Our proposal reinterprets the traditional culture and way of living in Cambodia while satisfying the basic needs of residents in an economical and sustainable way.

Traditional Cambodian houses are typically raised on stilts so that main rooms are not affected by flooding. While the elevated floor is used as sleeping rooms, the ground level serves as a main living area and a working space. Our proposal for the new affordable housing aims to expand this building typology and inherit such a way of living in Cambodia.

The buildings accommodating 3,000 units in total are elevated 8 meters off the ground, freeing the ground to become a communal space for all the residents and neighbouring communities. The structure of the buildings are made up of precast concrete skeleton as a primary structure, and locally available materials such as brick, timber, and bamboo, as a secondary structure for each unit.

While the gridded buildings create an urban atmosphere, the ground is associated with rural natural landscape which migrant workers are familiar with. The landscape is made up of lush green and waterways, with special consideration to the continuity with the surrounding environment.

Because the buildings and the ground are designed with different logics (grid form and organic form), and overlap with each other, they can have various relationships instead of uniform ones, resulting in creating a variety of places on the site.

Here, the city and nature are not opposed, but coexist, just in the traditional way of living in Cambodia.

The buildings are arranged on a grid, which allows for flexible use and makes it easy to adapt to change over time.

The ground, in contrast to the buildings, has an organic form.

The ground is a communal space including supporting facilities such as kindergarten, shop and medical clinic.

COEXISTENCE
The 4-story buildings are elevated off the ground and are arranged like a city grid, parallel to the approach to the site. As the intervals between the rows of buildings are different, there are various open spaces with different sizes and atmospheres. The elevated buildings provide a link to the surrounding ecology and free the ground to become a communal open space for residents and the neighboring community.

In contrast to the buildings, the ground has organic forms reminiscent of rural Cambodian landscapes. The ground is used as a living space in the same way as the traditional Cambodian lifestyle, but in the expanded scale. Also, supporting facilities such as kindergarten, shop and medical clinic are arranged on the ground with the same formal language. The ground as a whole is a place for people to do any social activities such as hanging out, talking, eating, playing, etc.

Our landscape strategy is to restore the site to its original condition as much as possible by using native vegetation and to re-establish the connection with the surrounding environment. Also, as renowned Cambodian architect Vann Molyvann celebrated the symbolic and cultural importance of water in Khmer life, water is an important element in the culture of Cambodia and is a key feature of the landscape in this project as well.

Lush vegetation on the site continuously links to the neighboring environment, allowing for the conservation of the local natural features and the retention of the ecosystem's functions. Vegetation on the site also provides natural cooling, especially single large trees play the equivalent role of air conditioners. The ground is partially raised by reusing the excavated soil produced during the construction, offering a 3-dimensional playground for children and a range of relations between the ground and the elevated buildings.

Water, another key feature of the landscape, is managed by a sustainable drainage scheme. Local rainfall is regarded as a precious and limited resource in this respect. It is collected and stored by retention ponds and bioswales. The use of these devices enhances wildlife habitats and reduces the potential for flooding. Together with the vegetation, this water management mechanism forms the key framework for the environmental strategy of this project.
Vernacular and Evolution

The overall structural approach uses cost-efficient systems and exploits both prefabricated and locally sourced materials. The building consists of three main elements: precast concrete skeleton, brick construction, and roofs.

The primary structure is built with modular precast concrete and is elevated 8 meters off the ground. The structure is arranged on grids, which is efficient and flexible enough for future changes. Also, elevating the structure allows the ground to be free and to adapt to change over time. Instead of being isolated objects, the structure is a continuous mat-building spread all over the site, giving unity to the project, providing intimate courtyards, and offering multiple access and fire exits. The elevated structure also contributes to avoiding flood damage.

The precast concrete skeleton is filled with units made of locally available bricks. Because they are secondary structures, they can be easily transformed or dismantled, responding to future changes in use. Each unit is installed with operable bamboo louvers, offering natural light, ventilation, and privacy to the units while preventing direct sun exposure. The bamboo louvers can be opened entirely so that residents can enjoy living in the rich green environment and socializing with neighbors.

The roofs are made of precast concrete members and corrugated steel, and have gable roof shapes commonly found in the traditional vernacular houses in Cambodia. The articulated roofs have a few variations of shape and have different directions, giving an intimate atmosphere to the building.

The traditional Khmer house lets coexist collective and private spaces. The ground is an extension of the house and in the sunny days many activities can take place.

From the traditional house, the new building complex retains the value of public activity and enhances it. The concept provides community space on the ground floor and in each unit.
The units have four types tailored for different needs of inhabitants. Type A2 and Type B2 are two stories high and are located on the top floor.

Each unit consists of locally sourced materials: fire-proof bricks for the partition walls between units, timber planks for the floor, and bamboos for the operable louvers. Using local materials can contribute to the local economy.

In Type A1 and Type A2, a living room for cocking, eating, and relaxing, is located on the entrance side and, when the operable bamboo louvers are opened, can be a socializing space continuous with the generous corridor. Type B1 and Type B2 are central corridor types, which are more suitable for people who place importance on privacy.