Dr. Virchow aims in the first place to establish a series of cranial ethnic types as the foundation of ethnic classification. Here, very much depends on the sense in which a "type" is understood. For him, it is the sum of those traits which belong to the crania of a given ethnic division, excluding, on the one hand, traits which are individual, and, on the other, those which are generic. Theoretically, it is the expression of the ethnic law of hereditary development, which, independently of outward circumstances, controls bodily growth. It must be defined by a series of exclusions and averages. Each of the "types" which he figures is represented with the utmost fidelity in five different positions, showing the following norms: norma frontalis, occipitalis, temporalis, verticalis, and basilaris. All are represented from the points of view of the "German horizontal," which is a line drawn from the superior point of the external auditory foramen to the lower margin of the ocular cavity. This method of iconography is in itself worth a particular study, and no exception can be taken to its accuracy and its superiority to those heretofore in use.

Close attention is given to artificial deformations of the skull, which were numerous and widespread among the American aborigines. Eight leading varieties are classified and their effects analyzed. It is shown that by laws of compensatory growth such deformity does not entail diminished cubical capacity. The lowest capacity, 1,100 cubic centimeters, was in a normal skull from Chile; the highest, 1,890 cubic centimeters, was in a Labrador Eskimo.

The general conclusions reached by this masterful study will interest everyone. In the first place, Dr. Virchow denies that there is any one characteristic aboriginal American type of skull, or, so far as one can see, that there ever has been one. The various traits, none of which is peculiar to the race, are the os faciei, which is an arrest of development; the absence of the temporal process, the presence of which is a pithecanthropid trait; exostosis of the meatus auditorius, which must be regarded as pathological; and certain changes in the alveolar and malar bones, largely due to function. Finally, the conclusion is reached that the lowest known forms of the human skull have no counterparts in any yet discovered in America, and therefore we must at present draw the inference that such types did not exist there, and that the oldest history of the human species will not be enlightened by any discoveries in the New World.

Man came to America as an immigrant, physically highly developed, and doubtless in a condition of culture corresponding thereto.

This brief outline gives but a faint idea of the riches offered in Dr. Virchow's introduction, which is written, moreover, in that lucid and vigorous style of which he is such a master, and which is in such happy contrast to most German scientific composition.

There are, however, a few points where the work is open to question. The references on the first page to the inferior value of linguistic grouping carries with it its own condemnation; for where there is mixture of languages there is invariably mixture of blood, and hence of cranial types as well. Bones cannot guide us better than roots in such interminglements. In several of his "types," the history is sadly incomplete. Thus, Plate xx, shows a "Mexican" skull; but to say "Mexican" is every whit as vague as to say "European," and what guarantee have we that its peculiarities are not individual instead of ethnic? This observation applies to several other of the crania figured. According to his own definition of type, such specimens can have but very doubtful value. In the text to Table xx, it is assumed that a prominent frontal protuberance is a proof that the skull belonged to a male. Do other anatomists concede this? But criticism is disarmed by the candid statement of the author that the material is not sufficient to reach the point desired, and that his work must be regarded rather as a preliminary contribution to the study of this wide and important field. This it is, in the best sense of the word.

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