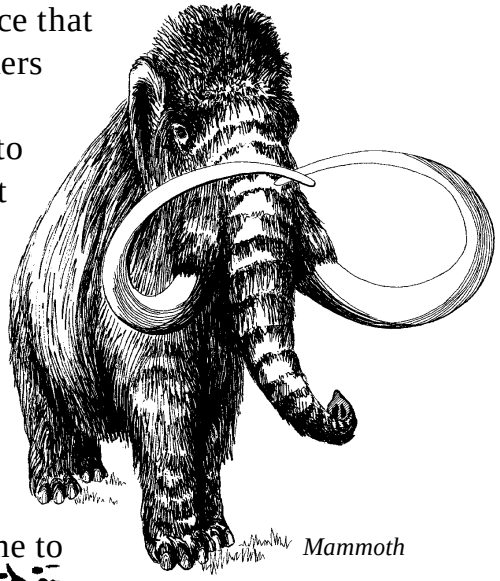
When Great Furry Beasts Roamed the Land

It's not easy living near the edge of a glacier, particularly if you don't have a down jacket or a home with a furnace. When people moved into Wisconsin between 11,000 and 12,000 years ago, that's basically what they did. Archaeologists call the first people in Wisconsin, and all of North America, Paleo-Indians.

When the Paleo-Indians arrived, portions of northern Wisconsin were covered with glaciers, sheets of ice that were sometimes hundreds of feet thick. The glaciers formed when huge amounts of snow piled up, so much snow that its weight created enough force to turn the snow into sheets of ice. Glacier ice is not like the ice in your freezer. The great pressure that it is under gives glacier ice special qualities. It can flow, sometimes only a few inches in a year, sometimes hundreds of feet in a year. It all depends on how much snow falls and how cold it is.

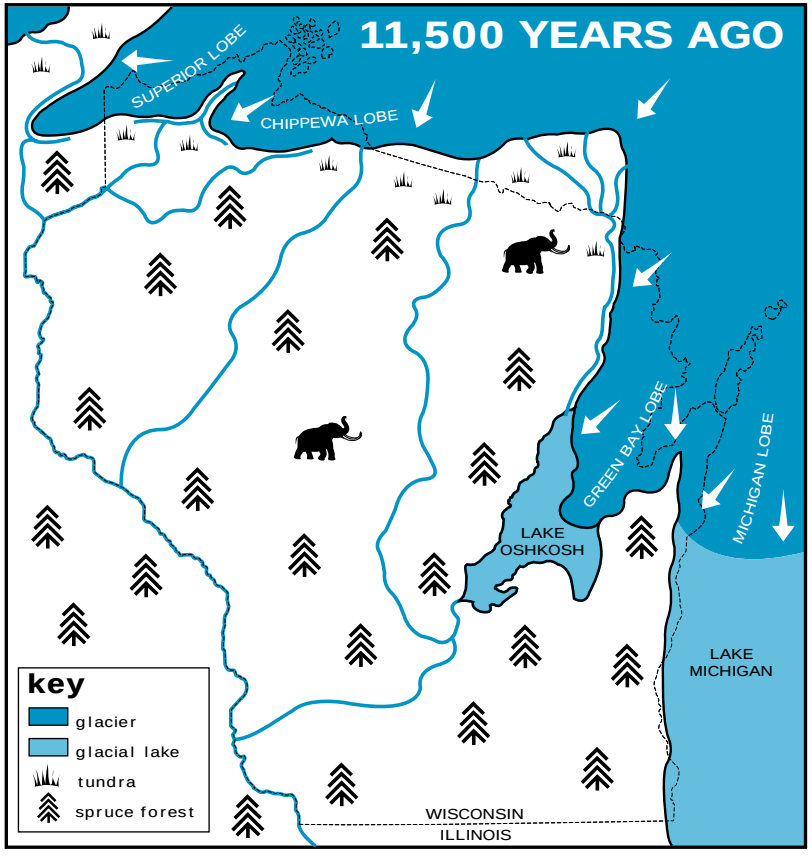


Mammoth

The weather was colder and wetter when the Paleo-Indians lived here, and Wisconsin was home to

many animals that no longer exist, such as mammoths, mastodons, and giant beavers. Wisconsin did not look the way it does now. No barns, no roads, no corn, no cows, no cheese.

Glacier map



Map information courtesy of the Wisconsin Geological and National History Survey. Concept: Lee Clayton

Even the locations and levels of lakes and rivers were different. Some were higher, some were lower, some didn't exist yet. Archaeologists try to determine what the land looked like thousands of years ago so they can figure out likely areas where people may have camped or hunted.

