

ANTHROPOLOGY

Your Ancestors—500,000 B.C. Scientists Probe Man's Origin

Homo Sapiens' Start Probably in Old World—Experts Agree That Americas Were Then "No Man's Land"

By EMILY C. DAVIS

HAVE you any mental picture of your great-great-repeated a few thousand times grandfather, who lived, say, half a million years ago?

What a help the old gentleman would be to modern scientists, if he could come back to earth for a day!

For our Stone Age ancestors and distant connections are to be a center of scientific attention this month. Eminent anthropologists have come thousands of miles from China, Africa, European countries, to meet with American scientists in Philadelphia next week. And for

what? To lay on the table, so to speak, all their combined knowledge, all the evidence ever dug up in patient endeavor to show what the oldest men on earth were like.

Imagine your great-great-etc., grandfather wrapped in his best fur robe, favorite axe in hand, stalking into that international gathering. Even if he talked only in grunts and had nothing to say for publication, he would teach eager, observant scientists more about the Old Stone Age than they can learn in a century of digging.

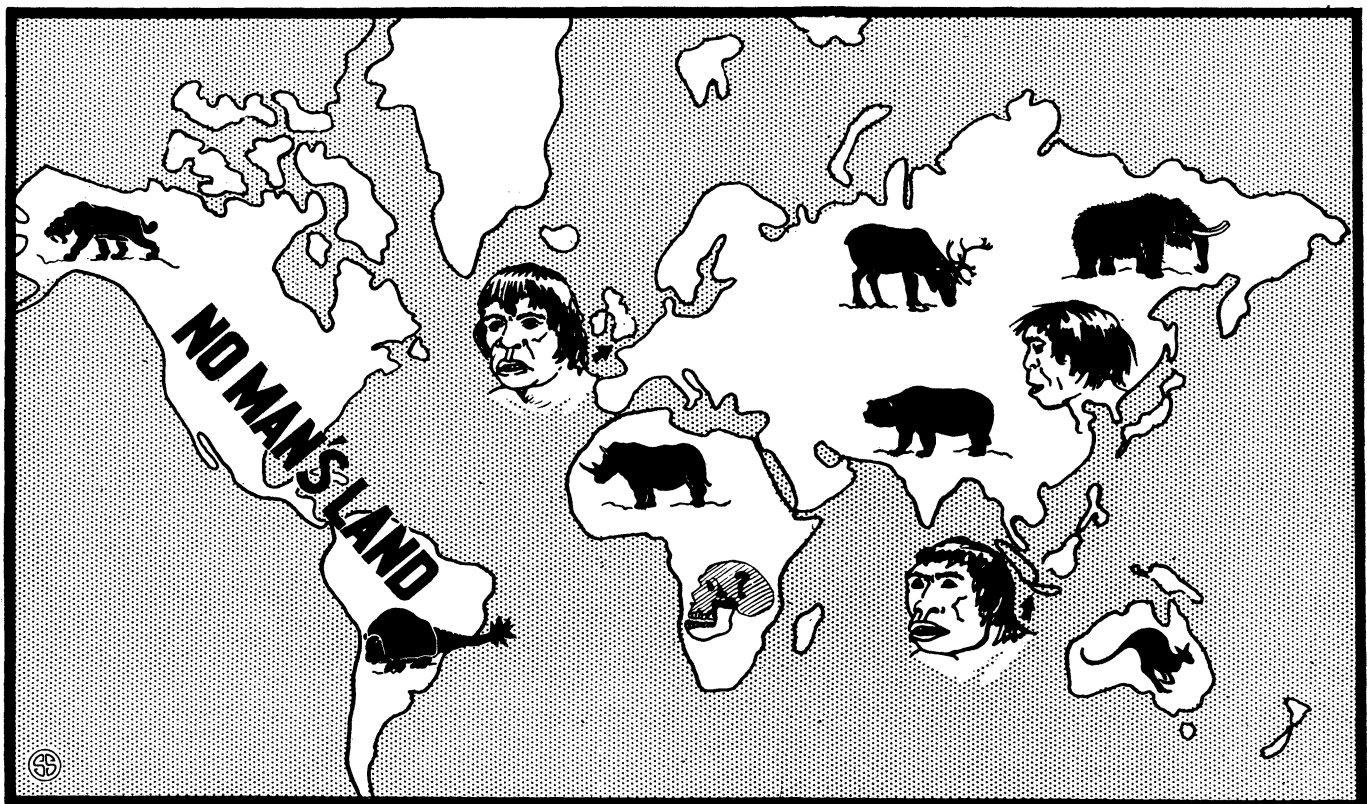
That's impossible and fantastic, of course.

As the next best thing, scientists are bringing to the meeting some of the treasured fragments of man's early existence, and casts of other rare and famous remains.

The occasion for this International Symposium on Early Man is the 125th anniversary of the founding of the Academy of Natural Sciences of Philadelphia.

