

ARCHAEOLOGY

Stone Age Alaskan Found

An Eskimo legend led to the discovery of Stone Age Man in Alaska. Their stone tools and weapons mark them as the equal of Europe's famed Cro-Magnon man.

By VINCENZO PETRULLO

➤ "THOSE were made by the dwarf."

The Eskimos crowded around the puzzled white man holding several tiny pieces of chipped stone in the palm of his hand.

"What dwarf?" the archaeologist asked the excited Eskimos.

"Only the little dwarf could have made such small tools. He lived a very long time ago. He was very small, only knee-high, but he had great powers. He could make great magic. He could do anything. He was a great chief. Come with us. We will show you where he lived."

Top Discovery of Year

The archaeologist listened to the legend and let the Eskimo lead him to where the dwarf had lived. As a result there has been unearthed on the shores of Bering Sea evidence of America's earliest ancestors of modern man, Old Stone Age Americans who lived from 10,000 to perhaps 20,000 years ago when the Great Ice Age was almost over.

Corroborating evidence has been found by Dr. Helge Larsen of Copenhagen's Danish Museum who dug at a cave site on Seward Peninsula, about 100 miles farther north.

To archaeologists and anthropologists this is the top discovery of the year.

For the Old Stone Age Alaskans are shown by their unusual stone tools and weapons to be the equivalent of Europe's famous Cro-Magnon men, who painted wonderful drawings in caves and were as handsome as the best-looking people of today.

The American archaeologist who listened to the Eskimo legend and was led by it to make the discovery is Prof. Louis Giddings, a young man, quiet and unassuming, whose frail appearance makes him seem more like the arm-chair professor than an Arctic explorer. He is director of archaeological research at the University of Alaska and leader of an expedition searching for ancient man on Bering's shores.

The Eskimos, excited though they were over finding the small tools, had originally been reluctant to camp at Nukleet, the site where they were found.

"No one has camped here," they told Prof. Giddings, "since the time when an unnatural son killed and ate his own mother here."

Prof. Giddings found no evidence of

cannibalism at Nukleet, but, digging through a number of layers, he did find evidence that the place had been occupied as far back as 2,000 years ago by the Eskimos. In the lowest layer consisting of water worn pebbles, indicating a former beach, he found the microliths, small man-chipped flakes of flint stone which the Eskimos quickly attributed to the legendary dwarf.

Intrigued by the story, Prof. Giddings followed his guides to the other side of the peninsula to a spot on Norton Bay opposite Seward Peninsula called Iyatayet by the Eskimos. It was at this site that he discovered the buried relics of paleolithic (Old Stone Age) man.

No Bones at Iyatayet

Iyatayet is a stretch of swampland connecting the ten-mile-long, one-mile-wide basaltic ridge known as Cape Denbigh to the mainland. A fresh water stream flows through it, insuring drinking water the year around. There is no sure source of fresh water at any other place on the Cape. It is probably for this reason that the site

was a favorite camping place for the primitive hunters who lived in that part of Alaska. The area shows signs of human occupation as much as a quarter of a mile from the present shoreline.

But the water which attracted these ancient people to the site also has prevented preservation of their bones for modern scientists to find. No human or animal bones have been discovered.

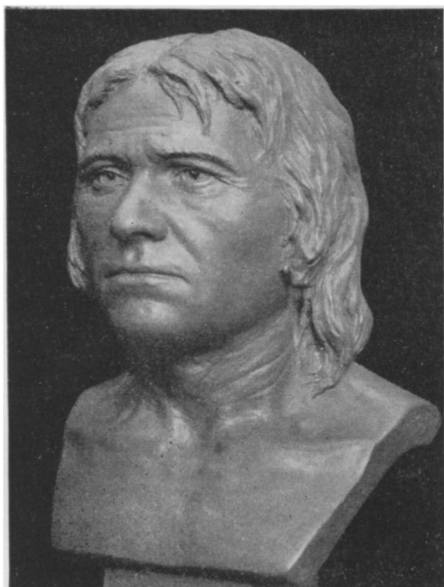
In that portion of the site excavated by Prof. Giddings, he found the top layer consisted of the floor logs of an Eskimo pit dwelling built about 300 years ago. Beneath these logs he found a clay bed containing relics of the Ipiutak Eskimo culture. These Eskimos hunted whales, bartered iron tools from Siberia and decorated ivory with animal figures. Many features of the Ipiutak culture show a connection with the new stone age in northern China and Siberia. The Ipiutak Eskimos appeared in Alaska about 2,000 years ago.

Up to this point the site showed nothing unusual. The culture sequence was the same as that at Nukleet on the opposite side of the peninsula.

Continuing to dig deeper, Prof. Giddings came upon a series of layers of sterile clay from six to 18 inches thick.



IYATAYET EXCAVATION SITE—Beneath this site were found relics of the oldest American ancestors of modern man. The burins, a particular type of microlith, found here are identical with those made by Cro-Magnon man.



