

Angel's

**Be Alive!**Angel Gomez,  
Director of  
Member  
Services

# LA BREA

This is a complete California Saber-tooth Cat.

## Welcome back!

This month we're staying in Los Angeles and traveling a few miles to the world famous Page Museum – the La Brea Tar Pits.

Do you ever wish you could go back in time? Well, this is the place! The Page Museum is at the Rancho La Brea Tar Pits in the heart of Los Angeles. Rancho La Brea is one of the world's most famous fossil sites, recognized for having the largest and most diverse assemblage of extinct Ice Age plants and animals in the world. Visitors can learn about Los Angeles as it was between 10,000 and 40,000 years ago, during the last Ice Age, when animals including saber-toothed cats and mammoths roamed the Los Angeles Basin.

Through windows at the Page Museum Laboratory, visitors can watch bones being cleaned and repaired. Outside the museum, in Hancock Park, life-sized replicas of several extinct mammals are featured.

The park is known for producing myriad mammal fossils dating from the last Ice Age. While mammal fossils generate significant interest, other fossils, including fossilized insects and plants, and even pollen grains, are also valued. These fossils help define a picture of what is thought to have been a cooler, moister climate in the Los Angeles basin during the glacial age. Among these fossils are microfossils. Microfossils are retrieved from a matrix of asphalt and sandy clay by washing with a solvent to remove the petroleum, then picking through the remains under a high-powered lens.

### History

The Portola expedition, a group of Mexican explorers led by Gaspar de Portola, made the first written record of the tar pits in 1769. Fr. Juan Crespi wrote, "While crossing the basin, the scouts reported having seen some geysers of tar issuing from the ground like springs; it boils up molten, and the water runs to one side and the tar to the other. The scouts reported that they had come across many of these springs and had seen large swamps of them, enough, they said, to caulk many vessels. We were not so lucky ourselves as to see these tar geysers, much though we wished it; as it was some distance out of the way we were to take, the Governor Portola did not want us to go past them. We christened them *Los Volcanes de Brea*, the Tar Volcanoes."

### Digging It

What's in the tar pits? And why did the animals go there? They are composed of heavy oil fractions called asphalt, which seeped from the earth as oil. In Hancock Park, crude oil seeps up along the Sixth Street Fault from the Salt Lake Oil Field, which underlies much of the Fairfax District north of the park. The oil reaches the surface and forms pools at

several locations in the park, becoming asphalt as the lighter fractions of the petroleum biodegrade.

This seepage has been happening for tens of thousands of years. From time to time, the asphalt would form a pool deep enough to trap animals, and the surface would be covered with layers of water, dust, and leaves. Animals would wander in to drink, become trapped, and eventually die.

Predators would also enter to eat the trapped animals and become stuck. As the bones of the dead animals sink into the asphalt, it soaks into them, turning them dark brown or black. Lighter fractions of petroleum evaporate from the asphalt, leaving a more solid substance, which holds the bones. Apart from the dramatic fossils of large mammals, the asphalt also preserves very small microfossils: wood and plant remnants, insects, dust, and even pollen grains.

Radiometric dating of preserved wood and bones has given an age of 38,000 years for the oldest-known material from the La Brea seeps. They still ensnare organisms today.

Tar pits around the world are unusual in accumulating more predators than prey. The reason for this is unknown, but one theory is that a large prey animal (say, a mastodon) would die or become stuck in a tar pit, attracting predators across long distances. This predator trap would catch predators along with their prey. Another theory is that dire wolves and their prey may have been trapped during a hunt. Since modern wolves hunt in packs, each prey animal could take several wolves with it.

Among the prehistoric species associated with the La Brea Tar Pits are mammoths, dire wolves, short-faced bears and ground sloths.

Others common at the site are the state fossil of California, the saber-toothed cat, *Smilodon californicus*.

A not-so-well-known fact: Only one human has



ever been found, a partial skeleton of a woman, dated at approximately 9,000 BC who was apparently a victim of a homicide based on skull crush evidence. John C. Merriam of the University of California led much of the early work in identifying species in the early 20th century.

The Page Museum has tons and tons of information on all the fossils and great exhibits too, but before you go in, walk around the park area just outside the museum. It is also amazing; they have active digs being worked on right now! As you walk through the outside park area, you find replicas of extinct animals.

I recommend this museum to everyone. If you're a parent, grandparent or young adult, take a few hours and visit this local museum. I promise your kids will love it. If you are interested in nature and also the science, it is a great place to take your entire family. Until next time, be safe and be *alive!*

**Until next time,  
be safe and Be Alive!**

**— Angel**

Mid Wilshire

# TAR PITS

## If You Go

**Page Museum at the La Brea Tar Pits**  
 5801 Wilshire Blvd.  
 Los Angeles, CA 90036  
 (323) 934-PAGE (7243)  
 TTY Number: (323) 857-6332

**HOURS AND ADMISSIONS:**  
 Open 9:30 a.m. to 5 p.m. daily.

Admission is free on the first Tuesday of each month. The museum is closed on Independence Day, Thanksgiving Day, Christmas Day, and New Year's Day.

Call (323) 934-PAGE for information about special extended holiday hours or closures.

### ADMISSION PRICES:

- Adults: \$7
- Seniors 62 and older and students with I.D.: \$4.50
- Youths 13-17: \$4.50
- Children 5-12: \$2
- Members and children under 5: Free



Complete dire wolf fossil remains.

**PARKING:** The Museum's parking lot is located at the corner of Curson Avenue and Sixth Street, directly behind the museum (enter from the western side of Curson).

**PARKING RATES:**  
 Mon. - Fri., \$1.50 per 20 minutes to a maximum of \$9 (or \$7 with museum validation). Saturdays, Sundays and holidays: \$7 flat rate.

Be sure to bring your parking ticket into the museum to receive your validation.

**NOTE ABOUT PARKING:**  
 If you choose street parking over the museum lot, please read all parking signs carefully, as restrictions apply. *Most importantly, do not park along Wilshire Boulevard from 7 - 9 a.m. and 4 - 7 p.m. (Monday - Friday) or your car will be ticketed and towed. This applies even if you are parked at a meter.*



Aden and a ground sloth. Wow they were big!



Angel's face describes how difficult it would have been for anyone to get out of the tar.



Aden, Angel Jr. and I in front of the life size extinct mammals.



Aden and the saber-toothed cat. Amazing!



Angel Jr. and Aden outside the Page Museum.



Aden and Angel Jr. find a spot of oil coming out though the grass lawn. **Wow!**