











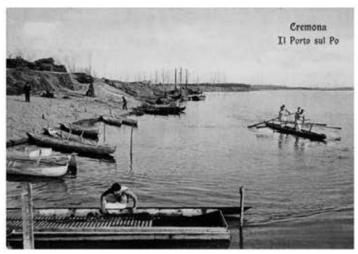




spazi urbani per città a misura d'uomo

Connettere ecosistemi per rigenerare Cremona | Alessandro Bianchi

























Giuseppe Bottani Cremona

Felice Giuseppe Vertua

Carmelo Pluchinotta

View of Cremona from River Po

Old farmhouses and new agricultural landscapes







1717. **1850**. **2013**.









Felice Giuseppe Vertua View of Cremona under a storm

Felice Giuseppe Vertua View of Cremona from the chapel of San Rocco

Remo Lanfranchi Project of pro-isolation of Duomo

Adriano Bruneri Cremona

Tree-lined streets

Urban vegetation

Cremona Municipality



CRS WGS84 / UTM Zone 32 North - EPSG: 32632



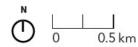
Trees

Woods

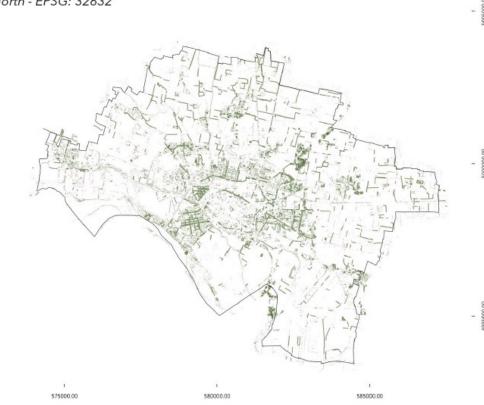
Urban green areas

Tree-lined streets

Cremona Municipality



CRS WGS84 / UTM Zone 32 North - EPSG: 32632



Vegetation typologies

Intervention area

CRS WGS84 / UTM Zone 32 North - EPSG: 32632





Intervention axes

Productive land













Productive land

Urban green areas

Uncultivated land

Agricultural land

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Vegetation typologies

Intervention area



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(Intervention axes

Artificial embankments

Uncultivated land Grassy area

Street trees

Low - Medium density trees

Productive land





Intervention axes

Productive land



Sand banks with some vegetation



Agricultural gardens and farms













Articial Embankments

The area alongside the Po river has been paved and raised to create a barrier for flooding. The lack of vegetation decreases the ability for the natural landscape to mitigate flooding.



Sand banks Herbacious Vegetation

The natural sand and herbacious vegetation are apparent in areas where the concrete has degraded. This degradation appears to be caused by floods and vegetative growth.



Grassy Area

Various species of grass are found throughout the urban environment. This provides ornamental value but little ecological function, biodiversity or flood mitigation.



Uncultivated Land

Uncultivated land exists mainly outside the urban areas, with some patches within the border. It features mixed vegetation with grasses, some shrubs, and trees.



Agricultural Land

Agricultural lands exist outside the city center with a variety of crops. There also exists small vegetable gardens within the center of the city.



Flower Beds

Fower beds are found mostly within the urban center outside the paved historical center. The provide ornamental value and support pollinators.



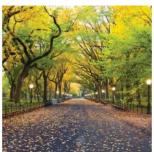
Low - Medium Tree Density

Larger recreational areas and parks tend to have mixed vegetation with grass and some larger trees. These areas support social life and provide some habitat for urban fauna.



Dense Urban Trees

There are some areas within the urban border have a high density of trees. These areas are small and uncommon within the city but provide high ecological and flood mitiagation



Tree -Lined Streets

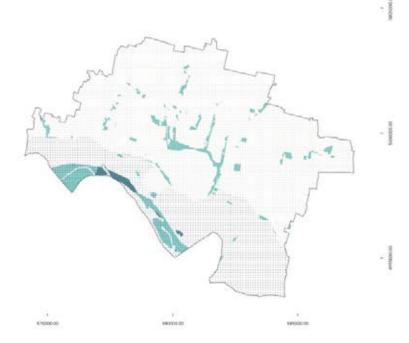
Many of the larger arterial streets of Cremona are lined with trees, which provide aesthetic value, support urban fauna and absorb rainwater runoff washed from the roads.

