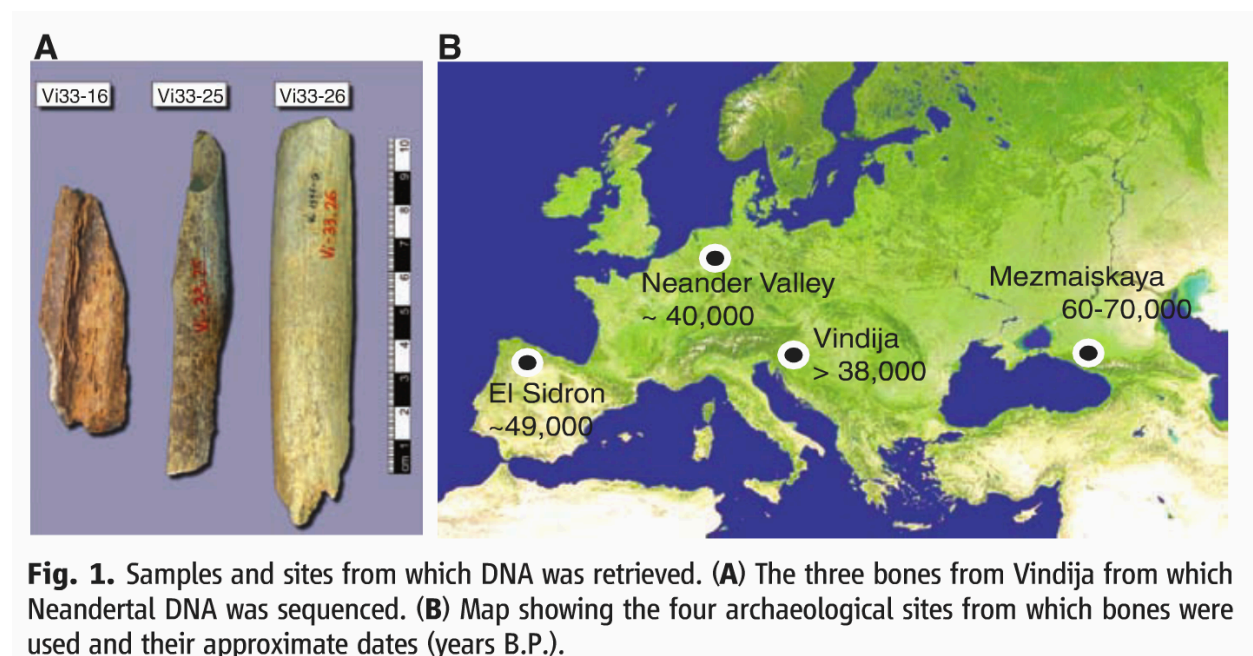


How did I get here?

After reading the book **Sapiens** by Yuval Noah Harari (1), which traces the evolution of our species from the emergence of first organisms on planet Earth 3.8 billion years ago to our transcending the boundaries of our planet, I keep thinking about all the hominid species that have become extinct.

We know that the Neanderthals evolved in Europe and the Middle East 500,000 years ago. We, Sapiens, appeared first in East Africa 200,000 years ago and by 70,000 years we had left Africa, making it all the way to Australia 45,000 years ago.

We met the Neanderthals. We had sex and children with them (3). Suddenly, 30,000 years ago the last Neanderthal died. What happened?



