Mystery about domestication of horse has been unravelled -- now location and time are proofed

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Wild horses were domesticated in the Ponto-Caspian steppe region (today Russia, Kazakhstan, Ukraine, Romania) in the 3rd millennium B.C. Despite the pivotal role horses have played in the history of human societies, the process of their domestication is not well understood.

In a new study published in the scientific journal *Science* the jointed analysis of German researchers from the Leibniz Institute for Zoo and Wildlife Research, Berlin, the German Archaeological Institute, the Humboldt University Berlin, the Max Planck Institute of Evolutionary Anthropology, Leipzig in cooperation with American and Spanish scientists unravelled the mystery about domestication of horse.

Based on ancient DNA spanning the time between the Late Pleistocene and the Middle Ages targeting nuclear genes responsible for coat colorations allows to shed light on the timing and place of horse domestication. Furthermore the study demonstrates how rapid the number of colorations increased as one result of the domestication. As well it shows very clearly that the huge variability of coloration in domestic horses which can be observed today is a result of selective breeding by ancient farmers.

Our modern human societies were founded on the Neolithic revolution which was the transformation of wild plants and animals into domestic ones available for human nutrition. Within all domestic animals, no other species has had such a significant impact on the warfare, transportation and communication capabilities of human societies as the horse.

For many millennia, horses were linked to human history changing societies on a continent-wide scale, be it with Alexander the Great's or Genghis Khan's armies invading most of Asia and Eastern Europe or Francis Pizarro destroying the Inca Empire with about 30 mounted warriors. The horse was a costly and prestigious animal in all times, featured in gifts from one sovereign to another as a nobleman's mark.

More information: Ludwig, Arne, Melanie Pruvost, Monika Reissmann, Norbert Benecke, Gudrun A. Brockmann, Pedro Castaños, Michael Cieslak, Sebastian Lippold, Laura Llorente, Anna-Sapfo Malaspinas, Montgomery Slatkin & Michael Hofreiter: Coat color variation at the beginning of horse domestication. *Science* 24th April 2009.

Source: Forschungsverbund Berlin e.V. (FVB)