

RECONSTRUCTION OF THE SKELETON OF THE SAUROPOD
DINOSAUR *CAMARASAURUS COPE* (*MOROSAURUS*
MARSH)

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The principles of modern research in vertebrate palæontology are illustrated in the fifteen years' work resulting in the restoration of the massive sauropod dinosaur known as *Camarasaurus*, the "chambered saurian."

The animal was found near Canyon City, Colorado, in March, 1877. The first bones were described by Cope, August 23, 1877. The first attempted restoration was by Ryder, December 21, 1877. The bones analyzed by this research were found probably to belong to six individuals of *Camarasaurus* mingled with the remains of some carnivorous dinosaurs, all from the summit of the Morrison formation, now regarded as of Jurassic-Cretaceous age. In these two quarries Cope named nine new genera and fourteen new species of dinosaurs, none of which have found their way into palæontologic literature, excepting *Camarasaurus*. Out of these twenty-three names we unravel three genera, namely:

One species of *Camarasaurus*, identical with *Morosaurus* Marsh.

One species of *Amphicælias*, close to *Diplodocus* Marsh.

One species of *Epanterias*, close to *Allosaurus* Marsh.

The working out of the *Camarasaurus* skeleton results in both the articulated restoration and the restoration of the musculature. The following are the principal characters: The neck is very flexible; anterior vertebrae of the back also freely movable; the division between the latter and the relatively rigid posterior dorsals is sharp. Double spines of the cervicals and flexible anterior dorsals show through the skin of the restoration. Spines of the relatively inflexible dorsals, sacrals and caudals are comparatively low and broad. The breadth of neck, thorax, and pelvis, as shown by the bones, is relatively greater than in other sauropodous dinosaurs. The tail had no terminal whip-lash. The scapula is very massive and expanded at the summit. The cross-section of the thorax is relatively much broader than in other Sauropoda. The general conclusion is that *Camarasaurus* was a very broad and massive, slow-moving sauropod, in fact, the most massive reptile in proportions that has ever been found.

This study is part of the senior author's research for the *Monograph on the Sauropoda* in preparation for the U. S. Geological Survey.