QUOTATIONS

THE PEKING SKULL

THE arrival of the official report on the Peking skull and the opportunity we now have of studying the undeveloped cast of it, which recently arrived in England, enable me to answer the many queries I have received as to the reasons for attaching to the discoveries in China the exceptional importance defined in my letter to *The Times* two months ago.

(1) *Sinanthropus* comes from a geographical area in which previously early man was unknown. While the remains are of approximately the same age as *Pithecanthropus* and *Eoanthropus,* the Man of Peking is generically distinct from both the Ape Man of Java and the Piltdown Man.

(2) The jaws and brain-case found at Chou Kou Tien reveal features some of which were hitherto unknown in any human skull except *Pithecanthropus,* while others were regarded as distinctive of the Piltdown skull. Hence the newly discovered specimens provide a link between these two types and reconcile what hitherto has been their puzzling lack of conformity with one another. Thus they give cohesion to our knowledge of the earliest human remains and add stability to our conception of the qualities likely to be found in the earliest common ancestor of all three, the as yet undiscovered Pliocene Man.

(3) The Peking skull was found, not in gravels where broken fragments were scattered and deposited by running water (as happened in the cases of the Java and the Piltdown skulls), but in the floor of a cave where the Man of Sin actually lived and died. Hence the association of the human remains with those of the early Pleistocene animals found alongside them is certain, and affords for the first time unquestionable evidence that the remains of Early Man do really belong to the Lower Pleistocene. Moreover, the conditions under which the bones were found suggest the probability that other parts of the same skeletons may be found during the further excavation of this site.

(4) The fact that the skull was found in an uncrushed state and in a form less incomplete than those of *Pithecanthropus* and *Eoanthropus* gives us a fuller and more convincing idea of the form of the brain-case in one of the earliest types of mankind, and corroborates the essential accuracy of the reconstruction of the Piltdown skull made by Sir Arthur Smith Woodward in 1912.

(5) The temporal region of the Peking skull presents features of quite exceptional interest and importance. It is much more primitive than that of the Piltdown skull, and reveals a striking resemblance to the condition that is normal in the adult anthropoid apes, and some analogy to that of the modern human infant. The features of this part of the skull (which unfortunately is unknown in the case of *Pithecanthropus*) afford new and emphatic testimony of the closeness of the kinship of man and the anthropoid apes.

(6) The fact that this skull was found in Eastern Asia does not settle the problem as to the original cradle of the human family. Long before the emergence of man, anthropoid apes (whose facilities for rapid migration were strictly limited by their lack of adaptability to new conditions) had wandered as far as Western Europe, South Africa and Eastern Asia. One can therefore assume that in Pliocene times primitive men, distinguished by the characteristically human qualities of greater adaptability and freedom of movement, had roamed throughout the same extensive territory as their less enterprising Simian ancestors had previously explored. Hence the three widely differentiated genera of Early Pleistocene Man found respectively in Java, England and China represent the scattered descendants of ancestors who had already been wandering east and west throughout the vast Euroasiatic continent for hundreds of thousands of years before any one of the three genera left the skulls in the places where they have recently been found. Hence the evidence they provide has little relevance to the determination of the birthplace of the Human Family.—G. ELLIOT SMITH *in the London Times.*

SCIENTIFIC BOOKS

Titanotheres of Ancient Wyoming, Dakota and Nebraska. By HENRY FAIRFIELD OSBORN. U. S. Geological Survey, Monograph 55, 1930. 2 vols., 4to, xxiv + 953 pp., 236 pls., 797 figs.

THE titanotheres are without doubt one of the most interesting of mammalian groups. Commencing in the early Eocene with hornless forms, some of which were no larger than a coyote, they increase rapidly in size and numbers, reach a climax in the huge horned types of the lower Oligocene and then, at the peak of their development, abruptly disappear. Their size and abundance and the fact that their center of evolution appears to have been our Western states have facilitated the collection of large quantities of material and rendered possible a more complete account of their evolutionary history than is the case with any