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Museum Exhibitions: Past Imperfect, Future Tense

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The last 30 years have seen major changes in both the demands placed on museums in their planning of public exhibitions and in the resources and techniques available to them when responding to these demands. Today, the typical museum must address questions of social responsibility, respond to economic pressures and commercial competition, and meet its visitors' desire to have a voice in museum programming. Thirty years ago, museums thought they could fulfill their duty by presenting collections or phenomena and supporting the efforts of the formal education system. Now, they must do much, much more.

Fortunately, they have found ways to do so, and new approaches and techniques are manifest in the exhibitions that are now being planned and mounted. Sometimes, the new ideas grew dir ectly out of the sources of pressure. Visitors told institutions what they wanted; museum economics suggested new directions. Some new ideas are really very old, new only to the world of museum exhibition.

What do visitors want? To be excited and engaged, to have the kind of unique experience that only a museum can provide, to gain new understanding, to be entertained, and, last but not least, to get value for their money. And these visitors are themselves different from their counterparts 30 years ago. Today's visitors expect to be included when any public institution is planning its exhibitions and programming and to have their preferences taken into account. They expect sophistication in the presentation of stories and concepts in any medium. They know computers as information carriers and problem-solvers, even if not always from personal experience. They look for attention to be paid to their physical comfort. They want to be allowed to handle objects, not to be passive in their experienc e. They want to discover for themselves, not be lectured to. They expect to read in a museum, but not too much.

Changing Times
In 1980, upper management at the Field Museum in Chicago told the exhibition staff that, according to a number of studies concerning

visitor interest in the museum's and other exhibitions, the longest exhibition viewing time they could expect from a visitor would be 10 to 12 minutes. In exceptional cases, if visitors had a compelling interest in the subject matter, they might stay about 20 minutes.1

In 1994 the same museum opened "Life Over Time," which consisted of virtually the same artifacts the Field had always displayed, many since the 1920s. Posted at the entrance was a sign advising parents with children that it would be wise to visit the toilet facilities first, as it would take one to two hours to see the exhibition. What changed, and how did it happen?

From Showing to Knowing

W hen museums were "cabinets of curiosities," primarily aimed at acquiring and maintaining collections, any new, unfamiliar object was a source of wonder. The museums' mission then, as they saw it, was to "show us the world." Now, with instant communication and unlimited access to images and information, the mission has changed to "telling us what it means." It is not enough to know; now we need to understand the processes and consequences. Exhibition planning and design has changed and developed not only to meet these needs, but to anticipate them. This is an ongoing process that may never end. As expertise in exhibition communications continues to change and grow, it will profoundly affect the character of exhibitions and museums. One might suggest that in the past exhibitions were determined by the character of museums while now the character of museums is often determined by their exhibitions. Perhaps a look back at the history of exhibition presentations will help us to understand where we are now, and where we may be going.

Exhibitions as Artifacts

Throughout the late 1800s and early 1900s, the role of the museum was confined largely to collections of art and natural sciences. The museum's major responsibility was to serve as a guardian of irreplaceable objects. Historically, exhibitions were centered on a collection of some kind and were designed to present large numbers of similar things. Scholarship was the driving force and under the control of the curator. A specific interpretive context within which the visitor could personally make sense of objects (beyond seeing them as simply beautiful or curious) was largely absent. The relationship between the exhibition and the visitor was largely passive. It spoke and you listened. Attempts at communicating with the public were typically confined to label writing and lectures. Exhibition design was the responsibility of the curator, who knew the artifa cts, and the preparator, who prepared them and placed them in the cases. In time, single artifacts became groups of artifacts and culminated in the most ambitious of arrangements, the diorama. But whether the show was object- or diorama-based, the responsibility for the exhibition still lay in the hands of the curator. Though they were well intended and educational, such exhibitions created the popular stereotype of museums as institutions that showed things you could

only understand if you had the right education. The public felt that exhibitions were a dialogue between experts, to which they were invited as guests, with no entitlement to feel any sense of ownership.

Exhibitions as Themes

As museums determined that reaching this greater public was important, they also realized that this would demand something more than simple displays, and the concept of the theme exhibit took hold. This starts with an idea that lends itself to the exhibition medium and uses artifacts and collections to support or amplify that idea. While artifact-based exhibits tend to be narrow and focused, theme exhibits tend to be broad and general. An outstanding example of this approach can be seen, again, at the Field Museum. In the years following 1985, under a new regime that called for massive renovation and reinstallation, several exhibition halls were reopened under the umbrella themes of "Africa," "Inside Ancient Egypt," "Traveling the Pacific," and other headings. In these new exhibitions, all the separate disciplines of a natural history museum, traditionally displayed in halls labeled Anthropology, Archaeology, Botany, Zoology, Geology, etc., were brought together in context and in relationships with each other.

