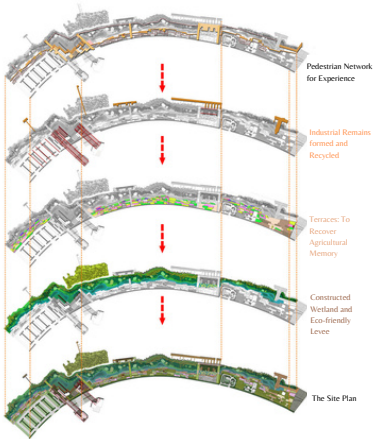


HouTan Park

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.



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.

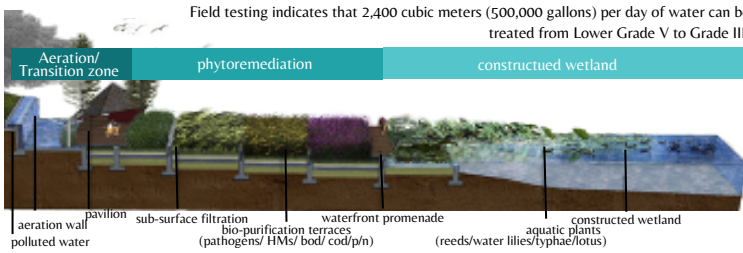
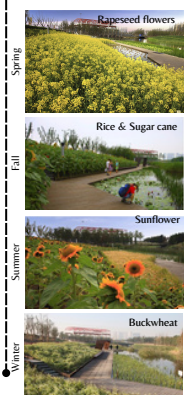
Heritage and Vision

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.



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.

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



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.

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 guard installation made up of recycled steel from the previous site.

The Hanging Garden
 Beyond-level terraces in the existing industrial factory, with suspended planters above the house. The building is cooled by running collected rainwater through the gravel filled, breathable wall.

The Floating Garden
 Increasing Cargo The transformed into a floating deck, create an outlook above the street.

Human touch
 Allow all people a territorial experience with plants and water.

The Flow
 Wetland plants are placed in bands 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.

13 CLIMATE ACTION
 A regenerative living landscape, filled with plantations helps to regulate the microclimate of the surrounding environment, preventing the occurrence of serious climate issues such as urban heat island and global warming.

11 SUSTAINABLE CITIES AND COMMUNITIES
 The river that has been filtered at the constructive wetland through phytoremediation approach enables the plantation or crops to be self-sustained in terms of irrigation and the flooding issue to being prevented in a sustainable way.

3 GOOD HEALTH AND WELL BEING
 Its recreational value helps to reduce daily stress from the hectic life of a city person.

8 DECENT WORK AND ECONOMIC GROWTH
 A green landscape that was upgraded to a brownfield have "green self-economic value which provides job opportunities and increase property value especially residential and commercial amenability."

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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.