

Università di Firenze - Dipartimento di Architettura  
Corso di laurea magistrale in Architettura – curriculum Architectural Design  
iCad - International Curriculum on Architectural Design - Master Program  
**Architecture and Town Lab**  
**Module Urban Landscape Design**

# Urban Landscape Design

## «Urban Green»

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*PhD landscape architecture*

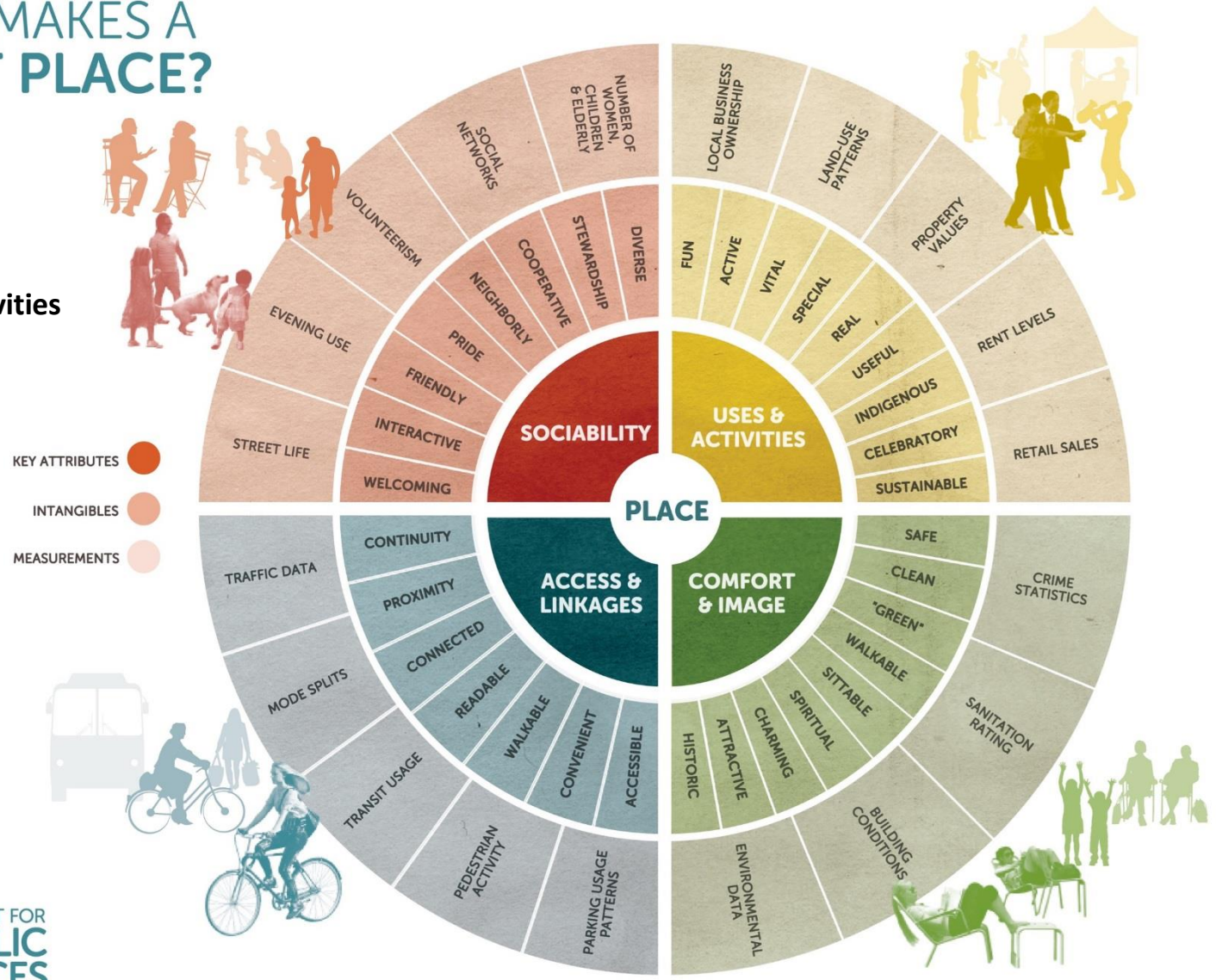
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# What is a a public space?

## WHAT MAKES A GREAT PLACE?

- **ACCESSIBLE**  
it is a accessible place
- **ACTIVE**  
people are engaged in activities
- **COMFORTABLE**  
and it has a good image
- **SOCIABLE**  
it is a sociable place



**PLACE DIAGRAM**  
 Project for Public Spaces (PPS)  
<https://www.pps.org/article/grplacefeat>



# What is a Green Infrastructure?

## Green Infrastructure:

*«It is a strategically planned and managed interconnected **network of natural areas and other open spaces that preserve functions and values of natural ecosystems, keeping the air and water clean and providing a wide range of benefits for people and communities.**»* McMahon, Benedict, 2006

*“It is a successfully tested tool for providing **ecological, economic and social benefits through natural solutions** (...)*

*It is designed and managed to deliver a wide range of **ecosystem services.**”*

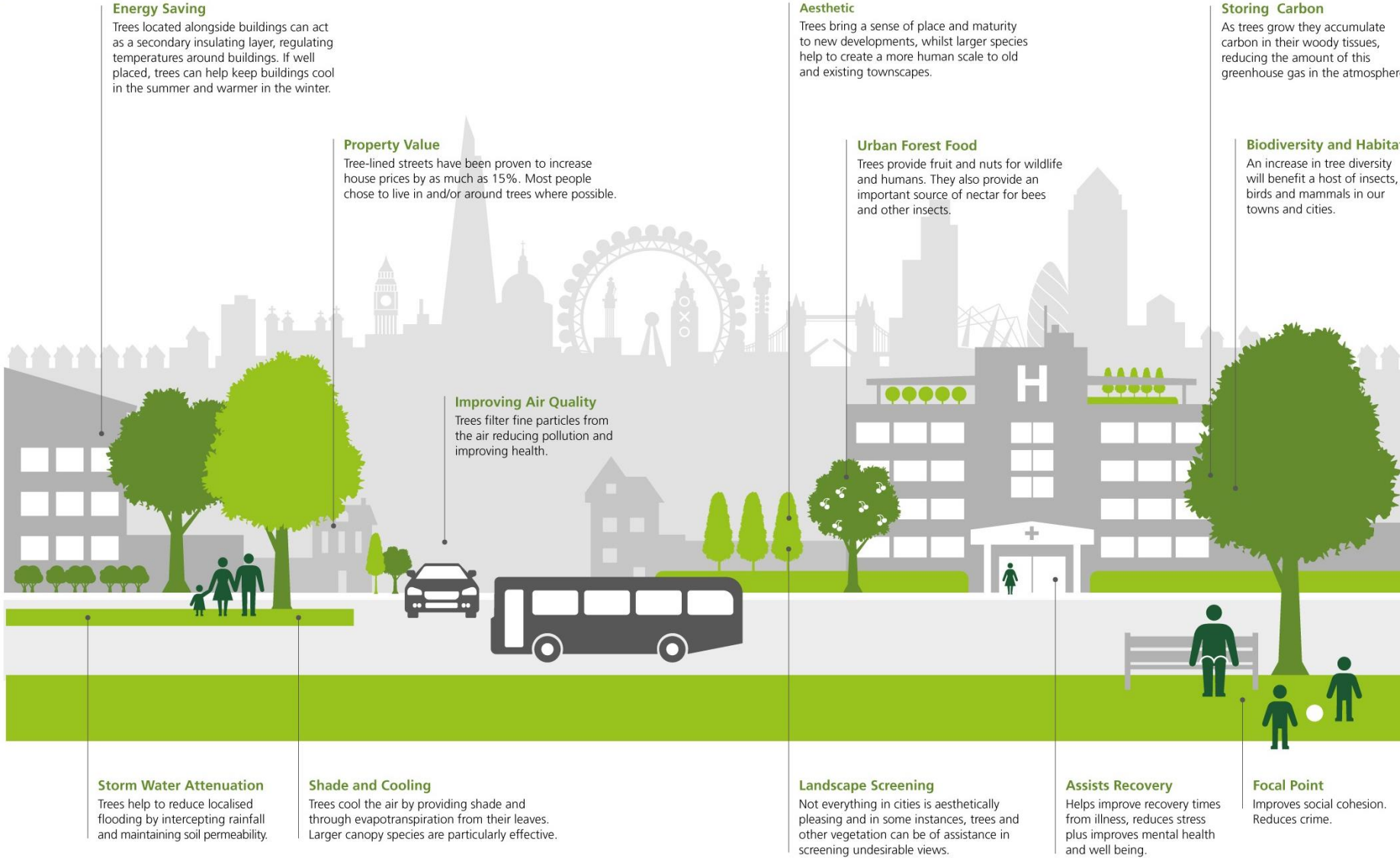
Green Infrastructure (GI) — Enhancing Europe’s Natural Capital COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, 2013



# Why we need trees?

## The Benefits of Trees

Fig 1.







© FAO/SIMONE BORELLI

**Peri-urban forests and woodlands.** Forests and woodlands surrounding towns and cities that can provide goods and services such as wood, fibre, fruit, other non-wood forest products, clean water, recreation and tourism.

## Peri-urban forests and woodlands



© FLICKR/HENRY HEMMING

**City parks and urban forests (>0.5 ha).** Large urban or district parks with a variety of land cover and at least partly equipped with facilities for leisure and recreation.

## City parks and urban forests (<0.5 ha)



© FLICKR/BRYAN DORROUGH

**Pocket parks and gardens with trees (<0.5 ha).** Small district parks equipped with facilities for recreation/leisure, and private gardens and green spaces.

## Pocket parks and gardens with trees



© JULIAN EISEN

**Trees on streets or in public squares.** Linear tree populations, small groups of trees, and individual trees in squares and parking lots and on streets, etc.

## Trees on streets or in public squares



© FAO/SIMONE BORELLI

**Other green spaces with trees.** For example urban agricultural plots, sports grounds, vacant lands, lawns, river banks, open fields, cemeteries and botanical gardens.

## Other green spaces with trees

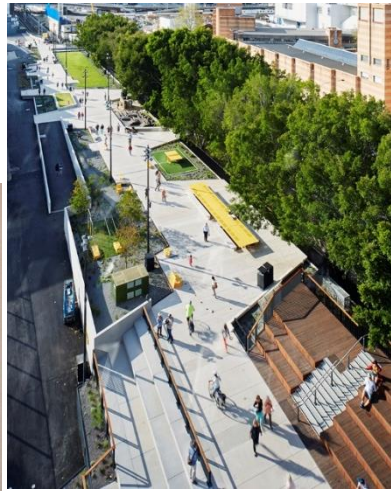
**Urban forests are the backbone of the green infrastructure**  
They include forests, street trees, trees in parks and gardens, and trees in derelict corners  
Urban forests and green infrastructure are essential components for planning and designing more resilient cities



Firenze



The Goods Line, Sydney  
© ASPECT studio



High line, New York  
© Piet Oudolf (plant design)



# *Landscape (as) infrastructure* *Landscape Infrastructure*



Buffalo Bayou Promenade, Houston  
© SWA Group



A8ERNA, Koog aan de Zaan (Zaanstad), Olanda, © NL Architects



Rambla de Sants, Barcelona © Godia e Molino

Reading Viaduct, Philadelphia © Bryan Hanes







retrieving abandoned  
rail lines or brownfields

## 'La Coulee Verte'

A disused railway line of *Petite ceinture* (built in the 1850s, it carried passengers until 1934, abandoned in 1969)

**4,7 km integrating viaducts, tunnels, trenches of the old railway**

connects Place de l'Opera-Bastille to the Bois de Vincennes

This long-abandoned mid-19th century viaduct was converted into **the world's first elevated park walkway** at the beginning of 1990

This park aims:

- to **increase the presence of vegetation** in urban areas
- to make the **pedestrian mobility and bicycle paths** with the connection of large portions of the city through protected paths that use the old railway grounds



