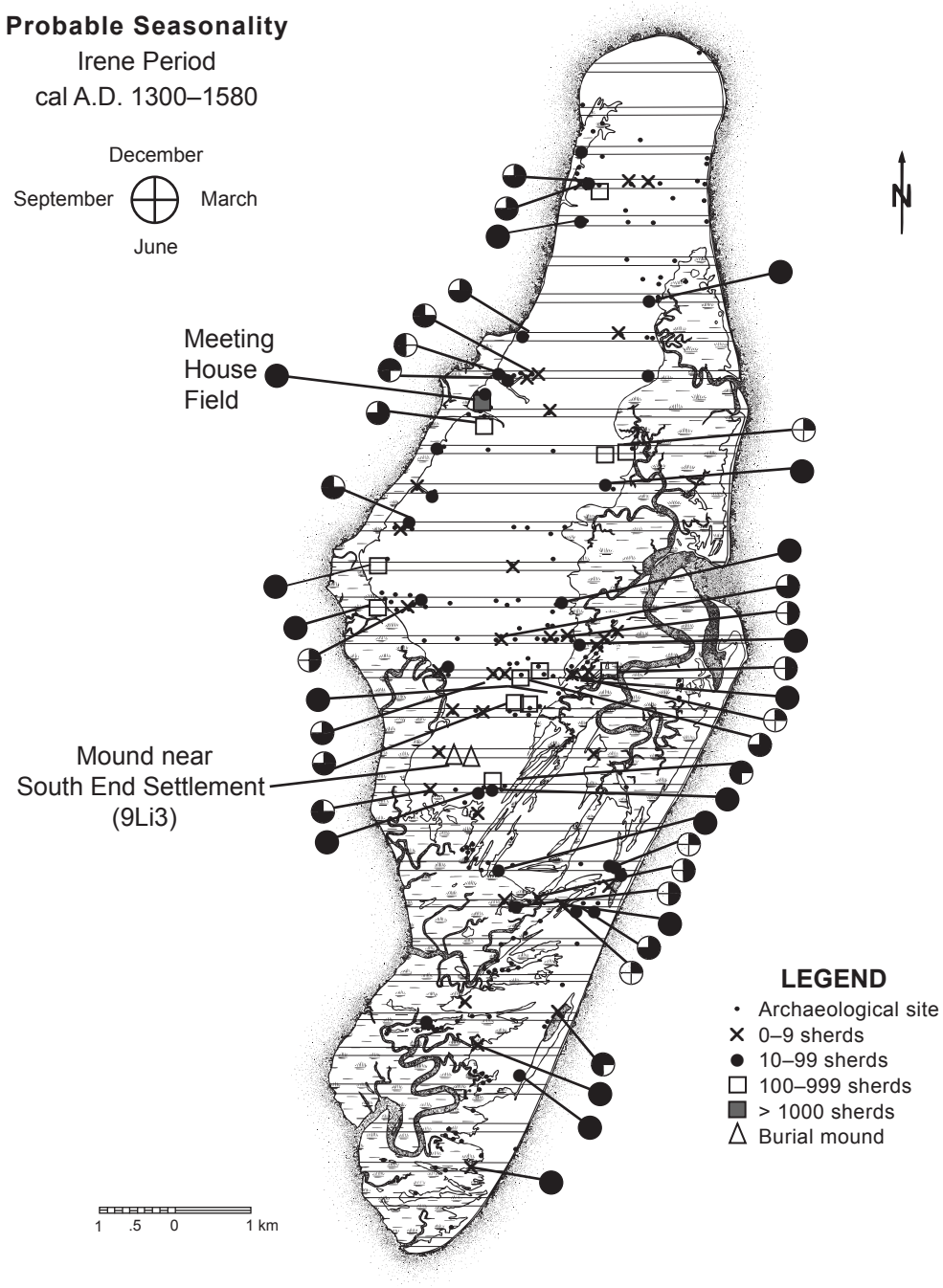


Fig. 2.3. Seasonal distribution of archaeological components from the Irene period on St. Catherines Island (after Thomas, 2008, fig. 30.6).

overgrown with pine and saw palmetto. Analysis of 25 randomly selected *Mercenaria* showed that 10 were harvested during the summer/fall, and six each harvested during the winter and early springtime.

Four ^{14}C determinations are associated with Irene ceramics in Test Pit I at 9Li170 (Beta-20805, Beta-20810, Beta-21395, and Beta-21396). Although two Altamaha sherds were recovered from this unit, we attribute all four radiocarbon determination dates to the Irene period and the results are consistent with this finding.

9Li216: This medium-sized site is located about 50 m west of the eastern marsh. *Mercenaria* from the Irene component demonstrate that 19 (of 24) clams were harvested during the winter, three more during the summer/fall, and two during the spring. The presence of sea catfish remains also suggests occupation sometime between April and October. Two radiocarbon dates (Beta-217228 and Beta-217229) are available from 9Li216, both associated with Irene Burnished Plain ceramics.

South New Ground Mound: In May 1979, the American Museum of Natural History relocated and investigated the remains of Moore's "Mound Near South-End Settlement," an Irene period burial mound. Moore reported that the mound originally measured 3 ft high and 68 ft in diameter (Moore, 1897: 161). His excavation exposed 50 burials and recovered a significant quantity of grave goods. The central part of the mound comprised an oyster shell layer 2 ft thick and 10–20 ft across. Moore noted the absence of a central pit and the presence of occasional cremated remains.

This was the richest mound excavated by C.B. Moore on St. Catherines Island (Moore, 1897), and he included a cross-sectional view of one of the burials as the color frontispiece of his 1897 publication (as did Larsen, 2002). Moore's report strongly suggests that this site was used almost entirely during the Irene period. Various grave goods were described, including a soapstone pendant, a large number of shell beads, some ceramic pipes, and several parts of decomposed rattles.

Most of the potsherds recovered during the re-excavation of the South End Mound can be attributed to the Irene period (Peter, 1986: 15), and two large Irene Complicated Stamped burial urns were also recovered (Peter, 1986: figs. 9 and 10) and one of these vessels (AMNH 20/1565) is illustrated here (see fig. 2.4).

We recently processed five additional ^{14}C determinations on human bone samples recovered from C. B. Moore's excavations at South New Ground mound (Thomas, 2008: chap. 24; see also Larsen, 2002). Three of these samples

Fig. 2.4. Irene Complicated Stamped burial urn (20/1565) recovered by C.B. Moore from South End Mound I on St. Catherines Island (Moore, 1897; Larsen and Thomas, 1982: fig. 10; photograph by Angela Sharp; illustration by Dennis O'Brien).

(Beta-225472, burial 6; Beta-225472, burial 16; and Beta-225479, burial 24) contained insufficient bone collagen for radiocarbon dating. But the two additional samples on human bone from South End Mound produced the following results:

Beta-225478 (burial 20) 630 ± 40 B.P.
cal A.D. 1330–1490 [cal A.D. 1290– 400]

Beta-225471 (burial 28) 490 ± 40 B.P.
cal A.D. 1460–1640 [cal A.D. 1320–1470]

Note that the raw ^{14}C dates have two sets of calibrations. The age in brackets was computed using the standard terrestrial (IntCal04) calibration. But since these individuals likely consumed both terrestrial and marine resources, a more satisfactory calibration can be obtained by using the "mixed" Northern hemispheric calibration curve (DeNiro and Epstein, 1978; Molto et al., 1997). Based on previous and ongoing stable isotope analysis of individuals from South End Mound (Schoeninger et al., 1990; see also Thomas, 2008: chaps. 24 and 32), we estimate the proportion of marine carbon at 50% and employ the standard St. Catherines Island reservoir correction factor ($\Delta R = -134 \pm 26$). The difference between these two calibration protocols varies between about 25 and 150 sidereal years.

9Li91: This large palmetto-covered site occurs about 300 m west of Flag Pond Road, on a peninsula that approaches a tributary of Brunsen Creek (Thomas, 2008: chap. 20, figs. 20.11 and 20.15). Two buried midden areas were recorded here, each about 5–6 m in diameter and buried 10 cm below the surface. We tested this site as part of the islandwide probabilistic survey, and returned twice for additional testing (Thomas, 2008: 595).

Following discussions at the Second Caldwell Conference (as reported throughout this volume), we revisited this site because we were intrigued with the possibility of locating Irene period ceramics that may have persisted throughout the 16th century. Systematic shovel testing at 9Li91 confirmed the presence of Irene period ceramics, but we also found a concentration of historic period artifacts including ceramics, glass, a kaolin pipe stem, a button, and a number of hand-headed cut nails—all suggestive of a late 18th- or early 19th-century date.

We selected four samples for radiocarbon dating. Two samples were selected from "pure" aboriginal contexts—at the northern (Beta-232115) and southern (Beta-232113) extents of the site. One sample (Beta-232114) was selected from a test pit adjacent to where El Morro sherds and a carnelian bead were excavated, and the last sample (Beta-232116) was taken from the newly located historic concentration—about 30 m east of where the bead had been found.

For present purposes, we will include the first two dates in the Irene-specific sample of radiocarbon dates:

Beta-232113 (*Mercenaria)*: 870 ± 60 B.P.
cal A.D. 1270–1460

Beta-232115 (*Mercenaria)*: 830 ± 50 B.P.
cal A.D. 1300–1470

Back Creek Village (9Li207): This large site contains numerous shell scatters surrounding a depressed area, which may have been dug out to create a small lake. During the transect survey, we excavated test pits; the recovered ceramic assemblage consists of 396 potsherds (232 of them period diagnostic), 87% of which are diagnostic of the Irene period; several Savannah sherds were also found (Thomas, 2008: chap. 20). The associated *Mercenaria* recovered from strictly Irene period contexts (Test Pit I) provides ample evidence of hard clam procurement during the winter and the late spring. Although Back Creek Village produced no evidence of an early springtime harvest of *Mercenaria*, the vertebrate remains indicate that sea catfish were procured sometime between April and October.

In February and March, 2008, the American Museum of Natural History returned to Back Creek Village, digging several units in the distinct midden deposits of this site. Eight radiocarbon samples, all *Mercenaria* valves, were processed by the Accelerator Mass Spectrometry (AMS) process, following the March 2008 excavations. Two samples each were selected from each of four middens at Back Creek Village.

Midden A: both samples were selected from unit N586 E441—one from the upper level of the shell, and one from the lowest level.

Beta-242420 (48.985 cm) 890 ± 40 B.P.
cal A.D. 1280–1430

Beta-242423 (48.78 cm) 660 ± 40 B.P.
cal A.D. 1450–1640

Beta-242420, from the uppermost level, is associated with Irene and Savannah period ceramics (with a single Altamaha sherd found as well). Beta-242430, from the basal level, is associated with a single Savannah sherd, several sand tempered and grit tempered sherds, and two Deptford sherds as well. Despite the stratigraphic reversal evident in the two AMS dates, we attribute both dates to the Irene period (with associated Savannah diagnostics).

Midden D: Two additional radiocarbon samples were select from Test Pit VI at Back Creek Village:

Beta-242421 (48.88 cm) 760 ± 40 B.P.
cal A.D. 1340–1510

Beta-242422 (48.65 cm) 1070 ± 40 B.P.
cal A.D. 1080–1290

These radiocarbon samples were selected from the top and bottom levels of the midden shell. The uppermost level contains Irene and Savannah period diagnostics. Beta-242422, from the basal level, is associated with an abundance of Irene period diagnostics (with a single Altamaha sherd present). We attribute both dates to the Irene period.

Midden F: Two AMS samples were selected from TP VIII at Back Creek Village:

Beta-242424 (48.23 cm) 680 ± 40 B.P.
cal A.D. 1430–1620

Beta-242425 (48.435 cm) 680 ± 40 B.P.
cal A.D. 1430–1620

Although these dates were selected from uppermost and basal levels, the identical age estimates suggest a rapid deposition during the latest Irene period. Both ceramic assemblages were dominated by Irene period diagnostics (with a single Savannah sherd found in each level).

Midden H: The final pair of AMS samples from Back Creek Village came from unit N493 E499:

Beta-242426 (49.9 cm) 600 ± 40 B.P.
cal A.D. 1480–1670

Beta-242427 (49.79 cm) 740 ± 40 B.P.
cal A.D. 1350–1540

The uppermost AMS date, Beta-242426, was associated with several Irene sherds (and a single Altamaha diagnostic). The lower stratum, associated with Beta-242427, contained Irene and Savannah diagnostic sherds.

9LI1637: Also in March 2008, we excavated two test units in AMNH-701, a large site located along the western shoreline of St. Catherines Island, to the west of Yankee Bridge Road and the Lemur pens (between transects B6 and B1).[7] AMNH-701 consists of at least five large shell middens stacked more than 1 m tall. A large "ridge" of shell also runs along the marsh edge. Our objectives in testing this site were twofold: (1) to obtain a sample of ceramics and material for radiocarbon dating in order to determine the age of the site, and (2) and to obtain an initial sample of vertebrate remains.

Four *Mercenaria* shells were selected for AMS dating. Three of these (Beta-242428, Beta-242429, and Beta-242430) were from TP I. One was selected from the top of the midden, one from the bottom, and the third from the middle. All associated ceramics were identified as Irene period diagnostics (with two Savannah sherds from the basal level). The fourth AMS date (Beta-242431) was taken from the middle of TP II, associated with a large concentration of Irene period sherds.

Conclusion: The Temporal Span of Irene Period Ceramics

The St. Catherines Island research has generated 44 radiocarbon dates directly associated with Irene ceramics (table 2.1; fig. 2.5). This pooled probability distribution approximates a normal curve, spanning the interval cal A.D. 1320–1540 (at the one-sigma level); the two-sigma intervals are cal A.D. 1200–1670. Despite the expanded sample size, these results are virtually identical to those published previously (Thomas, 2008: table 15.1 and fig. 15.6).[8]

Rounding these results, we estimate that Irene period ceramics first appeared on St. Catherines Island about cal A.D. 1300, a figure that closely corresponds to DePratter's (1979, 1991) estimate. Moreover, as documented earlier, the pooled probability distributions of radiocarbon dates for the St. Catherines and Irene periods are mutually exclusive, intersecting at cal A.D. 1300

(Thomas, 2008: chap. 15).

Defining the terminal date for the Irene period is problematic. DePratter (1984: 53) suggested that the Irene period ended at A.D. 1550 "due to intensive European contact," with the Altamaha Period beginning at that date. Since that time, further research at Santa Elena (South Carolina) has convinced DePratter (chap. 1, this volume) that the Irene/Altamaha shift did not occur until somewhat later. Because virtually no Altamaha ceramic materials appear at Santa Elena, DePratter (1991) now argues that A.D. 1580 is the best estimate for the Irene-Altamaha transition (based on the occupational span at Santa Elena and its abandonment in 1587). Because this estimate is based on historical evidence (rather than radiocarbon dating), it is not subject to calendrical calibration.

With respect to the available radiocarbon data from St. Catherines Island, figure 2.5 indicates that the one- and two-sigma limits bracket the *uncorrected*, historically derived age of A.D. 1580. Using a one-sigma cutoff point, the maximum age of Irene ceramics becomes cal A.D. 1530; conversely, the more conservative, two-sigma breakpoint leads to an estimate of cal A.D. 1680 as the maximum age for Irene ceramics on St. Catherines. In other words, depending on the statistical criteria employed, the probability distribution of ^{14}C dates for the Irene period either does, or does not, extend into the historic period. While recognizing these disparities, we will follow DePratter (1979, 1991) in utilizing the historically derived estimate of A.D. 1580 as the terminal date of the Irene period in the St. Catherines Island chronology.

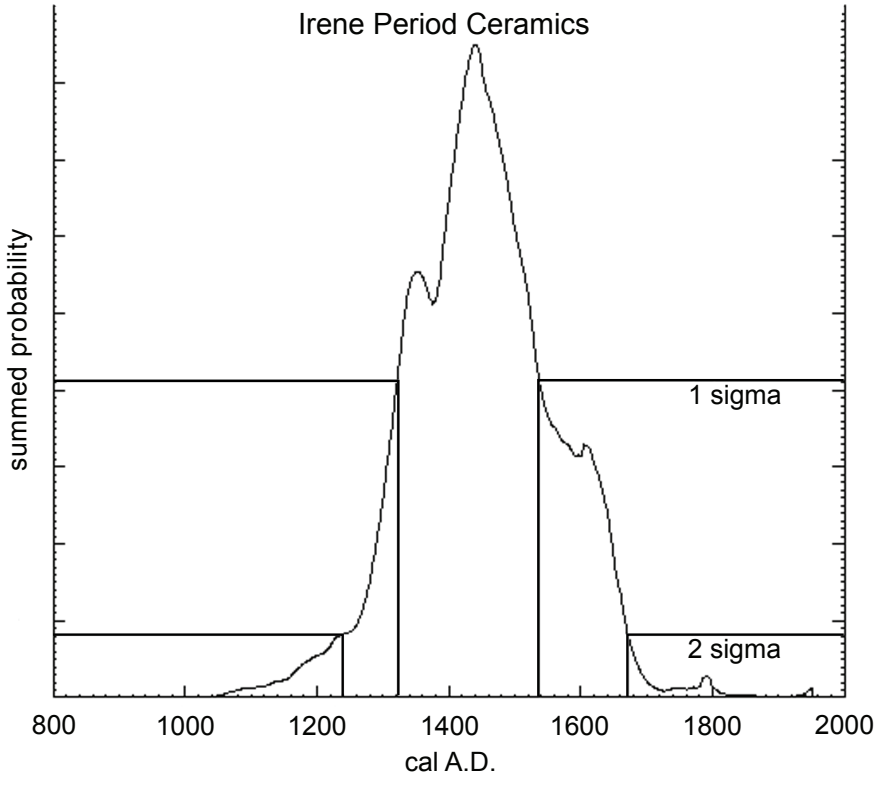


Fig. 2.5. Probability distribution of the 44 radiocarbon dates associated with Irene period ceramics on St. Catherines Island.

ALTAMAHA PERIOD CERAMICS

Human settlement patterns on St. Catherines Island changed dramatically during the Spanish mission period (Thomas, 2008: fig. 32.14), when the distribution of aboriginal settlements consolidated and contracted. Altahama ceramics were found in only 13 of the 350 archaeological sites examined, with half of those occurrences located within 1 km of Wamassee Head, the location of Mission Santa Catalina de Guale.

Two Altamaha period sherds were also recovered from 9Li250, a mostly Wilmington period occupation located 2 km north of the Mission. On the northwestern tip of the island, two Altamaha sherds were found at 9Li166, and 9Li242 (located 1 km to the south) contained a notable concentration of Altamaha period materials, as well. Altamaha sherds were found at sites located on the southern beach ridges, including 9Li163, a large palmetto-covered site about 300 m west of Jungle Road.

Seasonality estimates are available from four of the Altamaha period sites. As expected, all three sites near Wamassee Head have a demonstrable four-season occupation. 9Li242, located at the southern end of the Northwestern Marsh, was occupied at least during the winter and spring.

The settlement pattern data documents a notable degree of nucleation during the Altamaha period, a site distribution that is entirely consistent with the well-known Spanish strategy of *reducción*. This refers to the practice in which Spanish officials gathered aboriginal communities into fixed settlements (Bushnell, 1994: 22–23, 65, 126), thereby providing for more efficient administration, both religious and secular.

We must note that an Altamaha Line Block Stamped vessel (Heye Foundation 17/4479) was also recovered by Moore at South End Mound I, associated with Burial No. 2 (Moore, 1897: 76). This vessel is illustrated below (see fig. 2.6).[9]

Mission Santa Catalina De Guale

The Franciscan missions of Spanish Florida clearly followed long-established rules and time-honored sequences of construction. Spain issued thousands of regulations to promote, regularize, and control the American colonies. One document in particular—"The Royal Ordinances Concerning the Laying Out of Towns," issued in 1573 by Philip II—is significant because it prescribed an idealized system for laying out settlements throughout 16th-century Spanish America (Zéndegui, 1977; Crouch et al., 1982: 13–16).

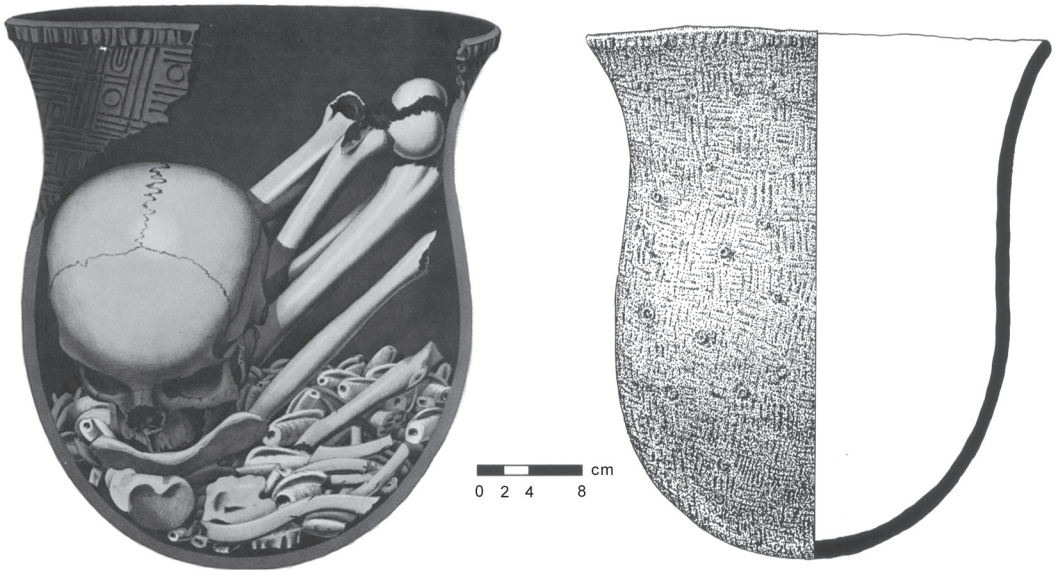


Fig. 2.6. Altamaha Line Block stamped vessel (Heye Foundation 17/4479) burial urn (20/1565) recovered by C.B. Moore from South End Mound I on St. Catherines Island (Moore, 1897; Larsen and Thomas, 1982: fig. 8; right-hand illustration by Dennis O'Brien).

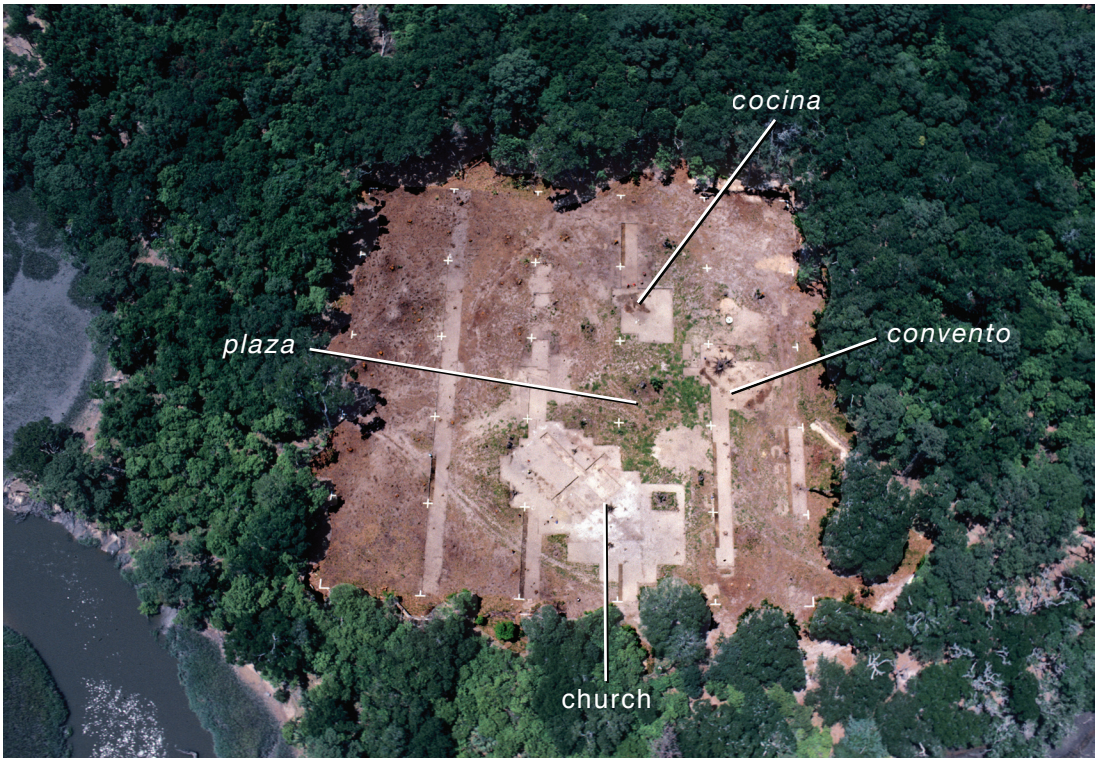


Fig. 2.7. Low-level aerial photograph showing the layout of Mission Santa Catalina de Guale (as of May 1984), with true north at the top of the page. The cleared area covers 1 ha (100 m along each side) and the white "+" marks are spaced at 20 m intervals (photograph by Dennis O'Brien).

These royal ordinances compiled 148 regulations dictating the practical aspects of site selection, city planning, and political organization.

New Hispanic towns were to be established only where vacant lands existed, or where Indians had consented freely to their establishment. The Ordinances stipulated that, before any construction began, a detailed town plan was to be drafted. The plazas were to be laid out first, then the rest of the town oriented accordingly. The principal plaza was to be located near the landing place in coastal towns, in the center of the community for inland settlements. Always rectangular in form, the length of the plaza was to be one and one-half times its width, to provide most efficient traffic movement and also ample room for holding fiestas.

These were the principles that dictated the layout of Mission Santa Catalina de Guale. As stipulated by Ordinance 110, the mission structures were laid out along a rigid grid pattern (fig. 2.7). A rectangular plaza defined the center of the sacred complex (Ordinance 112), flanked on one side by the mission church (Ordinance 124: "separated from any nearby building . . . and ought to be seen from all sides"), on the other by the friary (Ordinances 118, 119, 121). The plaza was surrounded by (and separated from) the secular Guale pueblo; "in the plaza, no lots shall be assigned to private individuals; instead they shall be used only for the building of the church and royal houses" (Ordinance 126).

The Churches of Mission Santa Catalina de Guale[10]

Our excavations at Mission Santa Catalina de Guale revealed two sequential church buildings (both termed Structure 1 during our fieldwork). The earlier *iglesia* was destroyed by fire, probably in September 1597 (Geiger 1937: 103–104). Subsequent building episodes have largely obscured the appearance of the earlier church.

The mission church was reconstructed

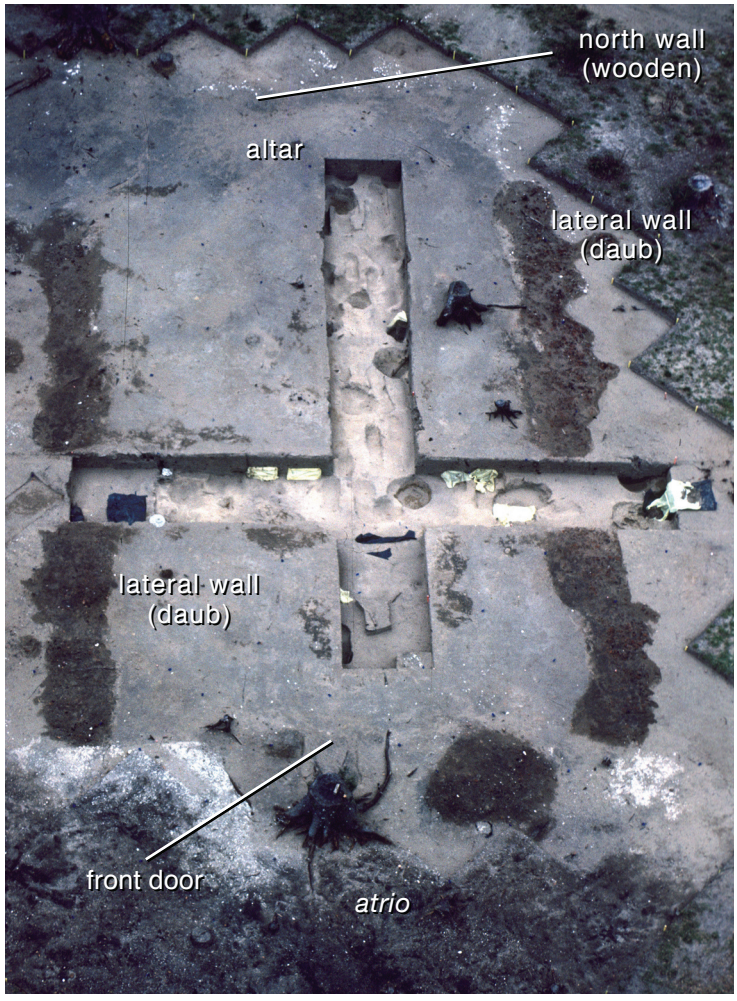


Fig. 2.8. Aerial photograph of the primary church (Structure 1) at Mission Santa Catalina de Guale. This photograph is oriented with "mission north" at the top of the page (photograph by Deborah Mayer O'Brien).

(apparently on the previous location). Most of what we term "Structure 1" at Mission Santa Catalina is the primary 17th-century church, abandoned shortly after the British siege in 1680 (fig. 2.8).

The late church (*iglesia)* at Mission Santa Catalina de Guale was a wattle-and-daub, pine-plank structure measuring 20 m long and 11 m wide (Thomas, 1988a: 96–99). This church was constructed on a single nave plan, lacking both transept and chancel (Kubler, 1940: 30).

The southeastern-facing façade was built strictly of wattlework, anchored to four round uprights, set into shell-lined postholes. Either a pointed gable was elevated to support a steep thatch roof, or the facade sported a false front projecting above the single-story construction of the nave.

Wattle-and-daub technology required the construction of numerous "daub pits" flanking each wall. When building was completed, these pits (roughly 1 m in diameter and up to 1 m deep) were then filled with household debris and other discards. The fill of these daub pits often contained a considerable quantity of the ceramic assemblage attributed to Structure 1 (table 2.3).

THE CHURCHYARD (*ATRIO*): Fronting the church at Mission Santa Catalina stood a square, shell-covered subplaza, measuring about 15 m on a side (evident at the bottom of fig. 2.7). This *atrio*

was likely a low-walled enclosure demarcating the public entrance to the church and all ceramics recovered from this area have been combined with assemblage Structure 1 totals (table 2.3).[11]

The Cemetery (*Campo Santo*): The only known cemetery associated with Mission Santa Catalina de Guale was found inside the church. Our excavations beneath the floor of the nave and sanctuary revealed a minimum of 431 buried individuals: 52% ($n = 226$) were found in primary, undisturbed context, generally supine and extended, feet towards the altar, and arms folded across the chest (Russell et al., n.d.: 4; Larsen, 1990). The remaining 48% ($n = 205$) were found in disturbed, secondary context. The *campo santo* at Santa Catalina also contained an array of associated grave goods, especially the bead assemblage discussed by Blair et al. (2009).

The Ceramic Assemblage: Table 2.3 tabulates totals for all aboriginal ceramics recovered during excavations of the church, the *atrio,* and the *campo santo*. Altamaha ceramics comprise 93.0% (7044 of 7571 sherds) of the ceramic assemblage that can be classified by type (table 2.3). We likewise note the almost complete absence of Irene ceramics (only 0.1%; 15 of 7571 sherds) from the church assemblage.

The Friary (*Convento*) Complex

The *convento* (or friary) complex was erected on the east side of the central plaza, across from the mission church. Excavations by the American Museum of Natural History disclosed evidence of two superimposed *convento* structures, with a nearby *cocina (*kitchen) and two wells.

The Conventos: Church regulations dictated the interior configuration of Franciscan *conventos*, which typically contained the refectory, the cells, and perhaps some specialized rooms, such as a kitchen, offices, workshops, or granary. Water assumed great significance in Franciscan rite, and a source of sacred water was always a matter of concern when positioning a friary. The *convento* at Santa Catalina seems to follow such rules rather closely. Rooms were indeed very small, and they appear to surround two central enclosures (one of which is probably the refectory). Two major wells, presumably sources of holy water, were found nearby.

The earlier *convento* was made of wattle and daub and measured roughly 10 m × 20 m, with the long axis oriented to approximately 310° (Thomas, 1993a: 16; 1988a: 99–100; see fig. 2.9; see also Saunders, 1990: 537, chap. 3, this volume). Construction was entirely of rough wattle and daub (considerably coarser than that employed in building the church). It appears to have been divided into four rooms, three measuring 10 × 6 m and one measuring 10 × 4 m. The kitchen and refectory were probably housed inside the earlier *convento*, with the additional rooms used for living quarters and storage. Kitchen debris and table scraps were tossed out the back door, where a fringe of shell midden accumulated against the rear wall—well out of sight from the church. A clearly incised dripline demonstrates that the earlier *convento* had eaves extending about a meter beyond the rear wall; figure 2.9 clearly shows this dripline, along the eastern margin of Structure 4. Perhaps early friary was burnt by rebellious Guale in the fall of 1597 (Francis and Kole, in preparation).

A new *convento* was then constructed on the same location (Thomas, 1993a; 1988; Saunders, 1990: chap. 3). The later structure, also a wattle-and-daub building, measured 12 × 8.5 m. The southeastern wall of both the earlier and the later *conventos* was built on the same location. The long axis of the late *convento* is 325°; the 15° difference in orientation greatly facilitated separating the two buildings during excavation.

The later friary consists of three well-defined and one less well-preserved daub walls, accompanied in all cases by in situ wall posts. The later *convento* "was subdivided into several small rooms arranged around a central enclosure which contained a raised font." Located at the south end of the structure was a larger room, thought to be a library or refectory, heated with a central brazier. Two porches were attached to the later structure: a colonnaded porch on the western edge of the building, marking the edge of the central plaza and a porch or annex located to the south of the library or refectory (Thomas, 1988a: 103; Saunders, 1990: 537).

The ceramic assemblage from Structure 4 came primarily from the daub pits deliberately filled with available trash and from the sheet middens that accumulated along the rear walls of the *conventos* (table 2.3). Altamaha sherds dominate the *convento* ceramic assemblage, accounting for 89.8% of the typable total. Although Saunders (chap. 3, this volume) notes the absence of Irene sherds from the earliest daub and post pits, the overall frequency of Irene

TABLE 2.3
Ceramic Frequencies and Weights at Mission Santa Catalina de Guale

	Mission church (St. 1)		*Cocina* (St. 2)		Mission Well (St. 2/4)		*Convento* (St. 4)		Totals	
	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)
Altamaha	7044	79,150.2	14,214	157,788.4	1474	15,835.2	5838	61,672.6	28,570	314,446.4
Irene	15	168.8	51	749	3	14.6	92	964.1	161	1896.5
Savannah	47	530.3	10	72.5	1	9.5	16	140	74	752.3
St. Catherines	9	157.5	7	30.6	—	—	115	1573.1	131	1761.2
Wilmington	22	526.5	31	306.1	—	—	78	1120.8	131	1953.4
Walthour	—	—	—	—	—	—	—	—	—	—
Deptford	154	2309.6	75	602.9	3	25	64	694.9	296	3632.4
Refuge	201	2035	49	324	1	14.8	153	1142.8	404	3516.6
St. Johns	35	372.4	97	441.7	8	15.8	106	424	246	1253.9
Weeden Island	—	—	40	563.7	—	—	1	59.7	41	623.4
Late Swift Creek	—	—	—	—	—	—	1	31.9	1	31.9
St. Simons	44	413.5	9	114.7	1	3	39	343.5	93	874.7
Subtotal	7571	85,663.8	14583	16,0993.6	1491	15,917.9	6503	68,167.4	30,140	330,742.7
Grit tempered	6636	45,914.3	5042	29,995.2	1600	9243.2	3253	20,575.3	16,531	105,728
Clay tempered	99	839.7	35	310	21	193.2	156	1076.1	311	2419
Sand tempered	1081	6984.7	395	2118.8	243	944.7	394	1936	2113	11984.2
Additional aboriginal	6786	9551.5	9785	12,198.9	1804	740.6	4385	5634.2	22,760	28,125.2
Unidentified aboriginal	7	33	17	136.6	3	2.8	18	80.3	45	252.7
Totals	22,180	14,8987	29,857	205,753.1	5162	27,042.4	14,709	97,469.3	71,908	479,251.8

Fig. 2.9. Aerial photograph of the *convento* (Structure 4) at Mission Santa Catalina de Guale. This photograph is oriented along the Hispanic grid system, with "mission north" at the top of the page (photograph by Royce Hayes).

ceramics in the *convento* is 1.4% (92 of 6503 typable sherds), considerably higher than for anywhere else within the mission complex at Santa Catalina.

The Kitchen (*Cocina*): The new friary was about 15% smaller than its predecessor, but this size differential was perhaps counterbalanced by the new *cocina* (kitchen) built 20 m to the northwest.[12] Figure 2.10 shows the configuration of the kitchen (Structure 2), measuring 4.5 m × 6 m, was constructed of wattle and daub on three sides. These walls were supported by squared off pine posts, placed in pits. The southern end of the kitchen was apparently left open, presumably to facilitate both access and ventilation. Considerable evidence of shell bead manufacture was found in Structure 2, suggesting the possibility of a multiuse building (Blair et al., 2009).

The cooking for the friars was probably shifted to this new structure. Although most kitchen debris was discarded some distance away (probably outside the walled mission compound),

Fig. 2.10. Photograph of the *cocina* (Structure 2) at Mission Santa Catalina de Guale. This photograph is oriented along the Hispanic grid system, with "mission north" at the top of the page." The white buckets are positioned over the main structural posts of this building (photograph by David Hurst Thomas).

some midden accumulated in pits near the *cocina*, and occasional smaller pieces of garbage were trampled underfoot, being thus incorporated in the kitchen floor. The ceramic assemblage associated with Structure 2 is enumerated in table 2.3.

The Mission Wells: Two wells have been discovered at on the eastern side of the plaza (Thomas, 1988a, 1993a). One of these (denoted as "Structure 3" in the fieldnotes) was discovered during the initial magnetometer survey of Quad IV (Thomas, 1987; Garrison et al., 1985). This barrel-lined well was located several meters northeast of the *convento* and likely dates to the earlier mission occupation (Thomas, 1993: 19). No ceramics were recovered in association with this well feature.

A second, much larger well denoted as "Structure 2/4, FS(2/4)513" (in the fieldnotes) was discovered between the *convento* and the *cocina*. Evidence in the upper levels of the excavation suggested that this area had likely been used as a garden, but we then found a large circular construction pit more than 4 m in diameter, with a dark, largely circular stain in the middle (fig. 2.11). As we excavated downward, the construction pit narrowed, with distinct "steps" on both sides; a 17th-century cave-in is recorded in the southern sidewall, where one of the sand steps apparently collapsed (figs. 2.12 and 2.13).

The well was originally much smaller, having been first constructed with standard barrels. It was subsequently renovated using a casement constructed of two U-shaped cypress logs that were lowered into the construction pit, then nailed together. This later, handmade well casing was at least 2 m in diameter, considerably larger than any of the mission-period wells encountered in Spanish Florida. This well clearly crosscuts surrounding features in the *convento/cocina* complex; it was one of the last features built at the mission and was probably in use until the final mission abandonment in the 1680s.

The well reached a depth of roughly 2.5 m. Considerable amounts of cultural and botanical remains were included in both the construction pit and well fill. A quantity of waterlogged items found at the base of the well include a broken iron hatchet (with a partial wooden handle still intact, possibly broken during the carving of the casement), two wooden balls (roughly the size of

Fig. 2.11. Photograph of the second (late) well at Mission Santa Catalina de Guale (Structure 2/4) during the initial stage of excavation. This photograph is oriented along the Hispanic grid system, with "mission north" at the top of the page (photograph by David Hurst Thomas).

pool balls), and many seeds and pits including grape, peach, and squash. At the bottom of the well were quantities of burnt cut wood, which may have been part of a superstructure that once covered the well.

Table 2.3 presents the sherd counts from this well (denoted as Structure 2/4); Altamaha series ceramics account for 99.3% of the identifiable sherds. Of particular interest are the two reconstructible aboriginal vessels recovered from the bottom of this well. Figure 2.14D depicts a nearly complete flaring rim Altamaha Line Block Stamped jar (28.2/3179). Figure 2.16 shows several views of an unusual flared rim jar, which has been painted with a series of black stripes (28.2/3057).

The Guale *Pueblo* at Mission Santa Catalina

Although we have learned a great deal about the central mission compound at Mission Santa

Fig. 2.12. Rebecca Saunders exposing the baldcypress casing inside the second (late) well (Structure 2/4) at Mission Santa Catalina de Guale (looking south; photograph by David Hurst Thomas).

Fig. 2.13. The basal level of the second (late) well at Mission Santa Catalina de Guale (Structure 2/4), showing the baldcypress casing and artifacts found scattered across the base of the well. The painted Altamaha Line Block Stamped flared rim jar (28.2/3057) is located in the upper-right hand part of this photograph (see also fig. 2.16); the Altamaha Line Block Stamped vessel (28.0/3179; see also fig. 2.14D) appears at the lower-right, partially obscured by a preserved piece board from the well superstructure and next to an olive jar rim (looking north; photograph by David Hurst Thomas).

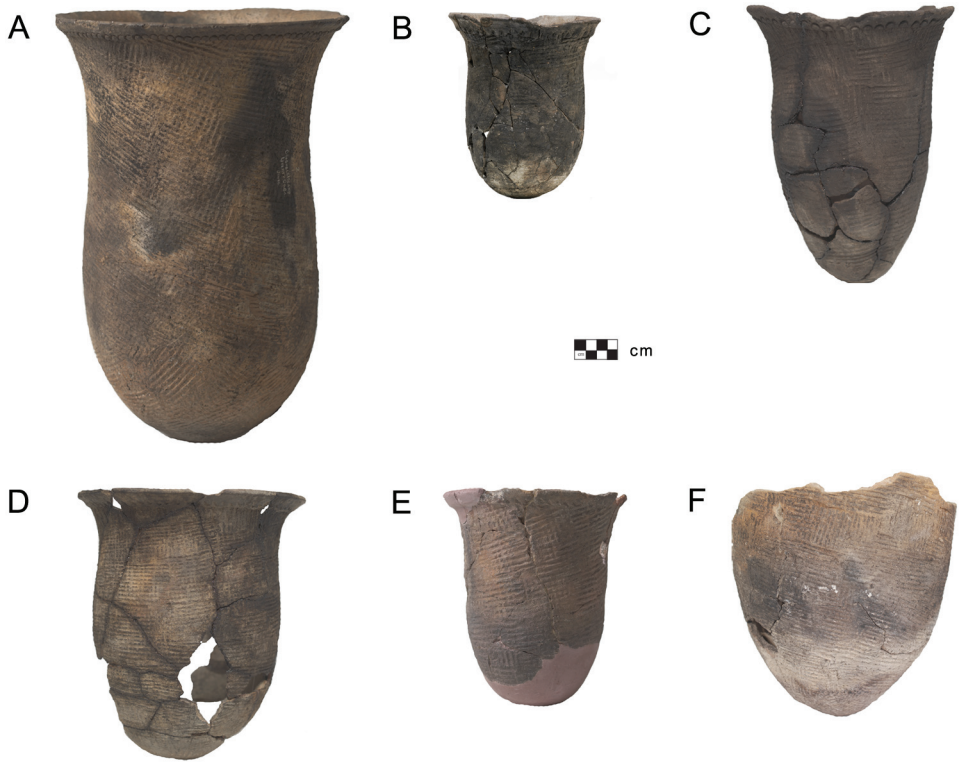


Fig. 2.14. Altamaha Line Block Stamped vessels. Provenience: **A.** burial urn from Colonel's Island, Liberty County, Georgia (Jones, 1973: 2–1); **B.** flaring rim jar from the Pueblo South (28.0/259); **C.** flaring rim jar from the *convento*, Mission Santa Catalina de Guale (28.0/4560); **D.** flaring rim jar from bottom of well (Structure 2/4), Mission Santa Catalina de Guale (28.2/3179); **E.** flaring rim jar from the Pueblo South, Santa Catalina de Guale (Fallen Tree; 1/1129); **F.** broken jar from Pueblo South, Santa Catalina de Guale (28.0/260). Vessel "B" was photographed by Dan Schultz (photograph courtesy of Fernbank Museum of Natural History); all other vessels were photographed by Angeline Sharp.

Catalina, our knowledge of the surrounding Indian *pueblo* is less secure, in part because the Hispanic documents glossed over such mundane matters and also because of limited archaeological exploration of the mission periphery. We suspect that housing in the *pueblo* consisted of rectangular buildings, perhaps separated by "streets." Native American structures were apparently built as an extension of the initial gridwork. The mission *pueblo* likely contained a large council house (or *buhio*) and a ball court, but we have yet to identify either one at Mission Santa Catalina de Guale.

During our last significant field operation at Mission Santa Catalina, we shifted the archaeological focus of attention from the Hispanic core to the Native American outskirts. We had previously tested the surrounding Guale *pueblo* in several places, but our concern was primarily chronological—to be certain that this extensive habitation area surrounding the mission buildings was occupied during the 16th and 17th centuries.

Thomas (1987: chap. 6) described the archaeological procedures involved in surveying and partitioning the mission complex, and only the most relevant details will be reiterated here. Figures 2.17 and 2.18 show the various subdivisions of the *pueblo*. A master grid system was initially extended across that portion of Wamassee Head containing significant quantities of aboriginal ceramics. A master datum point (labeled "N0, W0") was established south of Wamassee Creek, on a spot thought to lie southeast of the actual mission location. A series of 1 ha *quads* was surveyed along a 1600 m baseline

Fig. 2.15. Altamaha Line Block Stamped bowls from Mission Santa Catalina de Guale, St. Catherines Island. Provenience: **A.** carinated bowl from the Pueblo South (28.0/258); **B.** carinated bowl from the Pueblo South (28.0/250); **C.** rounded bowl from the *convento* (28.2/3653). Photographs by Angela Sharp.

(Thomas, 1987, fig. 50) and each quad was assigned a Roman numeral designation. Within each quad, a series of 20 m square *blocks* was established and each block was assigned a letter designation. At first, we assigned the test units serial designations within each block, but once individual mission structures were identified, they were numbered as Structure 1 (the mission church), Structure 2 (the *cocina*), Structure 4 (the *convento*), and so forth.

The structural evidence clustered around the central mission plaza has been discussed above. The surrounding *pueblo* area has been divided into geographic subdivisions, clustering the various quads and structural excavations (fig. 2.18). The associated aboriginal ceramic assemblages are detailed in table 2.4.

Pueblo North: The *Pueblo North* includes the northwestern (cardinal) part of Quad IV (presumably the area lying outside the mission wall), all of Quads VII, XX, and XXI, Structure 5 excavations, and excavations at AMNH-680 (State number pending); all excavations inside the northwestern mission bastion are excluded from the Pueblo North subdivision.

Table 2.4 indicates an almost complete absence of Irene ceramics in the Pueblo North area; these proportions are even smaller than those associated with the mission structures. A cluster of St. Simons (Late Archaic) sherds was recovered in the vicinity of Structure 5, but the vast preponderance of ceramics from the Pueblo North area belongs to the Altamaha series.

Pueblo East: The *Pueblo East* includes the northeastern (cardinal) part of Quad IV (presumably the area lying outside the mission wall), all of Quads VI and III, and that part of Quad V lying north of the freshwater creek.

Pueblo West: The *Pueblo West* includes that southwestern (cardinal) part of Quad IV (west of the presumed mission wall) and all of Structure 1-W; all excavations inside the northwestern mission bastion are excluded from the Pueblo West subdivision.

Pueblo South: The *Pueblo South* includes the southeastern (cardinal) part of Quad IV

(presumably the area lying outside the mission wall), Quad II (including Structure 6 and various collections from the freshwater creek and Wamassee Creek; see Thomas, 2008: chap. 20), all of Quad I (including the Fallen Tree excavations, and Wamassee Creek collections), that portion of Quad V lying south of the freshwater creek, and the portion of Quad III lying in the freshwater creek drainage.

North of the freshwater creek that flows through Mission Santa Catalina is a large series of middens, located approximately 80 m east of Wamassee Road, consisting of shell mounds, surface scatters, and buried deposits. In the field, we considered these various middens to represent five distinct sites. Several radiocarbon dates, discussed above, derive from various excavations at 9Li13, the generic designation given to the occupations at Wamassee Head (as summarized in Thomas, 2008: chap. 20).

Joseph Caldwell's excavations (1969–1971) at the Wamassee Head area and water-screening of numerous specimens eroding from the margin of the freshwater stream draining Wamassee Pond disclosed a significant Deptford III occupation plus a large mission-period occupation (Caldwell, 1971).

In March 1978, the American Museum of

Fig. 2.16. Painted Altamaha Line Block Stamped flared rim jar recovered from the bottom of the well (Structure 2/4) at Mission Santa Catalina de Guale (28.2/3057). Photograph by Angela Sharp.

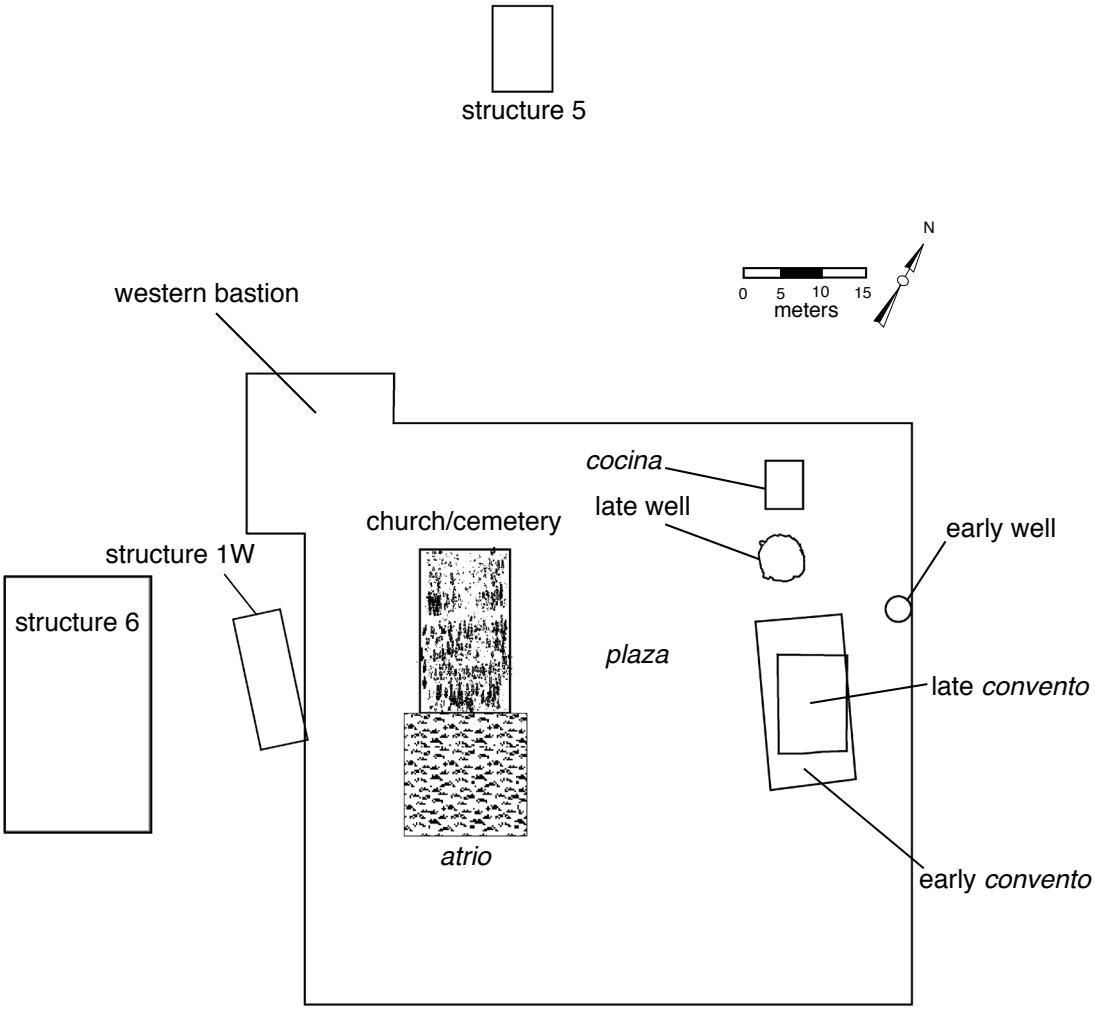


Fig. 2.17. Map of the Mission Santa Catalina de Guale quadrangle, oriented along the Hispanic grid system, with "mission north" at the top of the page.

Natural History team dug several 1-m^2 test units adjacent to the previous University of Georgia excavations, as part of the systematic islandwide survey, in order to obtain clam samples for use in the seasonal dating studies (O'Brien and Thomas, 2008; Thomas, 2008: chap. 20). The ceramic evidence from these five test pits (2.85 m^3) came from all time periods, though more than 80% of the sherds recovered from our excavations at 9Li13 derive from the protohistoric Altamaha period (Thomas, 1987; see also table 2.4).

Excluding the materials recovered by the University of Georgia, the aboriginal ceramic assemblage from Wamassee Head consists of 5012 potsherds (see table 2.4). Of these, 3367 are considered to be time diagnostic at 9Li13. Some 2835 (84%) of these are Altamaha Line Block Stamped. Because Irene Plain and Irene are virtually absent, we can confidently assign 9Li13 to the Altamaha period, which saw the rise and fall of Mission Santa Catalina de Guale. This abundant ceramic evidence, however, likewise documents that the utilization of this area began during the St. Simons period.

"Fallen Tree" is that portion of the *pueblo* south of the freshwater creek including the southern bank creek collections, as well as Caldwell's and UGA's Fallen Tree excavation,

TABLE 2.4 - Section 1
Ceramic Frequencies and Weights in the Pueblo at Mission Santa Catalina de Guale

	Structure 1W		Quad IV, General		Fallen Tree		Wamassee		Auger Survey		Backhoe Trench	
	West		North/South		South		South				East	
	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)
Altamaha	2777	28,956.94	523	4866.5	2199	21,750.5	4162	15,051.07	549	5361.2	803	9221
Irene	114	1014.38	—	—	709	7377.79	65	1369.15	18	74	14	167.2
Savannah	12	117.4	6	37.9	88	1011.8	12	44.2	35	350.3	—	134.2
St. Catherines	—	—	—	—	21	226	13	31.2	12	93.7	11	70.7
Wilmington	2	8.4	—	—	26	300.6	26	250.7	7	52.9	7	105.6
Walthour	—	—	—	—	9	95.5	117	—	—	—	1	20.1
Deptford	26	399.9	—	—	154	1485.1	94	177.6	24	230.4	10	178
Refuge	124	1063.1	1	28.2	248	3067.5	204	216.2	31	425.4	14	109.2
Thom's Creek	—	—	—	—	3	10	—	—	—	—	—	—
St. Simons	7	122.3	1	16	8	140.9	96	1003.9	9	49.9	3	12.6
St. Johns	—	—	2	2	1	1	1	—	13	88	—	—
Grit tempered	3793	24,372.92	869	3686.1	4856	32,434.28	3538	16,150.89	1009	5526	487	3893
Clay tempered	52	593.1	11	91.9	130	976.2	170	724.2	89	766.8	25	207.4
Sand tempered	343	2270.9	61	305.2	570	5339.3	827	5685.4	146	1137.5	91	896
Additional aboriginal	5877	7767.4	957	911.7	13,429	26,339.1	2603	3063	1245	1953.4	1921	4017.3
Unidentified aboriginal	1	31.2	1	1.9	7	560.05	20	592.6	—	—	—	—
Grit/clay tempered	—	—	—	—	2	10.6	—	—	—	—	—	—
Totals	13128	66,717.94	2432	9947.4	22,460	101,126.22	11,948	44,360.11	3187	16,109.5	3387	19,032.3

TABLE 2.4 - Section 2
Ceramic Frequencies and Weights in the Pueblo at Mission Santa Catalina de Guale

	Structure 5 North		Dolphin's Bend North		Northwest Corner Quad IV North		Pueblo, Misc.		Total Pueblo	
	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight
Altamaha	3542	25,231.9	218	2531.6	215	2078.2	91	1336.9	15,079	116,385.81
Irene	3	92.9	61	569.9	—	—	2	33.3	986	10,698.62
Savannah	18	87.7	43	519.2	—	—	1	37.1	215	2339.8
St. Catherines	—	—	—	—	—	—	—	—	57	421.6
Wilmington	3	82.6	—	—	—	—	—	—	71	800.8
Walthour	—	—	—	—	—	—	—	—	127	115.6
Deptford	1	3.2	3	57.3	—	—	—	—	312	2531.5
Refuge	10	303.4	9	133.4	23	134	—	—	664	5480.4
Thom's Creek	—	—	—	—	—	—	—	—	3	10
St. Simons	223	1409.5	—	—	1	26.5	1	12.7	349	2794.3
St. Johns	—	—	—	—	—	—	—	—	17	91
Grit tempered	6842	29,391.7	359	1304.7	378	2377.5	97	838.9	22,228	11,9975.99
Clay tempered	157	1357.8	1	17.2	—	—	4	65.3	639	4799.9
Sand tempered	927	4611.9	22	88.9	26	283.6	121	1618.9	3134	22,237.6
Additional aboriginal	24,513	11,758.4	—	—	487	607.6	259	430.8	51,291	56,848.7
Unidentified aboriginal	50	133.7	89	615.8	2	13.1	1	5	171	1953.35
Grit/clay tempered	—	—	—	—	—	—	—	—	2	10.6
Totals	36,289	74,464.7	805	5838	1132	5520.5	577	4378.9	95,345	34,7495.6

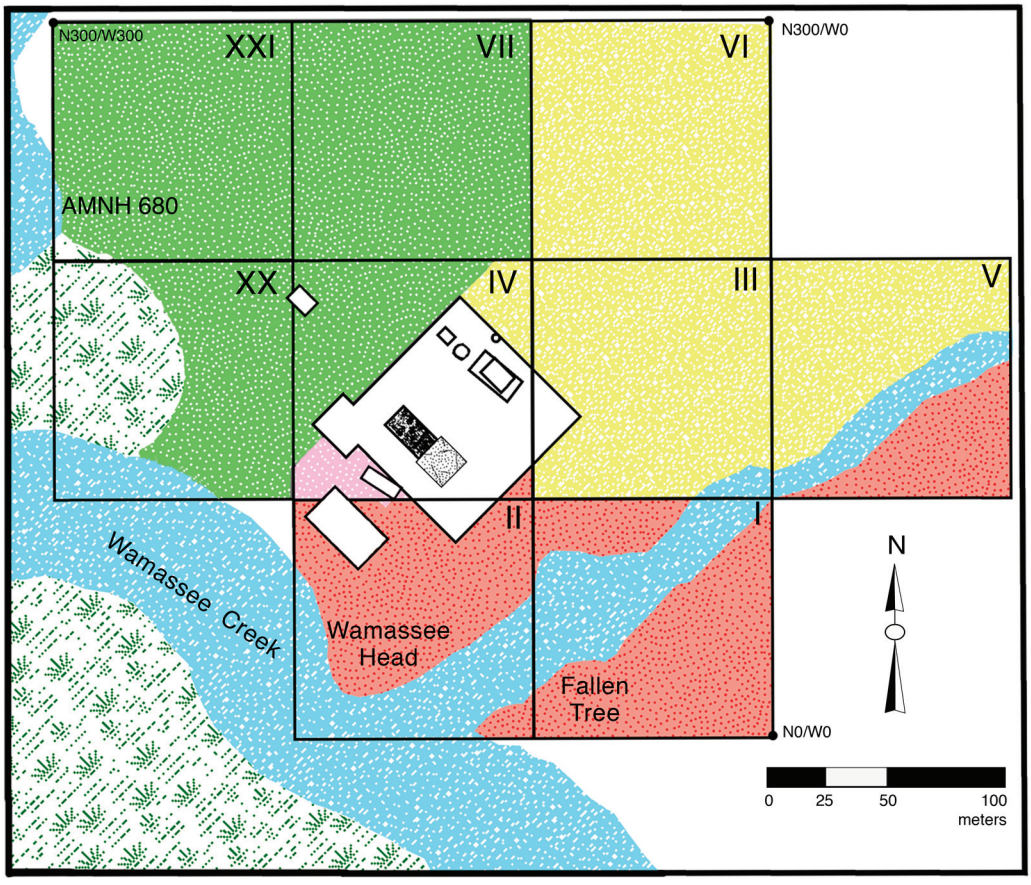


Fig. 2.18. Map of the mission quadrangle at Santa Catalina de Guale and the surrounding *Pueblo*, oriented with true north at the top of the page. "*Pueblo* north" is shaded green, "*Pueblo* west" is pink, "*Pueblo* east " is yellow, and "*Pueblo* south" is red.

