Fossil Exhibition Reveals the Prehistoric Past of the San Diego Area

On July 1, 2006, the San Diego Natural History Museum opened *Fossil Mysteries*, the largest and most comprehensive exhibition the museum has ever undertaken. Blending traditional and contemporary exhibition techniques, *Fossil Mysteries* showcases the last 75 million years in the southern California and Baja California bioregion—known among scientists for its incredibly rich fossil record that includes sharks three times the size of great whites, mammoths, sea cows, lions, dinosaurs, giant sloths, whales, walruses, saber-tooth cats, dire wolves and more.

Having conducted extensive research with museum visitors, members of the community and within the national network of museums, the exhibition developers created new and innovative methods of engaging the public, encouraging visitors to touch, think, and discover. The exhibit is unique because it takes an inquiry-based approach—meaning the visitors are presented with evidence and complex questions, then encouraged to "solve" the mysteries themselves. All mysteries, fossils and objects are centered in this region, and create a sense of place for San Diegans and inspire respect for this region in out-of-town visitors.

While nearly 100% of the specimens have been found locally, the science concepts in *Fossil Mysteries* are global. In creating the exhibition, the museum's research and exhibition staff consulted and collaborated with over 50 scientists and 20 artists and fabricators from around the world. The result is a presentation of cutting-edge scientific concepts presented in new, colorful and imaginative ways. Climate change, plate tectonics, and evolution are the themes that string together the exhibition, which is laid out chronologically. These themes and major regional events in time connect our present to the past and the future, and demonstrate the relevance of natural history in today's world.

Exhibition Curator and Curator of Paleontology, Dr. Tom Deméré, explained:

Fossils provide different kinds of information. They address questions of evolution; tell us about ancient environments and ancient ecosystems. They provide direct evidence for extinction and how it occurs "... quickly? A drawn out affair? Selective or universal? How do you know that this was a whale, this a bat?" Visitors of all ages are challenged to solve these mysteries.

Highlights of the exhibition include the following: life-size models of an *Alberatosaurus*, a *Lambeosaurus*, and a sea cow, fleshed out on one side and skeleton on the other; a fully fleshed out megalodon shark (the most accurate depiction ever created of this shark, which is the world's largest known predator); a fully fleshed out ankylosaur, based on fossil evidence found in the region (the most complete dinosaur fossil ever found in California); an articulated walrus in a giant free-standing case; a floor-to-ceiling "fossil aquarium" with actual whale bones on display, with a giant mural by world-famous paleoartist William Stout as a

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backdrop depicting all of the animals that lived in the ocean during the Pliocene; a giant-sloth and a swooping pterodactyl with a 23-foot wing span. For children, there are huggable baby animals: a mastodon, brontothere and sea cow.

Fossil Mysteries uses the universal language of art to convey complex messages. In fact, "the exhibition is a magical art exhibition in itself," says Exhibit Art Director, Jim Melli, "with giant murals painted in California plein-air style by William Stout, illustrations by Doug Henderson and Tim Gunther, animal models by Bill Monteleone, and steel sculpture by Richard Webber." The animal models were created with experimental use of materials under the direction of Melli, who sketched every plant and animal in the exhibition, created all of the maquettes for larger reproduction, and art-directed the fabrication processes.

"Accessibility for all was a major goal of the museum's creative team," explained Exhibition Designer Michael Field. "All interpretive material is presented in both Spanish and English; there's lots of touchable fossils and hands-on activities; displays and signage are the right height for kids as well as adults; the 9700-sq.-ft. floor plan is open, dynamic and flowing. The messages are conveyed in a variety of media to appeal to all types of learning preferences."

Conceived and designed by the exhibition and research staff of the San Diego Natural History Museum over a three-year period, *Fossil Mysteries* required assistance from many experts. The Exhibit Services department of the Science Museum of Minnesota fabricated the interactive components, furniture, platforms, railings and lighting, and managed the installation. Science Museum of Minnesota staff worked with a number of highly talented subcontractors from both the United States and Canada for fabrication of the animal and plant casts and models.

Fossil Mysteries is a permanent exhibit portraying some of the earliest life forms in San Diego San Diego County.



Fossil Mysteries Exhibition Hall. Photo courtesy of the San Diego Natural History Museum.