

**MISSION AND PUEBLO SANTA CATALINA DE GUALE,  
ST. CATHERINES ISLAND, GEORGIA:  
A COMPARATIVE ZOOARCHAEOLOGICAL ANALYSIS**

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## DEDICATION

We dedicate this work to the memory of Barbara Leddy Ruff, who was present when the Zooarchaeology Laboratory at the University of Georgia was started and, for over 30 years and in so many ways, supported the laboratory and the people who used it.

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## ABSTRACT

This volume considers the zooarchaeological evidence for animal use by Spaniards and the Guale people during the First Spanish period (A.D. 1565–1763) on St. Catherines Island, Georgia (USA). The focus is on a combined archaeofaunal assemblage containing 70,324 specimens and the remains of an estimated 510 vertebrate individuals associated with Mission Santa Catalina de Guale. This Spanish mission operated on the island from the 1580s until 1680 in a province known as Spanish Florida. Spanish Florida formerly encompassed portions of the present-day states of Alabama, Florida, Georgia, and South Carolina, and was the first sustained European colonial enterprise north of Mexico. For many years the rich Spanish heritage of the southeastern United States was neglected as a field of study. Spanish colonists themselves often characterized Spanish Florida as a place of poverty, neglect, and ruin. Over the last 30 years, however, archaeologists have demonstrated that this concept of the colony cannot be accurate. Instead of a poverty-stricken Spanish outpost dependent upon imported goods and institutions, archaeologists find that a complex, multiethnic community existed; one in which pre-Hispanic and Spanish traditions merged to form a new relationship with the cultural and natural environments. The study of animal remains from towns and Roman Catholic missions in Spanish Florida highlights the dynamic interchange between natives and immigrants that resulted in new subsistence patterns blending native and immigrant foodways while taking advantage of the local resource base. Instead of a single, inept, transient Spanish government dominating an invisible or resistant native population, we must now think of Spanish Florida as a place where resilient Native Americans developed new patterns of animal use while influencing the diet and exploitation strategies of immigrants from Europe, Asia, and Africa.

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## INTRODUCTION

This is a story of Spanish Florida from the perspective of Native American (Guale) and Spanish foodways viewed through the lens of animal remains recovered during archaeological excavations on St. Catherines Island, Georgia (USA). The monograph focuses on vertebrate remains recovered from the 17th-century Franciscan Mission Santa Catalina de Guale and the Guale village associated with the mission, Pueblo Santa Catalina de Guale (A.D. 1580s–1680). The work reported here draws upon over 30 years of research into Native American, African, and European life in towns, missions, forts, and villages located in the southeastern Atlantic tidewater zone in what are now the states of Alabama, Florida, Georgia, and South Carolina.

The study reaches beyond St. Catherines Island to place the Guale and Spanish island experiences into historical and regional contexts that include animal use on other sea islands and the mainland of the Atlantic tidewater zone prior to the 17th-century, in secular St. Augustine during the First Spanish period (A.D. 1565–1763), and at Spanish missions in Apalachee and Timucua provinces. For most of this time, St. Augustine (now in the state of Florida) was the capital of the Spanish territory known as La Florida or Spanish Florida. Data also are presented from the Convento de San Francisco, the Franciscan mission headquarters in St. Augustine to which Mission Santa Catalina de Guale reported. Seventeenth-century Spanish and Guale life on St. Catherines Island is placed into an inter-regional context through a review of zooarchaeological evidence from missions in what is now the southwestern United States and from Spanish contexts elsewhere in the Americas.

The data in the following pages are obtained and interpreted using the philosophies, methods, and perspectives of zooarchaeology. Zooarchaeologists study animal remains recovered from archaeological contexts using methods and theories informed by the fields of anthropology, ecology, and geology, among others (Reitz and Wing, 2008; see appendix A). Zooarchaeology explores relationships among peoples and their environments as reflected through animal remains. The discipline explores many aspects of human life involving animals, such as nutrition, resource use, social

ritual, social identity, labor management, animal husbandry, and the impact of people on their biotic and abiotic environments. The zooarchaeological research reported here focuses on change and continuity among natives and colonists alike in Spanish Florida with particular emphasis on diet, exploitation strategies, and the Guale contributions of labor and goods to the colonial enterprise. Much of the First Spanish period coincides with two major droughts and other environmental changes (e.g., Blanton and Thomas, 2008); thus, consideration is also given to evidence for anthropogenic and nonanthropogenic causality in environmental change.

Although zooarchaeologists studying colonial contexts elsewhere can draw upon written records and oral histories to elaborate upon or interpret the animal remains recovered from archaeological sites, work in Spanish Florida generally has been without access to a similar documentary record (e.g., Deagan, 1983). In fact, as will be demonstrated below, the claims of poverty recorded in the available records, as well as the presumption that indigenous foodways were replaced rapidly by those of colonists, are unsupported by the zooarchaeological evidence. For both reasons, this study relies almost entirely on the archaeofaunal evidence itself.

The interpretations made here are drawn primarily from evidence for the use of vertebrates. Most of the known coastal sites in this area are shell-bearing sites, including most First Spanish period sites. Coastal sites in Spanish Florida consist of soil, material culture, botanical remains, invertebrate remains, and vertebrate remains; but they are dominated by valves and valve fragments of oysters (*Crassostrea virginica*). Invertebrates, particularly oysters, were important First Spanish period dietary elements, but they were also used in construction. Tabby is a shell, lime, and sand conglomerate used architecturally, particularly in St. Augustine, but also at coastal missions. Oysters and other invertebrates also were used at Mission Santa Catalina de Guale to line postholes and in shell-covered plazas, for example. Even in pre-Hispanic contexts, shellfish, particularly oysters, were used in the construction of some coastal mounds beginning as early as 2000 B.C. (e.g., Russo, 1996).



