

STICKING YOUR

Savannah House

LAM Architects



Image by Martin Dijkstra



Image by Franken Architectural Photography

NECK OUT...

By Nichole Reber



Image by Franken Archtural Photography

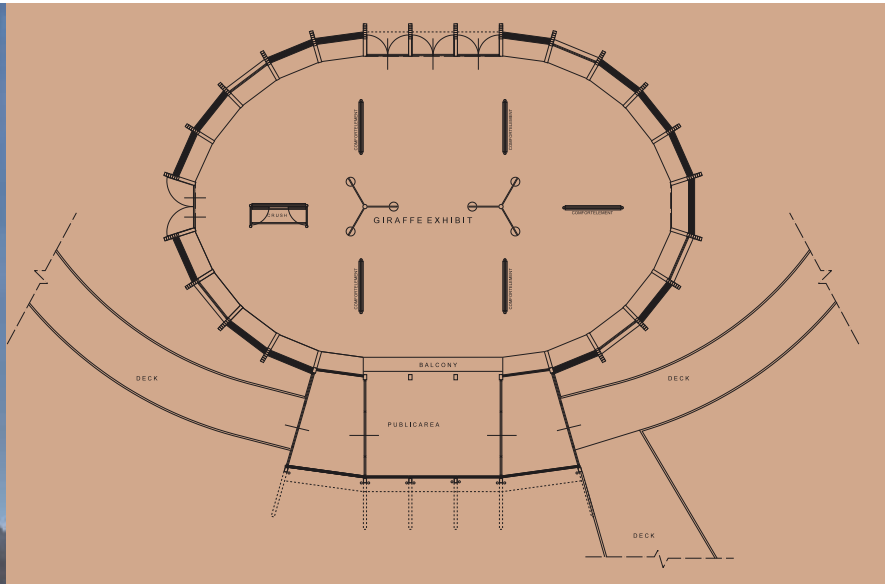


Image by Rob Doolaard

LAM Architects creates architecture around how people live and interact with their space. Most of its projects blur the distinction between landscape and architecture, but designing an enclosure for eight giraffes enabled the firm to turn challenges into beauty.

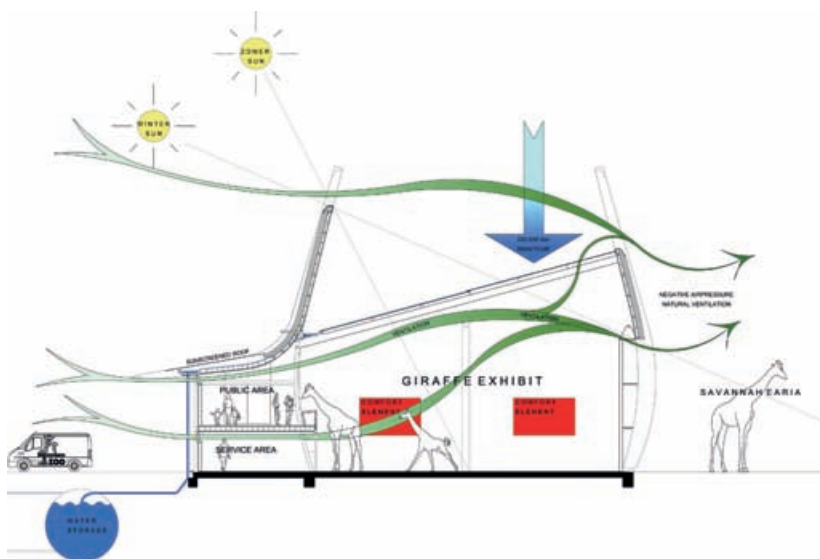
"Normally one can interview the users of a building. You can imagine in this case that was not possible, so we had to rely on information from different sources, like management, caretakers, studies about animal behaviour, etc. We also needed to find the proper materials," says Menno Lam, principal of The Netherlands-based LAM Architects. "We see the House as a shelter rather than an enclosure,

a place where the animals can go in and out when they feel like it. This way of thinking was new, but also added 400sq m to the habitat of the giraffes, and the client agreed."

Another objective was to eschew a Disney-esque quality for the shelter by creating a bona fide African savannah – a challenge compounded by the fact that the project is located in north central Europe... The Netherlands, to be precise. Holland has a coastal climate, winters drop to 2 degrees Celsius and summers average 18 degrees. Yet, looking at Savannah House, natural building materials and an open, almost vernacular building shape transport one to the giraffes' native



Rob Doolard



land,. The giraffes have an area of 150m by 100m to roam in, no gates restrict their freedom, and the 4,500sq m building bears no corners. Corners aren't naturally found in nature, so Lam's building bulges outwards rather than straight up – quite in keeping with its long-limbed residents.

The Savannah House's design required an intrinsically bifurcated brief: make it as close to nature as possible, but with functional design and sustainability measures built in. To be sure, these concepts are manifested here not as separate processes but as intertwined elements. For instance, high walls with elongated ribs extend past the main body of the shelter and rise like the giraffes' elegant necks. These walls protect the animals from cold weather by becoming what Lam calls "cuddle walls", near which the giraffes stand for a little extra warmth. And rather than involving great sums of money for

burning fossil fuels, these cuddle walls, not the entire building, are heated by burning woodchips, a "cradle-to-cradle" energy source. The building maintains a conducive indoor climate by harnessing the area's natural environment. Rainwater harvested from the roof irrigates landscaping on the plot. Passive solar energy collected through the transparent roof provides natural light indoors. In warmer weather, the site's orientation toward common wind avenues yields pleasing ventilation. The designers also employed the principle of negative air pressure to naturally pull wind through the building for enhanced cooling. Non-toxic construction materials were used within "licking range" of the lanky animals. The Forest Stewardship Council-certified, unpainted woods and other materials carefully selected for low maintenance also help keep operating costs low, while less human interference simultaneously translates to lower psychological threat to the animals. LAM even took into account the recyclability of all the building's materials, ensuring their easy reuse years into the future when the giraffe house is no more.

In line with the mission of the shelter, Lam was also charged with facilitating the giraffes' veterinary treatment. More precisely, he had to incorporate a "crush", a special element veterinarians use to check or treat giraffes. It's "a bit like a waffle iron," says Robert van Herk, former Head of Education at the shelter. The giraffe passes between two metal panels, which are made of iron bars, with a lot of open space in between to allow the vet thorough access. "Normally, when one has to treat a giraffe for something, one has to anesthetise it," Lam explains. "One has to build a structure of hay bales to ensure the giraffe does not break its neck in the downfall. So in cooperation with the zoo we designed a special crush that renders the injection of anesthesia unnecessary. The job thus entails fewer people and less time overall. Recovery for the giraffes is quicker and less stressful as well."

Lam adds: "The giraffe house was a unique experience because it brought so many worlds together. It involved not only the eight giraffes but also the caretakers and the 1.5 million annual visitors. The building contributes to all of these different groups and their needs and to our global environment. We hope people see the beauty of these magnificent animals, and that it broadens their view to enjoy it."