

# Reflection

*relationship between the theme of the graduation  
studio and graduation project*

The graduation studio of landscape architecture has established the concept of Flowscapes.

"Flowscapes explores infrastructure as a type of landscape and landscape as a type of infrastructure. The hybridisation of the two concepts seeks to redefine infrastructure beyond its strictly utilitarian definition, while allowing spatial design to gain operative force in territorial transformation processes". It suggested that "when conceiving landscape as infrastructure, landscape is treated as an operative field that defines and sustains the urban development and ecological and economic processes are employed as formative design tools". On the other hand, "considering infrastructure as landscape, the infrastructure is treated as an interdisciplinary landscape design brief with emphasis on the scapes" (Nijhuis and Jauslin, 2015)

The core of Flowscape lays within two dimensions: rethinking the landscape and infrastructure and appreciating the dynamic movements in natural, socio-economical and spatial aspects.

Following the core of Flowscape, the project site is located in Richmond, San Francisco Bay. The formation of bay area was once influenced by natural processes such as wind, erosion, and wave, not to mention the crustal movement that generate bay area millions years ago — resulting in a landscape constantly in flux. Over the past century, the bay shoreline has become a more static, constructed edge. This landscape was formed over time through the deployment of a complex framework for saltation and accretion.

San Francisco bay area, which is a combination not only influenced by different natural forces but also by the human intervention(dike,dredge,landfill, reclamation). The project location of Richmond as a specific case not only presents the consequence of human intervention on landscape performance but also reveal the how social/economical aspect play crucial part in the landscape experience and spatial quality. Booming industrial development in Richmond coastal region brings opportunity to develop Richmond from a native America settlement to a city of over 10,000 of population, it also results in poor connection from the city to the bay as well as heavy pollution. Just like everything else in this world that is always in motion, heavy industries, the no.1 tech donor migrates away, leaving the city in urgent with a change. The site of Richmond Kaiser Shipyard is chosen, due to 3 aspect: location; historical/economical context; dynamics of natural processes.

Historically, Kaiser Shipyard was the 3rd biggest navy shipyard in war time, which constructed on the landfill of the original tidal marshland that protects lands from erosion. Over the past century, landfill and navigation maintenance (dredging and channelization) has cause huge marshland loss. After the war, Kaiser shipyard retired from its military service and now is occupied mainly by commercial port and oil refinery. Yet with the falling of heavily industry, thi

s industrial hard land is no longer economically, ecologically, or socially relevant.

The Kaisher Shipyard was constructed as an military infrastructure and continuously serve as transpotation faciliate. And in the design, I proposed to a redevelopent project transforming the old shipyard infrustrature as a new platform for future development and new lifestyle for Ric hmond people, also the highly dynamic natural processes gives the site multiple potentials of engaging the natural processes and the urban process. In this project dredging and constructio n site wast materials are also being revaluated as resources that become infrascturcture as well . By engaging the natural processes and resiliance strategy, creating a new waterfront landsca pe that incubates new hybrid uses and long term urban development which can also fit in the t heme of “Flowscape”.

*From Research to Design  
Method, context, application*

When landscape was conceived as a infrastructure, an operative field for spatial designers, the next crucial question for designer to answer is what is landscape. In the research of Brett Mili gen, he articulated landscape as – “a scene, landscap, ecosystem, and socio-political territory – itlls a material assembly of moving entities, a dynamic medium which changes in quality an d structure through the aggregate movements or actions of the things that constitute it.” He ap plies the concept of migration – patterned movement across space and time – to landscape by three strands of theory: ecology, assembly and infrastructure.

In order to read the site, understand the process and production of current Richmond assembla ge, its necessary to identify patterned movement and critical moments of site. By mapping the patterned movement and identifying the crucial movements, I can understand the main driven forces that changes Richmond landscape is shifting in time.

This historical research also reveals that from Golden Rush to Silicon Valley, Richmond have been bounded tightly with regional to global economic and environmental transition, working and understanding through scales stressed the fact that economical and historical context is n ot only the background story, but in the age of Anthropocene, it become more that ever impor tant. The research on understanding the natural processes and dynamics in given area provide d design tools and principles.

