

The Domestication of the Camel in the Ancient Near East



(Domestic camels on the Black Obelisk of Shalmaneser III, British Museum)

Introduction

The single humped camel, *Camelus dromedarius*, and the double humped camel, *Camelus bactrianus*, have been important for use as a draft animal, saddle animal, food source, and even textile source in the Near East for thousands of years. The Dromedary is the most common in the Near East, although both species have been in use by humans in the region for a long period of time. Although many claim there is a consensus within archaeological circles, in reality, scholars debate exactly when the camel was first domesticated in the Near East—for any purpose. The theories range from as late as the 9th century B.C. to as early as the beginning of the 3rd millennium B.C., depending on the availability of data, interpretation of data, and personal opinions, leaving quite a wide range of years in dispute.

The domestication debate impacts several instances of camels being used as beasts of burden prior to the 12th century B.C. within the Old Testament books of Genesis, Exodus, Judges, and Job. The word “camel” (גמל) is used in a domesticated sense 22 times in Genesis (12:16, 20:10-64, etc.), once in Exodus (9:3), 4 times in Judges (6:5, 7:12, 8:21, 8:26) and 3 times in Job (chapters 1 and 42).¹ It is clear that in these books camels are used in a domesticated sense, and often as beasts of burden.² Typically, ancient Near Eastern scholars such as Donald Redford, Israel Finkelstein, and William Albright, subscribe to as late as a 9th century view, or at earliest the end of the 12th century B.C. Donald Redford, when discussing a reference concerning camel domestication in the book of Judges, writes “anachronisms do indeed abound...camels do not appear in the Near East as domesticated beasts of burden until the ninth century B.C.”³ He refers to some of the aforementioned scholars, among others, and their writings concerning camel domestication as fellow proponents of this 9th century view. Finkelstein and Silberman state, “We now know through archaeological research that camels were not domesticated as beasts of burden earlier than the late second millennium and were not widely used in that capacity in the ancient Near East until well after 1000

¹ Although the date for the setting of Job is debatable, it is plausible to place it in a Middle Bronze context similar to Abraham, Isaac, and Jacob. There are several similarities in the texts, such as life over 140 years, wealth measured in livestock, the patriarch as the priest of the family, and no mention of the nation Israel or the Torah.

² In Egypt, Abraham is given a gift of servants and several types of domesticated animals, including “sheep and oxen and donkeys...and female donkeys and camels” (Genesis 12:16) and later one of his servants “made the camels kneel down outside the city by the well of water at evening time” (Genesis 24:11). Jacob used camels for transportation, putting “his children and his wives upon camels” (Genesis 31:17) and to own “milking camels and their colts” (Genesis 32:15). The camels in Exodus were part of the various domesticated animals of the Egyptians (Exodus 9:3), while in Judges camels are domesticated beasts of the Midianites and Amalekites (7:12). The book of Job claims that the protagonist possessed camels in the context of other domesticated animals (Job 1:3).

³ Redford, Donald B., 1992, *Egypt, Canaan, and Israel in Ancient Times*, Princeton University Press, Princeton, New Jersey, 277.

BCE.”⁴ This stance is similar to Redford’s, but allowing for the possibility of a few centuries earlier on a much smaller scale. It is interesting to note that although Redford claims camels were not domesticated in the ancient Near East until the 9th century, and Finkelstein and Silberman say they were not widely used until well after 1000 B.C., “by the middle of the ninth century cavalries were obviously well established, since at the Battle of Qarqar Shalmaneser III faced many men on horseback (and some on the backs of camels).”⁵ Albright writes that “our oldest certain evidence for the domestication of the camel cannot antedate the end of the twelfth century B.C.”⁶ His argument was based on his belief that “the oldest published reference to the camel dates from the eleventh century B.C.,” referring to an Assyrian text.⁷ This text is the Broken Obelisk, probably from the reign of Ashur-bel-kala (1074-1056 B.C.), but some of the reports on it may refer to the time of Tiglath Pileser I (1115-1077 B.C.). The obelisk resides in the British museum, and the inscription mentions the breeding of Bactrian camels. As a result, these are the dates assumed throughout most of the literature, and thus the general consensus became that there were no domesticated camels in the ancient Near East prior to the Iron Age.

As an answer to ancient texts that claim the Bronze Age use of domesticated camels, an explanation offered is the later scribal substitution of camel for some other pack animal such as a donkey. This applies to Hebrew texts such as the books of Genesis, Exodus, Judges, and Job which claim the domesticated use of camels prior to the Iron Age. Yet, concerning substitution of camel for another animal, Millard argues that a later

⁴ Finkelstein, Israel and Silberman, Neil Asher, 2001, *The Bible Unearthed*, Free Press: New York, 37.

