

LINDE KARNEBEEK

ROOTED RESILIENCE

REDEFINING COASTAL RESILIENCE IN TOKYO BAY, JAPAN, USING A LANDSCAPE-BASED APPROACH

DESIGNING RESILIENT COASTAL LANDSCAPES
STEFFEN NIJHUIS, FRANSJE HOOIMEIJER

Rooted resilience is about the totality of the landscape, bringing protective, ecological and cultural qualities together in the coastal, riverine and urban landscape. Inspired from the Japanese principle *satoumi*, people and nature benefit each other positively. With the stimulation of natural processes such as sedimentation and erosion, a newfound respect of the landscape will be formed, both through physical and cultural aspects.

What is the potential of a Landscape-based design approach for flood defenses in Tokyo Bay, Japan, that integrates protective, ecological, and cultural values through building with nature?



PROBLEM STATEMENT
Due to industrial development, the landscape changed drastically. Land reclamation and concrete levees has no respect towards natural processes, causing a blocked system. Tetrapods are used frequently because of their high wave breaking capacity due to their peculiar shape.

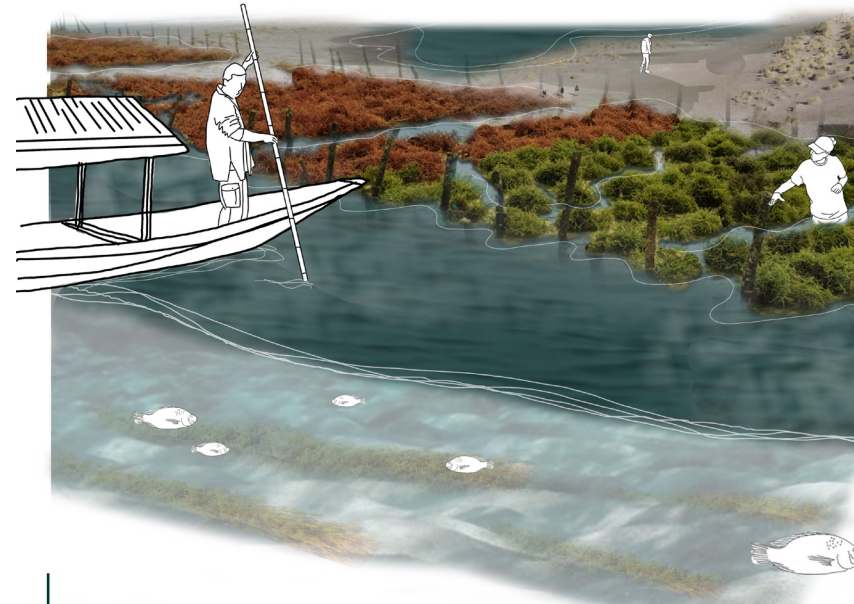


SATOUMI
A landscape where nature and humans can share the same space, and benefit from each other. Ecological development offers protection, human activities stimulate ecological development. *Sato* means 'people living' and *umi* means 'sea' or 'coastal landscape'.

里海
SATO UMI

	COASTAL PROTECTION	URBAN DRAINAGE	RIVER MANAGEMENT
PROTECTIVE QUALITIES			
ECOLOGICAL QUALITIES			
CULTURAL QUALITIES			

TOOLBOX
The toolbox is divided into the categories of protective, ecological, and cultural qualities, despite the initial division of coastal, river and urban landscape. This is chosen deliberately, because in this way, a comparison can be made between the different landscapes, on the same principle. The totality of the landscape-based approach is ensured.



COASTAL PROTECTION



URBAN DRAINAGE

RIVER MANAGEMENT

