



THE EXHIBITIONIST

# Texas Memorial Museum evolves

TMM gets its identity straight: It's a natural history museum, period. Plus, it's shining a bright light (and drawing a bright line) on evolution

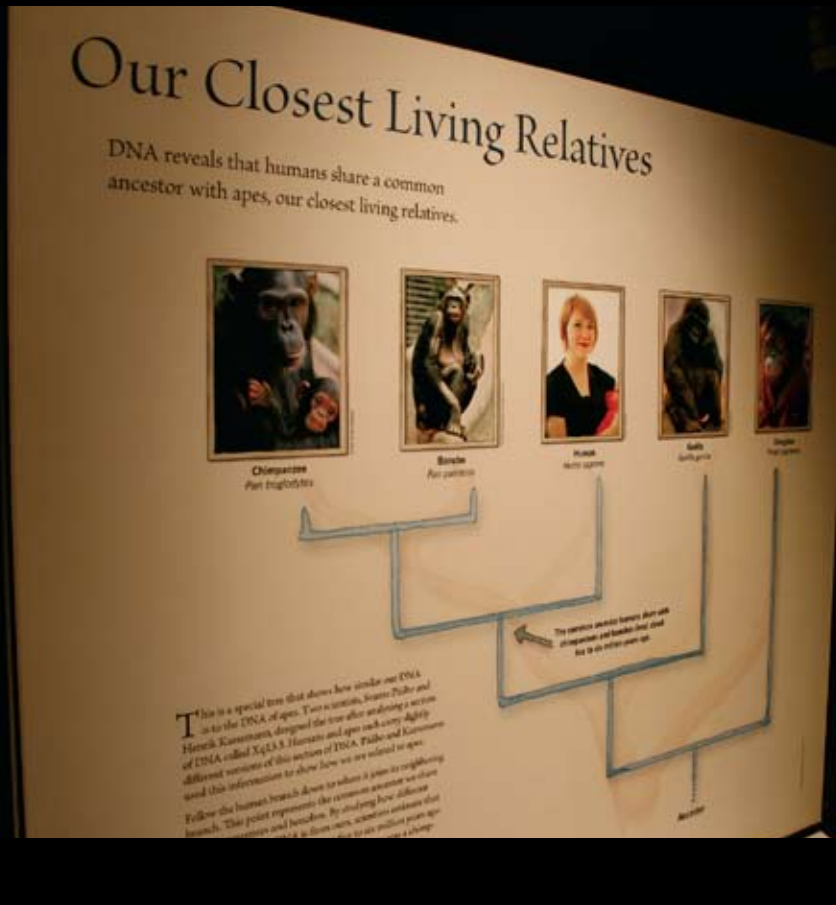
Bob Berdahl, UT's president during the late '90s, told a funny and revealing story once. Coming east on 24th Street toward San Jacinto, one always saw two cars angle-parked in front of the mustang statue. The glorious view of the Mustangs and Paul Cret's magnificent temple to science at the top of that hill, the Texas Memorial Museum, was always fouled by a couple of clunkers parked in front of the statue. Berdahl made some phone calls, and nothing happened. Day after day, he'd drive down that street and see those two cars parked in front of the statue. "I'm the president of this university!" he said. "I ought to be able to get rid of two parking spots if I think it's important!" Persistence



won the day, and Berdahl did see the parking spaces vanquished before his departure for Berkeley. But it's a case study in the kind of persistence it sometimes takes to change the smallest thing, let alone the direction or identity of an institution.

And now, the Texas Memorial Museum at the top of that hill has slowly turned itself around as well, coming into its own and ready to assume its rightful place in the burgeoning UT/downtown museum district anchored by a rejuvenated Ransom Humanities Research Center, Blanton Museum of Art, and Bob Bullock Texas History Museum.

The *Explore Evolution* exhibit on the Texas Memorial Museum's fourth floor. (Photo by Avrel Seale) A youngster is not too sure about the two-dimensionality of the chimps that are part of the display. (Photo by Susan Romberg/TMM)



At left, a graph of the family tree of life, showing the DNA-implied relatedness between various modern primates. Below, the museum's stately exterior, another of architect Paul Cret's legacies. The museum was commemorated as a memorial to Texas' early heroic age.



At left, three skulls, a dolphin (left) and two of its prehistoric ancestors demonstrate the process of evolution. Note the nostrils at the end of the nose on the right-hand skull, migrating to the middle of the snout in the center skull, before reaching the top of the head in modern dolphins. Below, the Paleo Lab, with its terrifying *Xiphactinus audax*. Photos by Avrel Seale



After decades as a sort of hodgepodge of fossils, wildlife dioramas, and Texan cultural artifacts, the Texas Memorial Museum is, at last, a natural history museum, period. The Bullock Texas History Museum opened in 2001 and was so comprehensive and impressive that it made the TMM's cultural holdings seem too close to the Bullock, both thematically and geographically (just six blocks away), not to be included. So the more intriguing items, like Stephen F. Austin's revolver, were loaned to the Bullock, and the rest were put in storage to make room for a more appealing display of fossils, gems, taxidermied critters, and educational displays.

