MUNI FILOSOFICKÁ FAKULTA

LJ411

Animals in Antiquity: from Everyday Life to Magic

Domestication of Cats

Course Teacher: Mgr. Andrea Salayová

Student: Marin Matkovic

UČO: 497606

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The aim of this essay is to answer some of the main questions regarding the domestication of cats, such as when, where and why did it happen and what made us to like them so much? Before going any further, it is apt to first define what domestication is. According to the Oxford archaeological dictionary, domestication is "a general term used to refer to the biological manipulation of the production and reproduction of plants and animals by early agriculturalists" (Darvill, 2008, 'domestication').

First of all, when did it all start? When did our ancestors realize that they want to have cats close to them? Some scholars traditionally thought that the Egyptians were the first to domesticate the cat around 3,600 years ago, when house cats start to be depicted in tomb paintings of the New Kingdom (Driscoll, Macdonald, and O'Brien, 2009, p. 9975). Furthermore, around 2,900 years ago, cats became "official deity" of Egypt in the form of the goddess Bastet and for that reason, huge number of cats was sacrificed and mummified in her sacred city (see Figure 1). The latter, thus, might indicate that the Egyptians were already breeding cats around 3000 years ago which one can identify with domestication (Driscoll *et al.*, 2009, p. 72).

However, the oldest known evidence of cat domestication belongs to a different place and a much earlier date. In 2004, a group of French archaeologists excavated the site of an ancient settlement on the island of Cyprus in the Eastern Mediterranean and discovered something quite astonishing; it was the grave of an adult human who was buried alongside offerings of flint tools, seashells and an 8-month-old cat (see Figures 2 and 3) (PBS Eons, 2019). As already said, this burial from 9,500

years ago represents the oldest known evidence of human-cat companionship anywhere in the world, predating the more well-known love of cats in ancient Egypt by 4,000 years (PBS Eons, 2019). So, given that, a reasonable window for cat domestication is from 9,500 to 3,600 years ago (Driscoll, Macdonald, and O'Brien, 2009, p. 9975).

The second question that needs to be answered is that of geography. Cyprus was already mentioned in this essay but because cats are not native to most Mediterranean islands, people must have brought them over by boat, probably from the adjacent Levantine coast (Driscoll *et al.*, 2009, p. 71). In order to be sure about this, scholars set out to tackle this question by assembling DNA samples from 979 wildcats and domestic cats across the Old World. This genetic assessment (Driscoll *et al.*, 2007, pp. 519-523) revealed five genetic clusters, or lineages, of wildcats – *Felis silvestris silvestris* (European wildcat), *F. s. lybica* (Near Eastern wildcat), *F. s. ornata* (central Asian wildcat), *F. s. cafra* (southern African wildcat) and *F. s. bieti* (Chinese desert cat). Looking at different DNA samples and genomes, researchers found out that our today's pets are most closely related to the *Felis silvestris lybica* (Near Eastern wildcat). Not only are they genetically indistinguishable but they also look identical (see Figure 4) so it can be asserted that *F. s. lybica* is the only ancestor of today's domestic cat (*Felis catus*).

However, just like it was the case with the chronology of domestication, not everything is black and white in regards to the geography either. As we have seen so far, lots of signs point to domestic cats splitting of from their wildcat cousins in the Fertile Crescent (see Figure 5) but there is one particular study from 2014 in which Chinese archaeologists claim that the burial from Cyprus is a

bit misleading and instead, the agricultural village of Quanhucun in China provides the earliest known evidence for mutualistic (commensal) relationships between people and cats (Hu, Y. et al., 2014, pp. 116-120). To put it simply, their analysis showed that the cat bones they discovered were not related to the wildcat at all. Instead, they were a kind of a leopard cat (*Prionailurus bengalensis*) which is in an entirely different genus (SciShow, 2019). This study of some other kind of cats living 5,300 years ago at a completely different part of the world concentrated on substantial consumption of millet-based foods by humans, rodents and cats. Interestingly, "one cat ate less meat and consumed more millet-based foods than expected, indicating that it scavenged among or was fed by people" (Hu, Y. et al., 2014, pp. 116).

So, which one is the 'real' one? The Near Eastern or the Chinese domestication of cats? Referring to SciShow, and if we think about it logically for a second, there is absolutely no reason to think that domestication could not have happened twice in two separate places with two separate cat species but at different times, i.e. when people started farming grain and settling down (see Figure 6). But still, genetically, all our modern cats seem to be descended from the wildcat (*Felis silvestris*) and not the leopard cat (see Figure 7).

