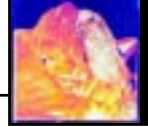


# A Visit to the Treasure Box



The exhibit halls are majestic, the research and education facilities impressive, the countless, little unseen features a tribute to foresight and ingenuity. The Sam Noble Oklahoma Museum of Natural History is one **magnificent** facility.



BY BEN FENWICK

The Roman Empire was gone, the library of Alexandria burned, and dark chaos reigned in the land that was Europe. But in Oklahoma, a complicated and beautiful event was taking place.

On a very hot day in southeastern Oklahoma, a thousand years ago, the young sacrifice-bearer's canoe bumped against the bank. She stood, deftly holding the fired clay pot of flowers, corn, and bone carvings that was her village's offering. She was 15, a woman by her tribe's standards. The hand-carved canoe, paddled many days by its tanned, sinewy handlers, swayed slightly as she placed her bare foot on the damp bank. She kept her poise, though, and held her head erect and straight, her raven hair pulled into a braid down the middle of her back, the soft cotton of her dress brightly colored by the people of the southern gulf, far beyond the river land of her people. Her coal black eyes searched and met the gaze of the priests on the riverbank. In the gentle breeze, she stepped forward and held up the basket. The wrinkled-face priest nodded in approval and gave her the sign of acceptance. Her sacrifice would be put on the great mound, a place of honor.

This moment could have happened—altered, perhaps, by details yet to be discovered. All we have of these pages from our past are clues to the moundbuilders of Oklahoma uncovered by archaeologists just in this century. If those clues disappeared, so would the woman and all she represents. As it is, when her offering is displayed at the Sam Noble Oklahoma Museum of Natural History, that woman lives again and becomes a part of us.

Baskets, bone carvings, copper jewelry, conch shells, beaded cloaks are among the millions of links to the past, in a wide range of disciplines, now lying safely beneath the copper dome of the museum, called by its director, Michael Mares, "the copper treasure box." It is difficult to picture these priceless artifacts in converted ROTC stables and W.W. II-era wooden barracks with a five-minute burn time. Yet there they languished for decades until moving to the new SNOMNH, which opened a year ago.

"We had the worst museum facilities in the nation, and now we have the best," Mares says proudly. "There is no other way to quantify it. We are light years from what we were."

Now the museum's vast collections are available for teaching, research, and public viewing in climate-controlled, secure, and comfortable surroundings. This state-of-the-art museum, boasting a full-time staff of more than 100 curators, administrators, educators, and support personnel, not to mention 250 volunteers, makes concrete a vision that many questioned would ever be realized.

"There were those points in time when it all could have been lost, and always, someone vital stepped up and helped in a critical way," Mares says. "It took a lot of people working together at every critical point."

Designed by the Norman architectural firm of Kaighn Associates, Inc., and Solomon + Bauer, Inc., of Watertown, Massachusetts, the museum was built by the Oklahoma City construction firm, Flintco. A visitor approaching the museum from the parking lot sees the structure, and unknowingly, the reason behind the form. Facing south, this visitor sees the hump of the five-story, copper-domed section that, with the east wing to the left, forms the J. Willis Stovall Oklahoma Heritage Preservation Center. The center houses the collections areas, research laboratories and libraries, and the offices of the curators. The central part on the first floor contains the educational area. To the right—or west—side are the exhibit halls.

In the research and collections area, 14 curators represent 10 different disciplines, including Archaeology, Herpetology, Ichthyology, Invertebrates, Invertebrate Paleontology, Mammalogy, Ornithology, Paleobotany and Micropaleontology, Vertebrate Paleontology, and Ethnology. Each of these different disciplines is given expression in five, large exhibition galleries—the Siegfried Family Hall of



Timothy Hursley



Sanford Mauldin

The Samedan Oil Corporation Great Hall



The tedious task of specimen preparation is ongoing in SNOMNH's vertebrate paleontology laboratory. Above, the fossilized skeleton of a *Tenontosaurus*, a plant-eating dinosaur discovered in southeast Oklahoma, has the undivided attention of student research assistants Rhiannon Brinkley, left, and John Kucharski, and museum preparator Kyle Davies, right.

Ancient Life, the Noble Drilling Corporation Hall of Natural Wonders, the McCasland Foundation Hall of the People of Oklahoma, the Merkel Family Foundation Gallery of World Cultures, the Fred E. and Enid Brown Native American Art and Special Exhibitions Gallery.

