CAMELS IN THE BIBLE

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INTRODUCTION

Recently headlines and front page stories appeared in the worldwide media proclaiming that “camels had no business in Genesis” and that “there are too many camels in the Bible, out of time and out of place”, to quote two typical announcements. These were ostensibly based on a report that appeared in the scholarly journal *Tel Aviv*, in which two archaeologists at Tel Aviv University (TAU), from the Department of Archaeology and Near Eastern Cultures, reported their findings. The two used carbon dating results on camel bones extracted at the ancient copper smelting sites in the Aravah Valley in Israel and the nearby Wadi Faynan in Jordan. Based on a rigorous analysis of the data they concluded that camels did not appear in that region, and by extension also in adjacent areas of the Southern Levant, “earlier than the last third of the tenth century BCE (930-900) and most probably [the camels first appeared] during that time.” Since the early Israelite patriarchs lived in the first half of the second millennium BCE, many centuries before the time frame in the TAU report, biblical mentions of the camel in the patriarchal era must be anachronisms, that they are “telling evidence that the Bible was written or edited long after the events it narrates, and is not always reliable as verifiable history.”

The fact is that archaeologists have maintained for decades that domesticated camels were not employed in the Levant until well toward the end of the second millennium BCE, no earlier than ca. 1200 BCE (the beginning of the Iron Age). Moving this date from 1200 BCE to 900 BCE does not much affect the perceived conflict with the biblical text, since Abraham is to be dated closer to the beginning of the second millennium BCE and the text has quite a bit to say about his camels. The anachronism label has thus been applied in this context for quite some time now.

However, the anachronism label is as misguided today as it was in the past. For, as this essay will demonstrate, it is based on multiple misunderstandings of both the biblical narratives and the process of domestication.

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THE BIBLICAL NARRATIVE

Domesticated camels are mentioned more than twenty times in the patriarchal narratives (in Genesis), sixteen of these mentions appear in the context of one event. This occurs when Abraham’s servant takes ten of his master’s camels (Gen. 24:10) to Aram, where he was sent by Abraham to arrange for a wife for his son Isaac. The purpose of his taking along what amounts to a caravan of camels was to impress the prospective bride and her family with the great wealth of the prospective groom and his family. The underlying message clearly was that the bride can be assured of a lifetime of security and plenty with the groom, and that her family will be amply rewarded for agreeing to the match. The text informs us in connection with these ten camels that the servant set out with all the wealth of his master in his hand (24:10). Then we overhear him telling Rebecca’s family, God has much blessed my master (Abraham) and he became great; He has given him sheep, cattle, silver and gold, servants and maids, camels and donkeys (24:35). The camels were there as a visual display of that great wealth, they represented a large component of the wealth of his master in his hand.

By what means did Abraham acquire this great wealth? The answer to this question is provided earlier in the text, when a famine in Canaan sends Abraham to Egypt. Abraham’s beautiful wife Sarah is taken by Pharaoh who, in return, bestows great gifts upon Abraham on account of her, giving him sheep, cattle, donkeys, servants, maids and camels (12:16).

Did Abraham possess camels prior to his encounter with the king of Egypt? This is highly unlikely. Some time earlier Abraham and his family left the city of Ur in Southern Mesopotamia, headed to the land of Canaan (11:31). But if Canaan is their destination why don’t they go that way? Instead of heading in a westerly direction, they take a much longer inverted-U-shaped route, going around the large Syro-Arabian desert, through Harran, which is hundreds of miles north of their destination. Clearly they did so to circumvent the harsh and difficult desert. But camels, unlike donkeys and horses, are very much adapted to just such conditions. They are fast, carry much heavier loads than donkeys, their thick footpads are well suited to walking on sand, they can go for many days without food and water, they have physical features for keeping the desert wind-driven sand out of their eyes and nos-
trils, and if they do need to eat they happily feast on thorns and twigs. Had Abraham possessed camels at this point, he surely would have gone straight across the desert, thereby significantly reducing both the distance and duration of the journey.

