

and faculties be of such a confined and local character, that it can only flourish in a few particular spots, it can rarely be of great utility.

We may consider, therefore, that, in the domestication of animals and the cultivation of plants, mankind have first selected those species which have the most flexible frames and constitutions, and have then been engaged for ages in conducting a series of experiments, with much patience and at great cost, to ascertain what may be the greatest possible deviation from a common type which can be elicited in these extreme cases.

*Varieties of the dog — no transmutation.* — The modifications produced in the different races of dogs exhibit the influence of man in the most striking point of view. These animals have been transported into every climate, and placed in every variety of circumstances; they have been made, as a modern naturalist observes, the servant, the companion, the guardian, and the intimate friend of man, and the power of a superior genius has had a wonderful influence not only on their forms, but on their manners and intelligence.\* Different races have undergone remarkable changes in the quantity and colour of their clothing; the dogs of Guinea are almost naked, while those of the arctic circle are covered with a warm coat both of hair and wool, which enables them to bear the most intense cold without inconvenience. There are differences also of another kind no less remarkable, as in size, the length of their muzzles, and the convexity of their foreheads.

But, if we look for some of those essential changes which would be required to lend even the semblance of a foundation for the theory of Lamarck, respecting the growth of new organs and the gradual obliteration of others, we find nothing of the kind. For, in all these varieties of the dog, says Cuvier, the relation of the bones with each other remains essentially the same; the form of the teeth never changes in any perceptible degree, except that, in some individuals, one additional false grinder occasionally appears, sometimes on the one side, and sometimes on the other.† The greatest departure from a common type — and it constitutes the maximum of variation as yet known in the animal kingdom — is exemplified in those races of dogs which have a supernumerary toe on the hind foot with the corresponding tarsal bones; a variety analogous to one presented by six-fingered families of the human race.‡

Lamarck has thrown out as a conjecture, that the wolf may have been the original of the dog; and eminent naturalists are still divided in opinion on this subject. It seems now admitted that both species agree in the period of gestation, and Mr. Owen has been unable to confirm the alleged difference in the structure of a part of the intestinal canal.§ Mr. Bell inclines to the opinion that all the various

\* Dureau de la Malle, An. des Sci. Nat., tom. xxi. p. 53. Sept. 1830.

† Disc. Prél. p. 129., sixth edition.

‡ Ibid.

§ Güldenstädt, cited by Prichard, Phys. Hist. of Mankind, vol. i. p. 96.