

When Dinosaurs Roamed the Wetumpka Impact Crater

February 20, 2015 – April 18, 2015

KFMG

KELLY FITZPATRICK MEMORIAL GALLERY



INTRODUCTION

The following curriculum guide has been developed for teachers to serve as a study guide for the various topics that will be covered during the tour “When Dinosaurs Roamed.” The guide includes the goals and objectives of the tour, the tour structure, major themes and topics, information about the artists and artworks featured during the tour.

GOALS:

In the curriculum, emphasis is placed on understanding, responding to, and producing art while promoting the elements of art and principles of design through traditional, mixed and digital media. In addition, the curriculum promotes an increased awareness of art and artists.

OBJECTIVES:

This tour program is designed to meet several objectives. Students will become familiar with commonly used art terms and will learn to look for signs of history and culture in works of art. Students will study works of art, including, landscapes, sculpture, genre scenes, and abstract works. They will create a frottage in the studio.

STUDENTS WILL:

- Analyze major themes in the exhibition
- Identify ideas and feelings expressed by individual artists in works of art
- Analyze paintings in terms of composition, color relationships, and the principles of balance, unity and variety
- Understand how artists create the illusion of depth on a two dimensional surface
- Understand how artists use materials to create mass and volume in sculpture
- Compare and contrast works of art
- Understand the use of different art materials in the studio
- Apply concepts and ideas present in works of art in the gallery to art in the studio
- Use visual thinking skills and oral communication to discuss and analyze works of art
- Learn about works of art through multi-sensory experiences that may encompass sound, movement, and role-playing

TOUR STRUCTURE

Tour of the Museum in Two Parts (1 Hour)

1. Gallery Tour (35 minutes)

Works from the Permanent Collection will be used to explore the themes of American Art, as they pertain to portraits, landscapes, sculptures, and genre scenes. Students will make historical connections, use art vocabulary, develop critical thinking skills, and explore ways of looking at art, including analyzing elements of art and principles of design.

2. Studio Activity (35 minutes)

The studio activity will include an art lesson incorporating concepts of the tour. Students will use oil pastels or crayons and paper to create a frottage (rubbing) that relates to one or more of the works of art in the exhibition. The students will take their works of art with them as a record of their experiences at the Museum.

CHAPERONE EXPECTATIONS

The Kelly Fitzpatrick Memorial Gallery Education Department offers student programs that promote critical thinking, visual literacy and oral expression. Tour and studio programs are inquiry-based with attention to varied learning styles while making interdisciplinary connections to school curricula. Please help us to help your students enjoy their museum experience.

1. Arrive at the museum with or before students. Students need to arrive with name tags visible (first name only.)
2. Docents and/or staff will greet the group at the side entrance of the museum. Help to maintain order while school information is verified with museum security.
3. Know whom your group members are (usually around 10 students per adult chaperone) ahead of time, but assist with dividing students into groups if changes need to be made.
4. Since docents and/or staff will lead the group into the museum and galleries, we ask that chaperones follow at the end of the line to monitor students' behavior.
5. Correct poor student behavior as needed (e.g., talking out of turn, making inappropriate comments, not following the group, etc.).
6. Remove a student from the group or the museum when multiple efforts have been made to correct poor behavior.
7. Allow students to answer questions.
8. Accompany any student who requires personal or medical assistance.
9. Remain behind the group while moving between galleries in the museum.

10. Refrain from talking to other adults and/or on cell phones during the tour.

11. Accompany students to their final destination once the tour has ended.

Should you have further questions, please feel free to contact:

Sylvia McConnell, Tour Coordinator

Kelly Fitzpatrick Memorial Gallery

Museum Manners for Students

In order to have the best experience possible, please keep the following guidelines in mind. If you have any questions, museum staff or security will be happy to help you. Please discuss these points with your students before you arrive at the museum.

1. There is no right way to look at art.

2. There is no wrong way to look at art.

The easiest way to approach a work of art is to look at it and ask yourself, "What do I see?" Having said that, let's move on to #3...

3. Look with your eyes and not with your hands.

Please help us preserve our works of art by not touching paintings, sculptures, artifacts, works on paper or any other museum object. To accomplish this, keep your hands behind your back, in your pockets or at your side.

4. Use a quiet, inside voice and walk through the galleries while at the museum. Being at the museum and seeing works of art makes us excited. We are glad you are excited! Help make other visitors' experiences enjoyable by talking quietly and walking through the galleries.

5. It is important to stay with your group while exploring the museum. Talking with your classmates and teachers about the art that you see is a great way to learn more about it. This is done easily if you stay together and with an adult at all times.

6. Leave all backpacks, large purses, umbrellas, sack lunches or other bulky items on the bus while touring the museum. Also, please turn off and refrain from using cell phones while in the museum.

TOUR CATEGORIES

Landscape

A landscape is a painting that shows a scene from nature in which the place or the land is the main subject. Landscape paintings are defined by a horizon line, which separates the earth from the sky. The horizon line is equivalent to the viewer's eye level, and is generally placed in the center of the composition as a horizontal axis. However, the placement of the horizon line may be closer to the top or bottom of the picture plane depending on how much land or sky the artist chooses to represent. A centrally placed horizon line adds symmetry to the composition, but an artist may choose to place it higher or lower to make the viewer's perspective more dynamic. Landscapes might represent a dramatic location such as a waterfall, or an ordinary location such as the artist's own garden.

Sculpture

A sculpture is a three-dimensional work of art that has height, width, and depth. When viewing a sculpture in the collection, you can walk around it to get multiple views and comprehend what the forms look like in a three-dimensional space. Sculpture, therefore, should be distinguished from paintings, which are created on a flat surface to create the illusion of space rather than occupying a "real" and physical space that the viewer is situated in. Since sculpture is three-dimensional, artists tend to use materials that can be molded like clay, carved like marble, or when transformed into another material, produce solid forms made of bronze or glass. Sculpture may also be constructed with found objects that have been discarded and reassembled. Some sculptures might represent figures or objects, or forms that inspired by the imagination.

Illustration

An illustration is a visualization or a depiction made by an artist, such as a drawing, sketch, painting, photograph, or other kind of image of things seen, remembered or imagined, using a graphical representation. The word comes from the latin word *illustra'tio*, *illu'stro* meaning enlighten, irradiate. Printing is the current process for reproducing illustrations, typically with ink on paper using a printing press. Illustrations can be artistic images illustrating for example a text, poem, fashion, magazines, stamps or a book and very often illustrations were made for children's books. The aim of an illustration is to elucidate or decorate a story, poem or piece of textual information by providing a visual representation of something described in the text. Illustrations can also represent scientific images of flora, medicine or different processes, a biological or chemical processes or technical illustrations to give information on how to use something. Illustrations can be executed in different techniques, like watercolor, gouache, ink, oil, charcoal chalk or woodcut.

Paleoart

Paleoart is an informal term first coined by Mark Hallett for art that depicts subjects related to paleontology. These may be representations of fossil remains or depictions of the living creatures and their ecosystems. The term is a portmanteau of "art" and the ancient Greek word for old. The work of paleoartists is not mere fantasy of an artist's imagination but rather consists of cooperative discussions among experts and artists. When attempting to reconstruct an extinct animal, the artist must utilise an almost equal mixture of artistry and scientific knowledge. The artist James Gurney, known for the Dinotopia series of fiction books, has described the interaction between scientists and artists as the artist being the eyes of the scientist, since his illustrations bring shape to the theories; palaeoart determines how the public perceives long extinct animals

Frottage

In frottage the artist takes a pastel or pencil or other drawing tool and makes a rubbing over a textured surface. The drawing can be left as it is or used as the basis for further refinement. While superficially similar to brass rubbing and other forms of rubbing intended to reproduce an existing subject, and in fact sometimes being used as an alternate term for it, frottage differs in being aleatoric and random in nature. It was developed by Ernst in 1925. Ernst was inspired by an ancient wooden floor where the grain of the planks had been accentuated by many years of scrubbing. The patterns of the graining suggested strange images to him. He captured these by laying sheets of paper on the floor and then rubbing over them with a soft pencil.

