

Seeing is Believing

After 25 years with the Science Museum of Minnesota, Pat Hamilton has all but mastered the art of global show-and-tell. by EVE DANIELS

A young mother shoves her double stroller, which holds cranky twins, through the glass doors. In the lobby, a nervous tour guide talks up the city of St. Paul to some weary conventioners. At the ticket counter, a grade-school teacher rounds up a mob of restless tweens who would rather giggle, talk, text-message... anything but, *ugh*, learn.

A typical day at the Science Museum of Minnesota. And this is just a taste of Pat Hamilton's not-so-typical audience. As director of environmental and earth-systems science programs, Hamilton looks for what the often-preoccupied public needs to see. Then he helps them to see it.

This job can come at the risk of stating the obvious, at least to scientists. For example, a few years ago, Hamilton had a notion. Maybe he had osmosis to thank, but the idea that *humans are the dominant agent of change on the planet* entered his mind like an "aha" moment.

Not long after, during a retreat with the National Center for Earth-surface Dynamics, he stood up and asked a room full of very smart people what they thought of his notion. The majority response was "Sure, we've known that for years."

"That's where the science museum needs to be," says Hamilton. "We need to be between what scientists know and what the public doesn't know."

And that's where projects like *Future Earth* fit in. The 6.6 billion people roaming the earth today are leaving one serious footprint. Our collective impact rivals any natural process in the planet's history. Right now, Hamilton is working with research centers across America to develop an interactive exhibit that drives this idea home.

"Our challenge is to help people understand that this is going to be a human-determined future," he says.

That's a tall task, and one that calls for advanced technology to do it right. So, when he's writing grant proposals (and he writes

a lot of them), Hamilton isn't shy about asking for high-tech equipment.

High-tech *and* heavy-duty, like Science on a Sphere, a global display system developed by the National Oceanic and Atmospheric Administration. This past March, a captive crowd gathered around the 68-inch, suspended globe to marvel at "The Blue Planet," a standout component of the science museum's recent *Water* exhibit.



As a new fellow of the Institute on the Environment, Hamilton is collaborating with IonE researchers to develop programs for Science on a Sphere and other displays. Pictured here, he demonstrates the Rain Table, an interactive exhibit developed by the Electronic Visualization Laboratory, the U of M's department of geology and the Science Museum of Minnesota.

It's one thing to read how "less than 1 percent of Earth's water supports all life outside of the oceans." It's another thing to see global water shortages pinpointed in dynamic detail around this state-of-the-art sphere—a technology that Hamilton first discovered at a conference in 2003 and promptly secured a grant for.

Evidently, Hamilton has always had a fascination with the blue planet. Back in junior high, when most boys his age were playing sports and chasing girls, he was paging through satellite images of the world.

"NASA had published this book of

Landsat pictures of the earth's surface," he recalls, his eyes lighting up. "For like 12 bucks, you could have NASA send you this cool book."

Following a brief stint as a biology major at Minnesota State University in Moorhead, Hamilton learned he was a lot keener on Earth-as-a-whole than its separate organisms. He transferred to the University of Minnesota, Duluth, graduating in 1980 with a geography degree. Two years later, he earned his master's degree in the same field at the Twin Cities campus.

Then, in 1984, he landed his dream job at the science museum.

"I was hired to help the director of the geography department produce an exhibit about Minnesota. I didn't have any exhibit experience, but it was exactly what I wanted to do. So I really poured myself into making the best case possible for why I should work here."

A quarter-century and a few promotions later, Hamilton is still making the case. He's played a lead role in creating the museum's outdoor science park, the zero-emissions Science House, the long-standing Mississippi River Gallery and a host of other exhibits.

Granted, he's not working on his own. The Science Museum of Minnesota boasts the largest in-house production facility of any museum in the country, with a 12,000-square-foot fabrication shop and 100-plus staffers in the exhibits division alone.

So, Hamilton is one small part—albeit an important part—of a well-oiled machine. "I get the funding and get the ball rolling. Then my involvement tapers off as I look at what the next big opportunity is."

Money is tight these days, but Hamilton feels bullish.

"The environment is going to be the story of the 21st century. How we survive and thrive on this planet is a narrative we'll be working on for a long, long time."

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PHOTOS: JOSH KOHANEK