

Perceptions of urban landscapes for ecological aesthetics

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Abstract

The European Landscape Convention has opened discussions and debates on natural, rural, urban, and peri-urban areas, including land, inland water and marine areas. Among the many ideas and concepts opened by the European Landscape Convention, this text reflects on the definition of landscapes as areas “perceived by people, whose character is the result of the action and interaction of natural and/or human factors.” Also, it analyzes what ‘landscape planning’ means in the actions of enhancing, restoring, and creating landscapes.

Focusing on urban areas, the first part of the text takes into consideration two important projects in New York City: The High Line and The Brooklyn Bridge Park. Since they are emblematic and well-known landscape architecture projects, the text aims to present their cultural, ecological and aesthetic processes. It figures out how the perceived areas were recognized as urban landscapes and how they were transformed into democratic public spaces designed through ecological ideas. The second part is about study experiences at the University of Pennsylvania, Department of Landscape Architecture at the Stewart Weitzman School of Design, and the Università Mediterranea of Reggio Calabria, Department of Architecture dArTe.

The study sites were selected according to the perception of potential landscapes recognized by populations in three different important cities, each of them characterized by social, political and economic values.

The study site in Shanghai was a suburban metropolitan ‘art’ park; in Milan, it was a new ‘beautiful’ urban space for the Genoa Gate; in Prague, it was an ‘ornamental’ landscape for an abandoned industrial urban area along the Vltava River.

Keywords

Perception, planning, ecology, aesthetics, design

Perceiving landscapes, designing ecological landscape architecture

Not all urban areas are recognized as landscapes. According to the European Landscape Convention, populations identify certain areas with the potential to be transformed through actions of enhancing, restoring, and creating landscapes.

The process of perception and recognition of potential landscapes by urban communities is particularly evident in two New York City parks: The High Line and The Brooklyn Bridge Park. They are indicative examples of perceiving urban areas as landscapes that are “the result of the action and interaction of natural or human factors.”¹

Two different communities of New York City recognized two separate areas as potential landscapes and, together with public authorities, they started urban policies to promote actions for sustainable landscape developments “to guide and harmonize changes which are brought about by social, economic, and environmental processes.”²

The High Line and Brooklyn Bridge Park, from which communities achieved new social, cultural; and economic sustainability, enhanced the democratic values of urban areas through the use of ecology as the primary design strategy, imagining new forms of contemporary landscape aesthetics. In these two projects, it seems evident that the

quality of ecological aesthetics was already present in the process established by communities in perceiving these areas as potential landscapes.

For instance, the ecological aesthetics of The High Line are a combination of many architectural details and a wide variety of vegetation, both in shapes and colors, organized in geometrically designed paving shapes. Users of this space are involved in complex and dynamic relations, in a continuous search for specific details and unexpected inventions which generate emotions, pleasure and amazement. The body and the mind of people are in constant movement along The High Line, capturing every detail, object and plant species. Visitors and users are involved in an ecological game, which seems to be endless.

On the contrary, the aesthetics of Brooklyn Bridge Park are an all-encompassing experience. The ecological perception is not made of details or particular elements to remember. Its aesthetics concerns the vastness of the landscape, the unlimited continuous growth of plants, and the constant movement of water. Users of this landscape do not need to focus attention on details or particular small objects, but people learn to be part of the landscape ecology rather than observe it.

The High Line

The process of perceiving the area of the elevated railway infrastructure in Manhattan as a landscape is quite well known, both in its social and design process. For many years the elevated railway infrastructure, 2.4 kilometers long and built in 1934 on the Westside of Manhattan, was abandoned. The last train passed in 1980, and the infrastructure became rusted and obsolete. In 1999, two residents formed an activist group called 'Friends of the High Line', which perceived the cultural values and the industrial heritage of the elevated infrastructure for Manhattan, and not only that.

Despite the work of this activist group of people, in 2001, under pressure from some owners, the administration decided to tear down the infrastructure, but a temporal lawsuit halted this plan. With the change of administration, Mayor Bloomberg decided to cancel the demolition act and instead support the preservation of the High Line and its development.³

The story of the rebirth of the High Line is a crucial example of how populations perceive places as landscape, and how this landscape can be reused according to innovative and emotional aesthetic and social functions.

In 2004, James Corner and Field Operations, together with Diller and Scofidio, won the international competition with a landscape architecture project based on an innovative ecological idea⁴ which created a perfect compromise between total preservation and equally radical transformation. From the very beginning, the concept of ecology as part of the entire social and cultural process of The High Line characterized the whole creative design. The many social activities and functions were displayed according to rational and emotional variations of hard and soft materials able to accommodate a bio-topic vegetation richness made by trees, meadows, bushes, creepers and flowers. With the diversification of passages between hard

and soft materials, always in tension, ecological design respects the intrinsic '*linear*' and '*elevated*' character of The High Line.

After many years, with incredible and successfully grown vegetation, this sophisticated ecological design is perceived as a beautiful 'natural' space and, according to the number of people who know, use and visit, it is possible to state that The High Line is a turning point in the history of contemporary landscape architecture.

The Brooklyn Bridge Park

The idea of Brooklyn Bridge Park started in 1984/85 when the Port Authority of New York and New Jersey announced the end of cargo operations. This decision was followed by the intention to sell piers for commercial development. From that moment, a Brooklyn Bridge Park Coalition was founded. It was an alliance of more than 60 member groups, advocating this space as an essential landscape connected with the Brooklyn urban area and asking for a park.⁵ After many discussions, coming from the Brooklyn community, a series of guidelines emerged in favor of a park, including the idea of a self-sustaining park. In January 1994, Governor Mario Cuomo announced that the Urban Development Corporation would take the lead in implementing a plan for a mixed-use development on the Brooklyn waterfront from Piers 1 to 5.

In 1996 the Brooklyn Bridge Park Coalition commissioned an economic study for the park, and Urban Strategies Inc. with Michael Van Valkenburgh Associates (MVVA) were selected to develop the masterplan. In September 2003, the first section of the park was opened to public, a 4.8 acre landscaped green with paths overlooking the Brooklyn Bridge.⁶ Pier 1, the main entrance of the park, with its 3.8 hectares of extension, is the largest of the six piers, the only one on full land and not supported by underwater pillars. This structural feature allowed the construction of a small hill on top of it, about

10 meters high, built with waste material from the Long Island Rail tunnel. From the top of this hill, it is possible to enjoy a breathtaking view of New York Bay and the Brooklyn Bridge. The quantity and quality of the vegetation, organized through ecological processes, characterizes this part of the park, making it very attractive. More than 500 mature trees have been planted, including Kentucky Coffees (*Gymnocladus dioica*), Catalpas, Magnolia, Sweetgums (*Liquidambar styraciflua*), Serviceberries (*Amelanchier*), London Planes (*Platanus acerifolia*), and various oak species, together with a large number of shrubs selected from plant species suitable for the particular marine environment.⁷

Draining asphalt draws paths, recycled stones were used to build steps and ecological water purification gardens, recycled wood found on the site was transformed in benches, and high poles of raw wood for lighting were displayed to remember the industrial history of the site.