Areas of significant risk

2 areas of interest: Cremona, Po River

0 0.5km

CRS WGS84 / UTM Zone 32 North - EPSG: 32632

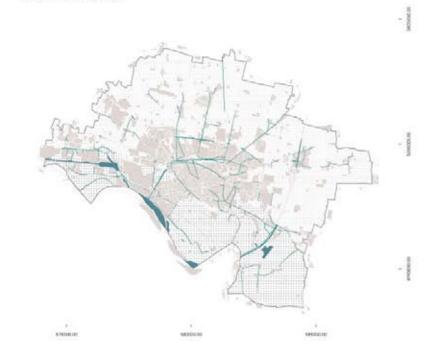


Linear Risk Area

Concerning major roads, railways, road intersections, highways, secondary roads and the underground network

0 0.5 km

CRS WGS84 / UTM Zone 32 North - EPSG: 32632



Flood Risk Classes



Significant Risk Areas



Linear Flood Risk



Significant Risk Areas

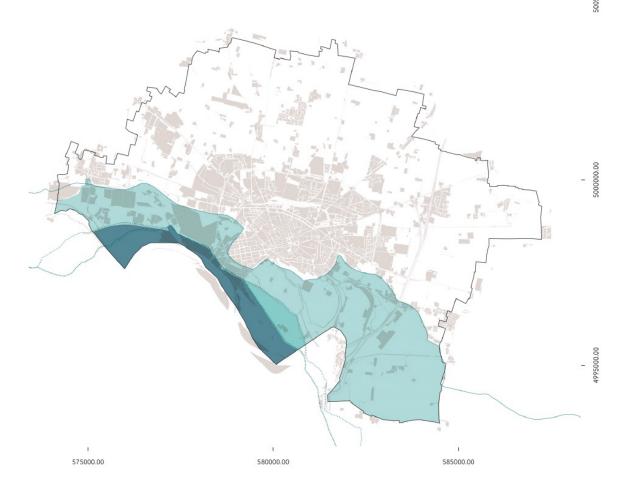


Risk Bands

And involved urban areas



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Urban Fabric

Scenarios





Band A



Significant Risk Areas

Band C
Band B

Scenarios

Band C

···· Band B

... Band A

Urban Fabric

High Hazard

Medium Hazard

Low Hazard

Particular attention must be placed on the

areas already built up exposed to risk R4 (for

RP, RSCM and ACL) and R3 (for RSP), in the

In these areas, the municipal administration will: implement local risk reduction interven-

tions, as well as provisional restoration of buildings and infrastructure for emergency

management; guide urban planning trans-

formations to manage the risk of significant damage, identify areas subjected to the

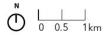
demolition of existing buildings, and renaturalization; define risk scenarios to safeguard the exposed population. Our proposed interventions (that will follow) focus on these areas, to create resilience and propose strat-

egies of coexistence with floods.

risk maps of the PGRA.

Water System

main hydrographic network



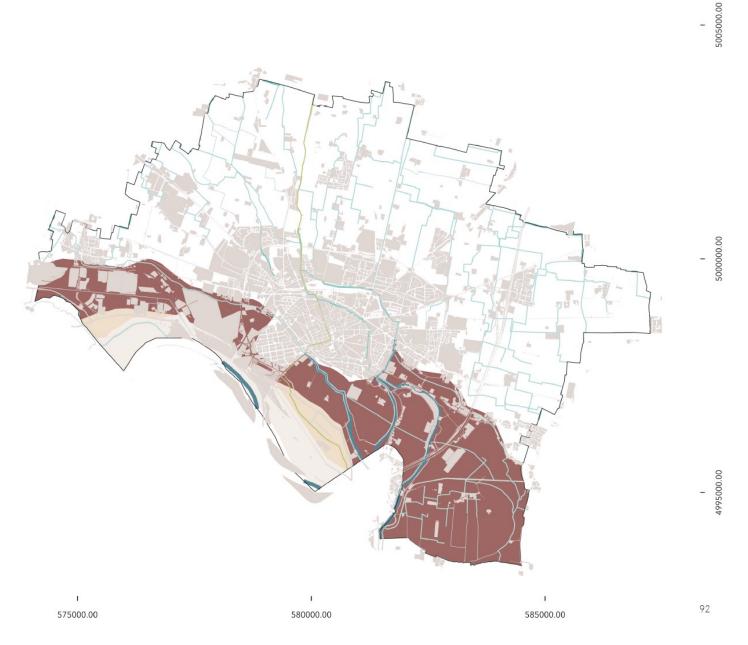
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Urban fabric

Area of landscape protection of the Po A - no edification B - no edification

Water bodies typologies

Large Rivers - Main Water Grid (RIP) Waterways - Minor Water Grid (RIM) Small or medium sized Streams (RIB) C - no edification within 150m from embankment



