

LAS May 2016 Headlines:

GIANT MAMMOTH SKULL DISCOVERED BY BULLDOZER OPERATOR

Live Science – By: Jenna Bryner April 04, 2016

A bulldozer operator at a sand pit in northwestern Oklahoma got quite a surprise this month when he spotted a huge skull that belonged to a Columbian mammoth.

These giants were plentiful across the plains of Oklahoma during the Pleistocene epoch, which lasted from about 1.8 million to 11,700 years ago, said Leland Bement of the Oklahoma Archaeological Survey.

The discovery was not unheard of, as the Survey typically receives about three "mammoth-sighting" calls a year, Bement said. That made it now less exciting, though. "Archaeological fieldwork is always exciting. You

never know what you are going to find," Bement told Live Science in an email.

He added, "When it comes to mammoth finds, we are always on the lookout for the next one that has projectile points or stone tools associated with it to indicate that the animal was killed and butchered. We have so few of these sites across North America and only one so far in Oklahoma."

The skull had been deposited on the sandbar of a river channel, the archaeologists said. So far, the archaeologists have unearthed the animal's skull with a single tooth in place; apparently, another tooth had been removed from the skull during the clearing of the sand.

"We don't know the cause of death. There is no sign that people killed or butchered it," Bement told Live Science in an email. "Its skull was washed around in the river. The rest of the animal could be anywhere."



A skull and two tusk fragments from a Columbian mammoth, found in a sand pit in Oklahoma



Though the scientists have not pinpointed an exact age for the skull, they know it's more than 11,000 years old — the period when mammoths and other megafauna went extinct at the end of the Pleistocene.

Scientists have put forth several reasons for the extinctions, ranging from rapid climate warming to ice age human hunters. Others have suggested a perfect storm of culprits. One group of dwarf mammoths is thought to have survived in the Arctic, on Wrangel Island, until about 3,700 years ago.

Like other Columbian mammoths (*Mammuthus columbi*), this one was not the cold-adapted type and



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preferred more temperate stomping grounds in southern and central North America. The woolly mammoth (*Mammuthus primigenius*), the kind portrayed in the "Ice Age" movies, would have called the chilly tundra home.

The Columbian variety was also much larger than the woollies, with Columbian males reaching up to twice the size of woolly males, according to Hendrik Poinar, an evolutionary geneticist at McMaster University in Hamilton, Canada. Columbian mammoths also arrived in North America about 1.5 million years ago, whereas woolly mammoths stepped onto the continent some 400,000 years ago, said Poinar, who spoke with Live Science in 2011.

Finding mammoth bones, while a mammoth discovery, seems relatively common across the United States. This past January, a construction crew discovered the femur of a mammoth (possibly a Columbian mammoth) under the Oregon State University's football field. Last September, two Michigan farmers found a mammoth's skull and tusks while they were installing a drainage pipe. And, in October 2014, a volunteer "paleontologist" unearthed the skeleton of a mammoth on the banks of a reservoir in Idaho. That skeleton dated back more than 72,000 years, said the scientists involved in the excavation.

Next, the researchers, including Oklahoma State University geographer Carlos Cordova, will analyze the mammoth teeth for particles from plants encased in tartar buildup, Bement said. "That will tell us what the mammoth was eating and also help in reconstructing the environment at the time he lived."

The findings will be included in a broader study, by doctoral student Tom Cox, of the distribution of mammoths in Oklahoma, he added.

Early Snowbirds? Florida Sinkhole Yields Ancient Artifacts

By Malcolm Ritter, AP Science Writer, May 13, 2016

Scientists say a stone knife and other artifacts found deep underwater in a Florida sinkhole show people lived in that area some 14,500 years ago.

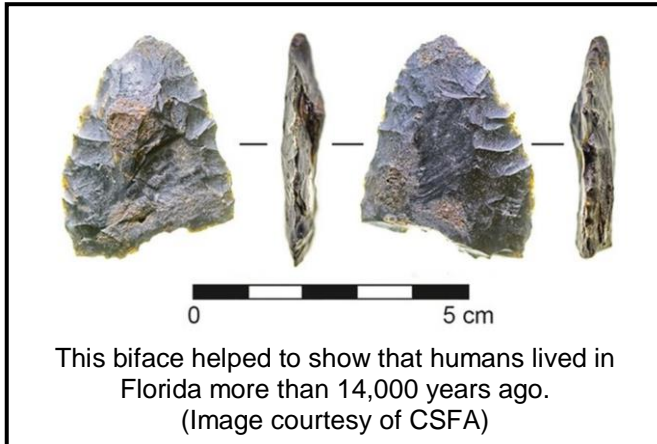
That makes the ancient sinkhole the earliest well-documented site for human presence in the southeastern U.S., and important for understanding the settling of the Americas, experts said.

