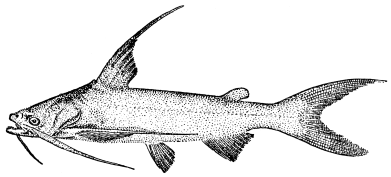

# CHAPTER 1
# THE SETTING

Spanish Florida (figs. 1.1 and 1.2) was a region where, beginning in the 16th century, exchanges of ideas among Native Americans and immigrants from Europe, Africa, and Asia produced new economic, political, and social institutions in the earliest sustained European colonial enterprise north of Mexico (Deagan, 1990). This dynamic cultural exchange is particularly clear in the archaeological correlates of colonial foodways, not only in Spanish Florida but elsewhere in the Spanish Americas (Cumbaa, 1975; Deagan, 2008; deFrance, 2003; deFrance and Hanson, 2008; Emery, 1999; Gifford-Gonzalez and Sunseri, 2007; Pavao-Zuckerman and LaMotta, 2007; Reitz, 1985, 1991, 1992b, 1993a, 1994b; Reitz and Cumbaa, 1983; Reitz and Honerkamp, 1983; Reitz and Scarry, 1985; Ruhl, 1990, 1993, 2003; Scarry, 1993; Scarry and Reitz, 1990; Voss, 2005; Wing, 1961, 1989).

Long-term archaeological studies of the towns, forts, and Roman Catholic missions of natives and immigrants indicate that colonists modified their traditional economic activities to suit their new conditions in Spanish Florida. The strategies developed by colonists in each community reflect the influence of nontraditional foodways, including subsistence technologies and exchange networks; political and social institutions, especially those related to social status and ethnicity; and the lack of familiarity with local natural resources. Native communities also modified their subsistence strategies to incorporate new resources, but the colonists' strategies clearly changed more than did those of Native Americans. At the same time, people in Spanish Florida were participants, willingly or unwillingly, in the broader power struggles of the 17th century. Native and immigrant Floridians not only participated in the emerging global economic market, but also experienced climate change, disease, warfare, shortages, and cultural changes that accompanied their participation in the larger 17th-century economic and political arena.

Roman Catholic missions were among the first institutions introduced to Spanish Florida during what is now called the First Spanish period (A.D. 1565–1763). Missions were established along the Atlantic coastline from the capital in St. Augustine to as far north as Parris Island, South Carolina, as well as westward across the Florida peninsula to the Gulf of Mexico (fig. 1.1). The first missionaries were Jesuits, but they abandoned their efforts in 1570 and were replaced by Franciscans in 1573 (Gannon, 1965: 36; Hann, 1990: 443; Jones, 1978; TePaske, 1964: 6).

The intent of this monograph is to (1) interpret vertebrate remains in terms of diet, exploitation strategies, and the economic contributions made by Native Americans to the Spanish colonial enterprise; and (2) assess the role of environmental change in shaping these interactions. Most of this study focuses on Mission Santa Catalina de Guale, a Franciscan mission located approximately 200 km north of St. Augustine on St. Catherines Island, Georgia (fig. 1.1). Mission Santa Catalina de Guale (9Li13) and the associated Pueblo Santa Catalina de Guale (9Li8) were founded in the 1580s to serve the Guale people living in the tidewater mainland and islands of the Atlantic coast between the Savannah and Altamaha rivers (fig. 1.2; Worth, 2004). In 1680, St. Catherines Island was abandoned by Spain and the mission moved further south.

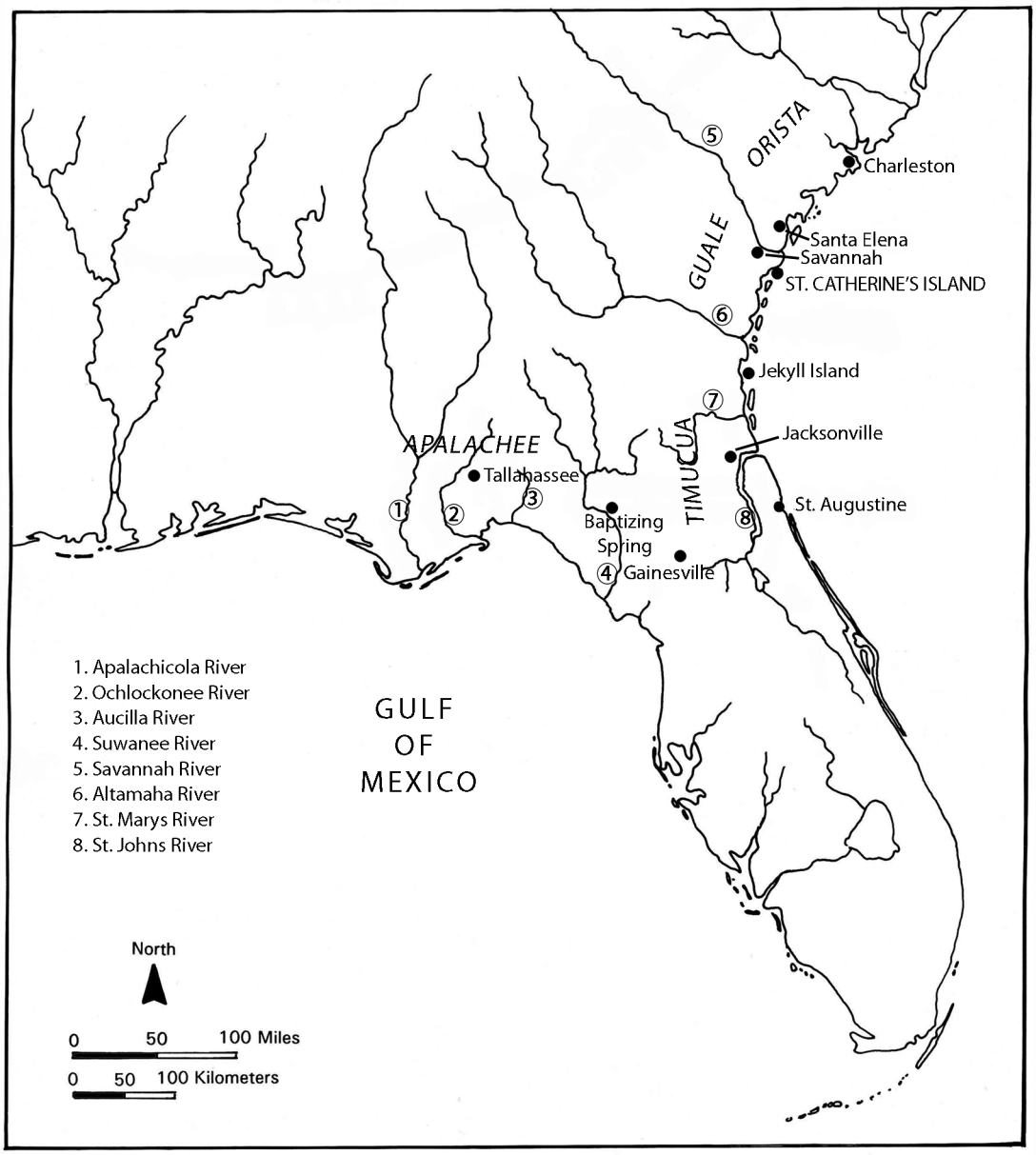


Fig. 1.1. Map of Spanish Florida showing major provinces and some historic settlements. Rivers are designated by circled numbers.

