

## A critical note on the identification of horses in third-millennium BCE Mesopotamian iconography

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**Abstract:** *This note reassesses claims that certain late third-millennium BCE Mesopotamian cylinder seals depict horses. The highly schematic rendering of these impressions limits the reliability of taxonomic identification, and their anatomical features may align also with kunga, the hybrid equids produced by mating domestic donkeys with Syrian wild asses. Contemporary cuneiform sources describe kunga as prestigious draught animals, and there is abundant evidence confirming their intentional breeding during this period. Zooarchaeological data indicate that securely identified horse remains are absent from southern Mesopotamia before the early second millennium BCE, and the earliest confirmed specimens derive from northern Mesopotamia. Taken together, these lines of evidence suggest that the late third-millennium seal impressions cannot be securely interpreted as the representations of true horses and should be also considered as depictions of other equids.*

**Key words:** horse domestication; cylinder seals; *kunga*; zooarchaeology

The domestication of the horse fundamentally transformed mobility, warfare, and socioeconomic structures across Eurasia (Anthony 2007). Recent scholarship approaches this process from multiple disciplinary angles (Librado et al. 2021; Fages et al. 2019) and some authors have suggested that certain late third-millennium BCE Mesopotamian cylinder seals may depict horses (Owen 1991; Klecel & Martyniuk 2021; Niskanen 2022). These interpretations, however, vary considerably in their methodological rigor and often rely on limited or indirect engagement with the primary material. To assess these claims, it is first necessary to review the specific seal impressions that have been cited as potential evidence for early horses in Mesopotamia.

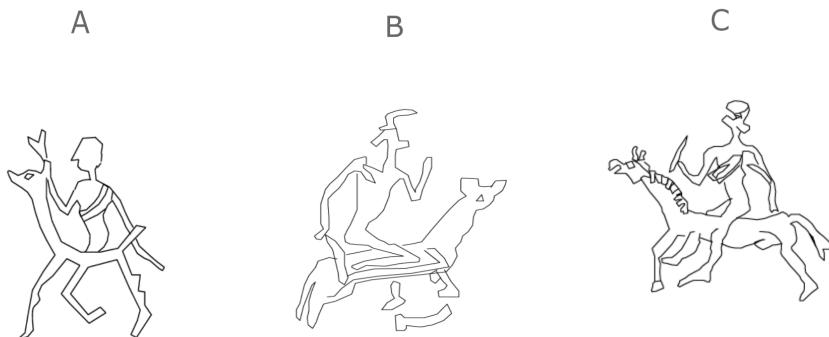
These include CBS 5028 (Legrain 1923:147, No. 154, Pl. XIV), De Clercq No. 181bis (De Clercq & Menant 1888:340, Pl. XXXVIII), and the Abbakalla seal impression (Owen 1991:260–261), all of which depict mounted equids (Figure 1). Although these seals differ in date and style, they are considered in modern discussions as putative early representations of mounted horses in Mesopotamia (Owen 1991;

Klecel & Martyniuk 2021; Niskanen 2022). The first two are dated to the Akkadian period (c. 2334–2154 BCE) based on stylistic criteria, while the last is securely dated to the Ur III period (c. 2112–2004 BCE).

The first impression, CBS 5028, from the University of Pennsylvania Babylonian Collection, was published by Léon Legrain (1923), who cautiously described the scene as “horseback?” (Legrain 1923, No. 154), explicitly signalling uncertainty regarding the identification of the animal. Zarins (2014:113) later argued that the proportions of the equid, its short upright ears, compact body, and blunt head correspond more closely to a *kunga*. *Kunga* were the hybrid equids produced by mating domestic donkeys with Syrian wild asses (*Equus hemionus hemippus*). Many Mesopotamian cuneiform sources from the third millennium BCE describe *kunga* as prestigious draught animals, and archaeological evidence from sites such as Tell Brak further supports their intentional breeding and high-status use during this period (Oates et al. 2015).

De Clercq 181bis was first published by De Clercq and Menant (1888:340) and later reproduced in the Penn Museum Bulletin (Legrain 1923:11). Although it is occasionally mentioned as a possible horse depiction, the equid does not exhibit the anatomical traits characteristic of true horses, such as an elongated neck, a refined head profile, or a developed mane.

