

The third explanation for the culprit that killed the dinosaurs is "extraterrestrial forces." These could have included comets, a supernova explosion, or an asteroid. The most favored theory is that an asteroid (small planet) from our own Solar System struck the Earth with enormous force sending not only shock and tidal waves around the globe, but also sending huge clouds of gas, dust, and asteroid material into the atmosphere. The effects would have been similar to those of catastrophic volcanic eruptions.

While on the surface this theory sounds like science fiction, there is some evidence to support it. Scientists from the University of California at Berkeley have discovered in Italy a unique *iridium*-rich clay layer at the very end of the Mesozoic era. A similar layer of the same age has been found in Denmark. *Iridium*, a very dense metallic element that is related to platinum, is very rare on Earth. It is most often found associated with iron and a large quantity may exist in the Earth's iron-rich core. However, in asteroids and meteorites the concentration of iridium is 1,000 to 10,000 times higher than on the surface of the Earth. The iridium-rich clay layer that marks the boundary of the dinosaur extinction may have been the debris from either a giant meteor or an asteroid.

While the asteroid theory is the first one with at least one concrete piece of evidence to support it -- the iridium claymarker -- it too has its problems. The chief problem is that if the dense cloud of gas and dust blocked out the Sun, the photosynthesizing vegetation should become extinct first, followed by the dinosaurs which would have nothing to eat. But the fossil evidence indicates that the opposite occurred. There are fossil sites in Montana, Wyoming, and Alberta, Canada, where, according to Leo Hickey, a paleobotanist at the Smithsonian Institution, it looks as if the dinosaurs became extinct tens of thousands of years before a large extinction of many major plant forms occurred.⁵ Further, William Clemens of the University of California at Berkeley has also found fossils that contradict the asteroid theory. He has found a site in Montana that indicates the dinosaurs perished before the iridium marker anomaly.⁶

There are numerous other interesting theories that have been proposed by scientists over the years to account for the demise of the dinosaurs. In physicist Paul Hoffman's words, "The list of suspects is a long one, and it is a tribute to what human ingenuity can come up with when confronted with something it can't understand."⁷ For the present we must be content with the fact that the dinosaur extinction happened abruptly 63 million years ago. The demise of these great