

PRINCIPLES OF ARCHAEOLOGY

REGIONAL SETTLEMENT DEMOGRAPHY IN ARCHAEOLOGY

Robert D. Drennan
C. Adam Berrey
Christian E. Peterson

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DEMOGRAPHY IN ARCHAEOLOGY**

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Prepublication praise . . .

"The state of the art on population in archaeology covering important questions, answers, techniques, and doubts. Excellent examples from forests, deserts, alluvial valleys, farmland, grasslands, and many cultural contexts. Especially helpful annotated bibliographies. Essential for designing or interpreting archaeological research on demographic change."

—Stephen A. Kowalewski, *University of Georgia*

"Written in a colloquial style reminiscent of Flannery's *Early Mesoamerican Village*, this book will become a required text for upper-level undergraduate and graduate classes in anthropological archaeology. A great refresher for seasoned professionals who work with regional datasets but have not recently taught a course on regional demography."

—William A. Parkinson, *Field Museum of Natural History*

"Although many scholars dismiss paleodemography as imprecise, the authors review best practices for obtaining reasonably accurate estimates of population. More important, they show that paleodemography is central to understanding ancient societies and how and why they change. Must reading for students and professionals alike."

—Mark Varien, *Crow Canyon Archaeological Center*

Cover photograph by Robert D. Drennan: Settlement in the Noehixtlán Valley, Oaxaca, Mexico.
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PREFACE

This book began in a convergence of several observations. First, as we argue in Chapter 1, all regional settlement analysis is built on a demographic foundation in that it informs us about ancient societies by identifying patterns in how many people lived (and did other things) where. The patterns of how many people live and do other things where are the quintessential subject matter of demography. Second, regional settlement analysis is held back when its demographic foundation is not recognized explicitly (and often it is not). Third, archaeological surveys often use field methods that are less than optimal for collecting the data needed to build the demographic foundation for regional settlement analysis. Fourth, the whole subject of demography in archaeology is frequently met with skepticism if not outright hostility. Fifth, much of this reaction can be attributed to ignorance or misunderstanding of the field and analytical methods that represent best practices in regional demography in archaeology. (We thank reviewers of articles and grant proposals over the years for continual reminders of this ignorance and misunderstanding.) Sixth, this state of affairs is attributable in part to the fragmentation of essential methodological discussion in widely scattered primary reports of field research in different parts of the world that specialists in other regions seldom know about, much less read.

The aim of this book, then, is to pull together into a single, coherent account the basic methods of regional settlement demography, beginning at square one. It is not a literature review, so there are no citations in the text. The sources of data for examples are credited in a bibliography at the end of the book, and suggestions for further reading at the end of each major chapter lead to relevant references (listed in the same order as the topics they relate to in the chapter text). We have drawn very heavily on our own experience of regional settlement survey in the field and demographic analysis of data we have collected—not because our own work is so much more important than other projects, but because it is our own ex-

perience that has shaped our perspective; because this experience is a ready source of examples of the principles we try to make clear; and because the full, detailed datasets we work with in the book are most readily available to us from our own research. We express our appreciation to the entities that have funded this research, principally the U.S. National Science Foundation, and we are deeply grateful to literally hundreds of colleagues and students of more than a dozen nationalities with whom we have shared the experience of carrying out this research on three continents. Without their hard work and probing questions, this book could not have been born.

We attempt to outline here what we regard as best practices for regional settlement demography. We know that not everyone agrees about just what best practices are, so we have tried to provide the reasons behind our judgments, and we sometimes use comparative examples to show why we think some practices work better than others. Discussion of practices that have not worked out as well as anticipated helps us learn from our mistakes—and mistakes we have made ourselves are included. Our hope is to end every research project knowing how to do it better next time.

The methods and their implications are sometimes complicated. Regional settlement demography for ancient populations is a complicated challenge, one that can only be met successfully by avoiding simplistic assumptions and developing complex and powerful methodologies. Carrying out convincing demographic analysis in archaeology requires mastery of these methods and thorough understanding of their principles. Our hope is that we can open the door to these methods and principles by starting at the beginning and putting together the important elements of the story in a compact, integrated, coherent, and clear account. The beginning, for us, is not field methods. We start instead with a consideration of what regional settlement demography can tell us, and continue by considering how we can extract this information from things we can observe in the archaeological record. The intricacies of methods for collecting data in the field come where they belong: at the end. It is only by first sorting out what we will do with the data once they're collected that we can hope finally to separate the methodological sheep from the goats.