

CANADIAN

# INTERIORS

Spiritual places  
Memories of Philip Johnson  
Telling the story at the Smithsonian  
Textile and flooring trends

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Fun furniture for kids

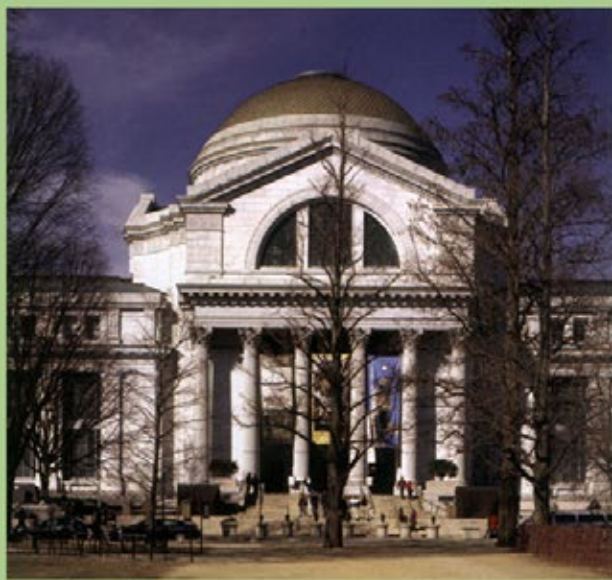
**Africa  
Savanna Waterhole**

Thirst has driven all these mammals to the same muddy waterhole. During the dry season, waterholes are critical for survival. In the end of the dry season, most have shrunk considerably—or even disappeared.



## Reinventing the museum experience

**Toronto's Reich + Petch has brought life to the new Behring Hall of Mammals at the Smithsonian's National Museum of Natural History in Washington, D.C., where mammal exhibit design has evolved from dull taxonomic cataloguing to exciting interactive display.**



The 21st century is seeing a worldwide boom in the design of innovative museums together with an expanding concept of the role and identity of museums. In Washington, D.C., the Smithsonian Institutions' series of museums on the Mall are not only some of the most remarkable architectural spaces in the city but continue to remain most iconic of the museum experience.

Into this staid, time-honoured environment, Toronto-based Reich + Petch Design International was commissioned to create a new mammal hall for the Smithsonian's National Museum of Natural History. The firm's task was a complicated balancing act that included a restoration of the original Beaux Arts style gallery as well as the design of a mammal exhibit that would educate and entertain a technologically savvy museum visitor.

The National Museum of Natural History opened to the public in stages, beginning in 1910. Located in one of the museum's original three wings, designed by Hornblower & Marshall, the new 25,000-sq.-ft. Mammal Hall rejuvenates a space that in 1917 during WWI was carved up to provide offices for the U.S. Bureau of War Risk Insurance. Although meant to be temporary, the brick walls stayed in place for 81 years until 1998 when renovation for the new Mammal Hall began.

Although technically involved as exhibit designers, Reich + Petch were given major control over the \$6-million US restoration and \$15-million US exhibit design, acting as prime consultants together with the Smithsonian appointed Washington architectural team of Hayes, Seay, Mattern & Mattern. "The Smithsonian knew the restoration and ultimate design of the

exhibits would be intertwined both functionally and spatially," says Anthony Reich, principal at Reich + Petch.

The restoration brings the gallery back to the original spirit of the Hornblower & Marshall design, which relied heavily on natural light from abundant windows and a vast overhead skylight. Reich + Petch honoured the volume and beauty of the gallery in the exhibit design by emphasizing a minimal division between the visitor and the object through the use of transparencies. The finished result, the Kenneth E. Behring Family Hall of Mammals, is full of high-impact architectural moves combined with clear messages that create a very powerful experience. Yet the exhibit design, while respecting the beauty of the gallery, also reveals a new philosophy in mammal exhibit design.

Typical mammal exhibits in museums are nothing more than rooms crammed with animals that do not normally relate or rows of specimens, identified only by their names. This legacy of "stuffed 2D paintings" was not how Reich + Petch saw the Behring Hall of Mammals. Instead, they chose to abstract the dioramas and emphasize activity, movement and realism through vignettes that break down the picture-frame aesthetic and bring in a more interactive 3D quality.

