

## ANTHROPOLOGY

# Africa as Man's Cradle

Remains of *Australopithecus*, thought to be a true "missing link," are believed to be considerably older than those of Java Ape Man and Peking Man.

► THE CRADLE of man is probably in Africa. Although it has been impossible to assign a definite accurate date to the remains of *Australopithecus* found in the Transvaal of southern Africa, he is believed to have made his home in the limestone caves there long before the time of Java Ape Man and Peking Man, Asiatic claimants to the title of man's oldest ancestor.

The fact that Piltdown Man was sawed off man's family tree when this famous skull was found to be a hoax with a doctored up jaw bone of an ape does not greatly alter the anthropologist's present view of man's ancestry. (See SNL, Nov. 28, p. 350.)

Piltdown Man of England, now exposed as a fake, and Neanderthal Man, widespread over Europe, have long been considered at best "uncles" not in the direct line of descent of modern man.

But some leading authorities on man's origin are now convinced that *Australopithecus* was really man's ancestor, a true "missing link" between the lines of ancestry of the great apes and man or close to it.

## Creature Walked Erect

The child's skull found at Taung's, first find of something like 30 individuals now collected in the same general region, had a brain much smaller than that of modern man, but the way the head was set on the spine and the shape and position of the pelvic bone indicated that this little creature walked erect like a man. The way his baby teeth were worn indicated that his jaw was hinged like a man's and that he chewed his food with a rotary motion like a man and not straight up and down like an ape.

The teeth in the jaw long thought to be associated with the Piltdown Man skull were said to have been filed down to imitate this human type of wear—a "forgery" done cleverly enough to launch many years of controversy in scientific circles.

Scientists are often skeptical of the remains of ancient men and animals dug out of the earth's crust. There are reported "discoveries" that were never accepted and never got into the record of science.

Piltdown Man was never accepted fully by many anthropologists. It was not a complete surprise when he was proved to be a fake. The scientists who trusted the early findings of an amateur scientist and lawyer, Charles Dawson, in the years just before World War I are more hurt than angry—hurt that their confidence has been abused and someone, as has been quipped, "made a monkey out of them" as well as Piltdown Man and Dawson.

The original finds made by Dawson were fragments of the skull. When he showed these pieces to scientists at the British Museum, he learned that they were very interesting. An intensive search followed at the site in Sussex for additional pieces. It was later that the jaw bone and teeth were discovered where perhaps they had been "planted."

Although Piltdown Man has now been discredited as a "Dawn Man," he has not completely lost interest for scientists. Although the spurious jaw has been found not to belong to the skull fragments, the skull itself is still thought to be definitely human although probably not more than 50,000 years old. This makes it much less interesting because scientists have perhaps half a hundred specimens of this age. It would make it a modern man about contemporaneous with Cro-Magnon Man.

## Java Ape Man

When bone fragments are found in the ground, scientists always question whether they all belong to the same individual, or even the same age. Java Man is another specimen which has been under suspicion.

A Dutch physician, Eugene Dubois, found this partial skeleton in the latter part of the nineteenth century. The find consisted of the top of a skull, three teeth and a thigh-bone. The femur is straight, and if it can be considered as truly belonging to the same individual who or species who owned the skull in life, then Java Man, although similar in many ways to the ape, walked erect like a human being. If his bones are restudied with modern anthropological methods, it may very well be found that Java Man, like Piltdown Man, is a composite and that all his bones never existed in a single frame.

## Estimated Age Varied

Hint of how scientists had been misled as to the age of Piltdown Man was given as early as 1949 by Dr. K. P. Oakley of the British Museum when he gave an age of 100,000 years to the bones. Before that estimates of his age varied all the way up to 1,000,000 years.

The fluorine method, unfortunately, cannot give an absolute date to any bones studied. It depends upon the fact that bones buried in the ground gradually take up fluorine from the soil. The speed of the process depends upon the conditions of moisture in the soil and upon the concentration of fluorine. When several sets of

bones are found at the same site, the fluorine content can show which of them is older and by approximately how much. This cannot be done, however, when one set of bones is found in England and another in France or Asia.

With the removal of the "Dawn Man" of Piltdown from the earliest branches of the human family tree, interest of students of early man now centers in Asia and Africa.

Africa has given us the large family of *Australopithecinae*. This covers a large variety of human or near human forms—giants and pigmies. One, the "Taungs baby," probably represents a true missing link—a creature who walked like a man and chewed his food like a man, but who had a very small brain and thick skull.

## New African Discovery

Just this year a new discovery was made by an anthropologist of the Transvaal Museum in Africa of what he believes to be the oldest true man, who lived in the Upper Pliocene. (See SNL, Dec. 5, p. 355.) If this discovery stands the test of scientific scrutiny and criticism, this will put the birthplace of true man about 25 miles northwest of Johannesburg.

Asia has given us *Gigantopithecus*, but knowledge of this ancestor is limited to a single enormous tooth. On this basis alone he is visualized as a huge individual. The island of Java has provided bones of a variety of early men or pre-human creatures.

From China comes Peking Man. The original bones of this find disappeared during World War II, and the charge has been made that the U. S. stole them, but they have not yet turned up either in this country or elsewhere. Peking Man lived in the Middle Pleistocene.

England's principal remaining claim to early man is Swanscombe Man, now dated as "more than 100,000 years" old. Probably of the same age or older is the Heidelberg Man of Germany, represented by a jaw, and also a find at Fontchevade in France which, however, has been given the conservative scientific verdict of "probably at least 50,000 years" old.

Cro-Magnon Man is between 25,000 and 50,000 years old.

Scientists do not know just where to place Neanderthal Man in the family tree. It seems probable now that he is just an uncle to modern man, not in the direct line of descent. The trouble with this beetle-browed individual is that his remains have been found scattered over a very wide area in Europe, the Near East and even elsewhere.

The earliest specimens are probably 150,000 years old. Specimens found in the west are much less like modern man than the eastern remains which are much older. This looks as though the Neanderthals went through an evolution which carried them away from the human branch of the tree.

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