

to 90. Sixty specimens had a cephalic index of 80 or upwards; twelve were below 75, and the remainder were from 75 to 79 both inclusive; the brachycephali were, however, present in a larger proportion than in my series from the same island. Six skulls from Hawaii in the same collection varied in the cephalic index from 72 to 86, and of these, four were 81 or upwards. Dr. Davis gives the mean C.I. of the entire series of Sandwich Islanders in his collection as 79 for the men and 80 for the women. Of the four skulls from Hawaii in the Museum of the College of Surgeons, two had the cephalic index 81·7, 85·7; the other two were 69·5 and 71·8. MM. de Quatrefages and Hamy give the mean cephalic index of fifteen male Sandwich Islanders as 75·5 and of seven females as 78·4. They also refer to a large collection from the islands Maui and Kauai measured by M. Otis, the mean breadth index of ninety-seven men being 81·3, and of forty-one women being 80·5. As the measurements of the individual skulls are not given by these last named cranio- logists, I am not able to say what is the range of variation in their respective series. It is well known that the practice of artificially flattening the back of the head prevailed to some extent amongst the Sandwich Islanders, and I agree with MM. de Quatrefages and Hamy that this will necessarily have the effect of somewhat raising the cephalic index of the skulls in which this deformation exists. In my series of skulls the relation of the vertical to the cephalic index varied with the cephalic index. In the brachycephali and almost all the mesaticephali the vertical index was less than the cephalic, whilst in a considerable number of the dolichocephali the vertical index exceeded the cephalic. The former therefore corresponded in this relation with the Polynesian, the latter with the Melanesian character.

Retzius, from the study of a Sandwich Island skull in his collection, and of a number of Polynesian skulls which he saw in London, came to the conclusion that they were one of the highest members of his brachycephalic prognathic class, and formed a transition from this to the dolichocephalic.<sup>1</sup> Dr. Uhde has also described four crania from Oahu,<sup>2</sup> three of which came from a battlefield on the plain of Kulau, and one from the neighbourhood of Diamonds-hill on the south-east coast. He recognises such differences between them as to place two in Retzius's *dolichocephalæ prognathæ* and two in his *brachycephalæ prognathæ*.

There is thus abundant evidence to show that the crania of the Sandwich Islanders are by no means homogeneous in their characters, but present wide differences in form and proportions, and in this respect they agree with the Marquesas Islanders. To what are these differences to be ascribed? The most rational conclusion I think will be that they express the presence in these islands of more than one race of men. Captain Cook refers to the fine physique of the chiefs and their superiority to the natives generally.

<sup>1</sup> *Ethnologische Schriften*, p. 65; and *Müller's Archiv, Anat. u. Physiol.* 1874.

<sup>2</sup> *Nova Acta Acad. Nat. Cur.*, vol. xxviii., 1861.