No doubt, the source of Abraham’s camels, together with the other listed items, is the gift from the king of Egypt. At the time of the servant's encounter with Rebecca, Abraham’s herd may still have included some of these camels, as camels tend to have life spans in excess of forty-five years. Most likely, however, many of the camels at that event were offspring of the original camels he received.

But how did the Pharaoh of Egypt get his hands on camels, which did not even exist in the wild in his land? Most likely Pharaoh obtained these exotic animals either as a gift from an Arabian camel herder or he traded/bartered for these uniquely capable and useful creatures. I say ‘Arabian’ because by all accounts (to be discussed later) the earliest domestication of the Dromedary camel occurred on the Southern Arabian Peninsula, a point also made by the authors of the TAU report.

While we are discussing Abraham’s camels let us pause to note that the list of gifts he receives from Pharaoh does not include horses. Why is this so? If camels were inserted anachronistically into the text by later writers, as the critics insist, why would these later writers or editors, who certainly were as familiar with the horse as the camel and their later abundant presence in Egypt, not have also inserted horses, another very valuable and useful animal? One explanation would be that the text actually reflects reality, contrary to the assertions of the media articles cited earlier. We know that horses did not arrive in Egypt until the influx of the Hyksos people into that country, ca. 1800-1600 BCE. It is therefore quite possible that the earlier Pharaoh of Abraham’s time (ca. 2000 BCE) did not have horses to give away as gifts, but he did have camels.

After Isaac greets the returning servant and his future wife, Rebecca, who come back with at least some of Abraham’s camels (24:61), we encounter no camels in the text for Isaac, even after he becomes very wealthy (26:13-14). He has sheep and cattle and many servants, but no camels are mentioned. It is reasonable to understand that Isaac did not have any camels, and the text reflects this reality. His father may have given his few remaining camels to his
other sons (see Gen 25:6), or they died, or he traded them away, or some combination of these occurred. Clearly camels are not prevalent at this time, certainly not as common or accessible as sheep and donkeys.

Nor do camels appear when Isaac’s son, Jacob, flees for his life to his uncle and future father-in-law, Laban (29:1). When Jacob encounters his future wife, Rachel, at the well along the way, she comes to provide water for her father’s sheep, with nary a camel in sight (29:6, 10). Jacob converses with the locals at the well; they speak of watering sheep, not camels. Only many years later, after Jacob gets to be very wealthy, in Harran, are we informed that he possesses many sheep, and servants, donkeys and camels (30:43). The text here explicitly applies the term ‘many’ to the sheep, not to the others listed. Jacob’s success is a result of his work with Laban’s sheep. No mention appears of Laban possessing camels (30:31-42).

When Jacob later meets his brother Esau and wants to appease him, Jacob’s gift consists of hundreds of goats, rams and ewes and only fifteen pairs of nursing camels with their colts, among other items (32:16). If he owns any spare adult male camels Jacob is evidently not willing to part with them, probably because this would strengthen Esau’s hand in any future battle against him.

A few years later, when his sons make the long trek from Canaan to Egypt three times, twice for the purpose of bringing back to Canaan as much food as possible, traveling across the harsh desert of the Sinai Peninsula, they journey on donkeys, not on camels (42:26, 27; 43:18, 24; 44:3, 13). This is so despite the fact that camels can carry far greater loads and travel quite a bit faster than donkeys, are much better adapted to traveling across sandy terrain, and do not need to be fed and watered as frequently. As it is they needed to load food and water for those donkeys on the donkeys, thereby displacing food for humans, and had to stop to feed them (probably multiple times) along the way (42:27).

Even Pharaoh does not now send camels to help bring his vizier’s father, Jacob, and his family and belongings to Egypt (45:17-19). Instead, he sends donkeys. The vizier himself, Joseph, also sends loaded donkeys, not camels, to his father in Canaan.

Why did the anachronistic later writers or editors of the Bible, according to the critics, not see fit to insert camels into the text here, where it would make
much sense and the narrative actually ‘calls’ for it? The explanation is that the text accurately reflects the reality on the ground at the time. Domesticated camels are rare, far less common or accessible than donkeys at this time; even the king of Egypt and his powerful vizier have none to exploit.

