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EXHIBITIONIST

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by Kristine Hastreiter

At the Council of Standing Professional Committees meeting, which was held at the AAM headquarters in Washington, DC this past August, members of the council and AAM staff came together to discuss the needs of the individual Standing Professional Committees as well as needs within the field at large. The Council of Standing Professional Committees identified three key needs as priorities for action and recommended that they be considered by the AAM Board of Directors:

- The development of a clearinghouse of information to be located within the AAM Information Center and to be accessible on the World Wide Web. Examples of information include bibliographies, training opportunities, best practices, salary surveys, etc.
- The pressing need for a national survey of state museums to provide hard data and information for the clearinghouse.
- Developing incentives and rewards for volunteer service and ongoing professional development if individuals are to continue to provide AAM and the field with strong support.

A couple of weeks ago, I had the opportunity to represent NAME, CARE and PRAM at the National Program Committee Meeting in Portland, Oregon at the Portland Museum of Art. A variety of sessions and poster sessions have been selected to be presented at the AAM Annual Meeting-Portland. Once again, the Standing Professional Committees have provided more than 60% of the programs and sessions for AAM Annual Meeting.

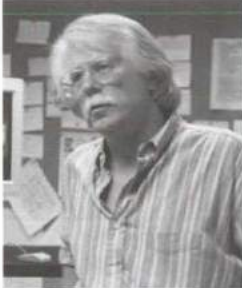
I would like to take a moment to thank NAME's program chair, Leslie Cohen, for her hard work in getting all these sessions to the National Program Committee. From soliciting ideas, to working with chairs to hone their proposals, to ranking and presenting proposals at the preliminary Program Committee meeting, it's a tremendous amount of work.

While I was in Portland, I had the opportunity to do some sightseeing in the city and the surrounding countryside. Jim Hoobler, chair of CurCom, and I spent an afternoon walking around downtown Portland. We visited Portland's Open Market, the Chinese Gardens and had Dim-Sum at Louie's on West Davis Street. (I would highly recommend making time to eat at Louie's.) Breakfast at Camp 18, located on Sunset Highway U.S. at milepost 18, is also not to be missed. Part old time logging museum, part restaurant, Camp 18 is a super-sized Lincoln Log building. I also met with staff members from PPI Exhibit Design & Fabrication. PPI will be hosting the Exhibitionists Ball, the NAME evening event, at AAM-Portland, scheduled for Sunday, May 18, 2003. We'll feast on pizza and beer while the band cranks out rhythm and blues.

As many of you know, special circumstances lead to the postponement of judging the entries for the 2002 Excellence in Exhibition Competition. Judging of the 2002 entries will take place this winter and the awards will be presented at the AAM Annual Meeting-Portland. Entries are being accepted for the 2003 Excellence in Exhibition Competition. Questions should be directed to Gretchen Overhiser, exhibition competition coordinator. Gretchen can be reached at gretchenoverhiser@yahoo.com.



Recapturing the Poetics of Exhibition



by Jay Rounds

Given the choice between visiting *The Museum of Plumbing* or *The Museum of Poetry*, where would you go? Almost everyone chooses the poetry. Why is it, then, that we build museums and exhibits that are more like plumbing than they are like poetry?

A very wise man, James G. March, said that a good life requires both good plumbing and good poetry; the two must somehow coexist in a delicate balance (March 1994: 2). In March's metaphor, "plumbing" comprises all those things that deal with the practical realm of life. Plumbers make things work. They're goal oriented and pragmatic. Their approach to the world is to bring it under control, to make it respond to their own intentions.

"Poetry" is March's metaphor for that which deals in the realm of meaning. Poets seek not to control the world, but to interpret it. Where plumbers focus on achieving goals, poets focus on cultivating thought, emotion and understanding.

March explained that plumbing and poetry symbolize two radically different assumptions about the nature of human action—two different ways of understanding why people do what they do, including such things as visiting museums.

Plumbers understand human action in terms of what he calls a "logic of consequence" (1996). The starting point for the logic of consequence is the assumption that people have goals—things they want to make happen in the external world—and that they choose their actions in order to maximize the likelihood that they will achieve those goals. Success is measured by how well the actual outcomes match up with the actors' initial intentions—by whether they got what they wanted.

Poets, by contrast, operate in terms of a "logic of appropriateness" that is focused inward rather than outward. The starting point for the logic of appropriateness is the assumption that people have (or strive to achieve) a sense of identity—a sense of the kind of person they understand themselves to be (or wish to be). They choose their actions on the basis of consistency with that identity: "That's what people such as myself do." Our identity expresses our beliefs about what is important and meaningful, beliefs about the nature of the world and our own place within it, and about the right way to live in that world. In the logic of appropriateness, success means being who you should be, regardless of external outcomes.

But plumbers care very much about outcomes, about the bottom line. In their view, without a successful external outcome, all this other stuff is pure psychobabble. What counts is what *can* be counted: successful outcomes that can be measured and that clearly reflect achievement of the goals that originally inspired the action. To the poets, concrete outcomes are of secondary importance, far behind the value of knowing that you have lived your life properly.

These are radically opposed principles for explaining something very central to human life. But remember March's point: a good life requires *both* good plumbing and good poetry. We live in a real world, and to get around in it in our daily lives we do set out with goals and with the expectation that at least some of those goals are going to be fulfilled. To abandon goals and goal-oriented behavior would be irrational. We need good plumbing.

A good life
requires both
good plumbing
and good
poetry.



Nonetheless, it is built into our nature as human beings that the world inside is just as real and demanding as the world outside. We all know the hunger for meaning in our lives. We all are driven to understand who we are. We all know the inner voice that nags at us when our actions violate that sense we hold of our personal identity. We all feel depressed when life seems pointless, chaotic, devoid of meaning. We need good poetry.

We all feel depressed when life seems pointless, chaotic, devoid of meaning.

Somehow these things have to coexist. Pure poets and plumbers are analytical abstractions,

useful for spotlighting differences, but they are not real human beings. In reality, each of us is part poet and part plumber. That's what makes life so problematic; sometimes our parts don't fit together very well. Our difficulties in making decisions, our bitter regrets over past actions, our chagrin at having violated our principles and standards, our anger over lost opportunities, are often rooted in the conflicts between the plumber and the poet inside us.

The same tension is found in larger systems, such as museums or the field of museums or the social context of museums. The pipes and the songs don't always exist in harmony. How could they, given that their demands and their preferences are so fundamentally in conflict? The best that we can hope for is an uneasy but workable state of balance between the two.

But museums are not in a state of balance now. Plumbing has overwhelmed poetry. Our museums are becoming displays of pipes and drains and valves. Our educational programming resembles vocational schools. Our rhetoric is the language of consequences. We seek to justify our role in society almost exclusively in terms of goals and outcomes.

Nowhere is this problem more clear than in the growing domination of "outcome-based evaluation" as the officially sanctioned method for judging the quality of museums and their exhibits. OBE is the philosophy of plumbers. It asserts that museums must prove their value to society, and that to provide that proof only one type of evidence is acceptable: measured, documented evidence of concrete results or consequences—better known as "outcomes."

The Institute for Museum and Library Services (along with other major funding agencies) is a major enforcer of this attitude. It wants museums to run "programs" that produce "outcomes." The Institute's website states that a "program" is "a series of services or activities that lead towards observable, intended changes for participants." "IMLS defines outcomes as benefits to people: specifically, achievements or changes

in skill, knowledge, attitude, behavior, condition, or life status for program participants."

Thus, society is understood to fund museums because it has particular goals in mind—goals that have to do with making people "better." It wants proof that our exhibits and programs and services actually produced those outcomes. Museums that fail to produce that type of measurable outcome are without value and don't deserve public funding.

This is the logic of consequence exercised at its extreme. It reflects the fact that the methodology of OBE has been borrowed from the field of social service agencies, which endeavor to remediate problems in the lives of their clients. A deficiency or pathology is diagnosed, an intervention is made, and success is judged on the basis of whether the problem has been fixed. While this may approximate an aspect of our work in museums (a colleague once described museums as being in the business of "fixing ignorance"), it is extremely dangerous when it is taken as describing the whole. Such an attitude misrepresents the way most visitors use museums.

Visitors sometimes come to museums seeking specific information for practical uses. This is goal-oriented behavior, exemplifying the consequentialist tradition. Sometimes, though, (probably most of the time) visitors come to museums not as an extension of the practical, goal-serving activity of everyday life, but as a refuge from everyday life. They come not because museums will meet their needs for specific, concrete outcomes, but because museums offer an alternative to materialist, quotidian pursuits. At such times visitors are serving other, equally compelling demands of humanness: the search for meaning, the maintenance of identity, the sense that one is living a proper life. In short, they come for the poetry.

In current theoretical literature there is a strange disconnection between analysis of visitors and analysis of museums and museum professionals. Visitors are described as meaning-makers whose behavior is based on complex interactions of personal history, cognitive predilections, values, goals, social groupings and unique circumstances. Museums and museum professionals, in stark contrast, are described in terms of consequentialism's simplistic models of predetermined goals and measurable outcomes. At the very

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time when our models of visitor behavior became richly complex, our models of museum institutional behavior moved toward the simple-minded.

A truly useful theory of museology will have to display a tight congruence between ideas about museums and ideas about museum visitors. It will have to acknowledge that museums are as complex and complicated as their visitors, and that the behavior of neither can be reduced to a simplistic model of goals and consequences without becoming a grotesque caricature. It will have to explain museum professionals with the same principles that it employs in explaining visitors. It will have to recognize the delicate balance of plumbing and poetry in each, and the ways in which the museum's efforts at balancing plumbing and poetry influence those of museum visitors.

As an antidote to the domination of consequentialism in museum theory and practice, I wish to draw your attention to some comments made by James March on the occasion of his retirement from the Stanford University Business School (March 1996). March is an enormously influential thinker on the nature of complex organizations—probably the most-cited author in the entire history of organizational theory. His musing on schools of business should be of great interest to the museum community, because businesses are constantly held up to us as models of the outcome-oriented enterprises that museums should become.

March noted that schools of business are, quite predictably, dominated by the logic of consequence, and he acknowledged that such ideas are “of enormous importance in human development” and that “It is inconceivable that we would abandon them.” But he also argued that business schools present a picture of human motivation that is fundamentally flawed because it excludes the logic of appropriateness. To define humans solely as outcome seekers is dangerous nonsense, an affront to the real complexity of our nature.

The logic of appropriateness may be absent from the outcome-oriented rhetoric of modern institutions, but it is forcefully expressed in great works of literature, art, poetry and philosophy. March cites *Don Quixote* as a powerful exemplar:

“When challenged to explain his behavior, Quixote does not justify his actions in terms of expectations of their consequences. Rather, he says ‘I know who I am.’

“Quixote seeks consistency with imperatives of the self more than with imperatives of the environment. He exhibits a sanity of identity more than a sanity of reality....He pursues self-respect more than self-interest....Great enthusiasms, commitments, and actions are tied not to hopes for great outcomes but

to a willingness to embrace the arbitrary and unconditional claims of a proper life” (March 1996: 12).

March goes on to observe that a university is

“a temple dedicated to knowledge and a human spirit of inquiry. It is a place where learning and scholarship are revered, not primarily for what they contribute to personal or social well-being but for the vision of humanity that they symbolize, sustain, and pass on.”

HAS IT BEEN MEANINGFUL?

This is the final issue of my four-year turn as editor of *Exhibitionist*. With the Spring 2003 issue Jane Bedno of the University of the Arts in Philadelphia will be taking over.

It's been fun! Demanding and exhausting as well—but no more so than the huge amount of volunteer work contributed by other members of the NAME board of directors and regional representatives. Getting to know NAME members and the authors who have written for the journal has been a special treat that has amply compensated all that late-at-night editing.

I hope that you readers have also found your time with *Exhibitionist* rewarding, and that the eight issues I've produced have advanced practice in the field in some substantial ways. I've tried to spotlight concerns that are central to our field and have broad implications for all kinds of museums. There are too few opportunities for us to explore critical issues in depth; I hope that our special theme issues have helped at least a little bit in filling that gap.

My thanks to NAME for this splendid opportunity! Thanks also to my assistant editors, without whom I would never have survived the past four years: Susan Beattie, Mary Beth Brown, Tom Hacker, Kristin Little, Sonya McDonald, and Nancy McIlvaney; to graphics designer Wendy Allison; to Phyllis Rabineau for “Exhibits Newsline”; to Whitney Watson for handling the printing and mailing; to Toby Raphael for guest-editing the issue on conservation; to Kristine Hastreiter for her tireless leadership of NAME; to all the authors; to the University of Missouri-St. Louis for allowing me to spend so much of my time working on the journal; and to Jane Bedno for picking up the torch.

—Jay Rounds

“...in order to sustain the temple of education, we probably need to rescue it from those deans, donors, faculty, and students who respond to incentives and calculate consequences and restore it to those who respond to senses of themselves and their callings, who support and pursue knowledge and learning because they represent a proper life, who read



books not because they are relevant to their jobs but because they are not, who do research not in order to secure their reputations or improve the world but in order to honor scholarship, and who are committed to sustaining an institution of learning as an object of beauty and an affirmation of humanity" (1996: 13).

Surely the same is true of museums. We appreciate the improvements in the plumbing made in recent years, but we should not allow ourselves to be defined by our plumbing. Certainly museums have a role in the consequential, in the necessary stuff of life. But the uniqueness of our contribution lies less in the things that make life *possible* than in the things that make life *worthwhile*—things that add richness, sweetness and coherence to the merely practical. For plumbers, a visit to a museum is akin to attending a seminar at Home Depot on how to fix a leaky faucet. For poets, visiting a museum is more akin to attending a performance of *Hamlet* or of Beethoven's ninth symphony, or reading *Tristram Shandy* or *Leaves of Grass*.

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March described plumbing and poetry as being engaged in a process of "mutual subsumation" (1994: 101). Each is trying to subsume the other position into itself. Thus, plumbers argue that meaning making is just a specialized type of goal pursuit, and that the meanings that result from the process are just like any other outcome, and can be measured using the same techniques they apply to any other form of outcome.

From the other side, some poets adopt a strong form of phenomenology, arguing that the actions plumbers define as goal seeking leading to measurable outcomes are illusory, nothing more than ritual enactments that create what they claim to describe. The underlying reality, according to this position, rests in the meanings that are given apparent substance by being acted out on the stage of the imagined world.

Neither of these arguments is very satisfying. The poets ask us to ignore the obvious reality that we see all around us. The plumbers ask us to ignore the equally obvious reality that we feel inside of us.

But why should we? Why not just accept that each is an accurate depiction of some aspect of the human condition? Why not just accept that sometimes we humans work within the logic of consequences and seek to control the external world and make it produce the outcomes we desire; and simultaneously accept that sometimes we work within the logic of appropriateness, seeking to do what's right, whatever the consequences. And that sometimes we get the two muddled together, and then we get all screwed up.

We trivialize the richness and complexity of the museum experience when we try to reduce it to a simple formula of goals and predictable outcomes, when we insist on conceptualizing exhibitions solely through the logic of consequence, when we treat them only as problems in plumbing. Whatever else they do, museums must be places of meaning.

REFERENCES CITED:

March, James G.

1994 *A Primer on Decision Making*. New York: Free Press.

1996 "A Scholar's Quest." *Stanford Business School Magazine*, June 1996, pp. 12-13.



Exhibits Newsline

by Phyllis Rabineau

*Phyllis Rabineau is
Deputy Director of the
Chicago Historical Society.
She can be contacted at
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Our lead-off story this time can only be the new International Spy Museum in Washington, DC (www.spymuseum.org). It's about as high-profile as any project in recent memory, and it's making a big impression among our colleagues. Several correspondents recommended it; others are perplexed, but no one is neutral. Russell Lewis brought back a brochure and said, "You gotta include this in the next Newsline!" Other correspondents forwarded articles from their local newspapers. Typical coverage has been stressing the museum's juxtaposition of real-life espionage with the fabricated world of pop culture. Borrowing its formats and media from mainstream institutions, the museum exhibits "treasures" from its collection (ranging from a lipstick gun to a radio transmitter disguised as animal dung). It uses an overarching historical narrative (delivered through a chronological storyline that takes us back to Biblical days and forward to current events), gives visitors a generous helping of interactive experiences and AV, and of course, it gives us many opportunities to leave our dollars behind in the store, café or rental event spaces. Here's the museum's mission statement, which you can find in the FAQ section of its zippy, intriguing website: "The mission of the International Spy Museum is to educate the public about espionage in an engaging way and to provide a context that fosters understanding of its important role in and impact on current and historic events. The Museum focuses on human intelligence and reveals the role spies have played in world events throughout history. It is committed to the apolitical presentation of the history of espionage in order to provide visitors with nonbiased, accurate information." And in another wonderful analogy to more conventional institutions, here's how the Spy Museum addresses curatorial concerns: "The stories of espionage that the Museum presents have been verified by two or more intelligence sources, and none contain (or can contain)

any information that is currently classified." In so many ways, this is a fascinating project, not least because it suggests we again need to consider the meaning of for-profit ventures as interpretive museums.

"treasures" from its collection:
a lipstick gun to a radio transmitter
disguised as animal dung

A recent issue of *Informal*

Learning includes an excellent and extensive review of the museum, but from a different vantage point. Here are some valuable comments contributed by Carol Bossert: "I'd like to recommend the International Spy Museum. Yes, I did work on it, but that's not why I am recommending it. I am recommending it because:

- It takes some risks in presenting material—It does not shy away from the deadly seriousness of espionage; it writes for an adult audience, because by and large the audience is, well, adults and the subject matter is definitely adult.
- It takes risks in terms of exhibition presentation—the use of images, audio and immersive environments. Some work better than others, but I certainly gain a great deal of insight when I watch visitors encounter certain elements.
- The project dealt with the challenges of working in a historical building in interesting ways.
- The project tried to keep the visitor's needs in mind at all times.

"As a professional that worked on it for over two years (content development and label writing) I was at times very nervous about the final outcome. Was it too 'adult'? Was it too jazzy? Was it too over the top to be comprehensible? I have talked with several museum professionals who just 'don't get it.' They don't get the 'main message,' they don't get the layout, they don't get the approach. I must admit there



are things in the installation that drive me nuts as well, but when I stop being 'the museum professional' and watch visitors encountering the exhibits and moving through the experience, I see people enjoying themselves, engaging in group interactions, sharing ideas sparked by the exhibits, etc. In short, people are having a memorable experience that they are talking about as they leave. I think it ultimately has to do with a heartfelt desire on the part of the development team to tell stories, take risks and be willing to fail at a few things. Anyway, I think it is well worth a look."

Speaking of different kinds of mysteries, I recently had a long talk with Jeff Hoke about his work with the new Alchemy Museum in Kutná Hora, a town in Czechoslovakia (www.alchemy.cz/museum.html). Jeff, who has a longstanding interest in this topic, said the museum grew out of an exhibit called *Opus Magnum* that was developed by a group of historians, chemists and physicists for the Science Museum in Prague. After *Opus Magnum* closed, they decided to find a permanent home for the project and it is now the core for the world's first museum dedicated to alchemy. The exhibits are split between the basement crypts and 3rd floor tower of an 18th century building; other floors house the town's tourism information center and an art gallery. Jeff turned up in time to help them with design details and labels, and based on his description, it was a fascinating experience to work with this group of dedicated, slightly eccentric curators. For those (like me) who don't really know much



The *Play It Safe* fireman is a full scale model of a Chicago firefighter in full gear with audio coming from behind the firefighter's mask. The audio allows children to hear the difference in a firefighter's voice when speaking through a regulation oxygen mask.

about alchemy, I won't try to explain what I learned from Jeff; just know that it was an ancient way of thinking, when mathematics, science, philosophy, and religion were seen as interrelated and interwoven subjects, before they segmented into modern disciplines. For example, in this era scientists who were studying the properties of plants worked in laboratories filled with flasks named after the animals whose shapes they resembled, and whose attributes in turn were metaphors and symbols. The Alchemy Museum recreates one of these labs, and explains how this ancient study of plants evolved into modern pharmaceutical science. The museum also recreates a metallurgical smelting oven, where visitors can learn about the search for philosophers' stones, a search that evolved into the modern sciences of chemistry and mineralogy. Visitors to the tower can see an alchemist's oratory—a place to pursue the spiritual life, the "inner work" that complemented the other research activities. You can find photographs of the exhibits on the museum's website, but if you decide to visit in person, Jeff also recommends that you stop nearby in the town of Sedlec to see the Ossuary—a Christian chapel decorated with human bones.

Well, perhaps it's time to pull back from the arcane mysteries of espionage and alchemy and return to more familiar settings—and what could be more familiar than an American family's home? (Although as we know, for many of us this terrain may have its own share of mysteries.) From



Exterior of the *Survive Alive House*, the focus of the *Play It Safe* exhibit. You can see the ambulance in the background.



the Chicago Children's Museum (www.chicchildrensmuseum.org), Louise Belmont-Skinner writes about her most recent exhibit, *Play It Safe*, set in the context of such a home. "We created a 1,300 square foot permanent exhibit offering a dynamic and fun way for children, adults, and caregivers to explore ways of preventing potential accidents in the kitchen, bedroom, bathroom and backyard. Exhibit visitors also learn valuable safety lessons for biking and buckling up in the backseat of a car. The exhibit's design is based on the exterior of a Chicago brownstone with an accompanying 'backyard' and its own ambulance parked by the curb. On entering the 'house' visitors can test their skills in everything from fire safety to bathroom safety. In 'Now You're Cooking!' visitors engage in an over-the-top stovetop game show in which the game's host, a friendly and informative oven mitt puppet, asks kids to play along by inspecting each burner to determine which are 'safe' or 'unsafe.' The exhibit was developed in partnership with the Chicago Fire Department. A special corps of Chicago Fire Department educators teach school groups about fire prevention, escape, and response, including escape from a simulated smoke-filled house.

