



## News in Science

### News in Science - New twist on out-of-Africa theory - 14/07/2004

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## New twist on out-of-Africa theory

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ABC Science Online

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Early humans made love, not war, according to new DNA analysis presented at a genetics conference that gives a new twist on the out-of-Africa hypothesis of human origins.

U.S. researcher Professor Alan Templeton of [Washington University](#), St Louis, debunks the prevailing version of the out-of-Africa hypothesis, which says early humans migrated from Africa and wiped out Eurasian populations.

Instead, they bred, he told the [Genetics Society of Australia](#)'s annual conference in Melbourne this week.

Templeton said his evidence didn't support the so-called replacement theory in which African hominids caused the extinction of other *Homo* species.

Instead, he said his analysis of the human genome showed prehistoric gene-swapping created a single evolutionary lineage beginning in Africa and ending where we are today.

He looked at mitochondrial DNA, as well as DNA on a range of chromosomes including X and Y.

"The genetic legacy of current humans is predominantly of African origin," he said.

Templeton is the first to suggest expansion out of Africa occurred in three waves: 2 million years ago, 800,000 years ago and 100,000 years ago.

The alternative view suggests that expansion out of Africa occurred twice and caused the genetic extinction of existing populations, with the colonisers later diversifying into separate races.

### What about races?

But Templeton said this extinction never happened and a combination of movement and interbreeding meant diversification of races didn't occur.



*Homo erectus*, the species thought to be the first to leave Africa for Eurasia in the out-of-Africa model of human origin (Image: Science)

"We really have to abandon the idea of race. It actually does not reflect the genetic differences we can now measure in an objective fashion."

Templeton said the differences between human populations today were based on geography not genetics.

This meant a Norwegian would be more closely related than a Fijian to someone from sub-Saharan Africa.

"We do see differences in different regions of the world but the best indicator of those differences is simply geographical distance and not things like skin colour."

Templeton said his data was inconclusive on whether interbreeding also occurred with Neanderthals.

But he said there was fossil evidence that this probably occurred, which would imply a bit of Neanderthal could live on in us all.

Australian geneticist Associate Professor Philip Batterham from the [University of Melbourne](#) said the research showed humanity was far more closely related than previously thought and that race was a cultural phenomenon.

Templeton's research was published in the journal *Nature* in March 2002.

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