Larson's 1958 block, and the AMNH collection site (9Li8, AMNH 441; see Thomas, 2008: chap. 20). We note that Lewis Larson's site designation for his work is Wamassee Head (9Li13), but the artifacts are incorporated into Fallen Tree (9Li8) because they are south of the creek (May, 2008: tables 26.5 and 26.6).

The Radiocarbon Evidence

Relying on historical documentation, DePratter (1979, 1991) began the Altamaha period occupation at A.D. 1580 and ended this interval at A.D. 1700. In our previous discussion of the ^{14}C chronology for St. Catherines Island (Thomas, 2008: chap. 15), we have only five radiocarbon dates associated with Altamaha ceramics (table 2.2 and fig. 2.19).

Two ^{14}C samples are available from Mission Santa Catalina de Guale (9Li274), both processed on oyster shells recovered from a mission-period refuse midden found outside the mission *convento* (Structure 4). Beta-20830 and Beta-20831 were associated with large samples of Altamaha Line Block Stamped and imported Hispanic ceramics.[13] Irene ceramics were entirely absent.

Three radiocarbon dates (Beta-20802, Beta-20804, and Beta-20811) were processed on marine shells recovered from historic period deposits at 9Li13, a midden developed in the *pueblo* village on the outskirts of Mission Santa Catalina. Altamaha ceramics were associated with all three samples, and numerous olive jar fragments were also recovered (although not

necessarily in direct contact with the radiocarbon samples).[14]

We have arrayed these five Altamaha period radiocarbon dates as individual probabilities on figure 2.18, with the pooled probability distribution along the bottom of this figure. The one-sigma limits are complex: cal A.D. 1320–1360 (13.7%), cal A.D. 1390–1530 (70.0%), and cal 1570–1630 (19.3%); two-sigma limits are cal A.D. 1300–1686.[15]

Figures 2.2, 2.5, and 2.18 demonstrate the degree of temporal overlap among St. Catherines, Savannah, Irene, and Altamaha period ceramic assemblages. The available ^{14}C data from 9Li13 and 9Li274 (two mission-related sites at Wamassee Head on St. Catherines Island) suggest that Altamaha ceramics date as early as cal A.D. 1310 and 1450—at least a century prior to Spanish contact. This surprising result conflicts with (1) the prevailing opinion that Altamaha Line Block Stamped ceramics are the hallmark of the Spanish mission period on the Georgia coast and (2) the compelling evidence that Altamaha ceramics are absent from the Spanish settlement at Santa Elena (South Carolina), occupied between A.D. 1566 and A.D. 1587 (DePratter, chap. 1, this volume). We suspect that the St. Catherines Island results may well highlight the shortcomings of attempting to apply radiocarbon methods to historic-period contexts, but given the significant degree of island-to-island variability along the Georgia Bight, we still think it worthwhile to explore all potential avenues of chronological information.

The terminal dates for Altamaha series ceramics fall between cal A.D. 1660 and cal A.D. 1800 (depending upon whether one employs the one- or two-sigma cutoff points). If we round the results to cal A.D. 1700, the radiocarbon evidence roughly corresponds with the abandonment of Mission Santa Catalina de Guale and signals the end of the Spanish period on St. Catherines Island.

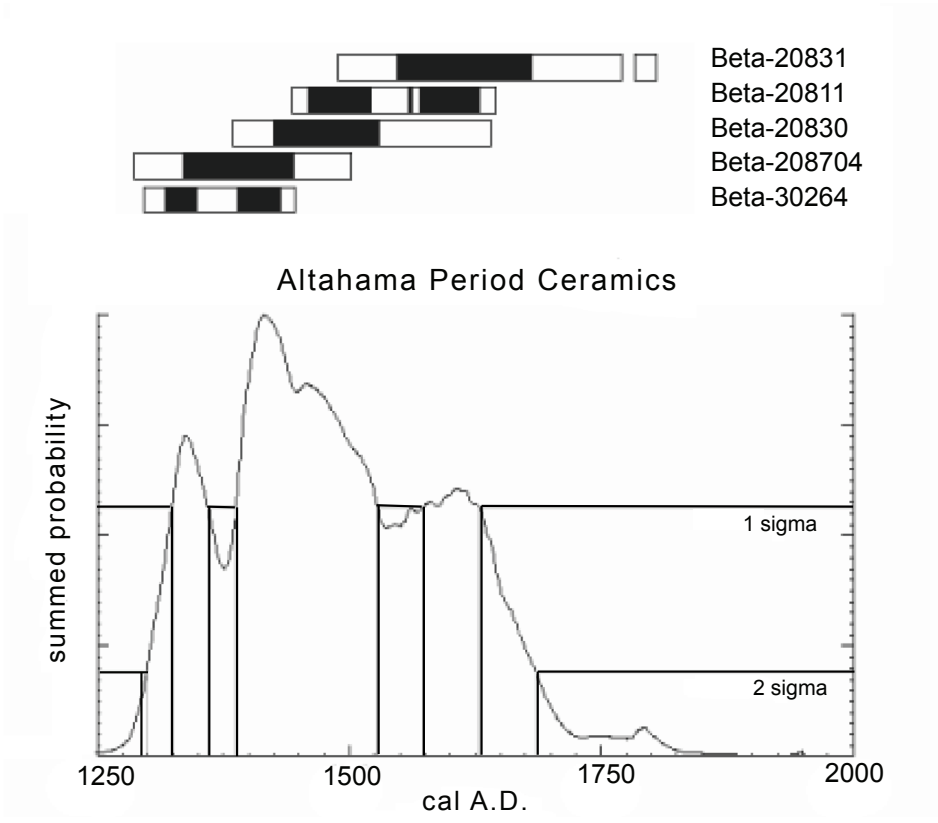


Fig. 2.19. Individual and summed probability distributions for the five ^{14}C dates associated with Altamaha period ceramics on St. Catherines Island (after Thomas, 2008, fig. 15.7).

Conclusion: The Temporal Span of Altamaha Period Ceramics on St. Catherines Island

We retain DePratter's previous, historically derived estimate of A.D. 1580 for the beginning of the Altamaha period. The disparity in the available ^{14}C dating necessitates additional research on this subject before the "early Altamaha" dates can be accepted as valid.[16]

The terminal radiocarbon dates for Altamaha series ceramics fall between cal A.D. 1660 and cal A.D. 1800. Following DePratter's lead, the St. Catherines Island chronology that we follow employs the historically derived limit of A.D. 1700, which roughly corresponds to the abandonment of Mission Santa Catalina de Guale and signals the end of the Spanish period on St. Catherines Island.

ARE THE GUALE PEOPLE DIRECTLY DESCENDED FROM THE LATE PREHISTORIC IRENE POPULATION?

A final cautionary note is necessary here based on the currently available bioarchaeological evidence from the Georgia coast. Investigators drawing upon archaeological and ethnographic data have typically assumed that the people living at Mission Santa Catalina de Guale (and several other nearby missions along the Georgia coast) were the direct descendants of aboriginal people who lived at the precontact Irene Mound (Larson, 1980: 195; Larsen et al., 1996: 98–99). The bioarchaeological evidence suggests this relationship may be more complex than initially assumed.

Working from a sample of 510 individuals from 17 archaeological sites along the Georgia coast, Griffin et al. (2001: 232) caution that the degree of dissimilarity evident from univariate and multivariate analyses "casts some doubt on this relationship." Specifically, this study found that the Guale samples were "particularly diverse" in their dental and cranial nonmetric morphology (Griffin et al., 2001: 232). Based on statistical criteria of biological distance, the population living at Santa Catalina de Guale appears to be an aggregate, clouding the biological relationship to those buried in the Irene Mound, itself an aggregate ceremonial center.

The dissimilarity between Guale and the Irene Mound bioarchaeological samples cannot be explained by random genetic drift. This means that any assumption of continuity between the Irene Mound population and the later Guale people must be tested, not assumed. As noted by Jones (1978), Spanish explorers used the term "Guale" to mean both a physical location and a culturally/linguistically affiliated social group (Jones, 1978: 186; see also Saunders, 2000a and Worth, 2004a: 238–240)—leaving the distinct possibility that the term "Guale" (used so frequently in 16th-century ethnohistoric accounts) might have merely referenced geographic placement along the Georgia coastline, without any linkage to linguistic, biological, and/or cultural identity. Or, perhaps "Guale" might have distinct linguistic and/or cultural significance, but not denote a biological breeding population. However, if the Guale did indeed descend from the Irene Mound population, then a substantial biological change must have taken place in a surprisingly short time period.

NOTES

1. St. Catherines Island (Georgia) is a 5670 ha (14,000 acre) barrier island situated along the innermost reach of the Georgia Bight, approximately 6 km east of the mainland (see Thomas et al., 1978, chap. 4; Thomas, 2008, chap. 5).

2. All age estimates in this chapter are expressed in terms of calendrical years ("cal") A.D./B.C. and all radiocarbon dates have been calibrated according to the conventions discussed in Thomas (2008, chap. 13).

3. In order to synthesize these diverse findings, this section is presented without bibliographic citations; those interested in pursuing these topics further should consult the recent three-part publication addressing landscape archaeology on St. Catherines Island (Thomas, 2008).

4. DePratter (1979, 1991) previously estimated that the Savannah period ranged from A.D. 1200–A.D. 1325 (in uncalibrated ^{14}C years), which translates to cal A.D. 1280–1310/1390. But we found that the temporal limits of the Savannah period are problematic on St. Catherines Island (Thomas, 2008: chap. 15). The probability distribution of ^{14}C dates associated with Savannah ceramics on St. Catherines Island (Thomas, 2008, figs. 15.5 and 15.9) is bimodal at the one-sigma level, with an early cluster of five radiocarbon dates ranging from about cal A.D. 800 through cal A.D. 1300 (and accounting for about 25% of the variability within the Savannah period). Six dates define a secondary peak between about cal A.D. 1300 and cal A.D. 1500; the latest date (Beta-215814) is a late (mostly historic period) outlier. These results are surprising: the available ^{14}C evidence suggests that Savannah ceramics appear on St. Catherines Island about cal A.D. 800 and last until sometime after cal A.D. 1450. These results differ significantly from DePratter's (1979, 1991) chronology, which estimated the age of the Savannah period to be cal A.D. 1270–A.D. 1300/1380.

Roughly 50 radiocarbon dates were utilized to define the temporal distributions of the St. Catherines, Savannah, and

Irene periods. We conclude that whereas the St. Catherines and Irene ceramic complexes exist within clear-cut, distinct, and definable temporal intervals, the Savannah ceramic types apparently bleed into the earlier and later periods, failing to define any unique temporal segment that can properly be called "Savannah" (at least on St. Catherines Island).

Does the "Savannah period" exist on St. Catherines? Yes, it does. But given the radiocarbon and ceramic samples at hand, this demonstrable temporal range is so large (from roughly cal A.D. 800 through cal A.D. 1300) that it significantly overlaps with the previous (St. Catherines) and succeeding (Irene) periods. Because we are concerned with the accurate definition of archaeological components, we do not employ the "Savannah period" in the St. Catherines Island chronology. We make no claims for elsewhere—along the northern Georgia coast or anywhere else (see Thomas 2008, chap. 15).

5. Here, we followed the classic Willey and Phillips (1958: 21) definition of *component* as a culturally homogeneous unit within a single site (see Thomas, 2008: 294, 520–521; 875, chap. 19). For a broader perspective on the archaeological landscape, we also employ the term *presence,* defined as "the totality of all available archaeological evidence ... partitioned according to specific temporal period and plotted across a well-defined and bounded geographical space" (Thomas, 2008: 523. So-defined, an archaeological *presence* could be one or more potsherds, one or more time-diagnostic lithics, or a reliable "cultural" radiocarbon date.

6. We omit Beta-30271, from a relic *Mercenaria* valve that obviously predates the archaeological deposits.

7. Two sites (AMNH-204 and AMNH-205) were previously identified between transects B6 and B1. It is likely that AMNH 701 corresponds with one or both of these sites. We are currently unclear about whether these two sites were first identified by the American Museum crews in the mid-1970s during general reconnaissance or whether they were located by Chester DePratter during his shoreline surveys (DePratter et al., 2008). AMNH 204 is described as shell middens 500 m north of the shack on the northwest corner of St. Catherines Island and adjacent to a sign that identifies it as the location of the 1568 Santa Catalina de Guale mission. Fieldnotes from October 21, 1975 say: "Spent the morning testing shell midden 204. Sign indicates that this is the 1568 mission site, but no evidence at hand. Selected one of the 3' high middens to test. Excavated a 1m square to a depth of 25 cm. All sherds recovered appear to be Irene–no historic artifacts discovered. Should probably test some of the others there too." Artifacts from that site are catalogued as 28.3/3013, but we have no record of any analysis of them. AMNH 205 is described as shell middens 200 m north of AMNH 204.

8. Based on the earlier sample of 24 radiocarbon results (Thomas, 2008: chap. 15), the pooled probability distribution also approximated a normal curve, spanning the interval cal A.D. 1310–1530 (at the one-sigma level); the two-sigma intervals are cal A.D. 1220–A.D. 1680 (99.2%), cal A.D. 1780–A.D. 1800 (0.76%), and modern (0.03%).

9. In his discussion of Moore's excavations at South End Mound, Lewis Larson (1998: 34) notes that "Six of these vessels were reexamined and described by Deborah Peter in 1985 and 1986 (Larsen and Thomas, 1986: 14–15). Vessel A, which contained Burial No. 3 (Moore, 1897: frontispiece), was 40 centimeters high with a rim diameter of 34 centimeters. Although Peter identified the vessel type as Irene Complicated Stamped, the vessel, both as it is figured by Moore in his frontispiece and as shown in the drawing found with the analysis by Peter (Larsen and Thomas, 1986; fig. 8a), appears to me to be an Altamaha Line Block Stamped vessel." We have recently reexamined the vessel and agree with Larson's assessment.

10. Since this was written, Elliot Blair and the author have reanalyzed the architecture of the superimposed churches at Mission Santa Catalina de Guale. This reanalysis is based on GIS compilations of fieldnotes, photographs, and artifact descriptions. The results, to be published subsequently, will change some of the interpretations of church architecture and site structure present in this chapter and elsewhere (e.g., Thomas, 1988a, 1993a).

11. Such churchyards typically served not only as a decorous entryway into the church, but also variously functioned as outdoor chapels, areas to contain overflow congregations, and sometimes as cemeteries (Kubler, 1940:73–75; Montgomery et al., 1949: 54). The churchyard at Santa Catalina was constructed of water-rolled marine shell gathered from naturally occurring deposits scattered along the intracoastal waterway; these massive shell bars are accessible only by watercraft.

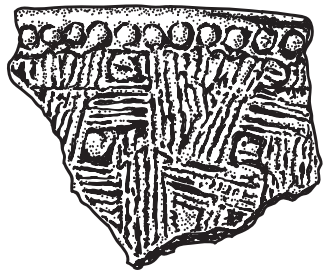
12. We cannot eliminate the possibility that a 16th-century structure once stood on the site of the 17th-century *cocina*. We did not isolate a two-component occupation of Structure 2 during excavation, and subsequent analysis will be necessary to finalize this point.

13. Two additional samples, Beta-21975 and Beta-21976, were taken from the dripline shell concentration on the eastern *convento* margin; this deliberate architectural feature was added sometime during the construction and/or occupation of the *convento*, to retard erosion caused by runoff from the thatched roof. Both of these architectural dates are clearly too ancient, likely oyster shells salvaged from nearby midden deposits. We will not use these dates in the following discussion.

14. The University of Georgia also processed a radiocarbon date (UGA-120) from their excavations at Wamassee Head, 9Li13, but we are uncertain about the precise ceramic associations and will exclude this date from consideration here.

15. We exclude the small blip at cal A.D. 1790–1800, which accounts for only 0.007 of the overall distribution.

16. DePratter (chap. 1, this volume) makes it clear that Irene ceramics continued in use at Santa Elena through the 1580s. Although there remains some uncertainty about the exact age of the initial occupation of Mission Santa Catalina de Guale (see above), it seems likely that Irene ceramics would have been used at the mission prior to the 1597 uprising. Their virtual absence in the vicinity of the church seems strange. Perhaps the 16th-century church building stood elsewhere. Perhaps the church was utilized over such a short period that aboriginal ceramics did not accumulate in significant numbers.



CHAPTER 3
STABILITY AND UBIQUITY: IRENE, ALTAMAHA, AND SAN MARCOS POTTERY IN TIME AND SPACE

REBECCA SAUNDERS

This chapter summarizes the results of a study conducted between 1988 and 1992 on pottery change among the Guale (Saunders, 2000a). The study was designed to monitor pottery change from the late prehistoric period to the demise of the Spanish mission system on the lower Atlantic coast (ca. A.D. 1300–1702).

Back in the 1980s, the evidence of pottery change consequent to Spanish colonization was equivocal. Analyses of archaeological case studies, like those of Tschopik (1950) and Charleton (1968), reported little change in native pottery of the Aymara and Aztec, respectively.[1] Indeed, the whole concept of pottery change as a reliable reflector of social change had come under fire. Tracing change in Nubian ceramics against documented turmoil in political and ideological structures through time, Adams (1979) asserted that there was no connection. Yet in other cultural contexts, including the one discussed here, a correlation between colonization and pottery change was unambiguous. Clearly, as Spicer (1961) and his colleagues demonstrated long ago, historical circumstances must be taken into account when considering the effect colonization (or other forces of change) had on pottery (or other material) assemblages. In the case of pottery change, levels and kinds of interaction between natives and colonials have a tremendous influence on the outcome; how postcontact native wares were distributed and used must also be taken into account.

HISTORICAL AND ARCHAEOLOGICAL CONTEXTS

Along the Georgia coast, Irene, the prehistoric type used by the "proto-Guale," clearly changed sometime after contact. The curvilinear aspects of the ubiquitous filfot cross motif (a "condensed symbol" reflecting Southeastern Indian cosmology; see below) that was stamped on Irene pots dropped out. The filfot cross was replaced by a much simpler, cross-simple stamped design that was produced, according to the conventional wisdom, by overstamping with a simple parallel-line incised paddle. In addition, the lands and grooves of the design became larger and deeper. These changes were ascribed, on the basis of what can now be adjudged as pretty sketchy information, to epidemics and the resulting population loss, dislocation, and amalgamation; in short, to "deculturation." Other changes, however, belied the implication of a culturally depauperate people. Rim treatment shifted from the fragile appliquéd rim to the sturdier folded rim. Firing also improved, producing harder wares. Native potters also produced a zesty suite of colonowares, including brimmed bowls, pitchers, candlestick holders, and other forms. Red, and, more rarely, black, slips were applied to some of these new forms, as well as to traditional forms. This altered pottery, called "Altamaha" in Georgia, and "San Marcos" in Florida, became the utilitarian pottery of eastern La Florida. It was presumably produced in native Guale villages associated with Spanish missions (within La Florida all native villages were supposed to be "Beneath the Bell"; that is, within earshot of the tolling call to worship) and was used by the Guale and by missionaries in the mission system. It was also used by Spanish and Creole citizens of St. Augustine. Altamaha appears in

very early contexts in and around St. Augustine (see Deagan, 1990; chap. 6, this volume) and, by 1650, it was the principal utilitarian ware in use by Spaniards and by the multiethnic Native American population. Indeed, once associated by researchers solely with the Guale and Yamasee, it is becoming increasingly clear that San Marcos was *produced* by Native American groups in Florida with no genealogical relationship to the Guale and, in the case of the Mocama, no prehistoric tradition of paddle stamping (Worth, 1995b; Saunders, 2001). By 1650, San Marcos dominates pottery assemblages in both rural and urban areas. Even the Hispanic "aristocracy" used this native ware in inconspicuous contexts, for instance, in kitchens (Deagan, 1983a). For serving, majolica or other imported wares were used. This phenomenon—a sort of bimodality in which local native pottery was used as the principal utilitarian ware while European (and later Mexican) glazed earthenwares were used as serving dishes—obtained throughout Spanish borderland situations in the New World (Tschopik, 1950: 206; Snow, 1984; Jamieson, 2002), where supplies of essentials were irregular and access to luxury goods like glazed earthenwares or porcelain was even rarer. The latter were seldom distributed very far from bureaucratic centers.

ASSEMBLAGES USED IN THIS STUDY

As described above, prior to this study, the facts of at least some of the stylistic and technological changes in Irene pottery were undisputed, if not exhaustively enumerated and quantified. What I hoped to discern by studying a series of assemblages, tightly controlled in time and space, was the timing and the rate of change. These historical data should lead to a better understanding of the processes involved in the change from the prehistoric to the historic ware. The study included four sites (fig. 3.1). Excavations at Meeting House Field, a prehistoric Irene site on the western side of St. Catherines Island that had been tested by the American Museum of Natural History (Thomas, 2008: chaps. 20 and 25) provided baseline data. Two discrete components were available for an early and a late Mission component at Mission Santa Catalina de Guale, which was established by 1594 on the southwestern side of the island, just under 2 km from Meeting House Field. The Santa Catalina mission was burned in 1597 during the Juanillo rebellion. Artifacts from the fill of large postholes at the *convento* provided the pottery for the 1594–1597 component. The mission was rebuilt after the "*pax espana*" that developed after 1600. Pottery from the floor of the rebuilt *convento*, as well as from the church and kitchen, provided the material for the later St. Catherines Island component, ca. 1602–1684.

Santa Catalina was burned by the Spanish and abandoned in 1684. This abandonment was part of a wholesale withdrawal from the Georgia coast caused by pressures from English-inspired Indian raids on the Georgia missions, as well as harassment by French pirates (Worth, 1995b; see also chap. 8, this volume). The population from Santa Catalina, and from Satuache (which had been moved to St. Catherines Island sometime previously), were moved to Sapelo Island, which was home to Mission San José de Sápala. Natives from Santa Clara de Tupiqui were also moved to Sapelo. Though populations were "amalgamated" on the island, it appears that the four groups (Santa Catalina, Satuache, Tupiqui, and Sápala) occupied separate villages (Worth, 1995b).[2]

In 1686, the Santa Catalina natives, along with some of the other groups, were moved to Amelia Island (known then as Isla de Santa María). *Visita* documents imply that this incarnation of the Santa Catalina mission never flourished; excavation indicated that the church was either very rudimentary or was never completed. However, a *convento*, a possible kitchen area, and the aforementioned church were identified and provided the contexts to compare with the assemblages from the Georgia mission.[3] This Santa Catalina was inhabited until 1702, when it was burned, along with all the other Spanish missions along the coast, by British forces from Charleston.

One of the advantages of this set of pottery assemblages is that, at the archaeological level, the study follows essentially the same population through time. Though there was some population amalgamation, many lineal descendants of Meeting House Field probably ended up on Amelia Island. Thus, to an extent rarely achieved in archaeological inquiry, we have some control over variation based on local style pools, and can look at change through time and space without additional confounding factors. In addition, the pottery assemblages of prehistoric Florida natives were very different from the "intrusive" mission pottery, so there is no danger in mixed assemblages. That said, as noted above, it now

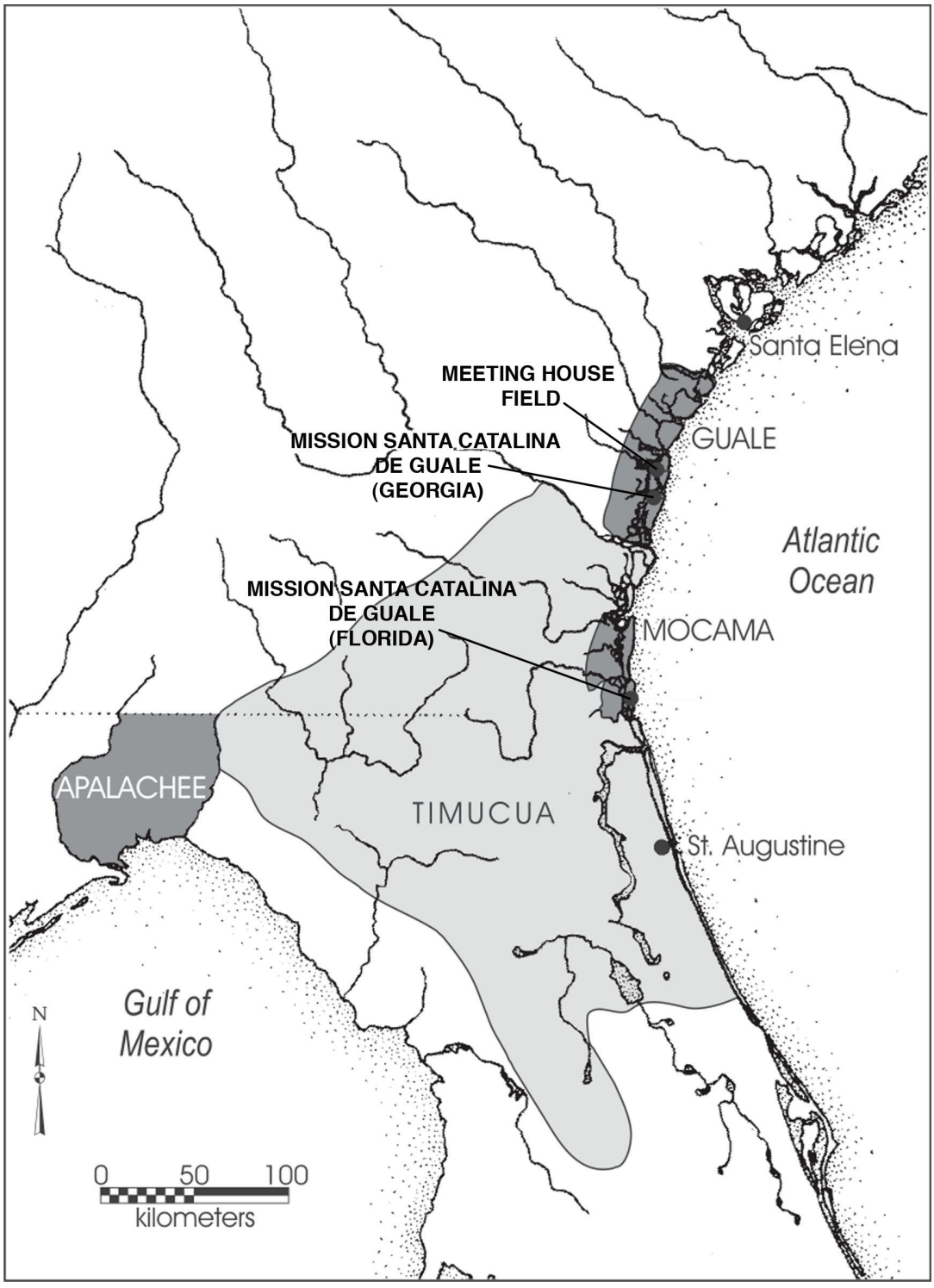


Fig. 3.1. Locations of the sites used in the study.

appears that those self-same Florida natives, who had created either plain and check stamped pottery for the last 2000 years (the eastern Timucua), or a cordmarked and plain assemblage for at least 800 years (the Mocama, a northern variant of the Timucua), readily adopted this new mission ware (Worth, chap. 8, this volume; Saunders, 2000b, 2001).

IRENE, THE BASELINE

"Irene" types were defined by Caldwell and McCann (1941), who divided the pottery into three: Irene Plain, Irene Incised, and Irene Filfot Stamped.[4] The filfot cross was one variant of the circle-and-cross motif that represented the fundamental cosmology shared by Southeastern Indians. According to Willoughby (1932: 10) "When a man desired to represent symbolically the world as known to him, he drew a circle representing the horizon, in the center of which he placed a smaller circle symbolic of the sun in the zenith. From the central sun symbol four lines were drawn to the outer circle, dividing it into four equal parts, the lines representing the four world-quarters and the four winds." This design, which appears on Southeastern pottery at least as early as A.D. 500, was replicated in other media. It is, for instance, pervasive in the symbolism of shell gorgets and other Mississippian prestige goods.[5] Thus, it qualifies as a "condensed symbol" (David et al., 1988) of great power and meaning (see Saunders, 1992, 2000a for more detail). The frequency of this design in sherd assemblages—identified by the presence of a central dot (or other element)—was used as a proxy for the coherence of the native belief system through time.

By the mid-1980s, there was fairly good information on change through time in Irene surface decoration and rim treatment. Dating was mostly relative, but the broad outlines were fairly clear: through time, the proportion of stamping decreased relative to plain. This can be attributed to the emergence and increasing acceptance of incising, which appeared by A.D. 1450. Incising was restricted to the rim area, so most of the incised vessel was plain or burnished plain. These changes were linked with stylistic changes that occurred slightly earlier on pottery in the interior—interaction between the coast and the interior along the river systems that traverse the coastal plain was assumed. Rim treatments also changed, with appliqué nodes and rosettes occurring early, as a carryover from late Savannah; a plain appliqué rim strip appeared somewhat later; after some time, the rim strip began to be decorated, most commonly with cane punctation or the use of a thin, blunt tool to "segment" the strip; and finally, cane punctation was applied directly to the vessel body (see Saunders, 2000a, for more information). Rim assemblages consist of a combination of these techniques, though none function as a "horizon marker" like incising does. Cane punctation on the vessel body is, however, consistently described as "very late." Changes in rim decoration also follow changes in Late Lamar in interior sites.

The terminal date of Irene/beginning date of Altamaha is likely to vary by region and historical circumstance (Saunders, 2000a; chap. 1, this volume). Nevertheless, by the late 1990s, a date of 1580 was the general consensus among active researchers (Braley, 1990; DePratter, 1991). One excellent recent datum comes from DePratter's continuing work at the Spanish town of Santa Elena (1566–1587). According to DePratter (chap. 1, this volume), there is a little Altamaha at Santa Elena, which indicates that, at least in the Port Royale area, Irene was made up to ca. 1590. On the other hand, Deagan (1990: 300; chap. 6, this volume) has recovered Altamaha, presumably coming in from the Georgia coast, in contexts dated to 1565–1580 in St. Augustine. Thus, either Altamaha was made earlier than 1580 somewhere, or some other Late Lamar vessels were entering St. Augustine (these could not have come from the La Tama area; see Williams, chap. 4, this volume). As this short discussion indicates, we are still a long way from fully describing the dynamics of the Irene-Altamaha interface. "Historically derived" (Thomas, 2008: 15–33) data such as DePratter's are critical in establishing precise dates for each region.

To anticipate the results of this research, there was essentially no Irene pottery at Mission Santa Catalina (Thomas 2008; Thomas, chap. 2, this volume). This suggests a very rapid change between (at the largest possible interval) 1580 and 1595 (and possibly 1590–1595!)—less than one generation of potters. This is pretty tight dating. It is doubtful, however, that all Guale ceased production of Irene wares within either of these time frames. Though Spanish mission policy was to keep all Native Americans "beneath the bell," there was considerable resistance to missionization until after 1600, when the Guale,

decimated by disease and by the scorched earth retribution of the Spanish after the Guale rebellion in 1597, submitted to Spanish rule. The pottery assemblage of the disaffected Guale is unknown.

METHODS

Foreknowledge of Irene-to-Altamaha changes informed the selection of attributes measured on pottery from all proveniences studied. A mix of technological and stylistic attributes was recorded.[6] Technological attributes included: temper and other paste inclusions, burnishing, slipping, fired color and fired core (on a subsample of sherds), and vessel form. Stylistic attributes included surface decoration (to the extent possible, every design variation was coded), rim treatment (plain, punctation directly on the vessel wall, appliqué rim strip, appliqué node or pellet, folded), and rim elaboration (incising and punctation stylus used either directly on the vessel wall or on rim strips/folded rims), depth of the base of the fold or strip, land and groove width (for paddles and for incising), and presence of a central dot or other element in the design field. This last was used to count paddle designs that contained some aspect of the "World Symbol." Design coding also documented paddles that contained opposing zones of lines—there were numerous variations—and cross-simple stamping produced by paddling in different directions. Presence of rectilinear or curvilinear element in the stamping was also recorded to measure the change in the filfot cross. Other incidental information, such as sooting, was also noted.

Data were considered in two formats, by sherd (count and weight) and by minimum number of vessels (MNV). Information on the assemblages as a whole was analyzed by sherd. This provides data comparable to all other studies. MNV was used for rim style and vessel form. The MNV approach was used to control for the bias resulting from the differential recovery of vessel sherds.

All of the results were reported in the original study and will not be repeated here. In particular, I will not consider aspects of variability by structure (church, *convento*, and kitchen), which proved to be subtle but pervasive (Saunders, 2000a). In addition, discussion of attribute change is only summarized here. More detailed analyses and numerous tables are presented in Saunders (2000a).

MEETING HOUSE FIELD

Meeting House Field is strategically located on a peninsula formed by two tidal creeks that penetrate the western side of St. Catherines Island, just south of the research compound. There is a thin strip of undisturbed, primary magnolia and oak forest bordering the western edge of the site. The rest has been repeatedly plowed, but has now reverted to a more natural state of planted pine. Previous research by the AMNH at Meeting House Field west of the field ditch made the site one of the more immediately accessible of the 54 known Irene sites on the Island (fig. 3.2). In addition, following the size criteria established by Pearson (1977, 1979, 1980) in his Irene site survey on Ossabaw Island, the size[7] of Meeting House Field suggested that it was probably a permanently occupied village site. This was an important consideration, as special-purpose sites may not have the full range of pottery attributes needed to establish the baseline for change necessary for the rest of the study.

Stylistic and technological attributes of pottery from the individual house middens at Meeting House Field were used to provide comparative baseline data for pottery from mission period contexts. The specific goals at Meeting House Field were: to gather basic information on absolute and relative chronology of the middens at the site, to get settlement organization and seasonality information (see Saunders and Russo, 1988; Saunders, 2000a; Thomas, 2008: chap. 25, for these results) and to retrieve additional pottery samples from areas east of the field ditch for a more representative pottery collection. More site mapping was essential to this enterprise. This has been described elsewhere (Saunders and Russo, 1988; Saunders, 2000a; Thomas, 2008: chap. 25), and only a few points need to be made here. First, the bulk of the site remains unmapped and untested. Our subsurface probing indicates that middens continue at least 250 m east of our mapped area; some of the easternmost middens retain some topography. In addition, within the apparently random distribution of middens, there was a regular area distinguished by its lack of shell, with a lower density of middens adjacent to this area. Just east of the 100E line, no shell was encountered on any of the six transects tested for 50 m further east; midden deposits resumed after 50 m. This nonshell area may be a plaza, a feature of most Creek and Creek-related cultures

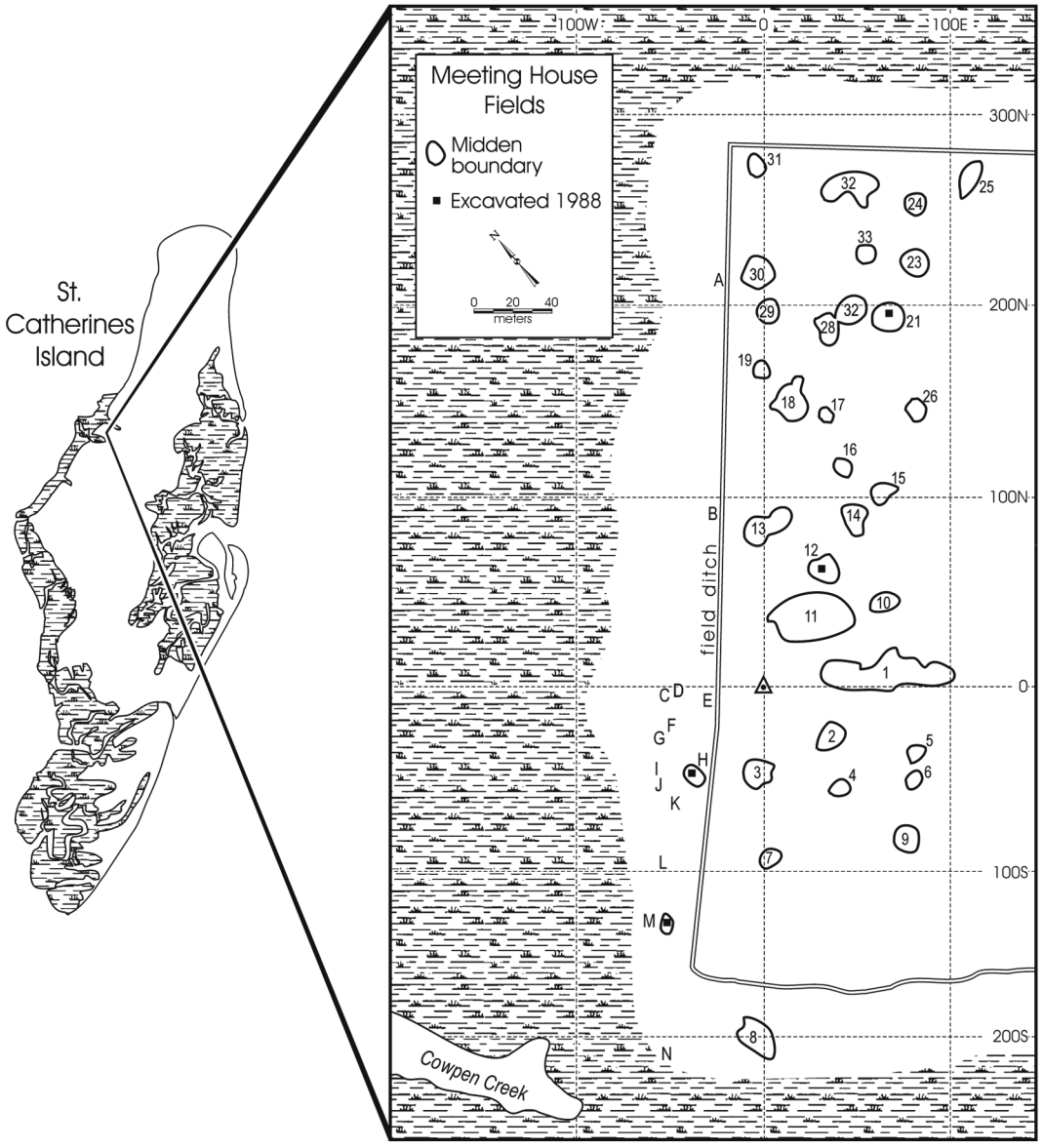


Fig. 3.2. Meeting House Field.

of the early historic period. While the quality of the evidence for a plaza is not strong enough to support much speculation, a lower density of middens bordering the plaza is consistent with what might be expected of high status areas.

After mapping was complete, two of the best-preserved (in that they had some elevation remaining) middens in the field, middens 12 and 21, were chosen for testing. Middens H and M in the undisturbed section were also tested. A 2×2 m unit was excavated into the highest portion of each of these four middens. We collected column samples from each unit, as well as from the cleaned, exposed walls of the units previously excavated by the AMNH. Radiocarbon samples were taken from each midden, from Level 2 and from the base of the midden. The samples from H, M, 12, and 21 were processed by Beta Analytic

(samples from Midden E had been processed previously by the AMNH). Unfortunately, at the time, Beta personnel did not recommend quantifying isotopic fractionation. They argued that isotopic fractionation and reservoir correction cancelled each other out in the area. Thus, in reporting the dates, 420 years were added to the uncorrected date, and dates were calibrated with the then-current version of Calib, Calib 3.0 (Saunders, 2000a). Other than a date from Midden N, which had cord-marked sherds on the surface,[8] radiocarbon results suggested (at a 1 cal interval) a fairly continuous occupation, and, somewhat surprisingly, at least three dates that extended into the 17th century (table 3.1).

Recently Thomas (2008, chap. 13) and associates published new protocols for the correction of radiocarbon samples from St. Catherines Island. Based on the analysis of the mean difference between the measured radiocarbon date and the isotopic correction of over 200 corrected dates from St. Catherines Island, 393 rather than 420 years is a better estimate for correction. In addition, the reservoir correction (developed based on a study of oysters) is a very negative –134 ± 26 as compared with –5 ± 20, which was the "old protocol" used (and which Beta Analytic still uses). Results reported in table 3.1 separate the effects of the more recent version of Calib (5.0; also used by Thomas and associates) from those of the St. Catherines Island protocol on the Meeting House Field dates. On charcoal dates, Calib 5.0 produces a smaller 1 sigma range than the earlier version of this software. Charcoal dates are otherwise unaffected by the protocol. In contrast, clam and oyster dates are both considerably younger under the St. Catherines protocol than changes produced by Calib 5.01. Though the contrast between the changes in clam and oyster are not large in this table (clam averages 83 years younger using the St. Catherines protocol vs. old + Calib 5.01; oyster 101 years younger), Thomas (2008: 13–22) noted that: "the available paired ^{14}C dates indicate that whereas oyster shell–charcoal pairs had a mean differential of 279 ± 138 radiocarbon years B.P. (n = 8), the corresponding mean age differential for clam shell–charcoal pairs is 430 ± 26 radiocarbon years B.P. (n = 3). While these results are not statistically significant, the samples suggest the possibility that *Mercenaria* and *Crassostrea* might require different reservoir corrections." Given these results, it is frustrating to note that under the "old protocol," in a series of clam, oyster, and charcoal dates from the same proveniences in middens 21 and M, clam and charcoal results were closely aligned.

Cluster Analysis

Irene phase settlements are composed of discrete shell middens, presumably the refuse of adjacent house structures. Only rarely (Red Bird Creek; Pearson, 1984) do the middens display any coherent pattern; in general, the ultimate midden distribution, representing hundreds of years of shifting household locations, is a palimpsest of habitation over centuries. Given that the occupation of Meeting House Field probably spanned centuries, it was important to avoid conflation of early and late Irene attribute frequencies. Thus, it was necessary to control for change through time both vertically and horizontally. An intramidden (vertical) analysis of the pottery was conducted first, to determine if any of the middens had been deposited over a period of time lengthy enough to show the regular changes in attributes through time (as described above). Particular attention was paid to the two deepest middens, E and H. For the most part, the frequencies of plain, burnished plain, stamping, and incising did not change in any regular manner in any of the middens. For Midden E (table 3.2), with radiocarbon dates indicating a range of deposition from ca. cal A.D. 1260–1480 (Beta 20806 and 21973 not included; St. Catherines Protocol A.D. 1270–1490), incising was present throughout. However, the values for incising and other surface treatments fluctuated; that is, values did not change in a regular direction from bottom to top. In Midden H (table 3.2), radiocarbon dates from the base of shell (Level 8) and from Level 2 yielded a 1 cal range between A.D. 1300 and 1560—almost the entire span of the Irene phase. Incising appeared, first in Level 4 (n = 1) and in larger amounts in Levels 1 and 2 (the weight of these sherds demonstrates that they were quite small). However, the relative frequencies of stamped, burnished plain, and plainwares in Levels 7 and 1 were almost identical. Thus, it was decided that the middens could be treated as wholes in the subsequent intermidden analysis.

Cluster analysis was used to provide some horizontal control. Statistically generated clusters were to group middens on the basis of surface decoration; cluster analyses were also run on rim treatments. A number of different clustering

TABLE 3.1A
Radiocarbon Dates From Meeting House Field, Comparison of "Old Protocol" vs. St. Catherines Island Protocol (sorted by sample source)

Sample no.	Prov.	Measured RC, B.P.	Source	Corrected age[a] B.P.	1 cal old protocol A.D.	1 cal old, Calib 5.01	1 cal St. C. protocol A.D.
Beta-21972	EL2		Charcoal	440 ± 50	1430–1480	1420–1490	1420–1490
Beta-21973	EL3		Charcoal	320 ± 60	1480–1650	1490–1600	1490–1600
UGA-1009	EL3		Charcoal	580 ± 60	1310–1420	1310–1360	1310–1360
Beta-21974	EL7		Charcoal	590 ± 50	1310–1410	1310–1360	1310–1360
UGA-1010	EL8		Charcoal	685 ± 60	1280–1390	1270–1310	1270–1310
Beta-30264	21L3		Charcoal	540 ± 60	1330–1440	1390–1440	1390–1440
Beta-30269	ML3		Charcoal	290 ± 60	1520–1660	1510–1600	1510–1600
Beta-30263	21L3	530	Clam	950 ± 60	1380–1460	1340–1440	1250–1360
Beta-30268	ML3	320	Clam	740 ± 80	1490–1670	1500–1640	1410–1560
Beta-30266	HL2	390	Clam	810 ± 60	1460–1560	1440–1560	1380–1470
Beta-30267	HL8	600	Clam	1020 ± 80	1300–1430	1290–1420	1180–1340
Beta-30262	12L3	450	Clam	870 ± 60	1430–1510	1410–1510	1330–1430
Beta-20806	EL2	380	Oyster	760 ± 60[a]	Misreported	1490–1600	1390–1500
Beta-20807	EL5	310	Oyster	690 ± 60[a]	Misreported	1540–1670	1440–1550
Beta-20808	EL7	310	Oyster	680 ± 60[a]	Misreported	1550–1670	1440–1560
Beta-30265	21L3	340	Oyster	760 ± 50	1500–1640	1490–1600	1420–1510
Beta-30270	ML3	400	Oyster	820 ± 80	1450–1590	1430–1580	1340–1470

[a]Corrected using isotopic fractionation values; these were misreported in Saunders (2000a), owing to confusion over whether correction had been applied. All other shell dates are +420 in columns 5, 6, and 7, and +393 in column 8. Where radiocarbon dates split, the result with the largest relative area is given.

routines were applied; and most gave similar results. Results from the average linkage method based on a squared Euclidian distance matrix are presented here (see also Saunders, 2004, for a comparison with pottery from the Pine Harbor site). For surface treatment, middens 12, 21, and J formed one major cluster (Cluster 1), and B, E, D, H, and M formed a second (Cluster 2; see fig. 3.3). In Cluster 1, plain sherds constituted 20% or less of the midden totals, and stamped sherds comprised 72% (table 3.4). In Cluster 2, plain sherds ranged between 30% and 40% of the midden totals, and stamped sherds amounted to less than 60% in each midden. In addition, in Cluster 1, only Midden J had incising (n = 1). Overall, Cluster 1 had more burnished plainwares; the frequency of burnished plain in Cluster 2 was lowered predominantly by the value from Midden E, in which the amount of burnished plain was very low.

Rim clusters were less successful. Standardized data processed through average linkage and Wards method chained. Middens 12 and 21 formed the core, and middens M, H, and E were added sequentially to this core (middens B, D, and J were not included because they had only three, five, and six rims, respectively). There are, however, appreciable differences in rim treatment between the clusters generated on surface decoration (table 3.5). Cluster 1 contained all the pellets or nodes, while Cluster 2 contained all the incising and 91% of the decorated (punctation directly on the vessel wall) rims—both late treatments. The two folded rims found at the site are in Cluster 2. These rims, however (one from Level 7 and one from Level 8 in Midden H), are more rolled than folded, and are only 8 mm deep. In terms of rim "elaborations," cane was used

TABLE 3.1B
Radiocarbon Dates From Meeting House Field, Comparison of "Old Protocol" vs. St. Catherines Island Protocol (sorted by provenience; note multiple samples from same provenience in Middens 21 and M)

Sample no.	Prov.	Measured RC	Source	Corrected age[a] B.P.	1 cal old protocol A.D.	1 cal old, Calib 5.01	1 cal St. C. protocol A.D.
Beta-30262	12L3	450	Clam	870 ± 60	1430–1510	1410–1510	1330–1430
Beta-30264	21L3		Charcoal	540 ± 60	1330–1440	1390–1440	1390–1440
Beta-30263	21L3	530	Clam	950 ± 60	1380–1460	1340–1440	1250–1360
Beta-30265	21L3	340	Oyster	760 ± 50	1500–1640	1490–1600	1420–1510
Beta-21972	EL2		Charcoal	440 ± 50	1430–1480	1420–1490	1420–1490
Beta-20806	EL2	380	Oyster	760 ± 60[a]	Misreported	1490–1600	1390–1500
Beta-21973	EL3		Charcoal	320 ± 60	1480–1650	1490–1600	1490–1600
UGA-1009	EL3		Charcoal	580 ± 60	1310–1420	1310–1360	1310–1360
Beta-20807	EL5	310	Oyster	690 ± 60[a]	Misreported	1540–1670	1440–1550
Beta-21974	EL7		Charcoal	590 ± 50	1310–1410	1310–1360	1310–1360
Beta-20808	EL7	310	Oyster	680 ± 60[a]	Misreported	1550–1670	1440–1560
UGA-1010	EL8		Charcoal	685 ± 60	1280–1390	1270–1310	1270–1310
Beta-30266	HL2	390	Clam	810 ± 60	1460–1560	1440–1560	1380–1470
Beta-30267	HL8	600	Clam	1020 ± 80	1300–1430	1290–1420	1180–1340
Beta-30269	ML3		Charcoal	290 ± 60	1520–1660	1510–1600	1510–1600
Beta-30268	ML3	320	Clam	740 ± 80	1490–1670	1500–1640	1410–1560
Beta-30270	ML3	400	Oyster	820 ± 80	1450–1590	1430–1580	1340–1470

most often; pinching and fingernail impressions were present, but relatively rare (by sherd).

A total of 127 MNV were recorded. Excurvate restricted, excurvate unrestricted, and excurvate unidentified rims were considered to represent jars. There were a few ($n = 6$) instances of a distinctive restricted, long-necked jar, with a strongly excurvate rim. These were called "bottles" in the analysis. Bowls, either simple, slightly incurved, or straight-sided, were numerous. Some of the "straight-sided" bowls could be carinated; however, no shoulder points of inflection were recovered. Straight-sided, UID vessels could be bowls or jars. They could also be "bean pots." This form is not part of the type description for Irene phase vessels; however, one "bean pot" handle was recovered from Midden M.

Though not statistically significant, there was a difference in the distribution of vessels between clusters. Percentages of bowls and jars between clusters were almost identical; but Cluster 1 had a good deal more straight-sided vessels than Cluster 2 (table 3.6). In turn, Cluster 2 contained all the bottles (two each from middens E, H, and M). This distribution of vessel forms raised the question of whether the difference in surface decoration between clusters was due to the difference in the distribution of forms. In other words, surface decoration could be a dependent variable (table 3.7). However, a chi-square test of surface decoration by form (which included only bowls, straight-sided, and jars to keep cell values within appropriate levels) indicated no significant difference ($p = 0.09$). On the other hand, when only bowls and jars are considered, a difference in surface treatment between the two forms is minimally significant. As Caldwell and McCann (1941) observed in the original type description for Irene phase wares, jars tend to be stamped and bowls tend to be plain. At Meeting House Field that trend was significant at $p = 0.03$; however,

TABLE 3.2
Midden E, Pottery Surface Decoration by Level

	Master code																All			
	Stamped				Plain				Burnished plain				Incised							
	Count		Weight		Count		Weight		Count		Weight		Count		Weight		Count		Weight	
Level	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
1	46	55.4	430.7	70.1	26	31.3	141.4	23.0	—	—	—	—	11	13.3	42.6	6.9	83	100	614.7	100
2	34	33.0	468.8	45.1	49	47.6	430.1	41.4	3	2.9	28.4	2.7	17	16.5	112.0	10.8	103	100	1039.3	100
3	46	73.0	577.1	71.6	10	15.9	85.4	10.6	3	4.8	76.2	9.5	4	6.3	67.0	8.3	63	100	805.7	100
4	50	72.5	678.0	85.1	17	24.6	108.8	13.7	1	1.4	6.2	0.8	1	1.4	3.9	0.5	69	100	796.9	100
5	38	58.5	468.0	64.5	23	35.4	242.1	33.4	2.	3.1	11.7	1.6	2	3.1	3.6	0.5	65	100	725.4	100
6	71	64.5	893.8	73.4	28	25.5	240.0	19.7	1	0.9	4.2	0.3	10	9.1	78.9	6.5	110	100	1216.9	100
7	66	49.3	944.2	61.5	58	43.3	508.0	33.1	2	1.5	19.2	1.3	8	6.0	64.4	4.2	134	100	1535.8	100
8	115	61.2	1237.9	67.8	66	35.1	528.1	28.9	1	0.5	12.7	0.7	6	3.2	47.9	2.6	188	100	1826.6	100
9	31	66.0	266.1	74.8	14	29.8	79.6	22.4	—	—	—	—	2	4.3	10.0	2.8	47	100	355.7	100
10	3	60.0	17.2	61.0	1	20.0	7.5	26.6	—	—	—	—	1	20.0	3.5	12.4	5	100	28.2	100
All	500	57.7	5981.8	66.9	292	33.7	2371.0	26.5	13	1.5	158.6	1.8	62	7.2	433.8	4.8	867	100	8945.2	100

Note: UID/Other not included. Stamped is total of rectilinear, curvilinear, dot, and surface roughened.

TABLE 3.3
Midden H, Pottery Surface Decoration by Level

	Master code																All			
	Stamped				Plain				Burnished plain				Incised							
	Count		Weight		Count		Weight		Count		Weight		Count		Weight		Count		Weight	
Level	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
1	69	51.5	694.8	64.7	51	38.1	276.4	25.7	8	6.0	3930	3.6	6	4.5	63.3	5.9	134	100	1073.5	100
2	22	22.2	260.7	32.5	35	35.4	237.9	29.7	24	24.2	154.6	19.3	18	18.2	148.5	18.5	99	100	801.7	100
3	12	38.7	205.8	41.7	19	61.3	287.3	58.3	—	—	—	—	—	—	—	—	31	100	493.1	100
4	4	40.0	72.0	41.5	5	50.0	84.0	48.5	—	—	—	—	1	10.0	17.3	10.0	10	100	173.3	100
5	14	70.0	310.9	83.8	5	25.0	55.3	14.9	1	5.0	4.8	1.3	—	—	—	—	20	100	357.0	100
6	10	62.5	261.8	73.3	6	37.5	95.2	26.7	—	—	—	—	—	—	—	—	16	100	357.0	100
7	24	58.5	350.8	69.1	17	41.5	156.7	30.9	—	—	—	—	—	—	—	—	41	100	507.5	100
8	8	66.7	129.2	85.2	3	25.0	17.7	11.7	1	8.3	4.8	3.2	—	—	—	—	12	100	151.7	100
9	1	100	3.9	100	—	—	—	—	—	—	—	—	—	—	—	—	1	100	3.9	100
All	164	45.1	2289.9	58.2	141	38.7	1210.5	30.8	34	9.3	203.2	5.2	25	6.9	229.1	5.8	364	100	3932.7	100

Note: UID/Other not included. Stamped is total of rectilinear, curvilinear, dot, and surface roughened.

TABLE 3.4
Surface Decoration by Cluster

	Master code																All			
	Stamped				Plain				Burnished plain				Incised							
	Count		Weight		Count		Weight		Count		Weight		Count		Weight		Count		Weight	
Cl[a]	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
1	514	71.7	5096.4	76.6	138	19.2	1041.6	15.7	64	8.9	508.3	7.6	1	0.1	5.3	0.1	717	100	6651.6	100
2	870	52.4	10841	61.4	588	35.4	4908.1	27.8	92	5.5	1095.4	6.2	110	6.6	800.8	4.5	1660	100	17646	100
All	1384	58.2	15938	65.6	726	30.5	5949.7	24.5	156	6.6	1603.7	6.6	111	4.7	806.1	3.3	2377	100	24297	100

Note: UID/Other not included.
[a]Cl = Cluster.

TABLE 3.5A
Rim Treatment and Elaboration by Cluster

	Rim treatment and elaboration											
	Plain				Decorated						Pellet/ node	
	Plain		Incised		Cane		Finger		Stamped		Pellet/ node	
Cl[a]	Sum	%	Sum	%	Sum	%	Sum	%	Sum	%	Sum	%
1	8	21.6	0	0	2	5.4	0	0	0	0	6	16.2
2	69	43.1	23	14.3	17	10.6	2	1.3	2	1.3	0.	0
All	77		23		19		2		2		6	

[a]Cl = cluster.

TABLE 3.5B
Rim Treatment and Elaboration by Cluster

	Rim treatment and elaboration											
	Appliqué strip								Folded		All	
	Strip segment		Strip cane		Strip segment/ cane		Strip pinch		Fold plain			
Cl[a]	Sum	%	Sum	%	Sum	%	Sum	%	Sum	%	Sum	%
1	6	16.2	9	24.3	5	13.5	1	2.7	0.	0.	37	100
2	25	15.6	17	10.6	0.	0	3	1.9	2	1.3	160	100
All	31		26		5		4		2	100	197	100

[a]Cl = cluster.

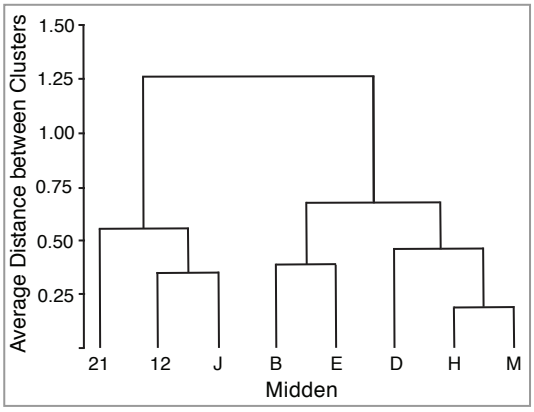


Fig. 3.3. Surface decoration clusters, average solution.

if Yates' correction for continuity is incorporated for this 2 × 2 table, the significance falls to 0.06. Rim treatment by form showed more regularity: bowl rims were most commonly left plain, jars and straight-sided vessels had more diverse rim treatments, but the treatments were distributed similarly (table 3.8). Calculating for bowls and jars only, the chi-square test was significant at $p = 0.001$.

