urbanNext Lexicon



ETANIA GREEN SCHOOL: LEARNING CENTRE

Posted on January 16, 2020 by martabuges



Categories: Architecture BRIO, Energy and sustainability, Low Density, Project, Territory and mobility, Urban Paradigms

Tags: Architecture, Architecture's challenge, Beaufort, Circulation, Comfort, Container Architecture, Educational Building, Flexibility, Inclusivity, Malaysia, Migration, Project, Recycling, School, Topography, Vernacular, Waterfront

urbanNext Lexicon

In Sabah, Malaysia, many thousands of stateless children have become marginalised due to their legal status. These are mainly children of illegal or legal Indonesian migrant labourers. The migrants come to Sabah to seek an income on the plantations so they can have a decent life.

The Etania schools are learning centres for their children, who have no access to education until a school begins for them. Therefore, the Etania schools run a full learning program, six days a week with all the necessary curriculum subjects. In these learning centres, children have safety, security and happiness, enjoying their right to learn. Etania has an ambitious plan to build 30 school across Sabah. They asked billionBricks to prepare a prototype school design for the first school for 350 children aged 5 to 13.

urbanNext Lexicon

urbanNext Lexicon



urbanNext Lexicon

Etania Green School: Learning Centre https://urbannext.net/etania-green-school/

urbanNext Lexicon



Environmental Challenges

The school is located along a river with a history of massive floods, once every 10 years or so. The destruction of the original rainforest and its replacement with oil palm plantations has increased the flood risk even further. Therefore, the prototype school, not unlike much of Borneo's vernacular architecture, is raised off the ground. However, here the classrooms are lifted off the ground in an unconventional way.

Etania Green School: Learning Centre https://urbannext.net/etania-green-school/

urbanNext Lexicon



Etania Green School: Learning Centre https://urbannext.net/etania-green-school/

urbanNext Lexicon



Recycling

Five decommissioned shipping containers and an artificially created mound of soil, excavated for a water harvesting pond, support the classrooms. This minimises the structural components and stabilises the framework. Additionally, it creates a covered space below the classrooms for a lunch area and a gathering space. The containers themselves are used for storage and toilets.

Etania Green School: Learning Centre https://urbannext.net/etania-green-school/

Etania Green School: Learning Centre https://urbannext.net/etania-green-school/

urbanNext Lexicon



Organisation

The school children can move around the school in multiple ways. The first floor is reached either via a centrally located staircase, two ladders, or from the slopes of the mound. This way, the school becomes a place for exploration and overcoming challenges, in line with the educational philosophy of the school.

urbanNext Lexicon



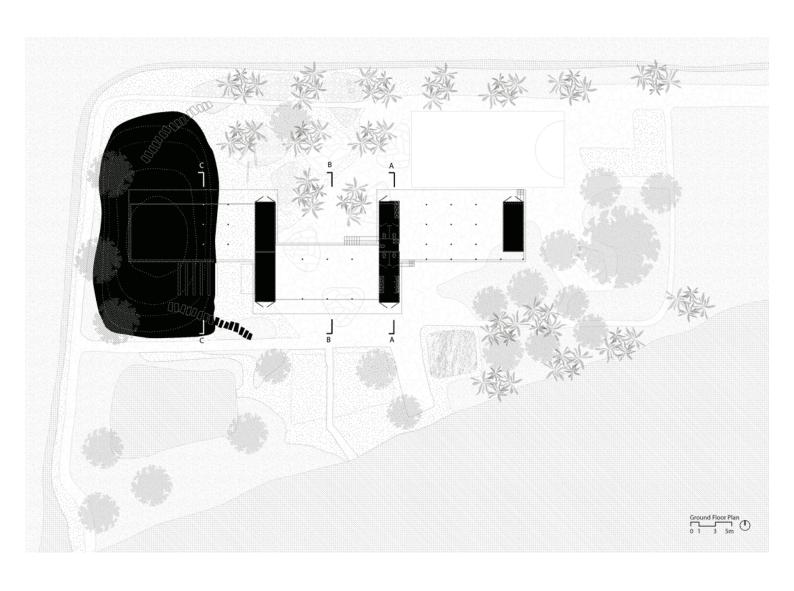
On the first floor, three blocks are placed alternately on either side of a central verandah. Two blocks contain four classrooms, and the third block on the mound contains the teachers' room and library. They are oriented along the east-west direction to minimise the heat gain, avoiding direct sunlight hitting the long elevations. This also means that the classrooms all face the river and enjoy a natural draft of air that flows across the rooms in the north-south direction.

urbanNext Lexicon

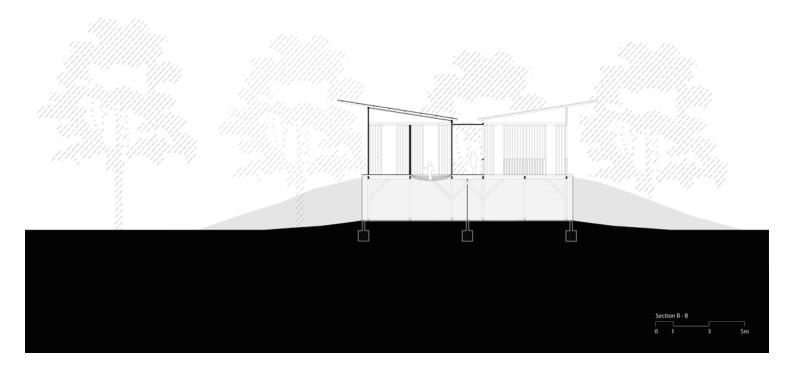


Between two classrooms, the children can use two smaller rooms for group work. They are extra spaces that give teachers the flexibility to teach classes, since often multiple years are clubbed into one. One of these rooms is a reading room with a netted floor to give children a comfortable place to read books.

urbanNext Lexicon



Etania Green School: Learning Centre https://urbannext.net/etania-green-school/



Etania Green School: Learning Centre https://urbannext.net/etania-green-school/