⁵ Drews, Robert, 1993, *The End of the Bronze Age*, Princeton University Press, Princeton, New Jersey, 165.

⁶ Albright, W.F., 1951, *The Archaeology of Palestine*, Penguin Books, Harmondsworth, Middlesex, 207.

⁷ *Ibid*, 206.

writer making modifications in the text in an attempt to emphasize the wealth of the patriarchs would not substitute ‘camel’ but instead ‘horse’, since horses were expensive and valuable during the Iron Age.⁸ This is a plausible assertion that demonstrates a textual emendation from “horse” or another animal to “camel” would be highly unlikely. Further, there are cuneiform texts which suggest the use of domesticated camels in the Bronze Age that could not be attributed to later scribal emendations or copying error. Still, the general consensus by ancient Near Eastern scholars over the last several decades has been that camels were not domesticated in the area until the Iron Age.

Camels as Imports from the East

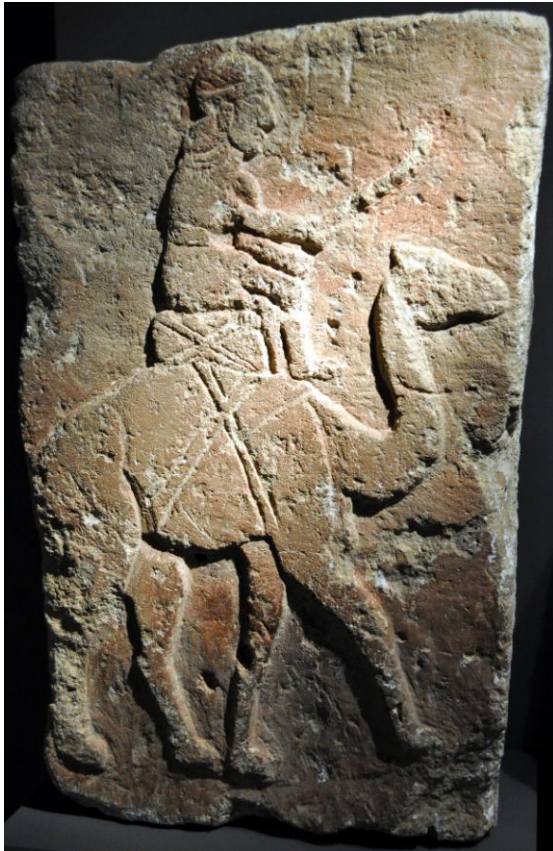
Assuming that those who subscribe to a 12th century or later view for the domestication of the camel in the ancient Near East are correct, there is still the possibility that domesticated camels existed in the Near East before the 12th century as imports from the East, instead of being locally domesticated. Daniel Potts presents this possibility, suggesting that camels were domesticated in the area of eastern Iran long before the 12th century B.C., and brought west for trade.⁹ Therefore, domesticated camels may have been in use in the Near East prior to the 12th century B.C. and the beginning of the Iron Age through trade, and the people of the Near East may soon have learned to domesticate their own local camels.

Evidence for Early Camel Domestication

⁸ Millard, A.R, 1980, “Methods of Studying the Patriarchal Narratives as Ancient Texts,” *Essays on the Patriarchal Narratives*, ed. A.R. Millard, D.J. Wiseman, InterVarsity Press, Leichester, pp.43-56, 50.

⁹ Potts, Daniel, 2004, “Bactrian Camels and Bactrian-Dromedary Hybrids,” downloaded 27th November 2005 from <http://www.silkroadfoundation.org/newsletter/vol3num1/7_bactrian.php> based on Potts, Daniel, 2004, “Camel hybridization and the role of *Camelus bactrianus* in the Ancient Near East,” *Journal of the Economic and Social History of the Orient*, 47:143-165

However, numerous discoveries have turned up in several areas of the Near East arguing for a much earlier domestication date. First, an Aramean camel-rider carving on display in the Walters Art Museum, Baltimore, dated to ca. 1000-900 B.C. refutes the latest suggested date of the 9th century B.C. The artifact was found at Tell el-Halaf in Mesopotamia by Max von Oppenheim, who had originally dated the piece to the early 3rd millennium B.C.¹⁰