By using the park, people are perfectly aware of its ecological system, deeply rooted in optimizing resources. This park shows its complex ecological systems simply and directly as if it were pre-existing features of the place.

Design studios experiences

The examples of The High Line and Brooklyn Bridge Park helped and drove the selection of the study sites in Shanghai, Milan and Prague. According to the European Landscape Convention, the selected urban areas were recognized by communities as potential landscapes to be developed into urban parks and public spaces. After visiting many different areas evaluating opportunities and potentialities, I decided to select study sites which would represent the most critical urban places to design according to community needs. In particular, communities asked for more ecology and art in Shanghai, more ecology and activities in Milan, and more ecology and public events in Prague.

Students were asked to think about ecology respecting morphologies, understanding features and involving site conditions for a design that did not have to transform study sites drastically.

The first site in Shanghai is part of a set of areas which will be transformed in suburban parks. They are potential landscapes that public authorities of Shanghai, according to the community needs, have identified for urban strategies which enhance the ecological and social life of the city. Students had to imagine and create new spaces starting from the idea that art in landscape can inform ecological design.

The second site is an urban railway station to be dismissed in Milan, which is part of a more general strategy of converting disused railway stations into new parks and public spaces.

Students had to develop the concept of 'beauty' to enhance the aesthetic perception of ecological design.

The third site is in Prague. It is a space which has strategic urban relevance in the development of the southern part of the consolidated center of Prague. It is an old abandoned industrial area facing an island along the Vltava River. The idea of using water ornament is a provocative idea to push students to think about the role of ornament in contemporary landscape architecture and ecology.

Art in Landscape Design, Pujiang Suburban Park, Shanghai, China

In 2002, following the national requirement of improving the ecological and social environment, Shanghai Municipal Government organized 'The Planning to develop a Primary Ecological Network in Shanghai'. The planning had an impressive significant approach: it was aimed at creating a large-scale recreational space, combined with ecological, environmental networks based on a strategic suburban system of parks. Specifically, twenty-one suburban parks were defined, with a total area of 400 km².

Fig. 1 – MIN KWON, 2015.
Studio, *Pujiang Suburban Park, Shanghai, China.*
Stuart Weitzman School of Design,
University of Pennsylvania, USA.

Among these, five suburban parks will be realized in the forthcoming years.

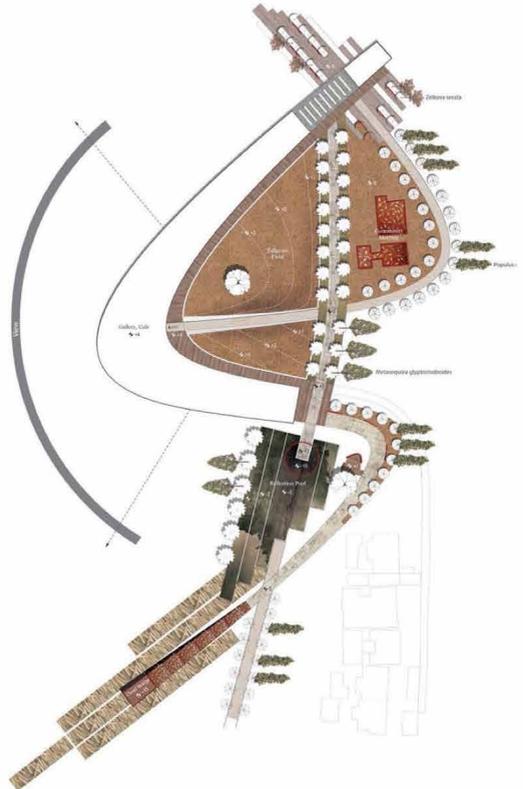
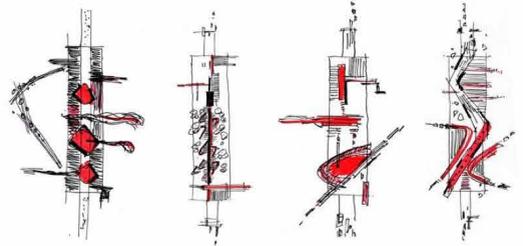
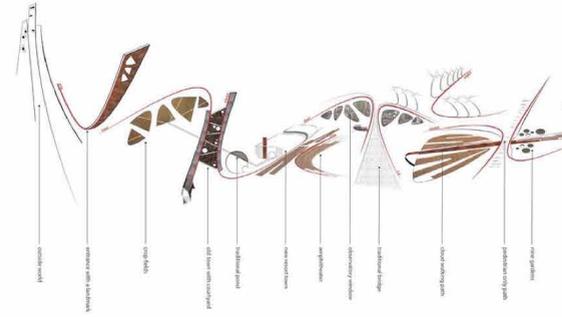
The landscape for the studio is located in the South of Pujiang Town, Minhang District. A green forest near Huangpu River mainly covers the site. Surrounded by intensive new urban settlements, it should be an ecological green heart in the city.

Students were required to use art combined with landscape architecture to develop their design strategy. There are many examples in which art can be involved in the landscape process, for example using sculptures as media between art and landscape. A creative combination that engaged many artists and landscape architects: Oteiza, Chillida, Noguchi, are a few names of artists who contaminated their work with a broader concept of landscape.

Students, instead of putting a sculpture into the landscape, had to explore the narrow limit between the design of landscape and the creative process of art, thinking them as a whole. Ecology is within this creative process itself, saving energy and reusing existing materials.

The first exercise that students had to develop was to design maps of ideas to imagine the holistic relationship among data, the poetic of the place and their imagination.