The theme show is sometimes the framework an institution uses to remount materials from its permanent collection as a temporary exhibition. The Metropolitan Museum of Art, New York, recently presented several very interesting shows. "From Van Eyck to Bruegel," for one, was built around examples from its own huge collection. The traveling exhibition "Picasso's Still Lifes" was built around a single theme rather than a traditional chronology or an art medium. Considered at the time to be a daring departure (for an art museum), it was immensely popular.a Children's museums have been very adept at utilizing the theme approach. As we write, the Brooklyn Children's Museum is presenting "Global Shoes," an exhibition of footwear throughout the world intended "to make kids think that shoes are clues to people and places."2

In extreme cases, some theme exhibits have been mounted with replicas, using no real artifacts at all. Examples of this include the many sites that use living history techniques. For example, Pennsbury Manor, located outside Philadelphia, is a reconstruction of an 18th-cen tury home that contains no materials original to the building, though there is some furniture that is of the period. There, interpreters utilize replicas of clothing and tools of the period to portray life in the original house during its period of occupancy.

Because of their typical breadth, theme exhibits tend to cut across many disciplines and can no longer be the domain of a single specialist. This has necessitated a new model for the creation of exhibits, as in many cases no curator can have the full range of expertise or the communicative skills to address the theme fully.

Team Planning
The concept of team planning and design has produced a shift in the earlier museum rule of the curator-specialist as the originator of all exhibits. The exhibition team is lead by a specialist in museum communication and will typically contain (at a minimum) a subject-matter specialist, a designer of physical components, an educator who als o represents the museum audience, and others with more specialized skills or interests: an evaluator, a specialist in digital media, an exhibit fabricator, a representative of a constituency with strong interest in the theme.

Many thematic exhibitions contain an underlying narrative, which makes the experience richer for the visitor. A story that connects and relates all the artifacts or experiential exhibit components can be much more powerful than a simple thematic organization of the same materials. Such an approach may be successfully utilized even when the story is a fictional construct, although the ethics of the museum would demand a basis of fact. A successful example of this is "Daniel's Story: Remember the Children," at the U.S. National Holocaust Memorial Museum, Washington, D.C., which follows the life of a fictional boy growing up in Nazi Germany. The narrative is documentary and contains facts that add up to a coher ent story. In 1992 "Seeds of Change" at the National Museum of Natural History and "1492" at the National Gallery of Art in Washington, D.C., celebrated the discovery of America by asking, "What was it like then, and what happened later?" The narrative approach is, understandably, frequently used in exhibits of history and social history, and may be part or whole of such exhibits. "Whodunit," an exhibit that originated at the Fort Worth Museum of Science and Industry in 1993 (and is still traveling), where visitors unravel a murder mystery using detection and forensic techniques, is a rare example of the concept's transfer to the science museum milieu.

Interactive Exhibitions
By the 1920s, European science museums were providing visitors with some context for artifacts they displayed, using objects to instruct as well as present science and technology. Great emphasis was placed on the interactive aspect of exhibits that required the physical parti cipation of the visitor in the learning process. By 1933, this idea had been adopted in the United States, where interaction became a virtual requirement of all science exhibitions. This idea continues today, and is spreading throughout most museums, sometimes in the most unexpected places. As it is increasingly obvious that a considerable percentage of visitors will have a much more profound museum experience if offered hands-on activities, they have become part of almost every type of museum exhibit. Interactives are now part of the interpretive framework of museums of art and decorative arts, such as the Denver Art Museum and Winterthur; institutions with traditional collections, such as the Berkshire Museum and the Mercer Museum; and even zoos and botanic gardens, such as the Henry Doorley Zoo in Omaha, the

Brookfield Zoo in Chicago, and the Missouri and Chicago botanic gardens.

