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## ANCIENT HUNTERS.

Ancient Hunters and their Modern Representatives. By Prof. W. J. Sollas, F.R.S. Pp. xvi+416. (London: Macmillan and Co., Ltd., 1911.) Price 12s. net.

TO write a history of the early races of mankind is, at the present time, a most bold undertaking. A writer needs to bring to the task not only an expert knowledge of geology, an intimate acquaintance with the structure of man and beast, but also the long experience of those who have studied the culture above all, the implements of primitive races. The difficulties of the task are increased by the extensive and technical literature which grows in volume year by year. Prof. Sollas has faced these difficulties with success, and under the rather inadequate title of "Ancient Hunters" produced a book which in reality aims at giving the early history of mankind.

"I believe," he says in the preface, "this is the first time that a general survey has been attempted —at least in the English tongue—of the vast store of facts which have rewarded the labours of investigators into the early history of man during the past halfcentury."

Those who are making a special study of ancient man are indebted to Prof. Sollas for the survey; it will prove no less acceptable to those who wish to make an acquaintance with this subject, for it is written in a simple and interesting style. The text is furnished with a plentiful supply of good and accurate illustrations.

We naturally turn first to see what Prof. Sollas has to say concerning the Pleistocene epoch, when his "ancient hunters" were living in Europe. The length of that period does not exceed, he believes, 300,000 to 400,000 years, and accepts Prof. Penck's four terraces on the valleys of alpine rivers as evidence that the Pleistocene epoch was divided by four periods of glaciation, each followed by a temperate interval, the fourth giving us our present moderate climate. Indeed, according to Prof. Sollas, we do not seem to have left the last glacial period far behind us. He takes the reader back 7000 years, and writes :--

"From this point—the beginning of the seventh millennium—we look backwards over the last glacial episode. The curve of temperature descends in a valley-like depression, the bottom of which corresponds with the period of intense glaciation."

The period which has elapsed since the last glacial period is estimated from the unsatisfactory data of Heim and of Baron de Geer to have been about 17,000 years.

The writer gives one the feeling of living on an earth with a very unstable climate, and yet in the last 7000 years there seems to have been no change. Prof. Sollas does not think that there is any satisfactory evidence of the existence of man before the beginning of the Pleistocene period. The eoliths attributed to man—Harrison's flints of the Kent Plateau, the sub-crag flints—are rejected as convinc-

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ing evidence of man's existence. The earliest stone implements which carry a conviction to him of human workmanship are those found by M. Rutot in the Misvinian gravels of the valley of the Lys. The earliest remains of man himself—the Heidelberg jaw and the fossil remains from Java—he attributes to the first interglacial period, with the proviso that further evidence may place them at a later date. The Neanderthal race appeared before the last glacial episode, while the Cro-magnon race succeeded it. In these matters Prof. Sollas is in agreement with most of his Continental colleagues.

The civilisation of ancient and extinct races of mankind must be interpreted from our knowledge of the culture of surviving primitive races. Prof. Sollas has laid hold of that fact, and in many cases used it to excellent purpose. Yet in some cases his inferences are not well founded. He sees many points in common between the art of the modern Bushman of South Africa and the race who decorated the caves of Spain and France towards the close of the Pleistocene period. He also regards the Grimaldi human bones found in a cave near Mentone to be remains of that ancient artist race, and holds that the evidence "that Mentone was inhabited in Aurignacian times by a race allied to the Bushman amounts almost to positive proof." It is true that these Grimaldi people show negroid traits, and so do the Bushmen, but it would be difficult to find two negroid types which are more sharply differentiated in the characters of their skull and face than these ancient and modern negroid races. It is strange that Prof. Sollas does not allude to the best known of the Aurignacian men, the one discovered by Herr Hauser at Combe-Capelle in 1909, nor do the remains found at Furfooz, at Grenelle, and at Engis, come up for consideration; yet we may suppose them to belong to ancient hunters, and of importance because of the types to be which they represent. On the other hand, we find he accepts the peculiar and isolated skeleton discovered at Chancelade, in the south-west of France, as evidence that a race, very similar to modern Eskimos, lived in Europe about the same time as the Aurignacian and Cro-magnon men. Those who have studied the Chancelade skeleton in the Museum at Perigueux will hesitate to accept its identification by Prof. Sollas as Eskimo in character, and will find it difficult to follow him when he traces the dispersion of European Eskimo and other races in the continent of America.

This book has great merits; it will succeed, and it deserves success. Yet we do wish England had received some attention, were it only a fraction of what has been bestowed on France and neighbouring countries. Cresswell Crags, Kent's Hole, the Oban caves receive a passing notice, but the Thames Valley and its terraces—the very subjects on which Prof. Sollas can give an expert opinion—receive very scanty treatment. The human remains from the 100-foot terrace at Galley Hill and from the submerged strata at Tilbury are passed over in silence. Perhaps in another edition Prof. Sollas will make these omissions good.