

Biocultural Histories in *La Florida*

A Bioarchaeological Perspective

Christopher M. Stojanowski

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1 Historical Bioarchaeology

In 1763, Spanish ships set sail from the Atlantic Coast of Florida heading toward Havana, thus ending two centuries of Spanish colonization and proselytizing of the region. These ships carried the few remaining individuals from the indigenous colonial populations (the Apalachee, Guale, and Timucua) that had survived decades of social upheaval and alterations in traditional lifeways. Although Spain would return to *La Florida* twenty years later for a brief period of occupation, the Native American populations did not. The ceding of St. Augustine in 1763 was, therefore, the culmination of a long process of Native American acculturation, resistance, and adaptation initiated by Ponce de León's 1513 Gulf Coast landing and subsequent claiming of lands north of New Spain for the Spanish Crown. Historical documents provide considerable insight into what life was like during the contact period. They are not, however, complete. And, for the biological anthropologist, the evolutionary consequences of the mission experience remain unclear. This book investigates patterns of biological variability in light of the mission history to supplement the historical record in a way that will be useful to historians, archaeologists, and physical anthropologists.

Specifically, this book investigates changes in population levels of phenotypic variability for two tribal groups (the Guale and Apalachee) through three time periods, Late Precontact (~A.D. 1200–1400), Early Mission (A.D. 1600–1650), and Late Mission (~A.D. 1650–1706). By focusing on comparisons within groups, I evaluate the pattern of changes in phenotypic (tooth size) variability (increase, decrease, or stasis) and relate observed trends to prevailing models of New World population demography and ethnohistoric details of population structure and interaction patterns. Ultimately I hope to reconstruct the evolutionary impact of Spanish policy and Native American response to this policy, and further detail the rapidly changing sociopolitical world in which the indigenous populations of *La Florida* found themselves.

The social history of Spanish Florida identifies two overarching processes defining changes in population composition through time. First, population sizes were declining, albeit at different rates in different regions. Second, population aggregation and migration were occurring largely in response to the rate of localized demographic collapse. Aggregation can therefore be viewed as secondary to population demography and as a reactionary process designed to mitigate the deleterious effects of demographic collapse. Where demographic collapse was most severe, the hierarchical process of population aggregation was most aggressive. In this sense, “hierarchical” refers to the fact that aggregation proceeded along a defined, progressive pathway, from the local to the regional to the supraregional. Expansion of the “burial catchment,” that is, the geographical area from which a particular mission community cemetery received deaths, has several predicted effects depending on the structure of population relationships in preceding time periods. Aggregation of biologically integrated populations is an evolutionary non-event, whereas aggregation of divergent populations (and admixture between them) leads to predictable evolutionary genetic responses.

Ethnohistory’s contributions to this discussion are twofold. First, ethnohistoric data provide estimates of population size that are directly related to expected intensities of population aggregation. Quality varies considerably (see Henige 1998), a topic returned to throughout this book. Second, ethnohistory provides statements regarding the expected biological consequences of aggregation, where it did occur. In other words, ethnohistoric data can be used to define population interaction boundaries, to predict changes in the size of the population, and to predict diachronic changes in between-group interaction patterns.

This book considers the effects of “collapse aggregation” in terms of synchronic and diachronic differentials in genetic variability. Where there is documented stasis or a decrease in genetic variability, paleogenetic bioarchaeology informs about rates of population size reduction and the effects of genetic drift. For example, a decline in genetic variability suggests a similar decline in population size. Static genetic variances suggest no change in population size between time periods. Where there is a documented increase in genetic variability, paleogenetic bioarchaeology informs about precontact population structure and patterns of gene flow during the contact period. For example, knowledge of contact between two populations during the historic period, combined with genetic variability estimates for both populations during sequential time periods, allows inference about the degree of biological integration of these populations during the earlier time period. If variability increases, it is assumed the populations were previously genetically distinct. Assuming veracity of the contact era data (population size debates notwithstanding), the

approach adopted in this book has the ability to evaluate simultaneously the accuracy of archaeologically and historically generated models of biosocial interaction both before and during the period of active missionary activity. It also provides novel information about the nature of such interaction unavailable from other sources. One facet of this book is, therefore, expository; to demonstrate the utility of paleogenetic bioarchaeology in anthropological research programs.

Attempts to tether diverse topics into a coherent picture of the social environment of 17th-century *La Florida* necessitate a careful distillation of data and presentation of research foci. The success of this approach requires delineation of three topics: (1) general historical processes must be outlined and used to define a research design; (2) analytical data must be explained and explicitly linked to the research design; and (3) analytical results based on the data must be evaluated in light of the research questions and regional histories.