Environmental Exhibitions
The traditional natural history diorama seemed to have reached its maximum size by the 1940s. Some, like the magnificent dioramas in the American Museum of Natural History (AMNH), New York, showed animal families in their natural environments, separated from the visitor in glass boxes. But that was not the last word in natural history display techniques. Another concept was pioneered in the '70s by the Royal British Columbia Museum in Victoria, Canada, and the Milwaukee Public Museum. The Victoria and Milwaukee museums removed the glass barriers and flat-wall presentations, substituting an open and, often, three-sided presentation and creating for the visitor the illusion of being inside the exhibition, rather than on the other side of the glass. Soon museums were putting visitors entirely into replicated or imaginary environments that totally surrounded them on all sides and often provided a whole range of experience--touch, sound, and smell in addition to the visual. Some of the earliest experiments in such environ ments are still extremely effective. Art museums such as the Metropolitan, Philadelphia Museum of Art, Virginia Museum of Fine Arts, and many others have long presented walk-in period rooms, sometimes as a framework for collections. Walk-in environments are an expected part of history and natural history exhibitions, and may be seen at institutions such as the Atlanta History Center, the Field Museum, and the National Museum of Natural History, Smithsonian Institution.

Theatrical techniques are more frequently being utilized in the creation of these environments, resulting in experiences that are no longer static. Live theater is also a growing part of exhibition environments.

Environmental exhibitions can be located inside or outside. In large open settings, such as farms, historic houses, and even towns--Colonial Williamsburg, for example--the exhibition environment often includes people, costumed and rehearsed as living artifacts, recreating a past lifestyle. More traditi onal museums have embraced this idea, realizing that the presence of living human beings within an exhibition environment can greatly enhance the visitor experience.

Immersion Exhibitions
As far back as 1933, "Coal Mine" at Chicago's Museum of Science and Industry created an accurate replication of a working coal mine, taking visitors down an elevator shaft to mine cars that carry them through what appears to be a tunnel of actual coal. Now 66 years old, it still attracts long waiting lines.

Taking a cue from such time-controlled environmental experiences, Disney developed totally controlled interior environment exhibits, in

which the visitor is completely surrounded and, in fact, immersed in the exhibition itself; the visitor experience is preprogrammed. To control the flow of visitors through an immersive space, Disney developed the concept of the "ride through" in which visitors are conducted through the exhibition in a moving vehicle. Virtually all aspects of this type of ex hibition are under the control of the presenter--space, path, time, sound, smell, information, number of visitors. This kind of totally immersive experience has been utilized in museums outside the United States--for example, at the Jorvik Viking Centre in York, England--but it is not seen beyond the commercial sector here. Semi-controlled immersion is more prevalent in American museums and has been particularly effective when used to convey a setting with strong emotional aspects. The First Division Museum at Cantigny, in Wheaton, Ill., walks visitors through a ruined French village down into replicated trenches of World War I, complete with the sounds of conversations of soldiers, overhead artillery, and lurking rats. "Daniel's Story: Remember the Children," which takes visitors into and through the changing settings of a Jewish child's life in wartime Germany, is very affecting. Future exhibitions will certainly put more visitors inside immersive environments.

The Blockbuster Syndrome

Th e blockbuster exhibition originated in 1976 with the "Treasures of Tutankhamen." It was a fortuitous combination of precious and exotic artifacts, good marketing, public readiness, great publicity, and imaginative presentations. The six North American museums that presented the exhibition found, much to their astonishment, a total of 8 million visitors, constant and free media publicity, and, the biggest surprise of all, money pouring in. Museums that had resigned themselves to being in perpetual debt discovered they could actually make money by presenting exhibitions and at the same time serve as a civic asset. The city of Chicago estimated $130 million in extra income from tourist spending during the Tut exhibition. From that point on, museums have been trying to duplicate the Tut show's success. Although nothing has come quite that close, the concept of the huge, publicized, excitingly presented, and revenue-producing exhibition is now a permanent part of the museum's exhibition agenda.

Visitor Studies

Although visitor studies should be included in an overview of the present rather than the future, their use in the planning of exhibitions is still far from ubiquitous. As the visitor studies field refines its tools and looks to broader models, including examinations of public behavior, retail studies, and ergonomics, for example, information gleaned from such studies is becoming essential to any exhibition planning.

Contextual Materials and Interactives in Art Exhibitions

Some art museums are now establishing context for an artist's work

by presenting related artifacts and environments within the exhibition itself, rather than in a remote study area. In its Odilon Redon exhibition, the Art Institute of Chicago included artifacts that represented the movements, ideas, and times that influenced the artist. In the institute's Mary Cassatt exhibition, artifacts such as clothes, accessories, and publications introduced the visitor to Cassatt's milieu. The Jackson Pollock retrospective at the Museum of Modern Art, New York, included a walk-in replica of the artist's studio, giving visitors a sense of the space and environment in which he worked.

