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EXHIBITIONIST

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NATIONAL ASSOCIATION FOR MUSEUM EXHIBITION

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from the president



by Kristine Hastreiter

As many of you know, this year is an election year for NAME. The nominating committee has been hard at work to recruit new leadership. While I believe change is inherent, I must admit that I am relieved that many of NAME's board members are continuing on for a second term. The skills, dedication, and energy you bring to NAME has made my task as President easier and more enjoyable. I look forward to continuing our relationship over the next two years and building new relationships with the incoming board members.

This past October, I had the opportunity to represent NAME, the PR and Marketing Committee and RC-AAM at the National Program Committee Meeting in Dallas, Texas, at the Dallas Museum of Art. One hundred and forty sessions and ten poster sessions were selected to be presented at the AAM Annual Meeting-Dallas. The Standing Professional Committees provided more than 50% of the programs and sessions. NAME was, once again, the SPC that submitted the most proposals. For a detailed listing of the NAME sponsored sessions and events at the AAM Annual Meeting-Dallas, see the insert in this issue.

The Council of Standing Professional Committees met on November 5th, at the AAM Headquarters in Washington, DC. (NAME is among the twelve standing professional committees which make up the Council.) The Council has begun work on a communication to the Board of Trustees of the AAM that will outline Council concerns and initiatives that need AAM Board attention.

The NAME Board convened at the Bob Bullock State History Museum in Austin, TX, on December 7th and 8th to discuss the work accomplished since the last Board meeting (May 2001) and to develop plans for the upcoming year. Plans for 2002 include: reviewing the role of NAME advisors; developing new levels of NAME membership; re-developing and expanding the NAME website (to be hosted at N-A-M-E.org); developing a marketing piece specifically targeted to students, libraries, and regional museum associations to increase membership in NAME; and working with the Council of SPCs to update the Standards for Museum Exhibitions and Indicators of Excellence. In addition to the productive two-day long meeting, the NAME board had the opportunity to take a behind-the-scenes tour of the museum, feast on some of the best barbecue in Texas at the Salt Lick in Driftwood, Texas, and catch some of the live music scene in downtown Austin.

I look forward to seeing all of you at the AAM Annual Meeting-Dallas. Parties, receptions, sessions, and business meetings will give us many opportunities to network, form new relationships, share experiences and resources. Don't forget to stop by the NAME booth and get your Dallas 2002 NAME button!



Back to the Bottom Line



by Jay Rounds

The present issue of *Exhibitionist* focuses on our evolving systems for managing exhibit development processes. Presumably everyone would agree that it's better to be organized than disorganized. However, once we push past that very general proposition there seems to be a wide variety of opinions about just how much organization, and of what kind, is optimal for creating exhibits. Some insist that efficiency in developing exhibits is essential in today's rapidly-changing, "bottom-line" oriented environment. Others fear that efficiency will come at the expense of creativity, and remind us that the visitors' experiences in our exhibits are the true bottom line.

There are extremely complex issues here, and none of them will be resolved in the present forum—or anytime soon, in whatever forum. But I do think that our authors do a good job of documenting some of the new systems that have been coming into play, and the reactions of exhibit professionals to the trend toward more formalized development processes. It's a good sign that the field is deeply concerned about improving practice, and is experimenting with ways to do our work more efficiently. Most importantly, we are doing so with equal dedication to thinking through the relationship between how we go about doing our work, and the kinds of exhibits that we end up creating.

While editing this special section, I've been thinking about how valuable the format is for the exhibition critique sessions at AAM. During the first session the people who led development of the exhibit explain what they were up to, while the panel of critics is sent forth to wander the halls. In the second session the critics return and present their reactions to the exhibit as they saw it on the floor, unencumbered by any knowledge of the actual intentions of the developers. This format is somewhat frustrating for the critics, as I learned when I served as a member of the panel critiquing *Gold of the Nomads* at the Baltimore meetings a few years ago. Having spent so much time studying the exhibit, I naturally wondered whether the things I was seeing were there by intentional design, or were fully a product of my own meaning making. But from the point of view of the delegates who sit through both sessions, there are valuable lessons to be learned about that critical relationship between the intentions professionals bring to the development of an exhibit, and the ways that visitors actually experience the end product.

For our next issue (Fall 2002) I would like to bring our attention back to those end products, the actual exhibits on the floors of our museums. I'm planning an issue focused on exhibit criticism, which I hope will feature a variety of approaches to looking at, and talking about, some of the best work done in recent years. Let me know if you have ideas on exhibits that ought to be reviewed, or if you're interested in serving as a reviewer. My contact information is on the back cover.



Exhibits Newslines

by Phyllis Rabineau

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Director of the Chicago
Historical Society. She can be
contacted at
rabineau@chicagohistory.org.*

It's been a year since we've been able to connect with our readers about new exhibits, and as a consequence I've got a backlog of great material. It seems most appropriate to start with two exhibits created in New York to confront the events of September 11 and to commemorate the city's heroic response. Both of these exhibits are now on the road, so keep your eye out for an opportunity to visit them. If you can bring one to your institution, I think your community would appreciate it very much.

In the immediate aftermath of the attack, writer Michael Shulan and three colleagues were determined to create *here is new york: a democracy of photographs*. This exhibition has two purposes: in Shulan's words, to "make sense of all the images which have besieged us and which continue to haunt us," and to raise money for the Children's Aid Society's WTC Relief Fund. Based on the response to a single image that was placed in the window of a SoHo storefront, the organizers put out a call to ordinary New Yorkers to submit photos they had taken, and gathered photographs from anyone and everyone who wanted to participate. By Christmas, over 1,500 individuals—ranging from famous photojournalists to school kids—had contributed over 250,000 photographs. Hundreds were put on display at the SoHo site, and the response was overwhelming, with long lines of visitors waiting patiently to enter. Here in Chicago, the show was re-created by the *Chicago Cultural Center*. True to the exhibition's subtitle, hundreds of images were displayed "democratically"—disregarding who took each photograph, all the images were presented as 8-1/2" x 11" inkjet prints. In Shulan's words, they were "hung floor to ceiling without frames or names, clipped to wires like laundry drying in the alleyways of Naples, Italy." As in New York, the Chicago installation deliberately avoided organizing the photographs—thematically, chronologically, or otherwise—the lack of structure suggesting the way our minds continue to process September 11, iterating and reiterating its every aspect as we attempt to make sense of it and respond. On a Tuesday morning in early February, the Chicago gallery was crowded with visitors, silently absorbing the images and their meaning. Inexpensive inkjet prints of all the images are available at sites where the exhibition travels, or on the project's website (www.hereisnewyork.org).

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At the *New-York Historical Society*, 9/11 is being memorialized in History Responds, a multi-year initiative of research, exhibitions and programs. Leading the process is an exhibition titled *New York September 11 by Magnum Photographers*, showing the city over a period of two weeks beginning with the impact of the planes, as documented by seven photojournalists of the legendary Magnum cooperative. Each photographer—Paul Fusco, Thomas Hoepker, Larry Towell, Steve McCurry, Susan Meiselas, Gilles Peress and Alex Webb—contributed a series of images and accompanying text. Quite different from *here is new york*, this exhibition is austere designed and carefully organized in sections: first recording the terrible destruction, then documenting the response of shock and mourning, finally remembering and celebrating the beauty of World Trade Center itself, in photographs taken by Magnum over the years. This exhibition also features a 25-minute video taken by Evan Fairbanks, who was nearby at Trinity Church with his camera at the time of the first attack and recorded not only the impact of the second



plane but also the reaction over the next hour. Martin Damp saw the exhibit in New York, and described its impact to me—the terrifying imagery of destruction that we have up to now exclusively associated with countries far away. The exhibition embarks on a national tour this spring. (www.nyhistory.org/magnum911/about.html)

It's hard to make a transition from 9/11 to business-as-usual, especially when, as faithful readers of this column know, that business often ranges from not only sublime but also to downright absurd. Let's ease into it with help from Nancy Goodman who contributed the following report on her family's visit to the **Biltmore Estate**—the 250-room home of Edith and George Vanderbilt III, built in the 1890s in Asheville, NC (www.biltmore.com).

"The brochure describes the home as a 'French Renaissance chateau'—but, really now, it's a palace. After purchasing very expensive admission tickets, we set off on our self-guided tour. It's nice not to be rushed along to keep up with a tour guide, but information in the booklet and on signage wasn't quite enough to satisfy. Tour guides were stationed at certain spots to answer questions, but a guide in every room would have suited me better. (But then, I suppose the tickets would have been very very very expensive.) The tour guides were quite well-informed and willing to answer questions, but at times we suspected that since the Vanderbilt family still owns the Estate and pays the guides' salaries, they weren't going to let us in on any secrets. We didn't get much of an answer, for example, on why Mr. Vanderbilt's bedroom had triple deadbolt locks on its massive doors. To describe the house itself, you could say it was splendid, sumptuous, gorgeous, opulent, magnificent... really, quite a place. It has a banquet hall with Flemish tapestries and mammoth fireplaces, a winter garden that was exquisitely light and lovely (and has a nifty dumbwaiter that would come up through the floor to deliver a timely round of iced tea, I suppose), a music room, a salon where the Vanderbilts could play chess using a chess set once owned by Napoleon, a library, a gun room, a smoking room, living rooms, dining rooms, sitting rooms, and about a zillion bedrooms. Art by famous artists was all over the place. Everything was quite stunning, but the 43 bathrooms didn't seem quite up to today's potential for bathroom opulence—they were simple and clean, almost institutional for all the white tile—but no Jacuzzi-equivalents or other special features.

"As magnificent as the living quarters were, I found the basement the most intriguing. What it must have taken to keep such a household running could be imagined by touring the numerous pantries, walk-in refrigerators, kitchens, laundry rooms, drying rooms, etc. etc. Some operation! When you've got a whole 'Rotisserie Kitchen'—that says something. Also in the basement, we saw the bowling alley, swimming pool (more of that white tile),

fitness room (rather quaint), and the Halloween Room—a big open room named for the fanciful scenes on the walls, painted by guests of George and Edith's daughter. We also toured the winery, housed in the estate's original dairy buildings. If we'd had more time, a visit to the conservatory would have been nice, or a longer drive around the grounds, or (for yet another fee) one of the specialty tours: the Butler's Tour, the Technologies Tour, or the Rooftop Tour. All in all, we'd recommend a visit. For a little cultural

Our minds were blown,
our pockets emptied, our previously
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were unleashed.

balance, we had hoped to visit a spot we'd read about in an 'Off the Beaten Path' tour book: *The Museum of the Past*, near Madisonville, Tennessee. Who knows if it's still there—but it looked interesting. It reportedly features the personal collection of one Eugene Morgan—'20 years' worth of acquiring everything from South American pottery to a 5.3-foot-long chain saw to a genuine Tennessee moonshine still.' Sounded great to us—but it was, indeed, a little too far off the beaten path. Maybe next time."

Why isn't anyone talking about the *Experience Music Project*? We should be! Without prior intelligence clueing us in on what to expect, on a hunch my colleague Russell Lewis and I headed up to Seattle. Our minds were blown, our pockets emptied, our previously hidden musical talents (well, Russell's anyway) were unleashed. In short, we couldn't have been more satisfied with the Experience. Of course it started with the famous building—Frank Gehry's amazing amorphous multi-colored pile of space-age metal—which makes so much sense in the context of its site, adjacent to an amusement park. We arrived via monorail, a joyous jaunt from downtown which drove us through the very heart of the building, and our fun was only beginning. We spent the better part of a day here, moving through an innovative mix of exhibits. Things started out relatively tamely, as we gawked at displays of rock 'n roll memorabilia, and used hand-held MP3 players to download sound bites and bookmark them on the portable CPUs we had checked out when we purchased our admission tickets. But technology took off in the EMP's *Sound Lab* where we played actual drums, guitar, bass and keyboard, and learned riffs on all the instruments guided by interactive audio, MIDI and computer graphics. (I'm now booking gigs based on my awesome rendition of the first few bars of "Louie Louie".) Then we went nuts in the gallery called



On Stage, where we chose “Wild Thing” for our karaoke experience, and purchased a poster immortalizing our glorious performance. Hours after we arrived, we finally stumbled into *FunkBlast*, a large-screen film and motion simulator ride through the history of soul and funk, hosted by James Brown. Any thoughts of museum fatigue wiped away, we boogied to the check-out counter where we returned our CPUs and the stuff we had bookmarked was downloaded onto the EMP’s website. We each got a secret code so we could log on at home and listen to the sounds we had saved during our visit. If I have not convinced you that the EMP is worth a special trip, I’m afraid that I’ve failed miserably as a journalist. (www.emplive.com)

Opposite on the spectrum from the EMP’s extravagant budget and sumptuous setting, several months later I saw a remarkable exhibit called *Flophouse: Life on the Bowery*. Created on a modest budget, and presented in a simple setting at the **New-York Historical Society**, this show nevertheless delivered an emotional wallop. It stirred my heart with both sorrow and hope; based on remarks left by other visitors in the gallery’s comment book, many others had similar responses. A storefront preacher sermonized vividly on the entry video, and an impossibly tiny cubicle replicated a flophouse “apartment,” crammed with a resident’s possessions. However, the exhibit’s real impact came from its powerful photographs (Harvey Wang’s color images of hotel interiors and haunting B/W portraits of flophouse residents) and an audiotour (based on a public radio documentary by David Isay and Stacy Abramson). I saw the faces and heard the voices of several dozen men, and learned their astonishing, moving stories. Most came to flophouse life lacking other options, but I was surprised to discover that others actually chose to live on “Skid Row” and the exhibit helped me understand why. Excellent labels offered further insights into these difficult life stories; some have ended tragically—death at an early age from illness, overdose or violence. But amazingly, a handful of these men have overcome impossible odds to return to “normal” life, their families and jobs. (www.nyhistory.org)

Recently opened in Johannesburg, South Africa is the **Apartheid Museum**, and I heard about it from my erstwhile traveling colleague, Russell Lewis. Borrowing a page from exhibits like the **Smithsonian’s Field to Factory**, and from the **Tolerance Museum** in Los Angeles, the visitors’ journey begins when they are arbitrarily assigned a racial identity—blankes (whites) or nie-blankes (nonwhites)—that determines which of two entrances they may use to enter the exhibits. At the end of the entry passage for “nie-blankes,” visitors are confronted by oversized photographs of white men, simulating the intimidating experience of facing a racial-classification board. After the entry, visitors are re-united and continue to view exhibits that include video footage of harsh living conditions and police brutality, as well as mundane objects

from everyday life that evoke this grim period. I’ve heard a great deal from Russell and others about all the innovative museums that are playing an important part in the construction of the nation of South Africa, including the **District Six Museum** (www.districtsix.co.za) and **Robben Island Museum** (www.robben-island.org.za), both actively involved in sharing more profoundly true and diverse aspects of South Africa’s difficult history. We’ll develop a more complete overview of these museums in a future issue.

My home town of Chicago has been privileged to host many outstanding exhibits in recent months, including blockbusters *Cleopatra* at the **Field Museum** and *Van Gogh and Gauguin: The Studio of the South* at the **Art Institute of Chicago**. At the **Chicago Historical Society**, we’re having fun with *Flappers, Fashion ‘n All That Jazz*, based on 1920s eveningwear from our costume collection. Leslie Bedford told us “I liked the labels with quotes by F. Scott Fitzgerald. I liked the colors and the way African American history was woven into it. That was all new information to me, and the museum pulled it together for me. I learned something new, had some old ideas confirmed, saw some wonderful dresses and had my social conscience stirred.” (www.chicagohistory.org)

But easily the most imaginative of the Chicago exhibits this winter is *Chihuly in the Park*, sculpture by glass artist Dale Chihuly installed in the magnificent greenhouses of the **Garfield Park Conservatory**. Evoking organic forms including palm trees, fern fronds, giant lily pads and prickly cactus, the fantastically-colored blown glass sculptures nestle so comfortably into the conservatory environments they easily pass for foliage, flowers and fruits. Visitors from toddlers to elders have been enjoying this fairyland shimmering in daylight, or magically alit during the conservatory’s specially-extended evening hours. Kudos to the Conservatory for their brilliant idea for bringing new audiences into an under-utilized civic treasure. (www.garfield-conservatory.org/index.html)

Now that we’ve covered the profound end of the spectrum, it’s time for a smattering of that ridiculous stuff that’s the meat-and-potatoes of this column. For example, my eye was recently caught by breaking news on the founding of the **Towing and Recovery Hall of Fame and Museum** in Chattanooga, TN. Seventeen trucks and 275 inductees are already featured here, along with a gift shop that stocks T-shirts in sizes up to XXXXL. The museum is currently seeking equipment and stories from the rescue efforts of 9/11. (www.internationaltowingmuseum.org/) Also recently opened as a museum is **Unidos en Casa Elian**, or **United in Elian House**, the Miami home where Elian Gonzalez lived for five months. Displays include an assortment of Elian’s belongings and tributes to him. Recently, Randi Korn spotted news of **The First Peanut Museum in the USA**, in Waverly, VA, featuring displays of peanut processing tools



and equipment, art made from peanuts, as well as a life-size sculpture of Mr. Peanut himself. (www.originalnut-house.com/news/peanut-museum.htm). Local residents got the idea for this project during their visit to a cranberry museum in Massachusetts (www.cranberrymuseum.com).

As is so often the case, we'll wind up this column with a slew of contributions from indefatigable correspondent Gene Dillenburg. This time out, Gene's contributions start with the **Oakeshott Institute**, founded recently in Minneapolis, MN to preserve a collection of antique weaponry (www.oakeshott.org). This museum is uniquely dedicated to inviting visitors to enjoy a hands-on experience hefting the swords (watch out!). At the other end of the sweep of military history, visitors to Tucson, AZ might consider a side trip to the **Titan Missile Museum** (www.pimaair.org/titan_01.htm). Here, you can clamber down an honest-to-gosh missile silo, where you'll see the (hopefully) decommissioned 103-foot long rocket, still suspended in its original mount. You can visit the crew's quarters and the control center, but the material Gene provided did not mention whether hands-on, button-pushing experiences are available.

While South Africa is creating new museums in order to confront its past and construct a future, Japan boasts the **Momofuku Ando Instant Ramen Museum** in Osaka (which draws more visitors than Japan's national art museum), where visitors are discovering the legends and the history of ramen noodles, observing the manufacturing process, and trying their hands at noodle-making (www.mainichi.co.jp/english/food/archives/food/991207.html). And in Tokyo, a citizens group promoting the use of their favorite natural resource recently opened the world's first **Rainwater Museum**. Among the items on display is a Peruvian net used to harvest water from fog. (www.rainwater.org/irc/irc_1e.html).

On the principle that one clear liquid is as good as another, let's move on to St. Petersburg, Russia, where the recently opened **Russian Vodka Museum** is dedicated to revealing the Russian psyche through the history of its national beverage. Explains one of the museum's founders, "The whole history of Russian culture is tied to vodka." Inside the well-lit, renovated space are exhibits tracing the history of vodka back 500 years, when it was called "bread wine." Other exhibits show a moonshine machine operated by monks, pistols to represent alcohol-fueled duels and centuries-old handwritten recipes. Visitors can also learn to put their favorite beverage to more "practical" uses. For example, parents soak cotton balls in vodka and dab them on children to bring down a fever. Vodka with pepper is prescribed for an adult's cold; vodka with salt for an upset stomach. Some nuclear scientists drank it to protect

themselves from radiation. But in this country, where alcoholism is a leading cause of death, the museum has not yet revealed how it will handle more difficult aspects of its topic. (www.moscowtimes.ru/stories/2001/05/31/102.html)

And in a crowning stroke of genius, Gene discovered the following item just as we were putting this issue of *Exhibitionist* to bed. Seems that former employees of **Enron** have put together an exhibition of corporate knick-knacks, drawn from their own collections of incentive awards, desk décor, and other memorabilia. The project originated in the idea to create the world's first museum of bankruptcy, and was further inspired by the high prices that Enron-abilia commanded on e-Bay. The exhibit is being staged at a coffee shop in Enron's own corporate HQ building! It is hard to imagine greater catharsis than that achieved by these laid-off workers: a thrilling example of the exhibition medium's potential to stir a society's collective conscience.

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in the idea to create the world's
first museum
of bankruptcy.



Recent Trends in Exhibition Development

by Martha Morris

Martha Morris is the Deputy Director of the National Museum of American History, Smithsonian Institution. Her expertise is in museum management with an emphasis on strategic planning, organizational change, and project management. In 1994 she received the Smithsonian's Robert A. Brooks Award for Excellence in Administration. Morris also serves on the faculty of George Washington University's Museum Studies program. She may be contacted at [morisma@nmab.si.edu](mailto:morrisma@nmab.si.edu).

M Martha Morris reviews current trends toward more elaborated and formalized systems for managing exhibit development.

Today exhibitions are considered the core business of the museum. In a time of increasing public demand for more sophisticated and varied experiences it is critical that museums have strong capabilities in exhibition development. Blockbusters, traveling exhibitions, and long-term permanent displays are complex undertakings and require a variety of technical and managerial skills, especially when museums are constantly faced with resource shortages, competition for dollars, and the need to balance long-term preservation of collections with external demands for access. Even less complicated, short-term, changing exhibitions can benefit from a more disciplined approach. This paper will review current efforts to develop precise, practical, and well-communicated decision making systems for management of exhibition development.

The Environment:

The following are factors in today's museum environment:

- The formation of new museums at a rapid pace, creating an increasingly competitive world
- High public expectation for the best educational benefit and more interactive experiences in exhibitions
- Technological changes that make virtual exhibitions more commonplace
- Demand for bringing critical topics to the public quickly
- Increased collaboration between museums, including more sharing of collections
- Need for staff expertise in web design and project management
- Reliance on outside expertise for more core work in the museum
- Funders demanding increased accountability and, in many cases, more involvement
- A dramatically new mood and set of challenges since September 11

Trends in Museums:

A series of informal surveys of museums we conducted over the past five years has revealed several trends in management of exhibitions. In 1995, 1997, 1998, and 1999 over 30 museums were surveyed regarding management practices such as strategic planning, total quality management, organizational change models, use of teams, project management techniques, exhibition practices and performance measurement. Museums ranged from art and history to natural history and science museums with budgets from \$350,000 to \$30 million and staff levels averaging 100. The surveys revealed the following:

- 80% of museums surveyed are actively using strategic planning.
- 100% consider audiences the top priority. All are actively engaged in audience research in support of their strategic plan.
- While in 1995 60% used teams for exhibitions, in 1999 100% of those surveyed used this technique. Many commented on the motivating role of team-based approaches.
- 91% of museums surveyed were actively undergoing organizational change.

In reviewing these and other trends a number of management practices appear to be driving the development of exhibition programs in particular.

1. Strategic Planning: The use of strategic planning results in a very close alignment of exhibition programs with the museum's core mission. Many museums are revising their mission statements and determining how they can best serve their audiences. The influence of the AAM's *Excellence and Equity* (1992) has been a strong force in moving museums to redefine mission and adopt a community-focused approach. For example, the Strong Museum in Rochester, N.Y. has redefined its mission to help people in the community better understand themselves and each other through activities that



engage, entertain, and enlighten, with a focus on families and children. Its strategic plan emphasizes recognizing diversity, providing context, having fun, and understanding our unique identities. Exhibit themes range from social issues such as play, health, progress, and enterprise, to children's hands on programming. As a result, attendance has skyrocketed.

