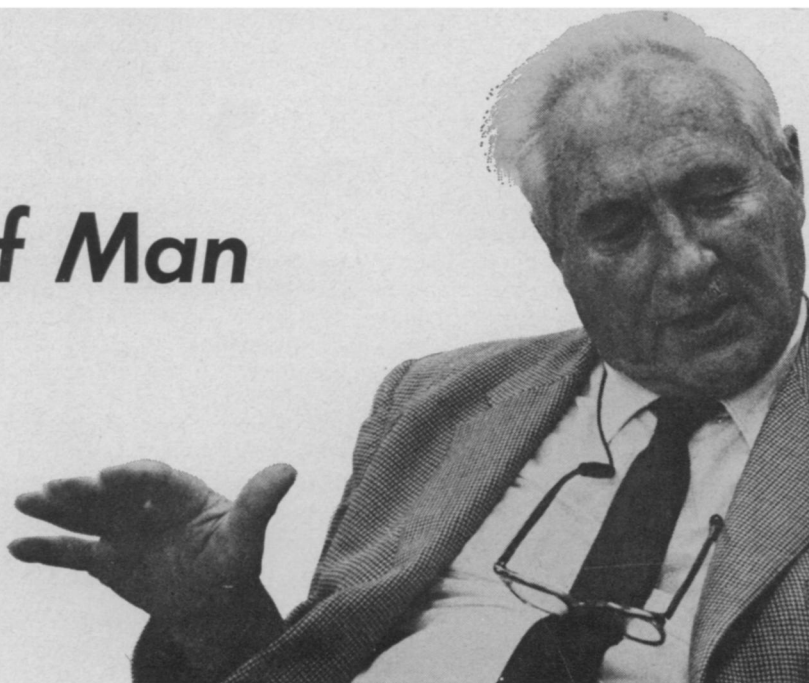


# The Ascent of Man

*Out of the past,*

*Dr. Leakey*

*looks to the future*



by Barbara Tufty

"Today's young people are evolving into a new era of the mind."

The white-haired man who touched the oldest man-related creature on earth believes young people today are evolving into a new kind of era of the mind.

**Dr. Louis S. B. Leakey**, 63-year-old British anthropologist, has long inspected the slow processes of man's evolution from man-ape creatures, and firmly believes in the future toward which man is now emerging.

"Teen-agers today are on the threshold of a new era," he says. "This comes after several million years during which man evolved through a physical era, and then 100,000 years of a psychosocial era. Now man is entering an era where he has the opportunity to use his particular specialty—the mind—and to prevent his own self-destruction."

Dr. Leakey, director of the Coryndon Memorial Museum in Nairobi, Kenya, is an eminent scientist with brilliant eyes, a weathered face and a massive body somewhat stooped with years of creeping on his hands and knees inch by inch to inspect the East African terrain.

Last month, Dr. Leakey announced his discovery of the 20-million-year-old *Kenyapithecus africanus* as the oldest precursor of man yet unearthed.

"This was our biggest single discovery," says this soft-spoken man who, with his wife, has done more than any one man to piece together the past steps of man's evolution over the past 25 million years.

The latest find included teeth and jaw fragments that indicated without any doubt they were true Hominidae or

men, already separated from the Pongidae or apes.

Several differences separate man from anthropoid apes, including the size of the brain, the erect method of walking, and the size of the teeth—man has smaller teeth, while apes have large teeth for crunching raw food and long sharp canines for fighting. The fine borderline separating man from ape, in the fantastically complex assortment of million-year-old bone fragments, is the ability of man to make his own cutting tools.

**For millions of years**—from perhaps 25 million years ago to 100 thousand—pre-man went through a physical evolution in which he was engrossed with physical survival, coping with fierce wild beasts and eating raw food, explains Dr. Leakey. During this time, from the Miocene, the Pliocene and into the Pleistocene age, pre-man gradually went through a series of related changes. He began to stand more erect on his hind feet, thus freeing his hands for more important tasks. His brain was developing, and with his dexterous fingers and thumb he gradually learned to use sticks and stones as weapons and tools—then to fashion them into more convenient shapes. Without a need to tear food apart with his teeth, gradually his canines became smaller and less pointed. This was the era of man's physical evolution.

The next era, Dr. Leakey explains may have started about 100,000 years ago, in the late Pleistocene age, when the species *Homo sapiens* was evolving as modern man and entered

the psychosocial aspect of his evolution. This was the era when man began to have abstract thoughts; to invent the world of spirits, supernatural beings and gods; to take an interest in nature and the environment.

**Now today's young people** are moving into what might be called the mental era, where the specialized feature of man—his mind—might come into use. The younger generation—30 years old and less—can start a snowball movement with the power of vote to influence world politicians and halt the use of bombs and other destructive devices.

They have the capacity to control their own evolution and offer constructive solutions to problems such as enough water for the world and overpopulation.

"Young people are very serious today," he comments. "I do not mean those young people with irritating fads such as the miniskirt, or the psychologically unbalanced youths who burn their draft cards. I mean the average serious person."

This is the sanguine belief of a man who for over 40 years has doggedly pursued his aim to make the past history of man as well known as that of the horse, the camel, or the pig. His persistently spectacular fossil finds have contributed much knowledge about the origin and rise of man.

**A partial list** of his finds include:

- **Proconsul**, a primitive ape living some 25 million years ago in the Miocene era, which may represent a group of apelike creatures on the direct evolutionary line leading to man; un-

## ... Man's ascent

earthed some years ago in 1948.