When the Academy was started in 1812, science was dimly beginning to glimpse rediscovery of a strange lost age of men with uncouth manners and tools shaped of stone. Archbishop Ussher was still a popular authority on the age of the earth, with his decision for Bible history that the world was created in the year 4004 B.C. But there had already been discoveries that foreshadowed an upheaval of this dating. It was the mid-nineteenth century, however, before fossil bones of the Old Stone Age were found and recognized as remote and extinct races of man.

Now, important clues are unearthed and given wide publicity, every year.



EARLIEST MEN—HALF MILLION YEARS AGO?

Java is prehistorically famous as home of *Pithecanthropus erectus*. A late verdict says Java Man is just a big ape, and this may call for a new portrait, to replace the one shown. A cave in China is being probed for more and more skeletons of Peking Man. England's Piltdown Man, as shown, is sometimes put in this class of antiquity, but there is many an argument over that. Kanam Man from Africa is just a jawbone with some teeth. There is too little of him to permit a likeness, but what there is arouses violent scientific debate. He may be a direct ancestor of modern man. The animals shown are contemporary with early man.

Hundreds of scientists are working to assemble man's scattered past.

The hardest problem is to get every possible bit of meaning out of a jawbone from an African site, a skull cap from English gravel, or bones of two dozen individuals from a Chinese cave.

An international conference offers a rare chance for experts to talk together, and iron out differences of opinion.

Experimental Men

Discoveries show plainly that Nature long ago produced a number of experimental types of mankind. Only the species called *Homo sapiens*, meaning wise or intelligent man, has survived.

We are probably not looking at a direct ancestor, when we stare curiously at a restoration bust of one of the most famous experimental man-creatures, such as the Piltdown dawn man, found in England, or Peking Man, China's oldest known inhabitant.

Heidelberg Man, known only by a brutish jaw, is another of the discarded experiments. As for Java Man, or Pithecanthropus, most noted of all the ancients, the latest pronouncement on him is that he was probably not a man after all, but an ape—a superior sort of gibbon. He lived in trees, walked on all fours part of the time, at least, and while his brain was bigger than that of any known ape, yet this ancient specimen did not talk or think man-fashion. This verdict by Prof. Eugene Dubois may, if generally accepted, remove old Pithecanthropus from the gallery of prehistoric notables, entirely.

To look at the oldest recognized direct ancestor of modern man, you have to be content with observing the jaw of Kanam Man, found in Africa by a British scientist, Dr. J. S. B. Leakey. And, at that, you may keep mental reservations about relationship to this fossil, because not all scientists agree with Dr. Leakey's verdict that this Kanam Man is directly ancestral to *Homo sapiens* and at the same time half a million years old.

When dates are quoted at more than 10,000 years or so back, America is conspicuously left out of the argument. Not a trace of a dawn man or woman has ever been found on these shores.

The leading candidate for title of earliest known American is Minnesota Man. Twenty thousand years are as much as Prof. A. E. Jenks of the University of Minnesota claims for the antiquity of this skeleton, which makes the New World seem new indeed, by anthropological standards.

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LARGEST PORTABLE TELESCOPE

A telescope's location, as well as its size, is important. Cornell takes pride in the world's largest portable telescope, whose 24-inch diameter mirror is shown above. William T. Thomas, retired Ithaca business man, who spent months grinding its delicate surface, is inspecting his handiwork. No single part of the completed telescope will weigh more than 20 pounds.

ANTHROPOLOGY

Peking Man's Own Jaws Argue His Primitiveness

Peking Man's own jaws argue in favor of his position as one of the most primitive of all human types—perhaps even the most primitive. Evidence based on the study of eleven fragmentary *Sinanthropus* jawbones is presented by Dr. Franz Weidenreich of Peiping Union Medical College in a special publication of the National Geological Survey of China.

Dr. Weidenreich compares the Peking jaws in a number of respects with the jawbones of modern Chinese on the one hand and with the jawbones of several primitive human races, and of anthropoid apes, on the other. In practically every point studied—general massiveness, size and shape of teeth, angle between the halves of the jaw, and so on—Peking Man, though still undoubtedly human, shows more simian characters in his jaw than other human beings. *Sinanthropus* was as little like the modern Chinese as can well be imagined.

Particular contrasts between Peking Man and the modern Chinese are found

at opposite ends of the jaw. At the back, the part of the jaw that rises to hinge against the skull is almost vertical in Peking Man—a decidedly gorilla-like character. In modern Chinese there is a very pronounced back-slope—an angle of 125 degrees, instead of almost 90 degrees as in the ancient jaws.

Even more pronounced is the contrast in the matter of chins. Peking Man simply had no chin at all; his jaw curved sharply back from the base of his front teeth. With this receding chin and an equally receding brow, Peking Man must have had just about as rugged-looking a face as a round Chinese teapot. In strong contrast with this is the sharply-jutting chin that adorns the modern Chinese jawbone. It might be summed up by saying that Peking Man had a powerful jaw and an exceedingly weak chin, while the modern Chinese has a jaw of only moderate strength but a rather well developed chin.

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