



Shooting for the moon

Once grounded by financial problems, the Orlando Science Center aims to fly high again, with new management & innovative programs

By Rafaela Ellis

Few Orlando events were as heralded as the opening of the newly expanded Orlando Science Center (OSC) in February 1997.

The 207,000-square-foot facility in Loch Haven Park, five years and \$49 million in the making, was trumpeted by both local media and politicians as the centerpiece of a new era in Central Florida — an epoch of “world-class” cultural attractions that would put the area “on the map.” Featuring an 8,000-square-foot movie screen in the Dr. Phillips CineDome and Florida’s largest refractor telescope in the Crosby Observatory, the new OSC was the talk of the town, a state-of-the-art facility signaling that Orlando had, at long last, arrived.

And the buzz wasn’t confined to Florida. National media covered the story, too; Dan Rather even came to town, anchoring the CBS Evening News with the Center’s silver-domed observatory dome gleaming in the background.

And then the bottom fell out.

By December of its opening year, OSC had laid off 18 employees, and by 1999 the new attraction — \$1.6 million in the red — had come within five days of closing, saved only by a \$700,000 bailout by Orange County and the City of Orlando. Once vaunted as the city’s shining star, the Orlando Science Center was fast gaining a label as the area’s most infamous boondoggle. That was then.

Today, thanks to a new management philosophy and a renewed commitment from the community, the Orlando Science Center has regained its financial footing and is poised to realize its potential as one of the Southeast’s most innovative cultural facilities. The OSC saga is a lesson in just how difficult it can be to maintain a lofty orbit in the rarefied air of philanthropic endeavors and a testament to the risks and rewards of reaching for the moon.

Phasing in success

“We’re entering the third phase for the Science Center,” says Stephen Goldman, the Orlando entrepreneur and philanthropist who currently serves as the Center’s interim CEO. “The first stage was building the building, and thanks to [longtime CEO] Sondra Quinn, we built a world-class facility.”

Next, Goldman says, came “the second phase, where we balanced the budget.” Credit for digging OSC out from under its massive debt, he says, goes to Kim Maher Cavendish, who took over after Quinn’s 1999 departure, reorganizing the Center and lobbying for increased government funding to put OSC back on solid financial ground.

Now, with OSC once again operating in the black, Goldman says, “we’re embarking on the third phase, of developing ... a culture focused

on content." That culture, he says, will combine the efforts of the Science Center's staff and board with input from the community, particularly the scientific and technical communities represented by the area's universities and high-tech corporations. They'll be asked to provide both expertise and money to keep the center rolling.

Not that developing such alliances will be easy.

"We've had a lot of people come to Orlando in the last 20 years, and we don't have a well-integrated community of individuals involved in the cultural community," Goldman notes. "Older communities have built up large endowments, and a lot of the money [for cultural endeavors] comes from those endowments."

While Central Floridians have stepped up to the plate for capital campaigns, such as building the Science Center's new facility, long-term funding for operating costs has been harder to come by.

What's more, Goldman notes, corporate involvement depends on deep community roots, and "there are not a lot of large corporations that have their home offices here," he says. "Unless the nature of our economy changes, where we have a lot of home offices where the guys who write the checks live, it's more important for government to step up and help ... with operating expenses." So far, local government responded with a financial commitment, and Goldman expects federal grants to provide further assistance.

But the CEO, who has lived in Orlando for more than 45 years, recognizes that government can't do it alone. That's why, after making his fortune as founder and CEO of Distributed Processing Technology, a high-tech manufacturing firm, Goldman retired in 2000 to devote himself full time to developing Central Florida's cultural scene. In addition to his work at the Science Center, he serves as a trustee of United Arts and as president pro-tem of the Orlando Philharmonic Orchestra. And he's even committed \$250,000 of his own money to create an integrated approach to the Science Center's exhibitions.

The science of exhibitionism

With technology evolving at the most rapid pace in history, a science center's exhibits can go from state-of-the-art to stale in seconds. And with government demanding more accountability from the institutions it funds, organizations like OSC have to prove they're meeting their mission of serving the community.

Those factors, says Goldman, are the impetus for the Science Center's new integrated exhibition strategy.

"To reflect the new "self-learning" culture fostered by the Internet and other interactive educational tools, the Center is now "embarking on a program to radically improve the base exhibits."

— Steve Goldman
interim CEO, Orlando Science Center

To broaden the OSC's appeal, the Center has booked a number of shows, like the Masters of the Ocean Realm exhibit, that combine conventional entertainment with learning.

"There has to be content that gives [people] a reason to come back," he says, "and you can't put it all on a laminated plaque in front of an exhibit."

To reflect the new "self-learning" culture fostered by the Internet and other interactive educational tools, the Center is now "embarking on a program to radically improve the base exhibits," Goldman says.