CRO-MAGNON MAN—The newly discovered Stone Age Alaskans are the equivalent of Europe's Cro-Magnon Man, above, who was artistic and very much like the modern European in appearance.

No sign of human relics was found in this clay, showing that the site was uninhabited for a considerable period of time.

Flint Implements Found

It was beneath these layers of clay that Prof. Giddings discovered a large quantity of extraordinary obsidian and flint implements. So many miniature chipped flints were found and of such exquisite workmanship that the Eskimo guides immediately revised their legend of the dwarf. Unquestionably the dwarf had made many of the flints but, said the Eskimos, "there must have been a lot of little people—a whole race of them."

The flints lie in a bed of pebbles, indicating that this layer was formerly a beach. Since the layer is about 40 feet above sea level the land must have risen considerably through the ages. Geologists are busy studying the site to determine how long ago the beach was at sea level and how long ago the sterile layer of clay on top of it was deposited. It may have been washed in by the stream in time of flood and deposited as the waters went down, but this must have occurred many times to account for the lamination.

The implements found were made by striking off long flakes from the flint and obsidian cores. Some of these flakes were then chipped carefully. Distinguishing features of the chipping are the serrated or saw-tooth edges so finely done that the teeth along the edges are scarcely visible to the naked eye and fine diagonal flaking across the flat sides. Chipped microliths are found in Old Stone Age layers in Europe but the serrated edges of the Iya-

tayet specimens make them unique. No similar implements are known from anywhere else in the world.

Link with Cro-Magnon

Associated with these extraordinary microliths are the so-called burins which definitely link the site with European Cro-Magnon. Burins are microliths which have as an added feature a sliver knocked off one of the edges. The Iyatayet burins are identical with those made by Cro-Magnon Man.

The diagonal flaking on the microliths is found also in the Yuma points discovered in the Finney site in Wyoming but the Yuma points are much larger and cruder than the Iyatayet. Both Yuma and Folsom type implements are found associated with the Iyatayet microliths. Yuma and Folsom points may be as old as 25,000 years. The makers of the Iyatayet microliths were evidently familiar with the bigger Yuma and Folsom implements as well as with the burins found in the Aurignacian culture in Europe produced by Cro-Magnon Man. Thus Iyatayet may be the missing link between the ancient cultures of Texas and Wyoming and the Old Stone Age culture of Europe.

Europe's Cro-Magnon Man was tall and straight, very much like the modern European. He may have been white. He lived at the edge of the glaciers in western Europe, especially in France and Spain. Although he made fine flint implements, he is most famous for his art. On the walls of deep caves in southern France and Spain he painted beautiful pictures in an extraordinary realistic style of the animals he hunted. This beautiful cave art still is in a wonderful state of preservation. It was never equalled by the people who occupied this region of Europe after Cro-Magnon Man. What happened to this talented race remains a mystery. Did it move northward with the retreating glaciers and finally find its doom in the Arctic regions?

Questions Await Answer

The actual dating of the Iyatayet material will depend on the findings of the geologists. The key to the site is the layer of laminated clay. So far several things are certain. The microliths are older than anything found in Alaska before. They antedate the Ipiutak Eskimo culture of 2,000 years ago. The burins resemble those found in Aurignacian layers 15,000 to 30,000 years old. They may have been made that long ago either by a Cro-Magnon people or by another people who were familiar with the implements of these Old Stone Age people and the art of making them.

How old are these flints? Who made them? Is there any truth to the Eskimo legend of a dwarf or pigmy people? Will Cro-Magnon Man be found in the New World? These are some of the questions that Prof. Giddings will try to solve next

summer when he resumes excavating. Special effort will be made to locate dry caves, such as that explored by Dr. Larsen, in the hope of finding actual human bones in association with the flint implements.

More discoveries like those made at Iyatayet may solve the mystery. The University of Alaska, the University of Pennsylvania Museum and the Copenhagen Danish Museum, under whose auspices the discoveries were made, are planning to intensify their cooperative efforts to determine who were the earliest human inhabitants of the American continent.

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MINING

Tracer Bullet and Flint Metals Are Found in U.S.

► TRACER bullets for machine gun practice and the flints in cigarette lighters may soon be made from rare earth elements uncovered in southeastern California instead of from imported ores. These same rare earth elements are artificially produced by atomic piles in very high purity, but in limited amounts, and are used by scientists to study alloys for use at extremely high temperatures.

Discovery of at least five veins, three of which contain considerable amounts of fluocarbonate of cerium and lanthanum combined with thorium and uranium, was announced by the U. S. Geological Survey. This discovery makes the United States more independent of foreign sources, mainly Brazil and India.

Clarence Watkins and Herbert S. Woodward of Goodsprings, Nev., two of the owners of the property, discovered the deposit when the minerals were found to be radioactive by test with a Geiger counter.

Interest in the rare earth elements has been greatly stimulated by the fact that they are in the group of fission products produced by the splitting of uranium. Also elements, known as trans-uranium elements, that are not found in nature but are built by the addition of atomic particles to uranium, have the same structure as the rare earths and are of great theoretical interest to chemists and physicists.

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