



When Dinosaurs Roamed the Wetumpka Impact Crater

February 20, 2015 – April 18, 2015

KFMG

KELLY FITZPATRICK MEMORIAL GALLERY

Carr Gallery

Jonathon Hughes

More than 85 million years ago, during the Cretaceous Period, a large meteor impacted the area now known as Wetumpka, Alabama. The impact resulted in a crater approximately five miles in diameter causing significant changes to both the landscape of the area and the inhabitants of both land and sea. At that time, the Wetumpka area was largely covered by an inland sea with barrier islands, and the climate was very different from today. This impact crater is regarded as one of the best preserved marine impact craters in the world.

The exhibition includes large scale paintings, iron sculptures, exhibition models, fossils, plants and a series of oversized educational storyboards outlining much of the scientific research about the crater area. The exhibition also features the work of Karen Carr, Jerry Armstrong, Rick Spears, Jonathon Hughes, Wayne Atchison, Larry Percy and Asher Elbein. Additionally, the exhibition includes a juried exhibition of 65 kindergarten through grade twelve student work and a juried exhibition of 35 adult artists from throughout Alabama.

Major funding provided through a grant awarded to the KFMG by the Alabama State Council on the Arts, which is made possible through funding from an annual appropriation by the Alabama State Legislature and the National Endowment for the Arts. This public support enables the Kelly Fitzpatrick Memorial Gallery to reach new audiences, foster community development, provide high quality programming, and demonstrate the importance of the arts as a component for quality of life in Alabama. Additional support provided by the City of Wetumpka, the Wetumpka Impact Crater Commission, the Kelly Fitzpatrick Memorial Gallery and Wind Creek Casino.



Major Funding Provided by:

Alabama State Council on the Arts and National Endowment for the Arts

SCHEDULE OF EVENTS

Gallery Hours: Monday through Friday from 9am – 4pm, Saturday 10am - 3pm

Docent Guided Tours: Thursday and Saturday between the Hours of 10 am until 3pm.

Student Reception and Award Ceremony: Thursday, March 5, 2015 from 3:30 – 4:30

Adult Reception and Award Ceremony: 5:00 – 6:30 pm

Annual Crater Lecture: Thursday, March 5, 2015 @ 7pm

(Dr. David King@ the Wetumpka Civic Center)

Annual School Crater Tours: Friday, March 6, 2015

Annual Public Crater Tours: Saturday, March 7, 2015

“Choose to Know” Saturday Lectures that are associated with the exhibition “When Dinosaurs Roamed: The Wetumpka Impact Crater” at the Kelly Fitzpatrick Memorial Gallery. All Saturday lectures are free and open to the public and will be presented in the Kelly Fitzpatrick Memorial Galley. Saturday lectures begin at 11am.

- February 21, 2015 @ 11 am - "Alabama's Remarkable Biodiversity and Paleobiodiversity." June Ebersole of the McWayne Science Center, Birmingham Alabama
- February 28, 2015 @ 11 am - Meteorites and Art, Jerry Armstrong, Cosmic Artist, Atlanta Georgia
- March 5, 2015 @ 7pm – The Science of the Wetumpka Impact Crater, Dr. David King, Auburn University Professor of Geology at the Wetumpka Civic Center
- March 21, 2015 @11am - Artists Talk, Geologically Speaking: The Kerygma Series, Larry Percy, Associate Professor of Art of Troy University, Troy, Alabama
- March 28, 2015 @ 11 am - Dana Ehret of the Alabama Museum of Natural History, the University of Alabama, Tuscaloosa, Alabama, “New Fossil Finds for the Alabama Museum of Natural History”
- April 11, 2015 @ 11 am - Art and Science and Making It Up As I Go Along: How to Create Paleo Restoration Models. Rick Spears of the Fernbank Science Center, Atlanta, Georgia
- Friday, May 1, 2015 (Time to be announced) Artists Talk, Paleoart and the Work of Karen Carr, Karen Carr, International Paleoartist of New Mexico

Jonathon Hughes

Originally trained as a fine artist, graduating from University of London (Goldsmith's College), Jon began accepting commissions as a commercial illustrator using traditional media, then switched to digital media back in 1990.

With a long-standing keen interest in science, particularly palaeontology, Jon has attracted commissions for a wide range of clients looking for realistic reconstructions of extinct animals. His portfolio includes artwork used in over 80 published titles, many images are also featured in museum exhibits worldwide, have appeared on numerous websites, television shows and even merchandising.



Cretaceous Environment

Digital Painting

23" h x 38" h

About this Image:

During the Late Cretaceous, the climate was one of the warmest in Earth's history. This was a result of a variety of factors including:

- 1) The continents were in different positions so that a world-spanning equatorial ocean current distributed warm ocean water even as far north and south as the poles.
- 2) Atmospheric carbon dioxide was approximately 4 to 6 times modern levels.
- 3) Increased area covered by oceans (melted ice caps). Water retains heat from the Sun more efficiently than land.