2. Audience-centered programming: The Minnesota Historical Society has utilized a team-based approach to development of exhibitions that includes a variety of functional staff, and leans heavily on audience driven philosophy. Programs are tied to state educational curriculum standards. Families and children are considered at the design phase and explainers are widely used in the exhibitions.

3. Formalization of exhibition philosophy. The need to articulate guiding principles about content and format as well as audience responsiveness has led to published policies. The National Museum of Natural History's 1998 guide "*Creating Exhibits*" states the need to address national educational agendas, scientific literacy, cultural and gender equity, and ecological understanding. Exhibitions must be relevant, accurate, current, scholarly, balanced, engaging, and accessible. The museum has recently increased attendance to over 9 million largely due to the success of new exhibitions and a highly popular IMAX film program.

4. Decision processes. Museums are more regularly forming decision-making committees that are cross-functional, that function as both an approving body as well as providing ongoing oversight for exhibitions as they develop. At the Missouri Historical Society a *Research and Program Committee* reviews proposals developed by teams. Criteria for review include scholarship, mission, exhibition strategy, complementary programming, audience appeal, and resource needs. Guidelines for process are also being developed using past successes as the model. Some museum guidelines are merely checklists of activities, while others go into greater detail including definition of roles and responsibilities of key players. Many policies also include written guidelines on fundraising.

5. Budget Accountability. As museums experience more costly exhibitions and need to improve accountability with funders and boards, use of more sophisticated activity-based budgeting and accounting is occurring. In many cases a feasibility study is the first step in determining the viability of an exhibition. The Henry Ford Museum examines marketability, audience, and logistics along with content. In this regard most museums have to consider the fundraising goals of a project. Can the museum find a funder? What percentage of the budget should come from outside funds? The Oakland Museum looks to the outside for 50% of its

exhibition budget, as a rule. This phenomenon has led to the importance of the role of the fundraiser as a key decision-maker in the feasibility phases of a project. To ensure accountability, project managers are assigned to maintain control over budgets. All budgets need to reflect the complete range of activities associated with projects including indirect and direct costs, complementary programs, publications, a website, and if applicable, a traveling version.

6. Life cycle costing. A relatively new area of budgeting and planning, life cycle costing takes into consideration that some exhibitions may be long term and need updating along with daily maintenance. The life cycle approach is one used at Disney, for example. At the National Museum of American History, Behring Center using a budget template provides an opportunity to build in long-term costs at the outset of an exhibition. For examples, daily maintenance, object rotation, periodic updates, and other costs will assure a fresh exhibition for the public.

7. Performance measures. With increasing accountability to audiences and funders, evaluation is a key part of the process for exhibitions in all museums. While all museums tend to use a variety of methods to evaluate their exhibitions, most are focused on the audience reactions. In a majority of cases this is work performed by contractors. Other types of measures used by museums to assess program success are usually attendance, increases in funding, press coverage, and membership numbers. A few museums are looking at the internal processes and attempting to take lessons learned from their experiences.

In a time of increasing public demand for more sophisticated and varied experiences it is critical that museums have strong capabilities in exhibition development.

Organizational approaches. Teams are prevalent for both planning and implementation of exhibitions. In several museums there are distinct core teams and extended teams. The core team spends significant amounts of time on the project (content, collections, design, audience) while the extended team is composed of functional staff that moves in and out of the team depending on the need for their input. For some teams, a project director and a project manager



play leadership roles. Exhibitions and programs at the Glenbow Museum, Calgary, Canada often include an invited "community" curator. The organizational structure of the museum is very flat, with no middle level managers, so that teams can work more efficiently. This allows for greater delegation, improved communication and faster decision making. (For more on exhibit teams, see Rounds and McIlvaney 2000).

Project management techniques. Closely aligned with team approaches is the use of project management techniques. In the museums surveyed, a central point of contact coordinated multiple projects. The administrative office, deputy director or head of exhibitions usually had this responsibility. The use of project managers was practically universal except for museums with small staff (under 50). This individual oversees the schedule, budget, and resource allocations along with providing milestone reviews and reports. In most museums a formal document charters the work of the team. For example at the National Museum of the American Indian, this charter is a memorandum outlining scope, team members, roles, goals and deadlines issued by the Director. This museum has an office of project management with dedicated project management staff.

Computer Technology. A clear trend is the use of automation for communications, tracking actions, decision-making, archiving data about collections, costs, or visitors. Standard software for project management, spreadsheets for budgeting and cash flow analysis, communications tools such as email, and networked systems all aid in the efficient planning and implementation of exhibitions. For example, there are now web-based systems that allow for up to the minute tracking of decisions, costs, linking to collections data and digital images, that will allow for active management of exhibitions and will surely change the way we work.

tighten management systems. In addition, a changing view of exhibition philosophy, emphasis on audiences, and the need to deal effectively with controversy created a complex environment. Shrinking visitorship and competition from other museums was a wake up call in the mid 90s.

Several steps were taken to move the museum forward to reinvention of our exhibition program:

Strategic plan, mission and vision. A comprehensive strategic planning process was undertaken that led to a new mission statement and long term vision. The need to provide meaningful experiences, share a greater percentage of the collections and scholarship, and use new technology were crucial factors in planning.

Exhibitions and programs philosophy: Our new philosophy required that exhibitions be mission driven, challenging or expanding scholarship, reflect a core scholarly theme of American Identity, be responsive to audience surveys, and use innovative design with plenty of interactives. Exhibitions ideally are complemented by websites, public programs, and outreach activities.

Blueprint plan: To achieve the museum's new mission and vision an exhibition master plan or Blueprint was created. The plan was supported by a set of themes that provided intellectual glue: the theme of American Identity. Demographic analysis and visitor preferences became a fundamental driver of the types of exhibitions, subjects, and interpretive approaches.

Decision systems: We needed to examine internal processes and create or codify a decision system. We began setting priorities against key criteria, widely sharing this information with museum staff, seeking their feedback in the process. We assigned task forces to design processes for exhibition

100% of museums surveyed considered audiences their top priority.

A Museum Case Study: NMAH

The National Museum of American History, Behring Center (NMAH) has spent the past several years revising and codifying its exhibition development process. NMAH is the flagship history museum in the US, holding over 3 million objects, and presenting numerous permanent and temporary exhibitions in its 350,000 square feet of public space. Several years ago, the museum began a major exhibitions renewal program in response to the need to modernize displays, rotate collections and include new stories for the public. In an era of shrinking federal budgets and facing mounting costs for exhibitions it became necessary to

idea generation, feasibility, fundraising, budget development, implementation, and maintenance.

To assure a uniform approach to reviewing and approving exhibitions, a new decision format was developed. A cross-functional committee was formed to review exhibitions and programs and to recommend them for development. Due to a difficult budget situation where close to 30% of the staff had been lost to federal cuts over the years, we have spent more time on issues of fundraising, space, project scope, interested stakeholder views, associated programs, and an evaluation plan. The Exhibitions and Programs Committee



sends its recommendations to senior management for final approval.

Feasibility Study period: The new exhibition process includes an upfront time period to assess the cost/benefit of a proposed project. For all new exhibitions, a team is formed to analyze the resource needs, develop a schedule, and seek funding. This phase can be anywhere from a few weeks to one year depending on the scope of the project. Critical go/no-go decisions are tied to this phase. Seed money is available to the project team for initial research and preparation of fundraising materials.

During the feasibility phase a budget is built using a template of activities. Once the template is complete a cash flow analysis is created to best determine the fundraising and dollar allocation needs of the project. Life cycle costs are added to the budgets to allow for updating the exhibitions, rotating objects, and other changes over time.

Fundraising campaign. As the Blueprint was defined and resource needs were determined, it became the basis of a new fundraising campaign. Our national advisory board played a major role in promoting the program, donating funds and leading us to key funding sources. Public relations became a key component of the process. Nationally known campaign chairs were selected for their political or business world influence. A campaign staff was built with expertise in corporate relations, major gifts, proposal writing, sponsorship arrangements, and donor stewardship. We are fortunate that the largest corporate gift, largest individual gift, and largest foundation gift in Smithsonian history have come to NMAH in the last three years. As we have been more focused on fundraising we also have codified policies that govern donations, sponsorships and naming opportunities.

Outsourcing; resource leveling. In a time of dwindling permanent staff levels, the museum realized that certain services would need to come from the outside. This allowed us to think more creatively about how existing staff could be used. We would start with balancing our time and talent and budgets in a scheduling approach called resource leveling. Having created a master schedule we knew adjustments needed to be made. In some cases, projects were extended or canceled, others given more staff time, or we brought in talents to augment our staff.

Cross training: To best use the staff in the museum, we did intensive training in both project management and budget development, and encouraged staff to learn new skills by working in other parts of the museum. A mandated Education Initiative put every museum staff member in direct contact with the public for at least one hour per

month. In other cases staff would spend a day a week in training for other functions in the museum.

Project management: A decade of experience with project management was underscored by written guidelines, extensive staff training in scheduling, budgeting, and contracting as well as facilitation methods. To ensure well-managed projects we created a dedicated team of project managers. Team systems now work very well.

Computer Technology: We are now experimenting with web-based planning and scheduling. We are building an intranet site that will allow us to share data such as timelines, budgets, cash flow analyses, object lists, images, cad designs, and scripts; obtain audience feedback; make consultative decisions; and archive key data such as project histories. Our goal is to assure peer-to-peer real time information sharing and collaboration within the organization as well as with outside contractors.

External advisors are now a regular part of our exhibition process. Not only do we seek input from outside historians and curators, but also we work with our board, conduct focus groups, and hire audience advocates. As we move forward to plan our major physical transformation we have sought the counsel of a blue ribbon commission of academics, commentators, historians, politicians, and businesspersons. This group will help us define the exhibition content for this museum in the 21st century.

Controversial topics: We have learned that it is important to present controversial exhibition topics, but that it must create a balanced set of messages. A good example is the exhibition on the history of sweatshops in the US held here in 1999 (Leibold). We learned that, to achieve balance, controversial subjects can be tested with stakeholders beforehand; a variety of sources of funds can be used; and all relevant voices can be incorporated in the script.

Collaboration: It is increasingly more important to reach out to sister organizations around the country and the world to collaborate on programming, exhibitions, and collections sharing. We have worked with a variety of partners such as the Deutsches Museum in Munich, and over 50 US museums in the new Smithsonian Affiliates program.

Responding to a Changing World

Ron Chew (2000) underscored the fact that museums need to be nimble and responsive to changing conditions such as new trends in exhibition design and technology, community interests, political climate, and donor and audience expectations. The reality is that your well thought-out policy can be quickly tossed aside in the light of the needs of a major donor, a new CEO or compelling community interests. How do we remain organized, proceed with a



sense of deliberation, and maintain our professional standards while being flexible and responsive? At the NMAH we faced these issues head-on in 2000 when we were challenged by our new Secretary Lawrence Small to create a 10,000 square foot permanent exhibition on the history of the presidency in just under 8 months. There was not time to go through a step-by-step process of proposal, budget review, and broad vetting. We needed focus and funding. Fortunately we were blessed with both. Focus allowed us to marshal the best talents of the staff and outside contractors, to work in a pure team mode, and line up many resources behind this top priority. Funding was provided through the

concentrated and aggressive efforts of the Secretary and our development staff. Within 5 months, \$12 million was raised, and Congress provided another \$2 million. Numerous staff worked almost exclusively on this project for several months. A partnership and donation from the History Channel allowed us to add interactives and stirring videos. This approach of focused resources and top management priority had been used in several other successful exhibitions including a 60,000 square foot traveling exhibition of museum treasures sent to Japan in 1994, and several small exhibitions on topics such as WWII or the *Family Car*. It is possible to clear the decks and move quickly when a compelling and worthy subject is matched with the right skills and resources. Without the foundation of policies, philosophy, decision systems, and project management these exhibitions would not have succeeded.

After September 11,
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expensive due
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security, insurance,
and visitor
safety
precautions.

Today we, as do most museums, feel the reality of a new world situation in the aftermath of September 11. Exhibitions are very likely going to be more expensive due to increased security, insurance, and visitor safety precautions. Our perimeters are now rimmed with jersey barriers, and all visitors are being asked to go through security checks. Visitation has dropped by 50% in the last several months. For those visitors who do come we expect an increased interest in more patriotic stories and traditional objects. For instance, we are finding significant increases in visitation to the Star Spangled Banner and its website. We feel a need to move forward with planning for a new hall of military history to draw on the public's interest in this topic.

Complicating the future plans of the museum is the reality of less money coming from donors, and donors who are increasingly interested in return on their investment and monitoring the way their dollars are spent. Despite these challenges, we remain committed to a process that is flexible, that is responsive to our audiences, and that will allow us to create meaningful experiences for our public. Indeed we have been working over the past several months to respond to the challenge of collecting, exhibiting, and interpreting the objects and stories of September 11 and its aftermath.

1. In 1997 George Washington University Museum Studies intern Kathleen Fleming conducted a survey which was designed to catalog best practices in the field to inform NMAH exhibition program practices. References to best practices include findings from the time period 1997-2000 and do not necessarily reflect current practices.

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Black-Tie Exhibit Development: Assessing the Trend

by Jay Rounds and
Carmen Hulshof

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More and more museums are adopting formal policies to guide exhibit development. Most have been pleased with the results, but questions do remain.

Museums have been working hard at improving their practice. In recent years virtually all areas of operations have become more elaborated and systematized—more “business-like” some would say, though we prefer to say that museum operations have become “more organized.”

Exhibit development has been no exception. Among the factors driving this trend in exhibit work, most notable have been the elaboration of educational theories for thinking about exhibits; the increasing use of more formal methods of evaluation research; the special demands created by the advent of the team approach; the rapid expansion of professional museum-studies training programs (including specialized training in exhibit design); and the shifting power structures within museums.

As Martha Morris (this issue) notes, one feature of this trend has been an effort by many museums to establish formal, written procedures manuals for “how we develop exhibits at this museum.” Adopted as official policy by museum administrations, these manuals are intended to establish a rigorous template defining and guiding each step in the process. While widely applauded, this innovation has produced a certain amount of grumbling from those who regard it as an example of the obsessive meticulousness that Freud labeled the “anal-retentive personality.” Others have questioned whether such standardization of the development process might not result in standardized exhibits, repressing the creativity essential for generating lively, surprising new approaches.

While it is probably too early in our experience with formalization to resolve such fundamental issues, it certainly is time to assess how the trend is developing, and how well it has served those who have pioneered in its use. In early 2002 we surveyed the membership of NAME to see who is using formalization, and how they feel about their experiences. By our cut-off date for this article, 108 members had returned their surveys. Of those respondents, 65 work in museums and 29 work in



“And now we will have a word from the Committee for Anal Retention.”



private design firms. The remainder are self-employed or work in government offices or academic museum studies programs.

Seven of the museum-based respondents sent us copies of their policy manuals, and we analyzed their contents in parallel with analysis of the survey responses. Several of the policies are reproduced in part in the subsequent articles in this issue. In the following we report the results from both of our analyses.

How Wide-Spread is Formalization?

While still in its early stages, the trend toward formalization is clear. Over 40% of the institutions covered in the survey responses have either adopted formal exhibit development policies, or are currently in the process of doing so. About 60% of the respondents agreed that “every institution developing exhibits for museums” should adopt a formal policy.

This exploratory survey was sent only to NAME members and so did not attempt to create a statistically-valid random sampling of the entire universe of American museums. We suspect that the actual percentage of museums adopting formalization is significantly lower, since members in museums that have adopted policies were probably more likely to complete and return the questionnaire. Nonetheless, the survey does give us a high degree of certainty in claiming that the trend toward formalization is real and growing.

More precisely, the trend is notable among large museums (those with annual budgets in excess of \$1,000,000). All of the museums reported to have already adopted formal policies fell in this category, as did 71% of the museums currently developing policies. One respondent argued that “well articulated processes become more necessary in larger, more complex institutions,” and another that the need for such a policy will “depend on the complexity of the organization.” Larger organizations of any type tend to be more structured and bureaucratized, so it is logical that large museums would be the first to adopt formalization in exhibit development. However, the trend does now seem to be expanding into smaller museums.

What Do the Policies Cover?

Five of the seven policies reviewed deal exclusively with the mechanics of the exhibit development process. None seems to present radical innovations in exhibit development; rather, they deal with systematizing existing processes. Most define the structure of project teams and the responsibilities of the team members. They lay out the phases of the development process and specify the products to be delivered in each phase. Some suggest the likely duration of the various phases.

However, the way they chose to define and group the phases varied widely. The number of distinct phases named ranged from four (“concept, design development, construction, post opening”) to fifteen. One grouped eight “phases” into three major “stages”: “planning, implementation, follow-up.” Most presented greater levels of detail in the earlier stages of the process, perhaps because that is where the greatest ambiguity has been present.

A strikingly different approach was taken by the Sam Noble Oklahoma Museum of Natural History, which chose to emphasize exhibit philosophy and guidelines for selecting exhibit topics and approaches, giving only brief attention to the details of the development process. Only one other gave any attention at all to philosophy and guidelines. Perhaps such issues are covered in other documents at those museums.

Stephanie Downey (this issue) argues that exhibit development policies should specify a full range of evaluation techniques at appropriate stages of the development process. This does seem to be happening, at least to a limited extent. Only one of the seven policies reviewed failed to prescribe any form of evaluation. Of the other six, all called for summative evaluation after opening the exhibit, and four specified formative evaluation during development. Only three, though, explicitly called for front-end studies. While this pattern indicates an encouraging growth in attention to the visitor, it might be argued that greater emphasis on front-end and formative studies would make museums more powerfully responsive to the ways that visitors actually use exhibits (Rounds 2001).

What Impact Have the Policies Had?

Two main benefits seem to have resulted from formalization. Three-fourths of the formalized institutions reported that their exhibit development became more efficient, and two-thirds said the new policies had substantially decreased intra-team conflicts. In most cases “efficiency” seemed to be measured by a decrease in the average development time for a new exhibit; 63% said exhibits are being produced more quickly under the new policy. Key reasons cited for the increased pace were a dramatic reduction in “all the time spent discussing how

Formalization is **real** and **growing**.



we do it instead of doing it" and smoother coordination with other departments. An exhibits manager argued that the certainty provided by a well-defined process made it possible for individual staff to "have more autonomy over their part of a project." "The more oversight the project has, the longer the process," but with a formalized structure less oversight is needed because expectations are so clear.

The reported reduction in team conflict was also a contributor to speeding up the development process. One respondent noted that his museum's policy had "established a way to acknowledge conflict will happen and a way to solve conflicts or handle them." Sophia Siskel (this issue) says that formalization at the Field Museum "increased camaraderie" among team members, and "allowed us to focus our energy on being artists and educators." A developer said that the policy had resulted in "better tempers among staff" and "better all-around feeling of shared accomplishment by team members." In general, our impression is that formalization has reduced conflict in most situations by eliminating areas of ambiguity regarding who is responsible for what, what products are expected at each point in the process, and who has the right to make what decisions. As one exhibits department manager put it, under their policy "everyone knows what their job is (and what it isn't) and when to do it (or not)."

However, not all respondents reported this reduction in conflict. One argued that "No process can eliminate conflict and disagreement," while another reported that "a piece of paper cannot control personalities, which were the root of the conflict on the team."

Formalization and Creativity

Rich Faron (this issue) argues that standardized, predictable processes are likely to produce standardized, predictable exhibits. More creative exhibits are likely to emerge, he suggests, when development processes are customized to meet the special needs of each project. Several of our respondents—even some of those who strongly supported formalization—echoed Faron's concern for customization, noting that policies need to be "systematic, but flexible," "constantly evolving," or "must recognize that each project is different." One respondent described her institution's policy as "too restrictive, it did not allow for spontaneity and flexibility to respond to trend changes or events in society." Another said "Every project is different, so policies are guidelines, not rigid doctrine."

Nonetheless, 63% of the survey respondents who work in museums rejected the argument that formalization is likely to reduce creativity. "Not if people are willing to be

creative!" one asserted. Others argued that a smoothly running formal process actually frees up more time for creativity. Another said that "Chaos does not equal creativity!" Yet another asserted that "Before the Process, exhibits didn't even attempt to be creative—we had standard blank displays and we shoved the collection in. We only started being creative on any meaningful scale with those projects. If anything, the Process was an attempt to codify and regulate the creative activities."

The other third, though, were concerned about the potential for stifling creativity. "You have to let the goals of the project run the process, not vice versa." The danger lies in the fact that many participants "will tend to focus on disciplined process over excellent product, because process is easier to visualize and understand than good product." A curator asked "Should there be a hard and fast plan for writing a song or directing a play?"

Chaos does not equal creativity.

But another respondent dismissed the entire question: "The presence or absence of a structure is no guarantee of creativity." Nearly two-thirds of respondents from museums that have formal policies in place agreed that formalization does not endanger creativity, but also indicated that the policy had not resulted in any greater creativity in the exhibits produced since the policy's adoption.

Respondents from private exhibit firms were split evenly on this issue. Of the 13 respondents agreeing that formality can repress creativity, 10 work in firms that have not established formal policies. Of those that reject this argument, 6 of 9 work in firms that have formal policies in place. Within the "formalized" firms, three-fourths of the respondents assert that their policies have resulted in more creative products.

None of the actual policies we reviewed included any explicit discussion of creativity, or even stated that creativity was a goal. Perhaps that is taken as a given, too obvious to be stated. Nonetheless, some museums clearly are less interested in producing highly-creative exhibits than are others, being content to pursue a high quality of performance within familiar parameters. It might be expected that a museum that aims at unique, "leading-edge" exhibitry would make that intent explicit in writing formal guidelines for exhibit development.

Formal development processes *can* repress creativity, a fact acknowledged implicitly by many of our respondents who insisted that formalization is not incompatible with creativity "so long as it's done right." But specification of exactly how



to “do it right” was missing. This is understandable in responding to a survey, but perhaps ought to receive more stress in writing formal policies. Creativity research has shown that both highly-creative individuals and highly-creative teams tend to have an exceptional degree of metacognitive awareness of their own creative process. They make creativity an explicit value, and they constantly experiment with ways to improve their realization of that value (Rounds 1999: 36). Runco noted that “Highly-creative people usually understand a great deal about how their creativity works, and have a repertoire of techniques

that help them focus and get into the flow of their creative process” (1999: 11). In museums that place a high value on creativity, formal policies for exhibition development should specify steps or procedures for fostering creativity within the broader process.

None of the policies
presented any
explicit
discussion
of creativity.

Looking at Specifics

The trend toward formalization is real, and seems to be gaining momentum. Most members of the exhibit community will find it useful to look closely at the specifics of the policies already in use, and to start thinking about how those policies might be adapted for their own use. In the following pages several such policies are presented. In most cases the policies are too lengthy to be reproduced here in their entirety. However, we have attempted to show enough of each to make the approach clear, and in most cases the authors have graciously agreed to provide complete copies to interested readers. See the author information on each article for contact data.

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A Platform for Success: The Field Museum's Exhibition Process

by Sophia Siskel

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In 1998, two years after the arrival of a new Museum president, The Field Museum's temporary exhibition program exploded: the quantity, size, and pulse of exhibitions increased dramatically, from one major temporary exhibition per year to at least five, from two minor temporary exhibitions annually to at least four. In early 1999, during a Museum-wide strategic planning process, we identified four large new permanent exhibitions over 100,000 square feet to create before 2006. (We now plan to move forward with two: a whole-scale renovation of *Life Over Time* and a major new exhibition dedicated to the Americas.) As a result, the exhibitions department doubled in size and budget and our department management team faced the challenge of organizing ourselves in order to develop, design, build, and maintain the most successful exhibitions possible.