Digital Painting

Digital painting is a method of creating an art object (painting) digitally and/or a technique for making digital art in the computer. As a method of creating an art object, it adapts traditional painting medium such as acrylic paint, oils, ink, watercolor, etc. and applies the pigment to traditional carriers, such as woven canvas cloth, paper, polyester etc. by means of computer software driving industrial robotic or office machinery (printers). As a technique, it refers to a computer graphics software program that uses a virtual canvas and virtual painting box of brushes, colors and other supplies. The virtual box contains many instruments that do not exist outside the computer, and which give a digital artwork a different look and feel from an artwork that is made the traditional way.

Giclee Print

Giclée (*zhee-KLAY*) is a neologism coined in 1991 by printmaker Jack Duganne for fine art digital prints made on inkjet printers. The name originally applied to fine art prints created on IRIS printers in a process invented in the late 1980s but has since come to mean any inkjet print. It is often used by artists, galleries, and print shops to denote high quality printing, but since it is an unregulated word it has no associated warranty of quality. He wanted a name for the new type of prints they were producing on the IRIS printer, a large-format, high-resolution industrial prepress proofing inkjet printer they had adapted for fine-art printing. He was specifically looking for a word that would not have the negative connotations of "inkjet" or "computer generated".

Genre

A genre scene is a scene from everyday life in a particular time and place. In contrast to a portrait, a genre scene captures the day-to-day activities of a time or community. Scenes from every day life at may also help us understand the historical context of a moment in time, in terms of what was occurring.

(SUBCATEGORY)

Abstraction

In painting, abstraction often refers to works painted in the early 20th-century to the present, which set out to simplify the subject matter depicted and reduce it to basic forms (line, shape, and color), devoid of any "direct" reference to the world we recognize as "real." Since the everyday objects we observe in the world are obscured by simplification or abstraction, the viewer uses his/her imagination to determine what concepts and/or representations are alluded to in the work. Furthermore, the artist is free from the conventions that define the illusion of three-dimensional space (since objects no longer occupy a "real" world) and therefore constructs an imaginary space that draws us less to the natural world and more to a world envisioned by the artist. In some cases, artists may choose to combine objects that are "real" with objects that are "imaginary." For example, some abstract works are simply fields of color, while other works have geometric and organic shapes that recall man-made objects or objects found in nature.

ABOUT THE EXHIBITION

Beginning February 20, 2015, the Kelly Fitzpatrick Memorial Gallery in conjunction with the Wetumpka Crater Commission will present the exhibition: When Dinosaurs roamed: the Wetumpka Impact Crater. The multifaceted exhibition will include work by professional paleoartists Karen Carr of New Mexico, Jonathon Hughes of Thailand, Rick Spears of Georgia, Jerry Armstrong of Georgia, and Ashere Eilben, a recent graduate of the University of Alabama, Tuscaloosa. Other professional artists will include Larry Percy and Wayne Atchison, both of Alabama.

The exhibition will also include work from a juried competition. This portion of the exhibition will include original artwork related to the Wetumpka Impact Crater and the Cretaceous period generated by K–12 Students, Collegiate Students and Adults. The selection panel included professional artists, scientists, members of the Wetumpka Impact Crater Commission and members of the Kelly Fitzpatrick Memorial Gallery. KFMG has received more than 350 entries. Award premiums in the amount of \$1,000 will be awarded, courtesy of Wind Creek Casino.

Additional components of the exhibition will include a series of oversized storyboards with images outlining scientific research about the Wetumpka Impact Crater and a display of cretaceous plants of Alabama.

Beginning February 21 and ending April 18, free Docent Guided tours of the exhibition will be conducted each Thursday and Saturday from 10 am until 3 pm. Group tours are available by appointment. To schedule a group tour of the exhibition please contact Sylvia McConnell at 334-567-6174.

ACTIVITIES SCHEDULE:

- Exhibition Dates: Friday, February 20, 2015 – April 18, 2015
- KFMG Gallery Schedule:
 - Monday–Friday, 8:30 – 4:00 pm, Saturday 10:00 am – 3:00 pm
- Group Exhibition Tours: each Thursday & Saturday from February 21 through April 18.
- Exhibition Reception: Thursday, March 5, 2015,
 - Student Reception 3:30 – 5:00 pm (KFMG Gallery)
 - Adult Reception 5:30 until 6:30 pm (KFMG Gallery)
- Annual Crater Lecture by Dr. David King:
 - Thursday, March 5, 2015, 7:00 pm (Wetumpka Civic center)
- Annual School Student Crater Tours: Friday, March 6, 2015 (reservations are required)
- Annual Public Crater Tours: Saturday, March 7, 2015 (reservations are required)
- Choose to Know Lecture Series, Selected Saturdays at 11:00 am

ACTIVITIES:

The KFMG "Choose to Know Lecture Series " will feature Karen Carr, internationally acclaimed paleoartist; Rick Spears, exhibit Designer at the Fernbank Science Center Atlanta, Georgia; Jun Ebersole, Director of Collections at the McWayne Science Center, Birmingham, Alabama, and Dana Ehret, Curator of Paleontology at the Alabama Natural History Museum at the University of Alabama, Tuscaloosa Larry Percy, Associate Professor of Art, Troy University and Jerry Armstrong, Cosmic Artist of Georgia. All KFMG lectures are free and open to the public.

CHOOSE TO KNOW LECTURE SERIES SCHEDULE:

- Saturday, February 21 @ 11 am, Jun Ebersole, "Alabama's Remarkable Biodiversity and Paleobiodiversity."
- Saturday, February 28 @ 11 am, Jerry Armstrong, "Meteorites and Art"
- Saturday, March 21 @ 11 am, Larry Percy, Geologically Speaking: The Kerygma Series, Associate Professor of Art, Troy University
- Saturday, March 28, 2015 @ 11 am, Dana Ehret, "New Fossil Finds for the Alabama Museum of Natural History"
- Saturday, April 11, @ 11am, Rick Spears, "Art and Science and Making It Up As I Go Along: How to Create Paleo Restoration Models."
- Friday, May 1, 2015, Karen Carr, Time to be announced

The Wetumpka Crater Commission's "Annual Crater Lecture" by Dr. David King will take place at 7:00 pm on Thursday, March 5 at the Wetumpka Civic Center. Dr. King is a Professor of Geology at Auburn University, Auburn. Prior to the lecture, a reception for students will be held at the KFMG from 3:30 until 5:00 pm and will be followed by a reception for adults from 5:30 until 6:30 pm. There is no charge for the lecture or reception.

The Wetumpka Crater Commission's "Annual Student Crater Tours" will take place on Friday, March 6. A limited number of school student tours are available. Teachers should contact Marilee Tankersley at 334-567-4637 to make a reservation.

The Wetumpka Crater Commission's "Annual Public Crater Tours" will take place on Saturday, March 7. Tours will be held hourly starting at 9:00 am, with van transportation provided. The tour is divided into two parts. Part One, a lecture, will take place inside the Wetumpka Civic Center, followed by the van tour. Part Two, the van tour, will load immediately following the lecture. Van tour space is very limited and must be reserved before February 25. Participants need to meet at the Wetumpka Civic Center on Main Street, 15 minutes prior to their tour time. The total cost for both parts of the tour, including a guidebook is \$20.00 for adults, \$10.00 for children up to age 12, accompanied by an adult. You may attend only the lecture for a charge of \$5.00, children up to age 12, admitted free. Guidebooks can be purchased for \$5.00, if available. Reservations are required. (Not recommended for very small children.) For additional information and reservations (starting January 5th), contact Donna Carboni at 334-567-5147 or by email at

dcarboni@cityofwetumpka.com.

