fessional anthropologists who do not themselves, for one reason or another, have a vested interest in believing it to be true; but even here Konner does not seem to hold his opinions with any firm commitment, so no harm is done.

The book ends with a rather unexpected plea for a revival of theism:

> At the conclusion of all our studies we must try once again to experience the soul as soul, and not as a buzz of bioelectricity; the human will as will, and not just a surge of hormones; the human heart not as a fibrous, sticky pump, but as the metaphoric organ of understanding.

This surely is Rousseau's natural religion all over again.

Konner is clearly widely read. He should try his hand at "The Confession of Faith of a Savoyard Vicar" which is an interlude in the fourth book of *Emile*. Bertrand Russell summed up the argument as: "our natural feelings lead us to serve the common interest, while our reason urges selfishness. We have therefore only to follow feeling rather than reason in order to be virtuous". Konner professes to believe that men are by nature aggressive but he also hankers after the possibility of a gene for potential altruism. He would feel himself at home with the good Vicar's desire to have it both ways. □

Sir Edmund Leach is a Fellow of King's College, Cambridge.

The Drosophilidae in its diversity

Alan Robertson

The Genetics and Biology of Drosophila, Vols 3a and 3b. Edited by M. Ashburner, H.L. Carson and J.N. Thompson. Vol. 3a pp.500, ISBN 0-12-064945-4; Vol. 3b pp.428, ISBN 0-12-064946-2. (Academic: 1982.) Vol.3a, £42, $86.50; Vol.3b, £47.80, $88.50.

THESE are the first two of the five books which will make up the third volume of *The Genetics and Biology of Drosophila*. In that they lay the foundations for subsequent discussion of evolutionary problems, some of the chapters are works of reference rather than of review.

Volume 3a opens with a "taxonomic overview" by Marshall Wheeler, whose publications in this field go back over 40 years. The subject is indeed a lifetime's work — the list of species in the family Drosophilidae is over 2,500 long (of which nearly 500 are endemic to Hawaii). This material is then treated in more detail in a series of chapters devoted to species distribution in biogeographical regions. The book ends with a chapter on domesticated and wide-spread species and one on "entomophagous and other bizarre Drosophilidae", written by the senior editor himself. Although Dr Ashburner apologizes for treating the material "at a rather superficial level", I must admit that I thoroughly enjoyed accounts of Drosophilid species associated with land crabs and spittle bugs, predators of coccids, chironomids or frog embryos.

The greater part of Vol. 3b is devoted to surveys of the evolutionary genetics of particular species groups of *Drosophila*. The aim, then, is narrower than that of the earlier volume which covers the whole of the Drosophilidae. Here I was struck by the small contribution which the vast amount of information on electrophoretic variation made to these chapters. This is probably due to the surprisingly different behaviour of chromosomal and electrophoretic polymorphisms, the former showing geographical variation on a much smaller scale of distance than do the latter. For instance, it is not unusual for the same electrophoretic variants to be segregating at a locus over the whole of a species range, while in the same populations the chromosomal picture will have completely altered. It has been found in several species that compared to central populations marginal populations have little or no chromosomal variation, whereas electrophoretic variation remains at the same level.

The treatment of the different groups varies somewhat in quality and content. Among the better contributions, I was particularly taken with Carson and Yoon's discussion of Hawaiian *Drosophila*. These islands which have arisen sequentially out of the sea at known periods of time are an evolutionist's dream, and particularly so to the Drosophilist. The newest island in the group is 5 million years old, the youngest 0.7 million and in that time 349 still extant species of *Drosophila* have evolved. Mainly from chromosomal studies, it has been possible to elucidate the path of descent of these species as a series of colonizations of vacant ecological niches by a small number of founders.

Volume 3b closes with two chapters on the ecology of *Drosophila* representing a change of subject, a transition preparing the reader for the next volume in the series in which evolutionary processes within species will be discussed in detail.

The present two books maintain the standards set in earlier years and are worthy additions to the series. We can look forward with anticipation to subsequent volumes, and in time to the completion of a most valuable work of reference. □

Alan Robertson is Professor at the Institute of Genetics, University of Edinburgh.

The Europeans

Frank Hole

Ranking, Resource and Exchange: Aspects of the Archaeology of Early European Society. Edited by Colin Renfrew and Stephen Shennan. Pp.167. ISBN 0-521-24282-7. (Cambridge University Press: 1982.) £18.50, $39.50.

IN THE spring of 1980, 21 British archaeologists and one from Denmark travelled to Philadelphia to present a symposium at the annual meeting of the Society for American Archeology. This volume contains 18 papers from that symposium. The intention of the organizers, Colin Renfrew and Stephen Shennan, was to show the Americans that "processual archaeology" is alive and thriving in north-western Europe. In addition, it was an opportunity to introduce Americans to the richness and quite distinctive character of the European archaeological record.

Reviewing a book that has its own section of internal reviews leaves one with less latitude for critical analysis than for reporting the contents. That is the case with *Ranking, Resource and Exchange*, a book that focuses on European contributions to processual archaeology; that is, the factors underlying changes in the structure and organization of human society. Two such processes are isolated by Colin Renfrew, intensification of production and interaction between human polities. He sees these as affecting the development of growth and complexity in social structure and in turn their being affected by that structure. For Renfrew, one of the goals of processual archaeology is to determine the interaction among these factors in specific instances.

The papers in this book are, for the most part, explications of this general point of view. The exceptions are the more general and theoretical contributions in Part V, "Contrasting Paradigms", in which John Gledhill and M.J. Rowlands argue for a neo-Marxist materialist approach, and Ian Hodder for a symbolic-ideational perspective that eschews the adaptational views of evolutionists. He proposes an attempt to understand meaning and symbolism, "because the social system is a structure of meaning which determines the relationship between material culture and society". With Renfrew's "mainstream processual" approach, these three paradigms cover a broad spectrum of interpretation and are effectively mutually exclusive, thus giving a diversity to British archaeology that is less explicitly expressed in its American counterpart.

The larger part of the book is organized around themes: Part I, "The Emergence of Hierarchical Structure"; Part II, "The Development of Salient Ranking"; Part III, "The Resource Base of Early State Societies: the Aegean"; and Part IV,