Although we had been operating well together, and the department did have a formal process—which had been employed during the development of *Underground Adventure* (1999)—we recognized the need for a clear roadmap or we would face confusion and potential failure. Over the course of almost a year, the six department managers and I met monthly for spirited half-day discussions to define phases, deliverables, roles, milestones, and interim check points for content development, design (both 3D and 2D), production, and project management. We brought to the table our different professional experiences under five different Field Museum exhibition-department directors as well as our time at art museums, construction sites, the mayor's office, SITES, etc.

We arrived at a process (see page 19) that clearly defined not only our department's internal coordination, but integrated our work with the needs and expectations of other Museum departments. Further, we put to paper the sub-processes that underlie the big picture, and wrote out in list and paragraph form the design and production deliverables expected at each milestone.

Now that we have tested the process on over twenty temporary exhibitions, including *Chocolate* (a large-scale traveling exhibition opening Valentine's Day, 2002), we are satisfied that we have found our instruction book for creating exhibitions large or small, temporary or permanent, developed by our department or on loan from another institution. As soon as we put an exhibition on our calendar, our Manager of Projects Planning, along with consultation from department managers, creates a schedule of work using Microsoft Project. Depending on the scale and scope of the exhibition, we expand or contract the process; for example, with a small photography exhibition we often conflate all the previews and reviews into one; for a project like *Chocolate* or a new permanent hall we necessarily

introduce multiple previews, batched by exhibition section, followed by a final review. We further refine the schedule and articulate any unusual expectations (such as crating for an outgoing exhibition) at the team orientation. The core of each team consists of a Project Administrator, Content Specialist, Developer, 3D Designer, Graphic Designer, and Production Supervisor. At defined points in the process, a broader working team consisting of our Maintenance Manager, Lighting Designer, Exhibitions Conservator, Exhibitions Registrar, and Education Programming Coordinator play key roles. The core team meets weekly when the exhibition planning process is at its peak. Members of the broader team, the exhibitions department managers, and I, deliver feedback and approval at milestones. Managers mentor and provide conflict resolution to their staff members between milestones, but for the most

T
The Field Museum's Exhibition
Process allows the exhibition
department to focus their
attention on being artists and
educators while creating exhibits.

We are satisfied
that we have found our
instruction book
for creating exhibitions.



part teams operate autonomously, and are encouraged to customize the process for themselves as long as they meet key deliverables.

Since we have implemented our process, we have experienced greater efficiency, felt increased camaraderie among staff, witnessed a heightened sense of empowerment on the teams, and seen more attractive, innovative, and successful exhibitions. We have never been over budget or opened

We have finally transformed traditionally poor working relationships with other key Museum departments into very strong partnerships.

ATTACHMENT 1: CONTENTS OF A PROJECT BRIEF

Institutional Goals

- A. Communication Goals
- B. Academic Goals
- C. Marketing Goals
- D. Education Goals
- E. Financial Goals

Administration & Project Development Plan

- A. Staffing
- B. Advisory
- C. Schedule

Market Overview

Market/Audience Research

Exhibition

- A. Exhibition Philosophy
- B. Content Themes/Outlines
- C. Concept Bubble Plan
- D. Thumbnail Sketches/Key Descriptors
- E. Artifact Types, Space Plan

Educational Plan

Research/Collections/Goals

Inter-department Coordination

- A. Sponsored Programs
- B. External Affairs
- C. Institutional Advancement
- D. Public Services
- E. Auxiliary Services

Project Budget

Call for Action

late. The shared, explicit nomenclature, schedule, and expectations of roles and deliverables allow us to focus our energy on being artists and educators. Teams know what I expect to see when I walk into a meeting and therefore our conversations are usually positive, constructive, and never a waste of time. We are prepared at any time to give a presentation of our status to sponsors or our president. Furthermore, we have finally transformed traditionally poor working relationships with other key Museum departments—conservation, facilities, public relations, accounting, security, and even curatorial—into very strong partnerships; we involve them in decision-making before it is too late to take their feedback into account.

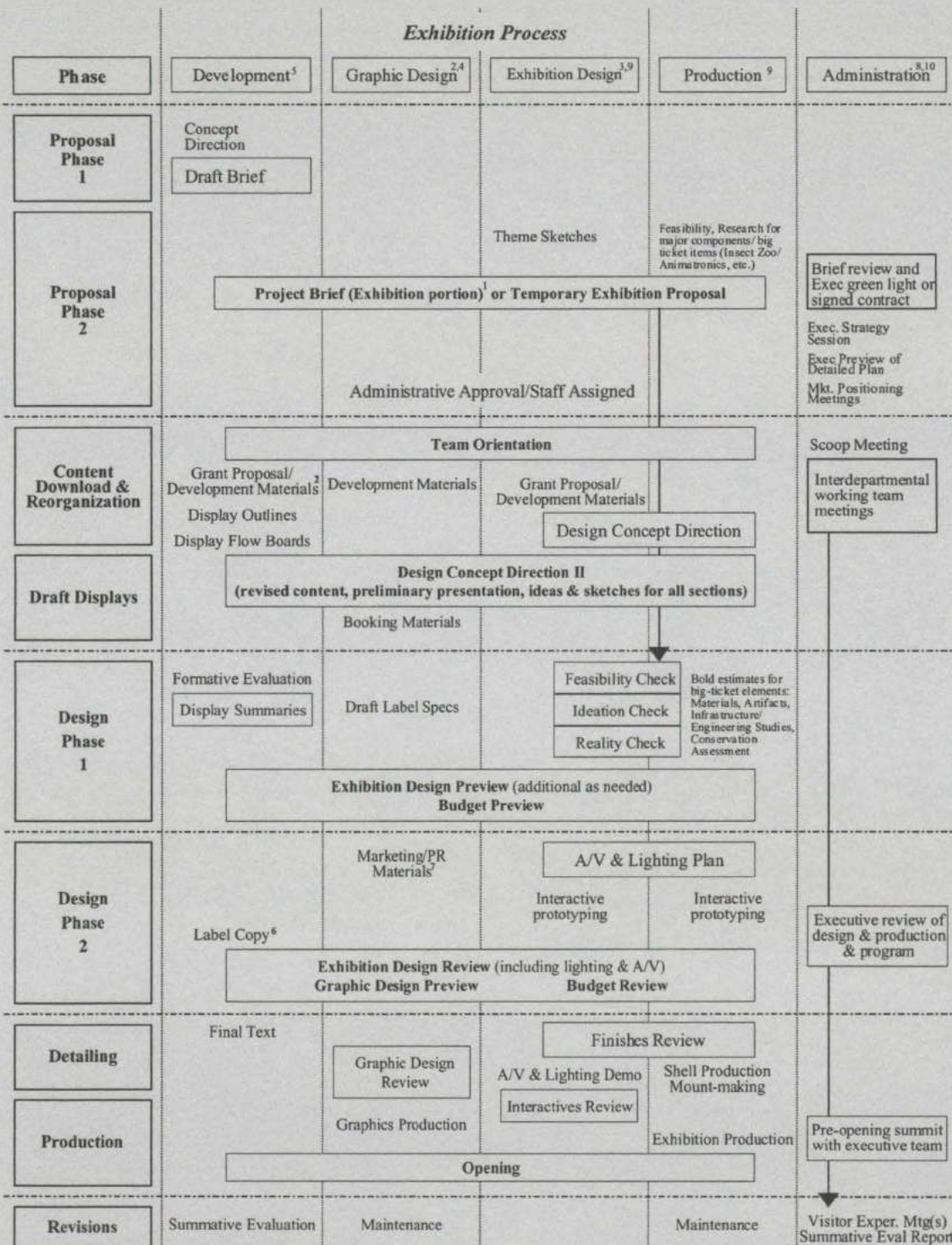
We continually refine our process as we use it. For example, we are still learning how it needs to adjust to address different kinds of exhibitions; we will probably discover that additions need to be made as we approach a large new permanent exhibition project like the renovation of our Americas Halls. Also, we will continue to redefine and streamline our deliverables so that they can readily serve a dual purpose: exhibitions department work product and presentation document to upper administration. Last, we would like to prepare a lexicon or summary of our document so that when we begin projects with new curators we have something that doesn't assume prior knowledge—something that could almost serve as an introduction and overview of the more detailed process document.

Regardless of whether an exhibitions department is operating with just a single person playing multiple roles or as large as The Field Museum's, a clear exhibition development process can result in more peace of mind, stronger relationships with museum staff across many departments, and, most importantly, better exhibitions.

Note: The authors of this process are Francie Muraski-Stotz, Manager of Exhibition Development; Ray Leo, Manager of Exhibition Production and Maintenance; Michael Burns, Manager of Exhibition Design; Jean Cattell, Manager of Graphic Design; Amy Costello, former Manager of Exhibition Planning (schedules and budgets); and Abigail Sinwell, former Manager of Temporary Exhibits. Robin Groesbeck, current Manager of Temporary Exhibitions and Exhibition Coordination, and Jaap Hoogstraaten, current Manager of Projects Planning have helped refine the process since they joined our team.



ATTACHMENT 2: EXHIBITION PROCESS FLOW CHART



1. Contents of a Project Brief
Printed Materials
Exhibition Design Subprocess

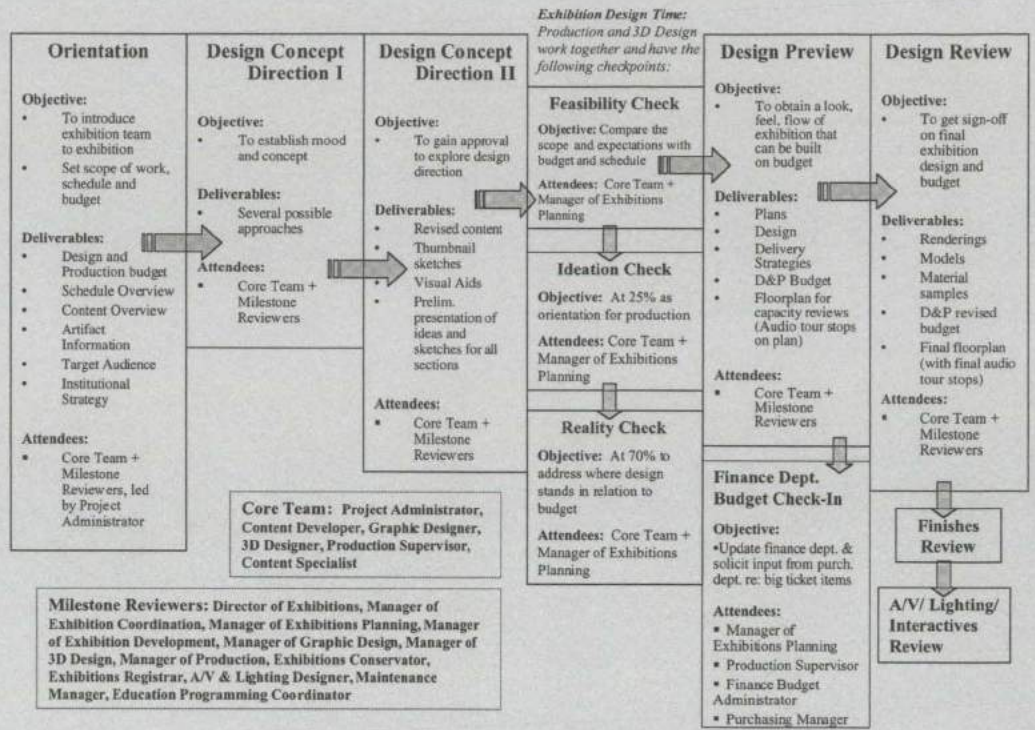
2. Exhibition Graphic Design Subprocess
3. 5. Exhibition Development Subprocess
Exhibition Label Copy Subprocess

7. PR Subprocess
6. Project Administration Strategy & Planning

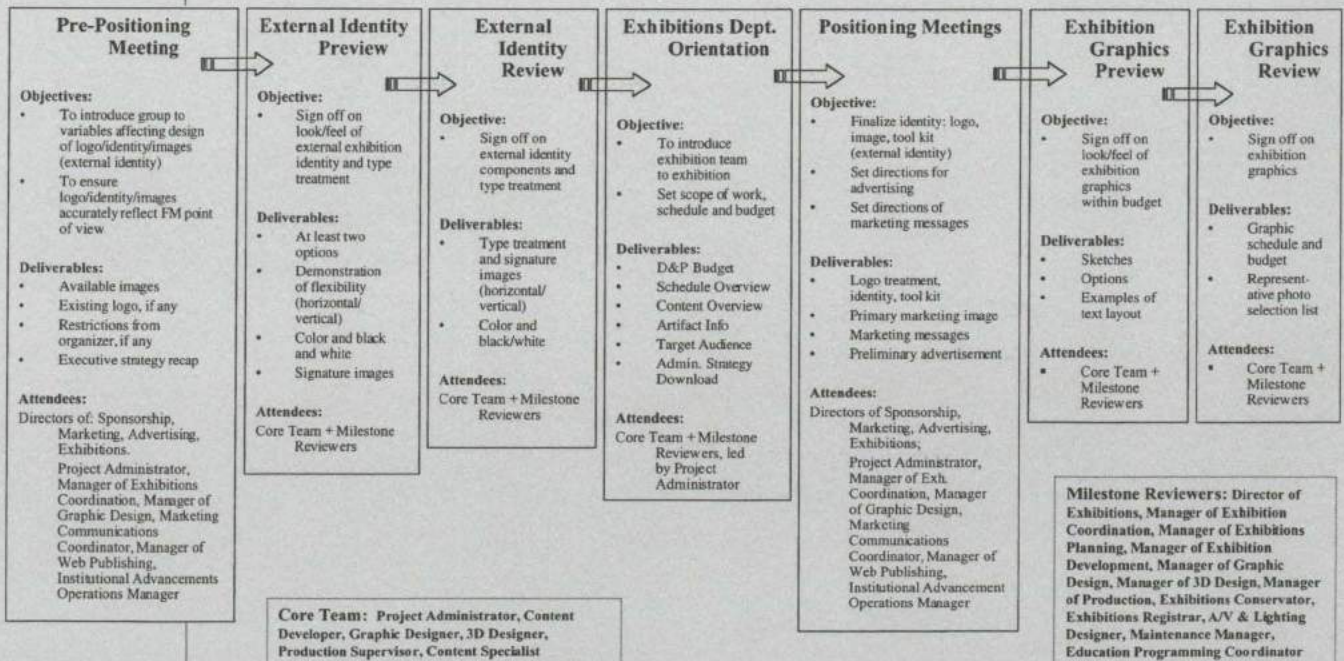
8. 9. Design & Production tasks during design
10. Temporary Exhibitions Selection & Implementation



ATTACHMENT 3: EXHIBIT DESIGN AND PRODUCTION SUB-PROCESS

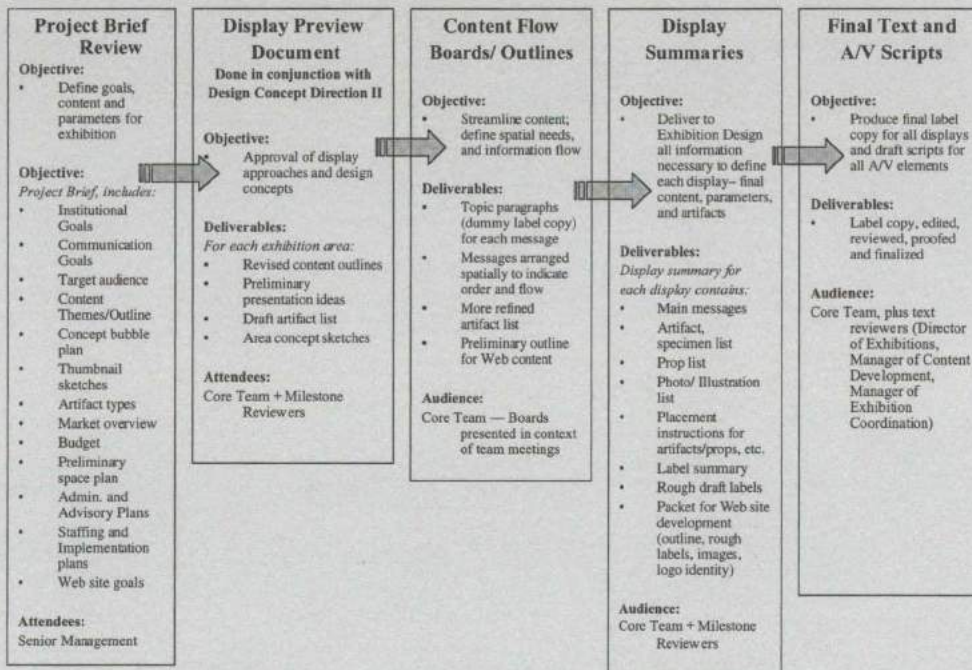


ATTACHMENT 4: EXHIBIT GRAPHIC DESIGN SUB-PROCESS

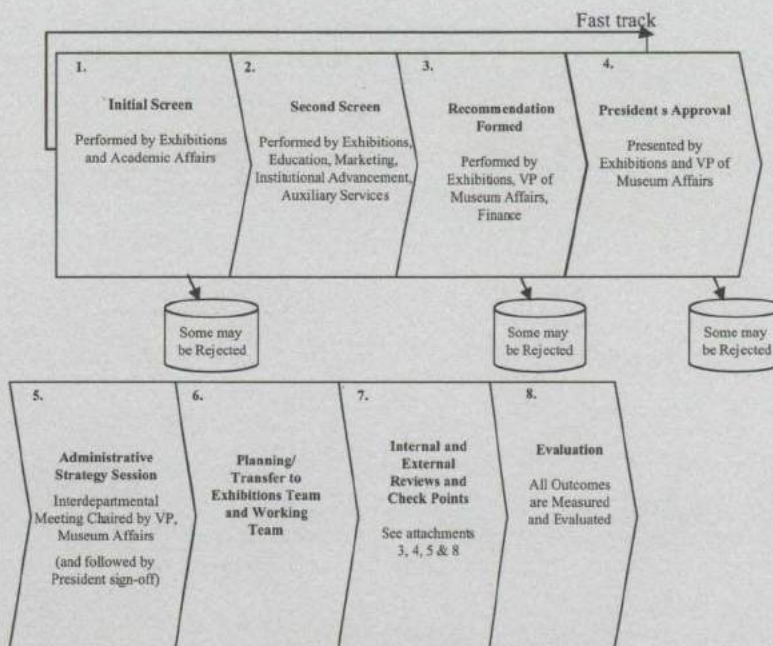




ATTACHMENT 5: EXHIBIT DEVELOPMENT SUB-PROCESS

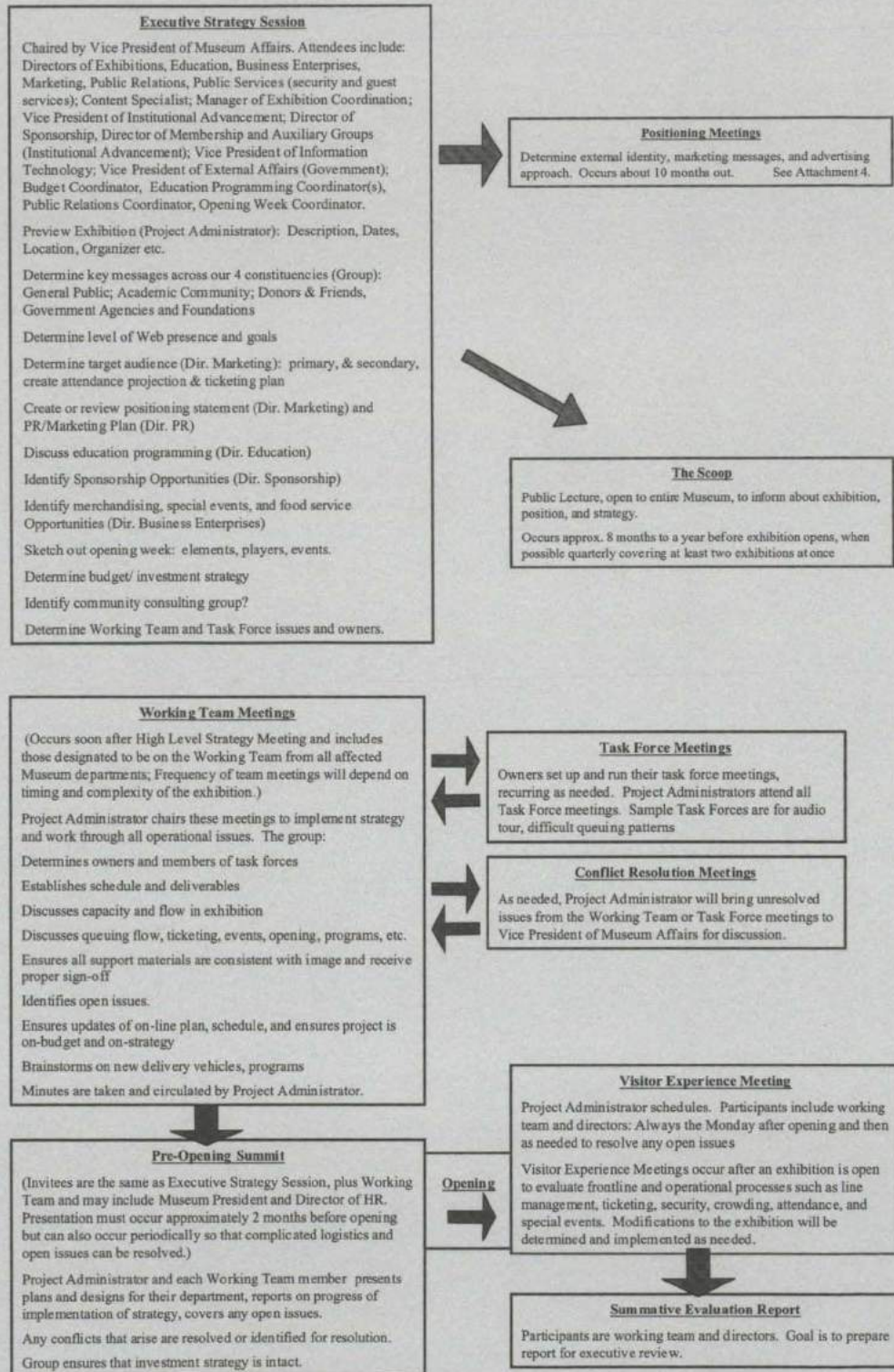


ATTACHMENT 10: TEMPORARY EXHIBITION SELECTION AND IMPLEMENTATION PROCESS FLOW





ATTACHMENT 8: EXHIBITION INTERDEPARTMENTAL COORDINATION SUB-PROCESS





ATTACHMENT 9: DESIGN AND PRODUCTION TASKS DURING THE DESIGN PHASES OF THE EXHIBIT PROCESS

Design Role:

The design team consists of a lead 3D designer and a graphic designer. The designers are responsible for creating systems for delivering an exhibition's content. They are responsible to bring to fruition the display ideas from early concept phases to final design. The milestones in the exhibition process are intended to facilitate the honing of display ideas. The designers are engaged in the requests and revisions requested by Core Team and milestone reviewers at any given presentation. The designers continue to bring the design to completion by finalizing all floor plans and sketches presented at the 3-D and graphic previews respectively.