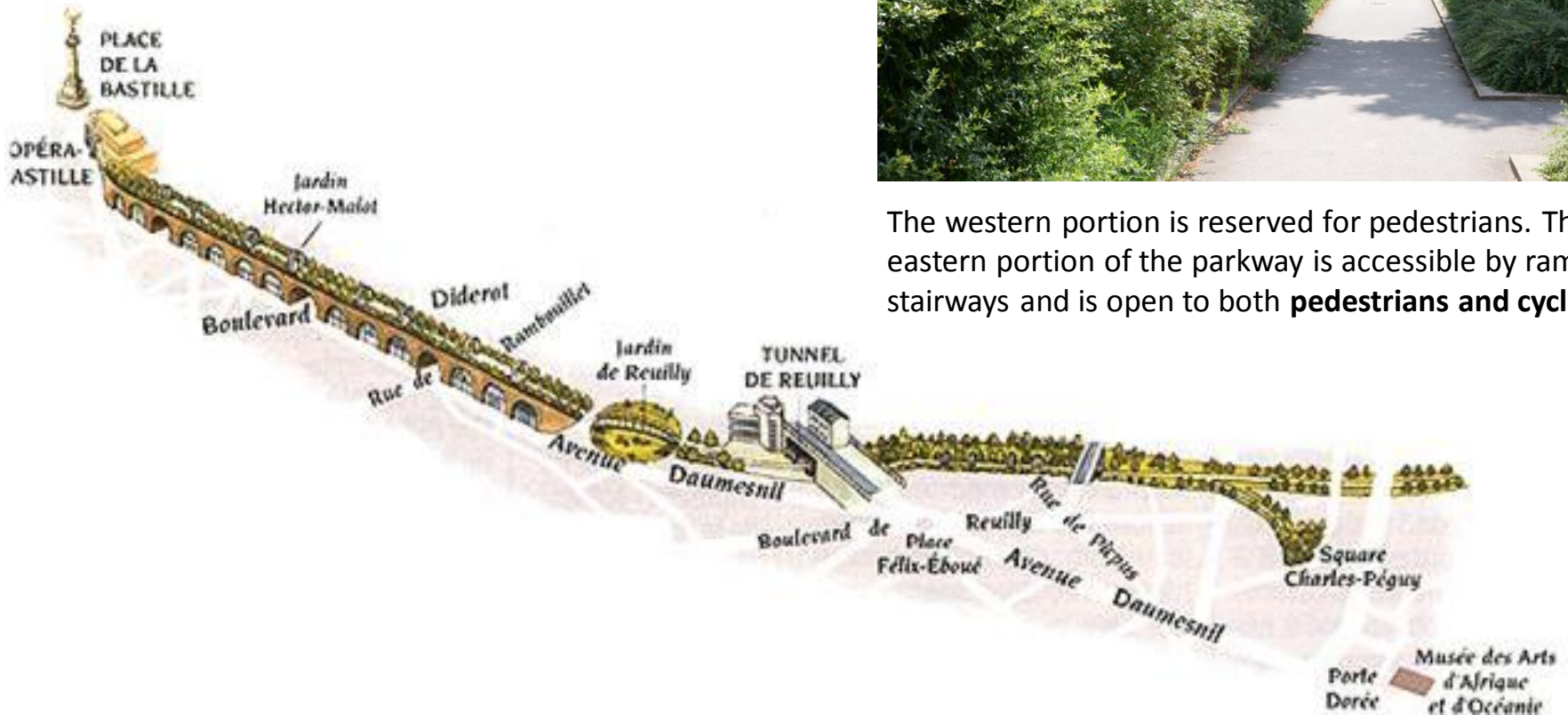


## Viaduc des Artes

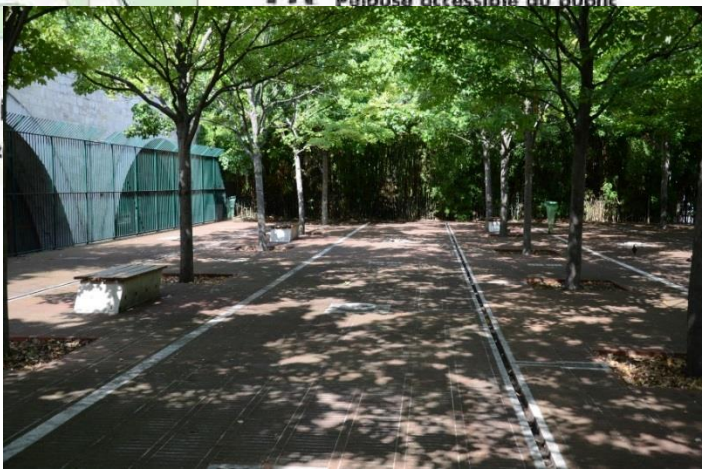
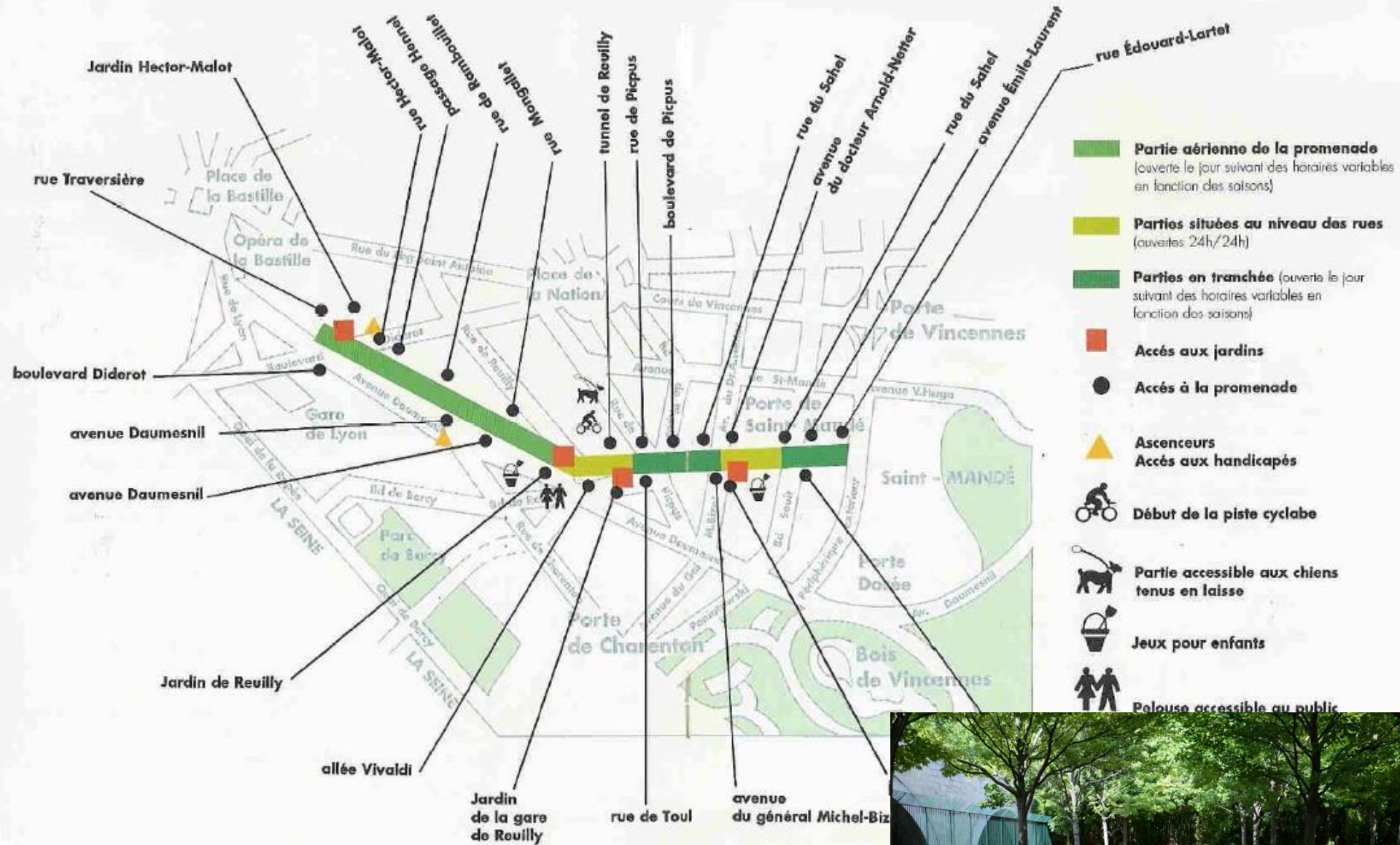
45 brick archways were transformed into artisan showrooms. A restored viaduct that features arts and crafts studios as well as an assortment of cafes and restaurants that has become a **community gathering space**



The western portion is reserved for pedestrians. The eastern portion of the parkway is accessible by ramps and stairways and is open to both **pedestrians and cyclists**







There are some spaces in addition: the **Jardin de Reuilly** and the square Charles-Péguy, the **Jardin de la gare de Reuilly**, with its preserved but unused railway station, and the **square Hector-Malot**





Most of the railroad is viaduct, **10 meters high** with staircases and lifts along the route. This park-walk, which also reinterprets the **tradition of hanging gardens**, became a cherished part of the city and offers the citizen a **special way of enjoying the urban landscape**, offering **unexpected views**.



It offers a new view of Paris







*“Most Parisians **think of la Petite Ceinture as wasteland**, which is a common misconception. The line isn’t abandoned; it’s just mostly unused. Of course, some parts are more damaged than others with the passing of time but overall it is maintained in condition. **Potentially, it could be reused** for train circulation with just a bit of rehabilitation work.”*

### **“By the Silent Line”**

French photographer Pierre Folk spent a number of years documenting the disappearance of the **Chemin de fer de Petite Ceinture**, in Paris

La Petite Ceinture built in the 1850s runs nearly 20 miles around the City it worked until 1934. In 2008, part of the tracks between the Porte d’Auteuil and the Gare de Passy-la-Muette became accessible as a walking route and nature trail. The rest is currently off limits.



# *Jardins de la Rambla de Sants, Barcelona (2002\_2016)*

Sergi Godia e Ana Molino







the train and subway routes in **Sants neighbourhood**, Barcelona, has opened a wound in the urban fabric during the last century.

With an average width of **30m** and an **8-way platform**, the infrastructure has divided the neighbourhood in two separated parts, along **800m** generating **urban dysfunctions** in terms of **noise pollution** and **degradation** of its surroundings.

In 2002 the city administration decided to start up an urban renewal project of Sants railway corridor, starting a complex process that involved three public administrations and a civic associations of Sants district.

The final proposal was to **create a transparent box** where to **confine the railway** in order the **roof to be transformed into 800m elevated garden**. The previous idea of bury the infrastructure has been discarded due to technical and economic problems. The path would be extended later in the neighbouring municipalities: Hospitalet, Esplugues and Cornellà, a 5km “green corridor”.



greening the city





It was a disused railway line.

It was **an industrial railway** for freight trains, the last train ran on it in 1980.

It is an elevated, steel structure built in the 1930s.

In 1980 - 1999 "Friends of the High Line" was established .

In 2003 the design team won the **competition to convert the existing infrastructure into a public park.**

3 "sections", length of 22 blocks

The 1<sup>st</sup> **opened in 2009** (from 12 to 20<sup>th</sup> street)

The 2<sup>nd</sup> in 2011 (from 20th Street to 30th Street)

The 3<sup>rd</sup> in 2014 (from 30th Street to 34th Street)

Many access points to the elevated park  
is fully wheelchair-accessible

**New urban experience**, offering visitors a **new perspective** of the city, including the historic buildings like the Chrysler Building, the Empire State Building.

The new park offers a break from the chaotic city streets as users have an opportunity to experience **an elevated space with uninterrupted views of the Hudson River and the city skyline** .







## A strategy of agri-tecture

The park is inspired by the "**wilderness**" that has colonized the area.

**Strategy of agri-tecture - part agriculture, part architecture –**

*combine organic and building materials into a blend of changing proportions that accommodate the wild, the cultivated, the intimate, and the hyper-social*

Through a **strategy of agri-tecture** the surface is made by **units of paving and planting which are assembled into a variety of gradients** from 100% paving to 100% soft.

Each piece of rail was removed during construction works, but it returns to its original location as an integrated planting piece.

The design retains the original railroad tracks from the industrial structure and restored steel elements including the High Line's signature Art-Deco railings.



An **integrated system of concrete pathways, seating areas and special architectural features** blend with naturalistic planting areas to create a singular landscape  
**self-sown grasses and flowers** emerging from old tracks, wood ties, and stone ballast  
**Energy-efficient LED lights** gently illuminate the park's pathways







the team created a **paving system that encourages natural growth**  
furniture elements appear to **peel up from the ground**



**"elevated catwalk"** overlooking the Hudson River (3<sup>rd</sup> section)







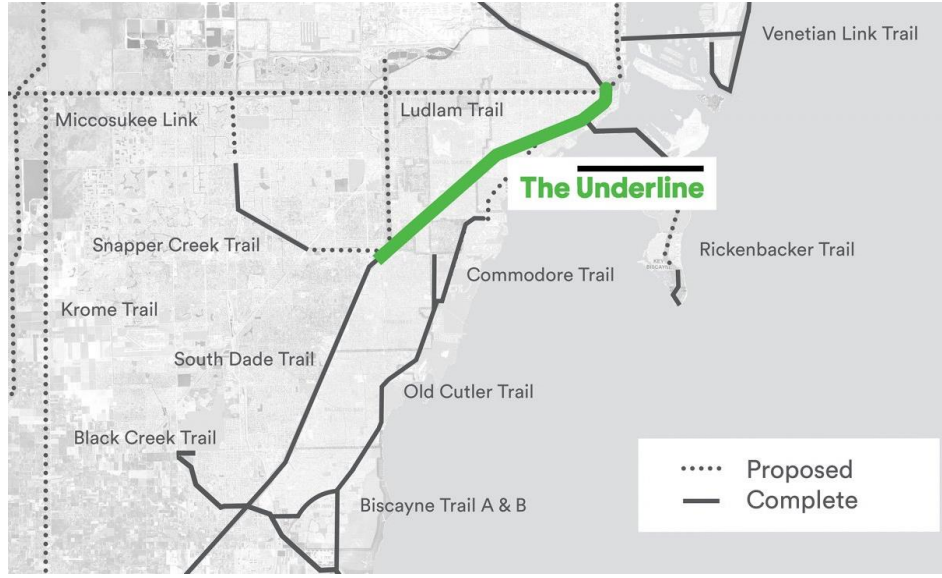
The project costs more per acre than probably any park in human history  
High Line was, in significant measure, constructed and is almost exclusively maintained with **private funds**.  
Already choked by **five million visitors a year**



# Underline, Miami (under construction)

## JAMES CORNER FIELD OPERATIONS

<https://www.theunderline.org/>



The Underline will transform the **land below Miami's Metrorail** into a 10-mile linear park, urban trail and living art destination.



one of the largest investments in public parkland ever carried out by the City of Houston, this **\$15 million** project was the result of an historic public/private partnership to revitalize **Houston's downtown urban waterfront.**

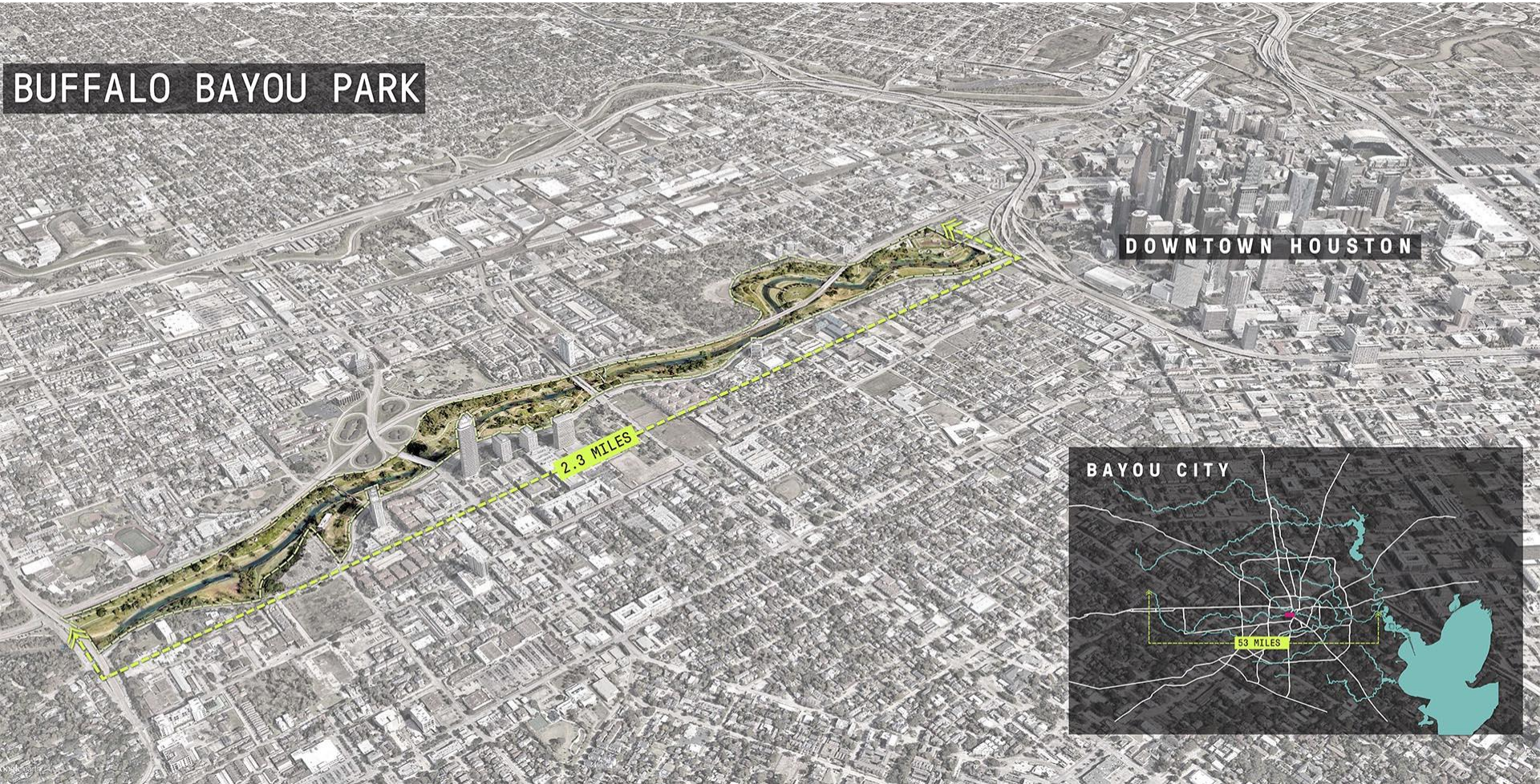


through the project is achieved **the reintegration of ecological flows with traffic flows and the climate change problems solution** - one of the main problems is to stem the frequent floods - becomes the primary design device for the reconfiguration of an abandoned and critical territory, through the re-naturalization of the river meanders above which the highway was built.



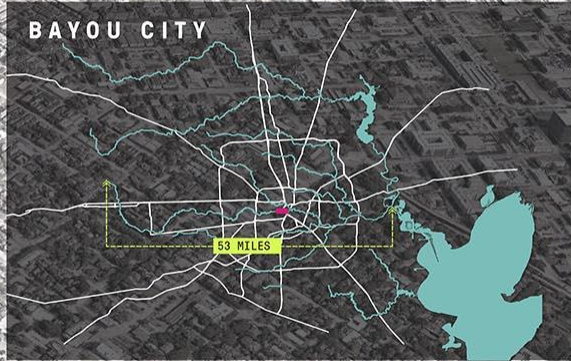


# BUFFALO BAYOU PARK



DOWNTOWN HOUSTON

2.3 MILES



BAYOU CITY

53 MILES



SWA was retained to create a master plan and subsequent full landscape architectural services through **two miles of some of the most challenging urban conditions**: overhead freeways and utilities, steep slopes, limited access and critical flood water elevations.

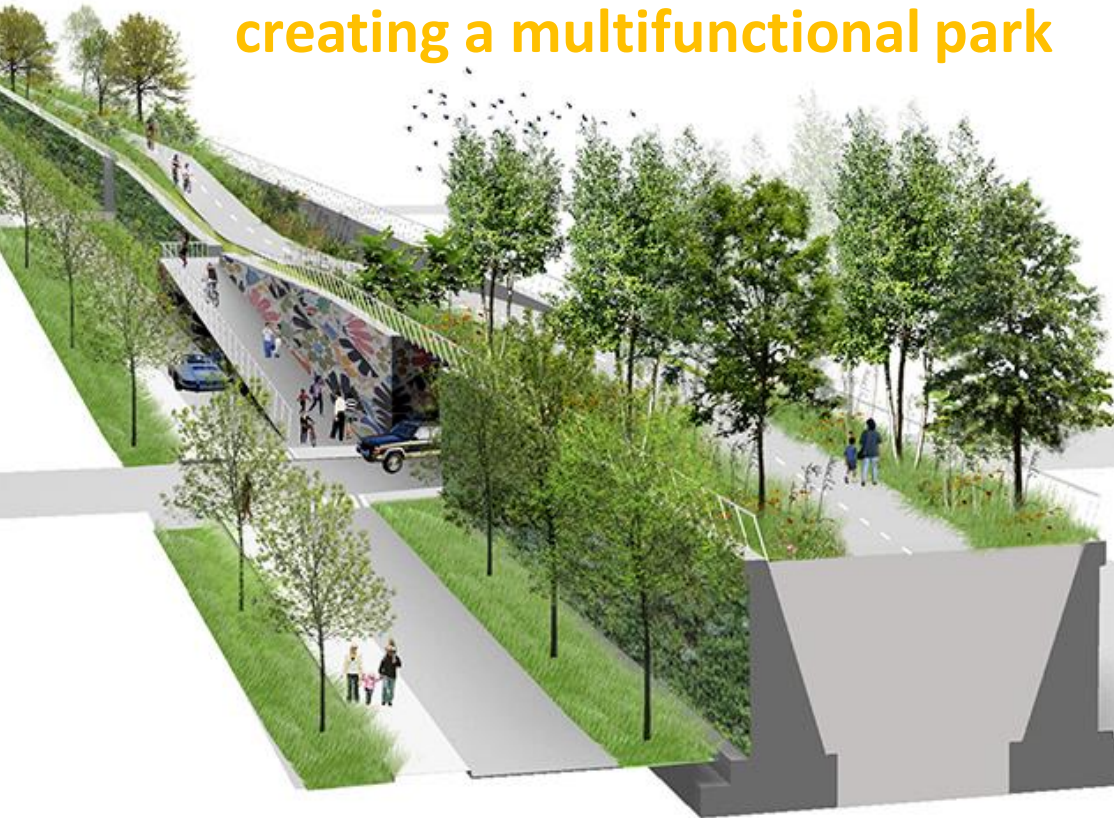
The project converts a once neglected eyesore—intimidating to pedestrians and detrimental to flood control efforts—into **3,000 linear feet of urban parkland** providing a gateway to downtown Houston and adding over **20 acres of park** space to Houston’s inner city.