ABOUT THE WETUMPKA IMPACT CRATER

The crater impact occurred approximately 85 million years ago during the cretaceous period when a large meteor impacted the area now known as Wetumpka, Alabama, resulting in significant changes to both the landscape of the area and the inhabitants of both land and sea. The meteor that struck the Wetumpka area was about the size of Bryant Denny Stadium, resulting in an impact crater approximately five miles in diameter. At that time the Wetumpka area was largely covered by an inland sea with barrier islands and the climate was very different than today. The impact crater is one of nine late craters that occurred during the cretaceous (approximately 144-65 million years ago) and is regarded as one of the best-preserved marine impact craters in the world. At the time of the impact, a shallow sea covered Wetumpka. Heat from the blast set the shoreline woods on fire and created a tsunami wave onshore.

In 1891 State Geologist Eugene Allan Smith noted the unusual nature of the Wetumpka area and described it as being "structurally disturbed." While making detailed geologic maps of Elmore County in 1969-70, Alabama geologist Tony Neatherly again found these disturbances in Wetumpka with the center being chaotically disturbed. In 1998 Dr. David King Jr., Professor of Geology, Auburn University found shocked quartz, which can only be formed by an enormous explosion, such as a large meteor impact would cause. Dr. Peter Schultz, Brown University, as well as another international expert on impact craters, Christian Koeberl at the Institute of Geochemistry, University of Vienna, confirmed the findings.

ADDITIONAL INFORMATION:

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.

KAREN CARR
Imagining the Past



Cretaceous Marine Environment
Digital Painting



Audubon Insectarium Wall:
Ancient Life Mural
Digital Painting



Texas Cretaceous Coastal
Landscape
Digital Painting

ARTWORK

One of Karen's most popular works, "Cretaceous Marine Environment" shows a host of Cretaceous underwater life, including a mosasaur hunting ammonites. Pictured we see Mosasaur, Plesiosaur, a loon-like Hesperornis, the turtle Protostega, schools of belemnites, nautiloids, seafloor dwelling crabs and starfish and Xiphactinus, a Cretaceous fish

somewhat resembling today's tarpon. The work is displayed at The Sam Noble Oklahoma Museum of Natural History, "Cretaceous Undersea Environment" also gives a hint of the tremendous variety of life that existed but that rarely attracts the attention of the Hollywood cinema. Karen's Ancient Life Series for The Sam Noble Oklahoma Museum of Natural History was selected in juried competition to appear in the Communication Arts annual illustration issue. This work was selected by a juried panel from among thousands of entries worldwide.

Karen Carr created "Ancient Life Mural" for the "Audubon Insectarium, it is just one of several murals that she created for the project. The Audubon Insectarium is one of the largest museums in the United States devoted to the 900,000+ known species of insects and their relatives. It provides an encounter with nature like no other featuring thousands of live insects, mounted specimens, interactive experiences and engaging exhibit interpreters. Located in 23,000 sq. ft. of exhibit space in the U.S. Customs House in New Orleans Audubon Insectarium is a member of Audubon Nature Institute's family of museums and parks dedicated to nature including Audubon Zoo, Audubon Park, Audubon Aquarium of the Americas, Entergy IMAX® Theatre, Woldenberg Riverfront Park, Audubon Louisiana Nature Center, Audubon Center for Research of Endangered Species, Freeport-McMoRan Audubon Species Survival Center and Audubon Wilderness Park.

"Texas Cretaceous Coastal Landscape" includes Tenontosaurus, Hypsilophodont, Deinonychus, Titanosaur, Glyptops, Goniopholidid Crocodile, Semiontid fish and is featured at the T. Boone Pickens Life Then and Now Hall. The exhibition includes towering dinosaurs, rare fossils and virtual paleo-habitats are just a few of the features that make it a must-go destination for dinosaur lovers, fossil collectors or just about anyone who has ever wondered what life was like when dinosaurs roamed the Earth. Inside the 11,000-square-foot exhibition space within the Perot Museum of Nature and Science, you'll discover awe-inspiring fossil finds like the infamous predator Tyrannosaurus rex or the plant-eating Alamosaurus. You'll also discover how plants and animals have adapted to changing conditions over the millennia — and you'll have the chance to introduce beneficial adaptations of your own as you create a virtual animal to do battle in their videogame challenge.



ABOUT THE ARTIST

Wildlife and natural history artist Karen Carr has displayed her artwork, in both traditional and electronic media, in publications, zoos, museums and parks across the United States, Japan and Europe. Her most recent works include major illustration projects and publications for the Smithsonian Institution, the Audubon Society, Random House, HarperCollins and others, and she has authored or illustrated more than a half-dozen recent books for young readers. While at The University of Texas at Austin, Karen studied natural sciences and physics in addition to her studies in art. While there, Karen received a prestigious Ford Foundation scholarship in recognition of her illustration and life-drawing skills. Karen completed her baccalaureate studies with a Bachelor's of Fine Arts degree from North Texas State University.

CONNECTIONS

The Hudson River School was a mid-19th century American art movement embodied by a group of landscape painters whose aesthetic vision was influenced by romanticism. The paintings for which the movement is named depict the Hudson River Valley and the surrounding area, including the Catskill, Adirondack, and the White Mountains; eventually works by the second generation of artists associated with the school expanded to include other locales in New England, the Maritimes, the American West, and South America.

Hudson River School paintings reflect three themes of America in the 19th century: discovery, exploration, and settlement. The paintings also depict the American landscape as a pastoral setting, where human beings and nature coexist peacefully. Hudson River School landscapes are characterized by their realistic, detailed, and sometimes idealized portrayal of nature, often juxtaposing peaceful agriculture and the remaining wilderness, which was fast disappearing from the Hudson Valley just as it was coming to be appreciated for its qualities of ruggedness and sublimity. In general, Hudson River School artists believed that nature in the form of the American landscape was an ineffable manifestation of God, though the artists varied in the depth of their religious conviction. They took as their inspiration such European masters as Claude Lorrain, John Constable and J. M. W. Turner. Their reverence for America's natural beauty was shared with contemporary American writers such as Henry David Thoreau and Ralph Waldo Emerson. Several painters, such as Albert Bierstadt, were members of the Düsseldorf school of painting.

When Dinosaurs Roamed
Teacher Resource Package

While the elements of the paintings were rendered realistically, many of the scenes were composed as a synthesis of multiple scenes or natural images observed by the artists. In gathering the visual data for their paintings, the artists would travel to extraordinary and extreme environments, which generally had conditions that would not permit extended painting at the site. During these expeditions, the artists recorded sketches and memories, returning to their studios to paint the finished works later.

Thomas Moran (February 12, 1837 – August 25, 1926) from Bolton, England was an American painter and printmaker of the Hudson River School in New York whose work often featured the Rocky Mountains. Moran and his family took residence in New York where he obtained work as an artist. He was a younger brother of the noted marine artist Edward Moran, with whom he shared a studio. A talented illustrator and exquisite colorist, Thomas Moran was hired as an illustrator at *Scribner's Monthly*. During the late 1860s, he was appointed the chief illustrator for the magazine, a position that helped him launch his career as one of the premier painters of the American landscape.

Moran along with Albert Bierstadt, Thomas Hill, and William Keith are sometimes referred to as belonging to the *Rocky Mountain School* of landscape painters because of all of the Western landscapes made by this group.



DISCUSSION

Karen Carr uses a computer to create her digital paintings. Many artists today use the computer as a tool to create art through programs such as Photoshop or Illustrator. How is this different than traditional methods such as drawing or painting on canvas? Are there advantages to using a computer when creating art? Why?

In Cretaceous Marine Environment what color scheme is used? Are the animals different than what we would see in the ocean today? What is happening in the picture? Can you name the animals in the painting?

Karen Carr's Audubon Insectarium Wall: Ancient Life Mural focuses on insects and small animals of the Cretaceous period. The environment of the Cretaceous period was very different than today. Why is the foliage so lush and green? What color scheme is used? Can you find the focal point of the painting? What plants in the painting do we have growing today?

Texas Cretaceous Coastal Landscape illustrates the landscape, environment and dinosaurs in the area that would be Texas today. Is there an animal in this painting that is alive today? What plants in this painting do we see in our current landscape? Can you tell what time of day it is? Why do you think so? Where is the light coming from? What color scheme did Karen Carr use? What is happening in the painting? Could you write a story or poem about the painting? How would you feel if you were suddenly transported into this picture? Are there any dinosaurs that would be dangerous in this painting? How can you tell?

