

RANCHO BODEGA HISTORICAL SOCIETY

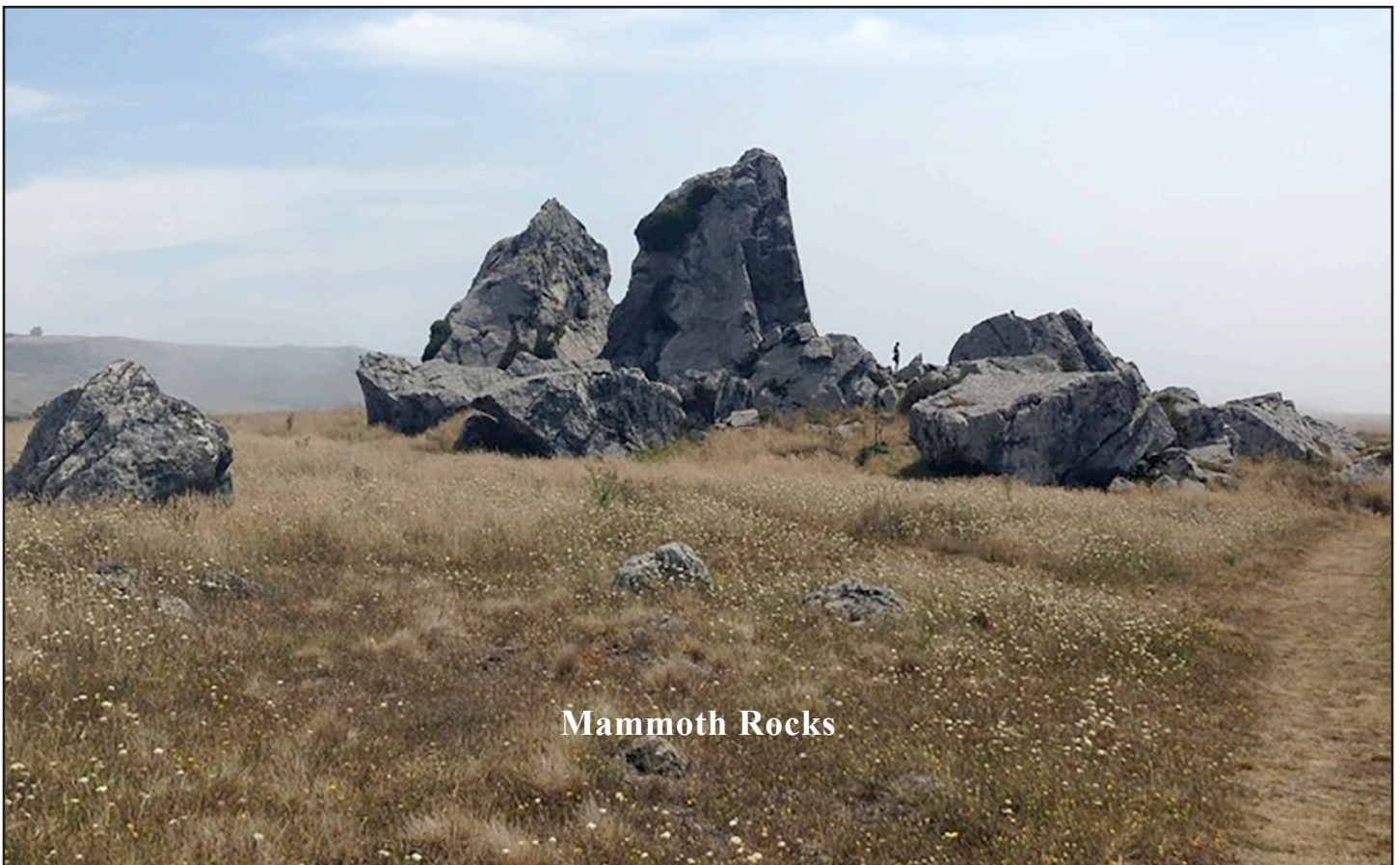
Chance Discovery Connects Ice-Age Mammoths to Goat Rock

by Adrianus Boudewyn - 2006

A little over five years ago, Breck Parkman, the senior archaeologist and paleontologist Raj Naidu, were surveying near Goat Rock - between Jenner and 's Landing -- for a trail improvement project.

It was the day after 9/11 and as Breck recalls, an especially cold and blustery day almost in keeping with the national mood of gloom and dread about terrorist acts in and at the Pentagon. At lunchtime, the pair sought shelter behind a large rock on the coastal terrace. While familiar terrain, their particular choice of a place to stop turned out to be one of those special once-in-a-lifetime moments archaeologists can only dream about. Because as they sat there talking they noticed something they had not seen before on the surface of the 60-foot rock. "We realized the rock had unusual large dark polished patches to it. . .unusual because the blue schist rock, a hard version of soapstone, known as the Franciscan Formation, is hard to polish, but this rock had a shine you could see yourself in. It was heavily polished up to 14 feet."

