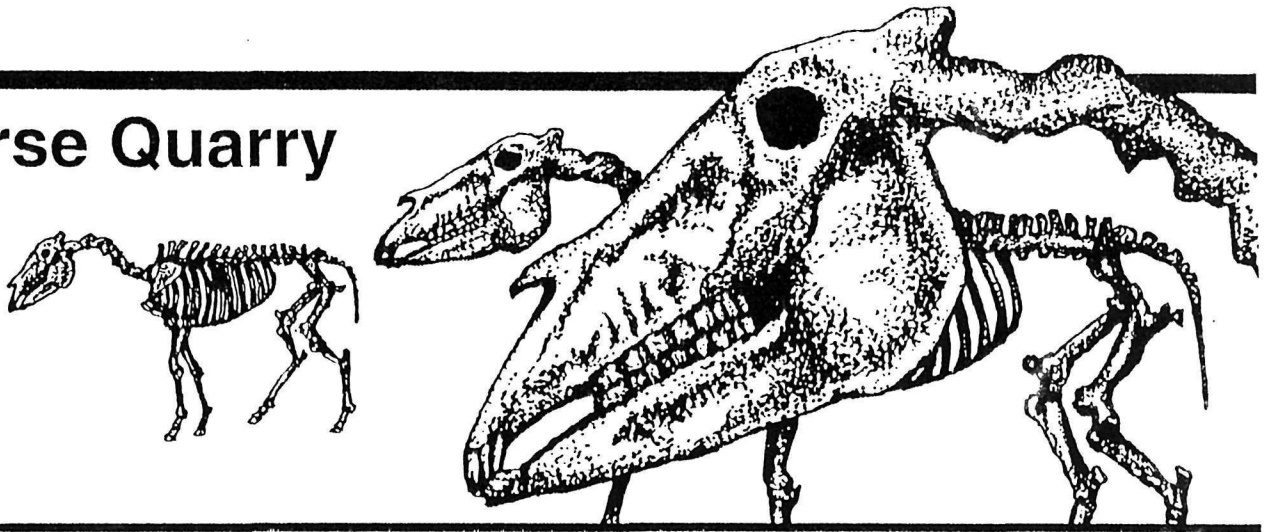


# Hagerman Fossil Beds

National Monument  
National Park Service  
U.S. Department of the Interior

## The Horse Quarry



### The Find

Elmer Cook, a cattle rancher living in Hagerman, Idaho, discovered some fossil bones on this land. In 1928, He showed them to Dr. H.T. Stearns of the U.S. Geological Survey who then passed them on to Dr. J. W. Gidley at the Smithsonian Institution. Identified as bones belonging to an extinct horse, the area where the fossils were discovered was exca-

vated and three tons of specimens were sent back to the Smithsonian in Washington, D.C.

Of all the fossils uncovered, the most important find was the large volume of a species of extinct horse known as *Equus simplicidens*, and named the Hagerman horse.

### Why Are They Here?

Excavation continued into the early 1930's. The quarry floor grew to 5,000 square feet with a backwall 45 feet high. Ultimately five nearly complete skeletons, more than 100 skulls, and forty-eight lower jaws as well as numerous isolated bones were found. Finding such a large deposit of an animal in one location is a rare occurrence. An early explanation for the deposit was that the

quarry area was once a watering hole where the bones of the Hagerman horses accumulated as injured, old, and ill animals, drawn to water, died there. It is now known that an entire herd of these animals probably drowned attempting to ford a flooded river and were swept away in the current. Their bodies were then quickly buried in the soft sand beneath the water.

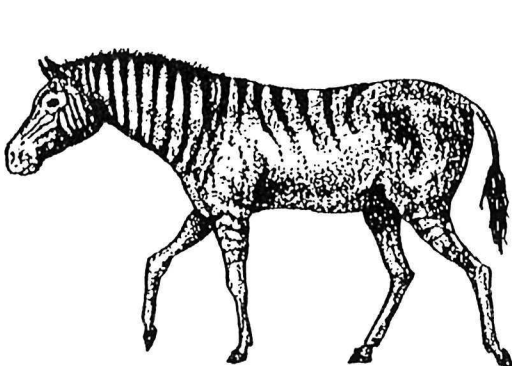
### The Horse

Three and a half million years ago, also called the Pliocene Epoch, the area at Hagerman was a floodplain flowing into ancient Lake Idaho. Water supported an environment where pelicans, herons, swans, frogs and turtles lived. Grasslands supported animals such as the horse, camel and antelope.

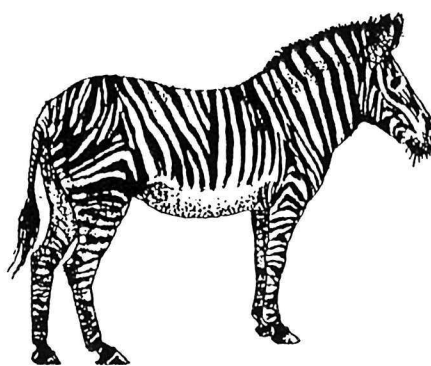
The Hagerman horse is the earliest-known representative of what would eventually become the animal we are

familiar with today. It is believed that this horse was more closely related to Grevy's Zebra that now lives in Africa rather than to domestically bred horses.

