

Fossil Human Bones, possibly of Pleistocene Age, found in Egypt.

AT a meeting of the Royal Anthropological Institute, held on July 17, Prof. C. G. Seligman, president, in the chair, Dr. D. E. Derry described the fossilised human bones recently discovered in Egypt, which, on the ground of their condition, he is inclined to regard as of Pleistocene age. The discovery is one of very considerable importance, as this is the first occasion on which fossilised human bones have been obtained from Egypt. Early in January of the present year Mr. Guy Brunton, while excavating for the British School of Archaeology in Upper Egypt, found at Gau-el-Kebir, on the east bank of the Nile, about thirty miles south of Assiut, a remarkable collection of bones, mostly animal, but with pieces of human bones mixed with them in the heap. Some of the bones, including the human fragments, were heavily mineralised, while others were only partially so, and some not at all. The whole collection was contained in an Early Dynastic grave, and had obviously been placed there for some purpose. Among the bones were carved bone and ivory objects of the XIXth Dynasty. The presence of the latter is explained on the assumption that this was the site of a workshop for the manufacture of articles in bone and ivory, and that the great heap dumped into the pit of an early grave represented the workman's material. The presence of freshwater oyster shells attached to some of the bones proves that they came from the river, or, what is more likely, from a swamp fed by the river, which in all probability was much nearer the site of the discovery than it is now. The bones exhibit evidence of having been exposed for a long time to the mineralising influence, as they are very heavy, black, and highly polished, probably from the friction of water-borne sand.

The first evidence of human fossil bones in the heap was found by Mr. Brunton. This consisted of the right half of a frontal bone. Afterwards the whole heap, probably about two tons of bones, was gone through and several other fragments both of skulls and limb bones were recovered. Pieces of three skulls were found, as well as part of a mandible. Fragments of hip bones, upper and lower limb bones, and an axis vertebra were also obtained. Two skulls are represented only by the frontal bone of each. These are remarkable for their small size and shallowness, with consequent small brain capacity. The third skull consists of the whole right parietal bone with a large part of the left parietal, welded into one piece. As it stands this appears to have been a well-shaped head with a maximum cranial

breadth of 143 mm. This fragment is, however, much more heavily mineralised than the two frontal bones, which would appear to have belonged to a more primitive race. Some very unusual anatomical features are exhibited by the mandibular fragment and also by the piece of a right ilium.

The position in which the bones were found precludes the possibility of assigning them to any geological period; but an examination of the animal remains by Prof. Watson has revealed the presence of at least two extinct animals, a crocodile and a buffalo, both of Pleistocene date, while the mineralisation of the human fragments is as extensive as that of any of the animal remains.

In the discussion which followed the reading of the paper, Sir W. M. Flinders Petrie pointed out that in regard to the dating of the bones it must be remembered that owing to the constant and consistent deposit of mud by the Nile, amounting to about $3\frac{1}{2}$ ft. in a thousand years, the bed of the river was rising continually. Any object deposited while the Nile was thus rising would be lost irretrievably beneath the mud. These bones must therefore have been deposited while the Nile was falling from six hundred feet above to one hundred feet below its present level. The date of deposition must therefore be at least 15,000 years ago, plus the time occupied by the fall of the river to the level of the swamp which had been postulated as the place of deposit.

Sir Arthur Keith said the discovery was extraordinarily interesting and puzzling. These fossilised bones, the first to be found in Egypt, presented no outstanding features marking them off from modern man, and no diagnosis of race was possible, but this did not preclude their high antiquity, and they might well be Pleistocene. Fragments of hippopotamus bone from the Nile mud, now at South Kensington, exhibited staining and a high polish exactly similar to that of some of Dr. Derry's specimens. Sir Arthur laid stress on the importance of the fringes of the great desert belt as the possible site of the evolution of our race; Dr. Derry's discovery, though we could not place it exactly, was of the first importance. Probably men of our type existed in Egypt more than 18,000 years ago, and populated Europe, possibly more than once. Prof. Seligman said the cubic capacity of 1040 c.c. of the small skull suggested a comparison with the smaller skulls from the Thebaid described by Dr. Randall-MacIver, and, in conjunction with the steatopygous predynastic figures discovered by Sir W. M. Flinders Petrie, pointed to the necessity of a further comparison with Bushmen skulls.

Recent Fisheries Investigations.

SOME very interesting reports, in continuation of Series II. (Sea Fishery Investigations), have recently been published by the Ministry of Agriculture and Fisheries. No 6 of vol. 4 is written by Mr. J. O. Borley, and describes the samples of bottom deposits collected in the southern North Sea by the vessels of the Marine Biological Association. The report is illustrated by charts and many very beautiful photographs. The deposits are graded in various ways, partly by mechanical sieving and partly by a method of levigation, and the results show a correspondence between the average sizes of the particles and the transporting power of the current systems. In general the particles are coarsest where the tidal streams are most rapid, and *vice versa*. It is not improbable that there is attrition of particles on the sea bottom, but

this cannot be very great. At 20 fathoms (that is, not far from the average depth of the North Sea) the currents are competent to grade bottom materials: at this depth wave action on the surface has a notable effect at the bottom.

No. 1 of vol. 5 is a summary of very extensive market statistics, collected in regard to the cod, during the years 1913-14. No. 2 of vol. 5 is highly important. It is written by Mr. H. J. Buchanan-Wollaston, and deals with the spawning of the plaice in the southern North Sea (the Flemish Bight) during the years 1913-14. The method is an extension of the Hensen quantitative plankton one, but novel and beautifully manageable mathematical methods of dealing with the results have been developed: some of these are highly ingenious, and have, perhaps,