The map of ideas made by Min Kwon represents



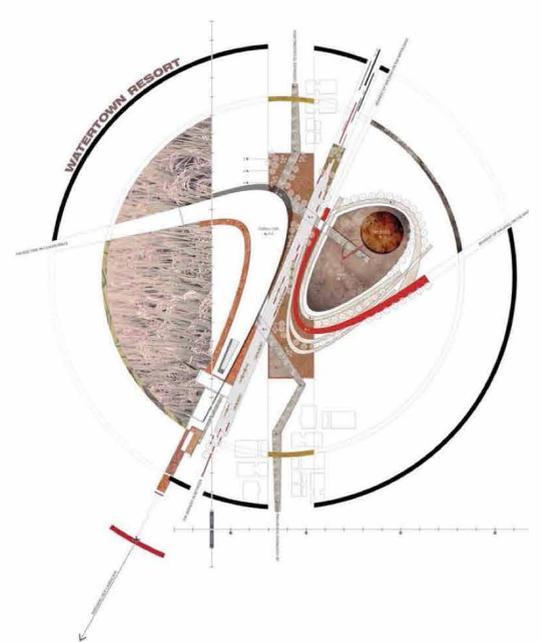
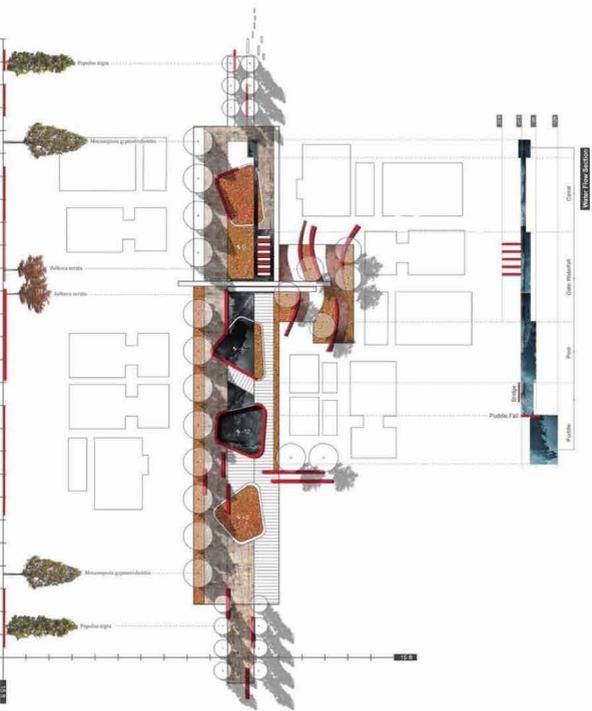
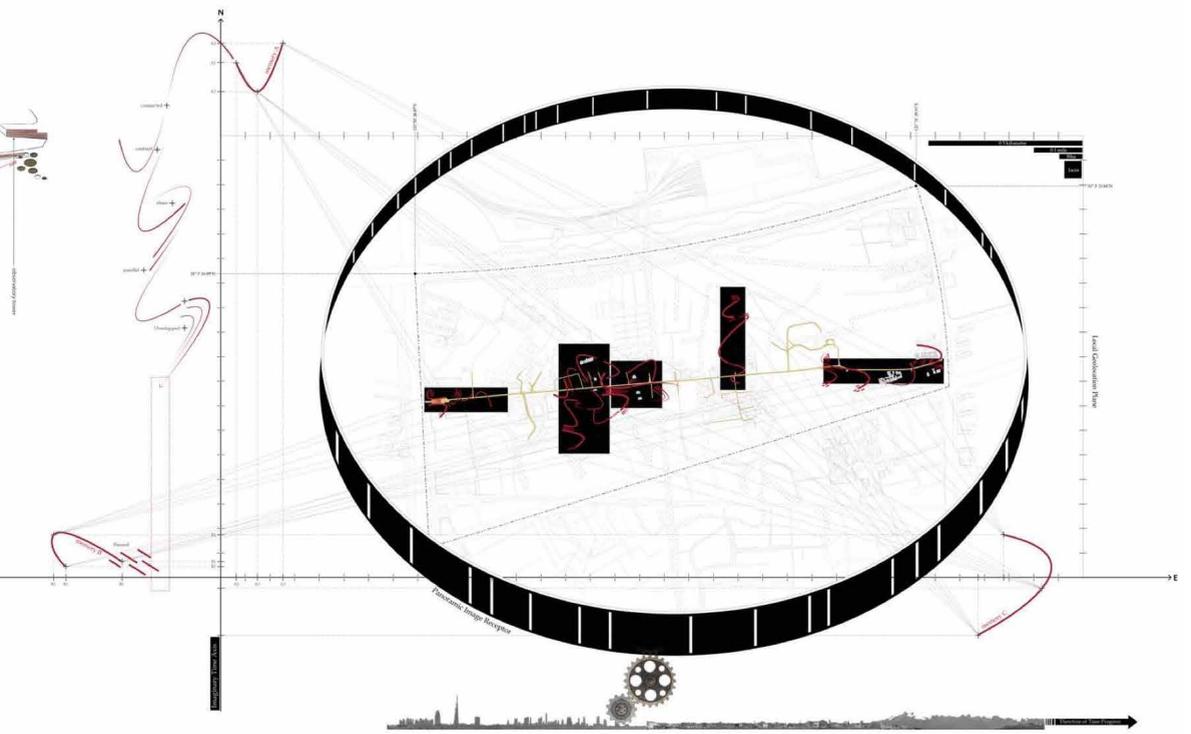
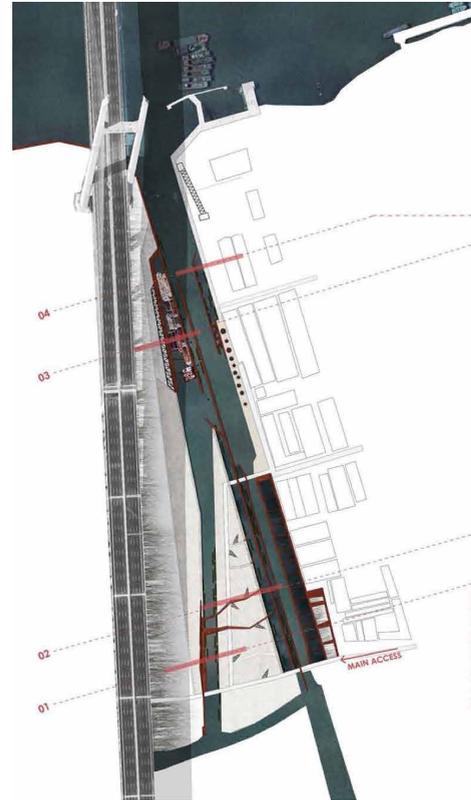


Fig. 2 – YING LIU, 2015.
 Studio, *Pujiang Suburban Park, Shanghai, China.*
 Stuart Weitzman School of Design,
 University of Pennsylvania, USA.

the morphological qualities, environmental features and botanical character of the site combined with a concept of ecological design made of relationships, either emotional and scientific. The landscape elements are combined according to similar shapes and homogeneous forms to build new imagined scenarios. (Fig. 1)

The project developed by Ying Liu is a project made of traces and objects recognized and reused within the site itself. In this landscape, industrial wrecks and other objects are reused and repositioned to create an emotional, tactile, physical space. The vegetation spontaneously invades the area that is measured by ready-made art objects found in the place and repositioned according to a landscape architecture strategy based on the geography of points. The map of the design strategy helps to make visible the creative and ecological process of the whole project. (Fig. 2)

The project by Chieh Huang is a poetic-artistic narration. The map represents the process of capturing specific places in the park to translate them into written texts of poetry. It is not a random arrangement of elements and objects, but rather an accurate narration. The elements of design are words combined into a landscape poetic syntax, in which hard surfaces and soft ecological areas envision written narratives. (Fig. 3)



