

WERE THERE DOMESTIC HORSES IN ANCIENT INDIA?

Relevant for: Environment | Topic: Biodiversity, Ecology, and Wildlife Related Issues

Genetic key: Horses with the modern domestic DNA profile lived in the Western Eurasian Steppes; by around 2200–2000 BCE, these horses spread out. | Photo Credit: [FatCamera](#)

A recent report in *Nature* by Ludovic Orlando and his group from the Paul Sabatier University in Toulouse, France (P. Librado et al., *Nature* 598, 636-642; 2021) has been able to collect bones and teeth samples of over 2,000 such ancient specimens from regions from where domestic horses could have originated, namely in the Iberian Peninsula in the southwestern corner of Europe, or the western-most edge of Eurasia (Spain and its neighbours), Anatolia (which is modern Turkey), and the steppes of Western Eurasia and Central Asia. As Tosin Thompson writes in his commentary in *Nature* of October 28, 2021, Dr. Orlando's team analysed the complete genome sequences of about 270 samples from these regions, and also gathered information from archeology. In addition, they also dated radioactive Carbon 14, which decays at a fixed rate, to determine the age of these horse samples. These collective data have led them to decide that until about 4200 BCE, many distinct horse populations inhabited various regions of Eurasia.

A similar genetic analysis has also found that horses with the modern domestic DNA profile lived in the Western Eurasian Steppes, particularly the Volga-Don River region.

By around 2200–2000 BCE, these horses spread out to Bohemia (the Czech Republic of today and Ukraine), and Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, Iran and Afghanistan) and Mongolia. These horses were bred by breeders from these countries to sell them to countries that demanded them. Riding on horses became popular in these nations by around 3300 BCE, and armies were built using them, for example, in Mesopotamia, Iran, Kuwait and the 'Fertile Crescent' or Palestine. Thompson notes that the first spoke-wheeled chariots emerged around 2000-1800 BC.

Now, when did horses come to India, and were they domestic or foreign? Was horse native to India? The answer seems to be 'no'. The "World Atlas" says that the only animals native to India are the Asian elephant, snow leopard, rhinoceros, Bengal tiger, Sloth bear, Himalayan wolf, Gaur bison, red panda, crocodile, and the birds peacock and flamingo. The website ThoughtCo cites, in the article '11 domestic animals that originated in Asia', lists the antelope, Nilgiri tahr, elephant, langur, Macaque monkey, rhinoceros, dolphin, Gharial crocodile, leopard, bear, tiger, bustard (heaviest flying bird), squirrel, cobra, and peacock. Thus, it seems clear from these sources that horse is not native to India. Horses must have come into India through inter-regional trading between countries. Indians might have traded their elephants, tigers, monkeys, birds to their neighbours and imported horses for our use.

So, when did India get its horses? Wikipedia points out that horse-related remains and artefacts have been found in Late Harappan sites (1900-1300 BCE), and that horses did not seem to have played an essential role in the Harappan civilisation. This is in contrast to the Vedic Period, which is a little later (1500-500 BCE). (The Sanskrit word for horse is *Ashwa*, which is mentioned in the Vedas and Hindu Scriptures). These are roughly towards the end of the late Bronze Age.

It is also worth noting that two recent scholarly books, one by Tony Joseph, titled 'Early Indians: The Story of our Ancestors and Where we Came From', and the other by Yashaswini Chandra, titled, 'The Tale of the Horse'. Dr. Joseph's recent article in December 2018 in *Firstpost* examines the evidence to the 'Aryan' migrations to India. This would suggest that the horses

found in India came from the 'Stans' mentioned above.

And Dr. Yashaswini Chandra's posting in *The Print* of January 17, 2021 suggests that Indian native horses disappeared by 8000 BCE.

Perhaps the clearest analysis of the debate comes from an article by the historian Michel Danino of IIT Gandhinagar. He writes in his paper titled, 'The horse and the Aryan debate', in the *Journal of Indian History and Culture*, 2006, September 13:33-59, and in the book "History of Ancient India" in 2014, that the archaeologist Sandor Bokonyi studied samples of horse teeth from Baluchistan dating to pre-Harappan era from Allahabad (2265-1480 BCE), in Chambal Valley (2450-2000 BCE) and the upper molar sample from Kalibangan, and concluded that they came from real domesticated horses. These papers by Professor Danino sets to rest several conflicting claims about domestic horses in India, and we are thankful to him.

Given this background, it will be interesting to check whether in the Harappan sites, there are any remnant bones, teeth or skulls of horses, and perform DNA sequencing on them, just as Orlando's group did in their *Nature* article on Eurasian samples.

dbala@lvpei.org

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