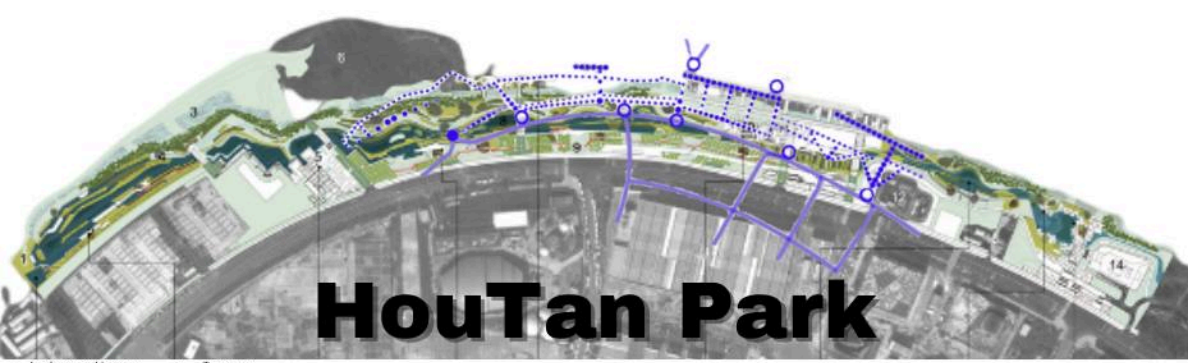
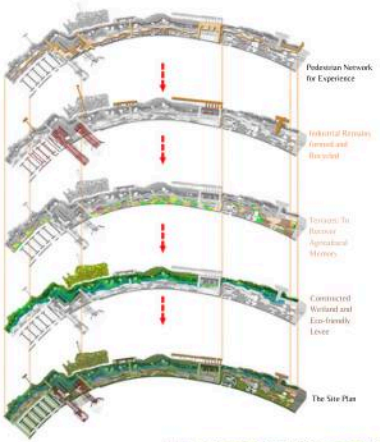


HouTan Park

Landscape architecture	:	Turenscape
Location	:	Shanghai, 2010 Shanghai Expo Park, China
Size	:	14 hectares
Date of Design	:	January 2007-October 2009
Date of Completion	:	2010-2015
User profile	:	All communities

HouTan Park is a regenerative living landscape on Shanghai's Huangpu riverfront, consisting of constructed wetland, ecological flood control, reclaimed industrial structures and materials, and urban agriculture in which phytoremediation process is applied in order to treat polluted Huangpu River water and recover the degraded waterfront in an aesthetically pleasing way.

Design Process



Constructed Wetland and Regenerative Design

Through the center of the park, a linear constructed wetland, 1.7 km long and 5–30 m wide was designed to create a reinvigorated waterfront as a living machine to treat contaminated water from the Huangpu River.

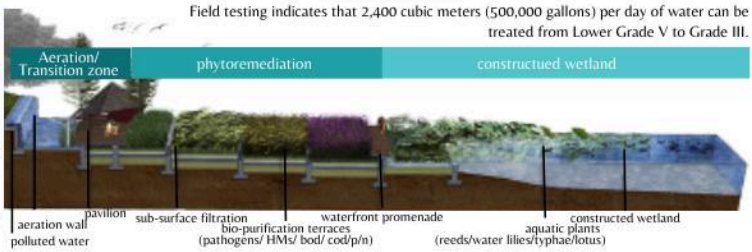
Heritage and Vision

Inspired by the fields of Chinese agricultural landscape, terraces were created to break down the 3–5 meter (15–18 foot) elevation change from the water's edge to the road, and to slow the runoff directed to the stream in the constructed wetland.

Chinese Redwoods

Cascades and terraces are used to oxygenate the nutrient rich water remove and retain nutrients and reduce suspended sediments while creating pleasant water features; Different species of wetland plants were selected and designed to absorb different pollutants from the water through phytoremediation process.

Field testing indicates that 2,400 cubic meters (500,000 gallons) per day of water can be treated from Lower Grade V to Grade III.



Cleansed water is collected in clean water pond, and it is them used to water the crops which change over 4 seasons

Spring

Fall

Summer

Winter

provides a premier educational opportunity for people to learn about agriculture and farming within the city.

Creative solutions/ Benefits

Offer comprehensive ecological services included: food production, flood, water treatment, and habitat creation combined in an educational and aesthetic form.

Sustainability

The Rust Band

Steel panel installation made up of recycled steel from the previous site.

The Hanging Garden

Repurposed from the existing industrial factory, with suspended planters above tea house. The building is cooled by running collected rainwater through the gravel filled, breathable wall.

The Floating Garden

Preexisting Cargo Pier transformed into a viewing deck, create an overlook above the river.

Universally accessibility

Human touch

Allow all people's sensual experience with plants and water

(Miscanthus sinensis) phytoremediates the soil

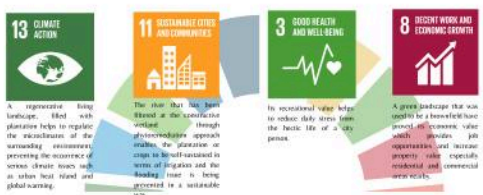
The Flow

Wetland plants are placed in hands right at the entrance to the park as it is to educate visitors about the filtering process of the wetland (phytoremediation)

Biodiversity of flora & fauna

Mainly native plant species are planted, and spontaneous vegetables welcomed, creating a habitat-friendly environment.

Riprap that allows native species to grow along the riverbank while protecting the shoreline from erosion.



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Conclusion

HouTan Park successfully shows the connectivity between blue and greens while achieving the goal to protect our environment through phytoremediation process.

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