After answering questions *when* and *where*, it is time to finally deal with the good old *why*. So, why did we start to pet and love these animals? Firstly, we should start with the obvious; they are cute. Some scholars even speculate that cats have 'cute' features, such as large eyes, a snub face and a high, round forehead, that are known to elicit nurturing from humans (Driscoll *et al.*, 2009, p. 72). For that reason alone, some nice and gentle people took kittens home because they found them adorable and tamed them. In return, cats gave them a sense of loyalty and attachment.

Unlike animals domesticated for agriculture (e.g. cow, pig or sheep) or transport (horse and donkey), the cat did not serve such clear purpose (Driscoll *et al.*, 2007, p. 519). Moreover, when it comes to the obedience, it should be safe to say that cats do not take instructions very well, at least in comparison with dogs.

Before doing the research about this topic, it was not known to me that cats, though, played a significant role in the process of humans settling down and living in one place for a long time. If we recall the agricultural village in China and mention rodents, this should be a pretty good hint already. Namely, some animals are attracted to human settlements by food, feeding off of their scraps or on prey that may have also been drawn to the humans, like mice or rats. Over time, people noticed that cats were actually pretty good at catching the pests that were plaguing their food stores and in fact, they still are.

Although this is a rough translation from Croatian, this phrase should epitomize this whole topic; people just merged something that is both pleasant and useful at the same time. Still, people did not have to instruct cats how to hunt mice or rats. On the contrary, it is a natural phenomenon known as food chain and a completely normal thing for cats do to in order to survive. In the end, cats did everything on their own so they actually domesticated themselves. Looking back at the dictionary definition from the introductory paragraph, people did not manipulate cats and their breeding either at that time so maybe the title should have been: 'How cats domesticated us humans?'

Illustrations



Figure 1 – An example of a mummified and stylized cat from ancient Egypt (taken from Driscoll *et al.*, 2009, p. 72).

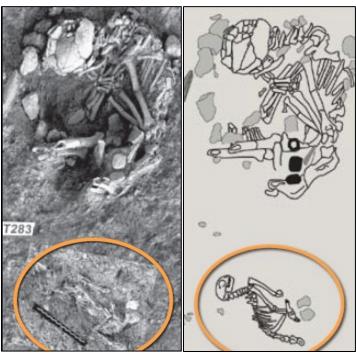


Figure 2 - A 9,500-year-old burial with a cat circled in photograph on the left and map on the right (taken Driscoll *et al.*, 2009, p. 71).



Figure 3 – Visual reconstruction of a 9,500-year-old burial from Cyprus (screenshot from PBS Eons, 2019)



Figure 4 – *Felis silvestris lybica*, the only direct ancestor of today's domestic cat (taken from Driscoll *et al.*, 2009, p. 70).

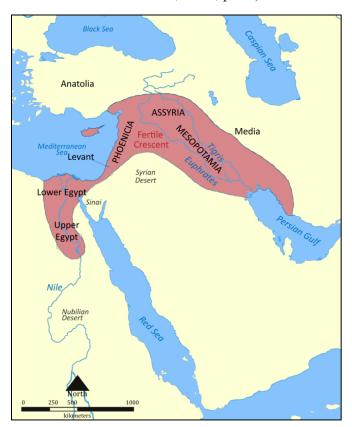


Figure 5 – Area of the so-called Fertile Crescent in the Middle East which includes modern-day Iraq, Iran, Syria, Lebanon, Israel, Palestine, Jordan, Egypt and of course, Cyprus (taken from https://en.wikipedia.org/wiki/Fertile Crescent).

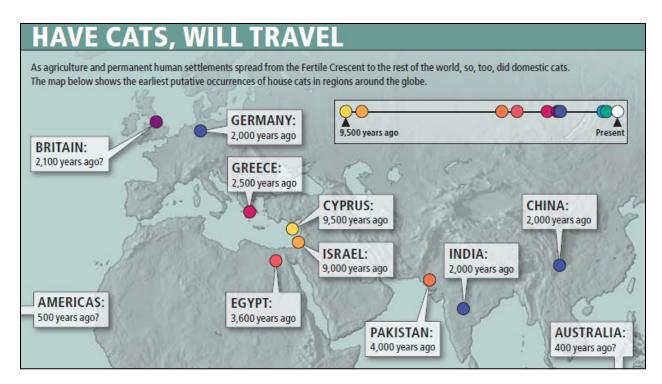


Figure 6 – Spread of agriculture and permanent human settlements approximately correlated with the domestication of cats. Because the article about 'Chinese domestication' was published just recently, this map shows outdated information; China's date should be 5,300 years ago (taken from Driscoll *et al.*, 2009, p. 73).



Figure 7 – A leopard cat (*Prionailurus bengalensis*) photographed in the Sundarbans, India (taken from https://en.wikipedia.org/wiki/Leopard cat).

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