

From their new Middle East location, however, they would go on to populate much of the world.

*N* is a macro-haplogroup descended from the African lineage *L3*. This line of descent, with haplogroup *M*, traces the first human migrations out of Africa. The ancient members of haplogroup *N* spawned sublineages found across Eurasia and, eventually, the Americas.

Early members of this group lived in the eastern Mediterranean and Near East region, where they likely coexisted for a time with pre-modern hominids such as Neandertals. Excavations in Israel's Kebara cave (Mount Carmel) have unearthed Neandertal skeletons at least as recent as 60,000 years old.

Growing cognitive abilities likely gave these Upper Paleolithic humans tremendous social advantages, evidenced by the appearance of modern thought and behavior. This "great leap forward" may have enabled our ancestors to outcompete and eventually replace evolutionary dead-end lineages such as Neandertals.

The macro-haplogroup *N* is composed of many subclades, which are often geographically distinct.

Learning more about these subclades will add further clarity to the big picture of human genetic diversity, and is a primary goal of the Genographic Project.

Haplogroup *A* is descended from *N*. It is split into two major subgroups— *A1* and *A2*. The lineage has a wide geographic distribution.

*A1* is most common in northern and central Asia. The lineage's sub-branches are sometimes defined by distinct geographic regions, such as Japan or Korea.

The *A2* subgroup is found primarily in northeast Siberia—but also occurs among Native Americans.

Some 25,000 to 30,000 years ago an ancient "land bridge" called Beringia connected Asia and Alaska. Beringia centers the long-held theory that the first Americans entered the continent from Siberia in pursuit of plentiful herds of reindeer, musk ox, and mammoth.

Beringia was a significant landmass (some 620 miles or 1000 kilometers across) that was exposed when ice age sea levels were as much as 300 feet (90 meters) lower than at present.

As the climate warmed, rising seas gradually inundated Beringia—which would have isolated North Americans in their new continent.

While there is no definitive proof, many scientific disciplines offer evidence for a Beringia crossing. Among them is genetics, through the history of groups like haplogroup *A*.