

## BOOK REVIEWS

**Andrews, Peter.** *Owls, Caves and Fossils.* London: Natural History Museum, 1989. 231pp. £27.50.

Small mammal remains on archaeological sites have tended to be overshadowed by the larger and more visible fauna and as such may have been regarded, consciously or unconsciously, as forming part of the background noise. Their size (less than 5kg), though, is more than compensated for by the amount of information they can furnish on the environment and palaeoecology at the time of their deposition. But there are many ways in which small mammal fossil assemblages can be formed so that an assemblage may not always relate directly to the area in which it is found. To avoid misinterpretation of the implied palaeoecology it is vital to understand the processes which have affected the fossil assemblage. In *Owls, Caves and Fossils* Peter Andrews describes the various taphonomic processes which can affect small mammal faunas illustrating these processes with a detailed account of the formation of the fossil assemblage of the Middle Pleistocene site of Westbury-Sub-Mendip in southwest England.

The book is divided into three related sections. The first documents the taphonomic processes which affect modern day small mammal faunas. It is followed by a detailed examination of a fossil assemblage using the techniques of analysis described in the first part. These two sections form the body of the work. The third part of the book is a large, comprehensive appendix with information on predator species which completes and complements the main body of text.

Modification may be produced by a number of different agencies and at different periods in time beginning at the moment of death. Bone accumulations can be affected by scavenging, trampling, weathering, transportation and by post burial collecting and sampling techniques. Later modifications may remove traces of earlier ones. The problem lies in recognising the agents of modification.

Predation plays a key role in the death of small mammals and in their subsequent modification. This is discussed in detail in chapters two and three. A survey of predators, their habitat and prey selection is summarised in chapter two and presented in greater detail in the appendix. The discussion on bone modification includes an analysis of skeletal element proportions and considers aspects of bone breakage, digestion and loss for different predator types. Five categories of modification are presented ranging from slight to extreme modification and the predator most likely to have produced such an effect is given. Thus a barn owl is seen to be a category 1 predator (causing little modification) while mammalian carnivores usually cause the greatest damage and are classed as category 5 predators.

The taphonomic processes which affected the small mammal fossil assemblage of Westbury-Sub-Mendip are described in chapters four to seven. The general formation of limestone caves and the modification processes which affect bones in caves is first discussed. The Westbury Cave formation and its stratigraphic sequence is then described. With the contextual information firmly established the small mammal assemblage is presented unit by unit. The microstratigraphy of each unit is explained and an analysis of the bone

distribution, skeletal proportions, bone breakage and digestion, post depositional modification is presented. Finally the predator most likely to have been responsible for the assemblage is given where possible. The stratigraphic and taphonomic evidence is then used to give a palaeocological interpretation for each of the units of the Westbury sequence.

The book is well written and illustrated. The chapters are summarised in point form for easy reference and the data presented in a series of tables, some of which are particularly comprehensive e.g. those on predator habitats and prey selection, on predator modification and on the taphonomic modifications of the Westbury faunas. The various types of modification described in the book are extremely well documented in the abundant, well produced SEM photographs taken by Jill Cook. An extensive appendix supplies information on the predators discussed in the book, giving details of appearance, size, activity patterns, distribution and diet of each predator.

*Owls, Caves and Fossils* demonstrates the use of a methodological approach to the problem of understanding the formation of small mammal fossil assemblages which is organized, thoughtful and meticulous. It is an excellent reference book on small mammal taphonomy, suitable not only to small mammal specialists but to all archaeologists irrespective of their area and period of interest.

Norah Moloney

**Brooks, I and Phillips, P. (eds).** *Papers from the Sheffield Conference 1988.* Oxford: British Archaeological Reports 213. 1989.

"The conference was conceived of and designed by the organisers . . . to elucidate the current nature of Lithic Studies in an area of Britain other than the 'flint-rich' reaches of south-eastern England". The majority of the papers contained in the volume were given at a conference entitled 'Lithic Studies in the North-East Midlands in England

After a brief introduction by Kirk, Henson's paper 'Away from the core? A northerner's view of flint exploitation' examines changes in the nature of individual/group interaction through the Neolithic and E.B.A. using as examples possible control of raw material sources, changes from communal to individual burials and the introduction of more 'social' (as opposed to utilitarian) tool kits into burials.

Phillips et al. in 'Flint procurement in prehistoric quarry ditches' suggest that fortuitous acquisition of flint nodules from the quarry ditches of earthen mounds may have been followed by recurrent reuse of those ditches to procure raw material through the Neolithic and Bronze Age. The evidence of frequent recutting and irregular ditch and bank profiles are used to support the argument.

The next two papers deal with the early results of laboratory based scientific methods in the examination of flint. Brooks in 'Debugging the system: the characterisation of flint by micropalaeontology discusses the viability of micropalaeontology as a technique for sourcing flint using thin sections. Richards provides the preliminary results of analysis of blood residues on Mesolithic artefacts in his paper 'Initial results of blood residue analysis of lithic artefacts from Thorpe Common rockshelter, south Yorkshire'.