

Megacity Skeleton

Stakeholder participation for urban up-grading, Jakarta, Indonesia

Main author

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Summary by the jury

The project *Megacity Skeleton* in Jakarta, Indonesia is a two-step micro intervention to upgrade informal settlements in megacities 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.

Appraisal by the jury

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 their 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.



Image 1: “Permanent Skeleton” by reinforced concrete with “Environmental Void” was constructed as the first step. This strong skeleton ensures minimum living environment such as daylight or ventilation. In the next step, “Flexible Skin” by local wood structure would be constructed without decreasing the beneficial effect of the “Environmental Void” and creates a familiar elevation for the community. Then, the environmental improvement will be realized while still preserving the current intimate atmosphere of the slum area.

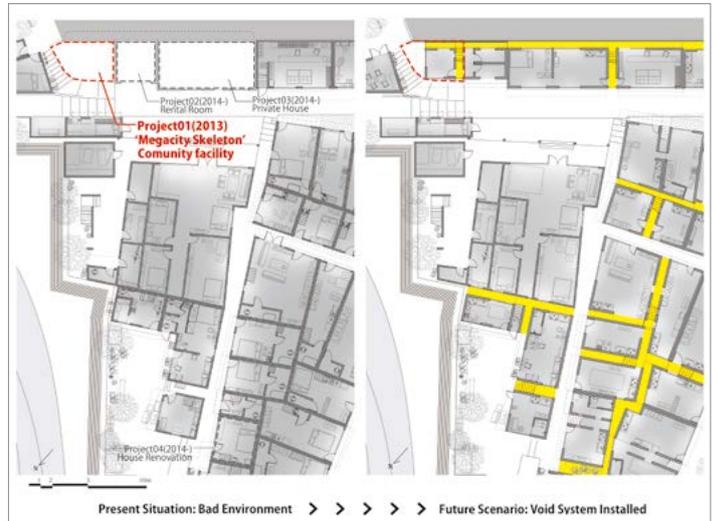


Image 2: For sustainable urban regeneration, it is important for the community to think that they themselves do manage their own environment with pride. *Megacity Skeleton* is designed with the elements which are understandable for everyone such as daylight or wind so that community residents can learn and apply the “Environmental Void” idea to their own practice, and local construction techniques are positively adopted so that the other construction initiatives could reference the project.

Project data

Context	Architecture, building and civil engineering
Client	Research Institute of Humanity and Nature; Rukun Tetangga 007
Background	Research project
Planned start	July 2013

Further authors

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Image 3: The project is in high density residential area with 3,200 residents in 4-hectare plot.

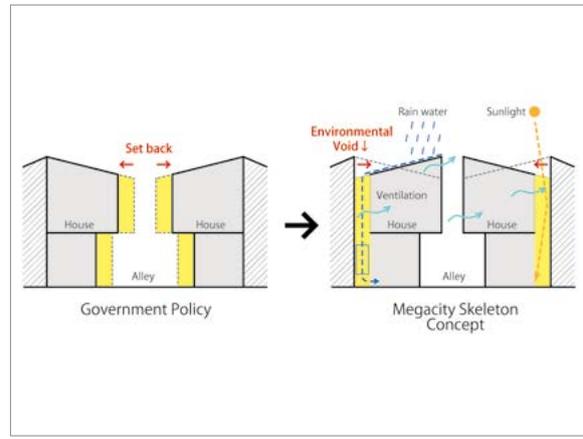


Image 4: Environmental improvement concept as an alternative of governmental policy.

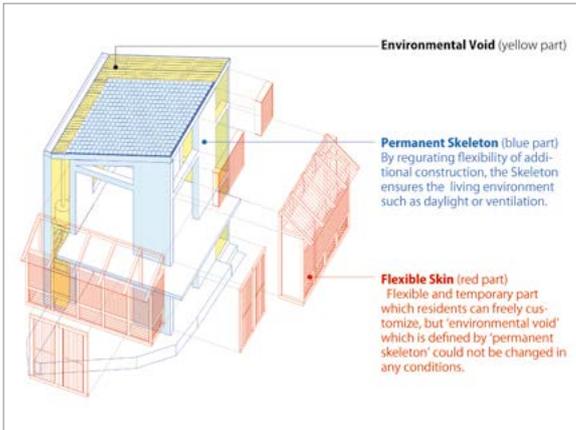


Image 5: “Megacity Skeleton” = “Permanent Skeleton” + “Flexible Skin”.

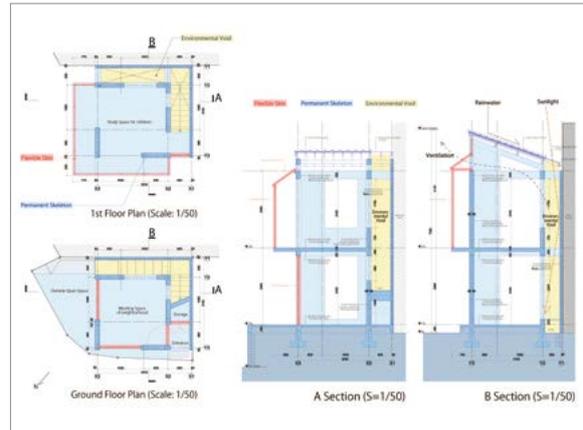


Image 6: Technical drawings: Plans and sections.

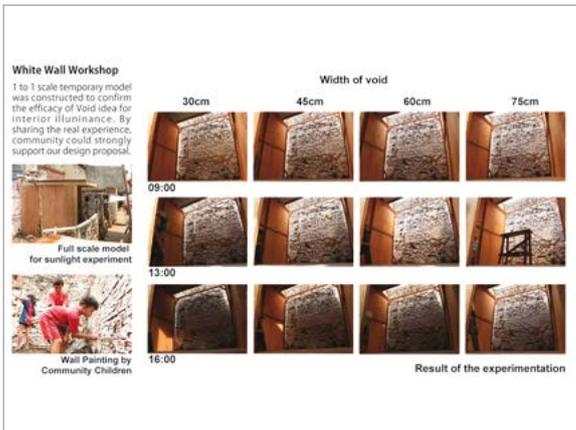


Image 7: The effect of “Environmental Void” was confirmed through real scale model experiment.



Image 8: “Environmental Void” is painted white by community children.



Image 9: Sandwich the project between bottom-up and top-down approaches.

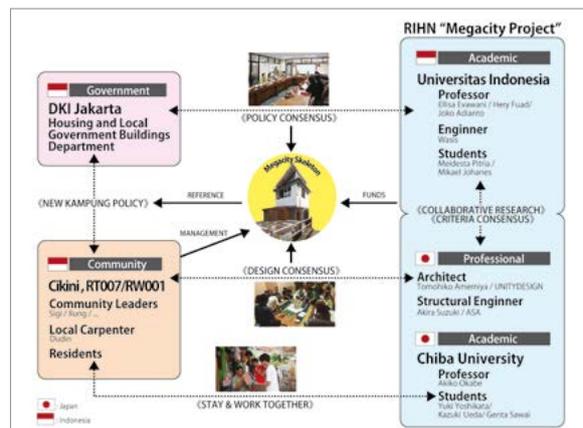


Image 10: Multiple cooperative organization.