"For the Chicago Children's Museum's design team this was a challenging exhibit project. It reflects some of our most innovative thinking. The safety messages we started with, no matter how important, were simple and even mundane to kids. However, with the innovative use of video, lenticular photographs, and animatronics, balanced with time tested kid-friendly activities—dress-up, seek and find, and fantasy play—and with the ongoing presence of the Chicago Fire Department, we have created an exhibit which engages our visitors, delivers the messages and is an important educational resource for Chicago."

Staying close to the story of kids, David Cholewiak, like so many of us, still fondly remembers the recent AAM meetings in St. Louis, and especially his visit to St. Louis' delightful City Museum. So, when he came across the website for the American Visionary Art Museum, he wanted to spread the word. You can check it out at www.avam.org. In particular, David's eye was caught by the Annual Kinetic Sculpture race. It's "a race of wacky, imaginative, TOTALLY HUMAN POWERED WORKS OF ART DESIGNED TO TRAVEL ON LAND, THROUGH MUD, AND OVER DEEP HARBOR WATERS constructed out of used bicycles, gears, and parts, created by a lunatic genius who tinkers around in the garage or backyard." If you fit this description, you, too, can compete next April for valuable prizes in categories such as the Mediocre Award (finishes right in the middle) or the Next-to-Last Award (self-explanatory, I hope).

My call for items to include in this column netted this from Dianne Hanau-Strain: "Let me suggest that you mention the Chihuly glass exhibit at the Garfield Park Conservatory (www.chihuly.com/installations/garfield). The mix of art and

living things is rich with surprise and the way the exhibit is bringing life to a neglected institution and neighborhood is inspired urban planning." We did give a plug to this installation in a prior column, but since it has been held over several times by popular demand, and will remain open for a few more months in Chicago, I'd like to pitch it to you again. You won't believe the wonderful visual dialogues between Dale Chihuly's organic blown glass forms and the Conservatory's exotic foliage, as well as with the towering glass structure of the greenhouse itself. And, as Dianne says, the project has brought tens, if not hundreds, of thousands of people to one of the city's overlooked cultural gems. I hope we will see more of these inspired collaborations between artists and unexpected cultural venues; the possibilities are endless.

Dianne goes on to say, "My only other 'wow' this year is 'emotionpictures,' an art exhibit developed by the American Academy of Orthopedic Surgeons. (Did you know this is the 'Bone and Joint Decade?') The works are by artists, doctors and ordinary people, and deal with injury and pain in a profoundly moving way. This fall it travels to Ames, IA; Minneapolis; and Penn State. Its website is worth checking out at www.emotionpictures.aaos.org."

Serena Furman makes it a point to take an annual tour of New York City. She writes, "My hands down favorite exhibition this year was *The Public's Treasures: A Cabinet of Curiosities from The New York Public Library* (June 7-August 24, 2002 at the NY Public Library). The design was not remarkable, but the content and exhibition writing were stupendous. The library presented items from their collection as 'cabinets of curiosities.' There was an excellent introduction to this type of exhibition with images of exhibitions from the 16th and 17th centuries that I wish I had examined more closely for design inspiration. A well-organized array of items then followed representing 'the written word.' Themes included The Taboo, Famous People, Famous Events, and The Formation of Collections." According to the website (www.nypl.org/research/chss/events/recent.html), the exhibition featured "a 19th-century feng shui compass; 'New York in a Nutshell,' a souvenir of the city nested in a walnut shell; a copy of *Fabrenheit 451*, a novel about book-burning, bound in asbestos; a hand-made nail from Monticello; Elizabeth Barrett Browning's slippers; a fragment of a Civil War-era reconnaissance balloon; a pop-up Kama Sutra; and paper made from unusual materials, such as carrot rings and wasp nests." Serena says, "To this I would add my favorites: A 400 page novel written without the letter

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(self-explanatory, I hope).



'e'; the world's smallest typeset book (about 3/8" x 3/8" x 1/4") and anti-Nazi propaganda that was sent to Germany disguised as vegetable seed packets. An hour and a half was not enough time for this exhibition, which is not typical for me as a museum visitor."

Serena also makes it a point to study retail installations, and so on this trip she revisited a design store called Felissimo at 10 W. 56th St. (www.felissimo.com). She comments: "This store is dedicated to design and is crossing (or has crossed) the line from retail to museum. The beginning of their mission statement is: 'At Felissimo we want to make sure that the needs of the individual in the present speak to the needs of the world in the future. Design enhances the quality of life. On every level it should celebrate, honor, venerate, praise, cherish and treasure all that we are, and remind us constantly of all we can be.' The last time I visited they had a gallery on the top floor with 3 or 4 floors of retail below. Now it is all exhibition space with a small gift shop. Though I was disappointed that I couldn't pick up more bottles of aromatherapy for cats (hysterical gift), the displays of modern design on all floors were great. Especially memorable was the award winning house for the homeless—an inexpensive fabric sleeping abode that inflates when placed over a subway vent."

"In terms of interesting retail design, I recommend the Prada store in Soho at Broadway and Prince. (What else but www.prada.com?) I call it Prada: The Ride. The public moving through this store looks more like a museum audience at a blockbuster rather than people actively shopping. If they are not buying, are they visiting a 'museum' of current fashion? I got some great ideas looking at their display techniques. And while I'm on the subject of retail merging with museums, there is also a store called Cadeaux du Monde, 26 Mary Street, Newport, Rhode Island. Their

international merchandise is also selected with a 'mission' and their 'price tags' look exactly like exhibition labels."

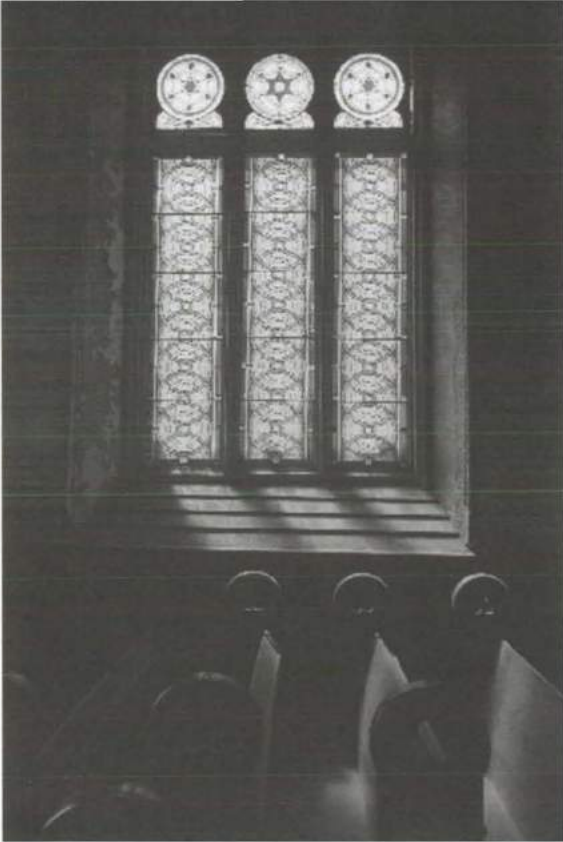
As regular readers know, no Newsline is complete without a contribution from Gene Dillenburg. This time out, he turned me on to a news item headlined "Thousands Flock to Japan's Godzilla Exhibit." In an inspired undertaking, this spring the Taro Okamoto Museum of Art (www.shusuke-kaneko.com/eng/taro.html) staged an exhibition called *Since Godzilla*, which examined the creature's meaning in Japanese culture. It not only traced the transformation and changing meaning of Godzilla, from a terrorizing monster to an earth-guardian hero; displays featured samples of radioactive fallout from an atomic bomb blast, as well as movie posters, costumes, props and sets (plastic miniatures of city skylines). The show was reported to attract more than 1,000 people each day.

In another "blast from the past" (sorry, I couldn't help that), in fact to the same era that spawned Godzilla, in Rolling Meadows, IL, a new historical society just opened in a 3-bedroom ranch house, with exhibits designed to take visitors back to 1955, the era when this Chicago suburb was incorporated. Not just a preservation project, the house was built brand new for the sole purpose of creating a historical museum. It's decorated in vintage colors (blue, green and pink), with era-appropriate furniture and products such as Minipoo Dry Shampoo, and '50s TV showing on the console, complete with rabbit ears antenna.

Before winding things up, I'd like to pass on some wonderful exhibits and interpretive environments that I've experienced recently. Top of my list are two from Lower Manhattan: the Irish Hunger Memorial and the Eldridge Street Synagogue. The Irish Hunger Memorial (www.batteryparkcity.org/ihm.htm) is located on Vesey Street at the Hudson River



Irish Hunger Memorial. Photo by Battery Park City Authority.



Eldridge Street Synagogue. Photo by John Alderson.



simulating marble columns) but lavished with ornate embellishments and details. The ceiling soared overhead, and it was incredible that all of the stained glass windows have survived the years of neglect. The material memory of the human touch was everywhere, most powerfully in the deep grooves that had been worn in the floor as the congregants swayed while they stood in prayer. Aside from the synagogue tours, the restoration project also runs an extensive education outreach program with the current neighborhood residents, largely Chinese immigrant families.

Also on my recent trip to New York, I enjoyed the new American Folk Art Museum (www.folkartmuseum.org). By now, I hope you've heard about this gem of a building and collection, sitting just west of the Museum of Modern Art. Each floor is a jewel, tiny in scale but beautifully lit and installed with a very carefully chosen grouping of objects. The exhibition is arranged chronologically and culminates on the lowest level with a great selection of works by "outsider" artists spanning the 20th century. I'd highly recommend a visit here. And lastly, I had a great time at the Cooper-Hewitt's exhibition, *Skin: Surface, Substance and*

The experience is very intimate and moving.

(not far from the World Trade Center site). It's a lovely, poetic construction that incorporates not only the ruins of an authentic Irish cottage (occupied by a single family for nearly 150 years), but also a landscape of stones and native bog plants brought from Ireland, as well as text quotations about the history of famine and its devastating human toll, in Ireland as well as around the world, and up to the present day. You can walk onto the memorial, and at its top you'll look out over the New York waterfront to Ellis Island and the Statue of Liberty. The experience is very intimate and moving, all the more poignant because of the search to find the right way to memorialize the 9/11 tragedy that unfolded so close by. The Eldridge Street Synagogue (www.eldridgestreet.org) is another great landmark, tucked away on the Lower East Side. Completed in the astonishing timeframe of just one year (1887), this was the first American synagogue built by Jews from Eastern Europe; before it, the immigrants had worshipped in small storefronts or in converted churches. Despite a very large congregation at the turn of the century, by the 1920s, the neighborhood's Jewish population dispersed to other locations and membership in the synagogue was greatly reduced. The main sanctuary was closed in the 1950s, and largely forgotten for 25 years, heavily damaged by water and just plain deterioration. The effort to restore it is now underway, and you can visit on a guided tour, during limited hours. I was astonished by the décor of the synagogue—crafted from humble materials, (for example, painted wood

Design (<http://ndm.si.edu/>). Organized into sections based on the various functions of skin (beauty, container, insulator, support, illumination), the exhibition explored a very large range of contemporary surface coverings—fabrics, plastics, veneers, metals, paper—fashioned into an amazing variety of forms. Crowd-pleasers were clothing items that converted into furniture: a jacket that inflated to become a chair, and trousers with a built-in stool. Another jacket had a complete built-in entertainment system. After a typical New York day of trudging from one museum to another, finally reaching a state so enervated that it surpassed any effort to define it as museum fatigue, this exhibition was truly a sorbet. Perfect!



Intention Does Count

by Marlene Chambers

Marlene Chambers is Director
of Publications for the Denver
Art Museum.

Critics should not take the intentions of designers into consideration when judging the success of an exhibit. But what about the critic's own intentions?

Should critics take the intention of the filmmaker into account when they're analyzing a movie? Should they analyze an exhibition from the point of view of its developers' goals? Estheticians, those philosophers whose job it is to keep critics in line by getting them to think logically and clearly about the "principles that are required for clarifying and confirming critical statements," generally come down on the side of leaving intention out of the weighing process (Beardsley, 1981: 3-4, 26-29). So what if you meant to lose ten pounds this month? So what if you actually did lose them? The extra flab you're carrying still shows.

Although I have argued that critics should stay focused on results rather than intentions (1997), I have to admit that knowing the maker's intentions can serve useful purposes in our professional discourse. Visitor studies people routinely compare goals with results to determine an exhibition's success. But what if the intention was wrong-headed to begin with? Can the exhibition still be called successful? Who decides? The issue of the proper role of intention in thinking about exhibitions popped up again in Jay Rounds' latest editor's column (2002). There he endorses the equal-time format of the AAM's annual exhibition critique session, which allots the first half of the session to the exhibition developers and the second to the critics. Rounds recounts his personal frustration at being shut out of the first half of the session when he took a turn as critic for the *Gold of the Nomads* exhibition a couple of years ago. He would, he tells us, have liked to have known "whether the things [he] was seeing were there by intentional design, or were fully a product of [his] own meaning making." (As it turned out, he read more into the show than its designers had in mind.) Nonetheless, Rounds supports the format that keeps critics in the dark about what exhibition developers think they're up to, but he says the rest of us who attend these sessions can learn "valuable lessons" by being able to compare the developers' intentions to the actual experience of visitors who are not privy to those intentions—in this case the critic-practitioners who hold forth in the second half of the session. The man does have a point.

Although critics themselves need to stay focused on the features of the object rather than extrinsic factors like the maker's intention, our critical dialogue about exhibitions often takes a step or two beyond the basic task of criticism—analyzing the characteristics of the object and their effect—by making value judgments that measure what the critic sees against what the critic would like to see, that is, his own intentions for the exhibition. Lacking any knowledge about the intentions of the exhibition developers, the critic has to judge the exhibition by his personal standards. When he does this, no matter how well informed about visitor studies, no matter how well-grounded in theory and practice, the critic always lays himself open to the charge of being capricious, idiosyncratic, and lacking in objectivity. But good criticism actually demands a special kind of *objectivity*, the kind that is focused on the *object* and ignores irrelevant factors like the maker's intention and budget. This effort to focus on the object is about as close as anyone can come to objectivity.

In an attempt to design a more objective system for judging an exhibition's effectiveness, Beverly Serrell and the Excellent Judges (2001) are engaged in developing a set of criteria and a mathematical ranking system for making value judgments about museum exhibitions based on "the visitor's reactions to what the exhibition presents rather than the museum's intent for the presentation" (2001: 16). Aside from the grading system, this is exactly what the AAM critique session offers by excluding the critics from the makers' declaration of intentions. The Excellent Judges' most recent, and perhaps most direct, rejection of intention as a yardstick for measuring excellence came during their "Can We Talk?" session at this year's AAM meeting when representatives from the group told delegates that "intention doesn't count" in the system they are developing. Unfortunately, this is not quite the case.



Although they are quick to point out that theirs is a work in progress, the Excellent Judges have thus far created five criteria for judging the excellence of exhibitions from the perspective of the visitor's experience. These are comfort, competence, engagement, meaningfulness, and satisfaction. This certainly represents a salutary shift in values, but it does not remove intention from the process of judging. The "tool" for judging excellence that the group is in the process of refining is actually a set of goals or intentions in the guise of criteria. If exhibition developers want to get "excellent" ratings from the Excellent Judges, they will have to embrace the judges' criteria, matching their own intentions to those of the Excellent Judges, who will rate the exhibition according to how well (in their judgment) its features contribute to a "satisfactory" experience for the visitor. What the group has done is to shift the locus of intention from the stated communication goals of specific exhibit makers to a cluster of relatively vague affective visitor goals that can be applied across a wide spectrum of exhibitions. The "tool" being created by the Excellent Judges holds great promise as a guide for developing excellent exhibitions, but it is both criterion and statement of intention. To pretend otherwise is to diminish its potential usefulness.

Admittedly, the critic cannot ignore or escape the personal intellectual and cultural biases that color her reactions to the exhibition and give rise to her own preferred goals—

you think you will experience and available opportunities to fulfill these expectations is an important part of feeling satisfied with your visit. Intentions do count, yours and the exhibition's. A recent study examining major predictors of visitor satisfaction and focusing on the cognitive and sensory aspects of visitor and visit variables concluded that "visitor satisfaction seems to be a function of what visitors bring with them, as well as what happens during a visit" (Yalowitz, 2001: 82). Visitors' satisfaction is highest when their own intentions—why they are visiting and what they hope to get from the experience—harmonize with those of the exhibition developers and, of course, with the specific ways in which the developers have carried out those intentions.

The Excellent Judges are working to make their rating system "statistically reliable and valid" in the hope that it can be used to "identify excellence in a more objective way than critiques and reviews have done in the past" (Serrell, 2001: 19). Faint hope. If a single critic is unable to shrug off the shackles of his individual consciousness, how much more difficult for a group to give up their unique preconceptions and prejudices and arrive at a unanimous (much less universally accepted) basis for judgment. The very act of establishing a set of criteria betrays a mental set.

The same unconscious limitations beset the field of visitor studies, which is usually credited with an objectivity lacking

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Visitor satisfaction is highest when their own intentions harmonize with those of the exhibition developers.

however hard she tries. In the end, whether you're an ordinary visitor or a critic, your "satisfaction"—what the Excellent Judges call the exhibition's "cumulative" emotional effect or "gestalt ... the feelings you walk away with" (2001: 20)—depends on how the intentions that shaped the exhibition's observable features stack up against the intentions you bring to the table. The match between what

in other kinds of exhibition evaluation. Like accounting, though, polling is an art, not a science. And, as polling in general has come to face more public scrutiny, we can hardly avoid being aware of the way presumably objective results can be deliberately skewed by how questions are phrased or even by the very choice of questions asked. The



most insidious errors are those that creep in inadvertently when we close our eyes to the possibility of statistical bias.

All this was brought home to me on a recent busman's holiday to the Denver Museum of Nature and Science. I wanted to look in on an exhibition I had caught a glimpse of in a TV news snippet. The only thing I actually knew about it was its subject—the story of Denver's past as told by the rocky substrata laid down jillions of years ago. Well, I admit, this wouldn't be everyone's cup of tea, but it never fails to tempt me. Mostly because I've never learned to tell one rock from another, never quite got the hang of reading the earth's past in its present. But I always seem to be teetering on the brink of some great geological secret, and maybe this was my big chance. Maybe this time the scales would fall from my eyes.

So it was with high hopes that I entered the promised land of *Ancient Denvers*. And at first, it looked like my hopes were to be justified. The introductory label told me that the area's "signature scenery"—scenery I could picture in my mind's eye—the nearby Boulder Flatirons, Red Rocks

the right, highlighting the full immensity of the meaning of *ancient*, boldface type indicated the layer's age, followed by, in much less emphatic italics, friendly, memorable titles for the landscapes that had led to that layer's formation—The First Rainforest, Slimy Shoreline, Red Dirt World, After Armageddon, and the like. On the left of the column, things got a little harder for me, and I'm still not sure what to call the boldface captions there, which identified each stratum with mysterious, and what I took to be more scientific, names like D1-Dawson Arkose, Laramie Formation, Precambrian igneous and metamorphic rocks, and Paleosol. Well, maybe it wasn't absolutely essential to remember all those names, I thought.

I ignored the photograph at the far left of the introductory panel because one glance told me it was just the sort of information that had always confounded me in the past—a road-cut with layers of rock that all looked alike to me. But sandwiched between the column of rocks and the photograph was a diagram of the Denver Basin that looked like a piece of cake. It proposed to show "how rock outcrops on the

During the hour or so I spent studying the paintings and their labels, most of the other visitors I saw were just passing through.

I had invested time that hadn't paid off in the way I would have liked, but I had enjoyed the chase for information and enlightenment.

There has been a revolution in our thinking about our mission.

Amphitheater, and the Garden of the Gods, among other popular sites—were all "remains of past landscapes," the "ancient Denvers" of the exhibition's title. There was even a colorful diagram showing the order in which "14,000 feet of layered rocks" had been laid down in something called the Denver Basin. To make sure that I understood the magnitude of 14,000 feet, twenty silhouettes of another Denver landmark, familiarly known as the "cash register building," were stacked next to this column of rocks. Text on both sides of the column labeled each rock layer. As I later realized, these captions were probably meant to help me make my way through the exhibition by providing some advance organizers, a sort of outline of topics to come. On

surface allow us to understand the geological structure beneath." Try as I might, I couldn't quite figure out how the cutaway layers in the diagram related to the column of rocks I had just finished studying. The piece of cake seemed to be missing quite a few layers. Okay, enough of dessert. Time to go for the beef.

As I rounded the corner of the introductory wall, I could see for the first time that this was a very small exhibition tucked into a transitional space between one of the third-floor atrium walkways and Bird Hall, with its brilliantly lighted, seductive dioramas—not the best location for a relatively static display of fourteen two-dimensional paintings.



During the hour or so I spent studying the paintings and their labels, most of the other visitors I saw were just passing through on their way to somewhere else, although occasionally someone would stop briefly to scan a painting before hurrying on.

