Contact, as once defined by Dobyns (1983), was seen only as the straightforward process of Native American acquisition of European pathogens. We now understand culture contact to be a much more complex and nuanced phenomenon, and one not just restricted to the Columbian exchange. For millennia, human societies have been colonizing new territories, encountering peoples different from themselves, and becoming entangled in long-term biological and cultural transformations as a consequence. These phenomena represent some of the key local, regional, and global adaptive transitions of humankind in a process of both biological and cultural transformation. Contact between the Eastern and Western Hemispheres beginning in A.D. 1492 was perhaps the largest and most transformative of its kind, as it brought together human populations that had previously been unconnected; our species would never be the same (Crosby 1972; Wolf 1982). Perhaps only the transition from foraging to farming had greater impact on overall configurations of culture, relationships with the environment, and economy. European contact and its aftermath was, after all, unsurpassed in its global scale, degree of violence, and speed. In less than four hundred years, the biological structure of virtually every human population was transformed in myriad and intricate ways.

Still, conquest and colonialism in the recent human past are not well understood scientifically. They have long been shrouded by incomplete histories written mostly by the victors and filled with deterministic suppositions and simplistic stereotypes regarding Native American biocultural inferiority and passive demographic collapse. Since the 1990s, bioarchaeological
studies have progressively revealed that conquest and its aftermath embodied some of the most complex biocultural morasses of known history. Yet past work has only begun to scratch the surface of contact, conquest, and colonialism, which are all processes that bioarchaeology is uniquely suited to explore.

The purpose of this volume is to delve deeper into the study of contact and colonialism through new and synthetic bioarchaeological research of colonial encounters, culture contact, and colonialism from diverse areas of the world while also integrating new theoretical perspectives from historical archaeology. We seek to promote a next generation of contact and colonialism studies in bioarchaeology, attending to new questions that have emerged from previous pioneering research (e.g., Baker and Kealhofer, eds. 1996; Larsen and Milner 1994; Verano and Ubelaker 1992): How did colonialism unfold among regions and peoples not yet well studied (i.e., populations from Argentina, Peru, Africa)? Why did contact and colonialism produce such varied biocultural outcomes? How were the colonizers—so often assumed to be the monolithic drivers of colonial outcomes and impervious to the process they initiated—also affected and transformed by these events? How did native peoples adjust and adapt to the myriad challenges of their colonial worlds? What were the biocultural effects of conquest and colonialism on people long understudied by bioarchaeologists, such as Africans or mestizos? Beyond the effects of demographic decline, how did new behaviors, identities, and power structures transform population genetic structures or human phenotypes? How can mortuary archaeology contribute to the bioarchaeological study of conquest and contact? What can elements of social and archaeological theory—such as the concepts of “third spaces,” dialectical negotiations, and archaeologies of transitions, embodiment, materiality, agency, and structural violence—contribute to the understanding of contact and colonialism?

Many scholars and the lay public understand that European conquest and colonization of indigenous populations were some of the key “establishing events of the modern world” (Mann 2011:6–7), but colonialism was practiced in various forms for nearly five thousand years before the European “Age of Discovery” and was considerably variegated from the colonial product with which most are familiar. For example, McIlvaine et al.’s (2014) study of biological distance in the first millennium B.C. Greek world suggested that the colonizers, their founding populations, and the local populations with which they interacted were relatively phenotypically indistinguishable. Extensive gene flow, trade, geography, and shared regional
ancestry led to outcomes in which the common assumption of a dichotomous relationship between the colonizer and the colonized is shown to be untenably simplistic. Additionally, a growing number of studies have shown that native experiences were remarkably varied and that indigenous groups endured the effects of colonialism that shaped the consequences of colonial encounters, native-native encounters, and modern human biology. Another perspective on colonialism far removed from the Western tradition involves the remarkable human odyssey of the expansion into Oceania. There, the colonizers encountered no previous human inhabitants but often faced resource-poor and hostile island environments that generated a great deal of biological stress (e.g., Buckley et al. 2014), particularly among the first generations of colonists as they established a foothold in the vast Pacific Ocean.