Cluster Comments (or, On the Reality of Clusters): Though only surface decoration was used to create the clusters, the clusters also contained significant differences in attributes that are recognized to change through time. This indicates that the clusters are robust, and that there may be a cultural reality reflected in the groupings. In addition to the differences described above, there was much more sand tempering in Cluster 2 than in Cluster 1 (table 3.9), and only Cluster 2 had grit/grog tempering ($n = 7$ sherds). Cluster 2 had the only incised vessels, and there were 10 of these (the single incised sherd in Cluster 1 was not a rim, so it was not counted in the vessel analysis). Land and groove width in Cluster 2 was more equitable than in Cluster 1 (1.4:1.8 in Cluster 1; 1.4:1.4 in Cluster 2), but what this might signify is unclear. On the other hand, some other attributes, chosen to track changes toward Altamaha, were remarkably consistent. For rectilinear vs. curvilinear stamping: both clusters had 71% rectilinear and 29% curvilinear; central dots occurred in 8.0% of Cluster 1 sherds and 6.0% in Cluster 2, a difference that is not statistically significant ($p = 0.19$; Yates' $p = 0.23$).

I have interpreted the "cultural reality" captured in differences between the two clusters to indicate the passage of time. Given what we understand about midden deposition in Irene period sites, many middens in a site will not be contemporaneous. However, conventional radiocarbon dates are not "absolute" enough to determine relative contemporaneity within an occupation spanning ca. 250 years; indeed, radiocarbon dates do not indicate with any certainty that Cluster 1 is earlier than Cluster 2 at Meeting House Field. However, as has long been recognized, Southeastern Native American pottery is extraordinarily time sensitive. The relative chronologies established 50 years ago or more, using only decorative attributes, have proved remarkably sturdy. Modern researchers into Lamar chronometrics have divided periods into phases as short as 75 years on the basis of pottery attributes (Williams and Shapiro, 1990: 27). Thus, I privilege the pottery over the Poisson distribution. Still, it would be foolhardy to ignore other possibilities for the differences in attributes between the clusters. Status differences might be reflected, or there may be differences in the backgrounds of the female potters living in different parts of the site.

Terminal Dates for Meeting House Field

In the original analysis, using Calib 3.0 and a reservoir correction of –5 ± 20, two radiocarbon dates had terminal 1 cal dates well into the mission period: 1660 (charcoal) and 1670 (clam; an oyster date from the same provenience was older, ending at 1590)[9] (table 3.1). Both of these were from Midden M. On the basis of these results, I previously (Saunders, 2000a) made a timid case for occupation at Meeting House Field immediately prior to or even during missionization on St. Catherines Island. Though I had no problem with a protohistoric occupation of Meeting House Field, I believed those two terminal dates were too late. Under the St. Catherines Island radiocarbon protocol, those same samples yield terminal (1 cal) dates of 1600 (charcoal) and 1560 (clam); the oyster date was 1470.

Citing the lack of European artifacts at Meeting House Field, Thomas (2008: 10) resolved to consider Meeting House Field "as dating entirely during the precontact era (i.e., pre-A.D. 1570, uncalibrated)." Though I am now arguing for dates that are 60 and 110 years earlier than previously, I would still maintain

TABLE 3.6
Vessel Form by Cluster

Frequency Percent Row % Col %	Vessel form				
	Bowl	Straight	Jar	Bottle	Total
Cluster 1	4 3.15 13.33 17.39	12 9.45 40.00 30.00	14 11.02 46.67 24.14	0 0.00 0.00 0.00	30 23.62
Cluster 2	19 14.96 19.59 82.61	28 22.05 28.87 70.00	44 34.65 45.36 75.86	6 4.72 6.19 100.00	97 76.38
Total	23 18.11	40 31.50	58 45.67	6 4.72	127 100.00

TABLE 3.7
Vessel Surface Decoration

Frequency Percent Row % Col %	Surface decoration				
	Stamped	Plain	Burnished plain	Incised	Total
Bowl	5 4.00 21.74 8.93	9 7.20 39.13 17.65	4 3.20 17.39 44.44	5 4.00 21.74 55.56	23 18.40
Straight	17 13.60 43.59 30.36	19 15.20 48.72 37.25	0 0.00 0.00 0.00	3 2.40 7.69 33.33	39 31.20
Jar	32 25.60 56.14 57.14	21 16.80 36.84 41.18	3 2.40 5.26 33.33	1 0.80 1.74 11.11	57 45.60
Bottle	2 1.60 33.33 3.57	2 1.60 33.33 3.92	2 1.60 33.33 22.22	0 0.00 0.00 0.00	6 4.80
Total	56 44.80	51 40.80	9 7.20	9 7.20	125 100.00

TABLE 3.8
Rim Treatment by Vessel Form

Frequency Percent Row % Col %	Rim treatment					
	Plain	Decorated	Pellet/ node	Appliqué	Folded	Total
Bowl	17 13.82 77.27 29.31	2 1.63 9.09 11.76	2 1.63 9.09 50.00	1 0.81 4.55 2.38	0 0.00 0.00 0.00	22 17.89
Straight	17 13.82 42.50 29.31	5 4.07 12.50 29.41	0 0.00 0.00 0.00	17 13.82 42.50 40.48	1 0.81 2.50 50.00	40 32.52
Jar	21 17.07 36.84 36.21	9 7.32 15.79 52.94	2 1.63 3.51 50.00	24 19.51 42.11 57.14	1 0.81 1.75 50.00	57 46.34
Bottle	3 2.44 75.00 5.17	1 0.81 25.00 5.88	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	4 3.25
Total	58 47.15	17 13.82	4 3.25	42 34.15	2 1.63	123 100.00

TABLE 3.9
Temper by Cluster

	Temper												All			
	Grit				Sand				Grit & grog							
	Count		Weight		Count		Weight		Count		Weight		Count		Weight	
Cl[a]	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
1	694	92.0	6270.5	92.9	60	8.0	477.6	7.1	—	—	—	—	754	100	6748.1	100
2	1225	72.1	13935.5	77.8	467	27.5	3925.6	21.9	7	0.4	47.5	0.3	1699	100	17908	100
All	1919	78.2	20206.0	81.9	527	21.5	4403.2	17.9	7	0.3	47.5	0.2	2453	100	24656	100

[a]Cl = cluster.

TABLE 3.10
Early *Convento* Vessel Forms

Vessel form	Master code										All	
	UID		Stamp		Plain		B Plain		Incised			
	Sum	%	Sum	%	Sum	%	Sum	%	Sum	%	Sum	%
Bowl	1	25.0	2	50.0	—	—	1	25.0	—	—	4	100
Straight (UID)	1	20.0	2	40.0	1	20.0	1	20.0	—	—	5	100
Jar	1	50.0	1	50.0	—	—	—	—	—	—	2	100
Carinated bowl	—	—	1	50.0	—	—	—	—	1	50.0	2	100
Brimmed	—	—	—	—	—	—	1	100	—	—	1	100
All	3	21.4	6	42.9	1	7.1	3	21.4	1	7.1	14	100

the possibility that there was a postcontact (i.e., post-1500) occupation at Meeting House Field, not because it is necessary to any hypotheses presented here, but simply to stress how poorly known the site remains. For instance, absence of trade goods is not definitive for a number of reasons. Early contact period sites have few European artifacts. Though primary documents indicate considerable gifting or trade, much of it was organic (red cloth was a big hit) and both organic and inorganic items were quickly taken out of circulation (Smith, 1987). Meeting House Field is a large site from which only a very small, and highly biased (to the western portion of the site), sample has been taken. Indeed, we do not know for certain how large the site is, but a very conservative estimate would put it at ca. 2500 m^2. All excavation to date equals 21 m^2; surface visibility in the field is very poor. In his cautionary tale on sample size, O'Neil (1993) related that, at a small (320 m^2) midden site in California, over 50% of the site was excavated before diagnostic artifacts of a contact period component turned up, and his earlier testing had been extensive and statistically representative. In addition, we do not know enough about Irene sites to know if they were structured internally; if there was a plaza, and higher status people lived adjacent to it, chances of recovering European artifacts on the extreme western edge of the site are slim. Finally, the Spanish were notoriously stingy with trade goods. At the Fallen Tree site (Altamaha period), immediately adjacent to the mission compound, except for olive-jar sherds, very little European material could be definitively associated with the mission period occupation, despite excavation of 104 m^2 (May, 2008).

MISSION SANTA CATALINA, GEORGIA

As noted above, two discrete temporal contexts were available from Mission Santa Catalina (see fig. 2.9, this volume). The earlier dated to the small interval between the establishment of the mission and the Juanillo rebellion: 1595–1597. Closed contexts for this component included the postholes that described the exterior and interior partitions of the early *convento*. These were easily distinguished from the rubble-filled postholes (the daub rubble and other debris from the early *convento*) that defined the later structure. Pottery from both sets of postholes (48 postholes; 249 sherds) comprised the assemblage from the early component. Zone materials (A and B zone) from the *convento*, church, and kitchen were used for the later component.

Results from the early *convento* were unequivocal. There was no Irene pottery in the fill of the postholes. There was no curvilinear stamping, and land and groove widths averaged 2.0 and 2.4 mm, respectively—a decisive shift from the narrow (1.4 mm) lands and grooves of Cluster 2 at Meeting House Field. Of the 18 examples in the rim assemblage, there were no rim strips. Thus, Altamaha wares appeared simultaneously (archaeologically speaking) with missionization. Even in this early period, the most frequent rim treatment was the folded rim. These were most often cane punctated, but could also be fingernail punctated, stick punctated, or plain. Simple plain rims were the next most common rim treatment. There was only one decorated rim, and one ovoid pellet rim was recovered.

Fourteen vessels were identified (table 3.10). Of the nine that could be identified to a form, seven were bowls; the bowls included a brimmed bowl—a colonoware form—as well as a bowl with a scalloped rim. The brimmed vessel was burnished and red-filmed on the interior and exterior. In fact, three, or 21%, of these early vessels were red-filmed, a seemingly high proportion possibly related to sample size (red filming does not approach this proportion in the larger, late assemblage). Filming occurred on the brimmed vessel noted above; one interior and exterior red-filmed, straight-rimmed vessel (probably another brimmed vessel); and an interior-zoned red-filmed and exterior-red-filmed unidentified bowl. This relatively elaborate serving assemblage seems appropriate for the early *convento*.

The results from the 17th-century assemblage (n = 2476; 159 MNV) simply expands on those from the early component. A very stable potting "tradition" had been established by the early 1600s; Irene wares had been completely replaced. However, the relative percentages of surface decorations at the mission remained similar to those at Meeting House Field (table 3.11). Stamping levels were similar to that of Cluster 1 (Cluster 2 had an unusually high percentage of plain at the expense of stamping); incised and burnished plain sherd frequencies were similar to those of Cluster 2.

One hundred fifty-nine vessels were identified in the Late assemblage (table 3.13). Just over

one-half (51%; $n = 80$) of these forms were bowls. Bowls were much more frequent in the mission assemblage than they were in the native assemblage at Meeting House Field. In addition, 34% ($n = 27$) of the mission bowls were brimmed—a strong showing for this colonoware form—and another 18% ($n = 14$) of the bowls were carinated. As for the early *convento*, this suggests a fairly elaborate serving assemblage.

Vessel forms, including colonowares such as brimmed bowls, were treated the same way as they had been in prehistory: bowls could be stamped, but were more commonly incised; jars were almost always stamped (table 3.12; $p = 0.0001$ for bowls and jars, only).

Three jars were check stamped. It is unclear where check stamping in historic Guale contexts might come from. Check stamping was a major constituent of Savannah period (A.D. 1200–1325) assemblages, but the design disappears during the Irene phase. There was none at Meeting House Field. However, two relatively large (total weight = 40.5 g), Altamaha Check sherds were in the early *convento* postholes (as were three, very small [total weight = 13.4 g] St. Johns sherds). Whether St. Johns Check trade wares were the inspiration for Altamaha Check, or whether it was a revival of sorts, or both, is unknown. Check stamping did not become popular. It comprised only 3.2% of the surface decorations in the Late proveniences. There was even less check stamping at Fallen Tree, 0.007% of the Altamaha and grit/sand-tempered sherds (May, 2008: table 26.6).

In terms of rim treatments of vessels, there was no resurrection of the appliqué strip—folded rims completely replaced appliqué strips (table 3.13). Though one tends to associate folded rims with jars, four bowls had folded rims. This does not appear to violate native rules. One bowl at Meeting House Field had an appliqué rim. The single pellet/node was recovered on a bowl form. Incising appeared on 31% of the Late assemblage vessels, up from 8.1% for the Meeting House Field total and 10.5% of the vessels in Cluster 2.

Other rim elaborations were the same as those used in the Irene—basically cane, fingernail, and stick impressions, along with finger pinching—with one addition, a triangular punctuation, occurring on six vessels (one UID rim treatment at Meeting House Field carried the comment "triangle?"). In terms of styluses for punctation, cane remained the most popular, followed by fingernail (table 3.14).

Given the strong evidence for continuity in many attributes, it is perhaps not surprising that some elements of the World Symbol were retained. Though curvilinear incising was absent (there was none in the early component and 0.5% [$n = 7$ sherds] in the later proveniences), the four-field motif with a central element was present on 6.8% of sherds (by count) in the early proveniences and 5.1% in the later. These percentages are quite similar to those from the Meeting House Field assemblages (Cluster 1, 8.0; Cluster 2, 6.0; total, 6.8). Thus, if all the Irene vessels at Meeting House Field were stamped with the filfot cross, then, by virtue of the similar frequencies of central dots, all the vessels in the mission compound pottery bore a rectilinear modification of the same.

In fact, Brewer (1985) argued that all the pottery she analyzed from Wamassee Head, the native site associated with the mission was exactly that, and she defined the rectilinear modification as "San Marcos Complicated Stamped" to distinguish this decoration from Altamaha Stamped. San Marcos Complicated Stamped consisted of "four blocks of parallel lines arranged at right angles to one another around a central node." The essence of this design is that of a filfot cross composed of straight lines rather than scrolls. Brewer's results indicate that there was no major difference in surface decoration between the pottery produced for native use and that produced for use within the mission compound. In addition, as within the mission compound, Irene wares were present in remarkably small numbers at the native site. Of 15,406 sherds identified as either Altamaha or Irene, only 13 were Irene (May, 2008: table 26.6, 26.7).

MISSION SANTA CATALINA, FLORIDA

The stability of this "new tradition" (Saunders, 2001) is evident in its transference to the mission fields of Florida. The Guale who fled the Georgia establishment in 1684 spent two years on Sapelo Island, where populations from Satuache, Tupiqui, and, of course, Sápala, were stationed. At least for the former inhabitants of Santa Catalina, the stay was projected to be temporary. The Spanish, recognizing the importance of St. Catherines Island as a breadbasket for St. Augustine, intended to resettle that mission with a stronger garrison. These plans never materialized, however. In

TABLE 3.11
Late Mission Proveniences, Surface Decoration

Church

	Master code											
	Stamp				Plain				Burnished plain			
	Count		Weight		Count		Weight		Count		Weight	
Zone	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
A	208	69.1	2666.7	71.6	40	13.3	431.7	11.6	25	8.31	311.1	8.35
B	244	68.9	3157.8	73.8	55	15.5	491.2	11.5	19	5.37	146.9	3.44
All	452	69.0	5824.5	72.8	95	14.5	922.9	11.5	44	6.72	458.0	5.72

Master code								All			
Incised				Check							
Count		Weight		Count		Weight		Count		Weight	
n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
18	5.98	212.0	5.69	10	3.32	103.5	2.78	301	100	725.0	100
21	5.93	296.8	6.94	15	4.24	183.3	4.29	354	100	4276.0	100
39	5.95	508.8	6.36	25	3.82	286.8	3.58	655	100	8001.0	100

Kitchen

	Master code													
	Stamp				Plain				Burnished Plain				Incised	
	Count		Weight		Count		Weight		Count		Weight		Count	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
All	604	77.8	9007.7	81.6	45	5.80	347.0	3.14	26	3.35	260.8	2.36	42	5.41

	Master code										All			
	Incised		Check				St. Johns							
	Weight		Count		Weight		Count		Weight		Count		Weight	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
All	599.8	5.43	31	3.99	695.7	6.30	28	3.61	126.6	1.15	776	100	11038	100

TABLE 3.11 — (*Continued*)

Convento

	Master code													
	Stamp				Plain				Burnished plain				Incised	
	Count		Weight		Count		Weight		Count		Weight		Count	
Zone	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
A	486	67.5	3881.0	70.8	133	18.5	968.2	17.7	24	3.33	142.6	2.60	44	6.11
B	124	72.5	1387.1	81.8	21	12.3	137.2	8.09	7	4.09	33.6	1.98	16	9.36
All	610	68.5	5268.1	73.4	154	17.3	1105.4	15.4	31	3.48	176.2	2.45	60	6.73

	Master code										All			
	Incised		Check				St. Johns							
	Weight		Count		Weight		Count		Weight		Count		Weight	
Zone	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
A	316.7	5.78	15	2.08	153.8	2.80	18	2.50	21.2	0.39	720	100	5483.5	100
B	121.7	7.18	1	0.58	11.6	0.68	2	1.17	3.8	0.22	171	100	1695.0	100
All	438.4	6.11	16	1.80	165.4	2.30	20	2.24	25.0	0.35	891	100	7178.5	100

TABLE 3.12
Surface Decoration by Vessel Form

Frequency Percent Row % Col %	Surface decoration						
	UID	Stamp	Plain	Burnished plain	Incised	Check	Total
Bowl	1 0.63 2.56 5.26	11 6.92 28.21 16.92	4 2.52 10.26 25.00	3 1.89 7.69 30.00	20 12.58 51.28 43.48	0 0.00 0.00 0.00	39 24.53
Straight (UID)	11 6.92 31.43 57.89	16 10.06 45.71 24.62	2 1.26 5.71 12.50	3 1.89 8.57 30.00	3 1.89 8.57 6.52	0 0.00 0.00 0.00	35 22.01
Jar	6 3.77 13.64 31.58	22 13.84 50.00 33.85	6 3.77 13.64 37.50	3 1.89 6.82 30.00	4 2.52 9.09 8.70	3 1.89 6.82 100.00	44 27.67
Carinated bowl	0 0.00 0.00 0.00	6 3.77 42.86 9.23	0 0.00 0.00 0.00	0 0.00 0.00 0.00	8 5.03 57.14 17.39	0 0.00 0.00 0.00	14 8.81
Brimmed vessel	1 0.63 3.70 5.26	10 6.29 37.04 15.38	4 2.52 14.81 25.00	1 0.63 3.70 10.00	11 6.92 40.74 23.91	0 0.00 0.00 0.00	27 16.98
Total	19 11.95	65 40.88	16 10.06	10 6.29	46 28.93	3 1.89	159 100.00

1683, an attack on Fort Matanzas and raids on the Cumberland Island missions perpetrated by the French pirate Grammont persuaded the Spanish to cut their losses on the Georgia coast—to favor the core over the periphery (Bushnell, 1994). The caciques of "the four places" on Sapelo Island requested to move to Santa María, where there was a "good landing place, plenty of fish, shellfish, and cassina, and enough tillable land to feed 80 families" (Busnell, 1994: 165). The Santa Catalina, Satuache, and Sápala Guale had moved to the new mission by August 22, 1684 (Worth, 1995b: 39, 45). The reestablished mission has been positively identified by the recovery of the seal of Santa Catalina from the floor of the structure identified as the *convento*. The Florida Santa Catalina is located on the lee side of Amelia Island, adjacent to Harrison Creek, a once-navigable tidal creek that loops off the South Amelia River (fig. 3.4). Details of the architecture of the mission compound (Saunders, 1990, 1993) are available elsewhere, as is a more extensive discussion of the pottery (Saunders, 2000a).

The pottery assemblage from the Florida Santa Catalina, 16,232 San Marcos sherds, contains evidence of both continuity and change. The frequency of the different surface decorations was quite similar to that of the Georgia establishment, except for a sharp decrease in incising, from around 6% of sherd totals at Meeting House Field and the Georgia Santa Catalina, to 1.4% (234 of 16,232) at Santa Catalina Amelia (table 3.15; by MNV, the frequency of incised vessels drops from 31% to 11%). One might expect an increase in check stamping. Though Amelia Island was on the extreme northern end of the St. Johns culture

TABLE 3.13
Vessel Form by Rim Treatment

Frequency Percent Row % Col %	Rim treatment				
	Plain	Decorated	Pel/Node	Folded	Total
Bowl	34 22.82 89.47 40.96	0 0.00 0.00 0.00	1 0.67 2.63 100.00	3 2.01 7.89 5.08	38 25.50
Straight	12 8.05 34.29 14.46	1 0.67 2.86 16.67	0 0.00 0.00 0.00	22 14.77 62.86 37.29	35 23.49
Jar	7 4.70 17.07 8.43	2 1.34 4.88 33.33	0 0.00 0.00 0.00	32 21.48 78.05 54.24	41 27.52
Carinated bowl	10 6.71 83.33 12.05	1 0.67 8.33 16.67	0 0.00 0.00 0.00	1 0.67 8.33 1.69	12 8.05
Brimmed vessel	20 13.42 86.96 24.10	2 1.34 8.70 33.33	0 0.00 0.00 0.00	1 0.67 4.35 1.69	23 15.44
Total	83 55.70	6 4.03	1 0.67	59 39.60	149 100.0

area, the Guale could have found plenty of St. Johns check-stamped sherds in prehistoric middens to copy. In addition, the Mocama had adopted a diamond-check stamping (San Pedro check) by 1600 (Ashley and Rolland, 1997b). Nevertheless, check stamping on San Marcos pastes remained very low at this mission, at 2.9% of the assemblage total, actually lower than the total at the Georgia mission.

The MNV total was 477 vessels (table 3.16). One hundred ninety-three of these were bowls (40.1%). Within the bowl category, 47.7% of the vessels were brimmed bowls (possibly more, as 17 vessels were considered "UID colono") up from 34% in Georgia. This increase in popularity is not surprising. The brimmed bowl was the first colonoware form to appear in this series of assemblages; colonoware brimmed bowls (sometimes called "deep plates") are a regular feature of colonoware assemblages throughout the New World. Apparently, this was the preferred form for serving the stews that formed the basis of the Spanish diet. Since this differed little from the standard Indian fare, at least in consistency, it is also not surprising that the form was widely adopted among the native inhabitants of eastern Florida.

The decrease in incising is apparent in the rim treatments for the vessels. At the Georgia mission, carinated bowls were either stamped or incised, no exceptions, and incising was the most common treatment (57.1%). In Florida, 80% of the carinated bowls were stamped, and there was at least one example of each of the other treatments (table 3.16). Indeed, stamping became the most common treatment for all bowl forms. Only 9% (42 vessels) were incised. The bulk of these were simple bowls.

TABLE 3.14
Late *Convento* Rim Elaborations by Vessel Form

Frequency Percent Row % Col %	Rim elaboration								
	Plain	Incised	Finger	Cane	Stick	Triangle	Fld/St	Pinch	Total
Bowl	17 10.97 44.74 33.33	21 13.55 55.26 43.75	0 0.00 0.00 0.00	0 0.00 0.00 0.000	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	38 24.52
Straight	12 7.74 34.29 23.53	4 2.58 11.43 8.33	4 2.58 11.43 26.67	9 5.81 25.71 42.86	3 1.94 8.57 33.33	2 1.29 5.71 33.33	1 0.65 2.86 25.00	0 0.00 0.00 0.00	35 22.58
All jar	7 4.5 16.28 13.73	4 2.58 9.30 8.33	10 6.45 23.26 66.67	11 7.10 25.58 52.38	4 2.58 9.30 44.44	4 2.58 9.30 66.67	3 1.94 6.98 75.00	0 0.00 0.00 0.00	43 27.74
Carinated bowl	2 1.29 14.29 3.92	10 6.45 71.43 20.83	1 0.65 7.14 6.67	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.65 7.14 100.00	14 9.03
Brimmed vessel	13 8.39 52.00 25.49	9 5.81 36.00 18.75	0 0.00 0.00 0.00	1 0.65 4.00 4.76	2 1.29 8.00 22.22	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	25 16.13
Total	51 32.90	48 30.97	15 9.68	21 13.55	9 5.81	6 3.87	4 2.58	1 0.65	155 100.00

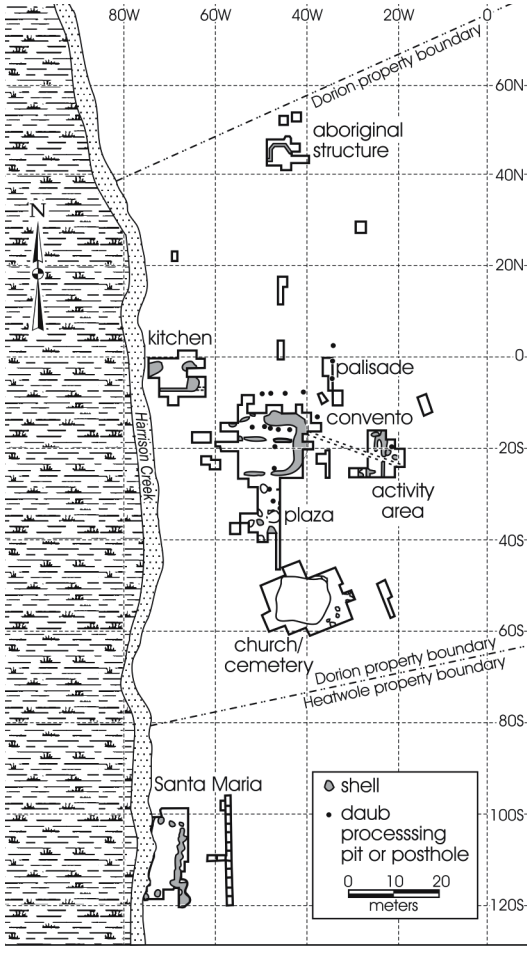


Fig. 3.4. Missions Santa Catalina and Santa Maria on Amelia Island.

The difference in rim treatment between the two missions was negligible (table 3.17). Folded rims were present on 46% of the vessels from Amelia (40% on St. Catherines). There was a consequent 7% decrease in the percentage of plain rims on Amelia. The increase in folded rims was accompanied by a diversification in the implements used to punctate rims. In addition to the common cane and fingernail punctations, and the less common triangular, there were many new styluses, including sharks' teeth, shells, thumbs, an unidentified square tool, an unidentified oval tool, and something that may have been the distal end of an animal tooth. As at the Georgia mission, a few of the folded rims were incised. Surprisingly, one appliqué rim strip was recovered. No rim strips were recovered from St. Catherines, Georgia, and the treatment did not occur among the prehistoric or historic natives of Florida. This suggests continuity of style pool independent of material examples.

In sum, while there is increased heterogeneity in rim elaborations (and in temper, see Saunders, 2000a) on Amelia, the results argue for strong continuity in many surface and rim attributes. One other major change is apparent, however. The dominant motif is no longer the World Symbol—central dots dropped to only 2.3% of the sample. The major motif, however, is not replaced by simple stamping and cross-simple stamping, however. Elements of the four-field design remained: 39.3% of simple stamped or cross-simple stamped sherds had at least two perpendicular fields of parallel lines on the paddle. In addition, there was a small increase in design variability: 1.1% of sherds had curvilinear elements, and 20 sherds had unusual stamped motifs, like a cross-in-circle. The cross-in-circle is another stylization of the World Symbol; all other "unusual" motifs seemed to be some variation of a four-field design.

DISCUSSION

Table 3.18 shows the relative frequencies of surface decoration and rim treatment in each provenience studied. The data confirm a rather remarkable stability in those traits, with the only major perturbation in the Meeting House Field Cluster 2 values. In all other assemblages, stamping is between 70% and 80%. Lest this value seem somehow inevitable (produced, for instance, by the relationship between vessel form and surface decoration), the value for Mission Santa Maria, a Mocama mission 40 m south of the Florida Santa Catalina, is 95% stamped (Saunders, 2000b).[10] Jars, almost invariably stamped in the Irene period, continue to be. This is probably due, at least in part, to functional constraints, but stamping is not the de facto treatment for other native-made jars in the Spanish borderlands. Folded rims continue to be treated as analogous to rim strips, though late in the series, a lively amount of experimentation was present in terms of rim elaboration. Thus, from a progenitor, Irene, which was a localized expression of the vast Lamar tradition,[11] there emerged an "invented tradition" (Saunders, 2001), an amalgamation of native and newer attributes that was adopted by all native Amer-

TABLE 3.15
Santa Catalina–Amelia, Surface Decoration by Structure

Structure	Master code											
	Stamp				Plain				Burnished plain			
	Count		Weight		Count		Weight		Count		Weight	
	Sum	%	Sum	%	Sum	%	Sum	%	Sum	%	Sum	%
Convento	8038	74.4	50325.0	76.2	1866	17.3	9978.3	15.1	426	3.9	2486.6	3.8
Kitchen	2549	82.6	16728.0	81.8	306	9.9	1947.6	9.5	100	3.2	757.6	3.7
Church	1468	74.5	10263.0	75.9	317	16.1	2037.3	15.1	95	4.8	620.0	4.6
Abo Str	293	77.5	1642.1	78.6	60	15.9	276.8	13.2	9	2.4	89.3	4.3
All	12348	76.1	78958.1	77.3	2549	15.7	14240.0	13.9	630	3.9	3953.5	3.9

Structure	Master code								All			
	Incised				Check							
	Count		Weight		Count		Weight		Count		Weight	
	Sum	%	Sum	%	Sum	%	Sum	%	Sum	%	Sum	%
Convento	135	1.3	770.5	1.2	333	3.1	2472.8	3.7	10798	100	66033.2	100
Kitchen	50	1.6	312.1	1.5	80	2.6	713.0	3.5	3085	100	20459.3	100
Church	36	1.8	228.9	1.7	55	2.8	371.9	2.8	1971	100	13521.1	100
Abo Str	13	3.4	73.6	3.5	3	0.8	7.3	0.3	378	100	2089.1	100
All	234	1.4	1385.1	1.4	471	2.9	3565.0	3.5	16232	100	102102.7	100

ican groups along the lower Atlantic coast and northeastern Florida, as well as by Spanish colonists.

There are other instances of the creation or enhancement of a native pottery type that, in turn, became widespread, in the early historic period. Goodby (1998) discussed the case of the Shantok tradition. Despite bitter political enmity between the Narrangansett, Pequot-Mohegan, and Wampanoag, much of it fostered by an English policy of "divide and conquer," 17th-century native pottery was "constructed in a wider variety of sizes and forms, and decorated with a greater degree of elaboration than ever before" (Goodby, 1998: 171). As in the Altamaha case, this pottery type was once considered the provenance of only one ethnic group, in this case the Pequot-Mohegan, but more recent research indicates that it was produced (or at least used) by all three peoples. According to Goodby, an ethos of pantribalism emerged despite intertribal political problems. The "vitality" in the traditional medium developed "in spite of the fact of ongoing and intense acculturative pressures whose effects were most pronounced in the realm of material

TABLE 3.16
Santa Catalina–Amelia, Vessel Form by Surface

Frequency Percent Row % Col %	Master code					
	UID	Stamp	Plain	B Plain	Incised	Total
Bowl	4 0.84 4.94 4.60	34 7.13 41.98 13.99	13 2.73 16.05 17.57	10 2.10 12.35 33.33	20 4.19 24.69 46.51	81 16.98
Straight	28 5.87 25.69 32.18	53 11.11 48.62 21.81	18 3.77 16.51 24.32	5 1.005 4.59 16.67	5 1.05 4.59 11.63	109 22.85
Jar	45 9.43 28.48 51.72	86 18.03 54.43 35.39	14 2.94 8.86 18.92	7 1.47 4.43 23.33	6 1.26 3.80 13.95	158 33.12
Carinated bowl	0 0.00 0.00 0.00	16 3.35 80.00 6.58	1 0.21 5.00 1.35	1 0.21 5.00 3.33	2 0.42 10.00 4.65	20 4.19
UID colono	2 0.42 11.76 2.30	0 0.00 0.00 0.00	12 2.52 70.59 16.22	2 0.42 11.76 6.67	1 0.21 5.88 2.33	17 3.56
Brimmed bowl/ plate	8 1.68 8.70 9.20	54 11.32 58.70 22.22	16 3.35 17.39 21.62	5 1.05 5.43 16.67	9 1.89 9.78 20.93	92 19.29
Total	87 18.24	243 50.94	74 15.51	30 6.29	43 9.01	477 100.00

culture. The elaboration of ceramics can be seen as an overt act of resistance against the changes in traditional material culture, and, more broadly, against the changes taking place in society at large" (Goodby, 1998: 177). Goodby envisions Native American women at the forefront of this resistance.

Snow (1984) presented a more prosaic explanation for the spread of four homogeneous plainware types (red, black, brown, and micaceous) that were distributed throughout New Mexico, beginning in the mission period and enduring for some 300 years (17th to 19th century). Once considered the products of a New World Hispanic potting industry, Snow convincingly argued that the wares were identical to prehistoric types save for the lack of decoration, and that these plainwares were produced in historic times almost exclusively by the Pueblos and Jicarilla Apache (the latter may have learned to make these particular types from the Pueblos). The documentary record is

TABLE 3.17
Vessel Form by Rim Treatment

Frequency Percent Row % Col %	Rim treatment						
	UID	Plain	Decorate	Pel/ Node	Applique	Folded	Total
Bowl	3	60	3	1	0	14	78
	—	13.48	0.67	0.22	0.00	3.15	17.53
	—	76.92	3.85	1.28	0.00	17.95	
	—	28.04	14.29	50.00	0.00	6.76	
Straight	2	41	5	0	1	60	107
	—	9.21	1.12	0.00	0.22	13.48	24.04
	—	38.32	4.67	0.00	0.93	56.07	
	—	19.16	23.81	0.00	100.00	28.99	
Jar	5	25	12	1	0	115	153
	—	5.62	2.70	0.22	0.00	25.84	34.38
	—	16.34	7.84	0.65	0.00	75.16	
	—	11.68	57.14	50.00	0.00	55.56	
Carinated bowl	2	15	0	0	0	3	18
	—	3.37	0.00	0.00	0.00	0.37	4.04
	—	83.33	0.00	0.00	0.00	16.67	
	—	7.01	0.00	0.00	0.00	1.45	
UID colono	14	3	0	0	0	0	3
	—	0.67	0.00	0.00	0.00	0.00	0.67
	—	100.00	0.00	0.00	0.00	0.00	
	—	1.40	0.00	0.00	0.00	0.00	
Brimmed vessel	6	70	1	0	0	15	86
	—	15.73	0.22	0.00	0.00	3.37	19.33
	—	81.40	1.16	0.00	0.00	17.44	
	—	32.71	4.76	0.00	0.00	7.25	
Total	—	214	21	2	1	207	445
	—	48.09	4.72	0.45	0.22	46.52	100.00

quite clear: the Pueblo Indians "manufacture both for their own consumption, and for the purposes of traffic, a species of earthenware . . . [which] are the universal substitutes for all the purposes of cookery, even among the Mexicans (Gregg, 1954: 193, quoted in Snow, 1984: 101); "the [Pueblo] ware is in universal use in the territory, and there is considerable demand for it in the market" according to W.W.H. Davis, U.S. Attorney General of the New Mexico Territory (Davis, 1938: 327, quoted in Snow, 1984: 102). Indeed, Snow (1984: 105) noted that "data from Florida to California indicates that Spanish sites in the borderlands, as in New Mexico, characteristically contain two distinct ceramic assemblages: European-derived vessels and locally produced pottery which reflects continuation of aboriginal technology and materials. In most cases, sherds of the latter assemblages are considered the end products of local prehistoric sequences." This phenomenon is also present in Latin America. Recently Jamieson (2002) described a similar European/Native assemblage for colonial Ecuador (though he thought metal vessels might have been more important in the Andes than in St. Augustine).[12] I cannot help but include this aside: One household inventory in the Ecuadorian assemblage, from Cuenca, contained five native pottery vessels, three ollas, and two *guallos*. The latter term is followed by a question mark, indicating that the term is unknown. Could Guale pottery have traveled, identity intact, to the top of the Andes? Maybe *guajes* (gourds)?

These two cases yield contrasting interpretations for the widespread distribution of a limited number of modified Native American wares in historic assemblages. For Goodby, the elaborated Shantok vessels were a form of resistance. (For the comparison with San Marcos, however, it is important to note that, though widespread, Shantok vessels were not common.) For Snow, market forces created a widespread and abundant pottery, and a monopoly on production ensured homogeneity in vessel attributes.

Which, if either, of these explanations might fit the Guale case? Frankly, I think aspects of both might be applicable. In terms of surface decoration, the retention of the World Symbol suggests some resistance to, or perhaps compartmentalization of, specific cosmologies. And, despite the general lack of references to pottery and market places in Spanish colonial Florida (only Bushnell, 1994, and K. Hoffman, 1997, allude to earthenwares for sale in the markets of St. Augustine), I think that a good deal of pottery must have been produced either for sale or trade.[13] The population dynamics—the relatively large number of unmarried males in the colony—would seem to demand it. I do not think there was a monopoly on pottery production, however.[14] The presence of abundant San Marcos at the Mocama mission of San Juan del Puerto (where a lot of the pottery would seem to be too early to be Guale products) and the contrast between stamping frequency between the two Amelia Island missions (one Guale and one early Mocama) suggests in situ production.

The fact that San Marcos was produced by the Mocama and Timucua has come as a surprise to most of us. Though we recognize in an abstract way that pottery decoration often does not follow ethnic lines, along the lower Atlantic coast, there was some general congruence in prehistory. Though there are any number of ways in which pottery types might have crossed ethnic lines (in this case after contact), two main possibilities seem appropriate here. One is intermarriage, as discussed by MacEachern (1998). However, though there was a good deal of intermarriage between Guale women and Hispanic colonists, it is unclear how many Guale women might have married Timucuan or Mocaman men. It does not seem that it would have been prevalent enough to produce the homogeneous San Marcos assemblages at San Juan del Puerto or Santa María. The other force that could be responsible is the market (including barter). As Snow (1984) discussed, an entrepreneurial spirit among local native pottery producers, in combination with the low status in which potters were held in Hispanic society, virtually guaranteed the development and ubiquitous spread of a native-made utilitarian ware in the Spanish colonial borderlands. The characteristics of the ware were the result of a combination of factors—a negotiation—between consumers and producers. Altamaha/San Marcos represents that consensus in eastern La Florida.

TABLE 3.18
Summary of Surface Decoration and Rim Treatment

Provenience	Date	Surface decoration (%)				Rim treatment (%)*					
		Stamp	Plain	B Plain	Incise	Plain	Dec	Pel/ Node	Strip	Incised	Fold
MHF Cluster 1	ca. A.D. 1420	71.7	19.2	8.9	0.1	25.0	10.7	14.3	50.0	0.0	0.0
MHF Cluster 2	ca. A.D. 1550	52.4	35.4	5.5	6.6	44.4	11.9	0.0	28.1	14.4	1.3
S. Catalina, GA, Early	A.D. 1594-1597	80.7	8.8	5.6	2.8	33.3	5.6	5.6	0.0	11.1	44.4
S. Catalina, GA Late	A.D. 1604-1680	76.4	12.9	4.4	6.2	32.9	4.0	0.7	0.0	22.8	40.0
S. Catalina, FL	A.D. 1684-1702	79.1	15.7	3.9	1.4	40.3	4.7	0.5	0.2	7.9	46.5

NOTES

1. More recently, Charleton and Fournier (1993) reported that colonization in central Mexico resulted in the stimulation and elaboration of native pottery with borrowing of selected Spanish attributes.

2. Among the Guale (and throughout the Southeast), native allegiance was primarily to a town (and to the town's chief as the corporeal representation of the lineal corporate group) rather than to any supralocal entity such as "Guale" (a Spanish-imposed division that does appear to have been based, in this case, on a linguistic division).

3. An assemblage associated with a Native American structure, reported in Saunders (2000a), is not included here.

4. Caldwell and McCann (1941) reported that the filfot cross was the only stamped motif on Irene pottery. In an updated type description, DePratter (1991) specified that the filfot cross was the only design motif in early Irene, but that in later, Pine Harbor assemblages, concentric circles, figure nines, crosses, line blocks and other designs were applied. At Meeting House Field, all legible designs could have been part of a filfot cross.

5. Knight (2006) has suggested that we abandon the use of the term "Southeastern Ceremonial Complex" because it implies uniformity of style and assemblage that does not exist.

6. Some attributes, like burnishing and slipping, have technological (waterproofing) and stylistic (gloss and color) aspects. These were considered technological in attribute recording but are also discussed in the text as stylistic (see Saunders, 2000a, for more discussion of attribute characteristics).

7. The size of Meeting House Field is not specified on the State Site Form. If the site extends from the marsh edge to the sawmill (see Thomas 2008: 251), then it covers some 500 × 500 m.

8. In fact, the site was originally recorded by Larson in 1959, on the basis of surface survey around the sawmill (at the purported eastern edge of the site) as a Wilmington site. On the other hand, Caldwell, who conducted surface survey in the same area in 1969, called the site "protohistoric, one of the 'Lamaroid' assemblages found on the island." (Thomas, 2008: 25–31).

9. Using the original radiocarbon protocol, we found that Midden E and Midden 21 also had post-1600 dates, but both are problematic—the Midden E date is contradicted by earlier, more consistent dates below it and two other dates from the same provenience in Midden 21 were 200 years earlier. Though Calib 5.1 has reduced the range of these dates, they are still problematic.

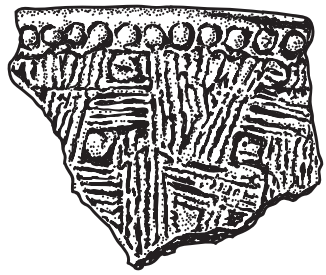
10. There were other differences between the Mocama execution of Altamaha and that of the St. Catherines Island folk—there was more check stamping, for instance—but the pottery was Altamaha/San Marcos.

11. Which is the late prehistoric expression of the "Southern Appalachian" stamping tradition that emerged in the lower Southeast by 500 B.C.

12. Jamieson contrasts much of the Ecuadorian colonial experience with that of St. Augustine.

13. Though there are no data on frequency, "San Marcos complicated stamped" designs do occur in St. Augustine. An overstamped example is pictured in Otto and Lewis (1974: 100, Plate 1).

14. Though there could have been a monopoly of paddle carvers.



CHAPTER 4
INDIAN CERAMICS OF THE SPANISH ATLANTIC COAST: THE VIEW FROM THE INTERIOR OF GEORGIA AND SOUTH CAROLINA

MARK WILLIAMS

The ceramics of the Native Americans living on the Georgia, southern South Carolina, and northern Florida coasts during the 17th century are surprisingly uniform in style and form. These ceramics, for purely accidental reasons, are called the Altamaha series by archaeologists working on the Georgia and lower South Carolina coasts and San Marcos by those working on the northern Florida coast (Williams and Thompson, 1999). The origins of these terms and the specific characteristics of the ceramics are reviewed elsewhere in this volume and need no further descriptions here. Broadly speaking, however, they represent a distinctly recognizable spatial-temporal variation of Late Mississippian Lamar ceramics as defined for the South Appalachian region of the United States (Williams and Shapiro, 1990).

My goal is to discuss the other expressions of Lamar ceramics from the interior regions adjacent to the coasts of Georgia and Florida. I will also speculate how these impacted the historic ceramics of the coastal Indians associated with the Spanish of St. Augustine. I will not discuss the ceramics of the interior Timucua speaking peoples of north-central Florida, frequently described as the Alachua series. One initial question of concern would certainly be this: how far into the interior of the lower Atlantic Coast north of Florida should be discussed? Fortunately, this question somewhat takes care of itself. After an initial examination of the data, it is clear that, north of Florida, there were actually very few societies located immediately to the interior of the coastal region in question. The major rivers that drain into the Atlantic in this area include, north to south, the Edisto, the Salkahatchie and Combahee, the Coosawhatchie, the Savannah, the Ogeechee, the Altamaha (which includes the Oconee and the Ocmulgee), the Satilla, and the St. Marys (fig. 4.1). There are a great many additional smaller streams in this area, but these will suffice for discussion here.

One of the most important advances in the archaeology of the South Carolina, Georgia, and northern Florida area in the last several decades has been the development of a fine-grained ceramic chronology (ca. 50–75 years) for the Late Mississippian period (A.D. 1350–1600) based upon a series of ceramic attributes. Coupled with massive archaeological surveys from the CRM and academic worlds and key stratigraphic excavations at mound sites, we can now create maps of settlement distribution for this region that are directly relevant to the research to be discussed here. One thing that has become clear from these studies is that it is possible to define space-time units that are small enough to be considered realistically as individual human societies or populations.

In reviewing the Late Mississippian settlement data for the river valleys listed above, the most surprising discovery is how few sites or populations are represented, often for many kilometers deep into the interior. There are no sites of that time period reported on any of the South Carolina rivers (Chester DePratter, personal commun., 2007). These rivers arise at the Fall Line and traverse exclusively the coastal plain geological zone of South Carolina on their way to the coast. The Savannah River has the famous late Mississippian Irene site some 18 mi (29 km)

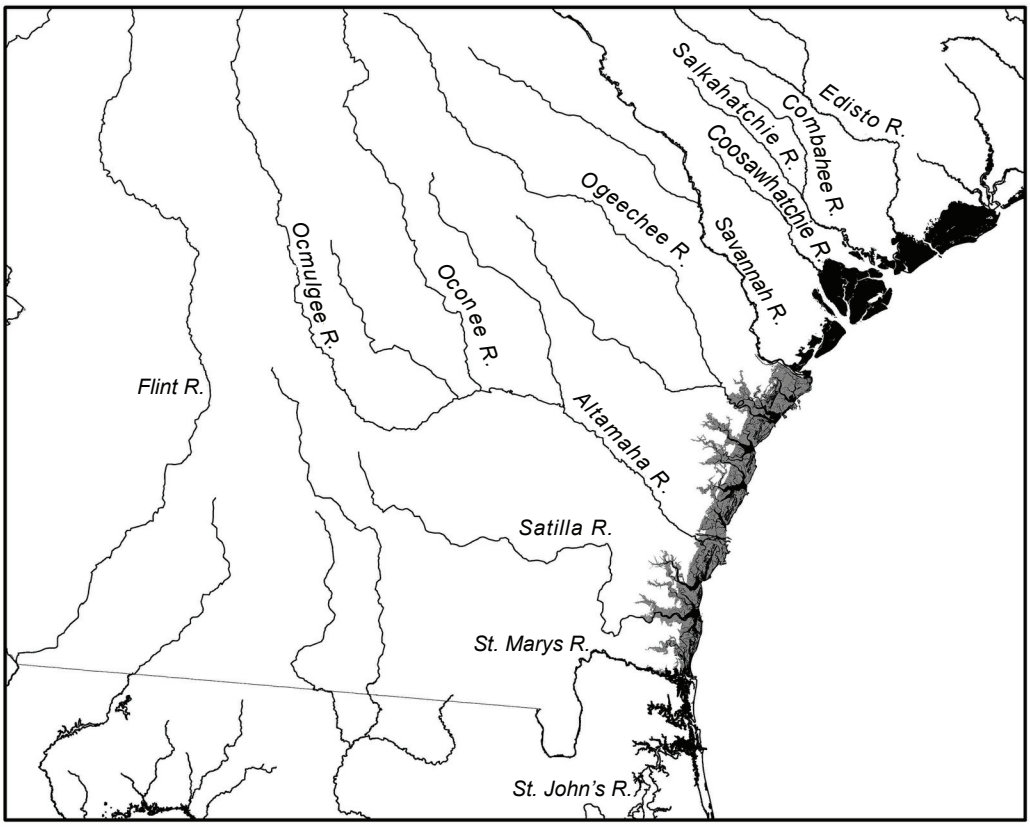


Fig. 4.1. Rivers of the lower Atlantic region.

inland from the mouth of the river. Beyond that, however, no Late Mississippian sites or societies are present until one arrives at the Hartwell Dam area some 200 mi (320 km) into the interior. There was a chiefdom-level society there with at least three mound sites: Tugalo, Chauga, and Estatoe. It has been well known for over 20 years that the central Savannah valley was abandoned in the early to mid 15th century, likely due to warfare and other native political events (Anderson, 1994).

There is no known Late Mississippian occupation in either the Ogeechee River valley or its tributary the Canoochee River, both of which begin near the Fall Line like the rivers east of the Savannah River. The Altamaha River has no Late Mississippian occupation along most of its 90-mile (145-km) length (except on the coast) until one reaches the vicinity of the junction of Oconee and Ocmulgee Rivers, where the so-called "square ground" Lamar area is located (Snow, 1977, 1990; see also below). Further up both the Oconee and Ocmulgee rivers there are major Late Mississippian occupations at the Fall Line. The distance from the junction of the rivers to the first Late Mississippian sites on the Oconee is about 90 mi (145 km), while that of the Ocmulgee is about 100 mi. On the Satilla River drainage south of the Altamaha, there are no Late Mississippian sites until about 90 mi (145 km) upstream near its headwaters south of the Ocmulgee River. This is also part of the "square ground" Lamar occupation mentioned above. There is little Late Mississippian on the St. Marys River in the interior.

A few immediate observations are in order here. First, and perhaps most important, Late Mississippian sites or societies in the interior coastal plain region are rare to nonexistent. Indeed, the "square ground" Lamar archaeological culture is the only one known on the coastal plain from below Columbia,

South Carolina, to the Lower Flint River area in southwestern Georgia, a distance of over 250 mi (400 km). This in itself speaks of the general isolation of the Late Mississippian population that was present around the mouth of the Savannah River (known locally as "Irene"). Irene phase materials, of course, occurred north and south of the mouth of the Savannah River, and were likely associated with the historic coastal Guale people (Thomas, 1988a).

A second observation is that the only valleys that have Late Mississippian populations, other than a small population on the upper Satilla, are along rivers that reach well into the Piedmont—the Savannah, the Oconee, and the Ocmulgee. Certainly, agriculture is easier in the rich, fertile soils of the Piedmont region, but perhaps there are also social reasons for this curious pattern. This general absence of Late Mississippian societies on most of the coastal plain does tend to highlight the unusual success of the Irene society with its specialized coastal adaptation. It also points in reverse, to the very unusual nature of "square ground" Lamar, located in a region away from the coast and the Piedmont as the only Late Mississippian society in the interior coastal plain. Much of the remainder of this paper relates to that society.

"SQUARE GROUND" LAMAR

This archaeological culture was identified and named by Frankie Snow based upon his opportunistic archaeological surveys of pine tree clear cuts (Snow, 1977, 1990). Centered in Douglas, Georgia, in the upper Satilla basin, Snow began collecting data on archaeological sites here and to the north in the Big Bend region of the Ocmulgee River in the late 1960s. By the mid-1970s, he had recognized that some Lamar period Late Mississippian materials were present in the area of the junction of the Oconee and Ocmulgee rivers as well as the area to the south near the headwaters of the Satilla River. He named the archaeological culture after a single specific design he identified on some of the Lamar complicated stamped pottery found in surface collections from these sites. To be sure, the name designation is his interpretation of the meaning of a specific stamped ceramic design. With 20/20 hindsight, perhaps a geographic or personal name for the occupation or phase might have been more appropriate given the trends used in much of the rest of the South. Snow acknowledged this to a degree by the 1980s with his application of the term Pine Barrens Lamar for the same occupation (Snow, 1990).

Examination of the data from the Georgia Archaeological Site File shows 127 Late Mississippian Lamar sites in this area, most of which were located by Snow (fig. 4.2). Remember that these sites were located in surveys that were opportunistic and not full coverage. While there may be other Late Lamar sites away from this area in the coastal plain, I am using the data as they are currently known. There are rumors of some sites along the Alapaha River, and also further down the Altamaha (Dennis Blanton, personal commun., 2007), but the number and density will probably not be as great as those in the Big Bend area presented here. Upon visual examination of the distribution, there are apparently two separate subareas involved, separated by a 15-mile gap. Whether this gap is real is open to question. It may simply be a result of survey gaps, although it does correlate with an important physiographic boundary between the Vidalia Upland to the north and the Bacon Terraces to the south (Clark and Ziza, 1975). This is locally defined by the high ridge that long ago forced the Ocmulgee River to swing back to the northeast, rather than joining with the Satilla basin as it logically should have. One might say that the Altamaha rightfully belongs to the Oconee River rather than the Ocmulgee River.

The more southerly of these late Mississippian site distribution areas consists of 26 sites surrounding the city of Douglas (fig. 4.2). Seventeen of these sites are east and northeast of the city on Seventeen Mile Creek, a northerly branch of the Satilla River. The remaining nine sites are on the main Satilla River channel south and southeast of Douglas. We probably do not have a completely accurate idea of the overall distribution of Lamar sites in this part of the coastal plain, but we certainly have a good start.

The main area of site distribution is 20 mi (32 km) north of Douglas along the lower Ocmulgee River, as well as along the lower Oconee River and upper Altamaha River (fig. 4.2). In the 20 mi (32 km) stretch of the Ocmulgee River that runs primarily west to east are 16 known Late Mississippian sites. Next, the area of highest site frequency and density is the final 23 mi (3 -km) stretch of the Ocmulgee River, where it turns back to the northeast before joining the Oconee

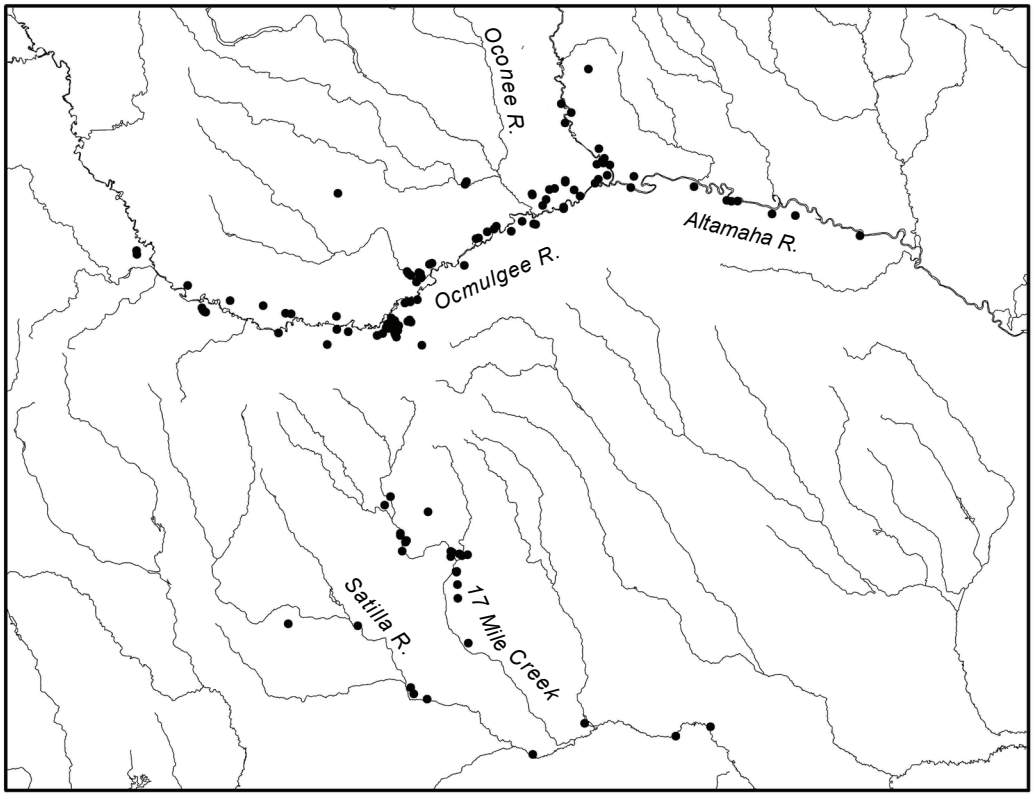


Fig. 4.2. Lamar sites in the Big Bend area.

River to form the Altamaha. In this stretch 66 Late Mississippian sites are present. In the final 10 mi (16 km) of the lower Oconee River above the junction there are 10 sites, and in the first 20 mi (32 km) down the Altamaha River there are 9 known Lamar sites. Thus, the total number of sites in this northern area is 101. Although I have broken these down by subregion, their distribution is rather continuous. Snow believes that some of these Lamar sites are from the Early Lamar period, but I think it more likely that all are Late Mississippian (Snow, 1990). The floodplains of the large rivers marking the sites presented here were likely quite fertile and would have been very good farmland for Mississippian agricultural societies. Because these sites are part of an obvious dispersed settlement system, it seems unlikely that the inhabitants feared attack from outside groups; they felt safe enough to forego large palisaded towns. It is also noteworthy that there is currently no known mound site associated with this Late Mississippian society. If there had been one, as logic would tell us, it likely would have been of such a short duration of occupation that it would have been small at best, and may have been plowed down to ground level in the 19th century.

I conclude that the 27 sites around Douglas should be considered as a separate archaeological phase. The geographical and physiographical separation from the northerly ones suggests some real distinction, particularly given their location in a different physiographic district. Perhaps there is a short temporal difference as well. In the context of names, the term Douglas logically equates with this cluster of sites, while the large town nearest the northern linear cluster of Late Mississippian sites along the Ocmulgee and Oconee Rivers is Hazelhurst. More surveys and excavations are obviously needed to clarify this situation. Every indication thus far is that all these sites date to the 16th and 17th centuries and were likely the location of the Spanish province of Utinahica (Snow, 1990). It is also now

reasonably clear that the people represented by these sites moved into this area from somewhere else about the middle of the 16th century. But where did they come from?

CERAMICS

One of the best potential comparative sources of information to help locate a possible geographic source for these people is the native pottery. The Lamar ceramics of the Hazelhurst and Douglas clusters include the normal range of Lamar ceramic types—plain, complicated stamped, and incised (Williams and Shapiro, 1990). The complicated stamped jars with folded pinched rims likely include several designs, the "square ground" design being only one of many. As is true of Lamar complicated stamped ceramics across all of Georgia, North and South Carolina, Florida, Alabama, and Tennessee, the vast majority of sherds are poorly stamped and no specific designs can be detected. Typically, only a small percentage of this type has identifiable designs, frequently less than 1%. Lamar plain, which often forms a large percentage of Lamar ceramic assemblages, is of no particular value in comparative studies. Lamar incised, however, has been shown to be quite variable, well applied, and extremely useful in helping determine spatial and temporal placement of a given Lamar assemblage (Williams and Shapiro, 1990).

