



The Fruita *Apatosaurus* skeleton is shown above as it was first mounted for exhibit at the Field Museum of Natural History in Chicago. Photo courtesy of the Field



7. This sandy limestone layer continues across the hillside and forms the floor of the dinosaur quarry. These layers of limestone are fairly continuous and make good marker beds for both geologists and paleontologists.



8. The colorful bands exposed above the trail are the remains of ancient soil horizons. The red layers were deposited in dry times, when iron in the soil was oxidized (rusty), giving it the red color. The green and grey layers were deposited in wetter times, when the water table was higher, preventing oxidation in the soil.



9. The gray, crusty sediment here is a bentonite, a clay that is made from decomposed volcanic ash that was deposited within the sediment layers. Because bentonite expands when it gets wet, it makes an excellent liner for ditches and ponds.



10. Notice in this conglomerate boulder how the bands of larger pebbles crisscross the smaller grains. River currents can change quickly, these uneven distributions of grain sizes show how an ancient river both slowed and sped up over time.



Elmer Riggs and his crew built a boat to ferry their supplies across the Colorado River to the quarry at Dinosaur Hill. On one trip, the rope line to the boat snapped, sending food and half a ton of plaster into the river. Despite the setback, they were successful in excavating the rear two-thirds of an *Apatosaurus* skeleton. The front of the animal likely eroded away long before Riggs discovered it. Photo courtesy of the Field Museum of Natural History



Dinosaur Hill is within the McInnis Canyons National Conservation Area.

For more information, visit:

McInnis Canyons National Conservation Area :

<https://www.blm.gov/programs/national-conservation-lands/colorado/mcinnis-canyons>

Dinosaur Journey/Museums of Western

Colorado: <http://www.dinosaurjourney.org>

It is ILLEGAL to Remove Fossils

The illegal removal of fossils can result in a major fine and/or imprisonment. Please contact the BLM at (970) 244-3000 if you suspect illegal digging, or observe vandalism.

Dinosaur Hill is a part of the Dinosaur Diamond National Scenic Byway.

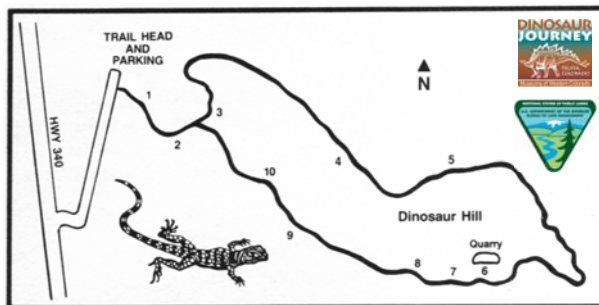


ABOUT DINOSAUR HILL

Over 150 million years ago, dinosaurs roamed the Grand Valley, across a vast river plain. Remains of these ancient ecosystems are found today in the layers of the Morrison Formation. Elmer S. Riggs of the Columbian Field Museum in Chicago was the first to scientifically explore these beds at Dinosaur Hill in 1901.

Dinosaur Hill is jointly managed by the Bureau of Land Management, the City of Fruita, and the Museums of Western Colorado. They greatly acknowledge and appreciate the efforts of many local volunteers, the Eugene Fletcher family for their donation of the quarry site, and BLM fire crew for making this trail possible.

- ◆ **Dinosaur Hill Trail is day use only. Camping and fires are strictly prohibited.**
- ◆ **Please stay on the trail. The adjacent lands are privately owned, and livestock might be grazing in the area.**
- ◆ **Picnic and restroom facilities are available at the trailhead. Carry water on the trail, use sunscreen, and wear a hat. Summer temperatures frequently reach 100 degrees.**
- ◆ **Parts of the trail can become slick when wet. Please use caution in wet conditions.**
- ◆ **Pack out your trash and avoid smoking along the trail, as this poses a fire danger.**
- ◆ **Please respect and do not approach wildlife: lizards, snakes, and scorpions can be found while hiking along this trail.**



This guide follows ten points of interest found along the Dinosaur Hill Interpretive Trail.



