

(except in colour), yet the individual character and wishes of each breeder become impressed on his cattle, so that different herds differ slightly from one another.⁷⁷ The Hereford cattle assumed their present well-marked character soon after the year 1769, through careful selection by Mr. Tomkins,⁷⁸ and the breed has lately split into two strains—one strain having a white face, and differing slightly, it is said,⁷⁹ in some other points: but there is no reason to believe that this split, the origin of which is unknown, was intentionally made; it may with much more probability be attributed to different breeders having attended to different points. So again, the Berkshire breed of swine in the year 1810 had greatly changed from what it was in 1780; and since 1810 at least two distinct sub-breeds have arisen bearing the same name.⁸⁰ Keeping in mind how rapidly all animals increase, and that some must be annually slaughtered and some saved for breeding, then, if the same breeder during a long course of years deliberately settles which shall be saved and which shall be killed, it is almost inevitable that his individual turn of mind will influence the character of his stock, without his having had any intention to modify the breed.

Unconscious selection in the strictest sense of the word, that is, the saving of the more useful animals and the neglect or slaughter of the less useful, without any thought of the future, must have gone on occasionally from the remotest period and amongst the most barbarous nations. Savages often suffer from famines, and are sometimes expelled by war from their own homes. In such cases it can hardly be doubted that they would save their most useful animals. When the Fuegians are hard pressed by want, they kill their old women for food rather than their dogs; for, as we were assured, "old women no use—dogs catch otters." The same sound sense would surely lead them to preserve their more useful dogs when still harder pressed by famine. Mr. Oldfield, who has seen so much of the aborigines of Australia, informs me

⁷⁷ 'Ueber Scherthorn Rindvieh,' 1857, s. 51,

⁷⁸ Low, 'Domesticated Animals,' 1845, p. 363.

⁷⁹ 'Quarterly Review,' 1849, p. 392.

⁸⁰ H. von Nathusius, 'Vorstudien . . . Schweineschädel,' 1864, s. 140.