Production Role:

During the early phases of the exhibition process the Production Supervisor supports the designers by suggesting materials and methods of fabrication in consultation with exhibitions conservator and mountshop supervisor. The supervisor should be a resource, creatively researching possible avenues of production, offering advice on how displays were produced in the past, and continuing to study proposed major components of the exhibition while producing bold estimates for the exhibition team.

The Production Supervisor continues to build the budget and schedule by analyzing the design at the various milestones before the 3-D Preview. The Production role gradually expands during this period. During Design Phase 2, Production supplies the exhibit team with various prototypes and samples that would help facilitate final design decisions for the 3-D Review. Types of production included during the prototyping phase would include display set up, painting, interactives, finishes, material demonstrations, lighting demonstrations, and A/V component exploration.

CONTENT DOWNLOAD AND REORGANIZATION PHASE

Design Concept Direction 1

Description:

This is the first official presentation of the planned exhibition to the Core team and milestone reviewers. The 1st Design Concept Direction presents the general look and feel of an exhibit. Presenting more than one direction is essential. This should be considered somewhat informal and functions both as a time to suggest ideas as well as a time to get a picture of how others are imagining the exhibit. At this point the designer is thinking about the exhibit in "general" and the design focus is general in nature and covers the entire exhibit. In the event that the Logo/exhibit identity needs to be or has been designed for advanced marketing purposes, the graphic designer's concept can help to inform the 3D design direction.

Deliverables:

- Any materials that would demonstrate the current thinking of both the designers. Deliverables are not clearly defined at this point but could consist of simple thumbnail sketches, magazine clippings, collage, documentation of past exhibitions, and/or anything that will help get the ideas across. It's noted that the deliverables could consist of one or more of the above items.

Audience:

- The audience will be made up of the Core team and milestone reviewers.

DRAFT DISPLAY PHASE

Design Concept Direction 2

Description:

This is the second official presentation of the planned exhibition to the Core team and milestone reviewers. At the 2nd concept direction the design direction is better established. The general theme of the exhibition is better understood; the designer has become familiar with the story line. The presentation consists of design interpretations of basic aspects of the exhibition. The design concepts are consistent with the Developer's revised content outlines and are presented through one or more of the following items.

Deliverables:

- Drawings for all sections in the exhibition
- Rough space plan
- Two or more approaches can still be considered
- Visual aids
- Bubble plans with square footage assigned to the basic aspects found throughout the exhibition

Audience:

- The audience will be made up of the Core team and milestone reviewers.

DESIGN PHASE 1

Once the design direction has been accepted at Design Concept Direction II, Design Phase 1 begins. During this phase the approved design is carried to the next step, roughing out the general design, addressing first the whole exhibition, then, through a process of milestones, defining the parts of the design that make up the whole. This Phase ends upon receiving approval at the Design Preview.

Feasibility Milestone

Description:

Broad ideas are addressed. The design/production team is now engaged in a higher level of active problem solving. Both designers and producer participate in brainstorming and ask the question: "Can we do this at all?" The objective is to compare the scope of the exhibition with the budget and the schedule. This is an internal team meeting (or series of meetings). The Designers and the Production Supervisor need to know that the project doesn't have any known obstacles that will make the project impossible for the given budget, space available, etc.

Deliverables:

- Talk about key elements
- More of a back and forth/joint process
- An itemization of known big display components is produced for the team.
- Along with this itemization should be a clarification of the general cost of these items coupled with a floor load study (should the item be heavy) and an Exhibition space study (can the item fit into the space and will it fit into the door?)

Audience:

- Design Managers and
- Production Manager
- A/V/Lighting Designer
- Developer
- Project Administrator
- Content Specialist
- Manager of Project Planning
- Exhibitions Conservator

DESIGN PHASE 1, CONT.

3D Ideation Milestone

Description:

Design is at this point forming the delivery system that will be used to display the content, i.e., is the display an A/V piece, is the display a case of artifacts, etc.

This is not a presentation. This is an internal team meeting (or series of meetings). The Designers meet with the Production Supervisor to clarify the design direction and to start off production's price tracking and material research. Note that while this type of activity has been happening with big ticket exhibition components, the team is now expected to address more of the exhibition. This should still be considered a process where both designers and producer keep talking and propose creative solutions. Design solutions such as murals or orientation graphics should be part of the conversation.

Deliverables

- Working floor plans
- Drawings
- Material samples, etc. in order to give Production Supervisor a good idea of what to budget
- New materials to conservator for testing 3-4 weeks prior to preview

Audience

- Manager of Design
- Manager of Production
- Manager of Graphic Design



DESIGN PHASE 1, CONT.

Reality Check Milestone

Description:

This is an internal team meeting (or series of meetings). Daily meetings between Designers and Production Supervisor lead to the Reality check where the Production Supervisor is expected to have a good sense that the exhibition being designed can be built within budget and schedule. This information is crucial to receiving approval at the 3D Design Preview. The design/production team should arrive at intended directions and continue making decisions about the direction of materials. The Exhibition Team may be called on at this point to modify or change exhibition content and/or design in order to stay within budget while delivering the content in the most effective way possible. This milestone should prove that the manner of production selected for the exhibition could realistically be built given the time and money available, and that the materials and placement of artifacts fit within our conservation standards.

Deliverables:

- There should be demonstrated a working knowledge of the materials proposed for each display. These materials should be noted on the sketch designs and floor plans that are being produced as deliverables during Design Phase 1.

Audience:

- Design Managers
- Production Manager
- Manager of Project Planning

DESIGN PHASE 1, CONT.

3-D Design Preview.

Description:

This is the third official presentation of the planned exhibition to the Core team and milestone reviewers. The Designer is expected to present realistic layouts and components for the entire exhibition. The Design must be achievable within the given budget. The design must deliver the information derived from the Display Summaries generated by the development staff. The design should locate the placement of artifacts, photos, labels, graphics, and props. Some adjustments to the design may be required once comment has been received at the Preview. These adjustments will be presented at the 3-D Review. (Note: Some exhibitions may require more than one Preview).

Deliverables:

- Drawings and renderings of all content
- Elevations
- Floor plans, and/or models that clearly define the elements of the display, including placement of graphic elements and location of artifacts.
- Design options
- The Manager of Project Planning will be responsible for distributing a current hard copy of the project Schedule of Values
- The Production Supervisor will be responsible for all information that appears in the Shell and Exhibition Production sections of the Exhibition Department's Schedule of Values. The information, while not exhaustive, should be convincing enough to assure the audience that the display will not exceed the budget.

Audience:

- The audience will be made up of the Core team and milestone reviewers.

DESIGN PHASE 2

Once the design has been accepted at the Preview, Design Phase Two begins. During this phase the approved design is carried to the next step, streamlining each design component and working through any adjustments found necessary during the Preview. Design Phase 2 ends upon receiving approval at the Design Review.

3-D Design Review/Graphic Design Preview

Description:

This is the fourth official presentation of the planned exhibition to the Core team and milestone reviewers. The Designer is expected to present a final design for the entire exhibition. The Review ends the design phase and starts the Detailing and Production phases of the exhibition process.

3-D Deliverables:

- Lighting Concept Direction
- A/V and Lighting Prototyping
- Finished Floor Plan
- Shell Specifications
- Finished elevation package
- Finalized materials schedule
- The Manager of Project Planning will be responsible for distributing a current hard copy of the project Schedule of Values.
- The Production Supervisor will be responsible for all information that appears in the Shell and Exhibition Production sections of the Exhibition Department's Schedule of Values.

Graphic Design Deliverables

- Hierarchy of Labels
- Intro plan
- Banner scheme
- Marketing and PR materials

Audience:

- The audience will be made up of the Core team and milestone reviewers.

DETAILING PHASE

Finishes Review

Description:

All (visible) finishes planning on being used in an exhibition are presented for approval.

Deliverables:

Samples of all finishes, i.e., material samples including paint colors, faux finishes, wood finishes, metal samples, etc. (Note: all materials need pre approval from Conservation)

Audience:

Core team and milestone reviewers

Construction Detailing

Description:

Detailing is the phase of design where drawings are made to show how every component of an exhibition is to be constructed.

Deliverables:

- A full set of construction drawings for all exhibition elements to be built. Examples include:
 - Drawings architectural in nature: wall building, plumbing, paint elevations, electric, etc. Plates should be accompanied with specifications and should be dimensioned no smaller than 1/8" = 1'0" scale
 - Furniture drawings with specifications and dimensions
 - Painter's elevations for mural work
 - Lighting plots where needed
 - Drawings showing the location of graphics

Audience:

Production crew

DETAILING PHASE, CONT.

Case/Artifact Layouts

Description:

The case/artifact layouts are drawings that show the location and orientation of all artifacts and props on the base or background, within their case or display environment. These layouts are primary guides for constructing artifact mounts. The designer will have worked with the exhibitions registrar during the case layout process to ensure conservation and loan guidelines are being followed.

Deliverables:

Drawings with accurate plan views as well as front and side elevations that show proper orientation of artifacts and props.

Audience:

- Mount shop crew
- Exhibitions Conservator
- Exhibitions Registrar



Reformalizing at Bishop Museum

by David Kemble

David Kemble is a Senior Exhibit Designer at Bishop Museum, where he has been designing and developing exhibits since 1976. Bishop Museum, founded in 1889, currently has nine people in its exhibits department. David Kemble can be reached at dkemble@bishopmuseum.org.

Bishop Museum once had a very formalized process for exhibit development. In the 1990s the pace of our changing exhibition program increased greatly. We found our process to be too slow and cumbersome, we let it drop by the wayside. After doing a lot of “flying by the seat of our pants” we eventually reaffirmed the need for a more formally defined process and created the document reproduced below. We view this process as a living document to be applied flexibly, rather than a rigid set of rules. Note also that it is an exhibits department document, rather than an institutional policy statement. Each project manager has a different style, and we use the defined process as a guide to work with them to structure a project schedule appropriate to each exhibition. The area where we continue to have most problems is with text development, which is not well defined in the document. We generally create separate flow charts and tracking sheets for the exhibit text and graphics.

A After experimenting with undefined exhibition development processes, Bishop Museum returned to a more formalized approach.

EXHIBIT DESIGN PROCESS

Bishop Museum Exhibition Department 2001

NOTE: This document addresses exhibit design & production parts of a project only; it does not address other project management needs such as fundraising, educational programming, opening events, publicity, etc.

1. SCHEDULE AND PRELIMINARY BUDGET (pre-design/senior staff with clients)

- Exhibit proposal approved by senior management and put in schedule with indication of topic, size, and opening date.
- Use past figures of **cost** per square foot to decide what **level** of exhibit you want. Will you throw it away at the end? Reuse or travel it? Do you want high-end finishes? Solid durable components or quick solutions? What is your time frame? Do you have 6 months or 3 years to design it? How long will it be on display?
- Determine **kind** of exhibit desired. Do you want people to be busy with their hands or hands off? Do you want video? Artifacts in cases? A discovery room atmosphere? Stations with guided activities or a self-guided traditional exhibit? A chronological story? A simulated environment? How much staffing do you plan to provide? Do you need to accommodate demonstrations?
- Determine **target audience**. How will you cater to school groups vs. the general public, kids vs. adults and local residents vs. tourists?
- Who will be assigned to the **project team**? Project manager, content developer, designers, educator, others (conservator, etc.)

- cost/time
- level/kind of exhibit
- target audience
- gather project team



2. CONTENT DEVELOPMENT (pre-design/project team)

- Whole project team starts working together here.
- Define **objectives & themes** including the “**take-away**” message expressed as a “**Big Idea**” statement:

E.g.: Scientists in Hawaii are doing exciting exploration about oceans, volcanoes and outer space and we can understand and be inspired by it when we get to know the scientists.

- **Front-end evaluations**—tell you what your audience knows and expects about the topic, their preconceptions, attitudes and assumptions.

- **Brainstorm** overall **organizational concepts** that support the objectives and ideas for individual displays (but don't allow brainstormers to get too concrete with design—find out what they want to **teach and show.**)

- the “big idea”
- who is it for?
- brainstorming
- title
- benchmark deadlines

E.g. “We want to use correspondence to support the idea of travel, or different ‘zones’ to show the far-reaching range of scientific research” -

not: “We want to display postcards on flip panels with tethered magnifiers ...” The designer does that later.

- Use ideas that are best suited to the medium of an exhibition as opposed to other media such as books, videos or computers. (i.e. you are moving people through physical space to see the **real thing** or to **experience or do something.**) Exhibits reach their full potential when they are multi-sensory.
- Decide on **title**.
- Develop **project schedule**. Working backwards from opening date, decide deadlines for project benchmarks: preliminary floor plan, final approval, first draft text, etc.

3. FLOOR PLAN (with optional design model) (lead designer comes in here)

- Fit your concept ideas into **space**—What will fit? How much **space** will be allocated for each section and how will they interrelate? **Model** is especially valuable if you haven't seen the space or don't know it well. Planning in three-dimensions is much “safer” than just using drawings: what you see is what you'll get!
- What will the **flow** be? (e.g. oceans in the front gallery, volcanoes in the back, outer space upstairs.) Don't assume any one sequence—people may be talking and walk right by an area you thought was essential. Have a cumulative gathering of information and experiences rather than a set order that must be followed.

- space planning
- flow & pacing
- big ticket items
- keying system

- **Sight-lines, highlights, pacing.** Do you want dramatic changes in pace? (Immersion experiences/dioramas can achieve this.) How's the “fun quotient”? Don't forget emergency exits and fire regulations!
- Define **big-ticket exhibit items** to be developed—block out space for them.
- No design details yet, but know the **topics** you want to cover and where they will be situated. Topics/focus areas become set here—you can't add more later without changing the entire plan and opening date. Have an approval process whereby people “sign off” on the concepts.
- Once basic floor plan has been decided, set up **keying structure**: Section A, display A.1, etc. (sub-units will follow later, e.g. photo A.1.d (4) to whatever depth is needed for each unit.)

4. GENERAL DESIGN (full design team on board)

- Logo development (can't do until title has been determined!)
- Make a **sample board** to give the feel you want using cutouts, fabric swatches, pictures, etc. (e.g. of tone: scientific, kiddy-like, Hawaiian)
- Type design: mock up a graphic panel (nonsense type with sample fonts, colors, etc.)
- Decide **motifs and consistent threads** to unify the exhibit visually (e.g. use logo on all signs, use all aluminum/perf metal for a high-techy look, trail signs for an outdoorsy look)

- logo
- color
- finishes
- feel, tone
- typestyle
- motifs

5. ROUGH DESIGN & FEASIBILITY ASSESSMENTS

- Work out more **detailed design** for each keyed area using sketches and/or model—still in rough form but detailed enough to assess feasibility and to clearly communicate design ideas.
- Present to content person, get feedback on how well design supports main & subordinate points.
- Define all exhibit elements (text, graphics and interactives) based on feedback from content person (sometimes called Exhibit Developer or Interpretive Planner).



- Research/resolve **technical** options.
Who can make what? How hard/easy are your design ideas?
Can you make it in-house? Talk to vendors, ask time/cost questions.

- Assess **feasibility: time, cost, practicality.**

Where do you want to “sink the bucks”? Is it an “anchor” item that warrants it? Does the section need it? The best idea may not make sense, may put the emphasis on the wrong thing. Each section should have a couple of exciting things and each exhibit could use at least 1 or 2 “immersion” experiences.

- what’s feasible
- select major accents
- cost/benefit analysis
- start compiling lists/estimates

- Start files of:

- a) **needed elements.** Identify existing resources such as cases, electronics, props. (What can you recycle? Include dimensions.)
- b) **estimates** (How much will things cost?)
- c) **task lists** (Who are key people?)

6. BUDGET/TASK WORKSHEETS

- Break down units into **tasks** that need to be done.
- Decide **who** will do each task & **hours** needed (always overestimate).
- Decide what to **job out** and which **vendors** to use. (may have to job out at the end too if you run out of time in-house.)
- List & **estimate cost** items to create a projected budget. Compare with original budget.
- If projected budget exceeds original budget you have 2 choices: cut back on plans or find additional resources to expand budget. Analyze cost to value ratio of displays, and eliminate those that cost the most and contribute the least.
- Project manager may go back to upper management to see if budget can be increased.

- tasks
- hours
- compare quotes w/budget
- make cuts if needed!

7. FINAL APPROVALS

- **Reconcile** any differences between plans & realities
- Final go-ahead before starting writing, purchasing & fabrication.
- Final approval needs to come from high enough source that you have confidence it will stick. You do NOT want major changes made from this point on.

- sign-offs to ensure no major changes from this point on!

8. KEYED LAYOUTS

- **Fully define** design of each display—refine models, prepare sketches to hand off to other team members. Key each display element so that it is specific and can be tracked through production.
- **Draw up** each area to specify sizes and designate where text/graphics will be so writers can visualize the **context** they’re working in. To write well they need to know what the visitor will be experiencing when they get to that point.

- refine designs
- guides for writers

9. RESEARCH/WRITING LABEL COPY

- For each component outline the **main point** and **subordinate** points you wish to cover.
- **Research** and **write** those points.
The writer should aim for **75-100** words per panel with paragraphs **45-50** words long and photo captions **30-35** words long.
- Pass draft copy by designer to ensure it fits with physical design.
- Edit, submit final copy for production.

- identify key points
- research content
- write
- edit



10. PRODUCTION ORGANIZATION

- Issue **assignments**—carpenters, painters, electricians, preparators, conservators, graphic artists, other departments.
- **Inventory** cases, prop, equipment needs.
- **Tracking sheets** to follow:
 - Purchases
 - Text (one sheet travels with proofs, a master stays with designer)
 - Graphics (keyed, can be used by vendors as well as project staff)
 - Photos
 - Loans (you must track what others loan you!)
- Set up **new vendors** (credit info etc.)
- **Paint schedule** (what paint will be used where?)
- **Electrical plan**
- Your organizational skills affect other people here—task lists, specifications, disseminating info to others. People skills are **JUST** as important as creativity! Exhibits require a true team effort..

- assign tasks
- inventories
- tracking sheets

11. CONSTRUCTION DOCUMENTS

- Plans/drawings for vendors
- Plans/drawings for in-house fabrication
- Issue purchase orders
- Delivery schedule.

- production drawing & plans
- place orders

12. DISPLAY FABRICATION

- Prototype interactive elements (test with audiences in rough form)
- Conservation of artifacts
- Props
- Mounts
- Cases
- Graphics

- build stuff

13. INSTALLATION

- Gallery preparation: wall panels, painting, lighting, electrical feeds, furnishings.
- Complete "dirty" work before bringing in artifacts and graphics.

- Gallery preparations
- Set it all up!

14. EVALUATION & MODIFICATIONS

- Long-term exhibitions should hold back 10% of budget for post-opening adjustments based on evaluations of audience responses to exhibit.

- How are exhibits received by audiences?
- What needs to be fixed or improved?

15. MAINTENANCE

- Remember that the exhibit is "new" to each new visitor, even when it becomes "old" to you.
- A broken exhibit is often what visitors remember most!

• KEEP IT WORKING!



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The Tech Museum of Innovation's Exhibit Process: An 8-Step Guide to Success

by Tasmyn Scarl Front

Tasmyn Scarl Front is the Manager of Exhibit Projects at The Tech Museum of Innovation in San Jose, CA. She can be reached at tfront@ttech.org.

B By implementing an 8-step exhibit development process, The Tech has decreased frustration, increased efficiency, and encouraged cross-departmental participation.

When I started working as a museum professional, I followed a simple and straightforward process to manage projects. My process was easy to understand and remember. And, if I was lucky, some people even followed it. It involved only three words—"Do your best!"

This process made sense to me and, thankfully, to some of my colleagues. However, over a period of time I learned that "do your best" meant different things to different people. And, there were those quirky "little things" that rose to the surface during opening night discussions. Such as, what the overall concept of the exhibit should have been, or how the look and feel of the exhibit was nothing like what was expected.

So, if surviving some unpleasant "aftermath" discussions, consoling a few burned-out staff, and developing a small ulcer are indicators of success, my process was working just fine. The truth is, I felt like I was orchestrating the design, assembly, and launch of a space shuttle with no instruction manual. In fact, I didn't even know an instruction manual existed! Besides, I was much too busy and too ingrained in my "non-process" to think about changing it. And, after all, change is a scary thing.

However, sometimes change is a good thing. It can provide the catalyst for all kinds of new insights. For me, a move across country to start a new job at The Tech Museum of Innovation in San Jose, California provided the catalyst for the change needed in my exhibit process plan. Upon my arrival at The Tech, I found the exhibits department already at work revising their Exhibits Process Guide. It had been a document originally developed for The Field Museum and adapted for The Franklin Institute by Janet Kamien (who is now an independent consultant). With guidance from Peter Anderson (a consultant for The Tech), The Tech's Exhibit Process Guide has evolved into a tailor-made process that helps ensure the successful completion of the museum's exhibit projects.

Even so, change didn't come easily, either for my colleagues or me. It took some time to "buy into" the need for a formal process—one that defined roles, products, milestones, and schedules. And, while it seemed obvious to follow this type of process for large-scale projects, initially it seemed like overkill to use it for every project. Not surprisingly, experience taught us that the process was especially helpful for the seemingly "little projects" that had the potential of transforming themselves in blockbuster shows.

Change is a scary thing.

Another benefit of using this exhibit process is the framework it provides for the development and management of project schedules. For example, I use Microsoft Project for our schedules. For every schedule, I include each phase from the exhibit process guide, along with all of its deliverables and milestones. This creates a consistent and systematic plan for project management. It helps to create a viable plan—and we all know what happens when we fail to have a plan!

This process also ensures that all the relevant departments are involved in the project from the beginning. At The Tech, we identify cross-department teams from the onset of each project. Team members attend regularly scheduled project meetings at every phase even if the plan does not yet call for their active involvement. For the creation of concept documents, each team member submits a one-page summary describing their role, or the role of their department, and how they will contribute to the success of the project. For example, members from our engineering and facilities team explain how they will

AAM Annual Meeting & MuseumExpo Dallas, Texas, May 12-16, 2002

NAME

Sponsored
Sessions

The Community
of Museums: Seeking the
COMMON GOOD

SATURDAY, MAY 11

9:30 a.m.-4:30 p.m.

PreConference Workshop: Judging Exhibition Excellence from a Visitor-Experience Perspective

How do we define excellence in exhibition? A prototype has been developed for rating how much and exactly how an exhibition has achieved excellence, taking the visitor's experience as its perspective. Workshop participants will discuss and use the prototype to judge an exhibition at the Fort Worth Museum of Science and History.

SUNDAY, MAY 12

12:00-5:00 p.m.

NAME Executive Board Meeting

12:30-4:30p.m.

NAME Exhibit Development Roundtable

Join Paul Martin and Janet Kamien for this once-a-year get-together to talk about the hottest topics in exhibit design and development. Whether you are just starting out in the field, or you have been working in the business so long you can't remember life before exhibitions, you should attend this discussion.

7:00-11:00 p.m.