Zooarchaeological data from Santa Catalina de Guale are placed into a historical and regional context by reviewing evidence of coastal subsistence strategies prior to the 17th century as well as Native American and Spanish strategies at other First Spanish period locations. Most of the latter data are from St. Augustine, which is the oldest European town north of Mexico, and Mission Nombre de Dios, one of the oldest missions north of Mexico, which was established at what is now called the Fountain of Youth Park (fig. 1.3; Deagan, 2009; Waters, 2009). St. Augustine was the capital of Spanish Florida for much of the First Spanish period and it was

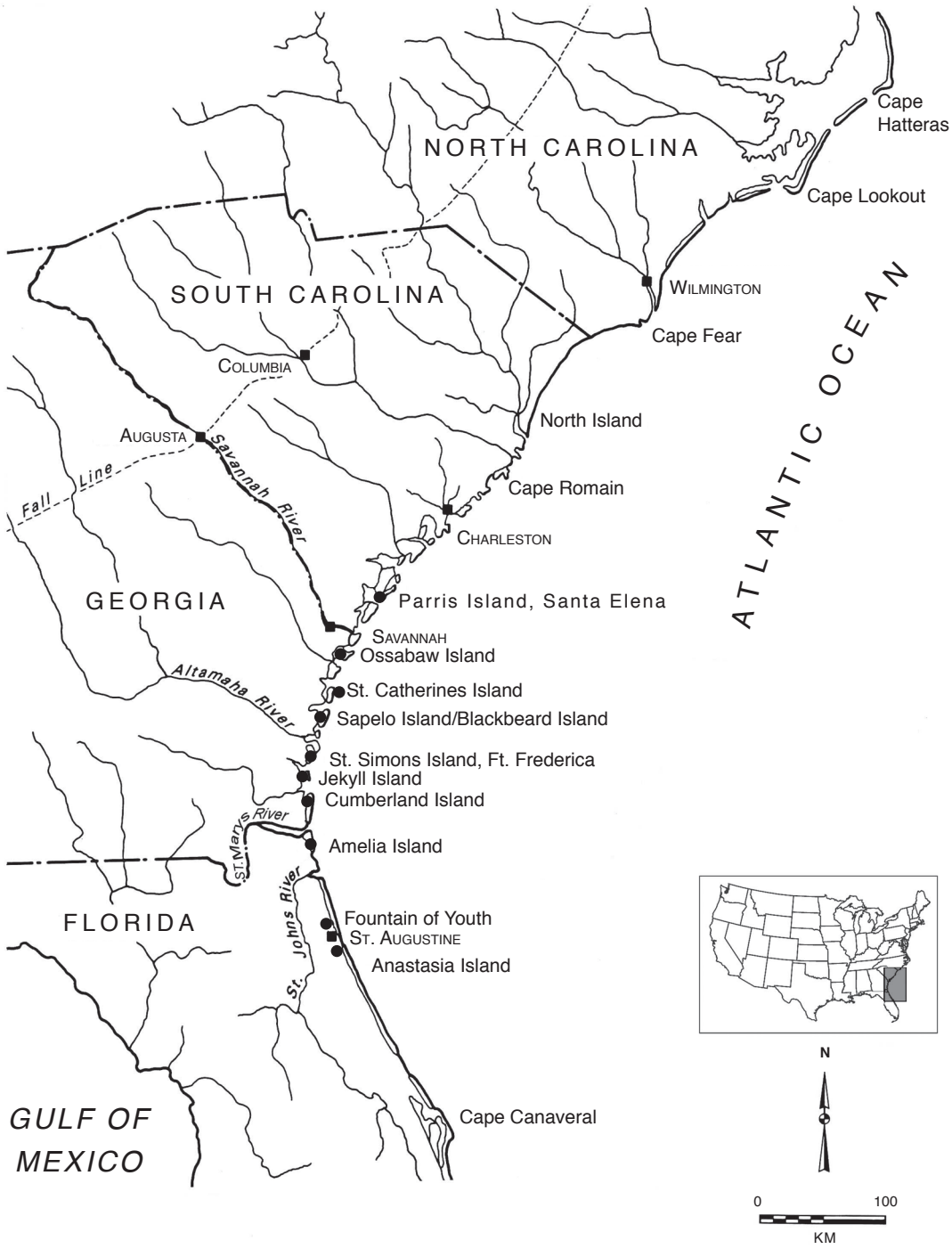


Fig. 1.2. Map of the Georgia Bight showing major physiographic features. Squares indicate modern cities.

also the location of the Franciscan administrative center for the mission chain, which included Santa Catalina de Guale. Evidence for the diversity of colonist and native responses to the multiethnic environment of the First Spanish period has largely been developed through studies of plant and animal remains excavated from archaeological sites in St. Augustine and along the peninsular mission chain (Reitz, 1985, 1991, 1992b, 1993a; Reitz and Cumbaa, 1983; Reitz and Scarry, 1985; Ruhl, 1990, 1993, 2003; Scarry, 1993; Scarry and Reitz, 1990).

The formation and development of a complex, multiethnic community in which indigenous and Spanish traditions merged is evident in much of the archaeological evidence for Spanish institutions

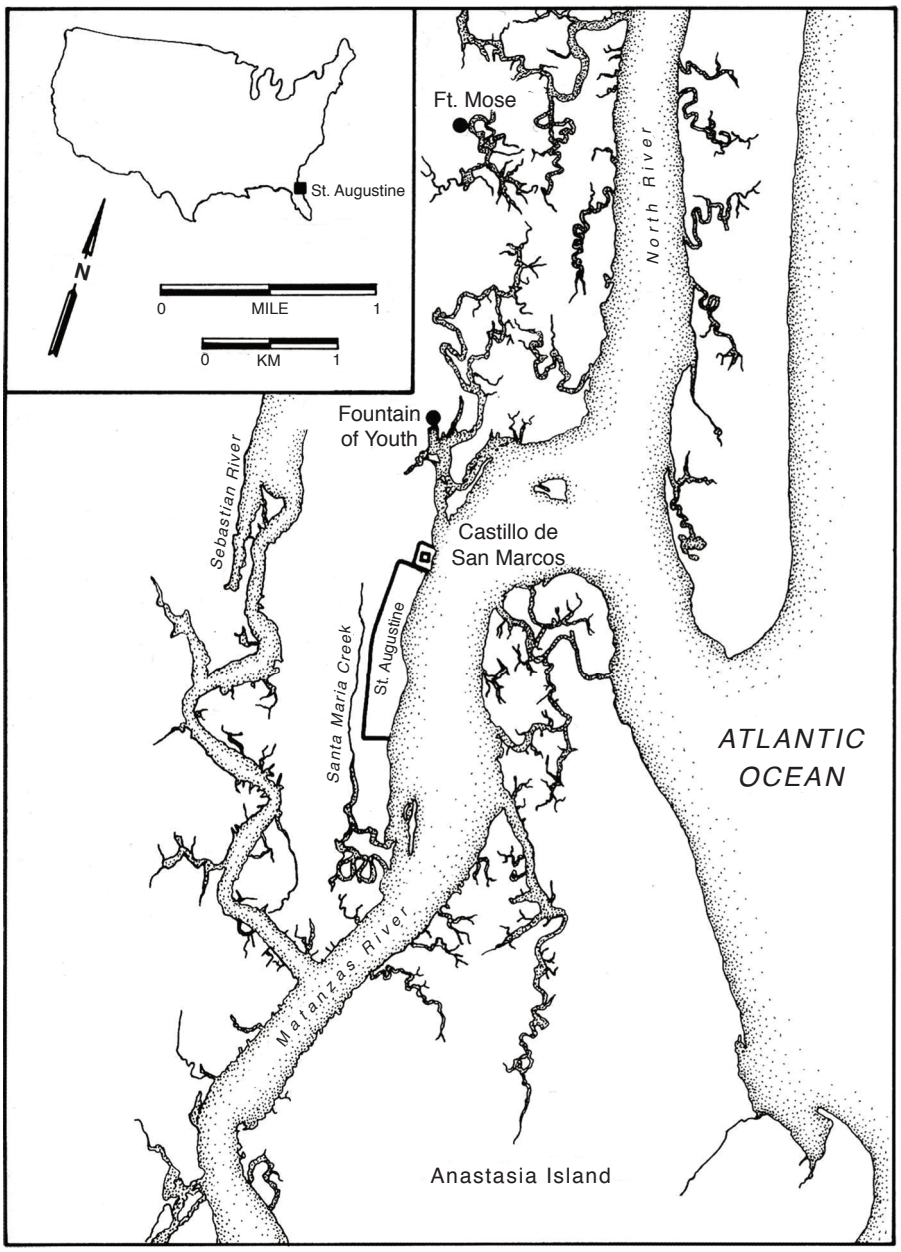


Fig. 1.3. Map of St. Augustine area.

and material culture (Deagan, 1990). It is clear that immigrants to Spanish Florida modified their traditional economic activities in the capital of the colony itself as well as at missions such as Santa Catalina de Guale. Kathleen Deagan (1990) suggests that the persistence of Native American traditions reflects disinterest on the part of native peoples in altering their traditional practices, as well as resistance against European attempts to introduce changes. Deagan concludes that the continuity of native traditions in the face of the biological, economic, political, and social consequences of colonization reflects remarkable cultural resilience. This resilience is clearly evident when the pre-Hispanic zooarchaeological record is compared to the record from Santa Catalina de Guale.

In this chapter, research themes that guide zooarchaeological studies of foodways at Santa Catalina de Guale are presented, as is information about Spanish Florida, the First Spanish period, and the Guale people. Details about the methods used to develop these themes and the natural history of the Georgia Bight are reviewed in appendices A and B.