Urban fabric

Water bodies typologies

Navigli

Water System | WATER AND FLOODINGS

Large Rivers - Main Water Grid (RIP)

Waterways - Minor Water Grid (RIM)

Small or medium sized Streams (RIB)

Canals

Area of landscape protection of the Po

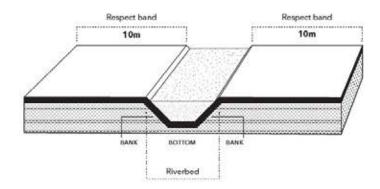
A - no edification

B - no edification

C - no edification within 150m from embankment

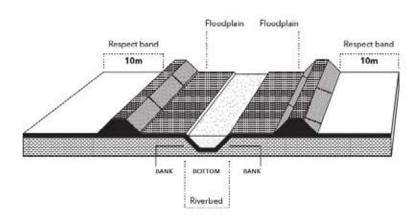
Small or medium-sized streams

without embankments



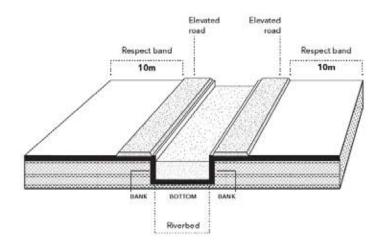
Large rivers

with floodplains and embankments



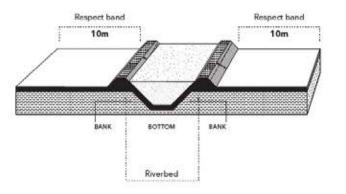
Canals and Navigli

flanked by raised streets



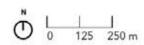
Waterways

with embankments



Masterplan

Intervention area

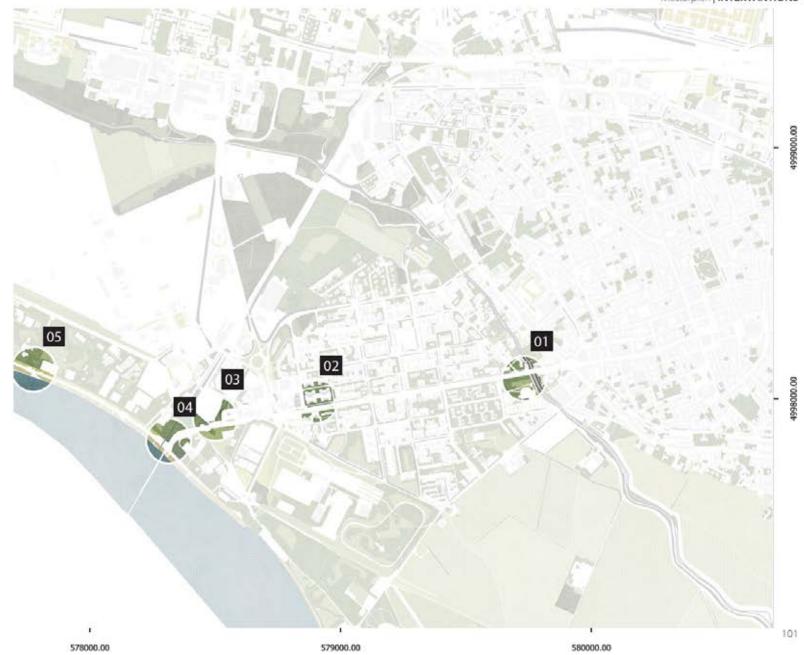




Punctual interventions

Intervention area





Canal front







01

To privileged this neglected canal by blending environmental and social interventions. Riparian vegetation is increased around the canal as a buffer for flooding, but a promenade and steps are introduced to create a social point of engagement with the canal. The connection from the park and outdoor theater to the east side of the canal with services and restaurants is strengthened while the natural feel of the park is maintained, creating a pleasant environment for all to enjoy the waterway.



water as part of the city life



to seat and chat

connecting to the nearby bars and restaurants

Reference: The Getty Center Gardens (Los Angeles). Laurie Olin, with Fong & Associates and Dan Kiley, 2017



