Lost Between Picasso and the Classroom

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I'm thrilled to be here today, and to be speaking to people who put the words "visitor" and "audience" first—whose primary focus is on visitor experiences in museums and exhibitions. I have a great appreciation for your work and the hard questions you're asking yourselves and all of us who work in museums. And although I must admit to being dumbfounded at times by the patterns and trends and even beauty you see in those complex configurations of numbers, and although I can get agitated by terms like "visitor-units," I have a high regard for your persistent striving to make a difference—to help museums and other public places create better experiences for visitors.

When the conference organizers asked me to prepare this talk, they said I should try to be "inspirational." And so I contemplated that word—inspirational—for several months, and then decided that what I really wanted to do was to share with you some of the dilemmas I'm stumbling over and some of the questions I've been asking myself for the last several years. At the heart of this talk is my concern about the quality of what we do in museums—the intrinsic value of the kinds of experiences we offer to the public, and how we might measure those experiences in a substantive way. It's not a new concern—it's probably familiar to all of you in this room. And it's a particularly important concern these days, when some sectors of our society are questioning the inherent role of museums and their presentations.

What I'm going to do this afternoon is to air a number of assumptions, attitudes, and misconceptions I frequently encounter in the process of designing and creating exhibits and exhibitions. (I use the term "exhibit" to describe an individual component or element, and "exhibition" to describe a number of exhibits gathered together.) I'm taking the role of provocateur, and I'm not going to disclose my own opinions or positions on some of the issues I'm presenting until later in the talk. And since I don't have the answers to a lot of the questions I'm asking, my goal is to initiate a dialogue with you about these issues over the next few days here at the conference.

I'm also going to be talking a lot about what's going on at the Exploratorium right now, since I'm deeply immersed in the place. And although you may think that some of the examples I use are extreme, or relevant only to the Exploratorium, I believe that the issues we're facing there can be applied across the whole range of types and styles of museum exhibitions.

My first introduction to the notion of "evaluation" in the context of "visitor studies" was back in 1979. I was working at the Oakland Museum, developing and designing multidisciplinary exhibitions. It was an exciting time. We were experimenting with new exhibit techniques like mood-setting environments, smell and sound, animated lighting programs, hands-on objects and interactives, and a whole range of methods for designing more attractive and engaging exhibits. The Association of Science-Technology Centers sponsored a workshop at the Exploratorium, organized and led by Chan Screven, called "Formative Evaluation as an Exhibit Design Technique." I hadn't a clue about what formative evaluation meant, but the phrase "exhibit design technique" was right up my alley. We learned about tracking and timing, pre-tests and post-tests, cued and uncued visitors, as we examined several of the Exploratorium's exhibits. I was on the team that evaluated the Steinberg exhibition, a collection of about 25 black and white drawings by the artist Saul Steinberg. We asked visitors: "What is this exhibit about? Are you familiar with Steinberg? What did you like or enjoy about the exhibit? What was confusing? What didn't you like?" We asked people to consider the exhibition in terms of balance, eye movement, science, and art.

That workshop was a pivotal experience for me. I never really thought about exhibits in the same way again. I began to think of them less as presentations, with the emphasis on me as the developer and designer, and more as experiences, with the emphasis on the visitor. And although I didn't get a chance to actually do any formative evaluation over the next few years, I tried to talk to visitors out on the floor, and question my own assumptions about exhibit experiences.

During that workshop, I remember thinking that it was curious that no staff from the Exploratorium attended, although Frank Oppenheimer and several others welcomed us and wandered in and out a few times. Only when I joined the Exploratorium these many years later, did I find out that the staff thought that the evaluation we were conducting on their exhibits was an unnecessary constraint—restrictive, rigid, and one-dimensional, that it forced a simplistic, flat, information-delivery-type of experience, and that their exhibits were designed to be much more open-ended, multifaceted, and rich.