We don't know that much about the Paleo-Indian people because archaeologists have found very few sites that are 11,000 to 12,000 years old. From the few sites that have been found, archaeologists hypothesize that Paleo-

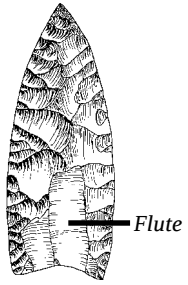
Indians lived in small family groups and traveled a lot, staying only a short amount of time at any particular place. They were hunters and gatherers, meaning that they tracked and hunted animals and gathered wild plants.

Paleo-Indian family

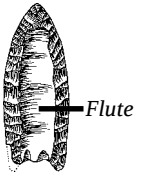
Artist: Anna Fishkin

We "know" the Paleo-Indians primarily through their stone tools. Archaeologists know that the Paleo-Indians hunted because they left behind stone spear points. Stone tools are one of the few artifacts that can survive for long periods of time, even thousands of years. Paleo-Indians made very distinctive (easy to identify) stone spear points. When archaeologists find one of these spear points, they know that they have a Paleo-Indian site. Unfortunately, in Wisconsin most Paleo-Indian spear points have been found on the ground's surface without other artifacts. Without other artifacts, it is difficult to explain what happened at a site. Did a Paleo-Indian use a spear point to kill a mammoth or an elk? Was the spear point used to kill anything at all? An artifact that we find all by itself cannot tell us much about how or why someone originally used it.

For example, if you found an old rusty knife in a woods, what could you say about the person who had used it or why it



Clovis point (fluted)
9,000 B.C.



Folsom point (fluted)
8,500 B.C.

Agate Basin point
8,000 B.C.

happened to be in that particular place? Was this the scene of a battle? Was the knife simply lost by a hiker? Was this the location of an early farm site? Without more information, it is difficult to know what that knife means. However, if archaeologists dig excavation units near the knife's location and discover tin cans, a rusty fork, broken dishes, and the remains of a cellar, they would then be able to conclude that this was an early house site.

While it is very important to find artifacts in context, archaeologists can also get information from a single artifact. If, for example, that knife found in the woods was a modern Swiss Army knife, we would know that it didn't come from an early homestead, and we could hypothesize that a hiker simply lost the knife. By being familiar with types of artifacts from the past, archaeologists can make hypotheses (more than one hypothesis) from a single artifact.

A Paleo-Indian spear point found in a Richland County cornfield tells us that people were at that spot 10,000 to 12,000 years ago. Examining the spear point can also reveal how Paleo-Indians made stone tools and even help "date" them. Paleo-Indian points that are fluted (have a large groove at the bottom) are older than other kinds of Paleo-Indian points. Archaeologists know this because they have found some fluted and unfluted points in context and with materials that were

radiocarbon dated. Examining the spear point may also tell us about Paleo-Indian travel and trade. That spear point in Richland County might be made of Knife River chalcedony, the stone found only in North Dakota!

Image courtesy of the Kentucky Heritage Council
Artist: Jimmy Railey

Man making tool

People of the past were, of course, more than just the tools they used or the food they ate. If only a few artifacts are available, it is difficult for archaeologists to figure out what people thought about or believed. Archaeologists have not yet been able to learn much about the beliefs of Paleo-Indians, but they have found clues. For example, at two sites in Wisconsin, one in Price County and the other in Brown County, archaeologists found finely made stone spear points that Paleo-Indians had burned on purpose. Archaeologists hypothesize that the Paleo-Indians had deliberately burned them because the spear points were in very small pieces, broken up from intense heat. Why did the Paleo-Indians burn these points? Could this action have been part of a religious ceremony? Archaeologists can only hypothesize and hope to find more data to answer these questions.

Kenosha County

Kenosha County Mammoths—Believe It or Not

In 1964, a Kenosha County farmer was digging a trench in a low-lying field and discovered mammoth-sized bones. Amazingly, they *were* actual mammoth bones! These bones, a femur

(thigh bone) and part of a tusk, were taken to the Kenosha County Public Museum, and there they sat for almost 30 years. In 1992, an archaeologist researching Paleo-Indians examined these bones and saw cutmarks that could only have been made by human beings. This was a very important discovery because it proved that people had been at this site between 10,000 and 12,000 years ago.

