



DINOSAURS IN THEIR TIMESM
Carnegie Museum of Natural History

What separates the really great dinosaur exhibits from all the rest? Real dinosaur skeletons.

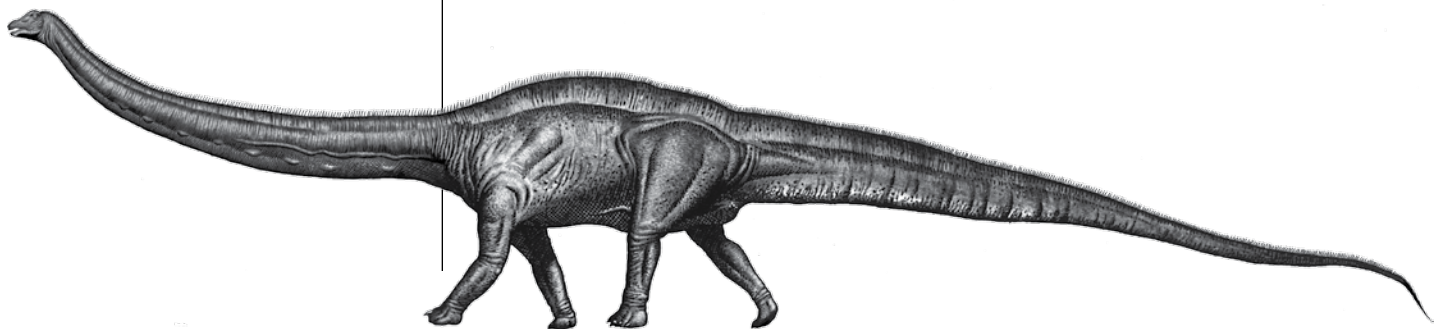
Of the 19 free-standing dinosaur skeletons roaming the halls of Dinosaurs in Their Time, 15 are the real deal (except for occasional filler bones, made from casts or sculpted pieces, here and there)—putting Carnegie Museum of Natural History in a very exclusive category.

Diplodocus

Diplodocus was a colossal creature and was one of the longest to have ever walked the Earth. It was a sauropod—a group of enormous plant-eating dinosaurs with small heads on top of long, slender necks, short bodies, four pillar-like legs, and long tapered tails. From head to tail, *Diplodocus* was the longest of these dinosaurs, growing as long as 80–100 feet. Despite its great size, it was a lightweight at only about 11 tons. *Apatosaurus*, another sauropod, was shorter than *Diplodocus*, but weighed three times as much. *Brachiosaurus* weighed eight times as much! How is this possible? The bones in *Diplodocus*' back were hollow, but still strong enough for an animal so large.

Living 145–150 million years ago in a period known as the Late Jurassic, this large animal probably traveled in herds around what is now Colorado, Montana, and Wyoming, feeding on the lush vegetation that thrived at the time. In order to keep its large body nourished, this dinosaur had to eat lots of plants. It was originally thought that *Diplodocus*' long neck was evidence that it ate leaves only from the tops of trees. However, studies of the individual neck bones and computer models show the neck was indeed quite flexible, allowing *Diplodocus* to feed on food from a variety of heights, about 20 feet and down. Although the dinosaur held its neck horizontally most of the time, special joints in its neck bones made it possible to move the neck from side to side, as well as up and down.

Diplodocus only had slim, pencil-like teeth confined to the front of its mouth to “rake” soft leaves from branches or to pluck leaves from plants such as ferns and horsetails. It did not have teeth in the back of its mouth to grind up its food, so it had to swallow its meals whole. Along with its food, it may have swallowed stones to help grind it up, just like many birds do today. Scientists have found these stones, also known as gastroliths, among the remains of dinosaurs. Often the only clue as to what these rounded stones were used for is that they are unlike the others found around the fossils.



About CMNH's Diplodocus

Pittsburgh steel millionaire Andrew Carnegie was a man who thought big. When a newspaper reported giant creatures were being discovered in the American West, he knew he had to have one. He told the museum to buy a dinosaur for Pittsburgh, but it was soon realized that the discovery in the newspaper amounted to only a few fossilized bones. So, a team of scientists was sent to Wyoming in 1898 to bring back a whole dinosaur for his new museum.

On July 4, 1899, the fossil hunters found what they were looking for—the toe bone of an unknown creature. As more bones were uncovered, it was clear that this was an extraordinary find. It was the first of many groundbreaking dinosaur discoveries for CMNH.

Back in Pittsburgh, scientists realized they had discovered a new species of dinosaur. They named it *Diplodocus carnegii*—one of CMNH's several holotypes, which are the specimens that forever define a species (usually the first or the most complete specimen discovered)—in honor of Mr. Carnegie. However, the creature was soon affectionately nicknamed "Dippy" by the public.

Across the ocean, Dippy caught the attention of the King of England, who asked Carnegie for a dinosaur for England. Dippy's bones were copied and then assembled in the British National Museum, where *Diplodocus* won the hearts and imaginations of the British people.

Today, replicas of Carnegie's *Diplodocus* stand on four continents in the national museums of Britain, Germany, Italy, France, Austria, Russia, Spain, Argentina, and Mexico.

Meanwhile, back in Pittsburgh, a new museum had to be built to house the real Dippy! CMNH became known as "The Museum That Dippy Built." Dippy made its Pittsburgh debut in 1907 and was the first dinosaur in historic Dinosaur Hall. To make more space when other dinosaurs joined Dippy in Dinosaur Hall, part of the tail was removed—10 feet, 8 inches of it. In *Dinosaurs in Their Time*, those almost 11 feet are reunited with the rest of Dippy!