Before becoming vizier of Egypt, Joseph is sold by his brothers into slavery to a caravan of Ishmaelites on camels (37:25-27). The caravan of camels was directed by men of stature, Midianites, merchants (anashim Midianim soharim, in the Hebrew text). The Ishmaelites were apparently hired by the owners of these camels, the wealthy Midianites of stature, and it is the Midianites who actually purchase Joseph. Once again we encounter camels in the possession of wealthy individuals, men of stature, not ordinary folk.

During the years of famine in Egypt, we are informed that the people brought their livestock to Joseph, horses, sheep, cattle and donkeys (47:17). When these were, in turn, exhausted the people deeded their parcels of land to Pharaoh (47:18-20). No camels appear here, in this context of ordinary Egyptians desperately seeking to barter anything they own for foodstuffs. Yet horses do appear in the list, for the first time in the book of Genesis, together with other species of mammals. This reflects reality quite well. The extensive migration into Egypt of Canaanites is now in full swing, a development that was later to lead to the Hyksos takeover of the northern part of the country (ca. 1700-1550 BCE). History and Archaeology inform us that these migrants brought their horses and chariots to Egypt, but not camels. It seems that the biblical writers were familiar with the conditions in Egypt at this time: no camels, but horses have arrived.

Contrast this absence of camels with Moses’ message to a later pharaoh, just prior to the fifth plague. Behold the hand of God will be upon your livestock, in the field, upon the horses, the donkeys, camels, cattle and sheep, a very severe epidemic (Ex. 9:3). This occurs centuries after the Joseph story and, lo and behold, camels appear in the mix of species present in Egypt. Since Moses is addressing Pharaoh directly, it is possible that even at this later date, the common Egyptians do not own camels.

So far we have examined all mentions of camels in the book of Genesis and the single mention in the book of Exodus, and some of the contexts where the camel is conspicuously absent in these books. Turning now to the rest of the Pentateuch, we note that the appearance of camels in the books of Leviticus
and Deuteronomy on the list of prohibited (to eat) animals (Lev. 11:4, Deut. 14:7) does not, of course, indicate that the Israelites possessed any of these animals, just that they were aware of their existence. The same must, after all, be said of many of the land, sea and air creatures listed in this context. The only animals brought out of Egypt by the Israelites are sheep and cattle, as reported in the text (Ex. 12:32, 38). This too is indicative of the dearth, if not the absence, of domesticated camels in Egypt at this time, at least as far as ordinary people were concerned.

The long trek undertaken by Balaam and his party at the behest of Balak, the king of Moab, in order to curse the Israelites, all the way from Pithor in Aram (up north) to Moab (down south), a journey of hundreds of miles (Num. 22:5, Deut. 23:5), takes place on donkeys, not camels (Num. 22:21-22). In the following battle against the Midianites, the Israelites capture many donkeys and sheep and much cattle (Num. 31:28, 30, 32-40, 43-46), but no camels appear in the list. Both of these facts also speak to the dearth of camels in the Middle East at this time (post Exodus).

We have seen more than enough by now to conclude that the early mentions of domesticated camels in the Bible are all owned by powerful or wealthy individuals, and even these are isolated and limited events. We also encountered quite a few occurrences where the presence of the camel would have had a beneficial impact but is conspicuously absent from the narrative.

To better understand what all this represents and why this was so, we must examine the process whereby animals are tamed and domesticated, with particular attention to the camel.

DOMESTICATION OF THE CAMEL

Before a species can become ‘domesticated’, that is, a substantial number of its member organisms are ‘dependent on man and will stay close to him and be exploited by him of their own free will’, the species must first exist in the wild, in the ‘feral’ state. There can therefore be no disputing the notion that prior to the appearance of domesticated camels in the Levant, which the authors of the TAU study date to ca. 930-900 BCE, camels existed in the feral state, if not in the Levant itself, then in some other region accessible to it. Indeed, the authors concede the existence of artistic depictions of, and (extra-biblical) textual references to, camels and even reports of assemblages of
camel remains going as far back as the Neolithic Age (prior to 2000 BCE). They hasten to point out, however, and correctly so, that “these assemblages are meager, most probably represent wild animals and at most represent the acquaintance of ancient people with wild camels”. At least feral camels, if not also domesticated ones, are attested in the region of the broader Middle East many centuries before the first millennium BCE. The camels were then relatively few in number and likely hunted for their meat, hides and hair, all of which are valuable and useful commodities.

