

# *Meet Your Ancestors*

A BIOGRAPHY OF  
PRIMITIVE MAN

*By Roy Chapman Andrews*



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1946

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Whatever is good in this book  
is affectionately dedicated

TO

WILLIAM KING GREGORY  
a profound interpreter of the facts of  
evolution; an inspiring teacher and my  
friend for nearly forty years.

## PREFACE

ALL MY LIFE I have been a sportsman. Beginning with whales, I have shot big game and dangerous game in most of the countries of the world. There were some thrilling days but none equaled the one when we thought, briefly, that we had discovered a human skeleton, older than the Ice Age, in Mongolia. None of them equaled the excitement of unraveling the story of the Dune Dwellers, an unknown people who lived in the barren reaches of the Gobi Desert long before the dawn of history.

After the war many young men and women still will seek adventure. To them, I say:

“Go on the biggest and most exciting hunt of all—the search for the bones of our ancestors. It will give more thrills, and more satisfaction, than any other job I know, and I speak from a lifetime of adventure.”

In the past, nearly all the discoveries of primitive human remains have been made by accident. We need organized, intensive search, using the modern methods and latest infor-

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mation of science. Go, I pray, to Asia or Africa. There is where the most important results will be attained. Both countries are almost virgin fields. If these pages inspire even one man, or one woman, to undertake seriously the quest, my efforts will have been worth while.

There is another reason why I wrote this book. Every thinking person would like to know by what steps he came to be what he is today and what actual proof we have. He would like to know, but seldom does he have the time, training, or inclination to read the technical, or even the excellent detailed popular books, on the subject of human evolution. He wants the most important and most interesting information presented in a concentrated and easily digestible pill. That fact I discovered during the past twenty years while talking with literally hundreds of people about the evolution of man. All of their questions more or less followed the same pattern. The basis of this little book is taken from those queries. For that audience, I have endeavored to present in *streamlined form* what is known to date, from actual specimens, about the physical development, home life, and environment of primitive man.

It has been a tough job to try to bring the dry bones to life, to maintain accuracy and give authoritative information. Technicalities could not be entirely eliminated, but I have reduced them to the minimum. It is, of course, very far from a complete story of man's evolution, which is long and involved. Had I attempted that, my original purpose in writing the book would have been defeated. I have given only the conclusions reached by the most eminent authorities, with as

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little as possible of the technical evidence upon which the conclusions are based. Moreover, only those specimens are discussed which show the significant stages in man's physical evolution. I have adopted Dr. Franz Weidenreich's recent classification of human types as the best present judgment of their evolutionary position and relationship. Several exceedingly important discoveries of recent years have radically changed earlier opinions and have not before been presented in popular literature. To that extent, and the account of my personal experiences alone, is the information new.

My connection with the study of primitive man has been only that of hunting for his remains. I have done no laboratory research on the specimens themselves. But for a score of years I have been closely associated with some of the world's most distinguished authorities in that field and have been privileged to examine the originals of many important human fossils, and some of the sites of their discovery, under the guidance of those scientists who have studied them exhaustively. I have, of course, drawn extensively upon the literature of human evolution. Dr. Franz Weidenreich's superb technical monograph, *The Skull of Sinanthropus pekinensis*, published in 1943, in which he discusses many other primitive human types, has been my constant source of reference for the latest authoritative pronouncements. To Dr. Raymond Murray's *Man's Unknown Ancestors* I can enthusiastically refer those readers who wish a more complete account of human evolution than the scope of this book allows. From Dr. William Howell's *Mankind So Far* I have derived much information, and of course Dr. Earnest A. Hooton's *Up from*

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*the Ape* and *Apes, Men and Morons* are classics to whom any biographer of primitive man is committed. Dr. Frederick Tilney's *The Master of Destiny* is a fascinating book about the brain, to which I have had frequent reference.

Dr. Weidenreich has been unfailingly kind. He has read much of the manuscript of this book for technical accuracy. My colleagues of the American Museum of Natural History, Drs. William K. Gregory and N. C. Nelson, have read those chapters which deal with their particular fields. Mr. Abel I. Smith, of Norfolk, Connecticut, gave me valuable advice in the arrangement of the material. To all of these gentlemen my best thanks are tendered. None of them, however, is in any way responsible for the deficiencies of the book, of which, doubtless, there are many.

