EVOLUTION

Apes—Or Something Else?

The abandonment by science of the theory that man descended from the ape is urged by Dr. Henry Fairfield Osborn, president of the American Museum of Natural History and leading authority on the evolution of man. Delivering the principal address of the bicentenary celebration of the American Philosophical Society. Dr. Osborn declared that the ancestors of modern man were "dawn men," who in geologic time known as Oligocene sprang from an animal stock from which also rose independently the anthropoid apes.

The antiquity of man is thus set at millions instead of thousands of years, the apes are made more remote cousins of man, and the whole drama of man's climb upward from ancient animal to civilization is made more lengthy although more direct.

"The Age of Man or the Pleistocene can no longer be regarded as Act I of the prehistoric human drama," Dr. Osborn said, "but rather as the final act, because at the very beginning of the Pleistocene, we find the human race well established and widely distributed over the earth.

"The prologue and the opening acts of the human drama occurred way back 16,000,000 years ago in the Upper Oligocene Period. At this period, or before, the family of man sprang from a stock neither human nor ape-like but possessing certain common attributes which have been transmitted over this very long period of time to variously branching races of human beings on one hand and to variously branching races of anthropoid apes on the other."

Northern Asia was the home of the dawn men, the progenitors of modern men. Dr. Osborn described the Hominidae, as he calls the dawn man family, as ground-living, cursorial, alert, capable of tool-making, and living in the relatively open country on the high plateaus and plains of Northern Asia.

It is from such a source that the modern races of men originated, Dr. Osborn believes. Early in the dawn of human history this parent highbrow stock, risen above its animal beginnings, flourished and dominated the great continent of northern Eurasia. And it is in Mongolia that Dr. Osborn believes there will soon be found the pro-man, the "dawn-man,"

the missing links between the Australoid, Negroid, Mongoloid and Caucasian peoples of today and that common ancestor of man and ape.

At the time that the dawn men were developing human characteristics in the rigorous climate of Northern Asia, a great empire of lowbrowed Neanderthaloid races extended over the whole of Europe, Northern Asia and the West of Asia. These human-like creatures with overhanging eyebrows, low retreating foreheads, massive jaws, and retreating chins, were not the direct ancestors of modern men, but another branch of the family that did not acquire superior intelligence on account of the easy climatic conditions under which they lived.

The high-browed races of Asia superseded the low-browed races of Europe and in their turn left evidence in quarry and pit of their skill and evolution upward.

Pithecanthropus erectus, the Trinil man, usually considered the most ancient of man's ancestors, was relegated tonight by Dr. Osborn to the obscurity of a left-over from the lowbrowed Neanderthaloid races. Moreover, Dr. Osborn declared that fossil elephants found with the Java man indicate that he lived in the relatively recent geologic age of Middle Pleistocene instead of the earlier Pliocene time. To the Heidelberg and Piltdown men, Dr. Osborn on the authority of recent geological discoveries assigned much greater antiquity than to the Java man.

Dr. Osborn's conclusions regarding the origin of man are regarded generally as certain to start a considerable controversy, for not all students of evolution are by any means ready to agree with him. Even among his associates at the American Museum a challenger arises. Dr. William K. Gregory holds stoutly for the view, orthodox since Darwin, that man and the apes marched together until a far later date than that assigned by Dr. Osborn for the birth of the human race. At the same meeting of the American Philosophical Society, Dr. Gregory summed up the evidences on the when and where of the beginnings of a distinctly human race that have led him to this conclusion. He disagrees with his colleague's doctrine that man and the apes never were related but sprang separately from a

(Just turn the page)

NATURE RAMBLINGS

By Frank Thone



SS

Tree Swallow

"When the swallows homeward fly," and similar sentimental songs, are written to be sung more or less mournfully in autumn; but the swallows are actually flying homeward now, in the springtime, and setting about in earnest to seek homes for themselves and the families they will rear during the summer.

The first of all the swallows thus to fly homeward in the time of blossoming hawthorn is the tree swallow. The tree swallow should, perhaps, be given a more modern title: telegraph-wire swallow. For nowadays it will not roost in a tree so long as it can find a wire, and telegraph and telephone lines festooned with these slim, tilting, twittering birds are a very common sight anywhere in the country. They seem to prefer lines that loop along over marshy country, possibly because marshlands produce many insects, which are almost the sole food of these birds, and are invariably caught on the wing. Swallows have very short and very wide beaks, and as they dart swiftly through the air, considerably outspeeding such slowflighted insects as beetles and mosquitoes, they are in effect small but very accurately aimed living insect

Swallows are among the friend-liest of birds, showing little fear of man and readily accepting tenantry in houses which he may build for them. They are social creatures, and like special birdhouses with many little rooms in them, so that they may all live together amicably, after the fashion of families in city apartment houses, though fortunately with much less bickering than sometimes characterizes huddled humans.

