Since all these molar series belong to individuals of about the same age, the variation can not be due to difference in age. The sex is also the same, at least in the recent specimens, although it is not certain whether fig. 8 is a male or a castrated male. This, however, should not produce a perceptible influence upon the dental markings.

Here, too, after an exact comparison, our Anau ox ranges itself between *Bos namadicus* and *Bos primigenius*; while the enamel plications are still more manifold than in *Bos taurus macroceros* of Nepal, which, in comparison with the early Egyptian long-horned cattle, has very numerous plications.

Bos taurus macroceros Duerst. (Plate 79, fig. 2; plate 81, fig. 2; plate 82, fig. 1; plate 83, fig. 3; map, plate 85.)

In the layers of the North Kurgan of Anau, beginning at −15 feet below the level of the plain and extending to the top of the hill, we find numerous bones of domestic cattle. These bones are found far more frequently than those of the other animals and are easily distinguishable by their lightness and highly porous character. In addition, the color of these bones is a light yellowish-brown, while that of the bones of the wild bull is a darker brown.

To determine the origin of the domestic cattle, we must try, first, to recognize the breed and size; second, to see whether there is any connection between them and the wild cattle of the strata below −15 feet; and third, to determine the probable distribution of these animals over the neighboring parts of Asia.

The Breed and Size of the Domestic Cattle of Anau.

In various earlier publications, I have several times expressed the opinion that the short-horned cattle of the turbary man of Europe (*Bos brachyceros* Rütimeyer), which seemed to have been imported from Asia, were the oldest cattle of the world, although descended from a long-horned wild species, the *Bos namadicus*. It seems, however, that the bones of Anau tend to contradict this opinion. The bones of the cattle in the layers from −15 feet to +25 feet show no concordance with those of *Bos brachyceros*. They are all distinctly larger in size and the few remains of horn-cores indicate a long-horned animal.

We will now first compare the dimensions of these bones with those of other prehistoric cattle, especially with those of the mummified skeletons of a sacred bull, Apis, of the old Egyptian tombs of Sakkarah, now in the Museum of Natural History at Paris, and with those of *Bos taurus brachyceros* Rütimeyer, from the excavations of Schlossberg, near Burg (Brandenburg), and several localities of Bohemia.

But we shall see that it is not possible that these marked differences were only those of sex or individuality. I begin with the extremity bones.

Several fragments of scapulæ were among the bones from the kurgan, but only two fragments of distal ends of this bone are sufficiently preserved to serve for measurements. The dimensions given in the table on pp. 366–368 show an exact concordance in size between the fragments from the +17-foot layer and the scapula of the Apis bull; the fragment from the +26-foot layer being smaller.