

# DOUBTING THOMAS

## PEOPLING OF THE AMERICAS

“ ANIMAL AND PLANT  
REMAINS, TOOL,  
AND STRUCTURES  
IN CHILE

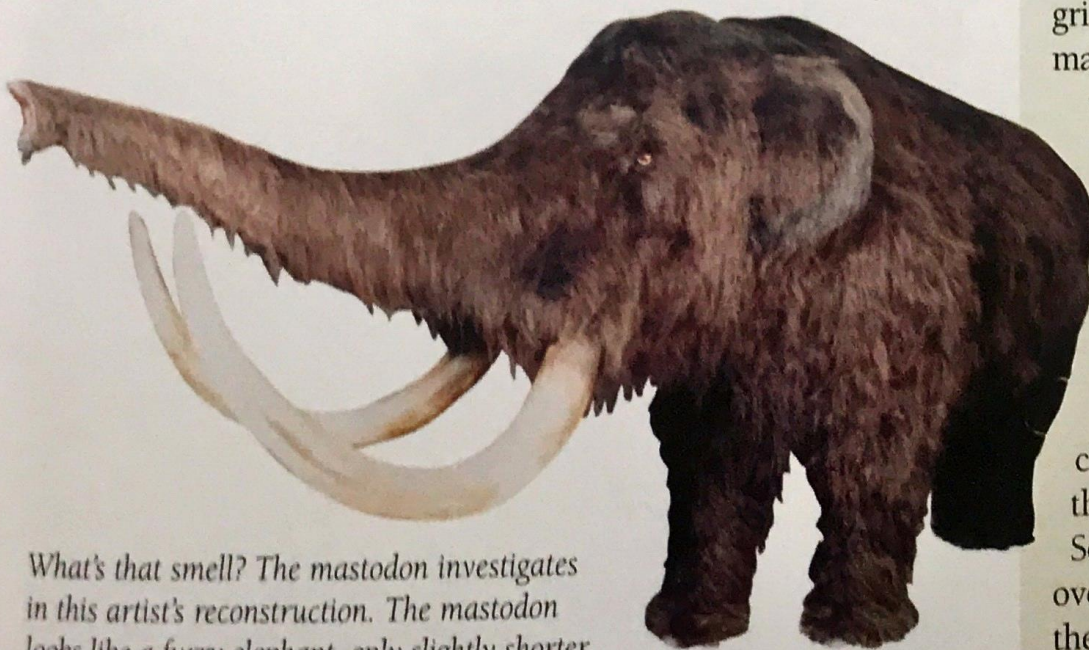
Archaeology is a lot like life. Just when you think you have all the answers someone comes along and changes the questions. Archaeologist Thomas Dillehay changed the questions. He probably didn't want to. No one likes the guy who digs up evidence that suggests everyone has been wrong all these years. Scholars try to bully you because they don't believe you—they don't *want* to believe you. Of course scholars don't bully by physically pushing (at least most of the time). They bully by asking pointed questions. So Dillehay, could the wind have blown the trees down in just the right pattern so it looked like a shelter? And Dillehay, couldn't that mastodon, which you claim was butchered, have felt sick and eaten those stones, dropped dead, and then sometime later humans made a shelter near his carcass and cut at his bones? (Scholars really asked these questions—they were desperate to prove Dillehay wrong.)

It appeared that everyone was doubting Thomas Dillehay. At times he must have wished that he had never seen that

### SHAGGY BEASTS

Elephants may look a lot like mastodons, but they are not their descendants. Just as humans and apes parted from a common ancestor millions of years ago and are just cousins, so it goes with elephants and mastodons. They went their separate ways more than 20 million years ago.

Mastodons and mammoths may look alike, but they had many differences. The biggest difference was their teeth. Mammoths' teeth were designed for grinding grasses. The mastodon's teeth were more rounded for eating softer plants found in swampy areas. Sometime around 10,000 years ago they died out, along with many other large mammals in the Americas. Climate changes made it hard for them to find enough food. Some scholars believe overhunting contributed to their death sentence.



*What's that smell? The mastodon investigates in this artist's reconstruction. The mastodon looks like a furry elephant, only slightly shorter and stockier with upward curving tusks.*



66 Mastodon bone, Monte Verde, Chile, 12,500 years ago



mastodon bone—or at least that it hadn't turned out to be so old. But he did see the bone, and it did turn out to be that old, so there was no turning back. . . .

