

HANDS-ON DISCOVERIES

Where Visitors Become Scientists

BY LYNETTE LOBBAN

Rookie paleontologist Emily Soreghan, right, is unlikely to uncover a dinosaur skull like the one on the opposite page during her brief turn in the Discovery Room's simulated "dig"—but it will not be for want of trying. Using digging tools and brushes, young visitors like Emily get a taste of the effort, perseverance and patience required to extricate prehistoric bones from their sandstone graves. The "bones" are cast from actual dinosaur specimens in the museum's collections, arranged in a large sandbox, and then covered with a sand-and-paraffin mixture that hardens to look and feel like sandstone.



Robert Taylor



It is the ultimate May/December romance. Despite a 250-million-year difference in their ages, kids have loved dinosaurs ever since paleontologists began pulling fossilized bones from the earth, revealing fantastic creatures from a time beyond reach. Young visitors to the Richard and Josephine Andree Family Discovery Room will be pleased to find a world of prehistoric delights designed specifically to be *within* their reach, in every sense of the word.

“Our motto here is ‘Please, touch, but gently,’” explains Laura Vaughn, education officer and Discovery Room coordinator. “We want our visitors to experience the museum as participants, not just observers.”

The Discovery Room holds treasures for children and adults alike. The Dino Dig, a 12-foot sandbox nestled in one corner of the room, gives budding paleontologists a chance to actually dig for dinosaur “bones.” Vaughn says casts of the bones from the *Deinonychus* and *Tetanosaurus*, two species found in the Hall of Ancient Life, have been hidden beneath the sand for visitors to uncover.

“This is a copy of an actual dig that was discovered by our curator of paleontology, Dr. Rich Cifelli,” explains Vaughn. “The only thing we have changed is the position of the bones. We thought it would make more sense to the kids if the dinosaur was laid out the way it looked when it was alive, rather than in pieces.”

To simulate the conditions of a real dig, museum staffers cover the bones with an artificial matrix, a mixture of melted paraffin and sand. When this mixture hardens, it has the look and feel of sandstone. Visitors use digging tools and brushes to expose the bones.

“The idea behind this was to, as accurately as possible, mimic a real paleontological dig site, including how hard the matrix is and how long it takes to expose a dinosaur. We’ll give the kids five- to 10-minute turns to dig. It will take them awhile, but they will definitely get the feel of working as a paleontologist. It’s more than just picking bones out of sand.”

When children are not digging for dinos, they can entertain themselves with a variety of activity boxes that offer self-guided lessons in categories from ancient tools to trilobites. Complete with illustrated flipbooks, the boxes pose challenges for children and adults alike.

“The Discovery Room is designed to be a place where adults and children interact and learn together,” says Vaughn.

For example, in “Tracking the Dinosaurs Through Time,” explorers use footprints to match dinos with their proper Mesozoic period. “From the footprints, or track ways, scientists have learned how a dinosaur walked, how much it weighed, if it took care of its young, and so on,” says Vaughn. “In the Discovery Room, our visitors become the scientists.”

Another popular box is the Bison Super Store, which illustrates how Native American tribes utilized every bit of the buffalo, from bladder to bones. “It is one thing to read about how the women of the Plains tribes cleaned hides with bone implements and quite another to feel the tool with your fingers,” one mother observes. “It takes Oklahoma history from the abstract and literally places it in your children’s hands.”

The room itself invites investigation. High above the tables, the skeleton of a pilot whale swims through space, and animal heads





Robert Taylor



Ann Sherman

ABOVE: No “don’t touch” signs inhibit the learning experience of the Discovery Room’s young visitors, who are viewed as participants, not observers. The facility’s coordinator, Laura Vaughan, center, guides the investigation of Cartney Lasher, left, Caroline and Spencer Grant, Kallie Smith (to Vaughan’s right), and Russell Hobson.

LEFT: Jacob Shires, of Albany, Oklahoma, employs the Sherlock Holmes technique in examining an assortment of horns and antlers from one of the Discovery Room’s many activity boxes.

from the African savanna peer down at visitors from a colorful mural of their homeland, painted by OU art professor Pam Bradford. In the center of the room, participants can examine the intricacies of a bird feather, scales from a butterfly wing, or the complex design of a sugar crystal using a type of microscope called the WentzScope.

The WentzScope is ideally suited for children, Vaughn says, because of a large viewing area, which does not require the skill of closing one eye and peering down a tube. Another nifty device is the Flexi-cam, a camera the size of a small gooseneck desk lamp, which can be placed against the glass of an ant colony or other interesting things to magnify the image on a television screen for easy viewing.

All the activities in the room correlate to larger exhibits in the permanent galleries. “If a child is fascinated by the bison, he or she can visit the Hall of Natural Wonders and see what the animal looked like in its natural environment,” says Vaughn. “We’ll also tell you where the animal can be found today in Oklahoma, so you can get out and see for yourself. Through our exhibits, we’re trying to give visitors a better appreciation for the world around them.”

With 500 to 800 schoolchildren visiting the museum each day, creatures from the buffalo to the



Saurophaganax should be experiencing unprecedented degrees of appreciation.

In addition to the activities in the Discovery Room, children can expand their knowledge through a range of school and summer programs. “Every summer we will offer six to eight weeks of classes for children 5 to 14,” says Lynda Richter, educator officer for children’s programs. “We have a great time learning about nature in the best classroom of all—the great outdoors!” Topics include nature for beginners, reptiles and amphibians, and exploring ecology.

“During the school year we offer a series of hands-on programs exploring the life sciences,” explains Roberta Pailles, education officer for school programs. “We tailor each unit to the age of the participants. The young children have simple tasks to complete, such as matching bows, rawhide containers, and other artifacts with the raw materials they were made from. Older students are given problems to investigate, such as determining whether a set of 800-year-old artifacts is evidence of a hunting or farming way of life.

“One day we will have labs in archaeology, paleontology, and the life sciences for each age group,” she adds. “But that will take some time. We’re looking at a five-year-growth plan.”

Day trips, evenings with the curators, and weekend classes are hot picks for adult museumgoers, says Deborah Kay, education officer for adult programs.

“This past year has really been an exciting time for our adult students and staff,” she reflects. “Because we started from the ground up, we were able to go in just about any direction. If there’s a topic of interest, we



“We have a great time learning about nature in the best **classroom** of all—the great outdoors!”



LEFT: Getting wet on a hot summer day—all in the name of science—appeals to (front to back) Cameron Clagg, Travis Harris, Hunter Clausen, and Dylan and Summer Reif, who are using nets to catch crayfish and mosquito fish in the South Canadian River as part of the course, “Into the Woods.”

FAR LEFT: Anthropologist Sheila Savage, a SNOMNH Discovery Room teacher, assists Mannford High School students Grant Yandell Jr., left, Michael Standeford, and Terra Wallace in identifying the artifacts they have discovered.



Laura Vaughan

Robert Taylor

try to explore it. We’ve taken our classes to look for fossils in Southern Oklahoma and to buffalo wallows in the Wichitas.”

Kay says that the museum is getting ready to offer a botanical series that will take students from paleobotany in prehistoric Oklahoma through modern landscape. Also on the agenda are four new “Meet the Curator” programs, a tremendously popular series begun last year, which allows museum curators to share their knowledge with the community.

“We feel so fortunate,” says Kay. “It’s a rare opportunity to have the combination of so many available resources and a wealth of incoming ideas.”