Gunshy about changing the name, after the uproar over the renaming of UT's "Memorial" Stadium, the TMM chose to keep its non-specific moniker, although it was named only as a memorial to a time, Texas' heroic age, and not to any group of people. But they have added something akin to a tagline to help the identity along: "Texas Natural Science Center," positioning the TMM *within* the center, which also includes the Vertebrate Paleontology Lab-

oratory, the Non-vertebrate Paleontology Laboratory, and the Texas Natural History Collections.

From the outside, the biggest change of the last year is the presence of a bronze saber tooth tiger guarding the east entrance. The cat was sculpted by one of the center's exhibit designers, John Maisano, and was donated by Sarah and Ernest Butler. They've also opened the western doors that overlook the mustang statue, which lets more natural light into the Great Hall. This main room now features gems, a fantastic array of beetles, and the spectacular Texas pterosaur, a replica of the skeleton of the world's largest-ever flying animal (found in Big Bend), soaring overhead.

The basement has seen a major renovation in the past decade, with more numerous fossil specimens, better signage and lighting, and, most recently, a revamped Paleo Lab, where visitors can watch UT paleontologists pick apart fossils. Cool new wooden drawers invite visitors, many of whom are schoolchildren on field trips, to open them and touch the specimens inside, and they lend an aura of classic, 19th

century science to the area. Also moved into this area is one of the museum's three most stunning objects, a very well-preserved fossilized giant and extinct fish known as a *Xiphactinus audax*.

Also new is that you can use your cell phone to take an audio tour. You call a number and follow the prompts to hear scientists talk about 29 of the exhibits.

If you've visited the museum over the last five to 10 years, you've seen these changes and renovations coming along slowly but surely. But the real news this year is reserved for those who take the elevator (or the stairs) to the very top, the fourth floor. Here, a new permanent "interactive learning center" teaches all comers about the scientific basis for evolution, "the greatest unifying theory in biology," to quote Ernst Mayr. *Explore Evolution* features the work of scientists who are making discoveries about evolution with seven interactive displays on how evolution is essential to recent advances in medicine, agriculture, and biotechnology.

With stories in the media about recurring pressure on school boards to qualify

the teaching of evolution, this feels unmistakably like the University putting a stake in the ground. Though it steers clear of commenting on the controversy, the tone of the exhibit is clear: Evolution is scientific fact. Isn't it cool?

Visitors are greeted by a plaque that knocks down the idea that by "theory of evolution" is meant somebody's guess or hunch. Rather, the word "theory," when used in connection with a concept like evolution, is a comprehensive explanation of patterns that has been continuously tested for long periods of time (in this case 146 years and counting). Most displays in this exhibit illustrate how evolution has been supported by both the fossil and the DNA record. There are clever and colorful displays outlining the major ideas behind evolution — inheritance, variation, selection, and time — and illustrating how the concept unifies biology, from the evolution of viruses like HIV to the evolution of flies to the evolution of humans.

At the room's center is a group of displays comparing humans to their closest relatives, the chimpanzee and bonobo

apes. DNA is shared at 99 percent, and based on the fossil record and the "molecular clock," a phenomenon whereby DNA mutates at a fairly regular rate over a long timeframe, scientists are fairly certain that chimpanzees, bonobos, and humans shared a common ancestor at about six million years ago. A "family tree of life" illustrates that we share a common ancestor with gorillas at 8 million years ago, and with orangutans at 12 million years ago.

The exhibit is accessible to school-age children but there's no baby talk here. I read several of the plaques over to make sure I followed them fully.

So what prompted this learning center? According to Susan Romberg, the museum's director of external affairs, the seed was planted in a moment echoing the famous *Graduate* scene — "One word: plastics." Director Ed Theriot and Chancellor Mark Yudof were at an event together when Yudof pulled him aside and said, "Two words: teacher training."

Many of the state's science teachers have precious little in the way of actual science instruction themselves, basically

reading one lesson ahead of their students. One of the major missions of the Texas Natural Science Center now is giving those teachers the background they need to be effective and passionate teachers of science, especially biology.

*Explore Evolution* was developed along with museum partners at the University of Kansas, University of Michigan, the Science Museum of Minnesota, University of Nebraska, and the University of Oklahoma.

Theriot includes his own area of specialty, diatoms, the single-celled algae whose microscopic structures are spectacularly beautiful. In the exhibit's playful way, this corner is labeled "Not Your Average Pond Scum."

Get to the Texas Memorial Museum and see this thoughtful exhibit as well as the rest of the museum's newly repackaged offerings. —Avrel Seale

Open M-F: 9 a.m.-5 p.m.; Sat: 10 a.m.-5 p.m.; Sun: 1-5 p.m. Admission is free. 512-471-1604. The San Jacinto Parking Garage is next door.