

# The multiple dimension of water in the designing and governance of public spaces. The case of Shanghai West Bund Project compared to other Western Waterfronts renovations

## Abstract

In 2010, the municipality of Shanghai started the “Huangpu River Comprehensive Development Plan”, a large regeneration initiative including the Expo site, targeted to revitalize the river banks and generally the urban environment, making Xuhui waterfront one of the six key construction areas of the 12th Five-Year Plan in Shanghai. Formerly one of the largest industrial districts, the so-called West Bund area has experienced a process of substantial transformation, currently still ongoing. Particular attention has been paid to the rehabilitation of the riverside, as a source of landscape enhancement, providing a system of open spaces and public facilities able to meet the dweller’s demands and to attract touristic fluxes. For this reason, the West Bund Project represents one of the most relevant regeneration initiative currently taking place in Shanghai. This paper aims to investigate, starting from this specific case-study, the role of water in the definition of cultural and natural elements, revealing new perspectives for the revitalization of the urban environment.

Keywords: Shanghai, West Bund, waterfront, urban regeneration

## 1. Water and architecture. An *unstable* relationship

The architecture of waterfront’s areas generally is tightly connected with the notion of landscape. This paper assumes the concept of landscape not as a state of idyllic and pure nature, but as a dynamic system mutually influenced by human activity. Hence, the necessity of associating the landscape with the idea of environment organized and modified by human being. In other words, we address the landscape as the result of human activity on its own territory, considering it a sort of artifact, a product permeated by man’s culture and tradition (Corboz, 1985; Turri, 1998; Venturi Ferriolo, 2002). While in Western thinking nature is a tangible value including living beings, vegetations, landscape, and other elements in contrast with art and human creations, in the Eastern philosophy nature is integrated with the artificial space. Evidence of this approach can be found in the idea of *shan-shui*, (mountain-water, or landscape) as a poetic style intended to evoke: «natural scenery and communicated images of the natural environment including mountain, forests, and other forces of the natural world embodied in imagery of fantastic landscapes, majestic waterfalls, and sanctified mountains» (Rodenbiker, 2017). In the the last decades the concept of *shan-shui* and

its implication of architectural and urban design has been discussed in different occasion, such, for instance during the conference entitled *Shan-shui City - Looking to the Future of China’s 21<sup>st</sup> Century Cities held on February 27, 1993*, which attracted many urban designers, architects, artists, and scholars, and the conference organized by the Chinese Society of Landscape Architecture held in Guangzhou. As recently stated by Rodenbiker:

«Intended as «a mechanism for securing design contracts for new city and urban redevelopment projects», *shan-shui* assumes today a leading role for city branding in the framework of international competition».

«The conference stressed the symbolic aspects of *shan-shui*, as an expression of harmony between the natural and built environment, thus amplifying a harmony between humans and nature (*tianrenheyi*) within processes of urban development. It also highlighted Qian’s contribution to the reintroduction of garden aes-

thetics in urban landscapes and the development of, what by this time had taken on the name, *shan-shui* city theory. This apotheosis of Qian Xuesen is instrumental in formalizing the modernist, yet traditional, connotations of the *shan-shui* city». Also the Japanese approach, as intended by the philosopher Testuro Watsuji, who defines nature through the concept of *fudo* or climate, ties ecological and environmental aspects with the design practice. According to Watsuji, *fudo* includes both the climatic features of a nation, the geographic location of a person, and the family’s social environment in the society, as well as the technology supporting the community and the interaction among its members (Liotta, 2017). Conversely, the Western approach fostered a clear separation between the space of nature and the space of culture, intended as artificial environment. Beyond bearing in mind the changing nature of landscape, we also stress its *unstable* character, given by both the richness in values like history, form, nature, and meaning, and at the same time by the «unpredictable morphological mutations» (making them) «... difficult to fix into a persistent structure» (Oldani, 2016). If we look at urban systems as dynamic patterns resulting from the overlapping of palimpsests, superimposed signs and meanings, we understand the importance of assuming the issue of relationships between territorial entities as structural point of the design process. At the urban scale, stability can be sought more in the forms of relationships rather than in the shapes of objects. In the framework of these considerations, this paper moves on the case-study of Shanghai West Bund, compared with other relevant experiences, to suggest a critic understanding of ongoing transformation processes, aiming to highlight the role of water in the definition of new perspective for waterfront’s design.

