⩓INFORMAL LEARNING

CONTENTS

COSI'S EXPERIENCE TESTING STATION

Rita Deedrick

What is the COSI Experience Testing Station?

The COSI Experience Testing Station (ETS) is a visible area within (and sometimes outside) the COSI science center that makes explicit the "science behind the science" of COSI by testing concepts, language, signs, activities, and other elements of visitor experiences directly and visibly with COSI visitors. As much a concept as a physical space, the COSI ETS is mobile and can be moved anywhere on or off-site and sized to meet the need of a particular test. The physical materials are simple: two signs; a sign holder; rope stanchions to demarcate the space to fit the need of the test; one or two small "cabaret" type tables to hold supplies; and a 4" x 6" whiteboard on wheels (this large piece, while easy to move around the COSI facility, does not travel for off-site tests). Depending on the test, additional

tables and supplies like easels, foam core boards, etc. may be used.

While certainly not the first "fishbowl" type of area used by a science center or other informal learning environment to test experiences, the COSI ETS is unique in its mobility and flexibility, and it represents an important shift in thinking at COSI about how to develop experiences and what constitutes a visitor experience.

Why is the Experience Testing Station important to COSI?

Real data/intended audiences. First, the COSI ETS enables COSI to use data to inform experience development in a way that has rarely been done before. COSI has a long history of developing and presenting programs and exhibits. However, the use of data gathered directly from visitors (or potential visitors) to inform development has been sporadic and always "behind closed doors," detached from the notion of a COSI visit experience. This prevailing philosophy

THE NEW ACROPOLIS MUSEUM - GREECE CELEBRATES

Robert Mac West and Jean S. West

After many years of planning, disputes and lawsuits, and unanticipated archeological discoveries, the new Acropolis Museum opened in Athens, Greece, on June 20, 2009. We had the delightful opportunity to visit it on August 28, 2009 – ten weeks and 523,540 visitors after the opening.

This commentary includes a discussion of the history and setting of this extraordinarily important museum, a walk-through with our comments and observations, and a series of thoughts about issues within and provoked by the new museum.

The Acropolis itself, rising to 500 feet above the city of Athens, has been the site of significant public buildings central to the religious and political life of Greece since Neolithic times. The current array of structures was begun in the 5th century BC as replacements for those destroyed by

the Persians in 480 BC. The symbolism is powerful, as the current Parthenon includes foundation blocks of the ruined original temple to Athens' patron goddess, reminding Athenians of the dark events of their past as well as their architectural and cultural triumphs.

There has been a formal museum atop the Acropolis, adjacent to the Parthenon, the Temple of Athena, since 1865. This was a modest facility, some 15,500 square feet, with approximately 450 objects on display. The 19th century building lacked even elementary environmental controls and was tired when Jean first visited it in 1973. It was even more so when we both toured it in 2000.

The replacement is a totally different story. It is located at the southern base of the Acropolis, some thousand feet from the Parthenon but the temple remains in full view. It is some ten times larger, displays over 4,000 artifacts, is fully environmentally controlled, and the exhibits are bathed in natural light. While some of the objects are well-known (such as the pediment of the Archaic Parthenon, various of the Parthenon friezes, the

of experience development has been likened to an artist who does not want the piece revealed before it is finished - a so-called "white veil" approach to experience development. Certainly many organizations such as Disney use this approach to their advantage. But the drama and excitement that can be generated from such an approach comes at the cost of leaving the audience out of the development process and the risk of developing experiences that may, in fact, not be the best they can be for the intended audiences. It can be argued that not-for-profit organizations have an obligation to involve their publics in the development process, and that "artist's privilege" has no place in an organization whose mission is to serve its constituents.

The COSI ETS makes input from the public - real data - easily available to COSI program and exhibit developers. With the help of in-house researchers, tests can often be planned, implemented, and documented within several days. ETS tests are designed to be quick-turn; a small amount of data can be a great help in informing decisions at important milestones in a project. ETS is relatively inexpensive, fast, and accessible - though not completely free of costs, a notion which will be addressed later. Great effort has been made at COSI to make the ETS "painless" for experience developers so that they may see visitor studies through the ETS as a regular part of the development process.

Awareness of visitor studies. Another reason the ETS has become so important to COSI is that the COSI staff at all levels of the organization have new awareness of the role of visitor studies in general - and data in particular - in experience development and implementation. Because the ETS is highly visible to the staff as well as the public, and because COSI invited input into the evaluation of the ETS pilot from all staff, the staff is fully aware of the ETS and for the most part sees its value to COSI. To keep this awareness top-of-mind, each ETS test is communicated to the staff through various internal communication channels. This not only serves a practical operations function ("hey, we're going to be taking up some space in the atrium today"), but keeps the staff con-

stantly reminded of the importance of data collection and analysis to inform all of our work. Indeed, many staff members stop by the ETS during tests to see what's going on. Whenever possible, researchers take the time to chat with staff members and always invite them to stay and watch.

A new kind of visitor experience. A third reason that the ETS is important to COSI is a shift in attitude about what constitutes a "visitor experience." That is to say, the ETS itself is now recognized as a legitimate visitor experience. This resulted from initial pushback by the COSI staff on the ETS being disruptive to the visitor experience and not "attractive" enough to be on the exhibit floor - a distraction rather than an attraction. The team members testing the ETS took these comments to heart, knowing that addressing these satisfactorily was the only path to leaving the "white veil" philosophy behind. To that end, effort is made to present the ETS as an experience in and of itself. For example, COSI had signs (a 22" x 28" that fits into a standard, stand-alone sign holder, and a 1" x 6" permanently attached to the top of the whiteboard) professionally designed and produced and these are always present to clearly identify this experience. These signs and their design are in effect becoming a sub-brand within COSI to represent this particular experience. Thought has been given to other staff suggestions such as costumes (e.g., a lab coat with our sub-brand graphic) and even a mascot (the latter is somewhat in jest, but has not been completely ruled out).

Participating = relationship development. A fourth reason why the ETS is important to COSI comes from data gathered during the pilot of the ETS. During that time (August 2008), COSI asked all visitors participating in ETS tests to answer some additional questions about the ETS experience. Many of the visitors interviewed stated that the ETS made them feel part of COSI and that they liked the fact that COSI invited the community into the

development process. These comments came from both members and non-members of COSI, and are a key to COSI's continuing quest to deepen relationships with people in our community. For example, a non-member who participates in an ETS may consider becoming a member of COSI because they now feel vested in the organization; a COSI member may upgrade their membership because they feel involved in improving experiences. We have no evidence that this has taken place, but it is clear that most people feel "involved" in COSI from having participated in an ETS test.

COSI staff instruct visitors on activity to test ideas for global warming exhibit.

Better experiences are created. The primary reason for conducting tests on any experience element is to ultimately develop "better" experiences. "Better," of course, is subjective and implies a need for improvement - how does one really know what is "better?" The ETS at COSI provides a platform to systematically gather data to inform decisions - "better" becomes clearer through data.

A case in point was a test of language for signs to be placed in COSI restrooms (yes, restrooms can be "experiences"). The primary purpose of these signs was to explain why COSI no longer provides paper towels and the secondary messages were COSI's sustainability stand and COSI's concern for visitor comfort and safety. There was considerable angst on the part of the COSI staff that this change was going to be difficult for visitors, and that no amount of signage would alleviate the perception of poor visitor service. Could "the right wording" really make a difference? Through the

ETS, COSI asked visitors to compare three different versions of the sign and asked: "Which of these best conveys some new information about COSI's use of paper towels in the restrooms?" and "Why?" Although two of the three versions tied for the number of "best" votes, the responses to the "why" question tipped COSI to the version with more empathy for the visitor. This sign was chosen, and in the six months since the paper towels have been removed from the restrooms, there has been only one official visitor complaint. The ETS test helped COSI manage change (for both our visitors and our staff) by informing the choice for the better language.

Another test involved the title of a proposed new exhibit area, "Labs in Life," which is a collaboration between Ohio State University researchers and COSI, where university scientists conduct research at COSI in view of visitors, and sometimes with visitors. The "Labs in Life" name became ingrained in the COSI vocabulary long before the project was made public. Was this name we were so used to using really appropriate? What images and expectations does "Labs in Life" conjure for our visitors? COSI ETS used concept mapping to test the "Labs in Life" title. While this test did not reveal a "better" name, it did give COSI ways in which to address expectations. Overall the data revealed concepts in line with the

"Labs in Life" title; however, the word "Labs" for some means beakers and Bunsen burners, and for other - dogs. The popularity of Labrador Retrievers made its way into several concept maps; it seems that some were ready for an exhibition on "man's best friend." This ETS test assured COSI that with a little message management, the "Labs in Life" title was suitable for the new exhibit area.

Why does the ETS work at COSI?

There are several factors contributing to the success of the development and implementation of the ETS at COSI, including the involvement of key people in the development of the concept; the timing of the implementation of the ETS during a period of change at COSI; and the careful piloting of the ETS before claiming it to be a continuing part of the COSI development process.

Key players. The idea for the ETS came from within the division at COSI that develops exhibit experiences. John Shaw, COSI's Director of Exhibit Operations, engaged in a conversation at the American Association of Museums annual meeting in Denver about a desire to both do more exhibit and experience testing with visitors and to make more obvious the evaluation and visitor studies work that we do. From this, the "fishbowl" idea - where visitors can both participate in and observe research -

emerged. The realization that data collection didn't have to be complicated, and there needn't be dedicated space, spurred Mr. Shaw into suggesting the fishbowl idea to his exhibits colleagues.

An additional factor in the creation of the ETS at COSI was COSI's partnership with The Ohio State University, and specifically the creation of the first university extension office located at a museum. *OSU Extension@COSI* is embodied by Dr. Joe Heimlich, an Ohio State University professor, who had established an office in the COSI facility just prior to the "fishbowl" idea coming to light. Dr. Heimlich recognized the potential in the idea and proved to be an important catalyst in implementing this change. Dr. Heimlich's unique role of being both an "outsider " and an "insider" to COSI placed him in a position both of authority on the matter of visitor involvement in experience development and of trust in knowing what is good for COSI. His endorsement of the idea helped to encourage the exhibits department's willingness to test the idea and brought the matter to the attention of COSI management.

Timing and culture change. While key players worked to create the ETS, the timing of the idea is also a crucial factor in the success of the ETS. COSI - like so

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many organizations - was (and still is) undergoing tremendous change including significant change in the culture underlying much of the work of the science center. This change is part of the normal evolution of any organization, and was sparked at COSI by its facility move in 1999 and more recent change in senior administration. Organizational change on this level is never easy, fast, or predictable, and new ideas can fall flat if not presented within the right configuration of circumstances. Nevertheless, the idea of the ETS came at a time when the science center departments responsible for the development of programs and exhibits were ripe for ideas and open - if tentatively - to suggestions for change. Care was taken for the ETS idea to be led through a deliberate decision-making process, and piloted before any conclusion could be drawn about its success or continuance at COSI.

The pilot. By conducting a pilot of the ETS, COSI modeled the very thing that the ETS was implementing. The first step in the creation of the ETS occurred several months before the ETS concept was fully formed when a COSI developer requested help in testing a computer game prototype for a new exhibit. The COSI research staff developed a protocol for testing, collected data by observing and talking with test subjects, and analyzed data and presented the findings to the developer. This all occurred within several days and proved valuable to the continued development of the game. Without knowing it (or naming it), we had conducted our first ETS test, though with some important differences from today's ETS; for this first foray into testing, our subjects were COSI staff members, and the test was conducted "behind the scenes" out of public view. Even with these differences, all COSI staff involved in the test recognized the possibility of doing this on a regular basis and the value of the results. However, there was still considerable hesitation to take testing out into the public, but that is the leap of faith that the value of this first experience allowed.

For the month of August 2008, COSI conducted eight tests under the "Experience Testing Station" name in the atrium of the COSI facility. During this time, we developed a planning template and documentation guidelines for each experience, gathered (in some cases borrowed) materials to set up the ETS, and began working with the COSI operations staff to secure space and to be sure that these tests could be incorporated into COSI daily operations.

From a research perspective, we took this time to shape systems and processes for testing. For example, we assigned a researcher (one of three COSI staff/partners trained and experienced in visitor studies) to each test to develop the protocol, analyze the data, document the findings, and oversee the test in general. In many cases the researcher was also the data collector, though all three researchers collected data for each other's tests, and we also hired college students to help collect data during the pilot.

Each test also had one staff member named as the internal "client." Though these staff members often involved other staff members in the test, we felt it important for the researcher to have one staff member who was ultimately accountable for the test, and to mitigate any potential internal conflict among staff members about the test or the experience development. This staff member also had responsibility for preparing materials (i.e.,signs to be tested and providing language for concept testing, etc.) and helping with any logistical challenges in getting set up. The "client" was not permitted to collect data directly, but was invited to observe the testing in action. (Interestingly, most "clients" deliberately stayed away from the testing in progress as they recognized that their biases or

COSI staff interviews visitors at ETS.

emotional responses could influence the testing; "clients" were invited to observe, but never pushed to be involved in the actual test.)

Also during the pilot, we systematically collected data about the pilot from visitors who participated and from COSI staff. For the visitors, a short interview was conducted with each visitor asking why they thought COSI was doing this kind of work and what they thought about being involved in it. No responses were negative, and responses ranged from mild interest to feeling it important to involve others in decision-making.

