



# Small Changes, Big Impact: Scalable Renovations Lead to Improved Visitor Experiences

by Kris Nesbitt, Lindsay Maldonado, and Fran Mast

**Kris Nesbitt** is Director-Exhibits at Shedd Aquarium; **Lindsay Maldonado** is Director-Audience Research and Evaluation at Shedd Aquarium, **Fran Mast** is Coordinator-Audience Research and Evaluation at Shedd Aquarium. They may be contacted at [knesbitt@sheddaquarium.org](mailto:knesbitt@sheddaquarium.org), [lmaldonado@sheddaquarium.org](mailto:lmaldonado@sheddaquarium.org), and [fmast@sheddaquarium.org](mailto:fmast@sheddaquarium.org), respectively.

---

If you would like to comment on this article or others in this issue, please go to the NAME page on Facebook or send us a tweet @NAMExhibitions.

---

In today's world of tight budgets and economic accountability, the reality of undertaking large-scale renovations and major new exhibitions is challenging. It becomes essential to find inexpensive ways to invigorate and update existing permanent collections to provide visitors with the modern experience they seek in a museum visit. The vision of the quintessential museum is changing from "primarily a presenter of objects to being a site for experiences" (Hein, 2000). This dramatic shift in focus and vision centers on the visitor, for if museums and other informal learning settings want to remain successful, it is imperative that they are relevant to the dynamic constituencies they serve. This means adapting to the needs and demands of *today's* museum visitor. And they want it all: an optimal balance of education and entertainment, access to content that is increasingly personalized, more technology, and more multi-modal, multi-sensory experiences.

## Updating Classic Spaces on a Tight Budget

Institutions with long-standing histories and traditional spaces, while classic and beautiful, may lack many of the updated features visitors expect as part of the contemporary museum experience. While the shift in vision for museums has inspired high levels of creativity from those in the museum and informal learning field, it has also left us questioning how to best provide visitors with more interactive, engaging experiences using the limited resources we have available. Chicago's Shedd Aquarium is taking on improvements to original galleries constructed in the 1930s. These traditional galleries offer little in the way of interactive experiences. Instead, they

offer visitors low-lit animal exhibits, minimal labels, occasional content-heavy rail signage, and looping video. With over 2.1 million visitors in 2012, Shedd Aquarium needed to find ways to effectively engage large numbers of visitors on a relatively limited budget. With creative and inexpensive design changes, it was possible to modernize the visitor experience, providing the "more" visitors expected, while continuing to tell cohesive, impactful stories related to the mission.

Shedd Aquarium faced similar budgetary and structural restraints when planning to refresh two spaces: *Local Waters*, one of the original 1930s galleries, and *Amazon Rising*, a late 1990s exhibition which was the result of a major overhaul of original galleries. Since its opening in 2000, very few changes or updates had been made to *Amazon Rising's* original design. For both areas, resources were on average 10-15% of what it would take to fully overhaul the spaces. In addition, very minimal changes could be made to the animal collections and habitats themselves. Given these inherent limitations, Shedd explored relatively superficial design changes to reinterpret and improve the existing exhibits. The team focused on new graphic design, simple 3D design alterations, the addition of more robust digital interactives, and revised, learner-friendly content strategies to refresh the spaces. The results efficiently improved the functionality and visual appeal of the galleries, as well as guests' ability to access information and engage with exhibit content. Evaluation studies showed that these low-budget, simple changes provided significant improvements to exhibit appeal, stay time, and guest engagement behaviors.

As part of the planning process, the Shedd team first assessed the existing spaces. What successful components could we leverage? What elements or areas of the galleries were underutilized? What were the most problematic elements in the existing design? In *Amazon Rising*, chunky horizontal reading rails blocked much of the viewing glass, and a brown-based color palette looked drab and dated. The other gallery, *Local Waters*, featured a smattering of reading rails but mostly only animal identification cards with minimal species data. A header encircling the gallery titled each individual habitat, splitting up the space. Both exhibitions suffered from guest-flow issues, with most visitors marching in straight lines along the habitats, stopping only briefly and occasionally. In *Amazon Rising*, few people made it to both sides of the space. Audience research, including timing and tracking and in-depth evaluations, allowed the team a revealing window into how the exhibits were currently functioning and provided excellent baselines from which we could measure improvements.

