Residential density for urban spaces, Toronto, Canada

Project data

Type of project: Architecture (housing)
Estimated start of construction: Not applicable

Main author
Name: Chenglong Wang
Profession: Architect
Organization: Beijing, China

Comment of the Holcim Awards Jury North America

Increasing the residential density of our cities, “densifying,” is considered as an effective way to fight against urban sprawl and to foster a sustainable urban transformation that increases the individual’s quality of life and solves their transportation problems. But without dismantling existing buildings the only way to make use of these “left over” spaces. Such pieces of land are usually small or have puzzling dimensions. By using Toronto as a case study, the authors have identified a multitude of such “left over” areas where they have developed a new housing typology matching the unusual framework conditions, e.g. the unfavourable geometry of the real estate, the adjacent buildings and the possibilities for access. The result of their efforts is a series of creative but unusual housing designs that perfectly utilize these small gaps in the urban fabric. In this process, we will break down the density into much finer grain sprin- kling into the city to form a new field which is organized without hierarchy instead of adding chunk volumes. We dare to do so because given the transforming condition of our contemporary world we are not afraid of the eccentric housing units that shall be the result of this process.

The project aims to discover the potential of the already-built structure of our cities, there exist many “left over” spaces which are conventionally not considered to be buildable. In our project, we plan to de- develop new housing types using various sites of this kind in downtown Toronto as a means to densify the city. To do this, we will break down the density into much finer grain sprin- kling into the city to form a new field which is organized without hierarchy instead of adding chunk volumes. We dare to do so because given the transforming condition of our contemporary world we are not afraid of the eccentric housing units that shall be the result of this process.

The project chooses unusual sites and developed unusual de- sign on them, but the innovation of the project is not only at this level. It actually provides a new angle of looking at contemporary cities and makes thinking about how to make more efficient use of our cities. The ideology and methodology suggested by this research instead of the specific design can be transferred widely to promote sustainable de- velopment. In this way, the project creates new knowledge and greatly contributes to the disciplines of architecture and urban design.

Quantum change and transferability
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Relevance to target issues by author

Economic performance and compatibility
The project reduces the cost of land by making use of “un- buildable” sites in an innovative way. Given its location in the downtown area, it can take advantage of the existing facilities and increase the efficiency of them.

Ecological quality and energy conservation
The project aims to discover the potential of the already- built urban structure to make more efficient use of limited land. It suggests a way to prevent the over expansion of the cities on one hand, and decrease the pollution, energy con- sumption and other negative impacts on the environment on the other.

Contextual and aesthetic impact
Although not focused on or started from an aesthetic con- cept, the project forms a new layer on the existing urban form and creates a stimulating living environment. It chal- lenges the urban fabric subtly and dramatically at the same time. It raises a new ideology or conception of architectural aesthetics that has never been seen before and responds to contemporary social and global change.

Project description by author

Historically, there was a period when people moved out from the crowded downtown to live in the suburbs for a better life. Years later, the pressure of the environment is gradually recognized by us. The sprawl of the suburbs, the disappearance of farmland, pollution, energy consumption, etc., is more and more urgent. Under these circumstances, “densifying” the existing cities is considered to be one way to alleviate these problems and to achieve greater levels of sustainable development.

Actually in the already-built structure of our cities, there exist many “left over” spaces which are conventionally not considered to be buildable. In our project, we plan to de- develop new housing types using various sites of this kind in downtown Toronto as a means to densify the city. To do this, we will break down the density into much finer grain sprin- kling into the city to form a new field which is organized without hierarchy instead of adding chunk volumes. We dare to do so because given the transforming condition of our contemporary world we are not afraid of the eccentric housing units that shall be the result of this process.

As the most important trend driving contemporary cities to change dramatically, the influence of globalization is per- mirating into every aspects of our life. The most well-known outcome of globalization is the homogenity it has brought about at a global scale. But in fact, it also results in radical differentiation in local society. As people have more chances to access and choose from different information, life styles, groups and culture due to globalization, they are differenti- ated from their immediate group and local society is be- coming fragmented. At the same time, with the help of new technologies, our contemporary world is not organized with hierarchy any more and individuals can directly take part in global activities. The world becomes more flexible.

This new flexible world and the radical differentiation in lo- cal society make those “eccentric” housing units acceptable, maybe even desirable or necessary, and thus give us new opportunities to densify our city by exploring new housing types on unusual sites.

We used our project as a research process. We explored sev- eral types of site to develop a new housing type for each of them to discuss various aspects of differentiation and dif- ferent possibilities of using these sites. In this process, we tried to excavate the potential of these “left over” sites and make full use of them. Our target is not constrained to the specific design derived from this research. Instead, what we were aiming to do is to suggest a new angle of looking at our cities toward sustainable development.