

the case with the cattle of Benguela. The Namaqua cattle in size and shape nearly resemble European cattle, and have short stout horns and large hoofs. The Damara cattle are very peculiar, being big-boned, with slender legs, and small hard feet; their tails are adorned with a tuft of long bushy hair nearly touching the ground, and their horns are extraordinarily large. The Bechuana cattle have even larger horns, and there is now a skull in London with the two horns 8 ft. 8½ in. long, as measured in a straight line from tip to tip, and no less than 13 ft. 5 in. as measured along their curvature! Mr. Andersson in his letter to me says that, though he will not venture to describe the differences between the breeds belonging to the many different sub-tribes, yet such certainly exist, as shown by the wonderful facility with which the natives discriminate them.

That many breeds of cattle have originated through variation, independently of descent from distinct species, we may infer from what we see in South America, where the genus *Bos* was not endemic, and where the cattle which now exist in such vast numbers are the descendants of a few imported from Spain and Portugal. In Columbia, Roulin⁶³ describes two peculiar breeds, namely, *pelones*, with extremely thin and fine hair, and *calongos*, absolutely naked. According to Castelnau there are two races in Brazil, one like European cattle, the other different, with remarkable horns. In Paraguay, Azara describes a breed which certainly originated in S. America, called *chivos*, "because they have straight vertical horns, conical, and very large at the base." He likewise describes a dwarf race in Corrientes, with short legs and a body larger than usual. Cattle without horns, and others with reversed hair, have also originated in Paraguay.

Another monstrous breed, called *niatas* or *natas*, of which I saw two small herds on the northern bank of the Plata, is so remarkable as to deserve a fuller description. This breed bears the same relation to other breeds, as bull or pug dogs do to

⁶³ 'Mém. de l'Institut présent. par divers Savans,' tom. vi., 1835, p. 333. For Brazil, see 'Comptes Rendus,'

June 15, 1846. See Azara, 'Quadrupèdes du Paraguay,' tom. ii. pp. 359 361.