### From Horizontal to Vertical

Offering opportunities for visitors to access content in multiple ways was a crucial aspect of the updated design, and switching from horizontal rails to vertically-mounted panels was central to that tactic. The new, brightly-colored graphic panels were mounted vertically, which allowed for an increased sightline. Because visitors easily viewed the updated panels standing from afar, these changes were essential for accommodating large crowds. In addition, mounting the panels vertically often expanded the habitat viewing area, allowing guests, particularly in large numbers, access to engage with



The revised Great Lakes gallery feature a unified, LED-lit header band, a large-scale slideshow projection in the cove, and a sturgeon touch experience. ©Shedd Aquarium.

the animal exhibits. Panels offered scaled-back text, with large font for the most important content to detailed information in smaller text. The panels also featured open-ended questions that engaged visitors in exhibition content and provided a conduit for discussion among visitor groups. With streamlined text, these panels were less cumbersome to read, and content was easily digestible. However, simplified text did not mean decreased understanding of exhibition content and messaging. Summative evaluation found that visitors were still able to identify the main messages and make relevant connections to the exhibition content. For instance, in the summative evaluation nearly 50% of visitors stated that the exhibition was about people living in the Amazon region, one of the exhibition's main messages. Approximately 34% of visitors said that they read or saw something related to this message throughout the exhibition. This was a 10% increase from pre-renovation data. Visitor feedback also showed statistically significant improvement between front-end and summative evaluations for ratings of *easy to read panel information* with 59% of guests providing high ratings on a five point semantic scale in the summative evaluation vs. 36% in front end evaluations of *Amazon Rising*. The addition of open-ended questions also

For both [exhibition] areas, resources were on average 10-15% of what it would take to fully overhaul the spaces.



Amazon Entry shots: Before, left; After, right. Twelve years after it originally opened, Shedd's Amazon Rising received a facelift, with new interpretive graphics, a brighter color palette, and other low-budget changes. The simple change of painting the top of the tree cutouts green made for a dramatic new look. ©Shedd Aquarium.

(continued from page 43)

Audience research, including timing and tracking and in-depth evaluations, allowed the team a revealing window into how the exhibits were currently functioning and provided excellent baselines from which we could measure improvements.

offered visitors the opportunity to engage with others in conversations around content as well as make meaningful connections between exhibition content and their own life. Visitors were able to access exhibition messaging in personalized and meaningful ways.

#### Expanding the Digital

Digital elements provided additional entry points for visitors to access content and engage with animal habitats. Technology has been changing the way we look at exhibition design and the visitor experience; it has become a tool for museums to satisfy visitors' needs for instant, personalized, and entertaining learning experiences (Stogner, 2009). Incorporating iPads and other digital tools like digital games, touch screens, and videos offered visitors the opportunity to personalize their experience by instantly providing access to additional content in intuitive, manageable ways. These new digital tools were embedded into new vertical panels, installed as large standalone interactives or, in the case of the digital identification system, mounted on stations in front of every animal habitat so that individuals could access information in various ways. At Shedd, the team embedded rich content into mounted digital touch screen systems to create an interactive animal identification system. *Amazon Rising* had always featured a digital ID system, but it was limited in its functionality and in the content it offered

guests. The new iPad based system offered a way for visitors to immediately seek out the additional type of information they desired using more current interface design. This shift added depth to content and personalization to the visitor experience. Digital games and videos offered another layer of content that engaged adults and children alike, while also providing an interactive element to complement the static content found in the new panels. In many cases these projects did not require a total redo of the previous assets. Instead, the interface was updated (for instance a printed flipbook became an iPad interactive.) In *Amazon Rising*, the videos and options in several digital video players remained identical from the pre-renovation interactive, but simply featured the updated color palette and a more intuitive touch experience, which made the content much more appealing.

Visitors found the added digital elements enhanced their experience by offering additional animal information and facts in an easy to use system. Visitor comments included, "They were very informative, and quick." "Very helpful and easy to use." "I liked using the touch screens better than reading a normal panel." Indeed in the *Amazon Rising* summative evaluation guests' ratings of *using interactives in exhibit components* showed statistically significant improvement from front-end evaluation. In summative evaluation 29% of guests gave high





Amazon River Channel exhibit: Before, left; After, right. Large, horizontal reading rails originally blocked the habitat views. In the refreshed design, vertical panels and slim iPad stations replaced the reading rails, allowing for far better views into the habitats. ©Shedd Aquarium.

ratings on a five point semantic scale (the scale being a high rating of “Great” to a low rating of “Didn’t Like” for various exhibit components) versus 13% in front end studies. In addition, 52% of guests provided high ratings for “Using the touchscreens field guide to Identify Animals” in the summative evaluation versus 17% in front end studies.

