Megacity Skeleton
Stakeholder participation for urban up-grading, Jakarta, Indonesia

Main author
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Project data
Context: Architecture, building and civil engineering
Client: Research Institute of Humanity and Nature; Rukun Setanago 007
Background: Research project
Planned start: July 2013

Summary and appraisal by the jury
The project Megacity Skeleton in Jakarta is a two-step micro-intervention to upgrade informal settlements in mega-cities and avoid slum clearance by authorities due to the lack of hygienic living conditions. Planned first as a participatory initiative — as opposed to top-down government approaches — narrow spatial “voids” are introduced within high-density residential areas to bring air and light into the building fabric of the neighborhood. In a second step, a flexible and temporary wooden envelope structure or “skin” is added to the house, which residents can freely customize.

The jury commends the dual approach to upgrading informal settlements: Whereas the first step falls in the domain of the collective, establishing a primary urban framework of alleys for light and air within a quarter, the second step addresses individuals and three specific needs. Recalling Le Corbusier’s Dom-ino open plan frame, the Megacity Skeleton project explores an extension of the model’s evolution, adapting the formalized Corbusian structure to the needs of informal communities, with a particular emphasis on stakeholder participation as a fundamental principle of collective living.

Further authors
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Sustainability concept
Megacity Skeleton is situated in Kampung Cikini, a high-density residential area located in the center of Jakarta. This kind of urban slum area is always under pressure of redevelopment because of its good location. If Kampung Cikini were to be redeveloped, the current residents would be pushed out and the present urban tissue and rich community would be swept away.

To avoid such “slum clearance”, it is important to advocate that a good living environment could be achieved by residents themselves without government’s intervention. On the other hand, it is also necessary to complement the scenario on which the slum area could survive within the context of the current government’s policy. Our design approach aims to sandwich the project between bottom-up and top-down approaches to realize the practical effect beyond a charitable activity.

Living space of the area doesn’t receive enough sunlight since every house maximizes its floor area without leaving space between the buildings. The government of Jakarta is therefore planning to widen the existing alley by demolishing the “front” part of the residences. But this action will definitely lose the rich atmosphere of the slum area. The method is to make a void behind the facing structure in this system, interior space can receive more sunlight without losing existing atmosphere of the alley. It was found that a void of only 100mm width could have a dramatic effect in a near-equatorial site such as Jakarta. The design elements of architecture are clearly divided into “Permanent Skeleton” and “Flexible Skin”. “Permanent Skeleton” is the robust part ensuring the basic living environment such as sunlight or ventilation by restricting any future changes. “Flexible Skin” is the flexible part which can be changed freely by users. By adopting this method, truly sustainable urban space will be realized in terms of both “Eternity” and “Continuity”.

To progress environmental improvement as the sustainable activity of local residents themselves, it is important that they take charge in the urban environment. In this project, several project members have stayed in the area and held workshops or meetings many times. Through the long-term community engagement process, the residents’ sense of environmental value has been gradually enhanced. The failure of their urban environment should be formed by themselves, and Megacity Skeleton will be the first trigger of such vision.

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