## RESEARCH THEMES

The themes guiding zooarchaeological research at Santa Catalina de Guale and providing the framework for this study are: diet, exploitation strategies, and the support provided by the Guale people to the Spanish colonial enterprise. To this list we add environmental change. It is likely that Spanish Florida was colonized during a period of climatic change that had a profound impact on the resource base and that might have influenced human behavior in the region (e.g., Blanton and Thomas, 2008; Hales and Reitz, 1992; Purdue and Reitz, 1993; Reitz, 2004).

*Diet* can refer to nutrition, menus, and cuisines. *Diet* includes the food and drink that are consumed from among the resources available. The composition and quantity of a diet varies seasonally as well as with the age, sex, ethnicity, and status of the consumer (e.g., Dennell, 1979). *Nutrition* is a measure of the physiological adequacy of diet. Although all people share basic nutritional needs, these can be met by a variety of foods that people can ignore or exploit. *Menus* are lists of potentially edible food items available locally or through exchange mechanisms (Armelagos, 1994). Only a few of the menu items will be routinely eaten and even fewer will be preferred.

Many different choices are made as foods are selected from the menu to become part of the diet. Different cultures classify the items on the menu in various ways. Some menu items might be classified as inedible, some might be considered famine foods to be eaten only under extreme conditions, others might be tolerated as edible but not preferred, and some might be symbols of special occasions. Dietary items must then be procured, distributed, prepared, served, and consumed. The results of these choices constitute culturally-distinctive *cuisines*. Cuisines define the types of foods eaten together, the spices used, the manner of preparation, the style of cooking, the types of vessels used for preparation and consumption, the social rules governing when, how, and by whom they are prepared and eaten, the circumstances under which they are eaten, and many other aspects of food consumption (Dietler and Hayden, 2001; Douglas, 1975; Farb and Armelagos, 1980: 190; McCormick, 2002; Miracle, 2002; Pluskowski, 2007; Seetah, 2007; Twiss, 2007).

*Cuisines* are difficult to define archaeologically because much of what characterizes them is ephemeral and culturally specific. How would we know from a species list that the primary objective of a meal was to achieve a balance between color and texture, sweet and sour, solid and liquid, or hot and cold foods (whether defined in terms of temperature or symbol), or which social identity was being communicated by these choices and to whom? Even in combination with such aspects of material culture as vessel forms, the traditional values, beliefs, customs, and meanings that define cuisines are not readily observed in animal remains (e.g., Crabtree, 1990; Gifford-Gonzalez and Sunseri, 2007; McEwan, 1992; Rodríguez-Alegría, 2005; Scott, 2007).

Much of what defines culturally significant animal use lies in the realm of cuisine. It is the social identity and other meanings symbolized by cuisine, and the procurement, preservation, preparation, distribution, and consumption of the elements of a cuisine that most clearly distinguish social groups (e.g., Anderson, 1971; Mintz, 1985). As anthropologists, it is cuisine that interests us most; as zooarchaeologists, we recognize that this is difficult to capture in bones, teeth, and shells without a rich archaeological and documentary context. The term *foodways* is

used in a broad sense, recognizing that animal remains encompass cuisine as well as nutrition, menu, and diet even when we may be speaking specifically of only one of these.

The resources used by Native Americans and Spaniards at Santa Catalina de Guale were, overall, nutritionally adequate. From the Spanish perspective, the problem was that the menu did not include many preferred, familiar foods, but it did include many unfamiliar ones. From the Guale perspective, the new menu items urged upon them by Spaniards required new technologies, new management strategies, and a new cuisine. In some cases, access to these new menu items was limited, the new menu items might have been energetically imprudent, or the Guale people did not consider them improvements over pre-Hispanic menu choices. Status within the social structure and commitment to the former social order (or lack thereof) were other factors that influenced Guale and Spanish decisions to adopt or reject menu choices (for elaboration of this theme using zooarchaeological evidence see Crabtree, 1990; McCormick, 1991; Pluskowski, 2007; Reitz, 1987, 1994b, 1995; Reitz and Cumbaa, 1983; Reitz and Scarry, 1985: 33–35, 93–95; Reitz and Wing, 2008: 278–285; Scott, 2008).

Another factor contributing to the emergence of new diets and cuisines was the role of native labor in food acquisition and, specifically, the role of native women in food preparation (Deagan, 1973, 1990, 1993). Spanish men frequently married Guale women (Deagan, 1983: 32). This may not have been a significant factor within the religious community at Mission Santa Catalina de Guale if women were excluded from food preparation for resident friars, but it clearly was an important component shaping the secular diet elsewhere in Spanish Florida (Reitz and Cumbaa, 1983). (*Secular* refers to civilian, military, and government individuals and institutions, distinguishing them from members of the religious community.) Regardless of whether Guale women or men were cooking for the friars at Santa Catalina de Guale, Spanish foodways would resemble the Native American diet and cuisine with which the cooks were familiar, in keeping with Native American traditions. This tendency was enhanced by the Spanish reliance upon Guale men and women for labor and in-kind tithes, including donations of animal products. Unless Spaniards exercised a great deal of direction in the matter, animal products in the archaeological record should reflect Guale, rather than Spanish, choices. Spaniards could endeavor, however, to ensure that "foreign" foods were served in proper Hispanic vessels even if they were prepared by natives using native cookware and methods (e.g., McEwan, 1992, 1995).

Exploitation strategies are the product of dynamic interactions among peoples and their environments involving diverse biological, cultural, and ecological factors (Reitz and Wing, 2008: 251–286). Zooarchaeologists use ecological and economic models of energy management to interpret these strategies. In establishing and following a subsistence strategy, the primary goal is to obtain foods and raw materials to meet needs and desires while keeping the costs low (Jochim, 1976: 15–26). In terms of food species, it is important to exploit several resources, some of which are reliable and provide a moderate return for little effort with minimal risk. With a dependable source of nutrients, energy, and raw materials, the diet can incorporate other resources that yield a high return but are costly in terms of effort and low in security. The more reliable resources will be emphasized in the diet because it is important to have a secure food base that provides high yields for minimal cost. However, the resources requiring greater effort and involving high risk while providing large, flavorful yields will be more prestigious. Prestige or luxury items are those that provide high fat and meat content but are scarce, highly mobile, or otherwise costly to obtain. Procurement and processing techniques such as traps, nets, weirs, and storage facilities increase the efficiency of capture and reduce the cost of exploitation. Species that can be captured with greater efficiency are more heavily exploited, and less prestigious, than are species that are more difficult to obtain.

Much of the research into humans as predators focuses on the identification of specific dietary items, as does this monograph. Animals and their by-products, however, provide more than nutrients. In addition to providing raw materials and valuable commodities, some animals signify status and ethnic affiliations and support the social order.

Status is a person's relative standing in a community and is based on such attributes as skill in performing socially valued tasks, kinship and other social affiliations, place and type of residence, occupation, attire, cuisine, social roles,

conformance to expected norms, as well as the amounts and sources of income (Warner and Lunt, 1941). Social status is often equated with economic status, though it is possible to be wealthy but held in low esteem or to be a poor member of the elite. In multiethnic, colonial communities, ethnicity is also a component of status. Spaniards considered Native Americans inferior to themselves and it is likely that Native Americans reciprocated with the reverse assessment.

To validate status it is necessary to behave appropriately and to display the proper status markers, i.e., eating the proper foods at the proper time in the proper way with the proper serving wares in the proper place with the proper attendants and participants. Failure to conform to such norms may result in ostracism or other forms of social censure. In a colonial setting, it may advance one's status in an emerging new social order. Foods that offer high amounts of energy and fat, or that are exotic, large, risky, and costly often denote status because they are more highly valued or preferred (Jochim, 1976). Variety, meat from young animals, and foods associated with a dominant ethnic group also are status markers.

In a stratified community, food choices and cuisine may signal conformity to prevailing norms of food consumption, particularly by individuals who fear being too different or who want to validate a higher status in the community (e.g., Scott, 2008). Diets and cuisines also serve as markers of social identity to distinguish colonizing groups from indigenous ones or oppressed peoples from the oppressors (e.g., Barber, 1976; deFrance, 2006; Reitz, 1987, 1994b; Reitz and Honerkamp, 1983; Reitz et al., 1985). Changes in foodways, especially the addition of meat from exotic animals, often are associated with migration, colonization, and acculturation (e.g., Hongo, 1993; MacDonald et al., 1993; Mondini et al., 2004; Nyerges, 2004; Wickler, 2004).