The project features naturalization of gently sloping banks, extensive native landscaping, hike and bike trails, public art, dramatic artistic lighting, 12 new street-to-bayou entryways, stairs and ramps reconnecting people to the bayou, a major north-to-south pedestrian bridge, way-finding, and interpretive signage





## creating a multifunctional park



The **Bloomington Line** is a former elevated railroad (1873) running east-west on the northwest side of Chicago.

It forms the backbone of the larger **parks and trail network** called **The 606**

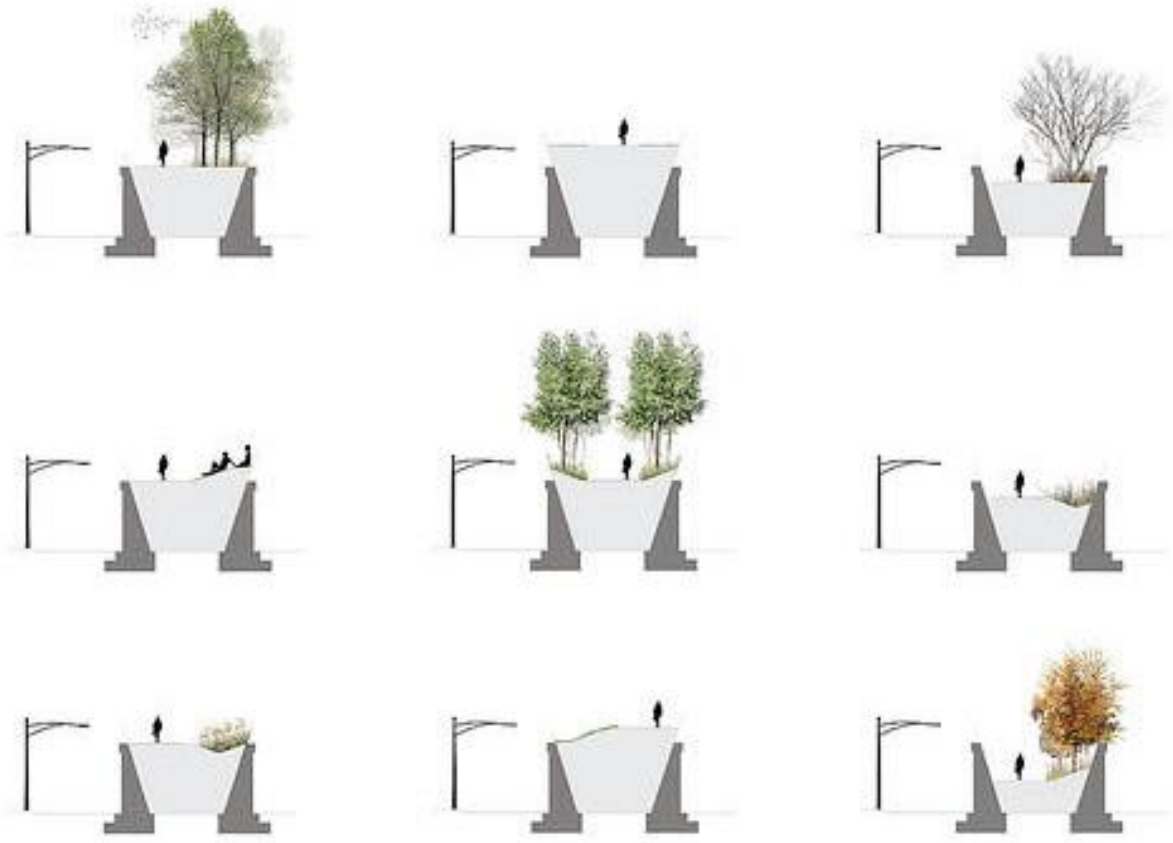
Works started in 2013, finished in 2015

The nearly **3 mile long trail (4,3 km)** is built upon an abandoned elevated rail line in the northwest part of the city that connect other parks throughout the area.



The design team crafted a **multifunctional system** for bikers and pedestrians with a number of other amenities (public art, seating, play areas).





The City of Chicago first investigated converting the Bloomingdale Line into a greenway in a **1997** but it didn't work.

The greenway concept was re-introduced in 2002-2004.

A non-profit organization, **Friends of the Bloomingdale Trail (FBT)**, was formed in 2003 to be the focal point for advocacy and community involvement in the conversion project.







before works

Spaces for numerous **art installations** are planned along the trail and in neighborhood parks  
+ installation of hardscape features, such as benches and water fountains.

more than **100 murals** created by the Community Art Project, line the trail infrastructure. Many are lost during redevelopment, but some are spared as elements with cultural value to the communities.



After works





Without a proper trail and access points, very few people are aware that a lush, green environment exists just overhead.

The first phase of the project has involved the **repair or replacement of the old and environmental remediation of areas with contaminated soil.** some old structures are used as aesthetic enhancements





the old, abandoned track corridor is transformed into a **Linear Park System** providing an **alternative transportation corridor** linked to mass transit offering **outdoor classrooms for children** and **recreational opportunities**

multi puposes









# The goods line, Sydney (2006\_2011)

Aspect studio

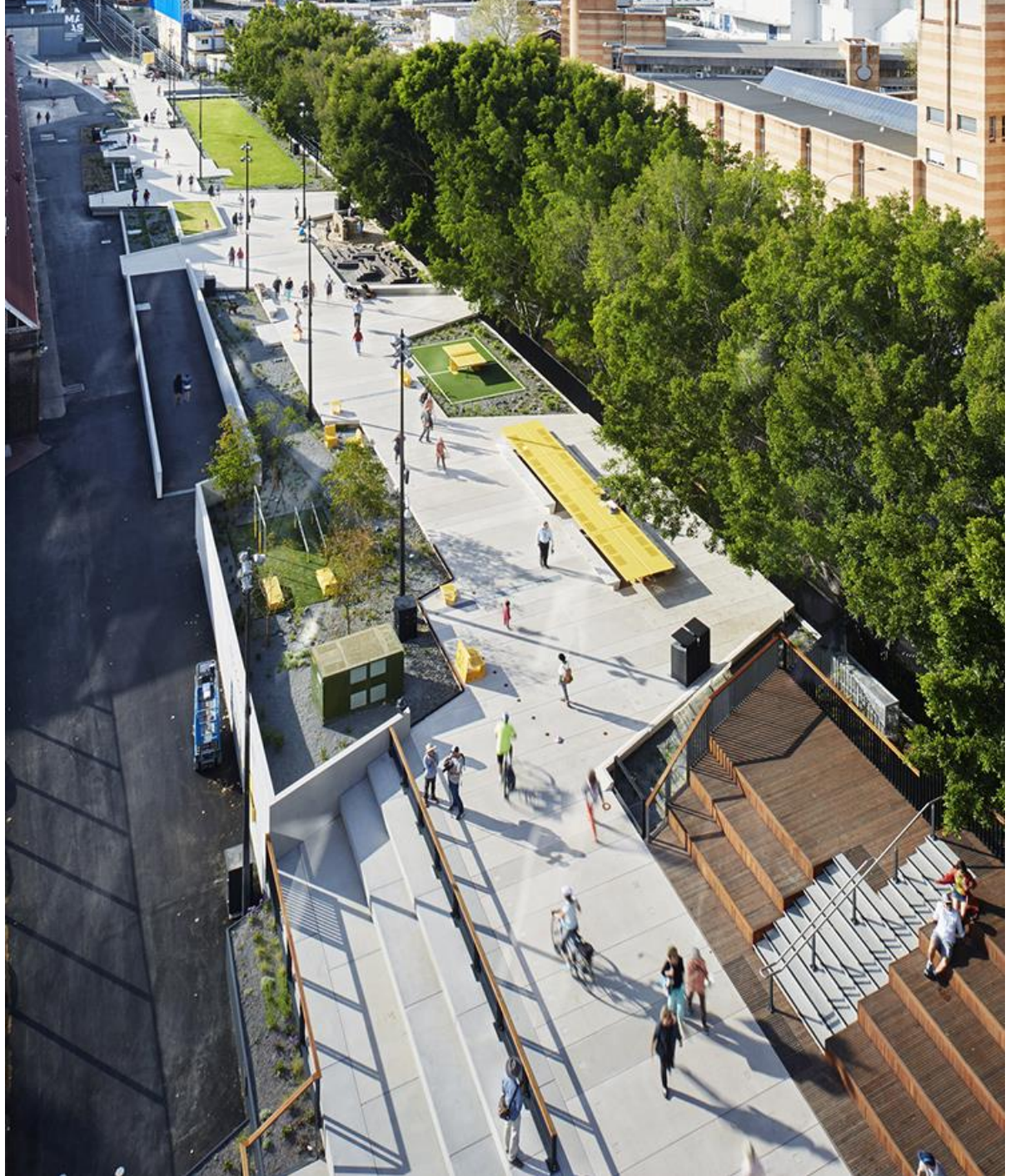


"The freight line" is a **new civic plug** for Sydney. The former railway line is reinterpreted to bring the precious cargo of a thriving neighborhood - **culture, creativity and community**. It is a designed to promote opportunities for **pausing, occupying and using the corridor** in ways beyond merely passing through.

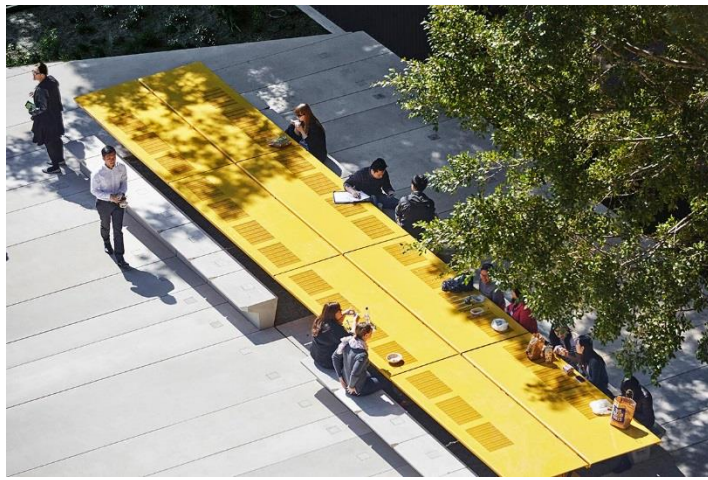


The strategy was to create a **strong civic plug** and establish a range of opportunities for people to come together, inhabit, occupy and use space.

Supporting this first phase is a broader civic ambition to link roads and neighborhoods with the **new spine**







Beyond its **primary connectivity function**, The Goods Line is filled with ‘**social infrastructure**’ from bleachers, bench seats and an amphitheatre to fully-enabled wifi, a children’s play area, table tennis tables and raised lawns.

This new platform for public engagement provides a transformative social and environmental role in the precinct. The space also serves as a powerful metaphor for the city’s move **from an industrial past** to a modern knowledge economy.





2000 - the municipality decides to **bury the portion of the M30 motorway** too close to the historical center

2005 - international competition

West 8, working together with MRIO arquitectos, a joint venture of three Madrid based firms managed by Ginés Garrido Colomero, designed the **master plan for the reclaimed riverbanks and the new urban area.**

**Master plan** for a new 6 km long urban section

**47 projects** have been developed in detail, some of which have been completed



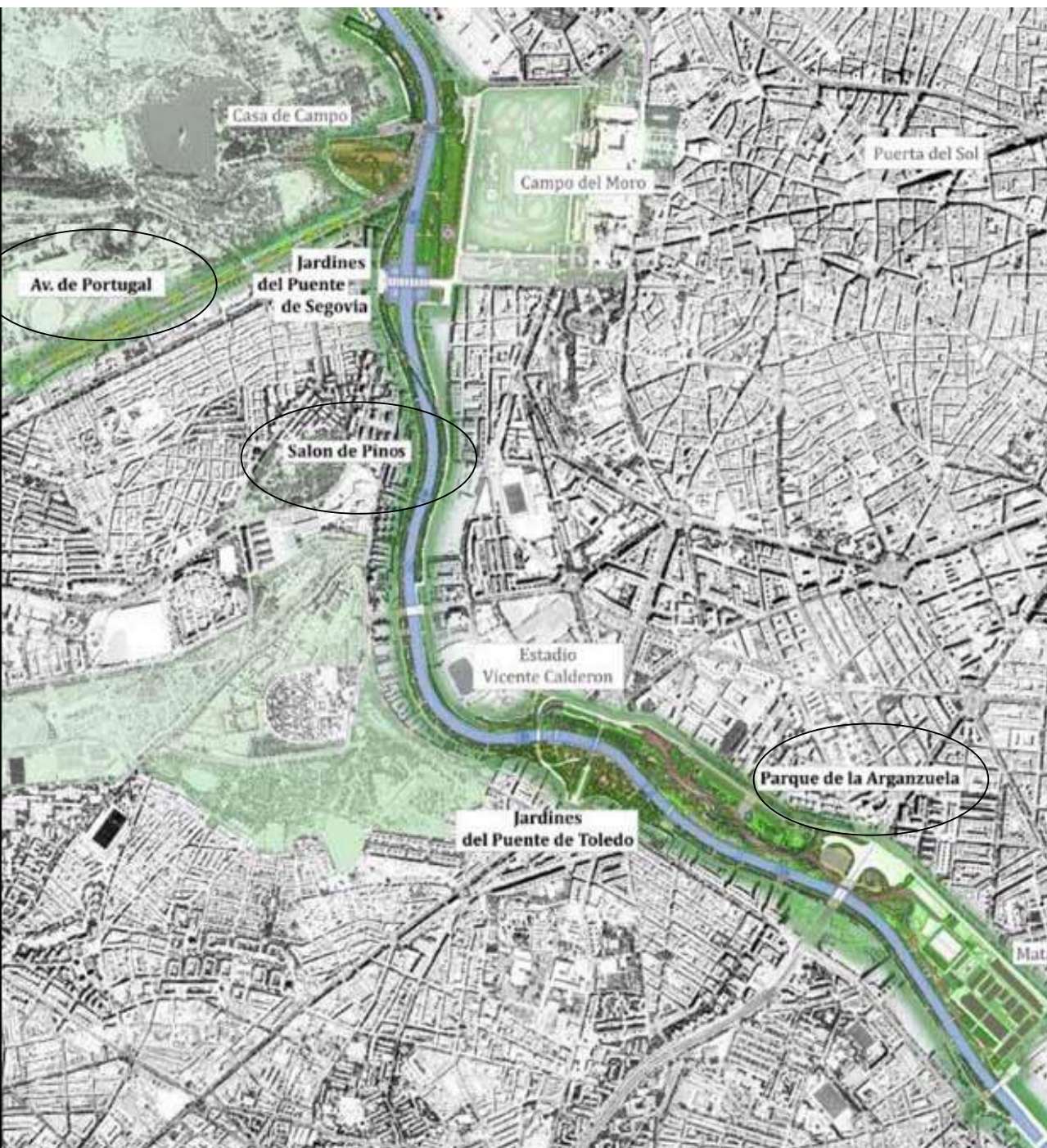


before



after





### **Salón de Pinos**

Alinear green space planted with 8000 pines on the top of the motorway tunnel

### **Avenida de Portugal (2007)**

Major road into the centre of Madrid was placed in a tunnel and planted with different types of cherry types

### **Arganzuela Park (2011)**

Based on the 'canalized' waters of Manzamares

### **Jardines del Puente Cascaras**

«designed as a massive concrete dome with a rough texture» with 100 cables and a thin steel deck»

