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By: Stefan Anitei, Science Editor



One of the newly found stone ax blades SCEZ

Trove of Ice Age Axes Found on the Bottom of the North Sea

They can be 100,000 years old

During the Ice Age, the North Sea was just a grassy plain dwelt by mammoths, deer and ... humans. Now, the Dutch Jan Meulmeester, an amateur archaeologist, has discovered a unique collection of Stone Age hand axes made of material coming from the bottom of the North Sea. 28 axes, possibly up to 100,000 years old, were encountered in marine sand and gravel scooped up by Hanson, a British construction materials company.

The axes were accompanied by fragments of bones, teeth, tusks, and antlers from mammoths and other game, probably butchered with the axes. Occasionally, fishermen have "caught" stone tools or bones from the North Sea bottom, but this is exceptional by sheer quantity. The fossils come 8 mi (13 km) off the coast near Great Yarmouth in the UK.

"The condition of the material is such that is evident that it really comes from one single spot. We are dealing with large swaths of ancient landscapes which have been preserved in certain areas of the North Sea. Materials left behind were quickly covered with peat and clay, so you have perfect preservation of organic materials," said Hans Peeters, an archaeologist with the National Service for Archeology (RACM) in Amersfoort, Netherlands.

RACM and the British English Heritage are planning further investigation of the site.

"The axes appear to come from a camp or settlement where humans butchered their prey. These axes are as crisp as the day they were used. Though proof of North Sea settlements has been scant so far, the recent find removes any doubt that such well-preserved sites do exist," said Phil Harding of the U.K. nonprofit Wessex Archeology.

Meulmeester made the findings by combing a pile of sand and gravel on a wharf at Flushing (southwest Netherlands) dredged from the bottom of the sea. But neither the scientists nor Hanson can say the exact location where the material was extracted from. The scientists would like to investigate the site using cameras or even diving there, but even if the waters are not very deep (100 ft (30 m)), the visibility in North Sea is usually poor.

"The probable gravel layer from [which] these axes originate is maybe 5 to 10 m (16 to 32 ft) deeper into the subsoil. These are conditions that make it very difficult to investigate on the spot," added Peeters.

Paleolithic of the North Sea

As the axes were not encountered in their original deposits, their dating is difficult. The maximum age could be 100,000 years old. The European Paleolithic goes to 750,000 years ago.

"Some of the oldest sites in Europe, from the coast of Norfolk, are 700,000 years old," Harding said.

Norfolk sites are located just 30 mi (48 km) away from the possible origin site of the newly found axes. Studying how the axes were made and the animal bones, added to an investigation of pollen or beetle remains in the soil samples, could give us a glimpse of

human life and environment in the Ice Age fields of the North Sea.

"Things like that contain so much evidence that it ceases to be just a stone tool, and begins to tell you what that world was like and what humans were doing," added Harding.