It wasn't until I saw the heading of the first painting's label that I realized the column diagram and its captions were probably meant to act as a road map to the landscape images I'd be seeing. Here again was the friendly nickname for the landscape (Ancestral Rockies), along with the more formal name of the rock layer (Fountain Formation) and its age (300 million years ago). The painting was compelling. It was, as the label said, "an utterly strange Colorado." But then I was lost again when the text went on to say, "where millipedes are as big as snowboards and dinosaurs haven't yet evolved." Well, obviously, I wasn't going to find any dinosaurs in the picture, but where were those pesky millipedes? There didn't seem to be a single one in sight. "Colorado has mountains," pointed out the label, though what I was looking at seemed more like rolling foothills. Still, they were large enough for a snowboard-size millipede to find plenty of hiding places. But which of the weird trees were "100-foot-tall scale trees" and which "giant relatives of the horsetail rush"? "Buzzing insects such as dragonflies are huge," I was told. So why couldn't I find one? Still undeterred, I read on: "while fin-backed protomammals, reptiles, and amphibians are relatively small." Aha! Not only had I spied two fin-backed creatures, but I was even pretty sure they weren't protomammals or even reptiles, but amphibians since they were tromping about on a little island in the midst of a broad stream winding down from the foothills into the foreground. Although I could see nothing fountain-like about it, I wondered whether the stream explained why this landscape-turned-rock layer was called the "Fountain Formation."

Obviously, I wasn't batting a thousand, but perhaps I could chance the label's second paragraph. It was shorter than the first and seemed to be cutting to the heart of the matter that interested me.

The Fountain Formation is a thick layer of red sandstone that lies directly on top of much older metamorphic rocks. The sandstone was loose sand in the bottom of riverbeds 300 million years ago. Now stone, the layers rest deep below Denver, but on the upturned margin of the Denver Basin they form the first rampart of flatirons along the Front Range.

Even though I had no idea what a metamorphic rock was, the rest of the paragraph seemed to make sense. Still, it was hard for me to see how this deepest layer of the stone column got "upturned" without disturbing all those layers above it.

Encouraged, I pressed on. Each label offered more or less the same rewards and disappointments. Descriptions of paintings included teasing references to sights unseen ("squat-bodied protomammals the size of big dogs") and things unknown ("cycads" and "welded tuff"). The second paragraph of every label made an effort to relate the landscape on view to the rocks that could be seen poking up their heads around Denver. Sometimes, though, these efforts were pretty feeble. The Sand Planet (Lyons Sandstone) layer, I was told, could be seen in sidewalks and fireplaces around the area and is quarried near Lyons. But without a sample or at least a picture of the sandstone itself, I was hard put to know which sidewalks and fireplaces to be on the lookout for. I wondered how I'd be able to tell this sandstone from the "red sandstone" of the Fountain Formation, which I'd already decided was the home base of the sandstone stepping-stones in my garden. The sand dunes of the painted Sand Planet landscape were almost pure white, but so were the islands in the picture of the Fountain Formation, and I couldn't recall ever seeing any white sandstone stepping-stones about. To add to my confusion, the label called the Lyons Sandstone both "sandstone" and "flagstone."

I forged ahead, and new questions arose at every turn. But I loved the paintings. It was truly amazing to think of the landscape history of Denver's high, dry plain: once a sweltering tropical coastline, a foggy meadow that sustained huge vegetarian dinosaurs, the bottom of a salty sea, the site of a catastrophic volcanic eruption. The final panel included a map showing the location of various Front Range geologic sites where the rocky remains of the landscapes could be seen. Turning to leave, I stopped to read a second introductory panel I had skipped on the way in. Headed "Visit Extinct Landscapes," the label encouraged readers to visit "dozens of parks and open space areas" in and around the Denver Basin to see the "rock layers and outcrops that piece together the stories of Ancient Denvers." We were urged to stop at the museum shop to "pick up a copy" of a book that would "be useful" in visiting these parks, but there was no handout of the map or list of sites. My interest had been piqued enough that I did stop in the shop and shell out ten bucks plus for a colorful little booklet that included a site map, photos of the rocks, and answers to many of my still unresolved questions.

All in all, my visit had been pretty "satisfactory." True, the scales hadn't exactly fallen from my eyes, and I knew that I'd promptly forget everything I'd just learned about which landscape went with which rock, especially since I really had no idea what most of the rocks looked like. Someday, booklet in hand, I might try to track them down in the wild, though I would rather have seen them in captivity in the context of their landscape origins. My disappointments with the exhibition were those of an interested novice in rockology. I had invested time that hadn't paid off in the



way I would have liked, but I had enjoyed the chase for information and enlightenment. The effort kept me so engaged that I spent little time thinking about the exhibition as an exhibition.

If I had been looking at it through the eyes of a museum practitioner—someone who had been part of dozens of exhibition teams over the years—I would have been asking myself entirely different questions while working my way through the exhibition. Were these paintings specially made for this exhibition? Were they a collaborative effort between artists and scientists? Why hadn't there been any rocks on view to help visitors make the connection between these imaginary landscapes and the rocky evidence? Had the developers thought of putting *pictures* of rocks on the labels and decided against it? Should the labels have been a little higher? Was there too much text? Did the exhibition have a "big idea" (Serrell, 1996:1-8), and was it clearly articulated and illustrated? Was there an "audience advocate" on the team, an educator, a communication expert? What actually were the intentions of the exhibition team? And what could I learn from their successes and failures?

Had I been wearing my critic's hat, I probably would have asked some of the same questions, but in a different vocabulary, from a different direction, and for a different reason. I would, for instance, have spent more time looking at how the parts contributed to the whole. I would have thought about the way the two-paragraph structure of all the labels functioned as a unifying device and tried to decide whether this made up for their repetitive effect. I would have questioned whether the prosaic labels seemed appropriate to the imaginative and poetic paintings. I might even have thought about how a person with such and such a predisposition would respond to the exhibition. But I certainly wouldn't have cared what the exhibitors thought they were up to.

Still, Rounds does have a point. If we are to get better at what we do, we need to think critically (not necessarily as a critic) about the intentions we bring to exhibition development and the way they relate to the kinds of experiences visitors have (and want to have) in our exhibitions. This means we need to know a lot more about visitors' intentions than we do. But it also means we will never be able to agree on a statistically valid way to rate an exhibition's excellence by substituting our own reactions for those of some hypothetical visitor. Visitors' "meaning-making" activities, like their intentions in visiting and the mental and emotional baggage they bring with them, are too varied and personal to be second-guessed with mathematical precision.

During the time I spent in the exhibition, there was only one person who seemed to share my interest in the topic, and she spent only about twenty minutes there. Maybe she was an experienced rockologist—there are plenty of those around Denver—and was just enjoying the paintings. Or maybe she didn't give a fig about the rocks and only came to see the paintings. I had no way of getting inside her head to estimate her level of satisfaction. Another woman, passing through quickly with her young daughter, caught sight of the last picture, an enlarged photograph of a sea of rooftops in a crowded Denver suburb—not a painting in this case (though the same size as the paintings and framed in the same way). Glancing at the next-to-last picture, a painting that showed a few Ice Age mammoths and camels foraging before the same mountain backdrop, she remarked, "Look, honey, see what Denver was like when I was a girl ...before it got so built up!"

Although I have no idea what the first woman might have thought of the exhibition, I would bet that the second found it absolutely satisfying. This despite the intentions of the exhibition makers and despite the absence of the "engagement" required by the Excellent Judges. She felt comfortable and competent. And she found a personal meaning that defied logic but might actually have been close to the exhibitors' intentions. Wherever she was headed, her intention in coming to the museum that day was to share an interesting experience with her daughter, and she was determined to do so no matter what the museum had in mind. Anything and everything was grist to her mill.

The museum community is in the midst of a postmodern sea change that began in the 1970s when we first began looking at the museum experience through our audience's eyes and at museum learning in terms of what Claude Levi-Strauss called "magic" thought, the construction of new meaning out of the debris of past experience (Graburn, 1977: 11-12). It's a time in museum history that Neil Harris has labeled one of "existential scrutiny, one in which the institution stands in an unprecedented and often troublesome relationship to its previous sense of mission" (1990: 51). The 1988 Getty-sponsored focus group project that inspired Harris's observation seemed, he said, to mark a new era in polling, one that measured individual differences rather than commonalities. The research project, in which eleven major art museums participated, also reflected profound changes in institutional attitudes toward authority, the nature of knowledge, and the meaning of encounters with objects.

It's been a long time in the making, this revolution in our thinking about our mission. But the past decade has marked a shift from information-driven to experience-driven exhibitions (Chambers, 1988); from dishing out knowledge to "narrative endeavor" (Roberts, 1993)—in



theory at least. Though we still struggle to find ways to put these ideas into action, we are thinking more about shared meaning-making than about interpretation, more about negotiating meaning than controlling meaning, more about listening than telling (Silverman, 1995).

And there has, indeed, been a shift in our polling methods. Research instruments have become more open-ended as we've become less interested in whether visitors get our messages and more anxious to know what they think about their museum experience. We still want to know whether any learning is going on, but we've come to understand the importance of motivation and affective experience in the way people process information (Csikszentmihalyi, 1972; Roberts, 1992). We're still trying to find out whether specific exhibition strategies work, but these days we're looking at their affective effectiveness more often than their "holding power."

Translating the findings of museum researchers into excellent exhibitions is the trick. There's no doubt, though, that what we are learning about the visitor's intentions and the affective aspects of her museum experience has already profoundly influenced the intentions of many exhibition developers. But if we are to allow the primacy of the visitor's goals and expectations in judging the effectiveness of our exhibitions, we need to admit that intentions do count.

The author would like to thank her colleagues at the Denver Museum of Nature and Science who generously provided her with label text and information: Judy Koke, Frances Kruger, and Salle Tulchin.

REFERENCES CITED:

Beardsley, Monroe C.

1981 *Aesthetics: Problems in the Philosophy of Criticism*. Indianapolis and Cambridge: Hackett Publishing Company.

Chambers, Marlene

1988 "Improving the Esthetic Experience for Art Novices: A New Paradigm for Interpretive Labels." *Program Sourcebook*. Washington, DC: American Association of Museums, 215-27.

1997 "What Manner of Beast Is This? Exhibition Criticism and the 'Intentional Fallacy.'" *Exhibitionist* 16(1): 13-15.

Csikszentmihalyi, Mihaly

1975 *Beyond Boredom and Anxiety*. San Francisco: Jossey-Bass.

Graburn, Nelson

1977 "The Museum and the Visitor Experience." In Linda Draper (ed.), *The Visitor and the Museum*. Seattle: 1977 Program Planning Committee, Museum Educators of the American Association of Museums, 5-26.

Harris, Neil

1990 "Polling for Opinions." *Museum News* (Sept./Oct.): 46-53.

Roberts, Lisa

1992 "Affective Learning, Affective Experience: What Does It Have to Do with Museum Education? *Visitor Studies: Theory, Research, and Practice* 4: 162-68.

1997 *From Knowledge to Narrative: Educators and the Changing Museum*. Washington and London: Smithsonian Institution Press.

Rounds, Jay

2002 "From the Editor: Back to the Bottom Line." *Exhibitionist* 21(1): 3.

Serrell, Beverly

1996 *Exhibit Labels: An Interpretive Approach*. Walnut Creek, CA: Altamira Press.

Serrell, Beverly, et al.

2001 "A Tool for Judging Excellence in Museum Exhibitions." *Exhibitionist* 20(1): 16-20.

Silverman, Lois

1995 "Visitor Meaning Making in Museums for a New Age." *Curator* 38(3): 161-70.

Yalowitz, Steven

2001 "Effect of Visitor and Visit Variables on Overall Satisfaction in Three Visitor Institutions." Ph.D. diss., Colorado State University, Fort Collins.



Sailing Into the Known: *Our Dynamic Earth* and the Cranbrook Institute of Science

by Eugene Dillenburg

Eugene Dillenburg has been developing exhibits for 13 years and is still at large. His last known whereabouts were gdillenburg@mmm.org.

Cranbrook's "New Institute" project makes great strides in conveying content, but falls short on the original intentions for creating a museum-wide meta-narrative expressed through aesthetics.

A ship at harbor is safe, but that's not what ships are for." So says one of those "inspirational" posters beloved of HR departments and no one else. Yet it aptly summarizes the successes and shortcomings of the new exhibit galleries at the Cranbrook Institute of Science in suburban Detroit.

Cranbrook, an educational arts community which grew out of the Arts and Crafts movement of the early 20th Century, sits on a beautiful 315-acre site in Bloomfield Hills, Michigan. The Institute of Science, a mid-sized museum primarily focused on natural history, was built in the 1930s, renovated in the late '50s/early '60s, and then sat for decades, largely impervious to the passage of time.

In the mid-'90s, the Institute embarked on a bold plan to reinvent itself. They would gut the galleries and create new displays using the latest in educational theory and exhibition technique. Beyond that, they also set their sights on three lofty goals:

- to create exhibits based not on showing off a collection, but on explaining scientific themes;
- to draw connections between these themes, creating a "meta-narrative" for the entire museum; and
- to communicate those themes as much through aesthetics as through didactics, emphasizing intuitive and contemplative experiences.

(In the interest of full disclosure, I should state my sources. Much of my information on the intent and internal workings of Cranbrook comes from having interviewed, unsuccessfully, for a job in their exhibits department in 1997; the rest comes from discussions this year with professionals who worked on the project.)

Familiar with Cranbrook in its earlier incarnation, I revisited this past August to see how the New Institute project had come out. I was met with a series of handsome and professional displays in the best modern fashion. The thematic approach provided physical verification of Stephen Weil's argument that the proper business of museums is not things, but ideas. And yet, I was disappointed to find that the other two goals—connections and aesthetic communication—had been severely compromised, perhaps abandoned mid-stream. The boat seemed to have run aground on a very familiar shore.

A ship at harbor
is safe, but
that's **not**
what ships
are for.

Experience

Past the admissions desk and down a short, wide hallway, the black horizontal spine of a T. rex hovers over cases of mounted bird specimens. This arresting image is our introduction to *Our Dynamic Earth*, Cranbrook's three-part introductory exhibit. The three sections—Life Changes Over Time (birds, dinosaurs, and evolution), the interactive-heavy Ice Ages Come and Go, and Mastodons Did Not Survive—form something of a chronological progression. Unfortunately, you cannot enter at the beginning. You must walk to the middle of the hall by the Ice Ages and then double back to the T. rex, who presides over what is more or less a cul-de-sac.



First, though, one is expected to enter the large wooden dome of the Connections Theater for a 15-minute presentation. We learn that vastly unrelated objects, like dinosaur bones, asteroids and bird feathers, are actually tied together in an elaborate story. Cool; kind of like that old PBS series, *Connections*. Unfortunately, relatively few visitors entered—which is a problem, as this is meant to introduce the entire museum—and none I saw sat through the whole thing.

Inside the dome, rather than facing forward towards a single screen, the audience sits in a circle around the edge. In the middle, white sheets of sheer fabric hang from the ceiling, and projectors from all sides shoot images in time with the narration (largely read in a British accent, for reasons unclear). The idea of being able to see layers of images on the different surfaces no doubt fits the “connections” theme very well. Yet that visual chaos (plus waves in the scrims) made it difficult to tell what I was looking at. (Similarly, the experience of seeing ghostly images rise from a central “campfire” was kind of cool, but had nothing to do with either connections or science, as far as I could tell.)

Out of the theater and into *Life Changes Over Time*, with helpful signs guiding me to the T. rex. Here, Cranbrook was going to lead the way for other mid-sized museums. Rather than try to create a dinosaur exhibit with no collections to support it, they chose to make an *evolution* exhibit, using objects as iconographic illustrations. As such, the T. rex and the surrounding birds were identified, but otherwise left gloriously uninterpreted. They were intriguing stage setting; the real story unfolded in the cases around them.

(Another disclosure: I love dinosaurs, yet am fairly indifferent toward birds. I barely glanced at the stuffed specimens, which were little more than props. I seemed not to be alone in this behavior.)

And those cases were very nicely done, a dynamic mix of specimens, models, labels and video. Windows cut into their backs and sides offered multiple views of objects. Magnifying glasses mounted in front of key anatomical

features helped illustrate the bird-dinosaur connection. The labels were very nicely written, striving to connect this difficult material with the audience. (After identifying a bone as the “carpometacarpus,” they also told us it’s “the tip of a buffalo wing.” In *Ice Ages* they described glacial dynamics as “a mountain of pudding,” and I swear one label in the final section was written from a mastodon’s point of view.) Unfortunately, this commendable effort was occasionally undone by poor placement, low contrast, and/or printing on clear surfaces, causing the words to disappear into the background.

The physical interactives were often difficult. One wall featured a couple dozen carved bird models, all of the same species, with lights flashing on them randomly—a nice visual metaphor for diversity. But then I was asked to find the one bird “with different tail markings.” With no further description. While some of them are eight feet off the ground. And all have their tails pointed away from me. Would you be surprised to learn I was not successful?

On the other hand, the interactive videos, offering a trip through geologic time, were very tastefully done. The interface was almost intuitive—crank a handle to the right to go forward, to the left to go backwards, and the faster you crank the faster you move. (This interface was repeated elsewhere in the exhibit, and throughout the museum.) On-screen “magnifying glasses” showed the years passing by at different scales. The information was nicely layered, though at the micro-scale some of the text didn’t seem to match up with the animation.

And what of the vaunted “artistic” approach? It was surprisingly subdued. Everything was nicely designed without being over-designed—no large monuments to the artists’ cleverness. Everything had a purpose. Sometimes the meaning revealed itself to you; sometimes it took a little effort; and sometimes it hit you over the head. A floor-to-ceiling 3-D spindle diagram showed the relative numbers of dinosaur and bird families during different geologic eras. From across the room it looked very intriguing; up close, you found it was crammed full of information and interpreted to within an inch of its life.

After identifying a bone as the “carpometacarpus,” they also told us it’s ‘the tip of a buffalo wing.’





The one big thing I felt was missing was any kind of immersion experience. Perhaps that's tough to do with an abstract theme like "evolution." But I had half-expected the artists of Cranbrook to come up with something amazing, and I suppose I was a little disappointed that they didn't.

The other two sections of the exhibit had much the same approach and feel, so I'll just hit some highlights. Ice Ages Come And Go was interactive-heavy, and not always meaningfully so. (One component seemed to be missing its instructions.) It spent an awful lot of time on seasonality, circulation and climate zones—minor parts of the story—while dedicating just one interactive video to the Milankovitch cycles, the true triggers of the ice ages. To be fair, this is awfully complicated stuff. (Disclosure #3: I had just finished working on some components about the Ice Ages in Minnesota.) The component nearly collapsed under the weight of all the information. But, once you played with it a bit, it was perhaps the best explanation of the topic I've seen. I wish I'd done it.

The Ice Age section had just about the only overtly "artistic" flourishes in the entire hall. A wall of spinning tops, both videos and animated toys, introduced an interactive on the spinning Earth. A couple of large, internally-lit fabric sculptures, abstractly representing glaciers, gave the room a unique feel without overwhelming the space or overshadowing the content.

But what was missing was any connection to the evolution section. If the point of these mini-galleries was to introduce major scientific themes and then to show the connections between them, this felt very disconnected. Indeed, I was unsure if these were three separate exhibits, or three sections of one large exhibit. Titling and design consistency led me to conclude the latter, albeit tentatively.

(Each section of the hall had a central pillar with an overview label. Stand too close and a taped narrator reads the label to you, word-for-word. Annoying, but fortunately the technique was only used those three times.)

The final section, Mastodons Did Not Survive, made much clearer connections—Mastodons were of course ice age mammals. And there was a faint reprise of evolution in the discussion of the various extinct beasties. A fair number of fossil bones were used, rather effectively, as guides for visual learning. Otherwise the space relied heavily on paintings and models. A full-scale reproduction of a mastodon served as an icon for the space, with a few abstract tree sculptures to give a hint of atmosphere.

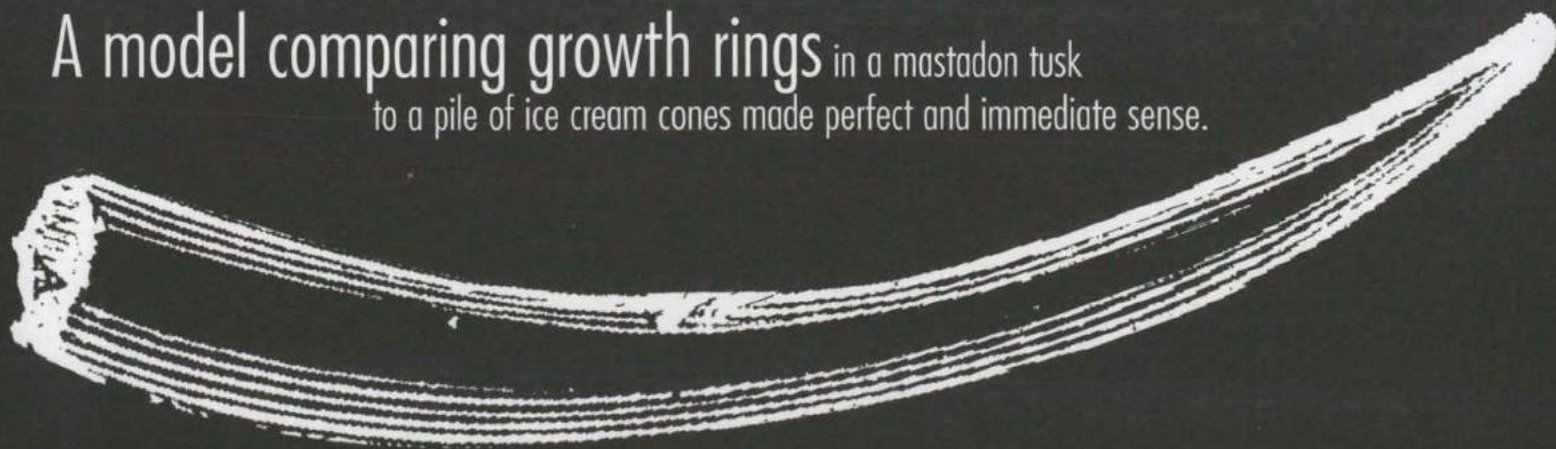
There were still problems with some labels that were too high or too faint. An interactive which asked you to match an animal with its food was color-coded, but used soft pastels that were virtually impossible to discriminate.

