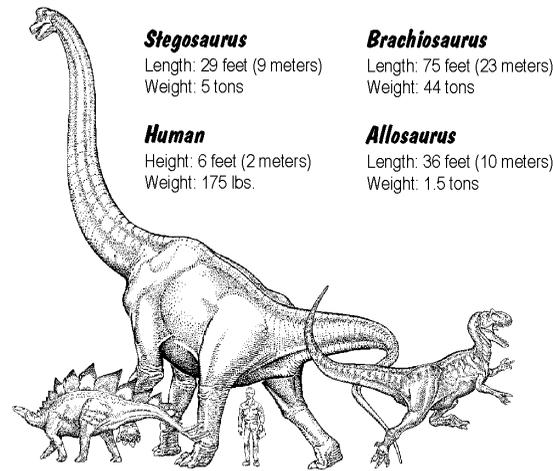
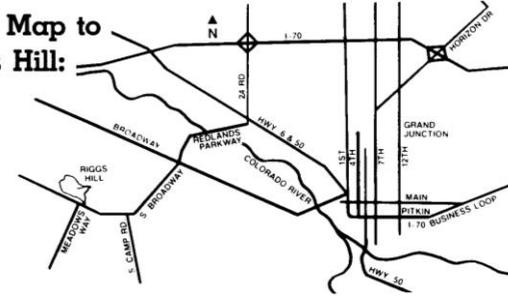


H. W. Menke, Riggs' field and lab assistant, poses with the femur (thigh bone) from Riggs Hill. The 6'10" bone belonged to an animal 75 feet long and 40 feet tall. Discovery of these huge dinosaur remains created such public interest that it made headlines in Boston and Chicago newspapers.

Courtesy Field Museum of Natural History (Negative #2956, Chicago, IL)



Road Map to Riggs Hill:



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

More Stops along the Dinosaur Diamond in the Grand Junction & Fruita Areas

Dinosaur Journey Museum, Fruita CO

Featuring animated life-like dinosaur replicas, fossils, and articulated skeletons, as well as a working laboratory. For hours and information, call 970-858-7282 or visit dinosaurjourney.org.

Trail Through Time (Rabbit Valley)

Dinosaur bones, fossils, and interesting geology exist along this 1 1/2-mile trail. Take the Rabbit Valley exit on I-70, 30 miles west of Grand Jct. Open year round. For information, call Dinosaur Journey at 970-858-7282.

Dinosaur Hill, Fruita, CO

In 1901 an *Apatosaurus* skeleton was found here. Take Hwy. 340 south from Fruita, across the Colorado River. Located on the left of 340. Open year round. For information, call Dinosaur Journey at 970-858-7282.

It is ILLEGAL to Remove Fossils from Riggs Hill

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.



Back in the lab, Menke (left) and Riggs (right) continued their study of the Grand Valley material. Today, modern paleontologists still use these fossils for research.

Courtesy Field Museum of Natural History (Negative #3254, Chicago, IL)



5. The sandy limestone layer exposed here indicates a deposit caused by a flooded stream channel. Because this layer is continuous through the hill, it can be used as a horizon marker.

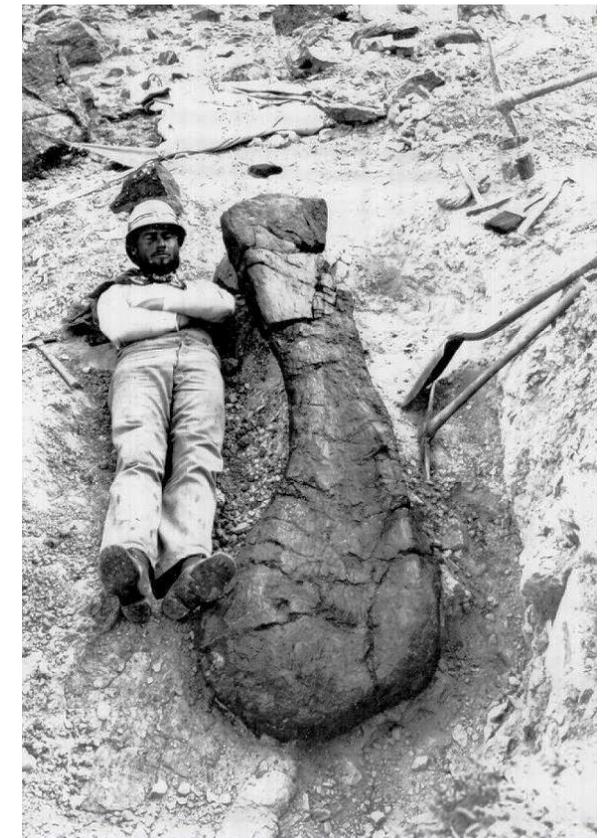
Holt Quarry

6. In 1937, Edward Holt uncovered the partial skeletons of *Stegosaurus*, *Allosaurus*, and a possible *Brachiosaurus*. The fence around the quarry proved insufficient to deter local collectors. Even though concerned citizens attempted to conceal the bones under a layer of dirt, vandalism at the site continued.



7. The Redlands First Lift Canal has carried water from the Gunnison River since 1907. It's part of an irrigation system that turned the arid Redlands into a profitable peach orchard region.