### **Huerta de la Partida (2007-9)**

“a modern interpretation of the orchard”

### **Jardines del Puente de Segovia**

### **Jardines del Puente de Toledo**

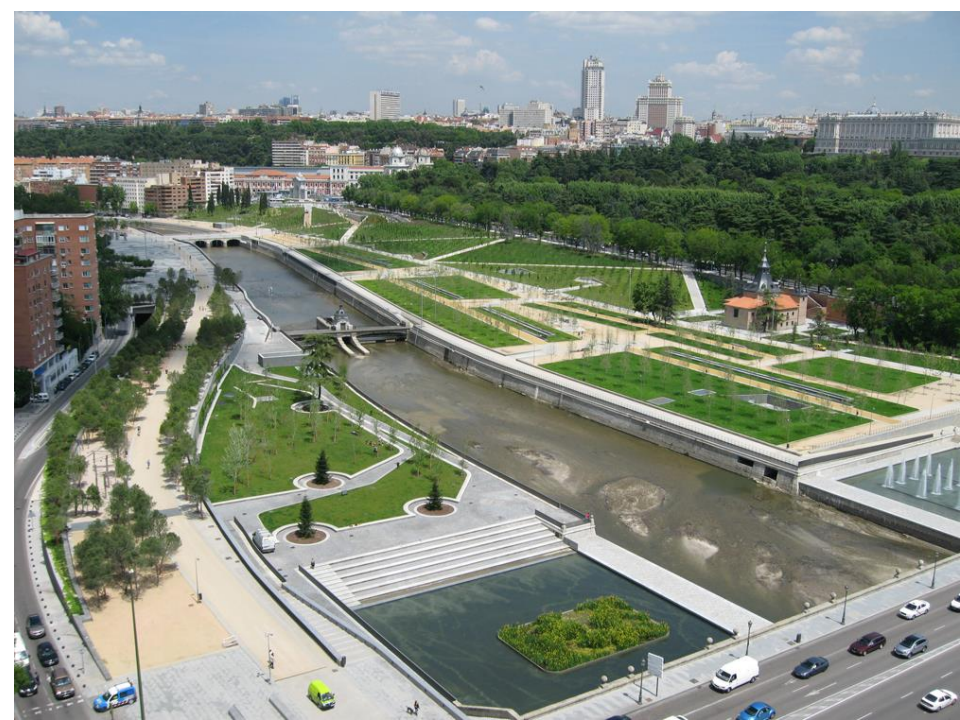
### **Jardines de la Virgen del Puerto**





The park opened in 2011, offering citizens spaces for sports, walks, and opportunities to learn about the city's history. In this instance, the motorway was not completely demolished, but **traffic was diverted by underground tunnels.**







## Avenida de Portugal



by relocating one of the most important roads into the centre of Madrid underground and providing **underground parking** for 1,000 vehicles, it was possible to **convert the space into a garden** to benefit local residents. Embellished with Cherry trees and cherry motif, the result is the creation of an extremely popular public space.









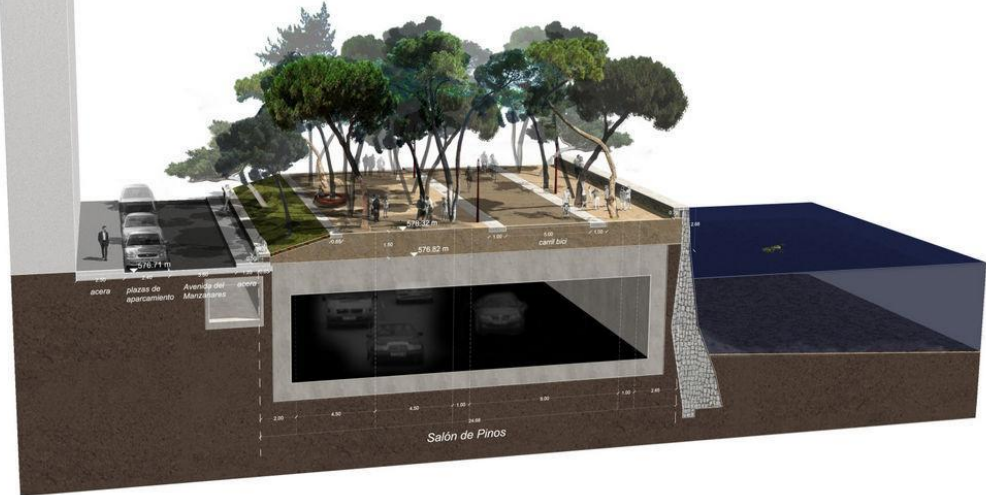
## Huerta de la Partida

the old Royal Palace is now a **modern interpretation of the original royal orchard** and a wide variety of fruit trees in planted in groups to create an **enclosed garden**



## Salón de Pinos

designed as a **linear green space**, which links the existing and newly designed urban spaces with each other along the Manzanares River. Salón de Pinos is located almost entirely **on top of the motorway tunnel** and features a "choreography" of 8.000-fold pine trees.

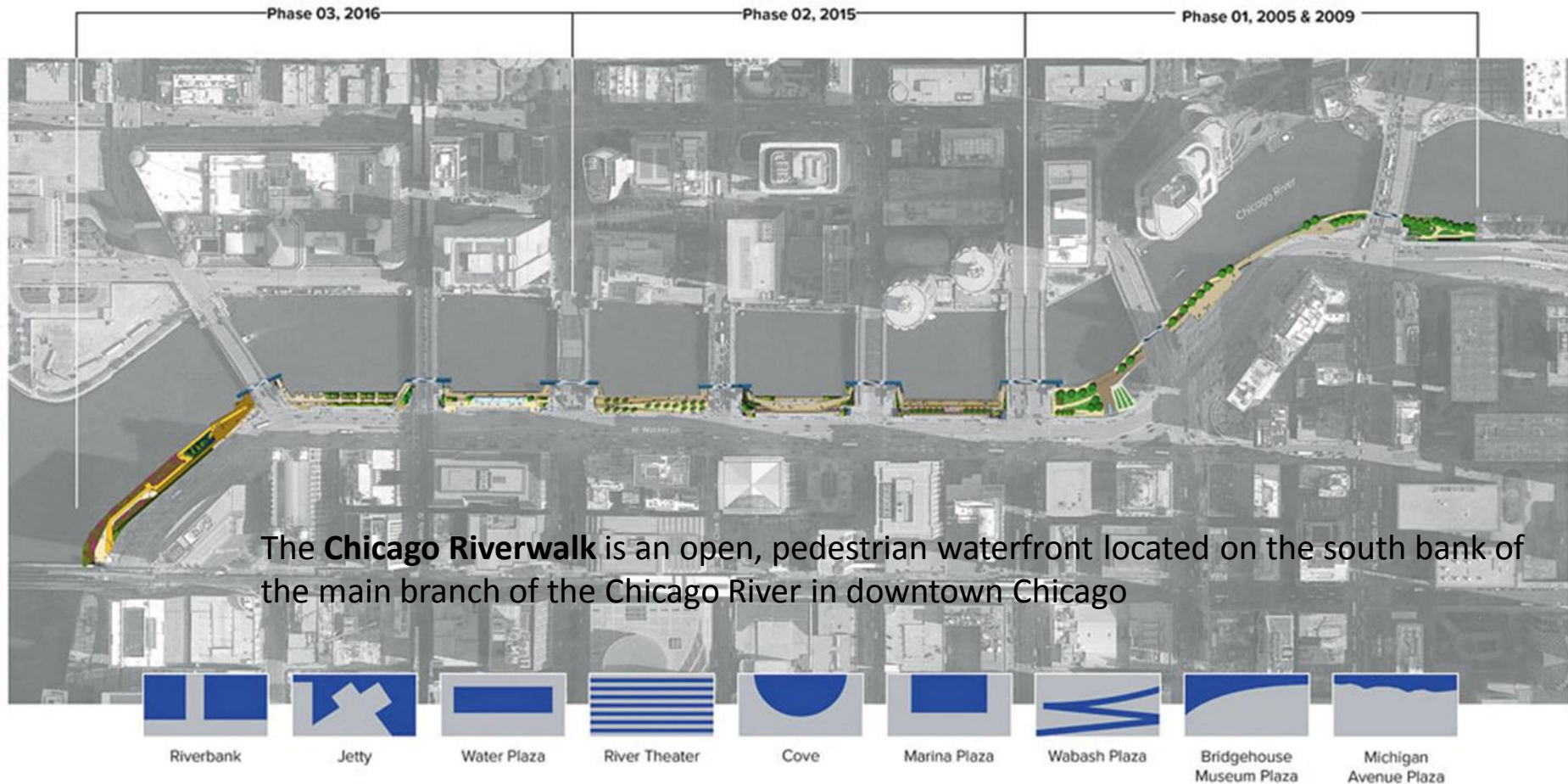






**Arganzuela Park**





The intent for the Riverwalk is to not only create a **continuous east-west circulation system**, but also a series of **north-south vertical relationship**. To satisfy this need, the design vision relies upon a **series of traditional land/water typologies** that are interlocking and symbolic as opposed to walled off

The Marina Plaza, Cove, River Theater, Swimming Hole, Jetty and Boardwalk are spaces reinterpreted to the immediate context of each block - all with an entirely urban language, all formed by the strong figural shape of the path, and all inviting different forms of interplay between City and River. Each of these spaces provides different experimental qualities and suggest **different types of habitats** linked **by a fluid and connective thread of path**.



The Main Branch of the Chicago River has a long and storied history that in many ways mirrors the development of Chicago itself. Once a **meandering marshy stream**, the **river first became an engineered channel to support the industrial transformation of the city**. Following the famed reversal of the river, in which the city reversed the flow of the Main Branch and South Branch to improve sanitation, architect and urban planner Daniel Burnham introduced a new civic vision of riverside promenades with the addition of the Wacker Drive viaduct. Over the last decade, **the role of the river has been evolving with the Chicago Riverwalk project**—an initiative to **reclaim the Chicago River for the ecological, recreational and economic benefit of the city**.

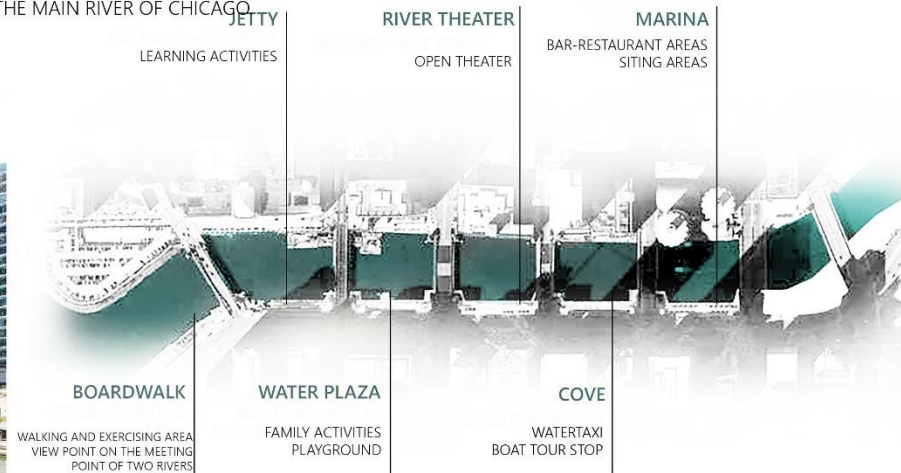


#### CONSTRUCTION PHASES

2001-2005 > MASTERPLAN OF 4 ROOMS ON THE RIVERWALK (CONFLUENCE, ARCADE, CIVIC AND MARKET)  
 2005-2012 RECONSTRUCTION OF THE WACKER DRIVE IN ORDER TO GIVE SPACE FOR THE RIVERFRONT PARK  
 2012-2016 ADD OF SIX THEMATIC "ROOMS" WHOSE NAMES DERIVE FROM THE DESIGN AND THE ACTIVITIES HOSTED

#### ARCHITECTURAL BACKGROUND OF THE RIVERWALK AREA

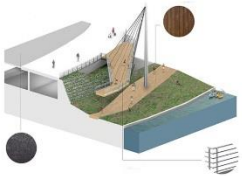
THE CITY OF CHICAGO HAS A LONGLASTING ARCHITECTURAL HISTORY. SOME OF THE MOST IMPORTANT BUILDINGS HAVE BEEN CONSTRUCTED IN CHICAGO'S DOWNTOWN. MOST OF THEM ARE ON THE RIVERFRONT OF THE MAIN RIVER OF CHICAGO



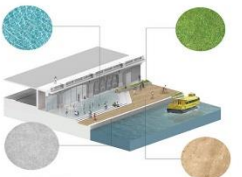
#### \_DESIGN TYPOLOGY OF THE SIX 'ROOMS'







MIX OF GREEN AND MINERAL PATHS



THE WATER PLAZA



CONCRETE MARINAS OFFER PANORAMIC VIEW



PRIORITY OF THE DESIGN THE EASY MOVEMENT OF PEOPLE AND THE GREEN AREAS



THE COVE



WATER PLAZA



BOARDWALK



JETTY



RIVER THEATER



OPEN THEATER VIEWING THE RIVER



MARINA



WATERSPORTS ACTIVITIES CENTER



THE JETTY



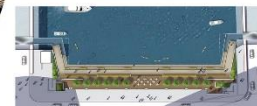
TREE PLANTING FOR SHADOW DURING SUMMER MONTHS



THE RIVER THEATER



THE MARINA PLAZA









# Superkilen, Nørrebro, Copenhagen, Denmark (2012)

Topotek 1 (martin rein-cano/lorenz dexler) (landscape) - Big Architects (architecture) – superflex (artist)



green

black

red

to praise diversity



Linear park 750 meters through Nørrebro, just north of the city of Copenhagen.

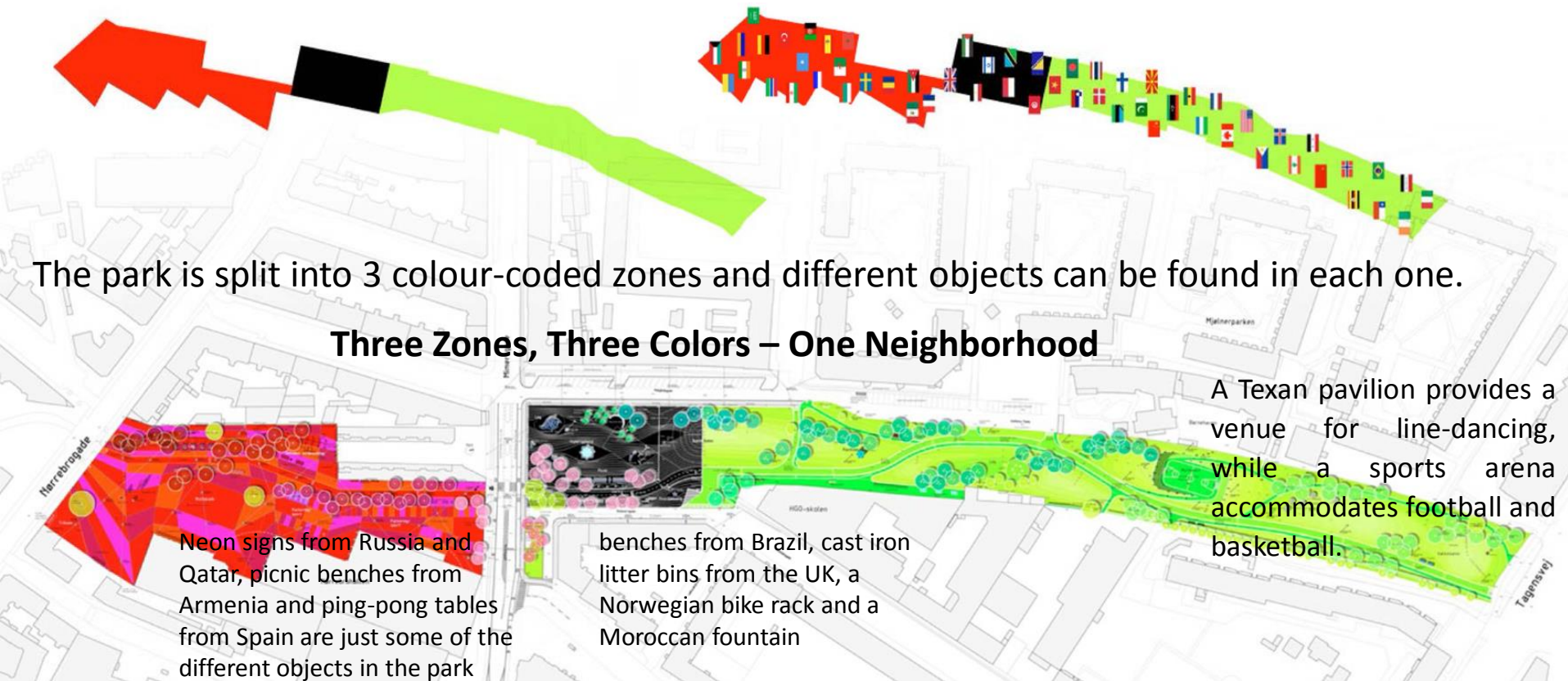
It is conceived as a giant exhibition of urban best practice – a sort of collection of global found objects that come from 60 different nationalities of the people inhabiting the area surrounding it

Each object is accompanied by a small stainless plate inlaid in the ground describing the object, what it is and where it is from



"Rather than perpetuating a perception of Denmark as a mono-ethnic people, **the park portrays a true sample of the cultural diversity of contemporary Copenhagen**" M-Rein Cano

**A sort of surrealist collection of global urban petrified diversity that in fact reflects the true nature of the local neighborhood** – rather than perpetuating a petrified image of homogenous Denmark.