to lay and relax

as an extention of the park

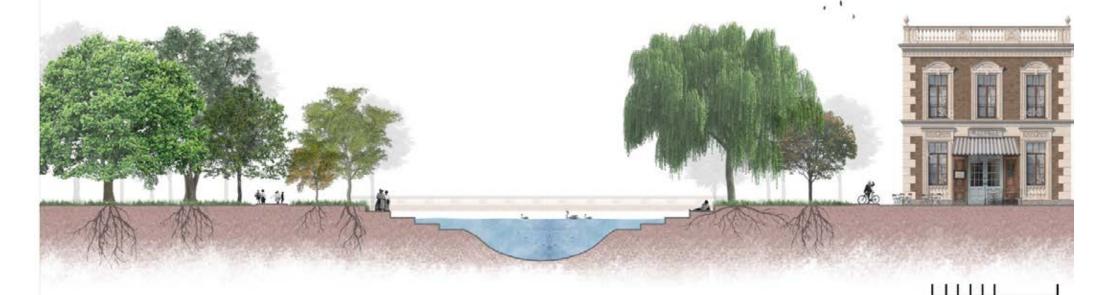
Reference: "Whatami" for Garbatella neighborhood (Rome). stARTT Architects for MAXXI, with MoMA and MoMA PS1, 2011



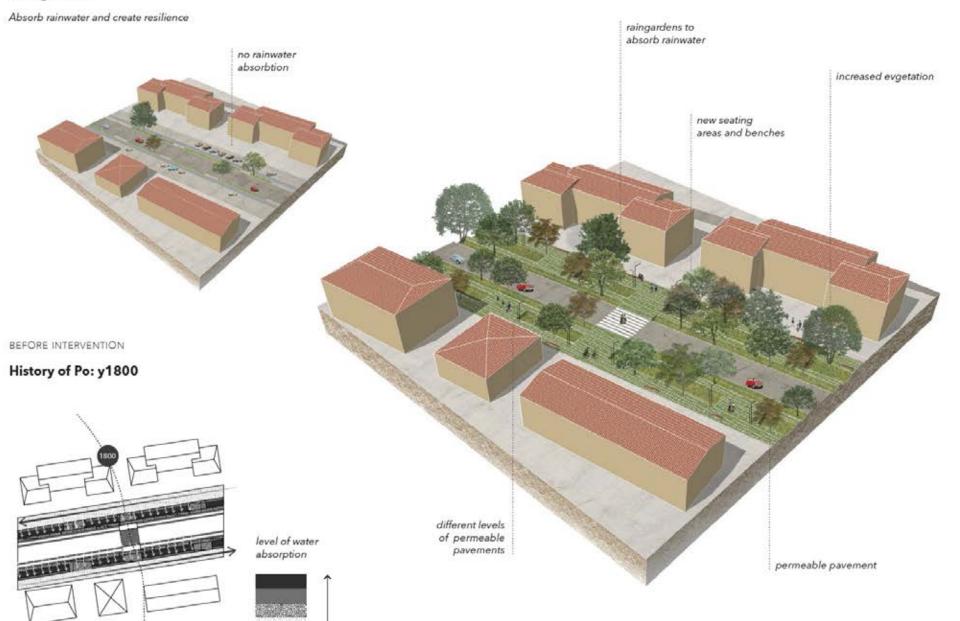
to play

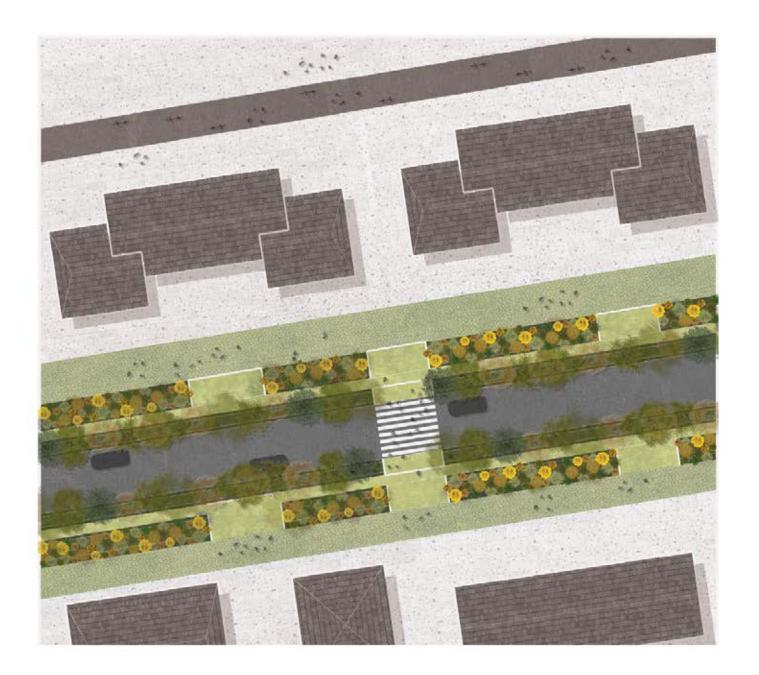
and make water become part of the citylife

Reference: Roombeek the Brook (Enschode, The Netherlands). Buro Sant en Co, 2005



Rain gardens







02

Introducing permeable paving and raingardens on this long stretch of street will provide necessary absorption of stormwater runoff on a large surface area. The raingardens can be introduced in narrow strips with a significant depth of soil medium to provide maximum water retention capabilities while also adding aesthetic value to the axis path with the variety of herbaceous plants, flowers and shrubs. The permeable pavement keeps the parking availability for residents while allowing for slowing and absorption of rainwater, reducing the overall volume and pollution of water flowing to the Po river.



