

Man's Place Among the Primates

Science Makes Him Relative but Not a Descendant of the Monkeys

(Continued from page one.)

many miles. Beneath this thick blanket of liquid rock, under billions of tons of ashes, were buried the herds, the elephants, the hippopotami, and the primitive men.

Time moved on. Centuries came and centuries went. Other volcanoes erupted, pouring new layers of volcanic deposits upon the blanket of lava that had buried the beasts and the men. By and by these deposits attained a depth of eighty feet.

Then something happened in a big way in the depths of the earth under Java which caused a change in the land levels of the island. Streams and rivers began gnawing into this eighty feet of volcanic waste. The Solo river, for example, kept cutting away, year after year and century after century, until its rapid waters worked down to the level upon which the early men and beasts dwelt at the time of the first eruption.

In the autumn of 1891 Dr. Eugene Dubois, a celebrated Dutch paleontologist, found in digging into a bank of the Solo river near Trinil the top part of a skull of one of the afore-mentioned early citizens of Java. Other fossil fragments were discovered about the same time. These Dr. Dubois associated with the skull. He considered his finds in the light of remnants of a link connecting apes and men—the long-sought missing link. He called the original possessor of the skull cap the ape-man of Java. He gave to it the scientific name of *Pithecanthropus erectus*.

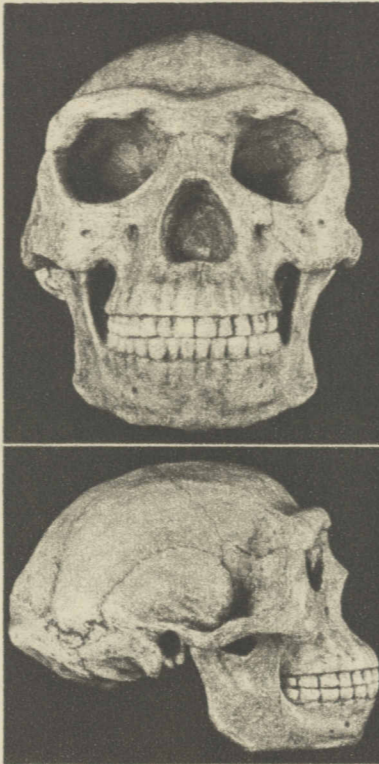
In March, 1936, a part of a skull believed to have been that of a child of the same type as the original ape-man was found in the identical region that provided the first discovery. Dr. G. H. R. von Koenigswald, research associate of the Carnegie institution of Washington, within recent months has found still further fossil remains of *Pithecanthropus*—another skull cap, a lower jawbone, and several teeth.

Measurements of the brain capacity of *Pithecanthropus* and comparison of it with that of another famous anthropological find, the Peking man (*Sinanthropus pekinensis*), indicate, according to Dr. von Koenigswald's theory, that the Java man was the more primitive of the two and, indeed, the most primitive fossil man of whom science has knowledge. That *Pithecanthropus* actually dwelt upon earth earlier than *Sinanthropus*, however, is disputed by Dr. Franz Weidenreich of the Peiping Union Medical college, who believes, and is supported in his belief by a number of anthropologists, that the Peking man was the earlier of the two. Fossil remains of *Sinanthropus* have been found in the Choukoutien caves near Peiping (Peking), China, from 1919 to the present time.

The painting on page one shows in a graphic manner the positions of the human branches of the family tree of the primates. It will be noted that in the drawing the Java man is the one closest to the apes and that his branch is an offshoot of a larger branch that bears other prehistoric men—the previously mentioned Peking man, the Piltdown man of England, and the Neanderthal man.

That the ape-man of Java and the three other primitive types mentioned were not direct ancestors of modern man also is revealed in the painting, which embodies the belief most popular among scientists, yet Dr. von Koenigswald's recent studies have led him to conclude that after all *Pithecanthropus* may have been one of modern man's forefathers.

