

than review the articles and attempt to justify including them in a single section. I find these efforts strained and unconvincing, and I finished reading the book wondering how such a diverse set of papers could have been bound into a single volume.

Some of the essays in this volume are excellent case studies, and a few of them are theoretically stimulating. I think most of them could have been published independently in the anthropological journals. As a collection, however, they manifest the problems which beset current cultural anthropology.

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Archeology of Metallurgy

The Carbon-14 Dating of Iron. NIKOLAAS J. VAN DER MERWE. University of Chicago Press, Chicago, 1969. xii + 140 pp., illus. \$7.50.

Since the initial burgeoning of ^{14}C dating through the mid-1950's, publications in this field have been limited to refinements of technique and to new applications. Should the known-age pundits agree upon the variations of the radiocarbon calendar, ^{14}C folk will be somewhat more confident of the data they publish. Until that distant day, however, publications are limited to surficial refinements. Van der Merwe's *Carbon-14 Dating of Iron* is one of the more interesting exercises to have achieved publication. The author has made a commendable attack upon application of ^{14}C dating to Iron Age chronologies.

The first three chapters deal with the techniques and development of iron metallurgy, and these alone are worth the price of the book. The discussion of bloomery and blast furnace reduction, of wrought and cast iron, and of what makes steel steel is quite rewarding. To the nonferrous archeologist, this neat summary of the intricacies of ironworking and its history are a godsend; I almost believe I understand what these people are talking about.

The remainder of the book is devoted to the techniques of sample pretreatment, combustion, purification, and dating. Herein are contained the nitty-gritty of sample size and suitability, and a list of dates obtained on iron samples of various sorts. This last is

likely of more value to the archeologist than other material in the latter portion of the book.

One could have wished for a different mode of organization. Each chapter begins with a repetition of material already covered in previous chapters; this reader came to expect each section to start, "Meanwhile, back at the ranch . . ." Chapters 4 and 5 are devoted, in large part, to a discussion of ^{14}C dating in general (not all of it strictly true) and of Yale laboratory practice in particular. This book is not the place for such a discussion: it contributes little to the value of the work; ^{14}C -oriented readers already know it, and archeologists are not about to run downstairs to set up a laboratory in the basement and therefore do not need it.

Similarly, both appendices could have been excised: the first is of passing interest only to laboratory personnel, and the second is once again repetition. One suspects that careless editors lifted a respectable Ph.D. dissertation *in toto* without considering the reading audience.

Aside from this nit-picking of what are essentially editorial faults, van der Merwe is to be thanked for his summary of iron metallurgy, the pre-laboratory assessment of samples, for the list of dates obtainable elsewhere only in piecemeal, and for his patience in attempting to date iron at all.

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A Mathematical Account

Population Genetics. W. J. EWENS. Methuen, London, 1969 (U.S. distributor, Barnes and Noble, New York). xii + 148 pp. \$5. Methuen's Monographs on Applied Probability and Statistics.

Ewens's book is a compact presentation of many mathematical subjects related to population genetics. The book is written for highly mathematically competent population geneticists and mathematicians, as is made evident in the very first sentence of his preface: "Population genetics is the mathematical investigation of changes brought about . . ." It is true that many population geneticists use mathematics and statistics as tools to investigate the behavior of genetic populations and analyze the data collected. It is also true

that early population geneticists such as Sewall Wright and others used mathematics to work out systems of matings and the consequences of various pressures on genetic populations. However, population genetics is not a branch of mathematics but an area of genetic biology. Some population geneticists collect their data from wild populations, and some others work with real (not abstract) organisms under carefully designed experimental conditions.

The contents are well chosen, and not too difficult to follow if one is willing to skip mathematical proofs. There are a number of easily understandable points and some that are difficult. Section 1.6, on "the effect of selection," contains a few very important reminders for experimental population geneticists. Section 4.6, on "general offspring distributions," seems to be taken directly from Karlin's *A First Course in Stochastic Processes*, which is elegantly written. Theorem 4.1 is not easy to follow for an amateur population geneticist such as this reviewer. In spite of these criticisms, the book is worthwhile as reading for pre- and postdoctoral students in population genetics.

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An Anniversary History

The Cambridge Philosophical Society. A History, 1819-1969. A. RUPERT HALL. Cambridge Philosophical Society, Cambridge, England, 1969. vi + 114 pp., illus. Paper, 10 s.

The author presents us here with a concise history of the Cambridge Philosophical Society at the occasion of its 150th birthday. The Society was founded at the initiative of the geologists Adam Sedgwick and John Stevens Henslow at a time when science in Cambridge was at a low ebb, and its history reflects the initially slow growth of this science to its brilliance in the present century. The author illustrates this growth by thumbnail sketches of the principal figures, and, since there already exists a history of the Society up to 1890 (J. W. Clark, *Proc. Cambr. Phil. Soc.* 7), he devotes much of his attention to the later years. He does not forget, however, some of the more interesting Victorians such as Airy, George Green, Cayley, J. C. Adams, and Whewell. We can only agree with Hall that a good