

CHAPTER 15

ON THE WAY TO THE MALL

COMPLEX PALEOLITHIC TECHNOLOGY

Stand in the middle of any mall in the United States or any main street in any city in the world and look around—so much *stuff*! For thousands and thousands of years, the only thing we can prove that humans possessed were chunks of stone they whacked into a crude shape roughly resembling what we'd call tools. Now look. When on earth did everything change?

From the time *Homo habilis* first smacked two stones together until nearly 45,000 years ago, the list of artifacts is pretty monotonous—stone tools and more stone tools. Only an archaeologist could get excited about the “new developments” in tool technology happening back then—oh, look, they're chipping off both sides of the rock now—*wow*! But then sometime around 45,000 years ago, *something* did change. Artifact lists begin to rival hardware store inventories—from fishhooks to sewing needles. Even the materials changed. Tools made from stone for thousands of generations were now being carved out of antler, bone, and ivory. Improvements on old tools were happening quicker than you can say “holy hunting hominids!” Blade edges were sharper. Toolmakers were getting more flakes from a single stone with new techniques. Handles were attached to tools. Handles may seem like a simple addition, but that single change had an enormous impact on lifestyle. Imagine an ax without its handle. Now imagine cutting down a tree. Easier with the handle, don't you agree?

Sometimes simple changes can make all the difference. Take spears, for example. Most spears had been designed for thrusting. The hunter ran up to the nearest nasty-tempered beast and jabbed him with his spear. Undoubtedly, the beast

66 HARPOON IN FRANCE,
ARTIFACTS IN THE
CZECH REPUBLIC, AND
SKELETON AND
JEWELRY IN RUSSIA

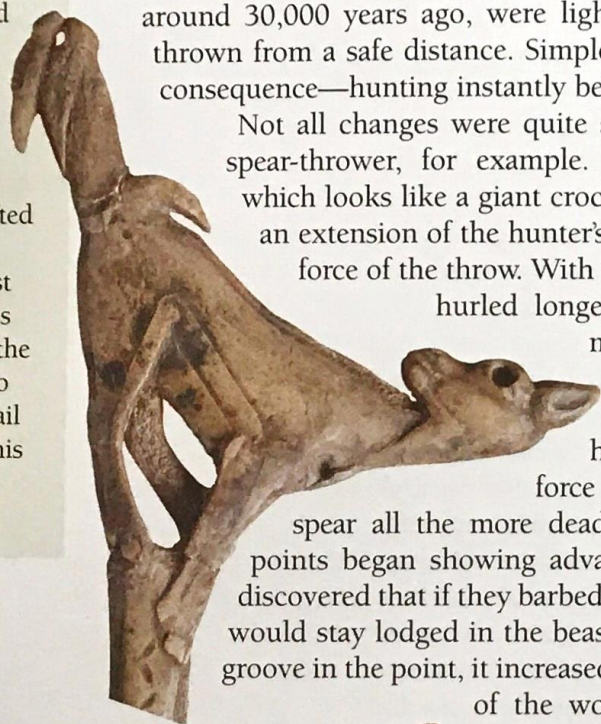


REGIONAL DIFFERENCES

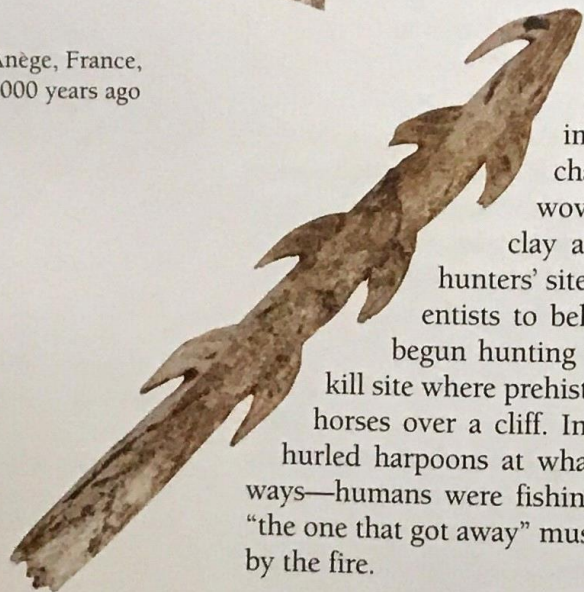
At one time “stuff” looked pretty much the same all over the Old World. A hide scraper from South Africa looked much the same as a hide scraper from East Asia. A creative explosion marked the beginning of regional differences. Today we have chopsticks and silverware, saris and blue jeans, rickshaws and taxicabs. Travel to anywhere in the world, and chances are you will find clues to your location by the “stuff.” Where might you be if you are wearing a beret? A ten-gallon hat? A sombrero? A turban?

