# A bombshell for American archaeology

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The understanding of the date humans entered the Americas from northeast Siberia is undergoing a change. It had been assumed the Clovis people, who are identified by their unique spear points, were the first Americans. Curry states, "For most of the past 50 years, archaeologists thought they knew how humans arrived in the New World." 1 The 'Clovis first' theory proposed that big-game hunters living in eastern Siberia followed Ice Age animals across the Bering Land Bridge and into Alaska about 11,000 years ago. By then the ice sheets had melted enough for an ice-free corridor to open up along the eastern slopes of Alberta and north-central Montana. The Clovis people and their offspring supposedly spread south from there into the rest of North America, Central America, and South America. This theory was upended when the Monte Verde archaeological site in Chile revealed an accumulation of bones and tools dated at about 14,700 years old.2 So, the 'Clovis first' model has now been rejected, and a new date of about 15,000 years has become the 'new consensus'. But this has caused a problem, since the ice-free corridor from the Yukon Territory of Canada to Montana, US, was supposedly closed by the confluence of the Laurentide and Cordilleran Ice Sheets.3

## Man in North America 130,000 years ago?

Claims for sites older than 15,000 years have frequently been made for the Americas (see below), but these have always been rejected. However, a new report with more substantial

evidence has rocked American archaeology. The 27 April 2017 edition of *Nature* declared that man was in North America 130 ka (thousand years ago), during the last interglacial. <sup>4,5</sup> That is an order of magnitude increase in time! Their evidence comes from an undisturbed 12-m-thick 'fluvial' sequence along the coast of San Diego County, California, called the Cerutti Mastodon site (figure 1).

Knowing that such a massive departure from the consensus would require good grounds to be convincing, the many researchers involved used a meticulous protocol. They listed four criteria for acceptance, all of which they believed they fulfilled. The signs of man's handiwork are evidenced in the spatial arrangement of mastodon bones associated with cobbles in a fine-grained layer 20 to 30 cm thick. The cobbles were assumed to be tools. Battering marks on the bones are in a unique spatial arrangement, with the ends of some bones broken off, presumably to obtain bone marrow; and one mastodon tusk was vertical in the sediments with the distal end down. The bone breaks were made on fresh bone; wolf and horse bones in adjacent layers did not show the unique features found on the mastodon bones. This evidence for man compares well with other Paleolithic sites around the world. To go the extra mile, the researchers were able to duplicate the bone breakage pattern using stone cobbles for percussion on large elephant bones.

The date is the most shocking aspect of this find. They attempted C-14 dating but there was not enough collagen. They also tried to apply a relatively new dating method, optically stimulated luminescence (OSL), but it came out with a date greater than 60–70 ka. Finally, the uranium-series method was applied, which indicated a burial age of 130.7 ka. The researchers believe the date is accurate. This date greatly upends the accepted chronology of when man entered

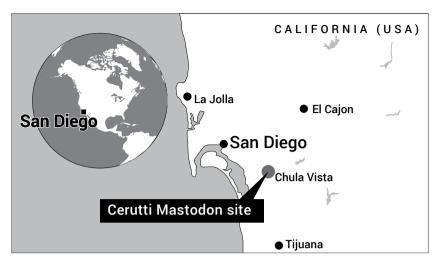


Figure 1. Location of the Cerutti Mastodon archaeological site from extreme southwest California, US

North America. Mankind supposedly migrated to northeast Asia only about 30–40 ka.<sup>6</sup>

A few European archaeologists, who have worked in South America, have looked at the thorough report of Holen and colleagues and accepted the evidence at face value.<sup>7</sup> They try to appeal for an open-minded attitude among archaeologists, and believe that a thorough analysis of the Cerutti Mastodon Site and other controversial sites is needed.

#### What type of man?

The early date brings up the question of what kind of 'man' was in California during the last 'interglacial', since modern man supposedly had not yet colonized Asia. Modern man supposedly had not yet left Africa, according to the 'Out of Africa' theory. The human candidates include Neandertal Man, the elusive 'Denisovans' (based just on DNA<sup>8</sup>), or even a late population of *Homo* erectus. These 'archaic' people may have used boats and ocean currents to migrate down the coast from Alaska to Washington state, which would have suggested much greater intelligence than scientists have, until now, ascribed to them.

It is also debated whether the first people entered the United States by the coastal or inland route, although many claim the Pacific Coast route along southern Alaska, western British Columbia, and into Washington state has very little evidence.9 This migration would have taken place at the peak of the last interglacial. It could have been from anywhere up north, since there were no ice sheets to block their way. But conversely, there would also have been no Bering Land Bridge. So, these people would have to have used boats for at least part of their journey, again implying that they were not as dumb as evolutionary theory would suppose.