The question is which parts and processes of landscape do we choose to engage, and which co urse of action can we take.

Following the research of migration landscape, in this design, shipyard Infrastructure as well as the sedimentary infrastructure are the specific assemblies chosen and articulated by spatial designer to act upon the transformation of a given landscape, fixed the materials and socio-ec ological constriction. The city of Richmond will benefit from the new opportunity of reconne

ction, both in the sense of reconnect to waterfront, reconnect to other cities. It also brings me confusion, who will be left out?

The old industry construction supplied the most of employment for Richmond locals, it also brings in the unstated fact that most of the locals, as industrial working class, not necessarily be capable for creative and intelligent-challenging works such as coding. when it drifted away, and upgraded high-technology industry move in, what would happen to the residents? The speech from Adria Lahoud on Floating Bodies, bring in the idea that we do not presupposed a common regime of intelligibility but instead starts with a proposition that embodies a kind of original asymmetry. By studying the demography of Richmond, such as income and educational attainment, ethical and criminal demography, in the design, the urban farming and biofuel are introduced taking account of the essence characters of local residents. With the new opening of the city shoreline, downtown historical center and heritage is also being embraced, tourism became a new opportunity for jobs.

*The project in  
a wider social context*

The case of Richmond in San Francisco Bay is facing with the common threat, sea level rises, like all other cities in Bay area, or to say all coastal cities in global range. With most of population located in coastal cities around the world, how a city can be resilient and adapt to future climate change becomes an urgent problems. By the rediscovery and application the forgotten sedimentary infrastructure, working with natural dynamic and processes, this project present an alternative possibility or coastal defence and engineering.

The other objective of this projects is to explore the idea of Anthropocene, a time that changes in both natural and social aspects are accelerating in an unprecedented speed and how designer can act on this specific context. Richmond as an old industrial city, examining the idea of industrial migration. Just like the city of Detroit, when Ford move to other low labor cost country, the supporting industry migrates away, the city ends up shrinking and desperately needs a change. By acknowledging migration phenomenon, this design and planning strategies for shrinking cities work opportunisticly and protectively with emergent conditions, rather than trying to counter or reverse the trajectories of change. In the specific case of redeveloping of Kaiser Shipyard is a beginning point to upgrade the city's industrial structure and an attraction for tourism. So in the functional transforming the Kaiser Shipyard, these social problems, such as high unemployment rate and long commute time for local residents, will also be considered. After the intervention, a hybrid landscape on an integrated surface will be developed, and different conditions which can provide jobs and also the accesses to the recreational function will be developed. Also, anthropogenic activities has become the driven force for the migration of sediment and marsh land, which is just a parcel of the whole picture. Instead of bringing the coastal back to its prehistoric stage, a balance need to be find coexisting. By taking use of the force of natural process( tide, wave, erosion, sedimentation, wind setup, etc) and take the product of the natural process as material for the urban development.

As a result the landscape transformation design plays a significant role to also develop the spatial quality which people can have a totally different experience of the whole new platform of life.

#### *Lesson learned*

One of the important lesson I have learn in the process of developing my graduation project is to always stand in a position of a landscape architect. The fascination of for dredging processes bring me in the theory of migration phenomenon. The richness in the natural and anthropocene processes is obsessingly interesting. Ecology, as I would now understand as a method to describe interrelationship within a landscape assemblage, once become the mainly focus point of my research. I study thoughtly how engineering and global trading changes the underwater world and coastal/river cities, as well as fauna and flora living consitions. But it also limited my vision as a spatial designer. Understanding infrastructure is merely enough to conduct the design, more importantly is to build up connection on its impact on spatial.

And also, interdiscipline study brings me different view points. For example, when ecologist will argue by remedying the nature enviroment, we should retrieve from it and let the natural succession take care of itself, which looks like an utopian idea. Where urban planner brings the idea of upgrading the indusstructure and attract investors, the natural environment and local labor workers then becomes the left-overs. The project tried to stand on a position by understanding the phenomenon of landscape migration, embracing the inevitable changes and and provided win-win solution by using multtidisciplinary criteria and actors.

#### Reference:

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