## 2. West Bund. Brief history of the conversion of an industrial district

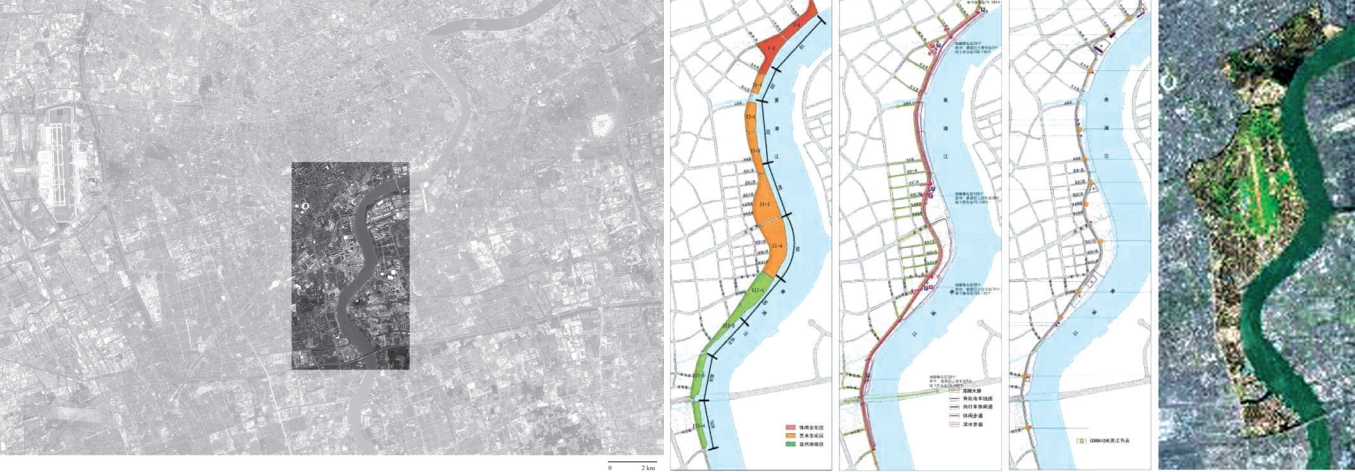
Placed in the southwest of Shanghai’s Xuhui District, Shanghai West Bund area covers a total area of 9.4 square kilometers, and extends on the river banks for 11.4 kilometers. Located in proximity of the Longhua Historic Conservation Area, West Bund faces the 2010 Shanghai World Expo Site (ill. 01). West Bund has been a center of transportation, logistics, and production in China for over one hundred years. The area is characterized by vast open spaces and numerous water channels that have allowed such industrial centers and national enterprises as the Longhua Airport, Shanghai Nanpu Railway Station, Beipiao Coal Wharf, and Shanghai Cement Factory, just to name a few, to flourish<sup>1</sup>. *Shanghai West Bund Development* (Group) Company, Ltd, (West Bund for short), authorized by the People’s Government of Shanghai’s Xuhui District, is a solely state-owned enterprise that is responsible for the comprehensive development of the Xuhui waterfront area, one of the six core functional areas to be developed as part of Shanghai’s *12th Five-year Plan*<sup>2</sup>. The company defines West Bund as an «urban branding and development project that aims to build upon the cultural and commercial foundation of the Xuhui waterfront». The name West Bund comes from the 9<sup>th</sup> Party Congress of the Xuhui District held at the end of 2011, which called for the creation of a *West Bund Culture Corridor*. Since then,

Shanghai West Bund has been officially used as the new name for the Xuhui waterfront area. The designers of the Xuhui waterfront drew inspiration from the Port of Hamburg and Canary Wharf in London (London Dockland) to create the so-called *Corniche Shanghai*. The preservation of historical relics, considered important witnesses of the industrial past, was one of the leading principle in the design process, and still recognizable nowadays. The development, started in 2008, has been guided by three main actions. First, the necessity to connect Xujiahui central business district, key model areas, with Xuhui’s midtown and other minor centers. Second, the idea of introducing a Culture Corridor able to brand and promote the integration of citizens, spaces and uses. In the nearby we can find many exhibition halls and cultural institutions, such as Long Museum (West Bund), Yuz Museum, West Bund Art Center, West Bund Culture and Art Pilot Zone, West Bund Bonded, Artwork Warehouse, West Bund Museum, Oil Tank Art Park, Star Museum, Waterfront Theatre, and so on. Last, the commercial expansion is supposed to encourage a comprehensive development for West Bund and surrounding areas. Hence the decision to exploit the presence of Huangpu river bank becomes the occasion to enhance the urban environment and provide it with public facilities able to start spontaneous regeneration phenomena. The development involves both projects for new buildings and renovation of old ones, as well as landscape design of open spaces, such as, for instance, the Runway Park by Sasaki. The river bank is divided into three sections (leisure and culture area, arts and cultural area, and natural experience area), four Lines (leisure trails, waterfront trails, cycling trails, reserved trams), and a node formed by a number of horizontal urban roads and open space intersection (Mei, 2017). From the perspective of urban regeneration, authors argue that water is the key element for the success of the whole development process. “风生水起” (Feng Sheng Shui Qi), a Chinese idiom with literally meaning as wind up and water rise. And from the local people’s point of view, water used in this area, is intendedly used by the government expecting rapid development in West Bund and water assumes a multiple dimension since it becomes the principal piece of the urban composition. From one side, the river performs as the hierarchical axis structuring the urban pattern through an uninterrupted sequence of public spaces, made by open as well as built facilities, mostly dedicated to