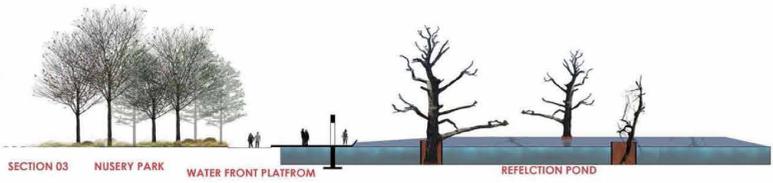
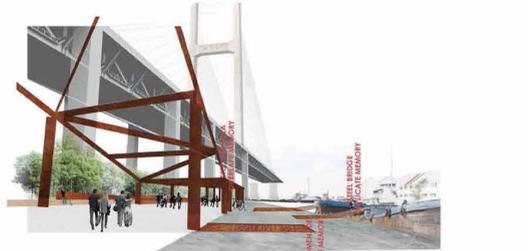
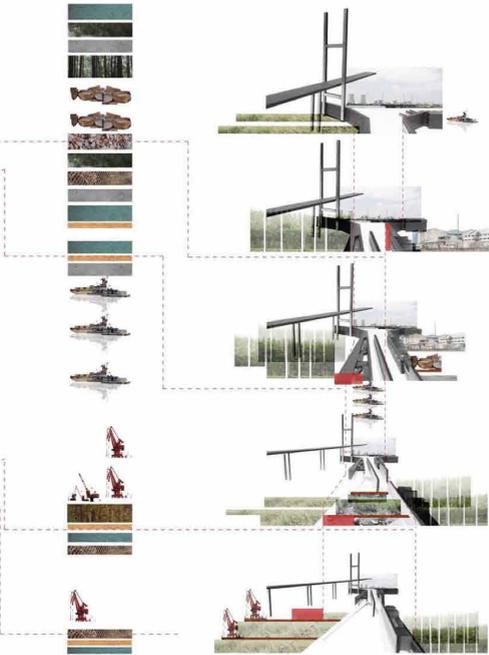
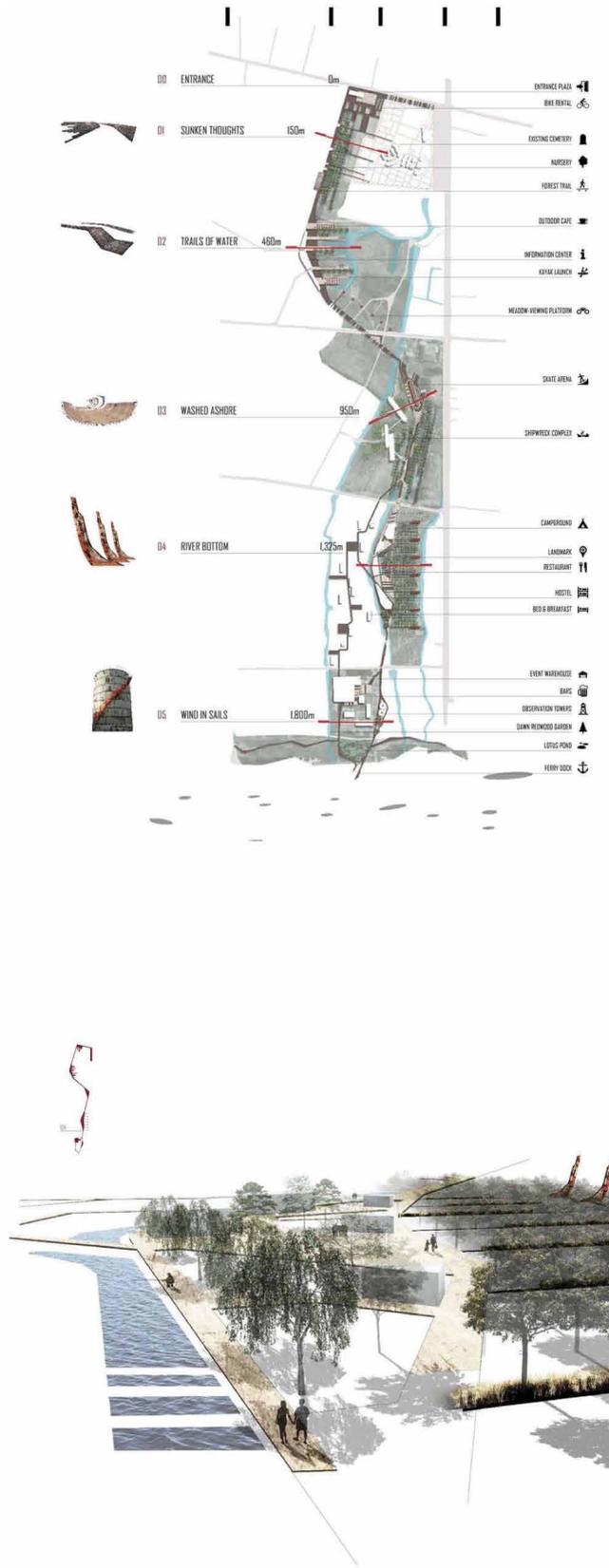


Fig. 3 – CHIEH HUANG, 2015.
Studio, *Pujiang Suburban Park, Shanghai, China.*
Stuart Weitzman School of Design,
University of Pennsylvania, USA.



3m
300m
600m
870m
1070m
1400m
1520m
1800m

IMPRINTED POEM
A line of poem for each bow to name camp zones

新舟承平时
与江流一日
两岸绿草
年年已过去

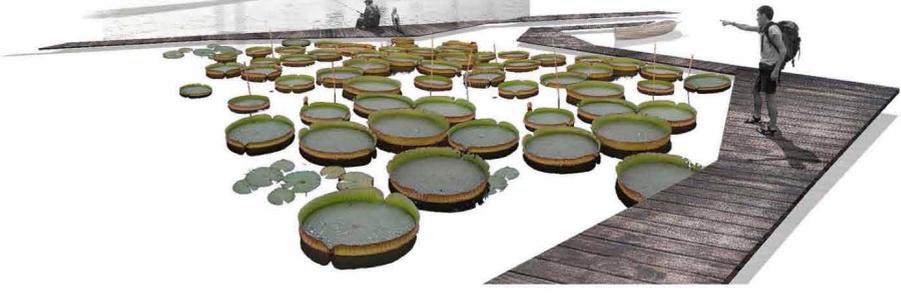


INDUSTRIAL SKYLINE
View across Huang Pu River

CRAB FISHING DECK
A platform to fish crabs and meet people alike



LOTUS DOCK
Ferry dock



Beauty and form: a new urban park in Milan, Italy

The study site for a new urban park in Milan was located at Porta Genova (Genoa Gate) in the famous area of Navigli, next to the city center. Genoa Gate was one of the most important gates along the walls of Milan during the Spanish domination, taking its name from its direction toward the city of Genoa. Specifically, the site is close to Genoa Gate railway station and the Naviglio Grande coming from the closed Darsena, which was the port of Milan. It used to be part of the channels water system of Navigli built in the 16th century and nowadays, Darsena is the core of a new public space system, characterized by shops, bars, pubs, and restaurants.