Big Hair at Southfork

Enjoy the great tastes and sounds of Texas at the number one tourist destination in Dallas: Southfork Ranch. Experience the over-the-top and larger-than-life style made famous by the Ewings, television's legendary family, as we turn the world's most famous ranch into the "Set and Style Hair Salon." There will be a live band, two-step dancing. **Make sure to look for the NAME pavilion!** Sponsored by AAM/icom, AAM Alliance for Gay & Lesbian Concerns Professional Interest Committee, the AAM Committee on Audience Research and Evaluation, the AAM Committee on Museum Exhibition (NAME), the AAM Committee on Museum Professional Training, the AAM Diversity Coalition, the AAM Education Committee, the AAM Media & Technology Committee, the AAM Museum Management Committee, and the AAM Small Museum Administrators Committee.

MONDAY, MAY 13

9:00 a.m.- 10:15 a.m.

The Communal Space in Museums: Seeking the Good Commons

Chair: Serena Furman, Principal, A Space, Stow, MA

Do visitors seek more than entertaining exhibitions and places to eat and shop when they come to a museum? If the visitor is looking for a communal experience, or hoping to revisit favorite spaces within the museum, are there ways to make the overall experience more rewarding and less exhausting? Panelists will examine spaces that serve as informal or formal assembly areas for visitors, and they will discuss the visitor's emotional and physical needs beyond what is commonly provided as well as the physical attributes of these spaces that make a positive impact on the public.

10:30 a.m.-11:45 a.m.

Hardhats and Cotton Gloves: Volunteers Inside the Exhibit Construction Fence

Chair: Jonathan Shay, Director of Exhibitions, Mystic Seaport Museum, Mystic, CT

Volunteering in museums builds a sense of community and belonging, but is it a good idea to involve volunteers in the process of developing, producing, and mounting exhibitions? Often there is no other choice, but dangers are real, and a moment of carelessness can turn into disaster. What does it take to select and train volunteers, entrust them with the handling of collection objects and power tools, and build a team that is capable and willing to get the job done on time. And what rewards beyond a sense of accomplishment can the museum staff offer?

Visitors Tell Visitors — The Museum as Listener

Chair: Michael Sand, President, Rare Media Well Done, Inc., Boston, MA

If museums hope to engage their audiences, they must find new ways to listen to those visitors and respond to what they hear. This session will show how three diverse institutions—an art museum, a history museum, and an environmental education center—have utilized interactive history jukeboxes to present information to and gather information from their audiences. The striking feature of these talk-back exhibits is that they each provide a different kind of opportunity for visitors to self-select or browse huge amounts of information (slide shows, film and video clips, still images, audio recordings, news articles, etc.) while simultaneously allowing them to contribute their own comments, views, and feedback (as video oral histories, multiple-choice surveys, or text entries). The self-contained, touch-screen kiosks also can produce personalized take-aways for visitors in a variety of formats (vote results, newsletters, tour guides, etc.) while providing the host institution with survey data about user preferences and demographics.

3:45 p.m.-5:30 p.m.

NAME Marketplace of Ideas: Exhibit Development Process (and Other Horror Stories)

Many museum professionals see the team approach to exhibit development as an idyllic process for creating exhibitions; others believe that this approach is overly cumbersome and stifles creativity. Representatives from institutions large and small, old and new, will spread out their exhibit-development process maps, interpret their methods, and share their successes and horror stories about the particulars of their exhibit-development methods. Participants will be able to feast on a virtual smorgasbord of processes and then determine the best fit for their own institutions.

Exhibition Excellence: The 14th Annual Exhibition Competition

Chair: David Carr, Assoc. Professor, The University of North Carolina, Chapel Hill, NC

The annual awards presentation by CARE, CURCOM and NAME, for the best entries in museum exhibition design is always popular. Excellence and innovation are showcased in a session that will enlighten and entertain. Panelists include designers, curators, and educators.

TUESDAY, MAY 14, 2002

7:30a.m.-8:30a.m.

NAME Breakfast Business Meeting

Join NAME at our annual business meeting. We will be introducing the 2002-2004 Board of Directors. Old and new NAME Board members will be present to welcome new members and answer questions.

9:00 a.m.-11:45 a.m.

Truth or Dare: A Forum on Historical Interpretation and Public Trust

Chair: Tamra Carboni, Director Curator Services, Louisiana State Museum, New Orleans, LA

The recent AAM survey indicating 87 percent of the American people consider museums to be one of the most trustworthy sources of information emphasizes the enormity of the responsibility we, as museum professionals, shoulder in presenting that information to our visitors. We need to closely examine the material we select and the way we shape our presentation of the past, and we need to recognize the influences—political, social, and economic—that affect what we put forth. This session, which will emphasize that museums are in the business of interpretation, will present perspectives from five institutions on the types of forces, internal and external, that impact their decision making and exhibit-content development. There will be open discussion and debate among the panelists and between the presenters and the audience on issues of public trust, intellectual integrity, and reasonable institutional management, particularly as they relate to controversial subject matter.

10:30 a.m.-11:45 a.m.

From Artifact to Experience: Shifting Strategies in Interpretation

Chair: Lynn Denton, Director, The Bob Bullock Texas State History Museum, Austin, TX

A new wave of history museums are breaking ground in the creation of multisensory experiences for learning about the past; the focus has shifted from the interpretation of collections to the interpretation of themes and messages driven by environments and media. This session examines two new Texas museums with innovative approaches to experience-making as their key interpretive strategies. The Bob Bullock Texas State History Museum in Austin, which does not own a collection, identifies itself as "The Story of Texas," and employs a wide variety of multimedia and environmental experiences to explore storyline-based themes of Texas history. The Women's Museum in Dallas, which identifies itself as "An Institute for the Future," tells stories with interactive, media-enhanced exhibits that explore the contributions of women throughout American history.

1:45 p.m.-3:00 p.m.

Climbing Out of the Cage: Changing the Roles of Zoos & Aquariums within Their Communities

Chair: Ed Mastro, Exhibit Curator, Cabrillo Marine Aquarium, San Pedro, CA

There is an evolutionary convergence occurring within museums, zoos, and aquariums. Zoos and aquariums have evolved to become more museum-like with interactive exhibits, models, object collections, and cultural artifacts. But interpreting living collections while providing positive visitor experiences and educational opportunities presents many unique challenges. This panel will present four different, innovative case studies in which zoos and aquariums integrate interpretive and educational programs in an effort to move beyond tradition as they affect visitor behavior and attitudes; become part of the larger community; and become places to use rather than places to visit.

3:15 p.m.-4:30 p.m.

Who's Setting the Agenda? Program Driven Institutions

Chair: Anne El-Omami, Director, Graduate Program in Museum Studies, University of the Arts, Philadelphia, PA

Based on the need for increased income, museum programming has increased during the last three decades. As museums turned to government sources, grants from corporations, foundations, and state and federal agencies, they found that based on shifting interests, perceived needs, and visibility, most funding sources had developed new initiatives and stringent criteria for projects they would fund—many focused on social issues and wide-ranging needs of users and communities. Rather than undertake significant efforts to increase endowment revenue, earned income, and private donations to support their central mission and activities, museums began to increase and manipulate their programming to meet the criteria of funding initiatives. In this session, exhibition planners/designers, educators, and development officers explore these issues addressing institutional approaches to programming and funding that support exhibitions and permanent collections.

WEDNESDAY, MAY 15, 2002

8:30 a.m.-9:45 a.m.

All Things Are Possible: Museum Experiences for Blind and Visually Impaired People

Chair: Gina Laczko, Education Services Manager, Heard Museum, Phoenix, AZ

Creating museum experiences for blind or visually impaired people is often seen as a major challenge. "Cradles, Corn and Lizards" is the Heard Museum's 40-foot, interactive, three-dimensional mural created by four visually impaired or blind children and eight Native-American high school students. The exhibit, originally scheduled as a three-month summer filler, has been so popular that it is entering its fourth year. Panelists also will discuss an artist-in-residence program at the Institute of American Indian Arts that resulted in a sculptural installation created by five children from the Foundation for Blind Children under the guidance of artist Michael Naranjo Tewa.

What's Going On IV: A Conversation on Hot Issues in Exhibit Development

Chair: Paul Martin, Director of Exhibit Development, Science Museum of Minnesota, St. Paul, MN

This town-meeting style session will engage the audience in dialogue surrounding exhibit-development issues such as "The Community of Museums: Seeking the Common Good." It is an opportunity for anyone affected by the exhibit-development process to express their views and hear what other people in the field have to say. The hottest issues identified in the preconference Exhibit Development Roundtable, held on Sunday, May 12, will be used to frame the discussion.

11:45 a.m.-1:15 p.m.

NAME Issues Luncheon

Has a formalized exhibit development process affected the quality of your exhibitions? Join writers from this issue of *Exhibitionist*, as well as presenters from the NAME Marketplace of Ideas, in a lively conversation about how exhibits are getting done these days.

2:30 p.m.-5:15 p.m.

Critiquing Museum Exhibitions XIII: Interpreting Community

Chair: James Sims, Threshold Studio, Alexandria, VA

The ongoing NAME forum on excellence in exhibitions is the setting for this double session. We will consider new interpretive work at a museum in the Dallas-Ft. Worth area. The museum exhibition to be critiqued will be announced in the final conference program. Everyone is urged to visit the museum and view the exhibition before the session. In the first part of this double session, members of the exhibition team will present the institutional mission, their specific task assignments, and their process for realizing their vision. In part two, three museum professionals will present their critiques of the exhibition. The audience will have time for questions at the end of each session; lively debate will be encouraged at the end of the session.

4:00 p.m.-5:15 p.m.

Reading Between the Lines—Four Perspectives on the Future of Exhibit Labels

Chair: Richard Faron, Associate Director of Experience Development, Dupage Children's Museum, Naperville, IL

For more than 100 years, institutions of all kinds have painstakingly nurtured texts into nearly universal strategies for content delivery. Words, phrases, and characters are analyzed, evaluated, organized, and designed into multilayered distribution systems called labels, the essential tools of museum curators, educators, and exhibit designers. Panelists consider whether this is a wise investment given that development is costly, quality control is difficult, coordination is essential, production values are high, and audiences are extremely diverse and dynamic. They also discuss how labels will compete with sophisticated display technologies and seductive, new e-interactive media.

THURSDAY, MAY 16, 2002

9:00 a.m.-10:15 a.m.

Can We Talk? Building a Language for Judging the Visitor Experience

Chair: Beverly Serrell, Director, Serrell & Associates, Chicago, IL

Although lots of people are talking about excellence in exhibition, these efforts are primarily focused inward, dealing more with the effort of the museum than with the experience of the visitor. In 2000, a group of museum professionals in Chicago developed a set of criteria for assessing exhibitions from the visitor point of view. These criteria were then employed several times, most notably at AAM's Exemplary Interpretation seminar in Portland last June, and again at a workshop on the exhibit "Risk" at the Ft. Worth Museum of Science and History. This session will define the criteria, show a short video presentation on the "Risk" exhibit, and then use the workshop experience as a jumping-off point for discussions about standards for exemplary exhibition.

9:00 a.m.-11:45 a.m.

A New ERA for Historic Sites in Alabama-A Model for Building a Sustainable Museum System

Chair: Mark Driscoll, Director of Historic Sites, Alabama Historical Commission, State of Alabama, Montgomery, AL

The Alabama Historical Commission (AHC) owns 14 historic sites around the state, 10 of which are staffed and operated as museums or interpreted sites. The AHC wanted to understand these sites as individual units and as part of a museum system in order to make informed decisions about divesting, generating revenue, partnering with other institutions, maintaining or expanding each site, and managing the whole system. AHC's consultants, Economics Research Associates (ERA), developed a set of measures to evaluate the interpretive potential and business potential of each site. This session will present AHC's needs and its brief to ERA; their process and what they found when they looked for similar projects; a sample of ERA recommendations; and what the process and recommendations mean for site directors.

10:30 a.m.-11:45 a.m.

Exhibits as Storytellers: Three Approaches in History Museums

Chair: Benjamin Filene, Exhibit Curator, Minnesota Historical Society, Saint Paul, MN

In recent decades, museums have shifted from imagining exhibits as encyclopedias to seeing them as storytellers, offering illustrative, not exhaustive, treatments of topics. But what sorts of stories should we tell, and how can we best tell them? This session looks at three approaches to storytelling in exhibits, and the approaches offer different models of historical specificity, setting, time frame, and scale. Despite their differences, they share common challenges including how to: elicit emotional connections to the past; encourage links between the past and present; and tack between specific material and broader themes.



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review the design concept drawings and provide comments on structural and safety requirements. By involving the relevant departments from the earliest phase, everyone feels committed to the project and has the necessary tools to make both their contribution and the project a success.

Another advantage of using this exhibit process is the inclusion of formal "sign-off" milestones at the end of each phase. These milestones can save both time and money. From as early as the Initial Concept phase, a project team presents the exhibit's overall content, framework, and treatment to senior management for approval. This gives senior management the opportunity to determine if the team is going in the right direction before spending too much time or money. It also helps to avoid the pitfall of changing the exhibit concept at a later stage, such as fabrication, when changes would be very costly (not to mention stressful and frustrating for all concerned).

Each sign-off milestone also involves much more than scheduling a meeting and hoping everyone will attend. It involves strategies to emphasize the importance of the milestone. Since attendance by senior management is mandatory, we schedule concept presentations as far in advance of the date as possible to ensure their attendance. We also invite the entire staff and encourage their feedback. In addition, we create bound copies of the concept plans and distribute them in advance. And, we schedule several rehearsals for the concept presenters!

At each presentation, we reiterate the elements that have already been "signed-off." For example, by the time we present an exhibit's Design Concept, we would have already acquired approval at the Initial concept phase for the project's general concept and focus. So, we proceed with new areas that require review and comments. We respond to all the comments we receive and let staff know how we will address any concerns. (In theory, if there's no consensus to move forward, we would revisit, rework, and then give another presentation before embarking on the next phase of the project.) The sign-off milestone is complete only when we receive final comments and approval signatures from each vice president and the CEO.

As with any process, there are always challenges. Despite our best efforts, we still face the challenge of last minute meeting conflicts that interfere with our exhibit concept presentations. On a few occasions, one or more members of senior management have been unable to attend a presentation. While we've been tempted to move forward without everyone's comments, we've learned the importance of making the extra effort to get comments from everyone—even if it means setting up "special" presentations.

Another challenge we face is adapting the process to the uniqueness of each project. For example, we recently submitted a grant proposal and, several weeks later, presented the Initial Concept to senior management. While preparing the Initial Concept document, it became clear that this was not the most effective approach. It required more time to refer back to the grant proposal to extrapolate information for the Initial Concept document than if we had reversed the sequence. In the future, we will present an Initial Concept document before writing a grant proposal.

Finally, experience has taught us that the Phase I-Start-up is one of the most important phases of the process. In this phase, senior management gives the project team the green light to launch a project and begin work. Consequently, this is the phase where it's vitally important to identify whether the project is worth the expenditure of substantial amounts of time and money. Are the exhibit goals clearly understood? Is staff available to work on the project? Is there a financial commitment from the organization? Affirmative answers to these questions provide the cornerstones of any project. Then, when the green light is given, you can put your exhibit process plan into full gear and "do your best!"

EXHIBIT PROCESS SUMMARY

Phase 1: Start-Up	1 week
Phase 2: Initial Concept	3-6 months
Phase 3: Design Concept	3-7 months
Phase 4: Design Development	3-6 months
Phase 5: Contracting	1-2 months
Phase 6: Fabrication, Graphic Design, and Production	3-6 months
Phase 7: Installation, Testing, Training and Open to the Public	2-4 months
Phase 8: Contract Completion, Operation, Evaluation and Enhancement	3-6 months

18-37 months total

We all know what happens when we fail to have a plan!



**THE TECH MUSEUM
OF INNOVATION
EXHIBIT
DEVELOPMENT
PROCESS**

DEPARTMENTAL RESPONSIBILITIES

Phase and Product	Criteria	Sr. Management	Exhibits
1. Startup Project team list Start-up document	Are the exhibit goals clearly understood Does it fit the "Big Idea" for the gallery Is the technology appropriate? Is it technically possible for The Tech? Are cost and schedule targets clear? Is an effective team assigned and organized? Is there a financial commitment for the full cost?	Define the exhibit Appoint Team	Organize team Produce start-up document
2. Initial Concept Initial Concept Book	Does it fit the mission? Will it be inspiring and educational? Will it be a hit with visitors? Are schedule, budget, funding realistic?	Review and approve concept	Research, brainstorm Produce Initial Concept book Seek industry partners Create focus groups Do front-end evaluation Develop initial budget and schedule
3. Design Concept and Sign-off Design Concept Book Exhibit mode	Does it meet The Tech's exhibit goals? Does it have the right content, drama a visitor experiences? Does the design suit The Tech "look and feel?" Is it technically feasible? Is it operable at a reasonable cost? Are schedule, budget & funding within targets? Is enough staff available?	Review and approve concept (including Exhibits Committee)	Research/Develop concept Develop Prototypes Refine budget, schedule Produce Design Concept book Create model Create initial in-kind list
4. Design Development Design intent drawings Final materials board	Are all the exhibits "user friendly?" Does it still fit The Tech "look and feel?" Does it fit The Tech's standards? Does it fit The Tech's access standards? Is it safe? Are the designs within budget? Are the operating costs acceptable?		Produce design-intent drawings Develop prototypes Write initial text Establish graphic format Finalize in-kind list Develop AV/MM details
5. Contracting Completed contracts	Do we have the right bidders? Do the contracts protect The Tech's interests? Are all points of interest clarified? Are client communications specified and adequate?	Sign contracts	Assemble bid packages Invite bids Evaluate bids Negotiate contracts Award contracts
6. Fabrication/Graphic Design and Production Fabricated exhibit units complete AV multimedia experiences Produced graphics final text	Does it meet The Tech's Engineering standards? Do the construction dwgs define a safe exhibition? Has it passed building & seismic standards/codes? Are the exhibits robust and reliable? Are change orders minimized? Are all items produced and inspected?		Supervise contractors Plan installation
7. Installation, Testing, Training and Opening Operating exhibition Punch-list Documentation Trained staff	Do the exhibits function well with visitors? Is it safe for the public, and to operate and maintain? Is the exhibition acceptably maintainable? Has training been completed? Has maintenance documentation been completed? Are most punch list items complete? Are all components/spares received and inspected?		Manage installation Produce and complete punch list Train staff
8. Contract Completion, Evaluation & Remediation Smoothly operating exhibition Contracts closed out Final exhibition report Remedial and summative evaluation reports	Are the visitors' reactions good? Do visitors understand the content? Does exhibit availability meet standards Is the operating cost acceptable? Does the whole meet the sponsor's expectations? Are the contracts completed as written? Has warranty work been satisfactory?	Finance & Admin. assists Project Manager with contract closeout	Contracts closed Evaluation Remediation Summative and remedial evaluation



Development	Marketing	Engineering/Facilities	Learning Experiences	Online
Assign team member	Assign team member	Assign team member	Assign team member	Assign team member
Develop Fundraising Support advisory groups	Create initial marketing plan	Participate in team meeting	Develop prelim. programs: public, student & teacher	Develop prelim. online Develop preliminary estimates of network needs
Continue fundraising	Refine marketing plan Conduct focus group mtg	Develop prototypes Assess maintainability Advise on exhibit components Identify exhibit impact on facility	Refine programs: public, student & teacher	Refine online programs Refine network needs
Continue Fundraising	Implement marketing plan: Design logo Send info to long-lead pubs. Meet w/ x-promo. companies	Develop prototypes Review and sign-off on all draws. Review power needs for exhibit Determine in-house (w/ Units) Review all units for safety Identify all units that need seismic attention	Finalize programs: public, student & teacher Create brochures, announcements for Ed. night, etc.	Develop web activities Design network extensions
Obtain ir-k-nd equipment	Implement marketing plan	Review fabrication bids		
Plan opening events Obtain ir-k-nd equipment	Produce press kits, ads, etc. Finalize promotional copy's	Fabricate in-house units Monitor fabrication for engineering and facility standards Plan installation	Complete prog. development Publicize at Ed. Night Finalize public speakers	Produce web material/prog. Prepare for network connections
	Obtain press for project	Install in-house-built units Perform related tasks on punchlist Obtain documentation & training	Hire & train staff Produce ed. Materials Send ed. Brochures Contribute to remediation	Install web material/prog. Supervise network connection
Thank donors		Assist in contract close-out Take ownership of operations & maintenance	Staff exhibit	Complete evaluation and remediation for web



Go With the Flow: The Exhibit Design Process Made Visible

by Hannah Jennings

Hannah Jennings has been the Manager of Communications Design at Brookfield Zoo for the past twenty years. She is a former President of the Society for Environmental Graphic Arts. She received a Master's degree from the School of the Art Institute of Chicago. Email Hannah at hajennin@brookfieldzoo.org.

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The exhibit design process developed at the Brookfield Zoo is laid out in a flow chart that makes the developmental progress easier to follow.

Flow charts can help organize complicated processes into manageable forms. We better understand what needs to be done if we can see where we are in a progression.

This is of particular importance to newcomers. At Brookfield Zoo many of our team members are from non-traditional departments including janitorial, security, and accounting. The strength of this inclusiveness is that we get fresh perspectives and more buy-in across the staff. The challenge is that we frequently need to bring people up to speed on the design process.

The attached charts are works in progress, in part because Brookfield Zoo is at the end of a development cycle. We will turn to Master Planning soon, and all of our systems are evolving. However, the charts will never be fixed. Each project has different goals, opportunities, and constraints that cause changes to the way things happen. These charts are starting points for deciding how to proceed.

The process also had to be simplified because it would be overwhelming if shown in full. For example: an architect would differentiate between Schematic Design and Design Development. I combined them since in both phases the same teams work toward increasingly detailed and difficult-to-alter design specifications.

Reading a flow chart

It's easy: start at the top and follow the arrows.

Each shape has a meaning in flow-chartise (well, I did add a couple of my own. Why not?) The shapes are probably available on your computer (Word has them as "Auto Shapes/Flowchart.")

A rectangle is a process.

A diamond is a decision and should have two or more exits.

A rectangle with a curvy bottom is a document (also called a "deliverable")

An oval is an end point (I used them for beginnings, too).

A stop sign is a reason to cry.

Be sure when designing a flow chart not to have dead-ends, unless you mean that the project may dead end.

Planning the time table

I caution readers to consider that some time-consuming tasks aren't included in these flow charts. Bringing together and formalizing a team, working out team dynamics, hiring and administering contractors, and helping with Development and Public Relations all take significant amounts of time.

Pay close attention to the arrows leading back up to previous steps. Unless you have a rubber stamp Director, give yourselves time to react to comments. The same holds for other approvals and reviewer comments. It always takes forever to collect them, but they often improve your exhibit.

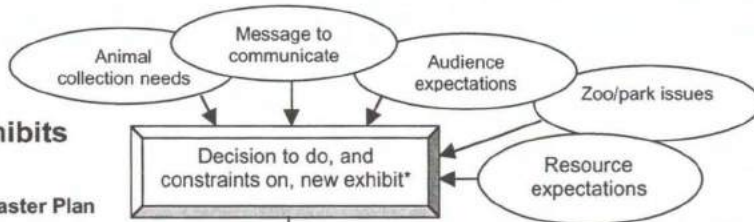
Evaluation is mentioned, but warrants more emphasis. Front-end evaluation, prototyping, and formative evaluation result in better quality, and sometimes doing evaluation saves time haggling and making changes late in the process.

