

ANTHROPOLOGY

Extinct "Uncle" Gave Us Fire

All our principal weapons against the cold were given to our ancestors by Neanderthal. This eastern relative may have also given our direct ancestors their first lessons in religion.

By MARJORIE VAN DE WATER

► MAN'S IMPORTANT weapons against the cold—housing, clothing, and fire—were not inventions of our direct ancestors. They were given to him by an extinct "uncle" of the human line, Neanderthal man.

These important inventions enabled ancient man to brave the cruel cold of Europe during the ice ages and to spread out to conquer the world.

Our debt to Neanderthal for these means of human survival is acknowledged by a new theory proposed by Dr. J. E. Weckler of the University of Southern California.

In the early years before the third interglacial period, early man was a wanderer. Like many other animals, he followed the climate. Between glacial periods, he would drift northward into Europe. The movement was probably slow and largely unplanned, because the climatic changes occurred slowly over periods of thousands of years. A shift in a band's range of only a few miles per generation would be enough to enable early man to keep up with the gradually changing climate and the animals and plants that were his familiar food.

When Europe froze up again with the next advance of the glaciers, man retreated slowly into his original birthplace, Africa.

The tribe that re-invaded Europe and India when the earth warmed up again did not include the same individuals who lived there earlier. The new tribe was more advanced.

Meantime, on the other side of great geographical barriers, Neanderthal was develop-

ing independently. Neanderthal in inner Asia was a stay-at-home, not a wanderer. He did not find it so easy as did his European nephews to escape by migration the waves of bitter cold which came with the advancing ice sheets. Impassable frozen mountain peaks stood between him and the sunny south. Having lived where he was for hundreds of generations, Mr. Neanderthal would not have known he could escape the cruel cold by moving east several hundred miles before he turned south.

So it was that the cold cut down tremendously the surviving numbers of Neanderthals. For those who did survive two important things happened. In the first place, with succeeding generations Neanderthals became adapted physically to withstand the cold. They developed a short, stocky build with thick, heavy bones.

Developed Clothes

Then, as with modern man, when he could not run away from his problem, he put his intelligence to work. He invented ways to help him survive in the cold. He learned to put on clothing and to huddle in the shelter of caves and close to fires to keep himself warm.

It was after this, when the climate warmed up after the cold of the third glaciation, that his numbers increased and he did finally expand his range. Then he explored the lowlands north of the barrier and reached northwest India and eastern Europe.

Here he met the ancestors of modern man, known to scientists as *Homo sapiens* (Intelligent Man). And in this mingling, socially and by mating, *Homo sapiens* gained new ideas and new genes.

This gave *Homo sapiens* a double-barreled preparation for setting out to conquer the world. The new genes provided him with more variety in his physical makeup for natural selection to work on in adapting him for life in varied climates. The new ideas offered him protection for his naked body against the rigors of climate.

It was the mixture of Neanderthal and *Homo sapiens* that produced the new kind of Neanderthal that has long puzzled anthropologists and which they term the "Progressive" Neanderthal.

But man has to thank his now-extinct uncle Neanderthal for more than the original invention of basic creature comforts, Dr. Weckler suggests.

Man probably gained from Neanderthal also the early beginnings of religion, magic and belief in a supernatural power and in a life after death.

The earliest recorded human burials were those made by Neanderthal during the European Mousterian, Dr. Weckler points out. The Mt. Carmel Neanderthals probably practiced burial too, he says.

"The magically oriented art complex of the Upper Paleolithic, the origin of which is otherwise unexplained," Dr. Weckler points out, "could be the result of enrichment by *Homo sapiens* of these basic ritual ideas obtained from Neanderthal."

It was when *Homo sapiens* had thoroughly assimilated and improved on the ideas he got from Neanderthal that he took advantage of the relative warmth of the first interstadial of the Wurm glaciation to launch forth on his initial conquest of the world.

Overran Europe

It was at that time that he overran Europe and pushed around the barrier into eastern Asia. And at that time also, he may have discovered and colonized the New World some 20,000 to 25,000 years before the first voyage of Columbus.

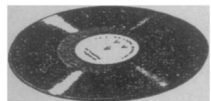
The New World has been considered by anthropologists as very new indeed from the point of view of occupancy by man.

Traces of ancient man found in Alaska, near the former land bridge over which men must have crossed to the New World from Asia, dated back to only about 3,000 B.C. This was the time when men in the Old World were entering the Bronze Age.