The park is split into 3 colour-coded zones and different objects can be found in each one.

### Three Zones, Three Colors – One Neighborhood

Neon signs from Russia and Qatar, picnic benches from Armenia and ping-pong tables from Spain are just some of the different objects in the park

benches from Brazil, cast iron litter bins from the UK, a Norwegian bike rack and a Moroccan fountain

A Texan pavilion provides a venue for line-dancing, while a sports arena accommodates football and basketball.

**The 1 zone** is a patchwork of **pink rubber** blankets the ground and covers the sides of buildings in the first zone, and the designers have planted **maple trees** with matching red leaves.

**The 2 zone** is conceived as an "urban living room" where locals **play board games** beneath the shelter of **Japanese cherry trees** and **Lebanese cedar trees**.

**The 3 zone.** **Grass plains and hills** comprise the third zone, which contains **areas for sports, sunbathing and picnics**.



**Superkilen is a park that supports diversity**



**Superkilen is a contemporary, urban version of a universal garden**





Painted white lines run north to south across the ground but curve around the outside of the street furniture.















# Réhabilitation des quais de la Garonne, Bordeaux, France (2008)

Michel Corajoud

The waterfront along the Garonne-river was dominated by **industrial wastelands**

In 1995 a new city planning document was made

**It aimed at re-organising the city center, especially regenerating the riverside**

**4 km long 'green belt'** that followed the river

The inhabitants rediscovered the *urban promenade*

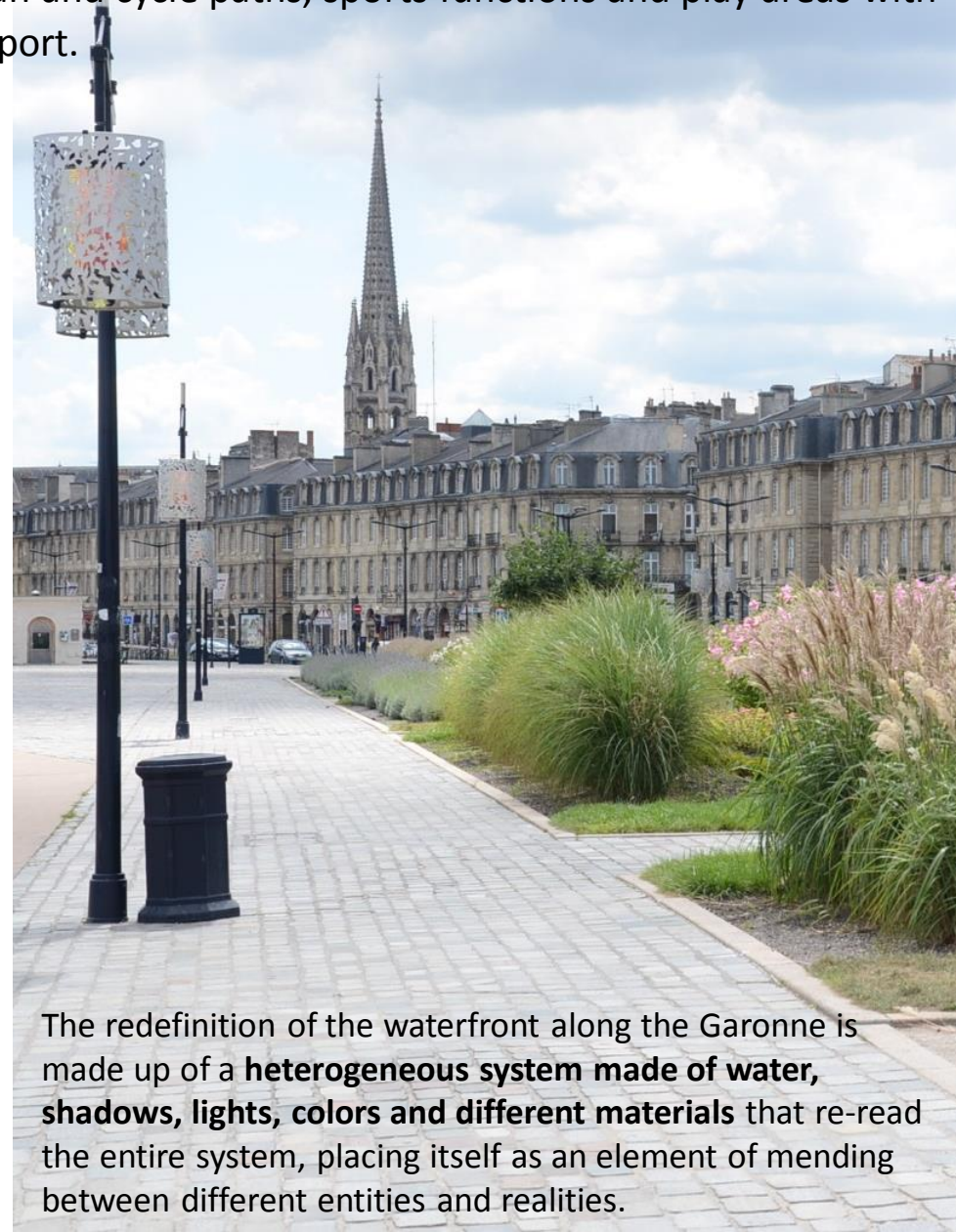
The main idea was to upgrade the 18th century buildings of the waterfront by introducing green areas





The idea of **overcoming the image**, given by the history of the place, of a completely mineral port space.

The composition of bands longitudinal to the river also allow the insertion of **plant elements**, to improve the thermoclimatic regulation of the area, pedestrian and cycle paths, sports functions and play areas with respect for some signs and materials of the ancient port.



The redefinition of the waterfront along the Garonne is made up of a **heterogeneous system made of water, shadows, lights, colors and different materials** that re-read the entire system, placing itself as an element of mending between different entities and realities.



Corajoud's articulated project is based on **the principle of lanières** - literally **strips of landscape** - that draw **multiple spatial sequences** representing the different relationship between the identities of the neighborhoods and the river. The lanières constitute, for more than 4 kilometers, an area of constant respect that allows the enhancement of historical facades through a **rhythmic sequence**

**Reconstructing the spatial and functional bonds** that had been lost, we came to the definition of an **urban waterfront**, the *quais jardinés* made of "**water, shadows and lights**", with activities link to leisure, socialization, rest areas and plant systems.





## Water Mirror

Water Mirror is a rectangular water and it is **strategically situated between the Garonne River and the *Place de la Bourse***, in a way that it fully reflects the characteristic façades of the 18th century buildings that are located in it

**The Water Mirror establishes an intelligent relationship with its historical context.**

Thus, the emergence of this new urban element generates an interesting visual game between the historic buildings, the square, the river and the new water surface.



### ***Stock-Exchange Square***

a majestic neoclassical limestone building inaugurated in 1749 with function of representing the city's prosperity to the numerous travellers who came by river



## Water Mirror



**the water is not still.**

The cycle alternates the cloud effect and the mirror effect.

Every 20 minutes, **mist** comes from the ground and covers the waterfront. This creates a mysterious and exciting public space.

the mirror effect of the **thin film of water** can be suddenly interrupted by the appearance of an artificial fog that exceeds two meters

Thus, the combination of liquid and **vaporized water** offers refreshment to the citizens on the hottest days













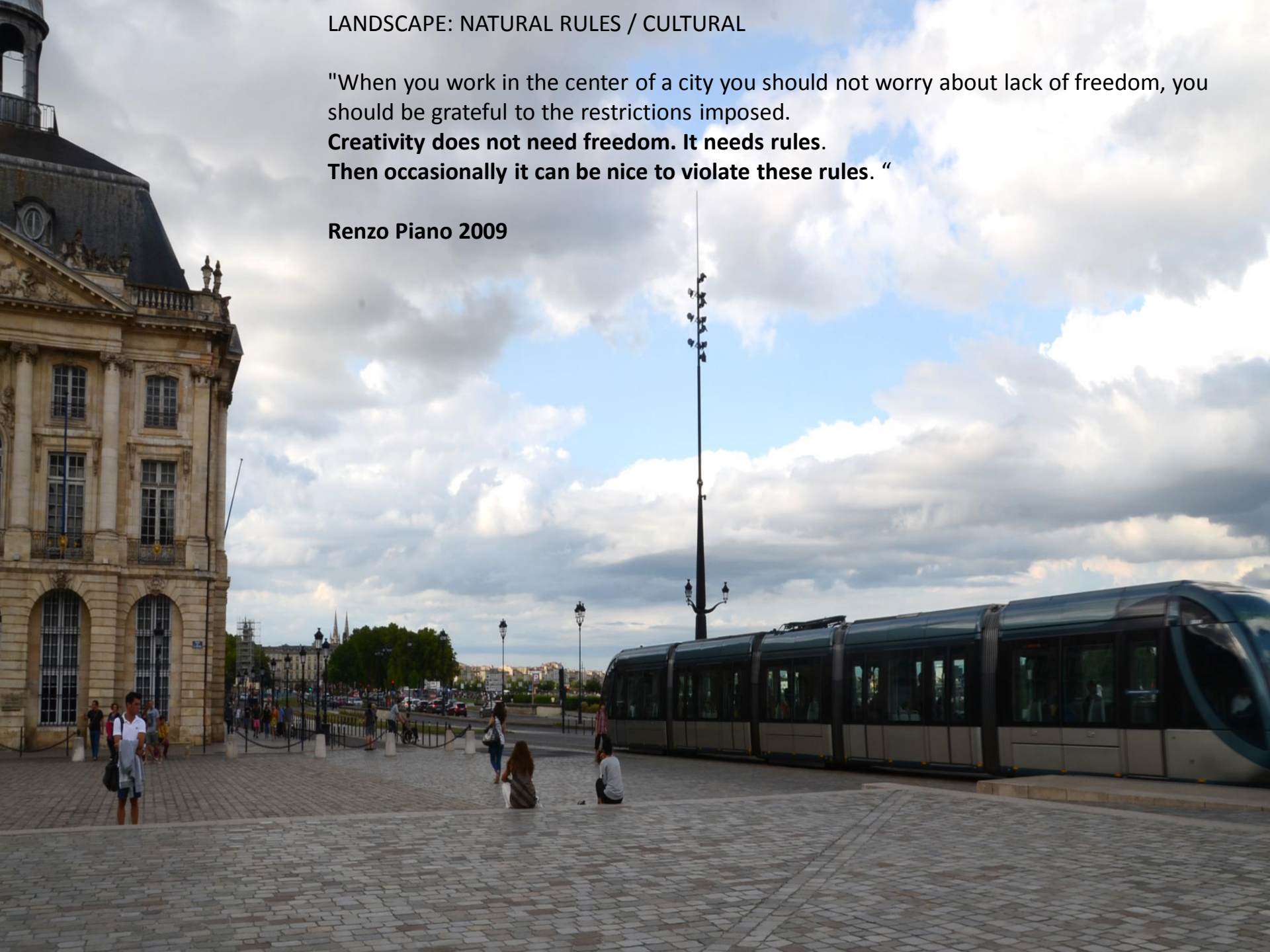
## LANDSCAPE: NATURAL RULES / CULTURAL

"When you work in the center of a city you should not worry about lack of freedom, you should be grateful to the restrictions imposed.

**Creativity does not need freedom. It needs rules.**

**Then occasionally it can be nice to violate these rules. "**

**Renzo Piano 2009**





# Parc aux angéliques, Bordeaux, France (2015)

Michel Desvigne



In 2000 the **right bank of Bordeaux** presented itself as a **fabric characterized by industrial areas, parking lots and abandoned roads.**

The project rather than insert recreational functions that could be catalysts aimed at reactivating the area implements a strategy aimed at achieving the same objective of redevelopment of the fabric and based on its natural regeneration

The Parc aux angéliques lies opposite the historic city centre on the far side of the river and forms a contrast to the city by retaining the natural shape of the riverbank.

**Linear rows of trees run perpendicular to the river.**

**to create an artificial forest**







# GREENWICH PENINSULA PARK, for the 2000 Millennium celebrations (1998- 2000)

Michel Desvigne, Cristine Dalnoky

the Greenwich Peninsula was a stream of the River Thames, made up of **farmland, marshes and an extensive artificial canal**. The area, occupied by a **heavily industrialized shipyard**, remained deeply polluted for almost two centuries and devoid of all forms of life.

Following the dismantling of shipyards since the 1970s, the area was affected by an ambitious **regeneration project involving the reuse of the banks and the creation of the Greenwich Peninsula Ecology Park**, a new freshwater habitat.

With its 300 acres, it represents today one of the **largest regeneration projects developed in Europe**.



Millennium Dome designed by Richard Rogers



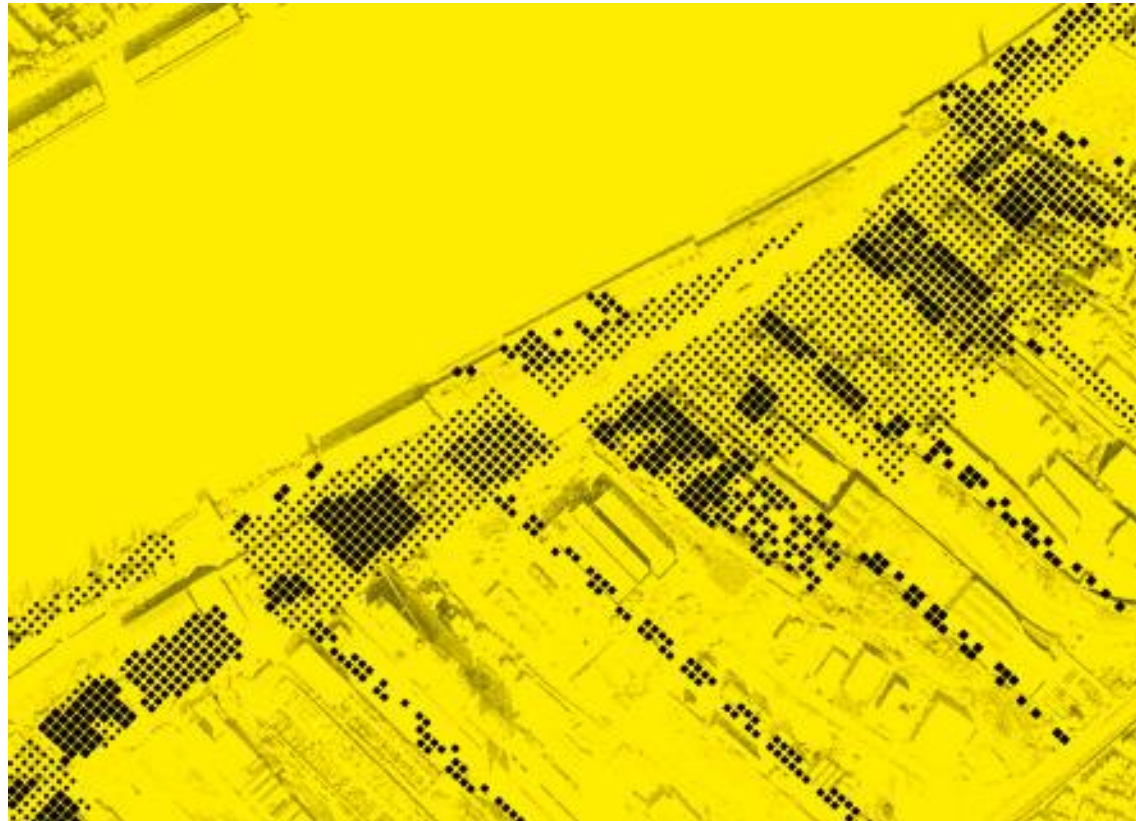
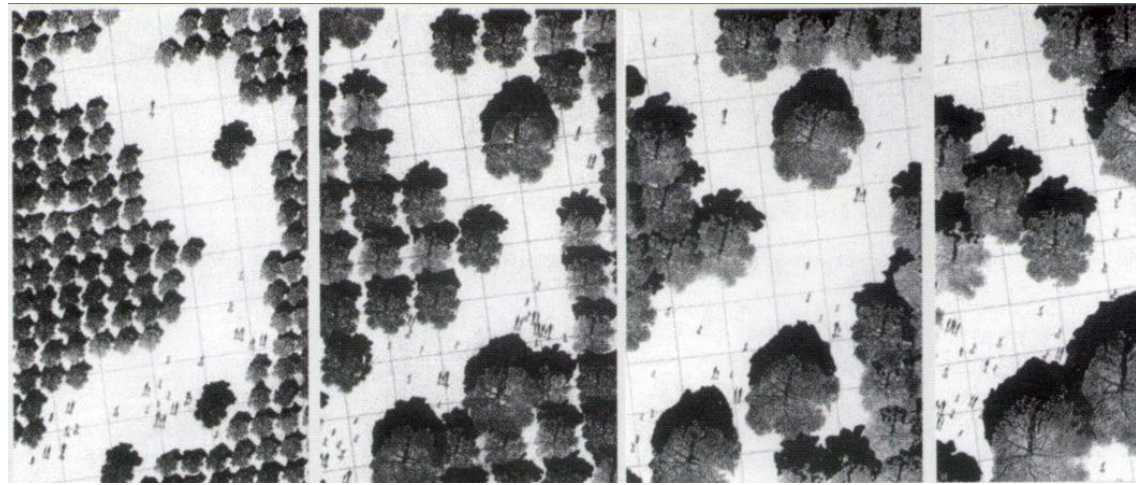


## to create an artificial forest

In the green area of the **central spur**, between Central Park and South Park, **about 12,000 trees have been planted**, with different developmental speeds and longevity, suitable for conditions, while small parking areas and a series of low vertical planes from separation between sustainable paths, park and road.

a project designed **without hierarchies of paths or spaces**, but organized on a regular and indifferent grid - the «**democratic grid**» - covering the entire territory **without typological differentiation between wood, garden or tree lined avenue**.