For the COSI staff, a one-page questionnaire was developed asking a mix of scaled and open-ended questions about the value of the ETS, the impact of the ETS on the visitor experience, and how they believed the ETS could be made more useful for COSI or more interesting for visitors. Researchers pro-actively handed the questionnaires to all staff members who were observed in the vicinity of the ETS and also invited the staff through numerous emails to complete the questionnaire (an on-line version was also made available) or otherwise relay their comments about the ETS pilot. Although a minority of staff actually completed the questionnaire, it was important that all staff had ample opportunity to voice their opinion about the ETS pilot. The results of the questionnaire were mostly positive as to the value of the ETS, but there were lingering concerns about the immediate impact of the ETS on the visitor experience. These were that the ETS looked "temporary" and was not in alignment with the graphics and presentation of other COSI experiences. While some staff members accepted the ETS as "it is what it is," others felt that the look of it needed to be brought up to COSI's graphics standards. The result of this was the creation of professionally produced "look" for the ETS in the form of the signs that are now consistently used to identify the ETS experience.

This thoughtful and deliberate vetting of the idea and pilot testing allowed

the "fishbowl" idea to take root, and gave COSI insight into how to make the ETS work in the real environment.

What are the present and future of the COSI ETS?

While the ETS has been in existence for just over a year, there are still challenges to be addressed and future potentials to be considered.

Cost and capacity. The material cost for the ETS is minimal. The original set up cost was just over $100 for supplies, albeit the ETS still depends on the use of shared resources such as the sign holder and stanchions (the mobile whiteboard was donated by the programs team and the ETS has since purchased its own cabaret tables). However, the true cost of the ETS is in the time it takes to develop and implement each test. The paradox of the ETS is that it is designed to be easy and quick-turn, and compared to most research or evaluation projects, it is, but the reality of time as a limited resource must be taken into account. An analysis of recent ETS projects shows researcher time at about 8 to 12 hours for a typical ETS project. This includes the initial conversation with the "client," identification of the research question, development of the protocol and instruments, gathering of materials, setting of the logistics (including finding data collectors, if needed), collecting data, analyzing data, documenting results, and debriefing with the "client" - all well worth the time, but not without some scheduling hassles. The 8 to 12 hours of researcher time is typically spread over a week or two, depending on how quickly the "client" needs the results. (The fastest ETS was conceived, implemented, and debriefed within a four-hour period, but that was far from typical and necessitated some fast reworking of schedules.) With a small research staff, anchored by only one full-time COSI team member, there is inevitable negotiation on the timing of the ETS. This is a delicate dance as the value of the ETS is in fast results, but not everything can be put aside for an ETS request.

Garnering help for the actual data collection takes some pressure off of the researcher, but that, too, is challenging when a development budget doesn't allow for hiring of hourly help (i.e., college students) or the help simply isn't available. There is an effort underway at COSI to develop data-gathering capacity among staff, but time resources are tight in every department. One positive development is that some internal clients have become savvy enough about the use of data to be able to assist with their own data collection. While this is fraught with concerns about objectivity, COSI is also carefully looking at this as a possible turning point for staff development in the greater area of experience development with the goal of developers being more involved in evaluating experiences. ETS tests and other evaluation activities will always have oversight of a researcher not directly involved in the project development; however the ultimate goal at COSI is a staff knowledgeable about visitor studies and able to engage in visitor studies for their own work on some level.

Nevertheless, until time and capacity issues can be further resolved, the COSI ETS must be careful to avoid being a victim of its own success.

Revenue generating resource. During the ETS pilot, one of the eight tests was a concept test for a client from another museum. This, in and of itself, was a test of the ETS as a possible resource for those outside of COSI. This particular ETS test was successful in two important ways: 1) like the other ETS tests, it produced results for the client that helped

inform decisions about a project, and 2) there was no negative impact on the COSI visitor experience in helping develop a concept for another museum (the other museum was not named, so it is unclear how aware ETS subjects were that they were helping another museum).

COSI is considering whether or not the ETS can be expanded for use by outside clients, and whether or not such use can be a revenue source for funding research and evaluation at COSI. Certainly fees would have to cover the cost of the ETS itself, but could enough revenue be generated to support other research and evaluation at COSI? Could we reach a financial tipping point when COSI could afford a full-time manager of the ETS, allowing the ETS to be more readily available to its own staff? And what criteria should be established for the kinds of things that would be tested at COSI? Would tests always have to be related to science or learning, or could COSI justify non-related product testing by continuing to present the ETS as science in action? Like the initial development of the ETS, these questions will have to be carefully considered and thoroughly tested.

At the end of a full year of experience testing at COSI, the advantages far outweigh the disadvantages. While challenges in capacity and scheduling persist, the change in the perception of the role of visitor studies, the accessibility of useful data, and the willingness to expose COSI's research and development work are reflective of greater change at COSI. In its own way, the COSI Experience Testing Station represents COSI's shift in its overall way of doing business - being more systematic in data collection and use as well as a renewed drive toward creating and delivering cohesive messages and experiences that are truly visitor focused and data informed.

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COSI visitor organizes messages that test global warming exhibit.

Caryatids from the Erechtheion), others have been in storage and never accessible to the public. Still others come from the excavation of the site during construction of the museum building.

The Acropolis Museum is unique among major art/history/archeology museums (e.g., the Louvre, Paris; the British Museum, London; the Metropolitan Museum of Art, New York; the Art Institute of Chicago; Los Angeles County Museum of Art; the Indian Museum, Calcutta; and the Art Gallery of New South Wales, Sydney - to name just a few) in that it includes only materials from a single archeological site, albeit a long-lived and extensive one.

Although the media frenzy that accompanied the opening tended to characterize it as an art museum, it really is much more - it is a fabulous amalgam of art, archeology, anthropology, local and regional history, and is a significant national monument.

The new Acropolis Museum was a long time in the making. Initially conceived and announced in the '70s, the architectural competition was not completed until 2001. The architectural style was deemed by many to be far too modern for either the site or the subject and there were significant disputes over location off the Acropolis itself, which necessitated property condemnations and multiple lawsuits. Over 25 early 20th century apartment building have been torn down, most after extended legal condemnations. Two more buildings remain immediately in front of the main entrance to the museum; the museum is attempting the have them removed as well in order to have an unobstructed view of the Acropolis from the lower levels of the museum. Prior to the start of construction, a remarkable archeological site spanning 3,500 years of human habitation was discovered directly beneath the building itself that, after challenges from archeologists, was excavated and stabilized as part of the architectural program and now is a vital part of the museum's interpretive program.

Construction took several years, given the archeological obstacles and challenges, with the building completed in 2007.

Then the painstaking transfer of objects from the old museum next to the Parthenon took place. This required use of major large equipment and extremely careful attention to the packing of incredibly priceless objects. This was successfully completed in 2008 when the museum opened to limited public viewing. Finally, the entire €130 million project was completed and opened to the public on June 20, 2009.

The Acropolis Museum Experience

As we initially approached the museum, it was clear that it is an architectural anomaly, an ultramodern insertion into a late 19th-early 20th century neighborhood. It doesn't fit well but, with its immediate success at bringing Athens' past to its present, it's just fine.

This is not an architectural review, but we (like many others) compliment the architects on a masterful design. The designer of the building is Bernard Tschumi Architects of New York and Paris, with Associate Architect Michael Photiadis, ARSY, of Athens. They did a remarkable job of designing a museum that is accessible, celebratory about Athenian culture, light and airy, and appropriately oriented toward and reverential to the Acropolis, the Parthenon, and the long history of Greek civilization. This is done despite its intrusion into a traditional residential neighborhood.

The triumphs of the building are that, first, it doesn't get in the way of the visitor experience; second, it facilitates some very useful and interesting insights into the Acropolis and its neighborhood - past and present; third, it protects and illuminates objects of immense heritage value; and fourth, by bathing those objects with natural light in large open spaces, provides very unique visitor experiences with them. Finally, it takes full advantage of its site, only 1,000 feet from and with spectacular views of the Parthenon atop the Acropolis, to give this museum a presence and a singular interpretive opportunity.

The arrival at the museum sets the stage for the visitor experience. We walked from our nearby hotel up Akti Mitsaion Street on the west side of the north-facing museum. It was immediately clear that the museum is a slab held up by a forest

of cylindrical columns (actually 43) which elevate it above a remarkable and dense urban archeological excavation. And even if the visitor's initial approach is directly into the front door of the museum from the Acropolis (north) side, the excavation is visible from the entrance plaza. In fact, transparent panels (with painted black dots to assist those with vertigo) in the plaza itself reveal the excavations, as does a large opening only a few yards from the building entrance. Thus, even before entering the building, visitors have a sense that the experience ahead of them will be unusual.

The archeological site beneath the building exposes an Athenian city occupied from the 5th century BC to the 12th Century AD. The magnitude of the site was certainly not anticipated by the local archeologists who now are reveling in the remains of residences, wells, and streets as well as items of daily life including coins, vases, cooking utensils and children's toys - to say nothing of a well-preserved 4th century marble bust of the philosopher Aristotle.

Excavations continue, and the museum plans to open the site to visitors via carefully constructed and located walkways within the next year.

Even before passing into the formal exhibitions, one encounters a non-narrated series of video clips that show the construction and occupation of the building. Significant segments are devoted to the physical transfer of signature objects from the old museum, down the steep hill, and into the new facility. This several-minute-long video responds well to that frequent (but almost always unanswered) visitor question: "How did they do that?"

There are four primary exhibits in the museum building in addition to views of the archeological site:

The Slopes of the Acropolis

The first gallery is broad and upward sloping, suggestive of the lower slopes of the Acropolis hill where the museum is located. Glass cases on both sides are packed with objects that represent urban life of Athens from several thousand years B.C. to at least the sixth century A.D. They are organized by their functions in every-

day life, so there are clusters of items used in cooking and eating, medical devices, objects used in wedding ceremonies, oil lamps, children's toys, jewelry containers, and so on. Many of these objects were recovered from the archeological site beneath the museum.

As one looks forward, up the gentle stairs, one sees the remains of the pediment of the archaic Parthenon of about 570 B.C. Looking back from the base of that pediment, a balcony overlooking the sloping gallery holds five of the six caryatids that originally stood on the south façade of the Erechtheion about 420 B.C. The sixth, which was removed in 1801 by Lord Elgin and ultimately placed in the British Museum in London, is conspicuously absent.

Archaic Gallery

The Archaic Gallery presents objects from the 7th century B.C. through the Persian Wars of the 5th Century B.C. While small bronze objects are displayed in conventional glass-fronted cases, the sculptures are fully viewable in the abundant natural light, open and accessible. One can walk around each sculpture to fully appreciate its details and artistry. The whole gallery feels like a giant chessboard, with the visitors dwarfed by the objects on display. This is the pre-Parthenon period and the Acropolis was well-established as the focal point of religious and civic life. It places the development of Athens in an international context and points out the constant tension with the Persian Empire.

Classical Gallery

At the west and north side of the first floor are replicas of the other 5th Century B.C. structures on the Acropolis - the Propylaea (Entrance Gates), the Temple of Nike, and the Erechtheion. It is a true pleasure to be able to study the replicas of the sculptures on these temples up close and personal, which one cannot do on the actual temples on the Acropolis. As mentioned earlier, the Caryatids on the Maiden Porch of the Erechthyeion overlook the sloping gallery and face the Archaic Pediment - obviously positioned for maximum effect.

This gallery carries the history forward from the rebuilding of the Acropolis in the

late 5th Century B.C., after the Persians sacked and burned Athens. As one walks through this galley one can see how the artistic style of the sculptures changes from the formal stiff poses if the Archaic Period to the more realistic and fluid poses of the Classical Period. The end of the gallery has some exhibits of coins and other non-sculptural objects dating from the Hellenic and Roman periods to the 5th Century A.D..

Parthenon Gallery

The top floor is a very precise (dimensions and compass orientation) representation of the actual Parthenon. This allows those elements of the friezes, pediments, etc. that remain in Greece to be faithfully placed. Unlike the presentation of the Parthenon Marbles in the British Museum which are at eye-level on an inner wall, the Parthenon Gallery has them facing in the proper direction and at the proper level from the ground. A dramatic visual distinction is drawn between those pieces and fragments that are original (darker color, as the marble has not been cleaned) and those which are the half-thickness flat white plaster casts of pieces in the British Museum and a few other locations. The fact that substantial amount of the sculptures are located elsewhere is noted on the informational panels which mention either an Acropolis catalogue number or a simple BM or a notation of another museum such as the Louvre or Copenhagen.

A continuously playing 15-minute video, alternately in Greek and in English, shows the lengthy history of the Acropolis with special focus on the Parthenon building. Multiple events - construction and centuries of use as the temple to Athena, conversion to a church in the 5th Century AD, then to a mosque, use as an ammunition dump and destruction by a Venetian cannon-shot in 1687, stripping of much of the exterior by Lord Elgin in 1801-1804, are documented.

In late July the Church of Greece complained that a 12-second segment of the video depicted Christian clergy vandalizing the Parthenon in the process of converting it to a Christian church in the 5th Century AD. The film-maker clarified that, although the figures are robed, they represent common people, not clergy. The

segment, which had been removed, was immediately returned.

Our Reactions

The new Acropolis Museum displays a large number of previously inaccessible specimens very well along with featuring several of great cultural and political significance. There are numerous interesting stories interwoven with these objects - artistic styles, cultural references (mythology, religion, ancient and modern history), materials used, etc. The broad open spaces of the Archaic and Classical galleries encourages visitors to explore, view objects from multiple directions, make connections between and among the objects, and follow a general chronology. The abundance of natural light places the sculptures in setting similar to their original locations and avoids the standard museum directed light approach.

