

PEOPLING THE PLANET

Not long ago, the story was simple. A vanguard of modern humans left their African birthplace 50,000–60,000 years ago and quickly conquered Asia. They turned left into Europe some 40,000 years ago, later crossing the Bering Strait and marching southward into the Americas. With their advance, Neanderthals and other earlier peoples dwindled and vanished.

But in the past five years, the picture has grown more complex — and more interesting.

Few question the idea that modern humans are all emigrants from Africa. But when their journey began, when it ended and what they did along the way makes for a deepening mystery, explored in this issue of *Nature*.

Discoveries on the Arabian peninsula, for example, show that modern humans were camped on the doorstep of Asia more than 100,000 years ago, nearly twice as long ago as anyone thought. If they went farther at that early date — and some archaeologists insist that they must have — their presence would explain a smattering of ambiguous artefacts and fossils around Asia (see page 24).

Elsewhere, humans definitely arrived ahead of schedule. Sensitive new radiocarbon-dating techniques show that the first modern humans reached Europe thousands of years earlier than was thought, implying a lengthy coexistence with Neanderthals there (see page 27). And the picture of big-game hunters following an inland route from Asia to the Americas 13,000 years ago has been obliterated by a barrage of reports of older sites. Archaeologists are studying DNA, ancient and modern, for clues to when and how the first Americans arrived (see page 30).

The most dramatic change, however, concerns the archaic peoples whose world we inherited. In the past two years, ancient-DNA researchers have deciphered the full genome sequences of Neanderthals and a hitherto unknown group called Denisovans, then compared them with modern human genomes. The startling upshot: genetic traces of our vanished cousins live on in people today (see page 33). Just where and how the ancient trysts took place is yet to be revealed, as researchers continue to unravel the human story. ■

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