Ornithologist Gary Schnell, a veteran museum curator, is a willing tour guide for the entire facility, but he has a special appreciation for the long-awaited Preservation Center, named for the original museum's founder, J. Willis Stovall.

Schnell indicates with a sweep of his hand the artifacts beneath the curved, copper-domed room where the ethnology collection now resides. The treasures of Oklahoma's Spiro Mounds, narrowly saved by scientists from 1920s pothunters, were rescued once again when moved into this secure storage.

"Spiro was a continental trade center in 1,000 A.D.," Schnell says. "What you see here are undoubtedly the most valuable things in our collection." Many of the Spiro Mounds items, most never before seen by Oklahomans other than curators, are now displayed in the museum's Hall of the People, a second-floor gallery showcasing the early inhabitants of Oklahoma.

Curators, graduate assistants, and volunteers spent many months readying the items, removing them from plastic wrap, and gingerly mounting them for display. The room in which they worked lies within one of the most structurally sound enclosures ever constructed in the state. The legacy of the Mississippian culture—the culture of the girl who began this story—is treated with the care it deserves and requires—giving the relics a chance to last another thousand years. Such protection is a far cry from the days when delicate, important items were draped in plastic because of a leaky roof.

The plastic that wraps the items today is a special, non-reactive substance that protects without harming. Schnell estimates that if all the museum's holdings were unwrapped, the plastic would stretch 145 miles. Even storage boxes are made from a special, acid-free cardboard that does not harm the contents.

"There is a very minimal possibility of fire here," Schnell says. "We have separate control of temperature and humidity, but we also control insect contamination and fire suppression."

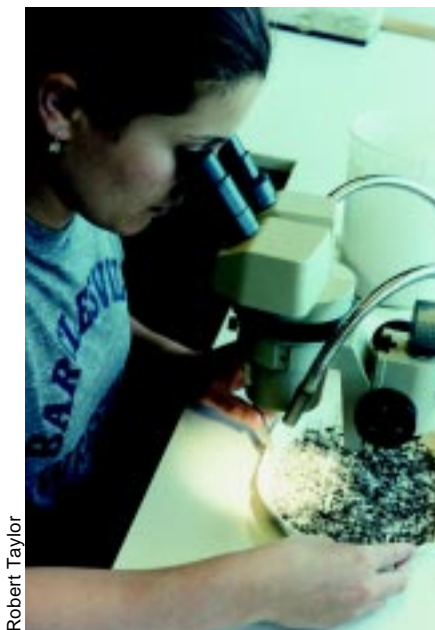
Fire suppression, temperature and humidity control, and anti-contamination measures are individual for each hall, room, collection, and lab. The state-of-the-art detection system not only detects smoke, but also the ionized compounds of combustion even before smoke is produced. The system would alert staff to the exact location of the fire, while adjoining areas would be sealed off and protected. Sprinkler systems activate in case of fire, but then turn off once the fire

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is out, unlike conventional sprinkler systems. Water damage, often half the losses incurred in a fire, would be minimized.

Security, too, seems more like that of a bank or a defense installation—and why not for this state's irreplaceable links to history? A large staff of security guards, headed by veteran OU police officer Jim Mustoe, monitors a web of cameras and sensors throughout the building, and patrols the exhibit halls as well. Access to areas in the museum is coded electronically to specific badges; a curator, administrator, visitor, or staff member may gain access only to areas where his or her badge allows. Even elevators must be accessed by the coded key badges. Use of the key badges also creates a record of those who come and go, and tapes from the monitors may be retrieved according to time and place the badge was used. With artifacts worth millions in monetary value, and priceless in terms of heritage, little is left to chance.

Perhaps the most useful feature of the museum, beyond its ability to store the priceless items it holds, is the new accessibility of the collections to the curators. Curators have large halls, separate from labs or preparation rooms, where the collections are cataloged and stored. All of the rooms in the collections/research area are connected to a large hallway, onto which opens a freight elevator big



Robert Taylor

LEFT: In the vertebrate paleontology laboratory, student research assistant Cara McConnell scans a tray of "concentrate," small pieces of rock and bone fragments, searching for tiny vertebrate bones and teeth.

enough, if need be, to hold a rhinoceros.

"In these rooms here," Schnell says, "we have separate research laboratories, separated from the collections. We also have rooms for preparation. In the old buildings, we'd work right in the collections."