The incised pottery of the sites in the Big Bend area are characterized by carefully applied designs that typically incorporate a large number of parallel lines into scroll style designs (fig. 4.3). Occasionally, the lines number 10–15. Some of the incised designs also incorporate punctations around or between the lines. This sort of multiline, carefully applied incising with occasional incorporated punctations is somewhat rare in the Lamar ceramic world. Snow suggested affinities with the Fort Walton materials of the Florida Gulf Coast (1990: 89), although those ceramics rarely have as many lines in the designs as do the sites in the Hazelhurst or Douglas clusters.

PIEDMONT OCONEE LAMAR SITES

Much is known about the archaeological sites of the Lamar period within the Piedmont portion of the Oconee Valley. In short, this region had one of the highest population densities in the Deep South during the Late Mississippian period, including at least five major mound centers and

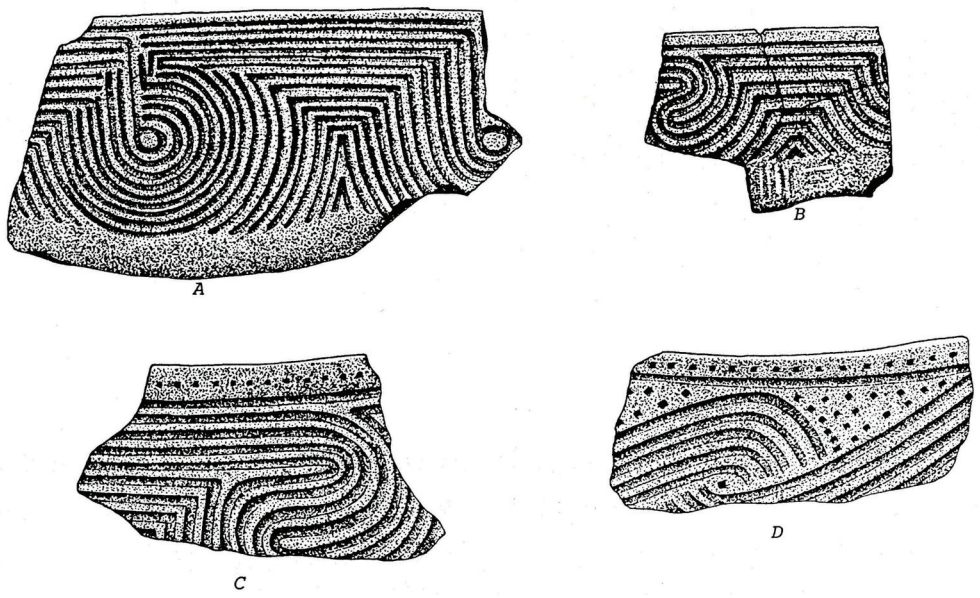


Fig. 4.3. Lamar Incised from the Big Bend area (after Snow, 1990).

thousands of associated farmsteads (Williams and Shapiro, 1996). Almost 3000 of the latter have been located through three decades of formal and informal survey. The actual number of farmsteads may be 10 times that figure.

This is not the place to provide a complete review of the details of the known history of Late Mississippian occupation of this region, but I do wish to discuss one particular subsection—the Little River valley. The reasons for this will be shown shortly. Little River is a small western tributary of the Oconee River that heads just east of the Ocmulgee River basin within the Piedmont. It flows some 45 mi (72 km) to the southeast before giving up its name to the Oconee only 12 mi (19 km) above the Fall Line. A Late Mississippian society was located near the center of this valley, with sites distributed over 10 mi (16 km) along its length and for several miles to the north of this section of the river. This places it northwest of the modern town of Eatonton, Georgia. There is a small four-mound site there (9MG46) and another large site 2 mi (3 km) downstream (9PM169) that was the location of a rotunda / square ground / Busk ceremonial site (Williams, 2003, 2004, 2005). In addition to these two large sites, there are hundreds of farmsteads, several of which have now been excavated (Williams, 2006). The total population for this small, highly dispersed chiefdom society was likely over 2000.

The now well-studied society in the Little River valley poses two major, yet unanswered, questions. First, this large society definitely did not evolve in that location. There is no 15th-century occupation in the Little River valley. The people must have migrated into the valley some time in the early 16th century from some unknown location. The only possible clue at this point is the presence of occasional punctates on the incised bowls that may indicate a location of origin to the west, perhaps closer to the Chattahoochee Valley. There is certainly no proof for this position, however. The second curious unanswered question about the population in the Little River valley was that after about 50 years of occupation, the society suddenly disappeared. The date of this depopulation was sometime around the middle of the 16th century. The ceramics of the population were typical Lamar types, but the incised bowls had many lines, were well made, and occasionally contained punctates (fig. 4.4).

POPULATION MOVEMENT?

While migration is very difficult to prove with archaeological data, people did move from place to place in the past. I suggest that, in the sense of Occam's razor, the simplest explanation for the sudden disappearance of people from the Little River valley and the equally sudden appearance at almost the same

Fig. 4.4. Incised vessel fragment 9PM169 (after Williams, 2005).

time of the Square Ground Lamar population in the Ocmulgee Valley 120 mi (193 km) to the south was a simple population movement (fig. 4.5). This is strongly supported by the apparent continuity in incised ceramics.

If a population did move into the Big Bend in the middle of the 16th century, then precisely when did this take place? This must be addressed in terms of known historic events in the area, considering that Big Bend is deep within the coastal plain and away from the fertile soils of the Piedmont. Further, it must be remembered that there were no other societies away from the Coast to the west or east, for upwards of 100 mi (160 km) or more, at this time. In all likelihood, there was a population in the Little River valley (as well as the rest of the Piedmont Oconee valley) at the time of Hernando DeSoto's trek through the Oconee Valley in the spring of 1540 (Hudson, 1997). All of the glass beads found in recent excavations led by Dennis Blanton in Late Lamar sites in the Big Bend area (Blanton, personal commun., 2007) likely postdate the DeSoto entrada (Marvin Smith, personal commun., 2007), although this is not yet completely certain. St. Augustine was founded, of course, in 1565. Access to the resources and knowledge of, and potential protection by, the Spanish would have potentially provided a legitimate reason for the Little River population to move to the Big Bend where they soon came under the hegemony of the Spanish as the province of Utinahica.

Were these people more likely to have moved to the Big Bend region between 1540 and 1565, or shortly after 1565 following the founding St.

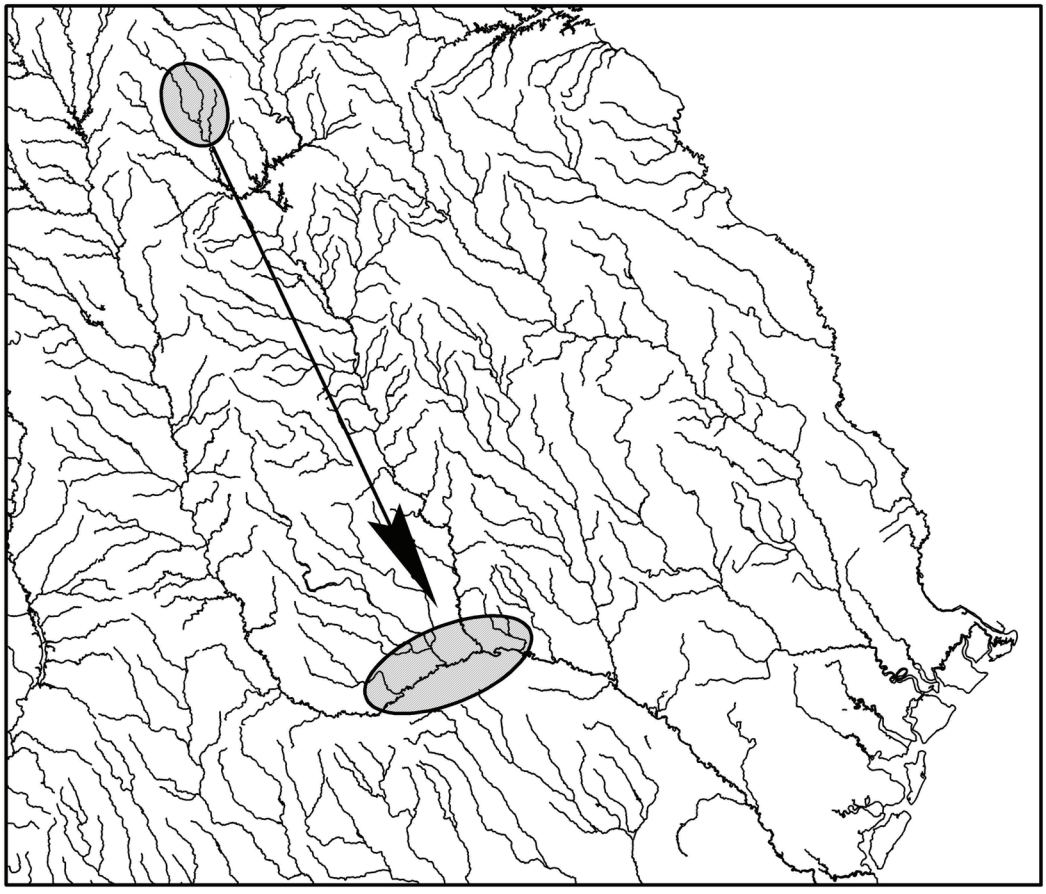


Fig. 4.5. Little River to Big Bend migration?

Augustine? I find it difficult to believe they would have left the fertile Piedmont for the less fertile coastal plain without good reason. There is no clear reason why they would have been forced out of the Piedmont either. The easiest answer for the moment then is that for social and political reasons associated with the Spanish coastal society, these people moved into the Big Bend soon after 1565 to seek a potential position of advantage. The occupation of the population in the Little River valley had only been 50 years or so; thus, their ties with the older and larger societies within the greater Piedmont Oconee valley were likely only ephemeral anyway.

In moving to the Big Bend region, these people ultimately did gain a position of advantage with respect to the rest of the people in the upper Oconee. They likely became intermediaries in the trade of Spanish items up the Oconee River into the Piedmont. It has been known for 30 years that beads and other late 16th-century items occur with some frequency in the Piedmont Oconee valley. These are on sites of the Bell phase in that region (Williams, 1983). The Shinholser site, identified as the 1540 town of Altamaha, was located just below the Fall Line east of the Oconee River and has a large and rich area of Bell-phase occupation (Williams, 1990). The area from Shinholser to the north (minus the population from the Little River valley that had moved) was likely the Spanish province of Tama, which persisted archaeologically from the late 16th until the middle of the 17th century. The final disappearance of the Little River population from the Piedmont may have involved movement away from the area under pressure by the Westo (Bowne, 2005).

Language remains another unresolved, if minor, issue. It is certain that the people of north central Florida, and likely for a short distance into extreme south-central Georgia, spoke the Timucua language. It is also almost certain that the people of the Piedmont Oconee valley spoke Hitchiti, a language completely unrelated to Timucua (Crawford, 1975; Williams, 1992). If, as I am hypothesizing here, the Late Mississippian people of the Big Bend region originated from the Piedmont Oconee, they likely should have been Hitchiti speakers. On the other hand, the Spanish name for the province was Utinahica, a name usually though to have been a Timucuan one.

What is the source of this inconsistency? Although we may never know the answer, one possibility is that the leaders for these new residents located in the Big Bend may have been Timucuan speakers who already had developed contacts with the Spanish through their contacts or relatives who spoke Timucuan further to the south. Perhaps the Big Bend society was, as was that of the Creeks a century later, a multiethnic, multilanguage confederacy, rather than a single ethnic group. Ultimately, however, I do not see this potential problem as one that negates the possible migration of the bulk of this population from deeper in the interior.

INTERIOR IMPACTS ON THE COAST

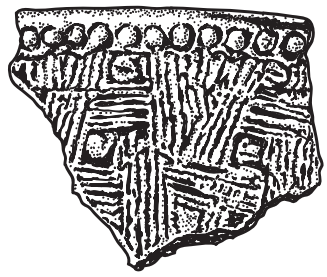
By the late 16th century, then, there were two (and only two) geographically separate societies interior to the Georgia coast that were in a position to interact with the Spanish and the Guale on the Georgia coast—Tama and Utinahica. Both were allied with and visited by the Spanish. Individuals from both of these populations likely visited and may have eventually moved with their families to the coast. The path to the coast for the Lamar people of the Big Bend (Utinahica) was certainly down the Altamaha River. While some people from Tama in the north likely moved down the Oconee River into the area of the Utinahica as they, perhaps, moved toward the coast, this does not seem to have been common. The only known site in the area below Shinholser on the Oconee that has Bell phase ceramics is the Sawyer site in Laurens County, 38 mi (61 km) to the south (Williams, 1996).

Another, perhaps more important, vector for the Bell phase individuals that chose to move closer to the Spanish-claimed coastal region was through sites located north of the Savannah River near Beaufort. The site of Altamaha, near Blufton, South Carolina, apparently has ceramics that are very similar to Bell phase (Chester DePratter, personal commun., 2007), and was settled about the same time the Piedmont Oconee was becoming depopulated. Perhaps there are sites along the 145-mile (233-km) stretch from Shinholser to Blufton with Bell phase ceramics, but none have yet been noted. A straight line from the Shinholser site to this location would go through the modern towns of Swainsboro, Statesboro, and Springfield.

CONCLUSION

The original question addressed here was the nature of impacts on what became the Altamaha/San Marcos ceramics associated with the Spanish occupation on the Georgia, South Carolina, and Florida coasts by people and ceramic ideas in the interior. The answer is simply "little or none." The distinctive Altamaha/San Marcos ceramics, although included very broadly in the tradition of Lamar ceramics, most likely owe their ultimate origins to the ceramics of the contact period Irene ceramics of the northern Georgia coast. The coastal ceramics became well established in the Spanish-Indian world of the coast, effectively ignoring new ceramic ideas from the interior. This bespeaks a social distinctiveness that was very unusual across the late prehistoric landscape of Georgia and South Carolina. Throughout this entire area, the Altamaha/San Marcos ceramics stand out as distinctly different. That they evolved in direct contact with an alien European society is thus no surprise. Indeed, the possibility that what we recognize as the Altamaha/San Marcos ceramic series should be thought of as the first recognizable native commodity should not be completely discounted.

PART II
CERAMIC VARIABILITY ALONG THE NORTHEASTERN FLORIDA COASTLINE



CHAPTER 5
STRADDLING THE FLORIDA-GEORGIA STATE LINE: CERAMIC CHRONOLOGY OF THE ST. MARYS REGION (A.D. 1400–1700)

KEITH H. ASHLEY

The Atlantic coastline of northeastern Florida and southeastern Georgia has long been perceived as somewhat of an archaeological oddity from the standpoint of ceramic chronology. Often labeled a frontier or transitional area, its unique native history sometimes paralleled that of the St. Johns region to the south, at other times resembled that of the Georgia coast to the north, and at still other times had its own local developments (Russo, 1992). Although acknowledging the uniqueness of the frontier area, archaeologists in the past have attempted to impose chronologies and dates from adjacent areas and make them square with local archaeological data, which has proven to be quite frustrating. Over the past decade or so, a concerted effort has been made to establish a ceramic chronology pertinent to coastal northern Florida and southern Georgia by focusing on survey and excavation data from a variety of sites in both states.

The first step was the creation of the St. Marys region, which combines portions of northeastern Florida (Nassau, Duval, and northern St. Johns counties) and southeastern Georgia (Camden County). It encompasses the coastal mainland and adjacent barrier island zone from the Satilla River, Georgia, south to below the St. Johns River, Florida, and includes the lower reaches of the St. Johns, Nassau, St. Marys, and Satilla river basins (fig. 5.1). The southern boundary of the St. Marys region lies 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 likely created a natural boundary separating cultural developments in northeastern Florida and the broader St. Marys region from coastal areas to the south at various times throughout native history.

Northeastern Florida traditionally has been subsumed geographically within the boundaries of the St. Johns or East and Central Florida region to the south. As such, pre-Columbian cultural developments were assumed to follow the same St. Johns I–II chronological 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 (Russo, 1992: Milanich, 1994: 248–254). 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 in order "to promote research among areas of Florida and Georgia that are linked by a common cultural heritage" (Russo, 1992: 107).

Current research has taken advantage of the wealth of new data generated by CRM projects and drawn upon older investigations, although the latter in some cases have been reassessed in a new light. Moreover, a growing number of radiometric dates are factoring prominently into the new chronology. Of course, gaps in the chronology exist and the exact transitional dates remain tentative for certain periods, but a solid temporal framework is forming. The objective is not to force all areas of the St. Marys region into one master chronology, but to establish a baseline against which temporal and cultural variation can be measured. In fact, though the Atlantic coast of northern Florida and southern

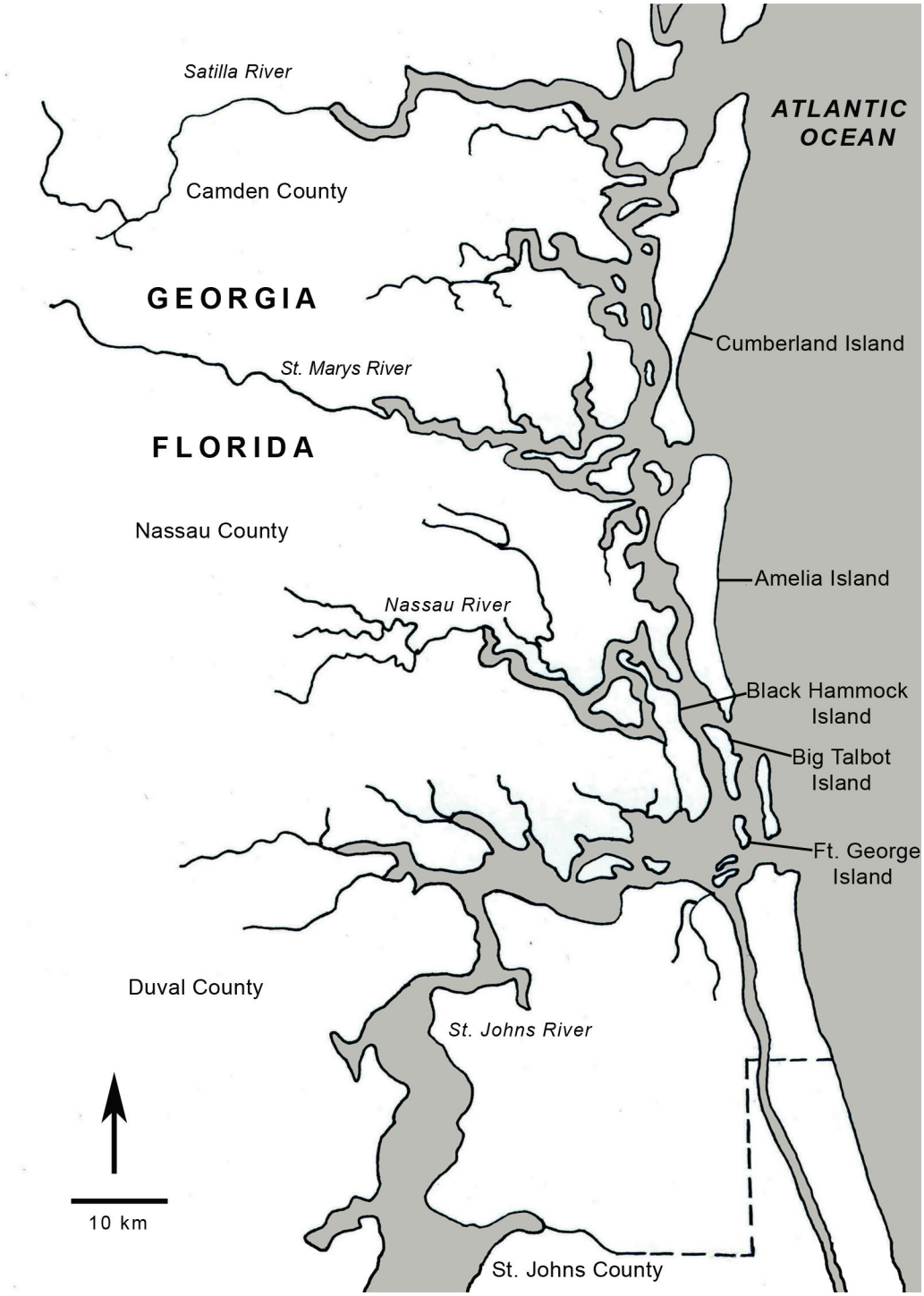


Fig. 5.1. St. Marys region, including select site locations.

Georgia followed a broadly similar chronology, current archaeological evidence points to fluid social boundaries and intraregional differences in the sequencing and timing of ceramic changes not isomorphic with the boundaries of the St. Marys region. What sets northeastern Florida apart from the remainder of the St. Marys region is its geographic position, which provides direct and simultaneous links to both the Atlantic coast and St. Johns heartland to the south via the St. Johns River. Clearly, cultural identities and changes in the popularity of pottery styles were not precisely uniform throughout the boundaries of the St. Marys region over the millennia prior to European contact.

For the period under consideration here (A.D. 1400–1700), however, the area followed the same ceramic chronology, although beginning dates for the period appear to have been slightly earlier to the north in southeastern Georgia. In fact, linguistic and documentary data suggest that at the beginning of European contact, the St. Marys region contained a series of culturally similar and allied Timucua societies such as Saturiwa, Tacatacuru, Yufera, and Cascangue-Icafui, who spoke the Mocama dialect of the Timucua language (Swanton, 1922: 320–332; Deagan, 1978a; Granberry, 1993: 7; Hann, 1996: 10–12; Milanich, 1996: 47–56). By the early 17th century, three Spanish missions (San Juan del Puerto, Santa Maria de Sena, San Pedro de Mocama) were established at preexisting villages in the St. Marys region (Worth, 1995b: 10–12; Hann, 1996: 10; Milanich, 1996: 98, 1999: 47; Saunders, 2000; 1995b). By the 17th century, the coastal mainland–barrier island province between the St. Johns River, Florida, and the Altamaha River, Georgia, was known to the Spaniards as Mocama (Worth, 1995b: 12; Hann, 1996: 18; Milanich, 1996: 98). The following draws upon this research to forward a refined ceramic chronology of the St. Marys region (A.D. 1400–1700) and in the process explores select aspects of the archaeological record.

ST. MARYS II PERIOD (ca. A.D. 1100–1450)

By A.D. 1400, the St. Marys region was marked by the ubiquity of cord-marked pottery, which distinguished it ceramically from the contemporaneous northern Georgia coast where Lamar-derived Irene wares dominated (Caldwell and McCann, 1941; Larson, 1978, 1984; Crook, 1984a; DePratter, 1984; Braley, 1990: 94–95; Saunders, 2000a: 39–45) and to the south where St. Johns series ceramics prevailed (Deagan, chap. 6, this volume; Milanich, 1994: 262–263). In previous centuries, cord-marked pottery was made in abundance along the Atlantic coast from northeastern Florida into South Carolina and up, to varying extents, all of the major rivers between these points. But by the mid-13th century its production along the Atlantic coast—as the primary decorative ware—was restricted to the St. Marys region. While groups to the north at this time appear to have adopted maize farming to some degree, St. Marys societies continued their devotion to a foraging way of life and to the manufacture of cord-marked pottery.

Focusing on calibrated radiometric dates from secure contexts, it appears that the production of St. Marys Cord Marked[1] pottery in southeastern Georgia began sometime prior to the 13th century A.D., but pinpointing its first appearance has been marred by conflicting radiometric dates from less than secure contexts (Espenshade, 1981; Adams, 1985; Saunders, 1989). I have suggested elsewhere that the appearance of St. Marys pottery on the Atlantic coast reflects the arrival of interior Ocmulgee III peoples from south-central Georgia via the Satilla River (Ashley, 2003: 361–368), but the following review does not depend on an Ocmulgee coastal migration scenario. In southeastern Georgia, the ca. A.D. 900–1100 represents a conspicuous gap in our understanding of the region's pre-Columbian history. Although a brief St. Johns II occupation may have transpired during that time, as evidenced by St. Johns II ceramics and features at the Kings Bay (9CM171b) and Davis Farm (9CM188) sites (R. Smith, 1982: 179–363, 1985: 53–138), the area may have been largely unpopulated save for transient forays to the coast by hinterland groups.

In northeastern Florida, the St. Marys II period is better dated and it supplanted the St. Johns II period there by the mid-13th century. At that time, sandy cord-marked pottery replaced assemblages previously dominated by chalky St. Johns Plain and Check Stamped wares. The shift in ceramic technology was accompanied by distinct changes in household disposal patterns and mortuary treatment, intimating the immigration of people from outside the area (Saunders, 1989; Russo, 1992; Ashley, 1995; Ashley and Rolland, 2002). The clinal distribution of cord-marked–bearing

sites across northeastern Florida, where more are situated north of the St. Johns River than on the river's south side, points to a southward expansion of St. Marys groups from coastal southeastern Georgia, perhaps fueled by population increases and an out-migration of many St. Johns peoples in northeastern Florida (Saunders, 1989; Russo, 1992; Ashley and Rolland, 2002; Ashley, 2003).

Pottery and Other Material Culture

What is most striking about St. Marys II period sites is their rather mundane and remarkably similar composition of artifacts. Utilitarian pottery, consisting of few vessel forms, is the predominant artifact category found on all sites. Sand-tempered plain and cord-marked wares comprise the assemblage, with fabric-impressed and net-impressed types infrequently recovered (Ashley and Rolland, 2002). On most sites, plainwares tend to outnumber their cord-marked counterpart (Russo, 1992: 116–119). Burnishing and complicated stamping, distinguishing attributes of the north Georgia Savannah ceramic series, are rare to nonexistent in St. Marys II assemblages (R. Smith, 1984: 75; Ashley and Rolland, 2002: 30). St. Johns plain and check-stamped pottery occur on most St. Marys II period sites in varying amounts, but appear to have been more common on sites early in the St. Marys II period (Saunders, 1989; Russo, 1992: 116–119; Ashley, 2003: 96–98; 374–375). Sand-tempered check-stamped sherds occur infrequently on sites that contain St. Johns wares, and their paste and thickness generally differ from that of the cord-marked pottery.

St. Marys II vessels are typically thin walled and tempered with fine- to medium-sized quartz particles (Cordell, 1993; Ashley and Rolland, 2002). Coarse sand tempering is infrequent, and grit sized inclusions are rare. A consistently higher frequency of micaceous inclusions is noted in St. Marys Cord Marked paste. Observed under microscopic examination, sponge spicules also are sometimes present in low numbers, but their presence may be inadvertent. Spicules in low quantities also have been identified in Savannah Fine Cord Marked sherds from Chatham County, Georgia, and Prairie Cord Marked ware fragments from north Florida (Cordell, 1993: 49). Vessel exteriors were stamped, often overstamped at oblique angles, with fine-gauge cordage with predominately Z-twist (fig. 5.2). Medium to thick cord widths occur less frequently and typically on vessels with coarser sand tempering. No specimens have been reported with rim folds or added appliqué strips, a characteristic of interior Ocmulgee Cord Marked pottery. However, some poorly finished lips exhibit clay extrusion along the exterior that occasionally bears resemblance to a small, poorly formed fold. Vessels are typically dark in color, indicating reduced atmosphere firing. Burnished interior surfaces have yet to be recorded.

Shell and bone tools and ornaments, all made of locally available materials, are recovered on habitation sites. At present, there is no evidence for a complex bone or shell tool industry; although some formal types are found, 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. Prestige goods seem to be completely lacking at all habitation sites as do other nonlocal raw materials or material by-products.

Settlement and Subsistence Trends

St. Marys II period habitation sites are conspicuously similar and often occur as groupings of discrete shell-midden heaps, 2 to 15 m in diameter, dotted over areas up to 9 ha. Individual middens vary from slightly discernible rises to distinct mounds as high as a meter. Sites containing these household middens (as they are frequently interpreted) are known from the mainland and all barrier islands in northeastern Florida (Ashley, 1997; Ashley and Rolland, 1997a; Ashley and Thunen, 2000; Bullen and Griffin, 1952; Dickinson and Wayne, 1985, 1999; Ellis and Ellis, 1992; Hemmings and Deagan, 1973; Hendryx and Smith, 2000; Johnson, 1998; Jones, 1967; Lee et al., 1984; Russo et al., 1993; Saunders, 1989; G. Smith et al., 2001), the mainland of southeastern Georgia and Cumberland Island (Adams, 1985; Crook, 1984b, 1986; Ehrenhard, 1976, 1981; Larson, 1958; R. Smith, 1982; R. Smith, et al. 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). St. Marys II sites also have been recorded slightly inland from the coast along the lower reaches of the St. Johns and Nassau rivers in Florida and the Satilla River in Georgia. At present, little is known about the distribution of archaeological sites along the St. Marys River.

Fig. 5.2. St. Marys Cord Marked sherds.

To date, no known mortuary mounds can be attributed unequivocally to the St. Marys II period (Russo, 1992: 118; Vernon, 1984: 117). While a few mounds excavated by C.B. Moore (1896) on Amelia Island are possible candidates, the lack of diagnostic artifacts renders their cultural affiliation problematic. At Greenfield Site #8/9 (8DU5544/45), a human burial, uncovered adjacent to a St. Marys II shell heap and assumed to be a St. Marys II interment, suggests nonmound burial practices (G. Smith et al., 2001: 132–136). If sand burial mounds were constructed during the St. Marys II period, they were apparently low and unassuming.

Zooarchaeology and seasonality data indicate that 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 fish species represented in St. Marys middens points 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 fish, shellfish, and reptiles (mostly turtle). Variance in the specific mix of captured fish is due in part to seasonal differences in availability or numbers. Unlike the structured annual subsistence-settlement model proposed for the north Georgia coast (Crook, 1986), foraging movement and settlement shifting may have taken place on a more ad hoc basis and not necessarily during the same time each year (Ashley, 1997; Reitz, 1988: 139; Russo, 1992; Saunders, 1989).

In summary, the St. Marys II period is reflected archaeologically by a number of structurally and artifactually similar sites, with some simply being larger than others. At present, it is unclear whether the larger sites, most of which are on barrier islands, are residential hubs or villages or merely the scene of more 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 most sites serving the same general purposes. The large number and widespread distribution of sites reflect a degree of autonomy and flexibility in St. Marys II social organization. Such an interpretation squares with other material culture data, suggesting a shared coastal

fishing–hunting-gathering way of life in the St. Marys region. It further contrasts with the more nucleated St. Johns II village-mound settlement structure reported for northeastern Florida during the previous period (Ashley, 2003: 129–208). More intrasite settlement data are needed to determine if this is an accurate representation or merely the product of sampling bias.

From a sociopolitical perspective, the absence of any clearly discernible site hierarchy or material differences among sites or within middens on the same site suggests band-level relations. There is no archaeological evidence at present to support a claim of regional control under a single individual or settlement. A communal political economy leaning more toward the egalitarian end of the spectrum is indicated, but this does not mean that inequalities did not exist. Present data suggest these groups were more insular and not involved in long-distance trafficking of exotics, as were early St. Johns II societies in northeastern Florida, suggesting that social reproduction at this later time required relations and interactions on a small geographical scale, like those practiced in the St. Marys region (Ashley, 2002, 2003).

SAN PEDRO PERIOD (ca. A.D. 1450–1625)

While we are now gaining a handle on basic aspects of the late pre-Columbian (St. Marys II) and early mission period (San Pedro) chronology of the St. Marys region, the 16th century has proven more difficult to ascertain (Borremans, 1985: 286; Walker, 1985: 102–103; Ashley and Rulland, 1997b). In particular, the precise timing and circumstances of the ceramic transition from St. Marys to San Pedro remain debatable. Since its first recovery in the early 1970s along the southwestern shore of Cumberland Island (Georgia), San Pedro pottery (though unnamed at the time) has been equated with the mission-period Tacatacuru (Mocama-speaking Timucua) of the island (Deagan, 1978a; Milanich, 1971a, 1972a). Subsequent research has demonstrated that its distribution during the early mission period also covered the adjacent mainland coast (Adams, 1985; R. Smith et al., 1981) and territory associated with the Saturiwa Timucua of northeastern Florida (Ashley and Rolland, 1997b; McMurray, 1973; Dickinson and Wayne, 1985; Goggin, 1952: 112; Hemmings and Deagan, 1973: 119; Rolland and Ashley, 2000; Thunen, 1999).

A challenging question paramount to our current research is: was San Pedro exclusively an early mission-period ware or did its production initiate before European arrival along the Florida coast in the 1560s? In an earlier article (Ashley and Rolland, 1997b), I was inclined to view it as an early mission-period pottery type, with St. Marys representing the native ware made at contact (Milanich, 1996: 23). However, with a decade of new data at hand, I would now like to build a case for San Pedro as the archaeological correlate of the contact-era Mocama speakers of the St. Marys region. Although I am extremely cautious with regard to the ethnohistoric record, I do not believe we can successfully track the development of St. Marys (proto-Timucua) to San Pedro (Timucua) without the assistance of documentary sources.

San Pedro Pottery and Its Temporal Placement

San Pedro is a grog-tempered ware recovered on numerous coastal sites in Camden County, Georgia, and Nassau and Duval counties, Florida (Ashley and Rolland, 1997b). By early Spanish mission times, perhaps earlier, it also appeared on sites to the south in and around St. Augustine (Ashley, 2001; Deagan, 1978b: 33, chap. 6, this volume; Merritt, 1983; Herron, 1986). While the overwhelming majority of vessels in assemblages are tempered with large pieces of crushed potsherds, recent analysis indicates that sand and sand/sparse grog tempering also occurs (Ashley, 2001; Ashley and Rolland, 1997b; Borremans, 1985: 295; G. Smith et al., 2001; Thunen, 1999). In terms of surface treatments, the series consists mostly of plain, check-stamped, and cob-marked wares, and to a lesser extent, heavy cord-marked, textile-impressed, and complicated-stamped types (Ashley and Rolland, 1997b; Herron, 1986; Goggin, 1952: 112; McMurray, 1973; Milanich, 1971a, 1972a). At some sites cob-marked is the most common decorative application, while at other sites it is check stamped, but plainwares always dominate numerically. A unique and defining trait of the series is the intentional smoothing of the exterior surface of some vessels that had been stamped or impressed, resulting in partial or complete obliteration of the surface design (Ashley and Rolland, 1997b: 53, 57). Often this results in burnished patches or streaks on otherwise decorated exterior vessel surfaces. Examples of San Pedro pottery are depicted in

figures 5.3 and 5.4.

Two recurring themes garnered from the earliest European accounts may help shed light on the identity of the pottery series made at contact in the St. Marys region: (1) that the Mocama Timucua grew corn and (2) that the French and Spanish came well stocked with items either to give to or trade with the natives (Bennett, 1975: 20–21; Lawson, 1992: 18–19; Lyon, 1982: 12; Ribault, 1964: 67, 72). Thus, we should expect to find evidence of maize along with some historic artifacts in contact-era contexts. To date, St. Marys Cord Marked pottery has yet to be recovered in unequivocal association with European artifacts, although varying amounts of European goods (often only olive jars) have been discovered in contexts with San Pedro pottery at several nonmission sites (Borremans, 1985: Hendryx et al., 2004; G. Smith, 2001; Thunen, 1999; Walker, 1985). Admittedly, it is difficult to determine whether these San Pedro contexts date to the contact era (ca. 1560s) or the slightly later post-1587 early mission period. Of course, the quantity and diversity of European goods in association with San Pedro pottery are clearly most evident at Spanish mission sites, such as San Juan del Puerto (8DU53), Santa Maria de Sena (8NA41), and San Pedro de Mocama (9CM14).

The same association exists with respect to corn. Available evidence reveals that the first appearance of maize in the archaeological record of the St. Marys region is concurrent with the emergence of San Pedro ceramic technology. Excluding 17th-century mission sites, preserved corn in the form of charred cobs, kernels, or cupules has been recovered from six sites in northeastern Florida and all were associated with San Pedro pottery (Hendryx and Smith, 2002; Hendryx et al., 2004; Holland, 1987; Lee et al., 1984; Smith et al., 2001; Thunen, 1999: 6). Data from one of these sites (8DU634), however, has been used to argue for the presence of corn in the St. Marys region as early as A.D. 1200 (Lee et al., 1984; Milanich, 1994: 249). A reassessment of this site, in my opinion, lends credence to precontact production of San Pedro pottery.

In the early 1980s, two fragments of preserved maize were recovered from 8DU634 along the north side of the St. Johns River. A narrow kernel was retrieved from a "burned and crushed shell concentration" (Feature 4) amid a shell midden (8 × 7.5 m) designated Feature 1 (Lee et al., 1984: 88). An oyster shell from Feature 4 was radiocarbon dated to A.D. 1250–1310, although shells from Feature 1 were dated to A.D. 1405–1455 and A.D. 1490–1640 (all are 1-sigma calibrated dates). The latter dated contexts also contained a few cob-marked sherds. Analysis

Fig. 5.3. San Pedro Cob Marked sherds (impression on right sherd is partly obliterated).

Fig. 5.4. Section of large San Pedro Cob Marked vessel.

identified a charred cob fragment from an undated context within a nearby shell midden that yielded cob-marked pottery. Shell middens at 8DU669, located less than 250 m to the north, were also tested and yielded 149 cob-marked sherds (2.9% of the pottery assemblage). Ten radiometric dates, each processed on shell from either general midden levels or inclusive deposits within larger shell middens, indicate two major periods of occupation: ca., A.D. 1200–1300 and A.D. 1450–1550.

Both sites consisted of a series of shallow shell middens less than 10 m in size. Included within tested middens were large quantities of sand-tempered plain and cord-marked sherds along with minor amounts of sand-tempered cob-marked and grog-tempered plain, cob-marked, and burnished ware fragments. The authors noted that composition of the recovered ceramic assemblage did not match what would be expected of St. Johns, Savannah, or inland Alachua sites, but concluded that it most closely resembled Alachua with "Savannah influences" (Lee et al., 1984: 235–236). Although they acknowledged that the assemblages were "very similar to" those from the Devil's Walkingstick site (9CM177) at Kings Bay, Georgia (Lee et al., 1984: 238), they opted to interpret the shell middens as byproducts of short-term estuarine resource procurement by inland horticulturists (Alachua culture of north-central Florida). This interpretation has found no support among regional archaeologists, and the cultural affiliation routinely has been considered St. Marys II.

Although 25 years ago the assemblage may have appeared unusual or out of place, based on our current knowledge of St. Marys II and San Pedro ceramic assemblages, it is what we should expect of a local late-15th/early-16th century assemblage. At 8DU634 and 8DU669, Savannah Burnished was described as representative of pots originally cord marked then smoothed over

through the "act of burnishing" (Lee et al., 1984: 185), which is a classic San Pedro surface finishing characteristic. In addition, the grog tempering of cob-marked pottery was explained as "crushed sherds and [its presence] represents a deliberate cultural act" (Lee et al., 1984: 200), another San Pedro attribute. However, cob-marked pottery from both sites was overwhelmingly sand tempered (90%).

To verify the suspected presence of San Pedro wares in the collections, I recently conducted a cursory examination of the pottery from 8DU634 and 8DU669. Classic examples of both St. Marys Cord Marked and San Pedro series pottery were present, as well as assemblage characteristics that could be viewed as hybrid. As Lee and colleagues (1984: 96–97,180–182) observed, cordage width was more variable and there appeared to be a correlation between fine cordage and fine sand tempering and coarser sand and grog tempering and wider cord thickness. A similar association was noted at the Devil's Walkingstick site (Borremans, 1985), which yielded radiocarbon dates comparable to those from 8DU634 and 8DU669 (table 5.1).

The ceramic data from these sites suggest the presence of a transitional St. Marys II–San Pedro pottery assemblage. Working at the Devil's Walkingstick site, Borremans (1985: 271) came to this same conclusion some 20 years ago, noting that:

> Sometime in the 15th century A.D, cord marking began to decline and cob marking became more popular. Sandy plain pottery also appears to have decreased while grog tempered plain remained constant. These are most probably gradual changes and do not seem to indicate displacement of the indigenous population or intrusion by nonlocal people.

In fact, several researchers working on the Kings Bay Project thought that Savannah (St. Marys II) and grog-tempered (San Pedro) wares combined to form a late pre-Columbian pottery assemblage, although postdepositional mixing was always a concern (Borremans, 1985: 210, 271, 286; DesJean, 1985: 149; Espenshade, 1985: 307, 329; R. Smith, 1982: 354–355; Walker, 1985: 102–103). Viewing the two wares in their classic forms—San Pedro pottery with its thick body and heavy grog tempering and St. Marys with its thin walls and fine sand-tempered paste—had led some researchers, including myself, to entertain the possibility that the emergence of San Pedro was the result of a historic period phenomenon somehow linked to missionization (Ashley and Rolland, 1997b; Rolland and Ashley, 2000: 41; Saunders, 2000a: 248).

As to surface treatment/decoration, St. Marys pottery is almost exclusively cord marked, whereas San Pedro has a much wider range that includes cord marking, textile impressing, cob marking, and paddle stamping (mostly large checks but some complicated stamping). San Pedro, however, does parallel the St. Marys series in its limited range of vessel forms, although San Pedro pots can be much larger (Ashley, 2001). Interestingly, San Pedro does resemble inland late pre-Columbian and early mission-period Alachua series pottery (Potano region) in terms of some decorative techniques (Borremans, 1985: 255–256; DesJean, 1985: 149–15; Espenshade, 1985: 308; Walker, 1985: 104), but the Alachua series lacks paddle-stamped varieties (Milanich, 1971b). Though often downplayed, a small percentage of Alachua pottery contains "sherd tempering" (Milanich, 1971b: 31; 1972b: 54), but apparently not the large pieces typical of San Pedro wares.

In both areas cord marking dominated early on (Hickory Pond period of the Alachua tradition and St. Marys II period), but eventually was superseded by cob marking (Alachua period of the Alachua tradition and San Pedro period). Another intriguing similarity is that Alachua series cord and cob-marked surfaces are often smoothed over to varying degrees like San Pedro pottery (Milanich, 1971a: 32–33; 1996: 32). In the St. Marys region this ceramic transition apparently occurred in the late-15th/early-16th century, while in the Alachua area the shift is loosely linked to the mid-13th century (Milanich, 1971b, 1994: 337–338). But as Milanich (1994: 338) admits, "the Alachua ceramic seriation is not yet firmly tied to radiocarbon dates." This begs the question: could the introduction of cob marking on Alachua pottery have taken place roughly at the same time as that of San Pedro pottery on the coast, suggesting a broadscale late-15th/early-16th century phenomenon?

The reason for the technological change to thick grog-tempered pots is unclear at this time, but the coupling of San Pedro pottery and maize (both preserved remains and cob-marked pottery)

TABLE 5.1
Calibrated Radiocarbon Assays for San Pedro Contexts in the St. Marys Region

Site	Beta no.	Material	Measured ^{14}C age (B.P.)	$^{13}C/^{12}C$ ratio (‰)	Conventional ^{14}C age (B.P.)	Calibrated 1 sigma (A.D.) with intercept	Calibrated 2 sigma (A.D.)	Reference
9CM177	4001	charcoal	530 ± 80	0.0	940 ± 80	1335–1460	1295–1515	DesJean, 1985
8DU634[a]	6623	clam	540 ± 50	0.0	950 ± 50	1390–1445	1325–1475	Lee et al., 1984
8DU634[a]	6626	oyster	520 ± 50	0.0	930 ± 50	1405–1455	1345–1485	Lee et al., 1984
8DU669[a]	6628	oyster	490 ± 70	0.0	900 ± 70	1410–1485	1335–1540	Lee et al., 1984
9CM177	4427	charcoal	570 ± 80	0.0	910 ± 80	1395–1480	1310–1535	DesJean, 1985
8DU669[a]	6631	oyster	470 ± 50	0.0	880 ± 50	1430–1485	1405–1520	Lee et al., 1984
9CM177	3494	charcoal	440 ± 100	0.0	850 ± 100	1415–1535	1320–1665	Walker, 1985
9CM177	4422	charcoal	440 ± 70	0.0	850 ± 70	1430–1515	1395–1625	Walker, 1985
8DU5599	162197	corn	150 ± 40	–11.1	380 ± 40	1450–1620	1440–1640	Hendryx, p.commun.
8DU631	131315	oyster[b]	370 ± 60	–0.2	780 ± 60	1465–1560	1435–1665	Thunen, 1999.
9CM177	3488	charcoal	370 ± 70	0.0	780 ± 70	1465–1625	1430–1670	DesJean, 1985
8DU5545	150310	corn	110 ± 40	–10.8	340 ± 40	1480–1640	1450–1660	Smith et al., 2001
9CM177	3986	charcoal	360 ± 80	0.0	770 ± 80	1465–1640	1425–1680	Walker, 1985
8DU634[a]	6622	oyster	350 ± 60	0.0	760 ± 60	1490–1640	1455–1675	Lee et al., 1984
8DU634[a]	6624	oyster	340 ± 60	0.0	750 ± 60	1505–1640	1475–1670	Lee et al., 1984
8SJ48	63071	oyster	340 ± 50	0.0	730 ± 50	1515–1655	1475–1680	Bond, 1993; Ashley, 2001
8NA709	126314	oyster	310 ± 50	0.0	720 ± 50	1515–1660	1475–1690	Dickinson and Wayne, 1999
9CM177	3495	charcoal	260 ± 70	0.0	670 ± 70	1545–1685	1490–1810	Walker, 1985
8SJ48	63069	oyster	280 ± 50	0.0	670 ± 50	1600–1685	1515–1715	Bond, 1993; Ashley, 2001
8NA703	147517	charcoal	310 ± 50	–25.0	220 ± 30	1650–1680	1530–1690	Hendryx and Smith, 2000

[a]Previously classified as St. Marys II (Ashley and Rolland 2002), now viewed as transitional St. Marys II/San Pedro.
[b]Corn in dated context.

suggests that the ceramic transformation might have technofunctional implications related to a variety of new cooking and storage practices that might have included corn preparation. San Pedro pots often display exterior surface soot indicating use over fire, and sometimes unsooted yet oxidized bases are recovered indicating direct placement in fire embers. Research among some early Mississippian societies in southeastern and midwestern North America has shown that abrupt technological changes in pottery assemblages coincided with increased maize agriculture. Specifically, vessels become thicker and large-particle tempering becomes more common (Kelly, 1990: 108). In general, large-particle grog tempering has the potential to enhance thermal shock resistance. Thus San Pedro pots may have been well suited for prolonged simmering at low temperatures, perhaps to cook stews, soups, or some form of corn gruel (Ashley, 2001).

San Pedro Site Distributions and Mocama Social Geography

San Pedro period sites, much like earlier St. Marys II period sites, are often manifested as small, mounded shell middens peppered over broad areas (Borremans, 1985: 272; Johnson, 1998; Milanich, 1971a, 1971b; Rock, 2006; G. Smith et al., 2001; Thunen, 1999). Based on shovel test and larger unit results at several large sites, some middens yield both San Pedro and St. Marys wares, whereas others contain more distinct assemblages. Such a scenario would be expected of an in situ displacement of St. Marys pottery by San Pedro pottery. The overall size of these large sites is probably due to intrasite shifting of household locations over time. This is exemplified at Greenfield Site #8/9 where groupings of San Pedro shell middens exist amid and adjacent to St. Marys II middens (Johnson, 1998; G. Smith et al., 2001).

Efforts to identify contact-period Timucua villages in the St. Marys region with certainty have come up empty, particularly because we have yet to uncover artifacts that can be assigned precisely to the decade of initial contact (1560s). Our best chance for identifying contact villages might be to focus efforts on early mission-related sites (post-1587), because these were established at preexisting villages in the St. Marys region. During the initial stage of frontier missionization, a standard strategy on the part of the Spanish was to establish missions or *doctrinas* at preexisting native communities (Worth, 1998a: 41–42). Extant native villages located near a *doctrina* served as *visitas*, and together these communities formed the friar's evangelical jurisdiction. *Visitas* were visited periodically by the friar to perform Mass and administer sacraments.

By the end of the opening decade of the 17th century, three Spanish missions had been ensconced among the Mocama-speaking Timucua of the St. Marys region: San Juan del Puerto was among the Saturiwa on Fort George Island, Florida; San Pedro de Mocama was among the Tacatacuru on Cumberland Island, Georgia; and Santa Maria de Sena was situated between the two on Amelia Island, Florida (Hann, 1996: 10; Milanich, 1996: 98, 1999: 47; Worth, 1995b: 10–12). Focusing on San Juan del Puerto, I would like to present a brief overview of where we stand at present with regard to our knowledge of the early mission period landscape in northeastern Florida.

San Juan del Puerto has been identified on Fort George Island at 8DU53 and tested intermittently over the past half century (Dickinson and Wayne, 1985; Griffin, 1960; Hart and Fairbanks, 1982; Jones, 1967; Nidy, 1974; Russo et al., 1993). Census information taken in 1602 indicated that San Juan had nine *visitas* and a combined population of 500 Christian Indians (Pareja, 1602). Two additional villages on Amelia Island had a population of 292 (Lopez, 1602). These documents imply that all Indians living in northeastern Florida at the time had been Christianized. This information, at best a ballpark figure, suggests that there were around 800 mission-related natives living in northeastern Florida at the turn of the 17th century. Beyond census information, the 1602 document authored by Fray Francisco Pareja indicates how far each of the nine *visitas* was from San Juan (Milanich and Sturtevant, 1972). If these *visitas* were preexisting settlements, then their general locations might have been inhabited when Europeans arrived 40 years earlier.

Using Fray Pareja's list of nine *visitas* as a rough guide, we can attempt to reconstruct the social geography of the late 16th-/early 17th-century Mocama of northeastern Florida. To date, 13 sites in northeastern Florida have yielded quantities of San Pedro pottery, but this does not necessarily mean that each was a *visita*, or contact village (fig. 5.5). Of the 13, one represents the location of San Juan del Puerto (8DU53) and

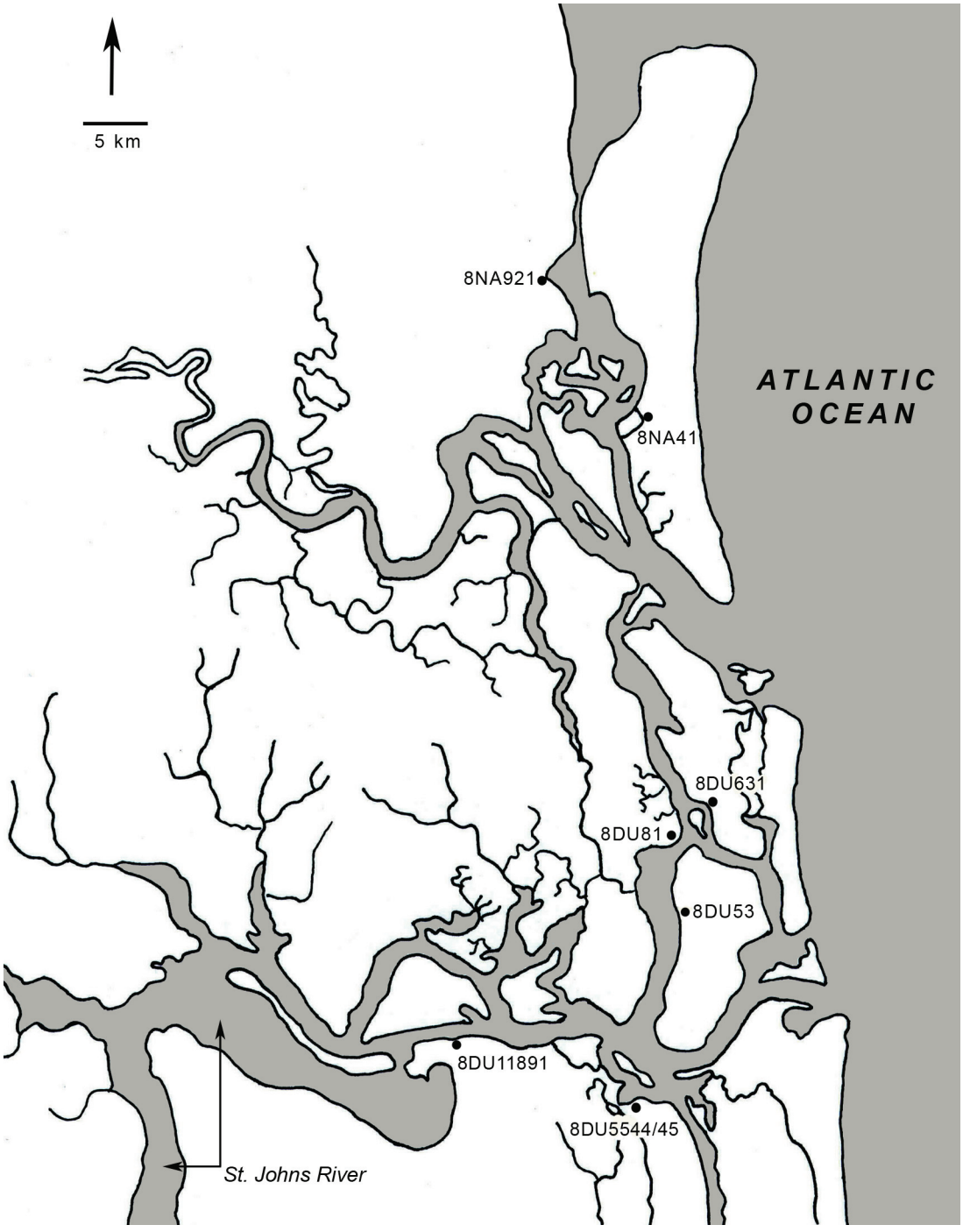


Fig. 5.5. Select mission period sites in northeastern Florida.

another is equated with Santa Maria de Sena at the Harrison Homestead site (8NA41). Five occur on or near Amelia Island, indicating that they were outside the jurisdiction of San Juan. They would have been affiliated either with Santa Maria at the Harrison Homestead site or with San Pedro on Cumberland Island. Of the remaining six, four are suspected to represent the *visitas* of Vera Cruz, Sarabay, San Pablo, and San Mateo (Ashley and Thunen, 2000; Johnson, 1998; Russo et al., 1993; Smith et al., 2001; Thunen, 1999). Of these, Sarabay (Armellino site, 8DU631) and San Pablo (Greenfield site #8/9, 8DU5544/45) have been subjected to trench and block excavations. Limited salvage testing conducted nearly 20 years ago at the suspected *visita* of San Mateo (Riverwoods site, 8DU11831) purportedly uncovered San Pedro pottery, olive jars, majolica, and a native structure (Holland, 1987), though a report of findings has yet to be written.

At present, the variety of evidence from these sites does not support the archetypical image of a consolidated and palisaded settlement as depicted in the 1591 DeBry engraving. Based on survey and limited excavation results, preliminary distribution data at suspected contact and mission-period habitation sites reveal that San Pedro sherds were spread across broad areas often marked by distinct shell heap deposits, similar in many ways to earlier St. Marys II deposits in the region. This distributional pattern, if it holds up under further archaeological scrutiny, might relate to a settlement pattern based on dispersed household farming with a small core area containing chiefly residences or a council house that during the mission period may have housed a church or chapel.

ALTAMAHA/SAN MARCOS PERIOD (ca. A.D. 1625–1702)

The early 17th-century social geography of the St. Marys region consisted of the depopulated remnants of indigenous Mocama societies gathered at the missions of San Juan, San Pedro, and Santa María and their associated *visitas*. It appears likely that immigrant Timucua speakers from the southern Georgia interior had been relocated either to *visitas* or the missions themselves to augment dwindling coastal population numbers resulting from the spread of disease. By 1650, Mocama speakers that once lived at 20 or more coastal mainland and barrier island settlements had been reduced to settlements in the three missions. In 1665, San Juan del Puerto was the only mission settlement of any kind in the St. Marys region, and by the early 1690s it was the only Mocama mission within the entire Mocama province (Worth, 1995b, 1997).

Spanish documents clearly indicate that during the early 17th century some Guale Indians from northern coastal Georgia were moved to St. Augustine and that during the second half of the century a wholesale relocation occurred to missions in the northeastern Florida (Deagan, 1993; Saunders, 2000; Worth, 1995b). Mission-related sites of the 17th and early 18th centuries in the St. Marys region are highlighted by the presence of Altamaha/San Marcos series pottery, a grit-tempered ware often stamped with complicated or simple designs (Larson, 1978; Otto and Lewis, 1974; Saunders, 2000; H. Smith, 1948). Colonoware forms also occur. Although the appearance of Altamaha/San Marcos pottery on sites in the region traditionally has been interpreted as evidence of relocated Guale or Yamasee occupations, it now appears that Altamaha/San Marcos pottery was the dominant 17th-century mission ware manufactured by coastal Guale, Yamasee, and Mocama Indians north of St. Augustine (Hann, 1996: 86; Rolland and Ashley, 2000: 38, 41; Saunders, 2000a; Worth, 1995b, 1997: 13–14).

When missionization began the Mocama potters of the St. Marys region were making San Pedro pottery, but its dominance clearly ended by the mid-17th century. Pinpointing exactly when San Pedro period pottery gave way to Altamaha/San Marcos–period pottery in the St. Marys region is a thorny undertaking with the data at hand. According to documentary evidence, San Pedro and San Juan were Mocama missions throughout their tenure in the St. Marys region, and neither received significant numbers of Guale or Yamasee immigrants (Hann, 1996: 86; Worth, 1997: 14). As such, the two missions should contain mostly San Pedro pottery in domestic contexts. While this appears true for the San Pedro mission (1587–1655), it is not the case for San Juan (1587–1702).

When the results of three testing and/or surface-collecting investigations were combined at Dungeness Wharf site (San Pedro mission), San Pedro pottery outnumbered Altamaha/San Marcos pottery 3 to 1 (>1500 total sherds; Ehrenhard, 1981: 23, 31; Milanich, 1971a: 117; Rock,

2006: 97). At San Juan, the ratio of Altamaha/San Marcos to San Pedro was 6 to 1 (>7000 total sherds), based on the combined results of McMurray (1973), Dickinson and Wayne (1985), and Hart and Fairbanks (1982). Variability exits in the ratio of the two pottery series across the archaeological sites at San Juan and San Pedro, and a more thorough synthesis of the ceramics from the two missions and adjacent sites related to the missions needs to be undertaken.

It is worth noting that in spite of the relocation of other Christian Timucua populations to San Juan, its population was consistently lower during the second half of the 17th century than during its early years (Hann, 1996: 262–264; Worth, 1995b). This, along with the sheer dominance of Altamaha/San Marcos relative to San Pedro pottery, implies a lengthy period for on-site production of Altamaha/San Marcos wares at San Juan del Puerto.

Relying on in-depth knowledge of Spanish mission documents, Worth (1997: 11) offers important insights that might help to target an approximate date range for when Mocama potters shifted to making Altamaha/San Marcos pottery. He states:

> most of the myriad settlements characterizing the Mocama region during the late 1590s and 1600s appear to have been simply abandoned during the first quarter of the 17th century, long prior to any long-distance immigration by other ethnic groups . . . [and] there is no documentary evidence for even a single mainland Mocama site that was reoccupied by immigrant Guale and Yamasee Indians during the Mission period.

With this said, we should not expect to find much Altamaha/San Marcos at any Mocama site away from the missions, particularly those on the mainland. However, appreciable quantities of Altamaha/San Marcos, beyond what one might expect from trade, have been recovered at the three presumed *visitas* mentioned above: Riverwoods site (8DU11891), Greenfield Site #8/9 (8DU5544/45), and Armellino site (8DU631).