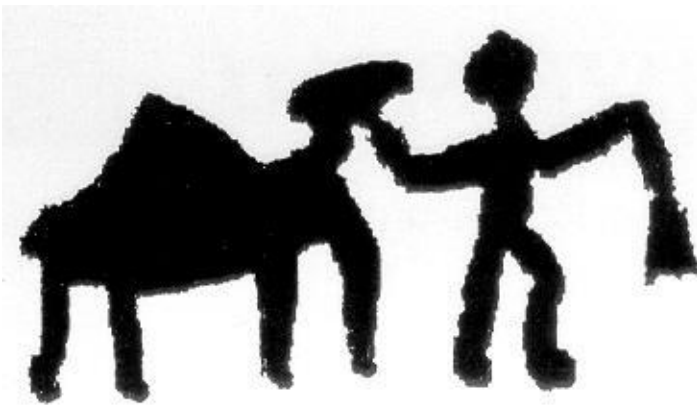
(Aramean rider on a camel. Walters Art Gallery.)

This carving predates the theory of several scholars by at least century, and forces a recalibration of their theory. Moving past the 9th century theory and scrutinizing a 12th

¹⁰ Oppenheim, Max von Freiherr, 1931, *Der Tell Halaf: Eine neue Kultur im ältesten Mesopotamien*. F.A. Brockhaus, Leipzig, 140.

century theory, the same problems are discovered. In Lower Egypt, Petrie found a dromedary statuette which appears to be carrying two water jars. Based on provenance and the style of the pottery and the water jars, Petrie concluded the artifact was in fact from the 19th dynasty, dated between 1292-1190 B.C.¹¹

A slightly earlier attestation from Egypt, ancient petroglyphs representing domesticated camels have been discovered next to Proto-Sinaitic inscriptions on a rock face in the Wadi Nasib.¹² To the right of the aforementioned inscriptions, are two “distinctive animal petroglyphs—camels—that were represented as walking caravan style across the rock to the right (easterly direction).”¹³ Although the first camel has been partially defaced, the trailing camel is distinct and easily identifiable as a Dromedary. “The lead camel appears to be followed by a walking man. A second walking man is clearly leading the trailing camel.”¹⁴ Next to these inscriptions is an Egyptian hieroglyphic inscription translated as “Year 20 under the majesty of the king of Upper and Lower Egypt Nema’re’, son of Re’ Ammenemes, living like Re’ eternally.”¹⁵



¹¹ Ripinsky, Michael, 1983, “Camel Ancestry and Domestication in Egypt and the Sahara,” *Archaeology* 36:21-27, 27.

¹² Gerster, Georg, 1961, *Sinai*, Darmstadt, Germany, 62.

¹³ Younker, Randall W., 1997, “Bronze Age Camel Petroglyphs In The Wadi Nasib, Sinai,” *Near East Archaeological Society Bulletin*, 42:47-54, 49.

¹⁴ *Ibid*, 49.

¹⁵ Gardiner, A. H., and Peet, T. E., 1955, *The Inscriptions of Sinai*. Vol 2. Egypt Exploration Society, London, 76.

(Petroglyph of a man leading a Dromedary camel. Younker 1997: fig. 3)

With boundaries of Ammenemes III, a 12th Dynasty ruler in the 19th century B.C., and the Proto-Sinaitic inscriptions in the 15th century B.C., with no current evidence for activity in the area much later than ca.1500 B.C., the camel petroglyphs could be dated to sometime in between.^{16, 17} Therefore, one can safely assert that humans began using camels as a pack animal in this area no later than the 16th century B.C.

From the Levant, a Syrian cylinder seal dated ca. 1800 B.C. depicts two small figures riding on a two-humped camel.¹⁸ It could be argued that the riders are gods, not humans, possibly indicating that the artist believed humans could not ride the camel at that time, but this is merely an assumption. In Macdonald's analysis of camel warfare in ancient Arabia, he notes that it was customary for two riders to share a single camel. He writes, "they would use the camel to get them to and from the battle, often riding two to a camel, but would dismount to fight. If defeated, they would remount and flee, again often two to a camel, with one rider trying to ward off the pursuers with his bow."¹⁹ While the knowledge of this practice comes from a later period, it demonstrates the plausibility of the two riders sharing the camel being men rather than gods.