In the 1970s, near the southernmost tip of South America, in Monte Verde, Chile, a father and son were chopping back the brush alongside a small creek to make way for their ox carts. Squishing through the wet bog they noticed the bones of an extinct animal—bones that they found from time to time on their land. When they looked closer they noticed stone tools—tools that looked as ancient as the bones.

When Thomas Dillehay first saw the mastodon bones, he was curious about the mysterious markings on them. Were the marks made by animals tromping over the bones? Or could humans have scored them with stone tools? From looking at the site where the bones were found, Dillehay assumed that the marks were made by Ice-Age settlers. When the carbon dating test results came in, and he learned that the settlement was more than 12,000 years old, he thought that there must have been a mistake. Those dates

were not possible. Dillehay's team took more tests. The dates were accurate.

How could this be? For years the accepted theory was that the first humans in the Americas were people called the Clovis. They were big-game hunters who had followed herds of mammoth out of Siberia. But Monte Verde in Chile, all the way down near the tip of South America, was older by a thousand years than the oldest Clovis sites. If the Clovis people weren't the first Americans, as scholars had thought, who were? And where did they come from?

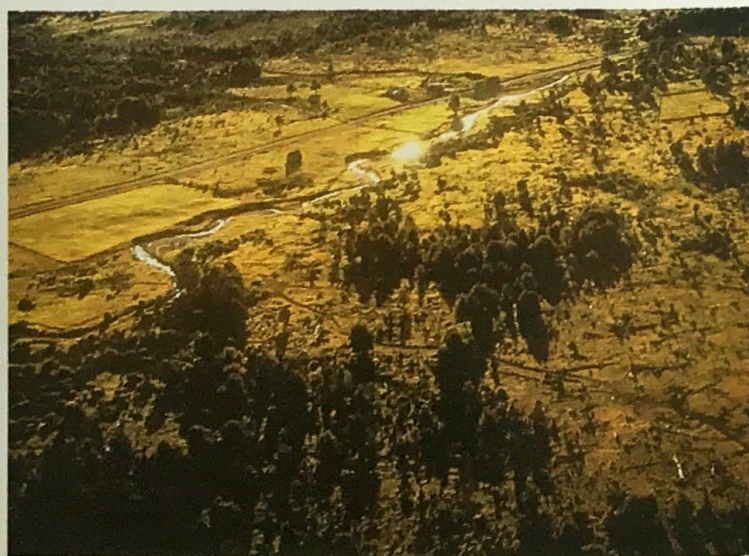
Up until the time of the Monte Verde discovery, scholars had assigned the first Americans a tidy itinerary for their entry into the continent. The problem was that *that* route made the settlement at Monte Verde impossible. The accepted theory claimed that the first Americans arrived during the last ice age, when the Bering Sea had dried up to expose a broad plain between Siberia and Alaska—the Bering Land Bridge. If they did come that way, the *when* was critical. Not only did they have to hit the Bering Land Bridge at the right time, when sea levels were low enough, but there was also another formidable obstacle ahead of them—ice—and lots of it.

Two glaciers blocked their path—at least most of the time. Occasionally, when the earth warmed up enough, a crack opened between the two ice sheets. The mile-wide corridor was likely to have been wet and muddy from the melting ice. That must have been hard going for our Siberian immigrants.

Between about 20,000 and 14,000 years ago, there was no ice-free corridor. The crack between glaciers was closed. Did the Monte Verde people come *before* that entrance slammed shut? Or did they enter the Americas another way? What if walking wasn't the only migration route? What if prehistoric humans also floated down the Pacific coast in boats?

Well, you can imagine, *that* got the scholars all worked up. The "Clovis First" theory was like a favorite child. No one wanted to give it up. The Clovis people were noble hunters. They were the kind of ancestors you could brag

66 Stone drill, Monte Verde, Chile, 12,500 years ago



This stream cuts through part of the archaeological site at Monte Verde.