In a multiethnic colony, there might be some disagreement over what should be considered prestigious, or even appropriate, foods. Some indigenous peoples might find foods of the colonists to be desirable, while others might view them as symbols of oppression. Colonists might consider some of the local foods, such as venison, to be symbols of status, according to the norms prevailing in Iberia (Townsend, 1814). In Spanish Florida, maintaining an Iberian diet and keeping Eurasian livestock would be a risky and costly strategy; but eating venison might be a prestigious substitute bearing its own cultural value.

Many features that symbolize prestige, status, power, wealth, and authority are found in animal remains, indicating the close associations that prevail among animals, plants, and cultural institutions (Crabtree, 1990; deFrance, 2009; Hayden, 2001; Pluskowski, 2007; Reitz and Wing, 2008: 285). Animals and food are ubiquitous ingredients of ritual behavior as well as highly symbolic ingredients of secular life (e.g., Dietler and Hayden, 2001; Douglas, 1975; Goody, 1982; Hayden, 2001; Jackson and Scott, 2003; Kelly, 2001; Kent, 1989; Knight, 2001; McCormick, 2002; McGuire and Hildebrandt, 2005; O'Day et al., 2004; Pauketat et al., 2002; Rees, 1997; Reitz, 1995; Styles and Purdue, 1991; van Gennep, 1960; Warner and Lunt, 1941; Welch and Scarry, 1995). The social meanings of animals, generally, and food and drink, in particular, extend well beyond their nutritional and energetic merits.

Some ritual is involved in all aspects of human life, including the control and use of resources in colonial settings. Much of the symbolic content of animals leaves no distinctive evidence, however. We need only think of academic receptions, family reunions, athletic events, political rallies, office parties, and other rituals of unification and solidarity to appreciate the daily, almost casual, association of specific foods with specific events and the meanings associated with them. In such cases, animals as food are important not so much because of their own intrinsic characteristics, or the values attributed to them, but because of the time, place, and participants in the event. In fact, today, some of the foods consumed at social events are normally disdained and would only be eaten on these formal occasions (e.g., sweet punches, cocktail sausages, and chicken wings). Some of these functions intentionally make use of foods that are less prestigious to demonstrate that the host or honoree is "a good old boy."

In multiethnic, stratified communities, diets and cuisines distinguish social groups from each other, with each social group defining itself or affirming its cultural origin through animals. To Spanish colonists, meats from familiar domestic sources undoubtedly were more highly valued than were meats from most local wild animals (with the possible exception of venison [Townsend, 1814]). To some Guale people, maintaining pre-Hispanic foodways in the face of pressure from

friars and colonial functionaries might have been a strong motivation. To others, adopting the exotic customs of the colonists might have been a way to identify with newly perceived sources of authority, power, and influence—conduits for improving their own social standing and economic situation. Regardless, in Spanish Florida, foods associated with colonists did not become the dominant foods in the new, multiethnic colony (Reitz and Scarry, 1985).

Exploitation strategies involve more than just diet. They merge aspects of the resource base, nutrition, cuisine, energetics, demography, health, settlement patterns, resource management, technology, and cultural history; in addition, they incorporate belief and kinship systems, as well as economic, political, and social institutions. This underlying suite of behaviors is too broad to address in this monograph; therefore, we focus on a few aspects of exploitation strategies at Santa Catalina de Guale. These include: (1) richness, diversity, and equitability in sources of animal nutrients; (2) trophic levels exploited; (3) technology and scheduling decisions; and (4) hunting strategies. Evidence for ethnicity and for Guale and Spanish influences in the decision-making process is explored in each of these aspects with special attention to the Guale's use of Eurasian animals introduced by Spaniards.

From the Spanish perspective, natives of the land were obliged to promote the economic success of the colony through their labor, tithes, and other contributions (Bushnell, 1981). Although Spanish Florida did not have minerals or similar commodities with commercial value on the world market, the colony was a source of hides, furs, tobacco, nut oil, timber, bear (*Ursus americanus*) grease, ambergris, and sassafras (Bolton and Ross, 1968; Bushnell, 1981: 8, 11; Chatelain, 1941: 114). Native Americans also provided consumable products to the local economy, particularly fish and venison. To explore Guale contributions to the local economy, we will look specifically at the terrestrial and aquatic species in Santa Catalina de Guale zooarchaeological assemblages, including white-tailed deer (*Odocoileus virginianus*), for evidence that: (1) the Guale people on St. Catherines Island provided both venison and deer hides to Spaniards on the island; (2) the Guale people provided fish to Spaniards at the mission; and (3) the mission provided live animals, meats, hides, and furs to either the secular and/or the religious community in St. Augustine.

When the research for this monograph began, environmental change was not considered a factor in the decisions made in Spanish Florida. Since that time, however, many lines of evidence indicate that environmental conditions influenced, or were influenced by, human behavior in the colony (e.g., Blanton and Thomas, 2008; Hales and Reitz, 1992; Purdue and Reitz, 1993; Reitz, 2004; Reitz and Ruff, 1994). This theme is examined using the vertebrate remains from Santa Catalina de Guale.

In addition, why did the Guale individuals drawn to Santa Catalina de Guale not adopt Spanish foodways; why *did* Spaniards at Santa Catalina de Guale practice Guale foodways; and why are the patterns of animal use at the mission and elsewhere in Spanish Florida so different from those in other Spanish colonies in the Americas? In attempting to answer these questions, we rely upon a concept of culture change and continuity that focuses on exchange, borrowing, and novel invention in specific abiotic, biotic, and cultural settings. Our answers stand in contrast to the perspective that change was unidirectional and that Native Americans adopted European strategies, willingly or under duress, because immigrant approaches to diet, exploitation strategies, and economic exchanges were superior. Instead, we find that a society better characterized as transcultural rather than indigenous or Spanish was created from distinct cultural traditions (e.g., Cusick, 1998a; Deagan, 1998). Although Spaniards might have believed they could impose sweeping changes in native cultures through missionization, they failed to achieve that goal. In the context of foodways, the answers to these questions in Spanish Florida may lie in the frontier status of that colony, but the consequences of cultural interactions almost certainly are related to the processes of creolization at each location (Cusick, 1998a; Deagan, 1983).

## SPANISH FLORIDA

French and Spanish governments made repeated efforts to establish a permanent presence in the Georgia Bight (fig. 1.2; see appendix B) throughout the 16th century (P. Hoffman, 1990). Spain succeeded in 1565 when Pedro Menéndez de Avilés founded the colony of Spanish Florida (Deagan, 1983: 9–27, 1990; Gannon, 1965; P.

Hoffman, 1990; Lanning, 1935; Lyon, 1976). This initiated the First Spanish period (1565–1763). The territory claimed by Spain encompassed most of what is now the southeastern portion of the United States, though the functional size of the colony was considerably smaller (Lyon, 1976). For most of the First Spanish period, Florida was administered as part of the viceroyalty of New Spain (Haring, 1947: 73).

Commercial ventures, military defense, and religious objectives were the primary reasons the colony was founded and continued to be the primary objectives of the colony until the end of the First Spanish period (Deagan, 1983: 23; P. Hoffman, 1973, 1980: 127, 146, 1990: 251–261). One of the colony's primary functions was that of a coastal outpost charged with protecting Spanish ships sailing up the east coast of Florida as well as recovering shipwrecked people and goods (Bushnell, 1981: 8). The role of Spanish Florida in the defense of Spanish interests in the Americas, and particularly of the shipping lanes in the Caribbean, is often overlooked today, but was not overlooked by Spain (e.g., P. Hoffman, 1980, 1990: 4–11, 124–125, 139; Reitz and Scarry, 1985: 28–29; TePaske, 1964: 3).

Menéndez was charged with establishing two towns. The first of these, St. Augustine, he founded in 1565 (Lyon, 1976). Menéndez first placed St. Augustine in the Timucuan Native American village that is now part of the Fountain of Youth Park (fig. 1.3; Deagan, 2009). When the Spanish town relocated, the initial settlement became the part of the Roman Catholic Mission Nombre de Dios, the first Native American mission established north of Mexico. In 1566, Menéndez established his second town, Santa Elena in what is now the State of South Carolina (fig. 1.1). Santa Elena was designated the capital because of its better harbor and more favorable location. Santa Elena was abandoned in 1576, reoccupied the next year, and abandoned for the final time in 1587. In addition, a string of missions and fortifications was established northward between St. Augustine and Santa Elena, as well as westward across peninsular Florida to serve Native Americans in Timucua and Apalachee provinces (fig. 1.1). Santa Elena had been abandoned for the second time, and St. Augustine had become the capital and principal town of the colony by the time Mission Santa Catalina de Guale was founded on St. Catherines Island.