Wayne Atchison Animals and Ironworks



Cretaceous Caterpillar
 Found Objects: Iron

ARTWORK

Cretaceous Caterpillar created by Wayne Atchison is made from old found object iron parts. He finds and collects the parts that would normally be thrown away. His inspiration for the work comes from the parts themselves, as he allows them to speak to him through their shape and form. Growing up in a family of mechanics and welders in rural Alabama, Wayne learned welding and the art of "making something out of nothing" by seeing how things fit together. Creating things from old paint, metal and wood was a childhood pastime. There were no art classes in public schools and the only artist in the community was a local sign painter. The family was not thrilled when they learned that Wayne planned to enroll in Auburn University to study art.

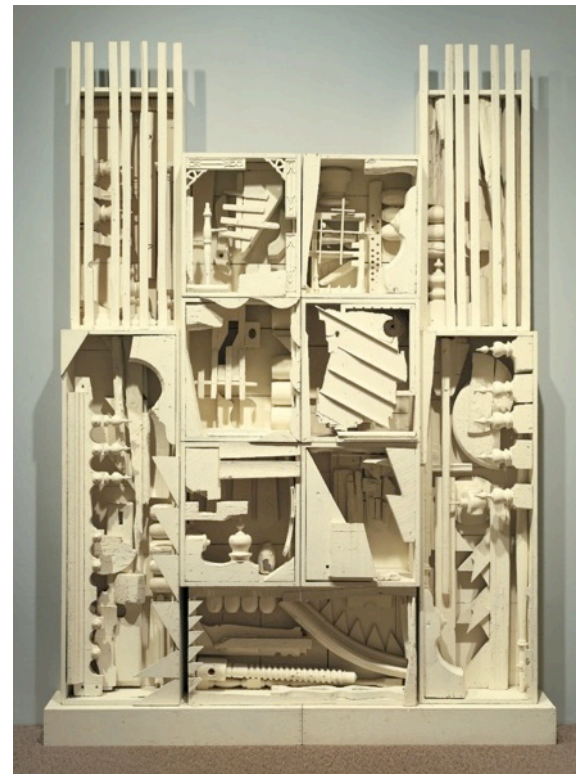
ABOUT THE ARTIST

As a co-op student Wayne Atchison paid most of his tuition by welding and repairing construction equipment. He attended Auburn University, which had a staff of world-class instructors and from them he learned many principals of art and design. Among the lessons learned was the "Red Hammer" practice, which has served him well in art, life and business throughout his career. In his studio Wayne Atchison has a red hammer that he keeps handy. As the artist stated, "The Red Hammer practice demands that if something is created that is not up to the standard of being your best, hammer it and start again."

The pursuit of a business career in advertising led Wayne to a career in business concept development where he used the principals of art to develop national advertising and implement business development. The skill of seeing how things work together served him well. Along the way he developed his skills as a photographer, silversmith, woodworker and oil painter. Through these skills, Wayne has placed many pieces of his work in private collections throughout the United States. Wayne lives on the banks of beautiful Lake Jordan in Titus, Alabama with his wife Kathy where he continues his work as an artist.

CONNECTIONS

Louise Nevelson emerged in the art world amidst the dominance of the Abstract Expressionist movement. In her most iconic works, she utilized wooden objects that she gathered from urban debris piles to create her monumental installations - a process clearly influenced by the precedent of Marcel Duchamp's found object sculptures and "ready-mades." Nevelson carefully arranged the objects in order to historicize the debris within the new, narrative context of her wall sculptures. The stories embodied within her works resulted from her cumulative experiences - as a Jewish child relocated to America from Russia, as an artist training in New York City and Germany, and as a hard-working, successful woman. Her innovative sculptural environments and success within the male-dominated realm of the New York gallery system inspired many younger artists, primarily those involved in installation art and the Feminist art movements.



Louise Nevelson, Dawn's Wedding Chapel II, 1959 70.68a-m

Louise Nevelson Key Ideas

Although Nevelson's artistic subject matter included her personal feelings about an uprooted childhood, clashing cultures, and nature's divinity, the common thread of feminine biography dominated her output. Nevelson purposefully selected wooden objects for their evocative potential to call to mind the forms of the city, nature, and the celestial bodies. While the individual pieces had an intimate scale, they became monumental when viewed holistically within the combined environment of the assemblage. Although Nevelson found her fame creating wooden structures, in the

1960s and 1970s she explored industrial materials like plexiglass, aluminum, and steel. These new materials allowed her to expand the scale and complexity of her works, while also moving the sculptures out of galleries and museums and into public spaces. Nevelson's dramatic sculptures paved the way for the dialogues of the Feminist art movement of the 1970s by breaking the taboo that only men's artwork could be large-scale. Her works initiated an era in which women's life history became suitable subject matter for monumental artistic representation.

DISCUSSION

Wayne Atchison created his Cretaceous Caterpillar using found objects. What material are the objects made of? Can you guess what the different parts are? Is this object real? Do you think it is funny? Scary? Can you name other insects that you would see in the Cretaceous period? Could you write a poem about this work of art? The different objects that make up Cretaceous Caterpillar were welded together by the artist. Have you ever seen a welder? What do they do? If you were given a group of objects and asked to make an animal, how would you assemble them? What would you use?

RICK SPEARS
 The Art of Creating Models



Juvenile *Albertosaurus*
 Polyurethane Plastic

ARTWORK

This juvenile *Albertosaurus* is a copy of an original sculpture created for a Cretaceous diorama featuring a life-size mother *Albertosaurus* returning to her nesting site with food for her babies. The plan for the exhibit was to show five juveniles hungrily attacking a duck-billed dinosaur leg their mother had just brought home. Instead of sculpting five individual dinosaurs, Rick Spears sculpted one... but in different pieces. The head, jaw, neck, body, arms, legs, feet and tail were all sculpted separately. The pieces were sculpted in a self-hardening epoxy clay, then rubber molds were created from each element. Pieces for the models were then cast in a quick-setting polyurethane plastic. Glass taxidermy eyes were cast into the heads. Because they were made in separate pieces, the little dinosaurs could be glued together in different poses. After the glue had set and seams patched with more epoxy clay, the hungry juvenile dinosaurs were painted and placed into the diorama.



ABOUT THE ARTIST

Rick Spears readily admits to a life long obsession with dinosaurs and things prehistoric. He received his BFA in Graphic Design from the University of Georgia in 1986 and studied Fine Art at the University of Tennessee at Chattanooga. In addition to his work at the Fernbank Science Center, he is the Coordinator of National Fossil Day in Georgia and is associated with the DeKalb County School District. He has also worked with Rock Eagle Natural History Museum, Eatonton, GA and Tideland Nature Center, Jekyll Island, GA. For over 25 years, Rick Spears has made models of dinosaurs and other prehistoric animals for museums, schools, and private collectors. While sculpting and drawing all his life, he didn't make his hobby a profession until he saw a life-size allosaurus model being built in an abandoned storefront and was inspired to make his own. The rest is prehistory.

His presentation on Saturday, April 11, 2015 at 11am, "Art and Science and Making It Up As I Go Along: *How to Create Paleo Restoration Models* will show his techniques and materials for building such models which range from high-tech (fast-setting resins) to low-tech (paper mache), and will possibly inspire others to make their own models.

Connections

The Crystal Palace Dinosaurs, also known as Dinosaur Court, are a series of sculptures of extinct animals (including dinosaurs) and mammals in Crystal Palace Park, now in the London borough of Bromley. Commissioned in 1852 to accompany the Crystal Palace after its move from the Great Exhibition in Hyde Park and unveiled in 1854, they were the first dinosaur sculptures in the world, pre-dating the publication of Charles Darwin's *On the Origin of Species* by six years. While to varying degrees inaccurate by modern standards, the models were designed and sculpted by Benjamin Waterhouse Hawkins under the scientific direction of Sir Richard Owen, representing the latest scientific knowledge at the time. The models were classed as Grade II listed buildings from 1973, extensively restored in 2002, and upgraded to Grade I listed in 2007.