And if you can, reserve staff time (and budget) for making those so-helpful modifications after the exhibit opens. In other words: don't stop your flow chart above the line where the visitors flow in.



Process for designing new exhibits at Brookfield Zoo

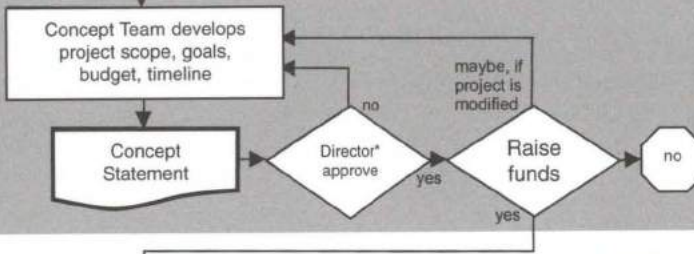
Project is addressed in Master Plan



Concept phase

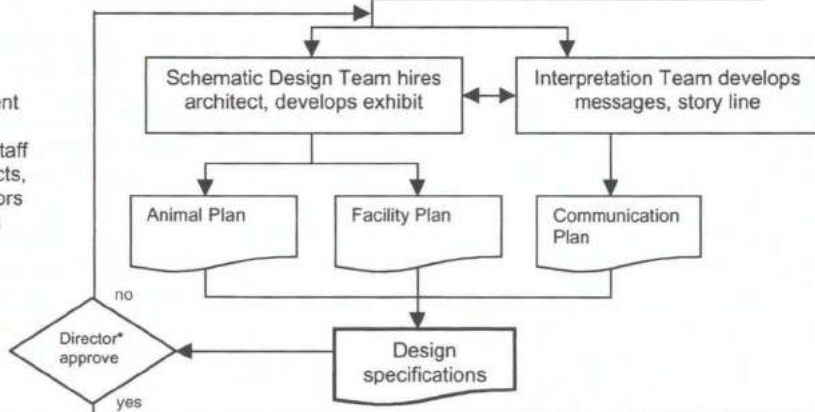
Team administrator leads process with help from staff facilitators.

Departments consulted by team
Team members
departments
Communications
Research
Development
Marketing/PR



Design Development

Project management attention needed. Teams work with staff facilitators, architects, and other contractors and consultants as needed.



Departments consulted by team
Animal Collection
Design
Education
Communications
Research
Development
Accounting
Resource
Conservation
Editorial
Grounds
Marketing/PR
Life Safety
Security
ADA
Guest Services
Janitorial

Construction phase

Need Construction Manager. Many contractors and almost all areas of zoo get involved.

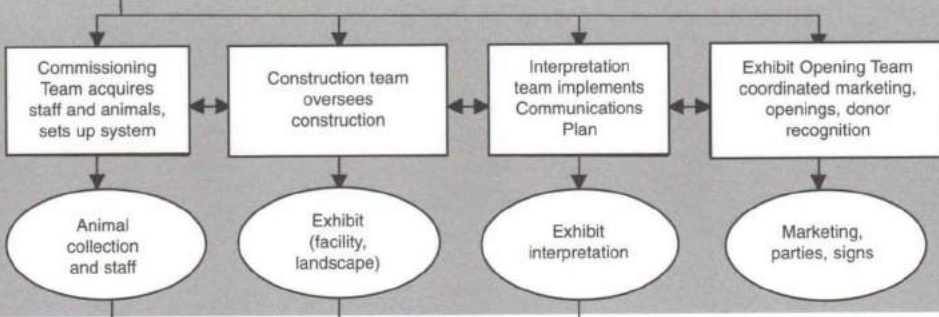
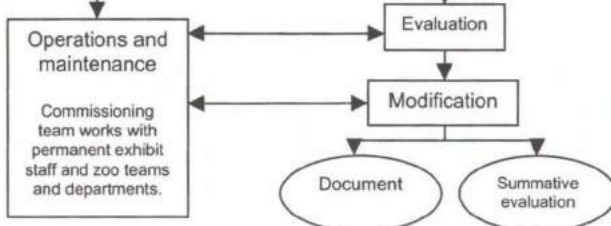


EXHIBIT OPENS!

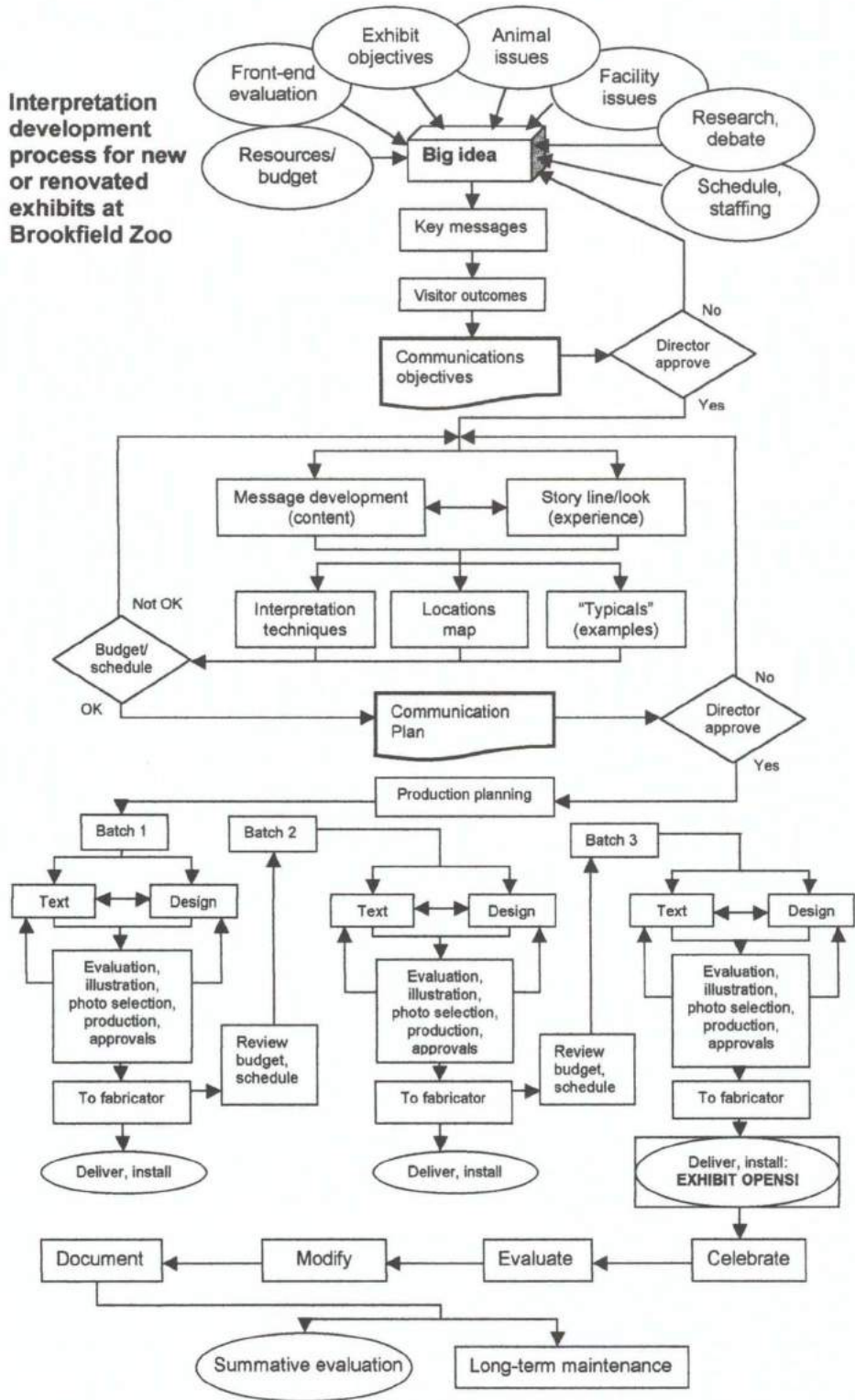
Post opening



*Trustee approval needed depending on scope of project.



Interpretation development process for new or renovated exhibits at Brookfield Zoo





Counterpoint: Customizing the Exhibit Development Process

by Rich Faron

Rich Faron does museum planning, exhibit development, and exhibit design work for Museum Explorer Inc. He served as the Associate Director of Experience Development at the DuPage Children's Museum in Naperville, IL from 2000-2001. He may be contacted at Museumexplorer@aol.com.

Instead of standardizing exhibit development processes, perhaps we should be customizing them to meet the unique challenges of each new project.

Most museum exhibits today are conservative and predictable. We no longer inspire our audiences or surprise ourselves. Too many of us retreat from the challenge of experimentation. Instead we play the safe game, and adopt ever-more standardized processes for exhibit development. We resist the urge to push the medium forward, and our lack of action weakens the overall potential of museums.

Formalizing and standardizing old ways of doing things may improve efficiency, but it is likely to deliver only the same old goods. The familiar way is comfortable, manageable and predictable. As an alternative, customizing exhibit development processes to meet the unique challenges of each new project can lead to surprising results. Customized products are, by definition, different. A customized approach can help to turn things around. It can help us to reinvest and to deliver on the promise of informal learning through new and ever more interesting and challenging experiences for visitors.

While serving The Field Museum as Director of Exhibit Development I was charged with managing the staff teams engaged in the development of original exhibitions for the Museum. In 1999 two shows were slated for development in anticipation of an upcoming millennium year celebration. As always it was understood that each effort would follow the standard process approved for developing exhibits. However, special circumstances conspired to push the two projects in very different directions.

Origins was a collections-based exhibit created to examine the evolutionary patterns of early humans. *Sounds From The Vaults* was also a collections-based exhibit that started with the rather vague aspiration of attempting to reawaken the lost voices of musical instruments collected by The Field Museum 100 years earlier.

The exhibit development model in practice at that time featured a team-based approach with an emphasis given to the role of the 'Exhibit Developer'. The exhibit developer at The Field Museum during that period was generally acknowledged as the designated team leader. A typical Exhibit Development Team included:

- Point Curator
- Educator
- Writer/ Editor
- 3D Designer
- Graphic Designer
- Production Supervisor
- Marketing / PR representative.

The Exhibit Department team approach had undergone many modifications by 1999, but it essentially remained the brain-child and legacy of Michael Spock's innovative tenure at The Field Museum during the late 80s to mid 90s.

We play the safe game,
and adopt ever-more
standardized
processes for exhibit
development.



The *Origins* exhibit team planned to develop the exhibit along a formal track that included the following phases:

- Pre Planning
- Planning
- Development
- Design
- Production

At The Field Museum Pre Planning was a critical step. Pre Planning was appropriated by the museum administration as a checkpoint to regulate and configure the entire development effort.

According to the established model, Pre Planning marked the confirmation of the 'Rules of Process,' which was itself merely a clear and purposeful reminder of the formal and hierarchical reporting structure of the institution. Pre Planning also included a review of content direction, a check of objectives and a final orientation towards a set of overall institutional goals. The Pre Planning Phase concluded upon approval by the Steering Committee. The Steering Committee was a subcommittee of senior administrators that were themselves stakeholders in the overall Museum's public programming agenda.

Sounds from the Vaults, however, took a different course. A series of unconnected events altered the balance of key staff in public programs, creating a temporary void and rendering the standard exhibit development model non-functional. The *Sounds from the Vaults* team took advantage of this break to develop a highly customized adaptation of the standard exhibit development process.

A restructuring of the existing process was necessary to facilitate an environment of experimentation. The exhibit development team needed to explore new technologies and untested visitor interfaces. Many of these applications had not been previously evaluated and some were actually invented specifically for use in *Sounds*. This customized process acknowledged that new ideas and exhibit elements might develop at irregular intervals, as a part of an extended period of discovery. It was agreed that fresh and useful innovations would be plucked directly from an R&D stage and integrated into the stream of the development process. These would be refined in place as the rest of the exhibit evolved around the new applications.

Another critical reason for customizing the process arose from the fact that the exhibit program was now being managed as a three-way partnership. Two internal Museum departments needed to work seamlessly with a third external partner who was also a contractor. The standard process model was not flexible enough to adapt to these circumstances and it failed to provide any tips or insight that would indicate how to coordinate this unlikely option.

Content
need not
function as
the singular
feature of
every museum
exhibition.

Finally this 'new' sequence of evolving and revolving experimentation needed to be overlaid onto the more conventional schedule of regular work. If the exhibit was to open on time and on budget the two strategies needed to be married—i.e., the customized process had to be wed to the more typical task list that included artifact selection, conservation, infrastructure coordination, building support, production supervision, marketing, fundraising and public relations.

The entire effort relied on a critical partnership of tracking and cooperative project management involving the three main exhibit development stakeholders, The Field Museum Exhibition Department, the Museum's Department of Anthropology and Artifact Collections and 30/70 Productions, an outside artist/contractor. Together this group constituted the core of a customized exhibit development 'Team' in charge of executing a customized exhibit development process.

In hindsight the entire process followed a rather simple set of instructions. The primary objective was to organize, identify, isolate, label and execute on tasks and work loads. The exhibit was not developed or designed in sequence. Instead it followed an opportunistic timeline that was designed to take advantage of momentum wherever and whenever that momentum occurred.

The distinguishing feature of this process was a commitment to organizing teams that moved development and design workloads forward. Assignments were not always linked to job titles or even skill sets. Completed tasks were either set aside to await further action or bundled with other completed tasks to form the building blocks that defined the structure of *Sounds* exhibit.

This highly schematic approach required that personnel stay flexible and that all contributors remain prepared to respond to the judgment calls of the various project managers who were overseeing the progress of the exhibit as it developed. The key was to move every aspect of the exhibit development process forward. Momentum fueled progress



and this in turn led to a refinement of the vision, which then informed further decisions and overall direction. If rendered as a simple diagram this strategy resembles a continuous looping or scrolling motion across the page.

This process allowed *Sounds* to emerge as a unique exhibit organism, a display body complete with a developing personality and ever growing and changing aesthetic. At some point the team acknowledged that the exhibit would reach maturity at or near the time of the planned opening.

Inspired by these circumstances the technical director and co-composer of the *Sounds* musical composition requested at a rather late date that the team reconsider choosing and recording all of the instruments at once. Under normal conditions picking everything at a single time would have been preferable and most likely a non-negotiable issue. Collections objects are managed by protocols not feelings. But *Sounds* had helped to establish a different (if temporary) culture at the Museum. So as an alternative the technical director requested that only about 25 musical instruments (about half) be chosen and recorded as a part of an initial phase of exhibit design and composition development.

This request and argument coincided with a growing commitment among members of the team to resist conforming to standard procedures in times of crisis. Picking instruments just for the sake of picking them or executing as a natural fulfillment of the process seemed nonsensical in this situation. Therefore a new goal was set and the process was further customized to incorporate a period of experimentation using the first 25 instruments. As it turned out this period was marked by a critical creative surge that later worked to inform the perfect choices for the remaining 25 instruments.

Customizing the process further at the mid point meant that the team would have to intentionally leave almost half of the available and proposed collections material sitting, waiting to be chosen later. This also meant the addition of another recording session and the delay of the final exhibit design and artifact case layouts to a later date. No matter, all teams were redirected to execute on other tasks while the major push of choosing and conserving instruments was put on hold.

With the extra burden of a heavily modified schedule it became apparent that including interpretive text or standard label copy within the exhibit would be impossible. A traditional approach to writing, editing and design could no longer be overlaid or matched to the existing process. This event constituted the major break from all previous processes as it displaced content as the sole engine driving the progress of an exhibit forward. There is even a leftover hint that perhaps content is itself a potentially negotiable feature of the museum experience. One view of *Sounds*

might suggest that content need not function as the singular feature of every museum exhibition.

In the end the absence of label text brought about a renewed commitment to the notion that the average visitor must be able to interpret the exhibit without the benefit of explanatory text. This served to push all interactive and space design conversations to finer and finer levels of refinement.

In the end *Sounds* was embraced by the general public and both critically and professionally acknowledged as innovative and successful by reviewers and peers. The headline in *International Design* magazine read 'Acoustic Awakening'. *WIRED* magazine also praised the show and playfully dubbed it 'Tunes from the Crypt'. The American Association of Museums acknowledged 'Sounds From the Vaults' by awarding it the Golden Muse award for excellence in Interactive Media for 2000. And in the pages of *Exhibitionist* in the fall of 2000 Mike Spock labeled *Sounds* as one of a few... "true meaning-making landmarks, on a relatively barren landscape." All of these remarks serve as indirect testimony for the value of a customized development process.

To the experienced museum professional this 'customized' approach might appear difficult to track. Developing a common timeline with clear indications of defined steps or looking for phases that detail when or where an exhibit

Is it time for an argument?

development stage begins or ends might not be possible. Upon further reflection questions of the relevance of all processes emerge and one is pushed to consider just how important are any of these common plans or benchmarks.

What kinds of experiences have we developed in the museum world in the last decade that would cause us to continue to tread heavily upon the same worn path? Is it time for an argument? Does the success of even one customized exhibit process serve to indicate that there are alternatives to all the ruts that seem to exist?



Visitor-Centered Exhibition Development

by Stephanie Downey

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Integrating audience research and evaluation into the exhibit development process can result in a more meaningful experience for the visitor.

Visitor studies and audience research are not new to the museum field. As someone with years of experience in educational evaluation, yet relatively new to museums, I have found a plethora of existing literature espousing and explaining visitor surveys, audience research, and exhibition evaluation—more than enough to establish museum visitor studies as a credible and integrated practice (Hayward, 1992; Hood, 1986; Korenic, 1988; Korn, 1994; Munley, 1987; Screven, 1990; Shettle, 1992; and Taylor, 1991, to cite a few). Moreover, based on my readings and interaction with other museum professionals, it seems that most in the field would agree that evaluation is an important and valuable tool to ensure that exhibitions are visitor-centered. There is even an entire professional association, the Visitors Studies Association (VSA), as well as a specialized division of the American Association of Museums, the Committee on Audience Research and Evaluation (CARE), devoted to the discipline. To my constant surprise, however, audience research has not been whole-heartedly adopted into the exhibition development process. I have found that too often, audience research is viewed as something mysterious or extra—a beneficial luxury (if money is left over) or a procedure to satisfy funders. Even when audience research is conducted, it is often done quickly or haphazardly, without full integration into the exhibition development process. As a result, the research is not always as useful as it could be.

The scarcity of audience research conducted in museums is all the more disconcerting when one considers the growing discourse among museum professionals on meaning making (Silverman, 1993, 1995). Museum professionals have become increasingly concerned with understanding the nature of the visitor experience because of its implications for the way exhibits are designed. For instance, the fall 1999 issue of *Exhibitionist* was devoted to the topic of making meaning in exhibits. The articles in this issue describe a shift from understanding the visitor as a passive receptacle to be filled with information to the visitor who actively constructs meaning from his/her experience. Lois Silverman, drawing from communication theory (1999), and George Hein from constructivist theory (1999), explain that the act of making meaning is a natural practice for humans, something we do all the time in order to make sense of our experiences. Meaning making naturally takes place when individuals encounter museum exhibitions. Visitors do not necessarily experience what the museum intends for them to experience—instead, they make meaning based on the way the new experiences fit into their pre-existing perspective of the world. Following from this quest to understand the visitor experience, the question becomes, how do we create exhibitions that are visitor-centered—that will serve visitors in the process of meaning making? One solution takes us back to where this article began—using audience research throughout the exhibition development process to identify, explore, and understand visitors. This special issue of *Exhibitionist*, devoted to moving toward formality in the exhibition development process, provides an opportunity to argue for the full integration of audience research and evaluation into the exhibition development process with the end result of providing meaningful visitor experiences. This article provides a model for visitor-centered exhibition development. At the heart of visitor-centered exhibition development is the idea of meaning making. As shown in the diagram, to effectively incorporate meaning making into the process, there is an appropriate time and place for each phase of evaluation—front-end, formative, and remedial/summative. Furthermore, within each phase, there are three critical considerations in regard to planning and implementing evaluation that will be useful to the development process—timing, input by the development team, and methodology. With mindful consideration of these issues, evaluation can become a dynamic part of the development process and yield powerful outcomes for visitors.



Front-end Evaluation

As the diagram on page 43 shows, front-end evaluation tests concepts and ideas during the initial planning stages of exhibition development. Front-end evaluation helps planners understand how visitors comprehend and think about themes, ideas, concepts, and objects that will be displayed in an exhibition. It seeks common ground between visitors and the exhibit. In other words, front-end evaluation examines the extent to which visitors' meaning making processes line up with the conceptual framework of the exhibition. To be sure that results from front-end evaluation are useful, it is important to consider when the evaluation takes place, the degree of involvement by the development team, and the most appropriate methodology.

The specific stage of exhibition development in which front-end evaluation occurs is critical. Typically, front-end evaluation is conducted during the early planning stages, but it is important that it is not conducted *too early*. Some exhibit planners mistakenly believe the purpose of front-end evaluation is to "go fishing"—that is, to ask potential visitors what they find interesting about a topic, what they would like to see in an exhibit, and how much they know about a subject—with the purpose of defining the parameters of the exhibition. Similarly, exhibit developers often use front-end evaluation to find out how much potential visitors know about a topic, such as a particular city's history, microbiology, or 17th century European paintings to guide the development of the exhibition. Yet, many evaluators have found that focusing on these concerns is unproductive (Dierking, 1998). We know from numerous visitor studies in museums, that museum visitors, while highly educated, do not have specialized degrees in history, art, or science, and thus, are potentially limited in their knowledge of most topics. The majority of visitors come to an exhibition for educational and/or recreational purposes, and they have little depth-of-knowledge about any given topic. Since the purpose of front-end evaluation is to bridge the gap between visitors and an exhibition concept, it is vital that the exhibition staff develop an exhibition that reflects their expertise and passion. It is the job of the evaluator to uncover how to best communicate the team's impassioned ideas to the public.

Thus, front-end evaluation should be designed around the central idea of the exhibition—that is, what the team hopes visitors will experience, do, and/or understand—not around the subject matter nor what visitors say they want to know about the subject. Once potential visitors have something concrete to react to, such as themes, storylines, or interpretive strategies rather than an open-ended topic or subject matter, they will be able to discuss their thoughts, beliefs, and understandings in a meaningful way. In this kind of front-end evaluation visitors will reveal the meaning they make in response to a concrete exhibition concept.

Their meaning could include misconceptions, misunderstandings, personal associations and memories, as well as interest level—in other words the information necessary to build meaningful connections between an exhibition topic and visitors.

Once staff has developed a preliminary exhibition concept, including themes, messages, and storylines, a context must be built for the front-end evaluation. This context might include an exhibition walkthrough, diagrams, objects, conceptual drawings, or photographs. The evaluators then frame questions around these ideas:

- What do visitors think when confronted with specific objects and/or ideas?
- What meaning emerges from these encounters?
- Which objects or ideas catch visitors' attention? Why?
- Are memories awakened as visitors look at objects? If so, what are they? (Korn, 1994)

How do we create exhibitions
that are visitor-centered—
that will serve
visitors in the
process of meaning making?

Another critical consideration in front-end evaluation is methodology. Most of the time, front-end evaluation will include some type of qualitative methodology that allows visitors to express themselves in a naturalistic manner, versus having them fit their experiences into the predetermined, museum-generated responses that appear on a standardized questionnaire. While standardized questionnaires are useful in some circumstances, qualitative methodology is more appropriate for the exploratory nature of front-end evaluation where the goal is to capture the language and ideas familiar and accessible to the lay public.

