

## Introduction

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Anthropological investigations into questions concerning health, disease, and the life course in past and contemporary societies necessitate interdisciplinary collaboration. Tackling these “big picture” questions related to human health-states requires understanding and integrating social, historical, environmental, and biological contexts and uniting qualitative and quantitative data from divergent sources and technologies. The crucial interplay between new technologies and traditional approaches to anthropology necessitates innovative strategies that promote the emergence of new and alternate views.

While there is recognition within anthropology of the importance of a multifaceted approach to research design and data collection, more concrete examples of research questions, designs, and results that are produced through the integration of different methods are needed to provide guidance for future researchers and foster the creation of discourse for constructive critique. New and exciting narratives are being written in anthropology, but few volumes have yet been published that bring together these varied voices. In this volume we seek to explore how current research in physical anthropology is responding to the challenges posed by disparate datasets. The papers included in this book will illustrate and promote a discussion of the problems, limitations, and benefits of drawing upon and comparing datasets, while illuminating the many ways in which anthropologists are using multiple data sources to unravel larger conceptual questions in anthropology.

The papers in this volume were first presented as posters in the symposium *Beyond the Bones: Engaging with Disparate Datasets* in St Louis, Missouri at the 2015 meeting of the American Association of Physical Anthropologists. The authors, a selection of senior graduate

students and established professionals, answered a call for papers concerning mixed methods approaches in physical anthropology. Their work highlights lines of evidence as varied as historical documents, digital radiography, ancient DNA, linguistic distance, and public health interviews.

Murphy and Mant's work illustrates the value of engaging with historical datasets. Murphy explores infant mortality in historic North America and the United Kingdom by examining cemetery reports. Mant highlights the differences in fracture frequencies between skeletal samples and contemporary hospital admission records to access aspects of human choice in seeking medical care in the past. Bekvalac highlights the applications of direct digital radiography and computed tomography scanning to the unique skeletal collections of the Museum of London, while Reusch integrates historical, medical, and paleopathological data to explore the history of castration. Marciniak describes the technique of direct shotgun sequencing in ancient DNA research to identify potential pathogens in paleopathological samples in tandem with historical documents. Schillaci and Wichmann provide an example of the possible integration of linguistic and bioarchaeological datasets. Lockau considers the contributions of clinical data to paleopathological studies of metabolic bone disease. Holland discusses the integration of qualitative and quantitative methods in studying the perceptions of young adults concerning their intake of calcium and vitamin D.

These varied voices wrestle with the inherent challenges involved in working with multiple lines of data, but each chapter demonstrates the benefits of allowing disparate datasets to speak in concert.