Live Specimens in Natural History and Science Museums
A number of museums have discovered what zoos have always known: visitors are fascinated by live animals. Butterfly exhibits have proliferated in recent years, and the display of a very diverse range of other specimens has become more feasible as the physical capacity of museums to handle such materials has expanded. A traveling show called "Snakes" is now touring the United States, and the Insect Zoo at the National Museum of Natural History has long been a favorite with the museum's audience.

Digital Media
Increasingly, visitor-responsive digital media are being used to carry the basic messages in exhibitions. As the audience becomes more electronically literate, the presence of computers n o longer seems anomalous to exhibition content; computers are seen as a more interesting equivalent of traditional labels. The use of digital interactives is becoming widespread, particularly for general wayfinding. The number of exhibition-specific Web sites are also increasing, providing visitors with an introduction to, or a partial substitute for, a real exhibition visit.

Children and Families
Exhibition areas designed specifically for children and child-directed programming within exhibitions date back to the '30s. But contemporary museums and exhibits are more likely to go beyond the adult audience that is their central focus and address children's needs as well, with interactive activities and media, storytelling, and group facilities. The Wichita Art Museum presents exhibits directed at children within adult-focused exhibits. The Seattle Art Museum offers rooms for children with music and literature related to the art on display. And the J. B. Speed Art Museum in Louisville, Ky., gives its young visitors portable digital display devices to help them understand what they are seeing. The Art Institute of Chicago has a good example of a child-directed gallery with strong temporary exhibitions. It also is far more likely that a contemporary museum will think of its visitors as people coming in a group, often a family, and will plan for group participation and interaction between members of the group.

Timed Events
Influenced by theme parks, some museums are planning their

exhibitions and activities as a series of timed events. In this scenario the theoretical visitors, perhaps two parents and two children on vacation, come to the museum for a full day's edutainment. Entering the building, they immediately purchase or secure free, timed tickets for the Omnimax show, the LEGO Lab, the chemistry demonstration, and the children's Science of Play area. They take note of scheduled events that are not ticketed. They go to the publicized special exhibition, which will often include timed presentations, head to a ticketed demonstration, have lunch, go to the Omnimax, let the kids loose in the Science of Play exhibition, then wander through the museum seeking exhibitions of personal interest, ending up in the shop until closing time. This kind of visit provides the type of all-day, busy-every-minute, I-got-my-money's-worth experience that people have come to expect in parallel venues such as theme parks. It tries to replace the more traditional visit, whose problems often include entry confusion, arguing over preferences, aimless wandering, and getting lost in run-down, backwater exhibits that so often characterize many institutions, even very good ones. Some museums now present four or five of these formal events at regular times every day. Designers now must contend with developing exhibitions that will permit programming for groups and also provi de visitors with a satisfying experience between programs and demonstrations.

The Museum as a Civic Investment
Increasingly, museums and their exhibitions are not the product of largess on the part of individuals, but of civic or corporate decisions that they are appropriate and needed to create public presence, help change attitudes within a population, and, last but not least, encourage cultural tourism. The planned Constitution Center in Philadelphia is clearly aimed at both changing attitudes and increasing tourism. Exploris, a center in Raleigh, N.C., that will open this October, has designed its exhibitions and programs to prepare its youthful audience for a high-tech, global future. A number of private museums and quasi-museums now perform the same functions. The Newseum in Arlington, Va., and Elvis Presley's Graceland in Memphis are examples, although in very different ways.

The Entrepreneurial Exhibition
The blockbuster exhibi tion changed the perception of an exhibition from a loss-leader (what museums lose on producing exhibitions, they may make up in memberships) to that of income producer. Some of that thinking has influenced the non-museum sector, leading to the development of major exhibitions by non-museum venues, privately supported and run, with great efficiency, outside established museums. For 10 years the city of Memphis has annually produced major exhibitions, not in its local and excellent museums, but in the exhibition halls of its modern convention facility, contracting with non-museum experts on development and production. Attendance for "Rameses," "Napoleon," "Catherine the Great," and others has resulted in a response often exceeding the size of the city itself, which has a population of about a half million. Last year, "Nicholas and

Alexandra," a commercially produced show, was presented in Wilmington, Del., in a civic hall built to house such temporary exhibition s. It was held over to accommodate the crowds and has since moved to other venues. This year the city is presenting "Splendors of the Meiji." The entrepreneurial exhibition is not confined solely to art. The success of the many animatronic dinosaur exhibitions has inspired spinoffs of giant robotic insect exhibitions. For the most part, these shows originate in private companies, often fabricators, and are rented to museums. At the Luxor Hotel in Las Vegas, visitors who are not gambling can see a completely and skillfully replicated tomb of Tutankhamen as it looked when Howard Carter found it. Even as we write, the New York Times reports the opening of a huge Sony entertainment center in San Francisco. Among its many offerings is a "Sendak" experience based on stories and illustrations by Maurice Sendak and a "The Way Things Work" exhibition, based on the well-known book by David Macaulay.

