Book Reviews

Ancient Man in North America. H. M. Wormington. Denver Museum of Natural History, Denver, Colo., ed. 4, 1957. xviii + 322 pp. Illus. Cloth, \$5.25; paper, \$3.65.

Eighteen years ago the Denver Museum of Natural History and H. Marie Wormington initiated publication of a series of books called the "Popular Series"; this service has become increasingly useful. The book reviewed here, one of the series, is an unusually complete encyclopedia of the archeology and physical anthropology of ancient man in North America. Every known early camp site and group of artifacts has been described. Such descriptions are often brief, but ample reference is provided for those who are in search of detail. The account is designed to inform the interested nonprofessional reader, but it will be of great value and use to archeologists and other scholars as well.

Introductory chapters that discuss the glacial regimen and climatic cycles in relation to anthropogeography during Pleistocene and Recent geologic time, and also methods of dating, are followed by descriptions of the ancient stone industries. This culture is here divided into three major traditions which, as far as I am aware, are newly proposed. They would be more easily comprehended if they had been discussed a little more thoroughly. Under "Paleoeastern Tradition" are discussed the Folsom Complex —a large number of single sites and a few groups of sites producing culture complexes, all including fluted arrow or dart points. The Folsom Complex is seen to have a distribution somewhat restricted to the Central Plains. On the other hand, points comparable to the Clovis fluted points are distributed from Massachusetts to New Mexico and beyond. There is a stronge reluctance on the part of the author to consider specifically the possible implications of such a distribution of an arrow-point type and of the association of arrow points with widely varying inventories of other tools at a time which could be well before 10,000 B.C. Also included in this Paleoeastern tradition are a number of camp sites and types of dart points which are somewhat later in time. Located largely in the Southwest and in the Plains are Plainview-type points, Angostura, Scottsbluff, and Eden points, and a number of others of equal significance. The description is carried into the Middle West where, at sites such as Graham Cave in Missouri, slightly different shaped points appear to belong to a comparable stage.

The Paleowestern tradition includes industries which have also been called the "desert cultures." Here we see a wide variety of dart points combined with many kinds of scrapers, heavy core implements, grinding tools, and the like which were used by people who subsisted on small mammals and on wild seeds and berries which they harvested. Although some of these industries were contemporaneous with the early Paleoeastern, the people did not hunt the mammoth and now extinct forms of bison as did their eastern counterparts. The third tradition, Paleonorthern, includes material from Alaska, the Yukon, and the Northwest Territories which appears to be a mixture of several stone technologies, some having probable antecedents in the Old World, some being distantly related to technological developments to the south, and the remainder appearing (probably because of lack of knowledge) to be isolated. The antiquity and, in fact, the relative sequence of most of these northern cultures is an open question, and the several hypotheses all have their adherents. As yet the Paleonorthern tradition throws but little light on the earlier migrations from the Old World to the New. The author briefly reviews the various problems and hypotheses.

The preceding synopsis barely outlines the wealth of information presented, for it omits a number of significant, isolated and hardly classifiable discoveries. Among other things, this book gives evidence of the great advance in archeological knowledge which has taken place during the past decade or two. Where 80 pages were sufficient in the 1939 edition, here some 309 pages of description have been required to summarize adequately data from the author's observations and from the references (nearly 600 in this edition, given in an excellent bibliography). More than half of the latter have appeared during the last decade. This increase in the size of the volume is due to the need for description of recent discoveries. Important though this may be, it appears at times to have limited the value of the presentation. Great emphasis has been placed on the dart points, which sometimes are considered to be the only feature from a camp site which provides a basis for classification. The lack of attention to scrapers, core implements, and other tools can be somewhat misleading and will become more so as investigation brings to light more complete inventories of the cultural units. Additional illustrations and some description of tools other than the points would have broadened the base of this book enormously.

I also feel that the book comes close to being a catalog of special things partially or wholly extracted from their surroundings. This robs the picture of ancient cultures that is presented of a certain amount of depth. Furthermore, this characteristic of the book is not truly representative of the status of archeological investigation of ancient man in America. Historical-developmental hypotheses have been postulated by a number of archeologists who are concerned with the evolution of American cultures. These hypotheses, of course, have been derived from a study of the factual material. Some attention to these contributions would have given the book greater breadth. However, American archeology is presently in a state of rapid growth, and the ideas which are appearing may be unusually transitory. Perhaps the author has been wise to restrict herself to brief, objective description. Taken from this point of view, it would be difficult to see how a more useful compilation could have been made.

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The Invertebrata. A manual for the use of students. L. S. Borradaile and F. A. Potts, with chapters by L. E. S. Eastham and J. T. Saunders. Revised by G. A. Kerkut. Cambridge University Press, New York, 1958. xvii + 795 pp. Illus. \$8.50.

It is a rare occurrence in recent times when a new textbook on the subject of invertebrate zoology is published, and therefore the appearance of a revised edition of a highly respected volume, when the revisions are as extensive as they are in this case, is a welcome event indeed. Even a superficial examination of the book reveals that it has taken on a substantially new cast. There are more illustrations, and numerous new ones. With the exception of the rare halftones, all are superior to those of the earlier editions—superior not only because a better grade of paper is used but also because the labels are printed on the