Putting the Planets In Perspective

[FINAL Edition]
The Washington Post - Washington, D.C.
Author: Mark Stewart
Date: Nov 23, 2001
Start Page: T.61
Section: WEEKEND
Document Types: Feature
Text Word Count: 690

THE PROBLEM for any museum project director who wants to design and present a scale model of the solar system is, well, the phrase "scale model."

Unless you have access to a room the size of an airplane hangar, it's going to be tough to represent the vastness of our solar system without reducing the planets to the size of something it would take an electron microscope to see.

Even the mammoth Smithsonian Institution, with its 16 museums and galleries, couldn't contain a scale model of the solar system. For that, it turned to its neighbor, the National Mall. Debuting last month, "Voyage -- A Journey Through Our Solar System" gives visitors a rough idea of how big the solar system actually is.

Starting at the Air and Space Museum, visitors can view 8 1/2- foot stainless-steel stations representing the sun, Mercury, Venus, Earth, Mars, asteroids and comets, Jupiter and Saturn. Walking west along Jefferson Street toward the Hirshhorn Museum, visitors come across Uranus, and across Seventh Street and on toward the Arts and Industries Building, they find the station for Neptune.

And if they keep going, just as they reach the Smithsonian Institution Building ("the castle"), they finally reach Pluto, about 2,000 feet from where they started. At that scale, the nearest star to the solar system would be about the size of a cherry and would be located in Golden Gate Park in San Francisco, "Voyage" project director Carolynne Harris Knox said.

The scale, one-10 billionth of actual size, was chosen so the planets could at least be visible to the naked eye. On that scale, most of the planets are about the size of small dots, with the sun about the size of a large grapefruit.

"It's all about perspective," Knox said. "One of our main goals was to bring about a change in perspective, giving the visitor a sense of where the Earth is in the solar system. The act of walking through the exhibit gives visitors a chance to take their own voyage and learn a little about the planets along the way. It's kind of like an updated version of those solar system models you used to make as a kid with Styrofoam balls for planets."

The planet "stations" have information that might surprise even those who think they know their planetary trivia. For instance, Saturn has 22 moons and 100,000 ringlets. Its diameter through its poles is 7,300 miles shorter than its diameter through its equator, giving it a squished look.

Venus is actually hotter than Mercury, at approximately 880 degrees, because of its thick "greenhouse effect" carbon dioxide atmosphere, which traps heat.

William Monson, 10, of Norfolk, said he was surprised at the size of the planets when compared to the sun. "I thought it was very cool," he said. "I couldn't believe how small the planets were, though, and how far apart they were. You had to walk and walk to see them all."

The exhibit was created as a collaboration between NASA and the Challenger Center for Space Science Education, an international nonprofit organization created in 1986 by families of the ill-fated Challenger crew. It was built by Vincent Ciulla Design of Brooklyn with aesthetic appeal in mind.

The planets and moons at nine stations were laser-sculpted in crystal, and all the stations blend stainless steel, porcelain enamel and glass. "We wanted it to blend into the mall," Knox said. "It's part science project, part urban design project. And we wanted to have it outside the Air and Space Museum to attract attention.

"We envision kids walking from station to station and then looking back and seeing how far they had to walk to get from planet to planet," Knox said. "It should be a fun form of exercise for them and something that will teach them along the way, too."

The Smithsonian has developed supplemental educational material online to accompany the exhibit. Visitors can find it at the "Voyage" Web site at www.voyageonline.org.

VOYAGE: A JOURNEY THROUGH OUR SOLAR SYSTEM -- On display indefinitely, along Jefferson Drive between the Air and Space Museum and the Smithsonian castle (Metro: Smithsonian).