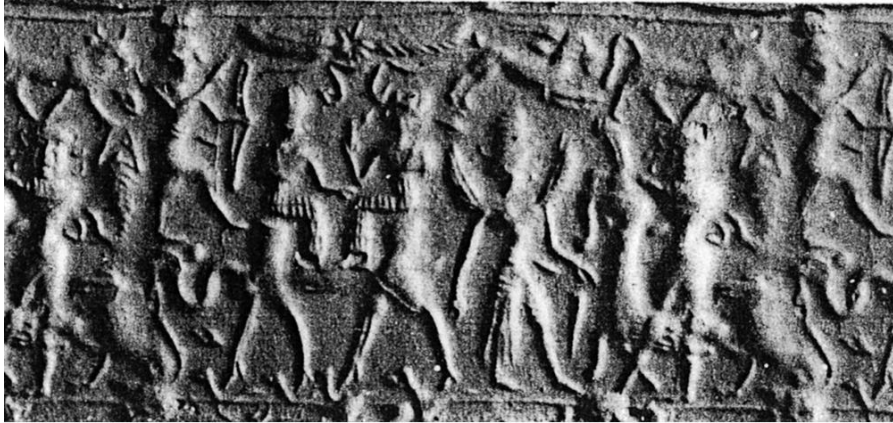
¹⁶ Naveh, Joseph, 1982 *Early History of the Alphabet: an Introduction to West Semitic Epigraphy and Paleography*, The Magnes Press, Jerusalem, 26.

¹⁷ Younker, 1997, *Near East Archaeological Society Bulletin* 42, 49.

¹⁸ Barnett, Richard D., 1985, "Lachish, Ashkelon and the Camel: A Discussion of Its Use in Southern Palestine" in: J.N. Tubb, ed. *Palestine in the Bronze and Iron Ages*.

Papers in Honor to Olga Tuffnell, London, Institute of Archaeology, pp. 16-30, 16.

¹⁹ MacDonald, 1995, "North Arabia in the First Millennium BCE," 1363.



(Syrian cylinder seal depicting a Bactrian camel. Collon 2000: Fig. 8)

Another figurine that appears to suggest an early date for camel domestication is found in the Metropolitan Museum of Art in New York City (53.117.1). The figurine is a small copper alloy statue of a Bactrian camel, equipped with what appears to be a some type of harness. The artifact is dated to between the late 3rd and early 2nd millennium B.C., from Bactria-Margiana. Thus, there is evidence for early camel domestication from

several geographical areas of the ancient Near East.



(Bactrian camel with a harness, Metropolitan Museum of Art.)

Inscriptional and Documentary Evidence

The English word for camel comes from the Latin *camelus*, which comes from the Greek *kamelos* (κάμελος), which comes from the Hebrew *gamal* (גמל). The Hebrew *gamal* is closely associated with another Semitic form, the Akkadian *gammalu*. Many Akkadian words have their origins in the Sumerian language, and *gammalu* is one of the words which contains a Sumerian ancestor in its logograms. Regular usage of Sumerian pre-dates the late views for the domestication of the camel, and it is interesting to note that Sumerian actually has two words for camel, (ANSE.A.AB.BA; ANSE.GAM.MAL),

meaning donkey or ass of the sea, and donkey or ass of the mountains, respectively.²⁰ Potts discusses the differences between the Bactrian and the Dromedary camel, demonstrating how the Dromedary is more suited to the desert and arid climates, while the Bactrian is more suited to the mountains and colder weather.²¹ These two variations of the Sumerian word for camel may be a reflection upon the differences of the Bactrian and the Dromedary. Although Sumerian having a word for an animal by no means suggests that it was domesticated in that society, it demonstrates that the animal was known by the civilization at an early date. Yet, neither species of camel originates in Sumerian areas, suggesting the geographical spread of the species. Further, more than merely passing mentions of the camel are extant in Sumerian documents; in at least two translated Sumerian texts it is used in a domesticated context. A Sumerian text found at Nippur from the Old Babylonian period, ca. 1950-1530 B.C., “gives clear evidence of the domestication of the camel by that time, for it alludes to camel’s milk.”²² Another text mentions “a Camel in a list of domesticated animals during the Old Babylonian period (1950-1600 BC) in a Sumerian Lexical Text from Ugarit.”²³ The presence of a word for camel associated with the domesticated pack animal the donkey, a text stating camels were milked, and a camel on a list of domesticated animals demonstrates the possibility

²⁰ Black, Jeremy; George, Andrew; Postgate, Nicholas, eds., 2000, *A Concise Dictionary of Akkadian*, Harrassowitz Verlag, Wiesbaden, 89.

