

to that of the Anau horse; thus premolar 3 = 103.2, 116.6; premolar 4 = 112.5, 121.7; molar 1 = 144.7, 120.4; molar 2 = 117.3, 129.6.

However, if we now consider the teeth in connection with the appearance of their form, as well as that of their patterns and enamel plications, we shall recognize at once the extremely slight plication of the enamel layers. The internal lobule of the anterior island is further distinctly drawn apart into two horns and flattened. The "spur" (of the German authors) occurs only on the premolars. This eliminates the possibility that we have here an animal belonging to the group of asses or half-asses.

This is further evidenced by the lateral expansion of premolar 2, which in the Anau specimen is 78.8 and 83.9, in the Siberian horse 71.2, and but 60.9 in the asses and half-asses; especially in the djiggetai, *Equus hemionus*, which otherwise, on account of the size of the extremity bones, would here come very much into question, where it sinks to 50 to 57 per cent. This, according to Tscherski, is a very typical occurrence.

In general the premolars of the half-asses show a narrow isthmus and a strongly widened capitulum, which does not happen at all in the Anau horse. We can, therefore, assume with certainty that we have here, not a half-ass or an ass, but a genuine horse.

It remains now only for us to determine to what variety this horse belongs. The shape and conformation of the enameled crown, as well as the projection of the lobes, indicate a horse belonging to the Oriental group, but the form of the anterior island and the relations of length and breadth of the teeth point to the Occidental races. We have no frontal bone pieces, which would easily enlighten us on this point, and must, therefore, seek some other method.

If we compare fig. 4 on Tscherski's plate II with the molar series of Anau (plate 77, fig. 1, and text-fig. 491, *a* and *e*, p. 413), we shall see that beyond question a similar form of teeth is represented in both. The dental system of the fossil as well as of the known recent Siberian horses is peculiar in that, notwithstanding the characteristics of the skull, which place it in the group of the Oriental (medium-browed) horses, it shows a character which is peculiar to the heavy, narrow-browed West-European races, and in addition reaches the highest degree of the development of this type, especially as regards the considerable anterior projection of the internal lobule in the teeth of the upper jaw. If we should judge only by the form and the before-mentioned dimensional proportions of the teeth our Anau horse would belong to this Siberian group.

THE LOWER JAW.

The remains of lower jaws which we have from the kurgan, although four in number, consist of very fragmentary pieces, in only one of which are the branches sufficiently preserved to permit a determination of the length of the diastemas. From the dimensions, however, we can easily recognize that only a horse of medium or small size is indicated. What has been said with regard to the peculiarities of the teeth of the upper jaw applies fully to those of the lower jaw.