During the following decades, portions of Spanish Florida were lost to encroaching colonies sponsored by Dutch, English, and French interests. In 1763, the portions of Spanish Florida remaining under Spanish dominion passed to Britain. Following the brief British period (1763–1783), St. Augustine and portions of peninsular Florida reverted to Spanish control. This Second Spanish period ended in 1821 when Florida became a territory of the United States of America.

Further complicating the 16th-century efforts to colonize Spanish Florida, the coastal region likely experienced at least two droughts and other climatic changes associated with the so-called Little Ice Age (e.g., Anderson et al., 1995; Blanton and Thomas, 2008: 800–801; Stahle and Cleaveland, 1992, 1994; Stahle et al., 1998, 2000). One of the 16th-century droughts occurred between 1564 and 1571, with the most severe dry conditions between 1567 and 1570. The second drought was between 1585 and 1595 (Blanton and Thomas, 2008: 800–801). Whether the Spanish colonists realized it or not, native Floridians were coping with the resulting environmental stress just as the Spanish colonial effort intensified in 1513 with Juan Ponce de León's expedition to La Florida.

Throughout the 200-year span of the First Spanish period, the population of Spanish Florida included men, women, and children from the vast Spanish Empire, other Europeans, Africans, and Native Americans (e.g., Corbett, 1974; Deagan, 1983: 29–34; Dunkle, 1955, 1958; Landers, 1990a, 1990b; Lyon, 1976, 1977; Manucy, 1985; Reitz, 1994b). This heterogeneous and dynamic population is referred to as "Spanish" because of its affiliation with the Spanish Empire; not because everyone so designated was born in Spain or even had a predominantly Spanish heritage or ancestry.

Associating ethnicity, social status, political authority, and economic identity with specific archaeological deposits in colonial settings is difficult where the identities of both native and non-native participants were diverse and fluid (Benavides, 1738; Corbett, 1974; Dunkle, 1958; Mörner, 1967; Voss, 2005, 2008; Worth, 1998a, 1998b). For example, toward the end of the First Spanish period, men born in Europe constituted only 39% of the St. Augustine male population (Corbett, 1974). However, population statistics such as this do not reflect either population

composition throughout the First Spanish period or the changes an individual's social identity could undergo throughout a lifetime (Deagan, 1983: 20–34; Lyon, 1976: 75, 1977: 24, 1981: 278; Manucy, 1985). Ethnicity in the colony changed as people born in the Americas with at least some European or African ancestry increased and Native Americans decreased (Corbett, 1974; Dunkle, 1958). Particularly troubling is the likelihood that women and children are underrepresented in the documentary records.

Spanish society in the Americas was highly structured, with over 60 racial classifications (Corbett, 1974; Mörner, 1967). Maintaining this structure was a serious matter within the Spanish population of Spanish Florida (Bushnell, 1981: 15–29). This distinguishes Spanish Florida from Alta California (Voss, 2005: 467). During the late 1700s and early 1800s, colonial households in Alta California endeavored to minimize cultural and racial differences among themselves while avoiding foods and material culture that would make them appear similar to local Native Californians (Voss, 2005: 467). In Mexico City, consuming pre-Hispanic, non-Eurasian foods is interpreted as a sign of negotiating social relationships and power, with negative connotations associated with eating Indian foods (Rodríguez-Alegría, 2005). In Spanish Florida, individuals used food as a symbol of their social position.

To the extent that economic, ethnic, and social identities can be delineated in Spanish Florida, indigenous foods were ubiquitous ingredients of the animal-based diet in the colony and were consumed to a greater or lesser degree by everyone on a routine basis. Nonetheless, nuances in this strategy characterized social boundaries in Spanish Florida and elsewhere (e.g., Gifford-Gonzalez and Sunseri, 2007; Voss, 2005).

People born in either the Iberian peninsula or the Canary Islands, known as peninsulares, were accorded high prestige by the Spanish Crown (Haring, 1947: 194). The governors of Spanish Florida were always peninsulares, though criollos (persons born in the Americas) might serve as temporary appointees. Policy, as well as custom, maintained the social distance between peninsulares and nonpeninsulares, even though some peninsulares were common soldiers from the ranks of the urban poor, or even from Spanish prisons (Corbett, 1974: 422). Peninsulares in responsible positions were usually transferred to a new post after a few years in Florida, further isolating them from the local population. Rarely were there enough peninsulares in Spanish Florida to satisfy the Crown (Corbett, 1974). Male peninsulares constituted 32% of the St. Augustine population between 1658 and 1670 and peaked at 43% between 1692 and 1732 (Corbett, 1974; Deagan, 1983: 30–31). Peninsulares, though few in numbers, occupied more prestigious social strata in Spanish Florida and expected to enjoy the goods and services appropriate to their position in society (Bushnell, 1978a, 1981: 15–29; Lyon, 1977, 1992).

Criollos were supposed to be excluded from positions of influence and authority and barred from major commercial enterprises, which by law were based in Spain (Haring, 1947: 194–195). Criollos were said to be lazy, indolent, and quarrelsome, and it was thought that they should not be on the government payroll (Haring, 1947: 196). In practice, many of these restrictions did not apply to criollos in Spanish Florida and the power struggle between peninsulares and local, wealthy criollos was intense. By 1696, despite objections from the Crown, criollos filled half the garrison posts at St. Augustine and all of the leadership positions except that of the governor (Arana, 1960; Arnade, 1961). Criollos also managed the extensive, lucrative commercial cattle ranches that flourished during the latter part of the 17th century (Bushnell, 1978b). Friars might be either criollos, from Spanish Florida or elsewhere in the Americas, or peninsulares, a source of conflict within the religious community itself (Bushnell, 1981: 18; Hann, 1996: 321–322). Although some Florida criollos were wealthy, many were not (Deagan, 1983: 30–31). Many of the women of European ancestry in Spanish Florida were criollas, not peninsulares, and many criollos in Spanish Florida had Native American ancestry (Deagan, 1983: 31, 33). Male criollos constituted 30% of the St. Augustine male population between 1658 and 1670 but only 10% in the 1692–1732 period (Corbett, 1974). Many criollos were from elsewhere in the viceroyalty of New Spain (Haring, 1947: 70–71), particularly Mexico, but some were from the viceroyalty of Peru (Haring, 1947: 82).

Mestizos, persons of mixed ancestry, held a low social status in the colony. The classification originally referred to illegitimate children of Spanish and Native American parents; thus, the term carried a connotation of illegitimacy (Haring,

1947: 201–202). Peninsulares and criollos alike disdained mestizos, who were considered vagrants. Mestizos did much of the manual labor, while higher-status individuals avoided such work insofar as possible (Mörner, 1967). Despite the prejudice against them, people identified as mestizos served in the Florida garrison and many criollos in Spanish Florida had Indian ancestry (Deagan, 1983: 33).

Legally, the social status of Native Americans was higher than that of mestizos and Africans but this was not so in practice (Haring, 1947: 199). Native Americans were the dominant ethnic group at the beginning of the First Spanish period (see below in this chapter for a review of Native American affiliations). Although their numbers declined steadily during colonial times throughout Spanish Florida (and elsewhere), the Native American population in or near St. Augustine during the 18th century actually increased steadily because those in evacuated outlying missions and villages sought refuge from English-sponsored slave raids in the comparative safety of St. Augustine and the Castillo de San Marcos. By 1738, 1350 Native Americans lived in the area (Benavides, 1738). Native Americans constituted 36% of the St. Augustine male population between 1658 and 1670 and peaked at 40% in the 1692–1732 period (Corbett, 1974).

There were no encomiendas, work houses, or mines in Spanish Florida (Bushnell, 1981; Saunders, 1998; TePaske, 1964: 192), and Native Spanish Floridians successfully resisted relocation to reducciones, settlements associated with encomiendas and mission systems elsewhere (Bushnell, 1981: 37; deFrance, 2009; Saunders, 1998). Encomiendas were allotments to Spaniards of Native American land, tribute, and labor. This system was designed to develop a sedentary, reliable labor pool and secure Spanish claims to territory while enhancing the production of commodities of value in global markets. Allocations of encomiendas were widespread in early Spanish American colonies elsewhere, but in the mid-16th century this colonial institution was phased out (Bushnell, 1981: 37). By the time Spanish Florida was founded, Native Americans were considered rational beings who could not be held in servitude or have their lands taken from them (Bushnell, 1981: 8, 37; P. Hoffman, 1990: 121).