That attitude remains to some extent today. Recently, several Exploratorium staff expressed their irritation that funders now require us to pay huge sums of money to a bunch of bean counters who come in and tell us what we don't need to know, and interfere with and perhaps even squelch the creative process. In a conversation about who we were going to hire as an evaluator for a major exhibition we're currently developing, a staff person referred me to a session at the Association of Science-Technology Centers' annual meeting last year in Portland, called "Can Art Help Your Place Grow." One of the speakers, David Hupert, described what it might be like if evaluators were present when the great artist Matisse was painting "The Red Studio," which is now at the Museum of Modern Art in New York. Hupert asked his audience to imagine Matisse at work, outlining what would eventually become an entirely red painting. Evaluators would come along and say, "All red? You can't make it all red! You need to add some other color, just a bit of another color. Our data indicated people don't want to look at an all-red painting." Hupert elaborated on the phone to me that "The public does not know. . .Their responses will be anecdotal, so why are we asking them? Why can't we use creative intelligence and take intellectual risk?"

There are several assumptions embedded in this scenario. One assumption is that evaluators, in search of some democratic ideal, aren't interested in the powerful vision of a creator, that they'll march along and perhaps even step on creative vision. Associated with that notion is one that suggests that evaluation is a great leveler, that incorporating the public leads to democracy which leads to mediocrity. As one curator put it, "If we pander to what the public wants, we'll lose the poetry and beauty." This attitude certainly comes from confusing evaluation (which helps us measure our own performance against our own goals) with a give-'em-what-they-want style of market research. It's probably not new to many of you, who have to deal with complaints of "stooping to the lowest common denominator" and "dumbing down our vision." The assumption here is that by talking to visitors, and taking into account what their questions might be, we will lose some kind of higher value.

Another assumption in Hupert's story is that an exhibit maker (for this discussion took place in the context of museums and what we present to the public), the exhibit maker is an artist—yes, even an aspiring Matisse or Picasso—and the finished exhibit a work of art. (And it appears that this is not an isolated idea. Just last week, a visiting exhibit developer, in defending his reasons for not incorporating evaluation into his exhibit development process, asked, "Did Michelangelo need evaluators?") This is where we get into difficult territory and lose our way.

When is an exhibit a work of art—a creative work with a personal vision—and when is an exhibit an educational tool, a medium for communication? What's the difference, and why should we care?

We should care because we get into trouble when we confuse artistic intent with educational intent, and when we assume that one kind of creativity is the same as another. In a work of art, individual intent is primary. The art is a result of an individual's vision and meaning. In an educational or interpretive exhibit, which may have a number of stakeholders, educational intent must be primary.

Sometimes exhibitions *are* artworks. At the Exploratorium, in our Artist-in-Residence program, we commission artists to develop works that are displayed in our public spaces alongside exhibits. Peter Richards, Director of the Arts Programs, explains that we commission artworks based on how well the particular work relates to and reflects our current pedagogical interests. The works themselves are not necessarily educational, although Exploratorium educators might use the artworks as a point of focus for discussion about a particular phenomenon.

An *exhibition of artworks* is yet another type of experience. The exhibition is the context in which the individual works of art are displayed. No one would dream of altering the artworks themselves to "fit" an interpretive framework established by the exhibition organizers. But the ordering, the pacing, the interpretation (if there is interpretation), the space, the three-dimensional environment—these are elements of communication and context, and might benefit from assessment and revisions based on interactions with the public. The artworks were created with artistic intent. The exhibition environment and the interpretation are born from educational intent.

Sometimes, *exhibitions* are artwork. The artist Fred Wilson's work comes to mind. Most of you are probably familiar with his installation, "Mining the Museum," at the Maryland Historical Society. Wilson sorted through and selected objects from the society's collections and juxtaposed them in startling combinations that gave expression to his own personal meanings. Recent work by filmmaker Peter Greenaway in European museums is another example. Greenaway creates subjective, dramatic narratives that also employ the collections of the host museums. These types of exhibitions are created by artists who step outside the interpretive framework and institutional conventions to work from an individual vision. Indeed, these exhibitions are created when museums select an artist and essentially say "go for it—do what you want—tell your own story." In these exhibitions, artistic intent is not only appropriate, it is the foundation of the effort.