The process of domestication is generally a slow and tedious undertaking, one that can take centuries or millennia to achieve, depending on the species. The usual procedure most likely consisted of capturing an orphaned or abandoned infant camel, and then raising it while seeking to learn, with much trial and error, how to establish a bond of trust and comfort with the growing creature. If the animal turned out to be aggressive or otherwise uncooperative, as surely happened countless times, the experiment failed. A new attempt, with another youngster, was then to be launched. With some luck and much trial and error, it is possible, over the course of many years, to establish a small herd of male and female tamed animals. Then the process of selectively breeding this herd of docile animals to produce more like them can begin.

The process of selective breeding is inherently a genetic one, whether the ancient human overseers understood this or not. Over the course of many generations the behavior, morphology, physiology, reproductive patterns and other traits of the captive herd evolve to become significantly different from their wild ancestors and cousins, to the perceived benefit of humans. Part of the process is to keep removing overly aggressive individuals from the herd (releasing or killing them). This has been the case with all domesticated species, to one extent or another, from horses to pigs to cattle to dogs and the many others, and camels are no exception. The process is, however, fraught with difficulties and uncertainties. Too restrictive an in-breeding regime usually results in high rates of contagious diseases and birth defects, increased vulnerability to environmental changes and other negative effects of low genetic diversity. These will have devastating effects on the population of the herd. Too lenient a breeding program, on the other hand, in which feral individuals are repeatedly introduced (for mating, called ‘hybridization’) into the
herd, tends to work against the selection and domestication process and causes it to become more prolonged. This drawn out procedure must have taken particularly long with camels due to their long gestation periods (more than a year) that yield only one offspring per pregnancy and the camel’s high rate of infant mortality (even today).  

Domestication always leads, over time, to a vast increase in the population of the species. Humans protect their valuable domesticated animals against predation, environmental disasters, contagious diseases and starvation, all factors that take their toll of the feral population. In addition, humans encourage and facilitate breeding within the herd. 

The net result is that there always is a rather long ‘transition period’, one that begins with a relatively small population of feral and domesticated animals and ends with a far greater population of primarily (if not exclusively) domesticated animals of the same species, albeit in modified form. The evidence in the case of the Dromedary is that the original feral population in the Middle East-Africa region was meager indeed, whereas today there are an estimated fourteen million of these camels in the same region. The duration of this transition period varies from species to species and is dependent upon, among other factors, the degree of docility within the original feral population. 

A key question to resolve pertaining to the domestication of any species is whether there was one ‘focus of domestication’, that is, domestication occurred at one location at one time, such that all the domesticated animals of that species trace their ancestry to that event, or were there multiple ‘foci of domestication’ (either in time or place or both). In the case of the camel, the mitochondrial DNA (mtDNA) data suggests different domestication events for the one-humped Dromedary and the two-humped Bactrian. Combining the genetic data with the historical and archaeological evidence leads to one focus of domestication for the Dromedary in the Southern Arabia Peninsula sometime between 3000 and 2500 BCE, and another focus of domestication for the Bactrian in Eastern Central Asia at about 2000 BCE. The healthy genetic diversity of both types of camels cannot therefore be attributed to multiple foci of domestication. Instead it is indicative of ongoing hybridization of the growing domesticated populations, during the transition period, with their
feral cousins. This would, of course, tend to extend the duration of the transition period.19

By way of comparison, the major focus of domestication for the horse has been identified to be the broad area of the Eurasian Steppes, at about 3500 BCE or somewhat earlier, although other foci of domestication cannot be ruled out. By 2000 BCE horses were pulling chariots in Eurasia, and by 1500 BCE domesticated horses were well ensconced in the Levant and Egypt. Donkeys were first domesticated in Northeast Africa sometime between 4000 and 3000 BCE, and were well established as such in the entire Middle East by the third millennium BCE.