A modified form of a repartimiento system (rotating labor service) was practiced in Spanish Florida, however, and this altered many aspects of Native American life (Bushnell, 1981: 37, 97; Deagan, 1993; Larsen, 1993; Lyon, 1976: 118; Saunders, 1998; Scarry, 1993). Elsewhere, the repartimiento system allocated native labor to Spanish colonists through the encomienda system. In Spanish Florida, the repartimiento system involved direct drafts of a labor quota levied against each Native American town (Bushnell, 1981: 11–13, 37–39). The laborers performed specific tasks for government projects and were paid a daily wage (Bushnell, 1981: 38–39). The labor provided by Native Americans through the repartimiento system may have been the most valuable, exploitable resource in Spanish Florida (Saunders, 1998). Thus, an institution that elsewhere was designed to organize the labor of a sedentary population toward the production of marketable goods was modified in Spanish Florida to facilitate government projects.

Africans occupied the lowest social strata (Haring 1947: 202–203). Africans in Spanish Florida may either have been slave or free (Deagan, 1983: 31–34; Dunkle, 1958: 7; Landers, 1990a, 1990b; Reitz, 1994b; TePaske, 1975). In the 18th century, Spanish Florida was a haven for Africans who escaped slavery in English colonies. If these fugitives converted to Roman Catholicism, they were free by royal decree. Many artisans in Spanish Florida were Africans or Native Americans (Boniface, 1971). Africans comprised 13% of the St. Augustine population at the end of the First Spanish period; about a quarter of which were free (Corbett, 1974; Deagan, 1983: 32; Dunkle, 1958).

Associating social classifications with diet and other aspects of animal use at Santa Catalina de Guale is not without risks (e.g., Reitz, 1994b). The expectations of peninsulares at Santa Catalina de Guale were undoubtedly different from those of criollos posted there, whatever their places of birth or social connections. Additionally, whether peninsulares or criollos, the friars posted to Santa Catalina de Guale probably expected to maintain their social identity as Spaniards, and to distinguish themselves from the Guale residents in the pueblo and elsewhere on the island by symbolizing their authority through their cuisine. They also, undoubtedly, expected the Guale neophytes to contribute substantially to the economic well-being of the Franciscan order.

It is difficult to summarize from the available documentary evidence what peninsulares and

criollos considered an appropriate diet. The Iberian diet itself was highly variable and contained many regional and social differences (Reitz and Cumbaa, 1983). Those criollos who were not born in Florida were from many different parts of the Spanish Empire (Corbett, 1974), bringing with them a variety of food preferences which may not have been very similar to Iberian ones. This issue is discussed at length elsewhere (e.g., Altamira, 1949: 459; Cumbaa, 1975; D'Aulnoy, 1930; Defourneaux, 1971: 64; Reitz and Scarry, 1985: 33-35; Townsend, 1814; Vicens Vives, 1969: 517–518).

The diversity of foods known to be part of the Iberian and African cuisines cautions us against using our own dietary preferences and taboos as standards for assessing food choices in Iberia or Spanish Florida during the First Spanish period. For example, dog (*Canis familiaris*) and horse (*Equus caballus*) meat were consumed in at least one Spanish province, Estramadura, and horse meat was consumed in France in the 18th century (Simoons, 1967: 84–86, 102). Thus, dog meat and horseflesh may have been preferred foods, especially by peninsulares from Estramadura. In the Canary Islands, cormorants and other sea fowl were hunted on the nest, then salted and sold (Glas, 1764). This preference for sea birds might have continued in Spanish Florida.

The Iberian dietary pattern transported to Spanish Florida might have retained some basic characteristics. Although most Spaniards probably did not eat large amounts of meat in Spain, a higher social value would have been placed on domestic animals than on Guale foods such as catfish (Siluriformes) and raccoon (*Procyon lotor*). Mutton might have been the preferred meat, followed by beef and pork; though peninsulares from Andalucia might have preferred beef as the cattle-raising tradition in that province suggests (Bishko, 1952). Domestic fowl, such as chickens (*Gallus gallus*), pigeons (*Columba livia*), and ducks (Anatidae), would have been consumed, but wild mammals would be extremely rare in the diet. Generally, wild foods were not major components of the Iberian diet. Hunting hares was a common activity, but deer were protected by royal decree and probably were hunted only by persons of wealth (Altamira, 1949: 459; see also Seetah, 2007: 23). If venison was a high-status food in Spain, then it might also have been a high-status resource in Spanish Florida. In Spain, most fishes were deep-sea varieties obtained by commercial fishermen. Fish was less expensive than domestic meats (Townsend, 1814: 182, 304). Many of the peninsulares were from the urban poor, so it is possible that fish would have continued to be a desirable staple in St. Augustine, particularly if these peninsulares were sailors. Upper-class townspeople, however, particularly peninsulares, might have felt themselves living in a manner inappropriate to their status if they had to eat fish more frequently than required by religious observances. To the extent that the governors were peninsulares, their complaints to the Crown could be viewed as strong statements against eating copious amounts of fish in Spanish Florida (although see Iranzo [1982]).

Food preparation in Iberia emphasized puchero, olla podrida, or cocido cookery (Cumbaa 1975: 44–45). In this tradition, stews with a carbohydrate base of garbanzos, lentils, and other legumes or rice are cooked with a small amount of meat and seasoned with olive oil, garlic, and onions. Olla podrida is a variant of puchero or cocido made with more expensive ingredients (Kany, 1932: 146). Another example of this type of cookery is gazpacho, a cold broth or soup including bread, olive oil, water, vinegar, pepper, garlic, and onions (Glas, 1764: 206; Kany, 1932: 146). Many of these stews were cooked in earthenware pots. This suggests that associating liquid-based foods only with African or Native American cuisines is misleading: such foods were part of the Iberian cuisine as well. In addition to the stew-based foods, roasting and frying also were part of the Iberian food preparation techniques.

Many foods imported into Spanish Florida left little evidence in the archaeological record other than the material culture associated with them; therefore, it is likely that the animal remains found in zooarchaeological collections represent but a small glimpse of animal use in the colony. Throughout most of the First Spanish period, complaints about food shortages were regular and consistent. Almost every governor complained to the Crown about meager or unsatisfactory rations and irregular delivery of supplies. This correspondence usually requested additional assistance from the Crown in cash and in kind. Although these complaints were persistent, they usually did not produce the intended increased support. In contrast, the zooarchaeological evidence indicates that life was not as dire in the colony as the correspondence suggests.

It is true, however, that supply lines to Spanish Florida were unsatisfactory and subject to interruptions (Connor, 1925, 1930; Lyon, 1976). Natural disasters and attacks by indigenous and European foes contributed to unreliable delivery of the payroll as well as religious materials, fabrics, food staples, munitions, and other supplies. Diseases, which afflicted colonists and colonized alike, also hampered efforts to develop a self-sufficient economy, especially to the extent that the colonial economy relied upon native labor. An official subsidy, known as the situado, was established in 1570 to ensure a dependable supply line, but it did not do so (Bushnell, 1981:5, 63–64, 67–79; Deagan, 1983: 34-39; Lyon, 1977; Sluiter, 1985; TePaske, 1964: 77–79; Worth, 1998a, 1998b). The situado included food staples, supplies for the religious, civil, and military authorities, and the payroll. Cash was chronically short due to the erratic situado. If we are to believe the official correspondence, 16th-century St. Augustinians had very little to eat and what they did have included scum and vermin (Bushnell, 1981: 11–12; Connor, 1925: 99). This claim of deprivation is not supported by zooarchaeological evidence, but there can be little doubt that cash and foods familiar to colonizing Spaniards were in short supply in the colony and that access to local foods was occasionally limited because of storms, droughts, diseases, and warfare. The unreliability of imported foods is undoubtedly one of the primary reasons that local foods assumed such a prominent role in the diets of Spanish colonists (Reitz and Scarry, 1985).

The generally poor opinion of food in Spanish Florida was not shared by everyone (Lyon, 1992). Crops and livestock were grown around St. Augustine, and the nearby fields, streams, and marshes were hunted and fished. In 1578, Pedro Menéndez Marquez, then governor of the colony, wrote a glowing description of crops being grown in and around the town (Connor, 1930: 226/227). Twenty years later, Governor Méndez de Canzo (1598) wrote to the Crown that he had established a fish market and a slaughterhouse. Commercial fishermen, hunters, and farmers sold foodstuffs to townspeople (Lyon, 1977). This information suggests that Spanish Florida in the 16th century was not entirely dependent upon imports or rations for food.

