

## *Handbook of Palaeodemography*

by Isabelle Séguy and Luc Buchet

translated by Roger Depledge

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The *Handbook of Palaeodemography* by I. Séguy (archaeologist and historical demographer) and L. Buchet (historian and anthropologist), with contributions by D. Courgeau (migration modeling and methodology/epistemology of the social sciences) and H. Caussinus (statistician) is ambitious in its scope and stimulating in its presentation. The book is the 2nd volume of France's National Institute for Demographic Studies (INED, Paris) Population Studies series and is part of a long-term research initiative supported by that Institute.

The purpose of this manual is to illustrate how bone remains can be interpreted in demographic terms. The authors and contributors examine various methods for linking osteoarchaeological evidence with historical records for climatic change, for epidemics, etc., with written records from parishes and other archival sources, and with environmental sources to carry out this highly collaborative interdisciplinary research in order to construct models that plausibly shed as much light as possible on living conditions of past populations. As the authors themselves say, before such diverse data can be correlated, it is essential to understand thoroughly all the sources. In this volume, the emphasis is on skeletal material. This type of approach obviously generates a great deal of controversy, debate, and, indeed, error.

What exactly is palaeodemography? F. Héron, a past INED director, in his preface aptly entitled "At the crossroads of demography and archaeology," provides a succinct definition: "Palaeodemography...is no more than demographic analysis for population historians who want to use archaeological evidence." He further explains that palaeodemographers examine buried skeletons, so some of their techniques are like those of the forensic scientist but the objectives are quite different. The forensic scientist wants to identify the age of an individual, whereas the demographer is more focused on age-sex structure of a population and seeks to outline the general dynamics of a population and, in particular, the odds of survival at given ages. The authors themselves opt for a collective and probabilistic strategy for estimating the distribution of the ages at death of a population. It is critical and highly commendable that the authors do not attempt to standardize the buried populations at all costs, which would make everything equal to everything else. Instead, demographic differences caused by migration, or social differences (e.g., aristocratic membership in religious communities), or selective burial practices are addressed and discussed.

But how do palaeodemographers reconstruct a credible distribution of ages at death from the bone remains of a buried population, a population which is never completely representative of the "burying" population? This is the crux of the volume, and the organization of the argument guides the reader through the maze. The

Introduction provides an overview of the state of the discipline and an outline of the development of palaeodemography. Part I, “The Data of Interest,” contains chapters on the epistemology of the discipline (representativeness, small samples, migration, age issues, osteological data, and reference populations). How reference populations are established, including the question marks that remain in terms of estimating age at death for infants and for adolescents, are all honestly addressed in this portion of the book. Part II, “Reconstructing the Demographic Parameters,” addresses age at death and compares two specific methods, the Probability Vector and the “Estimator” method, as well as providing a review of current demographic population models and model life tables for pre-Industrial populations. A useful discussion on the constraints to be included in models, and a full discussion of the problems in modeling, is particularly important. This portion of the book ends with a definition and exploration of a pre-industrial standard. Part III, “Developing a Study Protocol,” offers a complete study protocol—an assessment of the usefulness of the study, a choice of methodology, a discussion of why and how to estimate the collective age at death of a buried population, and lastly, examples from four sites of the actual applications. Part IV, “Further Analysis,” is written by the two contributors, tying the entire book together. An extremely interesting, balanced historical overview and critique of current methods provides an excellent background to the innovative methodology based on the collective age at death for a buried population. This is certainly the most technical portion of the book, but the methodological innovation will, in time and with use, certainly become an indispensable reference tool. Demographers, archaeologists, social anthropologists, and ethnologists, as well as scholars working in the various aspects of cultural reconstructions, will find the statistical simulations, various models, and tables extremely useful in assessing the viability and validity of the new methodology. The authors of this handbook are to be complimented for their honesty in presentation, and their discussions of the problems in age determination of certain segments of the population, and of modeling in general, are excellent.

On the one hand, various portions of the book should be required reading for all interested parties and students of past populations and their reconstruction. For example, the Preface by Héron, the Introduction, and Parts I and III are of general interest and readily comprehensible to non-specialists. Nonetheless, the book as a whole is not an “easy read,” especially Parts II and IV, which by necessity are the most technical portions of the handbook.

The case study sites are all in France, where certain historic reasons—including the very existence of the INED, which was founded in 1945 to replace a foundation created by the (Nazi client) Vichy government in 1941—determined that numerous cemeteries were excavated extensively, more so than in other Mediterranean countries. Two of the case study cemeteries in northwest France, one urban and one rural, were of the 4th c. A.D. and had only biological material to study. Two other sites, one a monastic cemetery near Paris and the other the urban cemetery at Antibes (a small port and garrison town), date from the 17th through late 19th century, with both biological and statistical information available. The discussion of these sites breathes life into the statistical analyses and the discussion of modeling presented in the book.

As this volume documents, France is in the forefront of all the other Mediterranean countries in terms of paleodemographic studies. While the manual concentrates deliberately on the historical periods of Western Europe, it can only be hoped that such sites as Pontecagno (Salerno, Italy)—with 9,000 Etruscan, Greek, and indigenous tombs dating from the early Iron Age to the 3rd c. BCE—and various cemeteries in Spain—Cordoba, Bolonia, and Castulo come to mind, all with mixed populations of indigenous peoples, Romans, and Phoenicians—will eventually be tested using the newly proposed methodology. The epigraphic evidence from the Roman cemeteries would be very interesting to compare with the osteological dating of the skeletons. In testing other sites, the newly proposed methodology, based on collective age at death for various ethnicities living and working in the same city/area, will establish the validity of the methodology, and hopefully, in this way it will eventually become a standard tool for researchers.

Clearly, palaeodemography is a discipline in continual evolution. A greater number of case studies from a wider geographical area that use the method proposed by the authors will provide necessary controls, eventual

validation, and refinement for future palaeodemographic studies. It is critical that analyses of bone remains that are used by palaeodemographers can “talk” to one another, so developing a standardized protocol for such studies is essential for the full potential of the discipline. The authors of the Handbook of Palaeodemography have provided an excellent basis for future discussion and research. This is a manual done with honesty, with humility, and with great respect for the discipline.