参考译文

Ancient Dogs Had Complex Genetic Histories

古代狗狗有着复杂的基因历史

Dogs were the first animals to be domesticated. And they stuck with us as we changed lifestyles from hunting/gathering to farming to city living.

狗是最早被人类驯养的动物。当我们的生活方式从狩猎/采集到农耕再到城市生活的时候，狗狗一直和我们在一起。

“The dog is a species that is intimately linked to human history.”

“狗是一个与人类历史密切相关的物种。”

Anders Bergström, a postdoc at the Francis Crick Institute in London. He and his colleagues studied the genomes of 27 ancient dog bones dug up around the world. They found that by 11,000 years ago ...

安德斯是伦敦弗朗西斯克里克研究所博士后。他和同事们研究了在世界各地挖掘出的27块古代狗骨头的基因组。他们发现在11000年前…

“We see that the dog started to diversify genetically. So we find evidence of at least five major lineages of dogs already at this time.”

“我们看到狗的基因开始多样化。因此，我们目前已经找到了狗狗的主要血统。”

Dog remains have been found in Europe, Asia and the Americas in a pattern similar to how humans moved and mixed.

在欧洲、亚洲和美洲都发现了狗的遗骸，它们的迁徙和混合方式与人类相似。

“To a large degree, the history of dogs seems to have been shaped by human history—so likely reflecting how, when humans moved, they would have brought their dogs with them.”

“在很大程度上，狗的历史似乎是由人类所创造，这很可能反映了当人类迁徙时，是如何带着狗一起搬迁的。”

Ancient humans clearly found dogs to be very useful.

远古人类显然发现狗非常有用。

“In the Arctic, there’s evidence that sled dogs actually emerged very early, and people used them for the particular purpose of sledding, perhaps as early as 10,000 years ago.”

“在北极，有证据表明，雪橇犬实际上很早就出现了，可能早在1万年前，人们用它们来滑雪。”

A few modern breeds—like the African basenji, New Guinea singing dog or Australian dingo—are similar to one of the five ancient lineages. Most other modern breeds derive at least in part from European dogs, which came to dominate dog genomes.

非洲巴桑吉犬、新几内亚唱歌犬或澳大利亚野狗等少数现代狗狗的品种，与五种古老血统中的某种非常相似。大多数其他现代品种至少有一部分来自欧洲狗，欧洲狗在狗的基因组中占主导地位。

“If you go back 4,000 or 5,000 years ago, there’s a great diversity of dogs in Europe. But at some point, there was probably a single population that expanded and basically replaced other populations in Europe. This was something that we did not predict and you couldn’t really see just from studying archaeology. But when we look at the DNA, we see that there’s all this diversity in the past that is not represented in present-day dogs.”

“如果追溯到四五千年前，欧洲狗狗种类非常丰富。但在某一时间，可能是某种人口的繁衍和扩张，取代了欧洲的其他人口。这是我们没有预料到的，你也不能仅仅通过研究考古学来发现。但当我们研究DNA时，我们发现，过去狗狗的多样性，到现在已经不复存在。”

The study is in the journal Science, where you’ll find maps of dog migrations over time.

这项研究发表在《科学》杂志上，里面有狗狗随时间迁移的地图。

One odd finding: about 11,000 years ago, it looks like dogs spread more widely than humans did.

一个奇怪的发现是:大约11000年前，狗的传播似乎比人类更广泛。

“That’s actually a process we don’t really understand. So how could the dog spread so quickly and widely? We’re not aware of any human migrations at this time that could have facilitated the spread of the dog. But somehow it spreads very quickly to human groups all across the world, perhaps because it was a very useful thing for these early human hunter-gatherer groups.”

“这实际上是一个我们并不真正了解的过程。那么，狗狗如何传播得如此迅速和广泛呢?我们目前还没有发现任何人类迁徙可能促进了狗的传播。但不知怎的，它迅速传播到世界各地，可能是因为它对早期人类狩猎采集群体非常有用。”

Humans were also useful to dogs. Prehistoric Petcos didn’t exist, so dogs probably ate what humans did. And as humans started to farm, both species quickly adapted to digest more grains. The number of copies of a starch-digesting gene in both humans and dogs increased in the generations following the invention of agriculture.

人类对狗也很有用。史前的宠物店Petcos还不存在，所以狗狗可能吃人们吃的东西。随着人类开始农耕，这两个物种都迅速适应了消化更多谷物。在农业发明之后，人类和狗体内淀粉消化基因数都在不断增加。

“Yeah, so that’s a very striking example of convergent evolution between humans and dogs. In a way, it’s kind of interesting to think of the dog as a kind of an evolutionary experiment that runs alongside human history and undergoes the same lifestyle changes that we do.”

“是的，所以这是人类和狗之间趋同进化的一个非常显著的例子。在某种程度上，把狗看作是人类历史上的一种进化实验是很有趣的，狗狗的生活方式和人类一样，经历了同样的变化。”

听力原文

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