



T. rex *and the*  
*Crater of Doom*

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Walter Alvarez

1997

What killed off the dinosaurs sixty-five million years ago? Until 1980, the question wasn't even seriously pursued. Then Walter Alvarez and several colleagues at the University of California, Berkeley (including his Nobel Prize-winning father, Luis Alvarez), discovered an unusually large

layer of iridium in a stratum of rock dating back sixty-five million years. Because iridium is rare on Earth but quite common in meteorites and asteroids, they hypothesized that the only way so much iridium could have been deposited at one point in time was through extraterrestrial means. A massive meteor, asteroid, or even a comet, had to have hit the Earth.

Subsequent work confirmed the discovery of the iridium layer at seventy-five other sites, each at the sixty-five-million-year mark. However, the findings still begged one critical question. If something hit Earth, and it was big enough to kill off the dinosaurs, where is the huge crater it must have left? In 1991, the smoking gun was found: a 180km-wide impact crater on the northern coast of the Yucatán Peninsula in Mexico—discovered by Mexican geologists in 1950, but unknown to scientists elsewhere until 1991—was determined to be sixty-five million years old.

Told by the chief protagonist, Alvarez's book reads like a detective story, as it guides the reader through the events that led to the identification of the crater, and as it provides evidence for the cataclysm that, in just one instant, changed our world forever.