#### Other reports

The gap between 15 and 130 ka is obviously very large, so the authors were obliged to mention other sites that may have existed during that timeframe. They list the Calico Hills, California site (originally thought to be 50–80 ka); the Pedra Furada site in Brazil (20–40 ka); and Old Crow, Yukon Territory of Canada. The 130 ka date may reopen the claim that Paleolithic Man left stone tools in western Alberta. 10,11 It also may validate the Taber child discovery found below Ice Age deposits in

southern Alberta, claimed to be about 35 ka.<sup>12</sup> These sites are of course highly disputed by American archaeologists, it seems mainly because they are dated older than the 'consensus'.

#### American archeologists attack

Most American archeologists were stunned by this new report printed in the prestigious journal Nature. They have strongly challenged the new results. Gary Haynes claims that earthmoving equipment could have broken the mastodon bones.13 The U-series date is also challenged, with Havnes claiming that there is no local source of uranium for uptake in the bones, and that the date did not agree with the OSL dates, although these dates were said to be a minimum. He further claims that there is no trace of the humans' trip to California for 115,000 years. Haynes also states that there have been many claims of extremely old humans in the Americas that have not panned out. He even claims that the broken stones are not tools, but were possibly crushed against other stones and bones by sediment compression. Havnes summarizes by suggesting that maybe other assumed human impacts on animal bones are natural:

"On the other hand, if the claims are *not* true, it indicates that archeologists have clearly not been trained to be more aware of how noncultural processes affect fossil bones. Either way, we might have a lot to learn [emphasis in original]." <sup>14</sup>

Braje and other prominent archeologists actually accepted the uranium series date of 130 ka, but claim Holen and colleagues did not offer any alternative hypotheses, such as that the claimed artifacts are 'geofacts' and not of cultural origin. They state the spiral fractures on the bones could be due to trampling. They also bring up all the debunked previous claims of ancient Americans, as if this somehow nullifies the new study. Braje *et al.* unwittingly

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admit how a consensus can powerfully affect further research:

"It has taken archaeologists decades of careful survey, excavation, analysis, and critical debate to break the Clovis barrier and extend the chronology of New World colonization back a few millennia." <sup>16</sup>

It is possible the reinforcement syndrome (where earlier results are reinforced by new discoveries), demonstrated in the 'Clovis first' theory, is also at work here. It may be hindering open analysis and debate about the Cerutti Mastodon Site.

### The original researchers answer the challenges

The original researchers ably defend their 130 ka date claim for the oldest American by demonstrating that this unique bone breakage is not due to heavy equipment.<sup>17</sup> They also state that there has been a psychological bias against finding older Americans, first against the pre-Clovis people and now against this new research. This may reveal why they are unable to trace the path of the people to California. They admit that although there had been uranium series dating problems before, their analysis is claimed solid. They end by stating that Haynes is essentially offering his biased opinion:

"Heavy equipment did not damage bones or stones except for a few during the initial discovery. Haynes (2017) offers no substantive evidence that sediment loading or heavy equipment broke proboscidean bone at the CM [Cerutti Mastodon] site, only his unsupported opinion. The totality of evidence from the CM site supports our claim that hominins broke the mastodon limb bones with hammerstones and anvils 130,000 years ago." 18

In response to Braje *et al.*, Holen and colleagues claim that the critics did not do a thorough analysis of the

published evidence. Holen *et al.* insist the researchers were especially careful in handling and interpreting evidence at the site. The stones could not have rolled to the site. To the charge that they did not examine alternatives, Holen *et al.* state that they did analyze carefully the possibility the bones could have been gnawed by carnivores or trampled by large mammals and discounted these possibilities. Moreover, Holen *et al.* charge that these critics did not offer any testable hypothesis that the stones are geofacts and not artifacts, and that the bone breakage was natural.

#### **Creation science implications**

Creation scientists can draw several implications from this bombshell. First, established concepts, such as 'Clovis first' or even the new consensus of 'pre-Clovis First' can be overturned with new data.

Second, skeptical attacks on consensus may show weaknesses in previous archeological evidence and indicate that some archeological claims may not be as solid as claimed. It also seems that earlier uranium series dating may be in error, although they were considered solid at the time or they would not have been published.

Third, it shows just how quickly secular ideas can change by adding a new variable, reanalyzing old data, new 'dates', or finding a new site in archaeology.

Fourth, if the results hold up, the previous two 'consensus' beliefs of 'Clovis first' and now 'pre-Clovis first' would show up to be arbitrary and affected by the reinforcement syndrome. Unfortunately, the reinforcement syndrome sometimes results in censorship of results that are contrary to the consensus. So, it is possible that all or some of those previously rejected 'old' archeological sites actually do show evidence of human activity.

In conclusion, we should be careful using uniformitarian dates and events

as part of a relative biblical history model due to their unreliability.

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