It is difficult to talk about 'beauty' itself, and this is not the purpose of the study. According to the concept that the idea of 'beauty' has changed many times across different eras and cultures, nations; and continents, the study assumed beauty as a controversial topic. It was a primary theme among ancient Greeks, medieval philosophers, and reached a central position during the eighteenth and nineteenth centuries. At the beginning of the last century, on the other hand, beauty was not a primary focus for philosophical inquiry, nor was it the aspiration of art, which rather valued conceptual ideas and innovative experiments. Subjective beauty located in the beholder's eye and objective beauty transcending things themselves are the two philosophical positions that, for many years, have been both divided and connected. A topic moment in understanding what beauty is was when Kant argues that beauty is "...not logical but aesthetic..." (Kant, 1790)⁸, bespeaks the individual creativity in all of us. In this way, creativity helps us aspire towards harmony, which drives us to look for beauty in paintings, sculptures, landscapes, and cities.

Considering that the Oxford English Dictionary's definition of 'aesthetic' as "beauty or the apprecia-

tion of beauty," where "pictures [...] give great aesthetic pleasure", beauty pays tribute to pleasure. It is essential, especially when pleasure is related to the use of spaces in cities. In these cases, pleasure becomes a democratic word; everybody can use it, saying that what we prefer wandering into a town, what we can understand sitting in a garden, is 'beautiful'. Working on changing the spaces of cities, landscape architecture has to produce places where people can have not logical reactions but aesthetic, sensual pleasures in perceiving beautiful plazas, gardens, parks; and buildings.

The study was conceived as an experiment to talk about the construction of beauty and its forms, thinking about ecology and sustainability according to a precise design. And the quality of the study was highlighted by the attainment of a prestigious ASLA⁹ award from one of the participating students.

Students' tendency, as well as designers', to see beauty through their own eyes, challenges their capacity to create a right balance between subjectivity and objectivity. For this reason, to stimulate students' ability to see the beauty in what they invent and image, to develop their skills to critique design solutions and representations, students were asked to design maps of ideas, site plans, and sections that correspond to different levels of beauty.

Jieping Wang's project entitled '*Touched/Untouched*' creates beauty through an idea of contrast/relation between a landscape to touch and a landscape not to be in physical contact with. Artificial elements mark and design public space through a series of well-defined areas. Within these spaces, there is vegetation that cannot be reached, and that invades every space at its disposal. The changes made to the existing landscape are few and consistently sized. (Fig. 4)

Jinny Yuan's '*Urban Stages*' project is based on the

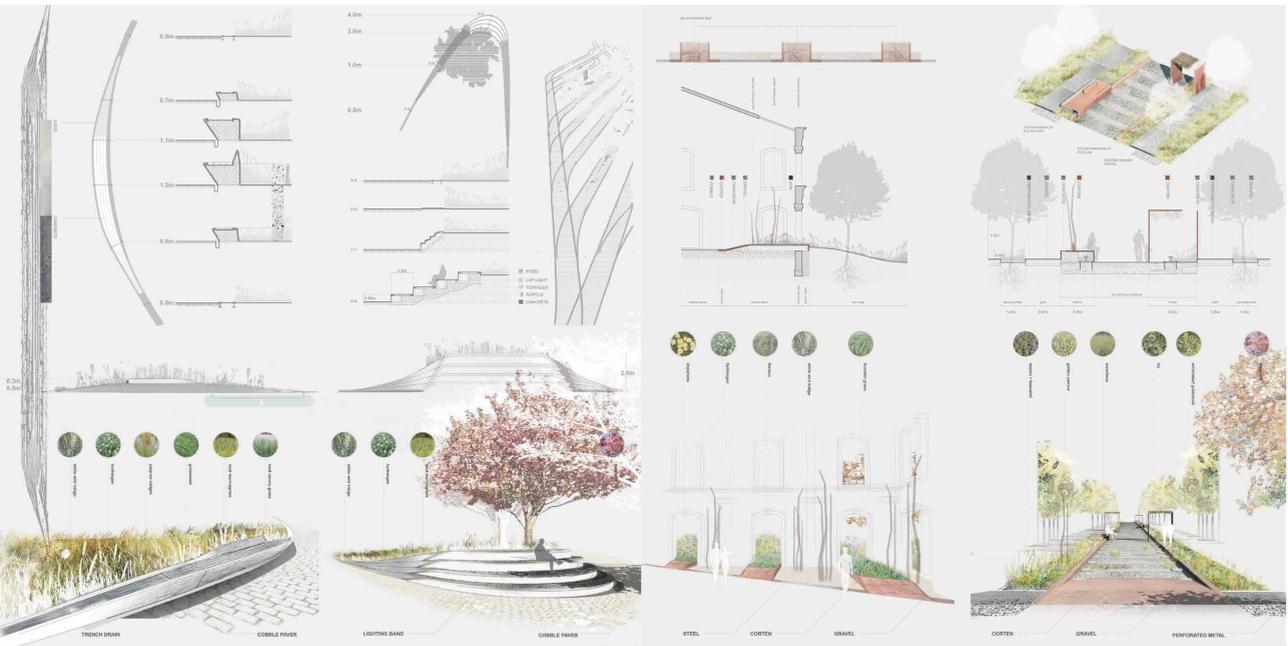


Fig. 4 – JJEPING WANG, 2017. Studio, *Beauty and form: a new urban Park in Milan, Italy.* Stuart Weitzman School of Design, University of Pennsylvania, USA.