"Our philosophy for exhibit design is based on the primacy to the object or artifact to allow stories to be told and allow the essence and beauty of the object to shine through and have a lasting effect on the visitor," says Reich. This exhibit design philosophy also includes the use of a narrative to guide visitors through the experience. "When you have such a vast subject, people need

Above\_The Behring Family Hall of Mammals, by Toronto-based Reich + Petch Design, is housed in one of the original wings of the Smithsonian's National Museum of Natural History, built in 1910. Right\_The designers use lighting and sound effects to create a periodic "thunderstorm" at an African savannah watering hole where animals jostle for a space to drink.



a narrative to help understand the information,” explains Reich. “If there’s too many messages, or it’s too much of a taxonomic or academic experience, it gets in the way of enjoyment.”

Since all visitors to the museum are also mammals, the premise for the Hall became “Welcome to the Mammal Family Reunion! Come And Meet Your Relatives,” a theme that makes mammals relevant for the visitor by illustrating how biological differences are all connected. “Like a good book, people get into the story,” says Reich, and like a good book’s subplots, displays of smaller environments help illustrate information about evolution by focusing on specific habitats like the Arctic and the Australian outback. “At its heart the Mammal Hall is a sketch of our family tree,” explains Reich.

Although the Museum of Natural History is the most visited museum in the world, the average visit to each exhibit is approximately 10 minutes. Acutely aware of this, Reich + Petch used an arsenal of techniques aimed at attracting and keeping visitors (particularly children aged six to 12 and their families) through a sense of spectacle balanced with information and narrative. For example, the company was involved in custom posing (known to taxidermists as an animal’s “attitude”) of 95 per cent of the exhibit’s 274 specimens, to ensure the greatest impact in their presentation.

The remaining five per cent were historic specimens famous for their provenance, such as rhinos and giraffes that had been collected by people like Theodore Roosevelt, or famous in their lineage, such as extinct species that are present in the gallery but obviously absent as a living species. Many of the pre-existing specimen mounts, such as the Tibetan tiger, had been on long-term



display at the museum and had deteriorated significantly, requiring major restoration work. “It was sort of like an extreme makeover where specimens literally received a new hair dye job to return them to the lustre of their youth,” says Stephen Petri, Reich + Petch director of museum design. “All of this attention meant that many of the specimens were able to be displayed as ‘artworks’ composed in very minimal settings to allow visitors to enjoy the complex beauty of their extremely focused adaptations to environmental context.”

Another tool used to great effect was the exhibit’s lighting strategy. American lighting designer Suzanne Powadiuk layered the lighting very much like a theatrical performance: pinpointing in places, casting shadows in others to create shifting backgrounds. The most dramatic lighting display is in the African savanna gallery: back-projected lighting, sound effects and video projections on glass and in-floor monitors create a periodic “thunderstorm,” focusing attention on a moment of transformation at a watering hole as a storm approaches.

If dioramas were the virtual reality of the 19th century, Reich + Petch has reconceived the 21st century museum experience that, while singular to the Smithsonian and the topic, will no doubt become a gold standard in exhibit design. The project is already receiving recognition, including a 2004 American Institute of Architects Historical Resources Awards of Excellence and a 2004 GE Edison Award of Merit for lighting design.

Although Reich + Petch has done many high-profile projects over the years, including the Saudi Arabian National Museum and the Hong Kong Heritage Museum, the Smithsonian exhibit design brought the firm to a new professional plateau. The company is doing a small exhibit on Telemetry for the Smithsonian and has been awarded the master plan and exhibit design for the new 96,000-square-foot Virginia Museum of Natural History in Martinsville, Va. Closer to home, the company has designed the National Portrait Gallery in Ottawa, scheduled to open in 2007. □

Above left\_The reverse side of the three-storey theatrical scrim depicting the African rainforest allows visitors on their way to the Evolution Theater to see “behind the scenes” of the dominant visual element in the Hall. Elaborate lighting systems installed among the scaffolding animate the scrim, giving life to the rainforest. Above right\_Designers had to float lighting in such a vast space in a way that the public wouldn’t notice, resulting in the development of a cantilevered armature system to mount and adjust lighting.



Over 25 years, we have evolved our viewpoint  
about design to create extraordinary  
moments and opportunities for people to have  
experiences that change their understanding  
and perspective of the world they live in.

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