

ART ANCIEN



TYRANNOSAURUS REX TOOTH IN FOSSIL MATRIX

Late Cretaceous, circa 65 Million years before present
Height: 27.4cm

PROVENANCE

Lance Formation, Marchant Ranch Quarry, Niobrara County, Wyoming. Collected under lease by Western Paleo of Salt Lake City in 1992.

An incredibly rich fossil matrix, with a large *Tyrannosaurus rex* tooth surrounded by the jumbled remains of two herbivorous dinosaurs, *Edmontosaurus* and *Ankylosaurus*, as well as several other terrestrial and aquatic animals. An aesthetic presentation preserving a cross-section of life immediately preceding the extinction event that killed the dinosaurs.





A Snapshot of Time

Found in the Lance Formation in the western USA, this fossil matrix gives an incredible insight into the creatures that roamed the earth at the end of the Late Cretaceous period. Most prominently displayed is the tooth of a near-adult-sized *Tyrannosaurus rex*, with its immaculately preserved serrated edges. This tooth would have come from the back half of the *T. rex* jaw - a jaw which, at the height of adulthood, would have held over 60 such saw-edged teeth and was easily capable of crushing bone. The matrix has also captured the teeth and numerous parts of ossified tendons from one or possibly several hadrosaurs (duck-billed dinosaurs), most likely *Edmontosaurus*. A large piece of bone at the base of the block is likely the scapula, or shoulder blade (Fig. 1) of an *Edmontosaurus*. On the reverse, there is a worn tooth from an ankylosaur (the armoured dinosaurs), probably belonging to an *Ankylosaurus* (Fig. 2).

Beyond the dinosaurs, other animals are also present. In the centre of the block, there is part of the left jaw of a small mammal bearing a molar (Fig. 3), as well as multiple fragments of terrapin plastron (the bottom side of the shell that lies beneath the abdomen). One has a stippled surface, displaying the outside texture of the plastron, whereas another is turned over so the smooth side is visible (Fig. 4). The matrix also bears a single, small crocodile tooth, as well as several enamel-covered scales from gar fish and other aquatic creatures (Fig. 5).

1 *Edmontosaurus* tooth and scapula



2 (top) *Ankylosaurus* tooth (reverse)

3 (middle) Mammal jaw and molar

4 (bottom) Stippled and smooth surfaces of terrapin plastron



These fossilised specimens are held together by a mixture of sand, mud, and pebbles which is likely the result of a fluvial process, as is the case for almost all dinosaur fossils from the Hell Creek and Lance Formations. These creatures most likely died on a floodplain, where flood waters later washed them downstream into a high-energy environment, before they settled and were buried. This resulted in the preservation of land animals alongside freshwater creatures.

Providing a rich and varied summary of life 65 million years ago, this matrix displays the remnants of at least three dinosaurs, a mammal, a turtle, a crocodile, and multiple fish. A remarkable artefact offering an incredible insight into life at the end of the reign of the dinosaurs.