regards *Equus przewalskii*, which it has been recently attempted to raise absolutely to the position of ancestor of the Occidental and Oriental horses,* considering it to be a survival of *Equus caballus germanicus* Nehring, we must remark that according to Matschie† there are three types or subspecies of the Przewalski horse which differ in size and form according to locality and environment. Among them *Equus hagenbeckii* Matschie appears to stand nearest to the Anau horse. The pieces measured by me from *Equus przewalskii*, which, however, did not belong to this subspecies, do not agree as well with the Anau horse as with the more stout-boned Siberian horses. In the construction of the teeth *Equus przewalskii* appears rather to be a survival of the Siberian diluvial horse and to represent the small horse of the Germans as we meet it in *Equus caballus nehringi*, but we can not decide this with certainty and so long as we can depend merely upon the existing materials we can only stand by the expression of the possibilities we have mentioned. It is to be hoped that later excavations by Professor Pumpelly will produce more complete material and more far-reaching conclusions.

Meanwhile, I may express my opinion as to the cause of the characteristic differences between the Occidental horse and the Oriental breed, although, as has been said above, both are assumed to be derived from the same ancestral form. It is only a supposition, a hypothesis, which has presented itself to me during the thorough study of the remains already described.

As is well known, *Equus przewalskii* still roams in the Djungarian Gobi and the neighboring tracts of the Tian Shan region. But that part especially of the Gobi—near the lakes—where alone, according to Przewalski, *Equus przewalskii* lives, has the character of a steppe with boundless pastures of reed-grasses and salt plants. Still more exuberant is the plant growth of the Tian Shan districts.

In strong contrast with these stands the Kara Kum—the Black Sands—the most forbidding desert of the whole world. Sand, for the most part shifting dunes, covers the immense surface; only in those places where the sand is to a certain extent arrested in its movement is it possible for the saxaul (*Haloxylon ammodendron*) and some desert grasses to grow and furnish a very scant nourishment to the few animals of the desert.

It was, as now, the "flying sand" that forced animals as well as man onto the shrinking oases, and caused concentration of family groups to battle against this enemy, with the aid, first of natural, and later of regulated irrigation. The horse, which, like the wild ox, still roamed wild in the Kara Kum when the North Kurgan was founded at Anau, was no longer an animal of the grassy steppes, but had become a denizen of the desert.

The Kara Kum, as a desert, could never have nourished the horse without the aid of man—man who raised the necessary fodder in his oases along the foot of the Kopet Dagh. But it does not follow that the horse did not remain an animal

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*Th. Studer, Die Knochenreste aus d. Hoehle z. Kesslerloch bei Thayngen. Denksch. d. Schweizer Naturf. Gesell., Bd. XXIX, 1904.—H. Kraemer, Zur Aelteste Geschichte d. Pferde. Jahrb. Pflanzen u. Tierzüchtung, von Müller, 1905.

†P. Matschie, Giebt es in Mittelasien mehrere Arten von echten Wildpferden? Naturw. Wochensch., Bd. 18, pp. 581–583, 1903.