At present, no reliable criteria consistently distinguish between invertebrates that were eaten and those used for tabby and other constructions. It is doubtful that such a distinction is possible because some shellfish probably were eaten and the resulting shell debris subsequently used for other purposes. Thus, only vertebrates have been studied for St. Augustine contexts. When the study of animal use in Spanish Florida expanded beyond St. Augustine, tabby and other architectural elements constructed of oyster and other invertebrates continued to be a confounding factor, though a much smaller one than in St. Augustine itself.

The focus of this study on vertebrates should not be interpreted as evidence that invertebrates, particularly crabs and molluscs, were minor parts of pre-Hispanic or First Spanish period foodways. All of the coastal sites in Spanish Florida mentioned here are characterized by abundant crustacean and molluscan remains, some of which may have been construction material and much of which undoubtedly complemented the vertebrate portion of the diet. Most of the invertebrates found in pre-Hispanic contexts are also found in First Spanish period contexts. For information on invertebrates found in coastal collections throughout Spanish Florida, the reader should consult zooarchaeological literature for the pre-Hispanic period in this region (e.g., Crook, 1992; Quitmyer and Reitz, 2006; Reitz, 1991; Reitz and Quitmyer, 1988; Reitz et al., 2009).

Throughout this monograph the designation *Santa Catalina de Guale* refers to the overall mission with no distinction between the Spanish mission compound or the Guale pueblo; *Mission Santa Catalina de Guale* refers specifically to the mission compound and to the Spaniards who, presumably, were the primary occupants of the compound. *Pueblo Santa Catalina de Guale* refers to the pueblo and the Native Americans, presumably primarily Guale, who lived there. Despite the dichotomy between Spanish mission compound and Guale pueblo, in fact, we do not know that the people living at Santa Catalina de Guale were as segregated as this dichotomy implies and we presume that several ethnic groups are subsumed under the terms *Spanish* and *Guale*. It is likely that social interactions were far more fluid than these terms imply.

In the following pages, the term “cow” occasionally is used to refer to *Bos taurus*, recog-

nizing that some of the animals encompassed by this term may not be female. Strictly speaking, only female *Bos taurus* should be called cows, but the term is often used in reference to bulls and castrated steers. The term “cattle” can be used to refer to all domestic members of the family Bovidae, particularly to neat cattle such as goats (*Capra hircus*) and sheep (*Ovis aries*). In most cases, we do not know whether the animals called “cows” here are males, females, or castrates; but we know they are not goats or sheep. When the term “cattle” is used in this volume, it refers to *Bos taurus*.

The first four chapters of this monograph establish the background for animal use at Santa Catalina de Guale. In chapter 1, the research themes for this study as well as a history of Spanish Florida and its missions are reviewed. In chapter 2, the cultural geography of Santa Catalina de Guale is summarized, including the history of archaeology on St. Catherines Island and descriptions of architectural elements at Santa Catalina de Guale. Zooarchaeological evidence for animal use by coastal Native Americans in the region is summarized in chapter 3, with particular emphasis on what we know of animal use by people who lived on St. Catherines Island prior to the 17th century. Vertebrate use by Spaniards elsewhere in Spanish Florida is summarized in chapter 4, which focuses on secular animal use in St. Augustine, evidence for animal use by Native Americans and Spaniards at missions in Apalachee and Timucua provinces, and animal remains from the Convento de San Francisco.

Chapters 5 through 7 present the zooarchaeological data from Mission Santa Catalina de Guale and Pueblo Santa Catalina de Guale. This includes a discussion of animal remains from the church (Structure 1) and the Eastern Plaza Complex within the mission compound (chap. 5). The Eastern Plaza Complex includes data from the cocina/kitchen (Structure 2), the convento/friary (Structure 4), and the garden/well area between these two buildings (Structure 2/4). The focus of chapter 6 is on three separate areas of the pueblo: Fallen Tree, Pueblo South, and Pueblo North. Chapter 6 ends with a comparative summary of Spanish and Guale diet and exploitation strategies at Santa Catalina de Guale. Chapter 7 provides an interpretation of Guale hunting strategies

derived from a study of white-tailed deer (*Odocoileus virginianus*) dentition.

In Chapter 8, we place the St. Catherines data into regional and interregional contexts, review what we know of change and continuity in Spanish colonial settings, and suggest directions for future research.

The volume concludes with six appendices. Appendix A provides details of the methods and materials used in the study. The natural history of the Georgia Bight and the Carolina province is reviewed in appendix B. Species lists for the

cocina, friary, and the garden in the Eastern Plaza Complex are presented in appendix C. Vertebrate remains recovered during the auger survey, and from miscellaneous contexts associated with Santa Catalina de Guale, are summarized in appendix D. Appendix E presents the results of a study of density-mediated attritional processes in materials recovered during the auger survey and from miscellaneous contexts. Measurements of skeletal dimensions from selected taxa are provided in appendix F.

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Nonhuman faunal remains from St. Catherines Island are curated at the Environmental Archaeology Laboratory of the Florida Museum of Natural History, University of Florida, Gainesville. Data cards and records are housed temporarily at the Zooarchaeology Laboratory, University of Georgia Museum of Natural History, but will be transferred to the Florida Museum of Natural History as the final repository. Human remains recovered at Mission Santa Catalina de Gualé have been reburied on the island and all artifacts from the mission excavations are being transferred to Fernbank Museum of Natural History (Atlanta). Faunal remains and data cards for St. Francis Barracks are curated at the Florida Museum of Natural History, as are the thin sections created for the incremental study of white-tailed deer teeth from Structure 2 within the Mission Santa Catalina de Gualé.