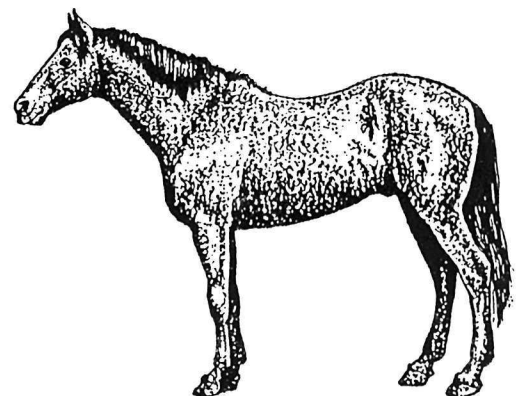
It was about the same size as a modern day zebra, approximately 110-145 centimeters (43 to 57 inches) tall at the shoulder. It weighed between 110 and 385 kilograms (385 to 847 pounds).



Hagerman Horse



Grevy's Zebra



Modern Thoroughbred

## Extinction

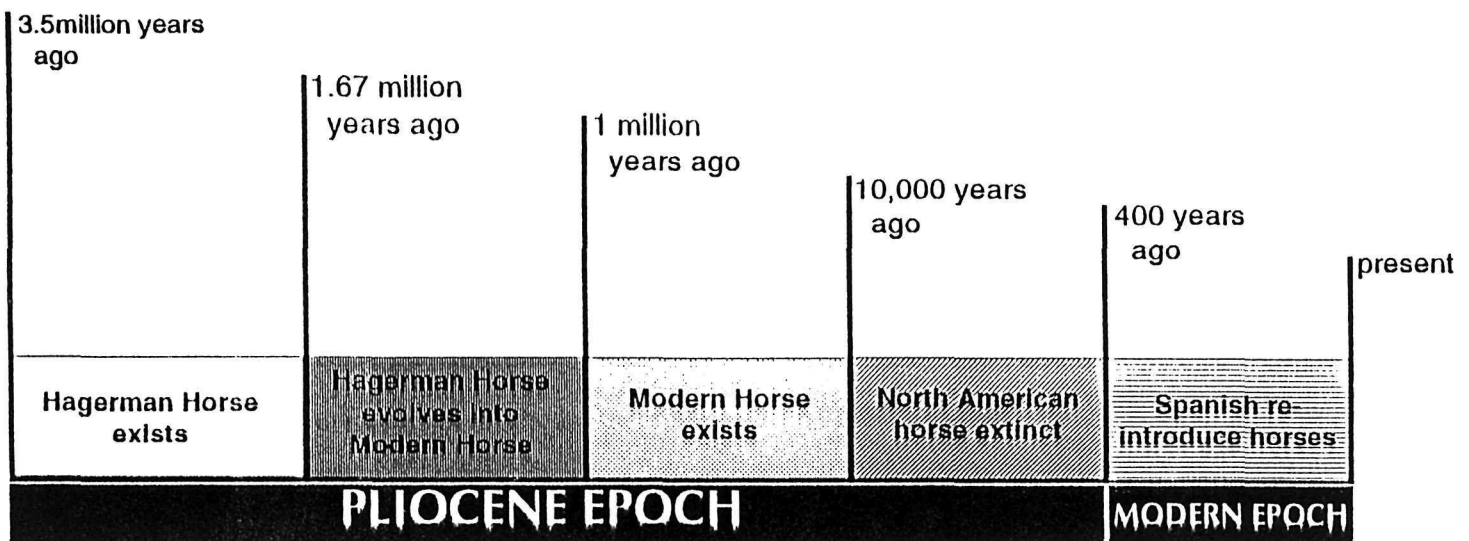
The Hagerman horse was only one stage in the continuing evolution of horses. The animal continued to evolve on the North American continent until the late Pleistocene period, about 10,000 years ago. Then, like camels, and several other large bodied mammals that also existed in North America, it vanished.

The cause of this mass extinction is unknown, and a number of theories exist. Though many factors were

probably involved, a dramatic fluctuation in climate and perhaps the existence of prehistoric humans who may have relied upon these animals as a food source may have played a part in their disappearance.

Horses did not return to North America until the Spanish Conquistadors brought them from Europe in the late 1500's.

## Scientific Timeline\*



\*Not to scale

## The Well Travelled Horse

Skeletons recovered here at Hagerman Fossil Beds National Monument have been, or currently are in the collection of such places as the Smithsonian Institution in Washington, D.C., the Carnegie Museum in Pittsburgh, the Field Museum in Chicago; the Museum of Comparative Zoology at Harvard University,

Denver Museum of Natural History, Royal Ontario Museum, Toronto, Texas Memorial Museum in Austin, and the Natural History Museum in Los Angeles County. Such exposure made this horse famous and in 1988 the state legislature made it the state fossil of Idaho.

## Further Reading

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