

DNA Consultants Adopts New Human Migration Map to Reflect Neanderthal and Denisovan Interbreeding

by Donald N. Yates

DNA Consultants replaced its “beachcomber route” map of human migrations out of Africa with a “northern route” scheme more aligned with current phylogenetic and phylogeographic theory, said Donald N. Yates, principal investigator. “Although the exact timing and geographical details of the separation of the first Eurasians from Africans remain intensely debated, it is clear that a crossing over the Horn of Africa to Arabia and subsequent coastal route around India and Indonesia to Australia cannot explain the admixture with other hominids preserved in the oldest travelers along that road,” said Yates. “The northern route proposed five years ago by Rosa Fregel and Vicente Cabrera of the University of Laguna in Spain has overwhelming advantages and should be adopted as the new model.”

It was Stephen Oppenheimer’s *The Real Eve* that suggested as long ago as 2003 that the main out-of-Africa migration of humans proceeded across the mouth of the Gulf of Suez and around the coasts of Arabia, India and Southeast Asia—the “beachcomber” or southern route. Opposing Oppenheimer, an Oxford genetics professor, was an older theory of multiple dispersals through the Levant, championed by Cambridge University geneticists Marta Mirazon Lahr and Robert Foley.

In 2009, a massive project spearheaded by the Chinese seemed to put that question to rest. The 40-institution HUGO Pan-Asian SNP Consortium “strongly concludes the southern route made a more important contribution to East and Southeast Asian populations than the northern route,” said Li Jin, a population geneticist at Fudan University in Shanghai, China. Jin was one of the lead authors of a study reported in *Science*, vol. 326, no. 5959, p. 1470, “SNP Study Supports Southern Migration Route To Asia,” by Dennis Normile.

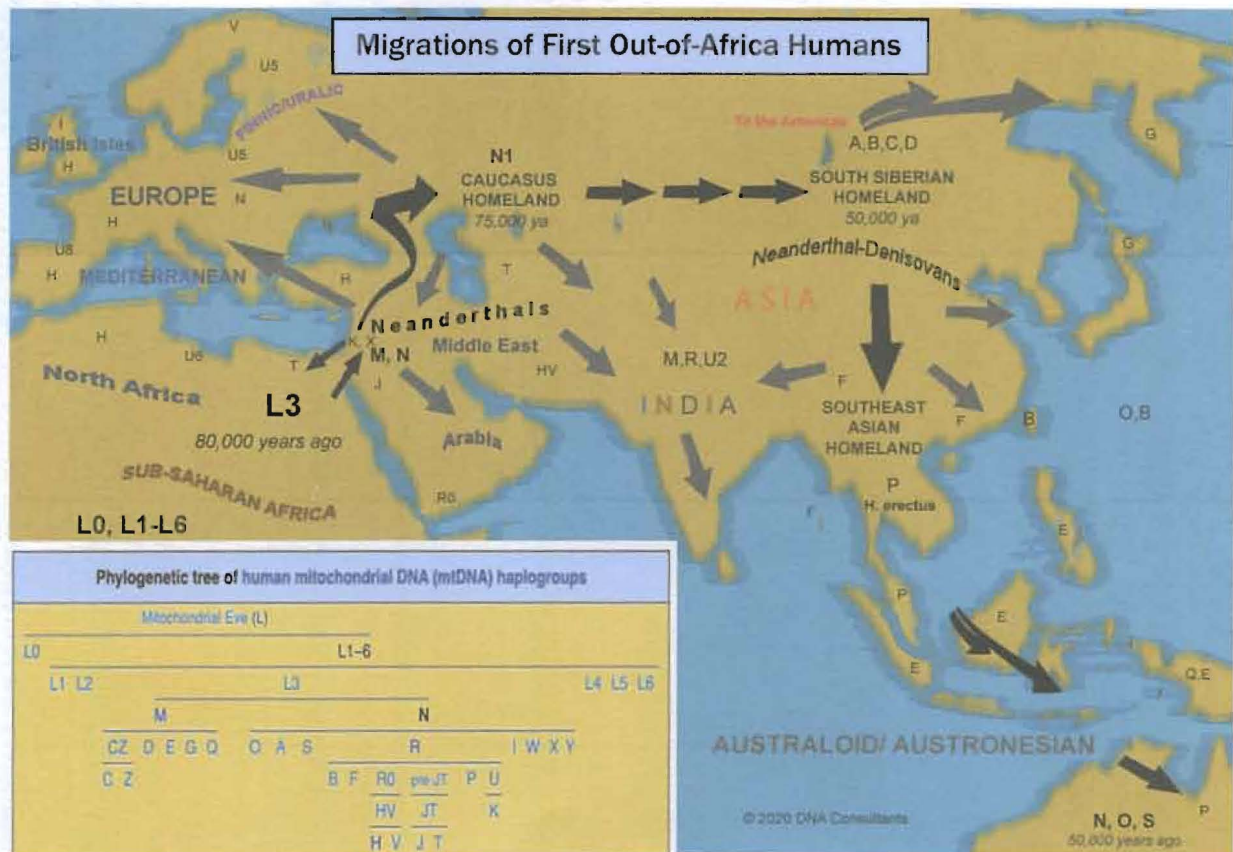
But the issue did not rest there. In 2010, the era of ancient DNA began. The bombshell arrived with the May 7, 2010 issue of *Science Magazine*. Entitled “A Draft Sequence of the Neanderthal Genome,” it presented the years-long attempt of an international team of scientists to derive DNA from ancient female Neanderthal bones and determine if there was any genetic overlap with humans. There was, quite a lot. Later studies zeroed in on Denisovan, Neanderthal-Denisovan hybrid, *Homo erectus*, and “unknown hominid” admixture.

Our new map pays homage to the article, [“Carriers of Mitochondrial DNA Macrohaplogroup N Lineages Reached Australia around 50,000 Years Ago following a Northern Asia Route,”](#) published in *PLoS One*, June 8, 2015, by Rosa Fregel, Vicente Cabrera, Jose M. Larruga, Khaled K. Abu-Amero and Ana M. González (all at Spanish institutions).

According to the Spanish team, ancient DNA sequences embedded in modern samples showed that East Asians actually had more Neanderthal than Europeans, and Austronesians had significant Denisovan. Arabians and Indians had little of either. A northern dispersal route of some 5,000 years duration through territory with proven Neanderthal and Denisovan fossils

made imminently more sense than the beachcomber route, which wasn't supported by any fossils. Phylogenetics and phylogeography agreed.

Lest anyone think that all problems are solved, however, there are still the matters of a possible *Homo erectus* contribution to humans' family tree and a "mystery hominid in North Africa." Debate between the continental and universal origins of humans continues.



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