## CHARLES WHITNEY GILMORE – THE FORGOTTEN "DINOSAUR HUNTER"

Hans Sues and Diana Marsh

Charles Whitney Gilmore (1874-1945), affectionately known as "Charlie" to his colleagues, was one of the last major figures of America's "Golden Age" of dinosaur hunting. It is largely due to his efforts that the Department of Paleobiology is now home to one of the premier collections of dinosaurs and other fossil reptiles in the United States.



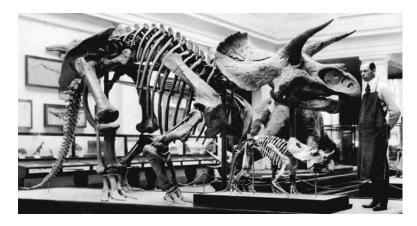
Caption: Charles W. Gilmore with tail vertebrae of the skeleton of *Diplodocus longus*, 1924. The enormous job of assembling the full skeleton lay ahead, which may account for the somber expression on Gilmore's face.

Gilmore was born in Pavilion near Rochester, New York, on 11 March 1874. He spent the first few years of his life on a farm belonging to his family near this small town. When Gilmore was six years old an aunt took him on a visit to Ward's Natural Science Establishment in Rochester. In those days, Ward's, a campus of fifteen buildings located near the University of Rochester, was the leading American supplier of natural history specimens to museums and universities. It also mounted exhibits and was famous for training many future museum professionals. The work and collections at Ward's deeply impressed the young boy and firmly implanted the idea of a career in museum work in his mind. Gilmore set out to build his own collections of rocks, fossils, bird eggs, and insects. He also experimented with taxidermy, including an (unsuccessful) attempt to restuff a toy elephant.

When Gilmore was eight years old his family relocated to the small town of Howell in Michigan. Upon graduation from high school and still intent on a museum career, he went to Laramie to enroll at the University of Wyoming. Gilmore pursued a degree in mining engineering, which was the subject closest to his interests offered by the university. The dinosaurian specimens at that school soon attracted Gilmore's attention.

He worked with his mentor, Wilbur C. Knight to collect dinosaurian remains in Wyoming. During the Spanish-American War, Gilmore enlisted in May 1898 and served as First Sergeant of Torrey's Rough Riders but never saw combat. He received an honorable discharge in October of that year and resumed his studies in Laramie.

In June 1900 Gilmore met with legendary "dinosaur hunter" John Bell Hatcher, who was working for the Carnegie Museum at that time. Hatcher had received favorable reports about the young student from Wilbur Knight and Charles Schuchert. He was impressed by Gilmore and hired him for a crew collecting Late Jurassic dinosaurs. (Gilmore's mother, who was visiting her son at the time, was pressed into service as camp cook.) The fieldwork proved very successful, and Gilmore was hired as a full-time preparator at the Carnegie in 1902.



Caption: The mount of the skeleton of a *Triceratops*, nicknamed "Hatcher" in honor of its colorful discoverer, John Bell Hatcher, was one of the first dinosaurs ever mounted using actual bones. Gilmore worked on this mount together with fellow Carnegie alumnus and life-long collaborator Norman Boss, who is pictured with the mount. In the foreground is a mounted skeleton of *Brachyceratops*, a small horned dinosaur discovered by Gilmore. Most researchers now regard *Brachyceratops* merely as a juvenile of another ceratopsian dinosaur.

One of the founding fathers of American vertebrate paleontology, Othniel Charles Marsh at Yale University, had held an appointment as Vertebrate Paleontologist of the United States Geological Survey since 1882. Upon his death in 1899, the collections of vertebrate fossils made with support from the Survey were transferred to the U. S. National Museum. Some 80 tons of fossils were shipped by railcar to Washington, D.C. The museum now faced the gargantuan task of sorting, cataloging, preparing, mounting, and studying these collections. It was in this context that in 1903 Gilmore first received a contract to prepare one of the Marsh collection skulls of the horned dinosaur *Triceratops* for the museum and then was hired as a full-time preparatory in 1904. By 1905, with the help of preparator Norman H. Boss (who had just arrived that year and previously had also worked at the Carnegie Museum), Gilmore had mounted the skeleton of the *Triceratops* now known as "Hatcher," the first skeleton of this now popular dinosaur ever mounted for display, and the skeleton of the duck-billed dinosaur *Edmontosaurus*. Both were initially exhibited in the Arts and Industries Building. It was also in 1904 that ground was broken for the new U.S. National Museum. From then until the move to the

new space, Gilmore worked diligently to sort and arrange specimens that would he would later help move across the mall. Luckily for archivists, paleontologists and historians today, Gilmore was a particularly meticulous record-keeper. From this time until his last days at the museum just before his death in 1945, Gilmore kept books listing the basic tasks accomplished each day. We can therefore glean today much about the chronology of events in the Division of Vertebrate Paleontology and Gilmore's work during this time.

July 13 moving exhibition collection. Tricuatops
over today. Painter vilet the flore in the
put frames on 18 specimens. Carpentin also
Enatosaurus skeleton.