But is artistic intent always appropriate? A young exhibit builder has been designing an exhibit at the Exploratorium, called "Cochlear Model," that demonstrates what happens in our inner ear when sound waves enter. The mechanics of the exhibit had already been conceived, and although the builder's task was simply to build the model and create a housing for it, he decided to approach this educational exhibit as if it were an artwork. (I should mention that he is a practicing artist outside the Exploratorium.) The model is a wing-shaped plastic panel with dozens of individual chambers containing a fluid. Visitors can activate a series of cranks and create a variety of waves in the fluid. The model sits on a stand consisting of an oval-shaped wooden top and an arcing steel base perforated with large holes. The exhibit is beautiful and visually complex; it looks a bit like a sailboat and a futuristic musical instrument. But for a visitor approaching the exhibit, the physical experience might be confusing and distracting, more likely misleading. We're going to evaluate the exhibit once it goes on the floor, and redesign it if necessary. But my point here is that our exhibit builder was employing artistic intent rather than educational intent.

Chuck Howarth and Maeryta Medrano, in summing up a small conference that centered around Exploratorium exhibits, described two models of exhibit developers—the artist and the educator—that helps shed light on some of the confusion at the Exploratorium. The artist-as-developer model "states, in essence, that the museum's ultimate purpose is to identify creative people and provide them the freedom and resources to develop works of interest to them. If the work is performed with integrity and vision, it will serve as an inspiration to visitors as well—a sort of trickle-down theory of education." In the educator-as-developer model, "the exhibit developer is an intermediary between the public and those with something of value to share . . . . Like a journalist, the (educator-developer) seeks out emerging ideas in the wide world and translates them into a form interesting and accessible to the intended audience." "For the artist-developer, the planning process is primarily intuitive . . . There are no articulated goals for the visitor experience, but rather a general hope that they will 'make their own discoveries.' Many educator-developers . . . have explicit learning goals for their exhibits, or particular messages they hope the visitor will get from the experience. For them, if the visitor doesn't 'get it,' the exhibit has somehow failed. In the artist-developer approach, the visitor does not have to 'get' the message, but rather, any type of engagement is considered meaningful."

It's not quite that black and white at the Exploratorium. Our developers can be found all along the continuum from artist-developer to educator-developer, with most people falling somewhere in the middle. What causes confusion is that, as an organization, we have not been consistently explicit about the type of

intent appropriate or necessary for individual exhibits. To complicate matters, since our exhibits are what staff call "open-ended," which means they're not leading or constricting—they're what some Exploratorium staff call exploratory rather than explanatory—visitors can do with them what they wish. Indeed, the more different interactions people have with them, and the more different kinds of meanings people construct for them, the better. So that even when we agree on intent (when we agree that an exhibit is educational in nature) we haven't always been clear about the types of educational experiences we're striving to create.

This leads me to another example from the Exploratorium—an exhibit called "Suspense" that we're developing as part of a collection on the topic of "Feedback." In this educational exhibit, the exhibit developer wanted visitors to be able to experiment with a feedback system that produced a startling effect. The exhibit consists of an electromagnet, a photo cell, a light source, and a small metal globe of the earth. A beam of light makes contact with the photo cell, which sends signals to the electromagnet, which exerts a magnetic pull on the globe, and the globe literally floats in midair. The beam of light crosses over the top of the globe and makes contact with the photo cell, so that if the pull from the magnet above is too strong, the globe rises toward the magnet, blocking some of the light, and the photo cell sends a signal to the magnet to reduce the amount of pull. When a visitor blocks the light with a hand or opaque object, the magnet shuts off and the globe falls. This demonstrates a feedback system: the beam of light makes contact with the photo cell, which sends signals to the electromagnet, which exerts a magnetic pull on the globe, which moves up and down depending on the magnetic pull, adjusting the amount of light that reaches the photo cell, which adjusts its signal to the electromagnet, which adjusts its magnetic pull on the globe. A feedback loop.

Sue Allen, an in-house research fellow who is studying our exhibits, informally talked to visitors about "Suspense" and came up with some interesting visitor comments. Some people thought the exhibit was about gravity. Others thought it might be about the earth rotating around the sun. (And I'll bet everyone in this room knows why: the globe, that powerfully iconic image of the earth.) What was interesting to me was the response of some Exploratorium staff when they heard the visitor comments. "Isn't it wonderful how creative visitors are at constructing their own personal meanings?" some responded.

