

THE ANATOMY OF THE ORANG-OUTANG. BY A. PRIMROSE, M.B., EDIN.

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A good specimen of the animal was obtained in the Anatomical Department of the University of Toronto during the autumn of 1897. This animal, which is the chief representative of the Anthropoid Apes in Asia, is found in the islands of Borneo and Sumatra. A series of photographs were made of the creature, and by this means the external characteristics were readily studied. The shape of the cranium is very similar to the human type, but the facial region of the skull projects very prominently, so as to produce a markedly diminished facial angle. Thus the photograph taken in profile shows a projecting muzzle, which is far removed from anything of the kind found in the skull of man. The nose is short and depressed, so that the anterior nares look upwards and forwards. The forehead is high and fairly prominent, in this respect differing from the condition found in the Chimpanzee, in which the forehead is retreating; in the Orang, in fact, there are frontal eminences to some extent developed. The eyelids are wrinkled, so that a series of grooves parallel to the free margin exist in both the upper and the lower eyelid. The eyes are never widely open in the Orang. From the margin of the lid project well developed eyelashes. The lips are very wide, and possess a great degree of mobility: the degree of mobility may be appreciated even in the dead animal when one separates the lips and exposes the jaw arches. The dental formula is similar to that of man—in this specimen a noticeable feature was the width and flatness of the central incisors. There is no prominence in the region of the chin. There is a very gradual curve extending from the free margin of the lower lip and merging below into the outline of the neck. The ear of the Orang and the Chimpanzee is said to be curiously like man; this statement is borne out in the present instance. The ear stands out fairly prominently from the side of the head, but not more so than in many men. Along the edge of the infolded margin of the ear, near its upper part, there exists in man a blunt-pointed process, to which Darwin has called attention, and which is supposed to represent that part of the ear which exists in many monkeys as an upper pointed extremity without any infolding. We find that a well marked process representing Darwin's point is present in this Orang. There is no lobule; it is entirely absent. In man the lobule is very frequently absent also. The Orang possesses a short, thick neck, of great strength. Lastly, in connection with the head of this animal one must note the absence of any wrinkles in the forehead. In man the wrinkling of the forehead forms one of the most characteristic forms of expression, but we find no trace of such in this Orang. The fact that this form of expression is not possessed by the Orang has been noticed by various observers.

The long arms of the Orang, reaching below the knees, and the comparatively short lower extremities, are noticeable features of the animal. In this respect it differs from man, in whom the lower extremities exceed the upper extremities in length and are much more strongly developed, thus serving more efficiently as a basis of support in the erect attitude. It must be remarked, however, that this remarkable elongation of the upper extremities in apes is also reproduced in many negroes, and occasionally in Europeans.

In an address delivered at the recent meeting of the Anthropological Section of the British Association, in Toronto, Sir William Turner selected as his subject "Some Distinctive Characters of Human Structure." Among other things he