

## Sequim mastodon creates mystery about the first humans here

By Daniel Jack Chasan, *Crosscut*, December 5, 2011

**Who killed the mastodon?** Now we know, as we had long suspected, that the beast probably didn't die of natural causes. Somebody stuck a spear into it. The bone point remained in its ribs. For 13,800 years.

The basic [story](#) has been well-covered recently: In 1977, [Emanuel Manis was using](#) a backhoe to dig a pond on his property in Sequim, when he unearthed the remains of a mastodon, one of the big, hairy elephant-like critters that inhabited much of North America during the Ice Age. Manis called in Washington State University archaeologists to look at the remains. WSU's Carl Gustafson found a piece of sharpened bone embedded in one of the mastodon's ribs. He concluded that the bone was a projectile point, that some early hunter had used it to do the mastodon in, and that this had all happened some 13,800 years ago.

At the time of Manis's find, people figured that the continent's earliest inhabitants had belonged to the Clovis culture, whose craftsmen made fluted stone points. Clovis people had obviously killed and butchered mastodons and mammoths — their distinctive points have been found with the bones — and they had obviously lived all over what is now the United States. But they had appeared in America — which is to say, their earliest spear points had been dated to — only — only! — 13,000 years ago. When Manis scooped those dark, curving tusks out of the mud, the archaeological mantra was “Clovis first.”

If Gustafson was right that the mastodon had been killed by people rather than dying of other causes, Clovis wasn't first. In fact, someone had beaten the Clovis culture to the Northwest by 800 years.

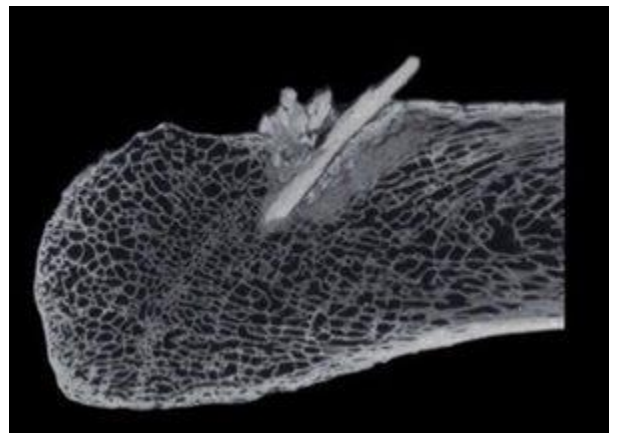
**Until the latest developments, most scientists** were skeptical that there were any peoples in the area before the Clovis culture. “That Clovis-first model really took root into the psyche of archaeologists,” says archaeologist Michael Waters. The mastodon tusks and bones were displayed at the Museum & Arts Center in Sequim. Gustafson retired. The Manis find became a kind of footnote to regional history.

Waters, who directs the [Center for the Study of the First Americans](#) at Texas A&M University, and colleagues took a new look at the evidence. They ran the rib through a powerful CAT scan. They sampled DNA from both the rib and the point embedded in it. They dated protein from the rib. Their conclusion: Gustafson was right all along. Someone really had speared the mastodon. And it really had happened 13,800 years old.

That conclusion seems less revolutionary now than it did in 1977. Evidence of pre-Clovis people had been around since the 1950s and '60s, Waters explains, but most archaeologists didn't want to believe it, and they always found a plausible reason not to. Then came Monte Verde: Papers published in the late 1980s suggested that people had lived at a site in Chile at least 14,800 years ago.



*In August 1977, Carl Gustafson inspects a mastodon bone embedded with what turned out to be the point of a spear fashioned from another mastodon bone. The use of new technology such as DNA sequencing has confirmed the find of the now-retired WSU professor (The Seattle Times).*



*A CT scan shows the projectile embedded in a mastodon rib (Seattle Times)*

“Monte Verde was really the big turning point for a lot of us,” Waters says. “But it wasn’t the turning point for a lot of people.” After all, “it was only one site.” But Monte Verde no longer stands alone.

**Archaeologists keep finding new evidence** of pre-Clovis people. Waters himself has excavated a [site](#) in central Texas that may date back 15,500 years. There’s another pre-Clovis site in Wisconsin, others in Pennsylvania, Virginia and elsewhere, and one in the Paisley caves of central Oregon where coprolites — mummified turds — have yielded human DNA dating back 14,500 years, the oldest human DNA found on this continent. Earlier this year, archaeologists identified [delicate points](#) found on California’s Channel Islands as artifacts of a non-Clovis people who may have both preceded and coexisted with Clovis culture. “Clovis first” seems on its way to join such historic slogans as “Nixon’s the one” and “all the way with LBJ.”