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ill. 1. West Bund site. Source: authors' elaboration (2018)  
 ill. 2. Diagrams of design of West Bund open space system. Source: Mei M. Study of Urban Regeneration in Milan and Shanghai. Politecnico di Milano. (2017)



ill. 3. West Bund riverside. Photo by Gerardo Sempredon (2017)  
 ill. 4. West Bund riverside. Photo by Gerardo Sempredon (2017)

ill. 5. West Bund riverside. Photo by Gerardo Sempredon (2017)



ill. 6. The Long Museum, by Atelier Deshaus (2014). Photo by Gerardo Sempredon (2017)

culture and leisure (ill. 02-03-04-05). On the other side, water bears different meanings, such as the fact of being the witness of the historical past of the site, whose industrial vocation is still readable, and now linking toward the future development. An exemplary case is the Long Museum by Atelier Deshaus, whose architectural shape and the maintenance of the rail tracks, reminds to the concept of a gate toward the river (ill. 06), alluding to the industrial past when water, rail, and production were closely tied. It is the relationship between the water and the urban fabric that define the architectural character of open spaces, both along the river banks, in terms of horizontal surfaces treated in different manners; and from the riverbed, through the urban elevations, which are expressing stylistic languages or functional uses.

### 3. Designing with water. Waterfront's architecture in recent experiences. New York, Hamburg, and Copenhagen

Over the last decades, cities' harbors have been experiencing radical changes, based on industrial and commercial development, functional conversion, urban growth, environmental re- pairment, landscape beautification, and so on. Introducing the case-study of Hamburg harbor's regeneration, the recent paper by Lepore, Sgobbo and Vingelli describes the implication of a strategic approach to the development, able to influence positively the surrounding beyond the limits of the site construction. «The processes of globalization of supply and demand and, consequently, the transformations, in terms of location, of production centers, transport and distribution logistics, have generated sudden setting changes that, in consolidated urban centers, have resulted in overproduction of brownfield/dis- missed areas as well as regeneration projects. The phenom- enon has involved some European cities, traditionally large commercial ports, that have rapidly seen their attractiveness decreasing. This has led to the need to rethink the use of vast urbanized areas that, although highly accessible and intensely infrastructured, have turned as brownfields: degraded, unde- rused but also radically compromised in environmental as- pects enough to make unsustainable even policies of simple renaturalization. In cases of minor extension, the regeneration strategy was limited to the progressive incorporation into the surrounding urban pattern. Sometimes it has provided for the complete abandonment of the industrial nature of the place in

favor of functions, above all tertiary and resi- dential, that have made them luxurious and modern islands; however, functionally and socially separated from neighboring districts along a virtual but tangible border, often coincid- ing with the border of the project by which they originated. In other cases, however, the transformation has generated effects clearly extended to a much broader and more com- plex sphere, beyond the material, although jagged, frontiers which also limit the area of physical change» (Lepore et al. 2017).

We could mention numerous examples of beautiful waterfront architectures, however, Shanghai West Bund suggests to reduce our critic comparison to the two cases of Ham- burg and New York, both for the role of water in the design and for their urban environment, showing important similarities with the Chi- nese metropolis. The plan for Hamburg regu- lates the growth for 40% of the city, within the urban perimeter, converting former harbor's infrastructures and rail yards. Planners de- fined the development over a temporal span of 25 years, implementing areas for suburbia in order to prevent the uncontrolled construc- tion (Schubert, 2014). The masterplan shows an adaptive character to better fit with the demands arising from society. For instance, the plan has been reviewed after the finan- cial crisis of 2008, making the last version of 2010 a last-generation project. Spectacular architecture, such as the Elbphilharmonie by Herzog & de Meuron, built reusing the former warehouse as basement and hosting a mix of different functions including a public pla- za at 40 meters of high (ill. 07-08), becomes part of this strategic vision. This long-term plan is made by permanent design-solution and temporary events, such for instance the so-called *Hafengeburtstag* (port's birthday), an all-day parade for boats and cruise ships



ill. 7. Elbphilharmonie, by Herzog & de Meuron (2017). Photo by Gerardo Semprebón (2017)



ill. 8. Elbphilharmonie, by Herzog & de Meuron (2017). Detail of the public plaza over the former warehouse. Photo by Gerardo Semprebón (2017)



ill. 9. Hamburg waterfront's public spaces. Photo by Gerardo Semprebón (2017)



ill. 10. Hamburg's waterfront. Photo by Gerardo Semprebón (2017)



ill. 11. Public spaces on water in Copenhagen. Photo by Gerardo Semprebón (2014)



ill. 12. Opera House, Copenhagen (2005) by Henning Larsen. Photo by Gerardo Semprebón (2014)