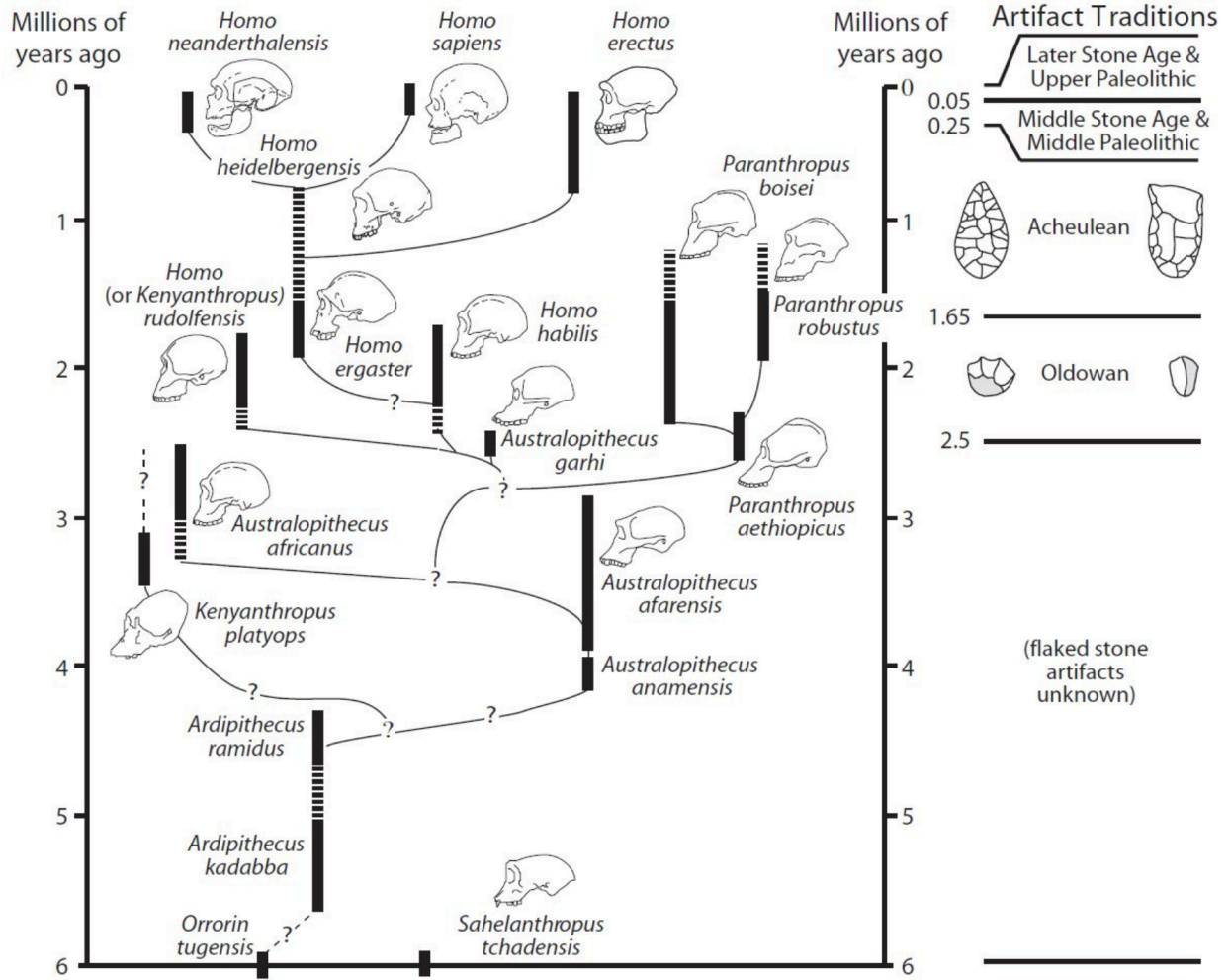
A first draft of the Neanderthal genome was published in 2010 (Fig.1). We know that Sapiens from Eurasia has acquired 1-4 % of her genome from Neanderthals.



Did Sapiens experience a sudden cognitive improvement allowing him to out-compete the Neanderthals?

Another possibility is that competition for resources flared up into violence and genocide. Tolerance is not a Sapiens trademark. In modern times, a small difference in skin colour, dialect or religion has been enough to prompt one group of Sapiens to set about exterminating another group. Would ancient Sapiens have been more tolerant towards an entirely different human species? It may well be that when Sapiens encountered Neanderthals, the result was the first and most significant ethnic-cleansing campaign in history.

Harari, Yuval Noah. Sapiens: A Brief History of Humankind (pp. 17-18). HarperCollins. Kindle Edition.



Sapiens (we) are the only surviving member of the homo group. Our time on the planet has been like an evolutionary blink of an eye. We are closing in on 7 billion members and the planet is showing signs of going unstable (global warming). There is no guarantee that we will be around much longer. The reason appears to be the limitations built into our brain by the tinkering of evolution. Our emotional maturity lags way behind our intellectual powers.

In future blogs we will examine the relentless activity of 2 brain circuits that have the potential of leading us beyond the tipping point: The Default Mode Network and the Dopamine Reward System

(1) Yuval Noah Harari (2014) Sapiens; A Brief History of Humankind. HarperCollins

(2) Green, R., Krause, J., Briggs, A., Maricic, T., Stenzel, U., Kircher, M., Patterson, N., et al. (2010). A Draft Sequence of the Neandertal Genome. *Science*, 328(5979), 710–722

(3) Sankararaman, S., Mallick, S., Dannemann, M., Prüfer, K., Kelso, J., Pääbo, S., Patterson, N., et al. (2014). The genomic landscape of Neanderthal ancestry in present-day humans. *Nature*, 507(7492), 354–357.