In the 17th century, complaints of privation continued as Spanish Florida endured more diseases, storms, droughts, uprisings, European wars, and pirate attacks. Epidemics afflicted colonists and devastated native communities (Bushnell, 1978b, 1981: 13). Buccaneers attacked the northern mission chain (Bushnell, 1981: 12) and penetrated into the interior of peninsular Florida (Bushnell, 1978b; Hann, 1986b: 175). Piet Heyn captured the Spanish treasure fleet just off St. Augustine in 1628 and Sanche de Agramont raided the town in 1683. In the late 17th century, buccaneers waited just off St. Augustine's harbor to raid ships carrying the Florida situado (Bushnell, 1981: 72). Wars among England, France, and Spain made Caribbean waters generally unsafe for external trade during the 17th century (Bushnell, 1981: 12) and imported sources of food continued to be erratic. To make matters worse, coastal portions of Spanish Florida experienced a period of extreme drought between 1627 and 1667 with below average spring and summer precipitation and warm temperatures (Blanton and Thomas, 2008). Although we cannot determine the extent to which individual households relied upon their own efforts, or those of kinspeople, servants, slaves, or vendors, for food, almost all of the reliable food sources in Spanish Florida were local. If local foods were the norm in 17th-century St. Augustine, outlying missions such as Santa Catalina de Guale must have been even more self-reliant.

The Spanish mission system achieved its greatest stability and extent in the 17th century. After 1604, a string of missions was established from St. Augustine westward across the Florida peninsula, and the northern mission chain along the Atlantic coast, which had been abandoned, was reestablished (Gannon, 1965: 49–67; Hann, 1988, 1996; Lanning, 1935: 210-235; McEwan, 2004; Milanich, 2004; Tebeau, 1971: 43–55; Worth 1998a: 47, 52, 61, 70, 1998b, 2004). Documentary sources suggest that the mission chain provided a more secure source of food for St. Augustine than did the situado. According to these records, not only did Native Americans at missions raise Eurasian pigs (*Sus scrofa*), cattle (*Bos taurus*), chickens, and crops, they supplied fish, game, maize, produce, and other products to St. Augustine (Bolton, 1917: 57; Hann, 1988: 239; Worth, 1998a: 126–134).

Residents of St. Augustine traded with nearby Native Americans and are said to have relied heavily upon more distant missions (Boniface, 1971: 169; Hann, 1988: 232; Worth, 1998a).

For example, in a letter to Governor Joseph de Zuñiga y Cerda in 1703, Manuel Solana wrote that 50 chickens were sent to the governor with Native American carpenters traveling from Apalachee province to work in St. Augustine (fig. 1.1; Boyd et al., 1951: 41). About this same time, Zuñiga sent 500 yards of cloth to Apalachee province. This was bartered for maize, tallow, hogs, beans, deer hides, and wheat (Boyd et al., 1951: 47). Jonathan Dickinson, in his journey along the Atlantic coast of Florida between 1696 and 1697, encountered Native Americans going to St. Augustine with ambergris to trade (Andrews and Andrews, 1981: 43). Other trade goods included cassina, sassafras, buffalo (*Bison bison*) hides, nut oil, bear grease, tobacco, rope, fishnets, dried turkey (*Meleagris gallopavo*) meat, fresh fish, and game (Bushnell, 1981: 11). Native Americans rarely used money and Spaniards often lacked hard currency; therefore, most goods were either bartered or sold on credit (Bushnell, 1981: 59, 68).

Native Americans contributed to the Spanish economy in other ways, as well. They paid tithes to the religious community and made occasional tribute payments to the Crown (Bushnell, 1981: 37, 78, 99). These contributions were in labor and in kind, including fish, game, fruit, grain, and vegetables. The repartimiento labor of Native Americans was put to use in public and private fields as well as on fortress maintenance (Bushnell, 1981: 97, 99; Worth, 1998a: 187–197). The Franciscans sold some of the excess produce they obtained from tithes to locals in St. Augustine, but they preferred to trade with Cuba where these goods commanded a better price (Bushnell, 1981: 40, 59, 91, 99). Disagreements often arose among local chiefs (who were exempt from the repartimiento), the religious community, and the colonial government over native labor, tithes, and tribute (Bushnell, 1981).

An example of this involves cassina, a beverage made from yaupon holly leaves (*Ilex vomitoria*) and the basis of the ritual black drink used in many parts of the pre-Hispanic Southeast (Hudson, 1979). In 1701, a Guale mission was ordered to supply 60 batches of cassina (estimated to be approximately 90 kg) each month to a military garrison. Soldiers complained when they had to collect the leaves themselves (Bushnell, 1981: 98–99; Sturtevant, 1979). One wonders to what extent the black drink ritual was recognized or followed by Spanish colonists, but apparently Spaniards used the leaves primarily as a beverage though they also recognized that it had medicinal value (Sturtevant, 1979).

In addition to the mission chain, cattle ranches were established in parts of peninsular Florida during the 17th century. These were most common near present-day Gainesville as well as in Apalachee province (fig. 1.1; Arnade, 1961; Bishko, 1952; Boniface, 1971: 139–152; Bushnell, 1978b; Hann, 1996: 192–195; Seaberg, 1955). Many cattle ranches provided wealth for a small cluster of landed criollo families, especially between 1650 and 1700 (Arnade, 1961; Bushnell, 1978b). Although one might think this would ensure an ample supply of beef in St. Augustine, many ranchers preferred to ship their products to better markets in Cuba, using the Suwannee River as an outlet for hides, dried meat, and tallow (fig. 1.1; Bushnell, 1978b, 1981: 91). Between 1680 and 1687, Governor Juan Márquez Cabrera ordered that all cattle should be processed through the slaughterhouse in St. Augustine and that ranchers should pay a customs tax (Arnade, 1961; Bushnell, 1978b). In 1693, Governor Diego de Quiroga y Losada attempted to blockade the Suwannee River with debris to stop the Cuban cattle trade (Boniface, 1971: 207). A similar effort had been made a few years earlier with the objective of disrupting buccaneer raids on the ranches near present-day Gainesville (Bushnell, 1978b). None of these efforts were successful.

The cattle ranches of Spanish Florida have not been systematically studied. The Zetrouer site, near present-day Gainesville (fig. 1.1), was an outstation from the nearby mission of San Francisco de Potano and may have been a cattle ranch between 1685 and 1704 (Seaberg, 1955). Both Spaniards and Indians lived at the site. The material culture at Zetrouer shows a strong Native American influence, but also contains Spanish majolicas and Chinese porcelains that suggest the presence of settler families with access to some luxury wares (Seaberg, 1955: 163). No faunal species list is available and the limited faunal information provided is unquantified, but cattle specimens are reported from a fire pit (Seaberg, 1955: 17).

The era of cattle ranching coincided with the construction of the coquina Castillo de San Marcos at St. Augustine (1672-1695; fig. 1.3). This was one of the most prosperous periods experienced by St. Augustine (Bushnell, 1981). By the 1680s,

local efforts to raise livestock contributed so substantially to the town's economy that fresh meat reportedly replaced the usual salted or dried meat in soldiers' rations (Bushnell, 1981: 159). Soldiers complained of this, perhaps because fresh meat did not keep as well.

Throughout the 17th century, however, St. Augustinians claimed that food was in short supply despite the cattle ranches, missions, and trade within Spanish Florida and the situado. Certainly the situado was irregular, often being many years overdue. If the colonists in Spanish Florida depended upon situado rations for food they probably were in need. Colonists augmented situado goods through trade with Native Americans, through cattle ranching, and through their own efforts (Bushnell, 1978b). The contrast between external and local sources of food might explain Jonathan Dickinson's account of his visit to St. Augustine. He wrote that no provisions had been received in the town for three years at the time of his visit, that provisions were running low, and that his party was forced to eat bread full of weevils (Andrews and Andrews, 1981: 62, 64). He also enjoyed a large meal when his party reached St. Augustine, was served chocolate for breakfast by the governor, and saw orchards in the town (Andrews and Andrews, 1981: 60–62).

St. Augustinians had to compete with Cuban, Dutch, English, and French traders as well as local Franciscans for access to the Native American trade throughout the 17th century (Boyd et al., 1951: 46; Bushnell, 1981: 92–95; Worth, 1998a: 186). The Franciscans guarded Native Americans from official requisitions but Cubans came directly to Apalachee to fish and to trade for produce, dried meat, lard, tallow, deer hides, and wild turkeys (Bolton and Ross, 1968; Bushnell, 1981: 91, 128). They also traded with Native Americans elsewhere on the Florida coast for hides, timber, medicinal herbs, ambergris, and goods salvaged from shipwrecks (Bushnell, 1981: 91). English merchants were trading in the area as well. A collection of 180 deer hides, 200 beaver (*Castor canadensis*) and otter (*Lontra canadensis*) pelts, and 9 buffalo hides were confiscated by Spanish authorities while en route to the Carolinas with Henry Woodward in 1686 (Bushnell, 1981: 97; Lanning, 1935: 181–182).

