

REFLECTIONS

HOMO SUPERIOR—US?

Robert Silverberg

Regular readers of this column will know that I have for a long time been fascinated by Neanderthal man—“our shaggy cousins,” I called them, in a column published here in 2019. In 2022 I discussed the radical and stimulating book by the British Rebecca Wragg Sykes, *Kindred: Neanderthal Life, Love, Death, and Art*, which set out to demonstrate that that extinct species of mankind was very much more than the simple brutish grunting creatures they have long been depicted as in fiction and movies. Chapter by chapter, Dr. Sykes demolishes the nineteenth-century stereotype of Neanderthals as uncouth inarticulate beast-men and replaces it with the new vision of them as true humans, though humans of a different sort. She shows us their adaptability to climate change, making do through ice ages and tropical epochs alike throughout the hundreds of thousands of years of their dominance in Europe. She shows us their advanced techniques for hunting the animals that were their chief food supply and for butchering the meat on which they subsisted, and she shows us, too, how they made the elegant tools with which they carried out their butchering tasks. There is a discussion of how the Neanderthals created shelter for themselves, not simply by moving into the nearest vacant cave, but by constructing actual structures. Marked bones indicate the possibility that they had arithmetic of a sort. She speaks of their burial customs, which argue for religious belief. And there is much, much more, all of it revealing the Neanderthals as far more complex beings than they have generally been regarded as.

So their image as savage, bestial near-apes has undergone an upgrade in recent years. As I said in that 2019 column:

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The idea that a parallel human species once existed in the world, similar in many ways to us but strikingly different in others, has long captivated the imaginations of writers. There is an extensive body of speculative fiction about Neanderthals, of which the best, I think, is William Golding’s novel *The Inheritors*, his second novel, after *Lord of the Flies*. Golding, telling his story from the viewpoint of Lok, a Neanderthal man, brilliantly depicts a people who are reasonably intelligent, but whose intellectual processes seem murky by comparison to ours, and certainly operate out of a set of perceptions quite different from ours. (A comb is “a hand made out of bone.” Men paddling a canoe are “sitting in a log and digging the water.” This is not simple-mindedness so much as it is *alienness*. These people think in a way very different from the way we do.) At the end of the book Golding switches abruptly to the Homo sapiens viewpoint as members of the new species begin to move in on the territory of the Neanderthals, and the veil of perception is lifted—the newcomers are indisputably human, and we can understand them without having to find equivalents for the often blurry and always quite strange concepts of the Neanderthals. But the novel makes it clear that Lok and his companions are human too: humans of a very different sort, is all.

Within the science fiction field itself, there is the example of L. Sprague de Camp’s 1939 novella, “The Gnarly Man,” which gives us broad-beamed, stocky Clarence Aloysius Gaffney, who is earning his living in a circus pretending to be the ape-man “Ungo-Bungo,” but who is actually a Neanderthal who was struck by lightning fifty thousand years ago and thereby underwent metabolic

adjustments that made him immortal. Gaffney is anything but stupid, having adapted himself cunningly to the ways of the new species that drove his own to the brink of extinction.

Twenty years later Philip Jose Farmer took a second look at the same theme in "The Alley Man," with a Neanderthal once again living in our modern world. Farmer does not favor his Neanderthal with immortality: he is a contemporary man, born in our own times, one of a small and secretive group of the ancient stock that has kept its bloodline pure over the past five hundred centuries, "doomed to live in shanty-towns and stay off the streets and prowl the junkpiles in the alleys." Farmer tells us that his Alley Man is "something so squat and blocky it seemed more a tree trunk come to life than a man," whose "forehead was abnormally low; over the eyes were bulging arches of bone. These were tufted with eyebrows like Spanish moss that made even more cavelike the hollows in which the little blue eyes lurked." No beauty, no: but he has managed to make a life for himself amidst what he calls the False Folk, the latter-day humans who long ago displaced his own race.

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As I said in my discussion of the Wragg Sykes book, recent research has tended to show the Neanderthals in a new light, portraying them not as the shambling subhuman creatures of such early stories as H.G. Wells' "The Grisly Folk," but rather as fully human beings, anatomically different from us in ways sufficient to class them as a different species, but otherwise quite capable of language, art, and all the other mental abilities that separate us from the higher primates. Not a mere anthropoid creature, a kind of upscale ape, but actually another kind of human, in other words, with some relatively minor differences in bone structure, a receding chin, a beetling brow, but very close to us in most of the respects that we regard as defining humanity. We see that revisionist view of them already in such stories as the de Camp and Farmer, whose protagonists are perhaps rather odd and coarse-looking, but are fully able to move among humans of our kind without attracting unusual attention. And we have learned, thanks to recent DNA studies, that there was considerable interbreeding among Neanderthals and our prehistoric *Homo sapiens* ancestors—as is indicated by the existence of a small fraction of Neanderthal genes amidst our own. We all, so it seems, are 2 or 3 percent Neanderthal, like it or not.

Lately, however, anthropologists making use of further DNA research have apparently come upon something that does indeed separate us qualitatively from our extinct shaggy cousins—something that does put us at the top of the evolutionary chart, mentally superior to them, and perhaps begins to explain why, after hundreds of thousands of years of existence side by side, the Neanderthals died out while we endured and prevailed. Human DNA—our *Homo sapiens* DNA, the genetic program that makes us us—contains about nineteen thousand genes. Neanderthal DNA, we now know from study of Neanderthal fossils, is substantially identical, which is what made interbreeding between the two human species possible (whereas human-gorilla interbreeding, for example, is not). But in 2017, Anneline Pinson, a researcher at the Max Planck Institute of Molecular Cell Biology and Genetics in Germany, came upon one small difference in the two gene pools—a small but consequential difference, which seems to have had tremendous significance in the destinies of these closely related human species.

It involves a gene known as *TKTL1*, which controls the development of neurons in the brain's frontal lobe, where the most complicated thought processes take place. The Max Planck experimenters began by collecting *TKTL1* genes from the brain tissue of aborted fetuses—with the permission of the women involved—and inserting it in mice and ferrets, which caused the animals to develop more neurons. Then they removed *TKTL1* from the human tissue, using molecular scanners, and growing the

tissue on by artificial means. They observed lessened development of neurons. The next step was to create a simulated Neanderthal brain by taking a human embryonic stem cell, deleting its TKTL1 gene, and replacing it with a gene derived from Neanderthal DNA. The stem cell, placed in a nutrient bath, likewise produced fewer neurons than a comparable cell that had the Homo sapiens gene. The link between TKTL1 and frontal-lobe development was thus established, and the conclusion was that some mutation in our ancestral genetic line had given rise to a gene that furthered greater intellectual development.

So, even though the Neanderthals actually had bigger brains than ours, it seems as if a little tweak of our DNA somewhere back in deep antiquity gave us an intellectual advantage over them that enabled us to survive and thrive and eventually take over the world, whereas they, for one reason or another, died out thousands of years ago, leaving nothing more than a few fossil skeletons and some vestiges of their DNA in our genetic material. They weren't ape-men, no, not at all. But, thanks to TKTL1 and perhaps a few other DNA mutations yet to be identified, we seem to have wound up not just as Homo sapiens but as Homo superior, the great survivors.