

The Manis Mastodon Site

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Since I was little, I've wanted to help animals. Naturally, for me as a five-year-old, my dream job was to become a vet. There was something about helping more than just the dogs and cats, so my enthusiasm for becoming a vet turned into my enthusiasm of becoming a zoologist. Around age 9, I met a lady named Iesha while my mom and I were on our way to Arizona. We started talking and then Iesha told us she had just been Hawaii helping leatherback turtles.

The stranger sitting next to me quickly became the coolest person I had ever met. She went on to explain that she was going to Arizona to help the bats at a festival so they wouldn't go extinct from a fungus. All I knew at that point was that I wanted to do what she did. She got to travel the world and save animals, and I thought that was really fantastic. So, yet again, my

dream job changed to becoming a zoologist that traveled around the world and saved endangered species. Due to a recent assignment, I've found that the job I truly want to do, and that is under the label of Endangered Species Biologist. Since then my heart has been set on saving African Elephants from going extinct. Oddly enough, one of the topics to do for my project was to write about the mastodon, which is an animal that has gone extinct. With that, my topic had been chosen for me to dig deeper (pun intended) about the Manis Mastodon Site.

Emanuel "Manny" Manis and his wife Claire Hadler-Manis moved to Sequim, Washington in the year 1975, with their family. They opened up the bowling alley and bought a piece of property in Happy Valley. Together, they built their home and barn for themselves and their kids.

In the years that the family lived in Happy Valley, the couple had noticed that there was a certain area in their field, somewhat like a marsh that filled with water every winter and dried up more in the summer. During the summer of 1977, the summer was extremely dry and hot. The marsh had dried up completely that year, and the cows they had at the time needed water. Manis knew that there was a natural spring there, and decided to dig up a pond.

What he didn't know was that there had been a pond there, it's just that the pond hadn't been there for 14,000 years. Using his backhoe, he dug up what looked like two curved trees until he and his wife Claire Manis-Hadler noticed that one of the ends to the curved trees was white. Soon they realized that what they thought they had found was tusks and not trees at all. Manis-Hadler called anyone that could be capable of examining the tusks that her and her husband had discovered.

She called the Olympic Peninsula College in search for some answers, however they lacked the resources to help. Next, she called the University of Washington and that was no help since all of their ancient-bone experts were on vacation. At the near end of her efforts to get some information about what her husband had found that day, she called a science teacher

at Sequim High School who explained to Manis-Hadler that if they didn't put the tusks they had found in water, that they would start to dry out and deteriorate. Finally, she called the North Olympic Library System to ask them about the dig site out by Lake Ozette. They put her in touch with Dr. Richard D. Daugherty who was an archaeologist and a professor of anthropology at Washington State University.

Daugherty took charge and appointed a team to start digging at the site in Sequim. Later Dr. Carl Gustafson, who was a colleague of Daugherty, was also appointed to the team in Sequim. After Gustafson joined the dig a team of students came following Gustafson into Washington. With that all happening, the story of what Manis had discovered went on for 8 years. On the first day of digging, the team found a bone that had been embedded into a rib of the animal. With more examining, the scientists found a rib that had begun to heal around what turned out to be a bone shaft that was foreign to the animal itself.

The bones showed that the mastodon had been butchered and eaten by humans. In the end, the Manis Mastodon Site showed that, "people lived on the Olympic Peninsula 4,000 years earlier than previously anticipated. Most significantly, the Manis Site was visited at least intermittently for 6,000 years..." wrote Gustafson in "The Manis Mastodon Site: An Adventure in Prehistory"

The Manis' sold the bowling alley and turned their barn into an information center and their piece of land into a parking lot for tourists. People would drive onto their property, park on the field, walk up into the barn, and get educated about the background of the dig site with a video. After the film was over, the couple would answer any questions that the group had before they all made their way down to the dig site. Archaeologists, paleontologists, and geologists were all around the site, answering questions, running tests, taking samples, cataloging everything that they found, and by all means, working. This process would start in the spring when it was warm enough, and go on for the whole summer until it got too cold in the winter for them to work.

More discoveries were made from that site that was a major eye-opener. Pollen was found that belonged to a cactus which indicates that the Olympic Peninsula wasn't the beautiful green forest we see out our window today. Along with the pollen, some fruit was found that belonged to a pond plant known as a "coontail", that only produced seeds during the warmer seasons. A concentration of small bits and pieces of plants was found which could possibly be what the Mastodon ate the day it died.

Within the first few days, the archeologists found a tooth that belonged to a mastodon, which indicated that what Manis had found a mastodon. "Mastodon" actually translates to "nipple tooth" because, the teeth reminded the paleontologist who first discovered a mastodon, of human breasts, which is ironic considering one of the main differences between mammoths and mastodons is their teeth.

The bone shaft that was found in the rib of a mastodon was still puzzling. Soon after the discovery, it was evident that people lived on the Olympic Peninsula before the Clovis people. The Clovis people were discovered at a dig site during 1932 in Clovis, New Mexico. They used to be thought of as the first people to live indigenously in North American culture. Clovis people used Clovis points which were a tool made for hunting which is why it was hard to believe that people lived before the Clovis people and with bone-tipped arrows.