Archaeological testing at the Armellino site on Big Talbot Island, which is not known to have been home at any time to Guale or Yamasee immigrants, yielded 986 San Pedro and 516 Altamaha/San Marcos sherds (Thunen, 1999), suggesting that Mocama potters were making Altamaha/San Marcos wares prior to consolidation at San Juan del Puerto. Similar mixtures of San Pedro and Altamaha/San Marcos have been recovered at the Brady Point site (8NA921) on the mainland across from Santa Marie de Sena and the Devil's Walkingstick site (9CM177) on the mainland west of San Pedro de Mocama (Borremans, 1985; DesJean, 1985; Hendryx et al., 2004; Walker, 1985). These two locations also likely represent *visita* settlements.

Two other archaeological sites tentatively matched to documented Mocama settlements deserve mention. Excavations at the Cedar Point site (8DU81) on Black Hammock Island, northwest of San Juan del Puerto, have uncovered the suspected location of the transplanted mission of San Buenaventura de Guadalquini (Thunen et al., 2006). This mission had been located on the south end of St. Simons Island, but moved to northeastern Florida in 1685, where it was renamed Santa Cruz de Guadalquini (Hann, 1996: 271; Worth, 1995b: 198). It remained there until around 1697 when its residents moved to San Juan. To date, while more than 1000 Altamaha/San Marcos sherds have been recovered along with late 17th-century majolica, no San Pedro pottery has been identified (Thunen et al., 2006).

Finally, several testing projects at Greenfield Site #8/9 have identified refuse deposits believed to be associated with a refuge community at around 1700 known as Pilijiriba (Arnade, 1960; Hann, 1996: 290, 297; Johnson, 1998: 45–50; Smith et al., 2001: 40–41, 60–67). In the "San Marcos Area" of the site, several hundred Altamaha/San Marcos ware fragments were recovered along with a handful of San Pedro sherds; the latter of which may relate to earlier deposits. This differs from other areas of the site to the northeast, where San Pedro pottery dominates, at times to the exclusion of Altamaha/San Marcos ceramics (Johnson, 1998; Poplin and Harvey, 1990; Smith et al., 2001). These other areas are assumed to represent contact and early mission contexts, some of which are believed to be associated with the *visita* of San Pablo.

Collectively, the above information suggests that the in situ transition from San Pedro to Altamaha/San Marcos pottery assemblages could have realistically taken place any time between 1600 and 1650. Acknowledging that the implementation of a single transition date is

not possible, I forward 1625 as a preliminary and loose date until more fine-grained archaeological and/or documentary evidence comes to light.

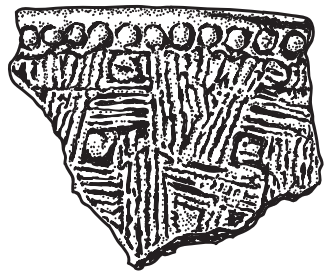
SUMMARY

The archaeological manifestation of the contact-era Mocama of the St. Marys region has proven difficult to pin down because of our inability to distinguish early from late 16th-century contexts, particularly in the absence of European artifacts. I now believe evidence is mounting to support San Pedro as the archaeological correlate of the contact-era Mocama speakers of the St. Marys region, developing out of the St. Marys II archaeological culture during the mid-to-late 15th century. By approximately 1625, the indigenous San Pedro pottery was being replaced by Altamaha/San Marcos pottery, which became the principal ware among all coastal mission Indians north of St. Augustine. At this time, specific transitional dates between St. Marys II–San Pedro and San Pedro–Altamaha/San Marcos continue to be elusive, but a solid chronology is coming into focus.

Interestingly, our current understanding of the St. Marys II archaeological culture, which was based exclusively on fishing-hunting-gathering and residential mobility, does not square with the information set to paper by early European invaders. 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 rather quickly out of a long history of foraging during the San Pedro period in the century prior to European contact. A question we should begin to consider is: how much of an effect did documented endeavors by earliest Spanish explorers (e.g., Juan Ponce de Leon, Lucas Vásquez de Allyón, Pánfilo de Narváez, and Hernando de Soto) as well as illicit coastal slave raiders have on shaping the contact-era coastal Timucua way of life, as described in historic accounts of the 1560s?

NOTES

1. St. Marys Cord Marked has been introduced as an alternative type name for pottery formerly referred to as Savannah Fine Cord Marked in the St. Marys region (Ashley and Rolland, 2002). In the pre-2002 literature on the region, cord-marked pottery is variously designated Savannah, Savannah-like, Savannah-derived, and Savannah-influenced. St. Marys Cord Marked differs both temporally (A.D. 1250–1500) and technologically (thinner and sand tempered) from Savannah fine cord marked (see Ashley and Rolland, 2002, for a justification for this distinction). 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 Cord Marked pottery (Ashley and Rolland, 2002; cf. Russo, 1992). Support for dividing the Mississippian period of extreme northeastern Florida into the St. Johns II A.D. 900–1250) and St. Marys II (A.D. 1250–1450) periods is supported by archaeological evidence, including nearly 40 calibrated radiocarbon assays from 18 sites (Ashley, 2005; Ashley and Rolland, 2002). Previous researchers have placed the production of Cord Marked pottery at Kings Bay, Georgia, as early as A.D. 600, but contexts yielding these early dates were from multicomponent sites marred by ceramic mixing due to site reoccupation.



CHAPTER 6
NATIVE AMERICAN CERAMICS AT THE FOUNTAIN OF YOUTH PARK SITE, ST. AUGUSTINE (8-SJ-31)

KATHLEEN DEAGAN

The Fountain of Youth Park site in St. Augustine is located in the eponymous tourist attraction dedicated to the notion that Ponce de Leon landed in Florida near this spot. As an archaeological site, it is perhaps best known for its 16th-century Spanish associations, which include the original 1565–1566 settlement of St. Augustine, as well as the initial site of the Franciscan Nombre de Dios mission, established in 1587 (Deagan, 2004a; Goggin, 1968: 65–66; see also www.flmnh.ufl.edu/histarch).

Before the arrival of Europeans, however, the site had been occupied for more than 1000 years by the Timucuan Indians, and before that by the Native American group associated with the Late Archaic period Orange archaeological culture. The property encompassed by the Fountain of Youth site comprises the southern end of a larger pre-Spanish contact Timucua settlement area extending northward for nearly a mile along St. Augustine's Intracoastal Waterway (fig. 6.1; Chaney, 1986: 34–38; Wallace et al., 2007). When Pedro Menéndez de Aviles and his colonists arrived in 1565, people of this settlement were thought to have been in the domain of a Timucua cacique named Seloy (or Soloy), who permitted the Spaniards to make their encampment in his territory (Lyon, 1976, 1997). Archaeological evidence indicates that this encampment was located adjacent to the Matanzas River in the southwestern portion of the Fountain of Youth Park, covering an area of approximately 50 × 100 m (figs. 6.1 and 6.2; Deagan, 2004a).

Excavation of the site over the past 30 years has generated a material assemblage from the Fountain of Youth Park site that reflects more than 3000 years of Native American life, from the Orange period Archaic of ca. 500 B.C. to the late 17th-century mission period Timucua of St. Augustine. This discussion will concentrate on the nature of the ceramic assemblage during the late precontact St. Johns II period (ca. A.D. 1200–1550) and the early historic period (ca. A.D. 1565–1750).

CULTURAL AND HISTORICAL ASSOCIATIONS

The people living in northeastern and north-central Florida during the mid-16th century were members of the Timucua sociolinguistic community, which comprised multiple tribes loosely confederated into independent and often competitive chiefdoms. Considered archaeologically, this region incorporated at least seven distinct but interacting cultural subdivisions, each with distinctive material assemblages (see Milanich, 1996: 44–55). St. Augustine is located in what was considered to be the Timucua "heartland," a region extending from the mouth of the St. Johns River southward along the river and the Atlantic coast to Lake Harney and the north end of the Indian River (approximately the same area called the "Northern St. Johns region" by John Goggin; Florida Division of Historical Resources, 1993).

The principal defining archaeological characteristic of the Timucua heartland is the production and use of St. Johns series pottery, a smooth, chalky-textured ware using spiculate clays. The St. Johns tradition seems to have developed in this region from the previous late

Fig. 6.1. Location of the Fountain of Youth Park (8-SJ-31) and related sites.

Archaic tradition, which is characterized by the use of Orange Fiber Tempered pottery and shellfish exploitation. Both the continued use of Orange period sites, and the persistence of Orange Fiber Tempered ceramic design motifs in the St. Johns culture support an in situ local development at approximately 500 B.C. The only major change and chronological division in the 2000-year-old St. Johns ceramic tradition was marked by the introduction of check stamping as a ceramic design motif, at approximately A.D. 800. This change, initiating the St. Johns II period, was accompanied by larger, more sedentary populations, and corresponds to the principal pre-Columbian occupation at the Fountain of Youth Park. The St. Johns II cultural tradition persisted into the historic period.

The St. Johns coastal heartland region was relatively unaffected by the dramatic social and economic changes assumed to have been related to the agricultural intensification that occurred in much of the southeastern United States during Hopewellian and Mississippian times. Although the St. Johns people practiced farming at the time of European arrival, it seems not to have dominated the St. Johns economy. Farming seems rather to have enhanced fishing, hunting, and gathering subsistence adaptations to a rich estuarine environment.

Several Timucua political divisions and linguistic subdivisions were recorded by early Spanish and French chroniclers (for synthetic ethnohistorical works on the 16th-century Timucua see Deagan, 1978a; Hann, 1996; Milanich, 1996, Worth, 1995). Somewhat ironically, the political and linguistic affiliations of the Timucua in the vicinity of St. Augustine itself are unclear. It is uncertain whether they were speakers of the "maritime" coastal dialect (generally referred to today as the *Mocama* dialect) recorded by the Franciscan friar and linguist Francisco Pareja, or the *Agua Salada* ("Saltwater") dialect that he distinguished as separate from the maritime dialect (Hann, 1996: 6–7; Granberry, 1993: 6). The term Mocama, which means "at the sea" in Timucuan, was apparently not used to describe

region or dialect until the 17th century (Hann, 1996: 18). The maritime Mocama dialect was spoken by the Timucuans at the mission San Juan del Puerto, where Pareja was stationed (today on Fort George Island north of Jacksonville), and as far north as the Altamaha River in Georgia (see Ashley, chap. 5, this volume). That same area was considered to be a distinct political division by the Spaniards, who referred to it as "San Pedro," "Tacatacuru," or in the 17th century, "Mocama" (Hann, 1996: 18).

There is neither archaeological nor documentary evidence that this Mocama polity was that associated with Saturiwa, the Timucua cacique in whose territories the first Spanish and French invaders settled. Saturiwa's domain extended southward along the Atlantic coast from the St. Johns River to present-day Flagler County. It is possible that at the time of Spanish arrival, Saturiwa's domain corresponded to the *Agua Salada* region and perhaps also a linguistic division of that name recorded by the Spaniards.

According to Spanish and French accounts of the 1560s, the cacique of the St. Augustine area, Seloy (or Soloy), was subject to the regional chief Saturiwa (or Saturiba) whose seat was near present-day Jacksonville, some 16 km (more than 2 leagues) from the mouth of the St. Johns River. The south side of the St. Johns River also marks a cultural frontier of sorts, in that it presents a somewhat abrupt line of demarcation between material distributions of the Savannah–St. Mary's–San Pedro cultural tradition (which is predominant at San Juan del Puerto) and the St. Johns cultural tradition to the south (see also Ashley, chap. 5, this volume).

Saturiwa was a bitter enemy of the Spaniards, and remained violently hostile well after other Timucua caciques had accommodated Menéndez (Barrientos, 1965: 140). The initial Spanish settlement in Seloy's territory endured for only nine months, until Timucuan hostility drove the Spaniards to a new site across the bay on Anastasia Island, more safely distanced from Seloy. It was not, apparently, until 1572 that the Seloy Timucua were either sufficiently peaceable or sufficiently vanquished by disease and warfare to allow the Spaniards to move back to the

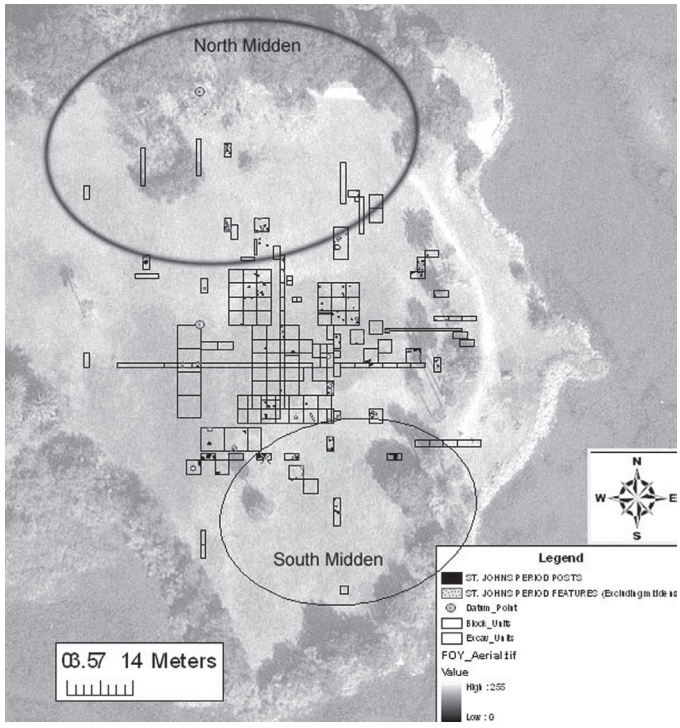


Fig. 6.2. Excavations at the Menéndez campsite, showing St. Johns Period and Menéndez-era features.

mainland and establish St. Augustine in its present downtown plaza location (Lyon, 1997). It may also have been owing to this hostility that the unsuccessful Jesuit missionary efforts of 1566–1572 were focused in the Guale and southern areas of La Florida, bypassing the *Agua Salada* region around St. Augustine. Both Seloy and Saturiwa disappear from the written accounts after the first few years of contact with the Spaniards, but the people in their domains remained hostile through the 1560s (Solís de Merás, in Quinn, 1979: 499; Hann, 1996: 59–69).

Efforts to convert the Timucua in the St. Augustine vicinity did not begin until after 1577, when the first Franciscans came to the Florida mission field (Hann, 1996: 138–140). Ten years later, the first Franciscan mission was established at Nombre de Dios, and a church was built on the grounds of what is today the Fountain of Youth Park (Deagan, 2004; Seaberg, 1951). In 1654–1655 a smallpox epidemic was reported to have virtually wiped out the population of Nombre de Dios, and Governor Rebolledo ordered that the population of Santiago de Oconee (a *visita* on the edge of the Okefenokee swamp comprising Mocama, Timucua, and fugitive Indians from elsewhere) should be forcibly moved to St. Augustine to repopulate that mission settlement (Worth, 1995b: 50–51; Hann, 1996: 154–157). The relocation effort appears to have been largely unsuccessful (since most of the inhabitants fled to the interior), and in fact, the amount of Native American material at the Fountain of Youth Park site correspondingly drops sharply after ca. 1650 (tables 6.2–6.4; see also Waters, 2005). It is probable that the major part of the Nombre de Dios mission and village shifted southward toward the Castillo de San Marcos at this point.

ARCHAEOLOGICAL CONTEXTS

The archaeological program on which this paper is based began in 1976, and has been largely carried out through the Florida State University and University of Florida field schools directed by Kathleen Deagan. This work has focused on the Menéndez-era occupation area located in the southeastern quadrant of the Park (fig. 6.2). Eleven excavation seasons have been carried out since then and details of these individual projects can be found in the field reports by Merritt (1977, 1983), Chaney (1987), Gordon (1992), Stuhlman (1994, 1995), White (n.d.); Anderson (2001); Woods and Schultz (2002), Deagan (2004a), and Newquist (2006). Excavations have also been carried out in the western sections of the property, in the area identified as the 17th-century Nombre de Dios occupation (Seaberg, 1951; Waters, 2005).

The topography of the southeastern quadrant of the site (that is, the primary focus of excavation) is essentially bowl shaped, defined by shell middens on the north and south, sloping downward toward the tidally inundated marsh and the Matanzas River to the east. Between the middens is a shell-free area of low elevation (4.2–4.6 ft above mean sea level) that contains the majority of the 16th-century Spanish deposits.

The earliest use of the site appears to have been during the final stage of the ceramic Archaic Orange period (1000–500 B.C.; dates for the pre-Columbian occupations follow Milanich, 1994: 94, 247). This is part of an extensive region of Orange period occupation that is documented to have extended along the intracoastal waterway from several km north of St. Augustine, southward to below Matanzas inlet (Deagan, 1981; Goggin, 1952; Miller, 1990; Russo, 1992: 111–13; Smith and Bond, 1983).

Both the north and south shell middens appear to have been first deposited around 700 B.C., evidenced by dates from submidden pits (table 6.1). A buried clay marsh surface is present along the east (water) side of the site at approximately the same elevation as the top of sterile soil in the central area. The deposits directly above the marsh clay contain predominantly Orange Fiber Tempered pottery, however the area has been subject to considerable landfilling and alteration through road-building activities in the 20th century (discussed below).

The shell midden represents a very long and consistent pattern of site use and accumulation. Both St. Johns I period (500 B.C.–A.D. 750) and St. Johns II period (A.D. 800–A.D. 1565) deposits have been identified, and the upper levels of the midden date to the historic period, in some places extending into the 17th century. During the entire occupation, however, the central area of the site between the middens was left free of shell refuse.

The most intensive pre-Columbian occupation of the site was during the St. Johns IIb (A.D.1050–A.D. 1513) and IIc (A.D. 1513–A.D.1600) periods, which seems to have begun at this site about A.D. 900–1000. Analysis of faunal remains and

TABLE 6.1
Radiometric Dates from the Fountain of Youth Park (8SJ31)

Beta no.	Context	Type	Sample material	Measured age	$^{13}C/^{12}C$, ‰	Conventional age	2 Sigma calibration (intercept)
232547	submidden pit (S) A2 FS3411	RC	marine shell: acid	2560 ± 50 B.P.	–1.6	2940 ± 50 B.P.	cal B.C. 840–710 (cal B.P. 2790–2660)
212876	Z3L2 lowest midden level-S FS1811	RC	charred material acid/ alkali/acid	2630 ± 60 B.P.	–25.8	2620 ± 60 B.P.	cal B.C. 880–760 (cal B.P. 2840–2710), cal B.C. 620–590 (cal B.P. 2560–2540)
212877	Z3L3 lowest midden level-N FS2561	RC	charred material acid/ alkali/acid	2480 ± 40 B.P.	–25.8	2470 ± 40 B.P.	cal B.C. 780–410 (cal B.P. 2730–2360)
212878	dog burial F42	AMS-	bone collagen extraction: with alkali	960 ± 40 B.P.	–14.0	1140 ± 40 B.P.	cal A.D. 790–990(cal B.P. 1160–960)
218357	dog burial F127	AMS-	bone collagen extraction: with alkali	780 ± 40 B.P.	–12.6	980 ± 40 B.P.	cal A.D. 990–1160 (cal B.P. 960–790)
212875	trash pit F17, FS 318	RC	marine shell: acid etch	670 ± 50 B.P.	–2.7	1030 ± 50 B.P.	cal A.D. 1280–1430 (cal B.P. 670–520)

particularly fish otoliths from St. Johns II contexts suggests that occupation was probably year-round after ca. A.D. 1000 (Reitz, 1991; Young, 1988). The deposits dating to the Orange and St. Johns I periods reflect multiseasonal occupation (Hales and Reitz, 1992), but these may have been periodic, since the deposits are markedly sparse, and consist principally of thin sheet deposits rather than identifiable, human-created features.

The majority of remains from the site, including Native American ceramics of all kinds, come from deposits dated to the post-Menéndez 16th century (ca. 1570–1600). This is the result of the focus of the research program on that period, and the implementation of excavation strategies designed to maximize coverage of the 16th-century Spanish settlement. Much of the Native American ceramic material assigned to Menéndez-era or later contexts was undoubtedly incorporated from earlier deposits through redeposition resulting from construction, disposal, and natural processes during the historic period. These factors are considered below as an interpretive caution.

Taphonomy and Periodicity

It is important to emphasize that the archaeological deposits at the Fountain of Youth Park site have been subject to considerable natural and cultural alteration, and that relatively few deposits (particularly those of the St. Johns and Orange periods) are completely undisturbed. Tables 6.2, 6.3 and 6.4 show the distribution of Native American pottery in both intact and "mixed" associations, revealing that more than half all ceramic artifacts excavated

at the Fountain of Youth Park, of both Native American and European origin, come from postcolonial or mixed and disturbed contexts (this is also true for European-origin artifacts).

Gardening activities that took place on the property during the 19th and early 20th centuries in effect homogenized approximately the upper 20–25 cm of the site deposits, which rarely exceed 50 cm in total depth. Although upper-level disturbances left the bases of 16th-century and precontact features intact, it obscured the initiation point of many of these deposits, and perturbated much of the sheet deposit associated with the features. Because of this, there are few areas of undisturbed de facto sheet midden remaining at the site.

Sheet deposits in the area of the park associated with the Menéndez site were additionally disturbed by 20th-century construction, including a dirt airstrip through its center (on which Amelia Earhart is said to have landed), and roadways placed around the marsh-edge periphery and through the center of the site during the 1950s or earlier. It is possible that soil from the low-lying center of the site may have been impacted or even used in these activities.

Site deposits of the pre-Columbian and Menéndez eras have also been compromised by water action. The open area between the shell middens is extremely low-lying, and is inundated regularly at times of high tide or rain. Storms severely exacerbate water inundation, and over the centuries it has been inevitable that the sandy soil has eroded from the surface through storm activity. Periodic inundation of the site, both from below (as tides rose) and from above (as rain and storm surges washed over the area) has also created a long-term water percolation effect on the soils, leaching much of the organic material from the subsurface cultural features, in some cases nearly erasing them. Because of these water-generated problems, there has been intermittent but significant filling activity both to provide maintenance vehicle access, and to protect the area from flooding.

As a consequence, nearly 51% of the 47,336 fragments of Native American pottery recovered from the excavations came from deposits that were thought to have been altered or disturbed after their original deposition, or were redeposited in postcolonial contexts. The remaining 49% of the Native American sherds (that is, those from relatively undisturbed deposition contexts, $n = 23{,}843$) provide the primary basis for this discussion (tables 6.2–6.4).

Periodicity

Each deposit excavated at the site (that is, a soil deposit thought to have been created through a single behavioral activity (such as a trash pit), or process (such as a midden level) was assigned to an arbitrary temporal category using a Harris matrixlike process that integrates stratigraphic association with artifact content, radiometric dates and terminus post quem for deposits. These temporal categories are a function of established cultural-historical periodicity, as well as of the limitations and granularity of archaeological chronology and artifact dating. As such, they are approximate and somewhat arbitrary, and serve principally as the best-available framework for temporal ordering and analysis. It should also be noted that, as at any active multicomponent site, each occupation period undoubtedly incorporates at least a small amount of material deposited during previous occupations.

Deposits are assigned to these categories on the basis of their stratigraphic associations, combined with their datable artifact contents and radiometric dates. They include:

(1) *Orange period (ca. 1000 B.C.–500 B.C.).* These are contexts at the lowest stratigraphic levels, containing Orange Fiber Tempered pottery, and only a few, if any, plain chalky ware sherds.

(2) *St. Johns I period (ca. 500 B.C.–A.D. 1000).* Contexts deposited at the lowest stratigraphic levels, containing predominantly St. Johns plain pottery (that is, no St. Johns check stamped).

(3) *St. Johns II period* (*ca. A.D. 1000–A.D. 1565*). The St. Johns II period (SJ2) is defined by contexts with a terminus post quem provided by St. Johns check-stamped pottery, but containing no European materials. Radiometric dates and documentary data suggest that this occupation occurred between roughly A.D. 1000 and A.D. 1565.

(4) *Menéndez period (ca. A.D. 1550–A.D. 1570).* This period corresponds roughly to the years just before, during, and shortly after the Menéndez occupation of 1565–1566. It undoubtedly includes some St. Johns II contexts that were disturbed or altered by Spanish activity. Contexts were assigned to

TABLE 6.2
Fountain of Youth Park Site (8-SJ-31): Native American Ceramics

	Pre-Columbian Native American									
	Orange (ca. 1000–500 B.C.)		**Orange/ St. Johns** (ca. 1000–500 B.C.)		**St. Johns I** (ca. 500 B.C.–A.D. 1000)		**St. Johns II** (ca. A.D. 1000–1565)		**Subtotal pre-Columbian**	
Total For Time Period	226		123		235		701		1285	
Percentage of site total by time period	1		0		1		2		3	
Orange Tradition	Count	%	Count	%	Count	%	Count	%	Count	%
Orange Fiber Tempered Incised	103	—	7	—	—	—	1	—	111	—
Orange Fiber Tempered Plain	119	—	62	—	—	—	126	—	307	—
Subtotal: Orange Tradition	122	98	69	57	—	—	127	—	418	—
St. Johns Tradition	Count	%	Count	%	Count	%*	Count	%*	Count	%*
St. Johns Plain	—	—	41	34	199	85	255	44	495	57
St. Johns Check Stamped	—	—	—	—	—	—	140	24	140	16
St. Johns Simple Stamped	—	—	—	—	—	—	—	—	—	—
St. Johns Cob Marked	—	—	—	—	—	—	—	—	—	—
St. Johns Cord Marked	—	—	—	—	—	—	—	—	—	—
St. Johns Incised	—	—	—	—	—	—	—	—	—	—
St. Johns Punctate	—	—	—	—	—	—	—	—	—	—
St. Johns Red Filmed	—	—	—	—	—	—	—	—	—	—
St. Johns Incised Red Filmed	—	—	—	—	—	—	—	—	—	—
St. Johns Sandy Check Stamped	—	—	—	—	—	—	—	—	—	—
St. Johns Sandy Plain	—	—	—	—	—	—	1	—	1	—
St. Johns Grog Tempered	—	—	—	—	—	—	—	—	—	—
Subtotal: St. Johns Tradition	—	—	41	34	199	85	369	69	636	73
Irene/Altamaha/San Marcos tradition										
Altamaha (reed punctate rim; incising and stamping)	—	—	—	—	—	—	—	—	—	—
Irene Incised	—	—	—	—	—	—	—	—	—	—
San Marcos Check Stamped	—	—	—	—	—	—	—	—	—	—
San Marcos Complicated Stamped	—	—	—	—	—	—	—	—	—	—
San Marcos Cord Marked	—	—	—	—	—	—	—	—	—	—
San Marcos Indeterminate Decorated	—	—	—	—	—	—	2	—	2	—
San Marcos Plain	—	—	—	—	—	—	25	—	25	—
San Marcos Punctate	—	—	—	—	—	—	—	—	—	—
San Marcos Red Filmed	—	—	—	—	—	—	—	—	—	—
San Marcos Rectilinear Stamped	—	—	—	—	—	—	13	—	13	—
San Marcos Stamped Red Filmed	—	—	—	—	—	—	—	—	—	—
Subtotal: San Marcos Tradition	—	—	—	—	—	—	40	7	40	5
San Pedro (grog/sand tempered) wares	—	—	—	—	—	—	—	—	—	—
San Pedro Plain	—	—	—	—	—	—	19	—	19	—
San Pedro Check Stamped	—	—	—	—	—	—	0	—	—	—

TABLE 6.2 — (*Continued*)

	Pre-Columbian Native American									
	Orange		**Orange/ St. Johns**		**St. Johns I** (ca. 500 B.C.–A.D. 1000)		**St. Johns II** (ca. A.D. 1000–1565)		**Subtotal pre-Columbian**	
	(ca. 1000–500 B.C.)									
Total For Time Period	226		123		235		701		1285	
Percentage of site total by time period	1		0		1		2		3	
San Pedro Cob Marked	—	—	—	—	—	—	—	—	—	—
San Pedro Incised	—	—	—	—	—	—	—	—	—	—
San Pedro indeterminate decorated	—	—	—	—	—	—	1	—	1	—
Subtotal:San Pedro Wares	—	—	—	—	—	—	22	4	22	3
Nonlocal defined wares										
Deptford Stamped	—	—	—	—	—	—	—	—	—	—
Swift Creek Complicated Stamped	—	—	—	—	—	—	—	—	—	—
Swift Creek Incised	—	—	—	—	—	—	—	—	—	—
Weeden Island Punctate	—	—	—	—	—	—	—	—	—	—
Mississippian shell tempered plain	—	—	—	—	—	—	2	—	2	—
Mississippian shell tempered stamped	—	—	—	—	—	—	—	—	—	—
St. Marys Cord Marked	—	—	—	—	—	—	—	—	—	—
Ft. Walton Incised	—	—	—	—	—	—	—	—	—	—
Aucilla Incised	—	—	—	—	—	—	—	—	—	—
Jefferson ware stamped	—	—	—	—	—	—	—	—	—	—
Lamar-like bold incised	—	—	—	—	—	—	—	—	—	—
Miller Plain	—	—	—	—	—	—	—	—	—	—
Mission Red Filmed	—	—	—	—	—	—	—	—	—	—
Colono ware	—	—	—	—	—	—	—	—	—	—
Subtotal:Non-local defined wares	—	—	—	—	—	—	2	—	2	—
Unnamed/unidentified indigenous ceramics										
Sand tempered										
Sand tempered plain	3	—	9	—	22	—	48	—	82	—
Sand tempered check stamped	—	—	—	—	—	—	4	—	4	—
Sand tempered UID stamped	—	—	—	—	2	—	—	—	2	—
Sand tempered complicated stamped	—	—	—	—	—	—	—	—	—	—
Sand tempered cob marked	—	—	—	—	—	—	—	—	—	—
Sand tempered cord marked	—	—	—	—	—	—	—	—	—	—
Sand tempered incised	—	—	—	—	—	—	1	—	1	—
Sand tempered red filmed	—	—	—	—	—	—	1	—	1	—
Sand tempered incised red filmed	—	—	—	—	—	—	—	—	—	—
Sand tempered punctate	—	—	—	—	—	—	—	—	—	—
Sand tempered indeterminate decorated	—	—	—	—	—	—	—	—	—	—
Subtotal: Sand tempered	3	—	9	—	24	—	54	9	90	10
Sand/grit tempered										
Sand/grit tempered plain	1		2		4		24		31	

TABLE 6.2 — (*Continued*)

	Pre-Columbian Native American									
	Orange		**Orange/ St. Johns**		**St. Johns I** (ca. 500 B.C.–A.D. 1000)		**St. Johns II** (ca. A.D. 1000–1565)		**Subtotal pre-Columbian**	
	(ca. 1000–500 B.C.)									
Total For Time Period	226		123		235		701		1285	
Percentage of site total by time period	1		0		1		2		3	
Sand/grit tempered cob marked	—	—	—	—	—	—	—	—		—
Sand/grit tempered complicated stamped	—	—	—	—	—	—	1	—	1	—
Sand/grit tempered simple stamped	—	—	—	—	—	—	—	—	—	—
Sand/grit tempered check stamped	—	—	—	—	—	—	4	—	4	—
Sand/grit tempered punctate	—	—	—	—	—	—	—	—	—	—
Sand/grit tempered incised	—	—	—	—	—	—	1	—	1	—
Sand/grit tempered red filmed	—	—	—	—	—	—	—	—	—	—
Sand/grit tempered indeterminate decorated	—	—	—	—	2	—	—	—	2	—
Subtotal: Sand/grit tempered	1	—	2	—	6	—	30	5	39	4
Miscellaneous										
Grit/shell tempered stamped	—	—	—	—	—	—	—	—	—	—
Grit/shell tempered indeterminate	—	—	—	—	—	—	—	—	—	—
Grog/grit tempered plain	1		2		6		30		39	—
Sand/shell tempered plain	—	—	—	—	—	—	—	—	—	—
Sand/shell tempered stamped	—	—	—	—	—	—	—	—	—	—
Sand/shell tempered punctate	—	—	—	—	—	—	—	—	—	—
Sand/shell tempered red filmed	—	—	—	—	—	—	—	—	—	—
Sand/shell tempered decorared	—	—	—	—	—	—	—	—	—	—
Indeterminate Native American	—	—	—	—	—	—	—	—	—	—
Subtotal: Miscellaneous	1	—	2	—	6	—	30	5	39	4
Subtotal: Unnamed/Undefined wares	5	—	13	—	36	—	114	20	168	19
TOTAL: All Native America Ceramics	**227**		**123**		**235**		**701**		**1285**	
Total excluding Orange Fiber Tempered wares	222		58		235		574		868	

* = Percentage of ceramics in time period excluding Orange Fiber Tempered.

this period if they had a terminus post quem provided by European artifacts that *predated* 1580, such as *Morisco* tradition ceramics from Spain, Ligurian ceramics, Early Style Olive Jar, etc. These contexts exclude any Mexican or Hispanic-Mexican materials, or any acknowledged mission-period Native American ceramics (e.g., Leon-Jefferson wares, Miller Plain; "Colono" wares). Although majolicas were being produced and sold in Mexico City by 1550, Mexican majolicas are thought to have not entered Florida until after ca. 1590 (Deagan, 2002b: 74).

(5) *16th-century period (ca. A.D. 1565–A.D. 1600).* Contexts assigned to this period contain small amounts of European material that could not be distinguished as pre- or post-1580 by either their contents or by stratigraphic associations.

(6) *Early mission period (ca. A.D. 1580–A.D. 1650).* This period corresponds to the principal Nombre de Dios mission occupation of the site. The contexts assigned to this period have

termini post quem that postdate 1580, and predate 1650, such as majolica made in Mexico City. Native American ceramics, such as Leon-Jefferson wares, Miller Plain, and Mission Red Filmed, introduced during the "mission period," also provided termini post quem for this period. Most of the mission-period contexts are part of sheet deposits at the site.

(7) *Late mission period (ca. A.D. 1650–A.D. 1700).* This period represents the later years of Nombre de Dios mission occupation at the Fountain of Youth Park. It includes stratigraphically associated contexts with artifacts providing a terminus post quem of after 1650, but before 1700, such as majolica produced in Puebla, Mexico, and Guadalajara wares.

(8) 18th-century first Spanish period (ca. A.D. 1700–A.D. 1750). These contexts were deposited during the final years of the Nombre de Dios mission and the first Spanish occupation of St. Augustine. The contexts include those with termini post quem provided by artifacts dated after A.D. 1700 (such as certain Mexican and English ceramics), and excludes those dated after ca. 1750 (such as Guanajuato majolicas or English refined earthenwares).

(9) *Postcolonial, mixed, and modern (post A.D. 1770).* Native American ceramics in contexts dated after 1763 are considered to have been the result of redeposition and mixing of deposits through disturbance. Historical documents are quite specific that the Indian residents of Florida all emigrated to Cuba when England acquired Florida in 1763 (Gold, 1969), and the site remained unoccupied, except for some gardening, until late in the 19th century.

NATIVE AMERICAN CERAMICS

Four principal categories of Native American ceramics were in use at the Fountain of Youth Park site during the late pre-Columbian and historic periods, each following a distinct temporal trajectory (tables 6.2–6.4, fig. 6.3).

St. Johns Tradition (fig. 6.4)

St. Johns tradition ceramics comprised the majority of Native American pottery at this site until the 18th century, when San Marcos series pottery (see below) equaled it in its proportion of the ceramic assemblage. As noted, St. Johns pottery was strongly associated with Timucua heartland from at least 2500 years ago until the disappearance of the Florida Timucua in the late 18th century. It is a grayish-tan, chalky-textured ware produced from spiculate pastes (Borremans and Shaak, 1986; see also Rolland and Bond, 2003; Cordell and Koski, 2003). St. Johns pottery was one of the first comprehensively treated ceramic traditions in Florida (Goggin, 1952: 99–105).

Plain and check-stamped types dominate the St. Johns assemblage. Although a variety of decorative techniques have been documented on St. Johns pottery from the Fountain of Youth Park, they are typically represented by only one or two very small sherds (tables 6.2–6.4). Incising is the only frequent decorative mode other than check stamping on St. Johns pottery and is proportionally most frequent in Menéndez era deposits, possibly reflecting in part the redepositional taphonomic activities of that period discussed above. Eight sherds of St. Johns Incised were also found in 18th-century contexts, probably also owing to redeposition, but possibly representing a newly diverse mode of ceramic decorative expression among the Timucua.

In most of the few other St. Johns II village sites in the coastal Timucua region that have been systematically excavated and quantified, check-stamped St. Johns pottery is considerably more common than plain St. Johns ware (see Ashley, 2005a: 296; Ashley and Rolland, 1997a: 78; Goggin, 1952: 103; Rolland, 2005: 219). This pattern is reversed at the Fountain of Youth Park site, where plain St. Johns pottery dominates the St. Johns assemblage during all periods (tables 6.2–6.4). This may be partly owing to the presence of a St. Johns I component at the site, although that cannot fully account for the majority of plainwares in all periods. This plain versus check-stamped relationship may reflect on the organization of pottery production regionally, or it may reflect on the kinds of cooking activities carried out at the site. Noting that sooting occurred more frequently on the check-stamped St. Johns sherds from the Fountain of Youth Park site, Mary Herron (1986) demonstrated that St. Johns Check Stamped sherds have superior heating and heat-holding properties when compared to St. Johns Plain sherds. She concluded that check stamping was technologically superior as a direct-heat cooking source.

St. Johns vessels from the site appear to be

TABLE 6.3
Fountain of Youth Park Site (8-SJ-31): Native American Ceramics

	First Spanish Colonial Period														
	Menéndez Era		**16th C.**		**Early Mission**		**Late Mission**		**18th C.**		**Subtotal All Colonial**			**Post 1763/ Mixed**	
	(ca. A.D. 1560-1570)		(ca. A.D. 1560-1600)		(ca. A.D. 1580-1650)		(ca. A.D. 1650-1700)		(ca. A.D. 1700-1760)						
Total for time period	9776		979		1856		657		749		14017			23509	
Percentage of site total by time period	25		2		5		2		2		35			59	
Orange Tradition	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%		Count	%
Orange Fiber Tempered Incised	17	—	11	—	1	—	1	—	—	—	30	—		—	—
Orange Fiber Tempered Plain	301	—	140	—	21	—	3	—	—	—	465	—		55	—
Subtotal: Orange Tradition	318	—	151	—	22	—	4	—	—	—	495	—		55	—
St. Johns Tradition	Count	%*	Count	%*	Count	%*	Count	%*	Count	%*	Count	%*		Count	%*
St. Johns Plain	5008	53	539	65	882	48	302	46	287	38	7018	52		11,480	49
St. Johns Check Stamped	1814	19	90	11	232	13	59	9	32	4	2227	16		1946	8
St. Johns Simple Stamped	1	—	—	—	—	—	—	—	—	—	1	—		—	—
St. Johns Cob Marked	—	—	—	—	—	—	—	—	—	—	—	—		1	—
St. Johns Cord Marked	1	—	—	—	—	—	—	—	—	—	1	—		—	—
St. Johns Incised	19	—	3	—	1	—	1	—	8	—	32	—		8	—
St. Johns Punctate	2	—	—	—	—	—	—	—	2	—	4	—		2	—
St. Johns Red Filmed	1	—	—	—	—	—	—	—	—	—	1	—		1	—
St. Johns Incised Red Filmed	1	—	—	—	—	—	—	—	3	—	4	—		6	—
St. Johns Sandy Check Stamped		—	—	—	—	—	—	—	—	—	—	—			—
St. Johns Sandy Plain	1	—	—	—	—	—	—	—	—	—	1	—		1	—
St. Johns Grog Tempered	2	—	—	—	—	—	—	—	—	—	2	—		1	—
Subtotal: St. Johns Tradition	*6850*	*72*	*632*	*76*	*1115*	*61*	*362*	*55*	*332*	*44*	*9291*	*1*		*13,446*	*1*
Irene/Altamaha/San Marcos tradition															
Altamaha (reed punctate rim; incising and stamping)	7	—	1	—	6	—	—	—	—	—	14	—		30	—
Irene Incised	1	—		—		—	—	—	—	—	1	—			—

TABLE 6.3 — (*Continued*)

	First Spanish Colonial Period															
	Menéndez Era		**16th C.**		**Early Mission**		**Late Mission**		**18th C.**		**Subtotal All Colonial**			**Post 1763/ Mixed**		
	(ca. A.D. 1560-1570)		(ca. A.D. 1560-1600)		(ca. A.D. 1580-1650)		(ca. A.D. 1650-1700)		(ca. A.D. 1700-1760)							
Total for time period	9776		979		1856		657		749		14017			23509		
Percentage of site total by time period	25		2		5		2		2		35			59		
San Marcos Check Stamped	11	—	1	—	12	—	2	—	—	—	25	—		48	—	
San Marcos Complicated Stamped	14	—	—	—	14	—	1	—	—	—	29	—		28	—	
San Marcos Cord Marked	—	—	—	—	2	—	—	—	—	—	2	—		1	—	
San Marcos indeterminate decorated	3	—	—	—	7	—	—	—	—	—	10	—		6	—	
San Marcos Plain	554	6	13	2	185	63	103	61	309	94	1164	9		3788	16	
San Marcos Punctate	3	—	—	—	—	—	6	—	—	—	9	—		9		
San Marcos Red Filmed	—	—	—	—	—	—	—	—	4	—	4	—		1	—	
San Marcos Rectilinear Stamped	169	—	5	—	70	—	56		16	—	315	—		1162	—	
San Marcos Stamped Red Filmed	1	—	—	—	—	—	—	—	—	—	1	—		2	—	
Subtotal: San Marcos Tradition	*763*	*8*	*20*	*2*	*296*	*16*	*168*	*26*	*329*	*44*	*1576*	*12*		*5075*	*22*	
San Pedro (grog/sand tempered) wares																
San Pedro Plain	362	—	45	—	75	—	27	—	—	—	508	—		874	—	
San Pedro Check Stamped	20	—	1	—	2	—	—	—	—	—	23	—		23	—	
San Pedro Cord Marked	17	—	—	—	1	—	—	—	—	—	18	—		1	—	
San Pedro Cob Marked	17	—	—	—	—	—	—	—	—	—	17	—		—	—	
San Pedro Incised	1	—	—	—	1	—	—	—	—	—	2	—		2	—	
San Pedro indeterminate decorated	10	—	1	—	2	—	1	—	—	—	14	—		2	—	
Subtotal:San Pedro Wares	*427*	*5*	*47*	*6*	*81*	*4*	*28*	*4*	—	—	*582*	*4*		*902*	*4*	
Nonlocal defined wares		—														
Deptford Stamped	—	—	—	—		—	—	—	—	—	—	—		1	—	
Swift Creek Complicated Stamped	—	—	—	—	3	—	—	—	—	—	3	—		2	—	

TABLE 6.3 — (*Continued*)

	First Spanish Colonial Period															
	Menéndez Era		**16th C.**		**Early Mission**		**Late Mission**		**18th C.**		**Subtotal All Colonial**			**Post 1763/ Mixed**		
	(ca. A.D. 1560-1570)		(ca. A.D. 1560-1600)		(ca. A.D. 1580-1650)		(ca. A.D. 1650-1700)		(ca. A.D. 1700-1760)							
Total for time period	9776		979		1856		657		749		14017			23509		
Percentage of site total by time period	25		2		5		2		2		35			59		
Swift Creek Incised	—	—	—	—	—	—	—	—	—	—	—	—		1	—	
Weeden Island Punctate	—	—	—	—	1	—	—	—	—	—	1	—		—	—	
Mississippian shell tempered plain	4	—	—	—	3	—	—	—	—	—	7	—		—	—	
Mississippian shell tempered stamped	1	—	—	—	—	—	—	—	—	—	1	—		—	—	
St. Marys Cord Marked	7	—	1	—	—	—	—	—	—	—	8	—		—	—	
Ft. Walton Incised	1	—	—	—	—	—	—	—	—	—	1	—		—	—	
Aucilla Incised	—	—	1	—	—	—	—	—	—	—	1	—		—	—	
Jefferson ware stamped	—	—	—	—	1	—	1	—	—	—	2	—		12	—	
Lamar-like bold incised	1	—	—	—	1	—	—	—	—	—	2	—		3	—	
Miller Plain	—	—	—	—	1	—	—	—	—	—	1	—		—	—	
Mission Red Filmed	—	—	—	—	5	—	1	—	—	—	6	—		19	—	
Colono ware	—	—	—	—		—	—	—	—	—	—	—		2	—	
Subtotal:Non-local defined wares	*14*	—	*2*	—	*15*	*1*	*2*	—	—	—	*33*	—		*40*	—	
Unnamed/unidentified indigenous ceramics																
Sand tempered																
Sand tempered plain	799	—	61	—	135	—	42	—	59	—	1096	—		2188	—	
Sand tempered check stamped	7	—	—	—	5	—	1	—	—	—	13	—		19	—	
Sand tempered UID stamped	16	—	1	—	11	—	3	—	—	—	31	—		75	—	
Sand tempered complicated stamped	1	—	—	—	3	—	—	—	—	—	4	—		18	—	
Sand tempered cob marked	3	—	—	—	—	—	—	—	—	—	3	—		—	—	
Sand tempered cord marked	1	—	—	—	—	—	—	—	—	—	1	—		2	—	

TABLE 6.3 — (*Continued*)

	First Spanish Colonial Period															
	Menéndez Era		**16th C.**		**Early Mission**		**Late Mission**		**18th C.**		**Subtotal All Colonial**			**Post 1763/ Mixed**		
	(ca. A.D. 1560-1570)		(ca. A.D. 1560-1600)		(ca. A.D. 1580-1650)		(ca. A.D. 1650-1700)		(ca. A.D. 1700-1760)							
Total for time period	9776		979		1856		657		749		14017			23509		
Percentage of site total by time period	25		2		5		2		2		35			59		
Sand tempered incised	4	—	—	—	2	—	—	—	—	—	6	—		18	—	
Sand tempered red filmed	7	—	—	—	1	—	—	—	—	—	8	—		11	—	
Sand tempered incised red filmed	—	—	—	—	—	—	—	—	—	—	—	—		1	—	
Sand tempered punctate	—	—	1	—	3	—	—	—	—	—	4	—		7	—	
Sand tempered indeterminate decorated	33	—	6	—	1	—	—	—	—	—	40	—		31	—	
Subtotal: Sand tempered	*871*	*9*	*69*	*8*	*161*	*9*	*46*	*7*	*59*	*8*	*1206*	*9*		*2370*	*10*	
Sand/grit tempered																
Sand/grit tempered plain	386	—	54	—	106	—	30	—	19	—	595	—		1425	—	
Sand/grit tempered cord marked	1	—	—	—	—	—	—	—	—	—	1	—		2	—	
Sand/grit tempered cob marked	3	—	—	—	—	—	—	—	—	—	3	—		—	—	
Sand/grit tempered complicated stamped	2	—	—	—	2	—	—	—	—	—	4	—		13	—	
Sand/grit tempered simple stamped	1	—	—	—	—	—	2	—	—	—	3	—		5	—	
Sand/grit tempered check stamped	4	—	—	—	2	—	—	—	—	—	6	—		2	—	
Sand/grit tempered punctate	—	—	—	—	—	—	—	—	—	—	—	—		8	—	
Sand/grit tempered incised	3	—	—	—	—	—	1	—	—	—	4	—		27	—	
Sand/grit tempered red filmed	12	—	—	—	—	—	—	—	—	—	12	—		8	—	
Sand/grit tempered indeterminate decorated	33	—	1	—	41	—	10	—	2	—	87	—		92	—	
Subtotal: Sand/grit tempered	*445*	*5*	*55*	*7*	*151*	*8*	*43*	*7*	*21*	*3*	*715*	*5*		*1582*	*7*	

TABLE 6.3 — (*Continued*)

	First Spanish Colonial Period															
	Menéndez Era		**16th C.**		**Early Mission**		**Late Mission**		**18th C.**		**Subtotal All Colonial**			**Post 1763/ Mixed**		
	(ca. A.D. 1560-1570)		(ca. A.D. 1560-1600)		(ca. A.D. 1580-1650)		(ca. A.D. 1650-1700)		(ca. A.D. 1700-1760)							
Total for time period	9776		979		1856		657		749		14017			23509		
Percentage of site total by time period	25		2		5		2		2		35			59		
Miscellaneous																
Grit/shell tempered stamped	3	—	—	—	1	—	—	—	—	—	4	—		—	—	
Grit/shell tempered Indeterminate	9	—	—	—	8	—	—	—	—	—	17	—		5	—	
Grog/grit tempered plain	3	—	2	—	1	—	2	—	—	—	8	—		2	—	
Sand/shell tempered plain	62	—	1	—	3	—	2	—	8	—	76	—		59	—	
Sand/shell tempered stamped	7	—	—	—	—	—	—	—	—	—	7	—		6	—	
Sand/shell tempered punctate	—	—	—	—	—	—	—	—	—	—	—	—		1	—	
Sand/shell tempered red filmed	—	—	—	—	—	—	—	—	—	—	—	—		1	—	
Sand/shell tempered decorared	2	—	—	—	3	—	—	—	—	—	5	—		4	—	
Indeterminate Native American	2	—	—	—	—	—	—	—	—	—	2	—		—	—	
Subtotal: Miscellaneous	*88*	*1*	*3*	*0*	*16*	*1*	*4*	*1*	*8*	*1*	*119*	*1*		*78*	—	
Subtotal: Unnamed/Undefined wares	*1404*	*15*	*127*	*15*	*328*	*18*	*93*	*14*	*88*	*12*	*2040*	*15*		*4030*	*17*	
TOTAL: All Native America ceramics	**9776**		**979**		**1856**		**657**		**749**		**14,017**			**23509**		
Total excluding orange fiber tempered wares	9458		828		1834		653		749		13,522			23454		

* = Percentage of ceramics in time period excluding Orange Fiber Tempered.

consistent in both form and size. Large, straight-sided, open bowls ranging in rim diameter from 20 to 66 cm are the most commonly encountered, followed by shallow globular bowls with rim diameters of 20 cm.

San Pedro (Grog-tempered) Tradition (fig. 6.5)

Grog- and sand-tempered pottery comprised 3% of the Native American ceramic assemblage at the Fountain of Youth Park during the pre-Columbian period, and 4% after contact (table 6.4; see also Goggin, 1952: 57). It was not until the late 1990s, when Keith Ashley and Vicki Rolland defined and clarified the ceramic sequences between St. Johns River and the St. Marys River, that this grog-tempered pottery was recognized as part of the late pre-Columbian and mission period Mocama Timucua ceramic tradition (Ashley, 2001; Ashley and Rolland, 1997b; see also Russo, 1992). The absence of St. Marys or other cord-marked wares at the Fountain of Youth Park site suggests that the people who lived there were not involved in contact or exchange with the Mocama region until after the late 15th century (Ashley, chap. 5, this volume; Ashley and Rolland, 1997b, 2002).

At the Fountain of Youth Park site, grog-tempered San Pedro ceramics are predominantly (87%) plain; however, the decorated San Pedro pottery incorporates a wide variety of techniques including check stamping, cord marking, and cob marking. In this sense, the production of San Pedro pottery appears to incorporate—at least experimentally—the decorative traditions of both Mocama to the north, and the St. Johns heartland. San Pedro pottery comprises 3% of the St. Johns II ceramic assemblage, rising to 6% during the contact-era 16th century, and falling again to 4% during the mission period (table 6.4). It is possible that some of the sand-tempered wares in the "unclassified" ceramic category may also have been part of the San Pedro tradition, since it is now known that San Pedro wares could include pottery tempered with sand only (Ashley, 2001). The single San Pedro sherd large enough to project the vessel size was from a shallow globular bowl with a rim diameter of 15 cm (Herron, 1986).

Irene/Altamaha/San Marcos Tradition (figs. 6.6, 6.7)

San Marcos pottery was originally defined by Hale Smith (1948) as a 17th-century Native American, historic-period pottery type in St. Augustine. Smith based his analysis on pottery recovered from the moat of the Castillo de San Marcos, constructed between 1675 and 1695, and characterized the pottery as grit tempered, usually fired in an oxidizing atmosphere, and decorated with a wide variety of stamped designs, some of which have subsequently been recognized as probably belonging to other traditions (Saunders, 2000a: 48–49; see fig. 6.6 and DePratter, chap. 1, this volume). Nearly all grit-tempered, stamped pottery excavated in St. Augustine since that time has been (perhaps erroneously) classified as "San Marcos."

It is now recognized that San Marcos is part of a long ceramic tradition associated with the Guale people of the Georgia coast, with roots in the widespread Lamar culture of the southeastern coastal plain (DePratter, chap. 1, this volume; Saunders, 2000a, chap. 3, this volume; see also Braley, 1990; Shapiro and Williams, 1990). The principal characteristics of this Guale-identified pottery tradition include sand-and-grit-tempered paste, a wide variation in surface color, high firing temperatures, both smoothed and burnished surfaces, and a stamped decoration that is most commonly rectilinear. Incising occurs on some examples in conjunction with stamping (which, when present in St. Augustine sites, has usually been recorded as the "Altamaha" variety).

The pre-Columbian and early historic phase of this pottery tradition in the Guale cultural region is known as Irene, and developed along the Georgia coast between the Savannah and Altamaha Rivers around A.D. 1350 (DePratter, 1979, chap. 1, this volume; Braley, 1990; Caldwell and McCann, 1941). Irene pottery persisted at least into the late 16th century, and was frequently incised as well as stamped. Rim treatment on Irene vessels during the later prehistoric period typically featured circular reed punctates applied either to a plain rim, or to an applied fillet around the rim.

The pottery type referred to as "San Marcos" in St. Augustine shares the paste and stamping characteristics of later phase Irene ceramics, but differs in other respects. Stamped designs on San Marcos pottery are thought to exhibit stronger and deeper lands and grooves than the rectilinear stamping on Irene ceramics (Saunders, 2000a: 173).

The rims of San Marcos vessels in St. Augustine's historic sites are most often folded to the exterior (rather than having an applied

TABLE 6.4
Summary of Native American Ceramics, St. Johns I – 18th century (excluding Orange Fiber Tempered wares)

	SJI		SJII		Subtot. Precol.		Menéndez		16th C.		Early Miss.		Late Miss.		18th C.		Subtot. Colonial		Post 1763/ mixed	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
St. Johns Plain	199	—	255	44	495	61	5008	53	539	65	883	48	302	46	287	38	12026	89	11480	49
St. Johns Check Stamped	—	—	140	24	140	17	1814	19	90	11	232	13	59	9	32	4	4041	30	1946	8
St. Johns other	—	—	1	—	1	—	28	—	3	—	1	—	1	—	13	—	47	—	20	—
Subtotal: St. Johns tradition	199	85	396	69	636	79	6850	72	632	76	1115	61	362	55	332	44	9291	69	13446	57
Irene/Altamaha/San Marcos tradition	—	—	40	7	40	5	763	8	20	2	296	16	168	26	329	44	1576	12	5075	22
San Pedro wares	—	—	22	4	22	3	427	5	47	6	81	4	28	4	—	—	582	4	902	4
Nonlocal defined wares	—	—	2	—	2	—	14	—	2	—	14	1	2	—	—	—	33	—	40	—
Unnamed/unidentified indigenous ceramics	36	15	114	20	168	21	1404	15	127	15	328	18	93	14	88	12	2040	15	4030	17
Total	**235**		**574**		**868**		**9458**		**828**		**1834**		**653**		**749**		**13,522**		**23,493**	

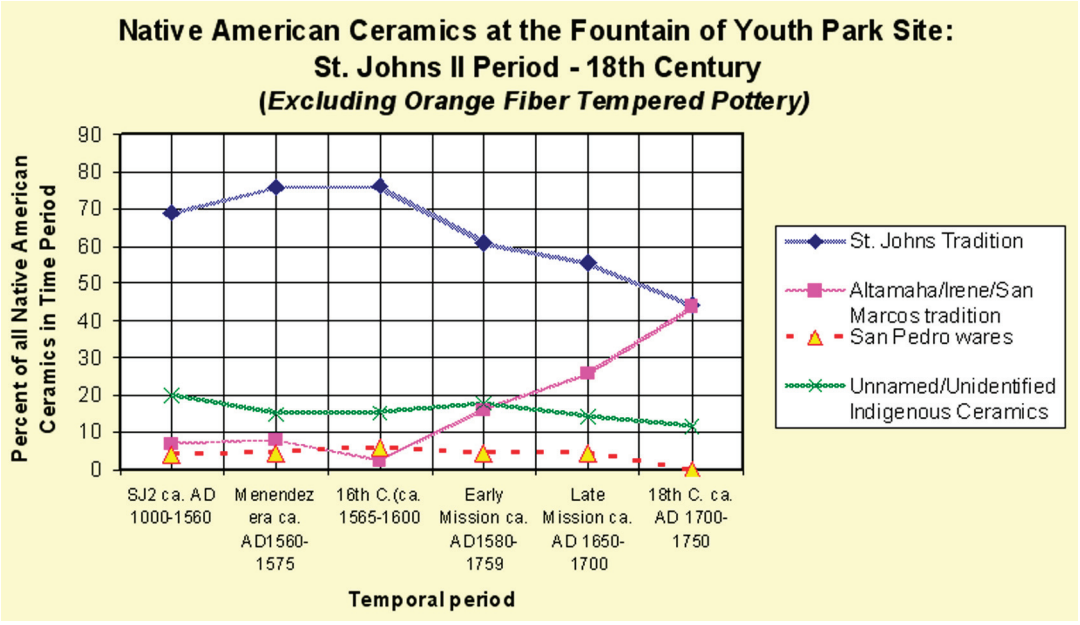


Fig. 6.3. Native American ceramics at the Fountain of Youth Park site, St. Johns II–18th century, excluding Orange Fiber Tempered pottery.