The building is remarkably transparent. Not only are there numerous exterior views of the Acropolis, the surrounding neighborhood, and the archeological site, but there also are views between the various levels of the museum. This encourages visitors to be aware of other elements of the museum as well as those visiting the other galleries, both above and below them. (However, the clarity of views of visitors walking directly overhead led to an almost-immediate ban on photography. The purpose of the photographic ban is not to protect the objects on display, already bathed in light for many centuries, but to discourage inappropriate viewing of visitors from below. It took examination of museum reviews to discover the rationale for this ban.)

The floor staff is ubiquitous but unobtrusive, helpful, and multi-lingual.

The Acropolis and the Parthenon, as well as the archeological site, are visible from numerous locations including from a delightful indoor/outdoor café on the second floor. Unfortunately, it is not immediately clear that the Parthenon Gallery is a faithful reproduction of the dimensions and compass orientation of the actual Parthenon, thus accurately placing the friezes and sculptures in context. When one, well after the fact, looks at aerial pho-

tographs of the Acropolis Museum and its Parthenon Gallery as they currently exist, the parallel positioning and sizing of the Parthenon Gallery is immediately apparent. This makes the positioning of the friezes and sculptures all the more significant.

We regret the absence of more information about the practice of archeology and the specific challenges facing archeology at a place like the Acropolis. The objects on exhibit come from a variety of sources, often found well removed from their original location because of intervening events, and require different excavation, preservation and conservation approaches. This seems to be a significant missed opportunity. However, when the archeological site is made more accessible to the public within the next year, perhaps more attention will be given to the science of archeology.

Given the prominent role of the Parthenon (née Elgin) Marbles in the ongoing controversies over the repatriation of cultural and other significant objects, artifacts, specimens and works of art, we were surprised at the low-key treatment of the removal of the marbles in 1801 and how the absent elements of the Parthenon are so modestly identified by the acronym BM (British Museum) on the labels. The missing caryatid statue in the Erechtheion gallery is a bit more "in-your-face." Museum and government officials have not been reluctant to use the high quality of the new facility to put pressure on the British government to return the objects currently in London. A future article in the ILR will be a broader discussion of the repatriation issue.

Our Concerns

While very informative, the wall-mounted information panels (in both Greek and English) in the Archaic and Classic galleries do not enable the visitor to connect well with either the nearby, and presumably relevant but minimally-labeled objects, or the several physical models depicting the architectural evolution of the Acropolis (none of which had any labeling, indicating neither the time period represented nor the identification of the structures). Thus, many interesting and useful historical, cultural, and artistic con-

nections potentially are missed.

The object labels frequently are placed at the side and/or very low on the pedestal as one views the object head-on, making them very hard to read from a normal standing position. Further, the longer explanatory panels always have the Greek at eye level and the English at waist level. Thus, the English panels frequently are obscured by visitors reading the Greek panels. Perhaps duplicate, reversed-position, panels would be useful.

There is very limited seating in the galleries. The architect freely admits that he does not like designing gallery seating but it is an essential amenity which materially improves the visitor experience, especially in such a sensory-rich environment.

When leaving the Archaic Gallery, the subsequent visitor path is unclear. Escalators can take one up to the Parthenon Gallery on the 3rd floor. Or, one can continue the chronological tour on the 1st floor by visiting the other 5th Century B.C. Acropolis temples plus the Hellenistic and Roman exhibits extending up to the 5th Century A.D. If one decides to go directly to the Parthenon Gallery first, it is necessary to return to the first floor to complete the chronology. However, this means that the visitor does not experience the temples in the same order as they are on the actual Acropolis.

Given the multicultural audience (some sixty percent of the initial months' visitors were international) as well as its very substantial age ranges that is attracted to this important museum, the current apparent absence of a multilingual audio tour is unfortunate. We hope that this is due to the relative newness of this museum and that the Acropolis Museum soon will take advantage of the numerous communications and information channels potentially available to it. Also, the substantial number of younger (pre-teen) visitors would benefit from touchable objects and/or interactive displays.

With the relocation of the New Acropolis Museum to its location at the base of the Acropolis and, in fact only a few minutes walk from the Acropolis itself, it is extremely important that its visitors are encouraged to visit the actual Parthenon and related structures atop the Acropolis.

While the current admission of €1 is a strong incentive to enter the new museum, some joint ticketing arrangement with the Acropolis itself is highly desirable. An in-person visit to the actual Acropolis, including the Parthenon and associated temples, is a vital complement to the formal exhibits of the Acropolis Museum. The original Acropolis Museum facility still is there and has been repurposed into a storage and restoration operation.

Acknowledgements

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THE NEW ACROPOLIS MUSEUM

Entrance to the new Acropolis Museum

Acropolis Museum from the base of the Parthenon.
Note remaining apartment buildings obscured by trees

Aerial view of Parthenon and new museum

The Parthenon from the second floor plaza

Pillars hold museum building above archeological site

Archeological site visible through opening in entry plaza

THE NEW ACROPOLIS MUSEUM

Transparent panels over archeological site

Original Acropolis Museum at base of Parthenon

Objects displayed in original Acropolis Museum

Looking down into the Slope of the Acropolis gallery; Caryatids on the second level

The five Caryatids

Everyday objects exhibited in the Slope of the Acropolis Gallery

THE NEW ACROPOLIS MUSEUM

Archaic Gallery

Parthenon Marbled displayed in the British Museum

Parthenon Marbles displayed in the old Acropolis Museum

Detail of a Parthenon frieze

The Parthenon Marbles as currently displayed

Close-up of friezes. Note the color difference from left to right.

RISK & REALITY A COLLOQUIUM SPONSORED BY THE JOHN F. KENNEDY UNIVERSITY MUSEUM STUDIES PROGRAM

Susan Spero

Why Risk Now?

The real world catalyst underlying the Risk & Reality colloquium held at The John F. Kennedy University on May 30, 2009, happened over two years ago at a conference when I heard edgy frustration from former students and other emerging professionals. I listened to stories of blocked plans: the risk levels surrounding their innovative ideas seemed too high for those above them who had control and power over their projects. Some of these professionals choose to move forward anyway with the hope that asking for forgiveness after the fact would work. For others, the barriers seemed impossible to penetrate. While this wasn't the first time I was hearing complaints, the frustration level was mounting, and the plea for support seemed more pressing than before.

A large part of my work as a faculty advisor is to encourage others to take chances. "There is a difference between stupid and risky," said Larry Johnson with the New Media Consortium (personal communication, 2009) and it sums up one of my major views about risk. For me taking risk requires forethought, but as you take risks, you grow. In the context of a progressive museum studies program that pushes innovative theory and practice my own mandate seems clear: How can we support the process of making change, which often includes practices that are not fully proven, and by extension risky?

One way is to talk openly about it to better understand how risk-taking exists in our field. For a full five hours during the colloquium, students, faculty, alumni, friends of the department and invited guests honed in on risk and its ground-

ing element, reality. We explored how risk plays out in museums, be it at personal, institutional, or field-wide levels, and noted how in a time of budget slashing and political maneuvering the capacity to take risk is challenged. We puzzled over how museums approach risk in varied ways. Some museums embrace it to go in new directions while others seem to avoid it due to their fear of failure and loss. And we wondered: How can we define risk? What is our own relationship to risk: do we embrace risk, reject risk, or relate to risk somewhere in between?

The colloquium was a logical venue to explore risk since its open discussion platform combined with non-academic speakers offered a good mix for investigating this pervasive yet vague idea. We had a chance to tease out nuances surrounding risk. Since the format pulled in multiple varied voices and diverse perspectives we edged toward some truths about risk taking, although many of the emerging truths took the form of more questions for our field.

Earlier colloquium presentations had taught us that participants most value discussions and small group experiences, so we designed all facets of the day to encourage conversation. Believing that a mix of perspectives would help us garner deeper understanding we sought one speaker who works within a museum, Robert Garfinkle, from the Science Museum of Minnesota, and another who works from the outside, Executive Producer of Los Angeles based Cinnabar, Jonathan Katz. To guide what would be both a complex, and heartfelt discussion, we brought in a facilitator, former Museum Studies Department Chair, Gail

Colloquium facilitator and speakers, Gail Anderson, Robert Garfinkle, and Jonathan Katz. Photo by Palma You.

Anderson, President of Gail Anderson and Associates. Offering gentle humor and measured timekeeping Gail helped gather the group's insights on an abstract idea and move us through a packed agenda. JFKU faculty member Brianna Cutts also served as a sounding board for the conceptualization of the event, and as important scribe through the day. All of these players contributed to the solid impact of the effort.

Weeks prior to the colloquium we asked participants to send us thoughts and questions about risk. The length and provocative nature of them was an early indicator of how risk hits a nerve. A few pulled phrases illustrate: *Risk [is] challenging yourself and other staff outside of comfort levels to create interesting (something) for the first time, only to see other museum colleagues critique it harshly. Reality: Will the museum staff try again after seeing the criticism? And another: [I am] thinking about risk from a money/development standpoint:I think money is one of the main reasons that museums are afraid to take risks sometimes, whether it be risks with their collections, risks with the exhibitions that they put on…. I might go as far to even say that funding can be one of the obstacles at all levels that museums are slow to change...but I don't know if I want to say that.* These sample comments foreshadowed a level of passion that would emerge during conversations about risk held prior, during, and after the event. There is no doubt that risk is a button-pushing topic.

Goals and Structure

For the colloquium our goals were twofold:

1. Gain an increased understanding about risk in the professional realm on three levels: the personal, the institutional, and field-wide.

2. Acquire some tools for managing risk.

The morning sessions concentrated on understanding risk in order to discover our common ground on the topic, and to identify our fundamental questions and overarching concerns. Building on the efforts of the morning, the afternoon focused on finding tools for managing risk, so that everyone could leave the

room believing that they had something tangible to put in their tool kit.

Engaging with Risk

The conversation started with a provocative question with the request that participants think first for themselves, then talk with their neighbors:
Think about some time you tried something risky and it succeeded, however you define success.   Second question: Same question, only this time, reflect on a time you tried something risky that failed, that bombed, that didn't work out like you hoped.

The double-edged nature of risk became clear. The thrill of doing something risky inspired many. The reality of taking a risk then failing was also ever-present as paraphrased from a participant here: *While risk is fine, and all that, when we actually have success, we have to talk about those times when, well, things really bomb and DON'T work.* Listening to the edge in the participant's voice raised concern: *Can we afford failure during vulnerable times?*

Both Robert and Jonathan spoke next (see X & Y) offering their thoughts on the both role and management of risk within projects. After their presentations, a discussion followed that raised many of the complex tensions inherent in risk such as balancing our sense of safety with a willingness to take on the unknown. Taking a risk can be scary: not taking a risk might mean we stagnate. How does an individual risk-taking impact an institution: do we go it alone or can we work together so whatever the outcome the responsibility is shouldered by all? Risk pulls and pushes us in many directions at once.

Reflecting on Risk: Graphic Tools

During the mid-day break, participants interacted with two large graphics to help prepare for the afternoon discussions that concentrated on tools for managing risk. One graphic addressed their own personal relationship to risk, the other asked participants to think through the different realms of risk-taking: personal, institutional, and field-wide.

Risk Line Graphic: Determining our personal relationship to Risk

On a long sheet of butcher paper we drew a five-foot line with two opposing options, and asked: Where is your comfort zone when faced with risk in your professional life? The option on one side being - I avoid risks- and on the other side - I take risks. Participant marks covered the middle 50 percent of the line, with few at either extreme indicating that in this group at least most do not avoid risks altogether nor do they choose to live with risk as a constant. The point of the exercise was two-fold: to get each of us to think through our individual relationship to risk, and to enable us to see our risk tolerance as a group.   We wondered how participants felt when they took risks throughout their self-imposed stance. Do the "risk takers" feel as uncomfortable with risk as those who avoid risk when they actually take one? Do all risks seem the same?

Venn Diagram: Thinking about Risk on Personal, Institutional and Field-Wide Levels

During lunch participants answered the question, "What are the challenges and opportunities for taking risks?" They were asked to consider risk in three (overlapping) settings: 1) personal risk in an institutional setting; 2) institutional risks that face our organization; and 3) field-wide risks that challenge us all.
Comments around risk in the personal

JFKU alum Pam Wong thinks through questions posed on risk. Photo by Palma You.

realm reflected the fear and vulnerability that so often accompany risk: *How do we overcome fear?; Risk is inextricably entwined with fear, and with fear comes paralysis and stasis; Failing in front of people I manage; and Now that he/she said "yes" you have to follow through.*

The discussion on risk within an institutional realm raised concerns, existing

challenges, and even some suggestions for how to deal with risk. Thoughts from participants included:

Big Questions:
• *Will the public continue to value us?*
• *How do you fight conservative leadership?*

Challenges:
• *If we do take risks we might risk/lose money.*
• *What can the institution provide that cannot be found on the internet?*
• *Institutional reputation can be damaged if a new endeavor fails.*

And suggested directions:
• *Let some parts of the museum take more risks.*
• *Create dialogue and debate to open the mind to other possibilities (either good or bad or even ridiculous).*

Suggestions provided even more ways forward as it turned to risk field-wide:

• *Transparency in museum processes- involve the public in our planning*
• *If we step outside of our authoritative role we might feel liberated...*
• *Funders need to understand that innovation in the field is risk taking and may fail, but learning can still come out of it.*
• *Positive and supportive leadership opens opportunities for change*
• *Can AAM take a leadership role in advancing risk-taking by providing some sort of safety net for those who are hesitant?*

Defining Risk

Many of the participants sought a definition, so to get it we broke into small groups to try and find one. The list of definitional phrases generated by the group, printed in its entirety, is offered as an almost free-form poem that reflects the community's collective thoughts.

