

A ROCK OF DOOM AND THE LAST OF THE DINOSAURS

65 million years ago, an **asteroid** from space, approximately six miles in diameter, hit the Earth at an estimated speed of 50,000 to 100,000 thousand miles an hour. Geologic evidence indicates that a combination of horrific natural effects killed off two-thirds to three-quarters of all plants and animals, including the **dinosaurs**. The world was rocked by shock waves passing all the way around the planet and possibly even through it, superheated debris was thrown miles above the Earth and then rained back down making the sky glow red hot, wildfires broke out, Earthquakes shook the ground, volcanoes erupted and the air became fouled with poisonous gases and acid mist. A tsunami hundreds of feet high and moving at hundreds of miles an hour, splashed over a huge area of North, Central, and South America. The global climate was changed drastically, with temperatures at first becoming hotter, then dropping to freezing from the ensuing day-and-night blackness of an *impact winter*. Sunlight was blocked out completely for months, until the thick haze gradually settled to the surface. A thin dust layer of the metal element **iridium** (rare on Earth, but common in meteorites), carried by the weather, was deposited worldwide. At the ancient impact site (now in Mexico) is the **Chicxulub Crater**, five miles deep and over 100 miles wide.



Dramatic illustration of the asteroid impact by NASA artist Don Davis.



Map of Mexico's Yucatan Peninsula with Chicxulub Crater under the sea and overlapping the land.



In this photograph, the rocks at the bottom right date from the Cretaceous period (when the last dinosaurs lived). The rocks above, at the upper left, date from the Tertiary (the next geologic period). The dark band between them (indicated by arrow) is the **K-T Boundary** layer of clay containing asteroid impact iridium metal dust sediment (found in Italy, thousands of miles from Mexico).

A sample of this iridium find, and Triceratops fossils, are in the set of specimens that you hold in your hands.