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Comptes Rendus hebdomadaires des Séances de l'Académie des Sciences, May 1856—December 1856.—*From the Academy.*

Monday, 16th February 1857.

Dr CHRISTISON, Vice-President, in the Chair.

The following Communications were read:—

1. On the Crania of the Kaffirs and Hottentots, and the Physical and Moral Characteristics of these Races. By Dr Black, F.G.S.

After exhibiting Crania of these races recently received from South Africa, along with two British crania of normal size and form, and stating their respective measurements, facial angles, and principal diameters, the author reviewed the observations of Natural Historians and Anatomists on the skulls and physical characteristics of the races above mentioned. Camper's facial angle was compared with that of Blumenbach, showing the differences, and how far the adult Negro and the orang-outang receded from the higher cranial types; and also how, according to Mr Owen, the facial angle depends upon whether it is taken in the young or adult state. The little difference which exists between the capacities of the skulls of most of the human races was alluded to, and also Mr Owen's opinion of the superiority of the basal examination of the skull over that of the facial angle or vertical aspect. A peculiarity of several Negro skulls was also mentioned, viz., the juncture of the temporal and frontal bones, and consequently the separation of the sphenoid from the parietal. It is observed, that the people of the high countries of Africa are greatly superior to those of the low plains; the former receding further from the physiognomy and colour of the Negro. Colour of skin greatly varies amongst the South African natives, from black to a light brown, even amongst the same nation. The superiority of strength of intellect possessed by the Kaffir over the Hottentot is sufficiently marked; and, on the other hand, is counterbalanced by the greater pliability of dis-

position in the latter, the one being remarkable for reasoning abilities, and the other for aptitude for music, &c.

M. Virey's description of the distinguishing traits of the Kaffirs and Hottentots was noticed, and the mental superiority of the former over the latter. The Kaffirs are held by him, Prichard, and Knox, to be of one ethnic origin with the Negroes, only they are improved, and may be called the Negroes of the mountains, a change being caused by inhabiting an extra-tropical climate.

Dr Morton and the Editors of the "Types of Mankind" were noticed as observing the affinities between the Kaffirs and the Foolahs and Felatahs,—an affinity upon which others have thrown a doubt; while the Editors agree with other observers that the Kaffirs resemble the true Negro much more than the Hottentot, and that the latter is supposed to belong to the same race as the Bosjesman. The great question of the primitive origin of mankind was next adverted to, and it was stated that, in opposition to Dr Prichard, the Editors of the "Types" contend for distinct zoological creations, grounding their opinions partly on Egyptian monuments.

Richard Lander has made personal observations on the Kaffirs, and has shown the resemblance between them and the Felatahs; and Lichtenstein concludes, that the same race of people and the same family of languages were spread into the interior, and also toward the north, far beyond the limits of the Kaffirs proper. Dr Kraff and Peters were quoted, as showing that all the eastern nations, from the equator to the Cape colony, belong to one great family.

The opinion that the Kaffirs ought to be classed with the Europeans or Arabs was shown to be unsound, and also that they considerably recede in features and shape of the skull from the *prognathous* races. There is one trait that directs us to a foreign source, namely, the rite of circumcision, which they universally practise. It is known that the ancient Africans and Egyptians practised the same rite. After noticing the belief of the Kaffirs in a Supreme Being, though they have no idea of future rewards and punishments, the author noticed the Bechuana Kaffirs as superior to the Amakosas, and as having made some advance in arts and civilization, and the Kosah Kaffirs of the pure breed as

approaching in colour and physiognomy to the ordinary Negro, but some of them are of a lighter hue, and redder. Colonel Smith's observations on the Kaffir race are favourable to their intelligence and bravery, and some of them display the peculiar accumulation of fat over the *glutei* muscles which is more common among the Hottentots and Bushmen. He also mentions that the northern tribes try to mitigate the small-pox by inoculating between the eyes. Further testimony seems to establish a near and kindred relation between the languages of South Africa, the idioms of which constitute a particular family of languages, and a singular development of human speech. In one respect these languages are shown to agree with the Coptic—in the law by which they both *prefix* all modifying particles, while other languages *suffix* them.

The author then entered briefly into a description of the Fingoes and Bosjesmen, as given by travellers and natural historians, showing that the latter exhibit the features of the lowest humanity, and are almost allied to the ourang and troglodytes; though Dr Smith's more accurate observations have convinced Dr Prichard that the Bosjesmen are of the same race as the Hottentots, and originally spoke the same language. The oblique foramen at the lower end of the humerus was also noticed as occurring in some of them, as it does in the humeri of the simiæ, dogs, and wild boar. Observations were made on the physical form and features of the Hottentots, including the form of their noses, cheek-bones, chin, eyes, and teeth, their hair and colour, their nipples and mammæ at different ages, and also the *steatopygea* of the females. While some consider them a tribe of Mongolians, and allied to the Kal-mucks, others are inclined to think them quite as primitive in their origin as these Asiatics.

The author concludes: "Notwithstanding the difficulties which ethnographists must meet with in assigning a probable origin and descent to the Kaffir, and especially to the Hottentot tribes, sufficient to induce them to resort to the theory of distinct centres of human, as well as of animal and vegetable creation; and, notwithstanding all that has been lately advanced on the subject of the unity of the human species, we may safely say with the eminent Natural Historian, that no differences, such as those observed among mammiferous animals, are to be found among human

families, and that whatever varieties exist in these respects are the effects of external agencies, and the tendency to variation which such agencies call into activity."

2. On a *Roche Moutonnée* on the summit of the range of hills separating Loch Fyne and Loch Awe. In a letter from the Duke of Argyll to Professor Forbes.

Polished and rounded surfaces of rock are, under their more ordinary conditions, of very frequent occurrence in Argyllshire. By "their more ordinary conditions," I mean principally two—viz., Where they occur on the existing coast-line, either at, or not far above the present level of the sea; secondly, Where they occur in valleys, or the lower flanks of the hills,—whether under the boulder clay, or on surfaces naturally exposed.

From the occurrence on Loch Fyne of some beds of a chloritic schist, which is both very soft and very tough, receiving easily mechanical impressions, and resisting as easily the chemical agencies which tend to wear them off, there are on its shores some very fine examples of rocks rounded and deeply grooved. So far as my observation goes, however, they all indicate not only a configuration of the surface identical with that which now exists, but also a comparatively small change in the level of the sea. The prominent points upon the shore are those which are principally marked—the direction indicated is from the head of the loch towards its mouth; that is to say, the direction which ice breaking up from the high mountains at the head of the lake would naturally take in its passage to the open sea. There is nothing to imply a change of level beyond some fifteen or twenty feet.

In the glens leading into Loch Fyne, in the neighbourhood of Inverary, the stones and boulders in the clay are abundantly marked by abrading action. But I have not observed upon the walls of those glens any appearances which would indicate direct glacier action. When smoothed surfaces of rock appear at all, they seem rather connected with the general phenomena of the Boulder Clay. There is one observation, however, which applies generally, if not universally, to smoothed surfaces of rock in all these situations—viz., that the direction of the striæ is that of the glen or valley in which the rock is situated, that is to say, they are in the direction