### Improved Aesthetics

In addition to signage and digital interactives, updating the aesthetics of the exhibition environment was another inexpensive yet powerful change that was found to provide visitors with a more engaging experience. Many aspects of the exhibition environment have been found to influence the visitor experience (Forrest, 2013). Simple changes to unifying headers, enhanced color palettes, and lighting increase cohesiveness throughout an exhibition. In *Amazon Rising*, for instance, the team refreshed large, freestanding tree cutouts, once a monochromatic brown, by painting the tops of the trees green. The brighter color lightened the overall space, drawing the eye upwards and making the gallery space seem taller. In the *Great Lakes* gallery, the once choppy header now features a unified illustration that unites the space. Behind the graphic, LED lights provide an even, bright tone. These relatively simple changes offer a more aesthetically appealing exhibition environment that invites visitor exploration and engagement. Environmental features like lighting and

color have been found to influence visitors’ perceptions of their experience, affecting their engagement, attitude, and intentions to revisit (Packer, 2008; Bonn et al., 2007). At Shedd, visitors found aesthetic updates added to the overall appeal of the experience, rating the look and feel of the new *At Home on the Great Lakes* exhibition fairly high: 78% of visitors gave medium-high ratings on a ten point scale (high being ratings 9 and 10 and medium ratings being 7 and 8).

### The Whole Is Greater than the Sum of its Parts

Findings from summative evaluations done across the two updated exhibitions showed higher levels of satisfaction attributed in part to the cost-effective and relatively simple updates. Each of these distinctive changes affected the visitor experience in and of themselves, but the truly remarkable and interesting effects came from the interplay among all changes taken in totality. Visitors were provided with a variety of informational components from the more accessible vertical panels to the interactive animal ID systems to various digital interactives. These renovations allowed visitors to personalize their experience by accessing information when they wanted and in whatever format was most palatable and accessible. Having a variety of personalized entry points led to increased use of exhibit components and higher levels of engagement as was indicated

Offering opportunities for visitors to access content in multiple ways was a crucial aspect of the updated design, and switching from horizontal rails to vertically-mounted panels was central to that tactic.

In many cases these projects did not require a total redo of the previous assets. Instead, the interface was updated (for instance a printed flipbook became an iPad interactive).

(continued from page 45)

**References:**

Bonn, M. A., Joseph-Mathews, S. M., Dai, M., Hayes, S., and Cave, J. (2007). Heritage/cultural attraction atmospherics: Creating the right environment for the heritage/cultural visitor. *Journal of Travel Research*, 45, 345-354.

Forrest, R. (2013). Museum atmospherics: The role of the exhibition environment in the visitor experience. *Visitor Studies*, 16(2), 201-216.

Hein, H.S. (2000). *The museum in transition: A philosophical perspective*. Washington, D.C.: Smithsonian Books.

Packer, J. (2008). Beyond learning: Exploring visitors' perception of the value and benefits of museum experiences. *Curator*, 51, 33-54.

by increased durations of stay in the exhibitions and greater awareness of messaging.

In both exhibitions where Shedd undertook these small-scale changes, the overall duration of stay within the exhibition increased in summative evaluations. In addition, durations of visitation at the individual exhibits increased or remained comparable between front-end and summative evaluations. The flip side of increased visitation times was decreased frequency of visit at individual habitats; visitors stayed longer at individual habitats but visited fewer habitats overall. Although guests were not visiting as many components, the mean duration of visitation at selected components increased, with some habitats showing average durations of two to three times greater than in the front end evaluation. These changes were attributed in part to the variety of access points embeded in the updated exhibit componets. Guests were slowed in their progression through the space because they were able to find the information they wanted in a mode that was accessible for them. Because guests were able to personalize their experince, they were also able to engage more deeply with the collection and content. This increased engagement was indicated by increased awarness of the main message of the exhibition. Although many guests could

accurately identify the main message of an exhibition before renovations were made, the extent to which visitors were able to identify key messages increased, as did their awareness of the more subtle and nuanced messaging that was often overlooked before. Better access to content led to deepened engagment culminating in increased awareness of messaging, all from cost-effective and relatively simple exhibit renovations.

As our collections have grown and diversified, so have the audiences we serve, and their needs and demands for more interactive, engaging museum experiences. Providing guests with modernized exhibitions need not involve expensive, construction-heavy renovations. Instead, strategies like streamlining signage, embeddedding layered content into digital systems, and enhancing asthetics to provide an engaging atmosphere can markedly improve the visitor experince in a cost-efficent, budget-friendly manner. Indeed for Shedd, these big impacts from small changes were a worthwhile investment to enhance the experience and add longevity to exhibitions. Instead of incurring major construction costs we expended on average about 10-15% of a full renovation. Creative, purposeful changes can just as easily transform static spaces into dynamic, engaging exhibitions for the vistors we serve. ✨