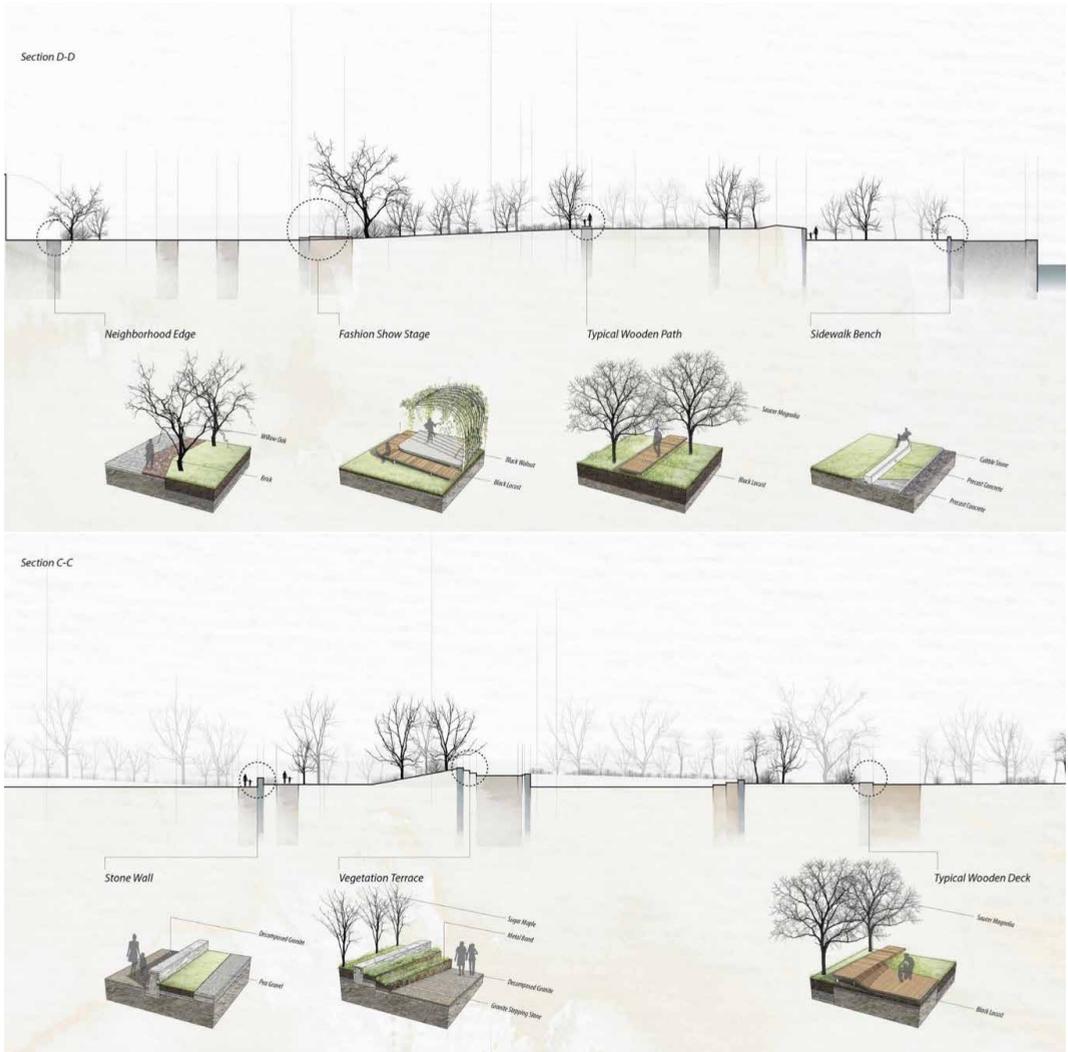


Fig. 5 – JINNY YUAN, 2017. Studio, *Beauty and form: a new urban Park in Milan, Italy*. Stuart Weitzman School of Design, University of Pennsylvania, USA.

design of dense, compressed vegetation ruled by simple, essential geometric shapes. The vegetation organized in different stages is allowed to grow in its natural freedom. This exuberant naturalness of plants is the performance that visitors to the park continuously observe. Beauty is in the poetic and romantic idea of a natural scene that

is suddenly dissected, regimented, and denied by the geometric and precise design of the park's hard materials. (Fig. 5)

The beauty project imagined by Zhiquiang Zheng (ASLA 2017 Award) is based on the idea of 'Crossing Milan'. Beauty is a matter of crossing, the passage from one space to another, between one



atmosphere and another. Passing through the area characterized by a basin of water obtained from the enlargement of the Naviglio Grande, structured according to vegetation that produces itself according to ecological processes, it is possible to get to the square of the former railway station. On the surface, solid materials characterize this pub-

lic space, and also light and elegant elevated architectural elements. The representation of these spaces is linked to the time of the seasons which builds a continuous and constant narration. (Fig. 6)

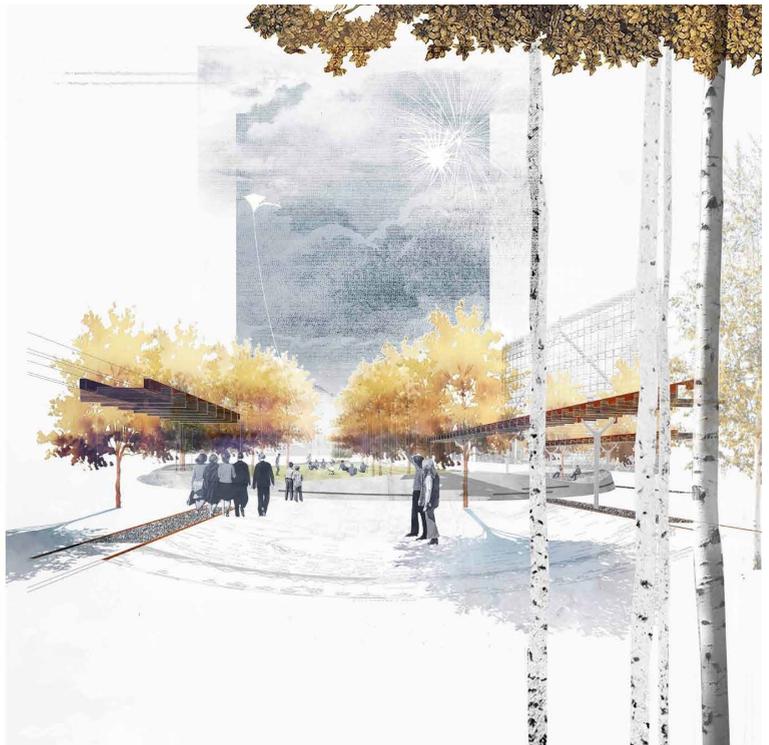


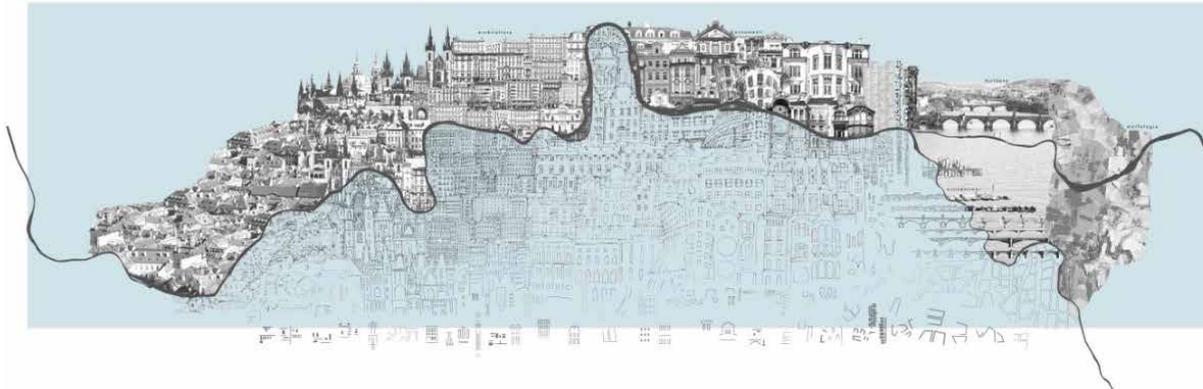




Fig. 6 – ZHIQUIANG ZHENG, 2017.
Studio, *Beauty and form: a new urban Park in Milan, Italy.*
Stuart Weitzman School of Design,
University of Pennsylvania, USA.







