

SKULL DISCOVERED IN ETHIOPIA YIELDS NEW CLUES ON HOW HUMANS EVOLVED

Relevant for: Geography | Topic: The Earth, its Evolution and Origin of Life on Earth

A fossil and three-dimensional print of Lucy's ancestor, 3.8 million years old cranium of *Australopithecus Anamensis*, which was discovered in Woranso-Mile palaeontological site, in Afar region, Ethiopia is seen at the National Museum in Addis Ababa, Ethiopia on August 28, 2019. | Photo Credit: [REUTERS](#)

A “remarkably complete” 3.8-million-year-old skull of an early human has been unearthed in Ethiopia, scientists announced on August 28, a discovery that has the potential to alter our understanding of human evolution.

The skull, known as MRD, was discovered not far from the younger Lucy — the ancient ancestor of modern humans — and shows that the two species may have co-existed for about 100,000 years.

“This skull is one of the most complete fossils of hominids more than 3 million years old,” said Yohannes Haile-Selassie, the renowned Ethiopian palaeoanthropologist of the Cleveland Museum of Natural History who is a co-author of two studies published on August 28 in the journal *Nature*.

It “looks set to become another celebrated icon of human evolution”, joining the ranks of other high-profile hominid findings, Fred Spoor of the Natural History Museum of London wrote in a commentary accompanying the studies.

Toumai (of the species *Sahelanthropus tchadensis*) is around 7 million years old and is considered by some palaeontologists to be the first representative of the human lineage. It was discovered in Chad in 2001. Ardi (for *Ardipithecus ramidus*, another species of hominid) was found in Ethiopia in 1994 and is believed to be around 4.5 million years old.

And Lucy, the famous *Australopithecus afarensis*, was discovered in Ethiopia in 1974 and is 3.2 million years old. *Australopithecus afarensis* is one of the longest-lived and most studied early human species.

The new skull, MRD, belongs to the species *Australopithecus anamensis*.

Discovered in February 2016 at the site of Woranso-Mille, just 55 km from where Lucy was found in the Afar region of northeastern Ethiopia, MRD offers “the first glimpse of the face of Lucy's ancestor,” according to a statement announcing the finding.

Other lesser-known *Australopithecus* fossils date back at least 3.9 million years, but they featured only jaws and teeth. Without the skull, scientists' understanding of the evolution of these extinct hominids has remained limited.

The finding challenges a previously held belief about how humans evolved.

“We thought *A. anamensis* (MRD) was gradually turning into *A. afarensis* (Lucy) over time,” said Stephanie Melillo of the Max Planck Institute for Evolutionary Anthropology in Germany, a co-author of the *Nature* studies.

But MRD reveals that the two species co-existed for about 100,000 years, the scientists said.

“This is a game changer in our understanding of human evolution during the Pliocene,” Mr. Haile-Selassie said.

Ms. Melillo agreed, saying it also raised new questions like whether the species competed for space or food.

Though small, the skull has been determined to be that of an adult. Facial reconstructions show a hominid with cheekbones projected forward, a prominent jaw, a flat nose and a narrow forehead.

To the researchers’ surprise, the skull represents a mixture of characteristics of Sahelanthropus like Toumai and Ardipithecus like Ardi as well as more recent species.

“Until now, there was a big gap between the oldest human ancestors, which are about 6 million years old, and species like ‘Lucy’, which are two to three million years old,” said Ms. Melillo. But MRD “links the morphological space between these two groups,” she added.

At a press conference in Addis Ababa on August 28, Mr. Haile-Selassie described how Ali Bereino, a “local guy” from Afar, found the jaw of MRD and immediately brought it to Mr. Haile-Selassie’s attention.

The cranium was soon found nearby, and workers spent days sifting through earth that was “1 per cent dirt and 99 per cent goat poop”, Mr. Haile-Selassie said. “People were not disgusted by it... but some of them of course had to cover their faces because the smell was so bad,” he said.

It was a small price to pay for the discovery of such a complete specimen, he said.

“I did not believe my eyes when I saw the rest of the skull,” recalled Mr. Haile-Selassie, who described the discovery as “a eureka moment and a dream come true”.

Support quality journalism - [Subscribe to The Hindu Digital](#)

Please enter a valid email address.

Astronaut Anne McClain is accused of identity theft and improperly accessing her estranged wife's private financial records while on a sixth-month mission aboard the International Space Station

Choose Quality Journalism, Get rewarded

Subscribe and get our Aug 15, 1947 Collector's Edition as an ebook.

Your ad blocker is blocking quality Journalism

END

Downloaded from **crackIAS.com**

© **Zuccess App** by crackIAS.com