Some of the design touches made me smile. A mounted flying squirrel in a Plexiglas box hung in the air overhead, suspended from the top of a case. A model comparing growth rings in a mastodon tusk to a pile of ice cream cones made perfect and immediate sense. The last wall in the gallery, on Paleo-Indians, had windows cut into it allowing a peek into the next exhibit—on Woodland Indians of historic times. These details piqued my interest, wanting me to look closely and learn more. When they were supported with content, I felt very satisfied. When they weren't, I left feeling nonplussed.

Having spent two hours in *Our Dynamic Earth*, I hurried through the rest of the museum. It seems that the plan to create interconnected, thematic exhibits had either been abandoned, or revised beyond all recognition. If there was a connection between *Our Dynamic Earth* and *Life Lab* or *Motion Gallery*, then I confess I missed it. And the notion of using limited collections as examples of universal themes seems also to have been variously interpreted. Some exhibits were object-free; others resembled open storage. The inclusion of physics and technology exhibits in what had been primarily a natural history museum indicates a certain change—perhaps even loss—of focus.

On the other hand, *Every Rock Has A Story* revealed some pretty interesting geological connections. *Reading Objects*

A model comparing growth rings in a mastodon tusk
to a pile of ice cream cones made perfect and immediate sense.





was about as fine an introduction to material culture as you are likely to find. And *Water Is Like Nothing Else* is like nothing else—a serious attempt to communicate affectively, through aesthetics rather than didactics. A series of encased kinetic sculptures show water in its various forms, while “fun facts” on the wall amaze us with water’s ubiquity. Perhaps only a topic this familiar and universal can lend itself to such an evocative approach.

Visitor Experience

A critique such as this is based on my view as an exhibit professional. But museums don’t build exhibits for their colleagues; we build them for our public, and the public has a very different agenda from the professional busy-body. Visitors want to be comfortable in an exhibit. They want to feel competent. They want to be engaged, they want to find meaning, and finally, they want to be satisfied.

(I have borrowed these criteria from The Judging Excellence project, which was described in the *Exhibitionist* last year. For a fuller explanation, you can visit their website at www.excellentjudges.org. One final disclosure: I am an advisor on the project, and webmaster of the site.)

Comfort, I felt, was a bit of a mixed bag. I found the layout a bit confusing, there was no place to sit, and some labels were hard to read. On the other hand, the exhibit was well-lit, had plenty of space for walking, and an open floor plan that made it easy for me to judge how much time and effort it would take. I felt they handled controversies fairly, and the exhibit took pains to be inclusive. I’d rank this on the high side of average.

In terms of feeling competent, while I found some individual components a bit dense with information, overall the exhibit did not feel overwhelming to me. Text was well-written, if a touch dry for my taste. I found the examples, illustrations and metaphors all simple and graspable. The interactives were uneven, ranging from the too-simple to the impossible, but I felt instructions for all were clear, even

intuitive. (Though one Cranbrook staffer opined “intuitive leaves most visitors unsatisfied or worse, feeling stupid.”) I’d rate this as good, maybe even very good.

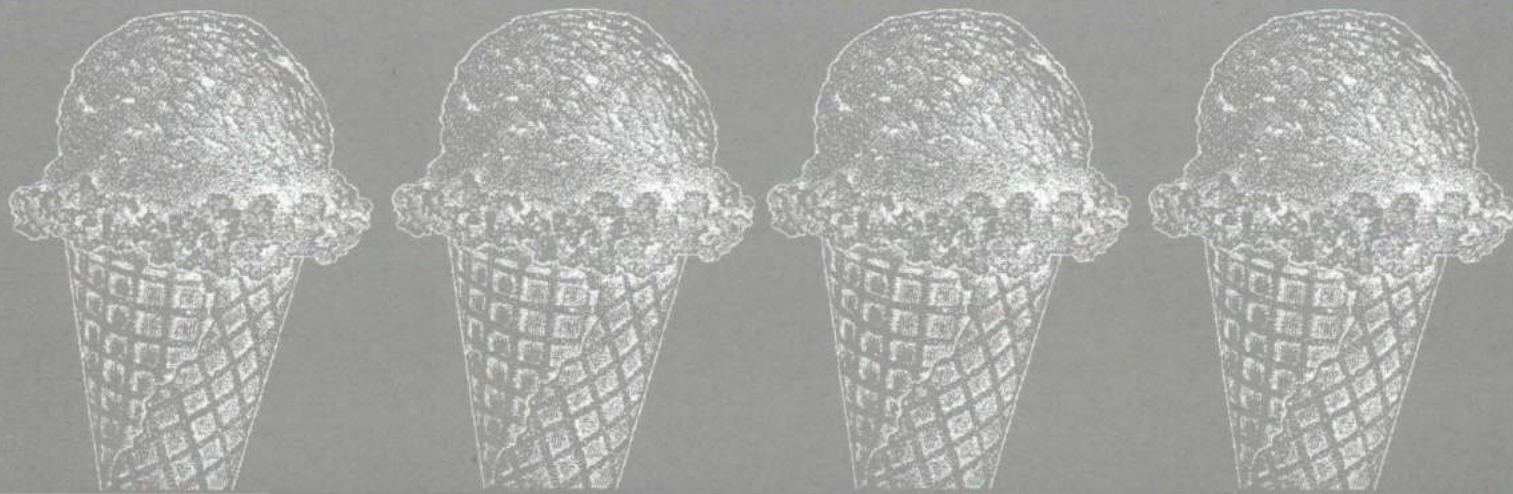
Engagement seemed to be their strong suit. Visitors really seemed to like this exhibit. I saw lots of reading, reading aloud, using interactives, families working together, calling to one another, etc. I saw very little inappropriate behavior. Only the theater seemed weak in holding power. And the exhibit held me for two hours—granted, I was doing a review, but I never felt bored. This is very good, bordering on excellent.

Meaning, whether made or found, was something of a disappointment for me. The relevance to my life, the “so what?”, remained hidden. The exhibit managed to draw connections between birds and dinosaurs, between glaciers, mastodons and Indians, but where was the connection to me? This felt no better than average.

And finally, satisfaction. I struggled with this as I wrote the first draft of this critique, and then I got my answer. While in Michigan I hooked up with my buddy Derek and his family, who live outside Detroit. Hearing that Cranbrook had installed this new exhibit, they asked me if it was worth a visit. Without hesitation I said “yes.” For while I wouldn’t call it a must-see, it’s definitely a “should-see,” especially for anyone passing through the area.

Museums don’t build
exhibits for their
colleagues; **we**
build them
for our
public.

(At the admissions desk, I overheard one mother, who had just paid seven dollars a head to bring her brood in the door, exclaim, “This is ridiculous! It’s more expensive than the zoo!” Well, I’ve been to that zoo. I think Cranbrook offers something closer to value for money.)





Behind the Scenes

So, how to make sense of all these divergent impressions the new Institute, and in particular its intro exhibit *Our Dynamic Earth*? As a museum professional, I found a great deal to admire. First and foremost, kudos to Cranbrook for having the courage to reinvent itself, to shake off its sleepy past and so fully and firmly embrace contemporary educational theory and exhibit practice. Small vestiges of its previous life remain—a handful of woodland dioramas, a justly renowned mineral study collection—to link with its past. But everything else is bright, shiny and new, in the best possible ways.

In any interpretive exhibit, the content is the bottom line.

Second, congratulations to the designers, developers and fabricators. These are handsome exhibits, well-planned and professionally executed. The idea of basing exhibits on theme rather than collections make the content much more accessible. Certainly there are some problems—as noted, the confusing layout, the difficult interactives, the occasionally illegible graphics—that need to be fixed, or at the least avoided in the future. (Insiders tell me that remediation is underway.) But I would not hesitate to hold up *Our Dynamic Earth* as an example to other museums of comparable size as an example of what can be done, a standard to aim for and perhaps try to exceed.

And yet ... Knowing the back-story; knowing the plan to create mini-exhibits united by a meta-theme; knowing the dream of communicating aesthetically and emotionally; I have to wonder: what happened here? The envelope feels largely unpushed. There are a few nice touches here and there, but they amount to little more than decorative flourishes around the edges of a well-done but fundamentally standard late-'90s exhibit.

I contacted several people who had been involved with the project, some of whom spoke on the condition of anonymity. What follows is a composite: no one person said all of these things, but none of it was contradicted, either.

My sources cite the usual suspects: leadership and budget. The New Institute project had largely been the brainchild of the director, Dan Appleman, in collaboration with campus architect Dan Hoffman. Sadly, Appleman succumbed to cancer mid-way through development and design phase. With the visionary gone, the vision began to unravel. Meanwhile, there was also a change at the very top of the Cranbrook community, which had a ripple effect on the Institute.

The budget—fairly tight, as they always are—had been based on doing development, design and production work in-house, drawing heavily on former art students from Cranbrook Academy. While this young and largely inexperienced staff generated many wonderful new ideas and fresh approaches, the steep learning curve and numerous dead-ends ate up a lot of resources. The new administration saw its charge as getting *something* built, and by all accounts did an excellent job with the funds remaining. But they did it by retreating to safer waters, shelving many of the more ambitious plans.

(This retrenchment continues—plans for future revisions seem to focus on traditional collection displays, rather than thematic exhibits.)

Conclusion

As a museum professional, I enter any exhibit with certain expectations. *Our Dynamic Earth* met most of them very nicely. As a professional with inside information about exciting new plans and intent, I was rather disappointed—it was pretty much the same old same old. As a visitor with no inside scoop, just looking for a satisfying way to spend an afternoon, I was pleasantly surprised and, ultimately, satisfied.

In any interpretive exhibit, the content is the bottom line. Cranbrook's thematic approach really brings the content to the fore. Their other dreams, of multiple connections and affective learning, sadly have gone unrealized. Cranbrook has built a beautiful ship. But if they navigated one sea, and floundered on the other two, can we still count their voyage a success?

REFERENCES CITED:

Serrell, Beverly et. al.

2001 "A Tool for Judging Excellence in Museum Exhibitions." *Exhibitionist* 20(1).

Weil, Stephen

1990 "The Proper Business of the Museum: Ideas or Things?" *Retinking the Museum and Other Meditations*. Washington DC: Smithsonian Institution Press.



Can't Get No Satisfaction

by Beverly Serrell

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Introduction

This critique involves the 4,000-square-foot permanent exhibition *Genetics: Decoding Life*, which opened this year at the Museum of Science and Industry in Chicago. It reflects the opinions not of one author, but those of a team of eleven museum practitioners¹ who visited the museum separately and then met several times to discuss and analyze their reactions to the exhibits. This exercise was part of an ongoing project, described below. The resulting article is more a review of a new process of reviewing exhibits than a full critique of *Genetics* itself.

Background

Visitor satisfaction is a criterion often used in research and marketing studies as a measure of success, as a guide for making improvements, and as a useful goal for planning.² Satisfaction is also one of the five criteria used to judge excellence in exhibitions in a framework being developed in Chicago since June 2000 by a group known informally as "the excellent judges."³

The "excellent judges" examine
an exhibit as visitors. Their
reactions help further develop
their tool for judging the
excellence of an exhibit.

The five criteria originally developed for the judging tool by the Chicago team were Comfort, Competence, Engagement, Meaningfulness, and Satisfaction—defined from a visitor's perspective (i.e., we emphasized the visitor's reactions to what the exhibition presents rather than the museum's intent for the presentation). The tool defines the criterion Satisfaction as "the cumulative gestalt of the whole visit, influenced by factors that came before; the feelings you walk away with." Aspects of satisfaction include fulfillment, surprise, lasting impressions, personal recommendations, intent to revisit, purchases, and perceived value. Satisfied visitors might say things like, "It was much better than I thought it would be," "I'm coming back," "I'll tell my friends about it," "I bought the catalog and a souvenir," or "It was tight!" as evidence of their satisfaction. These quotations were hypothetical examples cited by the Chicago team when we developed the first version of what we call the Tool for Judging Excellence (TJE). We had heard visitors say similar things about different exhibitions they'd felt satisfied with. For a complete list of criteria definitions along with the quotations and aspects of all five criteria, see the Web site www.excellentjudges.org.

In the spring of 2002, the National Science Foundation awarded a grant to Serrell & Associates for a second phase of work to further the research and development of the tool. Our current mission is to refine its validity and reliability. To do this, we are adapting a model for the professional assessment of teaching developed by learning researcher John R. Frederiksen.⁴ His model is appealing and appropriate because it emphasizes assessment techniques that have a positive impact on the professional development of the participants (both those being assessed and the assessors). That is, his framework directly supports the development of the traits it is designed to measure. It has systemic validity. To further this end in our framework, we wanted to go back to the level of the quotations and record our own spontaneous judgments as visitors to real exhibitions.

Methods Used to Review *Genetics: Decoding Life*

Eleven members of the TJE project team—exhibit developers from local science museums and independent exhibit developers/designers—went to *Genetics: Decoding Life*. We selected *Genetics* as our first exhibition to review because it met several requirements for our project: It was a permanent exhibition, it was intended for a broad audience, and it had scientific content goals.⁵ We reviewed the exhibition without access to any insider knowledge of the budget, schedule, learning goals, or other background about the development process—just as visitors do.



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Instead of using the five criteria and imagined quotations developed earlier, we took a bottom-up approach and visited the exhibition without the tool, only taking notes of our own actual stream-of-consciousness feelings about the encounters we were having with the environment. This would provide us with an authentic and rich source of "call-outs" about our immediate experiences, which could later be matched with the five criteria or be used to generate new categories.

Our transcribed notes filled 19 pages with mostly affective responses. We combined and sorted the judges' reactions by the 25 specific individual exhibit elements, as well as by larger issues such as ambiance, physical and conceptual wayfinding, and overall reactions (e.g., satisfaction).

Examples of each include:

At a specific exhibit element: "The microscopes in the Mutation section drew me in. I admired how I could understand the way they worked, and I really liked the way they projected images."

About the ambiance: "The two video theaters with seating were quiet and inviting."

Dealing with conceptual wayfinding: "I feel uncertain having to choose between two overwhelming things, and impatient with the lack of directions."

Satisfaction: "I may go back just to see the cloned mice and DNA, but I would just check them out and leave."

After sorting the notes by element or issue, we then grouped the comments for each into positive ones and negative ones.

Findings

After grouping positive and negative notes for each element, and before getting to the point of matching callouts with the five criteria, we found that several patterns emerged.

First, except for the judges' comments on the sound level, there was no universal consensus in their responses. Although the majority of the 25 elements got comments that were mostly positive or mostly negative, there were a few with an even number of both. For example, comments about a computer interactive, "Create a Tater," included:

"It added a humorous touch and was a clear and short chance to genetically engineer a potato with particular characteristics. I had several chances to get it right."

"I liked the clarity and simplicity of the shoot-the-genes-into-the-potato game."

"I had a little fun (but just a little) doing the Create-a-Tater video—it seemed a little hokey—(wash up on a desert isle, and you still have your genetic engineering kit?? Okay—fine.) It seemed a little too kid-oriented in a quite adult-oriented exhibit. It seemed a little too obvious what the right answers should be, but I did it anyway, and also tried a bunch of wrong answers. It was too simple and too slow, but it had some graspable content."

"I hated that the game was set on a desert island. Genetic manipulation does not take place away from everything."

Second, for several elements there was a devolvement from positive to negative feelings. The initial reactions were positive; there was readiness and anticipation, e.g., "I approached with excitement," "confident," "I had fun at first." This was followed by uncertainty, boredom, or frustration, such as, "Am I inadequate?," "not interested enough," "felt cheated," leading to dissatisfaction. For example, at "Lincoln's Hair," a graphic panel bearing a specimen in a bottle attached and a magnifier you could put your hand under triggered this sequence of responses:

"I was impressed that the Historic Society lent the hair to MSI. It made me feel good about the museum community. I liked seeing my hair magnified on the same sign as Abe's hair. However, I felt stupid because I couldn't see how my hair is attached (like I was directed to do by the sign.) I felt intolerant of the authors who wrote the convoluted sentence in the blue circle. I felt scornful that someone was throwing us long words like "mitochondria" and complex materials accompanying photographs: I had no idea what they were getting at, and was disappointed at a lost opportunity to use Lincoln's hair."

In our discussions, the judges reported that this cycle of disappointment was repeated several times. Things went from "cool" to "confusing," "fun" to "frustrating," "intrigued" to "irritated." Getting to satisfaction proved a difficult task.

Third, in looking over all of our call-outs for "Genetics," the number of negative feelings exceeded the positive.

"I thought the cloning interactive was intriguing, but I was pretty tired at this point and wished you could play it on different levels so I could get to see the whole thing without conquering the technique. This was more frustration than reward for me, but I enjoy getting a bit of a feel for the techniques and difficulties in cloning."

"The hatching chicks were very cute, but what do they have to do with genetics? What a missed opportunity!"



"Confused," "frustrated," "impatient," and "disappointed" were mentioned frequently.

Finally, everyone agreed that the sound level was awful. As one person summarized it:

"Sound that was attractive at the entry went from distracting to maddening. It became impossible to concentrate on technical messages over the ambient ding-dong, other talking exhibits, and crowd sound."

Other people used the words "accosted," "assaulted," "distracting," and "impossible to concentrate" in their comments about the sound level. This noise factor alone made overall satisfaction impossible.

Conclusions

Genetics offered many individual experiences that were interesting and enjoyable, but between the cycle of disappointment and the distracting noise level, we couldn't get satisfaction.

"I was not satisfied by my experience: I felt I learned next to nothing, and remember no new thoughts or feelings I experienced about genetics. Since these issues are so timely and important, this disappointed me. I was also exhausted, relieved to get out of there."

"I felt like the exhibit made a confusing and overwhelming topic more confusing and incomprehensible than ever for everyone."

"There was, in many cases, an attraction-interest-confusion-disappointment sequence. Bait and switch. Looks good at first, but leave unsatisfied."

What's Next

Our stream-of-consciousness review of *Genetics* produced a wealth of call-outs, which led us to see some patterns and to discuss their implications. But this is only a small part of our project. It's one step in the ground-up approach to refining the criteria. Our next step will be to match call-outs with aspects of the existing criteria. For example:

This callout goes with visitors' experiences of Satisfaction: "The interactive called 'Be a genetic counselor' was well-thought-out and required more thinking than I'm used to seeing in science museums."

This call-out reflects visitors' feelings of Competence: "I was drawn to and enjoyed the photomural of runners. I thought this was an advance organizer of sorts, was amused and felt like I had a sense of the topics to be covered and how they apply to my life."

By organizing the quotes into groups and categories, we will see that they lead to and support widely shared positive traits of exhibitions. The resulting framework will be useful for both reviewing and developing exhibits that have those traits.

In the end, what are the advantages of having a group of peers review your exhibition using a professionally agreed-upon framework rather than getting the pronouncements of one critic? In the first place, the criteria against which your exhibition is to be judged will be known. The criteria will be clearly articulated up front. It won't be just one person's viewpoint. Secondly, you will be more likely to get a range of responses that you can sort through for the ones most useful to you. A disadvantage is that if the peer review contains lots of negative reactions, as it did for *Genetics*, it will be harder to dismiss the review as one person's opinion. The biggest advantage, however, is to be in the peer group yourself and to benefit from the stimulating discussions. Sharing and listening to the reactions and rationales of your colleagues is a fascinating and valuable lesson in understanding your own and other visitors' experiences in exhibitions. Like Frederiksen's research, we hope to develop a socially shared framework for interpreting and promoting excellence in practice.

The TJE project is a work-in-progress. Perhaps we will develop new criteria as we continue our discussions on validity, reliability, and techniques for scoring and teaching others to use the tool. Other NSF-funded science exhibitions in Chicago will be reviewed this fall and spring, and when the project is completed in October 2003, we will have more to share.

NOTES:

1. The current 11 "excellent judges" are independent and in-house exhibit developers/designers Roy Alexander, Barbara Becker, Barbara Ceiga, Nancy Goodman, Diane Gutenkauf, Dianne Hanau-Strain, Hannah Jennings, Jennifer Johnston, Shauna Keane-Timberlake, Frank Madsen, and Beverly Serrell.
2. See "Satisfaction from a Visitor's Perspective," by Stephanie Pace Brown, "Satisfying Experiences," by Zahava D. Doering, Andrew J. Pekarik, and David Karns, and "Visitor Satisfaction as a Measure of Success," by Richard Greif in the Visitor Studies Association Conference Abstracts, 1999, edited by Beverly Serrell and Deborah Perry.
3. Visit www.excellentjudges.org, or see "A Tool for Judging Excellence in Museum Exhibitions" in NAME's *Exhibitionist*, Vol. 20, No. 1, Spring 2001.
4. See the 1999 article "Video Portfolio Assessment: Creating a Framework for Viewing the Functions of Teaching," by John R. Frederiksen, Mike Sipusic, Miriam Sherin, and Edward W. Wolfe in *Educational Assessment*, Vol. 5, No. 4, pages 225-297.
5. Although the exhibition's learning goals are publicly recorded on the NSF Web site (*Genetics* received a \$1.6 million NSF grant under the Informal Science Education division), we exclude the exhibit developer's insider specifics of educational intent in our criteria because we don't want to focus on that as a basis for our judgments.