## AMERICAN ARRIVALS

### 60,000–10,000 years ago

Bering Land Bridge was exposed, allowing people to cross from Siberia to North America

### 20,000 years ago

People *may* have camped in Meadowcroft Rockshelter, Pennsylvania

### 12,500 years ago

People settled at Monte Verde, Chile

### 11,200 to 10,900 years ago

Clovis people hunted mammoth and other animals in North America

### 8,400 years ago

Kennewick Man buried beside the Columbia River in Washington





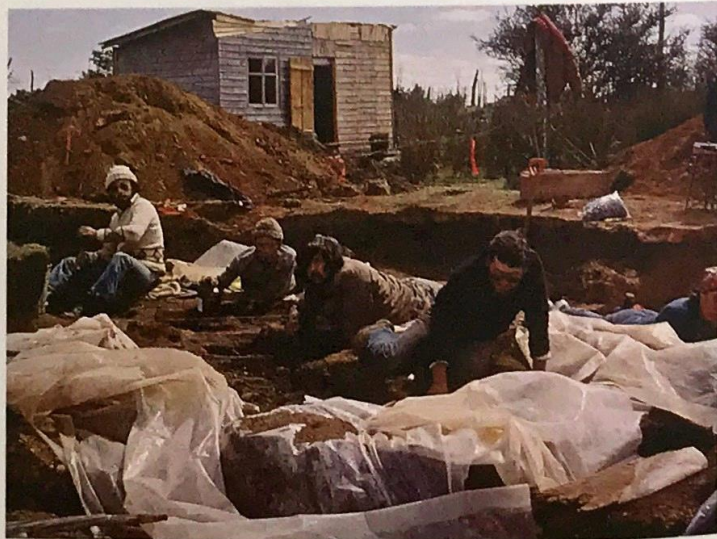
### MEANWHILE IN THE NORTH- WESTERN USA...

In July 1996 two students stumbled onto a skull stuck in the Columbia riverbank, in Kennewick, Washington. Because of the shape of the skull and the homestead trash nearby, people thought the skeleton must have been that of a pioneer.

At the morgue the forensic anthropologist began his routine observations on the remains: Adult male, five feet nine inches tall, medium build, about 45 years old at the time of death... when suddenly the routine observations turned into anything *but* routine. He noticed something stuck in the hip bone—a spear point—a *stone* spear point. And it looked like it was thousands of years old. Who was this man? Just how long ago did he die? He's now known as Kennewick Man, and he died more than 8,400 years ago.

about. They hunted the Columbian mammoth. This fearsome tusked beast could stand 13 feet high at the shoulder and weigh 9 tons. The Clovis people designed a special spear point to do the job. Flaked from stone to razor sharpness, the long point sank deeper with each step the mammoth took. Every movement added to the beast's blood loss, until it weakened and fell. Clovis points are so beautifully made that they are considered works of art. Scholars have admired these people ever since they first found the bones of a mammoth that had been riddled with the points in Clovis, New Mexico. This was the stuff legends are made from. Who would want to let that story of noble hunters go?

Monte Verde created chaos for the "Clovis First" theory. Thomas Dillehay writes in *The Settlement of the Americas* that "humans were in the Americas much earlier than we previously thought and that for much of that time the first Americans were not just big-game hunters but plant-food gatherers as well." It was also becoming clear to Dillehay that describing the first Americans as *one* group of people was most likely wrong. He writes, "first immigrants probably came from several different places in the Old World and...

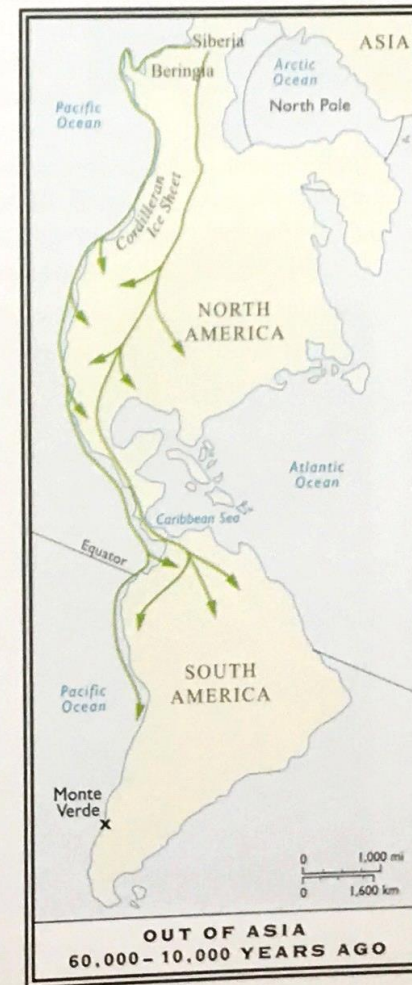


Excavations in progress at Monte Verde, Chile. Plastic sheets keep the deposits that have not yet been excavated dry.

their genetic heritage and physical appearance were much more diverse than we thought."

