

SAN DIEGO
NATURAL
HISTORY
MUSEUM

**Cerutti Mastodon Site
Discovery Timeline**

November 16, 1992 – Retired PaleoServices Field Paleontologist Richard Cerutti discovers the site. Curator of Paleontology and Director of PaleoServices Dr. Tom Deméré and PaleoServices Field Paleontologist Brad Riney meet with Richard at the site to formulate plan for excavation of the fossils.

November 17, 1992 – Formal excavation of the Cerutti Mastodon Site begins.

November 18, 1992 – Caltrans archaeologists visit the Cerutti Mastodon Site and help screen sediment from disturbed area.

November 19, 1992 – Steve's Horse Quarry discovered and excavated over next nine days.

December 3, 1992 – Dr. Tom Deméré begins videotaping/documenting the Cerutti Mastodon Site.

December 19, 1992 – Paleontologist Dr. Larry Agenbroad visits the Cerutti Mastodon Site for the first time.

December 24, 1992 – SDSU Geologist Dr. Pat Abbott visits the Cerutti Mastodon Site for the first time.

December 28, 1992 – Dr. Larry Agenbroad and Paleontologist Dr. Jim Mead join the excavation team for one week of field work.

December 29, 1992 – Dr. Tom Deméré videotapes the Cerutti Mastodon Site.

December 31, 1992 – Former PaleoServices Field Paleontologist Steve Walsh mentions discussion with Larry and Jim about a Sangamonian versus Wisconsinian age for the Cerutti Mastodon Site.

January 4, 1993 – Dr. Tom Deméré videotapes the Cerutti Mastodon Site.

January 14, 1993 – National Geographic Society awards emergency grant of \$14,038 to support field work and travel.

January 23, 1993 – Dr. Larry Agenbroad returns to San Diego for two-day visit.

January 25, 1993 – Dr. Tom Deméré videotapes the Cerutti Mastodon Site.

January 27, 1993 – SDSU Geologist Dr. Tom Rockwell visits the Site and suggest an age of 300 ka +/- one interglacial (i.e., 200 ka to 400 ka) based on elevation, caliche volume, and degree of modern soil development.

March 22, 1993 – CM-423 cobble found in Unit G-5 at the Cerutti Mastodon Site.

April 5, 1993 – Dire wolf skeleton discovered.

April 21, 1993 – Column sample of quarry stratigraphy jacketed in northwest corner of Unit F-5 at the Cerutti Mastodon Site.

April 27, 1993 – Steve Walsh collects OSL samples from north wall of Unit B-6; last day of field work at the Cerutti Mastodon Site.

April 28, 1993 – Cerutti Mastodon Site buried by bulldozer.

December 29, 1993 – Richard KU (USC) calls Dr. Tom Deméré with preliminary radiometric results and date of ~190 ka on caliche sample.

January 7, 1994 – USC Geologist Dr. Richard Ku sends letter report with radiometric (U-Th) dating results.

March 20, 1995 – State Route 54 Paleontological Mitigation Report submitted to the California Department of Transportation (Caltrans).

February 2, 2008 – Archaeologists Dr. Steve Holen and Kathleen Holen first research visit to San Diego Natural History Museum to examine the fossils and artifacts salvaged from the Cerutti Mastodon Site.

May 28-29, 2009 – Conference on Cerutti Mastodon Site held at San Diego Natural History Museum. Attendees included Dr. Tom Deméré, Richard Cerutti, Dr. Steve Holen, Kathleen Holen, Dr. Dan Fisher (paleontologist and mastodon expert), Dr. Tom Stafford (archaeologist and dating expert), George Jefferson (paleontologist and Pleistocene expert), Dr. Steve Forman (OSL dating expert), Dr. Pat Abbott, and Dr. Mark Becker (archaeologist and lithic expert).

May 28, 2009 – Trench excavated into the south side of the sound berm directly opposite the Cerutti Mastodon Site to collect fresh sediment samples for OSL dating.

May 16, 2011 – First Cerutti Mastodon Site samples sent to Dr. James Paces, geologist and geochronologist at the U.S. Geological Survey.

February 18, 2012 – Initial radiometric (U-Th) dating results reported to the Cerutti Mastodon Team.

April 2012 – Dr. Jim Paces and Dr. Steve Holen visit the San Diego Natural History Museum to identify additional samples for dating.

October 5, 2012 – Two Cerutti Mastodon Site rock specimens (CM-254, 383) sent to Australia for use-wear and residue analysis. Initial contact with Archaeologist Dr. Richard Fullagar.

July 2012 to December 2014 – Dr. Jim Paces prepares multiple specimens and performs digestions, chemical separations and purifications, and completes isotope analyses on nearly 100 individual subsamples.

January to April 2015 – Dr. Jim Paces compiles and evaluates all data using newly published numerical age models that consider diffusion, absorption, and decay of U in bone.

February 2015 – Geoarchaeologist and Soil Scientist Dr. Jared Beeton visits the San Diego Natural History Museum for first time to examine Cerutti Mastodon Site collection and obtain sediment samples and soil descriptions.

May 2015 –Final age determination for the Cerutti Mastodon bones of $130,700 \pm 9,400$ years is reported to the Cerutti Mastodon Team.

March 17, 2016 – Initial submission of Cerutti Mastodon Site manuscript submitted to the prestigious science journal *Nature*.

March 13, 2017 – Formal acceptance of Cerutti Mastodon Site manuscript by the science journal *Nature*.