Risk is:

• Being too scared to do something and regretting it
• An idea with a "what if ?"
• unknown outcome

"Risk," continued from previous page

- opportunity to change minds
- decision that you have control over
- possibility of failure
- consequence of error
- lowering of self-image/damaging ego
- challenge the status quo
- doing something B4 you're absolutely sure
- opportunity for growth
- expansion of comfort zone
- being an actor and accepting reactions
- doing something important that really matters
- life is short
- see the edge that life has
- Exciting
- involves responsibility
- the only way to make change
- trying to accomplish something
- it feels personal
- requires self-reflection and awareness
- requires trust
- makes what we do meaningful
- evolutionary: revolutionary
- staying relevant
- requires resolve

The words reflect the personal demands of risk: it requires resolve, responsibility, expanding our comfort zone, and the willingness to grow.

Tools for Managing Risk

The afternoon conversation reflected our collective understanding of risk and its impact within the three realms, and our search for tools that support our capacity to manage it. Offered here is a synthesized list of potential tools: the comments taken directly from the public notes of that day. As you read through these realize that the voices are coming from relative newcomers to the field so that the emphasis was on personal and institutional tools. Points one through three have the personal tool focus; five through seven are institutional tools, and eight applies to tools field-wide.

1. Build Personal Skills:
- Expand personal skills including communication, listening, and even financial understanding.

2. Consider Attitudinal Shifts:
- Take the time to embrace new ideas:

Get used to the cognitive dissonance.
- Ask, "How will I feel if I don't take the Risk?"
- Shrink the unknown
- Believe in yourself and your strengths
- Do it despite any negative support because you know you can

3. Build networks to shoulder the burden:
- Consulting with loved ones, aspiring peers, and colleagues
- Ask many questions
- Get a buddy for support, debriefing and trust

4. Find a structure for yourself:
- Set goals for yourself
- Motivation: Envision success & the steps to get there

5. Understand, adjust and even change the institutional culture:
- Know the boundaries, know the rules so you know how to break them
- Let people know they have been heard and offer acknowledgment: it is so simple
- Be open and give people permission to fail
- Create an internal "skunk works" program to test new-wild-ideas that may fail
- Decide if the mission needs to change
- Diversify field: Deal with the vicious cycle of low pay and pay better
- Know what funders are willing to fund

6. Take care of your people (note that this is also within Jonathan's rules of risk and more than anything seemed to be a plea for the field to be more thoughtful about our people)
- Encourage Professional Development
- Create a learning system within the institution. Set aside time for learning and reflection
- Mentor
- Time: Buffer people's time

7. Tool suggestions that could be applied for Field-Wide Impact
- Keep looking outside the field
- Be on the edge-learn to step out of our comfort zone.
- Publish your discoveries so others can learn from you.
- Highlight good leadership models.
- Leadership + Vision: Find clarity as a field, we are no longer in the 19th Century

Closing thoughts

As the day progressed the atmosphere in the room widely shifted. Our initial discussions highlighted the contrasting dimensions of risk: one of threats and the other of potential, which combined forces us to make weighty decisions. The challenge of risk grew larger with each layered story, with each challenge associated with risk. Then, as the focus turned towards finding tools to manage risk, the mood lightened as obstacles became less ominous. Tools exist that can break risk down to a manageable size. By listening carefully to our individual stories of success and failure, by acknowledging the puzzling challenges, participants realized just how possible it is for risk to take center stage and become a powerful tool itself for changing museum practice.

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RISK FOR A REASON

Robert Garfinkle:

Robert Garfinkle's point of view on risk in museums touches on a critical on-going issue of risk: how do museums grapple with hot-button issues in society at large, such as Evolution or, in this case, Race.

Susan asked me to represent risk-taking from inside an institution. I shared my experience leading the development and design team at the Science Museum of Minnesota (SMM) that created Race: Are We So Different? in partnership with the American Anthropological Association. I have had the great good fortune to take risks in a courageous organization such as SMM and to work for visionary leaders such as Paul Martin and Eric Jolly. If there is a secret to the project's groundbreaking success, it's due to the colleagues and organization I'm lucky enough to work with.

But Race was not just another project for me; it was transformative, personally and professionally. So the question I posed for the Risk Colloquium was "What are you passionate about? What is so

important to you that you'd risk failure?"

The Race exhibit afforded me the opportunity to reflect on how race operates in myself, my institution, and the museum field at large. As a white person, I don't usually have to think about race every day. But as James Baldwin said, that's exactly the root of white privilege - not having to face what's uncomfortable.

As a white person, I've made a promise to myself to try to remember this in all of my work. I want to look for opportunities to poke at and uncover these, and to develop exhibits and programs that take the issues of race and class into account, so we might be more just organizations and more honest brokers in our communities. I invited the Colloquium participants, and all my white colleagues in museums, to do the same.

And I encouraged the Colloquium, and all of us in the museum field, to look at what really makes us passionate. If we discover our deepest hopes and wildest dreams and then can resist the voices of hopelessness and fear that inevitably arise in our heads and become self-defeating, then we'll be getting somewhere. Then we'll all get to lead our institutions and our field down many risky and worthwhile avenues.

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EXHIBITS AS AN ENVIRONMENT FOR RISK

Jonathan Katz

Exhibits are one of the most public oriented aspects of museums. Exhibits integrate multiple museum centers of interest within the exhibition environment such as education, curatorial and collections focus, content interpreters/developers, marketing and development, and facilities and operations.

I'm a producer of museum exhibits. Producer - that is not a typical label in the world of museums. Typical exhibit models are developer, team or curator driven,

which describes the primary authority for each approach. The exhibit process I use has been described as the Theatrical model (Kamien, 2001) where the producer is the key intermediary and responsible party between the client and the content/interpretation. The Producer is the seat of a three-legged stool: content, schedule, and budget.

Producer - it's a term of art that signifies integration of the whole, with recognition of the key participant - the audience.

The primary realization that comes with a focus on audience is the understanding that the content provider is handing over to their public ultimate validation of their efforts. Producers in the entertainment realm learn early on that compromises to mitigate risk don't contribute to the likelihood of success. So providers in the audience driven marketplace have learned to embrace risk, rather than to attempt to avoid it. This embrace, and the processes to manage risk, has become a condition of success.

Risk in exhibits emerges in two areas: issues of design/technique and matters related to content/interpretation. In most projects, such as our work producing the Natural History exhibits for the new California Academy of Sciences in San Francisco, there were risk-weighted elements in both areas. Design/technique issues can be technical (i.e., how does one use screens for media, or display sensitive specimens in a daylight-filled space), or issues of design opinion (do we like that color or that size of type face?). Often, the perception of risk arises when museum decision makers get involved in making judgments on design when in fact they have little or no training or experience. The result is often avoidance behavior, a preference for the safe and predictable (read boring and mediocre).

However, the salient area for dealing with risk is content and interpretive choices. Museums face perennial "hot button" issues. Evolution is a good example where application of risk management techniques can support exhibit interpreters to achieve their goals, both inside the museum and with the outside world as well. In the case mentioned at the California Academy, the ability to embrace risk and manage the process made a key differ-

ence in one particular exhibition: Altered State- California and Climate Change. As we developed this exhibit, we took a very contemporary approach to the subject matter, attempting to bring this issue from the global down to the community, family and individual level. Part of our interpretive approach was to take an advocacy position; while explaining scientific information, the exhibit directly suggests to visitors steps they should take to inform themselves and take action to deal with the effects of climate change. In a museum environment where science and science information "speaks for itself," taking an advocacy position can appear to be taking sides. Market attitude research commissioned by the Academy showed that in respect to institutions upon which the public conferred a high degree of authority and authenticity, people wanted to be told what to do. Using this validation as a point of departure, the exhibit developers, a joint effort of the producers and Academy staff, were able to achieve an exhibit that takes a clear and, according to some, controversial, point of view. Below, I have organized risk management and communication processes into guidelines that can assist exhibit developers in maintaining focus on their objectives by overcoming perceptions of risk.

The Seven Rules of Risk:

Pick Your Battles

Every project has a large set of variables. All of the departments of a museum can be involved, from facilities to marketing and development, each with its own priorities and "non-negotiable" requirements. There are matters, both large and small, that are critical to the exhibit concept and its execution, and others that are "nice to have" but not essential. If you are able to compromise or concede on some issues that are important to others, it will strengthen your position when you make it clear there can be no changes on something important to the realization of the project.

Be Prepared

Know your material before you present it! I have been in a meeting with trustees looking at drawings that I've seen for the first time, because the designers worked up to the last minute, and felt like a dunce because I couldn't quite understand or

explain what we were looking at. Additionally, always admit what you don't know rather than trying to change the subject or bury the question in a lot of words (a standard curatorial technique). When faced with this situation, I make a practice of saying; "I don't have an answer, let me get back to you tomorrow (or another specific date) on that."

Always Listen

You never know when a mistake may get noticed or another sort of omission is called to your attention. Don't let hierarchy or adherence to job categories block your receptiveness to insight. Another extremely useful technique is to practice scenario planning. Projecting an average, best and worst case scenario for a particularly "risky" choice is an exercise that often reveals what could possibly go wrong. Then, when it does blow up, you will, likely as not, recognize the situation form your scenarios, and find you have a ready response to effectively deal with it.

Validation

Often enough, museum staff participants in the exhibit process raise questions about specific elements, particularly with design issues, i.e. colors, sizes, placement, etc., that go well beyond their expertise or experience. This is when a respected authority from outside the project can weigh in and confirm the merits of the design. This type of validation reinforces the design and often dissipates the muddiness that comes when one is forced to go along with design by committee.

Make Decisions

Leaving things up in the air, deferring choices, or delaying milestones magnifies the perception of risk by increasing the sense of uncertainty in a project. Select the preferred approach and lead with it! When I present a solution chosen from various options, I always present the one and only selection, not a multiple-choice range: A, B or C. Of course, I always have alternates B or C in my back pocket, just in case. Clear and timely decision making aids transparency in the process. Allowing decisions to disappear into "I'll get back to you on that," or into situations where it is not apparent who will make a decision, does nothing except add to the level of uncertainty and anxiety. Lastly, rec-

ognize and address mistakes immediately and openly. Often errors are allowed to stay in place not because they haven't been noticed, but simply to avoid calling a mistake for what it is.

Defend Your Position and Your People

There are always going to be multiple points of view and opinions about every aspect of an exhibit. Take a position on your work, and commit to explaining the why and how. Standing up for the work is a key component of leadership; it reinforces the objectives of the exhibit and the goals of the institution. Defending the work of your staff is also essential. It is the best way to reinforce the expectation that all participants will strive to meet project goals, strengthen mutual trust, and incorporate the rules of risk.

Buy-In

Regardless of organizational charts and hierarchies, decision makers operate at all levels in an institution. Early on, make an effort to brief people in all sectors of a museum: explain your goals, review the plans, and ask for suggestions and critique. A subtle and pervasive response can occur from the process of offering due respect and acknowledgement to all levels of an institution. When the collections staff member describes your work to others as our exhibit, or the janitor talks about what we are doing in the new exhibit, levels of risk diminish as support increases.

It's Not Personal

A completely natural response, if you are committed to your work, is to react to criticism and resistance on a personal level. Such actions become a judgment on your worth and contributions. Actually, it's not about you, it's about the work. Constantly working to remove your ego and self-identification from the process gives you distance from the project as whole, a shift in perspective that reveals the interconnections and interests of other points of view. To the extent that this self-awareness exists, risk can be more easily assessed in its context. The idea of not taking it personally can be extended to teams. I often remind a project team, when talking about dealing with its counterparts (designers, curators, writers, etc), to "get them to do what you want, but think it's their idea." When the project is a success there will be good credits for everyone.

Reference

Kamien, Janet, 2001. An Advocate for Everything: Exploring Exhibit Development Models. Curator, vol. 44, no. 1, 114-128.

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A PERSPECTIVE ABOUT RISK

Gail Anderson

Risk is a concept open to interpretation. Often risk is associated with daring acts, or forging the unknown – some believe that risk is the domain of a select few - and others fear the retribution of taking a risk and as a result shy away from risk of any sort. The capacity to undertake risk is linked to the level and vitality evident in leadership, capacity, and trust. When all three indicators are thriving and in healthy balance, there can be a supportive environment for nurturing risk taking - whether at the individual level, within a museum, or within the museum industry. Leadership sets the stage and provides inspiration, capacity means the robustness of the organization is in place to shoulder risk, and finally, trust is the ingredient that creates the confidence and support that enable individuals to embrace and tackle risks in a constructive and positive way.

Leadership is pivotal to achieving institutional vitality and health, and creating a risk—supportive environment. While leadership begins with an individual, in the end it is the collective empowerment that a leader creates that sustains institutions beyond the vision of one individual. Jim Collins (2001), author of *Good to Great*, states that the optimum leader is a Level 5 Leader who exudes professional will and humility. Professional will conjures up determination and stamina, a vision that inspires many, and a fundamental commitment to integrity and quality. Humility is manifested in deep and honest self-awareness and the ability to admit mistakes, to be open to others, to share achievements and credit others, and to exude an ease that allows for creativity and risk-taking in the institution.