Generally, two types of qualitative research methods are used in front-end evaluation: in-depth interviews and focus groups. Both methods can provide detailed information about visitors' knowledge, understanding, familiarity with, and connection to certain concepts integral to the proposed exhibition. They are useful data collection tools because they include probing questions that result in detailed responses that may explain why a visitor thinks or feels a certain way.

If conducted at the right time, using the most appropriate methodology, front-end evaluation can contribute greatly to the exhibition development process. Findings can remind exhibit developers how the lay public approaches, thinks



Front-end evaluations often lead to the discovery of the "hook," the notion, concept or idea that captures and holds visitors' attention.

about, and understands an idea. In some instances, front-end evaluation may lead to modifications in the exhibition goals and objectives so that they are more realistic and from a visitor-friendly perspective. Findings may also help developers select the most appropriate language and terminology. Ultimately, front-end evaluations often lead to the discovery of the "hook," the notion, concept or idea that captures and holds visitors' attention.

Formative Evaluation

As the diagram shows, formative evaluation is conducted during design development. Using inexpensive prototypes, its goal is to collect visitors' behaviors, reactions, and comments with respect to exhibition ideas and components, and then to analyze them in the context of the component's goals and objectives so that problems can be isolated and corrected. Formative evaluation examines aspects of exhibit components such as the instructions for an interactive, placement of exhibit components, or the content of a label. Ideally, formative evaluation is an iterative process—that is, once problems are realized, corrections are made and retested until the component achieves the intended results.

Formative evaluation is only useful after the goals and objectives of the exhibition, individual components, and labels have been developed. To guide the formative evaluation process, exhibition developers need to develop a thorough description of each component or activity to be tested. This description should include the target audience; an explanation of what the user is supposed to do and experience; a description of how the component or activity is intended to function; the component goal and communication message; and how the component's goal is related to the overall exhibition goal. This thorough description of each component guides the design of an effective instrument, the selection of a target audience, and a plan for implementation.

In formative evaluation, the instruments are unique and tailored to individual exhibit components, but in general, the following types of questions are addressed:

- Is the physical design accessible and inviting to all users, regardless of age, background, or culture?
- Do visitors know what to do?
- Are visitors using the interactives as intended by planners?
- Is the activity or component functioning as intended?
- Do visitors understand the message or point of the activity or component?
- Can visitors see the cased objects?
- Is the content of the label clear?
- Do visitors find the theme/component/experience relevant to their own lives?
- What emotions are evoked by the experiences?
- What general meaning are visitors creating from their experiences? (Korn, 1994)

For the most part, the data collection methods used in formative evaluation, prototyping in particular, are more informal than other kinds of evaluation methods. Large sample sizes are not necessary when identifying the quality of an activity or component because problems usually surface quickly and the feedback loop between developers and evaluators is immediate, urging developers to try alternative solutions when tested ones fail.

Formative evaluation usually includes two methodologies: visitor observations and short-answer interviews. Observations are often included in formative evaluation because they provide objective data about reactions to certain exhibition components. Visitors are observed and their behaviors recorded either quantitatively or qualitatively. Visitor observations, however, are limited if they are the only procedure used to assess the quality of an exhibition component. In the case of formative evaluation, it is always best to support observations with short-answer interviews. Short-answer interviews are useful for explaining behaviors and understanding how users interpret and understand exhibition messages and experiences. Interviews usually take place after users have finished using a component. They are asked what they thought the activity or component was about and how it might be changed to make it more inviting, interesting, fun, or understandable. Through such discussions the evaluator will be able to detect problem areas as well as areas that are working successfully.

Often, data collection is conducted with cued visitors. Cued testing, as opposed to uncued testing, is more cost effective and efficient for formative evaluation. In cued testing visitors are intercepted *prior* to seeing an exhibition or using a component, and they are invited to participate in the evaluation. If they agree, they are asked to spend time in the exhibition or at specific components, after which, they will be asked some questions. Cued testing is done to set up a best case scenario of exhibit use (e.g., visitors are paying attention to the instructions of the exhibit and are focused on trying to "do it right"), thus evaluators do not have to wait until visitors select to use an exhibit prototype, and evaluators can approach visitors in target age groups.

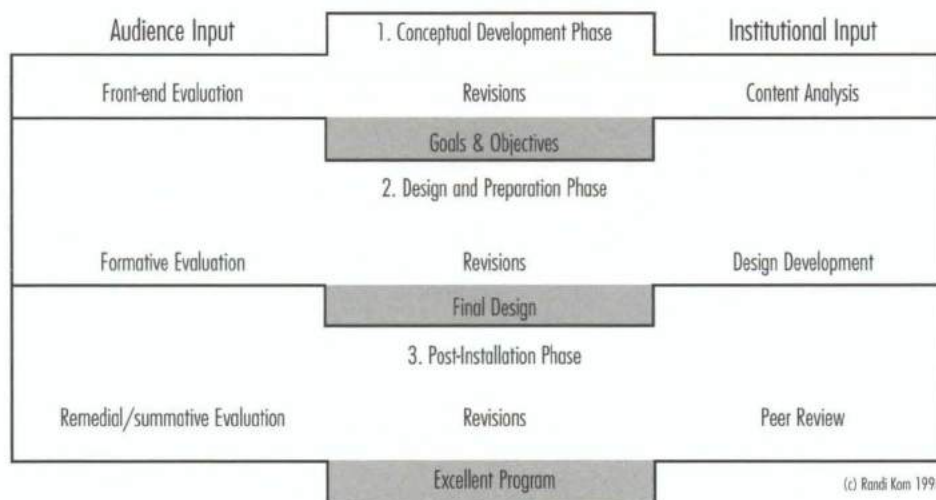
Many exhibit developers have found formative evaluation to be essential in the exhibition development process. If done properly and at the right time, formative evaluation can help create effective and meaningful exhibitions for visitors and prevent the need for expensive alterations after an exhibition is completed and installed.

Remedial/Summative Evaluation

Remedial/summative evaluation takes place at the end of design and development, once the exhibition has been installed, as shown in the diagram. The difference between remedial and summative evaluation is that remedial implies



EXHIBITION DEVELOPMENT PROCESS



improvements will be made to an exhibition based on evaluation findings (and is not widely practiced by museums), while summative does not necessarily result in changes. Front-end and formative evaluations examine exhibitions with little context from which visitors can draw. Ideas or components are tested in isolation, the flow of the exhibition is not actualized, and visitors are not provided with the big picture—they experience the exhibition in bits and pieces. By contrast, when remedial/summative evaluation takes place, there is plenty of context. The exhibits are complete, and they are all vying for visitors' attention (Korn, 1994).

The objective of remedial/summative evaluation is to determine the overall effectiveness of the exhibition as well as the effectiveness of individual components. Visitors' behaviors and experiences in the exhibition are compared to the exhibit's goals and objectives stated at the outset of the project. The following are questions a remedial/summative evaluation may ask.

- What emotions were evoked in visitors?
- Which hands-on interactions did visitors enjoy/not enjoy?
- What meaning (in the broadest sense) has the visitor created from his/her experience?
- What is the most valued part of the visitor experience?
- Which component was most confusing/understandable?
- Which component was the most/least fun?
- Which component was most compelling?
- Are visitors using the components as intended?
- Which components held visitors' attention?
- How much time did visitors spend in the exhibition?
- What did the visitors learn?
- Did visitors gain appreciation for, or a new perspective of, the subject matter? (Korn, 1994)

Summative evaluation is the most formal type of evaluation. Large sample sizes are sought and a number of methodologies are employed. On the other hand, since remedial evaluation is not widely practiced, guidelines for methodology are not hard and fast. Sometimes, remedial evaluation may mimic formative evaluation, while other times it may be more similar to summative evaluation, just less formal.

The most efficient and result-producing methodologies for summative evaluation are in-depth interviews, observations, and questionnaires. Using at least two of these methodologies for one study is optimal. The use of multiple methods is referred to as triangulation, and is an important way to strengthen a study design since each method reveals different aspects of the visitor experience.

Observing visitors through an exhibition and tracking where they stop and for how long indicates the attracting and holding power of individual components and the whole exhibition. This procedure provides an objective account of visitor behaviors and is useful for uncovering the most successful and least successful exhibition components from a behavioral perspective. Each exhibition component can be analyzed individually, by type, and by location—depending on staff needs. Other calculations can also be made from tracking data to dissect visitor behaviors. Observing visitors can be very labor-intensive, but is worthwhile if exhibit developers are interested in understanding visitors' behaviors.

Looking at where visitors stop and for how long reveals only part of a visitor's exhibition experience. Because the visitor experience is personal, unique, and diverse, assessments should include a feedback loop that allows visitors to describe their experience. In-depth interviews elicit descriptive, detailed data. This methodology is useful in



remedial/summative evaluation because visitors' remarks can often explain their behaviors, but more importantly, they show how visitors processed and internalized their experiences. Visitors' descriptions of their experiences can be compared to the exhibit's goals and objectives to assess the quality of the experience from the museum perspective. At the same time, visitors' experiences may include unexpected outcomes and demonstrate the range and diversity of meanings visitors construct from their visit.

Standardized questionnaires, which produce quantitative data, are useful because they collect responses from many visitors, and statistics can be applied to the data allowing the researcher to examine the data in a variety of ways. Statistical procedures can provide a wealth of detailed information about visitors with respect to the questions asked of them. For example, findings can demonstrate differences among a range of demographic characteristics (e.g., age, gender) or visiting patterns (first-time versus repeat visitors). These types of analyses provide interesting and useful details about the public that would otherwise go undetected.

Unlike the formative evaluation described above, visitors participating in a remedial/summative evaluation should be uncued. In the case of interviews or questionnaires, visitors who are uncued are approached *after* viewing an exhibition and invited to participate in the study. In the case of observations, uncued visitors are unobtrusively observed without their knowledge.

When conducted properly and with the buy-in of the exhibition staff, findings from summative and, remedial evaluation in particular, can lead to improvements to the exhibition in terms of presentation, text, or other changeable elements. Remedial evaluation is especially useful when the team is planning to build a smaller version of the exhibition for travel. Even in the case when changes will not be made, findings are useful in that the exhibition team finds out whether they achieved their visitor experience objectives. Understanding the successes and shortcomings of one exhibition can inform development practice of future exhibitions.

Conclusion

As institutions that serve the public, museums have a responsibility to facilitate visitor experiences that are enjoyable, meaningful, relevant, and informative. Doing so requires an understanding of visitors' perspectives, including their needs, interests, and concerns, and to incorporate this understanding into their exhibitions and practices. Hopefully, this article has demonstrated a way to formally integrate audience research into the development process with the end result being visitor-centered exhibitions.

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What's So Great About the City Museum?: A Cyberspace Forum

edited by Joyce Cheney

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S St. Louis, Missouri's City Museum hosted a party during the 2001 AAM meeting, and the place became a hot topic. Questions and strong opinions flew during the entire conference and afterwards: Is it a museum? What is it for? Can we evaluate it? Will it last? This fall, five museum professionals continued the discussion through an online forum.

JAY ROUNDS: At the AAM meetings last spring, the biggest buzz of the entire conference was from the evening at the City Museum. Why? What was it about the City Museum that caused so much excitement?

PAUL MARTIN: Somehow the City Museum has managed to pull off many of the things that we as museum professionals strive for and find elusive—mirth, mystery and mayhem among them. Too many of us in the museum biz have lost the sense of not knowing what can't be done. Most museums are better at defining what they are than they are at exploring what they can be. In the case of the City Museum it's a concrete example of what can happen when the box we call the museum (that we often strive to get outside of) is reinvented.

The City Museum is a place of many wonders. It is extreme (the floor mosaic rivaling the ceiling of the Sistine Chapel), dangerous (the extension cords wrapped around the sprinkler pipes were a subtle and nice touch that not many museums or other public places could get away with), delightful (the list here is close to endless but the roof top bus parking sticks out for me), diverse (what do the *Post Dispatch* Weather Bird, Ave Maria, live river fish, shoelaces, glass blowing, real live second hand smoke and a youth center for inner city kids have in common other than being under the same roof?), and controversial (I ran into more than one person and actually a couple of "museum" directors who couldn't come to grips with the place calling itself a museum).

JAY: In an article a few years ago the author said that museum people are constantly complaining about the shortage of money, the shortage of staff, and so on—but in her opinion, the real shortage affecting museums is a shortage of imagination. The City Museum has solved that problem! It's full of surprises, of unbridled imagination that's been allowed its fullest realization. Clearly there were no review committees saying "That's not the way we do things here." In a time when most exhibits are completely predictable, the constant surprises of the City Museum lead to constant delight.

GENE DILLENBURG: Some professionals see the City Museum—especially the first floor—and sniff, "it's nothing but a playground!" As if that were a bad thing. But play is the work of children, and ought to be the work of adults as well. The City Museum provides wonderful playgrounds for body, spirit and mind. (What was that quote by Michael Kimmelman? "Museums betray the public and their purpose if they aren't seriously amusing.")

FREDIE ADELMAN: Interesting that you should use 'playground' Gene. Several colleagues referred to the City Museum as a 'children's museum for grown-ups' and talked about how much fun it is. I wasn't sure how to interpret that description and as soon as I walked in and asked if I could stow my bag and was greeted by a super accommodating staff, I got it. As a visitor, you feel welcome—the staff smiles and laughs and helps you figure out the problems of daily life (like stowing your bag or getting a cab) so that you're already comfortable and it's easy to talk to a guy about making shoelaces. Visitors are greeted with joy and invited to participate in the abundant mayhem!

GENE: I visited the City Museum during normal business hours and saw some pretty intense levels of family interaction. It reminded me of nothing so much as an old Rocky and Bullwinkle cartoon—the kids getting off on the funny-looking moose and squirrel, while the parents are laughing at the satire of Cold War politics.



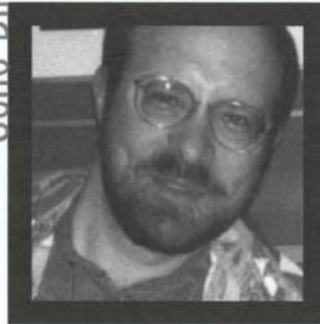
JAY: We see a lot of exhibits that are thoroughly serious and didactic at their core, that then try to make their dullness palatable with an "Isn't this fun!" veneer. I call these "lectures wearing funny hats." Wacky characters telling you the facts in squeaky voices. At the City Museum, I think, the playfulness goes all the way down. You never get the feeling that someone is trying to trick you into taking your medicine.

DAN SPOCK: I think that's right. The difference is that City Museum doesn't betray any ulterior motives, because there aren't any. You can either take it for what it is or be a pill and miss out. But there's a certain integrity to the City Museum madness that more "serious" museums lack when they try to be something they manifestly are not.

GENE: I think half of the delegates at the AAM party were thrilled to see everything they had hoped, dreamed, believed about museums brought so fully and vibrantly to life. The other half were terrified to see everything they had feared, fought, and resisted about museums brought so fully and vibrantly to life.

This wasn't the hoary old argument about "education" vs. "entertainment," which has been fought and settled in the past. Rather, the City Museum presents a challenge. To nay-sayers, the challenge of what a museum is. To supporters, the challenge of what a museum can be.

Gene Dillenburg



"Some professionals see the City Museum and sniff, "it's nothing but a playground!" As if that were a bad thing."

JAY: I think you're right about that sense of challenge many people felt, Gene. In his review of the City Museum in the Spring 1999 *Exhibitionist*, Eric Sandweiss argued that calling the place a "museum" is "a splendid joke" that constitutes "an aptly subversive appeal to people's desires to overturn the pious authority of our museums." He called it "a museum of museums...the kind of place that bored children might fantasize about on their class field trip to the art museum." This might position the City Museum as an intentional parody of museum practice, in the same category as the Museum of Jurassic Technology—but I suspect that for the most part it was just playfulness at work here, done so well that it has the effect of parody.

GENE: Jay, I'm not sure I entirely agree. While the Museum of Jurassic Technology and the City Museum both challenge us to reconsider what a museum is, they do so in strikingly different ways. MJT is a post-modern deconstruction, taking the language and form of the traditional museum to convey non-museum content. It is a parody, though a brilliantly subtle one. CM is a RE-construction, taking traditional museum content (programs, activities, objects, labels, AV, etc.) and delivering them in boldly imaginative new ways.

DAN: The Museum of Jurassic Technology is an apt comparison, Jay, but not just because it is parodistic. There are other non-ironic examples that have the same madcap snap: The House on the Rock in Spring Green, Wisconsin or Soane's Museum in London, for just two of my favorite examples. The common thread in each of these places is that they seem to express an almost childlike enthusiasm for the experiences they embrace. They promote sheer wonderment over earnest didacticism and they are driven by individual initiative and a certain quirkiness of vision. These are things that are more often leached out of "accredited" committee-run museums that seem to lose the woods for the trees. Visitors want wonderful experiences that inspire curiosity, mirth and yes, even mayhem, from museums. What I loved most about the City Museum, apart from the fact that it was utterly uncontaminated in its conception and execution by museum "professionals," was that it didn't try to teach anything. It didn't presume that it knows what we don't know or ought to know. It trusted visitors, inviting them to engage with the stuff simply because it's inherently cool. And nearly everything they presented was inherently cool experientially, because they weren't mission bound to do anything else, really.

GENE: Dan, you're absolutely right. The greatest source of City Museum's success is the trust they place in their visitors. There's no Eternal Truth or Right Interpretation. It's OK to be interested in this, or not interested in that. You are totally free to do what you want, to be what you want.



And “being” is the key. The City Museum addresses the whole person. Most museums address Intellect alone (on their own terms, of course), and ignore—or worse try to suppress—other aspects of their visitors’ lives. At the City, the ground floor is for the Body—you climb, you play, you explore, you move. The second floor is for the Spirit—you create, you express yourself by making art. The top floor is for the Mind—you look at other creations, learn about them, think about them. I’m not sure if that was intentional, but it works really well.

DAN: See, I knew there was a taxonomy to this thing, but I think you figured it out!

PAUL: I think the prime element of trusting visitors is being able to share authority with them. At the City Museum visitors get to engage on their own terms and use their own knowledge, prior experience and interest to form the experience and learning for themselves without much intervention on the part of the museum. They have the authority to create their own experience out of the opportunities they find. I think this is how it works for any visit to a museum, it’s just that we as makers of museums and exhibits don’t always acknowledge this visitor authority.

Beyond sharing authority with visitors I thought the decentralized authority and openness to a variety of agendas throughout the museum was really cool. Most museums are structured to keep things out of our collections and exhibits as part of staying true to our mission. It was a relief to see a museum that could welcome model railroaders into their fold along with performers, visual artists, community groups and entrepreneurs.

JAY: Gene, I’m delighted to hear that the “History of the Corn Dog” exhibit on the top floor improved your mind.

GENE: My mind is in such a state that virtually anything would be an improvement.

DAN: I think it was the “Nougat Factory” with the Chocolate Vanilla Integrator that most advanced my intellect.

GENE: Here’s the thing about Corndog Mysticism, the Integrator, and the rest of the Museum of Mirth, Mystery and Mayhem (which is really only a small part of the third floor): they function as a set of 3-D surrealist tableaus. The original Surrealists painted fantastic images in an attempt to stun the logical mind into silence, long enough to let subconscious thought come to the fore. These installations work in much the same way (it’s not by accident that they



have a Dali diorama up there). But in our more cynical age, I think they also force us to reconsider what is Real? What is Truth? And how do we know, anyway? That's pretty good exercise for the old neurons.

"The following exhibit, CORNDOG MYSTICISM, has been definitively proven to contain or advocate the following:

Trickery, Treachery,
Mummery, Pageantry,
Tomfoolery, Buffoonery,
Sophistry, Wizardry,
Lechery, Debauchery,
Laissez-Faire Capitalism,
Socialism, and
Bohemianism.

PROCEED AT YOUR OWN RISK!"

FREDIE: What about the doorknobs exhibit? Or the one on toasters? Both quite traditional, wouldn't you say? In the first, a large gallery (!) with hundreds of examples of the object in question, very little text (objects speaking for themselves, I daresay), some demonstrations of the object

Paul Martin



"The prime element of trusting visitors is being able to share authority with them. At the City Museum visitors have the authority to create their own experience out of the opportunities they find."

in use (a few full doors....). The toaster show was even more conventional: a smaller gallery in which a large individual collection of toasters was quite elegantly presented, in a roughly chronological format... with text that pointed out lots of good details to appreciate. Not only did I learn about doorknobs and toasters, but my whole being was open to the *possibility* of learning about doorknobs and toasters! Doorknobs and toasters! Who knew?

DAN: Absolutely right. Utterly conventional presentation of utterly mundane things. The charm in it, of course, is treating those simple things like the Hope diamond or like an exhaustive display of invertebrates.

GENE: Doorknobs and toasters and shoes, oh my! And shoes! I loved the shoe store! A lot of museums use the life-size, recreated immersion setting. Half the time you're not even allowed in; the other half let you in, but you can't touch anything. Here, instead of being greeted by a long didactic panel on the history of shoe making in St. Louis, you are greeted by a bunch of shoes to try on. And every box held a little "fun fact"—emphasis on the first word rather than the second.

JAY: Is it a museum? Some of the AAM delegates said "It's a great place, but it's not really a museum." Another variation was "It's a huge art installation, rather than a museum." The implications—made explicit by one history museum director I talked with—was that museum people could have a great party at the City Museum, but couldn't learn anything about their work from it. Is this just quibbling over semantics, or is there something important at issue here?

DAN: It's got collections, live programs, dioramas, installations, art, aquariums, etc., etc. Of course it's a museum!

I guess if you zoom way back and ask yourself what any museum ought to be doing which is to inspire a lifetime of curiosity and enthusiasm for life, learning and the world around you, I'd say the place scores on that count. Definitely. All the rest is quibbling.

PAUL: Here's the definition according to two revered sources:

mu-se-um

A building, place, or institution devoted to the acquisition, conservation, study, exhibition, and educational interpretation of objects having scientific, historical, or artistic value.

[American Heritage® Dictionary of the English Language]

A repository or a collection of natural, scientific, or literary curiosities, or of works of art.

[Webster's Revised Unabridged Dictionary]



I'd say the City Museum fits the definitions above. I think where the question of museum or not gets raised is that the City Museum fits the description above and so much more. Is a museum that shows films still a museum? Is a museum that lets its visitors do art, science or history for themselves still a museum? The City Museum fits the traditional definitions above better than most children's museums. Did children's museums get an exemption sometime along the way that lets them off the hook? The rule of the road seems to be, if it calls itself a museum it is one. I can live with that, particularly in the case of the City Museum.

GENE: Hellllloooo, Pandora! This topic begs the question, "What is a museum?", an issue which, as far as I know, has never been settled. And perhaps never can be. Everybody "knows" what a museum is. But few have articulated a definition. And when they do, it gets shot through with so many exceptions as to become meaningless. Readers of *Museum News* know that I am of the school which holds that collections do not make a museum. Collections are quite wonderful, but unless you share them with the public, i.e. have exhibits, you're not a museum.

Above my desk there's a sign:

"The Museum is the Temple of the Muses.
The Muses were the Greek goddesses of inspiration.
Whom have you inspired today?"