Pondwood Farm, Colebrook, Conn.

May 1, 1945

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## *Meet Your Ancestors*

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Neanderthal Man

FROM THE GROUP IN THE CHICAGO NATURAL HISTORY MUSEUM



## CHAPTER ONE

### *Relatives and Ancestors*

I OFTEN STOP for a moment when visitors are looking at the gorilla habitat group in the Akeley African Hall of the American Museum of Natural History. I stop because I want to irritate myself by hearing a remark that I know I will hear; it's like pressing a sore spot just to be sure it is still sore. The remark is: "No one can make me believe I came from an ape like that!" I almost never miss. Someone is sure to say it.

That Darwin said man came from a living ape is one of those fallacies of natural science as hard to down as the belief that whales are fishes, that the hoop-snake takes its tail in its mouth to roll downhill, and that monkeys form a living bridge across a crocodile-infested river by holding to one another's tails. What makes it so annoying is that science does not maintain such a thesis and never has. What it does say, is that the man-like apes—gorilla, chimpanzee, orangutan, and gibbon—are our *relatives*, not our immediate ancestors; that they came *with* man from a common stock back in the far dim past; that the ape-human stem early became divided

into two main branches, one developing in the direction of man, the other in that of the living great apes.

Of course, the real trouble is that mankind is essentially snobbish. It does not want to admit that its ancestors lived "on the other side of the railroad tracks" and were of extremely lowly origin. Just because we dominate the earth now and are fond of "acting like the viceroy of God," it hurts our pride to admit that our great ad infinitum grandfathers and grandmothers searched for grubs under stones, hung about like jackals, happy to get the leavings from kills of the saber-toothed tiger and other carnivores, and had not very nice cannibalistic habits. A specially created Adam and Eve, dallying in a beautiful garden and eating apples, are the kind of ancestors of whom we could really be proud.

Doubtless our early progenitors did eat apples and fruit of all kinds, as well as berries, birds' eggs, and nuts when they could get them. But the teeth they left behind show they were omnivorous, just as we are. They liked meat. Probably most of what they got was carrion. Plenty of evidence indicates that two of their favorite dishes were brains and marrow, human and otherwise. It would not make the slightest difference to a primitive Benedict that the brains were those of his own mother-in-law who had bored him to the point of her extinction. The marrow from her leg bones would taste just as good as any other.

As a matter of fact, cannibals still exist and there would be many more if eating each other wasn't frowned upon by government. I have read that former cannibals say human flesh is delicious, but that white men are rather salty. I never

could understand why biographers of primitive man raise their eyebrows at the cannibalistic habits of our ancestors when men of our own species now living, practice the custom. These tastes are just "hold overs" from our primitive state. Today, fried calves' brains are served at our best restaurants and marrow is a special delicacy. Some gourmets think Limburger cheese is delectable. It doesn't smell any better to my nose than a dead horse! The Eskimos prefer frozen rotten fish to the fresh article. Englishmen like their game very, very high.

But no matter what we would like to believe, facts are facts. There is incontrovertible proof that man and the great apes are not very distantly related and that they both inherited many characters from a common ancestor. Comparative anatomy demonstrates that our bodies and those of the anthropoids are built upon a similar pattern. Of course, the proportions are different. The apes have long arms and short legs, while with us the opposite is true. But their skeletons, teeth, muscles, and visceral anatomy are astoundingly like ours. Even their brains. The late Dr. Frederick Tilney has said that the gorilla's brain is almost human. The counterpart of each individual fold, or convolution, is evident, the only difference being that they are less complex than in man, who has the fundamental advantage of expansion because of a larger skull.

The embryonic development, the female reproductive organs and the unfolding of the sexual life, the reduction or absence of the penis bone, the reaction to drugs and to various diseases are remarkably similar in all the great apes and man.

