Arrival of Homo sapiens Out of Africa

What is the issue?

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- New research has pushed back the date of human occupation in Australia and South-east Asia.
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What is the existing theories of human arrival to India?

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- There was a super volcanic eruption at Toba in Sumatra, Indonesia, about 74,000 years ago.
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- It dumped tonnes of ash all over South-east Asia and South Asia, causing much stress to all life in the region.
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- Based on the geological event many theories are proposed for the migration of Humans Out Of Africa (OOA).
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- **Early version-**Sapiens arrived from Africa through the Arabian Peninsula before the Toba eruption.
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- They entered with middle Stone Age tools such as scrapers and points that helped them hunt their prey, gather food, or make clothes.
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- This theory was believed to be more acceptable than the later version.
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- **Late version -** It says exact opposite of the early version.
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- They had upgraded technology such as microlithic (tiny stone) tools that might have been used to give sharp tips to arrows and spears.
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What are the evidences for earlier version?

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- The earliest modern human fossil in the region is from the Sri Lankan cave of FaHien.
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- Sri Lanka was then linked to the Indian landmass, as sea levels were lower.
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- In India too, there is abundant evidence of microlithic tools from around the same time.
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- Research in Jwalapuram site in Andhra Pradesh, which posed the first big challenge to the ‘late version’.
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- Jwalapuram lies in the Jurreru river valley and its significance is in the fact that the river basin holds layers of volcanic ash left behind by the Toba eruption.
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- The archaeologists found middle Stone Age tools dated to around 77,000 years ago and were made by what they believe were modern humans.
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- Those findings created a stir because they frontally challenged the ‘late version’.
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- In fact, went on to argue that modern humans could have been in India as early as 100,000-120,000 years ago.
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- The Jwalapuram artefacts are remarkably similar to those made by Middle Stone Age modern humans in Africa.
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What are the proposals supporting later version?

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- New finding states that modern humans were in Australia, 65,000 years ago, that is about 15,000 years earlier than previous estimates.
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- Using the latest multidisciplinary techniques scientists have confirmed a teeth found in Madjedbebe cave of Australia was belonged to modern humans who lived 63,000-73,000 years ago.
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- This pushes back the dates for modern human occupation of South-east Asia by about 20,000 years.
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- The Sumatra and the Madjedbebe findings point in the same direction, that Out of Africa (OOA) migrants made it into South-east Asia before 60,000 years ago.
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- Recent studies on current populations using genetic markers and mutation rates, conclude that OOA migrations could not have happened earlier.
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- It is clear that in no way that an OOA migration could have happened before the Toba eruption of 74,000 years ago.
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What are the issues with the recent findings?

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- If people were already in Australia and South-east Asia by 65,000 years ago, then they would have had to have left Africa and reached India much earlier.
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- Since India having been a key corridor for the OOA migration, this would put the ‘late version’ in jeopardy.
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- There is an attractive meanness to the ‘late version’ and until now there hasn’t been abundant, securely dated evidence against it.
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- The ‘late version’ cites genetics to say that OOA could not have happened before 70,000 years ago.
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- But archaeological evidence says humans were already in Sumatra by around then.
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What are the importance of the human origin theories?

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- The first settlers of India are our direct ancestors.
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- Most of Indian genetic ancestry comes from the first settlers, with the rest contributed by later migrants from West Asia, East Asia, and Central Asia.

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- The deeply held belief that only tribals (about 8.6% of the population) carry the ancestry of the original settlers couldn’t be more wrong.
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- The first settlers of India are, indeed, the bedrock of our population and civilisation.
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- Without getting their origin, it is tough to predict the exact Indian history.
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Way forward

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- The new findings do not really overturn the ‘late version’, but only stretch it to the maximum.
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- The lower end of the Madjedbebe study puts the age of the artefacts at 59,300 years that of the Sumatra study puts it at 63,000 years.
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- Theoretically, both could fall within the extreme range of possibilities, with OOA migrants reaching Australia by 59,000 years ago, after having left Africa by 70,000 years ago.
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- Another possibility is that the Madjedbebe and Sumatra people went extinct long ago, leaving behind artefacts and a couple of teeth, but without leaving a mark in the genetic pool as it exists today.
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- The new studies may have given new wind to the early version of OOA, but it will take new fossil finds with older dates for a new consensus to emerge.
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Source: The Hindu

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