Men had already mastered the great art of tilling the soil and herding animals. The wheel had been invented and put to use, first in making pottery and later on chariots. The invention of the wheel, together with the boat and sail and the domesticated donkey enabled the kings of those days to whisk armies about to conquer and plunder their neighbors in an early kind of "blitzkrieg."

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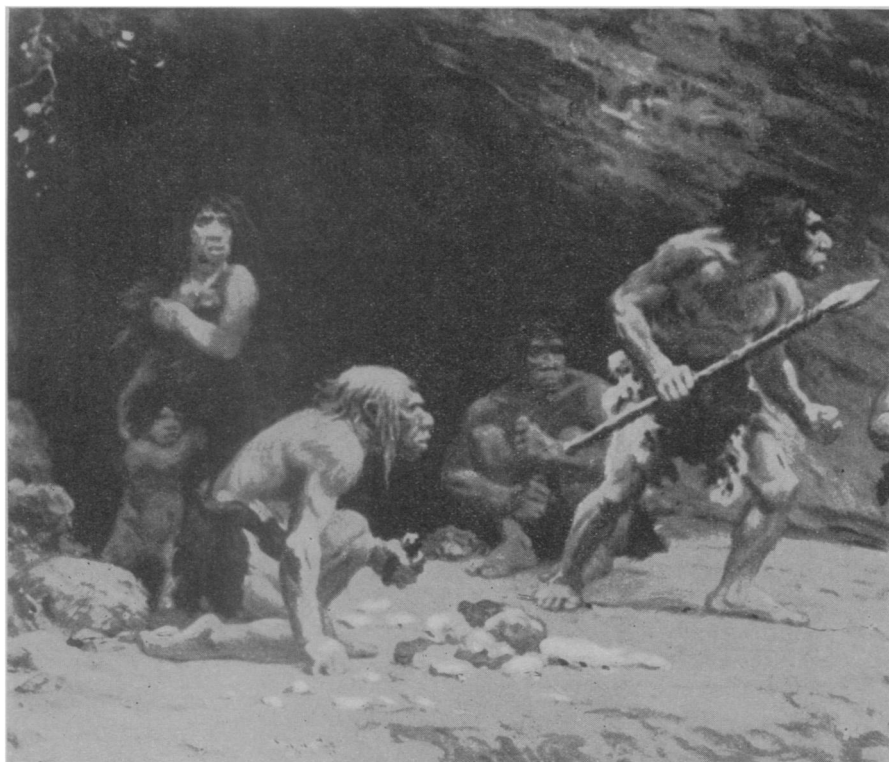
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NEANDERTHAL FAMILY LIFE—This exhibit at the American Museum of Natural History, New York, shows how this "uncle" of modern man used homes and clothing to protect him from the cold—lessons he passed on to our direct ancestors.

anthropologists found a peculiar fluted stone weapon point which geological evidence indicated was of great antiquity. These "Folsom points" indicated that man must have lived in America some 10,000 to 12,000 years ago. But for many years, only the weapons of Folsom Man were found; not a trace was unearthed of Folsom Man.

In 1947, a gentleman of comparable antiquity was unearthed in Mexico, Tepexpan Man. And last year, new evidence showed that without question Tepexpan Man lived at the same time as, and actually hunted down, giant elephant-like mammoths that are now extinct.

As the search goes on for ancient man in America, the time over which he has occupied this hemisphere is gradually being

extended. A skull has now been found which is believed to have belonged to Folsom Man or perhaps an even earlier American.

This year, the era of man in America was doubled in length. Radiocarbon dating of charcoal from the campfires of man were dated at 23,000 years for a find in Tule Springs, Nev., and at 26,000 years for remains from Sandia Cave, N. Mex.

The campfire by which those early Americans warmed cold fingers and toes, and which enabled the 20th-century atomic physicist to date their presence here, was the important invention which ancient *Homo sapiens* learned from his rough and ready Uncle Neanderthal.

Science News Letter, February 19, 1955

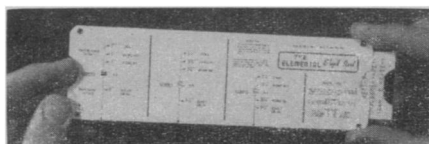
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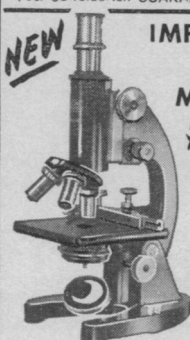


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