The Gong

atelier oï x Smiling Gecko

Building with Air, Light and Water

**atelier oï has collaborated on various buildings at the Smiling Gecko Educational Campus in Cambodia. “The Gong”, the recently completed circular structure, follows the design tradition of the Switzerland-based studio but also reveals another facet. Cofounder Aurel Aebi discusses social responsibility, “storytecture” and bioclimatic architecture.**

**Founded in 2014, the Smiling Gecko Educational Campus is located approximately 60 kilometres north of the capital, Phnom Penh, in Kampong Chhnang province. Spanning 150 hectares, the Smiling Gecko charity, a project of renowned Swiss photographer and artist Hannes Schmid, is exemplary in developing an ecologically and economically sustainable rural community. How did atelier oï become involved here?**

In 2018, when we exhibited our projects and processes of the past 27 years at the Museum für Gestaltung Zürich in the monographic exhibition called “Oïphorie”, Hannes Schmid came to the museum, looked around and immediately established a connection with us. He told us about his humanitarian work, and educational and training projects. The initial idea was to collaborate with him on designing a university of applied sciences. This led to the opportunity for me to visit Cambodia for the first time and get acquainted with the Smiling Gecko project.

**What motivates atelier oï to engage in humanitarian development projects?**

atelier oï represents a community of 45 individuals. In our transdisciplinary team, diverse skills come together and we work for a variety of clients – together we experience social responsibility. Therefore, we apply our skills to humanitarian projects aiming to improve people’s living conditions. For instance, in Brazil’s Várzea Queimada project, we collaborated on product design and now, in Cambodia, we’ve contributed to a building. Our philanthropy is built support. We see how our work positively impacts local communities. In addition, The Gong was a creative challenge, forcing us to find new solutions that met local requirements with limited resources.

**The Gong is the latest addition to the expansive Educational Campus. Why a music house?**

We build what we are entrusted with. During the Khmer Rouge regime, culture in Cambodia was almost completely banned. It disappeared from the everyday life of the local population and thus from cultural memory. Today, music, dance and theatre are again part of the local culture and a major part of the education at the Smiling Gecko Campus. Having a place dedicated to music and culture is particularly important for children and young adults whose parents are not able to pass down this knowledge.

**Why “The Gong”?**

The gong holds a significant place in Asian spiritual practices. Its sound is considered sacred: it creates a bridge between the physical and spiritual worlds and marks the beginning and end of ceremonies. As an instrument, its resonance shapes the musical atmosphere. And, as we all know, a gong brings people together and fosters communities. So, we let the gong guide our reflections. And asked ourselves how we can translate what the gong stands for into architecture. We call this approach “storytecture”: making intangible content tangible, materialising ideas and emotions. What could a building look like that freezes the vibrations emanating from a gong that has just been struck in its architecture? Our answer is a sonic image – a ring-shaped structure. Just as a struck gong emits sound waves, this building also embodies this rippling motion. The shape of the gong is best seen from a bird’s-eye view.

**Why integrate sunlight and water into The Gong’s architecture?**

In studying Khmer architectural heritage, you find, for example, the multi-level temples in Angkor Wat, which represent a hierarchy: the higher the building level, the closer you are to the heavens and sun. Covered galleries and open corridors connect these temples. These structures served as meditative and ceremonial spaces. Water holds great symbolic importance. Water basins or ditches reflect cosmic oceans, they are mirrors of the sky.

For The Gong, we used excavated material from the nearby rainwater retention basin to fill in the ground for the foundation, raising it by two meters. The large, north-facing entrance staircase now leads from the ground up into the spacious circular building. Although visitors are inside, they can experience the natural environment shaped by the architecture: sunlight enters the circular roof opening and is transformed into a cone of light that shifts depending on the time of day and position of the sun. When it rains, the rainwater streams down the roof tiles and into the impluvium like a waterfall. We play with cones of light and water sculptures, depending on the season and time of day.

**So you want to foster worshipping nature as a spiritual practice?**

One could say so. We capture light and water at the centre. The sun rises and sets again: a rhythmic, calming cycle. Water gives life. By collecting the rain and channelling it into the artificial lake, it can be used for agriculture. I think The Gong makes the harmony and beauty of nature visible and provides contemplative moments. These considerations can be further translated into the circular structure. Circles represent cycles and symbolise infinity. In many Asian cultures, they symbolise completeness and unity.

**What are the structural advantages of a circular building in a tropical climate?**

The east and west façades minimise exposure to tropical sun. Circular structures are more wind-resistant due to their reduced surface area for wind impact. The shape distributes exposure more evenly. The Gong also minimises energy consumption and maximises visitor comfort. This approach is particularly relevant in tropical regions with high temperatures and humidity. We developed a system that regulates the building’s climate naturally. Only the recording studios are air-conditioned so as to protect the instruments.

**How does this climate regulation system function?**

The architecture and design of the roof and outer shell promote natural cross ventilation. The north-facing main entrance and two secondary entrances in the southeast and west ensure continuous air circulation. An open floor plan supports natural ventilation. Structural columns support the roof, while brick walls define the space. Strategically placed inlets and outlets create Venturi effects. The façade incorporates perforations, a brick-laying technique developed with local builders. The double-layer envelope in the area of the recording studios is a special feature, both in terms of design and function. The outer perforated brick wall and the roof overhang protect against direct sunlight and reduce the heat absorption of the building envelope. The walls inside the studios and services are not exposed to the weather. Air circulates in the resulting corridor.

**Why use proven materials for The Gong? atelier oï is known for its innovative use of materials in every project.**

We have over 20,000 material samples in our material library, categorised by type. Our process starts with the material. As soon as we get an assignment, we go to the material library and select materials that relate to the theme. We think about how they could be moulded, reworked or placed in a different context, and transform them with intelligent details. Concrete, steel and bricks are available locally. Clay bricks have a high heat storage capacity and help stabilise the interior temperature. They are easy to build with in Cambodia's hot and humid climate, as well as durable and easy to maintain – which is important when building for an NGO. The masonry technique with the ventilation openings is particularly noteworthy – it turns a climate-regulating wall of clay bricks into an ornamental façade.

**What challenges did the project face?**

We couldn’t be on site much. Physical presence during construction is crucial, especially when people from two cultures with different work methods are collaborating. When you do a project like this with only digital communications, you don't have a good sense of the scale of things and can't check the details."

**Who built The Gong?**

We collaborated with a local general contractor for steel, concrete and masonry work. Key decisions were made on site with this team. Carpentry work in the recording studios was carried out by local artisans from the carpentry workshop on the Smiling Gecko campus.

**What did you learn from this collaboration?**

That by working with local craftsmen, we can find sustainable, culturally appropriate architectural solutions. Processes are not the way you imagine them to be. They don’t do it like we do; they do it differently. It is important to accept this. You can’t have this knowledge, you have to access it, with and for the local population. So, we work together closely and as equals. We discuss, share different perspectives and make decisions together. Transdisciplinary teamwork is our daily practice. Our projects bring together product design, architecture, interior design, illustration, graphic design, photography, modelling and so on. We succeeded in extending our idea of a team that works together and learns from one other to our colleagues on site.

**A bamboo forest is growing around The Gong. What role does local vegetation play?**

The bamboo forest surrounding The Gong is being reforested. The underlying idea is that a bamboo forest reduces solar heat impact, provides shade and lowers ambient temperatures. The growing bamboo is also a beautiful symbol, as it shows us how the educational campus can function: as bamboo grows, so do the students and the campus.