

man, that mite, that mere atom, that ephemeral fragment of nature! How insignificant a goal; and yet, strange paradox, that mite and that atom is able to comprehend nature, and great enough to know his own littleness. Alone among earth's creatures this being has intelligence fine enough to perceive that his thought is everything, even though it be "but a flash in the midst of a long night"; and even though all life be "only a short episode between two eternities."

Reflections of this sort must certainly have inspired the minds of the authors when writing many pages of this memoir; and in the reviewer's judgment the work has suffered nothing in consequence. Not long ago one Anatole France wrote a natural history of penguins. It is a capital work, and has opened our eyes to new and alluring possibilities of ornithology. But in the preface the author lays down certain rules for the guidance of fellow naturalists if they would greatly extend human knowledge and leave imperishable monuments behind them. Now assuredly Drs. Clarke and Ruedemann have done these things, as this memorial witnesses, yet they have gone exactly contrary to rule. Whence we infer that the learned academician must have been mistaken, for surely no one will accuse him of ever being ironical.

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*Palæolithic Man and Terramara Settlements in Europe.* By ROBERT MUNRO. New York, Macmillan Co. 1912. Pp. 507. Price \$5.50 net.

"This volume contains the Munro Lectures in Anthropology and Prehistoric Archeology for 1912, being the first course since the lectureship was founded," in the University of Edinburgh. It seems especially fitting that the eminent archeologist after whom these courses are named should himself be the first to fill that lectureship. A standard is given which is of the highest and which, we may hope, subsequent lecturers will strive to maintain.

Those who are not in the small circle of prehistoric archeologists are prone to look upon their work askance, if indeed they do not ignore it altogether. "Early Bronze is a good enough term for articles in a museum," they say, "but it does not suggest a spiritual being. We can not get on terms of spiritual intimacy with the Early Bronze people. For all their flint arrow-heads, or bronze instruments, we can not think of them as fellow men." These prevalent views can come only from a distorted perspective, a perspective in which only the dull unrelated side of these things is open to our vision—when we see them as objects rather than as evidences. It must be confessed that the specialist is often more than indirectly responsible for this prevalent attitude. To Dr. Munro we must feel grateful for a masterful treatise which, without neglecting the minutiae and details, subordinates them to their true place in a scheme of wider relations. His facts are evidences, his evidences appear in their proper place in the larger *Culturgeschichte*. We can not be too grateful that, to use his own phrases, "the gnawing tooth of time" has allowed us to rescue from the "dustbins of ages" these few pages of an early history which archeological finds furnish.

The volume is divided into two parts, the first treating of Anthropology: Paleolithic Man in Europe, with supplementary chapter on the Transition Period, the second with Prehistoric Archeology: Terremare, and their Relation to Lacustrine Pile-structure. The volume covers a ground which no other English one duplicates, that of Sollas being more closely related to the first part, and that of T. E. Peet to the second.

Of the first part we have only two criticisms: A map showing the locations of the various described sites would add greatly to the value of the exposition, and a chapter dealing with the methods of burial would have been a valuable addition. The excellent maps incorporated in the author's *Lake Dwellings of Europe*, have their counterpart in the second portion of the present work, which deals with the Po Valley, and there is a chap-

ter devoted to methods of burial—not, however, giving us such valuable information in this regard as we obtain from Peet.

The author is concerned in the main with description, there being no less than 74 full-page plates in addition to the 174 figures. These excellent illustrations greatly enhance the value of the volume. We may regret that the author has not brought the problems out more sharply. The more important of his solutions of the problematic are probably these:

*Pithecanthropus erectus* represents a type, not necessarily intermediate between man and the monkeys, but one in which the erect posture had been assumed though the head-form of *Homo sapiens* had not completely evolved—"the seeming difference being due to the different standpoints from which the phenomena are contemplated." A *hiatus* between the paleolithic and neolithic in England must be assumed, the so-called mesolithic forms being incomplete neoliths; it is probably to be accounted for on the assumption that paleolithic man was driven out by the cold and the glaciers, to take refuge with the cave-men of France with whom he could easily communicate over the land now covered by the English Channel. Likewise, paleolithic man of Jersey could so communicate. The dual cultures found in the eastern and western parts of the Po Valley, respectively, are explained on the supposition that "the terramaricoli in their migration southwards took possession of these native villages, and lived in their hut-habitations, finding them as comfortable as their own pile-structures. If there was an emigration of terramara folk from Emilia to south Italy, who ultimately became the actual founders of Rome, surely they must have left some traces of their journey behind them. If so, what are these traces? To me the answer is not far to seek: they are scattered along the Adriatic slopes in the numerous hut-villages and cave-dwellings, which are described as containing unquestioned remains of terramara civilization." To this the classical archeologist will retort: *If there was such an emigration.*

The chapter describing Structures Analogous to Terramare in Other European Countries is most welcome, for we do not have a substitute in English.

The volume will appeal both to specialists, who will find it valuable for references, illustrations and descriptive material, and to the lay reader who wishes to have in easy, comprehensive form the latest results in European prehistoric archeology.

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*The Cotton Plant in Egypt.* By W. LAWRENCE BALLS. Macmillan & Co. 1912. 202 pages, 1 plate and 71 text figures.

The purpose of this book, as announced in the preface, is to abstract "the results of a series of researches made upon cotton plants in Egypt, which investigations, though diverse, were connected by the desire to know all that could be learned about the plant itself." The subject matter covers a wider range than is usual in books concerning cultivated plants. Morphology, physiology and genetics are treated in turn and the bearing upon agricultural practise of each phase of the investigations is constantly emphasized.

An "historical" chapter deals with the perplexing problem of the origin of the Egyptian type of cotton. Professor Balls champions the view that the existing varieties are "more or less heterogeneous complexes of heterozygotes." They are, it would appear, descended from fortuitous crosses of a brown-linted tree cotton of the Peruvian type, long existent in Egypt, with other varieties, among them probably American Sea Island, which was introduced there during the first half of the last century.

Brief accounts are given of the process of fertilization, of the development of the embryo and of the cytology of the fiber. One of the most interesting portions of the work deals with the influence of physical factors, especially temperature, light and soil moisture, upon growth and development. The author distinguishes two periods in the ontogeny of the cotton plant, the first beginning with