Hominids in love: Humans and Neanderthals may have mated more than 219,000 years ago

If modern humans didn't reach Europe until about 60,000 years ago, how has DNA from them turned up in a Neanderthal fossil in Germany from 124,000 years ago? The answer seems to be that there was a previous migration of early humans – more than 219,000 years ago. The story, as far as we knew it, was that the ancestors of modern humans diverged from Neanderthals and Denisovans between 550,000 and 765,000 years ago. While Neanderthals and Denisovans inhabited Eurasia, modern humans stayed in Africa until about 60,000 years ago. Then they entered Europe, too.

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[Cosimo Posth at the Max Planck Institute for the Science of Human History in Leipzig, Germany] and his colleagues looked at differences between the mtDNA in this femur and in other Neanderthals, and used mutational rates to calculate that the bone is 124,000 years old. The approach also indicates that this Neanderthal split from all other known Neanderthals sometime between 316,000 and 219,000 years ago. Yet it still contains key elements of early human mtDNA.

This means that modern human ancestors must have interbred with Neanderthals before 219,000 years ago and hence could have migrated out of Africa and into Europe much earlier than we thought.

"We are realising more and more that the evolutionary history of modern and archaic humans was a lot more reticulated than we would have thought 10 years ago," says team member Fernando Racimo of the New York Genome Center.

[The original study can be found here]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: We may have mated with Neanderthals more than 219,000 years ago