Water Ornament in Prague

Ornaments, which had artistic and social roles for many centuries, were recanted in the last 100 years. However, the pervading social networks, the many screens that have appeared in old and new cities, and cellphones that are integrated part of our bodies testify a further contemporary use of ornaments. Adolf Loos wrote “The modern man who tattoos himself is a criminal or a degenerate. There are prisons in which eighty percent of the prisoners are tattooed” (Loos, 1931). But in our contemporary culture, tattoos play essential forms of communication. In an interview, professor Whan Shu answers this question: «What do you think about the contemporary use of the ornament in landscape and architecture?» «Ornament is one of the key debates in modern architectural discourse. Especially when you are dealing with China, there is a substantial amount of ornaments in traditional Chinese culture. Often these ornaments will appear under the name of ‘transcending tradition’. I am more interested in the authentic value of ornaments to the people in nowadays’ life. This is what concerns me». ¹⁰

From the Oxford English Dictionary, the ornament is “a thing used or serving to make something look more attractive but usually having no practical purpose.” Or, if it is referred to as a verb, “make

(something) look more attractive by adding decorative items”.

In landscape architecture, ornaments have different meanings and significances. For instance, if a pot with flowers is in a living room, the flowers are perceived as an ornament. Conversely, if the same flowers are in a park, they could be part of its ecology due to the presence of pollinating insects, for example.

Tackling the theme of water ornament in the Prague study was an exercise to think about the contemporary value of ornament in landscape.

Many things happen along the Vltava River of Prague. The connections between the two sides of the river should be ephemeral, traced by water trails of boats, ships, canoes, or durable and physical, represented by the presence of numerous bridges. Focusing on ornaments along the river, the study wants to trace a new sizeable urban scale strategy, and going deep inside of specific places of the site plan, to develop public spaces and parks combining the idea of water ornaments with ecological and cultural design.

The map of ideas realized by Marzia Micali represent the essence of the Prague study experience. (Fig. 7)

The project developed by Mingchen Cui was born from Kafka’s novel *The Castle*. The student’s strategy of analysis specifically comes from the anal-

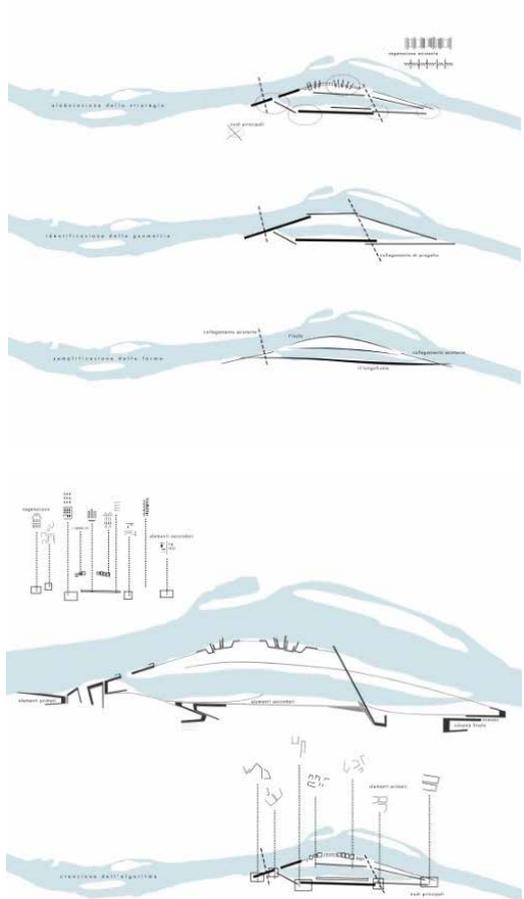
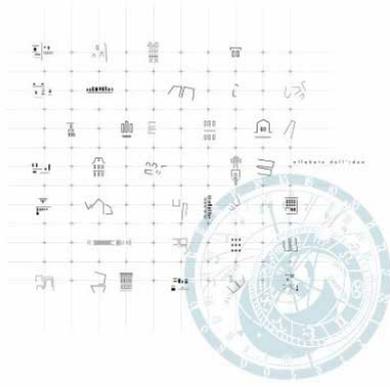


Fig. 7 – MARZIA MICALI, 2018.
 Studio, *Water Ornament in Prague*.
 Università Mediterranea, Department dArTe, Italy.

Fig. 8 – MINGCHEN CUI, 2018.
Studio, *Water Ornament in Prague*.
Stuart Weitzman School of Design,
University of Pennsylvania, USA.

ysis of a film taken from the novel, which was dissected in sequences. The composition of these sequences generated a series of abstract connections, according to non-Euclidean geometries. Starting from the map of these sequences, the design developed a dynamic combination of spaces, underlining essential points in the site plan. Within these points, the project developed relationships between aesthetic and ecological design. Protected areas to prevent floods, retained spaces to collect water for marshland and wetland ecological systems, protected spaces where vegetation can develop according to natural ecological processes, were connected with public spaces and buildings. (Fig. 8)

The park for a cemetery made by Xuanang Li start-

ed from the analysis of the Prague towers, their qualities and ornamental features. Imagining that the island was a horizontal tower, he designed the site plan according to this idea. The cemetery, instead of housing the physicality of the bodies, collects the memory of life according to details, spaces and places, well organized in ecological and natural areas. (Fig. 9)

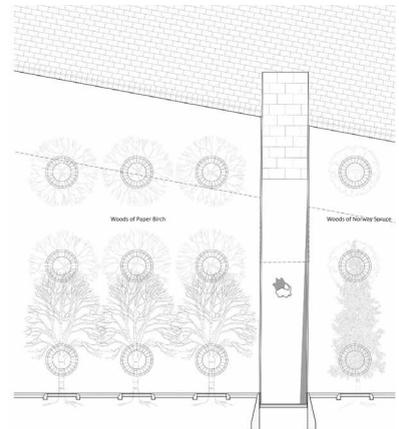
The Jaklin's Bridges Park project was born from the analysis of Prague's bridges according to a map that contains the rationality of data and the emotionality of intuitive perceptions. The whole project is a tribute to Jože Plečnik's system of bridges in Ljubljana. The student, organizing the new bridges according to their different uses, designs green spaces between water and land. (Fig. 10)



Fig. 9 – XUANANG LI, 2018.
 Studio, *Water Ornament in Prague*.
 Stuart Weitzman School of Design,
 University of Pennsylvania, USA.