## MEET YOUR ANCESTORS

Syphilis is a peculiarly human disease, and yet, inoculated chimpanzees developed both primary and secondary symptoms. In captivity, gorillas and chimps are especially susceptible to pneumonia and influenza. Blood tests are even more convincing. Experiments demonstrate that if the blood of a man is introduced into a chimpanzee a harmonious blending takes place. But if it is transfused into a horse or dog, agitation ensues and red blood corpuscles are destroyed. Biochemical blood reactions very definitely establish the relationship between man and the anthropoids.

Sir Arthur Keith found that only thirty per cent of man's structural characters are peculiar to himself. Among the remaining seventy per cent, man shares twenty-six per cent with the gorilla and chimpanzee, but with no other mammal. Professor Huxley rightly maintained that the structural differences between man and the great apes are less than those which separate the anthropoids from the lower apes.

## OUR APE ANCESTOR

The main stem of our family tree goes back to a group of giant apes known as the "dryopithecids." These were the sort of beasts from which the gorilla, chimpanzee, orangutan, gibbon, *and* man probably developed. The genus *Dryopithecus*, or Forest Ape, represents an extremely diversified family—real apes, but apes with human possibilities. They lived in Europe, Asia, and Africa—going from Spain to India—during the Miocene and Pliocene periods, something like one

to fifteen million years ago. So our *n*th degree progenitors carry us back only that far. The early Insectivores, including the ancestors of the shrews and moles that we trap on our lawns and in the bushes, can trace their lineage to the close of the dim Age of Reptiles seventy or eighty million years B.C. We found the remains of these tiny mammals in the Gobi Desert along with the dinosaur eggs. Fifteen million years for our remote ape ancestry is merely a drop in the geological bucket. Instead of being one of the "oldest families," we are almost the newest comers.

But the Forest Ape never will make the front pages of the newspapers. If he is mentioned at all, he will be tucked off in some obscure corner of an inside sheet. No editor would feature an animal whose characters as a good "structural ancestor" of man can only be discerned if pointed out by a scientist. Especially since the teeth provide the most convincing proof. My colleague, Dr. William King Gregory, who has been studying teeth for forty odd years—and who, more than a quarter of a century ago, initiated me into the mystery of the "Tritubercular Theory of the Mammalian Molar Tooth"—is primarily responsible for establishing the Forest Ape as one who stood at, or near, the fork of the road where ape and man diverged. Dr. Gregory has shown that the molar teeth of the Forest Ape had almost the same basic arrangement of the cusps as those in many human first and second lower molars, in most fossil men, and in the gorilla and chimpanzee. He calls it the "*Dryopithecus* pattern." It is a consistent arrangement which, with modifications, has persisted through the ages and could not possibly be due to chance.



The Forest Ape was big—almost as large as a modern man. The teeth and fragmentary jaws are all that we have of him except a slender thigh bone which, in its form, suggests that he progressed through the trees by swinging from one branch to another. The gibbons, orangutans, and chimpanzees travel that way—"brachiation," it is called. I must talk a little about brachiation because it was of the utmost importance in the early development of man's erect posture. One genus of gibbons is named *Hylobates* (tree walkers) but they can do a good deal more than walk in the trees. When I hunted them in Yunnan and Burma they gave me the surprise of my life. The first time I saw them was just after I had returned to camp from inspecting a line of traps. Suddenly the forest resounded with the breath-taking call of the gibbons—*hu-wa, hu-wa, hu-wa*. It seemed a long way off but became louder and clearer every minute. Seizing my rifle I dashed down the mountainside, slipping, stumbling, and falling. The animals were in the giant forest about five hundred feet below the summit of the ridge, and as I neared them I moved cautiously from tree to tree, going forward only when they called. It was one of the most exciting stalks I have ever made, for the wild, ringing howls seemed almost above my head.

But I was still a hundred yards away when a huge black ape leaped out of a tree top just as I stepped from behind a bush. He saw me instantly. For a full half-minute he hung suspended by one arm, his round head thrust forward, staring intently; then launching himself through the air as though shot from a catapult, he caught a branch twenty feet away, swung to another, and literally flew through the tree tops.