Water absorption level



Absorbing pavement in sidewalk

Medium-low level of water absorption



Absorbing pavement in sidewalk

Medium level of water absorption



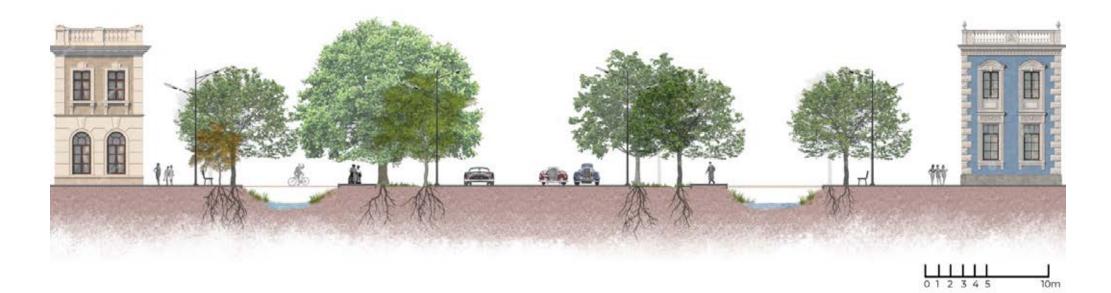
Absorbing pavement in sidewalk

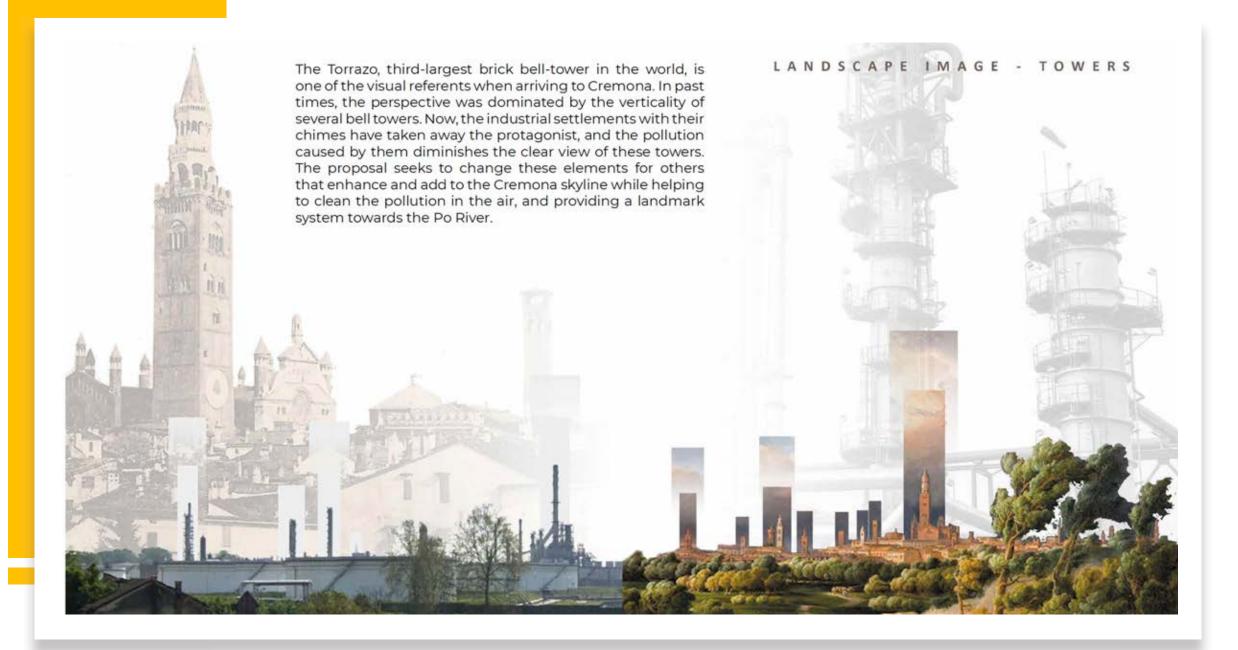
Medium-high level of water absorption



Absorbing pavement in sidewalk

high-vey high level of water absorption







E L T O R R A Z O P E R I U R B A N A R E A S 1. Via Mantova 2. Viale del sale

PARTICULATE MATTER



Arvedi Steel Mill

TYPES

RATE RELEASED

EFFECTS

Tamoil Refinery

Motorway



Dust and Dirt Particles

5,600,000 nm3 / hour

Formerly 90,000 nm3 / hour

2,100,000 nm3 / day







Unbreathable



Burning Eye Sensations

GREENHOUSE GASES













Arvedi Steel Mill

Motorway

Water Treatment Equip, Manufacturer

Electric Utility

Carbon Dioxide

Nitrogen Oxide



Responsible EMISSION for 11% of Co₂ Emissions

Accounts for 6% of Greenhouse

Accounts for 29% of Greenhouse

Accounts for 3% of Greenhouse

Gas Emissions

Responsible for 22% of Co2

Accounts for 25% of Greenhouse Emissions Gas Emissions

EFFECTS