²¹ Potts, Daniel, 2004, “Bactrian Camels and Bactrian-Dromedary Hybrids,” downloaded 27th November 2005 from

<http://www.silkroadfoundation.org/newsletter/vol3num1/7_bactrian.php> based on Potts, Daniel, 2004, “Camel hybridization and the role of *Camelus bactrianus* in the Ancient Near East,” *Journal of the Economic and Social History of the Orient*, 47:143-165.

²² Archer, Gleason, 1970, “Old Testament History and Recent Archeology from Abraham to Moses” *Bibliotheca Sacra* 127:505 pp. 3-25, 17.

²³ Davis, John J., 1986 “The Camel in Biblical Narratives,” in *A Tribute to Gleason Archer: Essays on the Old Testament*, Chicago, Moody Press: pp.141-150, 145.

that the camel was used in a domestic context during the Old Babylonian period, although perhaps infrequently.

Three texts dating to approximately the same period attest to domesticated camel use. A Sumerian text found at Nippur from the Old Babylonian period, ca. 1950-1530 B.C., “gives clear evidence of the domestication of the camel by that time, for it alludes to camel’s milk.”²⁴ Another text mentions “a Camel in a list of domesticated animals during the Old Babylonian period (1950-1600 BC) in a Sumerian Lexical Text from Ugarit.”²⁵ The third text comes from a cuneiform ration list found at Alalakh in the Level VII Middle Bronze Age city. This particular Alalakh tablet (269:59) reads “1 SA.GAL ANSE.GAM.MAL, ‘one (measure of) fodder—camel.’”²⁶ Here we have a text stating that camels in the city were given food rations, an action which would only be done for a domesticated animal. As one can see, there is ample evidence from the 2nd millennium B.C. in multiple areas of the ancient Near East.

However, evidence for camel domestication goes back even into the 3rd millennium B.C. The second set of camel petroglyphs in Egypt come from a rock carving near Aswan and Gezireh in Upper Egypt. This carving depicts a man leading a dromedary camel with a rope, along with 7 hieratic characters to the left of the man.



²⁴Archer, Gleason, 1970, “Old Testament History and Recent Archeology from Abraham to Moses” *Bibliotheca Sacra* 127:505 pp. 3-25, 17.

²⁵ Davis, John J., 1986 “The Camel in Biblical Narratives,” in *A Tribute to Gleason Archer: Essays on the Old Testament*, Chicago, Moody Press: pp.141-150, 145.

²⁶ Wiseman, Donald J., 1959, “Ration Lists from Alalakh VII,” *Journal of Cuneiform Studies* 13:19-33, 29.

(Petroglyph of a man leading a Dromedary. Ripinsky 1985: fig 2)

The entire carving was dated to the 6th Dynasty of Egypt, ca. 2345-2181 B.C., based on the inscription, the style, and the patina.²⁷ This places the use of domesticated camels in Egypt at least as early as ca. 2200 B.C.

Other objects from Egypt include a lime-stone container, missing the lid, in the shape of a lying Dromedary carrying a burden from a first dynasty tomb at Abusir el-Meleq,²⁸ and a terra cotta tablet with a depiction of men riding and leading camels, dated to the pre-dynastic period.²⁹



(Container shaped as a Dromedary with a burden, Berlin Egyptian Museum)

In Turkmenia, Altyn-depe, excavations revealed models of carts with camels yoked to them, in contrast to horses or cattle in other areas. The artifacts representing this utilization are “terracotta models of wheeled carts drawn by Bactrian camels.”³⁰ “This type of utilization goes back to the earliest known period of two-humped camel

²⁷ Ripinsky, 1985, *Journal of Egyptian Archaeology* 71, 138.

²⁸ Ripinsky, Michael, 1985, *Journal of Egyptian Archaeology* 71, 136.

²⁹ Free, Joseph P., 1944, “Abraham’s Camels,” *Journal of Near Eastern Studies*, 3:187-193, 189-190.

³⁰ Kohl, P. L., 1992 “Central Asian (Western Turkestan): Neolithic to the Early Iron Age.” in Ehrich, R. W., ed., 1992, *Chronologies in Old World Archaeology*, University of Chicago Press, Chicago and London: pp. 179-195, 186.

domestication in the third millennium B.C.”³¹ This is important not merely because it demonstrates the use of domesticated camels, but the date of the stratigraphic context in which it was found is quite astonishing—3000 to 2600 B.C.³² This discovery is reminiscent of the camel figurines with saddles found in a 2nd millennium B.C. context in Yemen, both of which show very early use of camels as pack animals and mounts.³³