TRAIL OF TURDS

Prehistoric artists carved images into practical objects. One artist carved an image of a wild goat into the end of a spear-thrower. The wild goat's rump was lifted in the air eliminating a giant turd. Was the artist trying to be funny? Or is the turd coming out of the goat's rump a message to hunters? "Follow the trail of turds that look like this and eventually you will find the goat."



66 Harpoon, Anège, France, 20,000–10,000 years ago



would be unhappy about this. Getting close enough to jab a grumpy woolly rhino with a horn as long as your spear clearly had its drawbacks. The new spears, from sometime around 30,000 years ago, were lighter, designed to be thrown from a safe distance. Simple change, enormous consequence—hunting instantly became much safer.

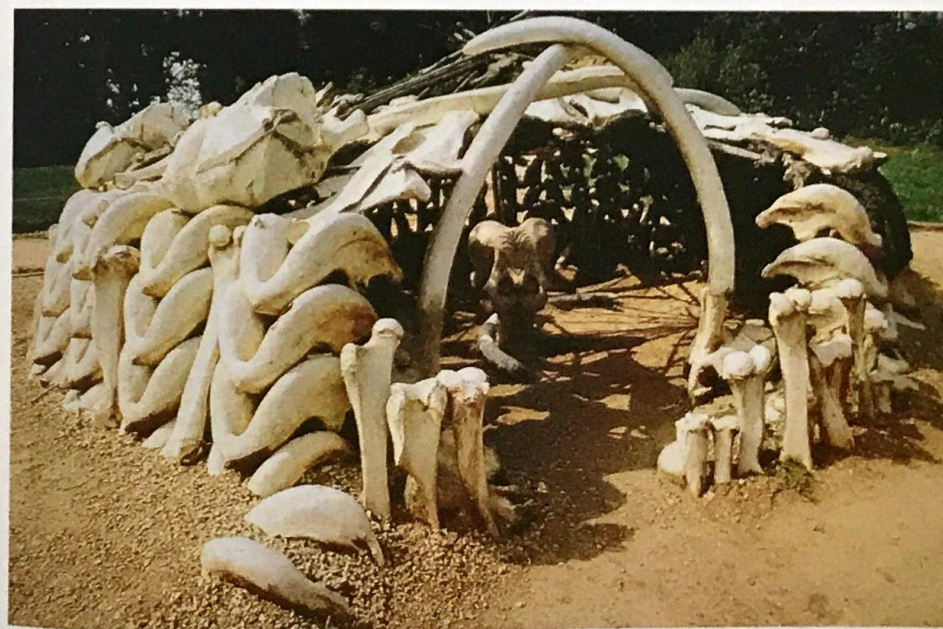
Not all changes were quite so simple. Take the spear-thrower, for example. The spear-thrower, which looks like a giant crochet hook, acted like an extension of the hunter's arm, increasing the force of the throw. With it the spear could be hurled longer distances at fast-

moving, skittish prey that had previously been difficult to hunt. The greater force of impact made the spear all the more deadly. Even the spear points began showing advancements. Hunters discovered that if they barbed the point, the spear would stay lodged in the beast. And if they cut a groove in the point, it increased the blood flow out of the wound, which weakened the animal faster.

Weapons weren't the only things that were new and improved. Hunting methods were changing as well. Impressions of woven and knotted cords found in clay at Dolní Věstonice, an Ice Age hunters' site in the Czech Republic, led scientists to believe the women and men had begun hunting with nets. In France there is a kill site where prehistoric hunters drove hundreds of horses over a cliff. In coastal communities, hunters hurled harpoons at whales, exploiting sea life in new ways—humans were fishing. The very first stories about "the one that got away" must have begun in those evenings by the fire.

Initially archaeologists thought the 100 or so Cro-Magnon people who settled 27,000 years ago on the edge of a swamp at the site now known as Dolní Věstonice had come to hunt mammoth. But many archaeologists now think it was not the mammoth that drew the hunters, but the mammoth bones. At a nearby watering hole, as the beasts died, over time the bones accumulated. The Cro-Magnon people used the mammoth bones for many things. They splintered the bones for sewing needles, carved the bones into a variety of tools, built shelters using the bones as a framework, and when wood was scarce, they burned the bones for warmth.

