

Evidence of domestication of dogs during Paleolithic period found

October 10 2011, by Bob Yirka

(PhysOrg.com) -- Paleontologists working in the Czech Republic have unearthed what appears to be evidence of the domestication of dogs, from a period much earlier than has been previously thought. In a paper published in the *Journal of Archaeological Science*, the team, comprised of Mietje Germonpré, Martina Lázničková-Galetová and Mikhail V. Sablin, from Belgium, the Czech Republic and Russia respectively, say that they've found the remains of three dogs from the Paleolithic period, one of which had been buried with a large bone in its mouth.

The Paleolithic period is the time in human history that spans from the earliest evidence of tool use, which was approximately two and a half million years ago, up to around 10,000 BP. Prior to this find paleontologists have believed that the domestication of dogs didn't come until thousands of years later.

Because the remains found don't fit the physical description of wolves, the researchers believe they must be dogs. And because of the shape of the heads - short with short snouts and a wide braincase, the team believes they were domesticated. They also believe they were rather large, weighing some 77 pounds and as tall as 24 inches at the shoulders.

The truly intriguing part of the find however, is the large bone in the mouth of one of the dogs. The team believes it's probably from a rhino, bison or even a mammoth. The fact that it was clearly placed in the dog's mouth after death indicates that a human being was involved in the burial, as no other known animal would be capable of doing such a thing.

The skulls also show signs of perforations for brain removal, another uniquely human act. If other animals wanted to eat the brains they would have had to either crack the skull open or wait for it to decompose to the point it could be poured out. Humans on the other hand, would likely not have done so for consumption purposes (there were far better choices of meat around) but rather for spiritual purposes, indicating some degree of emotional ties with the deceased animal.

Paleontologists suspect that dogs were used by early humans for hauling stuff around, such as the carcasses of large animals or materials for building shelters. The research team believes the [dogs](#) they found were between four and eight years old at the time of death.

More information: Palaeolithic dog skulls at the Gravettian Předmostí site, the Czech Republic, *Journal of Archaeological Science*, In Press, [doi:10.1016/j.jas.2011.09.022](https://doi.org/10.1016/j.jas.2011.09.022)

Abstract

Whether or not the wolf was domesticated during the early Upper Palaeolithic remains a controversial issue. We carried out detailed analyses of the skull material from the Gravettian Předmostí site, Czech Republic, to investigate the issue. Three complete skulls from Předmostí were identified as Palaeolithic dogs, characterised by short skull lengths, short snouts, and wide palates and braincases relative to wolves. One complete skull could be assigned to the group of Pleistocene wolves. Three other skulls could not be assigned to a reference group; these might be remains from hybrids or captive wolves. Modifications by humans of the skull and canine remains from the large canids of Předmostí indicate a specific relationship between humans and large canids.

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