
Introduction

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Multi- and interdisciplinary research is an approach that involves research by teams or individuals that integrate data, problems, or hypotheses from two or more disciplines with different theoretical and methodological backgrounds to advance our fundamental understanding of a topic (Cucina 2015; Klein 2010; Newell 2001; Rhoten 2003). Bioarchaeology inclines toward interdisciplinary research from that holistic perspective that characterizes its own essence and philosophy. However, studying human remains in an archaeological context does not make an interdisciplinary study per se. Early “bioarchaeological” studies of past societies, in fact, focused on the skeletal biology of ancient individuals, resulting in descriptive, (uni)disciplinary approaches (Perry and Buikstra 2012). This approach oftentimes limited researchers’ ability to develop comprehensive biocultural interpretations of past societies. As bioarchaeology developed as a multi- and interdisciplinary scientific discipline, the integrative philosophy upon which it has built its foundations required intentional collaboration among researchers from several perspectives (Buikstra 2006; Larsen 2006, 2015; Stojanowski and Duncan 2015; see also Willermet, this volume).

Research questions involving understanding patterns of human migration, or conceptions of ethnicity and social identity, are difficult to solve through one perspective or data type only. Our ideas about the concepts of identity, gender, and ethnicity come from our discipline of anthropology as well as from a broad range of fields in the humanities and in the social sciences: sociology, psychology, history, literature, ethnic studies, gender studies, political science. At the same time, studies of archaeological human remains rest on objective biological information, which is

the foundation for understanding the individual's social dimension from his/her own biological one (i.e., sex as the biological determinant of an individual versus gender, which expresses the person's social role based on his/her sex). This expands the need for interdisciplinary approaches also to biological and natural science disciplines, such as biogeochemistry, physics, and others. When reconstructing past behavior, we rely on cultural concepts constructed from living people. Human migration patterns are complex, influenced by many push/pull factors, including family ties, economic trade, political alliances, warfare and expansion, climatic changes, and population density (Arango 2000; Cameron 2013; Cucina 2015). Our behavioral clues and cues necessarily provide us a limited view of a lived reality that is broad and ephemeral.

Reconstructing migration events and identity in the past is difficult at best, due to limited data availability. However, in Mesoamerica, a vast archaeological record informs our knowledge of prehispanic population relationships. Additionally, at least four native cultures developed written historical traditions in the region: the Maya, Zapotec, Mixtec, and Nahuatl. This rich and complex ethnohistorical and archaeological record means detailed information about ethnicity and migrations is available from many data sources; interestingly (but also unfortunately), methods or theoretical perspectives we use to study these data can be in conflict with one another.

In this volume, we showcase interdisciplinary research approaches to population history questions in prehispanic Mesoamerica. Both local and U.S. researchers approach population history by utilizing a combination of cultural ethnohistorical, (bio)archaeological, biological, biogeochemical, dental morphological, iconographic, linguistic, and genetic data. We encouraged a problem-oriented, rather than a disciplinary, approach. We asked researchers to focus on such questions as: How much did people move around? How much did their cultural affiliation reflect their biological history? How were people related to one another? How did people interact with one another? How did people view themselves? Our goals for such a project were threefold: 1) to encourage more interaction between fields and subfields, in order to more appropriately address large regional questions of population history; 2) to explicitly address the theoretical and methodological challenges and rewards of interdisciplinary work; and 3) to introduce a larger audience to the state of interdisciplinary work in Mesoamerica.

The volume is organized into three sections, the first one (Chapters 1 and 2) containing two preliminary contributions, followed by chapters focusing explicitly on multi- and interdisciplinarity, highlighting how such topics are differently viewed and approached by individual contributors. Alongside this introductory chapter (Chapter 1), in Chapter 2 Willermet analyzes the value and meaning of multidisciplinary and interdisciplinary research, particularly with respect to bioarchaeological research in Mesoamerica. She aims to distinguish a multidisciplinary from an interdisciplinary approach, both highly valuable in the study of ancient populations but resting on different theoretical and methodological backgrounds. She addresses one key benefit of interdisciplinary research: it develops and inspires cross-fertilization of work to more appropriately address large regional questions of population history.

Part I (Chapters 3–5) focuses on migration and mobility. Corey Ragsdale and Heather Edgar perform a multidisciplinary analysis of population history in Chapter 3. Here, they evaluate the degree of biological distance shown in the dental morphological data against models of population replacement and continuity designed from ethnohistorical and archaeological data. In Chapter 4, Douglas Price, Travis Stanton, and Andrea Cucina consider migration in terms of identity. They use a multidisciplinary approach to test a ceramic style-based hypothesis about migration with biological and chemical isotope data. In Chapter 5, Andrea Cucina, Allan Ortega, and Sandra Elizalde Rodarte test population homogeneity in coastal northern populations in the Yucatán. Through the analysis of both biological data and mortuary pattern data of the inhabitants of three proximal port cities in the Postclassic East Coast Maya realm, they test to what extent cultural mortuary behavior covaries with biological background.

Part II (Chapters 6–8) examines factors related to ethnicity and social identity. Amy Michael, Gabriel Wrobel, and Jack Biggs consider the mortuary use of dark zone caves and rockshelters in Chapter 6. They test the idea that mortuary cave use involved human sacrifice and, if so, whether sacrificial victims were chosen based on health status. In Chapter 7, Andrew Scherer, Charles Golden, and Stephen Houston combine approaches and data from archaeology, ethnohistory, iconography, and linguistics to examine the concept of “foreigner” in Maya society. They present the notion that Maya philosophy identified different moralities between foreign (Aztec or Spanish) and Maya people. Contrary to the approach

undertaken by the other contributors to the volume, this chapter does not address specific issues based on human skeletal remains; however, it responds to research questions based on an interdisciplinary approach, relying upon some of those very same disciplines that bioarchaeology itself relies upon for its holistic interpretations. In Chapter 8, Shintaro Suzuki, Vera Tiesler, and Douglas Price combine isotopic data and body modifications to explore who was migrating to Copan, one of the Maya hinterlands, during the Classic period. Additionally, they speculate on the pressure migrant people may have felt to signal their group assimilation or separate ethnic identity through cranial modification practices.

Finally, in Part III, Chapter 9, Frances Berdan provides an assessment of current interdisciplinary research in Mesoamerica. She raises several stimulating research questions for future projects in areas such as warfare, marriage patterns, economic migration, ecological trauma, ethnic identity, and human agency. Answers to these questions, approached through a multidisciplinary or interdisciplinary bioarchaeological lens, would provide essential insights into Mesoamerican research and, indeed, catalyze more nuanced research questions.

The scope of this volume is to explore population dynamics and ethnicity in Mesoamerican populations in prehispanic times from an interdisciplinary perspective. Whether a theoretical contribution or an applied analysis, each chapter demonstrates that such an approach is fully applicable to studies of ancient and recent populations worldwide. We are aware that approaching past societies from multi- and interdisciplinary lenses is not always an easy task. Some academic environments are still firmly anchored to monothematic analyses where academic traditions inherited from previous generations of scholars are hard to dismiss (Tiesler and Cucina 2008). Bioarchaeologists, who combine the study of human remains with their archaeological (cultural) context, embrace the multidisciplinary approach through integrative research questions. We are confident that current and future generations of anthropologists interested in scientifically unraveling past histories and societies will be increasingly able to move from a unidisciplinary approach to a more complex and difficult, but mind-opening, multi- and interdisciplinary one.