

# NINGBO CENTRAL PARK\_PLAZA

Ningbo, China

SWA OFFICE  
Sausalito

SWA PROJECT TEAM  
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PROJECT TYPE  
Competition

DATE BEGUN  
Design-0519,2009  
Construction-2009-2012

DATE OF COMPLETION (EST.)  
Design -Oct. 2009  
Construction - 2012



VIEW FROM TRANSPORTATION BLDG TO GATEWAY

## CLIENT

Ningbo Planning Bureau - East New Town  
Development Committee

## CONSULTANTS

Herrera Environmental Consultants  
Biomatrix Water

## SCOPE OF WORK

Competition

## SIZE

Project -10Ha  
Building -n/a  
Landscape: Area -10Ha

## GREEN/LEED-RATED DESIGN ELEMENTS

L.I.D.  
RAIN GARDEN  
BIOSWALE  
WIND/SOLAR ENERGY  
HABITATE RESTORATION

## THE BIG IDEA



## DESIGN PRINCIPLES:

01. +make it *flexible*
02. +make it *modular*
03. +make it *flow*
04. +make it *fun*

## PROJECT DESCRIPTION

SWA was invited to provide landscape service for a 10 ha. Central Park/ Plaza (Cityport Park) in Ningbo East New Town CBD area, dedicated to businessmen, visitors, and city dwellers. The design of Cityport Park recalls the history of shipping; the common culture of commerce. Using the geometry of cargo shipping as the design strategy in combination with sustainable and low impact design (LID) to create emerging landscape for commerce commons, ecological exploratorium, visitor center, central monument, land bridge, habitat hill, urban lounge, performance green, artwork platform, habitat hills, green roofs, and living walls. The landscape draws from the formal language of shipping and the surrounding urban fabric to provide comfort and familiarity in wayfinding; yet it also blends together a series of informal places to allow for micro-ecologies to emerge within the larger frame-

work. Layered plantings provide the critical habitat densities and structure for a diversity of species to move into and across the site to establish a kinetic urban ecology.

Ningbo's new Cityport Park will create an iconic urban landscape and feature urban park for the eastern new city and the surrounding metropolitan area.

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**CITY PORT 港口 PARK 公园** imPORT ideas

**PROJECT DESIGN NARRATIVE**

**The history of a port city**

**The geometry of container shipping**

**The module for sustainability**

**城市**

**港口**

**公园**

**imPORT ideas**



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# CITYPORT PARK

imPORT ideas // exPORT possibilities

## HISTORY // BACKGROUND // CULTURE

### “the history of a port city”

Located in the heart of the Yangtze River Delta on China's Coastline, Ningbo is one of China's oldest cities. With an area of 3,616 square miles and a population of 5.43 million, Ningbo has been a well-known key port for foreign trade since ancient times. Bordered by Shanghai to the north and Hangzhou to the east, Ningbo is one of the economic and cultural centers of East China.

Shipping is integral to the history, function, and prominence of Ningbo. Located 9.76 nautical miles from the port, the urban development patterns in Ningbo are intricately tied to the function of the land and water.

Ningbo's expansion in the 19th and 20th centuries provided ample new opportunities for urban design. In 2002, the government called for a master plan for an “Eastern New City” as a strategy to sustain Ningbo as a greater metropolitan area of economic and environmental importance.

Within the Eastern New City, **CITYPORT PARK** will be the central park for businessmen, visitors, and city dwellers. Cities provide places for movement, social interaction, and commerce; urban parks are critical to the success of the social, environmental, and business ecologies of metropolitan centers.

Ningbo's new **CITYPORT PARK** will create an **iconic urban landscape** and **feature urban park** for the Eastern New City and the surrounding metropolitan area.

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宁波在19世纪和20世纪的扩张为城市设计带来了复杂的机会。在2002年，政府提出了东部新城的规划，以巩固和提升宁波作为经济和生态发展的大都会地位。

### 可持续生态发展的模具



Cargo shipping (or containerization) was first developed in the late 1780's and became a highly efficient mode of transportation and trade throughout the 20th century. The fluency and efficiency of the system is the result of developing the container as a standard unit of measure – something that could be transferred readily from truck to rail to ship. This coordination of movement and system of port efficiency was one of the marvels in the history of container shipping and world trade.

