Book Reviews

Davis, S. J. M. (1987). The Archaeology of Animals. Batsford, London. ISBN 0 7134 4572 6. 224pp. £14.95 in limp cover.

This book is intended for students and for the intelligent layman. It does not set out to satisfy the specialist archaeozoologist or to be an exhaustive survey of the field. Invertebrate animals receive little attention beyond the use of marine molluscs as indicators of seasonal occupation, and I dare say that mollusc and insect specialists will consider themselves to have been hard done by once again. All that being said, however, Simon Davis has set out to produce a wide-ranging introduction to a rapidly developing field in which bones, like it or not, have been the major raw material. The result is a textbook which is pleasantly readable, copiously and attractively illustrated - a book which will provide a much-needed up-dating of some of the faithful old retainers of the undergraduate reading list.

The book starts with an interesting and helpful survey of 19th century examples of zooarchaeology, placing these early records of fossil bones in the context of the slow, grudging acceptance of evolution and of the antiquity of the world. The first major section of the book describes and discusses practical matters such as taphonomy and taxonomy, as well as providing a good introduction to bone biology. It is refreshing to find a text intended for archaeologists which treats bone as a living tissue, not as the dead, immutable analogue of stone or ceramic. Perhaps some description of shell structure and chemistry would not have gone amiss, however, if only to supplement the account of incremental growth in bivalves. The numerous methodological problems associated with bone studies are presented briefly and clearly, rather in the manner of a well-structured lecture. There is no trace of either gloom or panic, the two syndromes which so often overwhelm discussions of archaeological bone methodology. At times Davis is refreshingly candid, for example:

'Perhaps the most serious shortcoming is that investigators vary in their ability to identify bones correctly.' (p. 23).

We do, don't we, but how many would cheerfully admit as much in print? One interesting methodological suggestion is the use of a restricted list of identified elements, i.e. not recording every identifiable scrap, but only those derived from particular parts of the skeleton. Such a procedure may be common in Near Eastern archaeology; it could certainly be more widely applied in Britain.

The second part of Davis' book is a survey of man-animal relationships (to borrow Don Brothwell's ringing phrase) from the early Pleistocene to the post-medieval period. Here the coverage is necessarily superficial, skimming through the millenia somewhat apace. There are numerous case studies, however, selected from all the major continents. Some topics receive more detailed consideration than others. The extinction of the Pleistocene megafaunas is discussed at length, with presentation of the arguments for and against the 'overkill' hypothesis. Davis offers his own opinion, making it very clear where the data end, and his opinion begins. The origins of animal domestication are also given a thorough working-over, the older theories of Childe and even Malthus being given due consideration alongside more recent literature. Inevitably such broad-brush treatment leaves gaps and permits only brief discussion, if any, of complex arguments. A reader new to the subject might be bewildered by the statement on p. 150 that 'In a hunting economy, man was likely to exploit the animal carcass to the full..' having been told on p. 113

that North American bison kill sites represent '...mass killings and substantial waste..'. However, given the degree of selectivity which must have been necessary in the preparation of this book, the text is remarkably free of non-sequiturs and over-simplification.

Overall, I thoroughly enjoyed The Archaeology of Animals. At a technical level, the precise use of terminology is satisfying, especially the consistent use of 'caprines' as the correct alternative to the horrid 'caprovids' which infests so much of the literature. The case studies are informative and appropriate, with plentiful illustration. Davis' habit of drawing vignettes of the appropriate species to illustrate graphs and histograms adds to the book's attraction. The reproduction of photographs is sometimes rather poor, though 'Beachcomber' devotees will enjoy the picture of Sebastian Payne apparently performing dentistry on an Angora goat (p. 40). Students will find this book to be a useful introduction to the subject, with sufficient reference to the literature to allow a topic to be pursued in greater detail. Those with a general interest in archaeology or natural history will find plenty of material for enjoyable browsing, spiced with the occasional unexpected turn of phrase. On p. 122 Davis asks 'What of the giant dormouse?'. What indeed?

T. P. O'Connor

Russell, N. (1986). Like engend'ring like: heredity and animal breeding in early modern England. Cambridge University Press. ix + 280pp. £27.50.
ISBN 0 521 306574.

Nicholas Russell's book surveys the historical evidence for selective breeding of horses, cattle and sheep in England from Tudor times to the late 18th century. The author describes himself as a biology teacher 'struggling to make sense of history', and the book is a distillation of his Ph.D. thesis. There are two reasons for bringing this book to the attention of Circaea readers: first because a small proportion will have some academic interest in the subject matter and, second, because Russell's survey of Classical and Renaissance theories of reproduction and heredity makes fascinating reading for all who are interested in the history and development of scientific thought.

Viewing the past from a modern agricultural context, it is easy to fall into the trap of accepting that selective breeding has improvement of form, productivity, wool, or whatever as its target. Russell corrects this idea firmly, showing that the mental framework in which early breeding strategies were developed centred on the notion that the forms of living things were created perfect, and that man's efforts in breeding his livestock could only stave off inevitable degeneration. The parallel with modern theories of cosmic entropy is rather tempting! Having set the intellectual background, Russell goes on to show how the concept of pedigree analysis, which figured large in 17th and 18th century horse breeding, was justified by analogy with the inbred families of the nobility, presumably turning a blind eye to the gentry's habit of illegitimate outbreeding. The idea that the adult qualities of a filly, calf or daughter could be predicted by examining the characteristics of family antecedents persisted into the famous breeding experiments of Robert Bakewell. Russell is hard on Bakewell, but probably not unfairly. His analysis of the actual benefits of Bakewell's 'improvement' of Longhorn cattle and Dishley Leicester sheep shows clearly that in terms of food conversion and dressing-out ratio, Bakewell achieved little.

Like engend'ring like contains a lot of information, including useful tables which compile fleece and sheep deadweight records by region through the 15th to 17th centuries. The text is peppered with references, all of them, regrettably, filed in a footnote system. Apparently, the publishers disapprove of the Harvard system. Despite this failing, the bibliography is copious, and Russell's thorough scouring of primary sources will render the book a useful resource for non-historians.

Now for the gripes. For around 10p per page, this reviewer expects some evenness of print quality, perhaps even good reproduction of photography. Clearly the publishers have to make a profit in a short print-run, but the price of this book is far too high for the reader to overlook smeared and murky photographs, thin paper, and a print quality which varies from evanescent to splodgy. The printer and publishers have done the author no credit, and have let down a useful and interesting book.

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