Which begs the question of who these guys were, if not Clovis. At this point, no one knows.

Did small groups of Ice Age guys with bone- or stone-tipped spears wipe out whole species of megafauna? Probably not. At least not single-handedly. The Ice Age was over. [Nicholas Wade](#) wrote in *The New York Times* two years ago, “Whenever modern humans reached a new continent in the expansion from their African homeland 50,000 years ago, whether Australia, Europe or the Americas, all the large fauna quickly disappeared.” One could evoke climate change and other explanations, but “circumstantial evidence from the fossil record suggests that people’s first accomplishment upon reaching new territory was to hunt all its all large animals to death.”

Sediment cores from old bogs have shown that spores of fungi that grow on the dung of large mammals were abundant 15,000 years ago. The number of spores and presumably of animals started dropping 14,800 years ago. They became gradually less abundant for 1,000 years. Then, about 13,800 years ago, spore numbers dropped sharply. By 12,700 years ago — about the time the mastodons and mammoths go extinct — they were gone. What happened 13,800 years ago to the critters whose dung nourished the fungi that produced spores? The Manis mastodon offers a clue: People with bone points and atlatls started killing them.

Or did they? In writing about the implications of the dwindling spores, *The Times’* Wade suggested that on the other hand, it isn’t “clear that the pre-Clovis people had the technology to take down large game like mammoths.”

**Well, evidently the Manis site makes it clear.** Those pre-Clovis people out in Sequim evidently made a habit of taking down large game. Not only did somebody kill the Manis mastodon, Waters and colleagues also found that somebody had killed it with a point made of mastodon bone. And, Waters explains, old mastodon bone would be too brittle; any pre-Clovis toolmaker would have used fresh bone.

But could those pre-Clovis guys really have driven even a nice, fresh mastodon-bone point into a mastodon rib? Waters doesn’t see why not. For one thing, he says, the point itself, thin, tapered, shaped much like a bullet, penetrates extremely well. “Bone projectile points are really durable weapons and really lethal weapons,” he explains.



*This photo shows the first day of excavation work on the site in Sequim in 1977 (The Seattle Times).*

For another, those early hunters must have used atlatls or spear throwers, which extended the length and therefore the leverage of a human arm. Waters says that some people have built and experimented with such weapons. Not surprisingly, the researchers have found that those old tool makers knew what they were doing. “I saw a fellow take one of these spears,” Waters says, “and launch it with an atlatl, and it went through quarter-inch plywood.”

He recalls that there was “an old car out there in the field, and he shot it at the old car, and it went right through the door.” These guys weren’t primitive. Clovis points, while they had more cutting power, wouldn’t have penetrated a mastodon as well, Waters says.

Maybe the hunter threw his spear in a long arc that came down into the animal’s side, Waters speculates. Or maybe this mastodon was on its last legs, and the hunter launched his spear close up. Either way, would a single hunter have taken on a beast that large? “I don’t think anybody would have gone alone,” Waters laughs. He envisions those late-Ice-Age hunters working in groups, the way African hunters have worked to bring down elephants: A lot of people drive spears into the animal, then they follow it until it finally bleeds out.

**The hit men had arrived. But who** were they? Clearly, they weren’t Clovis ... yet. Perhaps, eventually, they *became* Clovis. Why not? Someone did. We don’t know much about the Clovis people, but they evidently didn’t bring their fluted stone point technology down from Alaska. Fluted points found in Alaska are 1000 years younger than those found in the Lower 48, which suggests that the culture spread south to north. “Pretty clearly,” Waters says, “Clovis did not come from Alaska.” But you don’t have to imagine that culture arriving from somewhere else.

“All the antecedent technologies that could become Clovis are present in North America” before Clovis appears, he says. University of Oregon archaeologist Jon Erlandson, co-leader of [the project that found and dated the spear points](#) on the Channel Islands, hypothesizes that maybe the seafaring people who left the points there continued down the coast to the Isthmus of Panama, from where some continued south and others turned north, eventually making their way to the interior United States, where they developed the Clovis culture.

“It makes logical sense that the people who were here before Clovis *became* Clovis,” Waters theorizes. “Now the big question is why? ... Why did Clovis all of a sudden appear on the landscape? How did Clovis spread? ... What was the spark?”

