



Med Hist. 2010 July; 54(3): 407–408.

PMCID: PMC2889466

Book Reviews

Palaeoepidemiology: the measure of disease in the human past

Reviewed by [Rebecca Gowland](#)

Tony Waldron.

Palaeoepidemiology: the measure of disease in the human past, Walnut Creek, CA, Left Coast Press, 2007, pp. 148, £27.99 (hardback 978-1-59874-252-7).

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This book outlines the current methods used in epidemiological studies of modern clinical data and discusses their application to the study of disease in the past. The author states in the preface that *Palaeoepidemiology* aims to build upon his previous book *Counting the dead* (Chichester, 1994) to encourage the better “use of epidemiology... than has generally been the case”. Waldron’s epidemiological training and clinical expertise have clearly been influential in his research, bringing a valuable perspective to his analysis of human remains from archaeological contexts. *Counting the dead* represented a significant discussion of the biases encountered when interpreting burial assemblages, as well as the appropriate statistical techniques of analysis and the use of proper terminology.

Palaeoepidemiology is a short book divided into ten chapters. Waldron has an informal writing style, with many colourful analogies, which aims to make the subject matter accessible and entertaining. The book starts with a brief, though nevertheless interesting, history of epidemiology. Chapter 2 addresses the shortcomings and biases of burial assemblages that hinder palaeoepidemiological interpretations from archaeological remains; Waldron suggests that the phrase “study-base” should be used to describe such assemblages which are neither “samples” nor “populations” in the epidemiological sense. Chapter 3 focuses on “outcome variables” and emphasizes the importance of operational definitions in the diagnosis of disease, along with the importance of intra- and inter-observer error tests. Chapters 4 to 7 deal with the fundamentals of analysis, and Waldron explains the various epidemiological methods used in modern clinical practice before identifying which of these (sadly not that many) are of use for the study of archaeological human remains. These chapters include information on the recording and interpretation of disease prevalence within populations, how to deal with missing data, methods of comparing prevalence between two burial assemblages, and analytical palaeoepidemiology. Over all it is easy to read and the mathematical elements are not too imposing for the uninitiated, although a few areas are a little confusing and could have been explained more clearly. Chapter 9 on “planning a study” will be of particular use to undergraduate and postgraduate students when producing research designs for dissertations. It presents a useful summary and check-list of steps. Waldron also recommends contacting a statistician before starting research and, as so few students of archaeology now have any in-depth statistical training, this suggestion is a sensible one.

Most of the chapters are successful, but Chapter 8, which deals with the use and abuse of joint disease data for inferring occupation in the past feels incongruous and superfluous—this subject having been amply covered in numerous publications (e.g. Robert Jurmain, *Stories from the skeleton*, Amsterdam, 1998). Joint disease is obviously an area of expertise for Waldron and almost all the examples in the book

relate to this subject. Given that Waldron clearly has a long career of skeletal analysis, it is disappointing that a greater variety of examples and case-studies were not used.

The discipline has moved on since the decade in which *Counting the dead* was published and this earlier book no doubt played a part in this. Waldron must be heartened to see an almost complete elimination of the use of “incidence” in place of “prevalence” in publications over the last decades. A number of issues that are raised in *Palaeoepidemiology* are currently addressed in most studies of disease published in international peer-reviewed journals. Nevertheless, *Palaeoepidemiology* provides an extremely useful synthesis of the appropriate methods with which to analyse human skeletal data, and the problems and pitfalls to watch out for, and as such should be a recommended read for students of osteoarchaeology.

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