As an organization, we need to be much more explicit and rigorous in defining what "open-ended" and "exploratory" actually mean, and we need to decide how discriminating we should be in determining the nature of the open-

endedness. We're now focusing our exhibit research and evaluation efforts at the Exploratorium on the messages (implicit and explicit, conscious and unconscious) embodied in our exhibits, and on visitors' questions and misconceptions when interacting with them. We're also attempting to develop more thematic exhibitions, concentrating on the interrelationships of exhibits within a collection, which forces us to be more conscious of issues of communication and whether or not visitors are making connections. And we're experimenting with exhibit forms, styles, signage, and context. We're not sure where all of this will lead us, but I'm confident that we'll learn something in the process. (I should say here that the Exploratorium has a rich tradition of building prototypes, designing them for easy modification, putting them on the floor, observing visitors interacting with them, and changing the designs if visitor interactions don't seem appropriate or if the exhibits aren't working properly. But in the past, only sporadically has this observation included a dialogue with visitors, and rarely has this observation included systematic interviews.)

These examples from the Exploratorium may seem extreme, and you may say that they have nothing to do with the rest of the museum world and interpretive exhibitions about natural history, or history, or culture. But we've all seen the reenactment of this tug-of-war between the personal and the collective, the artistic and the educational, the implicit and the explicit, the realm of feeling and the realm of thinking. Curators believe they know best about how deep into the conceptual material an exhibit should go. But what if visitors can't follow into those depths? Designers believe they know best about how an exhibition should look and feel. But what if visitors are misled by the design? As you all know, a great tension exists between the urge to be artistic or creative and the mission to be educational and informative. There's also a tension between what the individual developer thinks is important or beautiful and what stakeholders like project directors, funders, and visitors expect.

Our collection of feedback exhibits, which includes the "Suspense" exhibit I just described, were initially created with an emphasis on the artistic individual intent of the developer. But what about the educational intent? What about our statement to the funders that visitors would learn about the notion of feedback, or, in the words of the grant proposal, "By providing many examples of this complex behavior, we will help visitors learn to examine a concept (feedback) which is, in a sense, one step removed from the phenomenon itself. We hope to provide a scaffold for the development of a conceptual framework within a museum setting." Was it okay that visitors left the exhibit without understanding

or even having a sense about the process of feedback? Certainly not. What was our role as an institution with an educational mission?

Most of us would agree that our museums are educational in nature, and our exhibits are educational experiences. Some museum people even say their mission is to educate people in order to change their behavior or to change their lives (a pretty tall order, it seems to me). But there it is. We're here to educate people, to teach them something, to change their lives. But what does that really mean?

I avoid using the words "educate," "education," and "teach" as much as possible in an exhibition context because I've all too often seen a very limited notion of education at work in museums—one that reinforces a one-way conveyance of knowledge and information from teacher to pupil, from us to them.

My prickly reaction to the word "education" probably comes from my experience attending Friends World College, an experimental college that rejected the word in favor of "learning." Education was a rigid and formal process created by the system—a dirty word in the late-sixties—while learning comes from that desire inside each of us to better understand ourselves and our world. Education was something that happened in the classroom—learning was something you did in the world. So at my college, we said the world was our campus, and we spent a lot of time out in it. I learned about American cities when the college dropped me in Manhattan for a week with only $5 in my pocket. I learned about the African savanna while I lived with a Kikuyu family in a village outside Nairobi. And I learned about Japanese farm economies when I planted rice on a farm near Shinanosakai. We attended no classes. We had no grades.

What does this have to do with museums? I think what happens for visitors in museums is a lot like my college experience: individualistic, each experience unique from one time to the next, and from one person to the next. Messy, unpredictable, and often uncontrolled, with stops and starts, big gaps and densities. And most important, the experiences are hard to measure or quantify. This doesn't mean that they should be designed in a vacuum, without goals or any ongoing assessment. My college experience was designed with some very clear goals in mind. Morris Mitchell, the college's founder, created a program designed to help people learn how to learn, not what to learn, and the requirement that we meet regularly with advisors and peer groups and that we keep a detailed journal of our experiences were all directed towards that goal. The emphasis was on dialogue, discussion, and reflection.

