

3. The problems of defining the currency to be optimised: little ethnographic work exists to provide comparative material. It is difficult to determine which factors are important for economising in different circumstances.

4. The difficulty of deducing technological results from a single determinant: it is possible to argue from first principles for a number of possibly conflicting responses to the same situation.

This is in many ways the most exciting book on stone tools and archaeology to be published in recent years. As Torrence points out, tool using is one of the major distinguishing aspects of human behaviour, and the study of those tools is crucial to our understanding of human development. The book deals with the definite, albeit exaggerated, problem of how to use the data available from stone tools. The theoretical models used allow modern sophisticated methods of lithic analysis to become more immediately useful, but at times this work fails to make adequate use of those methods and over-simplifies the data. This is perhaps the result of the perceived gulf between those who use the methods and those who use the theories. Instead of simply pointing to this gulf, more would perhaps be gained if it were appreciated that, while methods are limited in a theoretical vacuum, theories are pointless if they treat the data in a superficial manner. It is impossible to understand possible pressures for optimisation if the technological solutions and functional needs cannot be measured. Fortunately it is possible to study these areas, but few of the authors here do so, tending to assume much and arguing from first principles.

For both the methodological over-simplification and the theoretical problem areas an increasing use of a multiple approach, using several strands of lithic evidence and independent non-lithic, for example environmental, evidence will allow the approaches outlined in this book to become truly useful and allow lithic analysis to contribute directly to core theories concerning human behaviour. Myers indicates how this work should develop, but is thwarted by the problem that each strand is a complicated phenomenon in its own right, and cannot be validly over-simplified when incorporated into the whole. This problem of integrating the many disparate forms of archaeological evidence now available is not restricted to lithic analysis. The development of optimisation theory for tools and material culture does, however, present a means of examining these aspects of the evidence under a unified theoretical framework.

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REFERENCE

Rowley-Conwy, P., 1987, 'Animal bones in Mesolithic studies: recent progress and hopes for the future', in Rowley-Conwy, P., Zvelebil, M., and Blankholm, H.P., (eds), Mesolithic North-west Europe: Recent Trends (Sheffield, Department of Archaeology and Prehistory), 78-81

Archaeology and Landscape Studies in North Lincolnshire, edited by Patricia Phillips. B.A.R. 208, 1989, 2 volumes. Price £24.00. Vol. 1, 'Excavations at North Lincolnshire Long Barrows', 201 pp, 54 figs., 18 tables, 13 plates. Vol. 2, 'Aerial and Surface Survey on the Lincolnshire Wolds and Excavation at Newton Cliffs, North Lincolnshire', 181 pp., 38 figs, 24 tables, 4 plates.

While potentially united by their geographical location, the studies presented in these two volumes are essentially independent and, as no overall synthesis or discussion is attempted, require almost totally independent review.

Volume I deals with excavations carried out at three long barrows: Hoe Hill, Ash Hill and Top Buildings, although, as the last is demonstrated (in chapters 12 and 14) not to be a long barrow, it does not even appear on the overall site location map.

The volume therefore essentially details the excavation of ditch sections across two long barrows which appear on the basis of Figure 1.1 to be fairly close together. As a more detailed map showing the relationship of the two barrows has been replaced by a somewhat strange topographical sketch, just how close must remain a mystery.

The volume would have been a lot simpler to use if two individual excavation reports, each with its descriptive finds, environmental and dating sections, had been presented, followed where appropriate by comparative discussion sections. As it is, the fifteen chapters deal with the individual excavations and a series of reports on the artefacts and environmental aspects. For such a structure to be easily used requires considerably more cross-referencing than is available here. What appears more illogical, however, is an imbalance which gives prominence to aspects of the investigations which could be considered almost totally irrelevant, at the expense of important data, such as the radiocarbon dates for the barrows, some of which is hidden away and really takes some finding.

To dismiss some sections as irrelevant might seem unduly harsh. However, when the circumstances of the discovery of two partial unstratified skeletons, which subsequently turn out to be of Viking date, and the accompanying bone report run to seventeen pages when a note would have sufficed, the comment seems fair. This sort of information should be summarised with the rest left firmly in the archive.