

Designing to Foster Connections and Inspire Action

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Exhibit design for zoos and aquariums is a holistic process that simultaneously addresses the needs of the animals, the staff members who manage and care for them, and the visitor experience.



SUSAN CHIN © WCS



"Snow Leopard" exhibit, Central Park Zoo, New York. The exhibit was designed to encourage visitors and leopards alike to share the same rocky ledge, creating the up-close experience that fosters an emotional connection.



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It determines how we tell our stories and creates the primary physical interface with our guests. Zoo and aquarium design isn't simply about creating novel ways to house and exhibit animals; it has to serve a greater purpose, one that engages diverse audiences in our conservation and animal welfare missions. The exhibit team at the Wildlife Conservation Society (WCS) designs every aspect of the visitor experience to foster an emotional connection with animals (fig. 1). This connection serves as an essential ingredient in building a community of wildlife advocates motivated to take action to save and protect wildlife and wild places.

This emotional connection is embedded in our mission. Our goal is to “save wildlife and wild spaces worldwide through science, conservation action, education, and inspiring people to value nature.” It is also rooted in the work of our Exhibition and Graphic Arts Department, which serves WCS's four zoos and one aquarium in New York, in addition to our field conservation work in 15 priority regions around the globe. Headquartered at the Bronx Zoo, this multidisciplinary team of architects, graphic designers, exhibit developers, project managers, exhibit fabricators, and landscape architects fulfills WCS's mission by shaping the vision for our parks, creating innovative exhibit experiences that inspire our visitors to care about wildlife and wild places, and connecting them to conservation through dynamic, innovative interpretation and animal experiences.

It is the urgency of our mission that compels us to appeal to our visitors' hearts and minds to make them aware of the plight of animals and ecosystems worldwide. With the current rate of habitat destruction and species loss, conservation has never been a more critical issue for us as a society. Our work is on the front lines of helping visitors to expand their own interests in wildlife, global biodiversity, and ecology. We are well equipped to help visitors to see themselves as part of the solution to ongoing conservation issues.

With such an important and critical mission, one could ask which is more likely to motivate or compel a visitor to take action or change behaviors in support of our goals: negative or positive emotion? It could be argued that we would elicit a stronger and more powerful response from our visitors if we were to spark negative emotions, creating experiences that impart more of the gruesome reality for many of the world's species. Yet two considerations lead us away from that approach. First, we attract very young visitors who are just beginning to understand and experience the natural world, and developmentally they are not ready for such dire messaging.¹ Second, we want our visitors to see their potential for impact and change by cultivating empathy and a

¹ David Sobel, *Beyond Ecophobia: Reclaiming the Heart in Nature Education* (Great Barrington, MA: Orion Society, 1996), 5; Randy White and Vicki L. Stoecklin, “Nurturing children's Biophilia: Developmentally Appropriate Environmental Education for Young Children,” *Collage: Resources for Early Childhood Educators* (November 2008).

fig. 1. The “Spiny Forest” in *Madagascar!* at the Bronx Zoo, New York. Our design team at WCS recreates a unique habitat and minimizes the barriers between visitors and lemurs in order to foster visitors’ emotional connection to the animals through proximity.

sense of agency, as opposed to presenting information that is emotionally exhausting and overwhelming. We don’t want our visitors to shut down emotionally.

Our work at WCS is informed by the field of zoo and aquarium visitor research. Foundational studies to understand zoo/aquarium visitor expectations and identities have taught us that our audiences expect and trust us to provide them with new and relevant information regarding the environment.² Ultimately, our goal is not only to inform visitors, but to engage and inspire them by appealing to their hearts and minds. Our peers in the for-profit world have come to understand and parallel this as well. It is not enough to provide something good or exciting or useful to a customer or visitor. It is the emotional connection—love, in fact—that the strongest brands seek to cultivate in their customers or constituents.³ Similar to brands pursuing devoted consumers, we are seeking to cultivate zoo and aquarium goers

into motivated and informed citizens who are prepared to take action on behalf of the species that they may only encounter in one of our zoos or aquariums.

2 Douglas Meyer, Alyssa Isakower, and Bill Mott, “An Ocean of Opportunities: Inspiring Visitors and Advancing Conservation,” summary report, The Ocean Project (January 2015). You can find the summary report at <http://theoceanproject.org/wp-content/uploads/2016/07/OceanOfOpportunities-SummaryReport2015.pdf>.

3 Kevin Roberts, *Lovemarks: The Future Beyond Brands* (New York: PowerHouse Books, 2007); Anne Bergeron and Beth Tuttle, *Magnetic: The Art and Science of Engagement* (Washington, DC: The AAM Press, 2013), 60–61.

