

Books & arts



Neanderthal skeletons at the Smithsonian Museum of Natural History in Washington DC.

No dullards, these Neanderthals

Horse eyeballs, shell tools and bone hammers – Rebecca Wragg Sykes paints a vivid portrait of our adaptable ancient relatives. **By Josie Glausiusz**

A quarter of the way through *Kindred*, I was longing to meet a Neanderthal. By the end, I realized that we had met. She is in me – or at least, in my genes. In this deeply researched “twenty-first-century portrait of the Neanderthals” from birth to burial and beyond, palaeolithic archaeologist Rebecca Wragg Sykes smashes stereotypes. She ranges over 350,000 years, from the Neanderthals’ first emergence more than 400,000 years ago to their disappearance about 40,000 years ago, describing how they bequeathed some of their genes to humans even as they vanished. Neanderthals were, she writes, “not dullard losers on a withered branch of the family tree, but enormously adaptable and even successful ancient relatives”.

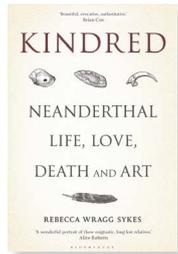
Based on fossil finds and artefacts from thousands of archaeological sites ranging from north Wales to the borders of China and the fringes of Arabia’s deserts, hers are vivid, immersive depictions of Neanderthals from diverse periods and places. One imagines hunting with them, chewing on horse eyeballs, hammering stones into blades. And one pictures Neanderthals encountering our *Homo sapiens* ancestors, with whom they crossed paths and mated multiple times over a period of more than 100,000 years, as DNA evidence shows.

Distinct species

To conjure up this world, Wragg Sykes describes myriad discoveries, the first more than a century and a half ago. In the summer of 1856, limestone-quarry workers blasted open the Kleine Feldhofer Cave in the Neander Valley near Düsseldorf in what’s now Germany, revealing ancient bones and the top of a skull. Scholars, including anatomist Hermann Schaaffhausen in Bonn, Germany, and geologist William King at Queen’s College Galway in Ireland, speculated. Did the thick bones belong to a “barbarous and savage race” of humans (as proposed by Schaaffhausen)? Or had they come from an extremely ancient “pre-human”? It was King who named the species *Homo neanderthalensis*.

As further fossils were found – including the skeletons of two adults in Belgium in 1866 and a baby at the rock shelter of Le Moustier in France in 1914 – scholars agreed that Neanderthals were an extinct species distinct from humans. We now have specimens from between 200 and 300 Neanderthal individuals, ranging from newborns to adults in their fifties or even sixties, many just a single bone or jaw fragment.

And fossils tell only part of the story.



Kindred: Neanderthal Life, Love, Death and Art
 Rebecca Wragg Sykes
 Bloomsbury Sigma
 (2020)

“We have,” Wragg Sykes notes, “millions more artefacts made by Neanderthals than bones from the hands that once touched them.” Extensive studies of these finds have overturned old visions of fur-clad “brutes” (as King dubbed them) hunched over in the driving snow.

Take, for example, the period beginning around 130,000 years ago, called the interglacial Eemian. Average temperatures were 2–4°C higher than today; melting polar caps and glaciers raised sea levels by some 8 metres; hippos and elephants inhabited what is now Britain. Europe’s Neanderthals coexisted with Barbary macaques (*Macaca sylvanus*) – a species now confined to North Africa – as evidenced by fossil finds in the cave of Hunas in Germany. About 30 Neanderthal locales are known from this warm time. A 2018 study of 120,000-year-old lake-shore deposits at Neumark-Nord, Germany, shows that Neanderthals at the site used close-range thrusting spears to kill fallow deer (*Dama dama*; S. Gaudzinski-Windheuser *et al. Nature Ecol. Evol.* 2, 1087–1092; 2018).

Visceral impulse

Neanderthals adapted with growing inventiveness to dramatic shifts in climate. “More artisans than klutzes,” Wragg Sykes writes, they crafted dozens of types of stone blade, as well as long, finely tapered wooden spears, shell tools and bone hammers. They used tactical planning to ambush groups of prey, including bison, horses, rhinoceroses and reindeer.

Patterns of cut marks on skeletons show that Neanderthals favoured fat-rich brains, “as well as other juicy parts like eyeballs, tongues and viscera”, and prized marrow-filled bones. They ate rabbits, birds and fish, gorged on tortoises and slaughtered hibernating bears. Analysis of charred hearths in the Kebara Cave in Israel and elsewhere show that Neanderthals also nibbled on nuts such as acorns and walnuts, and ate fruits including dates and figs, as well as wild radishes, peas and lentils.

Did they use language or engage in abstract



Researchers excavate Gorham’s Cave in Gibraltar, where Neanderthals lived for 100,000 years.

thought? “Musing about minds from 50 or 100 millennia ago is of course fraught with pitfalls,” Wragg Sykes cautions. Neanderthals had flatter foreheads than humans, with less space for the frontal cortex – which is intimately connected to memory and language. But computer modelling suggests that their

“Neanderthals adapted with growing inventiveness to dramatic shifts in climate.”

vocal cords could make a range of sounds similar to ours, she says. In apparent artistic impulses, Neanderthals in many places used red-ochre pigments and might have ornamented themselves with feathers. One group engraved a cross-hatched grid pattern on the floor of Gorham’s Cave, Gibraltar. Among their more mysterious creations are two rings of snapped-off stalagmites, arranged on the chamber floor of a cave near the French village of Bruniquel, dating to about 177,000 years ago.

Above all, Neanderthals were wanderers, Wragg Sykes shows. They were top-level hunters and foragers, and there were few landscapes they did not traverse. Their sites were not destinations but intersections, “nodes within networks stretching hundreds of kilometres”. This nomadic tradition might have saved them from rising sea levels during the Eemian.

Sadly, a similar escape might not be an option for us, their human relatives. In her epilogue, written from home lockdown in early 2020 during the COVID-19 pandemic, Wragg Sykes warns that “we are heading into a world hotter and more dangerous than any previous hominin survived”. As polar ice caps are at risk of disappearing, the Arctic, Amazon and Australia burn and heat records break like waves. She writes: “Eurasia with maybe a few hundred thousand souls is very different to today’s teeming millions ... We have no guidebook for the destination our sprawling, industrialised, unimaginably complicated civilisation faces.”

Josie Glausiusz is a science journalist in Israel.
 Twitter: @josiegz