

any misdemeanour which, in the opinion of the senate, by reason of its immoral, scandalous, or disgraceful nature, renders him unfit to hold any such degree, diploma, certificate, or distinction"; and on good cause shown to restore the same degree, diploma, certificate, or distinction, without further examination.

Special college examinations, both at the intermediate and final stages, are authorised by draft statute 137.

A list of schools of the University "immediately prior to the appointed day" is printed as a schedule. The office of the commissioners is 5 Clement's Inn, W.C.2.

### The Gibraltar Skull.

AT a meeting of the Royal Anthropological Institute held on Tuesday, Nov. 1, Mr. H. J. E. Peake, president, in the chair, Miss Dorothy Garrod described the excavations at the Devil's Tower, Gibraltar, in which she had discovered the skull now known to be a relic of Neanderthal man. Mr. L. H. Dudley Buxton gave a description of the skull, and Prof. G. Elliot Smith described the endocranial cast, from which it has been possible to observe the main features of the conformation of the brain.

Miss Garrod gave an account of the excavations in the spring of 1926 in the cave, which was first observed by the Abbé Breuil during the War when excavation was impossible. The portion of the skull first discovered was found embedded in hard travertine, from which it was blasted with dynamite. The fragments were near one another but not contiguous. In the autumn, excavations were resumed, and the cave and talus were cleared down to bed rock, where further fragments of the skull, including part of the lower mandible, were discovered. The associated remains of fauna indicated that the skull was of Pleistocene age. The differences in the species represented here and those from other sites of the same period are attributed to the warmer climate. They are characteristic of the Spanish Pleistocene age. All the implements discovered in the different strata were of Upper Mousterian type. The cave had apparently been used as a place of habitation, but probably only at certain seasons of the year.

Mr. Buxton said the human remains discovered by Miss Garrod in her excavations include the following bones of a human skull: the frontal, the left parietal, the right half of the maxilla, the right temporal, the greater part of the lower mandible, and four milk teeth, two molars being still in their places in the upper and lower jaws respectively, unfortunately not on the same side.

Although there are certain gaps which make reconstruction a matter of considerable difficulty, there is no reasonable doubt that the bones belong to the same individual, as many of the pieces fit together, and those which do not, that is, the temporal and the parietal, can be shown to belong to the same skull by duplicating the bones, so that a left temporal is made to fill up the gap on one side and a right parietal the gap on the other.

Apart from other details, the age is best indicated by the teeth. The first permanent molars were never erupted, but were nearly ready to erupt. It is therefore reasonable to put the age at between the fifth and sixth years, as the permanent molars erupt in the latter year. This is merely an indication, as we have no evidence that the teeth of Neanderthal man erupted exactly at the same time as those of modern man. It seems probable from the size and general characters that the sex was male, and that the La Quina child was therefore female.

Although, no doubt owing to the age of the specimen, the brow ridges have not yet attained that development which is so marked a feature in Neanderthal man, the remains certainly belong to a member of that branch of the human family. Apart from details the most striking characters are the low flattened

form of the vault and the form of the massive jaw. The teeth when viewed by X-rays show the 'taurodont' appearance, both in the deciduous and unerupted permanent teeth, which is not the least of the characteristic features of Neanderthal man.

Prof. Elliot Smith said Miss Garrod has made it clear that the fossilised skull fragments found by her can be referred with certainty to the Upper Mousterian phase of culture; and Mr. Dudley Buxton has shown that they formed a part of a five-year-old child who conformed to the Neanderthal type. Hence it is a matter of some interest to discover in the endocranial cast features that sharply differentiate it from those of all other known representatives of the Neanderthal species. There is a fullness of the prefrontal and parietal areas such as is unknown except in *Homo sapiens*. Yet the general form of the cast conforms to the Neanderthal type.

The question naturally arises whether this apparently exceptional development of the brain may not be due to some pathological condition, such as hydrocephalus, causing a general expansion of the cerebral hemispheres. While the possibility of hydrocephalus cannot be wholly excluded, there are reasons for regarding such an explanation of the condition as improbable. The excavations upon the inner table of the cranium that correspond to the convolutions are exceptionally distinct for a young child's skull, and the ridges that separate them are too salient to be reconciled with an hypothesis of hydrocephalus.

Hence it appears that the unexpected form can be accepted as definite evidence of an altogether exceptional development of the prefrontal and parietal areas for a member of the Neanderthal species. In Neanderthal man the most obtrusive feature of the endocranial cast, as Anthony and Boule have emphasised, is the small size of the prefrontal area. But the series of Neanderthal crania that are now available for study reveal a considerable range of variation in the size of the frontal territory. Admitting that the Devil's Tower skull differs from the rest in an exceptional expansion of those areas of the brain which confer upon *Homo sapiens* his most distinctive attribute, it must not be assumed that the Gibraltar child represents a link between the two species. It is definitely Neanderthaloid and must have acquired its peculiar cerebral characters independently of *Homo sapiens* by convergent development. Nor must the condition be regarded as a normal precocity of the Neanderthal child that afterwards atrophies. The child's skull found at La Quina in 1921 by Dr. Henri Martin conforms in every respect to the adult Neanderthal type. Particular emphasis is laid in Dr. Martin's and Prof. Anthony's reports upon the defective development of the frontal region.

The peculiar form of the Devil's Tower skull is, however, influenced to some extent by the age of the child, for it presents a certain analogy to the peculiarities often found in the five-year-old child of *Homo sapiens*. The chief interest of the endocranial cast of the Devil's Tower skull is the demonstration it affords that Neanderthal man reveals indications of possibilities in cerebral development formerly supposed to be the exclusive privilege of *Homo sapiens*.