Humility is the trait often missing in self-proclaimed leaders – it requires that the ego be set aside and the greater good take center stage. The greater good is bigger than any individual or any institution – it is when actions are undertaken for the benefit of contributing to a more vital community and environment. Those institutions that make meaningful differences to their communities most often are the resulting efforts of the Level 5 Leader.

Leadership sets the tone of an institution, guides and shapes the rules of engagement, creates the standards for ongoing operations, and assures a clear purpose and unity in direction are in place. A leader has the power to create an environment that assures risk is a valued aspect of the institutional culture. For institutions in particular, it is advisable that risk be defined – so there can be a broad understanding of what risk looks like, how risk fits into the organizational modus operandi, when and how risk can be embraced, and the learning opportunities that go along with taking risk. In other words, a clear framework for risk helps nurture new ideas, new ways of operating, new intersections with the public, and the ability to try, explore, discover, and create anew – to take risks. Without strong leadership in the CEO/Executive Director and Board, the ability for an institution to embrace risk will be diminished, and in some cases those institutions will become static, dysfunctional, and risk adverse.

Capacity refers to the robustness, flexibility and structure needed to make risk more feasible. High capacity supports the ability to shoulder change, embrace new initiatives, and achieve high levels of productivity. For the individual, capacity may be tied to the external support and professional experience that informs actions that may look and feel like risk. Often maturity and self-awareness are equated with the capacity for risk taking – a developed larger worldview and perspective that places risk in meaningful context.

For the institution, capacity is tied to the ability to function efficiently, effectively, and purposefully. It is not surprising that an institution functioning at a high capacity has characteristics such as: a clear relevant mission and vision, increased levels of public participation, strategic plans,

defined roles & responsibilities, an effective infrastructure, a healthy organizational culture, and the necessary systems and policies in place to support creative and productive outputs. Leadership and a holistic operation cap the list.

When capacity is high and effective leadership in place – the environment for risk rises significantly. Witnessed in an open conversation during a strategic planning session, a former nonprofit Board President stated to the assembled group of trustees and staff, "I want our organization to be an environment where it is safe to fail," – staff were stunned to hear such a strong pronouncement. That statement alone will not solve all institutional ills, but a strongly stated institutional value supported by consistent and changed behavior will do wonders to turn an inhibited work environment into a more vibrant open one. All trustees, staff, and volunteers must understand the role of risk-taking if the institution is to transform. Rebuilding trust is at the heart of whether or not staff behavior will change or the organizational culture will shift.

For the field, risk can and will tend to be introduced and led by mavericks and those with demonstrated credibility and conviction – those who see a need for change and have the bandwidth and respect of colleagues to lead the charge. Risk taking in the field can be the most challenging just by the sheer complexity, diversity and size of the museum industry. Two historic moments in the museum field that triggered noteworthy risk taking conversation and action are tied to a national white paper and federal legislation. *Excellence and Equity* generated by a national committee for the American Association of Museums in 1992, outlined systemic issues and proposed ten mandates for the field to become more inclusive to our diverse nation, and to more fully embrace museums educational role. The Native American Graves Protection and Repatriation Act (NAGPRA) passed by Congress in 1990, was spearheaded by museum professionals and Native American leaders who challenged the divergent beliefs about the role of culture from the museum perspective and native peoples perspective. The result was groundbreaking federal legislation that recognized the importance of Native

American values and provided the opportunity for the respectful and legal return of Native American cultural objects and skeletal remains to the appropriate tribe following strict guidelines (Monroe and Echo-Hawk 1991). Not all risk taking in the museum field requires the publication of a white paper or the passage of new legislation, but risk taking at the national level does take courage and a profound commitment to speak out on issues and engage in deliberations where the outcome(s) is unclear. It is not surprising that change at the industry level tends to occur at a glacial pace in comparison to the individual or institutional setting.

At the heart of successful risk taking is trust. Without trust an individual or institution can be devoid of creativity and vibrancy. Lack of trust undermines courage, confidence, and well being not to mention effectiveness. Trust, as outlined in the 2006 book *The Speed of Trust* by Stephen M. R. Covey, stresses that trust is central to healthy and productive relationships whether personal or professional at all levels of daily life. His formula about the "economics of trust" states that if the level of trust is high within an organization, the rate of productivity rises and the speed at which operations function is high, while the cost to do business is greatly reduced. Conversely, he states, a low level of trust triggers slow levels of productivity and as a result increases costs. Dysfunctional institutions without effective leadership and robust capacity tend to have low levels of trust. When trust is not present skepticism and counterproductive behavior can flourish. Turning around an institution requires a persistent and visionary leader who builds trust block-by-block, day-by-day, and person-to-person. Trust that is built and sustained requires consistent and ongoing commitment, and the humility and tenacity to weather the challenges that naturally come with managing and leading an organization through dramatic change. When trust is present, there is a greater capacity to take risks.

This triad of leadership, capacity and trust are components needed to nurture risk. Assessment is a tool that can help identify the preparatory steps needed to build a more receptive risk—taking environment. For the individual, a self-

assessment may result in the need to move to another institution that better aligns with one's values, or it may require developing new skills to implement ideas more effectively. For the institution, replacing an ineffective leader or taking substantial steps to move toward institutional vitality through constructive assessment and planning may be a logical step. Finally, building risk-taking capacity within the field may require determining the depth of one's conviction to step out and take a risk to foster needed change in the field.

Today, unfortunately, many museums are at risk due to entrenched leadership and outmoded strategies, and an internally focused style of operation. With external pressures such as the strained economy, shifts in consumer demands, and the explosion of technology – facing the issues, embracing the new, and taking risks is required for survival. In other words, risk is present whether it is deliberately created, or it emerges through stagnancy. Risk taking is an opportunity and a choice. The choice awaits.

References

American Association of Museums. *Excellence and Equity: Education and the Public Dimension of Museums: A Report from the American Association of Museums.* Washington, DC: American Association of Museums, 1992.

Collins, James. 2001. Good to Great: *Why Some Companies Make the Leap… and Others Don't. New* York: HarperCollins Publishers Inc.

Covey, Stephen M.R. with Rebecca R. Merrill. 2006. *The Speed of Trust: The One Thing that Changes Everything.* New York: Free Press, A Division of Simon Shuster, Inc.

Monroe, Dan L. and Walter Echo-Hawk.1991 "Deft Deliberations," *Museum News*, July/August 1991. Washington, D.C.: American Association of Museums.

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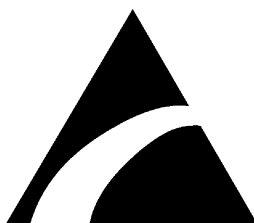
"MUSEUM FATIGUE:" A NEW LOOK AT AN OLD PROBLEM

Stephen Bitgood

"Museum fatigue" has been a troublesome problem to define, to measure, and to ameliorate. Definitions have tended to either lack specificity or been restricted to a single phenomenon, although several appear to be involved. Measures of fatigue have varied from percent stopping at an exhibit element, to time viewing, to time sampling the focus of visitor attention, and, finally, to self-reports of boredom and/or physical or mental tiredness/exhaustion. In addition, there has been very little systematic attempt by museum professionals to find ways to reduce or eliminate "fatigue."

This article summarizes some of the material discussed in two of my recent publications (Bitgood, 2009a; 2009b) as well as adds a few new ideas. I hope to provoke more concern about the multiple phenomena associated with "fatigue" because of the negative impact that these phenomena have on the visitor experience. These phenomena are responsible for curtailing many museum visits and for limiting the amount of learning and enjoyment experienced by visitors. Several phenomena associated with "fatigue" will be discussed and some of the misconceptions held by museum professionals will be identified and corrected. Finally, this article will propose ways to minimize the negative impact of "fatigue" and to suggest the need for further research. To accomplish these goals, a question and answer format will be used.

What is "museum fatigue"?

To the visitor who, after several hours of trudging through exhibit gallery after exhibit gallery, "museum fatigue" is simply the awareness of being physically and mentally exhausted. "Museum fatigue" has a different meaning to the researcher who must carefully analyze its components. What has been called "museum fatigue" includes two types of outcomes. First, it refers to a collection of phenomena associated with systematic decreases in attention to or interest in exhibition elements over successive viewings. It also

refers to self reports of decreased interest levels, of increased feeling of mental or physical tiredness/exhaustion, or of boredom after the exertion of viewing exhibitions. These phenomena include mental and/or physical tiredness/exhaustion, object satiation (boredom), a depleted capacity to attend to exhibit elements over time, and an increased selectiveness in what objects receive attention.

Additional complications arise when considering the relationship of "museum fatigue" to other phenomena such as "directed attention fatigue" proposed in Kaplan's Attention Restoration Theory (e.g., Kaplan, Bardwell, & Slakter, 1993). According to Kaplan, a museum visit can be a restorative experience to ameliorate "directed attention fatigue" (caused by extended attention to daily tasks). However, it is only the experienced visitor who is likely to benefit; the infrequent visitor does not experience restoration in the museum according to Kaplan and his colleagues. Not addressed by Kaplan is the question: "How can a museum experience both create and eliminate "attention fatigue?"

I have argued (Bitgood, 2009a; 2009b) that "museum fatigue" should be operationally defined in terms of both the causal or precipitating factors (workload, homogeneous exhibit objects, etc.) and the visitor outcome (decreased attention to exhibit elements over time, etc.). There is likely to be more than one reason why visitor attention decreases. For example, in addition to "fatigue" phenomena, decreased attention may be attributed to poorly designed exhibitions, to the processes involved when objects compete for attention with one another and to information overload.

What phenomena should not be called "fatigue"?

With respect to attention, the distinguishing factor between fatigue and other phenomena is that fatigue involves a systematic decrease in attention over successive viewing, while non-fatigue phenomena are not defined by a systematic decrease over time. One of these non-fatigue phenomena is "object competition" – a decrease in attention to a target object resulting from simultaneous visual exposure to multiple objects. Melton (1935) argued that every object competes for attention with every

other object that is visually available at any moment. While Melton (and Robinson, 1928) believed that this competition had a perceptually distracting impact on attention, it is more likely that visitors become more selective (choose the more interesting objects to view) as the number of alternatives increase.

Another phenomenon sometimes confused with "fatigue" is "stimulus or information overload." Overload is similar to competition in that it requires simultaneous presentation of multiple objects. Overload can be defined as an inability to process the amount of incoming information. Matamoros (1986) titled her thesis "Information Overload" but did not actually provide an "overload" measure. Rather, she examined decreased attention (percent stop and viewing time) over the course of the aquarium visit - clearly a "fatigue" phenomenon. She also collected self-report data of fatigue-like feelings from an independent group of visitors.

While "competition" may include an "overload" component (e.g., too many objects to view at one time), decision-making processes may also be involved. For example, a visitor may select for attention only the most potentially interesting objects when confronted with a large number of choices (Bitgood, Mckerchar, & Dukes, 2008).

Competition and overload, while not meeting the operational criteria for "fatigue," may increase the rate at which "fatigue" occurs as predicted by such theories as Kaplan's Attention Restoration Theory and Environmental Load Theory (Bell, Greene, Fisher, & Baum, 2005). However, the studies of Robinson (1928) and Melton (1935) did not show such an effect.

What are the outcome measures used to indicate "fatigue?"

One of the confusions in the literature is the apparent assumption that all "fatigue" measures are equivalent. Gilman (1916) used a photographic record of one individual who was given instructions to find answers to questions posed by Gilman. The photos show the man stretching and straining in an attempt to obtain the required information from the exhibition. No doubt the participant had to pose while Gilman readied his camera. As evi-

dence of "fatigue," these photos are questionable. However, they do indicate the obstacles built into poorly designed exhibitions and Gilman was an early champion for more visitor-friendly design.

Robinson's (1928) and Melton's (1935) measures of "fatigue" included both percentage of stops at paintings and/or viewing time per painting. Robinson compared patterns of visitor attention across several different museums and in a laboratory simulation study. Melton focused on single exhibitions rather than entire museum visits. The importance of this difference between the impact of an entire visit and of a single exhibition cannot be overemphasized. Different phenomena are very likely to be involved in each of these situations.

Falk, Koran, Dierking, & Dreblow (1986) developed a time sample measure that indicated the focus of visitor's attention (exhibits, social, etc.) in 5-second intervals and pooled this time-sampling data into 3-minute periods. For several reasons it is unlikely that this recording method is equivalent to those used by Robinson and Melton. The Falk et al. study is the only one employing time samples and the reader should be aware of some of the methodological problems. First, since attention was not recorded to specific exhibit elements, the peaks and valleys of attention typically found in exhibitions were not evident. Second, it is very likely that the data was confounded with reactivity in which the procedure influences the outcome. Individuals were asked permission at the beginning of their visit and the researchers accompanied the visitor through the museum. Serrell (2000) reported a meta-analysis of studies comparing cued (individuals approached and asked to participate) and non-cued (individuals observed unobtrusively) visitors. The vast majority of the studies found that cued visitors showed higher measures of attention than non-cued visitors.

In a master's thesis conducted at the New England Aquarium, Matamoros (1986) examined both complete visit patterns of observational measures (percent stops and viewing time) as well as self-reports of visitor experiences in a paper-and-pencil survey. Observational data showed a sys-

tematic decrease across aquarium sections, but these data were not entirely consistent with self-report measures collected from another group. Cota-Mckinley (1999) also used self-report measures by adapting a NASA workload impact scale on a simulated visit to a natural history exhibition. She found that a group given limited time reported heavier workloads and pressure than a group given unlimited time to view the PowerPoint simulation of the exhibition. This suggests that the workload measures used in the study are sensitive to task conditions and may be useful in further "fatigue" research.