The combination of these and other factors resulted in a climate so warm that there were no glaciers or ice caps anywhere on Earth, and all of that ice volume was added to the oceans as water. This resulted in the second highest sea level in all of Earth's history, and flooded about 1/3 of the present day land surface with shallow seas. In North America, the Western Interior Seaway extended from the Gulf of Mexico to the Arctic Ocean. This divided North America into a western half, known as Cordillera, and an eastern half, known as Appalachia. However Appalachia was completely isolated from other dinosaur populations, so the Late Cretaceous dinosaurs that lived in what is now the Eastern U.S. are unique, having evolved in isolation for some 30 million years.



Diabloceratops

Digital Painting

23"h x 30.5"w

About this Image:

Although Diabloceratops has only recently been announced to the general public, this horned dinosaur has been familiar to paleontologists since 2002, when a near-intact skull was discovered in southern Utah. Eight years of analysis and preparation yielded what may (or may not) be a ceratopsian "missing link." Diabloceratops seems to have evolved from the smaller horned dinosaurs of the early Cretaceous period, yet it predated more advanced genera like Centrosaurus and Triceratops by millions of years. As you might expect given its evolutionary position, the massive head of Diabloceratops was ornamented in a unique way: it lacked a horn on its snout, but had a medium-sized, Centrosaurus-like frill with two sharp horns jutting up from either side. It's possible that Diabloceratops' frill was covered with a thin layer of skin that changed color during mating season. Diabloceratops (Greek for "devil horned face") is pronounced dee-AB-low-SEH-rah-tops. It inhabited the woodlands of North America during the late Cretaceous (85 million years ago.) It was about 20 - 25 feet long and weighed one to two tons. This giant was a plant eater. Distinguishing characteristics included: no horn on snout and a medium-sized frill with two long horns on top.



Edmontosaurus

Digital Painting

23"h x 30.5"w

About this Image:

Edmontosaurus and other duck-billed dinosaurs, or hadrosaurs, were very common in the northern hemisphere during the Late Cretaceous Period. Some species of duck-billed dinosaurs moved about in herds numbering hundreds or thousands of individuals. Edmontosaurus means "Edmonton Lizard" named for the Edmonton Rock Formation in Edmonton, Alberta, Canada. When first discovered, hadrosaurs were thought to be water dwellers. Later study showed that while the body is built for land, the broad tail enabled these animals to move very easily through water. The paddle-like hands of Edmontosaurus support this observation. The snout of Edmontosaurus ended in a large, broad beak suitable for cropping vegetation. Up to 2,000 tightly packed teeth at the back of the jaws were used for chewing and grinding tough plant material. This herbivore (plant-eater) probably ate low-lying plants like cycads, conifers, and ginkgos. Edmontosaurus would have been a common prey animal for T. rex. It was 42 ft. long, 10 ft. tall at the hips and weighed 3-3.5 tons.



Sinoconodon

Digital Painting

23" h x 34" w

About this Image:

There wasn't a single "Aha!" moment when the latest therapsids ("mammal-like reptiles") evolved into the earliest mammals. Paleontologists have found a number of intermediate forms, one of which was the late Triassic Sinoconodon, which sported a small, furry, vole-like body and a relatively large brain, as well as reptilian teeth that seem to have constantly replaced themselves throughout this creature's lifetime. Judging by its anatomy, some paleontologists classify Sinoconodon as one of the earliest mammals, while others maintain it belongs firmly in the reptile camp.

Sinoconodon (Greek for "Chinese spiky tooth") and is pronounced SIGH-no-CO-no-don. It inhabited the woodlands of Asia. It was about six inches long and weighed only a few ounces. It had a sleek body and large eyes and the diet was omnivorous.



Tyrannosaurus

Digital Painting

40" w x 18" h

About this Image:

Tyrannosaurus rex was one of the largest meat-eating dinosaurs that ever lived.

Tyrannosaurus means "tyrant lizard." Everything about this ferocious predator, from its thick, heavy skull to its 4-foot-long jaw, was designed for maximum bone-crushing action. Fossil evidence shows that Tyrannosaurus was about 40 feet long and about 15 to 20 feet tall. Its strong thighs and long, powerful tail helped it move quickly, and its massive 5-foot-long skull could bore into prey. T. rex's serrated, conical teeth were most likely used to pierce and grip flesh, which it then ripped away with its brawny neck muscles. Its two-fingered forearms could probably seize prey, but they were too short to reach its mouth.

Scientists believe this powerful predator could eat up to 500 pounds of meat in one bite. Fossils of T. rex prey, including Triceratops and Edmontosaurus, suggest T. rex crushed and broke bones as it ate, and broken bones have been found in its dung. Tyrannosaurus rex lived in forested river valleys in North America during the late Cretaceous period. It became extinct about 65 million years ago in the Cretaceous-Tertiary mass extinction.



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