What's Happening IN CALIFORNIA ?

BY LAWRENCE GABLE

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THE CALIFORNIA SCIENCE CENTER CONTINUES ITS MISSION

Recently the Space Shuttle *Endeavour* arrived in California. Many Californians saw it fly over their cities. Many others watched as it inched along the streets of Los Angeles. Although it has found a new home, the home itself is not new at all. The California Science Center has been around for more than sixty years.

The California Science Center is located in Exposition Park. The park covers 160 acres south of downtown. In 1951 one building became the California Museum of Science and Industry. Then in 1987 the museum's directors decided that it should become an education facility for science. They gave it the name that it has today.

Changes came quickly after that. The Center got a new main building in 1998. It houses two permanent exhibits that give visitors more than 100 hands-on activities. "World of Life" explores the things that all living creatures have in common. "Creative World" shows how humans have improved communications, buildings and transportation.

In 2004 its Science Center School opened. The public elementary school's focus is Science, Math and Technology. In addition to learning in classrooms and the library, the students also can visit the Center's exhibits easily. Most of the students come from nearby neighborhoods.

The Center offers a lot to visitors. They can see special exhibits, climb a rock-climbing wall and watch IMAX films. They can learn about gravity by riding a bicycle across a one-inch cable 43 feet above the ground. The Ecosystems gallery looks into life in forests, rivers, deserts and Los Angeles itself.

The Center's Air and Space Exhibits are something special too. One teaches about flight. Its displays include early aircraft, spy planes and high-speed jets. Another exhibit shows space suits and space capsules. Other exhibits teach about space exploration through telescopes, satellites and spacecraft to other planets and stars.

On October 30 the Center's SpaceFest will begin. It is the 5-day opening celebration for the Space Shuttle *Endeavour*. Astronauts will be there to tell stories. NASA will have five temporary exhibits there too, including ones about space suits and Mars rovers. The highlight will be *Endeavour* though. Visitors will look up close at the orbiter that made 25 missions into space.

Thousands of people will go to see *Endeavour*. Now it is on display horizontally. After that it will be on display vertically, just like at launch. Although the Space Shuttle program has ended, the California Science Center is bringing new excitement to its visitors in Los Angeles.

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BIOGRAPHY

Dr. Kenneth Phillips

Curator for Aerospace Science, California Science Center

Ken Phillips grew up in Baltimore, Maryland. On the East Coast he learned about physics, aircraft and spacecraft. Since 1990 he has been passing that knowledge on to others on the West Coast. He is the Curator for Aerospace Science at the California Science Center.

Ken did not have great success in school. In fact, his attitude was quite a problem in his early years. Then in junior high a few teachers convinced him that he was wasting his talents. In 8th grade an Algebra problem changed his life. He struggled with it for hours at home. When he finally got the answer, he started believing in his talents too.

"Most people give up far too easily."

As a teenager Ken had plenty of interests. He loved to swim and became a lifeguard at the public swimming pool. He also loved Lionel electric trains. Both things continue to be interests today. He owns 18 train sets, and he swims more than a mile every day.

Math and science became his favorite subjects. He studied Physics at college in North Carolina. He returned to Baltimore in 1973 and earned his doctorate. In 1976 he got a job in Los Angeles. One project had to do with keeping the seawater separate from fresh water in the Netherlands. Another involved a national defense system for the U.S.

When a job opened at the California Science Center, Dr. Phillips was interested. He knew the Center because he had volunteered there as a teacher. Rather than just work at a job, he wanted to be involved in teaching science to young people. The entire time at the Center he has been able to teach students and their teachers.

Soon after he arrived in 1990, Dr. Phillips got the idea to someday have a Space Shuttle at the Center. He let NASA know that the Center was interested. On one trip to Florida years later, he was able to go inside the orbiter *Discovery*. He also saw *Endeavour* from 100 yards away.

In April 2011 NASA announced that the Center would receive *Endeavour*. After twenty years Dr. Phillips finally got his wish. Getting the orbiter has changed his life at work. It took endless hours of planning with NASA to get *Endeavour* from Florida to California. Then more planning went into the trip from Los Angeles International Airport to the Center. Dr. Phillips has been working non-stop to get the orbiter ready for display on October 30.

Dr. Phillips believes that the California Science Center is more of an education center than a museum. He has always wanted visitors, especially young ones, to participate in their learning. Now *Endeavour* has become a new jewel in the Center's collection. It will attract many new visitors whom Dr. Kenneth Phillips will be glad to teach.

Background Information

The Center's main building, the Ahmanson Building, has kept the facade of the original State Exposition Building from 1912.

In 1872 Exposition Park was called Agricultural Park.

The California Science Center's Wallis Annenberg Building for Science Learning and Innovation opened in 2004. It serves teachers, scientists and families that are interested in teaching science better. It has classrooms, laboratories, a library and computer room. It also has an open-air space called "The Big Lab" where students and teachers can do science experiments.

The Center's theater has a 70-foot-high screen for IMAX films.

In 2008 NASA asked interested museums to submit a proposal describing how they might display an orbiter. Twenty-one museums, space centers and institutions replied, including the California Science Center. When NASA solicited more requests, 29 responded.

In April 2011 NASA announced where the four orbiters would go. *Enterprise* belongs to the Intrepid Sea, Air & Space Museum in New York. *Discovery* belongs to the Smithsonian's National Air and Space Museum in Virginia. *Atlantis* is staying at the Kennedy Space Center's Visitor's Complex.

On October 11, 2011 NASA officially transferred title and ownership of *Endeavour* to the California Science Center. *Endeavour*'s crew attended the ceremony in Los Angeles.

Endeavour was the last orbiter in NASA's fleet of Space Shuttles. Its first launch was on May 7, 1992. It spent more than 296 days in space and orbited Earth more than 4,670 times. It is the only one named by students, who named it after Captain Cook's ship.

On its final flight mounted to the top of a 747, *Endeavour* flew as low as 1,500 feet over cities and landmarks around California.

Endeavour made the 12-mile journey from Los Angeles International Airport to the California Science Center in three days. The orbiter's 78-foot wing span caused a problem on city streets. Even though officials had mapped out the best possible route, they still had to order the temporary or permanent removal of 200 streetlights, 60 traffic signals, 400 trees, power poles and parking meters.

Topics for Discussion and Writing

Pre-reading:

- Tell what you know about the Space Shuttle.

Comprehension:

- What kinds of things does the California Science Center offer to visitors?

Beyond the Text:

- How would seeing a full-scale model of something like the Space Shuttle be different from seeing a real one?
- How does it seem that the California Science Center differs from a regular museum?
- Name one part of science that you find interesting, and explain why it appeals to you.

Vocabulary

Article-specific: shuttle; acre; creature; gravity; gallery; capsule; rover; orbiter

High-use: mission; facility; permanent; exhibit; focus; cable; display; satellite; temporary; highlight; horizontally; vertically

Sources

Los Angeles Times October 13, 1, 2012

California Science Center **www.californiasciencecenter.org**

Exposition Park **www.expositionpark.org**

Common Core Curricular Standards

Reading—Grades 5–12

Quote accurately from text / Cite textual evidence / Draw inferences / Determine central ideas / Analyze structure of text / Interpret words and phrases

CA Curricular Standards (4–12)

ELD—*Intermediate and Advanced*

Reading Vocabulary Development / Comprehension
Writing Strategies and Applications
Listening and Speaking

Image Courtesy
California Science Center