The seal of Abbakalla is dated securely to the reign of Šu-Suen (2037–2029 BCE). The impression from Drehem was published by Owen (1991:260–261). According to this author, the depicted animal exhibits several anatomical features that appear more consistent with a true horse (*Equus caballus*) than with a donkey (*Equus asinus*), mule



**Figure 1.** Line drawings of mounted equids derived from Mesopotamian cylinder seals dated to the third millennium BCE: (A) CBS 5028 (Akkadian period; Legrain 1923); (B) De Clercq Collection, No. 181 bis (Akkadian period; De Clercq & Menant 1888); (C) Abbakalla seal impression from Drehem (Ur III period; Owen 1991). Only the equid and the rider are shown, all other seal elements are omitted.

(*Equus asinus* × *Equus caballus*), or onager (*Equus hemionus*), including a relatively elongated neck with an indicated mane, short upright ears, a bushy tail, a refined head profile, and limbs bent in a forward-moving pose—features not characteristic of donkeys, hemiones, or hybrids. For this reason, it was frequently regarded as the earliest plausible representation of horseback riding in the region (Zarins 2014:145; Niskanen 2022:5).

Unlike the more schematic equids depicted on the Akkadian seals discussed above, the Abbakalla seal appears to show a somewhat higher degree of anatomical articulation, although still rendered within the stylised conventions of Ur III glyptic art (Figure 1). However, the elements identified by Owen (1991) as typical of a horse, such as the mane, tail shape, and facial features fall within a range of morphological variation shared by different equids. Because *kunga* are well documented in the textual and zooarchaeological record, the highly schematic nature of Mesopotamian glyptic art limits the development of consistent visual criteria for distinguishing them from other equids, including horses. The features observed on the Abbakalla seal impression fall within the expected morphological overlap among equids and cannot, on their own, serve as secure taxonomic criteria in schematic glyptic representations. Moreover, any identification of mounted equids as horses must be considered against the broader background of third-millennium Mesopotamian equid management, in which *kunga* had high economic and symbolic value and played a central role in elite transport and ceremonial contexts.

Taken together, the iconographic characteristics of all these impressions point away from identification as true horses and may align also with depictions of *kunga* or even other equids. This outcome is not surprising, given that identifying equids on Mesopotamian cylinder seals is complicated by the schematic and highly conventionalised artistic style. Carved animal forms often lack anatomical precision, making features such as ear length, limb posture, or head shape unreliable indicators for identifying specific taxa.

This iconographic ambiguity becomes clearer when contextualised alongside contemporary textual sources. Textual evidence presents a coherent picture of the late and limited presence of horses in Mesopotamia. References to horses (Akkadian *sīsū*; Sumerian ANŠE.ZI.ZI / ANŠE.KUR.RA) in the Ur III administrative record are sporadic and appear mainly under the late kings of this dynasty, Šu-Suen and Ibbi-Suen (Bennett et al. 2022). This limited textual visibility contrasts sharply with the abundant documentation of *kunga*, whose economic, diplomatic, and ceremonial value is well established in late third-millennium cuneiform archives (Bennett et al. 2022). Terminology associated with equids, including ANŠE.ZI.ZI and ANŠE.KUR.RA, is frequently ambiguous, and several early lexical attestations may refer to donkeys or onagers rather than horses (Owen 1991:265-266). This pattern suggests that while

horses were probably known in southern Mesopotamia in the last decades of the 3<sup>rd</sup> millennium BCE, actual familiarity with these animals remained limited.

Zooarchaeological evidence mirrors these textual observations. No securely identified horse (*Equus caballus*) remains are known from southern Mesopotamia from the late third millennium BCE. The earliest osteological attested horse remains in the broader region derive from northern Mesopotamia, specifically from Selenkahiye, Tell es-Sweyhat, and Tell Chuera (Vila 2002; Anthony 2007). Although these assemblages are frequently cited as early evidence for *Equus caballus* during the Akkadian period, their identification and dating continue to be debated due to the well-known osteological difficulties in distinguishing horses from other sympatric equids and problems with stratigraphical position of these remains (Vila 2002:102-107).

When the iconographic, textual and zooarchaeological evidence is considered together, a coherent pattern emerges. The equids depicted on late third-millennium BCE Mesopotamian cylinder seals cannot be taken as firm evidence for the presence of early domestic horses in Mesopotamia and may instead represent *kunga*, which are widely attested in both contemporary textual sources (Owen 1991:265-266; Bennett et al. 2022) and also in the zooarchaeological record (Vila 2002; Anthony 2007). Cuneiform sources from the Akkadian and Ur III periods consistently describe *kunga* as prestigious, high-value animals employed in elite transport and ceremonial roles (Owen 1991:265-266; Bennett et al. 2022). While it cannot be excluded that horses may have been present in southern Mesopotamia during the final century of the 3<sup>rd</sup> millennium BCE, such a possibility is not supported by the currently available glyptic evidence.

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