The models represent fifteen genera of extinct animals, not all dinosaurs. They are from a wide range of geological ages, and include true dinosaurs, ichthyosaurs, and plesiosaurs mainly from the Mesozoic era, and some mammals from the more recent Cenozoic era.



Following the closure of the Great Exhibition in October 1851, Joseph Paxton's Crystal Palace was bought and moved to Penge Place atop Sydenham Hill, South London by the newly formed Crystal Palace Company. The grounds that surrounded it were then extensively renovated and turned into a public park with ornamental gardens, replicas of statues and two new man-made lakes. As part of this renovation, Benjamin Waterhouse Hawkins was commissioned to build the first-ever life-sized models of extinct animals. He had originally planned to just re-create extinct mammals before deciding on building dinosaurs as well, which he did with advice from Sir Richard Owen, a celebrated biologist and palaeontologist of the time. Hawkins set up a workshop on site at the park and built the models there. The models were displayed on three islands acting as a rough timeline, the first island for the Paleozoic era, a second for the Mesozoic, and a third for the Cenozoic. The models were given more realism by making the water level in the lake rise and fall, revealing different amounts of the dinosaurs. To mark the launch of the models, Hawkins held a dinner on New Year's Eve 1853 inside the mould of one of the *Iguanodon* models.

Discussion

Artist Rick Spears creates sculptural models of animals and humanoids from pre-history. They are used in exhibits and dioramas to give us an understanding of what something looked like. Do you know what a diorama is? What kind of training would you need to do this type of work? What type of clay are the models made from? Do you know what a cast is? Can you describe the Juvenile Albertosaurus? Is it a carnivore or an herbivore? What color is the model? Do we really know what color it should be? What is he doing? Can you write a story that describes what the Juvenile Albertosaurus is doing? Where do you think it's mother is and what is she doing?

JERRY ARMSTRONG

Cosmic Art: Meteorites and Impacts



ARTWORK

The Wetumpka Impact Crater Commission in _ commissioned Jerry Armstrong to create this five works that tell the story of the Wetumpka Impact. It features an Appalachiosaurus, which was discovered by Dr. David King in South Montgomery County, Alabama and an ammonite that has washed up on the beach. The work depicts the Wetumpka area during the Cretaceous period, about 85 million years ago. At that time, a shallow sea covered Wetumpka, Alabama and the area where Eclectic, Alabama is today would have been composed of barrier islands. Armstrong is depicting the incoming meteor strike in Wetumpka, Alabama at sunset. The use of a primarily pastel color palette seems tranquil, but is juxtaposed against grey stormy clouds and the vivid green Appalachiosaurus that is the focal point of the work. The Appalachiosaurus featured in this work is unique to Alabama and although massive, was considerably smaller than T-rex.

ABOUT THE ARTIST

Jerry Armstrong is a well-known meteorite collector and a cosmic artist whose paintings are highly sought after. He has been an amateur astronomer for decades and discovered a supernova in M51 on April 1, 1994, beating the heavily-funded Berkely search team by 40 minutes with nothing but his telescope, a timely photograph and a deep understanding of that galaxy's typical features. While all of his artwork is absolutely fantastic, it is his

meteorite-related paintings that are most catching. Much of his work resides in the "Falling Rocks Collection" of Dave Geeshling, which includes illustrations of many other meteor impacts throughout the world. Jerry Armstrong was commissioned by the Wetumpka Impact Crater Commission to create five paintings representing various aspects of the meteor impact in Wetumpka, Alabama. Cosmic artist, Jerry Armstrong will present a lecture about his work as an artist and his passion for meteorites, Saturday, Feb 28, at 11am.

CONNECTIONS

"Space art" (also "astronomical art") is the term for a genre of modern artistic expression that strives to show the wonders of the Universe. Like other genres, Space Art has many facets and encompasses realism, impressionism, hardware art, sculpture, abstract imagery, even zoological art. Though artists have been making art with astronomical elements for a long time, the genre of Space Art itself is still in its infancy, having begun only when humanity gained the ability to look off our world and artistically depicted what we see out there. Whatever the stylistic path, the artist is generally attempting to communicate ideas somehow related to space, often including an appreciation of the infinite variety and vastness which surrounds us. In some cases, artists who consider themselves Space Artists use more than illustration and painting to communicate scientific discoveries or works depicting space, some have had the opportunity to work directly with space flight technology and scientists in attempts to expand the arts, humanities, and cultural expression relative to space exploration.



The Beta Lyrae binary in the sky of an airless planet, after the painting by Chesley Bonestell.

When Dinosaurs Roamed Teacher Resource Package

Practitioners of the visual arts have for many decades explored space in their imaginations using traditional painting media and many are now using digital media toward similar ends. Science fiction magazines and picture essay magazines were once a major outlet for Space Art, often featuring planets, space ships and dramatic alien landscapes. Chesley Bonestell, R. A. Smith, Lucien Rudaux, and Ludek Pesek were some of the major artists in the early days of the genre actively involved in visualizing space exploration proposals with input from experts in the infant rocketry field anxious to spread their ideas to a wider audience. A strength of Bonestell's work in particular was the portrayal of exotic worlds with their own alien beauty, often giving a sense of destination as much as of the technological means of getting there.

Space artists may work closely with space scientists and engineers to help them to visualize and develop their scientific and technological concepts of making the dream of space exploration a reality. Other forms of pictorial Space Art bring the viewer to inner visions inspired directly or otherwise by the fruits of the expanding vision of Humanity. Some aspects of such art pay visual homage to outer space, popular ideas of life on other worlds including alien visitation visions, dream symbology, psychedelic imagery and other influences on contemporary visionary art.

Now that artists have experienced free-fall conditions during flights flown with NASA, the Russian and French Space Agencies, and with the Zero Gravity Arts Consortium, new methods of artistic expressions unknowable today will unfold as artists imagine new ways to utilize microgravity environments to create artistic works. Although such dreams await substantial opportunity, early efforts by artists to have art pieces placed in space have already been accomplished with painting, holography, microgravity mobiles, floating literary works, and sculpture.

Chesley Bonestell (January 1, 1888 – June 11, 1986) was an American painter, designer and illustrator. His paintings were a major influence on science fiction art and illustration, and he helped inspire the American space program. An early pioneering creator of astronomical art, along with the French astronomer-artist Lucien Rudaux, Bonestell was dubbed the "Father of Modern Space Art".

DISCUSSION

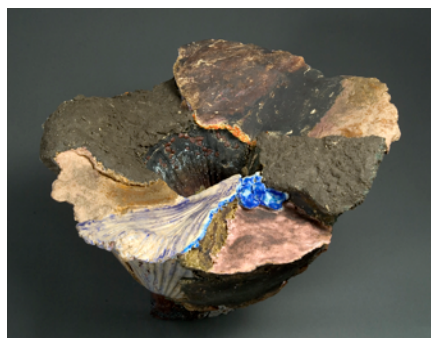
Jerry Armstrong's work is deceptively beautiful. Why do you think it is deceptive? Is it the use of his color scheme? Where is the light coming from? Can you describe what the weather is like? What is happening in the painting? Can you name the dinosaur in this painting? What do you think it is doing? What is the focal point of the painting? Can you tell what time of day it is? Why? This is an illustration of the Wetumpka area around the time that it was struck by a meteorite 85 million years ago. Can you describe it? Could you write a story about what is happening?

LARRY PERCY

Geologically Speaking: The Kerygma Series



KERYGMA SERIES
 Offering Vessel XXV
Shiprock Sailing, Shell Crater
 Cone 6 Oxidation
 52" x 24" x 14"
 ca. 2013



KERYGMA SERIES
Emotional Caldera
 Multi-Fired Stoneware,
 Sagger Fired Earthenware
 16" x 18" x 17"
 ca. 1995-2003

ARTWORK

Eight thousand feet up in the mountains of northern New Mexico sits a log cabin that Larry Percy's great-grandfather bought in 1934. He spent a good portion of the first eleven summers of his life there and continues to return annually with his family. Traveling from western Oklahoma where he grew up and later across the plains of Kansas was always a seminal journey for him. The transitions in the landscape from arid plains to desert to sub-alpine forest, all visually fascinating, provided much stimulus and inspiration for his work both in terms of form and concept.