WOODS OF MEMORY

-  Paper Birch
Betula papyrifera
-  Norway Spruce
Picea abies
-  Granite Setts
-  Black Granite
-  Wunsiedel Marble



FLORAL TRIBUTE



Little Bluestem
Schizachyrium scoparium



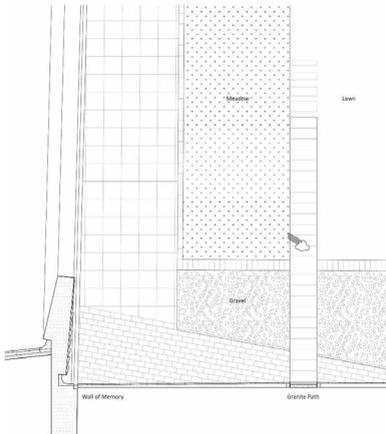
White Gravel



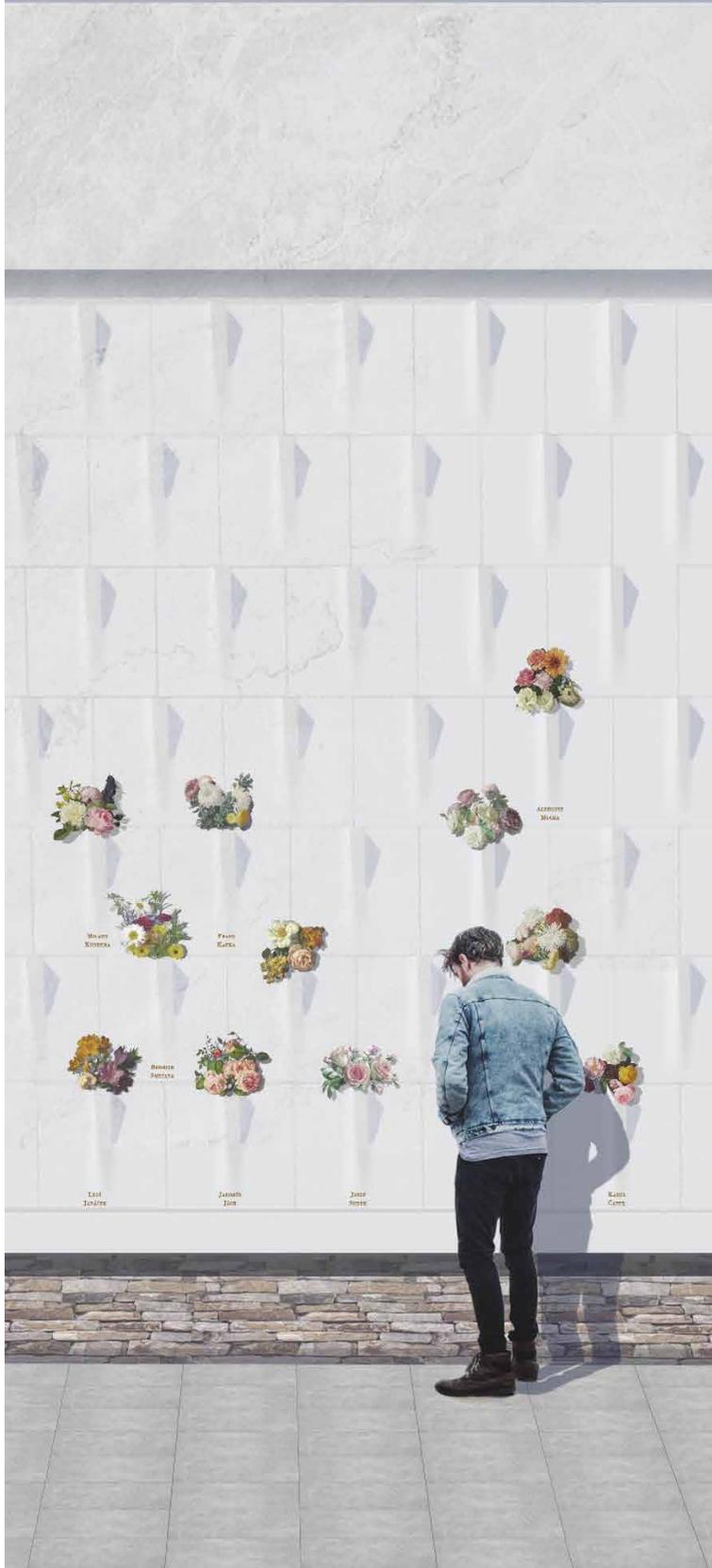
Black Granite



Sandstone



0 1 2 3m



AGNES
MAGUI

WILLY
KORVILA

FRANK
KARJA

HELENA
HEIKALA

LEIF
TANZING

JENNIFER
LIZ

JULIE
HEIK

KELLY
CANN

Fig. 10 – SZU HSUAN LEE, 2018.
 Studio, *Water Ornament in Prague*.
 Stuart Weitzman School of Design,
 University of Pennsylvania, USA.

A different perspective

This text addressed the theme of perception and recognizability of landscapes as expressed by the European Landscape Convention, trying to follow a logical excursus that moves from collective perception to practical design, seeking for new democratic ecological aesthetics in urban landscape architecture projects.

From Ian McHarg, ecology in landscape architecture is a constant concept used in many different theoretical aspects and practical design, and the science of ecology applied to landscape has generated, over the years, a collective consciousness in recognizing areas to be planned.

With the recent climate change, the urge for ecology plays a new fundamental role in sustainable city strategies, and communities are developing a particular sensibility towards ecology and its aesthetics. For these reasons, The High Line and Brooklyn Bridge Park are emblematic examples that represent “the immediate future of humankind, and the filter through which the vast majority of people will experience nature from now on” (Pickett, Cadenasso, McGrath, 2013)¹¹. In addition, the studios in landscape architecture are examples of exercises about ecological aesthetics coming from the process of perception of new landscapes by the communities that live and use them.

As many times James Corner repeats in conversations and essays, an engineer is better with numbers, an ecologist knows more about scientific ecological processes, but a landscape architect can give to numbers, data and information artistic and poetic interpretations.¹² It does not mean that these artistic interpretations are less precise, simply they take into consideration the idea that ecology is not an unchangeable monument but it is a surprisingly, dynamic, changeable and alive system.¹³

According to the European Landscape Convention, from the perception of communities to the design of landscape architecture, ecology inspires urban identities and moves through spaces to create and imagine new forms of aesthetics for “natural, rural, urban and peri-urban areas,” including “land, inland water and marine areas”¹⁴.

Endnotes

- ¹ European Landscape Convention (2000).
- ² *ibid.*
- ³ Corner J., et Al. 2015, *The High Line*. New York, Phaidon Press Limited, New York.
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- ⁸ Kant I., 1790, *The Critique of Judgement (Third Critique)*.
- ⁹ General Design Award 2017, USA.
- ¹⁰ Morabito V. 2016, *Hangzhou Zhongshan Road*, in «TopScape Paysage», n. 25, p. 37.
- ¹¹ Pickett S.T.A., Cadenasso M.L., McGrath B. 2013, *Resilience in Ecology and Urban Design*, Springer Dordrecht Heidelberg, New York, London.
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- ¹⁴ European Landscape Convention, 2000.

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