### the module for sustainability

集装箱运输于18世纪晚期发展，自20世纪以来成为一种高效的运输和贸易方式。通过开发集装箱作为标准设计单元，集装箱系统能够实现从卡车到铁路到船舶的无缝衔接。这种协调运动和港口效率的系统是集装箱运输和世界贸易历史中的奇迹。

This “container module” changed the language of trade – creating highly efficient port systems, lowering costs, and ultimately, boosting trade flows. Today, “almost every manufactured product humans consume spends some time in a container.”



### the common culture of commerce

集装箱改变了贸易的语言，创造了高效的港口系统，降低了成本，并最终提升了贸易流量。今天，“几乎所有人类消费的制造产品都会在集装箱中度过一段时间。”

### the geometry of container shipping



In 2009, Vernon Smith, the 2002 Nobel Prize winner for economics, spoke at the G20 world conference, urging leaders to promote peace and prosperity through “the common culture of commerce.” As the world adapts to the fluctuating exchange rates and shift in world powers, there is one currency that remains constant throughout the world: the currency of shipping.

### the geometry of container shipping

2009年诺贝尔经济学奖得主，在2009年G20世界峰会中发表演讲，呼吁领导人通过“商业的共通文化”来促进和平与繁荣。随着世界适应不断波动的汇率和全球权力的转移，世界上有一种货币始终保持不变：那就是航运的货币。

## DESIGN STRATEGY “the common culture of commerce”

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Cargo shipping (or containerization) was first developed in the late 1780's and became a highly efficient mode of transportation and trade throughout the 20th century. The fluency and efficiency of the system is the result of developing the container as a standard unit of measure – something that could be transferred readily from truck to rail to ship. This coordination of movement and system of port efficiency was one of the marvels in the history of container shipping and world trade.

## “the container as a world currency”

This “container module” changed the language of trade – creating highly efficient port systems, lowering costs, and ultimately, boosting trade flows. Today, “almost every manufactured product humans consume spends some time in a container.” (source: wikipedia, containerization article).

Embracing Ningbo's intricate relationship to the sea and the port, the container as a module for design geometries ties the history of Ningbo as a Port City together with the future of the Eastern New City as a center for commerce and business.

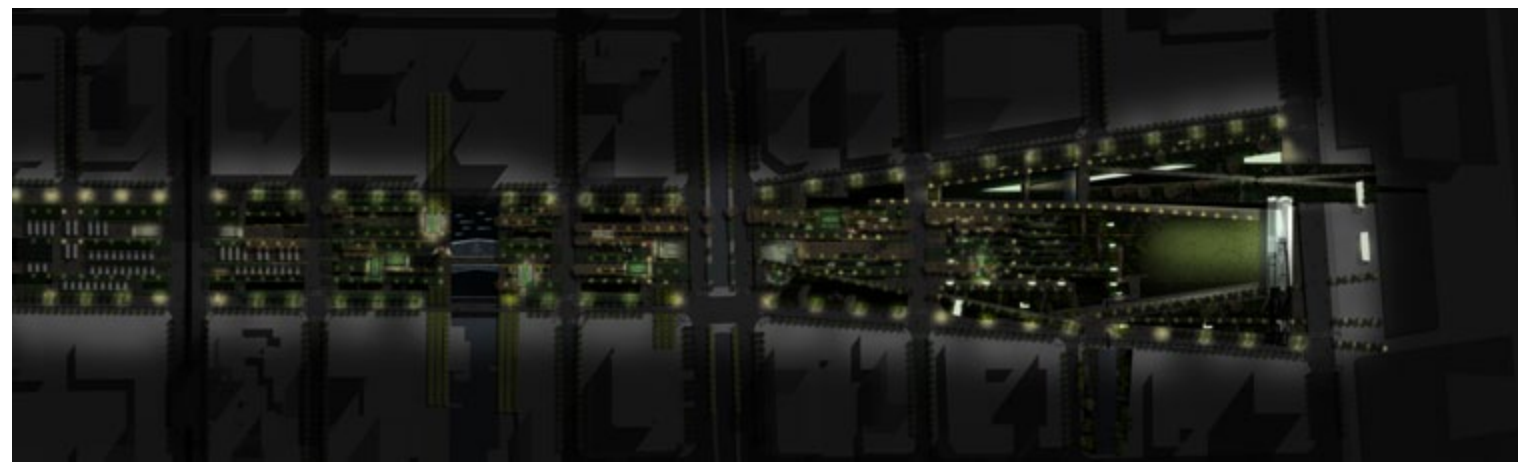
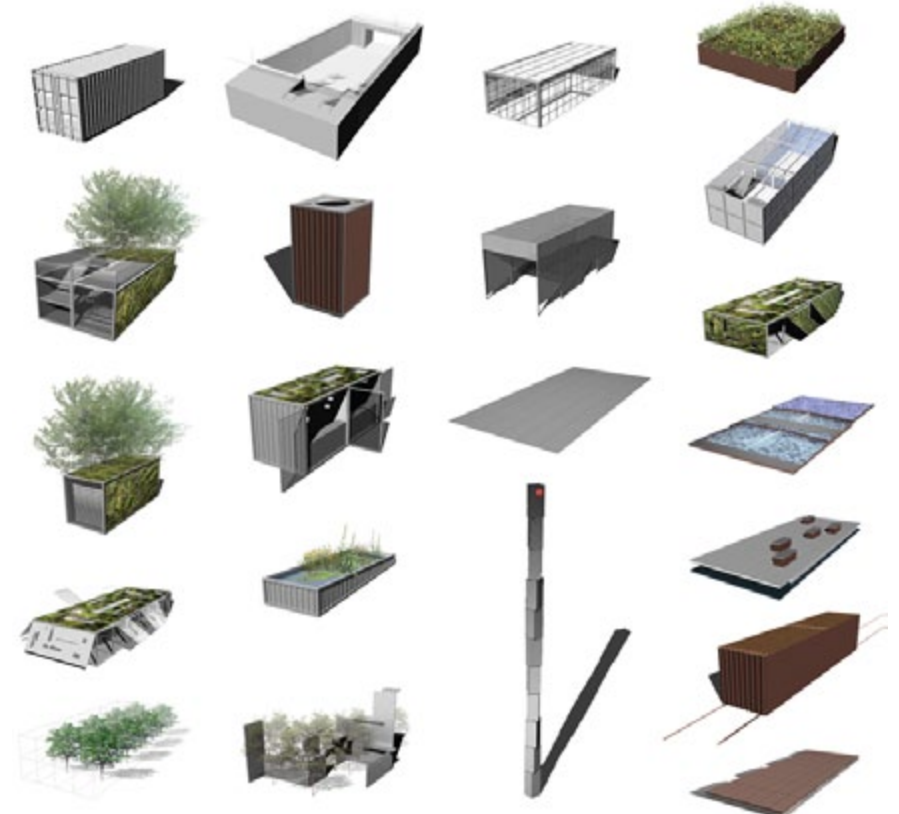
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**GEOMETRIES // FRAMEWORK**  
**“the geometry of container shipping”**