Caption: Gilmore's daybook entry for July 13, 1910

A typical daybook entry from 1905 read:

*November 11 1905:* Commenced rearrangement of the storage collection. We are going to uncrate all of the trays, classify, and rearrange these in stacks so that the material will be available. Opened crates Nos. 251-254-255 536 and 188. <sup>1</sup>

In 1908, Gilmore was promoted to Custodian of Fossil Reptiles and, by 1909, the removal of specimens to the new building had begun in earnest. An entry from 1909 reads:

April 26, 1909 "Norman on Stegosaurus fore foot. Made arrangements to move Ceratosaurus mount to new building"

By August 23 of that year, the vertebrate paleontologists had "[m]oved into our new quarters in the new building this A.M." The new building provided "commodious quarters permitted a more systematic arrangement of the study collections, and for the first time the preparators were provided with a well-lighted, well-equipped, roomy laboratory (27 by 77 feet)", in order to carry out more systematic work. While parts of the new U.S. National Museum were opened the following year, it was not until October 14, 1911 that specimens and labels were finished, and the "Hall of Extinct Monsters" was finally ready to open the following day.

From 1911 into the 1920s, with a brief closure during WWI when the museum housed the Bureau of War Risk Insurance, Gilmore led the charge to continue collecting, preparing,

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<sup>&</sup>lt;sup>1</sup> RU156Box1Folder1

<sup>&</sup>lt;sup>2</sup> RU156Box1Folder5

analyzing and mounting specimens, including the skeletons of *Stegosaurus stenops*, *Thescelosaurus neglectus* and *Brachyceratops montanensis*. In 1924, he was appointed Curator, a position that he held until his retirement in 1945.



Caption: Top view of (top left) 1904 paper mache model of *Stegosaurus* from the Louisiana Purchase Exposition (St. Louis World's Fair), (bottom left) the mounted skeleton of *Stegosaurus stenops*, and (right) the skeleton of *Stegosaurus* stenops known as the "roadkill" specimen, exhibited as found. Gilmore arranged the three for comparative and educational presentation.

In addition to doing and supervising fossil preparation, Gilmore undertook a lot of fieldwork. In 1907, he went to Alaska to collect Pleistocene mammalian remains. In 1923, Gilmore and Norman Boss visited the quarry at Dinosaur National Monument in Utah.

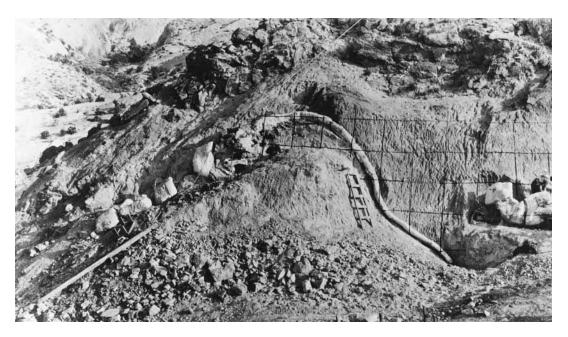


Caption: Gilmore excavating a skeleton of an ankylosaur in the Two Medicine Formation in 1928.

Through the intervention of Smithsonian Secretary Walcott, President Wilson had declared the quarry and the surrounding land a National Monument in 1915. Work at this site by the Carnegie Museum had largely stopped in 1922. Gilmore and Boss collected much of the skeleton of the sauropod dinosaur *Diplodocus*, which they began to prepare and mount for exhibition. In July 1925, Gilmore wrote to Barnum Brown of the American Museum in New York:

A skeleton of *Diplodocus* from the Utah quarry has been occupying the attention of the preparators the past year and a half and it looks now as though another year would be required to finish the preparation. Then mounting the skeleton will follow with another year or so consumed. It will make a big show piece, but otherwise it is of but little interest. . . . <sup>3</sup>

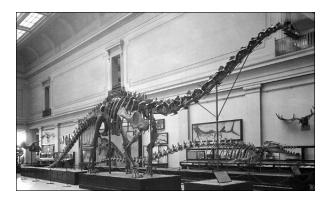
<sup>&</sup>lt;sup>3</sup> RU156Box6Folder23



Caption: The skeleton of *Diplodocus* was discovered in a steep cliff face formed by hard sandstone. The grid pattern on the cliff helped Gilmore map the remains as they were being exposed. This map would prove crucial for assembling the bones for the mount.



Caption: Excavating the huge skeleton from the cliff face with hammer and chisel proved to be a backbreaking job. Here crewmembers huddle under tarps that offer the only protection from the sun.



Caption: The mount of the skeleton of *Diplodocus* was completed in 1931. This splendid specimen became the principal attraction for visitors in the Hall for many years, and still stands in the same spot nearly 80 years later.