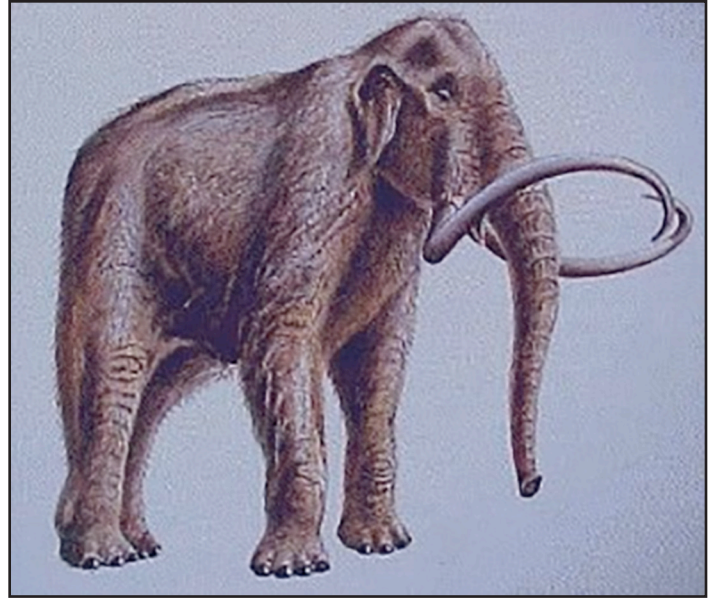
In interviews Parkman says that they thought long and hard about what could have caused just one portion of the rock to be polished and the rest not. They suspected that the glossy effect was due to animal rubbings, but the height of the shine eliminated cows, horses and sheep from consideration. By process of elimination they came to the conclusion that ancient, prehistoric mammals known as a 'mammoth' rubbed the rock. "The mammoth was an ancient member of the elephant family and must surely have acted in ways similar



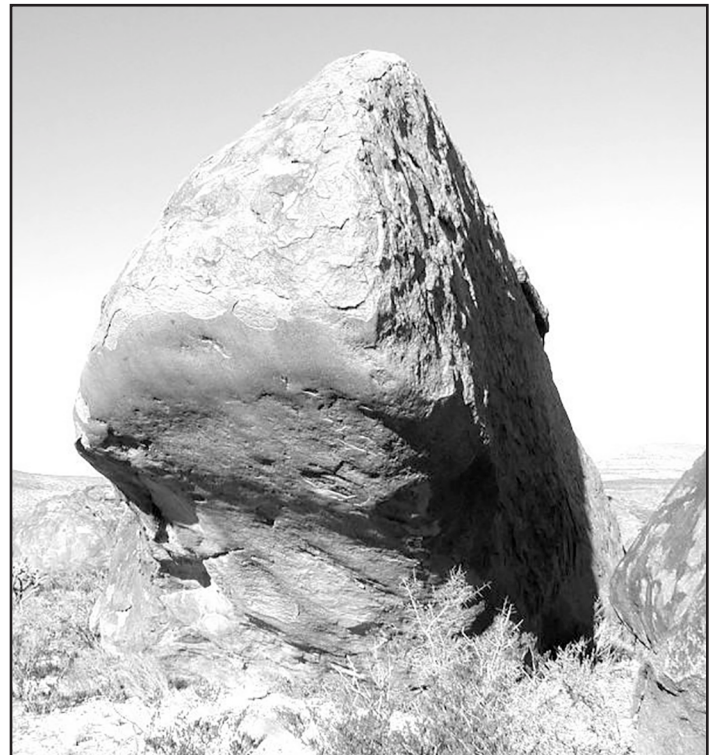
Mammoth Rocks

MAMMOTH RUBBING ROCKS

to today's elephants," says Parkman. "It is common for elephants in the wild to wallow in mud pools, coating their skin with mud, allowing it to dry and then rubbing off the mud vigorously against a rock." Parkman says the Columbian mammoth, which roamed at the end of the ice age 15,000 years ago, was as tall as 14 feet at the shoulder. "Remember, this area at that time when the shoreline was 12 miles farther out was a vast grasslands (now below sea level) that attracted herds of ice age mammoths, mastodons, and prehistoric horses from interior pastures during the summer months. The rocky outcropping, lying below a pass in the hills, was an opportune location for shelter from wind and rubbing after wallowing in the mud."



Discovery of the rubbing rocks is an exciting development for the scientific community. Indeed, more than a hundred scientists from around the world have visited what is now known as the Mammoth Rocks Site. The project is based on what Parkman calls "The Rancholabrean Hypothesis." It proposes that elements of the Rancholabrean landscape still survive and can be detected on the contemporary landscape. Further, by identifying these Pleistocene features, it may be possible to map the archaeological presence of the area's first people. "My theory is that by finding these mammoth rubbing rocks we may be able to find archaeological evidence of early man, because ancient man hunted the mammoth."



"We are slowly building our case," says Parkman, who with 30 years of professional experience behind him. To rule out the obvious that the polished portions on the rock were due to wind or water -- experts from have conducted electron microscope work. Meanwhile, radiocarbon testing of samples from the rock stacks is underway.

Since making his initial discovery, Parkman has found seven other blue schist rocks with shiny surfaces within a mile of the 60-foot high rock. Excavations have found the polish extends six feet under the surface, about the amount of soil that built up around the rocks during the intervening thousands of years.



Coincidentally, in 1972, the tusk, lower jaw and tooth of a Columbian mammoth was discovered at Bodega Head after mammoth and mastodon teeth had been found previously in this area.