This volume begins a wider exploration regarding the experiences of the colonized and colonizers, as well the interregional and intraregional experiences of colonial encounters and entanglements (Cusick 1998; Gosden 2004; Lightfoot 1995; Lyons and Papadopoulos 2002). Rather than focusing on one hemisphere or one region, we invited participants from a few different areas of the Old and New Worlds—such that the volume makes the first steps toward a global representation in its vision and comparison of colonial encounters, contact, and colonialism.

**Biological Dimensions of Contact and Colonialism**

Traditionally, historians, demographers, and epidemiologists envisioned that contact and colonialism chiefly involved a biological phenomenon involving inevitable indigenous acquisition of European diseases and cataclysmic depopulation (Crosby 1972; Dobyns 1966, 1983; Ramenofsky 1987; Zubrow 1990). In essence, the New World was cast as a disease-free paradise wrecked by foreign pathogens (Sale 1990; and see Merbs 1992). However, a trio of pioneering edited volumes, partially inspired by the Columbian Quincentennial (Baker and Kealhofer 1996; Larsen and Milner 1994; Verano and Ubelaker 1992), led the field in new investigations of European conquest in the Americas. While again heavily focused on issues involving biology and health, these volumes blazed fresh empirical trails that provided novel and provocative perspectives. They continue to serve as exemplars for any researcher interested in the bioarchaeology of colonialism or culture contact in general, but they still represent only a fraction of the work conducted on the subjects. Furthermore, despite progress in other
geographic regions, much of the current picture of postcontact population biology remains skewed toward North America when there is literally an entire world filled with colonial experiences.

The biological impact of European contact on indigenous peoples in the Americas has embodied several interrelated debates (Ubelaker 1992; Verano 1992). While all researchers share in the consensus that demographic decline was precipitous, numerical estimates can differ by an order of magnitude (e.g., 1.8 million people versus 18 million people for North America) (Cook 1998; Crosby 1992; Dobyns 1983; Henige 1998; Mann 2002). In addition, scholars debate the varied timing, geographical extent, and type(s) of epidemics or pandemics that were endured by native peoples (Cook 1998; Dobyns 1983; Henige 1998; Ramenofsky et al. 2003; Ubelaker 1992, 2000).

Syntheses of ethnohistorical documents, archaeological evidence, and osteological analyses are capable of scientifically testing the current understanding of the legacies of the biocultural impacts of Europeans in the Americas. Archaeological study of the consequences of European contact has advanced to include the reconstruction of settlement data for paleodemographic reconstructions (Freter 1997; Paine 1997; Ubelaker 1992; Vradenburg et al. 1997) and the evidence of atypical mortuary patterns such as mass burials, high proportions of cremations, unique spatial treatment, and native participation in European religious rituals that seem to replace of indigenous customs such as with funerary rites (Cohen et al. 1997; Hutchinson and Mitchem 2001; Kealhofer 1996; Larsen 1990; Tiesler and Zabala 2010).

One of the most important findings from the first generation of bioarchaeological contact studies was that even the broadest consequences of contact and colonization could no longer be assumed as uniform or monolithic. In fact, what has emerged from these studies (e.g., Larsen 1994) is a vision of the inherent variability of contact consequences in the Western Hemisphere. The timing, mode, and tempo of postcontact changes varied immensely due to complex interrelationships between precontact patterns of health and disease, ecology, population density, sociopolitical complexity, and the relationships between the colonizers and the colonized. That is, while certain trends are clear, these biocultural phenomena were so complex that any attempt to consider a single predictive theory seems a misguided effort.

Methodologically, multidimensional or holistic inquiries that synthesize multiple lines of biological, archaeological, and historic evidence are necessary in order to begin to appreciate the underlying variables that affected
the biological responses of indigenous communities to contact (Baker and Kealhofer, eds. 1996; Milner 1996). Also, the nature and intensity of early European contact in these communities varied over time and included trade, conflict, missionization, colonization, and enslavement (Baker and Kealhofer 1996; Dobyns 1992; Preston 2002; Radding 2000; Ramenofsky et al. 2003) or a combination thereof—all factors that must be considered in bioarchaeological investigations of health, disease, and demography. The majority of acute infectious diseases do not affect the skeleton, thereby confounding most attempts to understand the nature, timing, and type of high-mortality epidemics believed to be responsible for much (but not all) of documented native depopulation and declining health (Aufderheide 1992; Larsen and Milner 1994).

