

of the desert, as is to-day the horse of the Arabs and Berbers. The excellent observations of H. Kraemer\* on the strength of the metacarpalia in the horse, taken together with well-known observations of the peculiar build of all animals of the desert, enable us to understand how there could occur a differentiation into slender-footed, slender-limbed, so-called Oriental horses on the one hand, and thick-footed, heavy, Occidental horses on the other hand. The differences in physiographic conditions were, in my opinion, the cause of the formation of both of the main groups of our horses.

The wild ancestral form was the same for both; it was the Diluvial horse of the ancient world, which roamed as far as the loess steppes and tundra plains extended; and which, surviving in separate groups the disappearance of the tundras, was transformed, according to the newly developing regional physiographic influences, into the *desert-type* (*Equus caballus pampellii*), the *steppe-type* (*Equus caballus germanicus seu robustus*), and the *forest-type* (*Equus caballus nehringi*).

The same history is true of most of the domestic animals; and I do not hesitate to express the opinion that the change to slenderness in the hollow bones of the ox, together with the diminution of bodily size, as well as a general stunting (hindered development) in an early youthful stage of the normal form, developed gradually under the same influences, for it is evident that under conditions of insufficient food, early pairing and inbreeding—as to-day in Turkestan—the cattle were used for riding and driving, but not for milk and fattening.

#### TORTOISE.

*Testudo horsfieldii* Gray.

Remains of the tortoise, consisting of dorsal and ventral plates, occur among the bones collected in Komorof's trench. They are, therefore, of an indeterminate age, but the form of these well-preserved plate bones permits an exact determination of the species, *Testudo horsfieldii* Gray.

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\*Zur Frage der Knochenstaerke der Pferde. Deutsch. landw. Tierzucht, 1904, Nos. 28 and 31.