**Inside this artificial forest is possible to cut out open spaces**, conceived as **clearings**, as well as in the landscape of the great forests of the planet.







The landscape of this **artificial forest** is built **on two layers**, namely on two developmental speeds: a **short-term temporary structure**, ready for the great exposure of the year 2000, and a **permanent structure** of longer development.





at the end of the peninsula it was developed a colorful new generation residential neighborhood, rich in services, capable of reducing energy costs by almost 80% compared to conventional constructions.







The closure of the neighborhood to its territory was left at **Greenwich Peninsula Ecology Park**, a river park that seeks to restore a relationship with the river, its fauna and vegetal varieties.



Greenwich Ecology Park



# Queen Elizabeth Olympic Park, Londra 2008\_2012

Hargreaves Associates (George Hargreaves, Mary Margaret Jones e Gavin McMillan)



the 247 acre (110 hectares) park served as the central feature for **the London 2012 Olympic Games**, which were recognized as the “Greenest Games” in history, with the park declared the “winner of the Games” by the Mayor of London. **The largest new park created in Europe** for more than 150 years, **the design synthesizes centuries of British park tradition**, the reality of post-industrial brownfields, advances in sustainability and resilience thinking to create **a new type of park for the 21st Century**.



a strategy is developed, based on **regenerative principles**



The Park has been awarded the Rosa Barba International Landscape Prize, 9th International Biennial of Landscape Architecture under the theme "Tomorrow Landscapes" (2016)

The project focuses on **the re-naturalization of the river banks and the conversion of post-industrial brownfields** set in the East End of London, a periphery also characterized by urban and social decay.

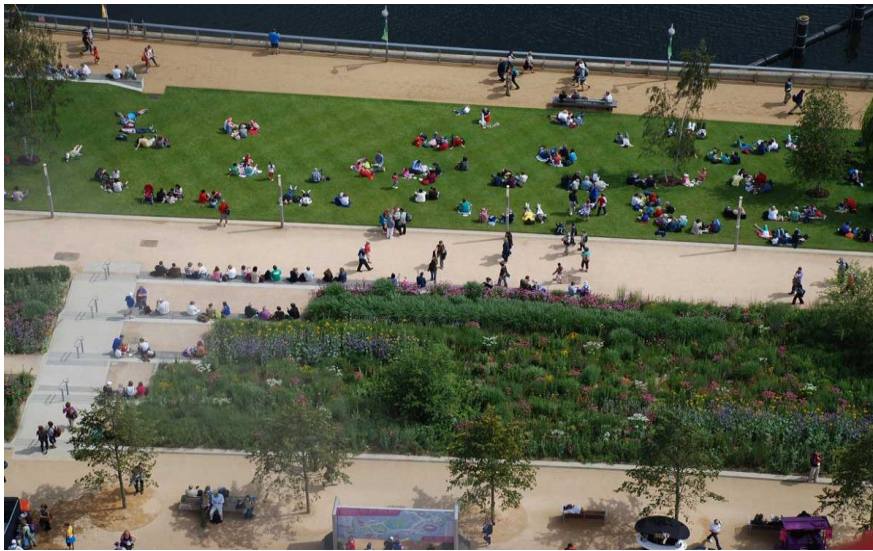
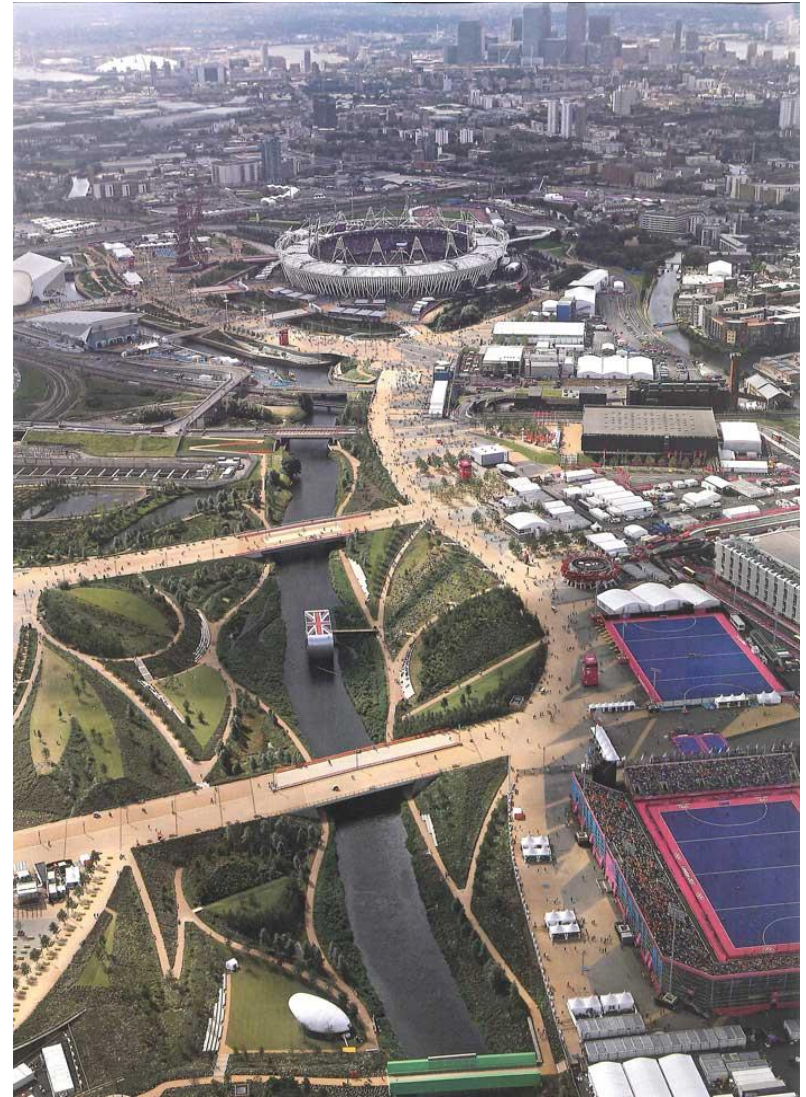
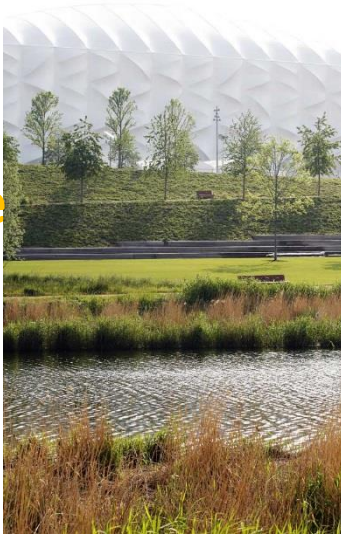




the park includes a **northern environmental park** and a **southern festival park** that showcases the **Olympic Gardens**, which are themed around the countries who participate in the Games.

The project of the park itself includes a **post-Games Transformation Plan**, which envisaged the transformation of paved areas and temporary sporting venues in recreational areas, including an outdoor performance area, with a network of bicycle paths, "mending" the park to the surrounding landscape.

a strategy  
based on  
regenerative  
principles





## NORTH PARK - BIOZONES

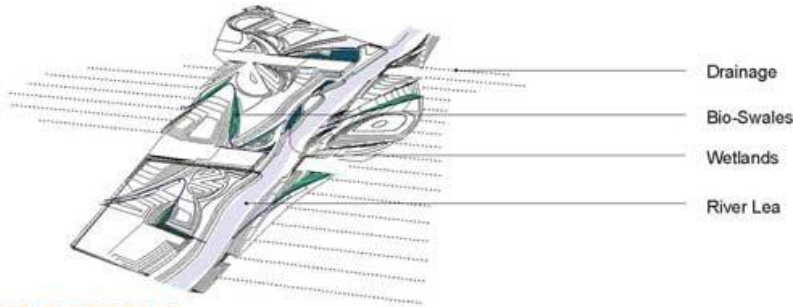
a northern **environmental park**, that sees the transformation of the former channelized industrial canal into a naturalized meandering river corridor with **wetlands, hygrophilous woods, flowering meadows** and rest areas along the sculpted banks.

KEY

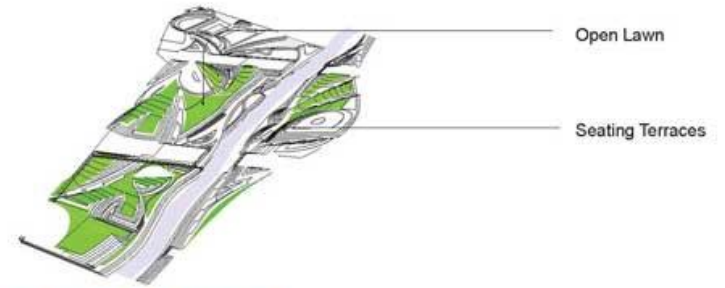
|   |   |
|---|---|
|    | Trees and scrub                                     |
|    | Wet woodland  |
|  | Parks, squares and amenity space                    |
|  | Species rich grassland                              |
|  | Lawn  |
|  | Mixed habitats                                      |
|  | Reed bed  |
|  | Standing open water with associated swamp and marsh |
|  | Allotments  |
|  | Rivers and Streams                                  |



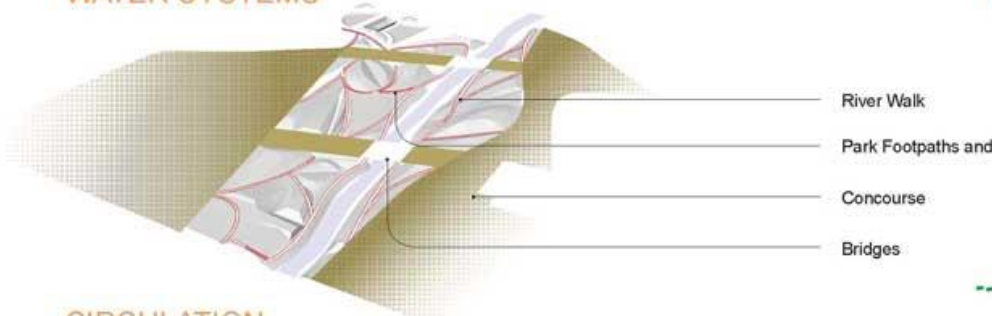




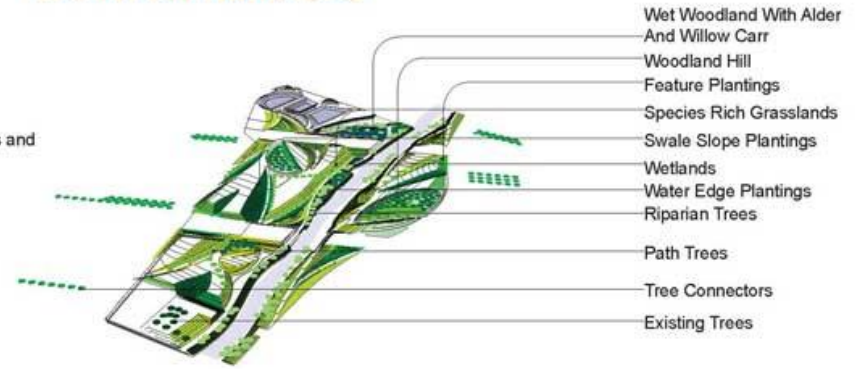
**WATER SYSTEMS**



**LAWN AND TERRACES**



**CIRCULATION**



**PLANTINGS**



**LANDFORMS**

**NORTH PARK - Layered Park Components**



*northern environmental park*













**PRIMARY TREE LINE**



**RIPARIAN TREE CLUSTERS**



**SUPER GRAPHIC ARCHES**



**GRADIENT STRIPS**



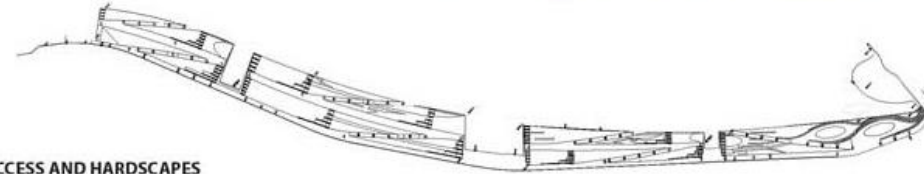
**LOW FOILAGE MIX PLANTING**



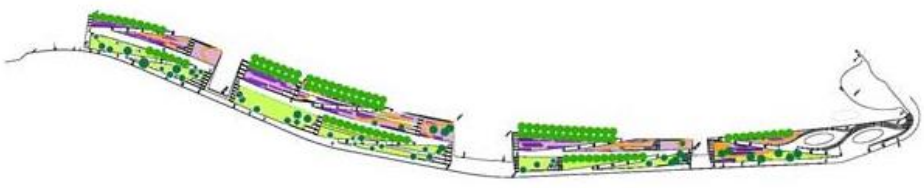
**OPEN LAWN**



**ACCESS AND HARDSCAPES**



**PLANTING STRUCTURE**





TEMPERATE ASIA, PARTICULARLY MONTANE CHINA, JAPAN AND THE HIMALAYAS  
C19th C20th



THE SOUTHERN HEMISPHERE, SOUTH AFRICA, AUSTRALIA, NEW ZEALAND  
C18th early C19th



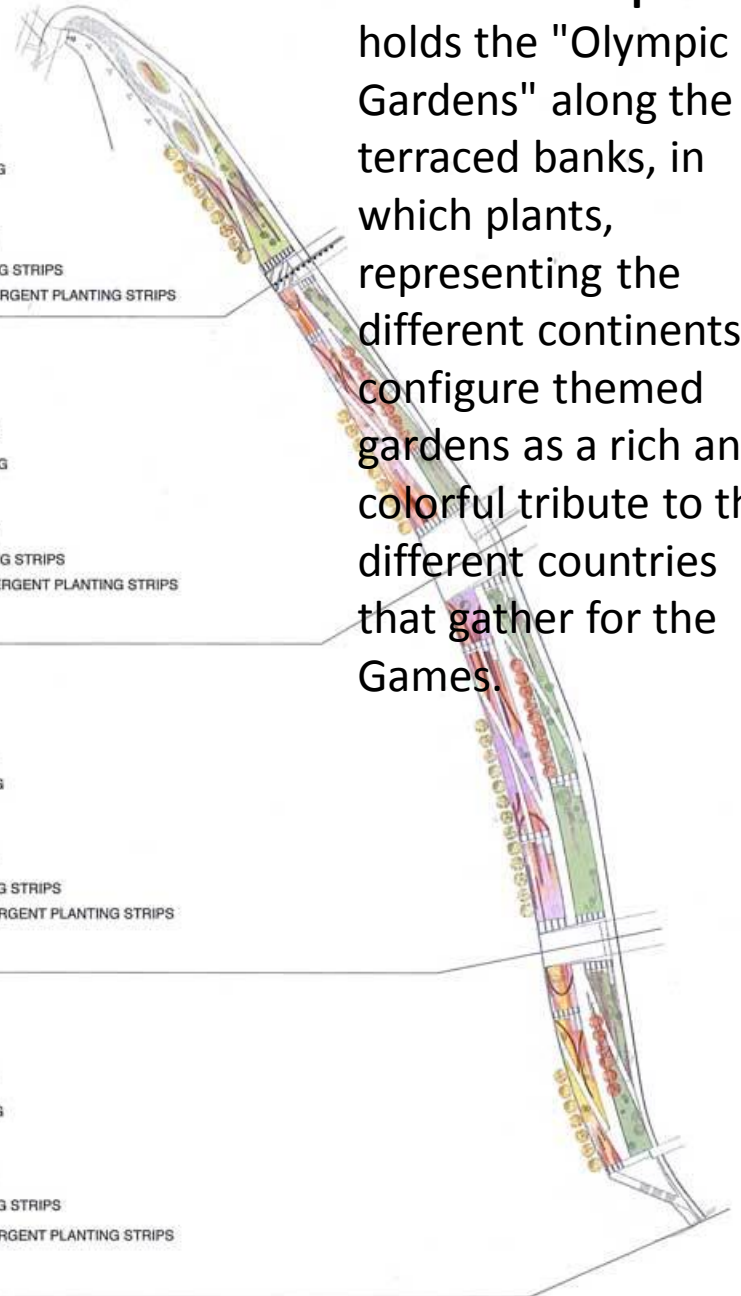
TEMPERATE AMERICAS  
C17th C18th



WESTERN EUROPE, THE MEDITERRANEAN AND ASIA MINOR  
post 1400 AD



The southern park holds the "Olympic Gardens" along the terraced banks, in which plants, representing the different continents, configure themed gardens as a rich and colorful tribute to the different countries that gather for the Games.





