Invertebrate Paleontology Earth Sciences Division Natural History Museum



Conjure a Gothic scene. Night rain and wind lash towering crags beneath which an angry sea roars. Thunderclap. High up a great rock shudders, sags, and falls, crashing to the stony shore far below and bursting in the waves.

Halt the storm and make a meek dawn (madder lake in the east and all that) unfold and disclose the beached core of this great rock, revealed after 65 million years. It is our flying ammonite and this is her story.

Soon after St. Valentine's Day, 1975, Michael Hammer, one of the Natural History Museum of Los Angeles County's dedicated preparators of fossils, told me that he had heard of a big ammonite newly found on a beach at Point Loma in the city of San Diego. Mike had the names and telephone numbers of the two finders, whom I called and arranged to meet on Point Loma in a few days.

Ammonites are an extinct kind of marine

mollusk, somewhat akin to the living chambered nautilus. Like the nautilus, ammonites have coiled shells divided internally into chambers. The animal, which probably resembled an octopus, lived in the largest chamber while keeping the others filled with varying combinations of water and gas adjusted to the depth in the sea where it chose to live. With more gas, it could live at a higher level and with more water at a lower one and yet not have to swim much to stay there. Ammonites became extinct at the same time as the dinosaurs, about sixty-five million years ago at the end of the Cretaceous Period.

Ammonites are useful to paleontologists as "index fossils" because they evolved rapidly, were world-wide in occurrence, were abundant, and were widely distributed by currents after death since the shell floated for a time before becoming waterlogged, sinking, and being buried. They also are prized by amateur fossil collectors

because of their beautiful shapes, shell patterns, and, in some, still lovely iridescent shells.

I knew that some strata at Point Loma were of Late Cretaceous age, or about sixty-five million years old, and that a few exciting big ammonites had been collected there many years ago. None of these had come to our Museum's invertebrate fossil collection, although we had acquired similar specimens from rocks of the same age farther south in Baja California Norte, Mexico.

The Point Loma beach with cliffs of Cretaceous age is on Federal property near several important military installations and permission to enter must be obtained in advance. A few telephone calls elicited marvelous cooperation from various officials, who approved of our examining the specimen to see if it should be salvaged.

Several days later, I arrived in San Diego with fellow paleontologist George Kennedy.