The Kerygma Series explores this idea of journey and its relationship to an eclectic group of concepts dealing with analogies between the elements of geological formations of earth, clay and stone and conditions of the human spirit.

When Dinosaurs Roamed Teacher Resource Package

Ascending into the mountains and leaving behind the harshness of arid mesas is symbolic not only of physical respite from the “daily round,” but spiritual transformation as well. These sculptural vessels are physically about a sense of place but also are meant to evoke a spirit of being. As C.S. Lewis’ protagonist in “*The Great Divorce*” explains to one seeking spiritual fulfillment, “Every one of us lives only to journey further and further into the mountains.”

Those journeys to Northern New Mexico carried tremendous spiritual significance for Larry Percy in what Lucy Lippard refers to as “the restless artist’s preoccupation with travel, navigation, and mapping [that] is often an attempt to address and reconcile the mythic relationship between the daily round and the road to spiritual achievement.” Clay is earth and it is about journey and transformation. As the artist stated, “I am in constant awe as I reflect on the forces of nature and the element of time involved in sculpting these landforms.”

While Percy’s roots are in wheel thrown pottery, this body of work can best be described as ‘sculptural vessels’ that are inspired by visual stimuli encountered on journeys to the desert/mesa/mountain regions of the Southwestern United States. He stated, “I guess that idea of journeys westward is just in my blood”.

ABOUT THE ARTIST

Larry Percy, artist and educator, was born and raised in Clinton, a small rural town on the western Oklahoma plains. He lived two blocks off of Route 66 and worked at his fathers’ ice plant located right on 66. As a young boy, he frequently traveled this route to New Mexico to a family cabin long before it became Interstate 40 and these annual journeys became seminal experiences in his development as a visual artist.

Percy began his relationship with ceramics during his senior year in high school. He started that year with his left arm in a cast. Being left handed, he didn’t think he could paint or draw so his teacher gave him some clay to work with. When the cast came off in October, he threw his first pot on the wheel and was hooked. Percy stated, “I knew then that clay would be very much a part of my life.”

Percy studied at Southwestern Oklahoma State University under Montee Hoke, acclaimed as the “Dean of Oklahoma Potters”. Larry acquired a B.S. in Art Education (1978) and a M. Ed (1986) at Southwestern. He earned his MFA, with Honors, from the University of Kansas in 1994 where he credits Joe Zeller, David Vertacnik and Jon Swindell as being major influences.

Exhibiting extensively throughout the Midwest, Southwest and Eastern United States, Percy has won numerous regional and national awards and participated in many juried exhibitions. He was the recipient of the AT&T Merit Award at the Staten Island Institute of

When Dinosaurs Roamed
Teacher Resource Package

Arts & Sciences 1995-96 Biennial in New York City where one of his works is in the museum's permanent collection. He has also been featured in a two-person exhibition entitled "*Sticks & Stones*" at the Mobile Museum of Art in Mobile, Alabama.

Prior to arriving in Alabama, Larry spent 16 years in public school art education in Oklahoma and Kansas. Larry is married to Annie, his wife of 26 years and is the proud father of two teenage sons, Brice and Tyler. He and his family reside in Troy Alabama, where he teaches as an Assistant Professor of Art & Design at Troy University.

CONNECTIONS

When it comes to geology, art and science are like two grownup siblings of very different temperaments. Only lately have they begun to enjoy each other's company—though there remain gaps in understanding each other.

Earth Art Origins: It took a whole century of geologic progress, and the popular success of Darwin, Agassiz, and Wegener, to teach the public new ways to see Earth. It took that century to establish the Earth's fantastic age and to start learning the stories of its fossil inhabitants. Perhaps only then did artists see that geology offered them new insights. Perhaps it was merely industrial progress, inflating the artistic (and human) ego to compete in scale with nature itself for the first time, that led artists to articulate the new situation. In any case, not until the mid-20th century did something called "earth art" arise. Before that, artists had little to say about geological subjects. Picturesque or documentary landscapes, and industrial kitsch were about all. But then artists stepped out of the atelier and into the field, with ambitions to match the landscape. The simple eloquence of the work (if not always the artist), the influence of the masters, and the enthusiasm of the art establishment spawned a lively and continuing sector called earth art or land art. Some sculptors took to the giant scale, exchanging their chisels for backhoes and their clay for the ground itself. They had more to say than Gutzon Borglum's statement carved on Mount Rushmore. Still, with most of the movement it isn't clear what their ties were with earth science.

Giants in the Earth: Foremost of these was Robert Smithson, who died prematurely in 1973. His huge "Spiral Jetty," a mass of rocks built from Rozel Point into Great Salt Lake in 1970, is depicted in many places on the Web. He had a line of Delphic patter to go with the works; typical was: "*I'm not all that interested in the problems of form and anti-form, but in the limits and how these limits destroy themselves and disappear.*"

Some artists linked up with corporate sponsors, using money shaken loose by environmental laws, to do artistic experiments with large industrial sites like old pit mines. Some of these works have a mute and unsettling grandeur; others are closer to variety-garden landscape architecture. Really amazing earth artworks, as with so many other things, are made by artists with the space and time to follow their visions to the limit. After Harvey Fite spent almost forty years of rummaging around his old quarry site near Woodstock, New York, the result was a lush, user-friendly rock park, a fantasyland in stone called "*Opus 40*". This

wonderful place is open to the public on summer weekend afternoons, except when weddings are being held there.

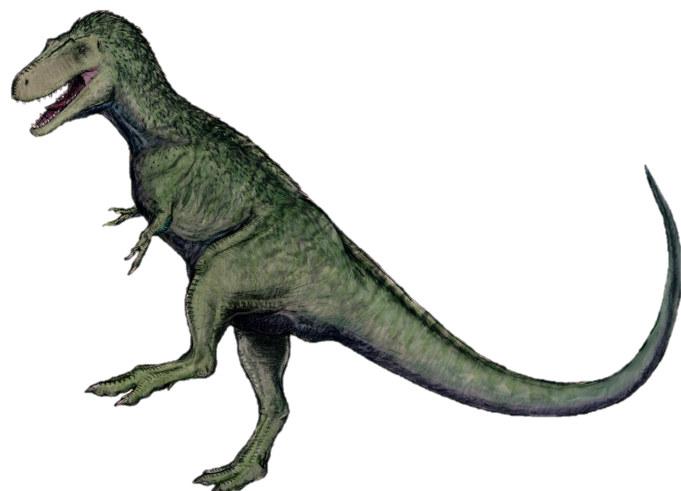
The World's Eye: The most ambitious of the gigantic old-style Earth Art pieces is still under construction. Since 1972 James Turrell has been sculpting a natural volcanic site, Roden Crater in the Arizona desert, into a place to space out. One way to look at it is that Turrell is carving out a giant eye looking straight up into space, like the spurious "face on Mars" only for real. You could lie at the bottom of that eye and see only the sky, perfectly framed in the crater's rim with no structures or guided-tour audio to get in the way. Tunnels and chambers in the crater's sides would be there for the sun or moon to shine on at the right time of year, reminiscent of the prehistoric astronomical observatories that dot the American West and other desert places. Words can't do justice to the Roden Crater concept, but many writers have tried. If Turrell's project succeeds, Roden Crater will stand through the ages as the greatest triumph of Earth Art—and perhaps of all art.

DISCUSSION

What material is Larry Percy using to create his sculptures? Are they rough? Smooth? What do you think the artist was trying to portray? What do you think he was trying to say? What color scheme is being used? Why? Sculpture is three-dimensional. What does that mean? Sculpture is meant to be seen from every side, all the way around and on top. How is a sculpture different from a painting? The work seems to be very natural. Have you seen rocks in Wetumpka that resemble these sculptures? Where did you see them? Why do we have upturned rocks, hills and small mountains in Wetumpka? If you were creating a geological work of art, what materials would you use? What do you think influenced the artist? Are the sculptures realistic or abstract? Why do you think so?