1. This boulder fell from rock ledges higher up the hill. It has the impression of a large femur (thigh bone) of a *Diplodocus*-like dinosaur. Fossils of freshwater clams are also embedded in this boulder. It was formed at the bottom of a river channel during the Jurassic Period.



2. The wavy pattern on the top of this displaced boulder was formed by river currents and shows the direction of the ancient river. If the boulder was still in place, these currents would point towards the southeast.



3. Above you, on the hill, is an outcrop of hard sandstone and conglomerate. These rocks are composed of different sizes of grains, from small sand to large pebbles.

4. From here looking from North to West, you can see the City of Fruita, the Colorado River, Opal Hill, and the reddish-capped Al Look Hill. To the south is the Colorado National Monument, and east is the 11,000-ft. tall Grand Mesa. Left of Grand Mesa is Mt. Garfield protruding from the Bookcliffs, which follow the Grand Valley westward into Utah.

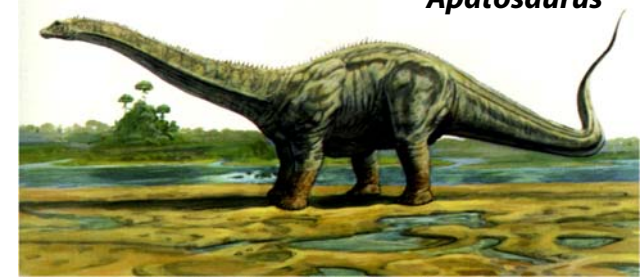


5. This hard boulder fell from the Burro Canyon Formation above. The shales of the Morrison Formation erode quickly, destabilizing large blocks like this to fall below.



Elmer S. Riggs, Assistant Curator of Paleontology at the Columbian Field Museum in Chicago

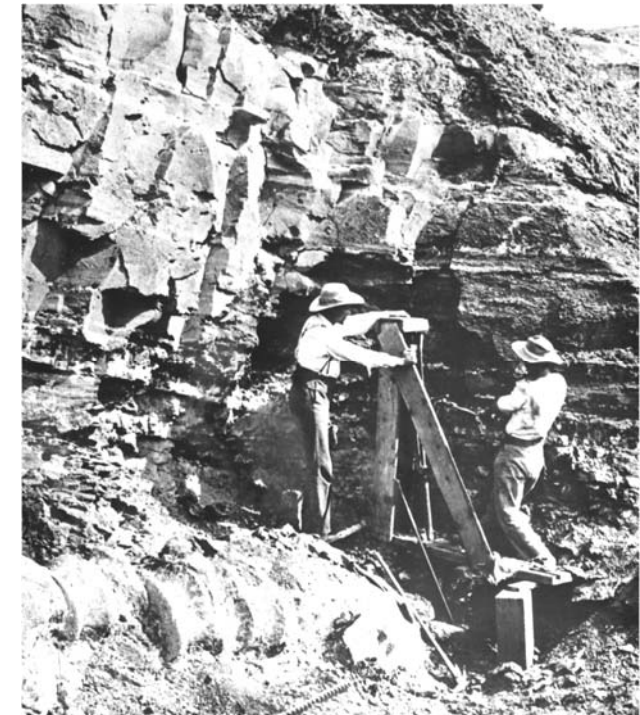
Apatosaurus



6. This is the quarry where a 70-ft. long *Apatosaurus* ("Brontosaurus") *excelsus* skeleton was discovered. Elmer Riggs and his crew blasted into the hillside in an effort to recover the bones. However, they were forced to abandon the excavation due to danger of a cave in. The tip of the tail is still buried deep within the hill.

The stone plaque was erected in 1938 by Al Look, Elmer Riggs, and the Chamber of Commerce.

In the photograph below, workers are preparing to drill and blast into the hillside to find more fossils. Notice the vertebrae exposed in the lower left corner.



Photos courtesy of the Field Museum of Natural History