John Dobson Debunks the Big Bang

by Charles Hughes

MOVIE REVIEW

A Sidewalk Astronomer: A Film About Astronomy, Cosmology and John Dobson by Jacobs Entertainment, Inc. DVD and VHS, 78 min \$39.95 (incl. domestic S&H) Available from www.telescopepictures.com or Jacobs Entertainment, Inc. P.O. Box 774, Harrison, N.Y. 10528

ere is a spectacular, and masterfully produced presentation, starring the inventor of the Dobson telescope, who boldly and humorously devastates two sacred cows of cosmology, the Big Bang and the expanding universe interpretation of the red shift. For Dobson, the whole universe is alive, bounded and not infinite, and the speed of light is not a "speed" at all.

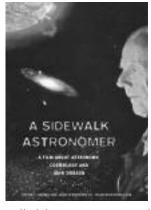
The film opens with a street scene, showing Dobson's art in engaging the mostly self-absorbed passersby to stop and look through his telescope. The wit and humor of his repartee draw you into the film, and it only gets better.

John Dobson has been called the most influential person in amateur astronomy in the last 50 years. Now, at age 91, he continues with the sidewalk astronomy he began in tours and lectures, and is always ready to teach a new amateur how to build one of the very large telescopes he became famous for.

Sidewalk Astronomers

Dobson began his innovations in amateur telescope-making in 1958, while a monk at a Vedantic monastery in San Francisco, and soon began taking his telescopes out on the streets to show the wonders of the universe to people of the city. He was expelled from the monastery in 1967 for his night absences and un-monkish behavior. He built his first very large telescope while still at the monastery, out of scrap wood and cardboard, using a 12inch scrapped marine porthole for the mirror. He ground and polished this glass by hand. When it was completed, he aimed it at the Moon, and was so surprised by the sight that he decided that that everyone must see this for himself.

In order to get telescopes out on the streets, Dobson helped found an organi-



zation called the San Francisco Sidewalk Astronomers. So we see Dobson as the show commences, on the corner of 24th and Noe Streets in San Francisco, showing people the Moon through one of his homemade telescopes:

"That is the way it would look one hour before landing," John tells a youthful group.

"As I always say the exterior decorator does lovely work," he replies to the oohs and ahs.

"That crater you are looking at is as big as Texas."

"The universe is mostly hydrogen and ignorance." John explains the statement: "One reason that we do this is so people can see beyond their genetic programming."

We see Dobson next at the Stelafane Amateur Telescope Maker's convention in Vermont, in August 2003. This is the oldest and most famous such event, founded in the 1920s by Russell Porter, the father of the amateur telescope-making movement in the U.S.A.

David Levy, discoverer of 21 comets and leader of the amateur astronomy community, thanks Dobson for the incredible contribution he has made. Dobson explains that when he first started showing people how to make telescopes, he was asked, "Who is John Dobson? Is he an astronomer?"

John replied, "No, but when it comes to making telescopes out of junk, I'll stand my own ground."

The 'Big Bang'

Asked by a student about the age of the universe, Dobson discusses the "Big Bang" theory. "There are too many prob-

lems, such as getting everything out of nothing—that's the biggest problem." Describing in detail some of the other problems with the "Big Bang," Dobson sums it up: "We used to change the model to match the physics. That is *not* what they're doing now. They're changing the physics to match the model."

John describes his alternative to the "Big Bang," which he calls his "recycling" theory of the universe. The universe is not infinite, but bounded. "If the stuff recycles from the border, we don't have to have a beginning. It could be going like this all the time."

"It's alive," says Dobson, "The whole Universe is alive: The defining characteristic of a living organism is that it directs a stream of negative entropy upon itself, and, damn it all, the Universe does the same thing."

In a discussion of the speed of light, Dobson says it is not a speed, but the ratio of space to time. Time, says Dobson, is nature's way of keeping everything from happening at once. Space is nature's way of keeping everything from happening in the same place.

Dobson tells a joke about Adam and Eve. Adam asked God why he made Eve so attractive. "God replies, "So you'd like her." Adam then asks God, "But why did you make her so stupid?" God replies, "So she'd like you." He also tells a joke about scientists who think that they can create life. God is curious, so they take him down to the lab. The scientist says to God "First you take some dirt." God replies, "Get your own dirt."

The Dobson Story

Dobson was born in 1915 in Beijing, China. His maternal grandfather was the founder of Beijing University. His mother was a musician; his father taught zoology at the university. In 1927, Dobson's parents moved with him to the United States amid political chaos in China. He attended college at the University of California at Berkeley, graduating in 1943 with a degree in Chemistry.

Motivated by a desire to see the universe as closely as possible, he became

interested in telescopes, but noticed that the small-aperture devices available to amateurs did not gather enough light to show celestial objects such as nebula and galaxies in their true details of brightness and color. The solution would be the use of very large optics made from cheap glass portholes of 12-to 24-inch diameter.

Such large optics, mounted the usual way in the pre-Dobson era, would require a mount weighing a ton or more! Dobsons's solution was a simple system where the telescope tube had truncheons on the sides like a cannon barrel. The tube was carried in a notched box which rotated on a wood base. The scope had two degrees of freedom, elevation of the tube, and rotation on the base. That was all it needed.

Producer Jeffrey Jacobs, president of Jacobs Entertainment, has been active in the independent film industry for 35 years. He met John Dobson in 1986



San Francisco Sidewalk Astronomers

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A Dobsonian telescope built by the author.

when he first looked through one of his telescopes. "He displays endless wonder," says Jacobs. "When I found out that no one had made a documentary about him, I knew that I had to do it."



Courtesy of Charles Hughes