

Scientists say Neanderthals ate own kind

By LAURAN NEERGAARD
Associated Press

WASHINGTON — In a firelit cave in southern France 100,000 years ago, a group of hunters bent over their meal, expertly slicing flesh from carcasses and sucking marrow from the bones.

But a closer examination uncovers a grisly scene: These were Neanderthals, and they butchered six fellow people just like they did deer — the first real proof, say scientists, that Neanderthals practiced cannibalism.

Whether some Neanderthals ate their own kind has been a controversy since the turn of the century, when Neanderthal bones bearing suspicious scars were discovered in Croatia. Critics argued that maybe those bones had been gnawed by animals, cut for some burial ritual or merely damaged by the primitive techniques of 1890s archaeology.

But the discovery by a team of French and American scientists, who preserved the Moula-Guercy cave on the Rhone River like a crime scene and used forensics techniques to examine the bones, should settle the issue, they say.

"This one site has all of the evidence right together. It's as if somebody put a yellow tape around the cave for 100,000 years and kept the scene intact," said co-investigator Tim White, a University of California, Berkeley, paleontologist.

"The hominid and deer carcasses were butchered in a similar way, with the objective being the removal of soft tissues and marrow," said lead investigator Alban Defleur of the Universite de la Mediterranee at Marseille. This "is clear evidence," he wrote in Friday's edition of the journal *Science*.

Now the question is why these primitive people — an evolutionary cousin of modern humans, although most scientists think they are not direct ancestors — practiced cannibalism.

How to determine cannibalism from ancient bone is tricky. White published a book in 1992 about cannibalism among Anasazi Indians of the U.S. Southwest that concluded certain markings could definitively differentiate bones cut for consumption from those that were perhaps damaged by a rockslide or broken in a fight.

Defleur found 100,000-year-old bone fragments from six Neanderthal skeletons scattered among piles of animal bones in the Moula-Guercy cave, and sought White's help in investigating.

Two marks on a child's skull show how the chewing muscle in front of the ear was sliced off the bone by a rough stone tool found in the cave. All skulls were cracked open, and limbs defleshed and smashed for their marrow. It is very hard to crack a fresh femur — striations from a hammerstone and the stone anvil are visible on one.

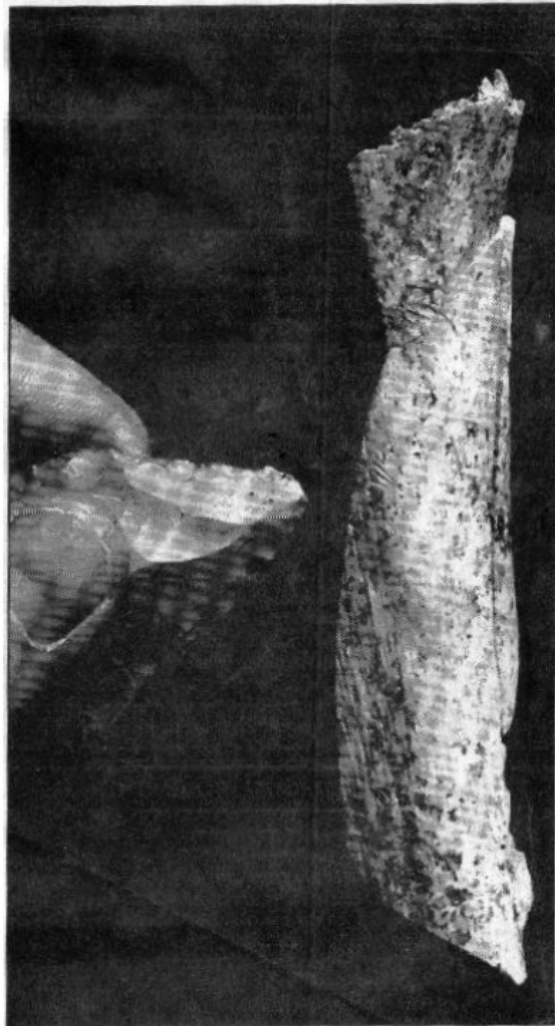
The marks, White explains, can be identified just like detectives track the gun used in a crime by matching marks on the bullet.

But how does he know bones were not cut for some bizarre burial ritual? Identical marks were found on deer bones, and remains of the animals and primitive people were discarded together, around fireplaces in the cave.

As White put it: "Humans are mammals. You eat the same parts and leave the same traces."

"The results are unequivocal," Daniel Lieberman, a George Washington University anthropologist said after reviewing the study. "I can't imagine any way you could get this kind of damage to skeletons through any process other than intentional defleshing of bones."

While some Neanderthals carefully buried their dead, White said the French cave and scarred bones at other sites suggest cannibal-



AP/Tim White, UCAL Berkeley

TIME PIECES — Scrape marks left by the sharp edge of a flint stone tool, similar to the one shown, can be seen on this fragment of a Neanderthal thigh bone found in a cave on the Rhone River in southern France. Alban Defleur, a paleontologist from the University of California, Berkeley, studied 78 fragments from six Neanderthal skeletons to conclude that Neanderthals butchered and ate

ism was more common among Neanderthals than later humans.

Why? It's unclear. Animal bones suggest game was not a problem. They may have eaten enemies. Some cultures practice cannibalism after a natural death.

University of Michigan anthropologist Milford Wolpoff has another theory: They needed fat to get through the cold European winter.

Neanderthals apparently did not store provisions. Meat cannot be digested without enough fat, either in the meat or stored in the eater's body, so Neanderthals and their game would be incredibly lean by late winter, Wolpoff said.

Brains are very high in fat, as is bone marrow. Previous research suggests that in late winter, Neanderthals broke open deers' skulls seeking brains — and the Neanderthal skulls and marrow-full limbs all were cracked, too, he said.

Neanderthals were the first humans in cold Europe, "and you're looking at what it took to stick it out," Wolpoff contended.

This one site has all of the evidence right together. It's as if somebody put a yellow tape around the cave for 100,000 years and kept the scene intact.

Tim White, paleontologist