

**Paleoartistry:
The Science of Re-Creating Beasts (Part 2)**

Matthew Buie



Have you locked in your votes? In our last blog, QMNH volunteer Matthew Buie took us on a historical journey showcasing the importance of Paleoartists and their role in our understanding of the creatures and critters from days gone by. But their work isn't just important for scientific research; as paleontologists learn more about extinct species, the interpretations of those discoveries by paleoartists can influence the portrayal of these species in popular media - Including the Hollywood adaptations of your favourite dinosaurs



Dinosaur beside buildings

https://unsplash.com/photos/dinosaur-with-open-mouth-beside-buildings-still-selective-focus-photography-of-7_yzujmD8AE

Let's continue our exploration in Paleoartistry by looking at the famous T-Rex for example. First discovered in 1902 (note that a single, partial and fractured T-Rex vertebrae was discovered in 1892, but wasn't recognized as belonging to T-Rex until after 1905), it made its film debut in the movie *The Ghost of Slumber Mountain*. In this stop motion-live action mix from the silent movie era, the mighty "two-legged reptile" appears walking upright, dragging its tail behind it while it fought a triceratops, but was scared off by men with pistols. Its posture became even more upright and rigid for 1933's *King Kong*, when it was defeated by Mighty Kong. Twenty-seven years later, the T-Rex in "*Dinosaurs!*" (1960) was shown to be somewhat less formal in its posture but was clearly still dragging its tail. Not a lot had changed in Hollywood's perception of these creatures, because there was little research into how these creatures may have moved.



Ghost of Slumber Mountain (1918)



King Kong (1933)



Dinosaurs! (1960)

But then, in the 1980s, the power of computers began to expand, and with it, so did the ability of paleontologists to perform complex calculations regarding the dynamics of movement of animals. They were able to use 3D models to explore ranges of motion, mechanical stresses and strains, and compared the shape and structure of dinosaur bones to their closest living animals – the birds. Among the discoveries was the conclusion that T-Rex likely stood and moved more horizontally, which was shown in terrifying realism in 1993's Jurassic Park. Most recently, in Dinosaur Island (2014), the T-Rex has been given feathers based on fossils of close relatives of T-Rex showing feather-like structures.



Jurassic Park (1993)



Dinosaur Island (2014)

As you can see, paleoartists face a difficult task. They need to consider a wide range of factors in determining shape, colour, texture, everything really. How would you draw a T-Rex, and how did you do on last week's challenge? Were you able to correctly identify the Elephant, Hippopotamus, and Sperm Whale? If so, well done!

We here at QMNH – like all natural history museums - use paleoartistry to show what our exhibits may have looked like when they were alive, and we are thankful to the artists who undertake this oft-forgotten, niche artform.