Ningbo’s Central Park ties the Eastern New Town and the Old City through the creation of an iconic, memorable, feature Park that utilizes the common language and common geometries of shipping. The **container** is standardized as a Twenty foot Equivalent Unit (TEU) 20’ in length, 8’ in width and 9.6’ tall. The ratio between the length and width yields 2.5:1, the common ratio used throughout the project.

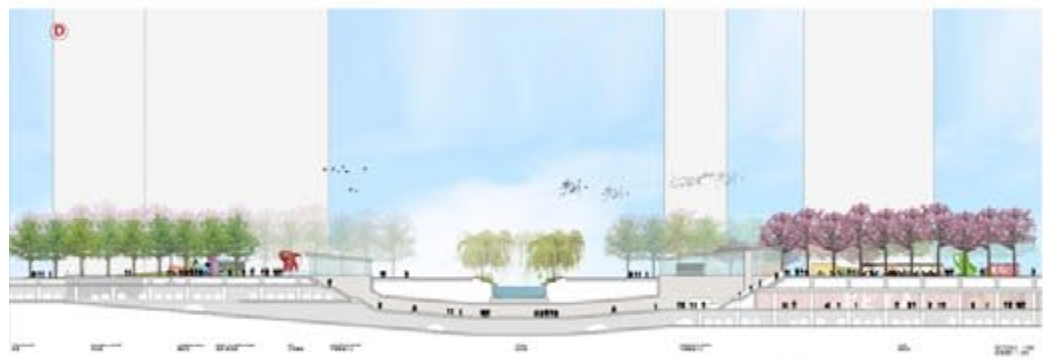
Across the site, the language of shipping is read through the superimposed grid of shipping containers. Each container unit can be stacked vertically; such that the grid and container create a 3-dimensional framework for a geometric park.