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The Rose Center for Earth and Space at the American Museum of Natural History: An Experience-Based Critique

by Ted Ansbacher

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A critique of the Rose Center for Earth and Space at the American Museum of Natural History using the experience-based approach to evaluating exhibits.

As a major addition to one of the world's leading natural history museums and as a re-creation of one of New York City's architectural landmarks, the Rose Center for Earth and Space at the American Museum of Natural History¹ has attracted considerable attention from the media and public as well as the museum profession. The architecture is bold and effective: a seven-floor glass cube enclosing a huge sphere supported on tripod-like legs, looking like it might have landed from outer space. (Figure 1) Designed as a signature piece to house the new Hayden Planetarium, it evokes wonder and conveys a sense of high-tech space exploration. While the feeling of awe and spectacle is continued with the planetarium show, the rest of the exhibits fail to carry through. They present a great deal of information in a fairly uniform, textbook-like manner; some of it difficult to understand, some of it repetitious. There is relatively little to actually see and do, and almost nothing that engages visitors in inquiry.

Some of the exhibit problems are technical (e.g., lighting can't be controlled) and many might have been avoided by more thorough formative evaluation. But the fundamental problem, as I see it, is that the exhibit was conceived from the *cultural-transmission* or *information-based* approach rather than the *meaning-making* or *experience-based* approach. Jay Rounds, in his introduction to the "Meaning Making in Exhibits" issue of *Exhibitionist* (Fall 1999), said: "To advance its impact on actual practice ... we need a more detailed understanding of the nature and process of meaning making itself ... We also need ... examples of exhibit methods that clearly implement the concept. In both cases, it needs to be made clear exactly how these differ from traditional ways of thinking about, and designing, exhibits." In the hope of adding some such clarity, I would like to use the Rose Center as an example—to point out how the *information-based* approach manifests itself in the existing exhibits and to suggest how the alternative *experience-based* approach might have made a difference.

The Experience-Based Approach to Exhibits²

The exhibit interaction model. A simple model for the way an exhibit "works" is: (1) visitors see and do things at the exhibit which provide sensory input, and (2) they then process that input with their minds to yield a variety of meanings/understandings/outcomes. The *see and do* possibilities of Step 1, the direct experiences, are determined by what is actually in the exhibit, and this is the part that is controlled by the exhibit developers and designers. The mental processing in Step 2 depends on the prior experiences and skill levels of the visitor and will be different for each individual. This step is also referred to as *making meaning* and can include *constructing knowledge*.

In practice the two steps are intertwined—for example, some observation (Step 1) leads to a question (Step 2) which leads to manipulating and further observation (Step 1) etc. This back and forth between the exhibit and the visitor has been variously called *interaction*, *exploration*, *inquiry*, or *engagement*.

The architecture is **bold and effective.**

There is a wide range of possible outcomes from the exhibit interaction, and distinguishing among them can lend clarity to thinking about why and how we do exhibits. The following seven outcome categories have proven useful for me:³

- Simply have an experience (sensory input, but little or no mental processing).
- Develop physical knowledge (an intuitive feeling for how something works).
- Change feelings or attitudes.
- Arouse active curiosity, interest, or awareness.
- Achieve understanding.
- Develop skills.
- Acquire information or factual knowledge.

Two approaches to exhibit development. On the basis of this model, two distinct approaches to exhibit design can be identified. The *information-based approach* focuses on the “acquiring information and factual knowledge” outcome as its primary goal, similar to the traditional educational goal of most schools, and sees the exhibit as a means of communicating or transferring this knowledge to the visitor. Labels or other media become the main exhibit element for achieving this. The rest of the exhibit serves in a supplemental role to the labels—either as the hook to get visitors to read or as an example or illustration to the text. For these exhibits to succeed, not only must the visitor’s “see and do” include looking at those labels, but also the meaning the visitor makes of them must be the same as the meaning the exhibit developer intended. The Rose Center exhibits fall largely into this category.

The *experience-based approach* to exhibits sets its primary goal in terms of what visitors will be able to *see and do*—the visitor’s *engagement* with the exhibit. This is recognized both as the precursor to all other outcomes and as an outcome goal in its own right. Success is judged by the extent to which visitors actually do engage with the exhibit. But not all exhibit engagement is equal. The best experience-based exhibits provide what I call “strong interaction”; they directly

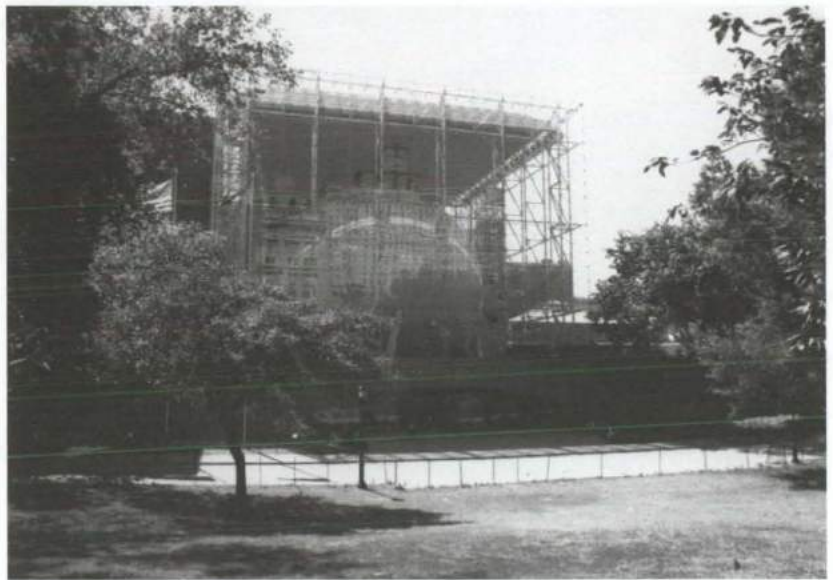


Figure 1. The Rose Center for Earth and Space. The view of the Hayden Planetarium sphere, inside, is partially blocked by reflections of the building across the street.

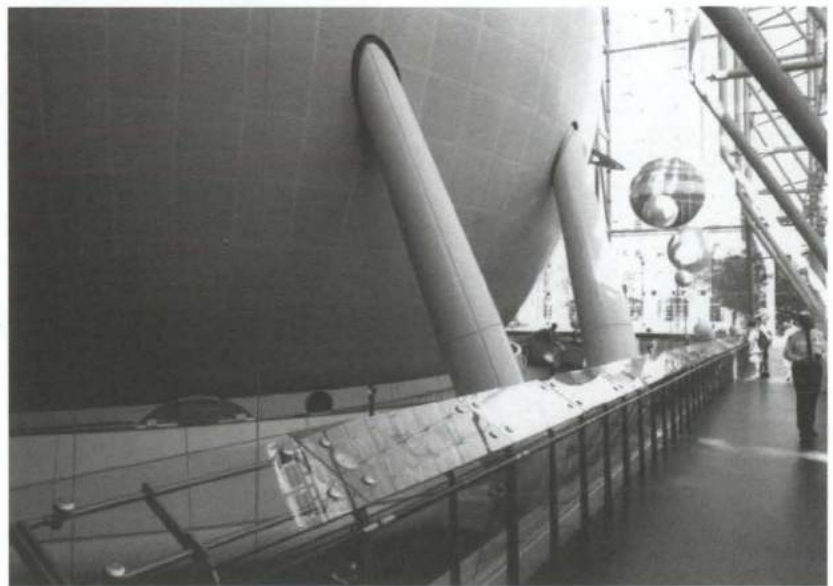


Figure 2. The *Scales of the Universe* exhibit: the panels and models along the railing surrounding three sides of the planetarium sphere.

Exhibits fail as experience-based exhibits if the labels tell visitors what meanings they are supposed to make rather than facilitate their own meaning making.

give visitors good material from which to make meanings. In other words, the exhibit engagement is of value even in the absence of interpretive labels. “Weak interaction” exhibits also give visitors something to see and do, but interpretive labels are required before the visitor can make any meaning of the experience. Exhibits that seek to establish an analogy, for example, are often of this type. These exhibits fail as experience-based exhibits if the labels tell visitors what meanings they are supposed to make rather than facilitate their own meaning making.

For information-based exhibits the “bottom line” is how much information is in the exhibit and how well it is communicated; for experience-based exhibits it is how much there is to see and do and how effectively visitors are engaged. The latter seems the better approach for museums: providing things to see and do is the strength of exhibits, and visitor engagement is the primary source of the enjoyment, satisfaction, and educational value of a museum visit.



A tool for exhibit development and evaluation. The detailed, step-by-step description of what visitors will be able to *see and do* becomes the basic tool for developing exhibits. A developer must project at least one possible sequence of steps a visitor can follow that will take him/her from first encounter with the unit to final outcome. Rigorously applying this analysis would show, for example, whether the planned exhibit had “strong” or “weak” interaction or at what points labels had to be read and understood in order for the experience to become meaningful. Observing the detailed sequence of what visitors *actually* see and do becomes the basic tool for evaluating exhibit success. If visitors are failing to engage with the exhibit, then there is no need to evaluate further outcomes. Or observation may reveal at what point visitors drop out of the inquiry cycle, leading to possible remedies for the exhibit. This “tool” will be applied in the following critique of the Rose Center exhibits.

Scales of the Universe

There are two conceptual challenges that any exhibit on cosmology needs to deal with: the size scale and the time scale of the universe—both of which stretch considerably beyond the range of human senses and almost beyond comprehension.

For both of these the Rose Center makes good use of its architectural features in its exhibits. *Scales of the Universe* takes the planetarium sphere, the architectural centerpiece,

as a standard of reference for size. A balcony runs around the inside of the glass cube, somewhat below the “equator” of the big sphere, and along the railing facing the sphere are a series of exhibit models and panels, each about four feet wide. (Figure 2) Each panel deals with one order of magnitude of size, from 10^{24} meters, the size of the universe, down to 10^{-18} meters, the sub-nuclear realm, some 42 panels in all. For example, the panel for 10^7 meters, with a soccer-ball sized model, says if the big sphere is the Sun, then this model is the Earth. This provides an immediate and effective size comparison. The effect of showing so many size comparisons, however, is to dull the overall impact. Most visitors I observed either walked by or randomly stopped at panels along the way.

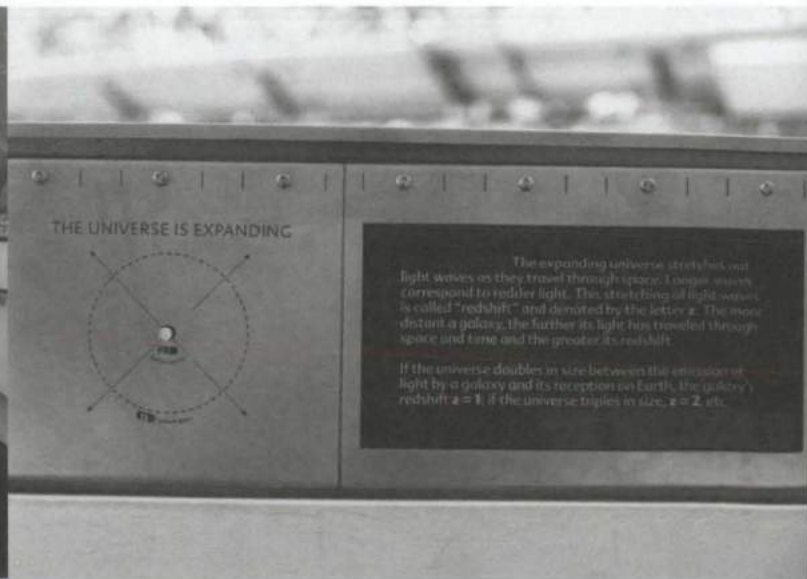
From the *experience-based* point of view, what is going on? The direct experience here is to see the big sphere in the center and to see several other objects along the railing of the balcony. So the first need is to make this compelling enough so that visitors will in fact look at these objects. The large central sphere is already drawing attention, so the need is only to feature the smaller models. This would have been greatly facilitated by having fewer of them—perhaps only three, one on each side of the cube—and making them stand out from the long railing. But this is a situation where the direct exhibit experience is not *in itself* meaningful (except as it relates to the architecture); it becomes meaningful only if the models are identified and are interpreted as an analogy. A few of the models are readily identifiable by most visitors—Earth and Saturn, for example—but the rest have to rely on labels. And since the identification was included in the text panel rather than being prominently attached to the models, it was possible for visitors to miss them and thus miss the analogy. The

The space show takes visitors on a journey,
searching for conditions that might allow life to develop.

Figure 3. The *Cosmic Pathway* exhibit: the panels and graphics along the ramp leading from the *Big Bang Theater* to the main exhibit floor.



Figure 4. The *Cosmic Pathway* panel dealing with redshift.





problem is compounded because at each panel the large central sphere stands for a different celestial object, and this again could be helped by having only one station per side.

Additionally, the exhibit wants visitors to understand that each station represents a space ten times smaller than the one preceding it. The visitor's direct experience, however, is that the stations are all the same size, which in itself is contrary to the hoped for outcome. Again, an interpretive step is critical; but "powers of ten" is conceptually difficult, and simply stating it in labels does not convey the ten-fold change of scale from panel to panel. The classic film *Powers of Ten*,⁴ in my opinion, conveys this idea better because the viewer gets a sense of a continuously telescoping view from the movement of the film. I think that with fewer stations along the balcony combined with a continuous showing of *Powers of Ten*, *Scales of the Universe* would have been an exhibit of considerable impact.

Planetarium

The dominant feature of the Rose Center, the huge sphere in the center, houses the Hayden Planetarium. The upper portion of the sphere is devoted to the Space Theater, with 429 seats and a 38-foot high dome. The planetarium is serviced by both a Zeiss Mark IX Star Projector and a "Digital Dome System," which uses computer generated images and seven video projectors. All this is combined with a state-of-the-art sound system. The show I saw was *The Search for Life: Are We Alone?*, a half-hour program narrated by Harrison Ford, which had opened in March 2002 as the second space show since the opening of the planetarium. It takes visitors on a journey to the "depths of Earth's oceans, ... the planet Mars, ... Europa, one of Jupiter's four giant moons, ... a stellar nursery, ... and an exoplanet, a planet outside our solar system," searching for conditions that might allow life to develop.

The show has really two parts. As the lights go down and the starry night sky becomes visible, the effect is just as breathtaking and awe inspiring as I remember from visits to the Hayden Planetarium in my childhood. The Zeiss projector creates superbly bright, sharp stars, and I regretted that it was only on for about the first minute of the show, with no effort made to engage the audience in closer observation. For the remainder of the program, the video projection system takes over, and together with the music and narration, the overall effect is comparable to watching an Omnimax movie. Although an impressive visual and aural experience, the show was still information based, with the message being completely in the narration. I would like to have felt more "brought along" on the exploration of the universe and the search for life in it than told about it, but don't doubt many visitors found the experience memorable.

Big Bang Theater and Cosmic Pathway

In the bottom portion of the planetarium sphere is the *Big Bang Theater*—a horizontal, concave screen, about 20 feet in diameter, which visitors look down into from the outer circumference. In a program about three-and-a-half minutes long, the story is told (narrated by Maya Angelou) of how the universe began with a big bang and subsequently developed, accompanied by sound and light effects and projected images suggestive of the story content. The presentation is dramatic enough to hold visitors' attention, and it does convey the information that the universe started with a big explosion from a tiny point, so in that way it serves its purpose. But it is a straight presentation of the way "scientists" believe things happened; it could have done more to invite visitors to "come along" with the investigators, to engage their own thinking or encourage questioning. This most incredible idea—that the entire universe was once smaller than a grain of sand—is simply stated, with no explanation given or inquiry invited of how this could possibly have been.

It is interesting that in the planetarium show the Museum makes a point of the scientific accuracy of the imagery, while in the *Big Bang Theater* the imagery is composed of artistic impressions. Are visitors aware of this difference? And does it matter to them? I doubt it. Both come across as shows delivering information with high entertainment production values. The credibility of their content rests on the reputation of the Museum, yet, paradoxically, mixing the excitement of scientific exploration with the manufactured excitement of movie special effects seems to me to undermine that reputation.

Upon leaving the *Big Bang Theater*, visitors start down the *Cosmic Pathway*, a 360-foot spiral ramp that ends up on the main exhibition floor. (Figure 3) Here again, an architectural feature is used to good advantage to present the other nearly-incomprehensible dimension of the universe, *time*. Distance along the ramp serves as an analogy to the age of the universe, starting with the Big Bang 13 billion years ago and ending at the present, with each step a visitor takes representing some 10 million years. Markers along the ramp indicate the time, and panels provide information, images, and occasionally display small artifacts about the universe's development at that point. The final panel provides the real "punch line": that the last 30,000 years of human history, on this scale, span only the width of a hair.

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observation was that most visitors leave the theater and walk down the ramp without looking at any of it; some start to read the panels, but soon lose interest and move on; and a few study most of the panels all the way down. Most disappointing, many walk right past the “punch line.”

From the point of view of the experience-based model, what the visitor can see and do here is to walk down the ramp and notice the signs and artifacts along the way. As with the *Scales of the Universe* balcony, the direct experience is not meaningful until it is interpreted as an analogy, which entails reading and understanding the initial signs (or remembering what was said at the end of the theater presentation). Although the analogy here is straightforward—linear distance translating to a linear time scale—many visitors either miss it or seem to find it uninteresting. Why?

Part of the problem may be that, coming after the *Big Bang* sound and light show, the ramp is just too quiet and doesn't appear to visitors as an extension of the exhibit. Part of the problem is certainly that too much information is being presented, both the time scale of the universe and the details of its development. Also part of the problem, I believe, is that much of the information is simply difficult to understand. The panel describing *redshift* (Figure 4) is a case in point.⁵ It is an example of what I call a “quasi-explanation”—it has words and sentences that sound like an explanation, but it can only be understood by people who already know what it is trying to say. There is nothing in the exhibit that can help a visitor make meaning of this label or vice versa. Unfortunately this is not uncommon in science museums which take an information-based approach. Redshift plays a key role in our understanding of the universe, and I think with considerably different treatment it might have lead to greater visitor engagement with the whole *Cosmic Pathway* exhibit.

Hall of the Universe

On the lower level is the *Hall of the Universe* exhibition—7,000 square feet encompassing four “zones”: the universe, galaxies, stars, and planets. (Figure 5) Each zone has a series of eight or twelve information panels plus additional exhibit units. The panels contain text with illustrations—diagrams, photographs, and sometimes small hands-on elements. Information is presented in a straightforward manner, some of it repeating what is in *Scales of the Universe* and *Cosmic Pathway*, and some of it, unfortunately, being of the “quasi-explanation” kind. Knowledgeable “Explainers” were sometimes available to answer questions, and were of considerable help.

Frontiers of Our Knowledge. For me, the best part of these exhibits was the last panel in each of the four zones, called *Frontiers of Our Knowledge*. This was a touch-screen which gave visitors a choice of four topics. Upon touching

the screen, a video is shown of a scientist from the Museum's staff talking about that topic or answering that question. The tone is informal, the visitor feels he/she is being directly addressed, and the scientists share their enthusiasm, inviting visitors to “come along” rather than lecturing to them. The video clips are in small segments, allowing visitors to ask for further discussion only if they want it. Here, for example, was an interesting answer to the question “What was there before the big bang?” For me, this was a refreshing change from the show-biz tone of the planetarium and the textbook-like tone of the panels, and it comes much closer to the spirit of the experience-based approach. The only negative here is that the video monitors were small and mounted flush in the last panel of the series; many visitors simply overlooked them. With larger monitors, more prominent placement, and better sound, these could have been the central engaging elements for their respective zones.

Planetary orbits. One of the information panels in the *Planets* zone deals with orbits and contains a hands-on component. (Figure 6) This is a touch screen, and the “see and do” is roughly as follows: see on the screen one bright spot and another spot of lesser brightness. By touching the second spot, a visitor can “drag” it, and if the finger is lifted, the spot continues to move in a path around the brighter spot; or sometimes goes into the spot, or sometime disappears off the screen, and words appear saying that the initial velocity was too slow or too fast. By the way visitors drag the spot they are supposed to be able to give it different initial speeds and direction. This direct experience, however, without interpretation is of little value or interest. The label explains that this is a computer simulation of orbits under gravitational attraction, and visitors who read and understand that can proceed to investigate orbits under various initial conditions. The actual screen here is rather small, and in practice the “problem” for me became how to get the spot to do anything at all, rather than experimenting with various kinds of orbits, as was intended.

