

100,000–11,000 years ago

THE SPREAD OF MODERN HUMANS AROUND THE WORLD DURING THE ICE AGE

All modern humans are descended from populations of *Homo sapiens* that lived in Africa c. 200,000 years ago. Around 60,000 years ago a small group of humans left Africa and over the next 50,000 years its descendants colonized all the world's other continents except Antarctica, in the process replacing all other human species. These migrations were aided by low sea levels during glaciations, which created land bridges linking islands and continents: humans were able to reach most parts of the world on foot. It was in this period of initial colonization of the globe that modern racial characteristics evolved.

Modern humans had first migrated out of Africa c. 100,000 years ago, probably following the Nile valley and crossing the isthmus of Suez into the Levant. For unknown reasons, the descendants of these pioneers died out within a few thousand years, leaving the area to the Neanderthals. Some 40,000 years later, another small group of modern humans migrated out of Africa, perhaps crossing the Red Sea from the Horn of Africa to Arabia. In the Middle East, they encountered Neanderthals. All non-African modern humans carry small traces of Neanderthal DNA so relations between the two were not necessarily hostile.

From the Middle East, modern humans quickly spread east to India and Southeast Asia, replacing the indigenous populations. By 50,000 years ago, humans had reached Australia and New Guinea, which at that time formed a single continent. At no point did sea levels ever fall low enough to link Australia to Southeast Asia, so for this migration some form of seafaring technology was required. Around this time also, the first modern humans arrived in China, reaching Japan c. 30,000 years ago. Perhaps because of the harsh glacial conditions, modern humans did not begin colonizing Europe until c. 45,000 years ago. Modern humans gradually replaced indigenous Neanderthals, who became extinct c. 30,000 years ago.

The last continents to be colonized by humans were the Americas. Alaska was reached c. 16,000 years ago from Northeast Asia via the Bering Sea land bridge, but further progress was barred until the continental ice sheets began to retreat c. 14,000 years ago. By this time, other groups had already bypassed the ice sheets by migrating along the Pacific coast, reaching South America by 14,500 years ago.