Recently, two students (Renee Burt and Stephany Dukes) under my direction have completed simulation studies using art prints in a laboratory (in some ways similar to Robinson's study) that collected three measures of fatigue: viewing time, interest rating of each art print, and the proportion of a text passage read. Half of the participants were instructed to describe the art print as they initially viewed it; the rest of participants simply viewed as long as they wished. All participants were then asked to rate the print in terms of "how interested would you be in seeing information about this artwork and its artist?" Finally, participants were shown a text passage and instructed to read as much or as little as they desired. Results indicated that (1) the vast majority of participants showed signs of "fatigue" (decreased view time, interest rating, and proportion of passage read) across trials of the study; and (2) the participants who had to describe the print, showed a higher amount of "fatigue" or systematic decreases in the three measures than participants who passively viewed the prints. Obviously, physical exertion was not a factor in this study. However, mental exertion (having to describe the art print) was apparently a strong factor since the describe condition resulted in greater "fatigue" than the view-only condition.

Unfortunately, there has been little concern about the equivalence of these various "fatigue" measures. My recent articles identified some potential difficulties with some of the outcome measures (Bitgood, 2009a; 2009b). At the very least, the pattern of findings in the literature suggest that different measures are sensitive to different factors.

What is the evidence for mental and physical tiredness/exhaustion?

While there is a lack of published evidence, it is difficult to argue that physical tiredness/exhaustion does not play a role in "fatigue." We have all experienced exhaustion after a long day at a museum or theme park. However, physical or tiredness is only one of the possible outcomes associated with "fatigue." Physical exhaustion is more difficult to study because of the long time frame necessary to produce it.

Gilman (1916) suggested that his photographs provided evidence for physical exertion as a cause of "fatigue." However, there was no indication that the participant's attention or interest systematically decreased during the demonstration or that the participant reported feelings of tiredness/exhaustion.

While physical exhaustion is difficult to demonstrate because of the time necessary to produce it, mental tiredness/exhaustion may be easier to demonstrate. As noted above, the results of our museum simulation studies suggested that greater mental exertion (describing an artwork) produced more "fatigue" (as defined by decreased attention across time) than simply viewing the artwork.

What is the evidence for object satiation?

"Satiation" differs from "mental tiredness/exhaustion" in that, in the former, individuals are exposed to objects in a way that fails to stimulate the individual either intellectually or affectively, while in the latter individuals are given a heavy mental workload. Decreased attention to homogenous objects across time appears to be a common outcome. Decreased attention can occur with little physical exertion. For example, it has occurred while a participant viewed art prints while seated at a table (Robinson, 1928) or viewed snakes within a small exhibition space (Bitgood, Patterson, & Benefield, 1986).

What is the evidence for decision-making processes?

In addition to tiredness/exhaustion and satiation, the role of decision-making processes must be considered. Visitors become more selective in the focus of

their attention as the visit progresses. Such behavior is often described as "cruising" (Falk & Dierking, 1992). However, "cruising" would seem to imply a decrease in both the number of stops at exhibit elements and the viewing time per stop. Although not a "fatigue" study, Melton (1935) reported a decrease in the percentage of artworks given attention (percent of stops) as the number of artworks increased; but, once stopped, the viewing time averaged a constant 10 seconds.

The specific processes of decision-making in "fatigue" phenomena are not clear at this point, but it may be something like this: As tiredness or boredom increase with systematic viewing of exhibit elements, visitors choose to focus on fewer elements, primarily those that have the highest perceived worth or attractiveness. Thus, the difference in performance measures (stopping and viewing time) may indicate that visitors are not too tired or bored to view (viewing time remains constant), but are more selective in their choices, perhaps to conserve more of their energy. There is evidence that people engage in a variety of behaviors (taking the fewest steps to a destination, refusing to backtrack, etc.) that may be designed to conserve energy (Bitgood, 2006; Bitgood & Dukes, 2006).

Is there selective bias in reporting "museum fatigue"?

There is undoubtedly a strong bias in which research studies reach publication. Negative results are usually not published, either because professional journals reject them in the review process or researchers fail to submit them for publication. There are many reasons why studies may fail to produce a result, including poor experimental controls or because there is no strong phenomenon involved. We published (Bitgood, et al., 2001) a failed attempt to replicate Robinson's (1928) laboratory study, but emphasized the increased attention produced by participants having to describe an art print. Many of our evaluation studies over the years have also failed to find systematic decreases in attention over successive exhibit elements. The typical finding is a series of high and low measures of attention to various exhibit elements depending upon the characteristics of the exhibit element and the characteristics of the visitor circulation pattern. Consequently,

it is difficult to assess the strength of the "fatigue" phenomena since we do not know if the literature represents an accurate indication of its presence or absence.

Where do we stand on "museum fatigue" phenomena?

After almost one hundred years of studying "museum fatigue," we know relatively little. The total number of published studies addressing "fatigue" can be counted on three or four hands (under 20). The findings from published studies are somewhat inconsistent and conflicting. This should be of concern. In addition, there is a lack of theories or models that can boast predictive validity (that is, under what conditions we can predict "fatigue").

Despite the lack of a clear road map, we can perhaps draw some conclusions from the literature:
- There are several phenomena that fit into the "fatigue" framework. These include tiredness/exhaustion, object satiation, and greater selective attention over time.
- All observational measures are not the same. Because of the paucity of research, it is not clear how each measure relates to the others.
- Observational measures do not always agree with self-report measures. One would expect consistency between these two types of measures, but more studies are needed to establish this connection.
- There is a tendency to oversimplify the nature of "fatigue." The conditions and outcomes involved in these phenomena must be considered together.

What can we do to minimize "fatigue"?

Given that we know relatively little about "museum fatigue," we can only offer intelligent guesses on how to minimize the impact of "fatigue."

1. Provide attention-focusing aids

Handouts, pamphlets, or guides for both individual exhibitions or for the entire museum appear to help (Bitgood, Patterson, & Benefield, 1992; Porter, 1938; Robinson, 1928). These aids may be effective for two reasons: they seem to reduce the amount of mental energy necessary for visitors to decide where to focus their attention; and, if effectively designed,

they are likely to increase the interest level by provoking curiosity.

2. Design to minimize physical and mental exertion by pacing visitor viewing

Assuming prolonged physical and mental exertion create "fatigue," exhibitions can be designed to slow visitors down and to provide short rest periods. For example, placing a sit-down video in a theater in the middle of a large exhibition may help the visitor recover before continuing the visit.

3. Provide effective and easy wayfinding

Having to constantly make decisions about where to go next, which way to turn, etc. places a heavy burden on visitors and is likely to hasten "fatigue." Easy-to-follow pathways, minimal choice points, and effective directional signage are among the principles for effective orientation (Bitgood, 2006).

4. Minimize the mental processing workload

The connections between interpretive text and the exhibit objects should be obvious to visitors and the text passages should be designed for easy processing (Bitgood, 2000). Text passages should be short, bulleted when possible, use simple language, and be supported by clear illustrations where appropriate. Because of the mental workload, visitors are unwilling to read "textbooks on walls."

5. Maintain high interest with provocative design

Questions that make visitors think can often be effective in increasing visitor curiosity. In one of our evaluation projects, the question, "Can you identify the three animals in the totem pole" in an art museum resulted in a high percent of visitors stopping to find the answer. Judy Rand (1986) offered a number of suggestions for effective label writing that "hook" the reader.

6. Encourage visitors to take breaks

A well-placed coffee shop in the middle of a museum might encourage visitors to rest for 15 or so minutes. Of course, the caffeine in the coffee might also be helpful for increasing the visitor's energy level.

Conclusion

"Museum fatigue" is not inevitable and we have the responsibility of minimizing it whenever possible if we want visitors to optimize learning and to create a satisfying visitor experience. However, more research and theory are needed to formulate effective principles that lead to a reduction in "fatigue."

There are a number of variables that need further study: pacing of viewing, variety of exhibit elements, etc. Examples include: pacing the visitor workload through the exhibition; the parameters and impact of object competition; and the relevant factors that cause information overload and its relationship to "fatigue." With respect to pacing, how quickly or slowly exhibit elements are processed may be related to the massed versus distributed practice phenomenon in the learning/memory literature of psychology. Is the impact of pacing in exhibitions similar to that of massed versus distributed practice? (See Cepeda, Pashler, Vul, Wixted, & Rohrer, 2006 for a recent review of the literature.) Taking breaks between trials of learning or memorizing has been shown to improve performance in motor and verbal tasks. Do museum visitors experience a similar process as they view exhibitions?

While there is much yet to be learned about "fatigue," we should at least be sensitive to visitor needs and look for and correct design problems that may cause "fatigue."

References

Bell, P, T. Greene, J. Fisher, & A. Baum. (2005). *Environmental psychology.* Philadelphia, PA: Routledge Publishing.

Bitgood, S. (2006). An analysis of visitor circulation: Movement patterns and the general value principle. Curator: *The Museum Journal*, 49(4), 463-475.

Bitgood, S. (2009a). When is "museum fatigue" not fatigue? *Curator: The Museum Journal*, 52(2), 193-202.

Bitgood, S. (2009b). Museum fatigue: A critical review. *Visitor Studies*, 12(2), 1-19.

Bitgood, S., C. Devia, P. Goodwin, C. Rudin, A. Trammell, and B. Zimmerman. 2001. Projective focusing: Motivated attention to works of art. *Current Trends in Audience Research* vol. 14. St. Louis, MO: AAM Committee on Audience Research and Evaluation.

Bitgood, S. & S. Dukes. 2006. Not another step! Economy of movement and pedestrian choice point behavior in shopping malls. *Environment and Behavior*, 38(3), 394-405.

Bitgood, S., S. Dukes, and L. Abby. 2006. Interest and effort as predictors of reading: A test of the general value principle. *Current Trends in Audience Research and Evaluation* vol. 19/20. Boston, MA: AAM Committee on Audience Research and Evaluation.

Bitgood, S., D. Patterson, and A. Benefield. 1986. Understanding your visitors: Ten factors that influence visitor behavior. American Association of Zoological Parks and Aquaria Annual Conference Proceedings, Minneapolis, MN. Pp. 726-743.

Cepeda, N., H. Pashler, E. Vul, J. Wixted, & D. Rohrer. 2006. Distributed practice in verbal recall tasks: A review and quantitative synthesis. *Psychological Bulletin*, 132(3), 354-380.

Cota-McKinley, A. 1999. An empirical investigation of workload on the visitor experience: Effects of exhibit size and time constraints on performance. Ph.D. dissertation. Ft. Collins, CO: Colorado State University.

Davey, G. 2005. What is museum fatigue? *Visitor Studies* Today 8 (3): 17-21.

Falk, J. and L. Dierking. 1992. *The Museum Experience*. Washington, DC: Whalesback Books.

Falk, J., J. Koran, L. Dierking, and L. Dreblow. 1985. Predicting visitor behavior. *Curator: The Museum Journal* 28 (4): 249-257.

Gilman, B. 1916. Museum fatigue. *Scientific Monthly*, 12: 67-74.

Kaplan, S., L. Bardwell, & D. Slakter. (1993). The museum as a restorative environment. *Environment and Behavior*, 25(6), 725-742.

Marcellini, D. and T. Jenssen. 1988. Visitor behavior in the National Zoo's Reptile House. Zoo *Biology*, 7: 329-338.

Matamoros, M. 1986. *Information Overload*. Master's thesis in Management, University of Massachusetts at Boston. Boston, MA.

Melton, A. 1935. *Problems of Installation in Museums of Art*. New Series No. 14. Washington, DC: American Association of Museums.

Rand, J. 1990. Fish stories that hook readers: Interpretive graphics at the Monterey Bay Aquarium. Technical Report No. 90-30. Jacksonville, AL: Center for Social Design (originally published in the 1986 Annual Conference Proceedings of AAZPA).

Robinson, E. 1928. *The Behavior of the Museum Visitor*. New Series No. 5. Washington, DC: American Association of Museums.

Roper, J., S. Bitgood, D. Patterson, and A. Benefield. 1986. Post-occupancy evaluation of the Predator House at the Birmingham Zoo. *Visitor Behavior* 1 (2): 4-5.

Rounds, J. 2004. Strategies for the curiosity-driven museum visitor. *Curator: The Museum Journal* 47 (4): 389-410.

Serrell, B. 2000. Does cueing visitors significantly increase the time they spend at a museum exhibition? *Visitor Studies Today* 3 (2): 3-6.

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OUTCOMES OF THE EXPANDING INFORMAL SCIENCE FOR LATINOS CONFERENCE

Robert L. Russell and Malu Jimenez

In March, educators from across the United States met at the Expanding Informal Science Education for Latinos conference in Albuquerque, New Mexico, convened by the Self Reliance Foundation (SRF) and supported with funding from the National Science Foundation. This topic seems even more important now than ever as Latino populations in the United States continue to grow.
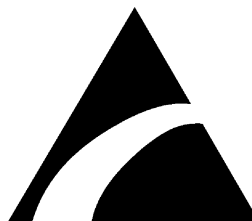
The conference was designed to provide participants with opportunities to discuss needs, identify resources, build upon existing initiatives, and develop new strategies. Formal presentations were kept to a minimum; there was ample opportunity for small groups to discuss new ideas, projects, and to form new collaborations to move these concepts forward.

