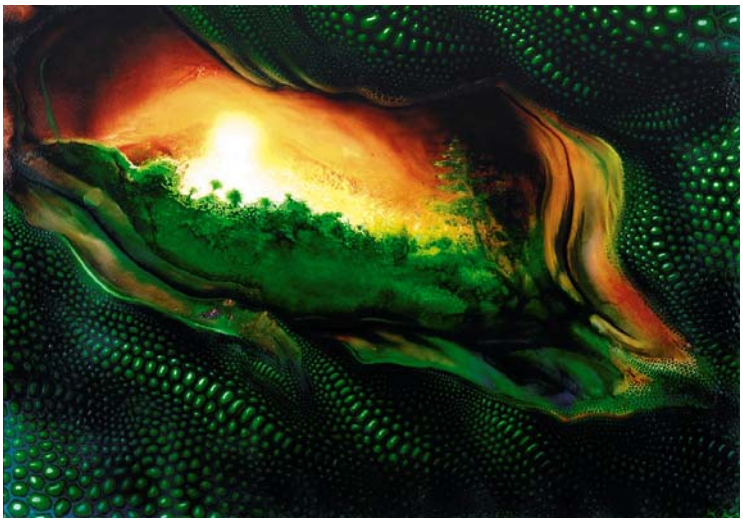
Why did the dinosaurs become extinct?



For a long time there were almost as many hypotheses on this topic as there were scientists! Today, however, most scientists agree with the Alvarez hypothesis: the idea that the earth was hit by an asteroid or a comet at the end of the Cretaceous. Whether this was the only reason, or whether the asteroid strike simply dealt the coup de grace to a dinosaur population already weakened by disease or climatic change, remains a matter of debate. One of the strengths of the Alvarez hypothesis is that it explains why the ammonites living in the ocean died out at the same time that the dinosaurs did on the land. The asteroid strike would have kicked up an enormous, globe-circling dust cloud that would have blocked out the sun for months on end. Without sunlight, the phytoplankton in the oceans would have died, thus knocking out the base of the marine food chain, and eventually spelling doom for the ammonites.

The impact hypothesis doesn't explain other effects seen at the K/T boundary. For instance, frogs show no obvious decline across the boundary. If there was a single, global event 65 million years ago, the environmentally-sensitive frogs should have shown a dramatic decrease.

Similar arguments can be made for and against any of the proposed extinction mechanisms. So the question is still not definitively answered.

TATE GEOLOGICAL MUSEUM
CASPER COLLEGE