THE GENESIS CAMELS

We are now in a position to derive some general conclusions from a synthesis of the previous two sections. One, it is reasonable to expect an extended period of time, likely many centuries, during which the population of domesticated dromedary camels grew from a meager few individuals in particular locations to its becoming a common feature of everyday life in large swaths of the Middle East and Northern Africa. Two, during this transition period we expect domesticated dromedaries to be relatively rare and expensive; only the very powerful or wealthy would have had the wherewithal to possess these useful animals.

This time frame fits the Genesis narratives quite well. Both Abraham and Jacob live centuries after, and a thousand miles from, the focus of the Dromedary’s domestication in Southern Arabia. Abraham obtains his camels from none other than the king of Egypt, who himself obtained them, most likely, from Arabian traders who may have transported them from Southern Arabia across the narrow Red Sea into Africa, and from there northward into Egypt. The wealthy Jacob obtains his camels while in Harran; these may well have been Bactrians who were domesticated further east, centuries before Jacob’s time. The Midianite merchants hail from Northwest Arabia, as presumably do their Ishmaelite hired hands, so they were in a position, by dint of location, time and economic condition, to get their hands on some rare domesticated dromedary camels.

All of these are limited and isolated developments, not indicative of widespread domestication. There is therefore no reason to expect, on the basis of
the Genesis narratives, camel remains in the Aravah from the second millennium BCE. Just because a few wealthy individuals are passing by the Levant with a few camels, one bringing them from the west (Abraham from Egypt) and the others from the northeast (Jacob and the Midianite merchants), that is, from outside the Levant,\textsuperscript{20} does not imply that we ought to be finding camel remains in the south, either in the Aravah Valley’s copper smelting area or in the broader Southern Levant region. And due to the relatively small number of camels involved we ought not to expect to find camel remains from this period even further north, in the settled areas.

On the other hand, let us note the absence of camels in the Genesis narratives in the many contexts where they would be expected to appear based on the narratives, as discussed earlier. Note also the absence of horses in all the Genesis narratives, except for the very end in Egypt (47:17). The textual data actually display the writers’ familiarity with conditions at the time. This is something we would definitely not expect from writers centuries later. The reasonable conclusion is that the narratives at issue were first recorded contemporaneously with the events they describe.

OTHER BIBLICAL CAMELS

In the Book of Judges we encounter the Israelites when they are, at a point in time, subjected to attacks and raids by the Midianites. These Midianites are described as numerous as locusts with \textit{innumerable camels} (Judg. 6:5, 7:12). Some of these camels arrive with collars and/or crescents hanging from their necks (8:21, 26). This event occurs sometime during the ‘intermediate’ period in Israel’s history, after the Exodus and conquest but before the reign of Israel’s first king, Saul. That reign began, by most accounts, at about 1040 BCE.\textsuperscript{21} But since the Midianites are presumed to have disappeared as an entity before the end of the twelfth century BCE,\textsuperscript{22} this event ought to be pushed even further upward in time, to some two centuries before the reported arrival of domesticated camels in the Aravah Valley (according to the TAU study). Yet the text speaks of “camels without count.” Is this not an anachronism?

Still, a list of Israel’s domesticated animals that were left without sustenance by the Midianite raids mentions sheep, oxen and donkeys, but not camels (6:4). The glaring omission of Israelite camels in contrast to the prominent mention of Midianite camels in the very next verse indicates the
absence of camels in the Israelite area. This is in agreement with reality at this time and place, precisely as reported in the TAU study.

Furthermore, this event occurs many centuries after the Genesis narratives, much further along into the transition period we spoke of earlier, during which the population of domesticated camels increased steadily. And the Midianites came from their base of operations in Northwestern Arabia, much closer to the dromedary’s focus of domestication in Southern Arabia than is the Aravah Valley. So in terms of time and location we ought to expect the Midianites to have access to a larger population of domesticated dromedaries than was the case in the patriarchal era and at that time in the Aravah Valley area.

