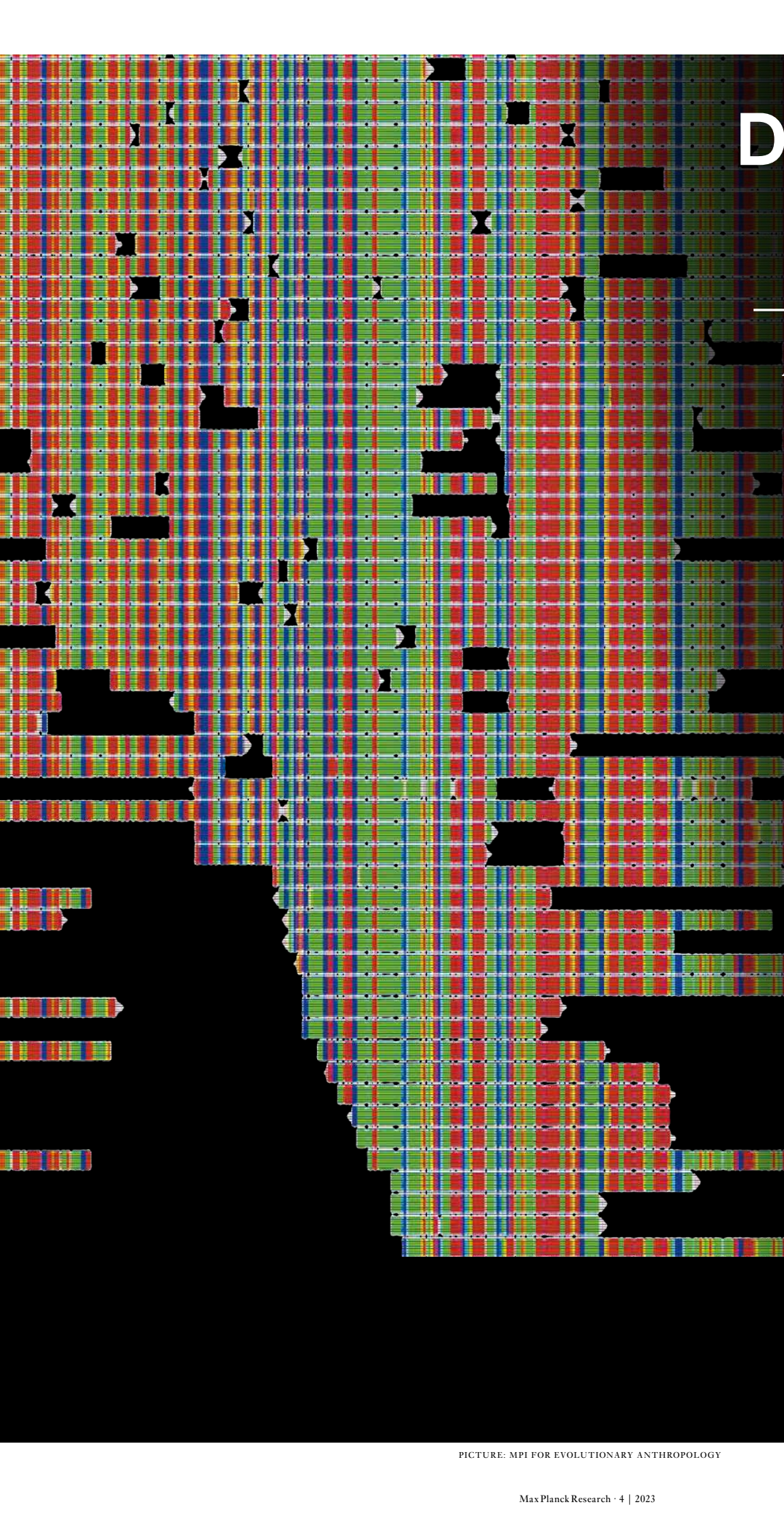




PHOTO: AMERICAN MUSEUM OF NATURAL HISTORY – IAN TATTERSALL



# DOUBLE TAKE

MAX PLANCK INSTITUTE FOR  
EVOLUTIONARY ANTHROPOLOGY

The relationship between *Homo sapiens* and Neanderthals goes back much further than previously assumed. Recent studies show that these two types of human first encountered each other over 200,000 years ago, after some individual *Homo sapiens* had left the African continent. When modern humans spread to Europe and Asia via the Middle East around 50,000 years ago, they once again crossed paths with Neanderthals. This resulted in them having children together – which occurred more frequently than commonly thought.

Up to two percent of the genetic material of human beings outside of Africa is derived from Neanderthals.

The images depict a Neanderthal skeleton and part of this individual's genetic sequence. At the Max Planck Institute for Evolutionary Anthropology, palaeogeneticists are consistently refining methods to analyze ancient DNA. They can now decode genetic material dating back up to 400,000 years, even when only fragments remain. In recognition of his pioneering work in the field of palaeogenetics, Institute Director Svante Pääbo was awarded the Nobel Prize in Physiology or Medicine in 2022.

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