The centerpiece of that program is Wired Science, an interactive system that will link every OSC exhibit to a computer database, allowing visitors to tailor each exhibit experience to their own level of interest and expertise.

"We [will] have individual kiosks next to the exhibits, where we can accumulate content like a library," Goldman says. "You can start on a surface level and, if you are so motivated, delve deeper into the science."

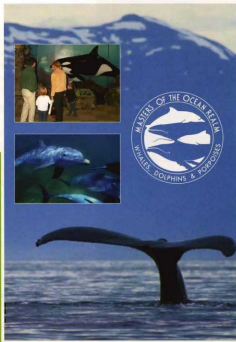
The project is especially dear to Goldman, who secured Wired Science's quarter-million-dollar seed money by reaching into his own pocket.

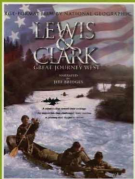
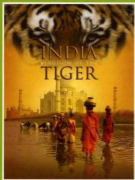
Beyond linking each exhibit by computer, OSC plans to enhance familiar displays and bring in successful traveling shows to expand the Center's appeal.

"The current exhibits can be improved quite a bit so that we're really covering the areas we want to cover," Goldman says.

For example, the Center's old *Tesla Coil* display is being replaced with a new, more complex one linked to a 60-second Wired Science animation that explains the coil's purpose, then reinforces the learning through interactive activities. (For more information, see "Science Gets Wired," page 31.)

To bring in others along with the science buffs, OSC has booked a number of films and exhibits that combine conventional entertainment with learning. This spring the CineDome Theater presented *Cirque du Soleil Journey of Man*, a large-format film about human development that





The dramatic and exciting visuals of large-format films make viewers feel they're part of the experience. Films recently featured and upcoming at the CineDome Theatre include Cirque du Soleil's *Journey of Man*; *India: Kingdom of the Tiger*; and *Lewis & Clark: Great Journey West*.

featured the popular French circus troupe, which has been a smash on television and at its permanent Downtown Disney theater. In June the film *India: Kingdom of the Tiger* premiered, taking visitors on a soaring, swooping ride over native Asian tiger habitat, while the exhibit *Masters of the Ocean Realm*

Renewing its popularity isn't the only aim of OSC's new attitude. According to Betty Hoyer, OSC director of education, the Center hopes to become a catalyst for improving science education for the area's schoolchildren.

raised awareness about the lives of cetaceans — otherwise known as whales, dolphins and porpoises.

This fall, the CineDome will show *Lewis & Clark: Great Journey West*, a large-screen movie about the famous adventurers and their trek across uncharted America. Also this fall, the exhibit *Planetary Landscapes* travels from California's Chabot Space & Science Center to let locals see and touch 12 interactive sculptures that replicate the creation of the universe. And *City of Wonders* will travel from Tallahassee to show how Florida's local governments work to deliver services to their fast-growing populations.

The Center's original attractions, including the NatureWorks Florida habitat and the Kids Town play area, will remain, with improvements planned as funding permits.

"If [the community] doesn't put additional money in the Science Center, we'll do it slowly," Goldman says of the improvement plan. "But I'm hoping that, as we start this, the community will become as excited as the staff and the board, and we can get the money to do it more quickly."

Links to learning

Management hopes these technologies and exhibit changes will bring fresh patrons to the Science Center and prompt former visitors to return. Renewing its popularity isn't the only aim of OSC's new attitude. According to Betty Hoyer, OSC director of education, the Center hopes to become a catalyst for improving science education for the area's schoolchildren.

The Science Center has long worked with the Orange County School Board to "help teachers meet the expectations placed upon them," Hoyer says. Every two years, the school board appoints two science teachers to OSC, where they work to relate the Center's exhibits to the county's science curriculum and to design professional development programs for county teachers. Now that educators must also "teach to the test" — the dreaded Florida Comprehensive Assessment Test, or FCAT — OSC is working to "help [teachers] lay a foundation for

the material that may be asked in the FCAT," Hoyer says.

Although the Science Center is not involved in writing or reviewing the FCAT, Hoyer says OSC has "identified for teachers which of the Florida Sunshine State Standards [for science] correlate to

the programs and exhibits they're having their students experience" during field trips.

"We help teachers make the connection [as to] how the Science Center can help them teach their students to understand the concepts in the Florida Sunshine State Standards," she says.

For Central Florida's growing number of home schoolers, the Science Center has created special classes geared to primary (first and second grade), intermediate (third to fifth grade) and middle school (sixth through eighth grade) learners. Offered in both fall and spring, the classes "are taught by teachers who are part of the Science Center staff," Hoyer says, and utilize the Center's exhibits and research facilities.

"They're real classes," Hoyer says. "The students keep a notebook related to the class, and they have homework."