Gustafson's theory about the discovery of the bone shaft was something other scientists didn't agree with in the 1970s. In 2011, a team from Texas A&M University College partnered with a team that Professor Eske Willerslev put together from the Centre for GeoGenetics at the University of Copenhagen to re-examined the case of the Manis Mastodon Site. They were able to test the bone and bone shaft that was found in 1977 with new tests that had never been

tested on it before. With CT scans the team took, the bone shaft embedded in the mastodon rib showed to be ten inches long and sharpened to a tip.

With DNA testing, it showed that the bone shaft was from a different mastodon. The new evidence proved that Gustafson's theory was correct. A bone shaft showed that humans made a "bone tip" about 800 years before the Clovis people had. With that discovery, our perception of the evolution of mankind was forever changed from that point on.

Other sites of bone tipped arrows and spears have been discovered since. Sites have been found in South America, Texas, Wisconsin, and even Oregon. Some of the evidence was around 15,000 years old, which is around the time that the ice age ended. The bone tipped shaft found at the Manis Mastodon Site was made of mastodon bone when both bones had DNA sequencing tested. Gustafson said he remembers knowing that he was right when he made his discovery at the Manis Mastodon Site. "At that time, my conclusion was I thought there couldn't be any other way, that this was human-caused.", said Gustafson in a newspaper article from *The Peninsula Daily News*.

Manis-Hadler still lives in the home that she and her husband built together. Manis fought cancer for five years until he couldn't fight anymore. He died in April of 2000 and he is missed by his children, wife, family, friends, and loved ones. Emanuel made an extraordinary discovery, that without the mastodons being discovered, we may not know about the people who lived on the Olympic Peninsula 13,800 years ago.

"In April 2000, Emanuel Manis lost a five-year battle with cancer. In August 2002, 25 years after his discovery, Clare Manis donated the site to the Archaeological Conservancy in Emanuel's memory, to preserve and protect the Manis Mastodon Site."
- Carl E. Gustafson

Bradford, Alina. "Facts About Mastodons." *Live Science*, 1 Nov. 2016, 12:25,
www.livescience.com/5670

This helped me write about the certain physical appearances that make mastodons mastodons. This website also helped me explain the differences between mastodons and mammoths.

Chew, Jeff "Peninsula residents 13,800 years ago" *Peninsula Daily News*, 21-22, October, 2011, A1 and A8

This newspaper article helped me explain how scientists proved Gustafson's theory.

Chew, Jeff "Mastodon news could renew tourism" *Peninsula Northwest*, 23, October, 2011, C1-C2

The article gave me information on the story behind the manis mastodon site.

Couhig, Mark St.J. "Manis Mastodon Reveals Its Secret." *Sequim Gazette*, *Sequim Gazette*, 20 Mar. 2014,

www.sequimgazette.com/news/manis-mastodon-reveals-its-secret/

The website gave me information about the people who proved Gustafson's theory in Texas.

Gustafson, Carl E., and Clare Manis. *The Manis Mastodon Site: an Adventure in Prehistory*. Carl E. Gustafson, 2003

The pamphlet explained the whole story behind the mastodon site and how it was discovered. It helped me explain basically my whole essay.

Gustafson, Carl E. "The Manis Mastodon Site: An Adventure in Prehistory." *Washington State Magazine*, 2012,

magazine.wsu.edu/web-extra/the-manis-mastodon-site-an-adventure-in-prehistory/.

This website had a quote from Gustafson that I included at the end of my paper.

Mancini, Mark. "What's the Difference Between a Mammoth and a Mastodon?" *Mental Floss*, *Mental Floss*, 19 Dec. 2013,

mentalfloss.com/article/54120/whats-difference-between-mammoth-and-mastodon.

This website helped me explain the differences between the mastodon and mammoths.

Manders, Jim "Mastodon site to be saved" *Peninsula Daily News*

This article had information throughout it that wasn't put into other sources that helped add information to my essay.

Muscato, Christopher. "Clovis Points: Definitions & Explanation." *Study.com*, *Study.com*,
study.com/academy/lesson/clovis-points-definition-lesson-quiz.html.8-mastodon-facts.html.

This website helped me explain who the Clovis people were for those who read my essay and did not have any background information on them.

Oppenheimer, Betty "Donation preserves 'Manis Mastodon' site" *The Sequim Gazette*, *Sequim*, 7, August, 2002

There was information in this newspaper article that helped me explain the background information. It also had some interesting facts that I incorporated into my essay.

Sanzenbacher, Beth. "American Mastodon - Mammot Americanum - Details." *Encyclopedia of Life*,

eol.org/pages/4454807/details.

This website gave me information to explain the American Mastodon to give them an idea of what they looked like and their history.

Welch, Craig "Mastodon Man" The Seattle Times [Seattle] 31, October, 2011

This newspaper article was a great help to simplify what happened in the past and to magnify the science behind the mastodon site.

"A well-handled discovery" Seattle Times [Seattle] 28, August, 1977

The article was the oldest secondary source I could find. This one had some detailed information on what happened when Manis discovered the mastodons that I couldn't find anywhere else.