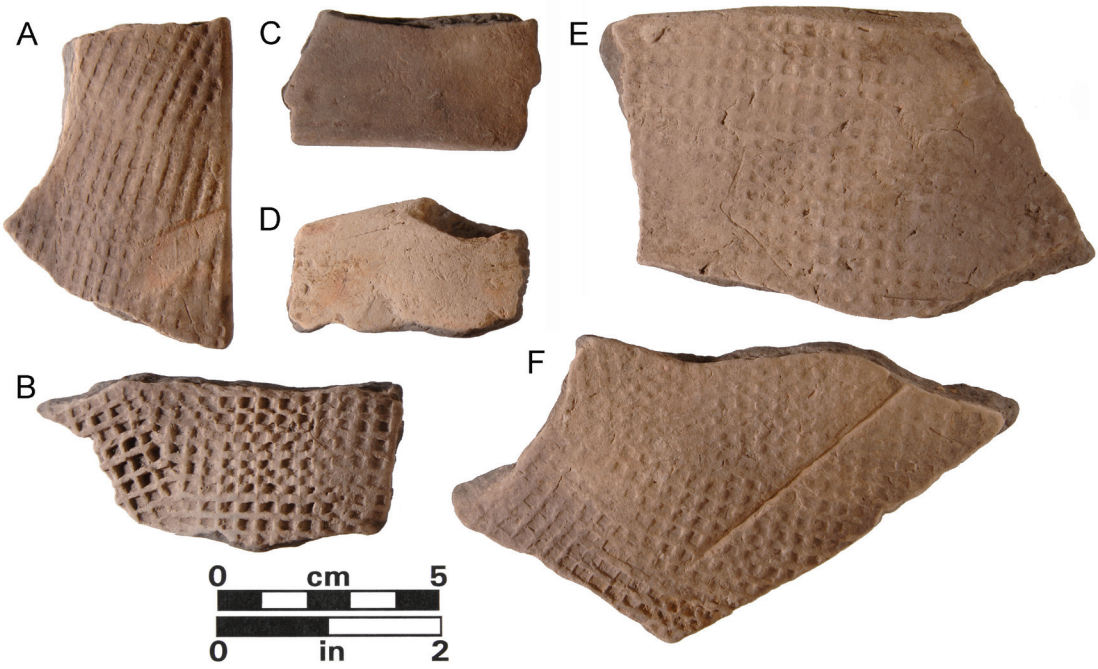


Fig. 6.4. St. Johns pottery from the Fountain of Youth Park site (8-SJ-31). **A, B.** St. Johns Check Stamped (8-SJ-31-75; 8-SJ-31-412); **C, D.** St. Johns Plain (8-SJ-31-412; 8-SJ-31-2040); **E, F.** St. Johns Check Stamped (8-SJ-31-431; 8-SJ-31-2055).

Fig. 6.5. San Pedro pottery from the Fountain of Youth Park site (8-SJ-31). Top row: cob marked (8-SJ-31-2553; 8-SJ-31-219; 8-SJ-31-109). Bottom row: plain (all 8-SJ-31-172).

Fig. 6.6. Irene/Altamaha/San Marcos tradition pottery from the Fountain of Youth Park site (8-SJ-31). Clockwise from top left: plain (8-SJ-31-1461); complicated stamped (8-SJ-31-411); plain (8-SJ-31-1019); plain (8-SJ-31-219); complicated stamped (8-SJ-31-440); reed punctate rim (8-SJ-31-472); reed punctate rim (8-SJ-31-172).

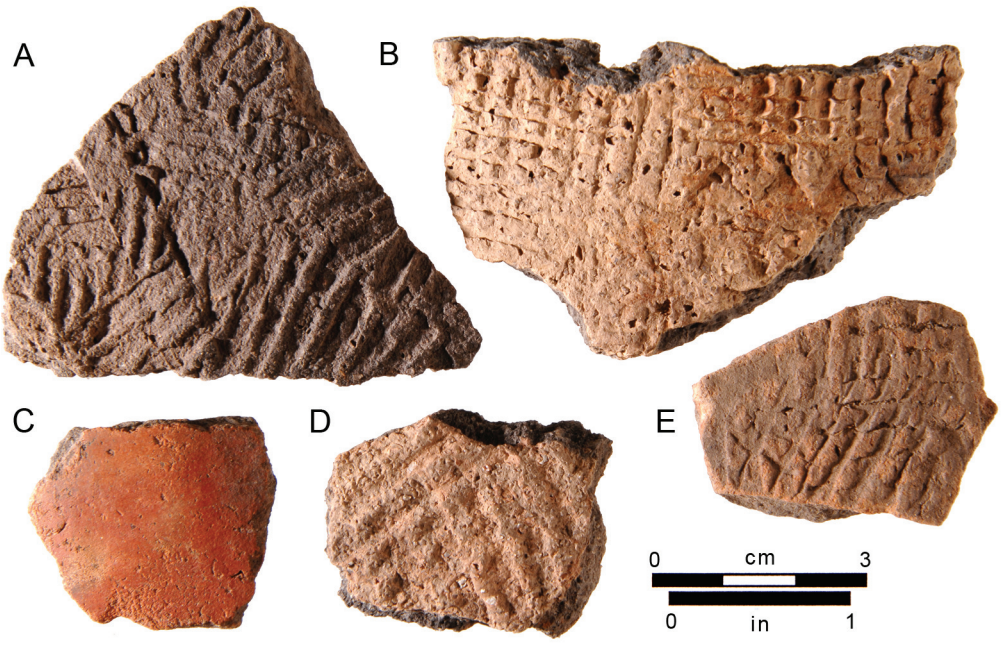


Fig. 6.7. Mission period pottery from the Fountain of Youth Park site, ca. 1590–1650 (8-SJ-31). **A, B.** Sand and light grit-tempered complicated stamped (8-SJ-31-2083); **C.** Mission Red Filmed (8-SJ-31-2693); **D.** San Marcos Stamped (8-SJ-31-2693); **E.** St. Marys Cord Marked (8-SJ-31-2693).

fillet), and are encircled by half-round or fingernail punctation. Stamping sometimes also extends to the lip of the vessel, with no differential rim treatment. Furthermore, there appears to be a wider variation in tempering than that of Guale-region San Marcos vessels, and can include shell, lime, mica, and grog in addition to sand and grit (see Otto and Lewis, 1974).

The definition and temporal placement of the "Altamaha" segment of the Irene/Altamaha/San Marcos tradition is still subject to unresolved discussion among researchers in the region. As noted, the term has been used traditionally in St. Augustine to designate grit-tempered, stamped wares with applied fillet rims, whole-reed punctates, or incised decoration in conjunction with stamping. Such pottery occurs almost exclusively in contexts dating prior to 1650 (see Deagan, 1993; Piatek, 1985). This distinction has been made over the years principally to distinguish San Marcos–like pottery with these traits from the San Marcos pottery defined by Hale Smith and known best from late 17th- and 18th-century sites.

As Saunders has clearly demonstrated, however, all of the pottery subsumed under the "Irene/Altamaha/San Marcos" designations is properly part of a long-lived Guale ceramic production tradition and it clearly underwent technological change during the postcontact mission period (Saunders, 2000a; see also Braley, 1990). In sites occupied for centuries (such as St. Augustine), however, it is useful to have a terminology that can distinguish temporally sensitive traits within this long tradition. Well-dated historic period materials in St. Augustine's Spanish contexts should eventually help refine the chronological controls for such individual trait clusters in the long-lived Altamaha/San Marcos tradition; however, this work is only now beginning.

Ceramics identified as part of the Irene/Altamaha/San Marcos tradition first appear at the Fountain of Youth Park site during the St. Johns II period, and increase steadily through time in the proportion they comprise of the Native American ceramic assemblage. Those from the pre-Columbian period are all small-body sherds, and are assumed to be part of the Irene/

San Marcos/Altamaha tradition on the basis of their visible characteristics (e.g., grit- and sand-tempered paste, smoothed interior surfaces, traces of stamping or obliterated stamping on decorated examples). No reconstructable rim or body fragments occur, and it is quite possible that these sherds could more appropriately be classified as late Irene pottery.

San Marcos/Altamaha/Irene pottery comprises 6% of the St. Johns II ceramic assemblage and 8% of the Menéndez-era assemblage. The proportion of San Marcos pottery increased dramatically in the early mission period, doubling to 16% of the Native American ceramic assemblage. By the 18th century, San Marcos constituted 44% of the Native American pottery. Plain sherds made up 60%–70% of the San Marcos ceramics during all of these periods, except for the 18th century, when the proportion of plain San Marcos sherds jumped to 94% of this category.

The patterns of San Marcos occurrence at the Fountain of Youth Park site suggest that there was contact, if not exchange, between the Guale and the heartland *Agua Salada* Timucua during the later pre-Columbian period, probably after the late 15th century. Interaction was also evidenced about 1550–1570 during the Menéndez era, undoubtedly stimulated by exchanges between the St. Augustine and Santa Elena settlements. As DePratter (chap. 1, this volume) shows, a small proportion of the Native American ceramics at Santa Elena are Timucuan St. Johns wares.

The dramatic increase in San Marcos pottery during the subsequent early mission period at the Fountain of Youth Park (ca. 1580–1650) can be related to the greatly increased interaction between St. Augustine and the Guale regions brought about by the Franciscan mission system after 1587. Movements of goods and people, as well as the labor drafts supported by the missions, undoubtedly involved the movement of ceramic vessels as well. It is as yet unknown through technological analyses, however, whether the San Marcos pottery of this pre-1680 period was produced by Guale potters in the St. Augustine region, by Timucua potters, or by potters in the Guale region and transported to St. Augustine.

The likelihood that San Marcos tradition pottery was produced in St. Augustine by Guale or other ceramicists is considerably greater during the 18th century. The movement of the Guale missions toward St Augustine beginning in the 1660s has been well documented historically (see particularly Worth, 1995b, and chap. 8, this volume), and their influence on the Native American ceramic assemblages of St. Augustine has been studied archaeologically (Deagan, 1990, 1993; Piatek, 1985; Waters, 2005). By the early 18th century, the Fountain of Youth Park site was on the fringes of the Nombre de Dios mission community, and by 1728, when the English under James Palmer attacked St. Augustine, Nombre de Dios was considered to be a Yamasee town and stronghold (Tepaske, 1964: 131; Crane, 1928: 246–247). It was during this period that San Marcos pottery constituted nearly half (44%) of the Native American ceramics at the Fountain of Youth Park site, and, as noted, 90% of those sherds were plain (tables 6.3, 6.4).

Undefined/Unidentified Wares (fig. 6.8)

This ceramic category includes sherds that do not fall into formally described type definitions, because of distinctive temper, paste color, surface finish, badly eroded surfaces, or a combination of these. Most sherds are very small, and 85% of them are undecorated (tables 6.2–6.4). They do, nevertheless, make up the secondmost abundant Native American ceramics category (15%–20%) until the early mission period (ca. 1580–1650), when they are eclipsed by San Marcos tradition pottery.

Such undefined ceramics, and particularly the majority category of "sand tempered plain," are present at nearly all sites in the region and are generally treated by archaeologists as background noise. Nevertheless, they appear to represent pottery production traditions distinct from those typically used to identify the cultural affiliations of sites. These unidentified (and largely unstudied) wares, however, are potentially very interesting as a material production category that may provide insight into cooking practices, experimentation, learning, specialization, and exchange. Although beyond the scope of this study, a comparative analysis of such ceramics at sites throughout the region would be enlightening.

DISCUSSION

Although the principal intent of this paper is to characterize the late pre-Columbian through

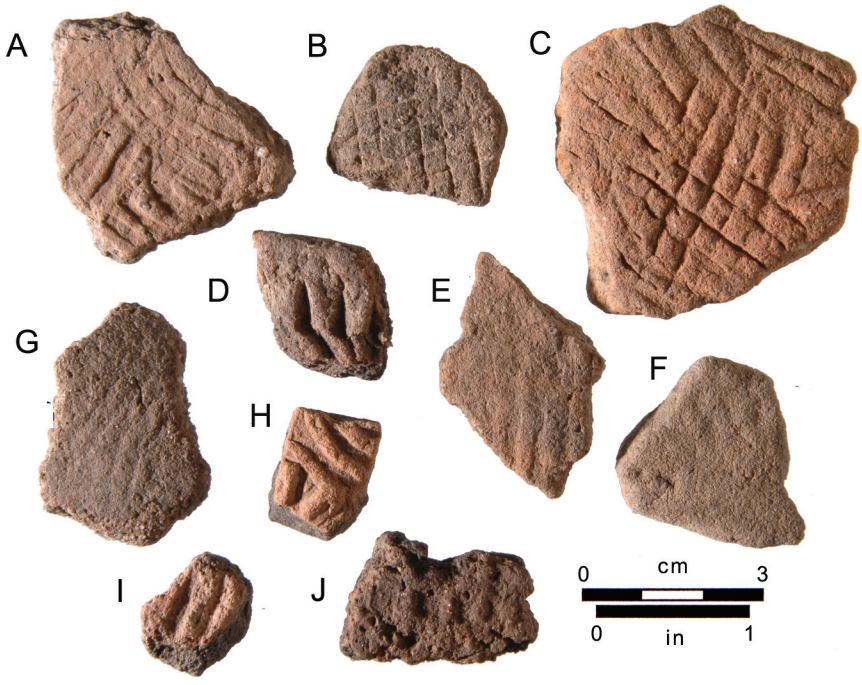


Fig. 6.8. Miscellaneous and unclassified Native American pottery from the Fountain of Youth Park site (8-SJ-31). **A**. grit-tempered complicated stamped (8-SJ-31-408); **B.** sand-tempered incised (8-SJ-31-1873); **C.** sand-tempered stamped and scored (8-SJ-31-2049); **D.** grit-tempered stamped rim (8-SJ-31-2049); **E.** sand-tempered eroded stamped (8-SJ-31-2049); **F.** sand-tempered eroded stamped (diamond pattern) (8-SJ-31-2553); **G.** sand- and heavy grit-tempered stamped (8-SJ-31-2045); **H.** sand-tempered complicated stamped (8-SJ-31-1461); **I.** sand-tempered stamped (8-SJ-31-2510); **J.** sand- and grit-tempered check stamped (8-SJ-31-1498).

mission period Native American ceramic assemblages at the Fountain of Youth Park site, these ceramics also suggest insights into both interregional interactions, and local responses to European arrival. These will be briefly considered here, to be more fully developed in a future publication.

The Fountain of Youth Park assemblage reflects a continuous (although in some periods intermittent) Native American occupation for more than 2500 years, from about 800 B.C. until the end of the Spanish colonial era. Except for its location adjacent to the Spanish capital, it was apparently never a principal town, but it nevertheless represents one of the few coastal Timucua settlements in this area that has been extensively excavated and reported. The overwhelming impression created by the pre-Columbian assemblage is that of local isolation until the latter part of the St. Johns II period. Although a few sherds of Deptford, Swift Creek, and Weeden Island period pottery have been recovered from the site, they are very few numerically, and none are from undisturbed precontact deposits. Only during the St. Johns II period do nonlocal, grit-tempered and grog-tempered wares (associated with the Guale and Mocama regions, respectively) become consistently present in small amounts.

The St. Johns II period deposits at the Fountain of Youth Park unfortunately cannot be segregated into earlier and later components either stratigraphically or by the contents of individual deposits. The relative absence of St. Marys tradition cord-marked pottery and the presence of San Pedro grog-tempered pottery, however, suggest that external relations and exchange with people to the immediate north was not significant until late in the 15th century or perhaps early in the 16th century (Ashley, chap. 5, this volume; see also, Ashley and Rolland, 1997b, 2002). This is also suggested

by the presence of small amounts of grit-tempered and sometimes stamped pottery that may reflect interaction with the Guale coastal region during the late Irene period. Other than a single possible Fort Walton Incised sherd and two small Mississippian shell-tempered sherds, there is no evidence for interaction with people of interior Florida or the interior southeast.

Considered together, the Fountain of Youth Park site history and archaeological assemblage suggest that both before and after 1565, the site was occupied by Timucua people practicing the St. Johns material tradition, and who may have been speaking the Timucuan dialect referred to as *Agua Salada*. By the early 16th century, they were probably engaged at least to some degree with the larger southeastern coastal area that was to become the primary coastal Spanish mission region.

The political organization of the coastal Timucua regions at the time of European arrival is unclear, particularly given that most of the written accounts on which modern scholars base their interpretations were generated decades after the coastal Timucua population had suffered considerable disruption and decline. It is evident, however, that by 1565 the local St. Augustine cacique Seloy was subordinate to the regional cacique Saturiwa, who was based just southwest of present-day Jacksonville, Florida. Saturiwa's polity appears to have been distinct from that of the Maritime dialect (Mocama-speaking) Tacatacuru north of the St. Johns River (and centered on Cumberland Island in the 17th century). The Tacatacuru were recorded by French and Spanish chroniclers as Saturiwa's allies against the interior Florida Outina confederacy, rather than as Saturiwa's subordinates (Hann, 1996: 18, 81). Although the Mocama and Utina pledged peace (at least nominally) with the Spaniards by 1567, the *Agua Salada* under Saturiwa continued a campaign of warfare against the foreign intruders through the 1560s.

These historical accounts, when considered in light of the archaeological distribution of the St. Johns II ceramic tradition during the late pre-Columbian period (after about A.D. 1500), lend support to the hypothesis that a distinct polity, perhaps related to the *Agua Salada* dialect, may have operated during that period in the coastal region between northern St. Johns county and the Ais district.

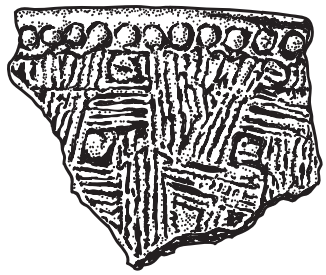
If this were the case, the *Agua Salada* were vanquished by 1572. In that year the Spaniards left their Anastasia Island site, and returned to the mainland, presumably because the violent resistance on the part of the Seloy Timucua was no longer an impediment. By the time the mission of Nombre de Dios was established in 1587, the principal Native American settlement at St. Augustine (also called Nombre de Dios) was governed by a Christian cacica. Her daughter, Doña Maria Meléndez, became the subsequent cacica of the 17th-century Nombre de Dios community. By 1606, Doña Maria had married a Spanish soldier, and had two children old enough to receive confirmation (normally seven years old). She was reported at that time to have also been the cacica of the San Pedro mission community (Cumberland Island). She is said to have lived most of the time at San Pedro after 1604 (Hann, 1996: 165). It is tempting to suggest that Doña María's governance was undergirded or even created by Spanish influence, possibly in the vacuum created by the demise of the hostile followers of Seloy and Saturiwa. If so, this would imply a major alteration in precontact political divisions and jurisdictions, and probably some movement of people before 1600.

Regardless of the political origins of their cacique, the people who lived at the Fountain of Youth Park continued to produce and use predominantly St. Johns pottery until the middle of the 17th century. As Waters suggests (2005; chap. 7, this volume), despite the political and demographic upheavals of the late 16th and 17th centuries, the Timucua in the vicinity of St. Augustine retained their traditional ceramic production and use patterns, and presumably whatever social and symbolic importance such traditions implied. It was not until the early 18th century, when it is thought that the Nombre de Dios Timucua moved away from the Fountain of Youth Site, that non-St. Johns pottery (that is, San Marcos) equaled St. Johns ware in quantity.

The composition of the Native American ceramic assemblage at this long-lived Timucua site in St. Augustine is quite different from that excavated in the contemporaneous Spanish-occupied sites in the downtown area. Even during the late 16th century (ca. 1572–1600), more than 50% of the Spanish domestic material assemblages in St. Augustine consisted of Native

American pottery. Overall, 52.9% of the Native American ceramics were St. Johns wares, 35.8% were San Marcos wares, and 11.2% were unidentified or nonlocal wares (Deagan, 1985: 12). San Marcos wares assumed a much larger proportion of the Spanish household assemblages, exceeding St. Johns in the first decades of the 17th century (see Deagan, 1990: 304–307). San Pedro wares are rare in Spanish households.

By the 18th century, St. Johns pottery constituted less than 1% of Hispanic-identified household assemblages in sites with no pre-1700 occupation components (Deagan, 1976; 1983a: 113; Shephard, 1983: 77). This provides a marked contrast to the 18th-century Native American–occupied sites around the city, such as the Fountain of Youth Park and the Shine of Nuestra Señora de la Leche, where, as noted, St. Johns pottery constituted up to 40% of the 18th-century material assemblages (see Waters, 2005). It is clear, as several studies in St. Augustine have suggested (Deagan, 1993; Waters, 2005, chap. 7, this volume), that the Spanish and Hispanic residents of St. Augustine clearly preferred San Marcos pottery as a domestic kitchenware over other ceramic wares available in the town, and by the 18th century, it may have been produced as a market commodity.



CHAPTER 7
ABORIGINAL CERAMICS AT THREE 18TH-CENTURY MISSION SITES IN ST. AUGUSTINE, FLORIDA

GIFFORD J. WATERS

This paper is based on a segment of a larger program to examine the effects of relocation and consolidation in St. Augustine of Native American groups after the collapse of the interior Spanish mission system in Florida (Waters, 2005). That study specifically examined the effects such relocation had on Native American identity. Herein, the ceramic assemblages of three postconsolidation 18th-century mission settlements in St. Augustine are examined in an effort to address the impacts of consolidation and relocation, not only on Native American identity, but also on ceramic production and access to the consumer market.

Rather than discuss the attributes of specific types of pottery, this study focuses on the ceramic assemblages as a whole at three 18th-century missions in St. Augustine. Each assemblage is addressed individually, followed by a discussion of what the data may indicate about the maintenance and change of ceramic traditions among specific Native American cultural or ethnic groups in 18th-century St. Augustine. The primary groups that are discussed are the local Timucua populations and the relocated or refugee Guale and Yamasee Indians. The three mission settlements examined, Nombre de Dios (8SJ31 and 8SJ34), La Punta (8SJ3499), and Pocotalaca, represent the few identified 18th-century mission settlements in St. Augustine that have been excavated. Ethnohistorical information is available on all of these missions, which identifies the cultural or ethnic groups that resided at these sites during the 18th century.

CERAMICS AND IDENTITY

Ceramics have been, and continue to be, an important category of material culture utilized by archaeologists to explore issues of ethnic identity and changes in identity over time. In her seminal volume on ceramic analysis, Prudence Rice (1987: 464) identifies the close relations between utilitarian or craft production and its social milieu, citing the "forces of costumbre," which can be equated with tradition, custom, or habitus, that direct pottery production. Roman Roth (2003: 42) further strengthens the relationship between ceramics and ethnic identity, stating that the "production of pottery is itself a routine . . . which consciously, or more often, subconsciously [reflects] a development in the social relations of the society producing . . . the pottery" and that the style of the finished vessel is a product of "the socially conditioned habitus of the potter." Both Rice and Roth utilize Pierre Bourdieu's (1977) concept of the habitus to link the practices of ceramic production to identity.

Accepting that the production of ceramics, and by extension the final products themselves, is conditioned by the habitus in which ethnic identity is both grounded and shaped (Jones, 1997), it is then necessary to question where ethnically significant information resides. According to James Sackett (1986), style and ethnic signaling can be both active and passive. Active signaling of ethnic identity in ceramic production is most often seen in decorative techniques that are highly symbolic and meant to actively convey a message to

others. During times of stress, however, such as those encountered by the Indians affected by the Spanish mission system, such stylistic attributes are often lost or simplified even though the ethnic identity of the producers may not have changed (Rice, 1987).

Therefore, it is important that archaeologists also look at those stylistic attributes that are passive signifiers of ethnic identity, which are much more resilient to change than active signifiers. Passive signifiers of identity in ceramic production include paste tempering, vessel form, firing techniques, and vessel usage. These too are informed by the habitus, and thus it can be argued that the consistent clustering of such attributes by potters reflects identity to some degree. While ceramics and ethnic identity do not have a one-to-one correlation, the practices of ceramic production and technology are informed by the habitus, within which ethnic identity is also grounded, and thus offer archaeologists an insight into the identity of the potters.

HISTORICAL BACKGROUND: 18TH-CENTURY ST. AUGUSTINE

During the 18th century, the Anglo-Spanish rivalry that began with the founding of Jamestown in 1609 and especially with the settlement of Charles Towne in 1670 culminated in dramatic changes in all of Spanish Florida. In 1702, Colonel James Moore led a group of approximately 1000 men, half of whom were Indians, on an attack of St. Augustine. While the city survived, the coastal missions serving the Guale and Eastern Timucua Indians were forced to relocate to St. Augustine, under the protective watch and guns of the Castillo (Worth, 1998b; chap. 8, this volume). Two years later, Moore led another group into Apalachee territory, capturing and killing many of the Indians. Those who survived moved north and allied themselves with the British, or moved west to Mobile or east to St. Augustine (Boyd et al., 1951; Hann and McEwan, 1998; McEwan, 2000). By 1708, the western Timucua missions were deserted, with most or all of the remaining Spanish mission Indians living in and around the city of St. Augustine (Milanich, 1999). The result of this collapse was the creation of a number of small, mission Indian settlements located in and around St. Augustine (Deagan, 1993; Hann, 1996; Milanich, 2000).

The mission system of La Florida at this time was effectively over. Throughout the rest of the century, mission activity was largely restricted to the small, mission Indian villages in and around the environs of St. Augustine. As populations fluctuated due to deaths and the arrival of other groups such as the Yamasee, villages were moved, created, and combined (Hann, 1996). This resulted in some villages comprising only a single tribal or ethnically identified group of Indians, while others were of mixed tribal origin. As a result of this mixture, "marriages between adults of different ethnicities began to occur" (Milanich, 1999: 190) in these communities. The composition of the coalescent settlements also changed over time as Indians from other villages relocated into the settlements of mixed Indian origins.

Refugee villages of the 18th century were initially established immediately to the north of the city walls to serve as a barrier to protect St. Augustine from attacks by the English and their Indian allies (Milanich, 1999). The practice of settling refugee Indians outside of the city walls was carried on throughout the century in an effort to protect the city from invasion while at the same time giving the Native Americans, whom the Spanish viewed as potential new allies, a place to live.

The influx of refugee Indians into St. Augustine, particularly after the arrival of the Yamasee in 1715, created a financial crisis for the Spanish government. After receiving pleas by those in charge in St. Augustine, King Philip V nearly tripled the portion of St. Augustine's subsidy that was to go to the Indians to 6000 pesos per year in 1716 (Covington, 1970). However, Amy Turner Bushnell (1994: 195) reports that from 1717–1721, the actual "cost of servicing Florida's Indian alliances averages 9,516 pesos per year." The Spanish government clearly saw the importance of supplying funds to maintain and develop alliances with both Christian and non-Christian Indians owing to the continued threat of attacks by the English, Creeks, and other Native American groups. It is unlikely that the Indians actually received much, if any, of the money directly, but rather the subsidy was used by the officials in St. Augustine to supply goods to the Indians.

During the 1730s there was dissention between the parish of St. Augustine and the

Franciscan friars over the state of the refugee villages. Depositions taken in 1737 indicate that the friars "treated their doctrinas like visitas . . . [and that] the natives stayed away from Mass on days of obligation" (Bushnell, 1994: 205). Not only was it reported that both the friars and the Indians neglected their duties and obligations, but also that the physical state of the churches was deteriorating. Aside from the church at Nombre de Dios, all the rest were said to be in such disrepair that "images and vestments had been removed and services were not held at all in windy, rainy weather" (Bushnell, 1994: 205). The Indians' devotion to the Catholic Church was clearly waning throughout the century, and it is likely that the influence of the church on the Indians living in the refugee villages was also in decline.

While it appears that Native American interaction with the church declined in the 18th century, interaction with the Spanish residents in St. Augustine seems to have increased. Throughout the 18th century, the refugee villages were under constant threat of attack by the English and Creek, resulting in villagers often taking refuge within the colonial city walls at night (Hann, 1989). Many of the Indian men from the mission settlements were armed and accompanied the Spanish cavalry on patrols of the area around St. Augustine (Scardaville and Belmonte, 1979). In addition to serving as irregular soldiers, refugee Indians also worked as agricultural laborers in the fields surrounding St. Augustine and spent much of their time hunting (Otto and Lewis, 1974). Indians also lived in the city where they established households as well as in the refugee villages. They intermarried with the Spanish and were laborers and consumers within the city walls, both providing goods and services and purchasing goods in shops (Parker, 1993; Deagan, 2002a). During the 17th century, the "Indians were not shy when it came to trading. They actively hawked their wares during festival days," a practice that likely increased during the 18th century and became a daily event (Milanich, 1996: 149). Deagan (1993: 94) reports that at the level of the individual there was "a certain amount of economic opportunity to be had . . . in the capital of St. Augustine. This was particularly true for women, who could choose to work in Spanish households, sell pottery or other crafts in the town, or entertain a relationship with a Spanish man."

Many Indian women in refugee settlements worked as servants in Spanish households, undoubtedly taking material goods, such as cooking vessels, into the households with them (Parker, 1993). Indians also intermarried with Spanish men, moving into the city and bringing with them traditional cultural practices (Deagan, 1973). Native Americans also took advantage of the flexible racial categories imposed by the Spanish and, on occasion, found it possible to strip themselves of their native identities and integrate into the Spanish society to some degree. Historian Susan Parker (1999) offers well-documented cases of both intermarriage between Spanish and Indians and cases of Indians moving out of their villages and into the colonial city. Through the trade and sale of goods, working in Spanish households, and intermarriage with the Spanish and integration into the city, Native American material goods and practices found their way into 18th-century St. Augustine. The increased opportunities for interaction with the Spanish in St. Augustine would have created increased chances for interaction among the various Native American refugee groups as well.

Census records for the 18th century show fluctuations in Native American populations as well as the creation of refugee mission settlements around St. Augustine and consolidation of Native American groups onto these settlements. The 1717 census (table 7.1) lists a total of 942 Indians living in 10 mission villages in and around St. Augustine (Hann, 1996: 308–311; Milanich, 1999: 190; Worth, 1998b: 150).

In just over 10 years, in 1728, the number of Native Americans living in the refugee villages had dropped to only 436 people (Milanich, 1999: 191). The 1728 census also indicates that the number of villages had been reduced to eight (Hann, 1996: 315). Table 7.2 shows the 1738 census data indicating that Native American populations had been reduced to 350 individuals (Hann, 1996: 316–317; Milanich, 1999: 191). As seen in table 7.3, by 1752 the number of refugee villages had fallen to just six, with a total population of over 155 individuals (Hann, 1996: 322–324; Milanich, 1999: 193). It should be noted that the mission village of Nombre de Dios was still in existence when the 1752 census was undertake but was left off for unknown reasons.

The final census of refugee missions was taken in 1759 (table 7.4). By that time the only remaining refugee villages were Nombre de Dios

TABLE 7.1
1717 Census

Village	Group	Population
Our Lady of the Rosary of Jabosaya	Apalachee	34
Santa Catharina de Guale	Guale	125
Tolomato	Guale	64
Nombre de Dios	Timucua (and 3 Apalachee)	50
Our Lady of Sorrows	Timucua (and 2 Apalachee)	74
San Buena Bentura de Palica	Timucua (and 1 Yamasee)	132
Nuestra Senora de Cadelaria de la Tamaja	Yamasee	162
Pocosapa	Yamasee and Apalachee	172
Pocotalaca	Yamasee	96
San Joseph de Jororo	Unknown Timucua or Yamasee	33
Total		**942**

TABLE 7.2
1738 Census

Village	Group	Population
La Costa	Costa	6
Tolomato	Guale	64
Nombre de Dios Chiquto	Guale and Yamasee	56
Nombre de Dios/Macharis	Timucua	49
Palica	Timucua	61
San Nicolas	Unknown	11
La Punta	Yamasee	41
Pocotalaca	Yamasee	62
Total		**350**

TABLE 7.3
1752 Census (from Hann, 1996: 322–324; Milanich, 1999: 193)

Village	Group	Population
Tolomato	Guale	26
Pocotalaca	Yamasee	33
La Costa	Costa	8
La Punta	Yamasee	59
Palica	Timucua	29
Total		**155**

TABLE 7.4
1759 Census (from Hann, 1996: 323–324; Milanich, 1999: 194)

Village	Group	Population
Nombre de Dios	Yamasee, Guale, Timucua, Chiluque, Costa, and others	57
Tolomato	Chiluque and Guale	18
Total		**95**

and Tolomato (Hann, 1996: 323–324; Milanich, 1999: 194). The population at Nombre de Dios was mixed, with Yamasee making up the majority at this time. The group identified as Chiluque in the census records is the Mocama Timucua. The Chiluque who joined the Guale at Tolomato were likely moved from their previous location at Palica (Hann, 1996).

As the population of mission Indians dwindled, so to did Spain's hold on La Florida. The first Spanish period of Florida and the mission system finally came to an end in 1763 as a result of a treaty drawn between the Spanish and British at the end of Queen Anne's War. The Spanish handed over control of La Florida to the British and sailed off to Cuba, taking with them the last 89 Florida mission Indians (Milanich, 1999).

The new political landscape created in 18th-century La Florida resulted in Spanish implementation and enforcement policies of *reducción, congregación*, and other forced and voluntary methods of relocating the Native Americans of La Florida. This served to ease missionization processes, to pool native laborers together to increase the effectiveness of the repartimiento draft labor system, and to protect both the Spanish and the Indians from the encroachment of British and Indian hostilities and slave raids from the north. It also created new Native American communities in which Indians from different cultural groups lived in close contact with each other. This produced what might be viewed as a sort of "reverse diaspora" condition in which people of disparate origins were brought together in the same place. In Spanish Florida, this emerged as a result of the modified *reducción* and *congregación* policies in which Indians from different settlements within a cultural group, as well as Indians from separate and distinct cultural groups, were brought together into a single area around St. Augustine, often in mixed-group settlements. These movements offer researchers a unique approach to the study of Native American cultural change during the late mission period in La Florida.

CERAMIC ASSEMBLAGES IN 18TH-CENTURY MISSION SITES

Nombre de Dios

The mission Nombre de Dios site (8SJ31 and 8SJ34) is the site of the mission to the Timucua of the same name (fig. 7.1). The Nombre de Dios mission was one of the first established in Spanish Florida in 1586 and one of the last two mission settlements surviving at the end of the first Spanish period. Also referred to as the mission Nuestra Senora de la Leche and Nombre de Dios Macariz in later historical documents (Worth, 1998a), the mission primarily served the Timucua Indians from its beginnings to its end. During the second half of the 17th century and in the 18th century, the mission was an aggregated settlement of Timucua, meaning that there were both Eastern (coastal) and Western (interior Florida) Timucua living at the mission. At times there were also some Guale and Yamasee, and perhaps Apalachee Indians at the mission, but the majority of the population was Timucua.

The physical Nombre de Dios mission site, which actually includes both the Nombre de Dios (8SJ34) and Fountain of Youth (8SJ31) sites, is one of the only 17th-century coastal Timucua mission sites that has been systematically excavated and recorded. Excavations carried out by the Florida Museum of Natural History have isolated discrete chronological periods on the site, permitting the segmentation of deposits and contexts from the site that date, respectively, to the first half of the 17th century, the second half of the 17th century, and the 18th century (ca. 1702–1763) (Chaney, 1987; Gordon, 1992; Morris, 1995; Waters, 1997; Anderson, 2001; Deagan, 2004a; Woods, 2004). This long occupation and contextually specific excavation of the site allows for chronological analyses to assess change in the same Timucua population over time.

The data from the 18th-century mission deposits presented here are from the Nombre de Dios site, since the major occupation of the Nombre de Dios mission shifted southward, away from the Fountain of Youth Park portion after the mid-17th century (see Deagan, chap. 6, this volume). Sometime during the first quarter of the 18th century the mission of Nombre de Dios moved further south inside the protection of the Hornabeque line. Shortly thereafter the site was reoccupied by refugee Yamasee Indians. As such, it is possible that the 18th-century archaeological deposits from the Nombre de Dios mission site include both the mission and the later primarily Yamasee occupation of the site. As shown in figure 7.2, 93.1% of the 18th-century ceramic assemblage at Nombre de Dios is made up of aboriginal ceramics. European utilitarian ceramics constitute the next largest percentage at 4.9%,

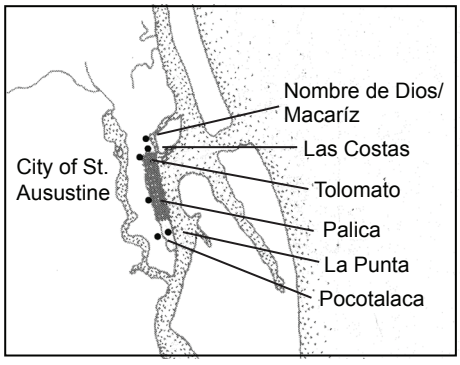


Fig. 7.1. 18th-century mission sites.

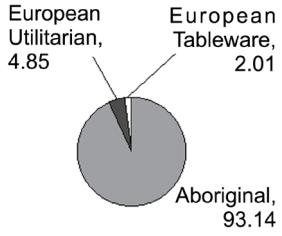


Fig. 7.2. Ceramic category percentages at 18th-century Nombre de Dios.

followed by European tablewares, the majority of which are Spanish majolica, which account for 2.0% of the total ceramic assemblage.

Within the aboriginal ceramic category (fig. 7.3), San Marcos series pottery (n = 217) is the most prevalent during the 18th century at the mission Nombre de Dios and accounts for 39.0% of the total aboriginal ceramic assemblage. The majority of San Marcos wares are San Marcos Stamped (n = 113), which makes up 20.3% of the total assemblage and San Marcos Plain (n = 83), which accounts for 14.9%. San Marcos Check Stamped (n = 9), while not extremely common, accounts for 1.6% of the total aboriginal ceramic assemblage.

The second most abundant group of Native American ceramics are those in the St. Johns series (n = 162), which account for 29.1% of the total assemblage. Of these sherds, St. Johns Check Stamped (n = 90) is the most common and makes up 16.2% of the total assemblage followed by St. Johns Plain (n = 68), which constitutes 12.2%.

No other formally defined types occur in any significant amounts at Nombre de Dios during the 18th century; however, there are a number of unidentified categories that are significant in quantity and percentage. Unidentified aboriginal sand-tempered wares (n = 75) make up 13.5% of the total non-European ceramic assemblage, with the plain variety (n = 70) making up the vast majority. Unidentified aboriginal grit-tempered pottery (n = 38) also appears in significant numbers and accounts for 6.8% of the total assemblage, again with the plain variety (n = 34) accounting for the majority; 4.7% of the total aboriginal ceramic assemblage is composed of unidentified aboriginal sand- and grit-tempered pottery (n = 26), all of which is undecorated. Finally, unidentified aboriginal grog-tempered pottery (n = 11), which upon further analysis may be reclassified as San Pedro, comprises 2.0% of the total aboriginal ceramic assemblage.

La Punta

The site of La Punta (8SJ3499) is to the south of colonial St. Augustine and is situated between Maria Sanchez Creek and the Matanzas River (fig. 7.1). The site, which was officially named the mission Nuestra Señora del Rosario de la Punta, was established in the 1720s and primarily served the refugee Yamasee Indians until its demise at some time around 1752. It has been reported that there were likely some Apalachee Indians at La Punta as well (Worth, 1998b). The site is one of the few 18th-century refugee mission settlements located in St. Augustine to be extensively studied to date, and as such offers an important resource for examining the postconsolidation Yamasee and Apalachee after they arrived in St. Augustine following the collapse of the Spanish mission system. The data presented here come from excavations conducted by Carl Halbirt, St. Augustine City Archaeologist in 1997 in the southern portion of the site. The data from the La Punta site were initially reported in White (2002) and Waters (2005).

As indicated in figure 7.4, Native American ceramics make up more than 89% of the ceramic assemblage at La Punta. European tablewares account for 7.2% of the ceramic assemblage, while European utilitarian wares account for 3.6%, with olive jar comprising the majority of the latter.

Figure 7.5 shows the aboriginal ceramics at the site of La Punta. San Marcos wares (n = 2268) comprise 61.8% of the total aboriginal ceramic assemblage. Within this category, San

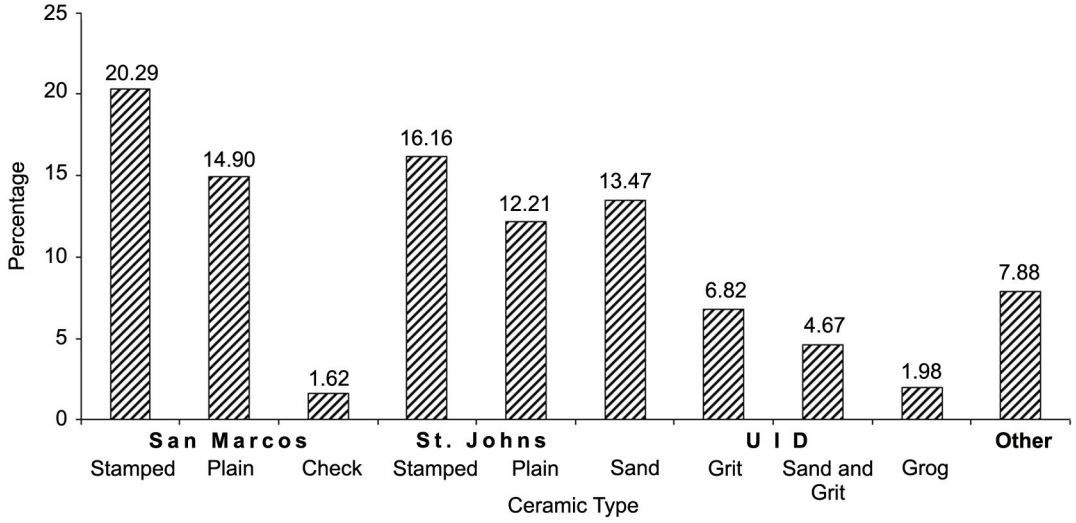


Fig. 7.3. Native American ceramic percentages at Nombre de Dios.

Marcos Plain (n = 840) constitutes the majority and makes up 22.9% of the total assemblage. The next most frequent is San Marcos unidentified (n = 773). These sherds were listed simply as "San Marcos" because of weathering or eroding of the surfaces, which prevented placement in a more specific category. San Marcos Check Stamped (n = 375) is the next most common, constituting 10.2% of the assemblage, followed by San Marcos Stamped (n = 264), which accounts for 7.2% of all the aboriginal ceramics. Unidentified aboriginal sand-tempered pottery (n = 975) makes up 26.6% of the assemblage, with the plain variety (n = 461) making up the majority. As with the San Marcos series pottery, unidentified aboriginal check-stamped pottery (n = 107) also makes up a significant portion of the assemblage at 2.9%.

After San Marcos, the next most frequent category of aboriginal ceramics is the Mission Red Filmed series (n = 271), including plain (n = 219), stamped (n = 37), and check-stamped (n = 15) varieties, with a combined percentage of 7.3% of the total aboriginal ceramic assemblage.

The only other Native American pottery present in a significant amount at La Punta is the St. Johns series (n = 40) that makes up just 1.1% of the assemblage. More than half of the St. Johns sherds are St. Johns Plain (n = 23), followed by St. Johns Check Stamped (n = 9), St. Johns decorated (n = 6), and St. Johns (no description) (n = 2). Although St. Johns decorated sherds were clearly decorated, the decorative motif was either eroded or obliterated, preventing more specific categorization. St. Johns with no description indicates that the sherds were clearly St. Johns, but were too eroded to determine if they were decorated or undecorated. It should also be noted that check-stamped ceramics that are not part of the St. Johns or San Marcos series account for 3.2% of the total aboriginal ceramic assemblage.

Pocotalaca

The site of Pocotalaca is at 126 Oneida Street in St. Augustine (to date no Florida Master Site File number has been assigned) and is situated in the southwest portion of the city, just outside the colonial walls (fig. 7.1). This site, also known as San Antonio de Pocotalaca and Nuestra Senora de la Concepción de Pocotalaca, was established in the 18th century as a refugee community (Worth, 1998b). The Pocotalaca refugee settlement

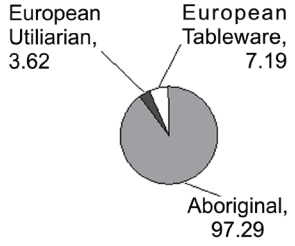


Fig. 7.4. Ceramic category percentages at La Punta.

served both the Guale and Yamasee who fled to St. Augustine as a result of British encroachment and the mission system's general collapse. The population of the settlement was 96 in 1717, and after that the population figures never rose above 60 (Worth, 1998b: 152–153). The site was investigated in 2001 by Carl Halbirt and analysis of the materials was conducted at the Florida Museum of Natural History (Waters, 2005). The limited excavations at the site consisted of a series of posthole tests and three 1×1 m test pits. The data presented in the following discussion is from that analysis.

Over 95% of the ceramic assemblage at Pocotalaca is made up of aboriginal ceramics (fig. 7.6). European tablewares, the majority of which are majolica, account for 3.1% and European utilitarian wares account for 1.8%.

More than half of the total aboriginal ceramic assemblage at Pocotalaca (fig. 7.7) is San Marcos pottery (n = 136, 55.3%). Within the San Marcos series, San Marcos Plain (n = 94) occurs at more than two times the frequency of San Marcos Stamped (n = 40). Unidentified aboriginal sand- and grit-tempered pottery (n = 50) makes up 20.3% of the assemblage, with over half of the sherds being plain (n = 38). Unidentified aboriginal sand-tempered pottery (n = 40) comprises 16.3% of the total aboriginal ceramic assemblage with the plain variety (n = 29) being the most common. Plain and decorated Mission Red Filmed ceramics (n = 8) make up 3.3% of the assemblage, while unidentified aboriginal grog-tempered plain (n = 3) comprises 1.2%. The only other pottery types that comprise a significant portion of the ceramic assemblage at Pocotalaca are those associated with the Apalachee region, namely Lamar Complicated Stamped (n = 4) and Miller Plain (n = 3). Combined, these types account for 2.9% of all aboriginal ceramics.

DISCUSSION

The 18th-century mission settlements are represented by three sites: Nombre de Dios, which was primarily occupied by the Timucua; the La Punta site, which was primarily inhabited by the Yamasee; and the site of the Pocotalaca mission, which served both the Guale and the Yamasee.

During this time period (post-1650) the ceramic assemblage at Nombre de Dios reflects the dominance (42%) of San Marcos series pottery (fig. 7.8). St. Johns series pottery accounts for just over 31% of the assemblage. During the 17th century, St. Johns Plain occurred in higher percentages than St. Johns check stamped, but in the 18th century the check-stamped variety was more prevalent (Waters, 2005). Also of note within the San Marcos series, stamping was more common than undecorated sherds at Nombre de Dios in the 18th century.

At the 18th-century Yamasee site of La Punta (ca. 1720–1752), San Marcos series pottery

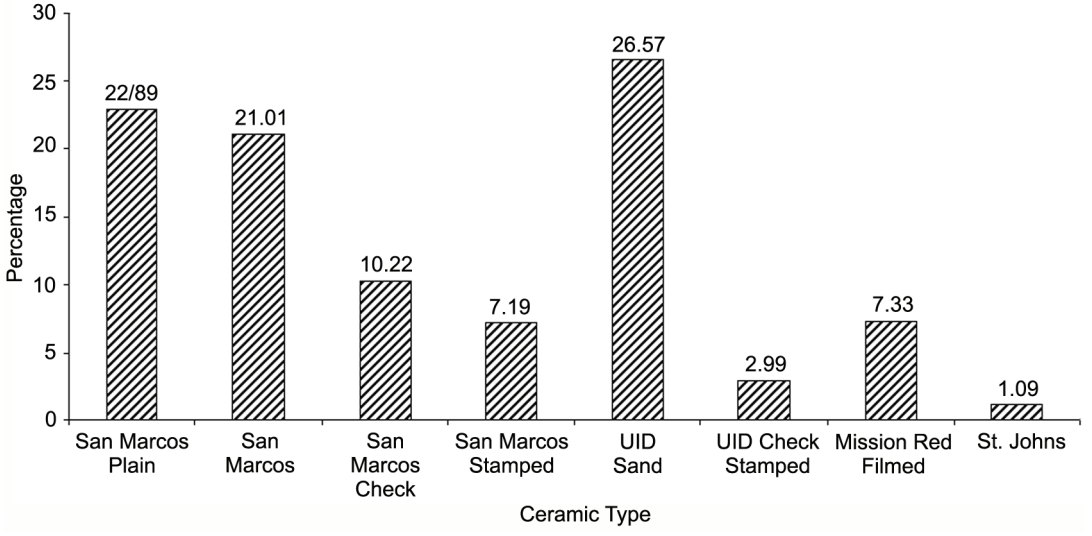


Fig. 7.5. Native American ceramic percentages at La Punta.

comprises more than 61% of the aboriginal ceramic assemblage. It is difficult to determine either Guale or Yamasee pottery production at the site since the ceramics produced by both groups are categorized as Altamaha/San Marcos (Saunders, 2000a, chap. 3, this volume; DePratter, chap. 1, this volume). Of particular note regarding the San Marcos series pottery at La Punta, however, is the high percentage of San Marcos Check Stamped (10.3%). This observation corresponds to the data from the Yamasee-occupied Altamaha Town (Green, 1992) where San Marcos Plain and San Marcos Check Stamped make up 19.3% and 11.4% of the total ceramic assemblage, respectively. This suggests that the Yamasee were more inclined to practice check stamping as a decorative motif than the Guale. Excluding the San Marcos Check Stamped from the series, plainwares comprise just less than 5% fewer of the aboriginal ceramics assemblage than the decorated varieties. This is in contrast to samples from the 17th-century Guale mission sites, where San Marcos decorated sherds are more prevalent than plain sherds. The increased amount of undecorated San Marcos pottery at La Punta may be a reflection of Yamasee ceramic production or preference.

Unidentified grit- and sand-and-grit-tempered pottery is almost nonexistent at La Punta, but sand-tempered pottery is prevalent, comprising over 26% of the total aboriginal ceramic assemblage. As with the San Marcos series pottery at the site, plain pottery is the most common variety in this category, although it should be noted that unidentified decorated pottery and unidentified aboriginal sand-tempered check-stamped pottery account for close to 3% of the total ceramic assemblage.

The data show that the Yamasee at La Punta primarily used and possibly produced San Marcos series pottery, but that plain and check-stamped varieties had greater importance than seen at any of the Guale sites discussed. This suggests that the Yamasee had already incorporated check stamping as a decorative technique for their pottery before their arrival at St. Augustine in the 18th century, a hypothesis supported by the data from Altamaha Town. Furthermore, the relatively high percentage of Mission Red Filmed indicates the possible

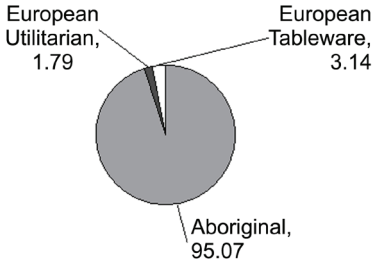


Fig. 7.6. Ceramic category percentages at Pocotalaca.

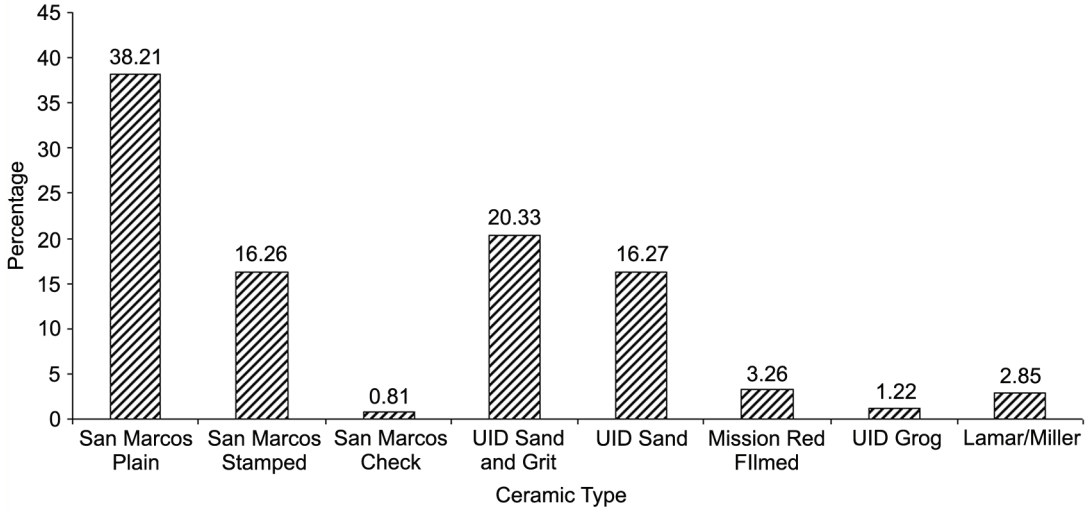


Fig. 7.7. Native American ceramic percentages at Pocotalaca.

production of the type at the Yamasee La Punta site, possibly influenced by the Apalachee who lived at La Punta, and who were already familiar with red-filmed pottery (Shapiro et al., 1987). Red filming may also have been associated with Guale and Yamasee ceramics, since this technique is present on both plain and check-stamped pottery from coastal sites in Georgia and South Carolina.

Pocotalaca, the third 18th-century refugee village site examined in this study, served both the Guale and the Yamasee. Nearly 55% of the total ceramic assemblage at this site was San Marcos series pottery. San Marcos Plain was even more prevalent at Pocotalaca than at La Punta, comprising over two times the percentage of stamped wares in the aboriginal ceramic assemblage as stamped. This supports the hypothesis that plain varieties of San Marcos were preferred by the Yamasee over stamped, or that Guale decoration declined in the 18th-century consolidated villages.

Other aspects of the ceramic data may be significant. San Marcos Check Stamped accounts for less than 1% of the total assemblage at Pocotalaca and unidentified aboriginal sand-tempered check stamped accounts for less than 0.5%. Thus, it is hypothesized that while both Guale and Yamasee were present at the site, it was primarily occupied by Guale, or that Guale people were the primary potters. If, in fact, check stamping and undecorated ceramics are Yamasee-associated traits and not a reflection of Guale cultural change, this could explain the absence of check-stamped pottery at the site.

The assemblage from the Pocotalaca site indicates a continuity of ceramic traditions with some modifications among the Guale and Yamasee who lived there. Unidentified aboriginal pottery, with check stamping, accounts for 1.2% of the total aboriginal ceramic assemblage. When combined with San Marcos Check Stamped, check stamping as a decorative motif makes up 2.0% of the assemblage. It is possible, especially when considered along with data from Altamaha Town and La Punta, that check stamping is associated with the Yamasee. Although Guale-associated San Marcos pottery dominated the assemblages at Guale-occupied Pocotalaca, there was also a relatively high percentage of undecorated pottery. While it is possible that this resulted from a Yamasee preference for or tradition of undecorated pottery, it could equally be a consequence of stress brought on by relocation, disrupting traditional production patterns and resulting in a loss of decorative tradition.

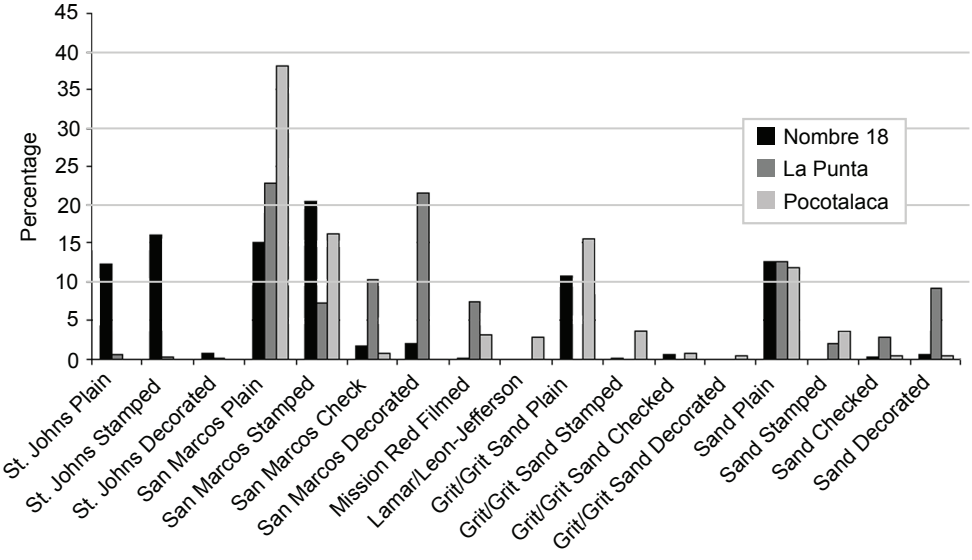


Fig. 7.8. Percentage of ceramic categories at 18th-century mission settlements.

INTERPRETATIONS

This research indicates that traditional cultural and ceramic identity was retained by at least some segments of the Eastern Timucua, Guale, and Yamasee in the altered cultural landscape of 18th-century Spanish St. Augustine. This is suggested by the continued production of traditional ceramic wares among each of the groups. The Yamasee and Guale were clearly continuing the production of their traditional San Marcos series pottery throughout the entire mission period. As noted, the relative proportions of undecorated and check-stamped San Marcos pottery recovered at La Punta are almost identical to those recovered at Altamaha Town as reported by Green (1992), and much higher than those found on Guale sites (see Saunders, 2000a). These traits are associated with Yamasee pottery traditions.

Maintenance of ceramic identity among the Eastern Timucuan people is also suggested to some degree, as seen in the continuation in the production of traditional St. Johns ceramic types (fig. 7.9). In the first half of the 17th century, St. Johns ceramics accounted for 35.0% of the

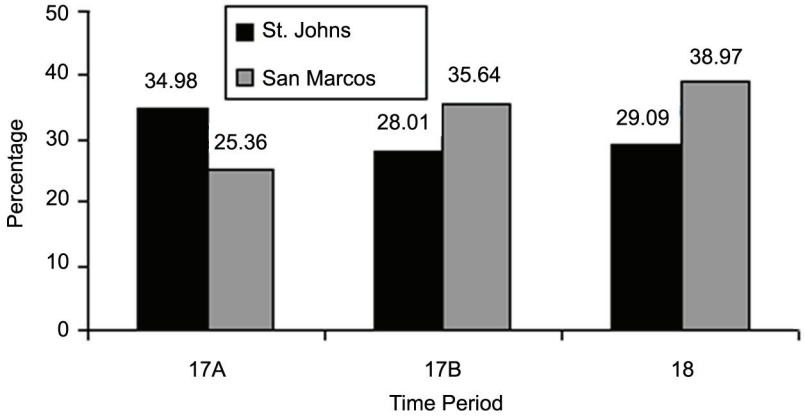


Fig. 7.9. St. Johns and San Marcos percentages at Nombre de Dios over time.

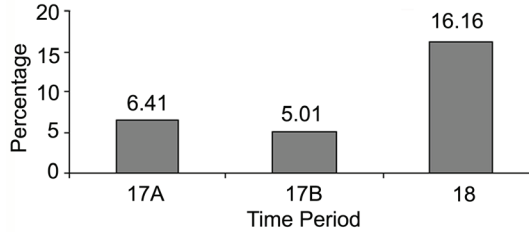


Fig. 7.10. St. Johns Check Stamped percentage at Nombre de Dios over time.

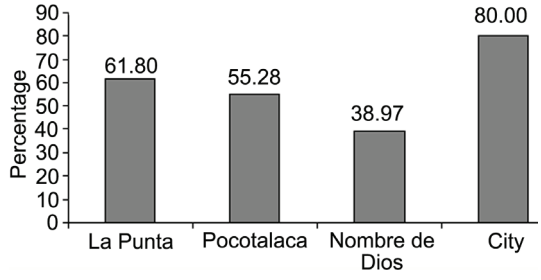


Fig. 7.11. San Marcos percentages in the 18th century.

ceramic assemblage at Nombre de Dios, 28.0% in the second half of the 17th century, and 29.1% in the 18th century. While the percentages of St. Johns ceramics fell nearly 6% from the 17th century through the 18th century at Nombre de Dios, the percentage of San Marcos rose from 25.4% to 39.0% (Waters, 2005), probably reflecting the presence of relocated Guale and Yamasee on the site, the Timucua acquisition of pottery from the Guale and Yamasee, or the production of San Marcos wares by Timucuan potters. Overall, however, the maintenance of craft-indicated identity by at least some segments of the Eastern Timucua population at Nombre de Dios is suggested by the continued production of St. Johns ceramics.