As in preceding centuries, the early decades of the 18th century were times of turmoil for the Spanish colony (Deagan, 1983; TePaske, 1964). Raids by the governor of Carolina, James B. Moore, and his Native American allies destroyed most of the outlying missions and cattle ranches by 1704. St. Augustine itself was besieged in 1728 and 1740, first by Colonel John Palmer and later by James Oglethorpe. These raids reflected the gradual advance of English settlements down the Atlantic seaboard. Charleston was founded in 1670, Savannah in 1733, and Ft. Frederica (on St. Simons Island) in 1736 (fig. 1.2). As in the previous decades of the colony, reports of hardship were frequent. For example, after a situado ship was captured in 1712, Governor Don Francisco de Córcoles y Martínez (1712) reported that people ate rodents, dogs, cats (*Felis catus*), and horses (TePaske, 1964: 83). Although the extensive system of missions and cattle ranches had been destroyed, some missions, ranches, and farms operated near St. Augustine, and local merchants and craftsmen did business in the town. Trade with English colonies, though illegal for much of the time, was brisk (Deagan, 1983: 34–39; Harman, 1969; Scardaville and Belmonte, 1979).

The final decades of the First Spanish period (1743–1763) were relatively calm in what remained of Spanish Florida (TePaske, 1964: 154). British colonies became legal sources of the situado in the 1750s (TePaske, 1964: 105). The First Spanish period ended in 1763 when Spain ceded Spanish Florida to Britain, at which time virtually the entire Spanish and Catholic Native American population left the colony (Dunkle, 1955).

## THE MISSIONS OF SPANISH FLORIDA

Despite the lack of visibility on the landscape today, the Spanish Florida mission system was as large as, or larger, than the better-known mission chains in the Southwest, Baja California, and Alta California of New Spain's northwestern frontier. In 1655, approximately 70 friars worked at 38–40 missions serving 26,000 neophytes in Spanish Florida (Gannon, 1965: 57; Matter, 1972: 88, 106; Thomas, 1988b). The more typical number of friars, however, was between 34 and 50; the number and location of missions were fluid as the political, financial, and demographic situation changed. In contrast, at roughly the same time, 26 friars served approximately 50 missions in the northwestern frontier. In 1697, there were 17 missions in Baja California. The Alta California mission chain, perhaps the best known of the

group, was not started until 1769, after Spanish Florida was ceded to Britain. The Alta California system between 1776 and 1805 had 21 missions serving 18,000–20,000 neophytes (Costello and Hornbeck, 1989; Thomas, 1988b). The size of the Florida mission chain and its early date are two of the many factors that distinguish New Spain's northeastern missions from the northwestern ones.

Ideally, each Florida mission was attended by one or two friars and a few Spanish soldiers (Thomas, 1990); however, there were not enough friars and soldiers to go around (Hann, 1996: 187). A distinction was made between doctrinas, principal mission centers with a resident friar, and visitas, which were visited by friars on Sundays and holy days (Gannon, 1965: 57; Hann, 1988: 403). Some outposts were visited only occasionally by friars. Santa Catalina de Guale, however, had both resident friars and soldiers and was considered a principal mission.

The missions of Spanish Florida were subdivided into several administrative units, roughly defined by Spanish authorities according to their understanding of cultural identities, languages, and political alliances of the Native Americans living in each province. Boundaries for these provinces are not agreed upon (e.g., Hann, 1988, 1996: 2–8; Larson, 1978; Thomas, 1990; Worth, 1998a, 1998b). Native peoples in these three provinces were organized into chiefdoms and shared many cultural institutions (e.g., Jones, 1978; McEwan, 2004; Milanich, 2004; Thomas, 1990; Worth, 1998a: 1–34, 2004).

The objectives of the missions were to protect the frontier, manage the tribute system, control trade, organize labor, convert the Native Americans to Christianity, and otherwise "civilize" them (Bushnell, 1990; Deagan, 1985; Weber, 1990). Much has been written about the hardships, impositions, and opportunities associated with these missions (e.g., Gannon, 1990; Weber, 1990; Worth, 1998a, 1998b). It is particularly important to the following discussion to acknowledge the scope and rapidity with which native populations declined due to epidemics, labor demands, and other biological and social stresses associated with colonization. Many of the missions that flourished during parts of the 17th century were reduced in scope or abandoned due to combinations of English raids, significant depopulation, and native uprisings as the century progressed (see Deagan, 1985; Saunders, 1998). The collapse of the mission chain is beyond the scope of this monograph, but Santa Catalina de Guale was not immune to any of the pressures placed upon native communities during the First Spanish period.

Santa Catalina de Guale was located in Guale province (Jones, 1978, 1980). The Guale people primarily occupied the tidewater mainland and islands of the Georgia Bight between the Savannah and Altamaha rivers (fig. 1.2; Worth, 2004; see appendix B). According to Lewis Larson (1978), the Guale province extended from St. Catherines Island south along the coast to the northern border of Timucua province near Jekyll Island (fig. 1.2). John Hann (1990: 423) notes, however, that in 1655 two Guale missions lay north of St. Catherines Island. Both Hann (1996: 10) and John Worth (1998a: 48–49) suggest that another province, Mocama, lay between Guale and Timucua provinces (Saunders, 2009). Jerald Milanich (2004) includes Mocama as one of the Timucuan dialects, but suggests that the Mocama sometimes were included within the jurisdiction of the Guale mission. The Guale people are generally considered descendants of earlier Irene-period or Savannah-period populations in this same coastal setting. After the Guale mission chain collapsed, many Guale converts relocated to St. Augustine where their ceramic tradition made substantial contributions to the 18th-century town and many Guale women married Spanish men (Deagan, 1990).

The islands and coastal mainland below the southern border of Guale province (or Mocama) and portions of eastern peninsular Florida formed Timucua province (fig. 1.1; Hann, 1990: 423; Milanich, 1978, 2004; Saunders, 2009; Worth, 1998a: 32–33). Western Timucua province was between the St. Johns and the Aucilla rivers and eastern Timucua province was between the St. Johns River and the Atlantic Ocean, including St. Augustine (Milanich, 1978). Coastal Timucua province may have been a separate province during at least part of the First Spanish period. The southern boundary of Timucua province is poorly defined, but extended some distance south of St. Augustine. The Timucua are generally considered descendants of peoples classified archaeologically as St. Johns II.

Apalachee province is the best defined of the provinces and is associated with the panhandle of peninsular Florida (fig. 1.1; McEwan, 2004). The eastern boundary is defined by the Aucilla River

and the western boundary by the Ochlockonee River (Hann, 1988: 1). The southern edge is formed by the Gulf of Mexico, but the northern boundary is poorly defined. The Apalachee mission headquarters, San Luis de Talimali (in present-day Tallahassee), was the largest of the Apalachee missions. The first friars reached Apalachee in 1633, followed by soldiers in 1638 (McEwan, 1993). Apalachee was considered the most productive of the provinces because of its better soils and abundant harvests (Wenhold, 1936: 7, 13). It was the focus of a great deal of economic activity as ranches and farms flourished. By 1675, the population at San Luis de Talimali was 1400 and included Christianized Apalachees as well as some Spanish families (McEwan, 1993). Cattle ranching was a viable economic activity in Apalachee with both Spaniards and Apalachee raising herds and profiting from the sale of livestock and cattle by-products (Deagan, 1993; Hann, 1986b, 1988; McEwan, 2004). The province was generally considered self-sustaining and prosperous, an obvious target for the English-sponsored raids that eventually destroyed it. The destruction of the missions in Apalachee province between 1701 and 1704 posed a considerable challenge to the survival of Spanish Florida, though this occurred several decades after the mission on St. Catherines Island was abandoned.

## CONCLUSIONS

People living on St. Catherines Island at Mission Santa Catalina de Guale and Pueblo Santa Catalina de Guale were participants, willingly or unwillingly, in the global political and economic power struggles of the 17th century. The mission effort itself was but one component of the expanding European sphere of influence. Native Americans and Spaniards living and working in the mission system participated in this emerging global market, but climate change, disease, warfare, economic shortages, and cultural changes accompanied their participation in the international arena. At the same time, the waters of the Georgia Bight offered a rich resource base that had supported people for millennia prior to the First Spanish period. The long historical record of animal use in the Georgia Bight, when combined with the diverse cultural and environmental setting of the 17th century, provides a rich zooarchaeological record for the study of diet, exploitation strategies, economic exchanges, and environmental change in the first sustained European enterprise north of Mexico.