

A second category of horn-cores also belongs here. It is difficult to distinguish them in size from those which in the next section we shall indicate as belonging to *Ovis arkal palustris*, but upon taking these cores into the hand one recognizes, by the exceptional weight as well as by the remarkably hard structure of the core to which the exceptional weight is due, that we have here something different. In addition to this, the shape of the horn-core is somewhat different, becoming more sharply pointed towards the ends.

These characteristics suffice to assign these horn-cores to the females of the *Ovis vignei arkal*. A confirmation of this is found in a frontal piece, which, from the peculiar form of the superorbital part of the frontal bone, seems to have belonged to a female skull of *Ovis vignei*.

In the following table are given the dimensions of this bone in comparison with those of the adult female, *Ovis vignei* of the Salt Range, in the British Museum, and also the dimensions of the horn-cores.

Table of dimensions, female *Ovis vignei* (in millimeters).

	Frontal bone.			Horn-cores.			
	Greatest width between processus orbitalis.	Least width between bases of horn-cores.	Long diameter of orbita.	Length.	Circumference at base.	Longitudinal diameter at base.	Transverse diameter at base.
North Kurgan, Anau .....	10.3	72	35	....	....	....	....
- 15 feet .....	....	....	....	150	83	30	17
+ 8 feet .....	....	....	....	144	80	28	18
Salt Range, India* .....	10.5	74	36	75	82	28	19

\*Horn-cores No. 666 K, British Museum.

The peculiar form of these bones and the curvature of the horn-cores make it certain that they belong to a female *Ovis vignei*. Which bones of the trunk and extremities are to be assigned to the *Ovis vignei* it is naturally difficult to say. Only out of the difference in size, as contrasted with those of *Ovis palustris*, is it possible to draw some slight inferences. Therefore we will be right in assigning all the large extremity bones from the lower culture-strata to the wild sheep, while bringing them into the same tables with the domesticated sheep.

#### DOMESTIC SHEEP.

We now pass to the consideration of a series of horn-cores which are sharply distinguished, as I have already said, from those of the *Ovis vignei*. They are of almost similar aspect and form, but are shorter, somewhat more slender, and lighter and more porous in structure. This last characteristic seems particularly important; as except for it I might properly be confronted with the objection that these horn-cores perhaps belonged to younger or female individuals of the *Ovis vignei*. This objection, however, is contradicted by the more porous structure, the more extensive formation of sinus in the interior of the horn-core and their consequently thinner walls; for it is firmly established, that under domestication