For me, this mode of education is an interesting way to think about exhibitions as well. The opportunities for learning in exhibitions are tremendous—the unlimited ways of looking at and thinking about objects, or experimenting with phenomena; the diversity of the stories told; the dynamic nature of the dialogue visitors can engage in; the stimulation of so many senses. These are all about the richness of the experience. Not at all like learning facts, taking a test, receiving a grade.

Yet there seems to be an assumption on the part of many exhibit developers, educators, and evaluators that exhibition goals and objectives need to be articulated in a way that feels much more like a nasty test in a formal classroom setting, with the visitor (as receiver) learning lots of detailed facts from the museum (as deliverer). The types of goals and objectives being developed in some of these exhibit evaluations really trouble me. For example (and this is a real museum exhibition objective): "Visitors will be able to name three different organisms on display in the hall, and a fact about each one." Is that any indication that people are excited by the topic and want to know more? Is that any reflection of the depth of the experience? Here's another example: "After attending this exhibition, visitors should be able to give one specific research scientist's name, research program name, or general area of research interest." Is that any kind of measure of the effect of all our energy and effort and resources? Is knowing one name going to change people's lives? I think not.

At a recent exhibit development workshop, the participants spent 90% of their time writing educational goals and objectives. Most of the goals and objectives were fact-based and informational in nature, and there was little discussion of visitor engagement, or excitement, or social interaction, or memory, or meaning. There was no discussion of the importance of the developer's passion, or vision, or inspiration. The faculty evaluator said at one point, "If you can write an objective for the exhibit, we can test it," as if any objective would do just fine. I thought to myself, "Why would you want to? What's the point? Just because it's easy to test, it doesn't mean it's worthwhile to test. If the objective is to make sure people take with them one more fact to add to their collection on the information superhighway, then I have to ask, Who cares? Why bother?"

Now you may say that we must have goals and objectives in order to measure success and to focus our evaluation effort, and I would agree. But there's a danger in articulating objectives too restrictively, in reducing them to discreet subject nuggets that don't embody the broader subject matter or capture what's really important. (There's certainly, I admit, also a danger in articulating goals too broadly or in such a vague way that they're of no use to anyone. But

these vague goals, at their worst, are simply a waste of time, and they don't concern me as much as the tighter- focused goals.) Why? Because there's an increasing emphasis on articulating goals and objectives early in the exhibit development process. These goals and objectives play a strong role, influencing choices about what to include and emphasize, and what to leave out of an exhibition. They color our thinking and they shape our exhibits. And if they're too limited, the exhibition experience will suffer a dreary half-life.

I sat in on a recent presentation where people had developed prototypes to supplement an existing natural history exhibition. There was a wide range of approaches, styles, and exhibit techniques, and all the prototypes had been extensively evaluated. All of them had been redesigned based on the evaluation, and all had eventually achieved their stated goals. What struck me was that few of them were interesting or engaging. Some marched me through a series of activities so dull that I felt like I was in some kind of remedial school environment. Certainly, when I interacted with the prototypes in the ways that the developers expected, I learned some facts that they thought were important. But I've long since forgotten those facts, because they weren't interesting or significant to me. More important, out on the exhibit floor, I would have never even given them the attention or time.

I understand that evaluators don't usually create the goals and objectives for exhibitions—the exhibit developers, or curators, or exhibit teams create them. But evaluators often participate in articulating objectives that can force the evaluation effort. And sometimes, in order to evaluate an exhibit summatively, goals have to be crafted once the exhibit is already designed and built—a kind of conceptual retrofit. In that Formative Evaluation workshop at the Exploratorium back in 1979 that I described earlier in this talk, we also evaluated "Light Island," I think one of our truly "open-ended" exhibits. The developers' goal was for visitors to play with the light, lenses, and mirrors, and notice interesting patterns and colors. But the evaluation took a much more limited approach, testing against objectives created in the workshop, like "People will be able to explain that if you mix yellow light and blue light, you will get green light." This was not the vision of the developers, yet the evaluation attempted to determine the "success" of the exhibit based on narrowly focused objectives like this. Rather than accepting simplistic objectives that are easy to test, evaluators should work with developers and exhibit teams to articulate objectives that get at deeper issues, objectives that capture what's really important.