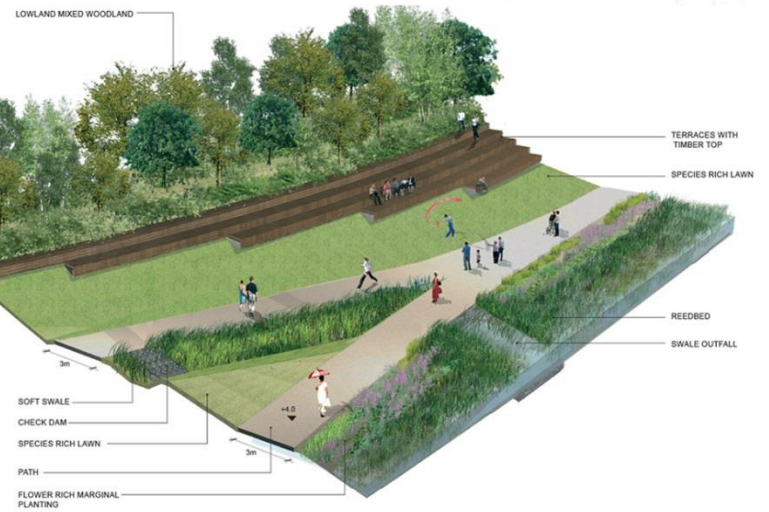
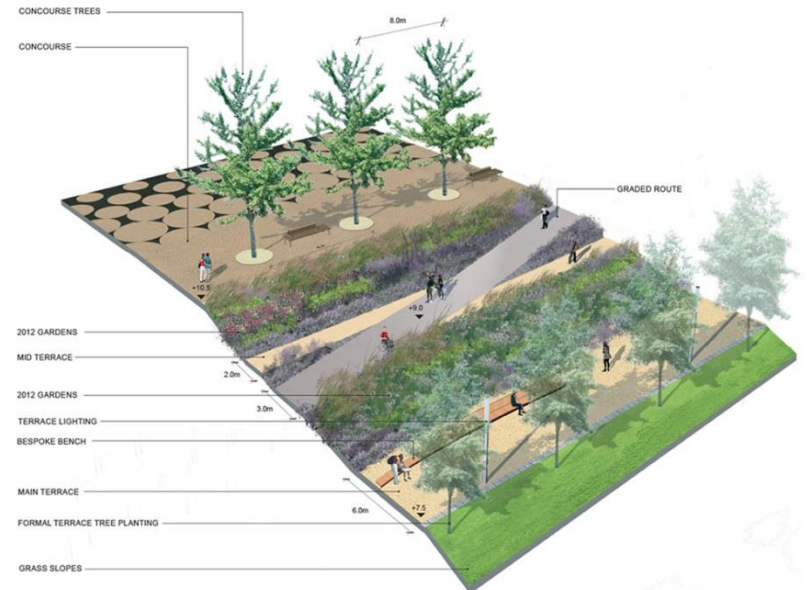
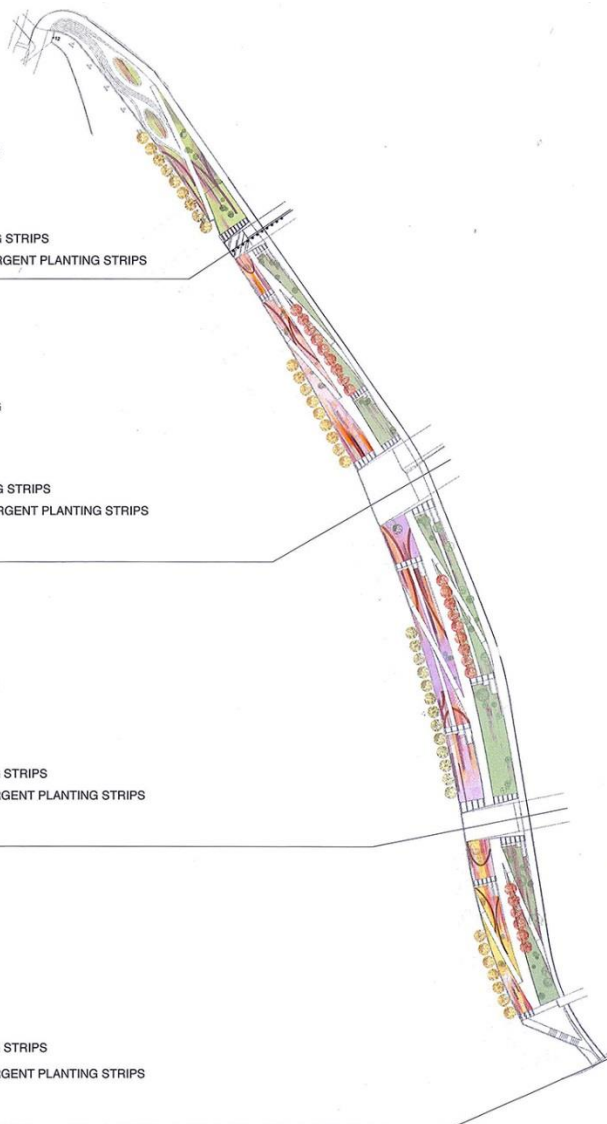
**PLANTING TYPOLOGIES  
- KEY CATEGORIES:**

-  TREES & SHRUB SPECIES
-  FORMAL CLIPPED HEDGING
-  BOLD FOLIAGE STRIPS
-  FLOWERING PERENNIALS
-  DENSE VERTICAL PLANTING STRIPS
-  TRANSPARENT / TALL EMERGENT PLANTING STRIPS

-  TREES & SHRUB SPECIES
-  FORMAL CLIPPED HEDGING
-  'FIELD' PLANTING
-  FLOWERING PERENNIALS
-  DENSE VERTICAL PLANTING STRIPS
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-  BULB STRIPS





*southern festival park*













# Thames Barrier Park, Londra 1995-2000

Alain Provost, with Patel Taylor, Alain Cousseran

The Thames Barrier Park is a 14-hectare park in London's docklands, named after its location on the north side of the River Thames next to the Thames Barrier. It is intended to aid the regeneration of the area by **creating an attractive public space alongside residential and commercial developments.**

Provost won the international competition to design the park in 1995. As the first largely post-modern design in London, the park has a fresh modern look with adventurous planting and dancing water fountains.

The design of the park creates a **variety of different space** from **open grasslands and wild flower meadows with grids of trees**, inclined lawn flanked by concrete walls to the more enclosed **green dry dock area** which bisects the site diagonally. There are a number **of bridges** which cross the green dry dock area providing connection to both sides of the park.







**green dry dock area**

The green dry dock harks back to this site's history, with the scale of this feature being similar to that of a dry dock. The walls flanking the dock are planted with a shrubby *Lonicera* and are automatically irrigated. The planting to base of the dry dock is linear in nature with *Taxus baccata* undulating block of planting providing all year round sculptural features.







# Renaturation de l'Aire, Confignon (Geneva) 2002-2015

Atelier Descombes-Rampini (George Descombes, Julien Descombes e Marco Rampini)



memories

**The Aire river** flows through valleys historically devoted to farming. From late 19th century **it was progressively canalized**. In 2001 State of Geneva opened a competition with the idea of restoring the river to its original shape, destroying the canal. They proposed to **combine the canal with a vast divagation space for the river**. The complex organization of the design associates **the new river space** and a **linear series of gardens** in the former canal.





we instead proposed a launching pattern whose form addresses **the play between the river flow and the prepared terrain.**



This **diamond- shape pattern** opens a complex serie of **undetermined channels for the flows.**



The result is spectacular and suggests the devices of most land artists, effecting clearly **artificial interventions into a natural situation,** thereafter left to the mercy of natural forces





they propose an alternate path, where the **urgent ecological shifts are incorporated into a larger cultural change.**

One year after the opening of the new river space, the results are beyond our expectations: the river flows, displacing diverse materials, gravels, sand and the geometrical matrix of lozenges is significantly modified.

We must accept this paradox: **the more defined the grid given to the river, the more the river will be free to design.**



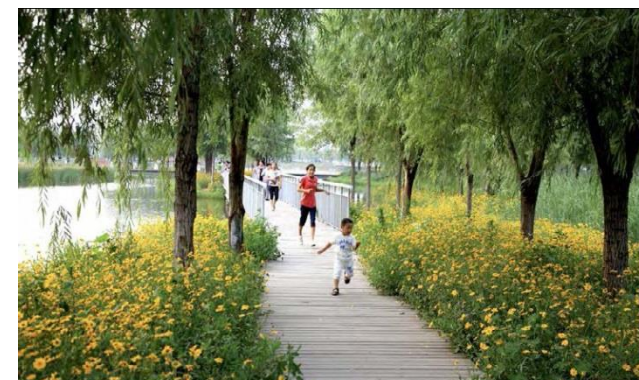
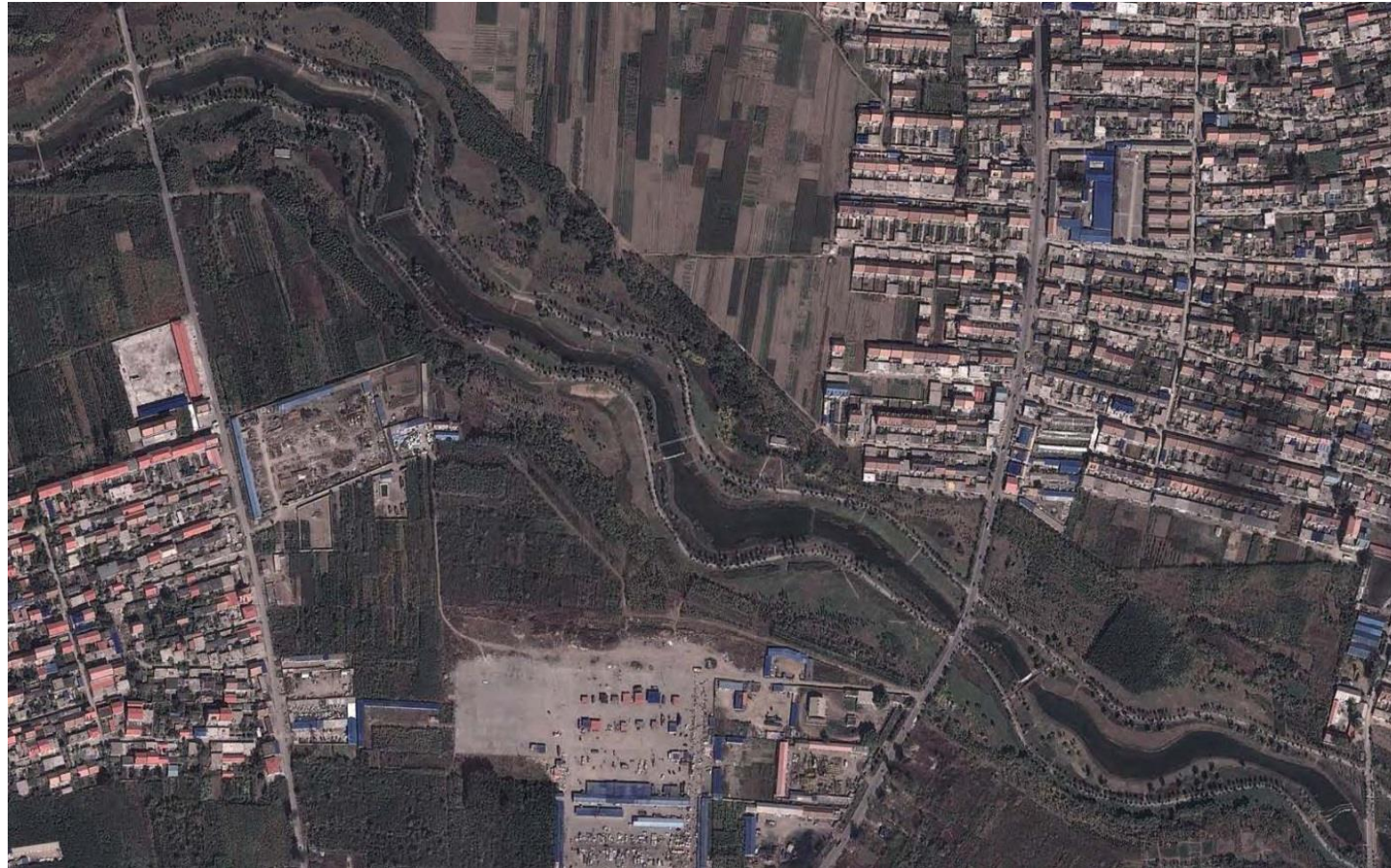


# QIAN'AN SANLIHE RIVER ECOLOGICAL CORRIDOR Qian'an City, China 2005-2008

Kongjian Yu(Turenscape)

The park (20 ha) is located on the Tanghe River at the eastern urban fringe of Qinhuangda. The site was covered with diverse native vegetation. **the site was a garbage dump** with a deserted shantytown and obsolete irrigation facilities such as ditches and water towers. Covered with shrubs and messy grasses, the site was virtually inaccessible.

White, yellow, purple, and blue (4) perennial flower gardens appear as patchwork on the formerly desolate fields.





The park, while maintaining its ecological function intact, satisfies the recreational needs of the population





The **Red Ribbon** was designed as a vivid element within a setting of green vegetation and blue water, curving with the terrain. **It integrates a boardwalk, lighting, and seating.** Made of fiberglass, it is lit from the inside, glowing red at night. It is 60 centimeters high, and it varies in width from 30 to 150 centimeters. Crossings for small animals are built. Perforations were made on the ribbon's top surface, creating a dotted pattern, in which lights and various grasses from the site grow.





The bright red of the ribbon lights up this densely vegetated site, linking the diverse natural vegetation and the four flower gardens

**The ribbon acts as a structural device that reorganizes the formerly unkempt and inaccessible site**







The main objective was to **preserve natural habitats** along the river and to **create new possibilities for recreational use** and environmental education



**4 pavilions** designed in the shape of a cloud are created along its path to give shade and shelter to users, particular points of view, opportunities for socializing





CHINA, QIAN'AN CITY

TURENSCAPE

12 HECTARES, 700M LONG

DESIGN TIME:03/2007

BUILD TIME:05/2010

CHIEF DESIGNER:KONGJIAN YU



-3D model of the Greenway and its transforming process  
A scenic water byway: the design for the Greenway took full advantage of the existing natural altitude difference between the Luan River bed and the city. A fountain was made through a pipe going under the high embankment, so that a constantly controlled amount of water will make its way through the city before running back to the Luan River at lower reach. This strategy turns the Sanlihe into a "scenic byway" of the larger Luan River and transforms the dangerous natural force into a pleasant amenity.

-Image shows site condition in 2006.  
Clean the site: A sewage management system was planned to separate waste water from the urban storm water runoff. As well, organic garbage from the household was used as material to shape landforms, and industrial waste was cleaned up and properly treated.

Minimum intervention and tree islands: The existing trees on the site were saved and the riverbanks were transformed into a number of tree islands connected by boardwalks, creating a unique setting for daily activities of the residents nearby. By preserving all the existing matured trees, the Greenway comes into shape immediately after the construction, while minimize the construction cost.