It is instructive to compare this to the gravity well exhibit which, in various versions, is in many science museums.⁶ In that exhibit, steel balls (or coins, in some versions) roll around the inside of a funnel in an exact analogy to planets orbiting under the inverse square law of gravitational attraction. So in terms of leading to some understanding of orbits, the computer simulation and gravity well analogies might seem to be equivalent. But from the experience-based point of view, they are entirely different. The gravity well provides direct experience which is *in itself* meaningful. It can be observed and explored, it can lead to inquiry and experimentation, and in engaging with it a visitor develops *physical knowledge* of the “orbits” of balls rolling around a funnel—all without reading interpretive labels. This both has value in itself and it can serve as a foundation for understanding planetary motion—perhaps while at the

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exhibit or perhaps at some later time. But the gravity well has success even if the label reading step is not taken, unlike the screen-based computer simulation.

Real and non-real objects. One exhibit characteristic that encourages visitor engagement and meaning making is that it presents real objects and phenomena to interact with. But that is undermined when the real objects are intermixed with replicas or props without any indication of which is which. A visitor may engage in inquiry at these exhibits only to find he/she has been fooled. For example, in *Hall of the Universe*, there are three posts, each with what looks like a dish antenna mounted on top, all pointing towards the center of the exhibit floor (upper left, Figure 5). There is no identification on them, and my initial guess was they might have something to do with radio astronomy. I spent some time examining them, but was still puzzled. Finally I asked a guard, who explained they are not antennas at all, but at night pictures of planets are projected on the dishes. (They are not used during the day because the ambient light washes out the images.)

In another exhibit, dealing with the Sun, there are four objects that look like small telescopes, inviting the visitor to look through them (center, Figure 5). But what you see is an unidentified backlit picture (and some of them were completely dark), not a view through a telescope.

These may not be considered serious problems in an information-based exhibit because the objects are serving their purpose as long as they lead to the information, but they are unacceptable for an experience-based exhibit because they cannot lead to meaningful engagement.

The ecotarium. In both the information-based and experience-based approaches, the displayed objects and phenomena serve as attractors for visitors, but beyond that they serve significantly different roles. For *information-based* exhibits their purpose is to support the text labels, where the real exhibit content lies. The objects entice visitors to read, or serve as illustrations to that text, or both. For *experience-based* exhibits, the roles are reversed. The objects are primary and the exhibit's value lies in the visitor's engagement with them, with the labels serving to support this. Two exhibits in *Hall of the Universe* illustrate this point.

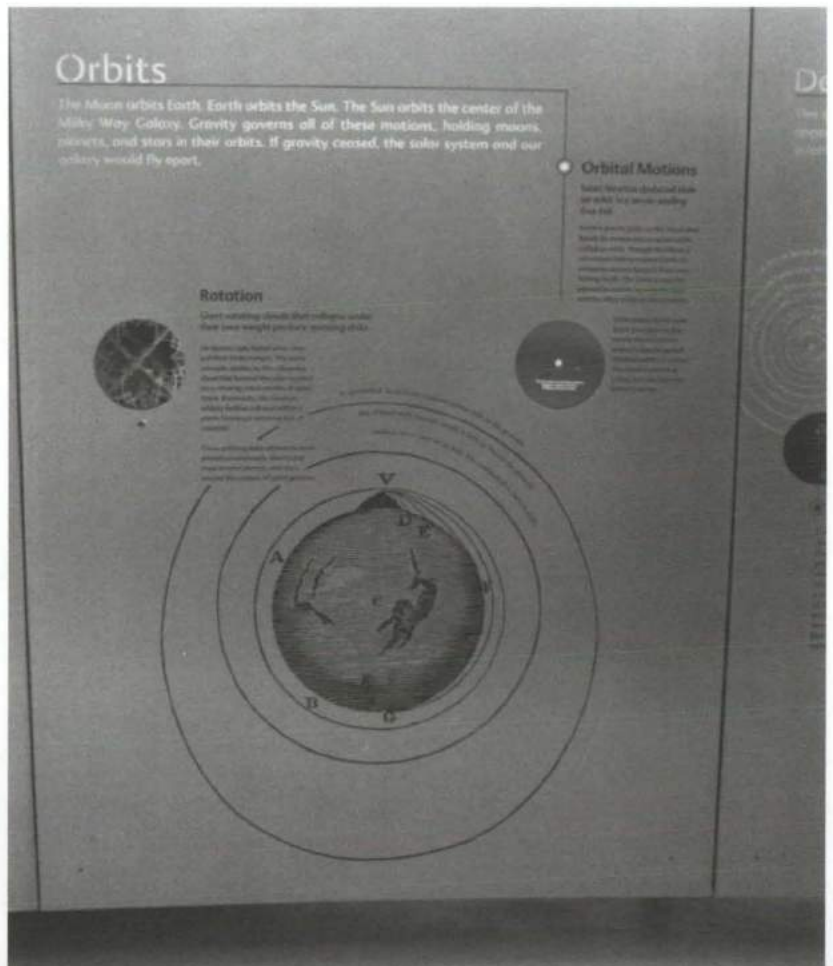
At a unit titled *Searching for Life in the Universe* is a glass sphere, about three feet in diameter, filled with a liquid (presumably water) and containing something that looks like a tree trunk with some plants and what appear to be small fish (lower right, Figure 5). It is one of the more interesting things on display, and I was drawn to it to give it



Figure 5. The *Hall of the Universe*: the main exhibit floor, below the planetarium sphere.

The gravity well provides direct experience which is *in itself* meaningful.

Figure 6. The Orbits panel in the *Planets* zone. The circle below the "Orbital Motions" heading is a touch-screen simulation of planetary orbital motion.





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a closer look, but I found no identification on it. There are text panels in a circle around the base, but not until I had read two-thirds of the way around did I come to a small label identifying the display in the middle as an *ecotarium*. The connection to the exhibit topic, it was explained, is that life on Earth, or any other planet, needs to be a self-contained system. But the label is short, and in no way encourages observing, exploring, or understanding the object that first drew my attention. The ecotarium is a loss as far as visitors making any meaning from it; it serves here only in the *information-based* role of a hook to get visitors to read the label text.

The solar corona. Near a unit on the Sun was a manipulative exhibit (one of only two that I saw, the other being the touch screen on planetary orbit). It appears as a horizontal disk, about two feet in diameter, on a pedestal—not particularly attracting in itself (left center, Figure 5).

On the floor beneath the unit are the words "The Corona of the Sun." The disk is filled with a viscous fluid and can be spun in either direction at various speeds, or stopped and started, with resulting flow patterns being visible.

Visitors seem to figure out how to do this even without instructions, so this is a unit that invites exploration and inquiry; it could well serve as the core of an

experience-based exhibit. It is not used that way here, however, as there are no exhibit elements, labels or other, that support or extend the interaction. It is, however, an anomaly as part of an information-based exhibit, as there are no labels that connect it to the rest of the Sun exhibit either. I asked two Explainers and got two different explanations: one that the disk had something to do with internal thermal convection currents in the Sun; the other that it showed something about gaseous movement on the Sun's surface. In both cases I said, "Oh, I see," but I didn't really.

Conclusion

With The Rose Center for Earth and Space, the American Museum of Natural History has created a magnificent new facility and set ambitious goals for making knowledge of the universe accessible to the public. Yet an overwhelming focus on communicating information has resulted in exhibits that largely fail to engage the visitor's own inquiry process. Shifting the focus to those things visitors can actually see and do at an exhibit and the meanings they might make from that is proposed as a tool for developing more effective exhibits. It is hoped that developers and designers

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can be helped by this analysis to create exhibits that more fully capitalize on a museum's unique strengths to yield meaningful and memorable visitor experiences.

NOTES:

1. The Rose Center for Earth and Space at the American Museum of Natural History, opened officially in February, 2000, has three major sections: the *Hall of Planet Earth* (8,830 sq. ft.), an exhibition on the Earth's geology, which opened in June, 1999; the Hayden Planetarium; and exhibitions on astronomy and cosmology titled *Scales of the Universe*, *Cosmic Pathway*, and *Hall of the Universe* (7,000 sq. ft.). The entire Center, including exhibition, research, and education facilities is reported as 333,500 sq. ft. at a cost of \$210 million. The current admission fee to the museum is \$12, plus \$9 for the planetarium show.

2. There is no commonly agreed upon name for this approach to museum exhibitions. I have come to favor experience-based because it puts the emphasis on the experience—the part that the museum most directly controls. Other terms are constructivist and meaning-making, which put the emphasis on what the visitor does with the experience, and visitor-centered. The Fall 1999 (Vol. 18, No. 2) issue of *Exhibitionist* was devoted to "Making Meaning in Exhibits" and contains articles illuminating many aspects of this approach. Of particular relevance here are the articles by Jay Rounds, George Hein, Michael Spock and Ted Ansbacher (see References Cited). The educational theory on which this approach is based goes back to John Dewey and beyond (see Dewey 1938 and Ansbacher 1998 and 1999a). Systematizing the "microanalysis" of the exhibit experience as a working tool for exhibit development and evaluation is still a work in progress, but several articles present aspects of it as it currently stands (see Ansbacher 2000, 1999b, 1997, 1996).

3. These Outcome Categories are expanded on in Ansbacher 2002.

4. The film *Powers of Ten*, created by the Office of Charles and Ray Eames in 1977, runs 9 1/2 minutes and is currently available from the Eames Office, Santa Monica, CA; www.eamesoffice.com. The Eames Office has also now created a traveling exhibition based on the film. The book *Powers of Ten*, based on the film, was published in 1982 (Morrison 1982).

5. The copy on the redshift panel reads as follows. There are no diagrams or pictures. I understand the redshift explanation had already been singled out for criticism, and the present panel is a revision of the original.

What is redshift? The expanding universe stretches out light waves as they travel through space. Longer waves correspond to redder light. This stretching of light waves is called "redshift" and denoted by the letter Z. The more distant a galaxy, the farther its light has traveled through space and time and the greater its redshift. If the universe doubles in size between the emission of light by a galaxy and its reception on Earth, the galaxy's redshift $Z=1$; if the universe triples in size, $Z=2$, etc.

6. The gravity well exhibit has been adopted by many science museums. It consists of a funnel (with size ranges from about two to six feet) with convex curved sides. That is, the sides get steeper towards the exit hole at the bottom center, ensuring that the inward force (towards the hole) on a ball rolling along the funnel becomes stronger as it nears the hole. The shape is such that the strength of the force is in inverse proportion to the square of its distance from the hole (at one foot the force is four times stronger than at two feet, etc.) in exact analogy to gravitational attraction. The original of this (as far as I know) was in the Mathematica exhibit sponsored by IBM and designed by the Office of Charles and Ray Eames for the 1960 World's Fair in Seattle. It had steel balls launched by a visitor pushing a button. In most subsequent versions, visitors launch their own "satellites"—usually marbles or coins.

REFERENCES CITED:

Ansbacher, Ted

2002 "What Are We Learning?: Outcomes of the Museum Experience." *Informal Learning Review* No. 55.

2000 "What Did You See and Do?: A Brief Introduction to Experience-Based Exhibits." *Informal Learning Review* No. 40.

1999a "An Interview with John Dewey on Science Education." *Informal Learning Review* No. 34.

1999b "Experience, Inquiry, and Making Meaning." *Exhibitionist* 18(2).

1998 "John Dewey's Experience and Education: Lessons for Museums." *Curator* 41(1).

1997 "If Technology is the Answer, What Was the Question?" *Hand to Hand* 11(3).

1996 "Exhibits and Learning at the Science Center: Another View." *Informal Learning Review* No. 18.

Dewey, John

1938 *Experience and Education*. New York, Kappa Delta Pi. Reprinted in 1997, Simon & Schuster Touchstone Edition.

Hein, George E.

1999 "Is Meaning Making Constructivism? Is Constructivism Meaning Making?" *Exhibitionist* 18(2).

Morrison, Philip and Phylis, and the Office of Charles and Ray Eames

1982 *Powers of Ten: A book about the relative size of things in the universe and the effect of adding another zero*. New York, W. H. Freeman.

Rounds, Jay

1999 "Meaning Making: A New Paradigm for Museum Exhibits?" *Exhibitionist* 18(2).

Spock, Michael

1999 "The Stories We Tell About Meaning Making." *Exhibitionist* 18(2).



Ask Questions First, Shoot Later: The American National Fish and Wildlife Museum

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The American National Fish and
Wildlife Museum stimulates
visitor meaning making—
but not necessarily of the
meanings the museum intends.

In Springfield, Missouri, the American National Fish and Wildlife Museum invites visitors to experience “the wonders of wildlife” and the importance of wildlife conservation through 65,000 square feet of dazzling, lavish and sometimes informative exhibitry. Next door to the museum, conveniently accessible via a striped path making the linkage clear, sits the Bass Pro Shop—reputedly the world’s largest emporium devoted to the sale of equipment designed to hook, net, snare, spear, impale or gun down wildlife. Together the educational museum and the sportsman’s emporium form a remarkable pairing of intertwined messages: “Ask questions first, shoot later.”

The juxtaposition is by no means accidental. While the museum is an independent non-profit, the land was donated by the founder of Bass Pro Shops, who also serves as the most powerful member of the museum’s board of directors. But other members of the board include an impressive line-up of public officials and prominent citizens, and the \$52,000,000 development budget was largely funded through municipal bonds, local bed taxes, sales taxes and federal and state grants. The FAQ section of the museum’s website emphasizes that the museum and emporium “are separate entities.”

Nonetheless, they are “sisters under the skin.” While deploying the most advanced techniques of modern natural history museums, and sharing their mission of public education about wildlife and environmental conservation, the American National Museum of Fish and Wildlife is equally and openly devoted to celebrating the recreational killing of wild animals.

Killing and Conserving

In recent decades natural history museums, along with zoos, have moved toward active advocacy roles in promoting wildlife and environmental conservation. Many have altered their practices in collecting specimens to minimize the sacrifice of wild animals.

Given this trend, I was startled to find the glorification of hunting wrapped within the familiar forms of an up-to-date, conservation-oriented natural history museum. It seemed obvious to me that preserving wildlife and killing wildlife are antithetical activities; but the creators of this museum took it as their task to obliterate that apparent opposition. Their message begins with the museum’s brochure, which declares that the museum is “dedicated to showing...how hunting, fishing, and other forms of conservation can help maintain healthy wildlife now and forever.” Thus, hunting is not merely consistent with conservation; hunting is a *form* of conservation. This theme is pushed relentlessly throughout the exhibits, with variations and extensions that I will examine below.

The American National Fish and Wildlife Museum is **openly**
devoted to celebrating the recreational killing of wild animals.

It will be wise to pause here for some disclosures and disclaimers. I am not myself a hunter or angler, and am not attracted to the idea of killing for fun. However, I am not an anti-hunting activist. My intention here is not to produce an anti-hunting tract in the guise of an exhibit review. Rather, my intention is to explore how the museum uses the exhibit medium to convey its intended message—and in the process to explore ideas about how exhibit design provokes meaning making by visitors.

The task of this museum, after all, does lie in the realm of meaning. For visitors such as myself, who enter assuming that killing and conserving wildlife are antithetical, the museum seeks to change the meanings of those terms, bringing us to perceive hunting as conservation, and perhaps even as the



Photo courtesy of American National Fish and Wildlife Museum.

essence of conservation. As we will see, it deploys a great deal of information in support of this goal, but the payoff can come only in a shift in meanings as they are constructed in the heads of visitors.

This raises critical questions of strategy for the theory of visitor meaning making. Given that visitors make their own meanings in exhibits, what should we, as the creators of exhibits, do to facilitate that process? One common prescription is to eliminate the anonymous, "authoritative" voice of traditional exhibitry, instead presenting a range of voices representing "all sides of the question." The idea, apparently, is that the finality of the authoritative voice stifles the visitor's own impulse toward meaning making, while presentation of multiple voices will charter the visitor to add his or her own.

The American National Museum of Fish and Wildlife employs the now-common technique of presenting actual, named human beings telling their own stories, through videos and copy panels. But no pretense is made of "presenting all sides of the story." Though there are many voices, they all speak as one—and in harmony with a more traditional anonymous voice that is also found throughout the museum. The presentation is authoritative, single-minded, and clearly designed to persuade the visitor to adopt a very specific, pre-packaged interpretation. In short, it is all the "bad" things that exhibits are said to have been before we recognized our obligation to facilitate visitor meaning making. Nonetheless, I found it highly provocative, far more

effective in stimulating my own processes of making personal meanings—meanings not intended by the designers—than the "forum" exhibits that I have experienced.

Following an overview of the museum design, I will turn toward a detailed examination of the museum's messages, and my own reactions to their presentation.

WOW!

While formally titled the American National Museum of Fish and Wildlife, the museum is, rather confusingly, also called "Wonders of Wildlife." ("WOW," for the acronym-challenged.) This ambiguity of names is another point of connection to the adjacent Bass Pro Shops, aka "Outdoor World." Whatever the reason for insisting on two names, the acronym "WOW!" is well-deserved.

Cambridge Seven Associates designed both building and exhibits with lush sensuality. The first sight of the museum is a stunner: rough cedar walls rise above a high stone foundation. The roofline recedes into stacked, squared cupolas. From the "V" formed by the two arms of the building a "mountain" stream tumbles down the hillside toward the street intersection. A gigantic bronze buck leaps across the stream, frozen in flight. The whole effect is like a 21st century update of "parkitecture," the classic rustic national park lodges of G. Stanley Underwood and his imitators. "What an entrance!" I thought.



But the actual entrance is on the opposite side, necessitating a series of signs to guide the erring visitors who naturally tend to walk toward the dramatic scene just described. More signs direct the visitor away from the now-discovered front door to a small, separate building 50 or so feet away, where tickets are sold.

Having finally penetrated the museum building, further confusion is found as the visitor faces a large atrium that apparently contains nothing but a gift shop, membership

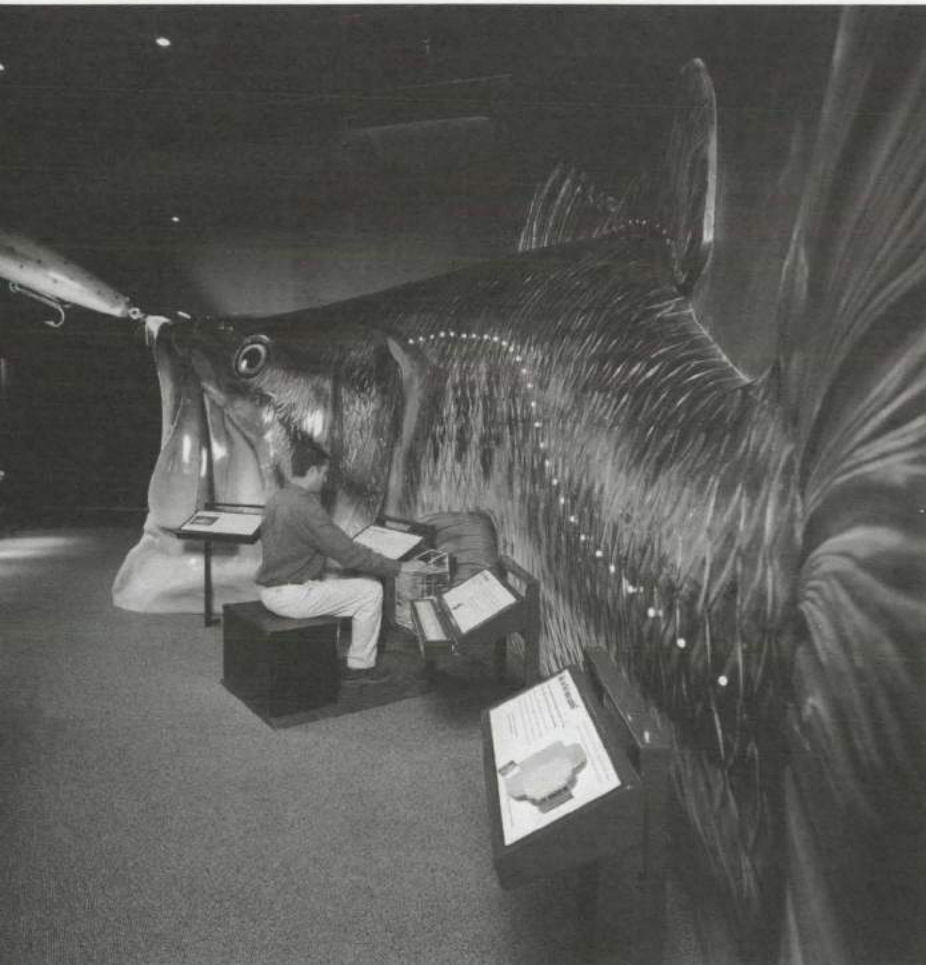


Photo courtesy of American National Fish and Wildlife Museum.

booth and a few small exhibits along two walls. After scanning for a few minutes, I finally spotted a sign on the landing of the central staircase indicating that the exhibits begin upstairs.

After presenting my ticket, I walked down a dark, narrow corridor to a solid, industrial-looking door. Pretty dreary. But step through the door, and...WOW! The visitor emerges on a catwalk winding through the upper branches of an Ozarks forest, created in a vast and dramatic open space. (The effect reminded me of Frank Lloyd Wright houses, in which entrances are constricted, with very low ceilings, and then open up dramatically as you cross the threshold.) Water is everywhere—some 700,000 gallons of it, accord-

ing to the WOW publicists. Otter pools, beaver ponds, duck ponds, fish ponds, turtle ponds, all with live animals (more than 160 species, we're told). And flowing streams, and everywhere big, booming waterfalls. In fact, at some spots the roar of the waterfalls is so loud that it almost drowns out the screaming of the children.