In 1848 a young lieutenant in the British army found a prehistoric skull in a deserted quarry at Gibraltar. Nine years later workmen while clearing out a cave in Germany discovered the fossilized skull and limb bones of a man of the same species that had provided the skull found at Gibraltar. This early inhabitant



(Photos courtesy American Museum of Natural History, New York.)
Two views of a "rebuilt" skull of Peking man, based on the cranium of an adult female, plus fragments of other skulls.

of Europe, who is thought to have existed there roughly about 50,000 years ago, was called the Neanderthal man (*Homo neanderthalensis*) after the aforementioned cave, located in the Neander valley near Düsseldorf. A complete Neanderthal family, modeled by Frederick

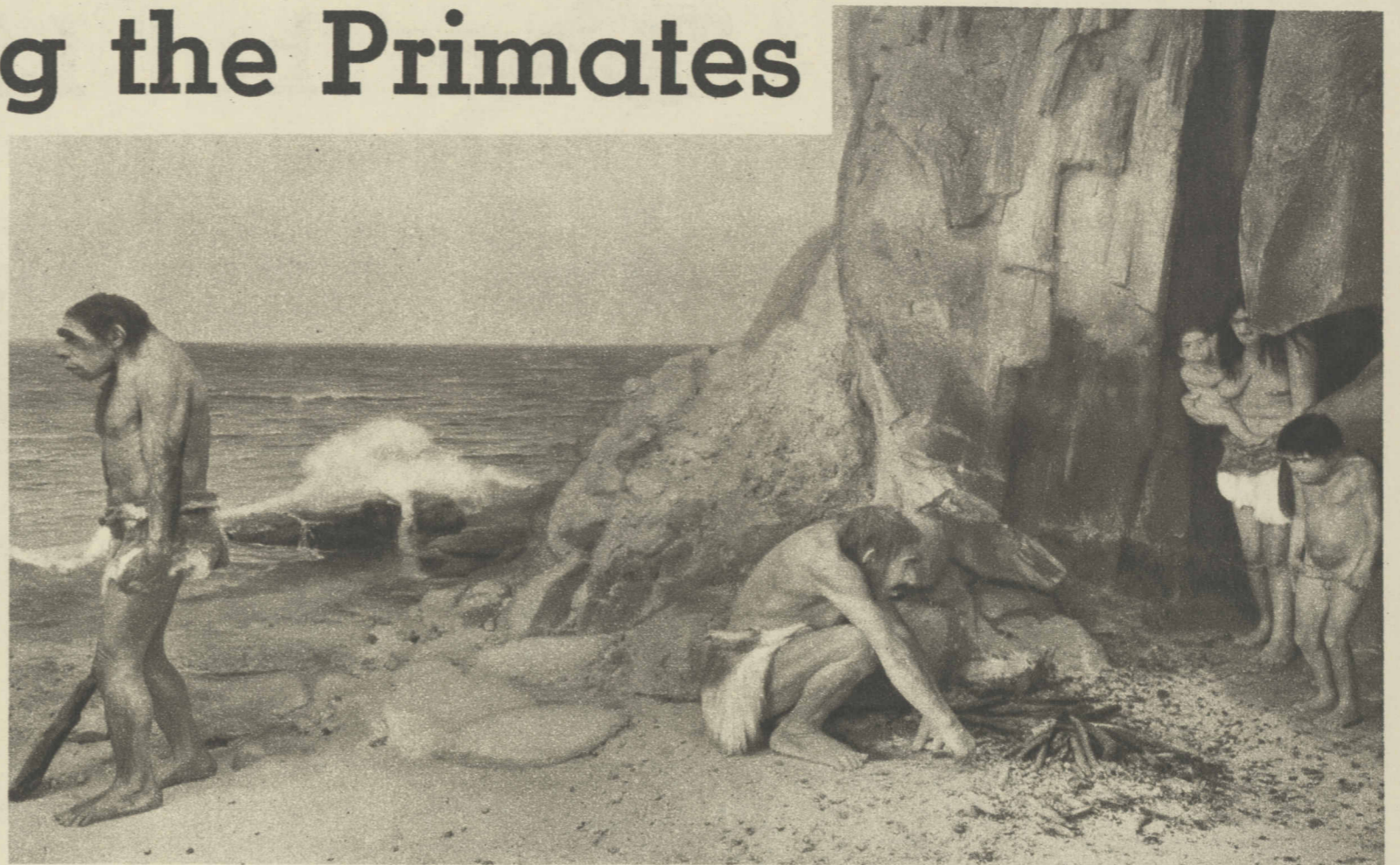


Blaschke, is reproduced in one of the eight dioramas in the Hall of the Stone Age of the Old World in Field Museum of Natural History, Chicago. These dioramas, planned and directed by Dr. Henry Field, curator of physical anthropology, tell the story

of man's cultural and physical development during the last 250,000 years.