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Our Design Choices

To create inspired and engaged visitors, we need to create experiences that are 1) affective (relating to feelings or emotions), 2) cognitive (based on empirical factual knowledge), and 3) have personal relevance. It is this combination that is likely to realize the greatest impact on our visitors and to hold the greatest opportunity for them to have a meaningful experience. We design with an eye toward incorporating these three elements in our exhibitions and interpretive programs. For our discussion here, we will focus on the ways that our design choices help us to create opportunities for that meaningful experience.

To engage visitors, our exhibit design staff purposefully choreographs WCS exhibitions to leverage the story line, the physical space, and an emotional arc.

We Develop a Holistic Design Vision

A holistic design vision ensures that we use every tool at our disposal to create powerful exhibitions. Every decision, large and small, has the potential to reinforce or detract from the narrative and experience. To engage visitors, our exhibit design staff purposefully choreographs WCS exhibitions to leverage the story line, the physical space, and an

emotional arc. This arc or journey starts with us introducing visitors to fascinating wildlife in wondrous habitats to inspire and cultivate an emotional bond, so that there is a basis for understanding when we later explain the specific threats facing a species (fig. 2). When visitors have a deeper understanding of the nature of threats to specific environments, we then show how WCS is working in the field and at the zoo to address those threats. Finally, before sending our visitors back into the world, we try to point to actions that an ordinary citizen can take to positively impact animals in the wild, for which the zoo animals are ambassadors.

Rather than creating an architectural shell that is then set like a stage, our team begins with a story, a site, and a living collection. Together, these elements shape the design. The story guides all choices, whether shape



DENNIS DEMELLO © WCS

fig. 2. Congo Gorilla Forest, Bronx Zoo. The design of the habitat and interpretive elements creates a context that provides visitors a deeper understanding of the threats facing Central African rainforests and an emotional connection to the wildlife that lives there.

of the landscape, planting, natural features, architecture, color palette, typography, illustration, sculptural elements, materials, lighting, soundscapes—or something else. Each and every decision is intentional and contributes to the overall storyline and supporting context. In our upcoming shark exhibit at the New York Aquarium in Brooklyn, New York, we use illustration style and graphic material to give subtle cues that invert a common perception that sharks are “killing machines” to be feared (fig. 3). The illustrations depict sharks in a softer, more textural form, which very subtly expresses that they are more vulnerable and susceptible to our actions as humans than we are to theirs. While we present factual information throughout the exhibit to support this emotional approach—we show how different shark species reproduce and how that impacts their susceptibility—our design choices are made to foster a connection between visitor and animal.

We Use Beauty as a Design Tool to Evoke Emotion

Creating a beautiful context for the animals and visitors can support the narrative and inspire appreciation. For example, the Bronx Zoo’s Congo Gorilla Forest, through its authentic and detailed recreation of a Central African rainforest, creates a mood and context which, when animated with living animals and carefully designed interpretation, moves from beautiful and inspiring to meaningful for our guests. The integration of all of these elements to support the story in a balanced way is a lofty goal that requires a holistic design vision. By creating a reverent or intimate mood, for example, we can slow the visitor down and encourage them to look more closely. In many cases, by creating a



fig. 3. For a forthcoming shark exhibit at the New York Aquarium, the WCS design team carefully specified materials and worked closely with illustrator Jonathan Woodward to create texture and warmth in depictions of sharks to subtly invert perceptions of sharks as “killing machines.”



sense of immersion in nature (fig. 4), we can help visitors to suspend belief that they are in the middle of New York City, and feel that they have happened upon a few young gorillas in a forest clearing.⁴ Of course, the setting has been fabricated and is artificial—but the authenticity of the encounter remains. We create the physical setting and overall mood for the visitor and the animal, but what happens in real time is spontaneous and serendipitous and can be emotionally powerful.

We Create Opportunities for Memorable Experiences

Memory making is important to our visitors, and we have to respect that expectation of their visit and design our exhibitions to deliver on that.⁵ We have found that we can most effectively foster memory making

4 Jan Packer, “Learning for Fun: The Unique Contribution of Educational Leisure Experiences,” *Curator* 49, no. 3 (2006): 329–344, accessed September 19, 2016, https://espace.library.uq.edu.au/view/UQ:12911/Learning_for_fun.pdf.

5 John H. Falk et al., *Why Zoos & Aquariums Matter: Assessing the Impact of a Visit to a Zoo or Aquarium* (Silver Spring, MD: Association of Zoos & Aquariums, 2007), 12.

fig. 4. Congo Gorilla Forest, Bronx Zoo. By using immersive landscape design to suspend the visitor’s belief that they are in the middle of New York City, we hope to evoke powerful emotional connections to the species and ecosystems our exhibits represent.