Pedestrian and cycling paths: Along the Greenway are the pedestrian and cycling routes fully accessible to communities along the channel.



Integration of art: Art is integrated with the ecologically recovered landscape. One of the major pieces is an 800-meter long Folding Paper made of fiber glass and in Chinese red, which integrates shelters, seats, boardwalk and lighting. The Folding Paper is inspired by the well-known local folk art of paper cutting. Sitting right on the school route between a densely populated community and city's major elementary schools and kindergartens, this red-colored installation runs through the green canopy of the pre-existing willows, enriches the landscape with planting of "messy" Chinese pennisetum and wild chrysanthemum, and becomes an artful and unforgettable daily experience for kids and their parents.



The Folding Paper used by kids after school. It is inspired by the well-known local folk art of paper cutting of this region. The Folding Paper "unfolding" along the Greenway in contrast with the yellow blossoms of wild chrysanthemum, a native perennial that needs very little maintenance and can be harvested as Chinese medicine

The Greenway can be characterized into three sections: the upper, the middle and the lower sections. The upper section runs through the city's underdeveloped area and is featured with a newly created stream that diverts water from the Luan River integrated with pedestrian and cycling paths at both sides; The middle section runs through the densely populated communities and is most heavily used by people especially school kids, and the Folding Paper becomes the dominant feature. The concrete in the former river channel was removed, and the old channel was filled with the dirt from the excavation of the new river at the east side. In this way, the trees were saved and their roots on the steep old bank will not be exposed because of the removal of concrete; The lower section is in a less populated area and was most densely forested area, with pre-existing wetlands where it is more featured with multiple stream courses, tree islands, wetlands and boardwalk networks which run across islands and cycling paths at both sides of the Greenway.





*Parks that went down in history*





# PARC DE LA VILLETTE, PARIS 1984\_1987

Bernard Tschumi

**City of Science and Industry,**  
the largest science museum  
in Europe

**La Geode** theatre inside of a 36 metres  
diameter geodesic dome



The **Parc de la Villette** is the third-largest park in Paris (55.5 hectares).

The park houses one of the largest concentration of cultural venues in Paris, including the **City of Science and Industry**.

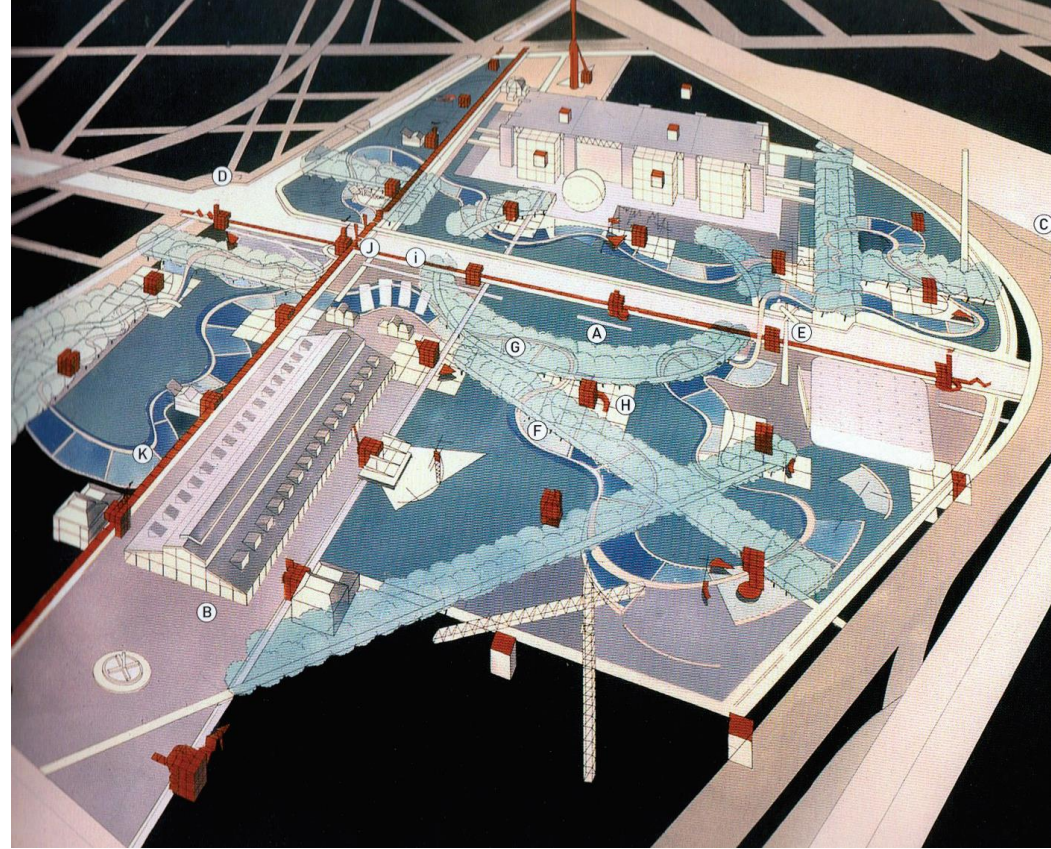
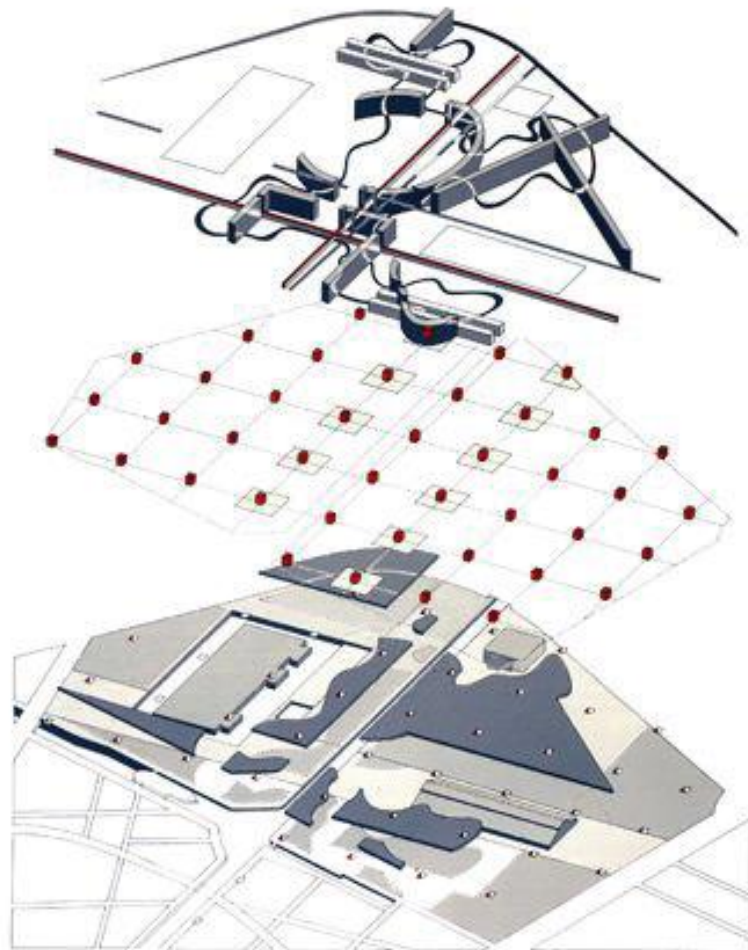
The park was designed by Bernard Tschumi on the site of the huge Parisian *abattoirs* (slaughterhouses) and the national wholesale meat market, **as part of an urban redevelopment project.**

estimated 10 million people visit the park each  
array of cultural activities

the park is meant to be **a place inspired by the post-modernist architectural ideas of deconstructivism.** According to Tschumi, the intention of the park was to **create space for activity and interaction,** rather than adopt the conventional park mantra of ordered relaxation and self-indulgence.



The design of the park is organized into a series of **points, lines, and surfaces**. These categories of spatial relation and formulation are used in Tschumi's design to act as **means of deconstructing the traditional views** of how a park is conventionally meant to exist



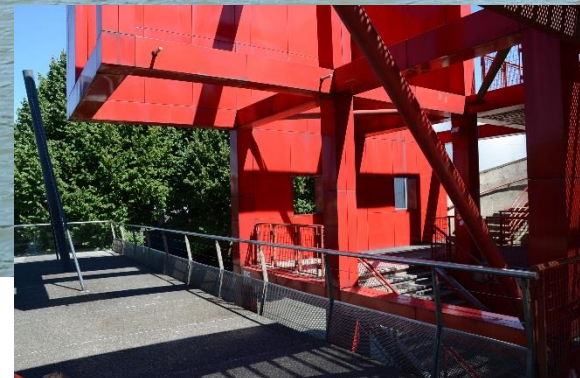
The **points** took the form of a collection of **steel pavillions**, inspired by Russian Constructivist art and painted red. The **primary lines** are **not unlike traditional French avenues**. The most dramatic curved feature is the Cinematic Promenade. Alongside the Promenade are a number of **themed areas**





Probably the most iconic pieces of the park, **the follies** act as architectural representations of deconstruction.

**In architecture, a folly is a building constructed primarily for decoration** 35 follies are placed on a grid and offer a distinct organization to the park. Help visitors gain a sense of direction and navigate throughout the space Some of them house restaurants, information centers, and other functions





**the Park has a collection of ten themed gardens.** Each garden is created with a different representation of architectural deconstructionism and tries to create space through playfully sculptural and clever means. While some of the gardens are minimalist in design, others are clearly constructed with children in mind.



The **Bamboo Garden** was designed by Alexandre Chemetoff, it is an exotic oasis. A staircase is lined with tiny cascades leading down to the garden, 6 m lower than the rest of the park. The leaves of the trees range from gold to dark green. There is strange electro-acoustic music



The **Garden of the Dragon**, designed by Tschumi, is home to a large sculptural steel dragon that has an 80 ft slide for children to play on.

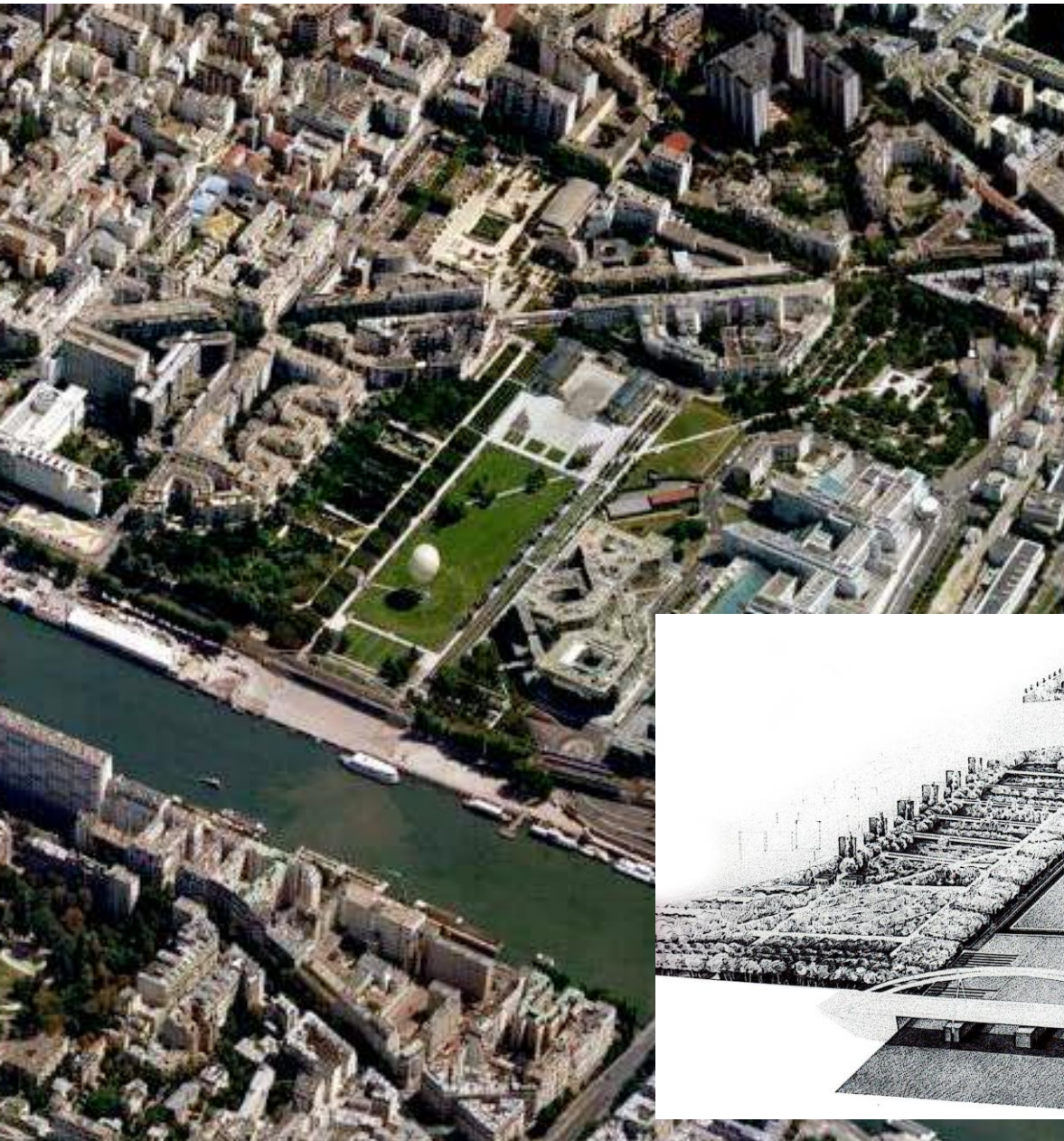


**Trellis Garden** designed by Gilles Vexlard. Vines and creepers are going along a roof trellis and 90 small fountains designed so that you only really hear the murmur of them in between the grape vines.



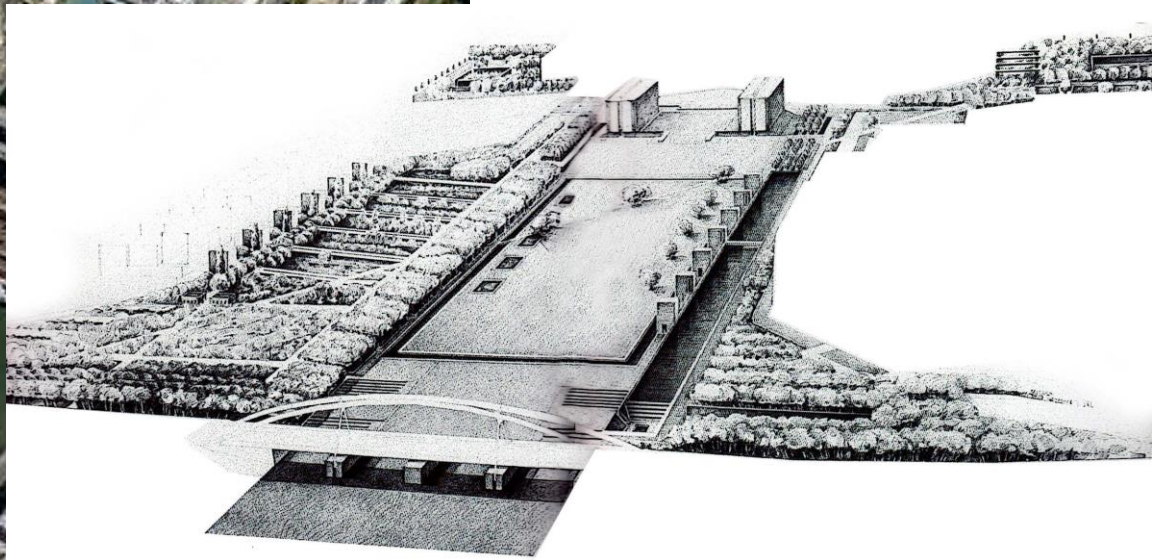
# Parc André Citroën, Paris, France, 1986 – 1992

Gilles Clement and Patrick Berger + Alan Provost and Jean Paul Viguier



Parc André Citroën is a 14 hectares public park located on the left bank of the river Seine.

Built on the **site of a former Citroën automobile manufacturing plant**. When it opened in 1992 it was the largest park to open in Paris in more than a century.







The park is built around a central, **rectangular lawn** of roughly 273 by 85 meters in size. A diagonal path cuts through the park. It is embellished with two **greenhouses pavilions** (hosting exotic plants and Mediterranean vegetation) at the Eastern, urban end, which are separated by a paved area featuring **dancing fountains**. **the South edge** of the lawn is bounded by a monumental canal — the "**Jardin des Métamorphoses**" — composed of an elevated reflecting pool that reaches through granite guard houses, lined by a suspended walkway.



greenhouse



fountain









two sets of small gardens: the six "**Serial Gardens**", each with a distinct landscape and architectural design, and a "**Garden in Movement**" that presents wild grasses selected to respond at different rates to wind velocity