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Exhibition and Description of the Skull of a Microcephalic Hindu.

BY

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[plates xii, xiii.]

The accompanying skull came into my possession a few months ago, and I think that, from the small size of its cranium and from other peculiarities, its exhibition and description may be of interest to the members of the Anthropological Institute.

The only history which I have been able to obtain regarding the specimen is that it was sent to Aberdeen in 1858 by Surgeon-General Walker, M.D., LL.D., C.B., and that it formed part of the body of a Fakir who had attempted to murder Dr. Walker at the time of the Indian Mutiny. The Fakir died (? was executed) in the Agra jail. Dr. Walker, who was in charge of

the jail at the time, macerated and prepared the skull as now exhibited. A horoscope and knife which had belonged to the Fakir accompanied the skull to this country, but unfortunately they have been lost.

A general view of the specimen shows at once that the skull is a small one, and that the smallness is due to a marked diminution in the size of the cranial as compared with the facial portion.

From the partial obliteration of the sagittal suture its age seems to be about forty years.

Subjoined are its detailed measurements and, for the sake of comparison, the average measurements of seven Hindu skulls preserved in the Anatomical Museum of the Aberdeen University are placed in a parallel column.

	Skull of Fakir.	Average of seven Hindu skulls.
Circumference	435 mm.	492 mm.
Length	158 ,,	177 ,,
Breadth	107 ,,	130 ,,
Index of Breadth	677	734
Height	119 ,,	130 ,,
Index of Height	753	734
Basi-nasal length	98 ,,	99 ,,
Basi-alveolar	101 ,,	100 ,,
Alveolar index	1,031	1,010
Nasal height	51 ,,	48 ,,
,, width	21 ,,	25 ,,
Nasal index	412	521
Orbital width	39 ,,	36 ,,
,, height	33 ,,	32 ,,
Orbital index	846	889
Cranial capacity	800 c.cm.	1,300 c.cm.
Summary :—Dolichocephalic, prognathous, leptorhine, mesoseme, microcephalic.		Dolichocephalic, mesognathous, mesorhine, mesoseme, microcephalic.

The Fakir skull stands out as compared with the average Hindu skull in its prognathous, leptorhine and microcephalic characters.

Norma lateralis.—Fig. 1. Upon looking at the left—the most perfect—side of the skull it is seen that the cranium is relatively very small as compared with the face.

The plan of the occipital foramen is prolonged forwards, meets the profile of the face a little below the middle of the anterior opening of the nose.

The curve of the vault is fairly even. The inion is very prominent. A well marked projection exists behind the left parietal foramen. The outline of the forehead is retreating, the glabella and supraciliary ridges being pronounced. A well

marked depression exists at the root of the nose. The nasal bone is well formed. The anterior nasal spine is very prominent. Its tip extends beyond a perpendicular dropped from the lower end of the inter-nasal suture. The lower margin of the nasal aperture is sharp. The alveolar aperture of the upper jaw projects much forwards, carrying with it the incisor and the canine teeth.

The teeth are fully developed. The upper incisors and the canine are large. Worn at the expense of their posterior surfaces, they overlap their fellows of the lower jaw. The lower incisors are absent. The "bite of the teeth" sweeps upwards on its way forwards.

The lower jaw is massive. Its mental eminence is prominent, but its anterior flatness is ill marked. The temporal ridge is pronounced. It rises very highly upon the vault, encloses a large temporal fossa and ends posteriorly in a somewhat abrupt elevation in the immediate neighbourhood of the asterion. The mastoid process is well developed, and the external auditory meatus is somewhat compressed antero-posteriorly. The sphenoid articulates with the superior maxillary, and the squamo-parietal suture is unusually straight. The pterygo-maxillary fossa is large.

Norma verticalis.—Fig. 2. The general outline is oval. The zygomatic arches are plainly seen. The external angular processes of the frontal bone are very prominent. There is a bulging in the region of the asterion of each side, formed by the hind root of the zygoma, the posterior inferior angle of the parietal and the base of the mastoid. The pterion swells outwards upon each side and, with the prominent external angular processes of the frontal, causes a narrowing of the forehead immediately above the supraciliary ridges. The sutures are simple, the sagittal being nearly obliterated in the region of the vertex. The temporal ridges, well marked, approach to within two centimètres of the sagittal suture. The supraciliary ridges and the glabella are pronounced. The lower margins of the orbital cavities project beyond the upper ones. The nasal bones and the alveolar processes of the upper jaw bones—the left process carrying with it the incisor and canine teeth — are very prominent. The crown, neck and part of the fang of the right incisor tooth, with the adjacent portion of the alveolus, and the crown of the adjacent lateral incisor are absent. (This imperfection in the specimen was caused by the accidental dropping of the skull from the hands of a Customs Officer at Liverpool.)

Norma frontalis.—Fig. 3. The outline of the cranium approaches "sugar loaf" appearances. The frontal region is narrow and retreating. Frontal eminences are wanting. The

pterion bulges upon each side and the supraciliary ridges are prominent. The orbital cavities are wide and deep. The orbital margin is somewhat rectangular and an infra-orbital suture is present upon each side. The anterior opening of the nose is leptorhine. The malar bones stand out. The outlines of the mastoid processes project beyond those of the ascending rami of the lower jaw. The upper alveolar processes are very prominent and are partly wanting in the neighbourhood of the incisive fossa of the right side. The lower jaw is massive. There is great width between and eversion of its angles. The right lower incisor teeth are long. The right canine and the left incisor teeth are absent. The anterior wall of the alveolus opposite the fang of the left central incisor is wanting—probably due to an abscess during life.

