

descended from a single stock, we have in *Columba livia* a still existing and widely distributed species, which can be and has been domesticated in various countries. This species agrees in most points of structure and in all its habits of life, as well as occasionally in every detail of plumage, with the several domestic races. It breeds freely with them, and produces fertile offspring. It varies in a state of nature,³⁰ and still more so when semi-domesticated, as shown by comparing the Sierra Leone pigeons with those of India, or with those which apparently have run wild in Madeira. It has undergone a still greater amount of variation in the case of the numerous toy-pigeons, which no one supposes to be descended from distinct species; yet some of these toy-pigeons have transmitted their character truly for centuries. Why, then, should we hesitate to believe in that greater amount of variation which is necessary for the production of the eleven chief races? It should be borne in mind that in two of the most strongly-marked races, namely, Carriers and Short-faced Tumblers, the extreme forms can be connected with the parent-species by graduated differences not greater than those which may be observed between the dovecot-pigeons inhabiting different countries, or between the various kinds of toy-pigeons,—gradations which must certainly be attributed to variation.

That circumstances have been eminently favourable for the modification of the pigeon through variation and selection will now be shown. The earliest record, as has been pointed out to me by Professor Lepsius, of pigeons in a domesticated condition, occurs in the fifth Egyptian dynasty, about 3000 B.C.;³¹ but Mr. Birch, of the British Museum, informs me that the pigeon appears in a bill of fare in the previous dynasty. Domestic pigeons are mentioned in Genesis, Leviticus, and Isaiah.³² In the time of the Romans,

³⁰ It deserves notice, as bearing on the general subject of variation, that not only *C. livia* presents several wild forms, regarded by some naturalists as species and by others as sub-species or as mere varieties, but that the species of several allied genera are in the same

predicament. This is the case, as Mr. Blyth has remarked to me, with Treron, Palumbus, and Turtur.

³¹ 'Denkmäler,' Abth. ii. Bl. 70.

³² The 'Dovecote,' by the Rev. E. S. Dixon, 1851, pp. 11-13. Adolphe Pictet (in his 'Les Origines Indo-