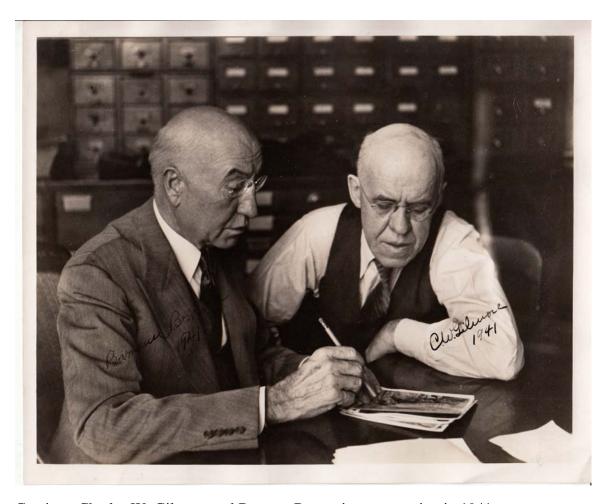
By September 1927, the preparation of *Diplodocus* was still taking up most of the Division's time. In one somewhat frustrated letter to a former colleague at the Carnegie Museum Gilmore wrote:

## My dear Arthur:

Say, old man, what are the chances of our getting the patterns for the *Diplodocus* mount? We are now about ready to make a start and I am anxious to have them here so that there will be no delay once the work of mounting is undertaken. I never want to look at another Sauropod once this job is off my hands, but the Lord only knows what the future may have in store for us.<sup>4</sup>

(For the record, Gilmore continued to collect and study large sauropods later in his career.)

<sup>&</sup>lt;sup>4</sup> RU156Box7Folder17



Caption: Charles W. Gilmore and Barnum Brown in conversation in 1941

From these exchanges and many others throughout his career, particularly with his old friend and celebrated showman Barnum Brown, it is clear that Gilmore was wary of the popular hype surrounding dinosaurs. In 1941, referring to the popular Sinclair dinosaur stamps Brown was distributing, Gilmore wrote jokingly:

I have always felt that you took up the wrong profession. Now I know it, you should have been a promoter. Anyhow, Brown it was a good job.<sup>5</sup>

Gilmore's aversion to dinomania was perhaps no surprise given that, altogether, the 70-foot-long reconstructed *Diplodocus*, finally mounted in 1931, took 2,545 working days to excavate, ship, prepare and mount. That is the equivalent of one person working every day for nine years! We have Gilmore's perseverance to thank for this fantastic mount that became the principal attraction for visitors in the Hall for many years, and still today stands in the same spot nearly 80 years later.

Meanwhile, most of Gilmore's fieldwork focused on Cretaceous vertebrate-bearing strata in the Western Interior. Jack Horner has noted that Gilmore found the first dinosaurian

<sup>&</sup>lt;sup>5</sup> RU156Box7Folder5

egg shell and bones of baby duck-billed dinosaurs in the Two Medicine Formation of Montana, long before Jack's own famous discoveries, but never published on this find.

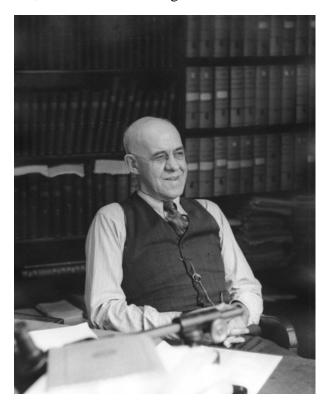


Caption: Charles Gilmore and Edwin Cooke loading field jackets into a truck in the Two Medicine Formation in the 1930s

Early in his career Gilmore commenced scientific studies of dinosaurs and many other groups of extinct reptiles, starting with the rich material from the Marsh Collection. His monographs on the skeletal structure of the armored *Stegosaurus* (1914), the predatory dinosaurs *Allosaurus* and *Ceratosaurus* (1920), and the sauropod *Apatosaurus* (1936) remain essential references for any serious student of dinosaurs. Working at a time when there were few professional vertebrate paleontologists, Gilmore also received invitations from other institutions, including the Carnegie Museum and the American Museum of Natural History, to study and publish on important specimens of dinosaurs and other fossil reptiles from their respective collections. Many important papers, including the first monograph on early Late Cretaceous dinosaurs from Inner Mongolia (China), resulted from these "extramural" research efforts. Much like that of most of his contemporaries, Gilmore's work was largely descriptive, and he never explored broader paleobiological and phylogenetic issues.

In October 1902, Gilmore married his Laramie sweetheart, Laure Coutant. The couple would have three daughters. In 1908, the Gilmore family settled in the Park View neighborhood of the District of Columbia. Their home at 451 Park View Road, NW was famous for offering a warm welcome and generous hospitality to many a visiting

colleague. Gilmore was active in the Citizens Association of Washington. A big sports fan, he was also an avid golfer.



Caption: Portrait of the elder scholar in his office in 1941. Although he would remain active for another four years, Gilmore could already look back on a lifetime of accomplishment in fieldwork and research.

Gilmore died on 27 September 1945 and was buried at Arlington National Cemetery two days later.



Caption: Gilmore and his wife are buried at Arlington National Cemetery. The crossed sabers symbol reflects his service in the Cavalry during the Spanish-American War.

By all accounts, Gilmore was a genial and modest man. His eminent colleague George Gaylord Simpson called him "kindness personified." The collections of fossil reptiles in the Division of Vertebrate Paleontology offer eloquent testimony of Gilmore's devotion and efforts and will continue to be an unparalleled resource for research and exhibition.