Gas Emissions Gas Emissions

Greenhouse Effect



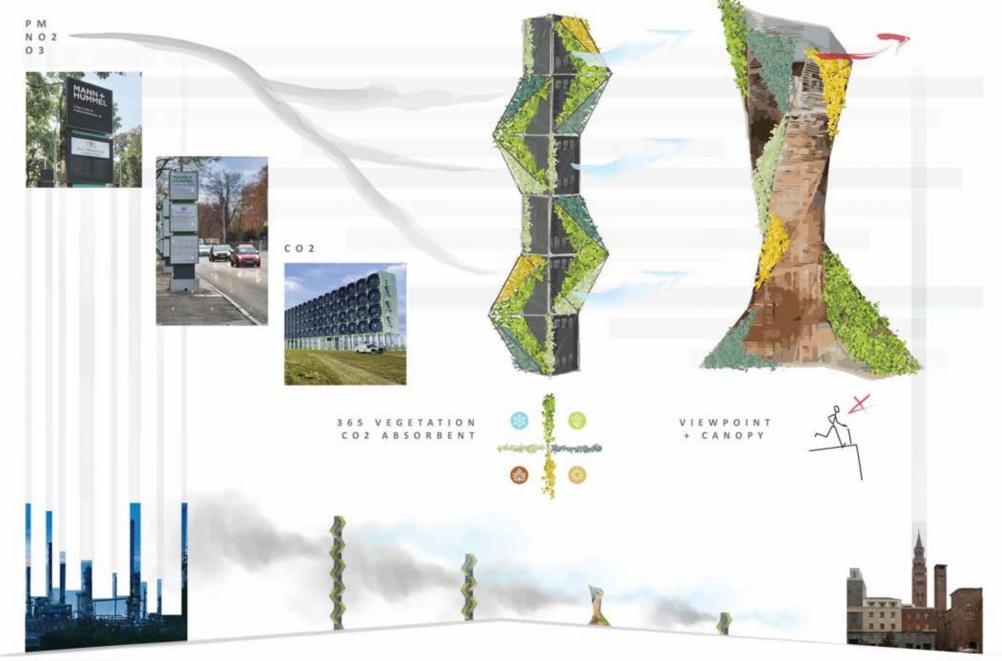
Extreme Weather

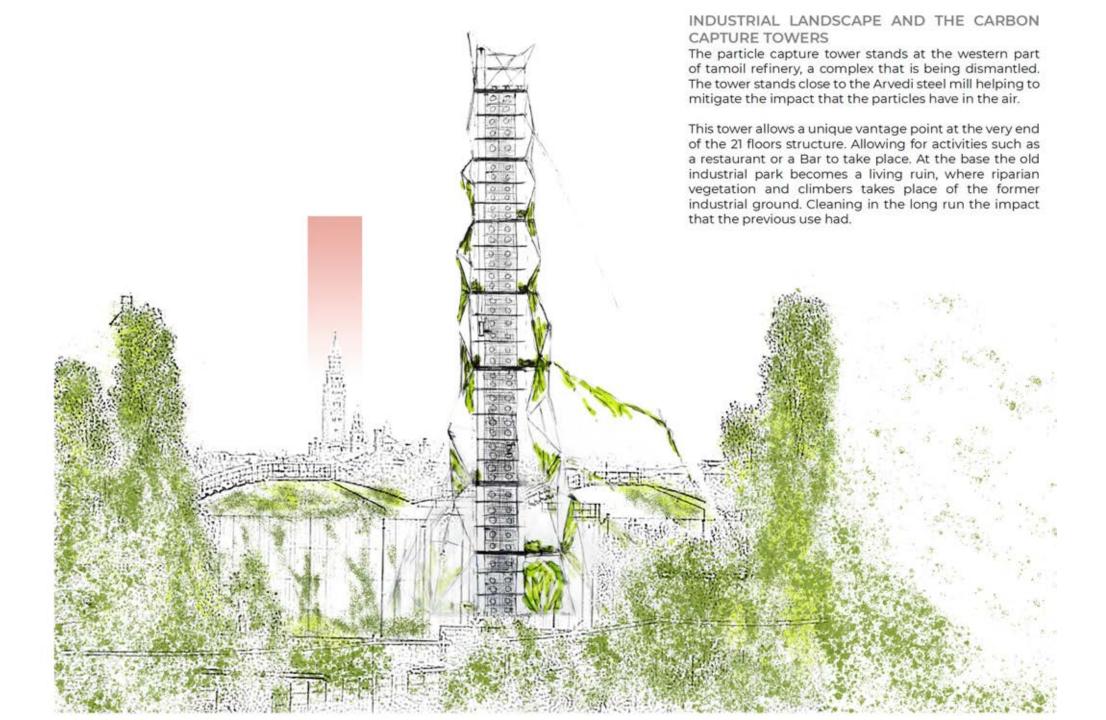


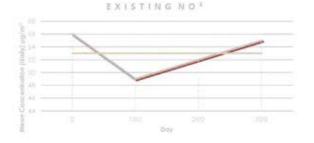
Health Problems

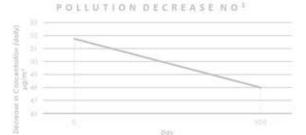




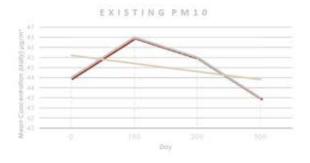


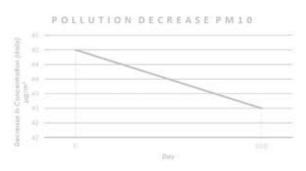






This is scientific data corresponding to a standard unit of 3m, therefore in our proposal, we expect as a minimum this performance, actually expecting percentages of 30% of pollution decrease up to 50%.

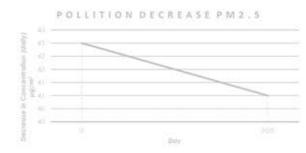




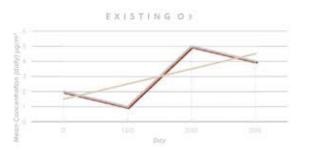
LEVELS OF EVALUATION



		1
		/
	1	
	/	



NTERVALS AFTER	N 0 2	P.M.10	P M Z . 5	0.3
Paking No make option		11.0	61.0	
Average Value Off (mg/m²)		94.0	(9.0)	
Hitterweev ((qg/m²)		1.0	10	
Percentage reduction	7.7%	4.4%	4.7%	10.0%









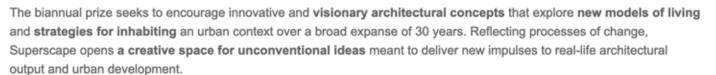


Superscape

2022

Superscape 2022 Theme Shortlist Jury Submission About

Superscape: a prize for architectural concepts



2022 THEME: GREEN SHIFT - Visions for sustainable living

The **urgency of the climate crisis**, **which is being felt globally**, is the starting point for a broad process of rethinking that has also taken hold in the construction industry. The **long-term protection of the environment and climate**, not least as a qualitative habitat for **humans and animals**, is one of the most urgent goals of modern architecture.

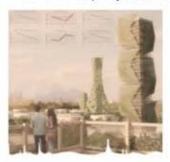
In the context of **digital networking**, **social sustainability**, smart cities and climate care, it is important to explore innovative potentials and problem solutions of architecture as well as to dare **visionary views of** the future and **design experiments** that address future challenges of urban space in the **year 2050**.

SHORTLIST

The first phase of the architectural competition is an anonymous, open process. The jury consisting of Renate Hammer, Maria Vassilakou and Christoph Thun-Hohenstein has now nominated six concepts for the shortlist. The individual protagonists will be invited to a non-anonymous process, during which the project sketches are to be elaborated further. During a second jury meeting, the winner of Superscape 2022 will be chosen.