Hoping to learn more about Paleo-Indian life, archaeologists decided to return to the area where the farmer had uncovered the mammoth bones and carefully excavate the rest of the site. Fortunately, in 1964 someone had made a map of the site and the archaeologists were able to find the right spot. Archaeologists opened up a series of excavation units and gradually exposed the bones of an adult male mammoth. The archaeologists did not find any spear points that would definitely prove that Paleo-Indians had killed the animal, but they did find a broken stone tool and saw cutmarks on the bones that indicated that Paleo-Indians had definitely butchered the animal.

People butchering a mastodon

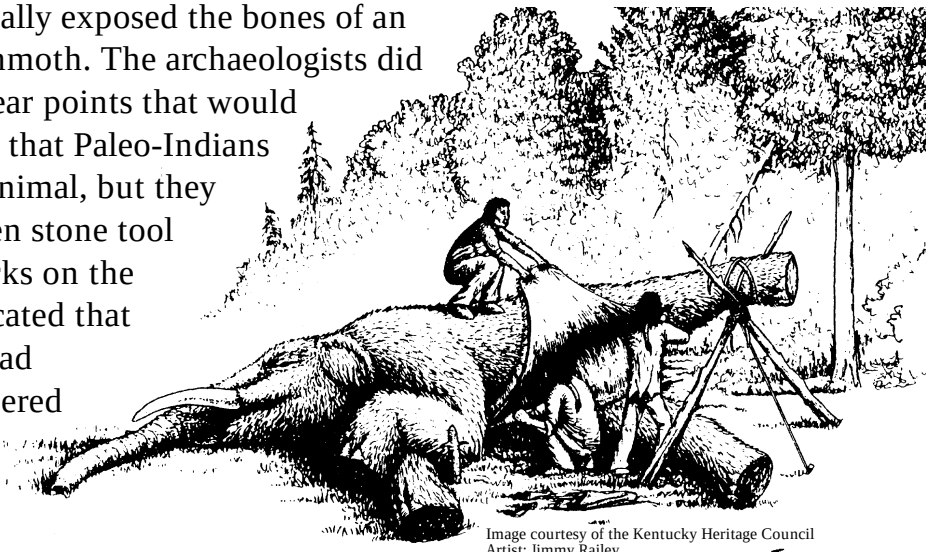
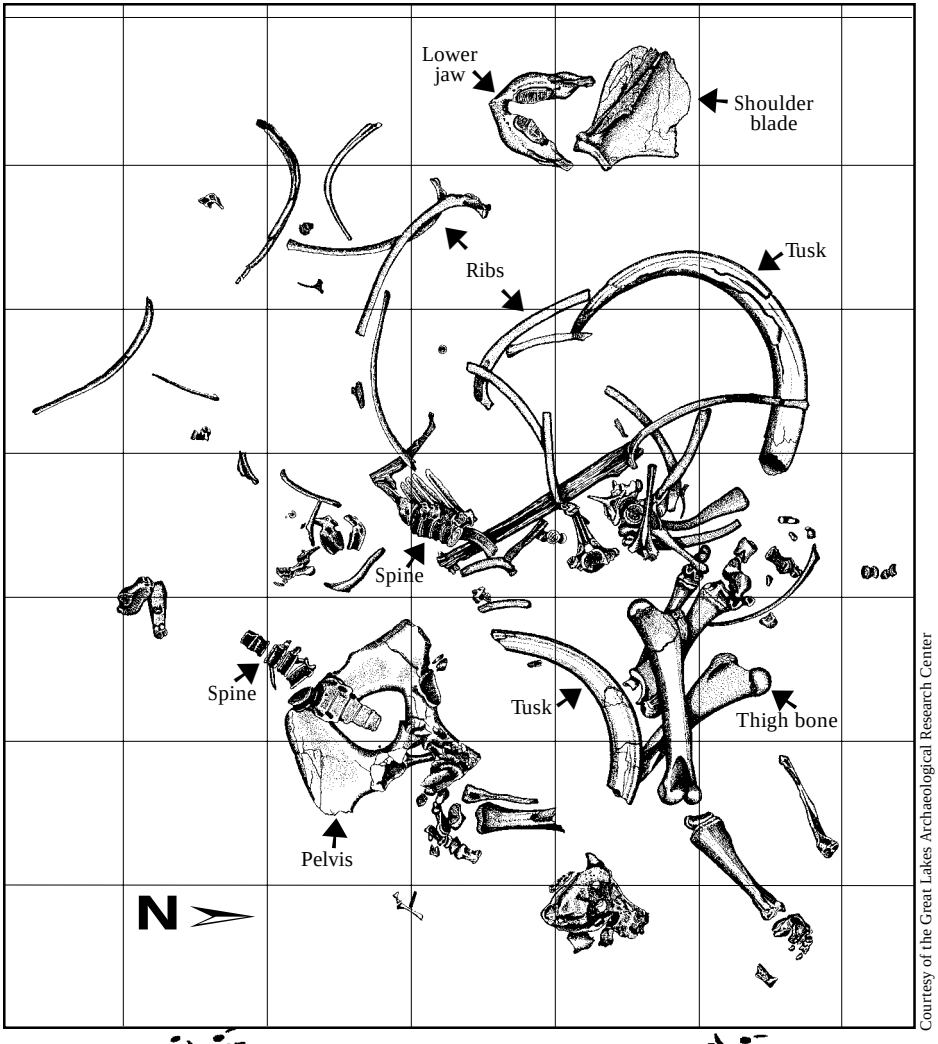
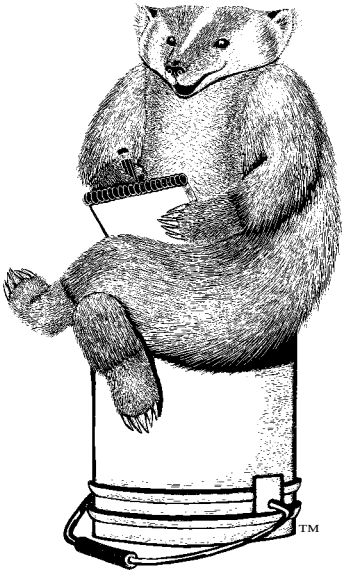