This article discusses broad themes emerging from the conference and then presents some of the expanding initiatives, new ideas and next steps that emerged.

Themes

Six briefing papers were written (see ILR 94, where all were published in their entirety) to provide conference participants with background on Latinos and informal science. Some important observations and themes grew out of these papers and the subsequent discussions that helped frame conference discussions:

The Latino population is growing fast and is diverse. Numbering over 44 million, Latinos are now the largest ethnic/racial minority group in the United States. But Latinos are not homogeneous. Latinos include U.S.-born and immigrant residents who come from more than 20 different countries and have varied levels of education, acculturation, English-language proficiency, and income. While research shows that Latinos are learning English at the same rate as large immigrant populations from the past, nearly two-thirds of Latino adults use Spanish at home.

Education is important for Latino families, but some Latino parents may define education differently than mainstream America. Latino parents frequently have high educational aspirations for their children. When choosing a leisure time activity, they are more likely to choose one that they perceive has some educational value over one that seems merely "fun." But when defining education, many Latino families include social and ethical education in addition to what happens in school. They may perceive parents and teachers as filling different educational roles, with parents responsible for the social and ethical education of their children and teachers responsible for formal education.

Informal science is not keeping pace with the needs of the Latino community. Latino families are underrepresented among those who visit science centers and other similar institutions. Latino students are under enrolled in afterschool programs. There is no Spanish-language National Public Radio or Public Broadcasting Service, and there is little science available on Spanish-language media, including radio, television, and newspapers.

Cultural barriers may discourage Latinos from visiting museums. Infrequent museumgoers may believe that you need to know about the conventions and subject matter of a museum before you go. Some Latinos may also feel unwelcome in museums because of a lack of cultural relevance, interpretation in Spanish, or visitors or staff who are like them.

Against this background, conference participants emphasized some basic guidelines that can assist informal science organizations in planning exhibits and programs that are effective with Latino students and families:

Involve the audience. Use members of the Latino community to help you plan programs. As you build trust with the community, recognize that it takes time. Working with community "gatekeepers" or "cultural brokers" may facilitate the process.

Use role models. Many Latino science professionals described the importance of teachers and other role models in guiding and supporting their career choices.

Use Spanish-language media, but make sure you know your audience: In the average week, Latinos watch over 17 hours of Spanish-language television and listen to over 12 hours of Spanish-language radio. In addition, the majority read Spanish language newspapers. To support your message, use popular and well-trusted media, consider the literacy levels and language preferences of the target audience, use native speakers to write or translate, keep messages simple and clear, and use multiple mediums (e.g., radio plus outreach at the church or community center).

Plan for families. Many Latino families use leisure time to promote and build family unity. Informal learning experiences that involve the entire family, even including cousins, uncles, and grandparents, may be very attractive to Latino families.

Use culturally competent staff. Language competence, cultural understanding, and respect for traditions and values are some of the qualities organizations should look for in staff.

Evaluate. Evaluation is an essential tool in understanding the participants in a program, so that language issues, context, trust, and other challenges can be taken into consideration during planning. Evaluators need to acknowledge their biases, use the community to help analyze proposed evaluation methods, talk to other evaluators experienced in culturally appropriate evaluation, and field test evaluation methods.

Expanding Initiatives

A number of projects presented opportunities for collaboration and dissemination of program resources:

Acceso A La Ciencia: This project is a collaboration of the Washington State MESA program, the Pacific Science Center, and KDNA educational radio, one of the few educational Spanish-language radio stations in the country. Through mobile exhibits, youth explainers, science festivals, parent outreach, and supporting media, the project seeks to engage Latino students and families in science. The project has program activities and exhibit ideas to share, as well as an interest in collaboration for additional sites. Contact: Neiri Carrasco, Director,

Yakima Valley MESA; ncarrasco_mesa@ tricity.wsu.edu; (509) 372-7194.

Celebra la Ciencia: The project's mission, supported by coalitions of informal science organizations and projects in communities across the country, is to encourage Hispanic children and families to become involved in science and health programs. The project is currently developing new coalitions and other new program initiatives. Contact: Bob Russell, Self Reliance Foundation; bob.russell@ srfdc.org; (202) 997-5539.

Energy Hawks is a national, bilingual family-focused energy conservation education and action initiative that empowers students and their parents to slash energy consumption and costs. In addition, the learning experiences prepare them to excel in the emerging green economy. Now in the development phase, the project presents many opportunities for collaboration and dissemination. Contact: Bob Russell, Self-Reliance Foundation; bob.russell@srfdc.org; (202) 997-5539.

Family Science Page/Pagina Familiar de la Ciencia: The page is a set of newspaper features - games, activities to do at home, interviews with scientists, fun science facts - which Self-Reliance Foundation disseminates to Spanish-language newspapers. This initiative presents opportunities for partnerships between local museums, organizations, and newspapers. Contact: Isabel Morales, Self Reliance Foundation: Isabel.morales@ srfdc.org; (202) 496-6059.

GoKids in Boston Neighborhoods: In collaboration with the Boston Housing Authority, public health experts and public housing tenants, Boston Children's Museum is developing culturally sensitive public programs for families, as well as outreach strategies for the museum's new health and fitness exhibit and programs. The museum disseminates the message with teen "ambassadors." The project is looking for additional sites for replication. Contact: Megan Dickerson, Boston Children's Museum: dickerson@ bostonkids.org; (617) 426-6550.

Splash Zone Discovery Program: The Splash Zone Head Start Discovery

Program is designed to introduce a conservation ethic to young children and their families. Through partnerships with two local Head Start county offices, the program reaches over 1,300 low-income and predominantly Latino families per year. The premise of the program is that learning happens at home, at school, and at play so it is conducted in English and Spanish and includes professional development for teachers and parent meetings. Contact: Rita Bell, Monterey Bay Aquarium, rbell@mbayaq.org, (831) 648-4845.

Para los niños: This program is a partnership between the Children's Museum of Houston and libraries which delivers family learning events to Spanish-speaking families. Its goal is to provide monolingual Spanish-speaking parents with access to resources and activities that will improve their ability to parent and nurture children from birth to age seven. This program has been in existence for a number of years and serves as an excellent model for more programs of this type. Tiffany Fontenot, Children's Museum of Houston: (713) 535-7224; tfontenot@cmhouston.org.

Science and Technology Youth Clubs: Maloka's two programs offer Family Science Nights (in a school setting) that draw adults and children together on a weeknight for hands-on scientific exploration. Maloka will present opportunities to collaborate with these programs and describe other resources she has to share. Nohora Elizabeth Hoyos, MALOKA Science Center, Bogota, Colombia: ehoyos@maloka.org.

The Bilingual Exhibit Research Initiative: The new Bilingual Exhibit Research Initiative focuses on bilingual exhibits, emphasizing the documenting of existing bilingual exhibits. It will work with ExhibitFiles.org to collect and archive photographs of existing bilingual exhibits. The Initiative welcomes new partners who have bilingual exhibits or who are interested in this issue. Contact: Steven Yalowitz, Institute for Learning Innovation: yalowitz@ilinet.org; (410) 956-5144.

New Initiatives

In addition to the rich discussion of issues,

briefly summarized at the beginning of this article, several specific initiatives emerged from the discussions at the meeting:

MiCiencia Science Careers Support System: Discussions at the conference highlighted two critical periods for STEM career development: middle school and high school. Middle school is seen as the time when many students make critical decisions on future career paths. For example, if middle school students do not begin to take advanced mathematics, such as algebra and precalculus, then their chances of pursuing STEM-related careers is diminished. A project was conceived of developing an Internet-based resource system, including many Web 2.0 features, that would give Latino students access to information on science programs, financial aid, mentors, and other resources. Contact: Bob Russell, bob.russell@srfdc.org; (202) 997-5539.

National Hispanic STEM Education Initiative: A national STEM education initiative or Latinos is developing, under the leadership of Adam Chavarria, who most recently served as Executive Director of the White House Initiative on Educational Excellence for Hispanics. Over 50 representatives from Latino STEM organizations, universities, community/youth organizations, and the informal science community have developed an ambitious agenda and are designing a national meeting to launch the initiative. Contact: Adam Chavarria, addamm2020@aol.com; (703) 909-1315.

Latino Scientist Role Models Exhibition: Planning is underway for a traveling exhibition that will highlight the contributions of Latinos to science. The exhibition will not only feature Latino scientists, but will also offer pathways and resources for students wishing to pursue STEM careers. Contact: Ismael Calderon, Director of Science, Newark icalderon@newarkmuseum.org; (973) 596-6670.

Next Steps

Conference participants rated the organization and immediate outcomes of the conference very highly. At the concluding session, there was great enthusiasm for a follow-up activities that will support progress on "expanding informal science for latinos." Following up on these recom-

mendations, the Self-Reliance Foundation (SRF) has:

1. Established a social network to support collaboration and discussion: Many conference participants have already joined and are in active discussions on a social network open to all. In addition to forums, a variety of educational resources, such as the conference briefing papers, are available. To access or join the network: http://scienceforlatinos.ning.com.

2. Organized a follow-up session at the annual Association of Science-Technology Centers (ASTC) conference: An all-day follow-up pre-conference workshop will be held in Fort Worth on Friday, October 31, 2009, from 10 am to 4 pm (lunch served) Small working groups will work on carrying the work of the conference forward. Registration for the workshop, for which there will be no additional fee (beyond registering for the conference itself) is open. Contact Bob Russell, hanarus@aol.com or (202) 997-5539. This all-day workshop will include forum sessions on three topics fundamental to expanding informal science opportunities for Latinos:

Conducting culturally appropriate evaluation (Steve Yalowitz, Institute for Learning Innovation);

Planning events and programs for Latino families (Malu Jimenez, Self-Reliance Foundation & Maddie Correa Zeigler, founder, Proyecto Futuro &, and Celebra la Ciencia coalition, Albuquerque);

International collaborations (Alejandra Leon Castillo, Executive Director, REDPop).

In addition, there will be brief presentations by several projects, with opportunities to learn more and collaborate on these projects, including a traveling exhibition on Latino scientists (Ismael Calderon, Newark Museum); bilingual labels (Steve Yalowitz, ILI), Spanish-language science news portal (Bob Russell), and National Hispanic STEM Education Initiative (Bob Russell).

3. Started work on a resource database: SRF is working towards establishing a national database of science education resources targeting Latinos, that will be established as part of SRF's Acceso Hispano initiative. Acceso Hispano links

the Latino general public, as well as community service providers, to local and national organizations and resources that meet their needs.

4. Started work on the next Expanding Informal Science for Latinos Conference: SRF is researching options for locations and for funding of a follow-up conference.

Robert L. Russell is Director of Science and Health Programs at the Self-Reliance Foundation. He serves as project director of SRF's national family science outreach network, Celebra la Ciencia, and ConCiencianews.com, a weekly Spanish-language science and health news service. He can be reached at: hanarus@aol.com. Malu Jimenez is Senior Program Director, Self-Reliance Foundation. She can be reached at: malu.jimenez@srfdc.org.

"Recession," continued from back cover

August 2009

The Dakota Discovery Museum in Mitchell, SD, confronting with drastically reduced contributions, laid off two of its three fulltime employees and will close from October 1 to April 30. Unrestricted contributions are less than 40% of what was anticipated.

Following on the closing of two small museums (ILR 95, p. 19), the State of Delaware is terminating Tuesday and Sunday openings for the New Castle Court House Museum, the John Dickenson Plantation, the Old State House Museum in Dover and, seasonally, the Zwaanendael Museum in Lewes. All regular weekday hours have ended for the Johnson Victrola Museum in Dover; it now is open from 9:00 to 4:30 the first Saturday of each month and to groups by appointment.

At the beginning of August the Heard Museum of Phoenix, AZ, announced that it will close its West Valley branch by the end of 2009, a consequence of decreased museum shop sales and low attendance. The city of Surprise owns the museum's land, spent $3.2 million to build the museum, and has devoted approximately $471,000 to operations between 2006 and 2009. The West Valley Art Museum, also in Surprise, is closed

until it can raise adequate operating funds, some $150,000. Within a few days of these announcements, the art museum indicated that it is in conversation with Surprise Mayor Lyn Truitt about moving into the to-be vacated Heard space.

The Cleveland Museum of Art laid off 14 employees (5% of the full-time staff) and will leave 8 vacant positions unfilled. The museum's endowment has dropped from $821 million to $510 million in the last two years. This staff reduction comes shortly after the opening of the East Wing, the first part of a $350 million expansion and renovation due to be completed in 2013. This staff reduction follows initial adjustments in May when 19 vacant positions were left unfilled and senior staff took pay cuts.

The Fresno, CA, Art Museum is forced to reduce its operating budget by one-third, from $1.2 million to $800,000. It is reducing office and public hours and will be forced to lay off an as-yet-undetermined number of employees.

The Tampa Museum of Art is scaling back its annual fundraiser. Instead of charging $1,200 per couple, this year's November 7 event will be a picnic with tickets available for $250 (guests bring their own basket of food and drink with the full amount going to the museum) or $350 (the basket purchased from the museum).

In mid-August the Whitney Museum of Art, New York City, laid off 4% of its staff, bring the total of full- and part-time staff to 205.

The Fort Pitt Museum in Pittsburgh, PA, is scheduled to be transferred from the Pennsylvania Historical and Museum Commission to the John Heinz Regional History Museum, but will be closed until the state adopts next year's budget. The Bushy Run Battlefield in Westmoreland County, the Joseph Priestly House in Northumberland County, and the Brandywine Battlefield in Chester County will be closed due to lack of state funding. The commission is furloughing 23 employees.

