



ARTURO BAEZ ENGLUFED IN HIS WORK IN THE MUD. By careful digging he was able to work below the level of the river, locating what is believed to be a complete Bison Antiquus skeleton

Bison Bones Found At Snake River Farm

Penny Leuthard, Staff Writer | 298 | June 28th, 2019 @ 3:03 pm

One day around 25 years ago, Tom Barthel was sitting along the Snake River on his Becker farm enjoying the spring day when he noticed a skull sticking out of the mud. Pulling it out he discovered it was from a bison.

Further research found it to be the skull from a Bison Antiquus, one of the most common herbivores across the Great Plains during the Ice Age around 10,000 years ago, which is believed to be the direct, larger ancestor of today's bison.

Since that day Barthel and his family and friends have found thousands of Bison Antiquus bones along the river bed on their property, Snake River Farm, including two complete skeletons. Barthel and his wife, Gail Wilkinson, dreamed that one day their find would be used for educational purposes.

Snake River Farm is located in the Anoka Sand Plain, which was created by sand deposits of receding glaciers around 12,000 years ago. The swampy area trapped many Bison Antiquus in one area, and it's believed they became stuck in the quicksand. Over time around 10 feet of peat developed on top of the sand.

In 1984 St. Cloud State University held an archeological dig at the site, but it wasn't until scientists at Mammoth Site in Hot Springs, SD heard about the farm that interest began to rise and the Barthels' dream became reality.

Mammoth Site is a museum and active dig site with the largest concentration of mammoths in the world. The scientists were interested in branching out, and Bison Antiquus was just what they were looking for.

“A year ago, the paleontologists came out and walked the property,” said Barthel. “They did an exploratory dig and picked out the spot they wanted to focus on this year. We'd never dug for bones before, we'd just picked them up where they'd become exposed.”

The Barthels gave the scientists many of the bones they'd collected, which they took back to study and use in their new display at the museum.

“They were amazingly excited about it,” said Barthel. “They've spent their entire careers digging in hard, dry dirt and now they get to come out here and dig in the mud. They were also excited when they looked through my collection of Bison Antiquus heel bones, as it turns out the heel bone is the best one in a bovine to determine size.”

This May, 16 paleontologists and volunteers from around the country came back to Snake River Farm for a week-long dig. Led by Dr. Jim Mead, director of the dig and chief scientist at Mammoth Site, the team went to work.

“The field season at Snake River Fossil Site was fantastic, beyond our wildest dreams,” said Mead. “We opened up six major areas along both sides of the river channel to determine the extent of the potential bone bed. Every place we did a test excavation we hit bones, typically at or below current water level.”

“Although super muddy and wet we did find the bone bed. Most of the bones imply that these bison are larger than today’s bison. I would hazard a guess they’re around 9,000 to 13,000 years old.”

Along with the dig, which was held May 6-10, the group held an educational day on the eighth, which over 300 homeschooled students from all over the area attended. Each was given a bone to bring home with them. The Barthels brought the groups back and forth from the dig with four wagons, three pulled by tractors and one by a team of horses.

During the dig, one of the archeologists, Arturo Baez from the University of Arizona, Tucson, managed to dig below the water level of the river and discovered what is believed to be another full skeleton. Before the team left its skull was brought up; the rest will hopefully be excavated next spring.

Mead will be radiocarbon dating some of the bones and wood brought back which should provide the scientists with a more accurate determination on the age of the bones; he hopes to be finished by December. In the meantime, all the bones are being cleaned and measured.

The scientists plan to come back next year for additional excavations. Another educational day is also planned during their visit on May 6. The event is free and everyone is welcome. The Barthels and the scientists hope both will continue to be annual events.

Snake River Farm adopts, tames and trains mustang horses and raises and sells grass-fed bison, beef and pastured hogs in a natural prairie and woodland setting

.ARTURO BAEZ HOLDS A BISON ANTIQUUS FEMOR he discovered, which appeared to be part of an entire bison skeleton.



ARTURO BAEZ in his dig trench; he managed to explore below water level.



BISON BONES. Shannon Barthel (below) enjoyed the replica fossils on hand at her dads farm. (Photo by Mary Nehring).



TEAM MEMBERS carefully sorted and cataloged their finds.



THE TEAM UTILIZED CAREFUL FLAGGING to denote areas that yielded many species of bones, teeth and other finds.



DR. MEAD EDUCATING A GROUP OF VISITORS during education day while Arturo Baez bails water from his dig trench.



BISON ANTIQUUS COW. Paleontologists unearthed a skeleton (left) of a 12 year old bison Antiquus cow at the Snake River Farms Fossil Site last month. The cow's spine is showing, her neck is twisted and her skull is upside down. The picture shows the cow's skull from the bottom. The bones are adjacent to the river, but below the water level. (Submitted photo).



A BISON ANTIQUUS ATLAS BONE, which is the first bone of the neck. The enormous hole is the passage way for the spinal cord.



DR. JIM MEAD, director of the Snake River Fossil Dig, documenting, supervising and managing the dig. Mead is the chief scientist at the Mammoth Site in Hot Springs, SD.