(ill. 09-10), or the Cruise Days, the worldwide leading fair. Another relevant case-study is New York's waterfront development. Among other projects, such as the Dry Line (Bjarke Ingels Group, BIG), or the Brooklyn Bridge Park, in 2010 Micheal Van Vankenburg realized the Chelsea Cove Park, intended as a huge open space conceived to resist to extreme natural events, like storms and hurricanes, as an example of resilient-oriented design. Hurricane Sandy (2012) proved the success of the adopted prevention strategies, making water flooding

inside the park and causing very light damages. In New York the transformation took place in a shorter time than Hamburg, as stated by Anna Sessarego who wrote that «New York City is the best case study, due to the speed to the intervention of planning, design, and realization that are happen in a quick succession, where could be observed and analysed in the short time the most important results and ex-

periences of waterfront design» (Sessarego, 2017), marking the main difference from the metabolic process happened in Germany. It seems reasonable to explain this difference considering the different attractive power of the two cities in terms of investments from both private and public realm. Referring to the intention by West Bund Group to implement the so-called Culture Corridor and to mix introduce an articulated functional program, it seems appropriate to consider also the case of Copenhagen, where culture and recreation melt together along the channels (ill. 11). In Copenhagen Harbor Bath (BIG + JDS), water becomes a place to be, where people enjoy the space previously relegated to boats. Swimming and related activities/facilities demonstrated to be a successful strategy, not only for entertainment, but also for hygienic reasons, urban development, and flooding mitigation (Jensen et al., 2015). The same phenomenon took place also in Berlin, in Kreuzberg (see Badeschiff by Stadtkunstprojekte - City Art Project Society - 2004) and in other neighborhoods, where the conversion became opportunity for urban enhancement. At the same time, the facilities dedicated to culture (the Opera House by Henning Larsen and the Royal Danish Playhouse by Lundgaard & Tranberg) populates the waterfront defining an endless landscape connecting the famous Nyhavn, featured by spectacular architecture facing each other (ill. 12). Nevertheless, all mentioned cases exhaustively presented in the cited articles, represents some of the best practices whose positive effects can be measured in terms of urban renovation, economic prosperity, touristic attraction, and can be related to West Bund development.

#### 4. Conclusions

«The waterfront cities have a special task: designing areas facing water is an opportunity to make landscape sustainable, improving safety and quality of life, helping people to rebuilt its sense of identity. The waterfront is the place where all the landscape dynamic strengths converge in the urban ones such as in the ecological scale, by the potentiality to define its identity, by the extraordinary capability to enforce linking and welding processes with other city's areas, allowing the creation of new centralities, by innovative shapes of place's use» (Sessarego, 2017). Assuming Sessarego's perspective, we can look at waterfront areas, either river-sides or sea-sides, as new potential centralities, as we tried to understand in the previous paragraphs. The projects' description highlights some important issues related to water-related design, both for urban and landscape architecture. Hamburg's regeneration strategies exploit water as a source for economic and touristic development. The relationship between the river and buildings tied to the cruise ship activity generated a unique urban waterfront, featured by high-quality spaces adaptable to different uses, according to the city's agenda. New York's parks express an extraordinary example of resilient landscape architecture, incorporating strategies that allow the landscape to adapt and regenerate itself (Sessarego, 2017), in which the notion of *unstable landscape* finds a perfect application. Copenhagen's focus on the direct use of water by citizens suggests that even in former industrial area is possible to imagine creative uses

of water, or, at least, to set new relationships between water, open, and built-up spaces. As architects and planners, we also look at the landscape, including waterfront areas, studying its shape, searching for hints of historical modification, marking turning-points and discontinuities, discerning fast and traumatic mutations among the slow natural evolution (Semprebón et al., 2017). Cartographic materials and official documents, as well as pictures and paintings are object of investigations to define a critic approach and give value to design choices. Within this ever-changing process, architects and planners are asked to challenge the role of water in waterfront areas according to present demands or suggesting new ones, always considering the contextual relationships.

#### ENDNOTES

- <sup>1</sup> <http://www.westbund.com/en/index/ABOUT-WEST-BUND/Area-Overview/District-Overview.html>. Last visit on February, the 19<sup>th</sup> 2018.
- <sup>2</sup> <http://www.westbund.com/en/index/ABOUT-WEST-BUND/Area-Overview/District-Overview.html>. Last visit on February, the 19<sup>th</sup> 2018.

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