Finally, bioartifacts of camel bones, dung, and woven camel hair dated to 2700-2500 B.C. have been discovered at Shahr-i Sokhta in Iran, preserved in jars.³⁴ This “reinforces the suppositions that these are domestic stock and that the Bactrian was domesticated slightly earlier at the border of Turkmenistan and Iran.”³⁵ In addition to the findings in Iran and Turkmenia, discoveries of camel bones in a 3rd millennium context have been discovered at the Levantine sites of Arad and Jericho.³⁶ At the sites of Umm an-Nar and Ras Ghanada in Abu Dhabi, fauna from a late 3rd millennium context included a large collection of camel remains, along with limited remains of domestic cattle, sheep, and goats.³⁷ Woven camel-hair rope dated to the 3rd or early 4th dynasty was also found in Egypt at Umm es-Sawan.³⁸ At the very least this suggests that the camel was used at these sites as a food source, but likely in some domesticated sense, since camels usually would have been kept outside of settlements and lived and died primarily

³¹ Bulliet, Richard W., 1990, *The Camel and the Wheel*. Columbia University Press, 183.

³² Renfrew, Colin, 1987, *Archaeology and Language*, Penguin Books, Harmondsworth, Middlesex, 201.

³³ Meyers, Eric M., ed., 1997, 407.

³⁴ Wapnish, Paula, 1981, “Camel Caravans and Camel Pastoralists at Tell Jemmeh,” *Journal of the Ancient Near East Society*, 13:101-121, 104-105.

³⁵ Meyers, Eric M., ed., 1997, *The Oxford Encyclopedia of Archaeology in the Near East*, Oxford University Press, Oxford, 407.

³⁶ *Ibid*, 407.

³⁷ Hesse, Brian, 1995, “Animal Husbandry and Human Diet in the Ancient Near East” in J. M. Sasson ed., *Civilizations of the Near East*, Vol. 1, Charles Scribner’s Sons, New York, pp. 205-218, 217.

³⁸ Ripinsky, Michael, 1985, “The Camel in Dynastic Egypt,” *Journal of Egyptian Archaeology* 71:134-141, 138.

in the steppe areas.³⁹ Thus, finding camel bones or other biological artifacts in a settlement excavation is highly unlikely, and it follows that scribes, based in urban settlements, would not often mention the camel. This is a plausible rationale for the limited amounts of excavated camel remains and texts mentioning camels in any capacity.

Conclusion from the Data

As a result of the aforementioned data, many archaeologists now believe the domestication of the camel occurred sometime in the 3rd millennium B.C. Scarre states an early domestication date for both species of camel, writing that “both the dromedary (the one-humped camel of Arabia) and the Bactrian camel (the two-humped camel of Central Asia) had been domesticated since before 2000 BC.”⁴⁰ Other scholars, such as Saggs, also agree with an early camel domestication date by “proto-Arabs” of the arid regions of the Arabian Peninsula.⁴¹ Macdonald’s research in southeast Arabia has apparently revealed more evidence. According to him, camels were probably first domesticated for milk, hair, leather, and meat, and subsequently travel across previously impassible regions in Arabia as early as the 3rd millennium B.C.⁴² For those who adhere to a 12th century B.C. or later theory of domestic camel use in the ancient Near East, a great deal of archaeological and textual evidence must be either ignored or explained away. Bones, hairs, wall paintings, models, inscriptions, seals, documents, statues, and stele from

³⁹ Kramer, Carol, 1977, “Pots and People,” in Levine, L. D. and Young, T. C. *Mountains and lowlands: Essays in the archaeology of greater Mesopotamia; Bibliotheca Mesopotamica*. Vol. 7, Udena Publications, Malibu: pp. 91-112, 100.

⁴⁰ Scarre, Chris, 1993, *Smithsonian Timelines of the Ancient World*, DK Adult, 176.

⁴¹ Saggs, H.W.F., 1989, *Civilization Before Greece and Rome*, Yale University Press, New Haven and London, 19.

⁴² MacDonald, M. C. A., 1995, “North Arabia in the First Millennium BCE.” in J. M. Sasson ed., *Civilizations of the Near East*, Vol. 2, Charles Scribner’s Sons, New York, pp. 1355-1369, 1357.

numerous archaeological sites all suggest the camel in use as a domestic animal during the 3rd millennium B.C. in the ancient Near East. The wide geographical and chronological distribution of findings related to camel domestication further strengthen the argument that the camel was domesticated far before the 12th century B.C., and with each new discovery the evidence will likely reinforce this theory.

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