ASHER ELBEIN

Dinosaurs of Alabama: Illustration



Appalachiosaurus
Mixed Media & Digital Illustration



Pteranodon
Mixed Media & Digital Illustration

ARTWORK

As a student the University of Alabama, Tuscaloosa, Alabama Ashere Elbein embarked on a project to illustrate ten Alabama dinosaurs in consultation with Dana Ehret of the Alabama Natural History Museum and Jun Ebersole of the McWayne Science Center. The work was based on actual Alabama fossil finds and was produced using both traditional drawing media and digital media. We really do not know the coloration of dinosaurs for the most part, but in some cases he used examples of current animals as a reference to help make those decisions.

ABOUT THE ARTIST

Asher Elbein has been sketching dinosaurs (with varying degrees of accuracy) since he was a kid. His dinosaur art has been published in the magazine Prehistoric Times and is easily view-able online at ashere.deviantart.com. Asher works as a freelance writer in Austin, Texas, writing about natural history and folklore--though he still makes time to sketch the odd dinosaur or two.

CONNECTIONS

An illustration is a visualization or a depiction made by an artist, such as a drawing, sketch, painting, photograph, or other kind of image of things seen, remembered or imagined, using a graphical representation. The word comes from the latin word *illustra'tio*, *illu'stro* meaning enlighten, irradiate. Printing is the current process for reproducing illustrations, typically with ink on paper using a printing press. Illustrations can be artistic images illustrating for example a text, poem, fashion, magazines, stamps or a book and very often illustrations were made for children's books. The aim of an illustration is to elucidate or decorate a story, poem or piece of textual information by providing a visual representation of something described in the text. Illustrations can also represent scientific images of flora, medicine or different processes, a biological or chemical processes or technical illustrations to give information on how to use something. Illustrations can be executed in different techniques, like watercolor, gouache, ink, oil, charcoal chalk or woodcut.



Plate 1, Wild Turkey
 Birds of America
 James John Audubon

John James Audubon (April 26, 1785 – January 27, 1851), born Jean-Jacques Audubon, was an American ornithologist, naturalist, and painter. He was notable for his expansive studies to document all types of American birds and for his detailed illustrations that depicted the birds in their natural habitats. His major work, a color-plate book entitled *The Birds of America* (1827–1839), is considered one of the finest ornithological works ever completed. Audubon identified 25 new species.

DISCUSSION

Appalachiosaurus was discovered by Dr. David King in Montgomery County, Alabama. Dr. King is a Professor of Geology at Auburn University, Auburn, Alabama. What is a geologist? What does a geologist do? Ashere Elbein's illustrations were created from looking at fossils from the Natural History Museum at the University of Alabama. Do you know what a fossil is? How is a fossil formed? How would you feel if you discovered a fossil? Imagine that you are a geologist one million years from today... What do you think you would discover?

JON HUGHES Cretaceous Dinosaurs



Cretaceous Landscape
Digital Painting

ARTWORK

“Cretaceous Landscape” created by Jonathon Hughes recreates the environment of the late Cretaceous period and included many dinosaurs, insects and early mammals that lived at that time. The plant life would have included a variety of lush vegetation including ferns and palms, much like what we would see in a coastal forest of the Southeast. Hughes rendered the plants and flowers of the wilderness in meticulous detail in this ideal Cretaceous landscape, most likely derived from an area of rural Thailand where he lives. A botanist (plant scientist) could actually identify most of the plants in this painting, as they are so detailed. Hughes depicts the moments just before the “end of the dinosaurs” including in the composition, the incoming meteor that landed in the Yucatan about 65 million years ago. The mood is peaceful, and balmy utilizing a variety of warm colors, particularly yellow and green. The artist combined detailed renderings of the natural world and the effects of light and color to evoke the feeling of the steamy climate at of the time. In this work Hughes does not depict the normally violent behavior of carnivorous dinosaurs and their voracious appetite, but rather focuses on the incoming meteor as all eyes seems to be turned toward it.

ABOUT THE ARTIST

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, tv shows and even merchandising.

CONNECTIONS

The Hungry Lion Throws Itself on the Antelope (*Le lion ayant faim se jette sur l'antilope*) is a large oil-on-canvas painting created by Henri Rousseau in 1905. Following *Scouts Attacked by a Tiger* the previous year, *The Hungry Lion* was the second jungle painting to mark Rousseau's return to this genre after a 10-year hiatus caused by the generally negative reception to his 1891 painting *Tiger in a Tropical Storm*.



The Hungry Lion features in a jungle scene of thick green foliage lit by a deep red setting sun. In the foreground, a lion bites deeply into the neck of an antelope. Other animals are visible in the dense undergrowth: a panther watches from the right, an owl stares out of the background holding a bloody strand of meat in its beak in the centre, with a second bird to its left, and dark ape-like shape with gimlet eye lurks to the left. Rousseau based the central pair of animals on a diorama of stuffed animals at the Paris Muséum national d'histoire naturelle, entitled *Senegal Lion Devouring an Antelope*.^{[2][3]}

Rousseau's first jungle painting, *Tiger in a Tropical Storm*, was rejected by the Académie de peinture et de sculpture for their official Paris Salon, but he was able to show it at the 1891 Salon des Indépendants. Despite his increasing reputation, Rousseau continued to exhibit his works at the annual Salon des Indépendants, but *The Hungry Lion* was first shown at a third show, the Salon d'Automne, in 1905, alongside works by Matisse and Derain. Rousseau wrote a longer subtitle or caption to accompany his painting:

When Dinosaurs Roamed
Teacher Resource Package

The lion, being hungry, throws itself on the antelope, [and] devours it. The panther anxiously awaits the moment when it too can claim its share. Birds of prey have each torn a piece of flesh from the top of the poor animal which sheds a tear. The sun sets.

DISCUSSION

Jonathon Hughes painting shows a Cretaceous landscape with dinosaurs and an incoming meteor. Can you name the dinosaurs? Can you describe what sounds dinosaurs might be hearing or making? What time of year to you think it is? Does it look like the air is warm? Or cool? What do you see that makes you think so? Can you make up a short story that tells what is happening and what the dinosaurs might be thinking? What do you think is going to happen? Can you describe what the dinosaurs will do? What is the focus of this painting? Where do you think the landscape is located? What is the weather like? What time of day is it?

Classroom Activities and Discussion Questions

- What's the News About the Crater?

Imagine you are a newspaper journalist. You have just arrived back in time to Wetumpka, Alabama, 85 million years ago. Your job is to write about your experience. Develop a list of questions you will need to answer about this time period. Write a newspaper article to describe your experience.

- Journey to the Center of the Earth

Imagine that you are a time traveler and have traveled back in time 85 million years ago in a time travel machine that you created. Write a fantasy story about what you find. How will you get there? What does this place look like? Who will be there and what will happen? When will the adventure take place?

- Over Moccasin Gap Falls in a Barrel

The rocks in the Coosa River are considered to be ejecta from the meteor impact of the Wetumpka Crater. When you visit or float the Coosa River you can see the enormity of the rocks that were deposited there and the unusual angles and forms that were created by the event. Water passes over Moccasin Gap falls at a rate of _____ (how many) cubic feet per second. How many cubic feet pass over Moccasin Gap falls in 60 seconds? In 10 minutes? Convert cubic feet to gallons and liters using the formula below. How many gallons and liters pass over Moccasin Gap falls in a second, 1 minute, 10 minutes?
 Number of cubic feet x 7.480519 = gallons
 Number of cubic feet x 28.316847 = liters
 Number of gallons x 3.785412 = liters

- Save the Forest!

During the Cretaceous period, Alabama was part of an interior sea that cut through the United States. During that period of time the climate was much warmer and sea levels rose and fell creating coastal areas and barrier islands. During this time the natural environment was a part of climate change and of course there were no humans or factories. Today our civilization and practices are a part of climate change. At what point in United States history did Americans recognize the toll that "civilization" has on the land and the natural resources? Have students investigate what steps were taken to monitor and/or preserve the disappearing wilderness. Research 19th- and early-20th-century conservationists such as Theodore Roosevelt, Gifford Pinchot (leader of the Forest Service), and naturalist John Muir. Discuss contemporary environmental issues facing your community, city, or state. Create a poster to promote awareness of the value of a natural resource or endangered species.