Science News-Letter, May 7, 1927

Five kinds of mosquitoes in this country act as carriers of malaria.

The foreign trade of China increased 300 per cent during the past 12 years.

Early Egyptian doctors were also priests.

The horse is the only living one-toed animal.

Paper milk bottles are used by a London dairy.

Bedouins of Arabia believe in a four-cornered earth.

Death Valley, California, has 350 cloudless days in a year.

Artificial silk was first made commercially about 35 years ago.

Tarantulas make themselves useful by eating up large cockroaches.

An American steamer is the first ship to try burning pulverized coal.

An attempt is being made to introduce salmon into the streams of Hawaii.

Body tissues of a human being contain an infinitesimal quantity of nickel.

One-day shopping excursions from London to Paris by air are soon to be started.

The most expensive method of mummifying used by the Egyptians cost about \$2,500.

Four-fifths of America's crude rubber imports last year came from British possessions.

Folding wings are made for some large airplanes so that they can be stored in smaller space.

If 23 alphabet letters were used in making every conceivable word in every language, the number of words would exceed 25 with 21 ciphers after it.

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Apes—Or Something Else?

(Continued from page 295)

still lower ancestral animal group and evolved side by side, but in diverging lines, through many millions of years. Since 1916 he has accepted, however, Dr. Osborn's theory that beings entitled to be called human have existed since Pliocene times, a million years ago, much longer than most paleontologists have been prepared to admit.

Dr. Gregory was led to doubt the hypothesis of the separate development of man and apes from the beginning by a comparative study of teeth and bones. Long before the time when this separate development is supposed to have started, five or six million years ago, another separate development was beginning among the four-footed mammals, which has resulted in such exceedingly unlike animals as the tapir and the horse. More divergence, Dr. Gregory said, had taken place between the horse and tapir than between the ape and man. And he cited many minute details in which man still resembles the apes, and in which the bones, jaws and teeth of primitive men even more closely resemble the bones of extinct species of apes. He admitted that it would be much more agreeable to human selfesteem to adopt an opposite doctrine, and likened himself to the slave at the ancient royal banquet, whose unpleasant and probably risky job it was to whisper into the king's ear: "Remember that thou also art but mortal."

Science News-Letter, May 7, 1927

EVOLUTION Was First Man an American?

Has Nebraska produced the most ancient evidence of the existence of man yet known to science?

This question is raised by Dr. Henry Fairfield Osborn, president of the American Museum of Natural History, in a report to the American Philosophical Society in which he reveals that investigations conducted by him in collaboration with Albert Thomson, of the American Museum staff, have unearthed fossil bone implements in geologic strata that are considered some 4,000,000 years old, an age known to geologists as Pliocene.

Since past opinion has been that the most ancient evidences of man were to be found in the Old World, and since claims of the discovery of man in America antedating the Indians, some 25,000 years ago, have been received heretofore with skepticism, the announcement of Dr. Osborn, one of the world's leading authorities on the antiquity and evolution of man, will create great scientific interest.

Over 300 implements of forty different types have been discovered. They are made of the bones of extinct animals that lived in Pliocene times, but time has caused them to be turned into stone. These are the first completely fossilized bones to be discovered, Dr. Osborn stated. Among the animals whose bones are represented in the collection are extinct horses, camels, deer, elephants and mastodons.

The exact locality in which the discovery was made has not yet been announced by Dr. Osborn with further detail than to state that it is in western Nebraska. Dr. Osborn explained that he desired to protect the site from curiosity seekers who might interfere with the scientific investigations. The first of these artifacts were discovered about two years ago, and since that time tractors and other modern machinery have been used in excavating the area. Two localities about 75 feet apart have produced most of the implements.

The fossilized implements are described by Dr. Osborn as of undoubted human origin and of symmetrical shape. Among them are skin dressers for cleaning animal hides, pointed awl-like implements evidently used in sewing, neck ornaments made of strung bones, and a kind of comb that seems to be a tattooing implement. Eighteen of the types of tools have been matched with counterparts found in the ruins of cliff dwellers of the arid regions of the Southwest, and one type can be nearly duplicated by a much more recent implement from the shell heaps of eastern Amer-Dr. Osborn declared that the fossilized bone specimens must be studied by others before it will be safe to definitely assign them a human origin. But unlike the implements of Europe, which are usually weapons and hunting tools, the Nebraska artifacts are nearly wholly related to the peaceful arts.

Dr. Osborn announced that further investigations are to be carried on this summer.

Science News-Letter, May 7, 1927

Olive lionheaded goldfish is a recent import to America from the Orient.

Tests show that an aviator can talk with the ground by special apparatus from a height of a mile.