**Ancient history**

BY R A F I A Z A K A R I A 2020-11-04

THERE are some things that are nearly impossible to imagine. Once, at a museum, I had the opportunity to hold in my hand a prehistoric stone tool. Rendered smooth, likely from frequent use, the portion of the tool that was supposed to be held even had grooves for fingers. The other portion was sharpened to a point. That tool I had held for just a moment, and in whose grip my hand fit, was over 45,000 years old. It was from a time that is considered relatively recent in palaeontology, the field that deals regularly with periods spanning thousands and even millions of years.

The tool that I held belonged to the Neanderthal, the variety of upright human that did not win the evolutionary battle to become the dominant species of human that was to survive and dominate.

Those of us alive today are descended from Homo sapiens. However, recent research in the field of palaeontology finds that many of us have genetic make-ups that include DNA from a competing set of upright human species; the Neanderthals. Researchers like Rebecca Wragg Sykes, author of the book Kindred: Neanderthal Life, Love, Death and Art, argue that the two species, Neanderthal and Homo sapiens, overlapped around the same time, towards the end of the time of the Neanderthals, between 400,000 to 450,000 years ago, and that they intermixed and produced children with mixed DNA.

Neanderthals, like Denisovans, were thus human cousins whose DNA was, in evolutionary terms, deemed less worthy of surviving. In the past few decades, Wragg Sykes and other palaeontologists or Neanderthal archaeologists have found skeletons, homes and objects from that era that reveal a lot more about these human cousins.

Unlike popular culture would have us believe, Neanderthals were not stupid, walking around with clubs ready to beat each other up. Their brains and skulls were bigger, and they processed sensory information in a very dif ferent way.

For example, Neanderthal eye sockets were much larger, allowing them to take in more light, which could then be processed by their brains. This would have made them more photosensitive to lighta fact that reveals that they could see better than we can, even with very little light.

Then there is the matter of the dif ferences in our brains: Neanderthal brains, while larger, had a smaller frontal cortex, the part of our brain that deals with social life and social relations. They were also smaller than Homo sapiens, weighing about 85 kilograms but having very muscular bodies, which allowed them to traverse greater distances and kill very large game such as woolly mammoths and sabre tooth tigers with spears thatthey could throw at the animals in order to bring them down.

It is particularly interesting for me to read about the Neanderthals in our present moment. It is difficult during hard times to dig out of the misery of the present. There is plenty of it to go around at the moment; months and months have passed since the coronavirus began its ravaging rout all over the globe. There are no new therapeutics, and, at least not yet, no new vaccines. There is, however, plenty of news about a second wave making its way around Europe and the United States, and ultimately and eventually everywhere else.

Naturally, such circumstances underscore the fragility of human life. Even as we witness an avalanche of sickness and death, even as the world`s pre-eminent scientists work at finding something that will work, we are helpless against one single new virus.

The sturdy survival of humans and their cousinslike the Denisovans and the Neanderthals provides some solace in this moment. It allows us to focus on a history so very long, measured in hundreds of thousands of years, that our eight months of seclusion and suf fering do not seem terribly long or even particularly notable given the vast panorama of life on Earth.

Neanderthals lived for 250,000 years before Homo sapiens came along. Evidence of their existence fades around 28,000 years ago. All humans that live outside Africa have traces of Neanderthal DNA along with their Homo sapiens DNA, and some individual humans have been found who have up to 20 per cent of Neanderthal DNA.

When historyis considered on the scale of the fateful meeting between Neanderthals and Homo sapiens, the beginnings of Neanderthal and Homo sapiens lives, then our entire sphere of existence seems like a small blip on the radar. There are possibilities ofliberationinthisknowledge;itfeelslikeanurging to not take things terribly seriously, understand the relative irrelevance of the individual human or even humans over a few hundred years.

Evolutionarily speaking, there have not been many changes in the way we were when we were Homo sapiens, meeting up and making pair bonds with the Neanderthals; we have the same hands, feet, eyes and most other things. Change, of course, is inevitable, and the turmoil of the past year points to transformations coming our way; the nature of this change, the scope of it, is likely to be miniscule.

Humans have endured so much the history of the man who hunted for his family, the prehistoric woman who loved her baby so much that she buried him with toys and wrappings and go back hundreds of thousands of years. The varnish of culture and of political conundrums and the ever-contagious coronavirus may be pressing and evolving, but no one will remember them even a paltry five or ten thousand years from today.  The writer is an attorney teaching constitutional law and political philosophy.

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