

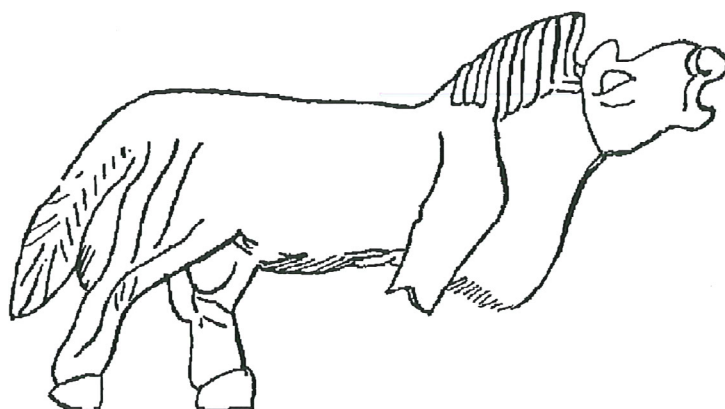


ARCHAEOZOOLOGY OF THE NEAR EAST IV B

Proceedings of the fourth international symposium on the
archaeozoology of southwestern Asia and adjacent areas

edited by

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Przewalski from Susa (nacre – mother of pearl)

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A NOTE ON THE EQUID FROM ANAU, TURKESTAN, "EQUUS CABALLUS PUMPELLII" DUERST

Ann Forsten¹

Abstract

A renewed study of a sample of the bone material described by Duerst (1908) as *Equus caballus pumpellii* has shown that it belongs to the kulan, *E. hemionus onager* Boddaert.

Résumé

La révision d'un échantillon du matériel osseux décrit par Duerst (1908) comme *Equus caballus pumpellii* a mis en évidence qu'il s'agissait du kulan, *E. hemionus onager* Boddaert.

Key Words: Anau, Turkestan, Kulan

Mots Clés: Anau, Turkestan, Kulan

Introduction

In 1903 and 1904 Dr. Raphael Pumpelly led two expeditions to Turkestan, financed by the Carnegie Institution of Washington, USA. The physiography of the area transversed by the expeditions and the material collected during archeological excavations were published in three volumes "Explorations in Turkestan" in the Carnegie Institution of Washington Publications No. 26 (1905) and No. 73, Vols. I & II (1908). In the Publications No. 73, Vol. II, the mammalian bones, excluding *Homo*, excavated from different cultural strata of the kurgan of Anau near Ashabad, were analysed and described by Professor Ulrich Duerst of the University of Bern, Switzerland. The bones are chiefly the remains of human meals and represent both wild and domestic animals. Duerst (1908) believed the bones derived from the Eneolithic to the Bronze Age and that they were as old as 6000 BC, while Hilzheimer (1926, cited in Lundholm 1947) believed them to be no older than 2000 B.C.

Duerst discussed at length the equid which is abundantly present in the bone material. He identified it as *Equus caballus pumpellii* n. subsp. and believed it to be an early domestic horse, the ancestor of the warm-blooded, Oriental breeds. The latter conclusion was dictated by the relatively small size and slender build of the animal, believed to have made it particularly suited for life in deserts. Duerst compared the Anau equid with various fossil and subfossil, wild and domesticated horses in Europe and with the Asiatic wild ass, *E. hemionus* Pallas, still present in Turkestan in the early part of this century as the subspecies *E. hemionus onager* Boddaert, the kulan (Heptner & Naumov 1966). Duerst did find similarities with the latter, but probably due to strong preconceptions regarding the status of the animal, he concluded that the bones belonged to a domestic animal, and thus a horse.

Brauner (1916, cited in Antonius, 1936), Hilzheimer (1926, cited in Lundholm 1947) and Antonius (1936) contested Duerst's identification of the equid bones as those of a horse and believed them to belong to the wild ass. Lundholm (1947, Figs. 9 & 31) and Gromova (1949) compared Duerst's measurements on the equid bones from Anau with those of the wild ass and concurred with the three previous authors. However, other authors, mainly archeologists, have adopted Duerst's identification (see references in Lundholm 1947:153).

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Description

Thanks to the courtesy of Dr. Marc Nussbaumer of the Natural History Museum in Bern, I have had the possibility to borrow for study a sample of Duerst's equid material from Anau, still kept in the museum in Bern. The sample is small, much smaller than the material described by Duerst (1908), the whereabouts of the major part of which is unknown. The specimens studied by me are distributed over all three cultural layers (I, II, and III) of the kurgan of Anau. They consist of a fragmentary pelvis (No. I/142), a distal radius (No. II/946), a calcaneum (No. III/267), two astragali (No. II/44, II/1396), a os carpale 3 (No. I/28), two complete proximal phalanges (No. II/1170, II/1228) and a fragmentary one (No. III/243), two medial (No. III/557, III/657) and two distal phalanges (No. III/682, III/1131), and six cheek teeth. The teeth, the proximal and distal phalanges clearly show that the species represented is the wild ass, not a horse. Although in the moderately worn upper cheek teeth (P^2 No. I/102 and P^{3-4} No. I/133 of one individual (Plate 1:1); M^{1-2} No. I/98 (Plate 1:2); and M^3 No. I/134; Plate 1:3) the protocone is rather long (see also Duerst 1908, Fig. 491a), the pli caballin is absent, except in P^{3-4} in which it is very small. A weak to absent pli caballin in the moderately worn cheek teeth is common in the asses, but rare in the horse. In the lower cheek teeth (P_{3-4} No. II/1369 and M_{1-2} No. III/794; Plates 1:4 and 1:5) the shape of the double knot is not that of a true horse, but resembles the double knot of the Asiatic ass; in addition the ectoflexid in M_{1-2} is shallow. A pli caballinid is well developed in the little worn P_{3-4} , but only indicated in the moderately worn M_{1-2} . The two measureable proximal, probably anterior, phalanges fall in size among those of *E. hemionus* from Turkmenia (data Dive and Eisenmann 1991), when plotted for their mid-shaft breadth to total length. The two distal phalanges are small and rounded.

On the basis of the small sample at hand, I believe that Duerst's equid from Anau is a kulan, thus confirming the comparisons and conclusions of Lundholm (1947) and Gromova (1949). The subspecies name *pumpellii* may be discarded as it is synonymous with *onager* Boddaert. The Anau ass is not the ancestor of any of the breeds of the domestic horse, which is a totally different species.

I was allowed to date the fragmentary proximal phalanx No. 243 from Level III. However, Dr. Högne Jungner at the dating laboratory of the Finnish Museum of Natural History, Helsinki, found no datable collagen in the bone.

Acknowledgement

My sincere thanks are due to Prof. emer. Hörning and to Dr. Marc Nussbaumer of the Natural History Museum, Bern, for tracing the equid sample among the museum's old collections and sending it for loan. My thanks are also due Dr. Jungner and his team at the dating laboratory trying hard to date a bone in the sample.

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1



2



3



4



5

Plate 1. Fig. 1. Left upper P2 (I/102) & P3-4 (I/133); Fig. 2. Right upper M1-2 (I/98?); Fig. 3. Left upper M3 (I/134); Fig. 4. Right lower P3-4 (II/1369); Fig. 5. Left lower M1-2 (III/794); (scales x approx. 1.27)