I'd like to reconsider that statement by the faculty evaluator, "If you can write an objective for the exhibit, we can test it." A colleague reminded me when I was talking about the implications of the statement that it could very well

mean that if exhibit developers wrote much more open-ended objectives aimed at a diversity of experiences and personal meanings, those, too, could be tested, and I agree. In fact, goals and objectives don't need to be written in a fact-based, information-delivery way. They can be much more like what educator Eleanor Duckworth calls "beliefs." Visitors might come away from an exhibition saying, "Our world is an incredibly beautiful place, rich with diversity." "I feel inspired to write a poem about . . . ." "I want to take a trip to . . . ." "It's fun to compare different styles of . . . ." "Now that I've experienced this, I can . . . ." "I wonder what would happen if . . . ." "I remember how . . . ." "Now I understand why . . . ."

Using that approach, we could develop objectives for the "Light Island" exhibit at the Exploratorium that would be worthwhile to test. For example: "Visitors will experiment and play with the elements of the exhibit, combining mirrors, filters, and lenses in different combinations." "Visitors will notice that they can create patterns by reflecting the light off the mirrors." Visitors might say, "I wonder what will happen to the path of light when it hits a mirror." "Visitors will notice the effects of the light passing through the colored filters." They might leave the exhibit saying, "I never realized how beautiful light patterns can be."

Another refrain that I keep hearing more and more is that evaluation *ensures* a good exhibition. I recently read a proposal that stated, "We know it will be a good exhibition because it was formatively evaluated." Really? Evaluation is only part of the development process. If what you're evaluating doesn't have any vibrant energy, the exhibition experience won't either, no matter how extensively you evaluate it.

Back at the Exploratorium, I watch visitors a lot. For many of the people who come to our place, there's something vital going on. People are laughing, pointing, strangers are interacting with each other, asking questions of a staff person who might happen by, showing each other things they've discovered. Frank Oppenheimer founded the place with a deep conviction that if an exhibit interests its maker, it will probably interest others, because if developers are truly excited by the exhibits they are developing, they will make sure that visitors using the exhibits will be equally excited. As a result of that notion, the focus of effort and activity has always been on the developer and what the developer thought was important. I would state Oppenheimer's idea differently. Without the personal passion and interest of the developer, the exhibit will be flat and probably of little interest to anyone. But the personal developer vision alone is not enough. Just because a developer thinks it's interesting, it doesn't mean it will be interesting to many visitors. (If that were true, then all those exhibitions

of fifty ax handles or a thousand different lady bugs on pins or a survey of all the geological specimens in the collection—things that individual curators are passionately interested in—would be interesting to a wide range of visitors as well). Now here we get into difficult territory again, because many of these things might be interesting to visitors, depending on how they are presented.

That's where visitor research and evaluation comes in. Visitor research will help us to communicate more effectively with people and to better understand people's questions, what helps them make connections, and what is confusing or misleading. Visitor research will also tell us about our own blind spots, our own misconceptions, and our own unconscious messages. But that does not mean that I would ever expect or even want us to measure our success by how many facts visitors can reel off or how many research scientists they can name. Our success must be measured by the depth of engagement (Are people truly interacting with our exhibits?), by vibrancy (Do the exhibits provide a variety and richness of experience?), and by relevance (Are these interactions meaningful to visitors?). Perhaps the most significant aspect of evaluation is that it encourages us, as exhibit professionals, to involve our visitors, to consider them partners in a dynamic process of exhibition development, rather than recipients of our wisdom and talents.

I've talked about a lot of assumptions today. And as I look over this list of assumptions, I find that I don't really agree with many of them:

- the assumption that by incorporating visitor feedback, we squelch creativity and "stoop to the lowest common denominator"—how I hate that phrase. By incorporating visitor input, we can, in fact, deepen the impacts and effects of our exhibits.
- the assumption that if an exhibit interests its maker, it will automatically interest visitors—It's just not that easy.
- the assumption that since visitors make their own personal meanings of their museum experiences, we can't really measure the effects of those experiences—If we try hard enough, we can get close.
- the assumption that educational exhibits are meant to "teach," and therefore should be assessed by goals and objectives that are focused on imparting facts—We can assess exhibits that way, but why bother? Exhibit experiences can go much deeper.