Thomas Dillehay knew that Monte Verde would get the scientific community riled up. He knew that other scientists would try to discredit him. They would claim that his research was sloppy. They would claim that he made mistakes when he dated the site. They would claim that he misinterpreted the clues. But that didn't stop him. He wrote, "Here was an intriguing mystery. Over the next ten years, I directed a research team of more than eighty professionals." His team dug up "wooden, bone and stone tools, as well as scraps of animal hide and chunks of meat, human footprints, hearths, and thousands of edible and medicinal plants." All of which they found centering around the "remains of wooden hut foundations in Monte Verde." Things that normally would have rotted or dried up and turned to dust were preserved by partially decayed plant matter called peat, which coated the artifacts and protected them inside an airtight seal.

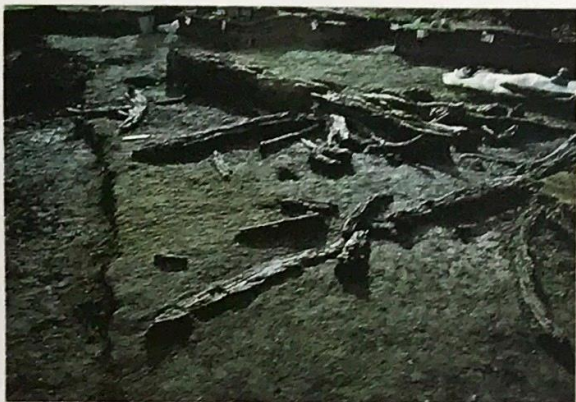
Opportunities to study open-air settlements don't occur very often. Exposure to the elements over time destroys them. Monte Verde gave scientists a chance to see what kind of structures people built thousands of years ago. Dillehay writes about one of the structures: "a 20-



The arrows indicate possible routes that humans took entering the Americas from Asia. The Cordilleran Ice Sheet covered the Rocky Mountains during the last Ice Age. Beringia is the name of the land bridge connecting Siberia to Alaska during periods of lower sea levels during the last Ice Age.



Structure, Monte Verde, Chile, 12,500 years ago



meter-long tentlike structure out of wood and animal hides. The frame was made of logs and planks anchored by stakes, and the walls were poles covered with animal hides." Like a detective, Dillehay reconstructs the interior of the structure from the clues he finds. "The tent's dirt floor is embedded with hundreds of microscopic flecks of hide tissue, suggesting that it was probably covered with animal skins. Inside the tent, individual living spaces were divided by planks and poles."

The people at Monte Verde cooked in clay-lined pits in their individual rooms inside the tent. But they also cooked as a community in one of the two large hearths outside.

Dillehay describes a second structure as wishbone-shaped. The foundation was made by mixing sand with

Foundation, Monte Verde, Chile, 12,500 years ago



The base of this small building or shelter was discovered by Thomas Dillehay in excavations at Monte Verde.

animal fat, and then wooden posts were set into the cement-like mixture. This was a place where people made tools, butchered mastodon, and prepared hides—a place to gather and work together.

Thomas Dillehay believes this structure was also a hospital of sorts. He found evidence of plants that are used to treat skin and lung problems. Half the medicinal plants grew near Monte Verde, but there were many that grew only on the coast more than 40 miles away, and one from the north that came an astounding distance of more than 400 miles. The people who lived at Monte Verde either traveled long distances or traded with people who lived far away—or both.

Each family at Monte Verde had a special job to perform. Some collected plants from the coast; others hunted animals in the nearby forest. Scientists are surprised at how complex social life was at Monte Verde. It was time to let go of the story that *all* Ice-Age people were big-game hunters following mammoth. Monte Verde shows us ice age people living year-round in one place, gathering plants and hunting small game.

Every so often scientists discover a site that changes the theories. Monte Verde is one. Scientists now accept Monte Verde to be as old as the tests say. They now know the route into the Americas is not as simple and direct as they once thought. Some things haven't changed. The first Americans did cross that Bering Land Bridge that connected Siberia to Alaska. They did come out of Asia. But from there the story takes as many turns as our ancestors must have. As Thomas Dillehay wrote, "My hunch is that people were coming into the Americas by different routes at different times, and that once better geological evidence is available, we will see that both coastal and interior routes were used, and more than once."

No one is doubting Thomas anymore.

Plant remains, Monte Verde, Chile, 12,500 years ago



#### MEANWHILE IN THE EASTERN USA...

To complicate matters, a site in the eastern United States—Meadowcroft Rockshelter in Pennsylvania—may be older than both Clovis and Monte Verde. The tools found below the Clovis layer at Meadowcroft were similar to tools found in Siberia 24,000 years ago.