

in contrast to those of the arm, forearm, and shoulder. The thigh bones have a prominent *linea aspera*, the tibiae are platycnemid. In more than half the humeri there is a perforation of the olecranon fossa.

Some interesting observations were made on the cultural practices of the Natufians, for which evidence was afforded by the skeletal remains. The two upper incisors of the women were extracted in youth. Evidence for the same practice was found by Mr. Turville-Petre at Kebara, between Shukbah and Carmel. The Natufians also seem to have practised cannibalism. The bones are cut and fractured, the cut and broken surfaces showing that this was done when the bones were in a fresh state. This was at Shukbah only. No evidence of mutilation of the dead was found at Carmel or Kebara.

Evidence of a curious practice was found at Kebara. In the mesolithic deposits were found an assortment of bones which had been burned—not when fresh, but after they had been freed from animal matter by burial or exposure. The bones thus treated, which were collected by Mr. Turville-Petre, represent at least 75 individuals, mostly women. A similar collection had been forwarded to Sir Arthur by Mr. Leonard Woolley, which had been obtained from under the foundations of Ur. Here, too, women's bones preponderated. Further, Miss Caton-Thompson had obtained two skulls (female) from Zimbabwe which had been burned after the flesh had disappeared from the bones. Is this evidence, asks Sir Arthur, of a custom in ancient times of digging up the bones of ancestors and submitting them to the ordeal of fire?

Recent Archæological Field Work in England

THOSE members of the International Congress of Prehistoric and Protohistoric Sciences who elected to join the excursions arranged for the week (Aug. 6-13) immediately following the meeting in London, were fortunate not only in being afforded an opportunity to visit a number of important sites, but also in having demonstrated to them the latest results of this season's work by those who are in charge where excavation is now proceeding.

After dividing into two parties, of which one made its headquarters at Cambridge and the other at Oxford, they rejoined at Salisbury. The Oxford party on the way to Salisbury visited Winchester and Easton Down, near Salisbury. At the latter, they were shown the flint mines discovered from the air by Dr. J. F. S. Stone two years ago, and since excavated by him. The site covers 100 acres, and has a system of V-shaped ditches with deep pits at their convergence, similar to those of Grimes Graves, and containing quantities of half-manufactured implements, antler-picks and shoulder-blade shovels. Within the last few weeks, Dr. Stone has discovered a fresh pit of two courses, each eight feet in depth, with a shallower work nearby, which indicate how the neolithic miner worked.

Among the sites visited from Salisbury by the members of the Congress were the Iron Age fortress on Yarnbury Plateau and the Early Bronze Age site at Windmill Hill, which is being excavated by Mr. Alexander Keiller. At Yarnbury the triple line of fortifications surrounds the largest prehistoric strong-

hold in Wiltshire. It is 28½ acres in extent, with ramparts 25 ft. high. Within the triple rampart is a single rampart, or rather its remains, and a ditch. Some surprising results achieved in the excavations of the past two months were described by Mrs. M. E. Cunnington. The inner fortifications are not neolithic, as has been thought, but Iron Age work of a period slightly anterior to the triple line. The area was strewn with Romano-British pottery. A cutting in the interior rampart has revealed the post-holes for a chalk revetment sustained against a wooden wall. In the causeway, the only entrance to the fortress, has been found the most impressive Iron Age ditch so far discovered, a V-shaped excavation 12 ft. deep, so acute in angle that it would be impossible for two ranks of attackers to stand on the bottom. In the past few weeks there have also been discovered the guard-house and store-house of the fortress, while above the site of the ditch was the skeleton of a man wearing leather boots with hob-nails and bronze decorative studs.

At Windmill Hill, Mr. Keiller described the results of recent work, which now centres upon the excavation of the outer ditch, some 20 ft. wide and 8-9 ft. deep. Mr. Keiller announced that one-third of the site, which is the largest so far to be observed as included in this type of Early Bronze Age camp, is to be placed in trust for a century so that its excavation may be delayed until the results can be interpreted in the light of the fuller information which will then be available for archæologists.

Submarine Gravity Survey in the Bahamas

AN interesting piece of geophysical investigation has just been completed by an expedition carried out jointly by the United States Navy and the Department of Geology, Princeton University, with the co-operation of the United States Coast and Geodetic Survey. The introduction, in 1923, by Dr. Vening Meinesz of the Dutch Geodetic Commission, of a gravity pendulum apparatus capable of operating on a base not absolutely free from disturbing oscillation, led to the use of a submarine for the determination of the force of gravity over sea-beds and ocean-beds. During the next three years, three voyages in Dutch submarines were made by Dr. Vening Meinesz, and in the course of these he added much to the knowledge of the distribution of the force of gravity over the earth's surface.

In 1928 the United States showed an official appreciation of this pioneer work by inviting Dr. Vening

Meinesz to bring his apparatus and carry out a similar investigation in United States waters with the help of a submarine of the U.S. Navy. The cruise was carried out in the autumn of 1928 and covered an area of considerable geological interest in the Caribbean Sea, the Gulf of Mexico, and to the north of Porto Rico. With the land pendulum stations established in that region by the United States Coast and Geodetic Survey, a considerable body of evidence was thus made available for the study of questions of isostatic equilibrium and of tectonic development.

It was a natural consequence that a desire should be expressed by geophysicists for the extension of the investigation to cover the whole of the British West Indies. The consent of the British Government for a submarine of the United States Navy to operate in these waters was obtained, and Dr. Vening Meinesz once more placed his special pendulum apparatus and