

## **Bacteria Reawakened after 250 Million Years**

According to scientists, bacteria that lived before the dinosaurs and survived Earth's biggest mass extinction have been reawakened after a 250-million-year sleep in a salt crystal.

If the discovery by Pennsylvania and Texas researchers holds true, the bacteria could open a window onto a prehistoric world that was both dying and being reborn. It would also show the tenacity of life in the toughest conditions.

Its genetic makeup also could help biologists calibrate the evolutionary clock for the bacterium and its present-day relatives, said Russell Vreeland, a study author and biologist at Pennsylvania's West Chester University.

DNA tests indicate the prehistoric germ is related to present-day *Bacillus*, a type of bacteria found in soil, water and dust.

The organism was found in a tiny, fluid-filled bubble inside a salt crystal 1,850 feet underground, about 30 miles east of Carlsbad, N.M.

At the end of the Paleozoic Era, the area was a vast and barren salt lake. The world was then experiencing its greatest loss of life ever. Up to 95 percent of all marine species became extinct. The first known dinosaurs date to about 230 million years ago.

"The end of the Paleozoic was such a curious time and we don't really know what happened," said Renne, who was not involved in the research. "This offers the possibility that we may be able to interrogate some of the organisms that were around."

The findings were published in today's issue of the journal *Nature*.