Norma occipitalis.—Fig. 4. The somewhat "sugar loaf" outline of the cranium is well seen. The region of the mastoid and asterion are well developed upon either side. The temporal ridges are plainly visible running parallel with, but in too great proximity to the sagittal suture. The parietal eminences are slightly marked. The parietal foramen exists upon the left side only, and the sagittal suture is almost completely obliterated in its neighbourhood. The inion is large and compressed laterally. The superior curved lines of the occipital bone are well seen. The cerebellar fossæ bulge but slightly.

Norma basilaris.—Fig. 5. The various processes which afford muscular attachment are large, *e.g.*, jugular processes, spinous processes of sphenoid, styloid processes and pterygoid ridges of sphenoid. The posterior condyloid foramen is present on the right side only, is very large, and opens directly into the jugular foramen.

The palate is very wide. Its antero-posterior arching is badly marked owing to great alveolar prognathism. Its mesial sagittal length is 5·5 cm. and its greatest breadth, situated between the second molar teeth, is 4·2 cm. (The palatine measurements are taken from the inner lip of the alveolar processes.)

From the above description it is noticeable that the most striking peculiarities of the Fakir skull are the smallness of its cranial capacity and its prognathism.

The skull is of a very low type and approaches that of the Simian in its characters.

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FIG. 1.—NORMA LATERALIS.

FIG. 2.—NORMA VERTICALIS.

SKULL OF A MICROCEPHALIC HINDU ⅓.

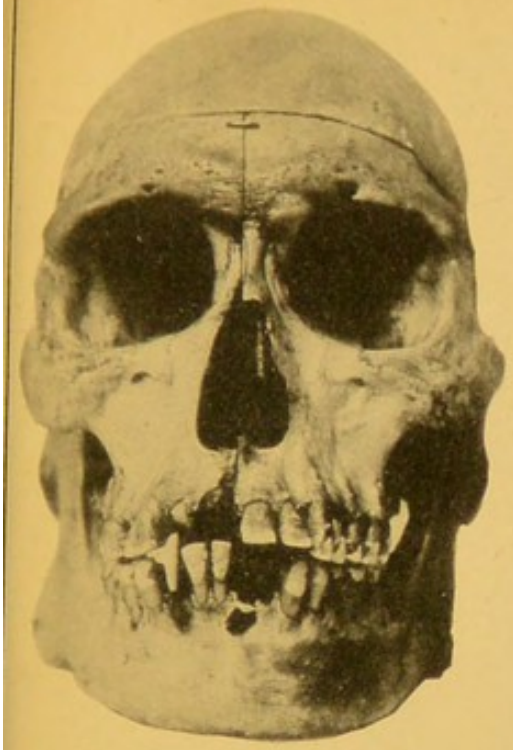

FIG. 3.—NORMA FRONTALIS.

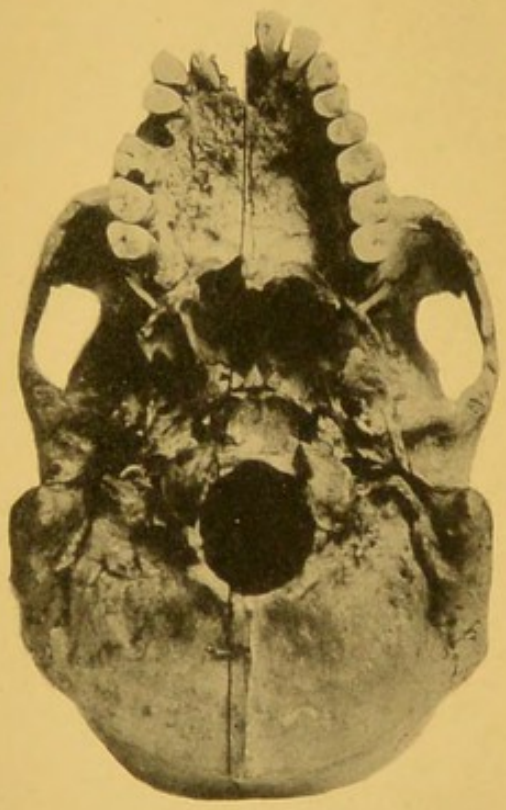

FIG. 5.—NORMA BASILARIS.

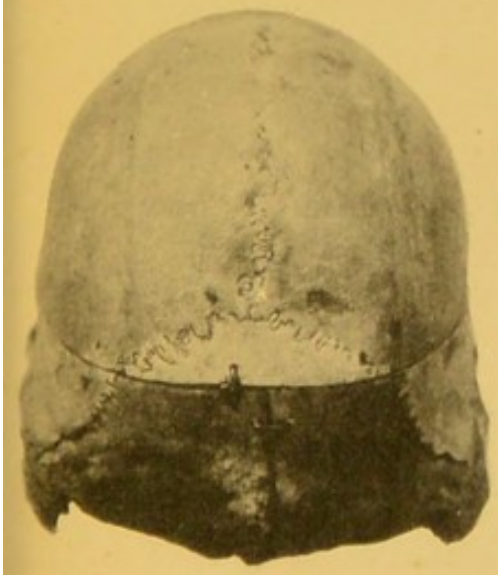

FIG. 4.—NORMA OCCIPITALIS.

SKULL OF A MICROCEPHALIC HINDU $\frac{1}{3}$.

PHOTO-TYPE.—THOMSON & DUNCAN, ABERDEEN.