8. From the top of Riggs Hill, you can see much of the Grand Valley. Rising on the eastern horizon to an elevation of 11,000 feet is the Grand Mesa, the largest flat-topped mountain in the world. To the north and west are the Bookcliffs, where the most prominent feature is Mt. Garfield. The area to the northeast of Mt. Garfield is designated as rangeland for wild horses. To the south is the Colorado National Monument.



Riggs Hill Quarry worker and camp cook Mr. Barnett poses next to the humerus (upper arm bone) of *Brachiosaurus altithorax* in 1900 near Grand Jct, CO. Courtesy Field Museum of Natural History (Negative #3934, Chicago, IL)



Brochure original design by Amy Nuernberg.
Updated in 2017 by Museums of Western Colorado

Our Story Begins . . .

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 Riggs Hill.

In 1899 Elmer S. Riggs, Assistant Curator of Paleontology at the Columbian Field Museum in Chicago, sent inquiries to rural towns in the western U.S about fossil findings. Dr. S. M. Bradbury, president of the Western Colorado Academy of Science in Grand Junction was one of those who replied.

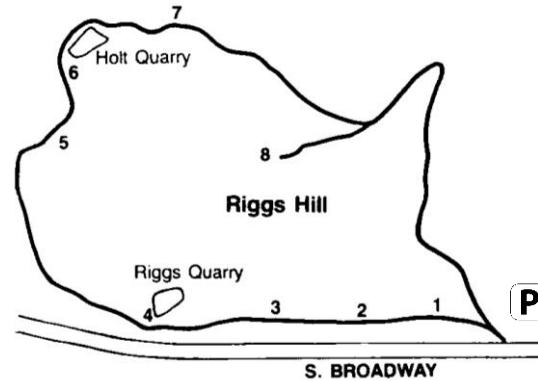
Bradbury wrote Riggs that ranchers had collected bones as objects of curiosity since the area was opened to white settlement in the early 1880s. Based on their correspondence, Riggs decided to spend a field season in Grand Junction. In 1900, Riggs and his crew first discovered a partial skeleton of a *Camarasaurus* in what was to become the Colorado National Monument. Their exploration continued west to a hill overlooking Grand Junction where they found huge fossilized bones of a previously unknown dinosaur, *Brachiosaurus altithorax*. Delighted at such a significant discovery, the townspeople turned out for a picnic and the first peaches of the season were distributed.

In 1937, local collector Ed Hansen showed Edward Holt *Stegosaurus* tail vertebrae from Riggs Hill. At the time Holt was a teacher working on his master's degree in geology. Forty-two feet above Riggs' quarry, Holt found partial skeletons of *Stegosaurus*, *Allosaurus*, and a possible *Brachiosaurus*.

Holt left the especially well-preserved, articulated fossils intact hoping that they would become a natural exhibit. Unfortunately, funds were not available to develop the site. Whatever scientific information this site may have yielded was lost as souvenir hunters gradually removed piece after piece and the bones were believed to be gone by 1960.

A Community Effort

The Bureau of Land Management (BLM) and the Museums of Western Colorado have cooperatively constructed the Riggs Hill trail. The BLM and the Museum greatly appreciate and acknowledge the efforts of many local volunteers, the William C. and John Rump families, and the BLM fire crew in making this trail possible.



Trail Map of Riggs Hill:

Please allow 30 to 45 minutes to see the eight points of interest on this three-quarter mile long trail.

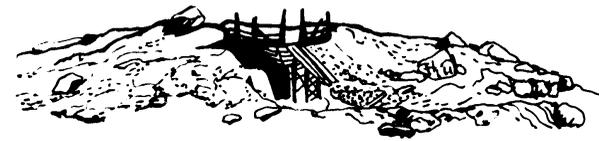
About the Riggs Hill Trail:

- Riggs Hill Trail is day use only. Camping and fires are strictly prohibited.
- Please stay on the trail. The adjacent lands are privately owned.
- Carry water, 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 along this trail.
- Dogs are permitted along the trail. Please pick up after your pets.



1. At the top of Riggs Hill is a sandstone ledge of the Burro Canyon Formation, which was deposited during the Cretaceous Period. This sandstone ledge protects the layers of the Morrison Formation below from erosion. Fossils can be found in both formations in the region.

2. This conglomerate boulder shows marks of stream channeling. The black stain is desert varnish, a surface coating caused by oxidation of iron and manganese.



3. The crusty gray material underfoot and across the road is bentonite, a decomposed volcanic ash. Because bentonite expands when wet, it serves as an excellent liner for ditches and ponds.



Riggs Quarry

4. This is the site of the world's first *Brachiosaurus altithorax* discovery, called a "type locality" by paleontologists. This was the first new dinosaur to be discovered in the Grand Valley. Pictured above is the quarry in 1900, covered by a sunshade.

Courtesy Field Museum of Natural History (Negative #4033, Chicago, IL)



To protect the fragile fossils on their long trip to Chicago, they were enclosed in plaster jackets. The large diagonal plaster-jacketed bone in the middle picture is shown, removed from its jacket and fully prepared, next to H. W. Menke on the other side of this brochure. Transportation to the railroad took an entire day by horse and wagon. Courtesy Field Museum of Natural History (Negative #4024 – above, and #3929 – below, Chicago, IL)



Amateur paleontologist Al Look worked hard to preserve and protect quarries at Riggs Hill. He persuaded the Chamber of Commerce to help finance a commemorative stone marker. Elmer Riggs returned for the installation of the plaque in 1938.



Courtesy Museums of Western Colorado (Al Look Collection)