The Changing Character of Museums

As old institutions adapt to modern times , new ones come into existence to examine the very character of museums. Some collections-based institutions, such as the Wagner Free Institute, a Victorian natural history collection in Philadelphia, are becoming exhibitions about the history of museums. The exhibitions of the Museum of Jurassic Technology question the whole nature of museums. Winterthur has built a self-guided museum as an introduction to their core institution, producing, in effect, an exhibition about its exhibitions. Several art museums have had temporary exhibitions on art fakery. "The Science of Star Trek" traveled to science museums in recent years, and, in 1998, London's British Museum of Natural History had an exhibition, replete with theatrical, animatronic giant monsters, on imaginary animals. The boundaries of what a museum can and will do seem to be expanding exponentially. Exhibition is no longer limited to the display of orthodox collections and orthodox ideas, using orthodox techniques. The demands of marketing, the increased skill of exhibitors, and the expansion of the definition of museums seem to have removed most of the traditional limitations of museum exhibition.

The Global Approach

For many years, American museums have maintained a quality of insularity. This is changing, due to the growth of relatively easy and cheap international travel, the Internet, and the global exchange of information. Some Asian and South American museums have drawn deeply on the American model. Other parts of the world have their own characteristic museum styles, which may start to influence American exhibition development. Archaeological sites in several European countries--the Roman baths in England, for example--have embedded interpretive exhibitions into the site itself rather than placing them elsewhere at a respectful distance. The son et lumiere (sound and light) technique for interp reting sites, long a staple interpretive approach in the rest of the world (attracting audiences in

Asia, the Middle East, North Africa, and Europe) has finally appeared in America. This year, for example, the historic area in Philadelphia's Independence National Park is utilizing a sound and light presentation.

American museums might also look to European museums for a lesson in the aesthetics of exhibitions and the emotional effect of dramatic presentation. The beauty of the Grand Hall of Evolution in the Paris Museum of Natural History in France affects and informs the visitor profoundly. The spectacle of long lines of animals arrayed as an evolutionary pageant, accompanied by sounds of passing storms and changing daylight can take your breath away. The presentation of mounted specimens as a visible timeline of evolution has already found its way from Paris into AMNH's new Hall of Biodiversity.

Exhibition Design as a Profession

These days exhibition design is a serious business. A large permanent exhibition will routinely cost $1 million and more ambitious projects far more than that. For example, the Hall of Biodiversity at AMNH cost $10 million. In 1990, the Franklin Institute, Philadelphia, spent $13 million on its "Futures" exhibitions and is now in the process of replacing them with new shows. Even temporary traveling exhibitions can cost more than $500,000, though they are gone in a few months. It is clear that the responsibility for such undertakings cannot be lightly assigned. An experienced exhibitions designer should be concerned with planning, research and development, proposal writing, visitor studies, communication methods, curatorship, conservation, program support, management, education, sche Qduling and coordination, audio-visual support, graphics, electronic media, interactive technologies, computer modeling, fabrication, wayfinding, handicapped access, documenting and presenting, architectural space, formative and summative evaluation, in addition to creating a sense of joy and wonder on time and under budget.

As a result, exhibition design and its equally important sibling, exhibition planning, have moved from an informal apprenticeship system to a recognized profession, complete with degree courses. The University of the Arts in Philadelphia, for example, is one of a growing number of schools that have a specialized graduate program in museum exhibition planning and design.

What's Next?

Just as museums have come to appreciate the wide diversity of their audiences, so too must exhibition planners and designers. The re can be no single way to produce exhibitions. Instead, there is a growing menu of possibilities. All the techniques and viewpoints we describe here are in place and occurring in museums as we write. Depending on a number of variables, each specific to a particular concern, some will prove more enduring, others less so. This is an exciting time for museum exhibition designers. As someone always says at high school graduations, the future lies ahead.

References

0. Ed Bedno was chairman of the Field's exhibition department at that time.
1. Elizabeth R. Rawson, senior exhibit developer, Brooklyn Children's Museum, quoted in the New York Times, May 21, 1999.