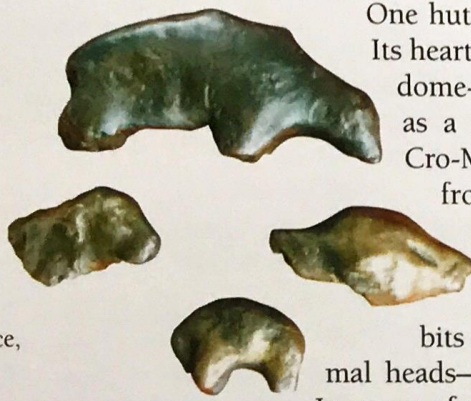
On the grassy hillside near Dolní Věstonice, the Cro-Magnons built five huts and surrounded them with a fence made of mammoth bones and tusks stuck into the ground. In the fence's crevices, they stuffed brush and turf, creating a windbreak and a barrier against predators. To further discourage dangerous animals, the Cro-Magnons kept a fire



Mammoth bones form the framework of a hut in this reconstruction. Skins probably covered the bones to block out wind and snow. Five similar huts dating to 15,000 years ago were found at Mezhirich, in the Ukraine.

The mammoth was a very large elephantlike mammal, typically hairy with a sloping back and long curved tusks, which became extinct during the last Ice Age but are known from fossil remains, frozen carcasses, and Paleolithic drawings.

burning. Its warmth was probably welcome in the freezing Ice Age temperatures. The huts were constructed like giant tents, with wooden posts leaning toward the center and animal skins draped over the frames and anchored to the ground with stones and bones. The largest of the huts had five shallow hearths for cooking, one equipped with a rotisserie made from mammoth bones.



Clay animals, Dolní Věstonice, Czech Republic, 27,000 years ago

One hut stood far from the others. Its hearth was not for cooking. The dome-shaped hearth was used as a kiln for baking clay. The Cro-Magnon artist mixed clay from earth and powdered bone and then shaped it. The floor of the sculptor's hut was covered with bits and pieces of ceramic animal heads—wolves, bears, and foxes.

In some of the lumps of clay, you can still see the fingerprints of the artist. But it is a second kiln that has archaeologists scratching their heads. They found thousands of bits and pieces that had been broken not by accident, or over time, but deliberately. It seems the Cro-Magnons were placing statues of women in the hottest part of the fire and watching them explode. Archaeologist Olga Softer tells *Discover* magazine, "Either we're dealing with the most inept potters, people with two left hands, or they are doing it on purpose." She suggests perhaps they blew up the figures in a ceremony to predict the future. "Some stuff is going to explode. Some stuff is not going to explode. It's... like picking petals off a daisy. She loves me, she loves me not."

PART OF THE OLD STONE AGE

The last part of the Paleolithic in Europe is the Upper Paleolithic, which lasted from about 40,000 years ago down to the end of the last Ice Age, about 10,000 years ago.

Up until this time in prehistory, the majority of items on site lists had been directly related to survival, such as butchering tools and hunting weapons. But now, items such as the exploding figurines were beginning to show up. The catalog of items at Sunghir, a burial site near Moscow, Russia, the same age as Dolní Věstonice, is pages long. In one grave archaeologists found jewelry—bracelets, necklaces,

pendants, and 10,000 beads carved from ivory. The pattern of beads across the forehead and chest and down each leg makes archaeologists think the beads were sewn into what was once clothing before it disintegrated, perhaps a hooded tunic and pants. Each of the beads must have taken at least one hour to make, that's 10,000 hours making beads. Humans were on their way to the mall.



Homo sapiens sapiens skeleton, Sunghir, Russia, 28,000 years ago

Why this change? What was so different about humans after 45,000 years ago? Why do we find only clunky stone tools for thousands and thousands of years and then all this stuff? Some scientists argue that the brain changed; others say it's all about language. If the brain changed, there is no evidence of it. There are no marks on the inside of skulls that show a brain change occurring at the same time as this astounding variety of possessions. And if there had been a biological event such as a new and improved brain, you would expect to see creativity blossom outward from the one location where this brainy bunch lived. Instead, creativity seemed to be sparking all over the Old World like bursts of fireworks in the sky.

What about language? Could words have warped the world? Many scientists believe that Neandertals were capable of language and yet their creative endeavors were limited. If language was the root of this flurry of new inventions and artistic expressions, why weren't the Neandertals in on it?

Is the answer at Dolní Věstonice? Maybe we should put a Venus figurine in the fire and see if it explodes. If it does, it's a brain change. If it doesn't, it's language.

MESSAGES FROM THE GRAVE

In 1986 the bodies of three teens were found buried together at Dolní Věstonice. There were two boys and one girl—at least that's what some think; others think three boys. The young girl's spine was badly deformed, and one of the boys had a wooden pole thrust through his hip. The girl rested between the two boys, one reaching out to her, and the other linking arms with her. All three had been dusted with red pigment. Had someone carefully arranged these bodies 28,000 years ago? Or were they tossed in the common grave, and archaeologists are trying to read messages that aren't there?