Exhibits through this area discuss Ozark Hills habitats, oddly assorted "fun facts to know" about the various animals and "the complexity of the relationship between predators and their prey." On the lower level, exhibits deal with both freshwater and ocean fishing, saltwater game habitats, and the many types of bass (including a giant, walk-through bass exhibit titled *Know Your Fish Inside Out*, reminiscent of the walk-through hearts so popular in science museums). Besides the omnipresent habitat displays there is an abundance of a/v and occasional interactives (e.g., test your strength against that of an eagle; see how wearing camouflage can make a hunter invisible to deer). In general, the exhibits are all visually appealing and easy to understand, with little incomprehensible jargon or esoteric posturing. Wayfinding is reasonably simple, and floor staff are friendly, plentiful and well-informed. (See the summary of exhibits on the museum website at www.wondersofwildlife.org/exhibits)

At some spots, the roar of the waterfalls is so loud that it almost drowns out the screaming of the children.

Making the Case

The designers have used straightforward strategies for making the case that hunting equals conservation. Most obviously, they tell us so, and repeat the message relentlessly throughout the museum. With slightly more subtlety, they show commitment to wildlife, conservation, and hunting in close association within the exhibits, implying their friendly compatibility in the outside world. If a museum can be dedicated both to conserving wildlife and to hunting, the message seems to run, then surely the two belong together.

The designers show us hunters who are friendly, usually educated and refined, and who often indulge a penchant for philosophizing on the pleasures of killing. Exhibits emphasize stories of individuals who combine passions for both hunting and conservation, most notably in an exhibit titled *Heroes of Conservation Library*. It occupies a separate room, done in a design motif unique within this museum: an



Photo courtesy of American National Fish and Wildlife Museum.

Edwardian gentleman's library, with dark paneling, leather-bound books, and trophies on the wall (including the mounted head of a bison, whose dangling hair partially obscures a copy panel titled "Saving the Buffalo").

In this space, a series of "heroes of conservation" are celebrated for combining advocacy for preservation with a passion for game hunting. Theodore Roosevelt leads the list, his portrait framed in a pair of elephant tusks. James Audubon is depicted surrounded by birds he has killed so that he might immortalize them with his paintbrush. Aldo Leopold (founder of the Sierra Club) "loved to hunt woodcocks," we are told. "He believed that game conservation was founded on respect for living things, and that hunting helped people form bonds with land and animals." A less-familiar figure, Frances Hamerstrom, is identified as "Wildlife Biologist, Author, Hunter." (A second tier of "heroes" includes the founder of Bass Pro Shops.)

We are told that hunters and anglers contribute \$12 to every \$1 provided by taxpayers. (Of course, the bulk of that money is "contributed" through license fees and related levies; presumably hunters love to buy those licenses as well.) And all those dozens of dollars have paid off:

"Through wildlife management, largely funded by hunters and anglers, many animals once near extinction have been restored to sizable populations." For instance, "The elk population is 19.5 times larger than it was 100 years ago." Variations on this theme appear frequently, culminating in the assertion (offered up with no supporting evidence or explanation) that "The popularity of turkey hunting has proven extraordinarily beneficial for preserving turkey habitats and increasing turkey populations."

It stands to reason that hunters would support measures to ensure that there is ample game to kill, so this level of the argument seems perfectly plausible—at least leaving aside the "because of their love of the natural world" rationale.

The next sub-theme pushes the argument farther. The first copy panel encountered in the main exhibit area asserts that hunters are the only reason that true *wildlife* even exists:

"Hunting is what keeps both predators and prey elusive, untamed, haunting their own world beyond the city's edge." (Attributed to one Richard Nelson)

Without the fear of hunters, it seems, by now all wild animals would have turned into raccoons, moving into town and feeding at neighborhood trash cans. Again, this argument has a certain limited plausibility—though the quotation pushes too far in implying that hunting is the *only* thing that keeps animals barefoot, wild and in the woods.

Below the surface, though, lurks a more doubtful proposition. In the context of their presentation, these arguments imply that the motivations of hunters themselves are

The designers show us hunters who often indulge a penchant for philosophizing on the pleasures of killing.

The theme of hunting as conservation is introduced even before visitors enter the main exhibit area. Moving from the lobby toward the main exhibit area, visitors encounter a series of panels about "Funding Wildlife." "Sports people," the panel declares, "have been major supporters of wildlife conservation because of their love of the natural world." (This idea is repeated in a later section, which quotes Dr. Saxton Pope as saying "In the joy of hunting is intimately woven the love of the great outdoors." As with a great many quotations in the exhibits, Dr. Pope is not otherwise identified.)

tied to these claimed benefits of hunting. The implication that the "joy of hunting" is rooted in a desire to keep animals wild is as convincing as the suggestion that hunters buy hunting licenses in order to contribute money to conservation programs.

A more interesting—and disturbing—account of hunters' motivation forms the next level of development of the museum's Big Idea.



Killing as Communion

I felt an odd sense of déjà vu during my visit to WOW, which puzzled me until I recognized its roots in Donna Haraway's critique of the American Museum of Natural History (1989). Haraway focused on the Theodore Roosevelt Memorial at the entrance to the museum, and the grand dioramas of *African Hall*. She deconstructed the museum as a statement of "Teddy Bear Patriarchy," a "reproduction of the Garden of Eden" from which "Western 'Man' may begin again the first journey, the first birth from within the sanctuary of nature." *African Hall*, she argued, "offers a unique communion with nature at its highest and yet most vulnerable moment, the moment of the interface of the Age of Mammals with the Age of Man" (1989:26).

Based upon her close textual reading of the museum, Haraway "discovered" that "the central moral truth of the Museum" lies in the macho assumption that "it is in the craft of killing that life is constructed" (1989: 28-29).

Besides some quotations from Roosevelt that are displayed in the memorial, Haraway based her analysis primarily on a study of Carl Akeley, the taxidermist who collected and mounted the specimens for *African Hall*. Akeley, she argued, saw himself as "a pure man whose danger in pursuit of a noble cause brings him into communion with nature through the beasts he kills" (1989: 48). This communion is possible because (in the words of Akeley's wife) the true sportsman "loves the game as if he were the father of it" (Haraway 1989: 42). Because of this "joining of life and death," Haraway concluded, "The Museum...was the ideological and material product of the sporting life" (1989:42).

The "joining of life and death" is explicit,
to be read by every visitor.

Haraway asserts that the tenets of Teddy Bear Patriarchy are hidden beneath the surface messages at AMNH. Perhaps they are conveyed subliminally to the casual visitor, but they require decoding by the analyst to become manifest.

At WOW, no decoding is necessary. The "joining of life and death" is explicit, to be read by every visitor; indeed, it is the central theme of the exhibitry.

The argument is built up piece by piece. One of the first copy panels encountered within the main hall states that "Good hunters are naturalists who understand the complex interactions between animals and their habitats." In a later panel, Charles Fergus is quoted:

"The land comes alive through its wild creatures. I come to know the land through hunting the birds.

Hunting has opened the east to me and let me sense the rhythms and hierarchies of nature."

Thus, hunters are asserted to *know* nature better than other people. The causal sequence is unclear in these assertions: do hunters study nature more assiduously than other people in order to improve their success in hunting, or does the study of nature and "love of the natural world" somehow lead one into hunting?

The next level in the argument follows that second assumption. In a series of short videos on "Why I Hunt," a university professor explains that "Hunting brings a sense of belonging to something bigger." More explicitly, another person states that "Hunting properly done is not an outworn cruelty but rather a manifestation of man's desire to reestablish or maintain a union with the natural world." Another tells us that "The central impulse of the angler is to engage nature." Thus, hunters form a special relationship with nature through the animals they kill, something akin to Carl Akeley's sense of becoming the "father" of his victims. In the "hierarchies of nature," man sits upon the top rung.

For many people, ethical progress is thought to be leading humans away from exploitation of other animals. But WOW implies that this progress instead dehumanizes us, by denying the essential reality of our animal nature. Nature, after all, is "red in tooth and claw." The "Great Chain of Being" is a food chain; everything lives by eating something else. WOW asserts that anti-hunting ethicists are mistaken in believing that their ethic is rooted in an advanced empathy with other animals. Instead, by denying the true reality of nature, we are destroying our ability to understand even our own animal instincts, let alone those of other animals. Only in killing do we experience the essence of what it is to be an animal in this world. Only the hunter knows, directly and viscerally, the true way of life in the state of nature.

Is It Successful?

Does Wonders of Wildlife succeed in making this case? Does it persuade the visitor of its position? One line of evidence is provided by a visitor feedback board located near the end of the exhibit sequence. Visitors are invited to write their thoughts on 3x5 index cards and drop the cards in a box. Staff later post the cards (or some of the cards) in two locked display cases.

While the surrounding exhibitry specifically solicits comments on the subject of reintroducing species such as wolves into human-populated areas, visitors instead use it for a general referendum on the museum's messages. Some do seem responsive, though the museum may simply be confirming their prior attitudes. One asked "Would we have wanted to save the dinosaurs?" Another vented angrily:



"God gave man dominion over the earth and all animals. Just because an animal is on the endangered list does not mean it is. The government needs to stay out of it and all the nature conservancy groups. Truly let nature take its course with man at the top of the chain."

Nonetheless, of the 48 cards displayed, only five were clearly pro-hunting. The remainder ranged from clearly anti-hunting ("All creatures deserve to live and should be left alone.") to general statements about the importance of wildlife conservation with no reference to hunting as a form of conservation. The museum seems to have convinced few of these visitors.

Only in killing do we experience the essence of what it is to be an animal in this world.
Only the hunter knows, directly and viscerally, the true way of life in the state of nature.

For me, though, the museum fit Sherry Turkle's definition of an "evocative object": something "that fascinates, disturbs equanimity, and precipitates thought" (1984: 13). My visit provoked an extended period of personal meaning making, starting with wondering why I found it so annoying that the forms of a museum should be turned to advocacy for recreational killing. As Neil Postman argued, every museum offers its own answer to the question "What does it mean to be human?" (1990). Is there any reason why hunters should be denied the medium to give their own answer? Not if we consider museums to be simply a neutral medium for conveying any content the organizers wish to communicate. Analyzing my annoyance at WOW, I recognized that my commitment to museums is not a commitment to a neutral medium, but to museums as agents for a progressive vision of human nature and social justice.

On another level, WOW nagged at my long-recognized hypocrisy as a dedicated carnivore who wants to remain safely isolated from the process of killing the meat I eagerly consume. Is the hunter simply more honest, I wondered? But it also struck me that I do not recall a single instance in the entire museum that mentioned game as a food source. "The joy of hunting" appears to be in the stalking and killing, not in the eating—at least for moderns for whom the hunt is sport rather than necessity.

I was not persuaded by the argument that killing is essential to maintaining our roots in our animal nature. Certainly we are animals, but we are animals capable of developing systems of ethics and of harnessing our instincts when they collide with our ethics. But WOW forced me to at least consider the argument, and to wonder whether

we do in fact pay a price of alienation for so removing ourselves from nature.

I also found my equanimity disturbed by recognizing that WOW's argument is related to one I made recently in a talk at ASTC (adapted as Rounds 2002, this issue). There I argued that we have an ambiguous relationship with nature, since we are both dependent upon nature and threatened by it. Nature is dangerous to us, both physically and psychologically. Our perception of that danger is heightened by the fact that "Nature doesn't care about us. Nature doesn't care about anything. It's sublimely indifferent. It is, quite literally, inhuman." Thus, people use visits to science (and natural history) museums (along with other strategies) to diffuse this threat by incorporating nature into the world of human meaning. (See the next article for my full argument on this point.)

Thinking about WOW on the drive home, I realized that that museum can also be construed

as an attempt to "bring nature into the human world of meaning." But where I suggested that we seek to diffuse the threat by translating the cold indifference of nature into the warm, caring embrace of "Mother Nature," WOW celebrates man as controlling nature through his position as the most successful predator of all. "What it means to be human," according to WOW, is to be king of the beasts.

Whatever one's feelings about the message of the American National Museum of Fish and Wildlife, its provocative power cannot be denied. Indifference is all but impossible. The museum stalks the visitor as carefully as the hunter intent on bagging his prey. But here the prey has the final word, and for many visitors the meanings that they carry away will be directly contrary to those intended by the designers. For myself, at the end of the day, the result of my personal meaning making was an affirmation, not a change. "No, I am not that. That is *not* what it means to be human." I do not choose to join the predators, any more than I would wish to be their prey.

REFERENCES CITED:

Haraway, Donna

1989 "Teddy Bear Patriarchy: Taxidermy in the Garden of Eden, New York City, 1908-1936." In *Primate Visions: Gender, Race, and Nature in the World of Modern Science*. Pp. 26-58. New York: Routledge.

Postman, Neil

1990 "Museum as Dialogue." *Museum News*, September/October 1990. Pp. 55ff.

Turkle, Sherry

1984 *The Second Self: Computers and the Human Spirit*. New York: Touchstone Books.



Storytelling in Science Exhibits

by Jay Rounds

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"There is only one right form for a story, and if you fail to find that form the story will not tell itself." —Mark Twain

Because we're human, we tell stories. It seems to be fundamental to our nature, an essential aspect of how we go about making sense of the world and negotiating shared meanings with other people. Museums have long recognized the appeal that stories have for all audiences, and have attempted to capitalize on that appeal by designing exhibits, and writing exhibit labels, in a storytelling mode. Leslie Bedford has even called storytelling "the real work of museums" (Bedford 2001).

However, success is not guaranteed. Many efforts to develop narrative exhibits—particularly many of those in science centers—have produced stories that approximate the appeal of the cocktail-party bore's recitation of his medical history.

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The purpose of storytelling in science exhibits is not to describe the natural or objective world as an end in itself, but rather to incorporate the objective world into the human world of meaning.

If we want to tell stories in exhibits, we should aspire to tell good ones. To do that we need to understand something about the nature of narrative and the reasons why storytelling is so fundamental to the functioning of human consciousness. Serious consideration of storytelling in science exhibits leads us into some very complex and difficult challenges to the way that we think about the goals of science centers and their visitors.

The attractions of storytelling are clear. Besides being a natural mode of thought, we know that narrative is a critical vehicle for meaning making, and much of the talk in the field these days is about moving from an information-transfer model of the exhibit experience to one based on meaning making.

But in spite of years of talking about constructivism and meaning making, the fact is that most of the new science exhibitry now hitting the floors is still designed to teach visitors the facts or the methods of science, and to make certain that they get them right. The methods have become more engaging and interactive, but the underlying purpose still seems to be rooted in the information-transfer model. Narrative exhibits might be a way out of this box—or at least a productive way of thinking about the box.

Narrative focuses on the human world

I will examine three characteristics of narrative as a form of art that are fundamentally different from teaching science in the information-transfer mode.

In contrast to traditional modes of teaching science,

1. Narrative seeks to provoke meaning making rather than to transfer information.
2. Narrative is judged by authenticity rather than literal accuracy.
3. Narrative focuses on the human world rather than the natural world.

My first point is that narrative seeks to provoke meaning making rather than to transfer information. To look at *how* it does that, step back 24 years to an important article by Nelson Graburn titled "The Museum and the Visitor Experience" (1977). Graburn was one of the first to argue that there is a great deal more going on in experiencing exhibits than simply learning some body of factual knowledge, and that those other things are valid in their own right, rather than being just a failure to stay on task.



Graburn argued that museum visitors are searching for meaning and authenticity in their lives, and that they seek it in part through the use of “mythic thought.” Mythologizing is storytelling, of course, and mythic thought is essentially what we use storytelling to do.

Graburn defined mythic thought as being “diametrically opposed to scientific thought.” His point was not to say that scientific thought was good and mythic thought was bad or vice versa. Rather, he was asserting that these are two equally valid ways of trying to make sense out of the world, and that both are present in our everyday thinking, but they serve different purposes. The passage is worth quoting at some length:

“For example, in attempting to explain how we understand smells, the scientist tries to reduce the phenomenon to its basic principles while the opposite is true in mythic thought, where explanation never rids the smells of their contexts and relies on the *totality* of associations.

“The cognitive, scientific mode, strips objects and events of their associations and contingencies, the very things that relate them to life. This is partly what underlies the complaints about ‘lack of relevance,’ aimed at museums. The public is more satisfied with explanations on its own terms, immediately relatable to the totality of its previous experience. In the end, mythical thought is for all of us more satisfactory than scientific thought, for the scientific approach offers satisfactory explanations for only the more impersonal parts of our lives” (1977:2).

What we have traditionally put into our exhibits has been an attempt to inculcate the scientific subculture and scientific mode of thinking in our visitors. But what many visitors

rather than the natural world.

have been doing is more closely related to Graburn’s mythic thinking that lies at the heart of storytelling. Their use of mythic thinking is a process of meaning making.

It’s probably unfortunate that Graburn chose the term “mythic” thinking, since that word makes it easy to regard all this as truth versus fantasy, or science versus illusion. That’s certainly not what Graburn was getting at. Perhaps “poetical” thinking would have been better. Mythology we think of as something that has been replaced by science, but no one would argue that the appearance of Einstein eliminated the need for Robert Frost.

We’ve known the difference between scientific thinking and poetical thinking ever since Aristotle explained it in the

Poetics. The scientist makes specific and particular statements such as “the structure of DNA is a double helix,” and such statements are judged in terms of their truth or their falsifiability. But Aristotle says that the poet never makes any real statements at all, certainly none that can be judged as true or false. The poet’s job is not to tell you what happened, but what *happens*; not what is, or what *did* take place, but the kind of thing that *always* is, that always *does* take place (Frye 1964:63).

These are the typical, recurring stories that Aristotle called universal human events. The mere “what happened” is random and meaningless. It is raised into the realm of meaning when mythic or poetical thought connects it up with universal human stories. It is now recognizable as part of a larger pattern of meaning.

Because of this character, you can’t judge a story in terms of literal accuracy. Instead, you judge a story by its authenticity—not whether it’s “true,” but whether it’s “true to life.” Jerome Bruner said that we judge stories “by their verisimilitude, their ‘truth likeness,’ or more accurately their ‘lifelikeness’” (1990:61). Ultimately the criterion is whether the specific events of the story are recognizable as instances of universal human events.

We are by nature meaning making animals. We tell stories in order to impose structure and meaning on life, and one of the places we do it is in museum exhibits.

But what about learning science? Isn’t that what people go to science-technology centers for? I will readily grant that sometimes some people do go to science museums to learn some specific information about nature, or even about science. But I don’t think that’s what is going on most of the time. I recognize that many people will dispute this. Some colleagues have said to me that meaning making may very well be what’s up in art museums and maybe even history museums, but it’s not relevant to science museums. In science museums, they told me, we teach science, not philosophy.

Perhaps they do. But the issue here is what the visitors do.

The meaning making perspective does not argue that visitors don’t acquire any information in an exhibit. It’s just that the acquisition of the information isn’t the point. If you attend a performance of *Hamlet* for the first time, you have to acquire certain information in order to get the benefit of the experience. You have to learn from the story that Hamlet is the Prince of Denmark, that his father was murdered, that

The poet’s
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"the funeral baked meats did coldly furnish forth the marriage tables," and so on.

So you do acquire information. But you don't go to see *Hamlet* for the purpose of learning the history of Denmark. The information you acquire is necessary to the experience,

Our stories are human stories, not nature's stories.

but it's not the *point* of the experience. You wouldn't go if there weren't something more. You wouldn't go if it didn't *mean* something. Through the medium of the

play, the accidents of Hamlet's life are transformed into Aristotle's universal human story.

But if people are interested in mythologizing instead of science, why do they bother coming to science museums? What kind of meaning making can you do in a science exhibit?

This brings us to my third point, which is that narrative focuses on the human world, rather than on the natural world. It is frequently claimed that science and art are simply alternative ways of describing nature. It's true that science traditionally aspired to present an objective description of nature, but art is certainly something more than simply a way of describing nature.

The great literary critic Northrup Frye said that the job of the poet "is not to describe nature, but to show you a world completely absorbed and possessed by the human mind" (1964:32-33). In his essay "The Motive for Metaphor," Frye explained our central reason for storytelling:

"The world you want to live in is a human world, not an objective one; it's not an environment but a home; it's not the world you see, but the world you build out of what you see" (1964:19).

In other words, the purpose of storytelling—at least in this context—is not to describe the natural or objective world as an end in itself, but rather to incorporate the objective world into the human world—into the world of meaning.

Our stories are human stories, not nature's stories. In nature there are settings, but no stories. There is movement, but no plot. There is action, but no meaning.

Stories don't exist in nature. They are solely the products of human consciousness and their concerns are human concerns.

Mihaly Csikszentmihalyi (1993) identified a key reason why we're so driven to constant meaning making. He says that we're not fully in control of our psyches. Our grip on our consciousness and our sense of personal identity are very tenuous, and have to be shored up constantly through meaning making. If not, "psychic entropy" sets in, and we slide quickly back into meaninglessness—which is to say, back into the state of nature, where there is no meaning.

Our attitudes about nature are profoundly ambivalent. The natural world is the foundation of our existence. We don't merely benefit from it, we're utterly dependent upon it.

But nature is also a big, powerful, mysterious force that is dangerous to us in concrete, physical ways. Nature's threat of physical danger makes it psychologically dangerous as well—the central symbol of Csikszentmihalyi's looming threat of psychic entropy. Nature can destroy us because nature doesn't care about us. Nature doesn't care about anything. It's sublimely indifferent. It is, quite literally, inhuman.

So we tell stories about nature in order to control it by bringing it within the world of human meaning. Mythic thinking translates the cold indifference of nature into "Mother Nature," a warm, beneficent, caring superparent who has made a home for us—or any of thousands of variations on the theme.

