

Georgia clues to human origins

A team of scientists working in Georgia has unearthed the remains of four human-like creatures dating to 1.8 million years ago.

In the journal *Nature*, the researchers outline details of the partial skeletons uncovered in a Medieval town.

The bones reveal a mixture of primitive and advanced features, team leader David Lordkipanidze explained.

These early hominids may have been among the first to leave Africa to colonise the rest of the world.

"They are the earliest, undisputable hominids outside of Africa," Dr Lordkipanidze said.

"We are dating them between 1.7 and 1.8 million years old. They are the most complete collection of a *Homo* [species] from any site older than 300,000 years old," he told the BBC's Science In Action programme.

Ancient pioneers

Discovered in the early 1990s, the Dmanisi site has proved a rich source of remains and artefacts from the dawn of the Pleistocene Epoch.

Studying the various skulls and jaws has given scientists important information about the early species that lived here.

But, until now, they had little information about the rest of the skeleton.

The remains uncovered at the town of Dmanisi consist of the partial skeleton of an adolescent individual associated with a skull, and the "post-cranial" remains of three adults.

In many respects, the well-preserved fossils resemble *Homo erectus*, a species from the genus *Homo* that first appeared in Africa some two million years ago and quickly spread throughout Europe and much of Asia.

They have remarkably human-like spines and lower limbs that would have been well suited for long distance travel. Their feet had well-developed arches.

An apparently small difference in the size of males and females also puts them in the same company as *Homo erectus* and *Homo sapiens*.

Feature mix

However, they also have relatively small brains and primitive upper limbs, traits which they share with the earlier *Homo habilis*, and even with the more primitive *Australopithecus*, which first appeared in Africa some four million years ago.

"They are smaller than what we thought *Homo erectus* could be," David Lordkipanidze explained.

"They have smaller brains; and also their body proportions, they are not completely human-like.

"In the [Nature report], we showed that their legs were very human but their hands were still ape-like. So, I would say these are quite mosaic features; this does not fit precisely the definition of *Homo erectus* before the Dmanisi finds. Maybe we are adding something new to the *Homo erectus* definition."

The most famous example of *Australopithecus* is the so called "Lucy" specimen found in north-eastern Ethiopia in 1974 which led scientists to rethink existing theories about early human evolution.

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