We need to consider new ways of thinking about exhibits. Rather than assuming that the polarities I've talked about today are "either-or" situations, we need to consider what might happen if we join the two poles together. I'm interested in exhibits that combine the artistic and the educational. Exhibits created with artistic intent can contain educational goals. Exhibits created with

educational intent can embody artistic qualities. I'm interested in exhibits that promote personal exploration and imagination; I'm tired of exhibits that attempt to limit or control visitors' behaviors too restrictively. I'm interested in exhibits that are explanatory as well as exploratory. (So many explanatory exhibits are tedious and boring; so many exploratory exhibits are vague and confusing. Aiming for exhibits that are both explanatory and exploratory pushes us to be clear and rigorous in our conceptual development, while at the same time creating exhibits that are expansive, intriguing, and exciting.)

We need to be conscious of those qualities that make meaningful exhibition experiences. We need to be clear about our intent. We need to concentrate on depth in our assessment. Rather than assuming that communication means information flow from the source (museum) to the recipient (that empty vessel called visitor), we need to develop more exhibits that are responsive, exhibits that are much more about two-way communication (or "feedback loops," to use a science metaphor). We need to create exhibits that help visitors make connections in their own lives and in the world around them. We need to create exhibits that foster in visitors a sense of well-being, competence, curiosity, discovery, a loss of self-consciousness, and a sense of wonder and enjoyment.

So here I am, lost in trying to find a balance between the artistic energy of the aspiring Picassos and the didactic energy of the classroom; between structured and open-ended experiences; between exploratory and explanatory exhibits; between individual and organizational intent. And despite all this bouncing around—or maybe because of it—I believe this is an exciting time to be working with exhibits in museums. Often, it feels chaotic and confusing, as we all struggle to figure out what it is that attracts people to our institutions, what they expect from us, what they're interested in, what they experience while they're with us, and what they take away with them. It is a time for experimentation and research, a time to reach harder and longer for quality and depth. In our rush to prove our educational significance to funders and legislators and our publics, are we losing our ability to go beyond the didactic and transcend the classroom? In our rush to create marketing opportunities and increase the numbers of people who come through our doors, are we losing our ability to experiment with odd ideas, to try peculiar yet interesting techniques? In our rush to measure the impact and significance of our programs, are we diminishing the attention we pay to those things we haven't yet figured out how to measure?

The inherent value of museums still lies, I believe, in the realm of the muses—those goddesses who preside over song and poetry as well as the arts and sciences. It's curious that some of my favorite recent exhibitions were

created mostly by artists: Fred Wilson's "Mining the Museum"; Antenna Theater's "Etiquette of the Undercaste" at the Smithsonian's Experimental Gallery; "Planet Ocean" at the Burke Museum in Seattle. Perhaps it's because these artists are working unencumbered by so many of the "shoulds" that we've compiled for ourselves over the years. Perhaps it is because they are moving through uncharted territory, providing us with windows to new, unusual, and personal experiences. Perhaps it is because they set us a little off balance and send us off the well-worn path. So, I remind myself, as I wander around, that being lost with the muses is a bit like being lost in paradise. Sometimes, to not know where you are is a *good* place to be.

At the beginning of this talk, I said I wanted to share with you some dilemmas and questions I've been grappling with for a long time now. At best, this might be inspirational to some of you, but my more realistic goal was to be thought-provoking and to initiate a dialogue over the next few days. Now, as we look back over the last 45 minutes, how should I go about assessing it? I suppose I could ask you to describe three of the exhibit developers I mentioned in this talk and the exhibits they were working on. Or I could say that you should be able to articulate the differences between the artist-as-developer and the educator-as-developer models. Or I could ask you to finish one of the following statements:

I want to take a trip to go see . . .
It's interesting to compare . . .
I wonder what would happen if . . .
Now I understand why . . .
I'll have to give more thought to . . .

You decide.