The Neanderthal man was a repulsive creature from the modern viewpoint. He was short in stature (about 5 feet 4 inches tall), but rugged and muscular. He had huge eyebrow ridges, and his head was set almost directly upon heavy shoulders. He was so ugly and ferocious in appearance that it is believed the European legends of the ogres arose from his early presence on the continent. The Neanderthal men, of whom more than fifty skulls have been found to date in Germany, France, and as far away as Palestine, are thought to have entered Europe from the east or southeast some time before the third and last stage of the last great ice age. They had flint instruments, knew the use of fire, and buried their dead with a display of respect, but they painted or carved no pictures upon the walls of the caves in which they dwelt.

A discovery of great importance to the study and classification of primitive man was made near Piltdown, Sussex, England, in the years between 1911 and 1915. It was there that Charles Dawson found the greater part of the left half of a human skull, part of a jawbone, and some teeth. From these fragments Sir Arthur Smith Woodward, a



(Field Museum of Natural History photo.)
A Neanderthal family at home, as depicted in a Field Museum diorama modeled by Frederick Blaschke.

available scientists have concluded that the Piltdown man was of a much higher order than the ape-man of Java, representing an advance of many stages from the apelike fellow who roamed Java a half million years ago. The painting on page one discloses the Piltdown man as separate from and not in line with any of the three other prehistoric men of a group most

naicians (named after the Aurignac cave, Haute-Garonne, France). They filtered into Europe from Asia about 30,000 to 35,000 years ago. They employed bone and flint instruments, burned crude lamps, drew pictures upon the walls of caves, wore jewelry made of shells, and buried their dead with offerings. Whether or not they found Neanderthal men still living in

dwellers. With their greater cunning and their probably superior weapons these Cro-Magnons could have trapped and slain or at least ousted from their caves the sturdier, brutish Neanderthals.

Dr. Field prefers to believe, in the light of recent evidence, however, that the Neanderthal man and the Aurignacian man did not meet. He suggests that the Neanderthal man may have been wiped out by some insect-borne disease such as malaria, and he points out that no skeletons have been found showing combined physical characteristics of the two types of men. There is left of the Neanderthal only fossil bones, while the millions who inhabit the earth today differ from the Cro-Magnons only in robusticity of build and strength of jaw.

Down through the ages, from the early appearance of fully developed men of the modern type to this very day and hour, man has been slowly progressing, with only occasional lapses here and there. That he was confined to the eastern half of the world in his earlier stages of development is shown by the fact that no fossilized remains of truly primitive men, such as the Neanderthal man, have been found in the western world. In fact, it is believed that men first came into North America about 25,000 years ago by way of Bering strait, or possibly by a land bridge that existed then in that area. A later wave of migration introduced the domestic dog.

