BBC. Friday, October 1, 1999 Published at 14:23 GMT 15:23 UK

Sci/Tech (BBC)

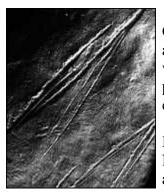
Neanderthals Were Cannibals



This Neanderthal thigh bone was smashed open for its marrow

Gory evidence uncovered in France reveals that the early humans in the region ate one another.

Cheek muscles from children were filleted out, tendons were sliced and skulls were cracked to remove brains.



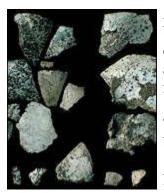
Commenting on the research published in the journal Science, anthropologist Juan Luis Arsuaga said: "To me this is, paradoxically, a very human behaviour that indicates a human mind. Only humans practice systematic cannibalism - this is the dark side of the human coin."

Excavations at the cave at Moula-Guercy, Ardeche, yielded 78 Neanderthal bones, from at least six individuals who lived 100,000 years ago. Remnants of two adults, two 15 or 16 year-olds, and two six or

Sharp butchering marks seven year-olds were dug up as well as nearly 400 pieces of animal bone.

Careful study of tool marks and fractures on the remains shows that these Neanderthals were master butchers.

"If we conclude that the animal remains are the leftovers from a meal, we're obliged to expand that conclusion to include humans," said the research team leader Alban Defleur, at the University of the Mediterranean Marseille.



All the skulls and limb bones were broken apart, presumably to remove brain or marrow. Only the hand and foot bones remained intact, which contain no marrow. Arm and leg tendons were cut, a necessary action if a limb is to be removed. Other cuts show that the thigh muscles were removed, and in at least one case the tongue was cut out.

There have been hints of Neanderthal cannibalism at other sites before but this is the by far the clearest evidence and the first in Europe.

No signs of gnawing were found on the bones, ruling out the possibility that the Neanderthals were eaten by wild animals. There were no signs

that the Neanderthals were eaten by wild animals. There were no signs of charring either suggesting the flesh was either eaten raw or cooked off the bone.

It is not clear whether the individuals were eaten for survival when other food was scarce or as part of a social ritual. But the abundance of natural resources available at the site makes the survival scenario seem unlikely, according to Dr Defleur.

However, the archaeologists have also found no evidence that the bones were cut and broken as part of a burial ritual - the early human bones were thrown on to the cave floor alongside deer bones.

The new evidence might appear to be at odds with records of careful Neanderthal burials in which bodies were laid in the foetal position in semi-circular graves. But Professor Tim White, another team member from the University of California Berkeley believes that the variable treatment reveals a cultural complexity.

"When you see some Neanderthals practising intentional burial and others practising cannibalism, that is a clear indication of behaviour that is multidimensional - a pattern that mirrors the behaviour of more modern people," he said.

Skull fragments: hammered open to remove brains