

Adaptive landscape ‘Rethinking the super levee’

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Abstract

Searching for a long term, resilient solution to integrate flood resilience with the urban landscape has resulted in perhaps one of the most ambitious hydraulic engineering projects in the world - the super levee. The super levee is a high standard river embankment with a broad width (300 meters) which can withstand even if it overflows (Stalenberg B. et al., 2008). In simple terms it is a wide platform that becomes an underlay for a city at risk. The major upside is that as opposed to conventional flood barriers like dikes, levees, gate which essentially cut off a city from the water, the super levee argues that it provides an opportunity for better integration between development and flood risk, between land and water along with a superior level of protection. On the flipside, the concept sees opposition in the technical and social spheres. Criticism includes extreme high costs, long construction time frames, displacement, the urge to subsidize heavy construction. “a systemic addiction to construction” where “government subsidy” rather than real “infrastructure need” drives development. ‘Rethinking the super levee’ was an international workshop with students of urbanism and hydraulic engineering that looked at alternative approaches to address the issues with the ambitious concept. The objective was to utilize this brief to generate new urban visions for the Edogawa in Tokyo. The argument between what works better formed a central part of the workshop. Two primary approaches were adopted: A: Edogawa Water City: Inspired by the ‘Room for the River’ concept in The Netherlands and B: What if the super levee must be implemented? In conclusion, the project argues for what might be the best way to define the boundary between land and water and the transitions that must be made across lifestyles and urban scales to conceptualize resilience in densifying urban space.

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