The commissioners of Lake County, Florida, are considering closing the Lake County Museum. This will involve laying off the curator and dispersing the muse-

um's artifacts in order to save about $80,000 per year. The Official Museum Directory says that this museum attracts 50,500 people annually.

The Presidential Museum and Leadership Library in Odessa, Texas, closed on August 21. Museum trustees are exploring selling part of the collection to establish a $5.5 million endowment to both pay off debt and support operations at $165,000 annually. Alternatives involve the possibility of giving the collection to the University of Texas-Permian Basin or Texas Tech University in Lubbock.

In St. Louis, MO, the St. Louis Zoo, City Museum, and the Magic House Children's Museum set July attendance records. The zoo attracted 554,583. City Museum brought in 93,160 and Magic House saw 78,651 visitors. The combination of St. Louis hosting the baseball All-Star Game and families vacationing close to home are the major contributors to this attendance surge, according to the St. Louis Convention and Visitors Commission.

In early August, Humboldt State University, Arcata, CA, announced that the Humboldt State University Natural History Museum will close at the end of the month. This is a response to a $12 million cut in the university's state appropriation. Very quickly, a group of volunteers and community members formed the Friends of the North Coast's Natural History Museum and began working with the museum board and university administration to see how to save the museum. At present, the University has agreed to consider turning the museum over to this private group in 2010 and to keeping the museum accessible to school groups through June 2010. Currently the Museum Board and community members are working on a short-term fundraising plan to raise roughly $120,000 immediately. Additionally, HSU has asked for a long-term planning proposal to raise the amount of $300,000 to $400,000 annually.

The Elgin, IL, Zoo in Lords Park is closed, saving the city $80,000 to $100,000.

Fort Discovery in Augusta, GA, operated by the National Science Center, has

reduced its operations to a three-days per week schedule.

In the previous issue of the ILR (no. 96, p. 24), I indicated that The Zoo in Santa Rosa, CA, faced closure. The Zoo referred to here is actually The Zoo Northwest Florida in Santa Rosa, Florida (thank you, Mary Marcussen). It has since closed, despite the efforts of mortgage holder the for-profit Animal Park, Inc. The Santa Rosa County Tourist Development Council rejected a request for $125,000 for operating funding, and the Escambia County Commission followed suit. The zoo's $4.5 million debt will be at least partially retired by selling the animals and the land.

The poor economy has caused the State of Mississippi to put plans for an $80 million civil rights museum on hold. There is no funding, no timetable, and no board of directors.

The saga of funding for the Franklin Park and Stone Zoos (Zoo New England) in Massachusetts continues. As reported earlier (ILR 96, p. 24) Governor Deval Patrick and the Massachusetts legislature are head-to-head over the level of state support. There have been two rounds of vetoes, with the Zoo New England state budget currently at $3.5 million (the original legislative recommendation was $6.5 million).

The Collier County, FL, commission is considering a plan to stop devoting tourism tax dollars to Collier County-owned museums. The current operating budget for those museums is $1.2 million, with two new museums scheduled to open in 2010. The Tourism Development Council is recommending that a three-year phase-out of the tourist tax dollar allocation starting in fiscal 2011.

The Cleveland, OH, Botanical Garden is eliminating six full-time positions, not filling vacancies, and cutting its budget by eight per cent. The garden's endowment has dropped from $30 million to just over $13 million.

September 2009

The Oklahoma City National Memorial and Museum laid off 3 of its 24 employ-ees. The move is attributed to rising costs within a $3 million operating budget funded entirely by private donations and admission revenues.

Despite reopening in May after a strong community response to their closing (ILR 95, p. 20), the End of the Oregon Trail Interpretive Center, the Museum of the Oregon Territory, and the Stevens-Crawford House, all in Oregon City, OR, closed on September 8. An external study of the Clackamas Heritage Partners, the operating organization, indicated that the private group does not have the resources to successfully operate the facilities, and, to date, the city has not been able to come forward with adequate funding.

The proposed new facility for the Bell Museum of Natural History of the University of Minnesota, St. Paul, has again been removed from the university's 2010 request for construction funding. Funding for the $39.5 million building had been vetoed twice previously, although some $10 million in private funds have been raised. Those funds will hopefully be available to experiment with new exhibit techniques in the old building.

In Hawaii, the Honolulu Academy of Arts and The Contemporary Museum are discussing a possible merger to reduce operating costs.

The Maryland Zoo in Baltimore, which has lost some $200,000 in grants from the Maryland Department of Education and local city and county governments, is raising weekday adult admissions from $11 to $13 and senior admissions from $11 to $12.

The Long Beach, CA, Museum of Art will have its city funding cut from $569,000 to $169,000.

With more than two weeks remaining in its fiscal year, the Fort Wayne Children's Zoo in Indiana has broken its all-time attendance record. Thus far 544,648 people have visited, compared with the record of 541,399 in 1996.

On September 18 it was announced that the Campus Martius Museum and the Ohio River Museums, both of Marietta, OH, due to be closed by the Ohio Historical Society (see above) will remain open under the management of the newly-formed Friends of the Museums, Inc. The Friends take over on October 1, and plans to significantly extend the opening hours of both museums.

Efforts to relocate the ME's Zoo from Randolph County, Indiana, to Delaware County have failed. The privately-owned zoo will close at the end of September. Arrangements have been made to place to 200+ animals in zoos, habitats, and rescue facilities around the country.

Exhibition Observations

The stresses placed on special and temporary exhibition programs by the recession can be seen in some of the strategic decisions that are being made. This is particularly visible in the art museum world, but there also are consequences for science and history museums.

One indication of the decreased reliance on externally-produced temporary exhibitions is the large number of listings on ILE's 11th Hour page - traveling exhibitions that currently are available.

Corporate Collections

An increasing number of corporations are curating their art collections into stand-alone traveling exhibitions. Primary among these are Bank of America, JPMorgan Chase, Deutsche Bank and UBS. Bank of America now has its Art Exhibition Program that offers to museums at no cost shows curated from its extensive collection of paintings, prints, sculptures and art objects. Among the titles currently available are "Reverbrations: Modern and Contemporary Art from the Bank of America Collection," "The Art Books of Henri Matisse," "The Wyeth Family: Three Generations," "Andy Warhol Portfolios," and "the Hewitt Collection of African-American Art." Among the institutions receiving BOA exhibitions are the St. Louis Museum of Art, Boca Raton Museum of Art, Napa Valley Museum, Gilcrease Museum, Union Station, Kansas City, and the Dulwich Picture Gallery, London, UK.

While there are clear economic advantages to showing exhibitions drawn from corporate collections at no to low cost, some professionals are concerned about delegating curatorial authority from their

own staffs as well as being seen to be a marketing arm of a commercial entity.

Blockbusters and Cancellations

Several international tours have been disrupted because confirmed venues found that they were not able to generate the necessary sponsorships and could no longer afford to host the exhibition. An example: the Art Gallery of Ontario presented Surreal Things," a show developed by London's Victoria and Albert Museum. After the AGO, it was scheduled to move to the Minneapolis Institute of Arts and the Dallas Museum of Art (who were to share the costs). Neither could generate the necessary support and cancelled their participation. The show completed its venue at the AGO - with the AGO picking up the extra costs.

Similarly, there appears to be a reduced emphasis on the so-called blockbuster exhibits (a class of exhibitions that varies enormously from museum to museum). Again, this is reflected in the number of listings on our 11th-Hour page. Nonetheless, there continues to be high interest in the King Tuts, Harry Potters, and Bodies-type mega-blockbusters.

Own Collections

A final exhibition response to the recession is the increased attention being paid to materials already resident in museum collections. As might be expected, this is most clearly seen in the larger art museums that can plumb their collections almost indefinitely and, with some creative curatorship, develop endless topical exhibitions that, in many ways, are more germane to their audiences than are most imports. And, they are a lot cheaper. Examples include the "Sargent and the Sea" exhibition of the Corcoran Gallery of Art's own collection of early work by John Singer Sargent and "Faces of the Frontier: Photographic Portraits From the American West, 1845-1924" at the National Portrait Gallery, also in Washington, that traces the history of the region through images of legendary figures such as Geronimo, Buffalo Bill Cody, Annie Oakley, and Kit Carson.

Robert Mac West is editor and publisher of The Informal Learning Review. He may be reached at ile@informallearning.com.

ACTUAL CALL CENTER CONVERSATION

This has to be one of the funniest things in a long time.. I think this guy should have been promoted, not fired. This is a true story from the WordPerfect Helpline, which was transcribed from a recording monitoring the customer care department. Needless to say the Help Desk employee was fired; however, he/she is currently suing the WordPerfect organization for 'Termination without Cause.'

Actual dialogue of a former WordPerfect Customer Support employee:
(Now I know why they record these conversations!)

Operator:	Ridge Hall, computer assistance; may I help you?
Caller:	Yes, well, I'm having trouble with WordPerfect.
Operator:	What sort of trouble?
Caller:	Well, I was just typing along, and all of a sudden the words went away.
Operator:	Went away?
Caller:	They disappeared.
Operator:	Hmm. So what does your screen look like now?
Caller:	Nothing.
Operator:	Nothing?
Caller:	It's blank; it won't accept anything when I type.
Operator:	Are you still in WordPerfect, or did you get out?'
Caller:	How do I tell?
Operator:	Can you see the 'C: prompt' on the screen?
Caller:	What's a sea-prompt?
Operator:	Never mind, can you move your cursor around the screen?
Caller:	There isn't any cursor; I told you, it won't accept anything I type.
Operator:	Does your monitor have a power indicator?
Caller:	What's a monitor?
Operator:	It's the thing with the screen on it that looks like a TV. Does it have a little light that tells you when it's on?
Caller:	I don't know.
Operator:	Well, then look on the back of the monitor and find where the power cord goes into it. Can you see that?
Caller:	Yes, I think so.
Operator:	Great. Follow the cord to the plug, and tell me if it's plugged into the wall.
Caller:	Yes, it is.
Operator:	When you were behind the monitor, did you notice that there were two cables plugged into the back of it, not just one?
Caller:	No.
Operator:	Well, there are. I need you to look back there again and find the other cable.
Caller:	Okay, here it is.
Operator:	Follow it for me, and tell me if it's plugged securely into the back of your computer.
Caller:	I can't reach.
Operator:	OK. Well, can you see if it is?
Caller:	No.
Operator:	Even if you maybe put your knee on something and lean way over?
Caller:	Well, it's not because I don't have the right angle -- it's because it's dark.
Operator:	Dark?
Caller:	Yes - the office light is off, and the only light I have is coming in from the window.
Operator:	Well, turn on the office light then.
Caller:	I can't.
Operator:	No? Why not?
Caller:	Because there's a power failure.
Operator:	A power ... A power failure? Aha. Okay, we've got it licked now. Do you still have the boxes and manuals and packing stuff that your computer came in?
Caller:	Well, yes, I keep them in the closet.
Operator:	Good. Go get them, and unplug your system and pack it up just like it was when you got it.. Then take it back to the store you bought it from.
Caller:	Really? Is it that bad?
Operator:	Yes, I'm afraid it is.
Caller:	Well, all right then, I suppose. What do I tell them?
Operator:	Tell them you're too stupid to own a computer!

MORE ON RESPONSES TO THE RECESSION

Robert Mac West

This is the fourth (and hopefully last) in a series of reports on responses the informal learning industry is making to the economic pressures of the current recession. As indicated previously, the material presented here is an unscientific compilation of items reported in various media. I monitor Google News, museumnews.net, and until recently layoffdaily,com (which recently went out of business itself, so I moved over to dailyjobcuts.com).

I have the distinct sense that the pace of cutbacks has slowed, but has not yet reversed. Further, at least some of the moves made have provided incentives for increased local visitation and membership purchases. These, of course, don't necessarily translate into increased per capita revenue but do improve institutions' standing in their communities and may well translate into further support when the economy rebounds.

July 2009

The Minnesota Zoo announced its highest annual attendance (1,355,260) in its thirty years of existence; memberships (44,229) also are at an all-time high. The Kansas City Zoo reported its busiest July in a decade, with attendance up 27% over last year.

The Hall of Health in Berkeley, CA, operated by Children's Hospital and Research Center of Oakland, CA, closed on July 18. Its failure is attributed to falling attendance and the loss of outside grant revenue.

The National Cowboy and Western Heritage Museum, Oklahoma City, OK, has avoided layoffs by implementing across-the-board salary cuts. Annual donations are down by $1 million. The Oklahoma Historical Society is reducing funding for eleven state-funded museums and closing the History Center on Sundays.

Several Omaha, NE, museums are having their budgets cut as the city's 2010 budget reallocates gambling revenue from the Joslyn Art Museum and the Durham Western Heritage Museum to the purchase of new police cars. Western Heritage will lose 7% of its budget ($200,000), while the Joslyn will lose $150,000.

The Ohio Historical Society, for which state support has decreased by 42% over the past two fiscal years, is taking several steps to reorganize. The state history museum at the Ohio Historical Center is removing its current exhibits and converting to a "collections learning center," with public labs and workspaces, visible collections, a distance learning studio, and greater emphasis on technology. While none of the 58 historic sites or museums are to be closed, efforts are being made to transfer management to local groups. The quarterly magazine TIMELINE will cease publication at the end of the year, 10-day furloughs are mandated for all employees before the end of this fiscal year, 19 vacant positions will not be filled, and 53 positions will be eliminated as OHS sites transition to local management.