- Zinjanthropus, the East African or Nutcracker man, the 18-year-old "near man" living about 1.75 million years ago, whose race may have vanished; discovered July 1959.

- Homo habilis, the man with the ability to use tools, who was beginning to eat meat, living about the same time as Zinjanthropus; identified in 1964.

- The LLK skull of a man possibly related to the famous Peking man and Java man of Asia, living about 600,000 years ago; unearthed in 1963.

- Kenyapithecus africanus, the latest discovery and oldest toward-man relic of them all; living about 20 million years ago.

**The story of African-born Dr. Leakey's long trek back to Africa in search of man's past crystallized when he was told as a young student in England not to waste his time searching in Africa for Early Man, "since everyone knew he started in Asia." The obstinate young man set his sights on Africa. The site he most wanted to search, Olduvai Gorge, had been inspected by a geologist who said there was no evidence there of early man or his tools. This gorge was to become the scene of many remarkable fossil finds.**

Olduvai Gorge is a remote slash 35 miles long and several hundred feet deep near the Great Rift in the East African plain. Eons ago it was the site of a shallow lake, beside which ancient animals and pre-man fought and lived. Through the ages, the area became filled with layer upon layer of ash and sediment from earthquakes, volcanic eruptions, flood and windblown sand, cementing the bones in the rock.

Then a river cut through this rich fossil area, exposing the layers like a giant knife cutting through a layer cake.

**For over 30 years, during a brief seven weeks of each year Dr. Leakey and his wife Mary worked 12 hours a day, combing the sun-scorched area with camels-hair paint brushes, dental picks, sieves and magnifying glasses.**

"Sometimes Mary and I feel we have spent more of our lives on our hands and knees than on our feet," he comments. Finally, on July 17, 1959, Mrs. Leakey spotted their first real man-like fossil—Zinjanthropus. From then on other discoveries of fragmented human skulls—looking like rocks or packed mud to untrained eyes—gave Dr. and Mrs. Leakey some of their finest hours of deep satisfaction.

"My wife and I do not get visibly excited," he says, "but we get a terrific sense of achievement in uncovering

these small evidences of man's past, and in realizing one more milestone has been exposed."

**Dr. Leakey was born** in a wattle hut in Kabete village, Kenya, in August 1903, son of British missionaries working among the Kikuyu, Kenya's largest tribe. He grew up among the tribesmen, learning their language and also the value of patience and observation. He then was shipped to school in England, to Cambridge University, then scraped up enough funds to take an expedition to Lake Nakuru in Kenya. From then on his life was dedicated to his search for Early Man. He has written much, been awarded many honors and been offered many academic posts—but he doggedly turns his back on what he calls the "dead wood" of teaching, and returns to more vital work in the research laboratory of sun-baked Africa.

The optimistic strength of the man was indicated in the fact that, when asked what were some of his darkest hours, he leaned back in his chair, thought a while then said quite simply, "I have never had any dark hours. I've always known that just around the corner is another discovery."

**Like many other** scientists, Dr. Leakey believes in a God. "I believe there is something beyond matter, a guiding ordered force. I am certain this is not a man with a beard sitting on a cloud—but there definitely is an



**Jaws of a 20-million-year-old man.**

ordered pattern behind the laws of nature and the universe. The fact that we do not know what it is does not mean that it is not there."

Dr. Leakey does not worry about opposition to his findings, and the controversies he has stirred up with his finds and interpretations. He has made academic sparks fly by his penchant to reexamine facts and theories from new angles, throwing away some—including his own—and erecting new ones. Some of his more salient episodes, besides

his finding Early Man in a place where prevailing scientists said he could not be found, have involved detailed classifications to these Early Men. Many anthropological tempests have raged, for instance, over his theory that three species of men coexisted in the Olduvai Gorge; and scientists are still trying to include his Homo habilis as an Australopithecus. Unperturbed, Dr. Leakey carries on his essential research. He is careful to record and publish his findings only if he can back his facts with proofs, he said—but he is always prepared to change his interpretation of facts.

**"Let me explain** what I mean," he said, reaching into his pocket and pulling out a small black rectangular pill box. "From where you sit, this box looks about two inches long and one inch wide, with a white label. But from where I see it, it is two inches long and only ¼ inch wide, all black. We both are right, but as we see the box under different conditions, our interpretations differ. When I can see something from a different angle, I freely change my interpretation. There is no such thing as final truth, for there are so many facets. We might eventually get 90 percent of true knowledge, but never 100 percent."

As for future finds, Dr. Leakey spoke of an international expedition, attended by his son Richard and wife Margaret to a "very exciting, very rich" region along the Omo River in Southern Ethiopia this summer. Only recently has the Emperor Haile Selassie granted special permission for such an expedition to enter his land.

Another rich fossil site Dr. Leakey hopes someday to explore "when the fighting is over . . ." lies in Kenya, where he is sure he will find evidence of man about five million years old, thus filling a 10-million year old gap—from 12 million to two million years ago—during which no man-like fossil has yet been found.

**From the El Fayume** region, south of Cairo, Egypt, might possibly come a man-ancestor fossil even older than Kenyapithecus. "That exciting discovery might be made by Dr. Elwyn Simons of Yale's Peabody Museum, now digging there," said Dr. Leakey, a bit nostalgically. He remained silent a few seconds, sighed, then picked up his heavily laden briefcases with notes and fossils. For the present, Dr. Leakey has left the world's most ancient man at peace in East Africa, while he tours the United States lecturing to the younger generation in junior colleges.