The goal: "to inspire students to become interested in science and math, and more interested in studying them," she says.

The Center's educational endeavors are especially important today, says Interim CEO Goldman, because "people learn differently now than they did 50 years ago. People don't do as well reading large volumes of text, [but] they can learn a lot through the Internet and TV, in a self-directed, less linear, more random way."

Most school curricula have not kept up with this new way of learning, and as a result, Goldman says, "we're not turning out many scientists in America. We're importing a lot of scientists."

"This is something that's a national problem," he says. "Learning science on your own is virtually impossible, and you have to be quite dedicated to get over the barrier of entry to enter a science curriculum in college."

By working with the school children to make science exciting and interesting, Goldman says OSC hopes to "provide an inviting environment where people can see scientific things that get them excited about science, and hopefully inspire them to want to learn more."

SCIENCE GETS WIRED

Stephen Goldman was able to retire in his 50s thanks to the success of his high-tech manufacturing company. So it's no surprise that the founder of Distributed Processing Technology, a maker of "intelligent storage controllers for the computer industry," would be interested in wiring his new domain with the latest in technology.

As Interim CEO of the Orlando Science Center, Goldman has donated \$250,000 in start-up money to create Wired Science, a comprehensive, interactive computer system that will personalize each OSC exhibit to the interests and intensity of every visitor. Set up as a separate, non-profit corporation, Wired Science has three full-time staffers and a board of directors who will work on "talking science inspiration, which we do well, and turning it into science education," Goldman says.

Set up at kiosks through the Center, Wired Science will feature a computer and a video monitor from which animated characters will lead visitors through a vast scientific database related to each exhibit. Led by Dr. Dare and his lab assistant, Eye-Gor, the characters are intended to delight the younger set while allowing visitors of all ages to get as little or as much information they want on the subject at hand.

But Wired Science is more than just a Science Center intranet. It also will include hands-on experiments and labs, historical information, links to business and industry and information



Courtesy of Wired Science Inc.

Wired Science's Dr. Dare, Ona Quest, Frankenboy and Eye-Gor make learning science fun for OSC visitors.

on how visitors can continue exploring subjects on their own.

"You need to have hands-on contact with the phenomena," Goldman says, "and you can't afford to do all that in the classroom."

The Wired Science staff and board — which includes technical professionals, science educators, textbook developers and academic scientists — are "experts in presenting this type of information," he says, and are working to build a system that "cover[s] all the information in a particular area, and not just a piece here and there."

The first OSC exhibit to get wired will be the Tesla Coil, a device built in the late 19th century to test Nickola Tesla's theories about electrical conductivity. The animated video will include a biography of the inventor, an explanation of how and why the coil works, and an interactive lab with experiments and quizzes to test visitor's comprehension of the exhibit.

The purpose of Wired Science is to demonstrate scientific principals in an interesting, logical way that lets each visitor learn at his own pace.

"When you think about it, learning and entertainment are absolutely compatible," Goldman says. "A lot of people come [to OSC] because they want some entertainment with a little scientific content, but if you go a little deeper, you'll see scientific things that will inspire you."

Onward, cultural soldiers

Although the Science Center has come a long way since the troubled days that followed its opening, future success is no slam dunk. According to Goldman, OSC — and Orlando's cultural life in general — "is at a crossroads. We could go in a lot of different directions here."

One direction is to neglect to learn from the past, and thus to repeat it. If the community fails to get behind its cultural institutions, to provide the volunteer hours and the financial backing they need to thrive, Orlando could remain an also-ran in the race to become Florida's most sophisticated city. But if government, business leaders and community members work together, Central Florida could become, in Goldman's vision, "a cultural center, and a high-tech center, too."

The road to that Eden must be paved with more than good intentions.

"There are all sorts of reasons you can come up with as to why this is going to be hard to do," Goldman says.

Although many claim Orlando is too transient a community, or too young a place, to build a solid cultural foundation, Goldman says those critics forget how much the area already has accomplished.

"My dad came here in 1956, when I was five years old, so I've seen it come a long way," he says. "We've had about 400,000 visitors to the Science Center, so I don't see that there's a lack of support or interest from the community."

Rather, he says, the local cultural scene has been plagued by a lack of cohesion and a misunderstanding of how best to rally community support.

"People give money because they're involved socially in something," Goldman says. "If their lives are more involved with [a cultural institution], they're going to step up in a much bigger way. The challenge is for us to get more and more people involved."

Through new interactive exhibits, school programs, and feel-good opportunities such as the Adopt-A-Star program, in which people can "adopt" one of more than three dozen constellations for a year, OSC hopes to keep the public interested and excited about science and the Science Center.

"It's about content and depth," Goldman says. "Our success will be determined by the responses we get from visitors." **DM**