Working among the collections while preparing an exhibit for display was often cramped, inconvenient and could lead to contaminating one specimen with mold, beetles or mites from another. Now this threat is largely from items arriving from less secure museums.

"That's a concern from all museums,"

BELOW: Herpetology curator Janalee Caldwell works in a state-of-the-art collections area currently containing approximately 40,000 catalogued specimens of amphibians and reptiles. Former curators Arthur N. Bragg, for whom the Herpetology Collection is named, and Charles C. Carpenter, for whom the nearby Herpetology Library is named, collected many of the Southern Plains and Oklahoma amphibians and reptiles. Recently large numbers of specimens from the Amazon region of Brazil and other South American countries have been incorporated into the collection.



Robert Taylor



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Museum security officer Don Helmers, right, drops by the control room where Carolyn Gilbreth monitors the bank of screens. The two are part of security administrator Jim Mustoe's large force of guards charged with safeguarding the facility and its priceless treasures.

Schnell says. "One of the biggest concerns is when we get packages from other museums. Many museums have continual contamination problems. They just can't get rid of them."

Each lab and research area for a given collection also is served by a nearby library. The personal research library of OU's legendary George Miksch Sutton, for instance, is housed just a short walk from the 20,000-bird collection, most obtained by the late, eminent ornithologist and bird artist. The rooms are kept at a constant 68 degrees—an even rate of temperature impossible in the old quarters.

"This is the heart of the collection," Schnell says, walking into the quiet cool of the bird area where specimens are kept in special sliding shelves with ample room to walk easily between the shelf areas. "They are kept like this so they can be readily compared."

In proudly viewing the research/collections area of the museum, Schnell says the true value of the new facility is perhaps yet to be fully measured. "You can see it's a wonderful facility. It's a wonderful place for training graduate students as well. We have as productive a research staff as any place in the country."

The exhibits are the expression of the knowledge from the collections, given direction and voice in the Carolyn A. Taylor Hall of Education. In its classrooms and support facilities, public education programs and classes are designed and conducted, as well as planning for additions to exhibits. Especially important is the intensive training of docents, whose background knowledge of different exhibits enables them to enhance the experience of museum visitors.

All of these programs are part of the

education mission of the museum, Director Mares says. "We are a unique organization on the campus. We carry out research like an academic department, cutting edge research. In addition, our curators have students and teach classes. We have the collections, which result from the research. Those collections represent the tangible heritage of Oklahoma."

**T**his rich interaction results in everything from new discoveries to new coursework. Every curator in the new facility teaches classes, but he or she can also walk down the hall and talk with colleagues, or show off a new find, or ask for help in deciphering data. The new building makes all this foment possible.

The big payoff comes in the form of the exhibit galleries. To walk through the columned, circular front rotunda, into the Great Hall, dominated by the Pleistocene Plaza with its sweeping Grand Staircase is a breathtaking experience. It is the outcome of decades of work amassing the collections, the dogged determination of Mares, his staff and their volunteer supporters, building on the faith of those early museum pioneers like Stovall and Sutton. Their success has given the state and the University an educational and research treasure and a showplace for visitors from throughout the Southwest. Their constantly updated Web page brings the treasures of Oklahoma to the world.

"I like to think of us as the front door of the University," Mares says. "We reach young children—what young child can't relate to a dinosaur? We reach retirees. We reach them from ages one to one hundred. It's a natural place to bring people when you want to show them all of what Oklahoma is about."



Mike Callaghan

The beautiful, white maple display cases that match so perfectly the hardwood flooring and panel accents throughout the Sam Noble Oklahoma Museum of Natural History are no mere decorator touches. The cases are constructed to individual exhibit specifications of the wood least likely to emit fumes harmful to the museum's priceless treasures. All woods give off small amounts of fumes, which can become acidic when combined with moisture in the air—but maple least of all.

Handsomely handcrafted cases were designed and built in the museum's first-floor carpentry shop by museum technician Rick Whitehead, left, with the assistance of exhibit specialists Mike Callaghan and Mike McCarty, right. Half of the cases, used for very sensitive artifacts, are designed to be micro-environmental, controlling the relative humidity within the case and minimizing temperature fluctuations. The remainder are pedestal bases standing approximately five feet tall by three feet wide. Another 16 upright cases for garments or headdresses stand seven feet tall.