With this structure in mind, I have organized the book into three sections. The first, "The Archaeology," consists of chapters 2 and 3. Chapter 2 is written to provide general historical and archaeological details and to contextualize the current work within the appropriate regional scholarship. We know the dates, personalities, and places of *La Florida*. We know the effects of missionization on native health and diet. We know epidemics were problematic. We know social systems were stressed. We do *not* know the evolutionary impacts of colonization. Whereas chapter 2 provides a general historical overview, chapter 3 specifically targets data sources integral for generating biologically informed predictive models. It is in this chapter that disease epidemiology is incorporated into the research design and that Spanish policies to mitigate ensuing colonial stresses are outlined. This discussion is structured around the central overarching theme of this book, namely the complementary nature of ethnohistoric and bioanthropological data.

The second section, "The Bioanthropology," consists of chapters 4 and 5. Chapter 4 links the ethnohistory with evolutionary theory, with discussion centered on the causes and interpretation of phenotypic variability, the meaning of "heritability," odontometric inheritance patterns, and evolutionary mechanisms effecting variance transitions. Chapter 5 is methodological in focus and continues discussions of odontometric research. Statistical analyses and pretreatment protocols are presented.

The final section, "The Synthesis," presents results and interpretations of the analyses. Chapter 6 discusses phenotypic transformation within the context of Apalachee archaeology and history; chapter 7 discusses similar results for Guale. Both chapters present discussion and interpretation within regional ethnohistories. Chapter 8 presents comparative and concluding remarks and considers this project in a broader, regional perspective.

Broader Impacts

This book is overly broad in academic scope. However, the question of interest is rather straightforward. What effects did colonization have on indigenous populations, and how did the response to prevailing biosocial conditions manifest in population genetic patterns of variability and affinity? Specifically, the following questions are addressed:

- (1) What pattern of biological interaction characterized the precontact period?
- (2) Was the pattern consistent with etic or emic ethnic divisions at the time of contact?
- (3) How did this pattern change through time?
- (4) What may have caused observed changes or explain differential patterns of change between different provinces?
- (5) How did population sizes change during the mission period?
- (6) Was change consistent with historical predictions?
- (7) Was change consistent between provinces?

The larger issues developed in this book, however, are of broader interest. Bioarchaeology is well positioned within anthropology to unify evolutionary and cultural concepts under both historical and processual perspectives. As alluded to earlier in this chapter, and as demonstrated in the following discussion, bioanthropological and ethnohistorical data are complementary information sources. Neither is free of underlying and unverifiable assumptions. This case study demonstrates how the interplay of archaeology, history, ethnohistory, linguistics, and paleogenetic bioarchaeology generates a better informed model of anthropological inference.

