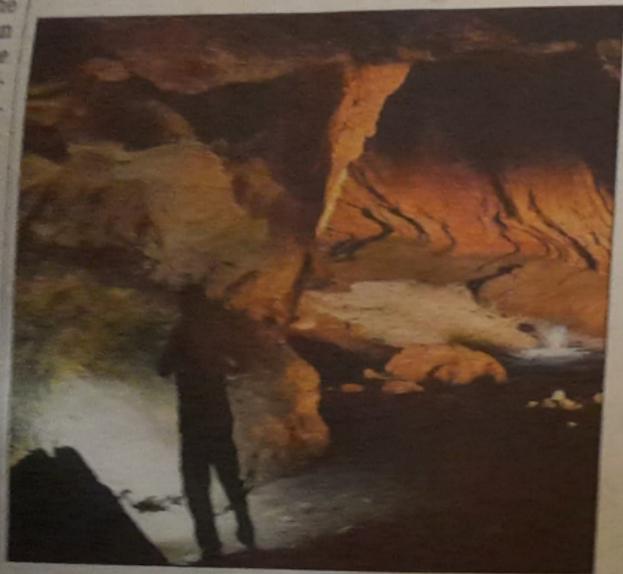


FOR HOMO SAPIENS MIGRATING OUT OF AFRICA, A HOME FOR 20,000 YEARS

Persian plateau the hub of early human migration: Study



Pebdeh Cave in the southern Zagros Mountains, Iran. The cave was occupied by hunter-gatherers as early as 42,000 years ago. (Reuters picture)

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New Delhi: The Persian plateau was a pivotal geographic hub for Homo sapiens, or modern humans, as they emerged out of Africa and spread across Asia and Europe, serving as ancestors of all present-day non-African populations, scientists said on Monday.

The scientists' study that combined archaeological, paleoecological and genetic evidence has shed light on where modern humans spent nearly 20,000 years between their migration out of Africa around 65,000 years ago and their spread across Eurasia, including India, 45,000 years ago.

The study has found

that populations from the Persian plateau carry ancestral genetic signatures that closely match the population that settled in the hub outside Africa. The paleoecological evidence indicates that the region from the southern Caspian shores across the Zagros mountains, and Mesopotamia was the most likely hub. The Zagros mountains stretch from Iran into northern Iraq and south-east Turkey.

Scientists have known for more than two decades that all non-African populations around the world have descended from modern humans who moved out of Africa between 70,000 years to 60,000 years ago. However,

the geographic area where they lived before spreading across Asia and Europe has been a topic of debate with west Asia, south Asia and even Southeast Asia as possible candidate locations.

"We've found a home (for) 20,000 years of shared history between Europeans, east Asians, native Americans and Oceanians," said Luca Pagani, an associate professor of biology at the University of Padova, Italy, who led the study. The identification of the Persian plateau as the hub for early human migration highlights the region's pivotal role in shaping human history, he said in a media release.

The study by Pagani and

his colleagues was published on Monday in the peer-reviewed scientific journal *Nature Communications*.

Archaeological evidence from the Zagros mountains indicates that the Persian plateau hub had also hosted the Neanderthals, an extinct species on the tree of human evolution.

"It is possible that this place offered a setting for genetic admixture between the Neanderthals and modern humans," Pagani told *The Telegraph*.

Multiple earlier studies have shown that present-day modern humans carry genetic segments from the Neanderthals and another extinct species

called the Denisovans.

Among the migrations out of the Persian plateau hub was one that brought modern humans into the Indian subcontinent from where, scientists believe, they expanded into south-east Asia and eventually into Australia. "Later waves brought other populations into the subcontinent," Pagani said.

The study's lead author is Leonardo Vallini at the University of Padova. Michael Petraglia, the director of a research centre for human evolution at Griffith University, Australia, is a co-author among others from academic institutions in Italy, Germany, and Estonia.