(and, hopefully, the next generation of environmentalists) by creating opportunities for our visitors and animals to connect (fig. 5).⁶ Eye-to-eye contact through glass (intro image) or a view over a hidden moat elicits a different emotional response than looking through bars, a more traditional experience at older zoo exhibitions.

We design these “up-close” viewing opportunities by orienting outdoor exhibits so that animals have a comfortable place to hang out, whether it is a shady spot near the viewing area, heated rocks in the foreground on a cold day, or placing animal perching at eye level or above the visitor, depending on the species. Exhibit spaces are designed so that the animals have many choices of where they can be. Every species has different needs; the key to orchestrating a close encounter is understanding what will encourage animals to be where people can see and potentially interact with them in a way that isn’t stressful for the animals. For example, a species might typically spend time in an underground burrow where it feels safe. By creating that burrow against the viewing window, it provides a sense of security for the animal while also allowing the visitor to see it up close.

There’s another reason that these up-close moments are an important part of memory making: they are often captured in photos. These photo opportunities allow visitors to

6 Richard Louv, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder* (Chapel Hill, NC: Algonquin Books, 2005), 150–151; Louise Chawla, “Learning to Love the Natural World Enough to Protect It,” *Barn*, no. 2 (2006): 57–78.

fig. 5. *Butterfly Garden, Bronx Zoo, New York.* Bringing visitors into close proximity to animals creates opportunities for awe and wonder—and a lasting memory.



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We believe that when people have an experience that is authentic and memorable, where they are learning and feeling about something that is important to them, that they leave inspired and motivated.

become part of the picture, to share their experience with friends, family, and on social media, and can prompt conversations about content that become opportunities for learning. All of these can foster emotional responses that, we hope, will make the experience more meaningful, inspiring, and memorable.

On the Role of Authenticity, and Implications for the Field

To leverage emotion, we design experiences that are rich in beauty and context with opportunities for serendipitous and memorable moments for visitors to connect to our animals in an authentic way. Our design team believes that the richness of context and accurate detail that we fabricate in our exhibitions matter because they contribute to the emotional or affective qualities of our work. Likewise, this design approach contributes to an experience of authenticity in our zoos and aquariums. The meaning and significance of “authenticity” is complicated and layered in our collective field of exhibit design. Author and museum director Nina Simon explores some of the complications of authenticity in museum and exhibit work in “Is it Real?” in her blog, Museum 2.0:

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In museums, we care about both perceived authenticity and real authenticity. We want the power of the story—and the facts to back it up. This can come off as contradictory. We want visitors to come experience “the real thing” or “the real site,” appealing to the spiritual notion that the personhood in the original artifact connotes a special value. At the same time, we don’t always tell folks that what they are looking at is a replica, a simulation, or a similar object to the thing they think they are seeing.⁷

As a wildlife conservation organization with a long history of work in remote regions and habitats, WCS conveys its organization’s efforts and work, in part, through exhibitions. This history and experience brings an integrity and authenticity to the stories we tell our visitors. To Simon’s point, we aren’t always clear with our visitors about what is real and what is simulation. In fact, we intentionally don’t want to call much attention to what is fabricated in our exhibitions. While an African savannah or an Asian rainforest in New York City is fabricated—and not “real”—the alternative, a more sterile or architectural space, could be distracting for visitors, and would limit our ability to tell a broader story about the animals and ecosystems. These types of surroundings would not support connections between people and the animals they encounter. Nor would they foster a visitor’s feelings of appreciation, reverence, or respect. We frame “authenticity” in a way that broadens its definition: as real, live experiences with animals (as opposed to seeing them on a television or computer screen); the degree of accuracy with which

we reproduce a habitat or environment; and how faithfully and fully we tell our stories.

Whether your institution’s mission is connected to history, art, or science, people continue to come because they value an authentic experience. Our collections and objects and stories and animals are real, as are visitors’ personal experiences with their family and friends in the institutions, exhibitions, and unique contexts that we create. At WCS, we take a holistic design approach permeated with the way we frame and use authenticity to bring aspects of cognition, affective, and personal relevance together. We believe that when people have an experience that is authentic and memorable, where they are learning and feeling about something that is important to them, that they leave inspired and motivated. While we may not fully understand how the experiences that visitors have in our institutions play out in their everyday lives, we believe that an inspired visitor is a visitor most likely to take action. ■

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⁷ Nina Simon, “Is it Real? Artwork, Authenticity...and Cognitive Science,” *Museum 2.0*, October 8, 2014, <http://museumtwo.blogspot.com/2014/10/is-it-real-artwork-authenticity-and.html>.