

# Vertical Campus

The Tsinghua Ocean Center by Open Architecture offers an alternative to the low-density Chinese university campus.

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As a result of China's gradual shift towards a service economy, most of its rapidly growing cities have constructed new campuses and sometimes even completed new university towns in the last few years. These are generally located far from the existing urban cores and consequently lack urban vibrancy. Large-scale buildings and huge open spaces with lots of greenery characterize these new campuses. They generally look nice and peaceful, but are often a bit difficult to access. A bike or scooter is almost always a necessity when moving around.

In the young metropolis of Shenzhen, there are currently relatively few universities; most of them are quite new and don't yet have much of a track record. The new Ocean Center, founded by Tsinghua University (one of China's most prestigious universities, originating from Beijing), is a series of laboratories and offices combined in one building. The Tsinghua Graduate School campus in Shenzhen Xili University Town has been stimulated to settle here, in order to give Shenzhen's scientific scene more status. Other recent educational projects, such as the new CUHK campus (see the university library by Weijun Wang, on page 56 of this issue), moved to the city with the same goal in mind. >



Outdoor stairs and vertical louvers give the building a very graphic quality.

The building is organized in clearly distinguishable volumes, horizontally and vertically separated by open platforms.



Most of the floors are equipped with typical laboratory functions.

### 'True to their Chinese roots, the architects also added some symbolism to the building'

The Ocean Center was designed by Open Architecture, led by Li Ha and Haog Wang. Founded in New York City, the office has been based in Beijing since 2008. Previously, Li Ha had been a partner at Steven Hill Architects, where he led projects such as the Linked Hybrid in Beijing and the Vastar Center in Shenzhen (Mark 26, page 106). The architects now mostly work on their own; their current projects include a performing arts center in Shenzhen.

The existing campus of Tsinghua Graduate School was dominated by a series of buildings connected by a double-level central corridor. Instead of simply extending this axis, the architects 'bent' the route 90 degrees counter clockwise and then bent it again, 90 degrees vertically. From this vertical zone, public platforms branch out on the first, fifth, seventh and tenth floors, where people can socialize and enjoy a view of the city and mountains. The pinnacle of the project is a roof terrace with a small open-air theater for performances that also offers an impressive view of the surroundings.

With this concept of extended routing, the architects of Open hope to create more opportunities for campus life, by creating ample public space and a welcoming atmosphere. The public route also connects to a conference room, brainstorming area, exhibition space, study rooms, cafe and other facilities. The interior spaces are organized in a clearly distinguishable building volumes, horizontally and vertically separated by the open platforms. This separation also emphasizes the semi-autonomous yet interdependent relationship among the research centers, according to the architects. The four open platforms present an opportunity for staff and students of the semi-autonomous labs to meet each other, and 'to participate and socialize'. The vertical gaps are used for stairs, among other things. The view is not all the platforms have to offer, the breeze that lightens the heat during Shenzhen's hot summers is also quite pleasant. This open composition is in line with a recent tendency in Shenzhen to add open spaces to new projects, to profit >



A stairs in the basement serves for apartments with adjacent offices.



The open platform is interconnected by stairs.

from natural ventilation and add options for greenery and semi-public spaces.

True to their Chinese roots, the architects also added some symbolism to their design. Seen from above, the shape of the roof terrace resembles a whale. Going down from top to bottom, the blue of the internal walls gets deeper in saturation. Even more fascinating is the concrete facade. The louvers on the southern facade are mounted under varying angles, resulting in a pattern that depicts Claude Debussy's manuscript *La Mer* (1905-1905). Apart from that, the louvers also drastically reduce energy costs, without blocking the view to the surrounding landscape. A pattern of round windows in the end walls refers to dolphin sounds. Seen from within, these windows recall the feeling of being in a ship. All these small stories add poetry to the project.

Real masterpieces of cast concrete, and also the main challenge during the construction of this project, are the Corbusian cones on the south side, at ground level. They not only mark the entrance to the building, but also bring natural light from different angles deep into the basement, where a 30-m-high deep-sea research tank is situated.

Besides the louvers, the building boasts several other sustainable features that are applied in an architecturally interesting way,



The roof terrace offers a beautiful view of the surroundings.

such as the glass concrete facades. The architects decided to skip the usual stucco finishing, in order to save on material and maintenance. As in previous projects by Open Architecture, the gutters are filled with small stones that collect and guide rainfall.

This vertical campus has more than a few things in common with Open Architecture's big City Wuhan competition entry of 2011, in which the architects combined three typologies (urban village, skyscraper and park) into a new one. Open Architecture sees its vertical campus as an alternative for conventional horizontal campuses, which offer less possibilities for a dense urban fabric. Indeed, the area surrounding the Ocean Center is rather spread out and lacks

vibrancy. The new building, located near the entrance of the campus, increases both the density and the urbanity of the area.

This kind of project would be even more justified in a real urban context. But for now, it sets a new direction for this peripheral site on the northern edge of Shenzhen. The importance of the design lies in the fact that it offers new perspectives on an ongoing broader trend in China, where almost every city is erecting private, closed-off towers, by integrating green spaces and a mix of public functions into buildings, in a smart and functional way that goes beyond decorative purposes. The Ocean Center offers an alternative, possessing new typology...  
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