- Living with Dinosaurs

Much of Karen Carr's works are a compilation of many different outlooks that she sketched and then combined to form an effective and dramatic picture. First, have each student research and sketch a variety of dinosaurs. Then, have each student select an area near home or school to sketch at various times. Record the natural elements and buildings as well as the colors, shapes, and lines that can be seen in the area over time. Have each student combine the most interesting dinosaurs and views into one picture, creating an ideal representation of dinosaurs living with us today. Display and discuss.

When Dinosaurs Roamed Teacher Resource Package

- Wayfinding

Find Wetumpka on a map. What is the distance between Birmingham and Wetumpka by land, water, and air? Calculate the rate of speed for different modes of transportation. How long would the journey take on each mode of transportation? Research and calculate the approximate speeds of different dinosaurs. How long would the journey take if you were riding on the different dinosaurs? Compare our current transportation speeds to those of riding on a dinosaur. Develop math sentences to compute the distances and times.

- Designing Wetumpka, Alabama for the New Millennium

If you have traveled to Wetumpka, Alabama, and the Wetumpka Impact Crater how are Cretaceous paintings different from what you saw? If you have not traveled to Wetumpka, take an online journey to artquest.wix.com/wetumpkacrater art. How has human activity changed the natural landscape today? What industry and/or recreation surrounds this natural wonder today? Imagine you are a city planner in the year 2050. Sketch the area surrounding the Wetumpka landscape as you would develop it for the new century.

- Water, Water Everywhere

Look at Jerry Armstrong's painting about the Wetumpka Impact Crater. Have students explain the five water cycles. How many of the cycles can they find in this painting? Have students sketch a section of the picture that correlates with a water cycle.

	Water Cycle Sketch
Percolation A process in which water filters through the soil and is absorbed by plants.	
Transpiration A process in which plants give off moisture through leaf surfaces.	
Evaporation Water vaporizes into the air.	
Condensation Cool air causes water vapor to form into a cloud.	
Precipitation Cloud falls to the ground as rain	

VOCABULARY TERMS

Abstract – Art derived from realism but deviating in appearance; maintaining the essentials of shape, line, color, and texture relating to the subject.

Abstract expressionism – An American movement in the 1940s and 1950s that emphasized feelings and emotions; often called “action painting” because many artists used slashing brushstrokes and dripped, poured, or spattered paint on canvas.

Aesthetics – A philosophy dealing with the nature and expression of beauty, as in the fine arts.

Analogous – Three or more colors that are closely related because they contain a common hue and are adjacent on the color wheel. Blue, green-blue, and green are analogous colors. Analogous colors may be used as a color scheme.

Art criticism – Art processes and skills involved in studying, understanding, and judging a work of art; the four formal steps involve description, analysis, interpretation, and judgment.

Atmospheric perspective – Creating the illusion of distance on a flat surface by simulating the effects of light and air on an object; for example, a bright object appears closer to the viewer than a dull object. (Also called aerial perspective.)

Background – The part of the picture plane appearing to be farthest from the viewer.

Balance – A design principle dealing with the appearance of stability or the equalization of elements in a work of art; a balanced work of art seems to have equal visual weight or interest in all areas. Balance may be symmetrical, asymmetrical, or radical.

Coil method – A process of rolling long pieces of clay and using them to form the sides of bowls, containers, or objects.

Collage – A work of art where various materials, such as bits of paper, fabric, photographs, and found objects, are arranged and glued to a flat surface.

Collagraph – The print resulting from printing a relief collage.

When Dinosaurs Roamed
Teacher Resource Package

Complementary colors – Colors directly opposite each other on the color wheel. Red and green, blue and orange, and yellow and purple are complementary colors. They make a neutral result when mixed.

Composition – The organization of the elements of art and principles of design in creating a work of art.

Contrast – The use of opposing elements, such as color forms or lines, to produce different effects in a work of art.

Cool colors – Blues, greens, and violets. These colors suggest coolness and appear to recede from the viewer.

Critique – A critical review or commentary dealing with a literary or artistic work.

Design – The organization of the art elements and principles into a plan. (Also called composition.)

Digital media – The use of technology to capture images, sounds, and effects in the creative process.

Elements of art – The “visual tools” artists use to create works of art. These include form, shape, line, texture, color, space, and value.

- **Form** – A shape having three dimensions—height, width, and depth.
- **Shape** – An area defined by line or color.
- **Line** – The path made by a moving point that can vary in width, direction, and length.
- **Texture** – The actual roughness or smoothness of a surface or the illusion thereof.
- **Color** – The hue, value, and intensity of an object as seen by the human eye.
- **Space** – The area between, around, above, below, or within objects.
- **Value** – The lightness or darkness of a color. (See Shade and Tint.)

Foreground – The parts of an artwork that appear closest to the viewer.

Found object – Everyday objects such as cups, keys, chains, buttons, lids, and scraps that can be composed to create a work of art such as an assemblage, a collage, a stabile, a mobile, or a sculpture.

Genre subjects – Depiction of everyday life scenes.

Grotesque – A relief decorating Gothic architecture such as gargoyles and sculptures.

Intermediate (tertiary) colors – Colors made by mixing equal parts of a primary and secondary color (red-orange, yellow-orange, blue-green, blue-violet, violet-red).

Linear perspective – A technique of creating the illusion of space on a two-dimensional surface using vanishing points and lines.

Medium – Material applied in creating a work of art, such as a pencil, paint, wood, ink, metal, clay, or food.

Middle ground – Area appearing between the foreground and the background.

Mobile – A suspended construction moving about in space, creating variations of shapes, spaces, and shadows.

Monochromatic color – One color used in varied values and intensities.

Monoprint – Printing process that produces one unique copy of the same design that cannot be printed more than once.

Mosaic – Artwork made by adhering small pieces of stone, ceramic tile, or other materials to a background.

Multimedia – Referring to various media such as a camera, television, video, tape recorder, CDROM, computer, or slide projector.

Negative space or shape – The space surrounding shapes or solid forms in a work of art.

Neutral color – Black, brown, gray, and white.

Portfolio – Samples of an artist's work assembled for review.

Positive space or shape – Objects in a work of art that are not the background or the space around them.

Primary colors – Red, yellow, and blue.

Principles of design – Guidelines artists use to create works of art and control how viewers react to these works; the principles of design are balance, repetition or rhythm, unity or harmony, movement, emphasis, variety, and proportion.

- Balance – Arranging visual elements in a work of art equally; three types of balance are formal (symmetrical), informal (asymmetrical), and radial.
- Repetition or rhythm – Repeating lines, shapes, colors, or patterns.
- Unity or harmony – The oneness or wholeness of a work of art.
- Movement – The arrangement of elements in an artwork organized to create a sense of motion.
- Emphasis – Accent, stress, or importance of a part of an artwork.
- Variety – Principles of design concerned with difference or contrast.
- Proportion – The placement or ratio of one part of an artwork to another part or to the whole.

Printmaking – Producing multiple copies of an original work of art from blocks or plates.

Relief – A sculptural form such as a frieze that is raised from the surface.

Resist – Method where wax or crayon is used to cover surface areas the artist does not want to be affected by paint or dye.

Rubbings – A technique of transferring the textural quality of a surface to paper.

Secondary colors – Orange, green, and violet.

Shade – A dark value of a hue made by adding black to the color or its complement; opposite of tint.

Stabile – A metal sculpture, usually abstract, with no mobile parts.

Style – Refers to the artist's unique manner of expression.

Technique – The style or manner in which the artist uses media.

Tessellation – A mosaic pattern made by interlocking repetitive shapes to form a work of art.

Tint – A tone of color made by adding white to a basic hue.

Vanishing point – The point or points where all parallel lines appear to converge.



When Dinosaurs Roamed
Teacher Resource Package