The findings confirm claims made more than a decade ago about the site, some 30 miles southeast of Tallahassee. At that time, researchers reported evidence that humans were there some 14,400 years ago. But in an era when such an old date was widely considered impossible, other experts disputed the evidence, said Mike Waters of Texas A&M University in College Station.

The sinkhole was "just politely ignored," he said.



Neil Puckett, a Texas A&M University graduate student, surfaces with the limb bone of a juvenile mastodon.
(Brendan Fenerty)



Waters was among a new team of scientists who excavated there from 2012 to 2014. They report finding the knife and stone flakes in a paper released Friday by the journal *Science Advances*. The new work offers "far better" evidence for early humans than the earlier research did, he said.

The sinkhole is nearly 200 feet wide. In ancient times, it had a shallow pond at the bottom. That offered fresh water and a gathering point for animals, which "probably would have been easy pickings" for hunters who saw them trapped in the deep depression, Waters said.

Today, the sinkhole is filled with about 30 feet of water, and it took divers equipped with head-mounted lights to look for artifacts. It was "as dark as the inside of a cow, literally no light at all," said Jessi Halligan, the lead diving scientist and an assistant professor of anthropology at Florida State University in Tallahassee.

They found the knife while digging with a trowel. It's a couple of inches long and about an inch wide, sharpened on both sides.

To determine its age, the researchers used nearby mastodon dung, which contained twigs that could be analyzed. The twigs, and therefore the knife, were found to be about 14,550 years old.

Man-made stone flakes were found to be about the same age. The scientists also examined a mastodon tusk recovered in 1993, and confirmed that its long, deep grooves were made by people, probably as they worked to remove the tusk from a skull.

The first people in North America are thought to have crossed a now-submerged land bridge from Siberia to Alaska. From there, people spread southward. Waters said the age of the sinkhole artifacts adds to evidence that people may have migrated south from Alaska as early as 16,000 years ago by boat along the coast, because inland Canada was blocked by ice sheets until 2,000 years later.

Halligan said the ancient visitors to the sinkhole could have been the Southeast's first snowbirds, moving south for the winter and north for the summer. They could have followed mastodons, whose remains have been found as far north as Kentucky, she said.

"They were very smart about local plants and local animals and migration patterns," she said.

In American archaeology, sites showing signs of human presence more than about 13,000 years are called "pre-Clovis," since they predate the Clovis era of widespread human occupation.

Dennis Stanford of the Smithsonian Institution's National Museum of Natural History said that he ranked the sinkhole with two locations in Pennsylvania and Virginia as "the best-dated and oldest pre-Clovis sites yet found in North America."

While the other two sites are older, "the Florida site has a major role to play in learning the story of the peopling of the Americas," said Stanford, who didn't participate in the research.

Another expert, James Adovasio of Florida Atlantic University in Boca Raton agreed, saying it promises to shed light on "early Native American lifestyle in an environment where these lifestyles are very poorly defined."



LAS Find of the Month, May 2016:

Members can bring an artifact to be entered into the competition at the monthly meeting, which will be judged based on the following rules:

1. Must be a member of LAS in good standing.
2. The artifact must be a personal find.
3. It must have been found within the specified time frame, i.e., within the month prior to the meeting.
4. The artifact doesn't have to be a Colorado find—all that matters is that it was found in the last month.

The Find of the Month for May 2016 was made by Ted Meredith.

Type: Broken uniface tool
Material: Jasper
Location: Weld County, Colorado



LAS News and Upcoming Events:

- Ongoing: Univ of Colorado Museum of Natural History. "Unearthed: Ancient Life in the Boulder Valley" exhibit featuring the Clovis artifacts from the Mahaffy Cache found in Boulder, Colorado in 2008. The exhibit will run through September 2016. Cost is free.
- Note After a discussion with the owners of the Harris Ranch, because of the very muddy conditions on the ranch, predictions of more rainy weather, the time it will take to dry out, and the time for repairing the ranch roads, there will be NO field trip to Harris Ranch over the Memorial Day weekend.
- June 7, 2016 June meeting. Program: Tom Westfall will give a presentation on Lithic Casting of artifacts and how casts help students and collectors learn about point types and lithic technology. Tom will also demonstrate how a point is cast once the mold is made.
- July – August 2016 Hell Gap site excavation. Dr. Marcel Kornfeld has extended an invitation to all LAS members to come by and visit the site, or even volunteer to help with the dig. If you are interested see the website at <http://www.uwyo.edu/pirl/summer%20schedule.html>.
- July 5, 2016 July meeting. Program: to be announced.