By this definition, The City is not only most definitely a museum, it's probably one of the best in the country. I see it this way: I work at a science center. People come to have a hands-on, self-directed, physical, temporal experience with the stuff of science—phenomena as well as material. The City does the same for art: see it, do it, crawl around inside it. It is as much an art center as we are a science center.

DAN: One of the take-aways from the City Museum for me as a museum professional is the importance of offering real experiential variety to your public, and it reifies my conviction that a certain originality or novelty in conception and delivery is important. Why do stuff that you can already find everywhere else?

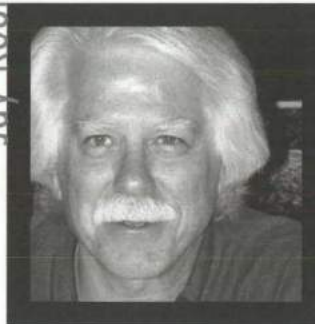
Another very cool thing going on there in the de-professionalized atmosphere they've created is a sort of open door policy toward people with something to offer, present or make. I talked to a number of very different individuals working there, the mosaic lady and Beatnik Bob, a guy who built and operated the camera obscura, a kid in the Everyday Circus, the glass eater and even a docent who each talked about the place as a kind of spiritual refuge, a place where they could realize their passions.

GENE: The City Museum is a thing unto itself and, like most creative triumphs, completely irreproducible. It is

the product of a team of artists pursuing a vision; most of our institutions are the product of a committee pursuing an agenda. The take-home message for most exhibit professionals? Kids, don't try this at home.

If there is one lesson to be learned, I suspect it may be the value of silence. I recently had a colleague tell me that "museums must be masters of the obvious"—we cannot state our messages too often or too clearly. And yes, if we define success in narrow terms of conveying information, that's probably correct. But advertising copywriters, who define success in terms of subsequent behavior, have long known that the most powerful message is often what is *not* stated, what the viewers fill in for themselves. I just saw the National D-Day Museum in New Orleans, where every vertical space was just plastered with labels, maps and photos. It was like walking through a book, and not in a good way. This incredible, powerful story was *over-*interpreted and bled dry. We need to learn to leave space—physical, intellectual, and emotional space—for our visitors to fill in for themselves. That leads to the "sharing of authority" Paul mentioned—something many of us find quite frightening.

Jay Rounds



"At the City Museum the playfulness goes all the way down. You never get the feeling that someone is trying to trick you into taking your medicine."



FREDIE: I'm interested in this idea of the level of professionalism of the staff. My experience with staff from the Museum was that they all had a very high level of shared commitment to the vision and spirit of the place. Every staff member I talked to grinned and was easy with letting go and wildly guffawing. They let fly with their passionate opinions and one guy even shared a conspiratorial eye-roll when I asked about a label.... This might not be what conventional

Update: Big Changes at City Museum

As we went to press, dramatic changes were unfolding at the City Museum. A long-running dispute between the Museum's board of directors and the co-founder Bob Cassilly, has culminated in a decision by the board to dissolve the non-profit corporation and to sell the museum's assets to Cassilly. Cassilly has announced his intention to continue operations as a for-profit entity. Negotiations on the specific terms continue, but operational control has already been passed to the new owner. Watch for another update in the next NAME newsletter.

—Jay Rounds

museums consider 'professional' —but it seems to me that having a shared vision that visitors interpret as 'have fun' and 'be real' implies that there is a professionalism afoot.

GENE: That gets back to what I was saying about trust. They trust the visitor to get the joke. They trust the visitors to make their own way, to make their own meaning. I think most museums are terrified of their visitors: afraid they won't get the Main Message —or, worse, might come up with their own message without prior approval.

DAN: Following up on Fredie's comment, I saw there was even some neat blurring of the line between staff and visitors going on. I often couldn't tell who was who. Maybe that's something to think about. How many of us visit our own museums recreationally? Or take work time to mingle with



visitors if we're not docents or something? The place was clearly a work in progress, too, and not ashamed to be "unfinished" with people working on it through the day I was there.

JAY: How would you evaluate the City Museum? I've recently been informed that the success of ANY museum or exhibit can be appropriately evaluated through classical outcome evaluation research, so long as the developer specifies the goals the museum should achieve. So here's a challenge: if you had conceptualized the City Museum, what kind of goals would you have specified against which its "success" could be measured? What kind of "outcomes" should be observed? What kind of evaluation methodology would you use to determine whether it had been "successful"?

GENE: I've got problems with this whole premise. One, I think it's too big. I don't think you can take exhibit-evaluation techniques and simply scale them up to an entire museum-going experience. Two, I find myself increasingly sympathetic to one Serrellian school of evaluation which holds that "intention doesn't matter." Visitors determine the ultimate "success" or "failure"



of an exhibit through their behavior and response, which are often stunningly indifferent to the goals set by the exhibit team.

Of course, exhibit teams do set goals, which they feel are worthwhile and which they would like to measure. It seems to me that the goal The City Museum sets for its visitors is: “make your own goals.” Thus, total success should be virtually indistinguishable from anarchy.

FREDIE: And I didn’t conceptualize this phenomenal place—none of us did. But, here’s my 2 cents worth from what I do know about the guy who did: (and please, check the facts—mine are from a cabbie!). Once upon a time in St. Louis, a developer started to tear down buildings in downtown—but he loved the quirky stuff (the lintels, the gargoyles, the doorknobs and window sashes...) and so he found a big building to keep them in. And then, he decided that they were so much FUN—fun to look at, fun to know about, fun to play with—that he should share. And so he built a place (remember, he’s a builder) for people to come and experience this great stuff. Play with it, admire it, wonder at it, laugh about it, reminisce about it, in short, have fun with it all. Evaluate that! Do people come to the City Museum and marvel and talk and play? You bet! Do people tell people about it? With pride and joy! In a very unscientific, but decidedly effective survey technique, I asked cabdrivers about ‘fun things to do’ while in town (a pastime I often engage in, even at home). Ten out of ten told me I couldn’t leave unless I’d visited the City Museum. Success? You bet. And remember why we decided to do this? It was, and I quote, “the buzz at AAM.” I don’t know about the rest of you, but I detect a pattern here!

DAN: I guess you’re talking about Bob Cassily? Beatnik Bob, the other Bob there who created the smoky cafe, the corndog thing, the nougat factory, the Elvis shrine in the trailer thing, told me that Cassily intends to “burrow” through the entire building and even branch out to other buildings he owns nearby. I got a sneak tour from him through a vast area that’s still under construction right next door. It kind of took my breath away because it is even more fantastical and ambitious than the original museum. He also showed me how they were reassembling the salvaged dome from the old St. Louis planetarium on the roof, a future performance space for the Everyday Circus. A gigantic dome. Beatnik Bob said “It’s just big kids making tree forts.” The ambition of it is just staggering. And he told me that the original museum was put together with only about \$5 million! Now that’s humbling.

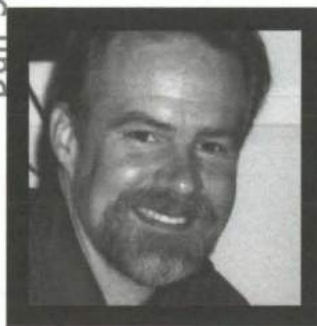
Will it last? Can the City Museum maintain their creative edge? Can they survive or is this a wonderful, but fleeting moment?

PAUL: I think the survival part of your question comes

down to money. Where it comes from and how it’s invested are usually the most influential elements for the survival of any museum. I don’t know anything about the finances of the City Museum but my guess is that the number of people paying admission at their front door is key to their survival. If people continue to come they will continue to survive. On the question of can they keep their creative edge? The City Museum has as big a stockpile of creative edge as I think I’ve seen. At this point in their life as an organization the pressures of maintenance, operations and sustainability are probably as much if not more on their mind as creative edge. I wish them success in this grand balancing act.

JAY: Here’s my hope-it-doesn’t-happen scenario for the eventual loss of the specialness of the City Museum: early success leads to pressures for continuing growth, which demands more and more money. Funding agencies are attracted by the museum’s renown, but before making commitments want to know “what visitors are learning.” Management shifts its attention from serving visitors to

Dan Spock



“If you ask yourself what any museum ought to be doing, which is to inspire a lifetime of curiosity and enthusiasm for life, learning and the world around you, I’d say the place scores.”



...serving funding agencies, and starts developing “curricula” to justify its exhibits in terms of “educational outcomes.” Soon the entrances to the caves are hidden behind copy panels explaining the processes of cave formation. Once visitors do find their way in, they see walls plastered with panels concerning the chemical composition of stalactites and the geographic distribution of caves in North America. The Elvis channeler is required to wear a tag stating “There is no scientific evidence for the authenticity of channeling spirits of the dead.” The witty warning label on “Corndog Mysticism” is replaced by a disclaimer noting that “This exhibit should be interpreted as ‘folk’ or ‘outsider’ art rather than as actual history.” School groups planning a visit receive advance curriculum packages on the economic impact of the shoe industry on St. Louis in the early 20th century. And so on, ad nauseam.

GENE: That’s precisely the kind of “lack of trust” I’m talking about. Not trusting the visitor to know that channeling isn’t real. Or not trusting the visitor to be able to lead a healthy, fulfilling life even if they do believe in channeling. Or not trusting the visitor to enjoy themselves in a cave, or understand something about caves, without being spoon-fed the Six Most Important Facts About Caves.

Fredie Adelman



“Ten [cab drivers] out of ten told me I couldn’t leave unless I’d visited the City Museum. Success? You bet.”

DAN: Jay, you’re kind of getting at what I’m afraid of. That pressure for legitimacy will spoil it. Another challenge will be keeping the thing fresh so folks keep coming back.

FREDIE: I think that as long as the staff remains engaged with the public the City will last. What makes the experience refreshing each time is that you never know what to expect. Yes, there is something comforting about returning to check in with one’s favorite diorama or painting... but here, your favorite whatever might be turned around or someone else might be able to tell a different story.

DAN: We’re gushing! Now did anything about the City Museum really suck?

FREDIE: I can’t think of anything that really sucked. But, some things could probably be improved... no smoking in the cafe, for one. Some kind of sound awareness—noise levels were the same all over and even kids were complaining that they were having trouble understanding some of the performers because it was so loud. I’m sure there are other things, but I only visited once.

DAN: Yeah. And I’m not sure I’d eat there. But I’ve had some wonderful meals at some terrible museums.

FREDIE: And if I find myself back in St. Louis, I’d definitely go back and visit again because I’d want to know how the place was getting along. During AAM I tried to get to as many local museums as I could (as I’m sure we all did and do.) But I have a good sense of what those will be like—in fact in any city, I know what to expect from the art museum, the science center, the children’s museum, etc. I have no idea what to expect at City and that’s what intrigues me.



Misunderstandings of Meaning Making

by Ted Ansbacher

Ted Ansbacher, principal of Science Services, is a museum consultant specializing in the application of experience-based education theory to the development of exhibits and programs. He served previously as director of exhibits at the New York Hall of Science and Industry. He can be reached at TedAns@aol.com.

The concept of visitor meaning making in exhibits is frequently misunderstood.

Traditional creators of museum exhibitions have generally viewed them as a medium of communication—a way to transmit information, convey messages, or tell stories. An exhibition was deemed successful if visitors “got” what the developers intended. *Meaning making* is a term which recently has come to represent an alternative view of exhibitions—conceiving them as rich environments that encourage visitors to observe, explore, experience, and inquire, and from this to make their own meanings. Such an exhibition is successful to the extent that visitors engage in these activities, and the emphasis is at least as much on the *making* as on the resulting *meaning*.

There is no official definition of meaning making, so it is open to interpretation and, inevitably, to misunderstanding. There are arguments for and against both types of exhibits, but when the traditionalists’ objections to meaning making are examined, many of them turn out to be based on mistaken ideas of what meaning making implies. Some of these misunderstandings are presented here, along with a corrected view.

Meaning making implies that all meanings are equally acceptable; anything goes; all knowledge is relative.

As its defining characteristic, meaning making recognizes that the meaning an individual makes—the outcome of mentally processing sensory input—is the only meaning valid for that person at that time. So in this sense there is no choice; each individual’s meanings must be accepted. But that does not imply that all meanings are equally “good.” Meaning making also recognizes that people with larger bases of experience and more sophisticated processing skills are able to pursue inquiry to higher levels and with greater rigor. In that sense, their meanings may be better than others, and all meaning/knowledge is not relative. An individual’s personal meanings can change, of course, and an important insight from meaning making is that the way to move people towards “better” meanings is not by simply telling them those meanings, but by enlarging their experience base and improving their mental skills.

Meaning making implies that individuals have to make meanings and create knowledge all by themselves. This seems hardly realistic; most people wouldn’t get very far.

In one sense, yes, an individual *is* the only one who can make his or her own meaning. But that does not imply it must be done in isolation or ignoring the rest of the world. Other people *can* help. For example, a teacher (or museum) can help by setting up an environment to facilitate particular experiences and then coaching the inquiry process. It is important to recognize, however, that it is the *process* that is being facilitated and not a predetermined outcome that is being imposed. Meaning making also does not rule out seeking additional *information*, including what is considered established knowledge. But it makes all the difference that the information is integral to the self-motivated inquiry and, again, is not imposed from the outside as an end in itself. An additional source of outside help, particularly important in museums, comes from a visitor’s discussions with others in his or her group. This social interaction not only enhances meaning making, it also, as an added benefit, increases its enjoyment.

If visitors are going to make their own meanings, interpretive labels no longer have a place in exhibitions.

It is true that *didactic* labels, so often the mainstay of information-transfer exhibits, no longer have a place. Labels that facilitate or coach engagement with the exhibit, however, have an important role to fill. They can do this by identifying what the visitor is seeing, instructing how to use working devices,



Labels are not there to convey what the exhibit developer hopes a visitor will learn from the exhibit, rather they are **to help visitors engage** with and derive meaning from the exhibit.

suggesting things to do and notice, raising questions, connecting to a visitor's previous experiences, and, yes, even making information available that might be of interest and extend the inquiry. But the labels are *not* there to convey what the exhibit developer hopes a visitor will learn from the exhibit. They are written from quite a different point of view, intended to help visitors engage with and derive meaning from the exhibit.

If visitors make their own meanings, many of them may come away from an exhibit with misunderstandings.

Actually, the possibility of misunderstanding is greater with exhibits that are trying to teach something, because in those cases there is only one right way to understand the exhibit compared to myriad ways to misunderstand. On the other hand, for an exhibit which has a primary goal of providing meaningful experiences, all degrees of engagement and meaning making are acceptable. The things that can go wrong with a meaning making exhibit are of a different nature. The biggest danger is that visitors may not fully engage with the exhibit and therefore not have much of an experience at all. The fact that some visitors will make meanings for themselves—personal meanings—which are not the same as the accepted meanings is of much less concern. Personal meanings may differ from accepted meanings for two basic reasons. One is that the visitor's skills are not sufficient to carry the inquiry process through to that level. The remedy would be to improve the visitors' skills and coach them through the process. A second reason visitors may fail to reach accepted meanings is that their experience is too limited. The meaning they make in that case would be more accurately described as a *limited* understanding than as a *misunderstanding*. (For example,

believing that the world is flat is a reasonable, but limited, understanding based on most people's direct experiences.) The remedy for this is to provide additional experiences, the very thing exhibits can do so well. In either case, the focus is on improving the inquiry *process* rather than correcting the outcomes.

The meaning making approach may work well enough for art museums, where judgments are subjective anyway, but not for science or history museums.

Someone voicing this objection is thinking of science and history museums as having established, objective information to communicate, in which case it would not be acceptable for visitors to invent their *own* science theories or their *own* versions of historical events. But instead, if the goal of a science museum is to make phenomena of nature accessible for exploration and to encourage inquiry, the situation is changed. Meanings like *I never saw that before*, or *That reminds me of ...*, or *I didn't expect that*, or *I wonder what would happen if...* are not only acceptable, but desirable. If a visitor has success in constructing some understanding of the phenomena, even if it is a personal understanding and does not match accepted scientific theory, that is a tremendously satisfying and positive outcome and a strong motivator for further inquiry. Likewise, if the goal of a history museum is to let visitors examine genuine artifacts, or to give them a sense of what living at some earlier period was like, or experience the kinds of tools that were used, this opens up the range of desirable outcomes far beyond just acquiring historical information.

Since people can get *some* meaning from almost anything, you could really just put any old artifact out on the floor and call it an exhibit. There doesn't seem to be a role any longer for curators and exhibit developers in shaping the content of exhibits.

John Dewey said, "The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative." Similarly, the belief that meaning is derived from exhibits does not mean that all exhibits are genuinely or equally meaningful. For a meaning making exhibit, the role for curators and exhibit developers is to give visitors truly *meaningful* experiences, which they do by creating an environment rich with opportunities for exploration and inquiry. The developer's focus does indeed shift from the informational content and what visitors will *learn* to the experience possibilities and what visitors will see and *do*. What can be seen and done must be specified in fine detail, and creating exhibits from this approach actually turns out to be *more* demanding of curators, developers, and designers.



Meaning making seems to cover the cognitive outcomes of exhibits, but what about the affective?

Meaning is a general term, not precisely defined, and can be interpreted in various ways. Some people hear *meaning* as being close to knowledge and understanding (cognitive); others hear it as closer to personal feelings (affective). There is no reason why it cannot include both. A key insight from the meaning making model is that there is no way to convey knowledge, understanding, or feelings *directly* into a person's mind. Whatever ends up in the mind—*meaning* in its broadest sense—is the result of a person's mental processes acting on sensory input, and this can be any combination of cognitive and affective.

Meaning making seems to cover the affective outcomes of exhibits, but what about the cognitive?

See above.

Meaning making exhibits may serve well as a starting point, but they can't take visitors very far in terms of "real" learning.

This is probably true for both meaning making *and* information transfer exhibits. (After all, how much learning of any type can take place in the few minutes spent standing in front of an exhibit?) However, if a visitor has engaged with an exhibit and has had new experiences, or seen some aspect of the world in a new way, or understood something as a result of his or her own inquiry, that is not only a valid and satisfying result in itself, it lays the foundation for further genuine learning—learning *with* understanding. Not only does this kind of exhibit provide a strong start for "real" learning, it also makes the best use of the unique strengths of museums.

engage visitors in meaningful experiences. What *name* is given to this kind of exhibit doesn't really matter. But what about standards and accountability? If the exhibit goal is meaningful engagement, then accountability lies in determining to what extent that has taken place, and engagement can be evaluated largely by observation, perhaps supplemented with visitor interviews. Whether or not it is *meaningful* engagement is a separate judgment, but criteria for that can be, and need to be, established. As for standards, such as those now being developed for schools, they include both *content* and *process*. What takes place at a meaning making exhibit can usually be matched to process standards. Specific content may be an *indirect* outcome of the exhibit experience; however, the extent to which that is realized will depend largely on followup to the museum visit. This does not invalidate exhibits as educational; rather it focuses on their strength—providing experiences which become the foundation for genuine learning. An exhibit experience can be an important *component* of learning, although it will almost never be complete in itself.

With misunderstandings cleared up, meaning making emerges as an accurate description of what visitors do at exhibits and as a model to guide exhibition development. Setting the overall goal as *engaging* visitors in meaningful experiences and focusing the developers on what visitors will be able to *see and do*, the meaning making approach should produce exhibitions that are enjoyable, meaningful, and memorable—something all museums can embrace.

The belief that *meaning* is derived from exhibits **does not mean** that all exhibits are **genuinely or equally meaningful.**

Meaning making just introduces another bit of "educationese" jargon, loosely referring to the feel-good approach to education—do whatever you want with no standards and no accountability.

There certainly is a danger that meaning making will join the list (or perhaps already has) of terms such as *discovery*, *hands-on*, *inquiry*, *constructivist*, etc. which are not well defined and are often preached better than they are practiced. One way to avoid this pitfall would be simply to stop using the term meaning making and instead say more specifically what we mean—that we are developing exhibits intended to



How Much Do Exhibits Cost?

by Jay Rounds and
Joyce Cheney

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A An informal survey found that exhibit costs are rising. How does your museum compare?

How much are museums spending on exhibits these days? We did an informal survey to check up on the “rule of thumb” figures that colleagues are currently using to project exhibit costs, as well as how those costs break down in different categories.

Costs of course vary widely, depending on the complexity of the exhibit, use of outside contractors, amount of new research required and other factors. In many small museums exhibits are done at remarkably low costs, though the actual costs are often understated because they ignore the use of donated or recycled materials and volunteer (or underpaid) labor. We focused on larger museums producing sophisticated exhibits, with additional input from a design firm and a fabrication house.

One mid-sized aquarium reported producing simple in-house exhibits (mostly flat graphics panels with a few electronic elements) for \$120 to \$150 per square foot. A science museum estimates \$150 per square foot for “flat photo-type shows.” All of our other informants figure on a minimum of \$200 per square foot for new exhibits, assuming basic casework and graphics with no interactive elements.

Prices soar with additional complexity. The mid-size aquarium budgets \$300 per square foot for exhibits with interactive elements and live animals. A large history museum plans on \$450 per square foot for its more complex installations. Most science centers are now budgeting over \$500 a foot for their typical hands-on galleries, and at least one has reported costs in the range of \$700. Jane Bedno, of the University of the Arts in Philadelphia, says that we can be expecting to see thousand-dollar-per-foot exhibits in the near future, if they haven’t arrived already.

A large state museum provided the following scale of per-square-foot costs:

- \$550 for interactive galleries
- \$400 for new galleries
- \$330 for outdoor exhibits
- \$250 for temporary exhibitions
- \$42 for updates or re-installations of existing galleries.

A \$1,000 per square foot exhibit is certainly imaginable currently.

—Jane Bedno

Where does the money go? Most informants estimated that from 15% to 30% of the total budget goes to design, with 25% or more being typical for most exhibits. The range varies depending on such factors as size of exhibit, degree of interactivity and whether the designer is responsible for research and copy writing.

A private design firm reports that the design fees it receives generally reflect the following allocation:

- 40% — research and conceptualization
- 35% — script and design planning
- 25% — supervision of implementation.



The aquarium breaks down its overall exhibit costs in six categories:

- 30% — specimens, models and photo fees
- 7% — equipment
- 8% — supplies and photo processing
- 25% — design and scientific artwork
- 20% — fabrication and installation
- 10% — maintenance.

Most museums are now planning for maintenance as part of the original exhibit budget. Our informants usually cited around 5% of the original fabrication budget for annual maintenance after opening, with some as high as 10%. In addition to this routine maintenance, some museums are also budgeting 5-10% for "remediation" or "immediate retrofit" in the first months after opening.

Do these figure tally with your own experience? Periodically *Exhibitionist* will publish updates

on how costs are running for new exhibits. Please write to Jay Rounds (rounds@umsl.edu) to pass along figures from your latest projects, as well as any other information that you think will be useful to colleagues in dealing with the always-challenging task of projecting exhibit costs. We look forward to hearing from you!

The hardware is the easiest element to estimate. The price of knowledge, ideas, vision-and the authority to enact it-is hard to divine.

—James Sims

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Multiply annual operating budget by .001. This formula is a requested fair share amount, which most AAM member institutions pay. By giving at the fair share level, institutions enable AAM to continue to offer superior programs, benefits, and services to all of its members. New member institutions are asked only to do what they can in light of their own financial ability and competing obligations. (Maximum dues are \$15,000, minimum dues are \$75)

Operating budget:

\$ _____ x .001 = \$ _____

Museum without paid staff: \$50

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