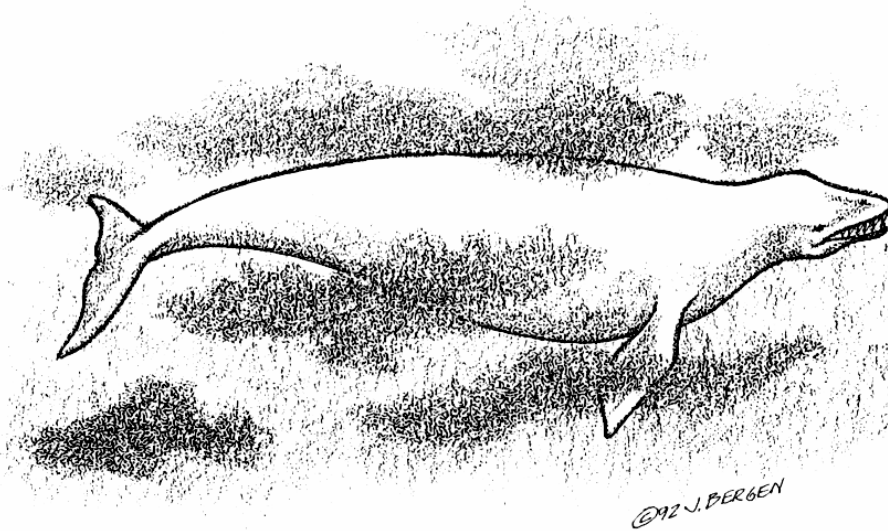


Geological Time Capsule, Part III

by Kenn Oberrecht



Earth's most recent era, the Cenozoic, began 65 million years ago and continues to the present. It's divided into two periods, the Tertiary and Quaternary, comprising seven epochs.

As continents converged during the Oligocene Epoch, 40 million years ago, mountains were created throughout much of the world.

The age of the mammals dawned and the first primates appeared during the Paleocene Epoch, when the earth's climate ranged from mild to cool. As the climate warmed during the Eocene Epoch, 10 million years later, modern birds and mammals and giant birds appeared.

As continents converged during the Oligocene Epoch, 40 million years ago, mountains were created throughout much of the world. The Mesozoic ocean known as the Tethys was greatly diminished, and the North American and South American continents drifted toward their present positions.

Wildlife populations became isolated in the continental breakup and evolved separately. Saber-toothed cats and large browsing mammals appeared.

By the onset of the Miocene Epoch, 25 million years ago, grazing animals proliferated on widespread grasslands. Apes appeared on land, whales in the oceans.

The Pliocene Epoch at the end of the Tertiary Period, 10 million years ago was a time of change, variety, and contrasts. Earth's climate cooled, and mountain ranges uplifted. Mammals increased in size and numbers.

In the later Pliocene, about three million years ago, plate movement caused ocean floors to collide and raise the Isthmus of Panama, bridging North and South America and allowing animals to migrate in both directions. Many species, including a host of South American marsupials, were unable to survive the competition and eventually died off. Some, such as the opossum and armadillo, thrived in their new northern ranges.

Homo habilis, considered the evolutionary link to modern humans, appeared in the Great Rift Valley of East Africa at the end of the Tertiary Period, 3.6 million years ago.

The Quaternary Period began with the Pleistocene Epoch two million years ago, during which other hominid species followed Homo habilis. Homo erectus roamed the earth and left remains for modern humans to find in such far-flung places as Europe, China, and Indonesia.

Neanderthals, Homo sapiens neanderthalensis, inhabited Europe and western and central Asia from about 100,000 B.C. to 40,000 B.C. The Cro-Magnons, Homo sapiens sapiens, considered the prototype of modern humans, lived on earth at the end of the Pleistocene Epoch, from 40,000 B.C. to 10,000 B.C.

The Holocene or Recent Epoch, which began 10,000 years ago, is marked by the appearance of modern humans, Homo sapiens, who have since colonized earth, overpopulated it, and abused it by every means at their disposal.

The Pleistocene is also known as the glacial epoch, because this was the time of the ice ages. Periods of glaciation, when ice covered much of the earth, alternated with periods of relative warmth. Glaciers also transformed much of the land, gouged out lakes, and scoured mountains and river mouths.

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Humans have polluted earth's land, water, and air. They have squandered the planet's resources and harmed its atmosphere. In the fouling of their environment, they've managed to speed up geological time, accomplishing in a few hundred years, a nanosecond on the geological clock changes in topography and plant and animal species that might otherwise have taken thousands of years, possibly millions.

It has been said that humans are the only animals capable of suicide.

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