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Scientific Tools Bring to Life a Mammoth Hunt

New research enables almost a play-by-play account of how men brought a mammoth down 45,000 years ago



How did we hunt? Archaeology tells the story. *ILLUSTRATION: PETER OUMANSKI*

By **MELVIN KONNER**

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Picture yourself in a Siberian wasteland 45,000 years ago. Your very presence will someday impress archaeologists: They had thought your kind—their kind, too—were nowhere near that far north that long ago.

You're there because you and your family—moved by the usual rumble in your bellies and growing human numbers to the south—have been following one of the largest land mammals, the woolly mammoth, as its own population explosion presses into the Arctic circle.

Protected from most predators, the mammoths are doing so well that their herds must range farther for food. So you, under pressure from human competition, range farther for your food: them. One is in front

of you now. Not the biggest you've seen, but he's taller than you and weighs tons. You'd rather be nowhere near him, but you, your brother, cousins and friends form an uneven oval around the giant.

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He's scared, angry and dangerous. But you don't think of breaking and running, because (aside from your own hunger) it would be the ultimate betrayal of these other men. You owe them a lot. You can't be shamed in their eyes. You stand your ground.

Why credit this account of a prehistoric event? Because of a remarkable paper, published in the journal *Science* in January, by a group of Russian scientists led by Vladimir Pitulko. They studied the carcass of this colossus and figured out how he met his end. His injuries—those that killed him and those after death—could only have been inflicted by men.

Stunning cooperation, and stunning violence.

Think of wild dogs attacking some large animal. They are no threat individually, but they're deadly together. The men who followed that mammoth across the tundra had no razor teeth or ripping claws, but something better: tried and true tools that they wielded masterfully.

The hairy titan's bones tell the story. He was around 15 years old and in good shape but not as wily as an older bull. The humans surrounding him were smaller but much smarter and better armed.

Spears breached his rib cage in several places, sinking through skin and muscle, scoring the bone on their way to vital organs. Three pierced his left scapula, at the height of a human shoulder, entering

hard on a downward path after they were thrown. The spears were seeking his heart, and the men throwing them would make the tosses of a first-rate quarterback look weak and sloppy.

The last of their talents was to finish off the goliath after he fell at their feet, still full of rage and strength. One of them thrust a bone- or ivory-pointed spear into the mammoth's cheek. He would not have been aiming there but at the arteries feeding the trunk, as modern elephant hunters, like the foragers of the African tropical forest, still do. Surprisingly, the point did not break off.

How do we know all of this? Because the Russian scientists deployed tools of their own—CT scans to peer into bones and organs, radiocarbon dating to establish the time frame, stratigraphy to analyze and order the soil and rock layers where the fossils were found—in that same clever old human way. Like their prehistoric forbears, they reasoned through the problem, developed a strategy and cooperated to nab their quarry.

The men got all they could from the beast. Damage to a tusk shows that they sliced from it slim, sharp knives and scraping tools of the hardest ivory. Other evidence suggests that the men took the tongue as a delicacy or for some ritual, though they left the penis behind.

I lived long enough with modern hunter-gatherers to have a feel for this sort of hunt. I used to believe that the role of hunting had been exaggerated, that early humans were scavengers, mostly vegetarian. Granted, different patterns evolved in different times and places. But this too is our legacy: a band of men subduing a huge threatening beast to feed their families. Brilliant, skillful and bold.

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