**POSTCONTACT (MOSTLY WESTERN HEMISPHERE) SOCIETIES: PORTRAITS OF COLONIAL DIVERSITY**

Studies of human remains from the postcontact Americas offer a microcosm of the diversity and dynamism of contact and colonialism. The northeastern region of North America was a nexus of French, Dutch, and British entrepreneurial-minded colonialism. Baker’s (1994) examination of human remains opened some of the first windows on native life in what would become Massachusetts. She describes a late impact of epidemic disease in the seventeenth century, setting the stage for the survivors undergoing forced political transformations and aggregation in villages. In the wake of these events, demographic structures appear to have become imbalanced. To the northwest, Pfeiffer and Fairgrieve (1994) indicate that Old World diseases, when introduced in 1634, decimated Iroquoian peoples. Their comparative studies of pre- and postcontact Iroquoian remains derived from ossuaries unite multiple lines of skeletal evidence spanning infection, anemia, and oral health data to suggest that Iroquois health was already on the decline and that when contact was initiated, the trend for increasing biological stress was only amplified.

Much of the southeastern and southwestern regions of the future United States fell under the domain of the Spanish. The Spanish followed a highly structured approach to colonization involving three related aims: first, to extract wealth from the natural and human resources of an occupied area; second, to establish a military presence to block territorial access to other competing colonial powers; and third, to convert the indigenous people into taxable Catholics (Walker 2001). Skeletal evidence indicates that initial encounters such as the De Soto entrada resulted in violent confrontation
(Hutchinson and Norr 1994) as well as far more complicated, dynamic, and often negative outcomes for native populations under Spanish rule. One early and short-lived setting was Tatham Mound on the central Gulf Coast of Florida (Hutchinson 2006). There, negative health changes arose quickly during the Early Contact period, marked by a rise in dental caries frequency and alveolar infection, a doubling of enamel hypoplasia frequency, and hematogenous osteomyelitis and treponemal infection. Traumatic injuries included those from metal weapons, demonstrating possible violent interactions with the Spanish.

The most comprehensive and multidisciplinary collection of studies regarding the bioarchaeology of contact and colonialism emerges from the mission period of the southeast coast of the United States in the Georgia Bight (Larsen 2001; Larsen et al. 2001, 2002). Among other key findings, Larsen and his colleagues uncovered postcontact upsurges of morbidity among the Guale Indian population that included declining female fertility likely tied to increased biological stress, reductions in childhood growth velocity, poor-quality diets, reduction in enamel defect prevalence especially in the Late Contact period (perhaps owing to increased acute forms of stress), and a dramatic postcontact increase in osteoarthritis prevalence likely related to labor extraction. Changes in inherited tooth size reflected major changes in social organization, social identity, and radically altered systems of mate exchange among the Guale (Stojanowski 2005a, 2010, 2013), in contrast to the Apalachee of northern and central Florida, who maintained larger populations and avoided aggregation, resettlement, and extinction (Stojanowski 2005b). Ultimately, the Spanish mission system was destroyed by war with the British in the early eighteenth century that led to dispersal and disintegration of the Guale peoples.

In the Central Plains, Reinhard et al. (1994) found a markedly different experience and history among the Ponca and Omaha Native Americans from 1780 to 1820. There, the survivors of epidemics and their descendants capitalized on the fur trade to emerge as a political and economic force. On the one hand, diet may have actually improved during the postcontact period; the introduction of firearms and horses increased hunting efficiency and access to protein, and iron implements contributed to more effective foraging and cultivation. On the other hand, osteoarthritis was more pronounced among Omaha and Ponca women, suggesting more intense levels of habitual labor. Patterns of lead isotopes in their bones indicated trade in lead objects, and use of lead-based cosmetic pigments led to bioabsorption; despite whatever gains were made, female health suffered particularly.