**THE CONTAINERS // PARK PROGRAM**      **“the iconography of landscape”**

**CITYPORT PARK** balances, regenerates, and energizes the existing urban environment by creating a stunning new urban park that features:

- A strong link to history, grounding the park in the culture of Ningbo and celebrating the culture of a Port City.
- **Commerce Commons**: A central urban plaza for businessmen, social gathering, relaxation, and public events.
- Connections to underground and above ground floor levels (subway, basement, retail) through tilted geometric planes, open corridors, and centralized transit linkages.
- An **Ecological Exploratorium** and **Visitor Center** that serve as a cultural center and museum for the entire park.
- A spectacular **Central Monument** visible throughout the site as an icon and navigation tool for all park users, featuring a



- timepiece/clocktower, wifi throughout the park, and multimedia displays visible from surrounding office buildings.
- A **Land Bridge** connecting the park to the southern retail center (“the rocks”)
- **Habitat Hill** – A series of layered ecosystems that provide the necessary ecological richness for species’ habitat formation and niche creation.
- **Urban Lounges** – myriad human-oriented niche environments designed for business meetings, social gatherings, athletic functions, retail shopping, restaurant and casual dining, and relaxation.
- State-of-the-art stormwater collection, filtration, and hydrologic systems that filter, cleanse and release water, helping Ningbo to restore and maintain hydrologic vitality.
- A beautiful **Performance Green** and concert stage with a media display wall and overhead views.
- An **Artwork Platform** that showcases local talent through paired sponsorship and seasonal competitions.
- **Water Street** - A central water feature that ties into the greater canal system of the Eastern New City and offers a place to play, gather, interact, and reflect.
- Sustainable innovations in design, including windmill technology, solar technology, green walls, green roofs, water filtration, and material re-use.

framework. Layered plantings provide the critical habitat densities and structure for a diversity of species to move into and across the site.

**Habitat Hill.** The container modules are stacked in tight clusters towards the center of the park to create “Habitat Hill.” The terracing of the containers provides the critical height and layering of canopies to provide refuge for migratory birds and other species that use the site.

**Green Walls.** The container modules are layered with green elements: the sides of the containers act as the structural framework for vines, and vegetation to grow up and around the containers.

**Green Roofs.** Vegetated roofs are abundant across the site. Extensive green roofs are built atop the containers and the land bridge, with the critical soil mass (1.5-2m) providing an opportunity for rich landscape systems.

**Hydrology.** Stormwater is collected from multiple sources: All of the pervious and impervious surfaces in the park collect and filter water towards a series of **canals** and **rain gardens** in the southern terminus of the park. During major storm events, water can be directed towards **storage containers**, utilizing the space capacity of the containers onsite. Streetside water filtration systems catch and filter street runoff through planting beds and natural filtration systems to cleanse the street stormwater.

Each container can act as a **self-contained water filtration system**, able to filter 150,000 gallons of water per container per day: this water can be from streets, from urban runoff, or connected to greywater systems of local buildings to **capture and cleanse grey water directly on-site**. The park serves as a **living filter** supporting biological processes that act as a Green Lung for the urban area.

**ECOLOGY // HYDROLOGY**

**“a kinetic urban ecology”**

The landscape draws from the formal language of shipping and the surrounding urban fabric to provide comfort and familiarity in wayfinding; yet it also blends together a series of informal places to allow for micro-ecologies to emerge within the larger

AN EXEMPLARY MODEL (MODULE)

“the module for sustainability”

The functional, social, and ecological capacity of the container is limitless. A single container can act as an enclosed system or create the foundation for complex ecologies across the site. CITYPORT PARK is the new language of sustainability, layering complexity into a site through the simplicity of a single element.



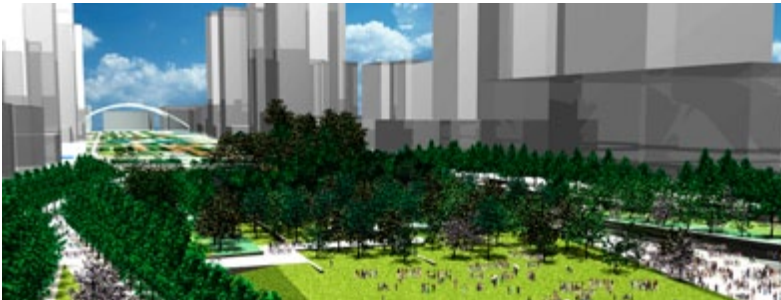
HABITAT HILL WITH VERTICAL LIVING WALL



VIEW TO PERFORMANCE GREEN FROM SUBWAY EXIT



VIEW TO COMMERCE COMMON FROM PORT TRANSPORTATION BLDG



VIEW TO CENTRAL PARK FROM CRANE OUTLOOK DECK



EMERGING “CARGO” CLIMBING



VIEW TO COMMERCE COMMON

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