

ANTHROPOLOGY

New Link Found in Africa

A 14,000,000-year old creature, not a man but headed in that direction, has been found. It fills a major gap in the history of man's evolution, Tove Neville reports.

► A NEW MISSING LINK to the origin of man has been found in the heart of Africa.

Dr. L. S. B. Leakey, curator of Coryndon Museum, Nairobi, Kenya, said that the find of a creature 14,000,000 years old fills a major gap in the history of human evolution.

He said the still unnamed creature is not a man "but is headed in that direction." He said it is closer to the family of men (hominids) than to that of apes (pongids).

This the anthropologist deduces from the low-crowned molar tooth, the small-sized canine tooth and a depression on the cheek bone below the eye—the kind of hollow found in man but never in apes.

Altogether, Dr. Leakey uncovered the two upper halves of the creature's palate and one lower tooth. The remains were unearthed among 1,200 fossils found at Fort Ternan in a rainy farming area 40 miles from Kisumu, Kenya.

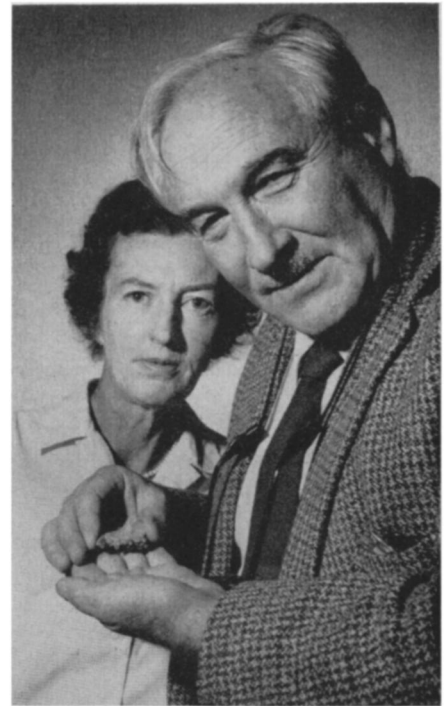
Because the vegetation in the area is very thick, it is difficult to find fossil sites there, Dr. Leakey said. However, he has had farmers scouting for fossils there for many years.

In 1959, an orange grower named Fred Wicker found some fossil bones which he sent to Dr. Leakey. The anthropologist and his wife, Mary, who in 1959 accidentally discovered in Olduvai Gorge the remains of a primitive man *Zinjanthropus* dated at 1,750,000 years, went to the area and discovered fossils of the ancestors of hippos.

In 1961, excavations uncovered fossils of the new creature, along with ancestors of pigs, rhinos, antelopes and extinct elephants. Dr. Leakey and his team also found the first known fossils of the ancestors of the present day giraffes which indicated the animal was proportioned like present day giraffes but with a body the size of a donkey. Dr. Leakey said the elephant remains indicated this animal was about the size of a large horse.

The scientist also discovered the teeth of the primitive ape *Proconsul* which lived some 25,000,000 years ago and a primitive monkey. *Proconsul* was also found by the Leakeys in 1948 in Kenya.

Dr. Leakey said the new creature belongs somewhere between *Proconsul* and *Zinjanthropus* on the evolutionary scale. The age of the creature was determined by the

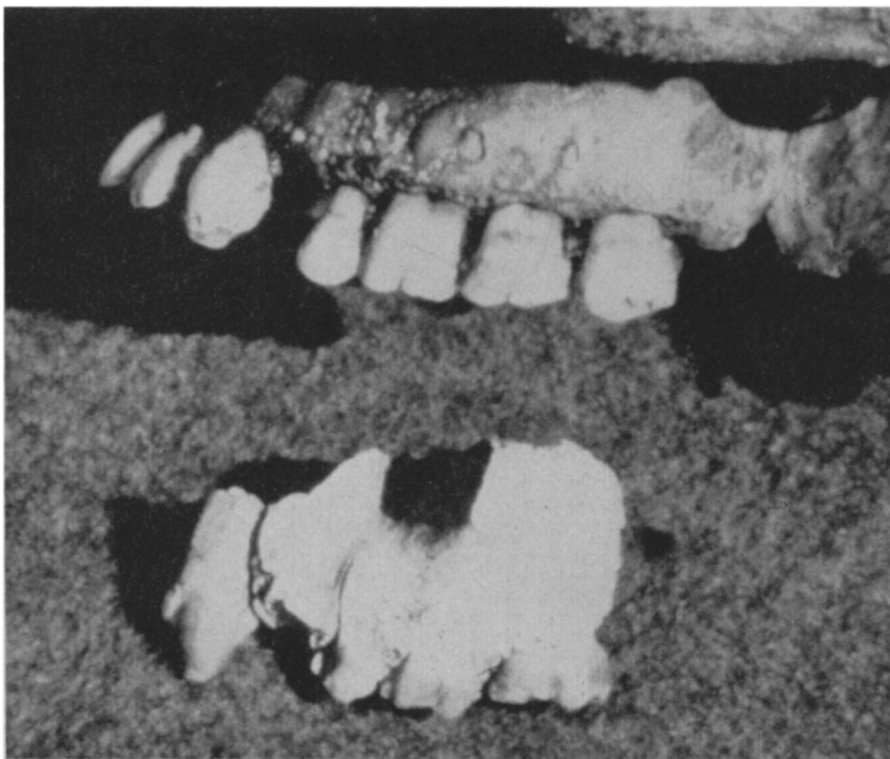


Dr. and Mrs. L. S. B. Leakey. Dr. Leakey holds in his hand a piece of the upper left palate of a creature that lived 14,000,000 years ago.

potassium-argon dating method, using samples from the volcanic material above and below it. The remains of the creature itself were imbedded in fossil soil.

Dr. and Mrs. Leakey, in Washington with their son, received the National Geographic Society's Hubbard Medal, its award for research and exploration. The Leakeys' work in Africa is sponsored by the Society.

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TEETH OF NEW PRIMATE—The left palate of a 14,000,000-year-old primate, discovered in Kenya, is seen (lower) as contrasted with present-day human teeth (above). As in man, the canine tooth projected only slightly below the level of the other teeth.

ASTRONOMY

Biological Materials Formed Prior to Earth

► BIOLOGICAL MATERIALS could have formed on tiny planets that later grouped to make the earth, a scientist reports.

Such "biologically interesting" molecules as water, ammonia and methane were present in high concentration around the so-called planetesimals. These molecules have the basic ingredients of the proteins essential to life.

The planetesimals were about three to 150 feet in diameter, so the sun's tremendous outpouring of radiation had a great effect on the matter surrounding the planetesimals and on the tiny planets themselves.

The planetesimals later clumped together to form earth and the other inner planets, Dr. William A. Fowler of California Institute of Technology, Pasadena, reports in *Science*, 135:1037, 1962.

Dr. Fowler, who is on leave at St. John's College, England, bases his suggestion on the clues to the solar system's early history found in the abundances of elements.

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