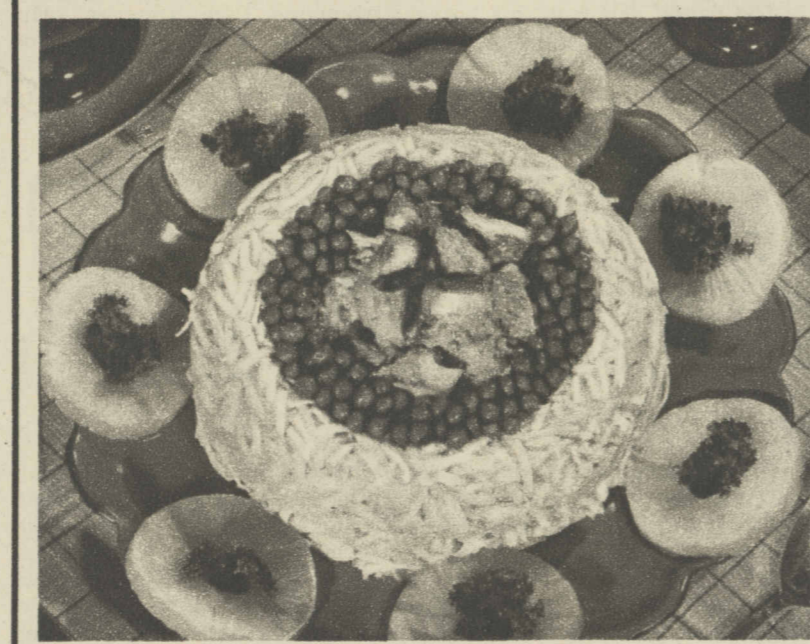
For some reason as yet not fully determined the human migration from Asia into America was halted between the time of the first domestication of the



(Photos courtesy Carnegie Institution of Washington.)
At left Dr. G. H. R. von Koenigswald and native assistants at the site of an important discovery. Above, *Pithecanthropus* skull found by Dr. von Koenigswald.

Europe when they invaded that continent is not known for certain. Imaginative writers from time to time have attempted to tell the story of an age-long feud between the earlier inhabitants and the Cro-Magnons which finally resulted in the survival of the fittest—the men with the superior brains. It is easy to picture in the mind a group of Aurignacian explorers penetrating some new district of Europe and spying out here and there a family of Neanderthal cave

frequently classified as submen. First of the true men (men of the same species as those who inhabit the world today) to enter Europe are known now as Cro-Magnons, after the Cro-Magnon cave of Dordogne, France. Earliest of this type were the Aurig-



For picture purposes lemon-soaked pineapple rings look better unbrowned. But they taste better scuteed in butter.

By MARY MEADE

HERE ARE examples of a simple luncheon and dinner. Spaghetti platter with cheese sauce and hard-cooked eggs, plus a crisp vegetable salad, bread, and fruit sauce, makes a luncheon hearty enough to satisfy the appetites of both youngsters and grownups. And a dinner of noodle ring filled with fresh peas and creamed meat or fish, and garnished with

lemon pineapple slices, is complete with a salad and cake.

SPAGHETTI WITH CHEESE SAUCE AND EGGS
(Serves five)

- 1/2 pound spaghetti
- 2 cups medium white sauce
- 1/4 pound cheese, cut in pieces
- Hard cooked eggs

Cook the spaghetti in boiling salted water until tender. Drain. Melt cheese in white sauce in the top of a double boiler. Turn hot spaghetti onto a platter,

Serving Something Simple

circle it with halved hard-cooked eggs, and pour the sauce over it.

NOODLE RING PLATTER

- (Serves five)
- 8 ounces egg noodles (or 8 ounces macaroni)
- 1 1/2 cups hot milk
- 1 cup cracker crumbs
- 1 teaspoon minced onion
- 1 tablespoon chopped green pepper
- 1/4 cup butter
- 1 pimiento, chopped
- 1 cup grated cheese
- 3/4 teaspoon salt
- 3 eggs

Cook noodles (or macaroni) in boiling salted water until tender. Drain. Scald milk and pour over cracker crumbs in a mixing bowl. Sauté onion and green pepper in butter for three minutes. Stir into milk and cracker mixture. Add pimiento, cheese, seasoning, and beaten eggs. Place noodles in a greased ring mold and lift here and there with fork while pouring in mixture. Place in a pan of hot water and bake about fifty minutes at 350 degrees, moderate oven. When done turn onto a platter, fill with creamed sea food, and make a ring of cooked peas around that. Garnish the platter with pineapple rings marinated in lemon juice and browned in butter with a little grated lemon rind.



Spaghetti with cheese sauce and eggs is an inexpensive and simple luncheon dish. Serve it with a crisp vegetable salad, bread, and a fruit dessert. The recipe will serve five hungry persons, six not so hungry.