Part I

The Archaeology

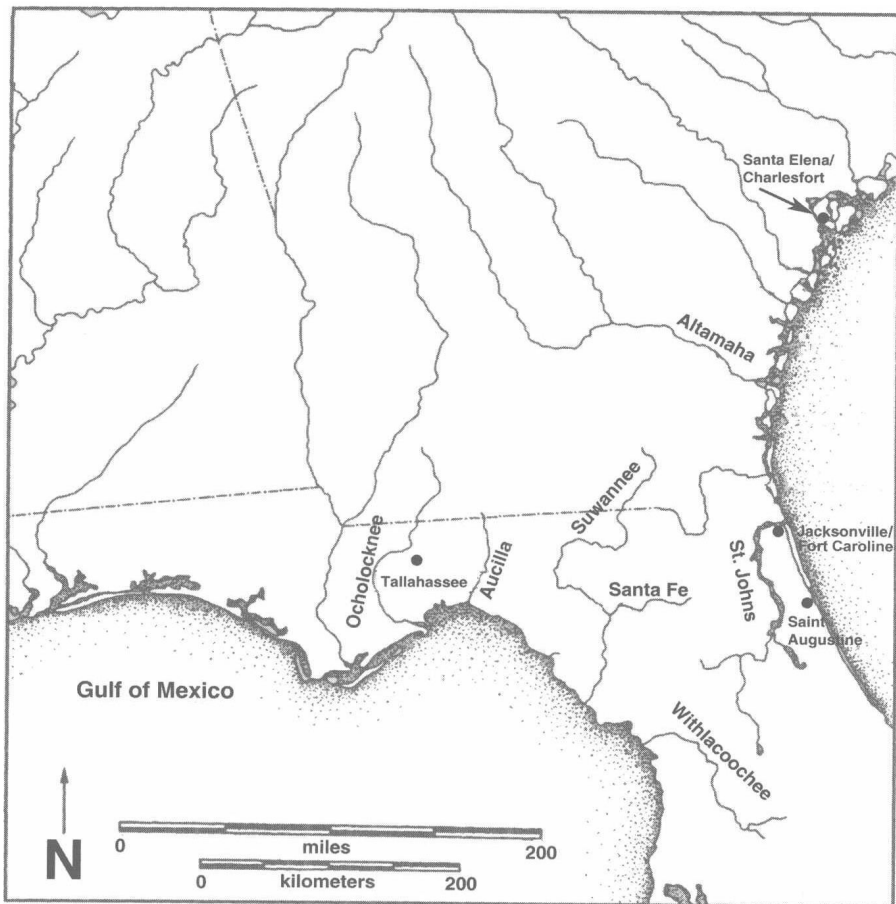


Figure 2.1. Map of important locations and rivers in *La Florida* (modified from Larsen 2001: Fig. 2.1).

2 The Setting

The Spanish Mission System of *La Florida*

One of Menéndez's captains thrust his dagger into Ribaut's bowels, and Merás, the *adelantado's* brother-in-law, drove his pike through his breast; then they hacked off his head. Some there were . . . who condemned Menéndez for his cruelty and for slaying the captives after having given his oath for their safety. But Barrientos . . . holds that he was "very merciful" to them for he could "legally have burnt them alive. . . . He killed them, I think, rather by divine inspiration."

(Bolton 1921:148–149)

Founded by Ponce de León in 1513 and colonized by Pedro Menéndez de Avilés in 1565, Spain's *La Florida* colony (Figure 2.1) represented the beginning of permanent European colonization of North America, a process that would ultimately result in widespread ethnocide of myriad indigenous cultures. In its most general sense, this book considers the processes responsible for the extinction of these communities and the active strategies adopted to counteract impending demographic catastrophe.

Table 2.1 summarizes key historical details for those unfamiliar with this regional context. In-depth historical discussion of Spain's North American presence can be found in multiple sources (Bolton 1917; Boyd 1948; Gannon 1983; Geiger 1937; Griffin 1990; Hann 1986a, 1988, 1993, 1996; Lyon 1990; McEwan 1993; Milanich and Proctor 1978; Smith and Gottlob 1978; Spellman 1965; Sturtevant 1962; Thomas 1990a), but I will review major events here.

The history of Spain's involvement in the New World is complex and has been the subject of intensive anthropological and archaeological investigations for nearly a century. The province of *La Florida* was named in 1513 when Juan Ponce de León landed near the Tampa Bay/Charlotte Harbor area and claimed all lands east and north of New Spain for the Spanish Crown. He named the colony after the *Pascua Florida*, the Feast of Flowers, which preceded the Easter holiday and commemorated the date of his landing. Because Spain already possessed extensive holdings in South and Central America and the Caribbean, the colonization of *La Florida* was deemed necessary for three reasons: to create a buffer zone against French colonial interests farther north (Lyon 1990; Milanich 1990; Sluiter 1985; Spellman 1965); to protect shipping lanes for the transportation of gold from New World colonies to Europe (Sluiter 1985;

Table 2.1. Important historical dates for the First Spanish Period

| Date | Event |
|-----------|--|
| 1513 | Juan Ponce de León claims <i>La Florida</i> for Spain |
| 1528 | Narváez entrada |
| 1539–1540 | De Soto entrada |
| 1565 | St. Augustine founded |
| 1566 | Jesuits arrive and begin widespread effort at conversion throughout colony |
| 1572 | Jesuits leave Florida |
| 1573 | Franciscans arrive |
| 1597 | Guale revolt |
| 1607 | Franciscans return to Guale |
| 1607 | Western Timucua receives missionaries |
| 1633 | Apalachee receives missionaries |
| 1661 | Westos begin attacks on Guale |
| 1684 | Guale abandoned |
| 1685 | Carolina colony, under Moore, begins assaults on Apalachee and Timucua provinces |
| 1704 | Moore raids Apalachee, province is abandoned |
| 1706 | Moore raids Timucua, province is abandoned |
| 1763 | Spain cedes its North American holdings (St. Augustine) |

Weddle 1985); and to establish a terrestrial route from the Atlantic Ocean to New Spain (Milanich 1990; Pearson 1968).