Image courtesy of the Kentucky Heritage Council
Artist: Jimmy Railey

Map of mammoth bones in Kenosha County



Courtesy of the Great Lakes Archaeological Research Center



Excavation of a mammoth in a Kenosha County cornfield

Since this discovery, archaeologists have continued work in this same geographic area to learn more about Paleo-Indian life and the past environment of southeastern Wisconsin. They found a second mammoth site less than three-fourths of a mile from the first one, and this one also had a stone tool with it. By examining the types of dirt in the excavation units and surrounding landscape, archaeologists learned that both of these mammoths died on the edge of a former lake.

Although these mammoth kill sites or butchering sites are exciting to find, archaeologists also need information from different types of sites so they can better understand how Paleo-Indians lived. That is why archaeologists were very excited to find a Paleo-Indian campsite within a couple of miles of the mammoth sites. They do not know if these campers were the same people who butchered the mammoths, but archaeologists do know that the types of stone tools found at the campsite date to the same time period when mammoths lived. Archaeologists carefully recorded a number of features at the campsite, including hearths and places that held many stone tools and burned bones. Archaeologists who study animal bones will be able to tell

what these people were eating. Maybe they ate mammoth or deer or both! Perhaps most importantly, archaeologists may have found the remains of a small house. More study of other features at this site may help archaeologists tell if a single small family kept coming back to this same place over many years, or if several families all came to this place at the same time.

Mammoths and Mastodons

Mammoths are an extinct form of elephant. Thousands of years ago, mammoths roamed the Northern Hemisphere from Siberia to Arizona. Unlike modern elephants, mammoths were covered with long, coarse hair. In fact, people often call them "wooly mammoths." Fully grown males had long, twisted tusks. Their molars, or chewing teeth, were wide and relatively flat. Paleontologists (scientists who study ancient animals) know that mammoths ate large amounts of grass, moss, and occasionally parts of trees. They learned this information from studying the stomach contents of frozen mammoths that they found intact (whole) in Siberia.

Mastodon skull

Photo courtesy of John Dallman, UW-Madison, Zoology.

Mastodons are another extinct mammal related to the elephant. Their teeth are quite different from mammoths'. Instead of

shallow grooves, their molars had prominent cusps, or points. Because mastodon teeth are so different from mammoth teeth, paleontologists think that the mastodon's diet and preferred places to live must have been different from the mammoth's. Unlike the grass-eating wooly mammoths, mastodons depended mainly on leafy vegetables. Mastodons probably lived in forested areas.

Because the mammoth and mastodon became extinct in North America at about the same time people first arrived, archaeologists have argued about whether people were responsible for their extinction. Several of the early famous Paleo-Indian sites were mammoth kills. Did the Paleo-Indians kill too many? Other archaeologists argue that the mammoths' disappearance also coincides (occurs at the same time) with the end of the glaciers, at a time when many other animals, types that people did *not* hunt, also became extinct. These archaeologists suggest that climate change led to the extinction of the mammoths and mastodons.