

the collection in the Freiburg Museum. Anoutschine puts its occurrence in the negro skull at 12·8 per cent. He also gives its proportion in the Papuan skulls, based on the observations of A. B. Meyer and Mantegazza on three hundred and thirty-six skulls, at 6·9 per cent., and on thirty-nine crania examined by himself at 5·1 per cent. Flower found it in the Australian skulls examined by him in the proportion of 9 per cent.,<sup>1</sup> but Virchow, who has summarised<sup>2</sup> observations by various authors on one hundred and forty-two Australian crania, places it at 16·9 per cent. On the other hand the squamoso-frontal articulation does not appear to have been seen in any Tasmanian skull. Anoutschine gives the proportion of its occurrence in one hundred and eighty Polynesian crania at 3·3 per cent. and in one hundred and sixty-six Malay skulls at 4·8 per cent.<sup>3</sup>

The sphenopterygoid foramen is also a variation of considerable interest in the human skull. It was seen with complete osseous boundaries in three of the skulls on which I have reported. A memoir on this foramen has recently been written by Dr. Eugen Roth,<sup>4</sup> who states that he has seen it with complete bony boundary ten times in two hundred and seven European crania, *i.e.*, 4·8 per cent. He puts its percentage with partial and complete bony walls, amongst exotic crania very much higher, 32 per cent. in Asiatics; 50 per cent. in Australians and Papuans; 30·6 per cent. in Africans; and 20 per cent. in American Indians, but the number of skulls of these coloured races which he has examined is far too small on which to frame any sound generalisation.<sup>5</sup>

In addition to the measurements of the crania recorded in the several Tables printed in the early part of this Report, I selected at least one characteristic specimen of each group of skulls, and bisected it longitudinally and vertically immediately to one side of the septum nasi and mesial plane of the cranial cavity. A careful rubbing was then taken of the outline of the section of each skull, and on this several lines were drawn and angles measured. As to the importance of this method of studying the skull I am quite in accordance with Profs. Huxley<sup>6</sup> and Cleland.<sup>7</sup> Indeed I may say that I had looked at the comparative anatomy of the skull from this point of view many years ago, when I

<sup>1</sup> Native races of the Pacific Ocean.

<sup>2</sup> *Zeitschr. f. Ethnol.*, Bd. xii. p. 20, 1880.

<sup>3</sup> Dr. Schlocker in his *Inaugural Dissertation*, Dorpat, 1879, "Die Anomalien des Pterion," discusses how the squamoso-frontal articulation arises, and this question is also considered by J. B. Sutton in *Journ. Anat. and Phys.*, vol. xvii. p. 220, 1884. It would seem as if an epipteric bone is normal in the development of the human skull, and usually joins the parietal to form its antero-inferior angle. If it fuses instead with the squamosal or frontal then it connects those bones and cuts off the parietal from the ali-sphenoid. Sometimes it remains up to adult life as a distinct epipteric bone.

<sup>4</sup> *Archiv f. Anthropol.*, Bd. xiv. p. 73, 1882.

<sup>5</sup> I may also refer to Dr. Krause's measurements of the skulls in the Godeffroy Museum, for several examples of this and the other forms of cranial variation described in the text.

<sup>6</sup> Two widely contrasted forms of the Human Cranium, *Journ. Anat. and Phys.*, p. 60, Nov. 1866.

<sup>7</sup> Variations of the Human Skull, *Phil. Trans.*, 1869; and Description of a Sulu Skull in *Journ. Anat. and Phys.*, p. 663, July 1877.