- Carbon Capture Towers
- . The Crafted City
- The Upcycling Hub:New Spatialities for the Circular Cities
- · Would you like to take the climate walk with me?
- · Stadtlandschaft
- Reduce, Reuse, Recycle: Realtime Participatory Living

Shortlist projects 2022



Carbon Capture Towers

Alessandro Bianchi (IT) with A. Rebeca, C. Rodriguez, I. Agrawal, K. Mathews, P. Soundy, P. Rawat, D. Fuentes, V. Cornejo, M. B. Aguirre

The Carbon Capture Towers are intended to improve the city suburb image and reduce air pollution due to particulate matter. The project aims to highlight the vertical landscape of Cremona, enhancing the relationship with the old towers of the city. These towers of 21 floors structure host functions such as residence, offices, and restaurants, embodying a biophilic design that doubles the architectural function with air purification at a local scale.



Would you like to take the climate walkwith me?

Klara Jörg, Julian Raffetseder (AT / CH)

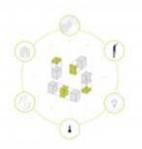
The project investigates the public potential of Vienna's courtyards with the aim of creating new forms of access and benefitting from the diversity of these existing spaces. Such optimisation of the urban realm through the exploitation of previously unused residual spaces is also facilitated by the densification of existing buildings through the addition of extra storeys and elements — constructional interventions with a targeted climatic impact. The inhabitants of the densified city benefit from a climatically diverse range of external spaces, additional living space and new connections at the scale of the neighbourhood.



Reduce, Reuse, Recycle -Realtime Participatory Living

Alexander Grasser, Alexandra Parger (AT)

The vision of sustainable living and resilient architecture is based on a humancentered approach that empowers inhabitants to customize and adapt their spaces throughout the different stages of their lives, creating an open architecture where variation, inclusion, and complexity emerge through participation. Using a real-time computer-aided participatory design process, individual, customized design ideas and compatible components are transformed into a coherent, collective, open architecture that incorporates "reduce, reuse, and recycle" as design guidelines while adapting to the regional context.

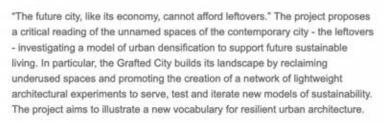


The Grafted City

Stadtlandschaft

Nikola Pohl, Marie Waller (AT)





The concept "Stadtlandschaft" (urban landscape) develops typologies that represent a synergy between nature and city. It creates a new, hybrid form of

settlement, while retaining and reinforcing the identity and diversity of the existing landscape. This synergy applies layers of meaning to the finite

and natural worlds. Constructional "catalysts" amongst these typologies stimulate the creation of sustainable cycles and of a stable, future-proof and

high-quality habitat for humans, flora and fauna.

resource of "land" with the aim of establishing a balance between the human



The Upcycling Hub: New Spatialities for the Circular Cities

Alberto Roncelli, Nicole Vetttore (IT / CH)

New warehouses and factories for storing and repurposing building components are developing as essential spaces of the city's circular economy network. The Upcycling Hub investigates the possibility of extending the function of these places beyond their logistical purpose, towards a role as social aggregators and local marketplaces. The project aims to make the circular economy process visible, accessible and desirable through an architecture that supports not only networks of things, but also networks of people.





Superscape

2022

Superscape 2022

Population growth, increasing urbanisation and social change pose new challenges for architecture and urban planning. Reflecting these processes of change, Superscape opens a creative space for unconventional ideas meant to deliver new impulses to real-life architectural output and urban development. The biennial prize seeks to encourage innovative and visionary architectural concepts that explore new models of living and strategies for inhabiting an urban context over a broad expanse of 30 years.

Organisers



Wir haben was für Sie. JP Immobilien

Lehárgasse 7, A-1060 Wien

www.jpi.at



WBV-GPA, Wohnbauvereinigung für Privatangestellte

Werdertorgasse 9, A-1013 Wien

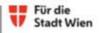
www.wbv-gpa.at

Motivation of the Organisers

Since the last issue of Superscape, the prize has been offered as a joint project of the private developer JP Immobilien and the non-profit developer WBV-GPA Wohnbauvereinigung für Privatangestellte. Both are developing not only residential areas, but also living spaces. As such, they are keen to support social, cultural and environmental concerns as part of their corporate responsibility. Since architecture and urban planning always intervene in the social environment, it is important to contribute to a sustainable discourse in the field of tension between architecture, its actors, residents and designers. Thus, Superscape mainly focuses on establishing a long-term workshop of ideas and providing visionary concepts that deliver impulses for today's projects.

Cooperation





Additional prize by the Vienna Business Agency

Private Coaching