Initially, Spanish *entradas* (expeditions) were staged in the hope of recovering wealth in the form of precious metals or slaves to replenish *encomiendas* (a labor land grant system) in the Caribbean, where demographic collapse had been nearly complete (Hutchinson 1990; Lyon 1991). After several half-hearted attempts at colonization, the French established Charlesfort and Fort Caroline on the southeastern Atlantic coast (Figure 2.1), which hastened Spanish interest in permanently colonizing North America (Lyon 1991; Thomas 1990a). St. Augustine, Spain's answer to the French threat, was established in 1565 by Pedro Menéndez de Avilés (Barrientos 1567; Lyon 1991) and commonly carries the appellation of "America's oldest city."

With Menéndez's capital city of St. Augustine strategically situated on the northern Atlantic coast of Florida (Figure 2.1), Spain's Catholic ambassadors immediately sought redemption for the pagan indigenous groups as part of the *conquista de almas* (conquest of souls). In fulfillment of his royal charter, Menéndez at first enlisted Jesuit missionaries (1566–72), followed by Francis-

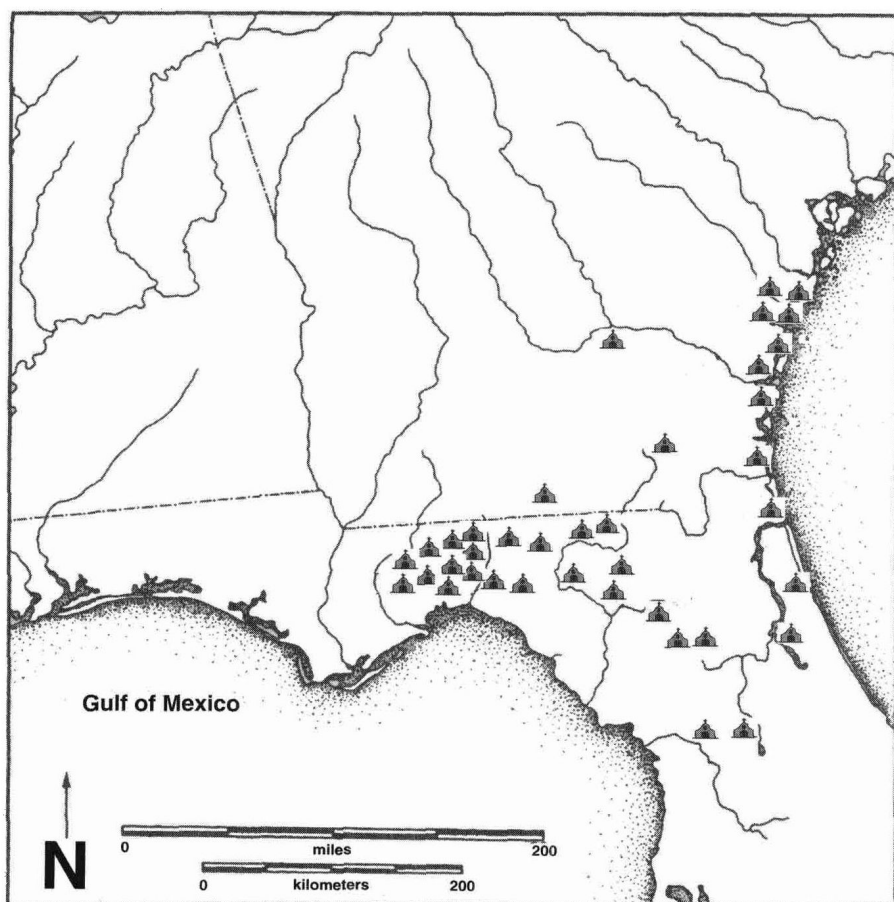


Figure 2.2. Map of mission locations ca. 1650 (modified from Larsen 2001: Fig. 2.1).

cans (1573–1706), to organize the conversion and pacification of the indigenous populations (Deagan 1985; Geiger 1937; Hann 1991; Milanich 1990; Thomas 1990a; Weisman 1992). Initially, mission efforts were restricted to the area immediately surrounding St. Augustine (Sturtevant 1962) (Figure 2.2). Early success, however, quickly led to the expansion of missionaries into southern coastal Georgia and South Carolina, the domain of the Guale, Escamaçu, and Orista (Jones 1978; McEwan 2001), followed by the St. Johns River drainage (eastern Timucuan speakers) and northern Florida interior (western Timucuan groups) (Deagan 1990a; Smith and Gottlob 1978). The Apalachee chiefdom (roughly encompassing Leon and Jefferson counties near present-day Tallahassee) received Christianity in 1633 (Hann 1988), following a 25-year period of intermittent missionary contact. By 1650 the *La Florida* mission chain