Finally, we are informed in the Book of I Chronicles (27:30) that King David possessed camels, apparently a herd large enough to appoint a special overseer for their care. King David reigned, by all accounts, up to ca. 970 BCE, a date very close to the 930-900 BCE time frame specified in the TAU study. And he was, after all, a king. And we have no clear understanding as to just how large this herd of his was. All in all, there is not much fodder here for bible critics to feast upon.

CONCLUSIONS

It should be emphasized, in case the point was obscured by all the minutiae, that this essay is not in disagreement with the key finding of the TAU report. Domesticated camels may very well not have been put to work in the copper smelting industry of the Aravah Valley prior to the 930-900 BCE time frame, as the TAU report concludes. And by extension, these camels were rare or absent from the Southern Levant region up to that time, as the report asserts.

The concern of this essay focused on the intrusion of the TAU study into the subject of the veracity of the biblical narratives, particularly those in Genesis. This was perpetrated, not by the authors of the study, but by the many frenzied media articles and news releases. These writers latched on to the TAU report in support of their anti-bible agendas. This essay demonstrated how ill informed those conclusions are.

NOTES


6. Genesis 24: 11, 14, 19, 20, 22, 30, 31, 32 (twice), 35, 44, 46 (twice), 61, 63, 64.

7. Despite the attempts of some to move Ur northward, the dominant view is that biblical “Ur of the Chaldees” (if that is the correct translation of the Hebrew *Ur Kasdim*) is to be located in Southern Mesopotamia. See K. A. Kitchen, *On the Reliability of the Old Testament* (Grand Rapids, MI: Eerdmans Publishing, 2003), p. 316, with references.

8. This is certainly the case in the Nile district. There was not even a word for the camel in Ancient Egyptian. See A. S. Saber, “The Camel in Ancient Egypt”, *Proceedings of the Third Annual Meeting for Animal Production Under Arid Conditions* (United Emirates University, 1998), vol. 1, pp. 208-215.


10. Based on the text’s description of Joseph’s position and role in Egypt (Gen. 41:40-45) many Egyptologists conclude that this best fits the ancient title of ‘vizier’ in that land. This takes place during the twelfth dynasty.

11. That the Hebrew *anashim* refers to ‘men of stature’ when used in this manner, that is, superfluously, is abundantly clear from the text in Numbers 13:3. See comment of Rashi, ad loc.

12. For further textual elucidation of the intricacies of this event, see commentary of Nahmanides (*Ramban*), ad loc. It must be assumed that there was only one passing caravan in this event, one that carried both the Midianites (37:28) and the Ishmaelites (37:25), otherwise the later references to Ishmaelites (37:28, 39:1) become inexplicable. We also have Reuben’s (Jacob’s oldest son) description of that location as being in the wilderness (37:22), thereby encouraging the brothers to place Joseph in the pit where no one will find him. This is not in accord with two passing caravans in succession, something we would expect on a major thoroughfare, not in the wilderness.

13. The Joseph narrative is to be dated to ca. 1800 BCE, during the twelfth dynasty. See J. Landa, *Exodus*, ibid.


19. Otherwise the single domestication event for each type of camel would constitute a ‘population bottleneck’ whereby the animals descend from a small number of ancestors. This leads to very low genetic diversity.

20. The Midianites in the biblical narrative come from Gilead, in the northeast, and are headed to Egypt, in the southwest (Gen. 37:25). Since the Midianites’ home territory was in Northwest Arabia, these merchants were apparently quite mobile.

21. This date is somewhat uncertain, for the length of Saul’s reign is not presented (in a clear enough manner) in the text. The best that can be said based on the textual and historical data is that Saul’s reign began some number of years before ca. 1010 BCE, when David’s (Saul’s successor) reign began. Considering the many campaigns engaged in by Saul, it is reasonable to allot a significant number of years, say about thirty, to his reign.