Paleoecology

Environment and Archeology. An Ecological Approach to Prehistory. KARL W. BUTZER. Aldine-Atherton, Chicago, ed. 2, 1971. xxviii, 704 pp., illus. $15.

The first (1964) edition of this comprehensive work on the analysis and interpretation of the environmental and cultural record of the Pleistocene is familiar to all serious students of Quaternary research. The usefulness of this work has been considerably increased through the addition of several new chapters and the extensive revision of many sections in this new edition.

Greatest attention in revision has been given to interpretative sections which treat areas and time periods that have been subject to intensive study by Western European and American workers. In particular, new chapters are included on Late Pleistocene environments of North America and the early peopling of the New World and Australia. Two additional chapters on Africa have been completely rewritten, and all other interpretative sections have been either extensively or moderately revised. The topical and methodological sections of the book retain considerably more of the content of the original edition. Only the section on absolute chronology has been significantly revised. Chapters on paleontology and paleo-temperatures, cave sediments, and windborne and slope sediments show moderate revision. Throughout the volume there is evidence of editorial work designed to improve readability. In general, the new sections are better written and make easier reading than comparable material in the first edition.

One of the outstanding aspects of the revision is the expansion and updating of an originally impressive list of citations, which now includes over 1200 references. Over half of the almost 600 new entries are devoted to specific Old World problems and the remainder are approximately evenly divided between general topical and New World sources.

Mechanically, the new edition is set somewhat more closely and is not, I think, as well composed as the earlier one. The reproduction of most illustrations is of somewhat poorer quality, which in a few cases limits their interpretation. The absence of headbands in the binding suggests a less durable volume.

The incomplete nature of the Quaternary record frequently makes it possible to argue several interpretations of the same body of evidence, and thus it is not really very useful to dispute specific conclusions in Butzer's various syntheses. Following up the references cited will in most instances introduce the reader to the divergent views on any particular problem. Though other authorities may disagree with some of his conclusions, I do not think that such disagreement will detract from the wide usefulness of this work. The fact is that these syntheses are most welcome as the viewpoint of a scholar who, as a paleogeographer, is not narrowly specialized in archeology or geology, but is able effectively to combine the information of these fields with his extensive background in environmental interpretation.

Butzer has brought together far more material relating to the understanding of man and his Pleistocene and early post-Pleistocene surroundings than is available in any other single source and has treated it with a depth of understanding seldom encountered in a field as inclusive as this. I have little doubt that this volume will remain the standard point of departure for everyone interested in these problems for many years to come.

ARTHUR J. JELINEK
Department of Anthropology, University of Arizona, Tucson

Views of Faraday

Faraday as a Natural Philosopher. JOSEPH AGASSI. University of Chicago Press, Chicago, 1972. xvi, 360 pp., illus. $12.50.

The Selected Correspondence of Michael Faraday. Edited on behalf of the Royal Institution of Great Britain by L. PEARCE WILLIAMS with the assistance of Rosemary Fitzgerald and Oliver Stalleybrass. Cambridge University Press, New York, 1972. In two volumes. Vol. 1, 1812–1848. Vol. 2, 1849–1866. xx, 1080 pp., illus. $55.

In retrospect Michael Faraday is recognized as a towering figure in 19th-century physical science. We celebrate him as the discoverer of induction, of the electrochemical equivalent, of diamagnetism, of a means of producing continuous motion from an electric current, and of a host of other relationships any one of which would have been sufficient to give his name immortality. We admire his dogged pursuit of an anticipated experimental result: years spent looking for an effect on light by magnetic force (which he discovered) and for similar effects by electric and gravitational forces (which others found after his death). We marvel at his intuitive creation of the concept of lines of force which were subsequently written into physical law through Maxwell's equations.

But it is no longer acceptable historiography to remember a man simply because he was proven right or wrong. This is a point Agassi makes on several occasions, and properly so, though at the same time he is a bit unfair in assuming that present-day historians of science have not progressed beyond this simplistic view. It is generally recognized that a man should be studied against the background of his own times and judged in terms of the knowledge, theories, and prejudices that enveloped him; that we should be more interested in how he performed his science than in whether it came out right; and that we may well be more interested in the imagination and boldness (a favorite Agassi term) that went into one of his failures than we are in his successes. Both the works at hand help us in this sort of interpretation of Faraday, though for quite different reasons.

Williams surely must have felt uniquely fortunate as an editor in being able to start off his chronologically arranged selections of correspondence with a delightful letter from young Faraday describing the values of letter writing. Thus in July of 1812 he wrote to Benjamin Abbott:

> I dear A-----, naturally love a letter, and take as much pleasure in reading one, (when addressed to myself:) and in answering one as in almost anything else. . . . I also like it for what I fancy to be good reasons, drawn up in my own mind upon the subject; and from those reasons, I have concluded, that letter writing improves; first, the hand writing secondly, ... the expression, the delivery, the composition a manner of connecting words.