It is of note that the proportion of St. Johns Check Stamped ceramics (fig. 7.10) increased dramatically at the Nombre de Dios site during the 18th century (16.16% of the assemblage) from their proportions in the 17th century (6.4% in the first half of the 17th century, 17A, and 5.0% in the second half, 17B). It is possible that the reinvigoration of check stamping during the 18th century was an active expression of identity through traditional pottery decoration among the Timucua, in a manner reminiscent of revitalization. Although groups of Guale, Yamasee, and others had been gradually encroaching upon and entering the Timucua territory before this time, the 18th century saw the peak of arrival and settlement of more outsiders in the area. As a result, some segments of the Eastern Timucua population may have emphasized the production of check stamping on pottery as a means of actively displaying their traditional identity.

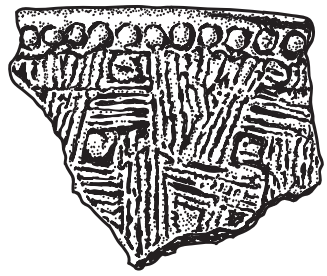
It should also be noted that the Spaniards in St. Augustine manifested a clear preference for specific Native American pottery available in the region. Kathleen Deagan (1990: 320; chap. 6, this volume) and Bruce Piatek (1985) report that more than 80% of the aboriginal pottery found in Spanish households during the 18th century was San Marcos wares (fig. 7.11), while St. Johns ceramics comprised just over 13%. This is a considerably higher proportion than that found even at the contemporary, primarily Yamasee, villages of La Punta and Pocotalaca (where, respectively, 61.8% and 55.3% of the Native American ceramic assemblage is San Marcos ceramics) and the Timucuan Nombre de Dios site (where San Marcos wares comprised just under 39% of the assemblage; fig. 7.11). These proportions suggest a Spanish preference for San Marcos pottery, and possibly a preference for trading with the Guale and Yamasee (Deagan, 1990).

It is possible that the Guale and Yamasee may have been producing some San Marcos ceramics specifically for Spanish consumption. Confirmation of this possibility, however, awaits a more fine-grained ceramic analysis testing for differences between San Marcos pottery in the refugee villages and those in the Spanish households.

In order to effectively negotiate in the broader sphere of Native American–Spanish interaction, the Guale and Yamasee may have taken advantage of the Spanish preferences for their wares and began to produce greater quantities for Spanish consumption It is also possible that the Timucua, Apalachee, and other refugee groups began to produce San Marcos pottery as a market ware, although this also remains to be studied through ceramic technological analysis. In either case, Native Americans would have altered ceramic production traditions in a new social and economic strategy to take advantage of increased access to Spanish markets and consumers. Such a strategy may have provided a material expression of pannative, or "Mission Indian" identity in 18th-century St. Augustine, visible to Spaniards and other Native American groups in public roles, but masking the tribal-specific identities expressed in private domestic ceramic use.

The strategy of producing San Marcos ceramics for Spanish consumption is not suggested to have been a consequence of competition or interaction among the various Native American groups in St. Augustine. However, the Guale and Yamasee appear to have used the Spanish preference for San Marcos ceramics to their advantage, engaging in trade to a much larger extent with the Spanish than did the Timucua. While there was a retention of traditional Eastern Timucua material identity among some segments of the Timucua population in the 18th century, overall the Guale and Yamasee appear to have been better able to cope with and retain their traditional identities in the new, multiethnic situations in which they found themselves.

PART III
DEFINING THE "WHO" BEHIND THE CERAMICS



CHAPTER 8
ETHNICITY AND CERAMICS ON THE SOUTHEASTERN ATLANTIC COAST: AN ETHNOHISTORICAL ANALYSIS

JOHN E. WORTH

For many decades, Southeastern archaeologists have grappled with the issue of ceramic variability in both time and space. The struggle includes not just describing and quantifying that variability, but most importantly, explaining it as a reflection of broader patterns of cultural change and diversity (or lack thereof) among Native American groups across the southeastern United States during the last three millennia before European contact, and for several centuries afterward. The archaeological focus continued until mass-produced Euro-American ceramics largely replaced aboriginal wares during the 19th century. In large part owing to the fact that pottery was made, decorated, used, and discarded in such a diversity of cultural contexts and for such a wide range of functions, combined with the fact that pots were relatively easy to produce and decorate at the household level, and commonly had such a short use life, aboriginal ceramics commonly represent one of the most voluminous and robust datasets for archaeologists to employ in their studies of material culture as a reflection of past cultural processes. In the past, and continuing to the present day, prehistoric archaeologists in particular have utilized aboriginal ceramics in many ways, not least of which is in the construction and refinement of local and regional cultural chronologies into ceramic style periods, which are commonly used without particular regard to the cultural phenomena that doubtless underlie the observed chronological and geographical variation. In addition to simple chronology-building, prehistoric aboriginal ceramics are also routinely used to define the geographical distribution of ceramic style zones that range from more or less localized "phases" to extremely far-reaching "cultures" or "traditions" (e.g., Willey and Phillips, 1958), none of which can yet be satisfactorily equated directly with human political or social entities as defined by anthropologists (or by the pottery makers themselves, for that matter). However, even in the aftermath of a general disciplinary rejection of this "culture history" paradigm that characterized most Southeastern archaeology through the 1960s (e.g., Lyman et al., 1997), many fundamental tenets of this approach remain implicit among practicing Southeastern archaeologists today, including a widespread assumption of at least rough equivalency between assemblages of archaeologically defined ceramic types, and indigenous Native American ethnic groupings, whether defined principally by sociopolitical affiliation, language, or something else.

Despite what seems to be a commonly presumed relationship between archaeological ceramics and aboriginal ethnicity, archaeologists have long been aware of difficulties in the very definition and interpretation of ceramic styles using archaeological types and assemblages, and the extent to which these types are either "discovered"—and hence reflect meaningful categories for the potters themselves—or "assigned"—and hence are principally an heuristic device for analytical use by the archaeologist (Spaulding, 1953a, 1953b; Ford, 1954a, 1954b). Even the meaning of ceramic "style" itself is hotly debated, incorporating a range of interpretations from style as a conscious communication of social identity (Wobst, 1977) to style as a secondary reflection of social

interaction patterns (Friedrich, 1970), along with assorted combined approaches that reflect the hierarchical nature of style's many facets, from the obvious and intentional to the implicit and unconscious. Moreover, particular difficulty has always been evident in the attempts to forge a meaningful relationship between the chronological and geographic dimensions of observed variability in ceramic material culture. Why, for example, does one ceramic style zone expand spatially over the course of time, and another contract or disappear? And why does the ceramic assemblage characterizing an entire style zone undergo transformation, either rapid or gradual, in the first place? And how does ceramic variability in space and time relate to other dimensions of the cultures of the pottery makers themselves?

Strictly speaking, attempts to address these questions for specific regions wholly within the prehistoric era are necessarily limited in scope, given that the only direct source of additional and complementary evidence relative to the groups that inhabited that specific region, beyond the ceramic evidence itself, is still archaeological in nature. While ethnographic analogy and ethnoarchaeology from comparative studies in other regions around the world undoubtedly possess considerable relevance for interpreting such data, even if only indirectly, yet another alternative source of explicitly direct evidence relative to the southeastern United States of course lies in the exploration of aboriginal ceramic variability within the early European colonial era, when ethnohistoric evidence is fortunately available to supplement the archaeological record, sometimes providing remarkable detail and depth regarding sociopolitical integration, ethnicity, language, migration, demography, trade, warfare, and a myriad of other dimensions of human variability with both spatial and temporal dimensions. Though archaeological studies of this sort are by no means new (Smith, 1948; Sears, 1955; Fairbanks, 1958; Mason, 1963; see also critique by Hally, 1971: 61–63), and include exemplary and detailed modern research into aboriginal ceramics during the historic period, some specifically relative to the study area (Saunders, 2000a; Cordell, 2001; Foster, 2004), there still remains much room for productive study in this regard.

While historic archaeologists studying Southeastern Indians have commonly drawn much of their methodological and theoretical foundations from prehistoric archaeology, it is also possible to apply this in reverse, and extrapolate specific inferences and generalizations gleaned from the historic era as an evidentiary critique of prehistoric methodologies and theoretical constructs. Indeed, over the past two decades, I have been increasingly intrigued with the potential of data and analyses from the historic period to contribute substantively and directly to the broader anthropological analysis of ceramic variability as a facet of broader questions relative to human cultural variability and change in colonial and noncolonial contexts alike. In my opinion, the conscious and directed exploitation of the multifaceted evidentiary record of the historic era in the southeastern United States provides many potential opportunities to refine and augment existing models relative to aboriginal ceramic variability and its explanation in anthropological terms.

The broader struggle to relate aboriginal ceramic variability to human cultural diversity in a more general sense is well beyond the scope of the present paper, but in the pages that follow I will explore one specific case study relative to that loftier goal. Specifically, here I hope to address one of the more nagging research questions that have plagued archaeologists along the southeastern Atlantic coast. It concerns the correspondence between ceramic material culture and a series of historically documented ethnic groups during the early Spanish colonial era. In particular, I will marshal detailed ethnohistorical evidence (much of which has only come to light in the past decade and a half) to examine associations between four more or less discrete Native American groups—the Guale, the Orista/Escamaçu, the Mocama, and the Yamasee—and the observed archaeological evidence for ceramic variability during the turbulent centuries between first contact (ca. 1514) and the final abandonment (1763) of the coastal region between Port Royal, South Carolina, and St. Augustine, Florida. The specific question that I hope to explore is whether or not aboriginal ceramics in this region (defined at the typological level as assemblages of associated types) are fundamentally linked to these specific ethnicities that are known to have persisted as distinct entities over time, or whether patterns of ceramic variability in both space and time are instead related to other cultural or geographic

factors that are largely independent of ethnicity.

To foreshadow my conclusions for this chapter, careful examination of available archaeological data from a variety of sites of known identity and ethnicity within the study area reveals that during the study period (1514–1763), what had originally been a diverse indigenous landscape containing at least three major archaeological ceramic traditions in prehistory (Irene, San Pedro, and St. Johns) was ultimately homogenized into what was, at least at a typological level, a ceramic "monoculture" characterized by a single predominant ceramic tradition, variously known as Altamaha and/or San Marcos (and consciously referred to in this chapter as Altamaha/San Marcos, as discussed below). An evaluation of the precise timing of this transformation in ceramic material culture, and its association (or lack thereof) with various well-documented migrations of specific communities and groups within and among the various subregions of the study area (and beyond), provides compelling evidence regarding the presumed relationship between aboriginal ceramics and ethnicity in the southeastern United States, and by extrapolation regarding the origins of, and explanations for, ceramic variability in general.

HISTORICAL AND ARCHAEOLOGICAL CONTEXT

Before proceeding to a more detailed analysis of the relationship between archaeological ceramics and ethnicity within the study area (Port Royal to St. Augustine) and period (1514–1763), a review of the historical and archaeological context is instructive in order to place subsequent discussions in context. The following overview will trace the history of European contact with indigenous groups within the study area, including archaeological evidence regarding the same, as a benchmark for later analysis.

First Contacts, 1514–1526

Nearly half a century before the beginning of the primary era of Spanish colonization and missionization along the lower Atlantic coastline (the 1560s), sporadic slave-raiding expeditions and a single abortive colonial attempt characterized the era of "first contact" between Europeans and Native Americans living in the study area. Not long after the discovery and naming of "La Florida" by Juan Ponce de León during his 1513 voyage, Spanish ships began to reach farther and farther north and west from the Florida peninsula, and at some point between 1514 and 1516 as many as 500 Indian slaves were captured and returned to Hispaniola by Captain Pedro de Salazar from an island he named "Island of Giants," probably along the Atlantic coastline and possibly within or near the present study area (Hoffman, 1980). Other slave-raiding expeditions during this same period resulted in the transport of at least 300 other Florida Indians to Cuba, some of which might also have come from the study area (see Worth, 2006b). Following a subsequent 1521 slave-raiding expedition to this same area under Pedro de Quejo and Francisco Gordillo (resulting in the capture of as many as 60 Indian slaves), Lúcas Vásquez de Ayllón obtained permission for a colonial venture that included a brief 1525 reconnaissance expedition prior to a 1526 colonization attempt with some 600 people on six ships (Hoffman, 1990; 1992). Beset by a multitude of problems including an African slave revolt, the colony (named San Miguel de Gualdape) failed in less than two months, and only a quarter of the original number survived to return to the Caribbean. Despite several attempts to identify possible locations for the archaeological remains of this short-lived settlement on the Georgia coastline (e.g., Smith, 1992), Ayllón's colony remains undiscovered. Nevertheless, the recovery of a number of possible early 16th-century Spanish artifacts from Taylor Mound on St. Simons Island remains a tantalizing clue to some form of nearby direct contact between Spanish ships and coastal Native Americans during this early period (Wallace, 1975; Pearson, 1977; Saunders, 2000a: 174–176).

Spanish Reconnaissance and French Fortification, 1562–1565

Following Ayllón's debacle, it was only two generations later, in the early 1560s, that the southeastern Atlantic coastline began to be visited again by authorized colonial expeditions. After Spanish ships under Angel de Villafañe (the short-lived replacement for Tristán de Luna) briefly visited Port Royal in 1561, Frenchmen, in 1562, under Jean Ribault cruised along the coastline from the mouth of the St. Johns River to Port Royal, establishing a short-lived fort garrisoned by 28 men late in the year (Laudonnière, 2001: 17–51; Bennett, 2001: 12–16). Interaction between the French garrison and local Native

American groups was fairly extensive, including substantial reliance on gifts of corn and other staple foods from "Audusta" (Orista) and "Maccou" (Escamaçu) and other local chiefs, along with at least two trips for the same purpose into the territory of "Oade" (Guale) and his brother "Covexcis" to the south (Laudonnière, 2001: 38–48). This fort, ultimately abandoned in 1563, was finally identified archaeologically in 1996 underneath the remains of the later Fort San Felipe associated with the Spanish colony of Santa Elena (DePratter, 1996).

In belated response to news of the French presence, Cuban Governor Diego de Mazariegos sent yet another Spanish reconnaissance expedition under Hernando Manrique de Rojas, which explored the northern Georgia coast up to Port Royal during May and June, visiting the town of Guale itself (and several others) and later discovering a sole survivor of the Charlesfort garrison named Guillermo Rufín before torching the remains of the French fort (Bennett, 2001: 107–124).

Later that same year, French colonists under René de Laudonnière established yet another fortified settlement near the mouth of the St. Johns River (Hann, 1996: 38–49; Laudonnière, 2001: 53–170; Bennett, 2001). Though interaction between French colonists and coastal and riverine Timucuan groups was extensive, it was also short-lived, given the 1565 Spanish capture of Fort Caroline and the massacre of many of its French inhabitants. Nevertheless, early French alliances with the Timucuan chiefs, whose successors would ultimately form the Mocama province, formed the basis for persistent anti-Spanish hostility throughout much of the southern portion of the study area through the 1570s, although subsequent decades would witness a complete reversal in this policy (see Hann, 1996: 50–71). The archaeological site of Fort Caroline has never been found, despite many repeated attempts (e.g., Gorman, 2005).

Spanish Fortification, 1565–1569

It was not until September of 1565 that the Spanish established the colonial city of St. Augustine near its present location, initially within the Timucuan community of Seloy. Archaeological investigations at this original location (on the present Fountain of Youth Park) have revealed sealed archaeological contexts associated with Menéndez-era Spanish and Timucuan occupations at the site, in addition to nearby evidence for continuing coastal Timucuan occupation at the Nombre de Dios mission throughout the First Spanish Period (Deagan, 2004a; chap. 6, this volume). In immediately subsequent years, Menéndez endeavored to fortify the new colony of Florida by establishing a remarkably ambitious number of out-settlements and military garrisons, which by the summer of 1567 extended from the foothills of the Appalachian summit in western North Carolina (San Juan de Joara) to the southern tip of the Florida peninsula (San Antón de Carlos and Tequesta). The first of these settlements was constructed precisely at Port Royal, at the location of the previous Charlesfort. In 1566, Menéndez led an expedition up the coastline north from St. Augustine to establish this new colonial port city of Santa Elena, the archaeological remains of which have been explored extensively during recent decades on the southeastern corner of Parris Island, South Carolina (e.g., South, 1988; South and DePratter, 1996; DePratter, chap. 1, this volume). During the course of that first expedition, the Spanish also visited the island town of Guale, which would soon receive a small Spanish garrison, which lasted through the summer of 1569, when most of Menéndez's remaining coastal garrisons seem to have been withdrawn. The first resident missionary in Guale was secular cleric Francisco Enríquez de Fromonte, who remained a year and a half (1566–1567), and following a brief Jesuit reconnaissance in the summer of 1568, resident Jesuit missionaries were stationed in Guale and Tupiqui, before their eventual withdrawal from Florida (Enríquez de Fromonte, 1572; Lowery, 1905: 339–358; Solís de Merás, 1923: 165–181; Zubillaga, 1946; Lyon, 1976: 154–156; Milanich, 1999: 95–97). While the archaeological remains presumably associated with the capital town of Guale at Wamassee Head have been subjected to intensive investigation (e.g., Thomas, 1987, although Jones, 1978, argues for a more northerly original location of Guale at this time), archaeological evidence for this early period remains elusive.

To the south, Menéndez garrisoned old Fort Caroline and renamed it Fort San Mateo, where Spanish soldiers held out against increasing coastal Indian hostility until the fort's overthrow and abandonment during a combined French-Timucuan raid in 1568 (Lyon, 1976: 199–201; Bushnell, 1994: 40–41; Hann, 1996: 53–68). The

garrison was relocated northward to Tacatucuru on the southern end of Cumberland Island, where it remained as Fort San Pedro at least until the summer of 1570, after which it was likewise withdrawn, leaving only St. Augustine and Santa Elena as Spanish settlements on either end of the study area. While Fort San Mateo/Fort Caroline has (of course) never been located, testing in the vicinity of the presumed location of Fort San Pedro has revealed some limited evidence for Spanish material culture in the midst of a predominantly aboriginal occupation now associated with the San Pedro archaeological culture, discussed below (Milanich, 1971a; Rock, 2006).

Spanish Contraction (St. Augustine and Santa Elena), 1569–1587

Following the withdrawal of the military garrisons from Menéndez's early satellite forts, and the withdrawal of Jesuit missionaries stationed both in Guale and Orista, resident Spanish colonial presence within the study area largely contracted to the twin colonial port cities of St. Augustine and Santa Elena. Even after the removal of the Jesuit missionaries, Spanish contact and interaction with Guale and Orista Indians continued throughout this period, most notably with respect to the ongoing Spanish use of Indian food and labor. There was even a brief Franciscan presence among the Guale during 1574 and 1575, though the missionaries quickly departed in the midst of political squabbling with the lieutenant governor at Santa Elena (Lyon, 1992). In 1576, in response to Spanish abuses originating at Santa Elena, rebellion flared among the Guale and Orista, forcing an evacuation of Santa Elena by its Spanish residents (Jones, 1978: 182; Hoffman, 1990: 269–274; Bushnell, 1994: 60–62). Despite the reconstruction and resettlement of the fort in 1578, Spanish Santa Elena remained in a state of open warfare with the aboriginal inhabitants of Guale and Orista for nearly two more years. A 1579 retaliatory expedition under Governor Pedro Menéndez Márquez resulted in the burning of 19 Indian towns along 45 leagues of coastline, and later military action resulted in the surrender of the rebels by mid-1580. Despite this first Guale rebellion, it is nevertheless important to note that pre- and postrebellion town names generally remained the same throughout this period, suggesting that Spanish retaliation was not so complete as to devastate the entire region.

Coincidentally, but not insignificantly, continuing French intrigue along the Atlantic coastline played an ongoing role in the unfolding of events among Native Americans within the study area (Hoffman, 1990: 278–281; Bushnell, 1994: 62–63: Hann, 1996: 69–71). In 1577, a French ship named *Le Prince* ran aground and wrecked at Port Royal while exploring the coastline, leaving scores of French castaways to construct an impromptu stockade for defense against the Spanish. The fort was eventually overrun by the same Indians who had so recently ejected the Spanish from Santa Elena, imprisoning the Frenchmen and dispersing them to many different locations along the coast and interior. When peace was finally imposed upon the Guale and Orista rebels, one condition was that they deliver the few dozen remaining French captives into Spanish hands, most of whom were subsequently interrogated and executed after having spent many months in Native American hands. Not long thereafter, more French ships appeared at various locations along the coastline between Port Royal and St. Augustine, including Guale and Sapala, as well as Guadalquini to the south, where they attempted to foment additional anti-Spanish activity. Though French forces were finally engaged and defeated in the Battle of San Mateo in 1580, their interaction with coastal groups during previous years was notable, though archaeological traces have yet to be identified.

The final years of Santa Elena's existence were marked by a return to many prerebellion norms, including the routine contribution of Native American labor to assorted tasks and projects in the town. Nevertheless, in the aftermath of the 1586 burning of St. Augustine by Francis Drake, the Spanish finally abandoned Santa Elena in 1587, consolidating their military and civilian interests in St. Augustine, which thereafter remained the primary colonial hub for all of Spanish Florida.

St. Augustine and the Franciscan Mission Period

With the 1587 withdrawal of the Spanish presence at Santa Elena, the social geography of the study area was instantly transformed from an intermediate zone of aboriginal habitation between twin Spanish colonial administrative centers, into an exposed northern frontier zone attached only tenuously to the remote Spanish port at St. Augustine (fig. 8.1). Nevertheless, this year also witnessed what has been charac-

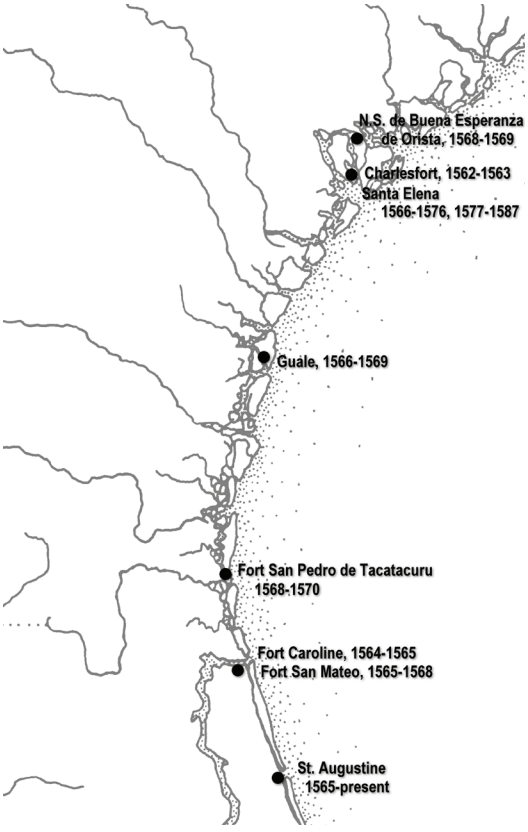


Fig. 8.1. Late 16th-century European forts and settlements within the lower Atlantic coastline.

terized as the formal beginning of the Franciscan mission era in Florida (Hann, 1996: 139; Worth, 1998a: 44–46), when the first relatively substantial group of missionaries was distributed to a number of coastal and near-coastal Timucuan missions extending from San Sebastián just south of St. Augustine to San Pedro on the southern end of Cumberland Island. Though Franciscan friars had begun to return to the towns of Guale by 1590, it was only with the distribution of another dozen friars in 1595 that Guale was formally incorporated into the expanding St. Augustine-based mission system that would ultimately dominate the history of the study area for nearly a century to come. Though Guale erupted in a second widespread rebellion just two years later (1597), resulting in the murders of five missionaries and the temporary retreat of Spanish presence to Cumberland Island, initial Spanish retaliation and ongoing military activities through 1601 ultimately led to the suppression of the rebel faction, and the reassimilation of Guale province under Spanish rule (e.g., Jones, 1978: 183–184; Bushnell, 1994: 65–66; Hann, 1996: 147–153). After the 1605 distribution of new Franciscan friars, the missionization of Guale proceeded apace, including the establishment of permanent mission stations in at least three local administrative centers—Asao, Espogache, and Guale. By no later than the 1620s (and probably earlier), all major 17th-century mission stations seem to have been established in both mainland and barrier-island locations across the entire study area, including the following mission convents: six in the Guale province (San Diego de Satuache, San Phelipe de Alave, Santa Catalina de Guale, Santa Clara de Tupiqui, San Joseph de Sapala, Santo Domingo de Talaje), four in the Mocama province (San Buenaventura de Guadalquini, San Pedro de Mocama, Santa María, and San Juan del Puerto), and two in the vicinity of St. Augustine itself, including the local Nombre de Dios mission, and the relocated Guale mission community of Nuestra Señora de Guadalupe de Tolomato (Worth, 2007a).

Details of the history of the primary mission era (1587–1702) within the study area are treated synthetically for one or more regions in a number of recent publications with varying historical/ethnohistorical and archaeological emphases (Jones, 1978; Thomas, 1987, 1993b; Bushnell, 1994; Hann, 1996; Saunders, 2000a; Worth 2004a, 2007a). Archaeological fieldwork, while extensive in certain instances, has actually been carried out at relatively few of these primary mission centers that predate the initiation of the retreat phase in 1661 (see below), or for that matter at secondary sites dating to the mission period, despite the fact that probable or possible locations have been postulated for many of these missions. The most well-studied mission community within the study area is unquestionably that of Santa Catalina de Guale at Wamassee Head on St. Catherines Island, which has been the subject of intensive and systematic archaeological scrutiny during the last three decades by teams from the American Museum of Natural History, under the overall direction of David Hurst Thomas (Thomas, 1987, 1988a, 1993a, 2008; Larsen, 1990; Saunders, 1993, 2000a). Intensive fieldwork was also carried out during the late 1980s at the Mocama mission of Santa María on Amelia Island, though at the

time the church and burials were interpreted as principally Yamasee in origin (e.g., Saunders, 1992; 1993; 2000a; but see discussion below). Sporadic archaeological projects have also been carried out over the years at mission San Juan del Puerto on Fort George Island, though clearer definition of this mission will undoubtedly result from ongoing multiyear work at the site (e.g., McMurray, 1973; Dickinson and Wayne, 1985; Gorman, 2008). Considerable work has also been carried out in a number of projects at the successive nearby locations of mission Nombre de Dios north of St. Augustine (see overview by Deagan, 2004a). More limited archaeological work has been carried out at several other postulated mission sites for this period (see locational discussion in Worth, 2007a: 190–199), including those of Tolomato (Harris Neck), Santa Clara de Tupiqui (Pine Harbor), San Joseph de Sapala (Bourbon Field, and/or one of several other possible sites on the northern end of Sapelo Island), Santo Domingo de Talaje (Fort King George), San Pedro de Mocama (Dungeness Wharf), and Nuestra Señora de Guadalupe de Tolomato (Wright's Landing), and other sites (Caldwell, 1953, 1954; Milanich, 1971a; Larson, 1980a; Cook, 1980b; Braley et al., 1986; Newman and Weisman, 1992; see also detailed comprehensive overviews of Georgia coastal mission archaeology by Thomas 1987, 1993b).

Beyond the Mission Frontier: Escamaçu

Despite the withdrawal of the Spanish town of Santa Elena in 1587, and the failure of the Franciscan mission system ever to extend any farther north than the Ogeechee River mouth (at or near mission San Diego de Satuache) along the northern Georgia coast, the Escamaçu province of the lower South Carolina coastal estuarine region nonetheless remained connected to the broader Spanish colonial system through interaction and trade on both a short- and long-distance scale (fig. 8.2). A number of Spanish sources document the presence of routine maritime corn trade between St. Augustine and Escamaçu, and there is also evidence at least through the 1670s for small-scale canoe-based interaction and trade between remaining indigenous residents of Escamaçu and the Guale province to the south, confirmed by several independent English visits to this area during the 1660s (e.g., Worth, 1998a: 177,179; 2007a: 25–26). The extent of this interaction is also underlined by the fact that several of these unmissionized communities fled directly to mission Santa Catalina in 1667 as a result of Westo Indian slave raiding against Escamaçu, and solicited Spanish permission to resettle inside Guale (Worth, 2007: 21–22, 75–76).

Archaeological evidence for 17th-century Escamaçu occupation is comparatively scarce in the area, and also somewhat ambiguous given the apparent similarity in material culture with subsequent Yamasee occupation in the same vicinity (see discussion below), but at least a few sites have been identified that may correspond to Escamaçu villages mentioned in Spanish and English accounts, and that include some European materials of probable Spanish origin (Green and DePratter, 2000).

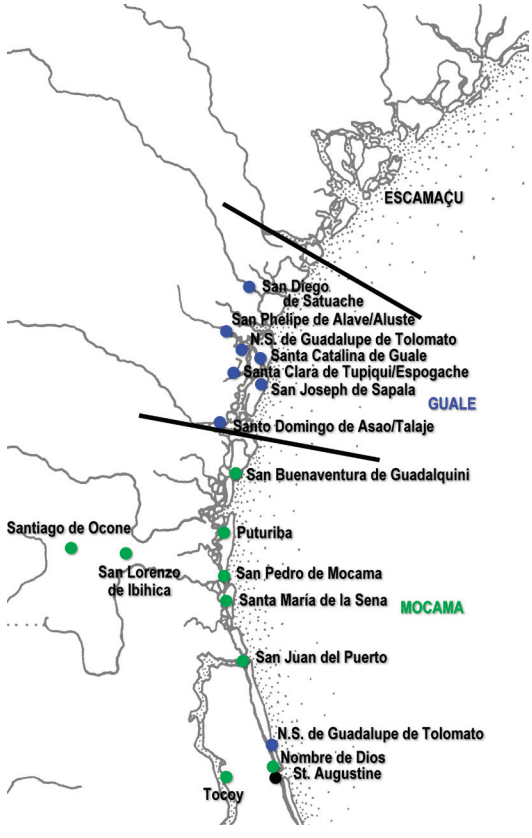


Fig. 8.2. Early 17th-century Spanish missions and indigenous provinces within the lower Atlantic coastline (ethnicity indicated by color).

RETREAT AND ABANDONMENT

In 1661, what had been feared in Spanish Florida for nearly two years became a reality: armed Indian slave-raiders who had first penetrated the near frontier of greater Spanish Florida in 1659 mounted their first direct assault on a Spanish mission. This assault took place precisely along the Guale-Mocama frontier, at the southernmost Guale mission of Santo Domingo de Talaje, near present-day Darien, Georgia. The survivors of this attack initially fled to nearby Sapelo Island, though ultimately the mission would be rebuilt on the northern end of St. Simons Island, technically within Mocama territory and on the same island as the Guadalquini mission. From this point onward, the study area was effectively under seige from the mainland. While I have elaborated at length on the details of this overall process elsewhere (Worth, 2007a: 9–55), it is important to note here that the primary response to the ongoing threat of slave-raiding from what were known as Chichimeco Indians (more commonly known as the Westo; see Bowne, 2005) was a combined Guale-Spanish retreat seaward and southward, as well as assorted strategic defensive measures, including the first placement of a formal Spanish garrison (at mission Santa Catalina) within the study area for more than a century. In addition to Talaje's movement to Asajo on St. Simons Island, major early relocations of mainland Guale missions during this era included the aggregation of San Diego de Satuache to mission Santa Catalina de Guale on St. Catherines Island, San Phelipe de Alave's movement to a new location on Cumberland Island, and Santa Clara de Tupiqui's aggregation to mission San José de Sapala on Sapelo Island (fig. 8.3).

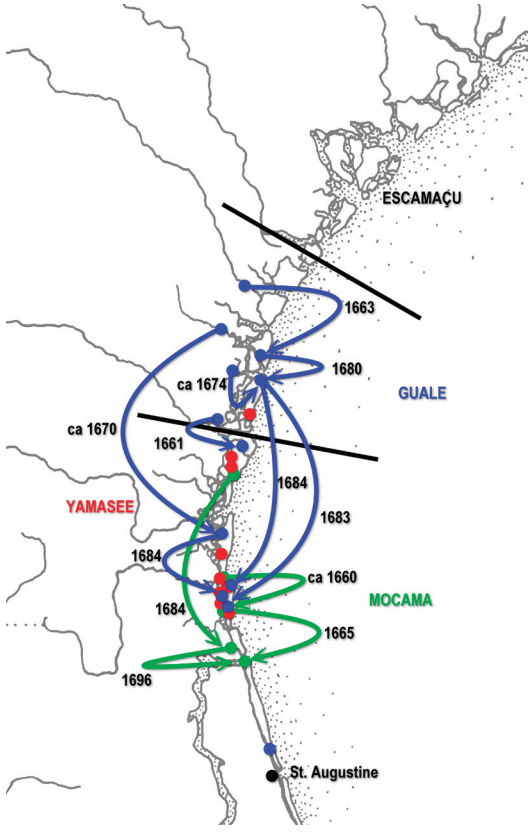


Fig. 8.3. Late 17th-century indigenous population movements within the lower Atlantic coastline, including immigrant Yamasee communities ca. 1667–1683 (ethnicity indicated by color).

The impact of Westo slave-raiding was not limited to the Guale mission province; Spanish documents reveal that several unmissionized Escamaçu communities within the coastal zone north of Guale received permission to resettle within the missions for protection, and subsequent evidence reveals at least one such new community along the new Guale-Mocama frontier in the middle of St. Simons Island. In addition, within the space of a few short years after the initial arrival of the Westo in 1659, a number of fugitive communities from the interior coastal plain and lower Piedmont regions of Georgia and South Carolina appear to have relocated closer to the coast, positioning themselves roughly between the coastal provinces and the new Westo slave-raiding base along the Savannah River near Augusta (see more detailed discussion below). Not long thereafter, continued Westo depredations against these refugee towns, by then known collectively as the Yamasee (see Worth, 2004b), evidently prompted further relocations, this time directly into Spanish mission territory. By the end of the 1660s, unmissionized Yamasee communities were scattered throughout the Mocama province, with the greatest population densities on St. Simons and Amelia islands.

By the mid-1670s, the mainland portions of the study area from the St. Johns River to Port Royal appear to have been wholly abandoned in fear of Westo slave raiding, while the barrier islands of Mocama were now crowded with new and

aggregated immigrant communities of multiple ethnicities, including Guale, Mocama, and Yamasee Indians living in close proximity. The old Guale province itself was now limited to two aggregate mission communities on St. Catherines and Sapelo islands (not counting Asajo and Alave on St. Simons and Cumberland islands within old Mocama) and the only remaining purely Mocama communities were Guadalquini on St. Simons and San Juan del Puerto on Fort George Island. The entire social geography of the study area had been almost wholly reworked within the space of little more than a decade.

In 1680, a bold Westo assault against the Guale garrison-capitol at mission Santa Catalina resulted in the abandonment of St. Catherines Island, and the aggregation of all four surviving northern Guale communities in or adjacent to mission San José on Sapelo Island (along with the concurrent relocation of the Spanish garrison). While the Carolina-sponsored destruction of the Westo threat during the 1681–1682 Westo War resulted in a brief respite from slave raiding, it was actually pirates who dealt the final blow to surviving Georgia coastal populations in 1683 and 1684. In the aftermath of a scandalous French raid during the first half of 1683, the Yamasee Indians withdrew en masse from the coastal mission provinces by June, instantly halving Spanish-allied Native American population levels within the study area. Though mission Santa Catalina, with its aggregated Guale and Satuache communities, subsequently effected its own long-distance move south to Amelia Island by the summer of 1684, establishing the first phase of a planned withdrawal from the Georgia coast, a second major pirate raid during the fall of 1684 resulted in the destruction of all remaining barrier-island missions north of the St. Marys River, prompting the rapid implementation of existing evacuation plans. By early 1685, all remaining Guale mission communities were located on Amelia Island, and the two surviving Mocama missions were clustered just south on Black Hammock and Fort George islands. All Guale and Mocama had been reduced to a small portion of the original Mocama province, though even this strategic retreat would only last 17 years (tables 8.1 and 8.2).

In 1702, the remnants of Guale and Mocama were swept away as part of the English assault on St. Augustine itself. Though refugees were settled for a short time on the south bank of the St. Johns River at a location called Pilijiriba (largely unexplored archaeologically), by the end of 1704 these communities had been withdrawn fully to St. Augustine's immediate environs, where they remained through the 1763 end of First Period Spanish occupation in Florida (Hann, 1996: 298–325; Worth, 1998b: 147–156). By 1711, Guale and Mocama refugees were evidently living in two new local communities, initially still named Santa Catalina de Guale and San Juan del Puerto, augmenting existing Guale numbers in nearby Tolomato, as well as Mocama living in Nombre de Dios, all of whom totaled in population between 150 and 300 individuals during subsequent decades (Worth, 2004a: 244; 2007a: xiii–xiv). Despite considerable population mobility in the immediate area around St. Augustine during this period, as well as ongoing demographic collapse, by 1759 grand totals of 18 Guale and 15 Mocama Indians were enumerated in a detailed census that year, and after the 1763 transportation of 89 surviving Florida mission Indians to Cuba, some 8 out of 22 total Florida Indian households were still predominantly Guale or Mocama. In addition, after the return of most of the surviving Yamasee Indians from Carolina after the 1715 Yamasee War, Yamasee survivorship was similarly robust during this era, constituting a substantial portion of the Florida Indian evacuees to Cuba as well (Worth, 2004b: 252). While intermarriage between and among all remaining ethnicities, including interior Timucuan, was increasingly common over the course of the 18th century, the birthplace and ethnicity of most Florida Indians in Cuba was generally recorded with careful consistency. Despite proportionally huge population losses in concert with increasingly minimal residential stability over the course of the last century before their evacuation to Cuba, the ethnic identity of surviving remnants of the former Guale, Mocama, and Yamasee inhabitants of the present study area was nevertheless one of the most long-lasting and persistent features of the cultural landscape during this traumatic period (table 8.3).

Direct archaeological evidence for the southward retreat of Guale and Mocama throughout this period is still remarkably limited as of the writing of this chapter, though ongoing projects hold considerable promise in this regard. The most notable early project is excavation of the Harrison Homestead site, where archaeological work uncovered extensive

TABLE 8.1
Original and Relocated Mocama Communities on the Southeastern Atlantic Coast, 1661–1702

St. Simons Island		
	San Buenaventura de Guadalquini	through 1684
Cumberland Island		
	San Pedro de Mocama	through ca. 1660
Amelia Island		
	Santa María	through 1665
Black Hammock Island		
	Santa Cruz de Guadalquini	1684–1696
Fort George Island		
	San Juan del Puerto	through 1702

TABLE 8.2
Original and Relocated Guale Communities on the Southeastern Atlantic Coast, 1661–1702

Mainland		
	San Diego de Satuache	through ca. 1663
	San Phelipe de Alave	through ca. 1670
	Santa Clara de Tupiqui	through ca. 1674
	Santo Domingo de Talaje	through 1661
St. Catherines Island		
	Santa Catalina de Guale	through 1680
Sapelo Island		
	San Joseph de Sapala	through ca. 1684
St. Simons Island		
	Santo Domingo de Asajo	1661–1684
Cumberland Island		
	San Phelipe de Alave II	ca. 1670–1684
Amelia Island		
	Santa Clara de Tupiqui III	1684–1702
	San Phelipe III	1684–1702
	Santa María de Guale	1683–1702

TABLE 8.3
Immigrant Yamasee Communities on the Southeastern Atlantic Coast, 1661–1702

Sapelo Island		
	[unnamed community]	ca. 1680–1683
St. Simons Island		
	San Simon/Colon	ca. 1667–1684
	Ocotonico	ca. 1667–1680
Cumberland Island		
	[unnamed community]	ca. 1680–1683
	San Pedro	ca. 1680–1683
Amelia Island		
	[unnamed community]	ca. 1667–1680
	Ocotoquej	ca. 1667–1680
	La Tama	ca. 1667–1680
	Santa Maria	ca. 1667–1683

evidence for the relocated Santa Catalina mission community in close proximity to the earlier Santa María mission site, which had previously hosted successive Mocama and immigrant Yamasee populations (e.g., Saunders, 1992; 1993; 2000a). Precious few other archaeological sites associated with immigrant Guale or Yamasee communities have been explored intensively as such, though the identities of certain sites can be hypothesized based on the results of unrelated archaeological work. Proceeding from north to south, the archaeological remains of mission San José de Sapala and its probable near-neighbors or aggregates of Santa Clara, Santa Catalina, and San Diego (between 1680 and 1684), now seem most likely to be in the vicinity of the North of the Shell Ring site, currently under direct investigation (e.g., Jeffries and Thompson, 2005; my own previous suggestion of the nearby Bourbon Field site [Worth, 2007a: 194] seems less likely for the late 17th-century component based on recent work by Norma Harris and Victor Thompson [personal commun., 2007], which may date the occupation there considerably earlier in the Spanish era; see also Worth, 2008). On St. Simons Island, the relocated mission of Santo Domingo de Asajo has yet to be unambiguously identified or explored archaeologically, though it seems most likely to be associated with Cannons Point or Hampton Point, or perhaps both (e.g., Larson, 1980a; Worth, 2007a: 195). The Escamaçu community (known as Colon) at San Simón is only suspected from Spanish and Indian artifacts embedded in the 18th-century English Fort Frederica, and the nearby Yamasee community of Ocotonico to the south is similarly unknown.

On Cumberland Island, despite early testing (Milanich, 1971a), no Spanish-era mission or refugee community has ever received extensive archaeological attention, including not just the Mocama mission of San Pedro (subsequently reoccupied by Yamasee immigrants), but also the relocated Guale mission of San Phelipe, as well as a nearby Yamasee community (Worth, 2007a: 196). Likewise, other than Santa María and its successor Santa Catalina, none of the other immigrant Yamasee or Guale communities on Amelia Island has yet been subjected to intensive archaeological work designed to elucidate mission-era occupation (Worth, 2007a: 197–198). To the south, however, two recent projects have

been initiated on both the immigrant Mocama mission of Guadalquini (at Black Hammock Island), and at nearby San Juan del Puerto on Fort George Island, to which Guadalquini was subsequently aggregated (see Thunen and Whitehurst, 2005; Gorman, 2008).

Archaeological work in the immediate environs of St. Augustine has provided important information regarding several of the 18th-century refugee missions there, though the most comprehensive work has been carried out at the predominantly Yamasee mission of Nuestra Señora del Rosario de la Punta (e.g., White, 2002; Boyer, 2005; see also Waters, chap. 7, this volume). While the locations of a number of these successive refugee communities (as well as the longest-lasting Florida mission at Nombre de Dios/Nuestra Señora de la Leche; see Deagan, 2004a; chap. 6, this volume) have doubtless been identified at least in broad outline, targeted archaeological investigation of many of these sites remains to be done.

ANALYSIS OF SPATIAL AND TEMPORAL PATTERNS

In a general perspective, several important patterns are evident during the span of the early European colonial era along the southeastern Atlantic coast. First, apart from at least two notable episodes of Native American insurrection and Spanish retaliation within the study area (the two Guale rebellions of 1576–1580 and 1597–1601), there were probably no substantial and permanent interregional population movements along the Atlantic coastline until 1661, when Chichimeco slave raiders launched their first assault against the southernmost Guale mission at Talaje. Before 1661, population movements that can be documented or hypothesized are generally on a local scale, conforming to what I have described elsewhere as contraction, in which subordinate satellite communities within local chiefdoms were abandoned in favor of more populus and central locations (Worth, 2002: 50–51). By the time of the 1655 Franciscan visitation, only 10 primary Guale and Mocama mission communities could be documented within the study area (not counting Escamaçu to the north), representing only a fraction of the broader constellation of literally scores of outlying communities that characterized the same region only half a century earlier (Worth, 2007a: 10–12; 2004a: 238–240). Not only were these population movements largely localized in scale, they may also be inferred to have been carried out within the context of the preexisting sociopolitical, economic, and linguistic framework of the estuarine landscape along the Atlantic coastline within the study area, and there is consequently no evidence for the type of population mixing and ethnic diversity that would typify the later colonial era. Indeed, the only longer-distance relocation that can be documented during this early colonial phase involved the movement of an interior Timucuan group—Utinahica—downriver to the mouth of the Altamaha River and into yet another Timucua-speaking community—Guadalquini—on St. Simons Island, a process best described as aggregation (Worth, 1993: 34–37; 2002: 51–52; 2007a: 111, 124).

Beginning shortly after the dawn of the Indian slave trade era in 1659, the Atlantic coastal region witnessed a new era in settlement dynamics, one characterized by frequent and sometimes abrupt population movements on both a short- and long-distance scale. Between 1661 and 1675, two general processes seem to have been in operation: population movement southward and away from the mainland, and increasing intraprovincial ethnic diversity, owing in part to the in-migration of formerly extralocal populations. By no later than 1675, all remaining mainland communities in the Guale and Mocama provinces had apparently been relocated to the barrier islands in order to provide some measure of protection against land-based slave-raiding, and during this same period, there was a concurrent in-migration of substantial populations of Yamasee Indians into then-unoccupied barrier-island locations within the old Mocama province (Worth, 2004b; 2007a: 18–22, 27–30). Not only were there newly relocated Guale communities scattered among older Mocama communities from the Altamaha River southward, but a number of immigrant Yamasee communities were also scattered during this same era. The barrier islands of old Guale were largely unaffected by this new ethnic mix (with the exception of a single small Yamasee community on the southern end of Sapelo Island), but Mocama's islands of St. Simons, Cumberland, and Amelia were now home to Mocama, Guale, and Yamasee settlements, spatially distinct but still in far closer proximity than ever before. Consolidation of all settlements seaward and southward during this period therefore occurred

concurrently with a substantial increase in localized ethnic diversity, which was nonetheless limited to island locales, and almost entirely within the old Mocama province. However, despite the newfound proximity of these diverse communities of differing ethnicities, there is no clear evidence for notable intermarriage or other ethnic mixing between communities, and substantial evidence to indicate that distinct sociopolitical and ethnic identities were maintained among these communities during this period.

A third phase in the settlement history of the study area was inaugurated with the 1683 flight of the Yamasee from the Guale and Mocama provinces, and the abrupt abandonment and retreat of these missions south of the St. Marys River following the pirate raids of 1684 (Worth, 2007a: 36–47). Between 1685 and 1702, remnant Guale and Mocama communities (minus their former Yamasee neighbors) were clustered on Amelia Island and around the mouth of the St. Johns River (Black Hammock and Fort George islands), respectively. Most or all of these locations were either on or near abandoned Mocama communities, or were themselves continuously occupied Mocama villages that survived all the way through 1702 (in the case of San Juan del Puerto).

A fourth and final phase was marked by the retreat of these Guale and Mocama communities south of the St. Johns River after 1702, and by 1706 to the vicinity of St. Augustine itself, where they remained through 1763. Though marked by frequent relocation of refugee villages within the area near the city of St. Augustine, this phase was characterized for the first time by increasing interaction with other refugee Indian communities from the western mission chain, including Apalachee, Timucua, and other ethnic groups, as well as small numbers of refugees from central and southern Florida, many of whom had never been involved in the Spanish mission system. In addition, the return of Yamasee immigrants to the vicinity of St. Augustine after 1715 effectively doubled the local Indian population, augmenting the ethnic diversity represented in the surviving mission communities around the city. As populations dwindled over the next decades to just a few hundred surviving individuals in the immediate environs of St. Augustine, for the first time there is clear evidence for substantial multiethnic intermarriage among aggregated refugee populations, resulting in a notable number of multiethnic households by the 1750s (see Hann, 1996: 296–325; Worth, 1998b: 140–158; 2007a: xiii–xiv).

An examination of this four-phase categorization of Native American settlement distribution along the lower Atlantic coastline between first European contact (ca. 1514–1516) and the evacuation to Cuba in 1763 provides the basis for several important assertions. First, with few exceptions (i.e., Utinahica during the 1630s or 1640s), there is no current unambiguous evidence for any significant interregional settlement relocations within the study area until 1661. There were unquestionably periods of localized Spanish-Indian warfare, site abandonment, and subsequent site reoccupation (sometimes in different locations); and there is also considerable evidence for localized contraction of outlying communities to centralized locations. However, there is no reason to infer that the sum total of these small-scale population movements during this period resulted in significant or permanent geographic "mixing" between previously disparate local socioethnic groups. In other words, prior to 1661, when the first Guale mission community (Talaje/Asajo) was relocated just across the former "boundary" between the Guale and Mocama provinces, most population movements and village relocations within the study area seem to have been carried out within, rather than between, the existing territories of local and regional sociopolitical groups. For this reason, any observed changes in material culture that occurred during this first phase (ca. 1514–1661) are not likely to have been a result of the permanent physical relocation of populations from one area to another. Any changes that occurred would therefore most likely have been in situ transformations experienced by localized populations with geographically stable residential patterns (even while undergoing localized contraction).

After 1661, population mobility and in-migration became a significant factor in the settlement systems of coastal populations in the study area, though the target destinations of *all* relocated communities (whether Guale, Mocama, or Yamasee) were exclusively on the barrier islands, resulting in a complete abandonment of the coastal mainland by 1675. This observation is of considerable importance, since it means that there is no evidence for any interregional migration of nonlocal groups to mainland locations

in the southern portion of the study area during the second and third phases described above (1661–1702). Moreover, during the fourth and final phase (after 1702), all remaining populations were evacuated south of the St. Johns River and finally to St. Augustine, leaving the mainland portion of old Mocama and Guale similarly vacant. Consequently, with the exception of the comparatively short-lived and spatially restricted occupation of English-allied Yamasee Indians in mainland portions of the old Escamaçu province between 1685 and 1715, there is no evidence for any interregional migration and settlement on any mainland locations within the study area during the post-1661 era. Any archaeological evidence for material culture change on mainland sites therefore almost certainly relates to pre-1661 patterns of intraregional settlement contraction and aggregation, as noted above, and hence most likely derives from in situ change among local indigenous populations.

Barrier islands within the study area represent a radically different situation, however. Multiple population movements by all three ethnic groups (Guale, Mocama, and Yamasee) throughout the period between 1661 and 1702 resulted in an almost bewildering pattern of double- and even triple-ethnicity habitation sites, some that have been identified and explored archaeologically, and others that are best known from the documentary record. Not only do many of these sites contain sequential and presumably overlapping occupations by two or more completely different ethnic groups, but many are also characterized by intervening periods of abandonment, all of which occurred within a relatively short span of time, adding to the anticipated complexity of archaeological deposits associated with each site. Tables 8.4 and 8.5 list the known and probable triple- and double-ethnicity sites on specified barrier islands within the study area, and tables 8.6 and 8.7 provide information on single-ethnicity sites within the same region, including those that appear to have been newly established at previously uninhabited (or long unoccupied) locations, and those that represented continuously occupied sites with probable indigenous prehistoric roots. Many barrier-island sites within the old Mocama province, therefore, are almost certain to contain not only direct evidence for any pre-1661 transformations in ceramic material culture, but also subsequent (and probably overlying) evidence for direct immigration by one and sometimes two completely distinct ethnic groups during the second and third periods noted above (from 1661 to 1702). While many "unadulterated" pre-1661 indigenous Mocama sites doubtless exist on these same barrier islands, the presence of so much succeeding settlement on these islands by Guale and Yamasee immigrants makes almost any archaeological context initially suspect without considerable attention to chronological detail (some of which may not even be possible within such short spaces of time for immigrant occupations). Far better sample control seems likely on mainland sites within the Mocama region, which have unfortunately received far less archaeological attention than several of the more visible barrier-island locales. Nevertheless, only detailed study of single- and multiple-ethnicity sites throughout the entire region (mainland and island) will likely provide the data for broadscale synthesis of ceramic variation (both spatial and temporal) within the region.

ETHNICITY AND CERAMICS: STEPS TOWARD A SYNTHESIS

At the "moment" of first contact between the Native Americans and European explorers, dating to approximately A.D. 1514–1516, archaeologists currently recognize at least three contemporaneous aboriginal ceramic "style zones" within the study area—Irene-Altamaha along the southern South Carolina and northern Georgia coastline (and apparently extending into the middle Georgia coast on St. Simons Island), San Pedro along the southern Georgia and far northeastern Florida coastline, and St. Johns in and around St. Augustine proper. Of these three groupings, possibly the most problematic cultural association (though not the most recent to have been intensively investigated) is the middle Georgia coastal region, including St. Simons and Jekyll islands and adjacent mainland areas, as will be discussed further below.

The entire northern half of the study area, minimally from Port Royal south to the Altamaha River, and possibly even farther south, was characterized by a regional variant of the far-reaching Lamar culture, which extended hundreds of miles west and northwest across the coastal plain and Piedmont physiographic provinces of Georgia, South Carolina, and Alabama, and even to the Appalachian summit region of North

TABLE 8.4
Documented Triple-Ethnicity Sites, 1661–1702

Santa María (Amelia Island)		
	Indigenous Mocama mission	through 1665
	Immigrant Yamasee community	ca. 1667–1683
	Relocated Guale mission	1683–1702

TABLE 8.5
Documented Double-Ethnicity Sites, 1661–1702

San Pedro de Mocama (Cumberland Island)		
	Indigenous Mocama community	through ca. 1660
	Immigrant Yamasee community	ca. 1680–1683
Santa Clara III (Amelia Island)		
	Immigrant Yamasee community	ca. 1667–1680
	Relocated Guale mission	1684–1702
La Tama–San Phelipe III (Amelia Island)		
	Immigrant Yamasee community	ca. 1667–1680
	Relocated Guale mission	1683–1702

Carolina and into the Ridge and Valley district of Tennessee (Williams and Shapiro, 1990; Hally, 1994). The late prehistoric variant of this Lamar culture is known locally as Irene, and at some point prior to A.D. 1600, this Irene material culture underwent a transformation into another Lamar-related ceramic series named Altamaha, which under this name and a different name (San Marcos) eventually rose to predominance in the southern portion of the study area during the following century (see DePratter, chap. 1, this volume). Precisely when, where, how, and why this transformation in ceramic material culture took place has been the subject of considerable debate among archaeologists, and is the primary focus of this chapter, as discussed below. At this point, however, it is important to note that while Irene and its successive Lamar variant Altamaha can indeed be distinguished archaeologically (even if the precise typological "boundaries" are not unambiguously defined or universally agreed upon), the distinction between Altamaha and its "southern" cousin San Marcos is far less clear. As emphasized by Saunders (2000a: 45–49), who has conducted the most thorough and in-depth study of the Irene-to-Altamaha transition to date, the types are "badly conflated in the literature" and seem more likely to reflect a generalized "areal distinction" between Georgia and Florida assemblages, despite several attempts to distinguish the two on more detailed stylistic grounds. This conclusion was reinforced by the participants in the Second Caldwell Conference, who compared ceramic examples identified regionally as "Altamaha" and "San Marcos," and determined that they could not be distinguished (see Preface, Deagan and Thomas, this volume). Given this difficulty, and the very fact that precise distinctions between "northern" and "southern" may well have important ethnic

TABLE 8.6
Documented Single-Ethnicity Sites at Newly Established Locations (without prior documented occupation), 1661–1702

Sapelo Island		
	San Joseph de Sapala: Possible expanded occupational areas associated with three immigrant Guale communities	ca. 1680–1684
	Unnamed Yamasee community at southern tip	ca. 1680–1683
St. Simons Island		
	Santo Domingo de Asajo	1661–1684 (Guale)
	San Simón/Colon	ca. 1667–1684 (Yamasee)
	Ocotonico	ca. 1667–1680 (Yamasee)
Cumberland Island		
	San Phelipe II (possibly underlain by Mocama Puturiba?)	
	Unnamed Yamasee community between San Phelipe and San Pedro	
Amelia Island		
	Ocotoque	ca. 1667–1680 (Yamasee)
Black Hammock Island		
	Santa Cruz de Guadalquini	1684–1696 (Mocama)

as well as spatial and temporal explanations, for the purposes of this paper I will simply combine the names and refer to "Altamaha/San Marcos" pottery and assemblages, lumping both "types" into a single category for purposes of explanation and synthesis.

In point of fact, not just Altamaha and San Marcos, but also Irene itself, all represent regional variations of what is elsewhere simply referred to as Lamar. Using chronological priority of the original type descriptions—Jennings and Fairbanks (1939) for Lamar, Caldwell and McCann (1941) for Irene, Smith (1948) for San Marcos, and Larson (1953) for Altamaha—as well as geographical extent and precedent in the literature (e.g., Williams and Shapiro, 1990; Hally, 1994), a viable argument could be made for subsuming all three types within a type-variety system under the overall Lamar rubric (sensu Scarry, 1985). Nevertheless, in an effort not to succumb to the temptations of what has been humorously (and not inaccurately) referred to as "Lamarchaeology" (Jung, 1992), I will restrict myself only to lumping Altamaha and San Marcos into a single analytical unit.

What seems quite clear from existing data is that the ultimate origin of the "Lamaroid" Altamaha/San Marcos ceramic tradition was

TABLE 8.7
Documented Single-Ethnicity Sites at Indigenous Locations, 1661–1702

Mainland		
	San Diego de Satuache	(through ca. 1663: Guale)
	San Phelipe de Alave	(through ca. 1670: Guale)
	Santa Clara de Tupiqui	(through ca. 1674: Guale)
	Santo Domingo de Talaje	(through 1661: Guale)
Fort George Island		
	San Juan del Puerto	(through 1702: Mocama)

among the people who were producing similarly Lamaroid Irene ceramics during the late prehistoric period, evidently corresponding to the historically documented Guale and Orista/Escamaçu people of the northern Georgia and lower South Carolina coastal estuaries. Whether or not these sociopolitical groupings from the 1560s correspond directly to similar groupings at the moment of first European contact nearly half a century earlier is presently unclear, but for the purposes of the present discussion, it is sufficient to note that both Irene and Altamaha ceramic types have been recovered together in late 16th-century contexts in several places within the northern portion of the study area, indicating that Irene and Altamaha ceramics apparently coexisted to some extent among both the Guale and Orista/Escamaçu at least as late as the 1580s. At least some stages of the in situ ceramic transformation from Irene to Altamaha/San Marcos appear to have been captured archaeologically in the sealed contexts from the period between 1566 and 1587 at Santa Elena (South and DePratter, 1996: 43–56; DePratter, chap. 1, this volume). Likewise, the archaeological site of Mission Santa Catalina de Guale, located at what would become the primary administrative center of the Guale chiefdom in the aftermath of the 1597 Guale rebellion (and the fall of Tolomato), is clearly dominated by ceramics that are attributable to the Altamaha/San Marcos series (e.g., Saunders 2000a: 90–110), but the appearance of a small percentage of Irene ceramics at the site (Thomas, chap. 2, this volume) may provide evidence either for a much earlier (and hence pre-Altamaha/San Marcos transformation) Irene occupation at the site, or simply for the persistence of at least some Irene attributes within the posttransformation assemblage (like the material at Santa Elena).