This is why many—and perhaps most—visitors to science museums relate to exhibits in terms of mythic thinking rather than scientific thinking. They're not ignoring the supposedly objective facts on display, but the facts aren't the point, just like the facts of what happens to Hamlet aren't the point of the play.

Nature doesn't care about us.

In Frye's terms, the meanings that visitors generate in our exhibits, through the stories they tell themselves and each other, translate nature from objectivity to subjectivity, from an environment to a home. They're taking the material that we put up as exemplars of scientific thinking, and reinterpreting it in terms of mythic thinking.

It might be objected that the very purpose of a science museum is to ensure that scientific thinking stamps out mythic thinking. So what we should do is to pre-empt the visitors' mythic storytelling by giving them our own stories rooted in scientific thinking, to show them a better way.

But meaning making deals with values, and science has nothing to say about values. As Einstein puts it, "Science can say what is, but not what ought to be." Science has to be translated into a metaphor to become useful for thinking



about values and meaning. In other words, it has to be mythologized. Science can no more substitute for mythic thinking than mythic thinking can substitute for science. They deal in separate domains.

This is why you can't just take a traditional curriculum for teaching science and think up a story to illustrate it—to con visitors into paying attention to something they would not otherwise find interesting. The kind of story you create that way will bear the same relationship to real storytelling that doggerel bears to poetry. Readers smell the rat right away. Remember that stories are judged in terms of authenticity rather than accuracy. Stories made up to sugarcoat a curriculum always fail that test of “lifelikeness.” We can tell right away that they’re not authentic, that people don’t really act like that. They become, in Bedford’s phrase, “Didactic wolves dressed in storyteller sheep’s clothing” (2001: 33).

When you’re tempted to manufacture a story to tart up a curriculum, take a minute and meditate on a dictum by John Stuart Mill: “The artist is not heard, but overheard.”

To summarize:

Storytelling is a different enterprise from science or from teaching science.

Storytelling deals with making meaning rather than with establishing or teaching factual knowledge.

Stories are judged by their authenticity, rather than by their literal accuracy.

Stories aim at interpretation in the human world, rather than at analysis of the natural world.

If we want to take storytelling seriously, we have to take visitor meaning making seriously.

And that changes everything.

REFERENCES CITED:

Bedford, Leslie

2001 “Storytelling: The Real Work of Museums.” *Curator* 44(1): 27-34.

Bruner, Jerome

1990 *Acts of Meaning*. Cambridge: Harvard University Press.

Csikszentmihalyi, Mihaly

1993 “Why We Need Things.” In *History from Things: Essays on Material Culture*. Steven Lubar and W. David Kingery, editors. Washington: Smithsonian Institution Press, pp. 20-29.

Frye, Northrup

1964 *The Educated Imagination*. Bloomington: Indiana University Press.

Graburn, Nelson

1977 “The Museum and the Visitor Experience.” *Roundtable Reports*, Fall 1977, pp. 1-5.



"I Just Want to Build Things": Another Visit to the City Museum

by Susan Beattie
and Nancy McIlvaney

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W What does the future hold for
the City Museum? A conversation
with creator Bob Cassilly
provides some answers, as well
as a few more questions.

The last issue of *Exhibitionist* included a cyberforum examination of the City Museum, a highly popular venue with attendees of the 2001 AAM Annual Meeting in St. Louis. As that issue went to press, the museum was undergoing a transformation from not-for-profit to profit status. The transition is complete; the City Museum is alive and well, reinventing itself while continuing to promote "mirth, mystery and mayhem."

The City Museum's history is as idiosyncratic as its presentation. It began when founders Bob and Gail Cassilly bought an abandoned shoe factory in the city's developing loft district. Bob began to fill it with the monumental constructions and "found" objects that have marked his career in historic preservation and public sculpture. Gail Cassilly, also a sculptor, contributed her own smaller works and went to work as the museum's executive director when it incorporated as a not-for-profit corporation and opened to the public in 1997.

By spring of 2001, the highly popular site was showing signs of financial and organizational strain. St. Louisans watched the unraveling of its management (and the Cassilly's marriage) in the financial and gossip columns of local newspapers. Gail sold her share of the building and took a leave of absence. The board began searching for a new director. Bob went public with a litany of complaints about the museum's programming ("This was supposed to be a museum for bad little boys, not this girl stuff") and the constrictions of having others "manage my ideas." After a spate of suits and counter-suits over control of the building and the museum, the board of trustees announced in February of this year that it was dissolving and selling the City Museum back to Cassilly.

A recent visit to the Museum revealed little obvious change in its interior attractions or operation. Several temporary exhibit areas on the third floor have been closed. Two of these have been replaced by an indoor skateboarding park, which just opened as part of the museum's fifth anniversary celebration.

Visitors are still greeted by friendly staff/volunteers who "trust visitors to get the joke." Behind the scenes, the management change is reflected in the total numbers on the payroll. The 2002 *Official Museum Directory* reported 27 full-time and 26 part-time staff; today there are 16 full and 40 part-time. Job definitions are more amorphous than they were a year ago. Department and job titles appear to have been abolished altogether, leaving a work force whose individual responsibilities are wide-ranging and wouldn't fit a typical museum organizational chart. The number of volunteers has dropped markedly, from over two hundred down to fifty, individuals whose dedication to the spirit of the museum apparently outweighs its loss of tax exemption.

While museum staff declined to share current financial information, estimates are that at least one-third of the estimated \$2.6 million budget for last year came from donations. With yearly attendance estimated at approximately three hundred thousand, admission charges alone were not covering expenses. Perhaps the term "for profit" is a misnomer; the distinction might be better stated as simply "not not-for-profit." In conversation, Cassilly seems not to consider any differentiation between the museum's budget and those of his sculpture and real estate enterprises, admitting in a recent newspaper interview that he has "shoveled a lot of money" into its operation this year.

"This was
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In addition to cutting costs through staff reduction, the museum has added some revenue generators. Cassilly has not increased the admission price, but now charges \$3 for parking, previously free. Museum memberships have been replaced by a "City Club Card," which offers discount pricing for multiple visits.

New attractions have been designed to increase attendance and revenue. The major addition is outside the building: another freeform, "you have to see it to believe it" construction from the ever-churning imagination of sculptor and now proprietor Cassilly. *MonstroCity*, as it's been dubbed, is a junkyard, a jungle gym, a vertigo-inducing system of walkways and tunnels wrapped around the building and connecting a collection of "found" objects including a rusted out airplane and a fire engine. Admission to *MonstroCity* is an extra \$2.50, as is the new skateboard park. Other sources of income are a banquet hall facility ("Windows Off Washington"), a gift shop full of expectedly quirky and mostly reasonably priced items, a wine bar and ice cream parlor, and rentals from office space on upper floors of the building. Whether all this can work together to guarantee a financially viable City Museum remains to be seen. We're betting it can.

*MonstroCity is
a junkyard,
a jungle gym,
a vertigo-inducing
system of walkways
and tunnels.*

Our homework for this article was capped by an interview with Cassilly himself, a personality as unpredictable and engaging as his creation. We had sent him a copy of the earlier *Exhibitionist* pieces as prelude to our curiosity about the current state of the museum. His responses to questions are rapid-fire, maddeningly indirect and often hilarious. We came away without solid answers to many of our questions, but as this edited transcript of the interview shows, with a very clear picture of Cassilly's ideas about what *his* museum should be.

Susan: The AAM had a reception here during its annual meeting last year. People were captivated; everybody fell in love with the place.

Bob: I'm uncomfortable with so much flattery. I'd welcome a little more attacking.

Nancy: In the cyberforum, the panelists continued a debate that came up at the AAM conference: whether City Museum is in fact a museum or if it is more of a playground. Is there a difference between a museum and a playground?

Bob: I don't know. Does there have to be a difference? They were arguing about the definition of a museum. A museum is traditionally a dwelling place of the muses. If someone has come up with new meanings, that's not my problem. This reminds me of a quote from Mark Twain: "The reasons that make me doubt other peoples' religions are the ones that make me doubt my own." People ask, "Do you have a point of view?" or "Do you have a mission statement?" No, I look at life aphoristically: reality is like a mirror ball. Whatever angle you are at reflects the world a little differently. This is a home for duality or quadrality. I never thought about making a museum. It seems like kids like all the fun stuff and I guess that's why they call it a kid's museum. One thing about calling something a children's museum is that all bets are off. People don't question what you're doing; you can do whatever you want 'cause it's for kids.

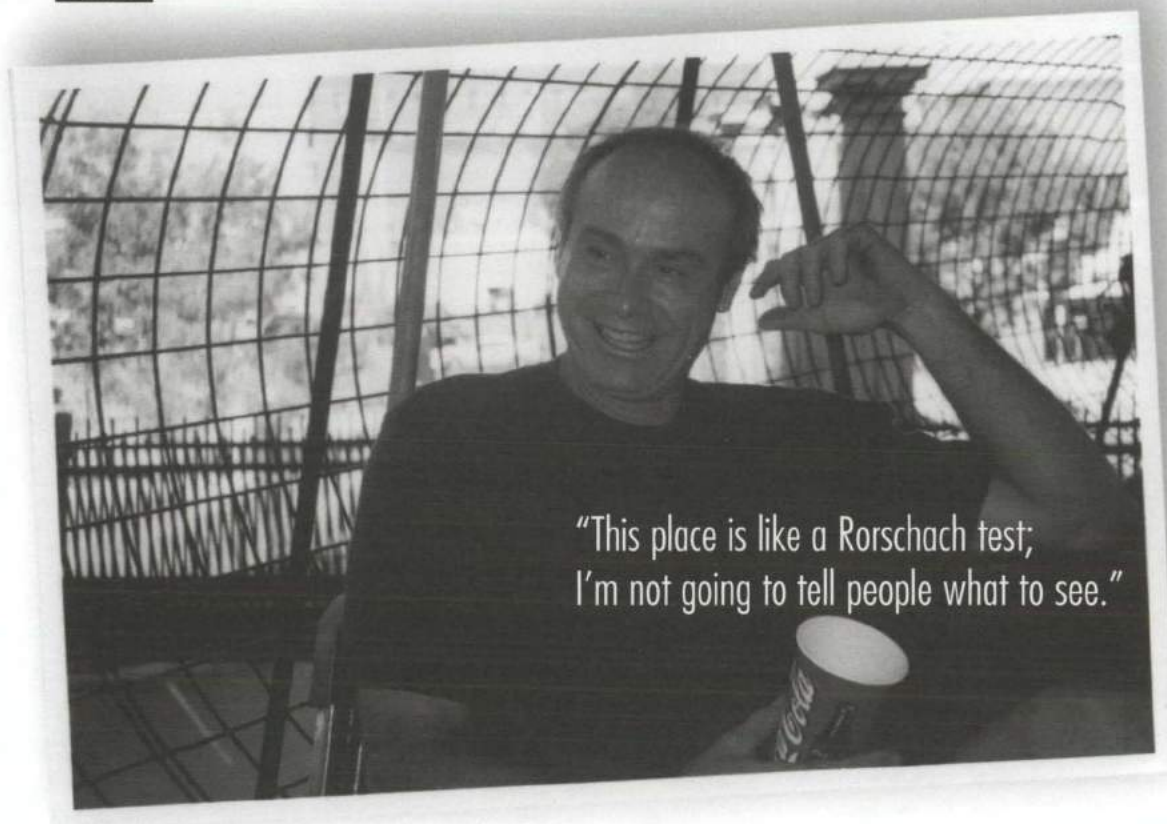
Nancy: Did City Museum start out as a for-profit venture?

Bob: Yes, I owned the building. It's monumental architecture, and I thought as long as I had a hold of something like this, I might as well do something different with it. The original reason for the building's existence doesn't work any longer so I figured I'd turn it around and play with it.

Susan: How far were you into it when you went not-for-profit?

Bob: It was six or seven months before opening. We got seduced by the idea of being a non-profit with the tax credits, lots of public money and volunteers, but it's a Faustian bargain. How do you keep from becoming a parody of everything you started out to be? This is a devil's advocate sort of place, a place that would support or encourage people who have something to offer but don't have whatever it takes to do it. We have this incredible advantage in that we could build everything in-house. Just come up with things and do it all and not have to ask anybody. I found out we were just giving away our advantage asking committees, "What do you want to do?" and they would say "Build new bathrooms" or "Become respectable." Committees kill everything. Napoleon said that "committees can only do the most conservative and proper thing, therefore they are always wrong." We had a perfect setup here. You know we could do whatever we wanted, get away with anything. And all of a sudden we started hiring people from the History Museum and other institutions that wanted to make it more like an institution—it's insane! Somebody said at the end of the article that the thing that would kill City Museum is respectability. Creeping respectability is the enemy, I think.

**"A museum is
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"This place is like a Rorschach test;
I'm not going to tell people what to see."

Bob Cassilly,
founder of the
City Museum

Susan: Is the transition to for-profit from non-profit complete and what kind of staff do you have now?

Bob: Yes, in March of this year. We've got staff. We just don't have a director or development director or an education department or curators and that kind of stuff.

Susan: Do you still have a director of education?

Bob: Hell no! That's an oxymoron. This place is like a Rorschach test; I'm not going to tell people what to see. That's the problem with the non-profit and the people who come in here with their agendas, and they want to work out a whole plan of what the place should be. People ask for a mission statement and I've got the perfect one. Do you want to hear it? "To take tickets, accept compliments, wave good-bye and ask people to come again."

Susan: With the current need for museums to raise money, where every square inch is named and pressure is on to generate attendance with mega-exhibits, what is the difference between the for-profit and the not-for-profit?

Bob: I always think of the non-profit as like someone who is walking slowly on their heels and the more non-profit, the more slouchy you get. Being for-profit forces you to be on your toes. Non-profits exist because of subsidies and a subsidy is basically a lie. A subsidy makes something exist

that couldn't exist on its own weight, and something that can't exist shouldn't. I guess that sounds like Social Darwinism, but it seems to me that when something has to be subsidized it loses that sense of urgency.

Susan: Wouldn't you like to have several million a year to fund your building projects?

Bob: No, actually I wouldn't. I think it's better to be a little hungry. When you spend four million dollars a square foot you can't help but screw it up. Every square foot is so valuable, and what you have to do to justify that space just kills it. Art thrives in cities in vacant lots and alleys and the areas where real estate is not so valuable. Things will spring up cause they're not so serious. The worst thing to do to an artist is to subsidize him. It creates like welfare dependent pathology. If you want more Christians, throw them to the lions. I mean, how can you be avant-garde if the establishment is supporting you?

Nancy: Can you be avant-garde if you're supported by corporate money?

Bob: I don't know. Things come from quiet little areas and can't be planned. If you were going to start something like this, you'd have to have some form of public interest, form a committee, set a mission and make a feasibility study, hire architects out of the blue and say "come up with something."



So then you present the ideas to a board, go fundraise, get the lowest bidder to do it, and two years later you can't remember why you wanted to do it.

Nancy: I read that you were also having a problem with the programming going on at the Museum.

Bob: Yes, I just want to build things and other people had their own agendas. It seemed like the Museum existed to support the staff. Non-profit organizations exist so that elite society can have an errant stepchild to play with. You know, to give them money and make themselves feel virtuous. Like recycling, it does more harm than good, but it makes you feel good.

Nancy: I'm curious about the Celtic exhibit you have up now. Was that already in the works, and are exhibits like that something you consider still important to the Museum?

Bob: Well yeah, but I don't want canned exhibits. I like to find people who have personal obsessions and just let them go wild. All this you see built outside here has been put up since March. The money that was spent on programs and stuff like that now goes into building. I think the most important thing is ... I've always been interested in kids, and that look on their face when they see something and everything is ready to go and they suck up a new experience and then blow into it. I've been studying what it takes, the cues that will pull them around a corner like a finger motioning them to "come over here." I'm interested in the things that make people pause on a path, like a universal thing that makes them want to stop.

Susan: And that's exactly what hit with the AAM members. The whole museum world is trying to figure out how to do that and here is someone who is quote "not a professional museum person" who came in and did exactly what they are struggling with.

Bob: I've made exhibits for Busch and Sea World. I've worked for zoos and other places. I go around and see all these places and think "my God, they're missing the simplest little things that engage people." We're building a cave structure that's got a hundred-foot high space in it. It will have this dripping water coming down so that you can catch drips in your mouth from five stories up. It's hard to plan for something like that. I got the idea for that when I went canoeing with my kids and there was a rock that was dripping like this. And every time we'd go by there we had to stop and catch water in our mouths like idiots for a half an hour. It takes a lot of nerve 'cause if you miss it goes in your eye and it hurts. City Museum is like one of those old-fashioned places where you used to go in the 50s and play with your kids. There's nothing radical about it, it's old fashioned.

Susan: What kind of museums do you like?

Bob: I was in Florence six months ago at a museum that has all the wonderful Donatellos. It used to be a dusty old place that was fantastic and unselfconscious, but when I went back there, everything was labeled and clean and well lit. It seemed to be out of context. I guess it's the difference between music and art. Music can surround you, change you. I don't like the idea of art being an object that you look at. It doesn't have enough impact. One of the things we like to do around here and the biggest part of our perversity is that it only builds up out of found objects. By using things like that, it forces a lot of points of view. Like a city, it's an interesting place that has layers upon layers of meanings and points of view and attitudes.

Susan: You talked about recycling to feel good about yourself. Do you feel that you are performing a public service in any way?

Bob: I'd like to leave the world thinking I made it a little better. What motivated me to get into this was to fight my personal sense of cynicism and overcome my sense of self-destruction by doing something positive. It's like a lizard trying to balance its system. It's a museum for ADD kids. It's like Hal the computer in 2001; what more could a machine want than to amuse itself to its capacity? I want to be engaged!

Susan: Is there another major idea that you have for the future?

Bob: Yes, we have the huge space on the roof and in the center of the building, actually the most elaborate part people haven't seen. The center of the building had this giant ten-story shaft in it with slides where they would shoot the shoes down to the loading docks. So we'll make it so you can slide down the chutes or climb to the top and go out on the roof. I'll show it to you if you want.

Susan and Nancy: Yes, definitely we'd like to see that!

For the next hour or so, we followed Cassilly through a maze of museum-in-progress: more tunnels, fantastical sculptures, the world's most elaborate men's room, up and down stairs and ramps till we hadn't a clue as to where we were or exactly what we'd seen. Except that it was fun. Dizzying. And exhilarating. And maybe when it's open to the public, we'll take a shot at that spiral slide down from the roof—Cassilly insists it will be perfectly safe.

"Non-profit organizations exist so that elite society can have an errant stepchild to play with."

Fifteenth Annual Exhibition Competition

ABOUT THE COMPETITION

The Fifteenth Annual Excellence in Exhibition Competition recognizes outstanding achievement in the exhibition format from all types of museums, zoos, aquariums, botanical gardens and any other types of non-commercial institution offering exhibitions to the public. The competition is the joint project of the following AAM standing Professional Committees (SPCs): Curator's Committee (CURCOM), the Committee on Audience Research and Evaluation (CARE) and the National Association for Museum Exhibition (NAME).

Judging is based on the document Standards for Museum Exhibitions and Indicators of Excellence available from the SPCs and the competition coordinator. One first place and one or more honorable mention may be awarded in the following categories: Exhibits with project budgets up to \$50,000, Exhibits with project budgets between \$50,000 and \$500,000 and Exhibits with project budgets over \$500,000.

ELIGIBILITY

Any non-commercial institution offering exhibitions to the public may participate. Exhibitions may have been designed by a commercial firm for a non-commercial institution. Entrants need not be members of AAM. The exhibition must have opened to the public between January 1, 2000 and November 29, 2002. To be eligible, exhibits may not have previously won this competition.

ENTRY FEES

A \$50.00 fee is required for each exhibit entered. Make checks payable to the AAM Curators Committee. For multiple entries, submit one check for the entire amount.

NOTIFICATION AND AWARDS

Only winners will be notified. Each winning exhibition will be featured in a program at the 2001 AAM Annual Meeting in St. Louis and will receive national recognition in the AAM publication *Museum News*. Staff from winning institutions will be expected to present overviews of their exhibitions at the AAM annual meeting.

COMPETITION POLICIES

The SPC sponsors are not responsible for lost or damaged entries. All entry materials become the property of the Curators Committee and cannot be returned. Entrants agree to allow AAM and the SPC sponsors to use photographs of winning exhibitions, at no charge, in AAM publications. Entrants warrant that they have the right to allow such use. Institutions will be credited in any published reference to winning entries. All materials (with the exception of exhibit budgets) will be displayed as part of the Annual Exhibit Competition Booth at the Market Place of Ideas at the 2003 AAM Annual Meeting in Portland.

TO ENTER

1. Complete the entry form.
2. Attach your check to the form. Make checks payable to the AAM Curators Committee.
3. Include 4 copies of each of the following materials to be used in judging:
 - Set of slides (not more than 20) depicting a walk-through of the exhibition. The purpose is to give a sense of the exhibition as a whole and not to highlight individual objects. Videos that supplement the exhibit may be submitted as a fulfillment of the optional materials category. Each slide should be labeled with the institution's name.
 - Narrative (not to exceed 10 double-spaced pages) of the exhibition that addresses the appropriate points in the Standards for Museum Exhibitions and Indicators of Excellence, which cites the criteria for judging entries.
 - Label text to include the whole text, if brief; otherwise, submit major concept labels and samples of subordinate labels.

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