Distinguishing between these two alternative explanations will require a clear delineation of precisely when aboriginal Guale occupation began at the St. Catherines site, and whether or not Spanish presence at the site was initiated in the 1560s (signifying that the site was occupied contemporaneously with Santa Elena to the north), or perhaps only later in the late 1580s or early 1590s. Though Jones (1978: 203) has previously suggested that during the 1560s the town of Guale may originally have been located elsewhere, north of its St. Catherines Island location, my own research into the original records of the 1564 Manríque de Rojas expedition strongly indicates that the town of Guale was at that time located on the inland side of St. Catherines Island, accessible from a branch of a tidal river that joined the South Newport River on the northern side of Sapelo Sound, an area explored by Manríque between May 31 and June 7, 1564 (Manríque de Rojas, 1564; Bennett, 2001: 113–115; see also Worth, 2004a). While this location would correspond precisely to the site currently identified as mission

Santa Catalina de Guale, site-level precision beyond this general description is not currently possible based strictly on the documents, hence another nearby archaeological location remains possible. Unless new documentary evidence is identified in this regard, archaeological data may ultimately be the only way to clarify the precise location of the Spanish fort and mission at the town of Guale dating to the era between 1566 and 1570 (and hence permit the exploration of sealed archaeological contexts with aboriginal ceramics dating to this precise window of time).

The Altamaha phase has generally been assumed in recent archaeological literature to reflect a Spanish-era transformation of what would have been a more or less "pure" Irene assemblage at the moment of Spanish contact (DePratter, 1984: 49–54; Braley, 1990: 71–72, 98–100; South and DePratter, 1996: 45–47; Saunders, 2000a: 39–49, chap. 3, this volume). Indeed, based in part on Irene-associated radiocarbon dates from the Meeting House Field site on St. Catherines Island, extending well into the 15th century and even later, Saunders (2000a: 58–78, chap. 3, this volume) has argued convincingly for a relatively abrupt transition between Irene and Altamaha ceramic traditions. Nevertheless, there is at least some recent archaeological evidence that the initial stages of the transformation from Irene to Altamaha (as traditionally defined and distinguished) might have begun prior to Spanish contact in at least some locations. Extensive archaeological data recovery at the mainland Shell Crescent site along the May River north of Savannah has revealed several Altamaha-like characteristics (line-block and check stamping, red filming, etc.) in association with an Irene-dominated assemblage radiocarbon-dated to A.D. 1300–1400 (Mozingo et al., 2004: 54–58, 171–173). Similarly, radiocarbon dates from two sites on St. Catherines Island have produced a surprisingly early date range (cal A.D.1310–1450) for Altamaha ceramics (Thomas, 2008: 1041), and ongoing work at several island hammocks adjacent to Sapelo Island on the Georgia coast has also revealed ceramic assemblages with Altamaha characteristics producing an array of radiocarbon dates preceding A.D. 1450, and which apparently lack any evidence of Spanish contact (Victor Thompson, personal commun., 2008). Irene and Altamaha/San Marcos ceramics were indeed so closely correlated at several Spanish-era sites on Sapelo Island itself that Crook (1984b: 60–62) proposed the term "Irene–San Marcos" for those components, and Saunders (2000a: 176–177) has noted that data from the nearby mainland Pine Harbor site may also display evidence for a "more gradual transition from Irene to Altamaha," while still positing a postcontact date for the transition (see Saunders, 2000a: 45, 169–181). Clearly, even at this date (2008), much remains to be explored and examined in order to reconcile these diverse data and interpretations.

Although the precise timing and duration of this transition is clearly still elusive owing to gaps and contrasts in available data, and may vary somewhat by location and context, the date of 1600 nonetheless appears to represent a "watershed" after which Altamaha/San Marcos ceramics seem to have been more or less fully emplaced in the northern portion of the study area (Saunders, 2000a: 179–180). There seems little doubt that by the end of the 16th century, the previous Irene tradition of the Guale and Orista areas had been transformed into the Altamaha/San Marcos tradition, after which the style seems to have stabilized in association with both groups. And in the final analysis, the question of whether or not the early 16th-century ceramic assemblages of the Guale and Orista were "pure" Irene, or instead reflected some degree of an ongoing ceramic transformation into what would eventually be Altamaha/San Marcos, is in some ways beyond the purview of this chapter, since the fundamental assertion I would make here is simply that the Guale and Orista unquestionably bore a "Lamaroid" material culture at the moment of European contact, while their neighbors in the southern reaches of the study area did not (at least not yet).

The middle Georgia coastal region, immediately south of the area that has been traditionally defined as the Irene–Altamaha/San Marcos heartland, remains somewhat enigmatic in the published archaeological literature, though upon review of the available sources I am inclined simply to include it as part of the more northerly Irene–Altamaha/San Marcos area. While this region does not appear to be associated with the recently defined San Pedro region just to the south (Ashley, chap. 5, this volume), at Taylor Mound on St. Simons Island there are early Spanish contact era burials penetrating what may be an older Savannah II burial mound, as well as both Irene and Altamaha ceramics in clear association with Spanish artifacts within a subsequent mound

construction episode (Wallace, 1975; Pearson, 1977; Saunders, 2000a: 173–176). Moreover, Kent Mound on the southern end of St. Simons has also produced a lengthy prehistoric Irene ceramic evolutionary sequence that also apparently overlaps to some extent with the Spanish period (Cook and Snow, 1983; Cook, 1986; Saunders, 2000a: 44, 248–249). Although these documented associations are primarily based on burial-mound contexts (and hence might possibly relate more to mortuary assemblages than domestic utilitarian assemblages), available evidence would nonetheless seem to justify the inclusion of the whole of St. Simons Island in the Irene–Altamaha/San Marcos culture area, despite the fact that ethnohistoric evidence makes it abundantly clear that this island was inhabited during the Spanish period by Timucua speakers associated with the Guadalquini chiefdom (e.g., Worth, 2007a: 10, 195–196), apparently quite distinct in a political and linguistic sense from the Guale and Orista/Escamaçu chiefdoms to the north. Perhaps not unimportantly, Guadalquini itself seems to have had at least some cultural connection to the deep interior coastal plain Timucuan chiefdom of Utinahica, which likewise displays an anomalous Lamaroid ceramic assemblage in apparent contrast to other Timucua speakers to the south (Snow, 1990; Worth, 1993, 1995b; Braley, 1995: 37–39). Both these Timucuan areas were located along the northern "frontier" of the Timucuan language area, possibly providing some explanation for the atypical "overlap" of ceramic material culture not normally associated with Timucua speakers. This possibility clearly deserves greater attention.

Unless future excavations or analyses reveal that the prehistoric and historic-era Irene and Altamaha/San Marcos wares in Kent and Taylor Mounds are somehow atypical for contemporaneous residential ceramic assemblages on or adjacent to St. Simons Island (as Cordell, 2005, has recently confirmed for Safety Harbor burial assemblages in association with otherwise Caloosahatchee domestic contexts at the Pineland site in southwestern Florida; but see Saunders, 2000a: 107), I would argue that the inclusion of St. Simons Island (and hence Guadalquini) within the Irene–Altamaha/San Marcos culture area may therefore represent direct and explicit demonstration of multiple languages, ethnicities, and political units within a single archaeologically defined "ceramic style zone" (as defined by ceramic types and assemblages of types). Or to express this in different terms, the late prehistoric geographical distribution of archaeological ceramics in this instance does *not* correlate directly either to language, ethnicity, or political integration as defined by either Native Americans themselves or Spanish observers and administrators. Indeed, multilingualism has already been demonstrated as common among documented southeastern chiefdoms during the Spanish colonial era (Booker et al., 1992); hence, it is perhaps not surprising that archaeological cultures (even on a relatively small scale) also display similar multilingualism, although it is similarly clear that archaeological culture areas (normally defined principally by ceramics) also do not always correspond directly to documented chiefdoms or other political units. Ceramic assemblages evidently varied independently of these other cultural variables, even (apparently) in a precolonial context within the present study area. This recognition may be of considerable import with respect to the evidence for increasing multiethnic ceramic homogeneity during the mission period, as will be discussed in detail below.

In stark contrast to the situation in the northern portions of the study area, sealed contexts from late 16th-century St. Augustine appear to demonstrate quite clearly that local Timucuan Indians in the southern end of the study area were still making St. Johns ceramics at this time (Deagan, 2004a: 19–22, 46, 57–58; chap. 6, this volume). St. Johns II ceramics have long been recognized to overlap with initial Spanish presence in this region, demonstrating that initial Spanish contact was with St. Johns populations (e.g., Goggin, 1952). In addition, excavations in what would eventually be known as the Mocama province north of St. Augustine during the 17th century have also clearly demonstrated the overlap between early Spanish colonial era artifacts and aboriginal Timucuan assemblages of the recently defined San Pedro series (Milanich, 1971a; Ashley and Rolland, 1997a: 52–53, 63; Ashley, chap. 5, this volume). San Pedro ceramics also appear both as minority wares in local St. Johns assemblages around St. Augustine (Deagan, 2004a: 46, 57, 65), and as a predominant ware at at least one site just north of St. Augustine that may have been occupied by visiting or immigrant Mocama groups toward the end of the 16th century (Ashley, 2001). Increasingly, it appears clear that throughout this southern half

of the study area, the concurrence of late 16th- and early 17th-century Spanish material culture with both St. Johns (to the south) and San Pedro (to the north) ceramics provides clear evidence for the persistence of these indigenous Timucuan ceramic traditions somewhat longer than in the northern half of the study area.

Moreover, at the opposite end of the chronological "window" for the study period within this southern portion of the study area, the clear predominance of Altamaha/San Marcos ceramics in the uppermost levels of archaeological sites that are known to have been inhabited only by indigenous Timucua-speaking Mocama peoples demonstrates convincingly that while the transformation did not occur before the 17th century, it was certainly complete by the end of the century (e.g., Worth 1997; see also Ashley, chap. 5, this volume). This is most obviously the case with the archaeological site of mission San Juan del Puerto, located at Fort George Island, which is clearly dominated by Altamaha/San Marcos ceramics for much of its lengthy and continuous chronological span between 1587 and 1702 (McMurray, 1973; Deagan, 1978a: 106; Dickinson and Wayne, 1985; Gorman, 2008). Documentary evidence for the absence of any large-scale migration of non-Timucua speakers into this specific mission community throughout this period makes any other conclusion virtually untenable (Hann, 1996: 289–290; Worth, 1997a, 2007a: 47–50). Indeed, Altamaha/San Marcos ceramics are so widely distributed across northeastern Florida during the late 17th and 18th centuries that they were characterized early on as the "St. Augustine Period" for that region, ultimately dated to ca. A.D. 1650–1763 (Smith, 1948; Goggin, 1949: 50–52, 1953). While early researchers tended to attribute this phenomenon to supposed physical migration and/or intermarriage by Guale Indians or others from the northern half of the present study area (Smith, 1948: 314–316, 318; Goggin, 1952: 6, 9, 12, 13), it is now quite clear that the phenomenon is too widespread and lengthy to have been solely attributable to the truly small number of documented migrants into the area. In addition, the geographical distribution of Altamaha/San Marcos ceramics clearly includes many areas that *never* received immigrant Guale or Yamasee Indians, specifically referring to the mainland between the Altamaha and St. Johns rivers.

Though relevant archaeological evidence from the southeastern Georgia coastline is somewhat scarce compared to barrier-island locales (but see Ashley, chap. 5, this volume), at King's Bay on the mainland opposite Cumberland Island, Altamaha/San Marcos ceramics appeared in association with Spanish artifacts predating 1650, and a very similar situation was observed inland at the Martha Dowling North site, a likely Mocama mission that also contained San Pedro ceramics (Saunders et al. 1985; Weisman et al. 1998). The identification of an Altamaha/San Marcos ceramic assemblage at the recently identified Mocama community of Santa Cruz y San Buenaventura de Guadalquini might also demonstrate the completion of this transformation in Mocama material culture by the 1680s. The community moved in 1685 from its original location on the southern tip of St. Simons Island along the central Georgia coast to Black Hammock Island within sight of mission San Juan above near the mouth of the St. Johns River in northeast Florida (Thunen and Whitehurst, 2005). However, the fact that Guadalquini may already have been part of the Irene–Altamaha/San Marcos culture area during the 16th and early 17th centuries makes this migration perhaps less relevant to the discussion of change among San Pedro and St. Johns II populations south of Guadalquini.

Another archaeological site that may encompass the Mocama transition from San Pedro to Altamaha/San Marcos ceramics is the Harrison Homestead site, which includes not one but two Spanish mission church compounds, both dominated by Altamaha/San Marcos assemblages (e.g., Saunders, 1993, 2000a). The latter and more intensively excavated mission was identified as that of the immigrant Guale community of Santa Catalina, postdating 1684, while the earlier mission church to the south was tentatively identified as the immigrant Yamasee community of Santa María, dating from roughly 1667 through 1683 (Saunders, 1993: 56). Subsequent detailed review of archival evidence indicates that the short-lived Yamasee village at Santa María possessed neither a church nor a resident missionary, and had been exempted from the requirement to become Christians or pay tribute to the Mocama chief in exchange for their voluntary contributions to the annual Spanish labor draft (Worth, 2004b: 251; 2007a: 30, 35). This fact, combined with the presence of San Pedro ceramics at this site (Ashley and Rolland,

1997a: 63), and the aforementioned independent evidence for the widespread early 17th-century Mocama transformation from San Pedro to Altamaha/San Marcos ceramics, makes it possible (if not probable) that the Santa María mission structure uncovered at Harrison Homestead is in fact identical with the indigenous Mocama mission by this same name, which documentary evidence suggests was abandoned in or shortly after 1665 (Worth, 2007a: 20, 70–71, 197–198; see also Saunders, chap. 3, this volume). The intervening Yamasee occupation (between the pre-1665 Mocama and post-1684 Guale occupations) is probably also evident at the site, though unlikely to be associated directly with any formal Spanish mission structures, except perhaps as intrusive or overlying contexts. For this reason, the aboriginal ceramics at the Santa María mission site may encapsulate the entirety of the Mocama transition from San Pedro to Altamaha/San Marcos prior to 1665, particularly if subsequent and overlying Yamasee ceramics can be excluded from the analysis.

Based on the sum total of evidence in this regard, available data suggest that the transition of the Mocama from San Pedro and San Juan ceramics to Altamaha/San Marcos occurred during the first half of the 17th century, probably in the 1620s–1640s (see also Ashley, chap. 5, this volume, who posits a ca. 1625 for the transition). Importantly, the archaeological record of Spanish-identified urban households in St. Augustine itself reflects and confirms this pattern of ceramic transformation, though in the past it has likewise been thought principally to reflect immigration and eventual intermarriage by Guale Indians into the Spanish community (Deagan, 1990: 303–309; 1993: 95–101; Hoffman, 1993: 76–79; see also Smith, 1948: 314–316, 318; Goggin, 1952: 6, 9, 12, 13). As it turns out, given the regionwide transformation in material culture from indigenous St. Johns and San Pedro ceramic traditions to that of Altamaha/San Marcos, the fact that these ceramics turn up increasingly in post-1650 archaeological assemblages in St. Augustine seems only logical, and presumably (as argued by Waters, 2005: 151; chap. 7, this volume) Timucua speakers (principally Mocama Indians) as well as Guale Indians contribute to the presence of these aboriginal ceramics in Spanish contexts (by a variety of means ranging from trade to cohabitation).

Nevertheless, since St. Augustine represented an urban hub of the Spanish colonial endeavor in Florida, aboriginal ceramics inside the city itself might be expected to reflect not only the influence of indigenous Timucuans from the immediate vicinity, but also extralocal pottery resulting from frequent direct contact with other areas. This fact may in part explain the very early presence of Altamaha/San Marcos ceramics from Menéndez-era contexts at the Fountain of Youth Park site (Deagan, 2004: 57, 65), which are most likely trade wares from St. Augustine's twin port of Santa Elena to the north. The appearance of such wares in late 16th- and early 17th-century contexts at the same site, however, may provide some hint that the local Timucuan transformation from St. Johns to Altamaha/San Marcos ceramics may have begun prior to 1600, though it clearly did not become complete until decades later. Additional work is clearly needed to sort out the extent to which Altamaha/San Marcos ceramics began to appear in local Timucuan contexts around the turn of the 17th century. It should be noted, however, that despite a significant rise in the relative proportion of Altamaha/San Marcos ceramics with respect to that of the local indigenous St. Johns ceramic wares, evidence from the Fountain of Youth site and nearby Mission Nombre de Dios suggests that St. Johns wares may not have been wholly abandoned even as late as the 18th century, continuing to appear alongside predominant Altamaha/San Marcos wares (Deagan, 2004, chap. 6, this volume; Waters, 2005, chap. 7, this volume). This evidence suggests that for the St. Augustine-area Timucuan populations, the process of ceramic transformation may best be described as incremental rather than wholly transformative (Kathleen Deagan, personal commun., 2008). It is also possible that some of these late St. Johns wares in St. Augustine may be related to the persistence of that ceramic tradition among more southerly groups such as the Mayaca, Jororo, or Ais, many of whom fled northward to the St. Augustine vicinity in the early 18th century. This possibility must remain speculative at present, however.

One of the most intriguing aspects of this regionwide homogenization of indigenous ceramic traditions during the Spanish colonial era is the case of the Yamasee Indians. They not only took up the Altamaha/San Marcos ceramic assemblage not long their arrival in the coastal

study area during the late 1660s as refugees from the interior, but subsequently maintained that ceramic tradition during the three decades of living separately in lower South Carolina between 1685 and 1715, even as they participated in slave raids against some of the very mission populations they would later settle among and intermarry with after the 1715 Yamasee War (Worth, 2004b). At present there is little reason to doubt that the early to mid 17th-century material culture of several of the most important Yamasee antecedent communities in central Georgia (Altamaha and Ocute, characterized at that time by Bell Phase Lamar ceramics; see Williams and Shapiro, 1990; Worth, 1993; Hally, 1994; Williams, chap. 4, this volume) was essentially unrelated to and uninfluenced by the coastal Altamaha/San Marcos transformation that had been largely completed before 1600. The precise date at which the first Yamasee towns relocated into or along the margins of the old Escamaçu province, broadly conceived, is not absolutely certain, but the earliest Spanish documentary references to the Yamasee imply that their arrival was quite recent as of 1663, and consisted of at least five and probably more distinct communities said to be from two to eight days' travel from the Guale province (probably between 32 and 126 mi using six leagues or nearly 16 mi as a daily average; see Worth, 2003). Given these broad distances, however, which encompass nearly the entire eastern coastal plain of Georgia and southern coastal plain of South Carolina, it remains possible that Bell Phase populations of the Piedmont Oconee might instead have begun relocating toward coastal Escamaçu or Guale several decades prior to the arrival of the Chichimeco-Westo raiders in the period 1659–1661. This might have given them an expanded chronological "window" of exposure to Altamaha/San Marcos ceramics, even before they moved into the mission territory. The possibility of an earlier exodus out of the Piedmont Oconee valley might indeed explain Marvin Smith's (1992: 31–32) suggestion that the Bell Phase showed little or no evidence for occupation before the first third of the 17th century, except along the Fall Line.

Regardless of the precise timing, the Yamasee appear to have either adopted the Altamaha/San Marcos ceramic series during their stay in Mocama as immigrants during the 1660s and 1670s, or were already making it by the time they began living in Mocama territory (in the latter case presuming that there was an intermediate migration stage away from the Piedmont Oconee during the mid-17th century). Moreover, as noted above, by this date, the Mocama were also making this ceramic series, like their northern neighbors the Guale, who (together with the Orista/Escamaçu) seem to have been the earliest to adopt the Altamaha/San Marcos material culture. By no later than the 1680s, Altamaha/San Marcos had become the predominant ceramic series in use among all "Mission Indians" living along the Atlantic coast north of St. Augustine, regardless of their geographic or ethnic origin, and regardless of their linguistic identity or local political affiliation at the time. By the last quarter of the 17th century, the Altamaha/San Marcos ceramic series was common to all three major ethnic groups living in the study area: Guale, Mocama, and Yamasee. On a strictly typological basis, therefore, rosters of archaeological ceramic types cannot currently be used to determine or distinguish aboriginal identity within the study area during this period. This being said, however, meaningful patterns of interassemblage variability may well exist with respect to relative proportions of individual types, or other characteristics such as microstylistic decorative variability, vessel form, ceramic paste, or other features, any or all of which may be associated with (and hence distinguish) specific ethnic groups (see, for example, Waters, chap. 7, this volume, and Saunders, chap. 3, this volume, regarding the higher proportion of stamped ceramics at the Mocama mission Santa María). At this point, however, the only categorical statement that can be made unequivocally using the roster of aboriginal ceramic types associated with Altamaha/San Marcos is that they signify production by "Atlantic Coastal Mission Indians" as broadly conceived, suggesting that from a ceramic point of view, all disparate groups within that broad category were typologically the same. Despite the presence of multiple ethnic groups speaking mutually unintelligible languages and considering themselves within differing ethnopolitical groupings, all seem to have made the same suite of ceramic types.

This evidently remained unchanged following the turbulent period from 1683 to 1685, when a series of pirate raids provoked not only the flight of the Yamasee away from the mission provinces but also the wholesale abandonment of the entire Georgia coastline and the relocation of Guale and Mocama missions to two localized clusters

on Amelia Island and the mouth of the St. Johns River, respectively. Not only did the relocated Guale and Mocama mission communities each continue to make Altamaha/San Marcos ceramics at those two locations (Saunders, 2000a: 136–153, chap. 3, this volume; Thunen and Whitehurst, 2005) and through their subsequent relocation south of the St. Johns River in 1702 (at Pilijiriba), and adjacent to St. Augustine proper by 1704; but so also did their (then) English-allied enemies the Yamasees, whose stay in lower South Carolina was not apparently marked by any significant innovation in ceramic typology through their 1715 return to Spanish Florida (Green and DePratter, 2000; Southerlin et al., 2001; Worth, 2004b), when all three groups once again became neighbors in the outskirts of the city of St. Augustine. Archaeological work at several 18th-century refugee missions around St. Augustine has confirmed that Altamaha/San Marcos continued to be the defining material culture for remaining Guale, Mocama, and Yamasee communities well into the 1730s and later (White, 2002; Waters, 2005, chap. 5, this volume; Boyer, 2005). Though all these refugee communities show clear evidence of increasing ethnic mixing and intermarriage before their final departure for Cuba in 1763 (Hann, 1996: 296–325; Worth, 1998b: 140–158; 2007a: xiii–xiv), records from the evacuation and postevacuation era in Cuba still commonly indicate "tribal" origin for each individual transported and resettled. The Cuban documents suggest that not only had aboriginal ethnicity not disappeared during this traumatic era, it was one of the most persistent facets of individual identity among the remaining Indians of Spanish Florida, regardless of nearly complete homogeneity of Native American ceramic styles during this same period.

In sum, what had evidently begun at some point prior to the end of the 16th century as a localized transformation from Irene to Altamaha/San Marcos material culture among the Guale and Orista/Escamaçu (and perhaps Guadalquini as well) of the northern coastal margins of Spanish Florida, then expanded, incorporating the surviving remnants of all major Native American ethnic groups in this region within two centuries, including (1) all coastal Guale and Mocama Indians who retreated to St. Augustine between 1661 and 1704, (2) remaining unmissionized Escamaçu Indians north of the mission chain, (3) immigrant Yamasee Indians who joined the coastal missions both in the 1660s and again after 1715, and (4) Apalachee and Timucua Indians who retreated to St. Augustine between 1704 and 1706. Following the completion of this in situ transformation among the Guale and Orista/Escamaçu by 1600, the next phase of the ceramic transformation involved its spread southward to St. Augustine by 1650, evidently resulting not from the migration of people, but rather the in situ transformation in material culture among disparate ethnic groups. The subsequent phase of transformation involved the adoption of the newly established coastal "monoculture" (as defined strictly within the realm of ceramics) by all subsequent Native American immigrants into St. Augustine. The first instance was the Yamasee during the late 1660s, and the second instance was the Timucua and Apalachee after 1706. What began as an in situ transformation of the material culture of several local groups in the northern half of the study area before 1600, became a wholesale transformation of all other local groups in the southern half of the study area by 1650, although there was some minority persistence of local traditions (such as St. Johns) alongside the newly predominant Altamaha/San Marcos. All subsequent immigrants to any part of this coastal region (from Port Royal to St. Augustine) through the early 18th century almost immediately became part of this regional phenomenon. Whatever cause can be posited for the southward spread of this transformation among residentially stable Mocama populations in the southern half of the study area before 1650 seems likewise to have influenced all future immigrants into the area, despite the explicit and persistent maintenance of distinctive ethnic identities for villages, families, and individuals as these very same populations retreated southward and intermixed as refugees from English-sponsored slave-raiding.

THE ALTAMAHA/SAN MARCOS TRANSFORMATION IN BROADER PERSPECTIVE

Curiously, and not insignificantly, the multiregional and multiethnic homogenization of aboriginal ceramics during the mission period within the study area along the Atlantic coastal zone does *not* seem to have spread westward and inland along the western Spanish mission chain extending from St. Augustine through the Apalachee mission province, traversing several

indigenous Timucuan districts including Potano, Timucua, and Yustaga. Altamaha/San Marcos ceramics appear to have remained extreme minorities at Apalachee and Timucua mission sites even through their final abandonment between 1704 and 1706 (Bonnie McEwan, Gifford Waters, personal commun., 2007), clearly indicating that whatever was going on in the northern Spanish mission chain along the Atlantic coastline during the late 16th and 17th centuries did *not* spread westward into the interior during this same period. Importantly, however, the homogenization of ceramics witnessed along the northern mission chain was almost precisely mirrored by a parallel transformation in ceramic material culture along the western mission chain, though in this case the "Western Interior Mission Indian" ceramic identity appears to have centered on the Jefferson ceramic series, another Lamar-related complex also known as Leon-Jefferson (Smith, 1948: 316–318; Willey, 1949: 488–495; Scarry, 1985; Worth, 1993, 1998b: 36–37; 2006a: 204–205). Lamaroid Jefferson ceramics, like Altamaha/San Marcos, seem to have spread from the farthest province inward toward St. Augustine, and apparently in roughly the same time period and at about the same pace. Here, local indigenous ceramic traditions (Suwannee Valley and Alachua; e.g.,; Milanich, 1971b; Rolland, 2007; Worth, 2007b) were also eventually dominated and largely replaced by the Jefferson series, a transformation that was essentially complete before 1650.

Though the Jefferson series appears to have been still dominant in the western Florida mission chain through the early 18th century, the rapid withdrawal of the remnants of these predominantly Timucua and Apalachee mission communities to the vicinity of St. Augustine (Hann, 1996: 296–325; Worth, 1998b: 140–158) seems to have resulted ultimately in the replacement of the Jefferson ceramic series by the then-local Altamaha/San Marcos ceramic series (Waters, chap. 7, this volume; Kathleen Deagan, personal commun., 2007). While the ceramic assemblage directly associated with recently arrived Apalachee and Timucua Indians has yet to be distinguished archaeologically, no doubt partly owing to the fact that there was considerable ethnic mixing within the 18th-century refugee missions of St. Augustine, the apparent dominance of Altamaha/San Marcos material culture during this period in and around St. Augustine suggests that by the middle of the century, *all* remnant Florida mission Indians were making Altamaha/San Marcos ceramics in the vicinity of St. Augustine.

In the post-1706 era, Jefferson material culture only seems to have persisted far to the west, where remnant Apalachee settled along the Spanish-French borderlands between Pensacola and Mobile. Aboriginal ceramics recovered in Old Mobile (1702–1711) demonstrate the persistence of Jefferson-style ceramics during this period among French-allied Apalachee Indians during the early phase of their migration west along the northern Gulf coast (Cordell, 2001). Moreover, by the middle of the 18th century, the only remnants of the once-widespread Jefferson material culture that once dominated the interior western Florida missions seem to have been in the vicinity of Pensacola, where Jefferson and Lamar ceramics together make up more than half of the Native American assemblage at Presidio Santa Rosa (1723–1756), which nonetheless includes a small percentage of Altamaha/San Marcos wares, possibly deriving from nearby Yamasee Indian immigrants (Harris, 2007). If the local Apalachee and Yamasee Indians evacuated with the Spanish to Veracruz, Mexico, in 1763 (Gold, 1965) were indeed still making a predominantly or even partly Jefferson-related ceramic assemblage by that late date, they may have been among the only surviving remnants of that "Western Interior Mission Indian" material culture in existence at that time. Of course, presumably, the remaining Florida mission Indians who departed for Havana from St. Augustine that same year (Gold, 1965) were still characterized by the Altamaha/San Marcos material culture.

Taken in broader context, therefore, the Altamaha/San Marcos transformation may be viewed as half of a two-part transformation in aboriginal ceramic material culture that ultimately affected all Native Americans living within the expansive Franciscan mission system of greater Spanish Florida. At some point during the period between roughly 1600 and 1650, Lamaroid ceramic assemblages from two widely disparate regional manifestations of the broader Lamar culture area (Altamaha/San Marcos among the Guale and Orista/Escamaçu, and Jefferson among the Apalachee) spread from the most distant Florida mission provinces back along the primary mission corridor toward the colonial administrative center at St. Augustine,

overwhelming and ultimately replacing the local Timucuan ceramic traditions that had previously existed in between (San Pedro and St. Johns for the Mocama, and Suwannee Valley and Alachua for the Timucua and Potano). Curiously, St. Augustine itself, as the central "hub" of the Florida colonial system, was not influenced by this transformation in a balanced or proportional manner as might be expected, especially given the overwhelming demographic dominance of the western interior mission populations (especially Apalache) over that of the northern coastal missions. Current evidence indicates that Altamaha/San Marcos predominated there throughout the 17th century, even as Jefferson ceramics spread eastward. Even when many of the last remaining makers of Jefferson ceramics finally migrated to St. Augustine after 1704, their material culture seems to have been absorbed and replaced by the pancoastal Altamaha/San Marcos series examined in this chapter. For whatever reason, Altamaha/San Marcos seems to have become the de facto dominant ceramic material culture of all remaining Florida "mission Indians" living in and around St. Augustine after the first decade of the 18th century. Though Altamaha/San Marcos apparently did not spread into the western interior provinces, once it had been emplaced in the environs of St. Augustine by the late 17th century, it seemed to be characterized by considerable durability.

EXPLAINING THE TRANSFORMATION

In this chapter, I have concentrated my efforts on providing a detailed description of the exact chronological and geographical parameters of the ceramic transformation that was experienced by essentially all Native American residents of the Atlantic coastal study area during the Spanish colonial period. I have also placed this more detailed overview in the broader context of similar changes that can be documented for the western interior provinces of greater Spanish Florida at the same time. What remains to be addressed at least in part is the question of exactly why and how these transformations occurred, and what they imply about the oft-assumed relationship between archaeological ceramics and ethnicity.

With regard to the latter question, even if the concept of ethnicity is expanded to include virtually any form of "social group identity" (whether ethnic or linguistic or political), certain logical inferences must be established if a linkage is to be posited between ceramic style zones (established archaeologically, using assemblages of types) and at least some form of distinguishable social grouping (established ethnohistorically). Regardless of whether ceramic style zones are interpreted to reflect conscious behaviors of potters in communicating symbolic markers of group affiliation (sensu Wobst, 1977), or whether they are simply a by-product of social interaction zones that themselves are reflections of group boundaries (sensu Friedrich, 1970), perhaps the most fundamental association that must be established is that there actually *is* some sort of direct correspondence between archaeological ceramic style zones and the type of social grouping that is asserted to be coincident with it. This is particularly important if an argument is to be made that pottery style or decoration possesses symbolic content that is specifically and intentionally designed to transmit social identity or group affiliation.

With respect to the Guale transition from Irene to Altamaha/San Marcos, and its continuous use among the Guale Indians through the early 18th century, Rebecca Saunders (1992, 2000a) has approached the question of ceramic change and continuity using a robust dataset incorporating many dimensions of ceramic variability, ranging from paste and form to decoration and style. Relying in part on stylistic analysis emphasizing the information content of decorative symbols as markers of social identity or group affiliation, Saunders has explored the persistence of inferred symbolic content in the form of the widespread Southeastern Indian "world symbol" as a central component of stamped pottery decoration in both precontact Irene assemblages and mission-era Altamaha/San Marcos assemblages (Saunders, 1992; 2000a: 49–51, 169–170, 180–181). The continued use of this cosmological symbol across the transition between the earlier Irene "filfot cross" motif and the subsequent Altamaha/San Marcos "line block" design was interpreted as possible evidence of conscious cultural perseverance, or even a form of passive resistance, during the period prior to 1680, and a subsequent decline in the use of this symbol in assemblages dating between 1684 and 1702 was similarly interpreted as potential evidence for the beginnings of the adoption of a different colonial worldview following the Guale evacuation from their Georgia homeland (Saunders, 2000a: 101,

180–181). In both cases, however, the primary decorative motif in stamped Irene and Altamaha/San Marcos pottery (the world symbol) was interpreted to reflect an implicit communication of Guale "social identity," with the continuation, alteration, or diminishment of this symbol during the colonial era serving as a corrollary or gauge of concurrent transformations in this same sense of group identity (Saunders, 1992: 145; 2000a: 181). Viewed within the context of the Guale themselves, who were indeed among the first to adopt the Altamaha/San Marcos ceramic series, the overall degree of continuity through the 16th and 17th centuries is indeed remarkable, and clearly implies that the core decorative element making up the stamped decoration throughout this period must have been both persistent and meaningful.

In broader context, however, the fact that the Altamaha/San Marcos ceramic series can now be demonstrated to have spread southward along the Atlantic coastline to St. Augustine, and by the last half of the 17th century had been adopted by the inhabitants of several local Mocama chiefdoms that had previously been characterized by San Pedro and St. Johns ceramic series, indicates clearly that while continuity may have been the rule among the Guale, it was instead *change* that characterized their Timucua-speaking neighbors to the south. Similarly, ceramic continuity seems to have been abandoned by Yamasee immigrants to the Georgia and Florida coastal islands in the 1660s, and also by Timucua and Apalachee immigrants to St. Augustine a generation later (not discounting the fact that the Timucua had themselves experienced a prior ceramic change with the Jefferson transformation three-quarters of a century earlier). What represented a substantial degree of ceramic continuity for the Guale and their 18th-century descendants in St. Augustine, was in fact a reflection of substantial ceramic change for virtually all other Native American inhabitants of greater Spanish Florida during the 17th and 18th centuries.

Given all the data and analyses above, the conclusion seems inescapable that even if the symbolic and stylistic content of the Altamaha/San Marcos ceramic series was in fact a conscious communication of social identity, it was *not* a communication of uniquely Guale ethnicity. If virtually every living Native American resident of the entire Atlantic coastal zone within the study area ultimately abandoned or minimized their own indigenous ceramic tradition in favor of that of the Altamaha/San Marcos ceramic series, while simultaneously maintaining clear and persistent ethnic distinctions based on traditional political, linguistic, or regional subdivisions within that same broader population, then it seems impossible to conclude otherwise than that ceramic material culture was *not* a direct reflection of aboriginal ethnicity in the traditional sense. The ceramic style zone represented by the maximal distribution of Altamaha/San Marcos clearly crosscut and transcended all ethnic boundaries at the time. If the symbolic or stylistic content of Altamaha/San Marcos communicated or reflected some form of social identity, it was clearly multiethnic.

One possible explanation that might be inferred from the analysis above is that Altamaha/San Marcos ceramics instead communicated a *new* type of social identity, one specifically deriving from or suited to the Spanish colonial era. The one thing that united all groups within the study area during the study period was some form of involvement with the broader colonial system of greater Spanish Florida. Indeed, in larger perspective, there is little doubt that the spread of Altamaha/San Marcos material culture was either instigated or conditioned by the involvement of participating groups with the Florida mission system. The question, however, is precisely how that involvement may have influenced the spread of this ceramic series among such a diversity of aboriginal ethnic groups. An immediate question would be whether or not Altamaha/San Marcos might communicate or reflect a new panregional "Mission Indian" social identity, as argued for the St. Augustine area by Waters (2005: 149–151). In other words, did all "missionized" Native Americans within the study area adopt the symbolic and stylistic content of Altamaha/San Marcos as an expression of that new social grouping, unified under Spanish administration? The answer to that specific question is yes, but it also begs another question: was Altamaha/San Marcos similarly common to all missionized groups throughout *all* of greater Spanish Florida? And the answer to that question is a resounding no. As discussed above, the Altamaha/San Marcos ceramic series did *not* extend westward into the interior of greater Spanish Florida, along the western mission chain that included the Timucua and Apalachee provinces. If this new ceramic "monoculture" that emplaced itself along the

Atlantic coastal region within the study area was in fact a manifestation of a new pan-Indian social identity reflecting "Mission Indians" in general, or simply "Spanish-allied Indians," it would probably have incorporated not just the northern mission chain, but instead all missionized groups throughout Florida.

Given available data, then, would it be possible to infer instead that not one, but two colonial Indian "identities" were forged within greater Spanish Florida during the 17th century, one extending west from St. Augustine and the other extending north from the same city? While there is no documentary evidence to support such a bipartite division of aboriginal social identity among the mission provinces, the maximal geographic distribution of Altamaha/San Marcos and Jefferson ceramic series might still tend to imply such an interpretation. Nevertheless, if we are to posit a correspondence between an inferred "Atlantic Coastal Mission Indian" identity and the presumed conscious manifestation of that social identity through ceramic style, then another corresponding question must be posed: did unmissionized and/or antagonistic groups living outside the Spanish mission provinces similarly reject that the ceramic material culture of those missionized groups as a conscious communication of their "separateness"? The answer to that question is of course no, since it is clear that both the unmissionized Escamaçu living north of Guale, and their successors the Yamasee, who spent more than a generation slave-raiding the mission Indians on behalf of the English, were both characterized by an almost identical ceramic material culture to that of the missionized groups to the south. Logically, then, since Altamaha/San Marcos transcended the boundaries of both spatial and political affiliation with the mission system of Spanish Florida, and hence was not contiguous with the geographic distribution of "Atlantic Coastal Mission Indians," then it seems highly unlikely to have represented a conscious communication of that broader social identity.

If Altamaha/San Marcos ceramics did not represent a conscious communication of ethnicity *or* any other clearly identifiable colonial-era aboriginal social grouping, then might they have instead reflected a technological or stylistic transformation that occurred at least in part upon Spanish instigation, or under Spanish guidance, as Saunders (2000a: 108–110, 172) has suggested as an explanation for the Guale transformation from Irene to Altamaha/San Marcos? For the same reasons that eliminated a pan–"Florida Mission Indian" identity as discussed above, this seems unlikely, even beyond the fact that there seem to be no direct European influences embodied within the overall transformation to the Altamaha/San Marcos ceramic series. Indeed, both the Altamaha/San Marcos and the Jefferson ceramic series appear to be almost wholly aboriginal in nature, even if they may simply represent aboriginal solutions to new challenges or problems that arose only within the context of the European presence. Either or both of the Altamaha/San Marcos or Jefferson ceramic transformations may well have encompassed new technological or stylistic modifications designed as an adaptation to new foodways or new social or demographic contexts within Florida's 17th-century colonial system, but in my opinion they nonetheless still represented aboriginal solutions that needed neither Spanish instigation nor guidance in their implementation. Both of these mission-era ceramic series were made and used principally by and for Native Americans within and adjacent to greater Spanish Florida, and the fact that their continued production throughout the colonial era was so robust that these same vessels were apparently also used in Spanish households in St. Augustine (and even passed down in a few documented estate inventories) does not detract from their originally aboriginal character.

This is not to say that Native American potters did not simultaneously employ their skills to generate European-style wares for use by resident soldiers and missionaries, and perhaps also to a much lesser extent for barter or sale to the residents of St. Augustine. The production and use of these colonowares in Florida seems largely to have been governed by extreme limitations in the routine supply of European-style tablewares for Spaniards living in the remote mission frontier, and it was in fact this very supply limitation that prompted aboriginal reproductions for Spanish consumption, apparently most commonly in association with garrisoned soldiers (Deagan, 1993: 101–102; Worth, 1998a: 169–170; 2006a: 201; 2007a: 114, 125; Melcher, 2008). Nevertheless, the very fact that these colonowares were apparently produced in such limited numbers, and were dwarfed by the continuing production of purely aboriginal wares such as Altamaha/San Marcos and Jefferson, tends to reinforce the

interpretation that the development and spread of these new ceramic series were not by-products of conscious Spanish agency.

What, then, is the most likely explanation for the emergence and spread of two new aboriginal ceramic style zones within and adjacent to Spanish Florida during the colonial era? Using all the data discussed above, as well as the logical inferences derived from this data, I would argue that the maximal spatial distribution of these two new multiregional and multiethnic ceramic style zones—Altamaha/San Marcos and Jefferson—represented a manifestation of new regional interaction networks reflecting a combination of two governing influences: geographic location (particularly with respect to coastal vs. interior regions), and overarching integration into the evolving colonial system of greater Spanish Florida (incorporating all aspects of integration, from sociopolitical to economic). In the absence of one or the other of these two factors, the resultant distribution would likely have been different. In the absence of the multifaceted Spanish colonial system that developed and expanded precisely during the period in question (the terminal 16th and early 17th centuries; see Worth, 1998a: 126–214), it seems highly unlikely that the more localized ceramic style zones that were the hallmark of the late prehistoric era across what would become Spanish Florida (including the study area here) would ever have spread so rapidly and become so uniform across so expansive a pair of regions (and almost certainly not in the precise configuration that ultimately resulted by 1650). And on the other hand, had simple geographic location not played a role in the ultimate distribution of these two homogenized ceramic style zones, it seems far more likely that one, not two, style zones would have evolved within the context of the newly unified mission provinces of greater Spanish Florida, even if only as an indirect reflection of the broader patterns of social interaction within this new macropolity. Why is it that the Guale and Mocama ultimately adopted a single ceramic style, while the Apalachee and Timucua/Potano adopted an entirely different (though similarly uniform) ceramic style? There is no documentary evidence for any sort of long-term cultural disunity or rivalry between the inhabitants of the northern and western Florida mission provinces; far to the contrary, all these provinces shared something fundamental during the Spanish colonial era, forming independent but integrally linked parts of a greater whole under the military and ecclesiastical administration of St. Augustine. Indeed, on a yearly basis, several hundred unmarried male *repartimiento* workers from all these provinces gathered in and around St. Augustine for farming and other tasks, at the very least providing an annual context for interaction between some of the residents of both branches of the Florida mission system.

If anything, I would say that the most surprising facet of this overall transformation in ceramic material culture in colonial Spanish Florida is the fact that it did not result in a *single* aboriginal ceramic style zone corresponding directly to the fact that all of Florida's "Mission Indians" had been forcibly assimilated into a new and more strongly centralized paramountcy with its administrative hub at St. Augustine. Instead, the two observed colonial ceramic style zones might best be characterized as "Atlantic Coastal Mission Indians" and "Western Interior Mission Indians" from the perspective of St. Augustine as colonial capital. And even this characterization is incomplete, given that unmissionized residents of Escamaçu, as well as their short-lived neighbors and successors, the Yamasee, carried on largely independent existences in lower coastal South Carolina, just to the north of the farthest extent of Spanish control (though proximity and trade clearly linked the Escamaçu into the overall economic and social milieu of the northern mission chain; see Worth, 2007a: 24–26). Moreover, why was St. Augustine, as the central hub of the entire colonial system, not equally influenced by the concurrent aboriginal ceramic transformations to the north (Altamaha/San Marcos) and west (Jefferson), if not for the fact that its coastal location may have promoted greater north-south interaction than east-west across the transpeninsular interior? Clearly, geography played just as important a role as Spanish colonial integration, though it seems to have been both factors operating together that exerted the strongest influence on the ultimate distribution of both Altamaha/San Marcos and Jefferson ceramic style zones.

In the final analysis, change in the degree of aboriginal ceramic variability displayed within the study area from ca. 1514 to 1763 is hypothesized here to be a result of concurrent changes in the social geography of this and surrounding regions in the context of the

growth and expansion of the colonial system of Spanish Florida. Specifically, the assimilation of previously independent local aboriginal chiefdoms within a predominantly north-south coastal corridor of travel inside an integrated multiregional colonial society centered at St. Augustine resulted in new patterns of aboriginal social interaction throughout greater Spanish Florida and beyond. The primary catalyst for such changes was the structure of the colonial system itself, which integrated missionized aboriginal populations (the "Republic of Indians") as a vast labor pool capable of providing stable supplies of staple food crops and other resources to the colonial garrison town of St. Augustine (the "Republic of Spaniards"). Although the initial expansion of this colonial system was largely governed by the preexisting distribution of aboriginal populations and associated arable land, its final geographic configuration and maximal extent were products of the evolutionary trajectory of the broader colonial system, which exerted its influences on previously autonomous chiefdoms within the system. The colonial system of Spanish Florida ultimately facilitated new intraregional and interregional social interactions, including short- and long-distance forms of interaction and exchange, both terrestrial and maritime, among and between Native Americans and Spaniards living within and adjacent to the formal boundaries of the system. While the details and nuances of these new patterns of social interaction are still poorly understood apart from the broad outlines as interpreted from available ethnohistorical and archaeological data, one result of the new social geography of greater Spanish Florida was, I would argue, the creation of the ceramic style zone characterized by Altamaha/San Marcos pottery.

In addition, what this case study appears to demonstrate is that at least in the case of the Altamaha/San Marcos ceramic series after ca. 1650, there appears to be no direct relationship between assemblages of archaeological ceramic types and aboriginal ethnicity. While the long-term persistence of aboriginal ceramic production itself, as well as the iconographic and symbolic content of its decorative and other stylistic elements, clearly reflects a remarkable degree of general cultural resilience among the Native American inhabitants of Spanish Florida throughout the colonial era, the final geographic distribution of Altamaha/San Marcos ceramics does not correspond to any particular aboriginal ethnic group or indigenous political unit, nor to Florida's "Mission Indians" in general, nor to any other clearly defined colonial-era social grouping. Instead, the geographic distribution of this particular ceramic assemblage appears to transcend certain ethnic, political, and other social groupings, and to subdivide others. Apart from the very existence of this multiregional ceramic "monoculture" as half of a two-part transformation resulting from the assimilation of these regions into the colonial system of greater Spanish Florida, the strongest association appears to be geographic, most notably with respect to coastal vs. interior locations. For these reasons, the most likely explanation for ceramic variation in this case appears to be tied to broadscale changes in patterns of regional social interaction during the Spanish colonial era. Importantly, this interaction was not specifically limited or constricted by either Native American or Spanish boundaries. Indeed, the style zone of maximal distribution of Altamaha/San Marcos pottery might imply otherwise invisible undercurrents of interregional social interaction that are largely undocumented in the ethnohistorical record, and that might instead provide new anthropological insights into the nature of human social interactions that transcend explicit political and social units. Whether or not this proves to be the case, it seems clear that the archaeological analysis of ceramic variability during the historic period holds great potential for understanding the nature of material culture and its relationship to other facets of human cultural variability, especially when fundamental presuppositions (such as equating ceramic assemblages with aboriginal ethnicity) are actually tested empirically using detailed evaluation and comparison of archaeological and ethnohistorical evidence in tandem.

EPILOGUE

Kathleen Deagan and David Hurst Thomas

After hours of handling one another's sherds during the Second Caldwell Conference, the participants reached a clear consensus that the ceramics known as "Altamaha" (from Santa Elena southward) and "San Marcos" (from St. Augustine northward) are the same thing. Simply stated: San Marcos sherds look just like Altamaha sherds, they feel the same, their contexts have similar dates, and nobody was confident about separating the two (see DePratter, chap. 1, and Saunders, chap. 3, this volume, for a comprehensive description of the ware).

Although technical, this outcome was important. As DePratter's chapter illustrates, despite the fact that the Altamaha/San Marcos ceramic tradition dominates most post-Columbian aboriginal occupation sites of the southeastern lower Atlantic coast subjected to Spanish mission efforts, it has historically been reported in the literature under multiple and often confusing labels. Caldwell Conference participants agreed that until more finely grained and critical technological studies of this tradition can be achieved, terms like "Altamaha/San Marcos" or "San Marcos/Altamaha" seem most appropriate to describe these distinctive wares, and these terms are used interchangeably throughout this volume.

Once this concurrence was reached, it became clear in the participants' discussions and subsequent papers that this Altamaha/San Marcos tradition came to either completely replace or (at least) dominate indigenous ceramic assemblages throughout the coastal areas of South Carolina, Georgia, and northern Florida subject to Spanish mission efforts. It also came to dominate the utilitarian household ceramic assemblages of Spaniards living in the region. As Worth noted in his paper, the style zone constituting the maximal distribution of Altamaha/San Marcos pottery implies otherwise invisible undercurrents of interregional social interaction that are largely undocumented in the ethnohistorical record. Although the processes and timing of the cultural changes leading to this dramatic transformation remain far from clear, they have important implications for understanding colonial dynamics of identity expression, economy, patterns of social dominance, and pluralistic cultural engagement.

ISSUES OF CLASSIFICATION, CHRONOLOGY, AND DIVERSITY

As DePratter, Worth, Saunders, and Williams have articulated, existing data demonstrate that the ("Lamaroid") Altamaha/San Marcos ceramics ultimately originated from those late prehistoric people producing (similarly "Lamaroid") Irene ceramics, evidently corresponding to the historically documented Guale and Orista/Escamaçu people of the northern Georgia and lower South Carolina coastal estuaries. Radiocarbon dates from St. Catherines Island (discussed by Thomas) suggest that Altamaha/San Marcos pottery might be present (although uncommon) as early as the 14th century A.D., well before the arrival of Europeans. Deagan also tentatively suggests that Altamaha/San Marcos pottery was present in Florida in very small amounts prior to the arrival of Menéndez in 1565. DePratter notes that the type seems to have developed during the Spanish occupation of Santa Elena (1566–1587) and Altamaha/San Marcos ceramics dominate the Mission Santa Catalina de Guale assemblage.

The shift to Altamaha/San Marcos was marked principally by changes in clay preparation (increasingly larger temper granularity), shifts in decorative elements, and changing rim forms. These included the replacement of curvilinear stamping by rectilinear stamping, wider and bolder lands and grooves of paddle stamped designs, an increase in fine-line incising, and the supplanting of the segmented strip and cane punctated strip rims typical of Irene vessels by folded, cane punctated rims.

This shift seems to have occurred with varying degrees of intensity and rapidity in different parts of the study area. DePratter, for example, shows that in the Santa Elena assemblage (1566–1587), Irene and Altamaha/San Marcos ceramic types not only coexisted to some extent among both the Guale and Orista/Escamaçu people until at least the 1580s, but also that without specific decorative information, individual sherds may be indistinguishable. Saunders, in contrast, studying sites principally in Georgia and extreme northeast Florida, found this shift to have been "rapid and irrevocable."

The contrast in chronology, provided respectively by historical dates of site occupation

and archaeological stratigraphic/radiometric associations, underscores some intriguing issues. One is our relatively thin understanding of sociopolitical relations during the early 16th century among the people identified historically as the Guale and Orista/Escamaçu on the South Carolina and Georgia coasts. As Thomas's paper suggests, the overlapping but related Irene/Altamaha traditions may reflect social diversity, rather than (or in addition to) chronological sequence. This region may have been more tribally or ethnically diverse than has been assumed since the days of Caldwell's pioneering research, a point that is implied in many of the papers in this volume. As a working hypothesis, it is worth considering that the Altamaha/San Marcos ceramic tradition may have been a material practice associated even before European arrival with a specific social, political, or ethnic minority group, which gained ascendancy during the postcontact period through any number of social strategies.

PROBLEMATIC HISTORY

Both Ashley and Thomas suggest that a great deal more work needs to be done to understand the impact of documented and undocumented European presence in the south Atlantic region during the first half of the 16th century (that is, before successful Spanish settlement). As John Worth's contribution details, exploration and slave-raiding expeditions to the lower Atlantic southeastern coastal area officially began in 1513 with Juan Ponce de Leon in Florida, and continued intermittently through the 1520s, culminating the three-month settlement of San Juan del Gualdape in 1526. Disease transmission and cosmological disruption may have provoked far-reaching social change among the coastal Guale, Orista, and Timucua well before permanent European settlement, in much the same way that disruption has been attributed to the interior explorations of Panfilo de Narvaez and Hernando De Soto (see, for example, Smith, 1987).

Understanding this impact, however, is not a straightforward undertaking. Nearly all of the contributors to this volume consider the difficulty of identifying early post-Columbian-era Native American sites in the absence of European artifacts. Our assignment of post-Spanish arrival dates to sites has traditionally been based on the assumption that European artifacts or animal remains should be present, when in fact this may have been the case for only a small proportion of sites (see Deagan, 2004b; Saunders, chap. 3, this volume). To date, very little is known either archaeologically or documentarily about non-Christian, autonomous aboriginal people of the region during the 17th century.

As a consequence, one of the most notable aspects of the post-Columbian aboriginal ceramic change described throughout this volume is, in fact, its association with sites of Spanish missions or settlements. This may be in large part owing, as noted, to the fact that most archaeological investigation of "historic-period" sites in this region took place in European-established missions or settlements. In contrast, Mark Williams' discussion of the interior Georgia "Square Ground" Lamar people, who were in contact with the Spaniards but living apart from any European settlements, indicates that major change in the indigenous ceramic traditions did not occur during the post-Columbian period.

The overriding and most compelling question arising from our discussions of aboriginal ceramic change during the post-Columbian period is, of course, why such a widespread and homogenizing transformation occurred in the first place. The obvious association of the Altamaha/San Marcos ceramic tradition with places and people subject to Spanish missionary presence might suggest that Spanish agency played an important role in the process. If so, as Worth argees (chap. 8, this volume), it was curiously indirect, inasmuch as the ceramics themselves only occasionally show evidence for the incorporation of European decorative or formal elements, even when used in Spanish or Spanish criollo households. Conference participants considered a variety of hypothetical associations to help account for the distribution of Altamaha/San Marcos pottery in the region, including regional expressions of identity, the emergence of market forces, Spanish-directed organization of pottery production (although these remain undocumented in the historical record), changing patterns of intermarriage, and social dominance within Native American communities.

CERAMICS AND IDENTITY

Points of articulation and divergence between the textual and archaeological records suggest that there may have been little or no association between Altamaha/San Marcos ceramics and

tribal, ethnic, or linguistic identity (as understood and recorded by the Spanish). This position is clearly asserted by Worth (chap. 8, this volume), and considered in the chapters by Saunders (chap. 3) and Ashley (chap. 5). They support their arguments with archaeological and documentary data from the mission sites of Santa Maria de Sena and San Juan del Puerto, both established in the Mocama Timucua region. There is clear documentary and ethnohistorical evidence that both missions were occupied by the Mocama Timucua, who, as Ashley informs us, produced San Pedro pottery at the time of European arrival and mission establishment. Worth indicates that there so far exists no indication in documents that any Guale mission towns migrated or were relocated to either Santa Maria or San Juan del Puerto. Excavations at both sites however, revealed an overwhelming dominance of Altamaha/San Marcos ceramics, and relatively little indigenous San Pedro pottery. The authors conclude that the Mocama Timucua abandoned their traditional ceramic practices and adopted the Altamaha/San Marcos tradition at the mission, clearly implying that in this case, at least, ceramics cannot be correlated with ethnic or linguistic identity.

Worth, as well as Saunders and Waters, argues that the dominance of Altamaha/San Marcos pottery during the 17th century may rather have represented a new kind of transformative Native American identity, replacing pre-mission period traditions and, presumably, expressed identities. This occurred at differing intensities within the region addressed in this volume. Waters and Deagan, for example, both show that unlike the Mocama Timucua, the *Agua Salada* Timucua in the vicinity of St. Augustine continued their production of traditional St. Johns pottery into the 18th century, although Altamaha/San Marcos ceramics gained numerical ascendancy after the mid-17th century. In contrast to the transformative change suggested for the Mocama Timucua mission people, the St. Augustine data suggest that the change in ceramic assemblages in the St. Augustine region was additive, although nevertheless profound. The indigenous Timucua of that area may have maintained some traditional patterns of ceramic production for domestic use, while adopting San Marcos pottery for economic advantage and market consumption, possibly as part of a public, pantribal identity expressed through pottery.

SOCIAL ENGAGEMENT

Several authors in this volume addressed the potential commoditization of Altamaha/San Marcos ceramics and this topic was much discussed throughout the Second Caldwell Conference. The mechanics of such commodity production and distribution remain uncertain, and fine-grained contextual and technological ceramic analyses are needed to test the implications of a shift from ceramic production for household consumption to production for market consumption by both Europeans and Native Americans.

Production of aboriginal pottery to accommodate Spanish preferences is considered in the chapters by Williams, Saunders, Worth, and Waters. It has long been demonstrated that after about 1650 cooks (whatever their cultural origin) in Florida's Spanish-identified households preferred traditional, Guale-associated San Marcos pottery for cooking and other kitchen functions. Although the incorporation of Indian women into Spanish-identified households has been frequently invoked to account for the dominance of traditional Altamaha/San Marcos pottery in St. Augustine's Spanish-identified household assemblages, recent work has suggested that Spanish-organized labor regimens should be invoked as an explanatory factor (Voss, 2008). As noted, very little is known about the nature of either the organization of indigenous pottery production in the post-Columbian Atlantic Southeast, or the organization of ceramic exchange in the region. If, in fact, pottery production in these Spanish settlements was organized and directed by Spaniards, it is intriguing (as already noted) that very little of the aboriginal pottery used in these Spanish or Indian households exhibits hybridity incorporating European formal elements with indigenous production techniques. When they occur, such European-influenced hybrid forms are associated more with the frontier mission complexes than with the potential markets represented by urban Spanish households. They apparently served to replace European-tradition tableware vessels on the frontier, where European ceramics were presumably available (see Vernon, 1988; Vernon and Cordell, 1991; Deagan, 1993; Rolland and Ashley, 2000).

Neither, interestingly, do the Altamaha/San Marcos vessels studied so far suggest a hybridity representing the consolidation of many indigenous

ceramic traditions. Saunders underscores the importance of considering intertribal marriages, and the implications of multitribal household consolidation, for ceramic production. Such intermarriages may have become more frequent in the chaotic post-Columbian period of the study area, as populations declined, relocated, and were consolidated. Nevertheless, the contributions in this volume suggest that the Altamaha/San Marcos ceramic tradition remained robust and largely unaltered as it spread throughout the Atlantic coastal regions of Spanish Florida, persisting for more than a century.

The dominance of such a singular aboriginal pottery tradition in such culturally pluralistic settings as the Spanish towns and missions of La Florida raises provocative questions about the entanglements among ceramic production and exchange, identity, choice, gender roles, and social dominance. Although the Second Caldwell Conference obviously could not answer these questions, it has laid out the evidentiary basis that will allow us to frame them in archaeological terms. Above all, it is clear from the preceding papers that understanding post-Columbian aboriginal ceramic change along the "mission coast" must transcend specific localities, linguistic areas, and understood ethnicities, and must be addressed at a culturally pluralistic regional scale. The conference provided the tools and terms of consensus that should advance and eventually permit realization of this larger project.

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