

Reflection on P4&P5 Presentation of Graduation Design

Studio:Delta Intervention Studio

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Time:2014-2015

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General Introduction

My graduation design in Delta Intervention Studio is a Waterfront Rehabilitation Center which is located on the Galveston Island, Texas, U.S.

Delta Intervention studio is one of the Graduation Studio in Architecture Department. Because of the special geological condition in Netherland, delta landscapes come to a main issue here where natural dynamics and urbanization transformation interact. Netherland is also famous for its advanced experienced in Delta Intervention project.

Delta landscapes speak up to our imagination. They are always attractive places for settlement and culture, for industry, trade and tourism. Worldwide, they are the site of ceaseless processes of transformation and urbanization. With the development of sustainability conscious and water safety standard, new spatial identities and new cohesion between cities and their water-landscapes are required. Delta Intervention is a project asking for interdisciplinary cooperation on a wide variety of scales (urban scale, district scale, architectural scale).

2014-2015's graduation studio had two sites, one is Galveston Bay in Houston, Texas, the other is the Dutch IJsselmeer area. I chose the American site. There are lots of differences between these two sites. For example, Dutch's is west coast while Galveston Bay belongs to the south-east coast of American. Dutch's experience in delta intervention is to some degree pretty mature in local situation. It will be more challenging applying Dutch's experience overseas. American has a totally different amphibious architectural tradition, it will be interesting to try something beyond Dutch's tradition. What's more, Galveston Bay located besides Houston, which is the sixth largest city of U.S, dealing relationship between Galveston and such a metropolitan may add the complexity of the issue.



IMAGE 1-1 Mapping of Galveston Bay in Research Part of Graduation Studio (Resource: Author)

Procedure

In September 2014, we had a series of lectures and seminars to train our basic analysis skills and research methods. Also, relevant background knowledge about delta intervention project and

water related design had been instructed during this period. We did a lot of research about the history and current situation both in the Dutch's IJsselmeer delta area and Houston's Galveston Bay coastal area. The hurricane and water conditions of these areas were introduced.

From October to November we did a series of analysis including 3*3*3 mapping analysis, time line analysis, amphibious architecture research, etc. Trying to transform all perceptual feeling into a rational context. Zoomed into several specific sites from an view of urbanism panorama .

In December, 2014, we took an excursion to Houston and had field research on each chosen site, collected lots of practical information from local institutions and persons.

We started specific design in January, 2015, from a very general idea to a series of schemes, and evaluate them according to specific limitations.

From February we started furthering the architectural design and got back to the starting point once and once again to check whether the original conception consisted to the end.

Entered into April we started to consider about all the materialization field including the structure system, the load bearing elements, facade design and climatic technologies. Even at the very beginning we had been reminded that keep conscious about detail design while dealing with a general plan, and we need to ensure that all those detail settings



represent the very original thought. *IMAGE1-2 Excursion on Galveston Island (Resource: Author)*

During the graduation year I can clearly feel the internal logic of all parallel courses. Different courses focus on different aspects and followed an explicit education framework.

The course Aspects of Water Related Design concluded various possible water-related design strategy, for example building on piles, floating houses, I applied those strategies into my own design. Also, it made us keep conscious of the visual relationship between water area and promenade architecture. I chose Luis Kahn's Salk Institute as my title cause I was fascinated by the chorus of materialization, concrete, stone, water, and wood, they can be organized to create an amazing atmosphere.

In the course Theory of Urbanism, I worked on the topic of urban waterfront interface, it elaborate a series of researches on the waterfront area design (proportion, materialization, human behavior, etc) the final production was a profound theoretical basis of my design project.

In the course Lecture Series Research Methods my group focus on the topic of Methodology, I learned a lot about how to evolve a general thought or 'hard core' to a systematic thesis. It is a progress of the acquirement of knowledge and the formation of a thesis.

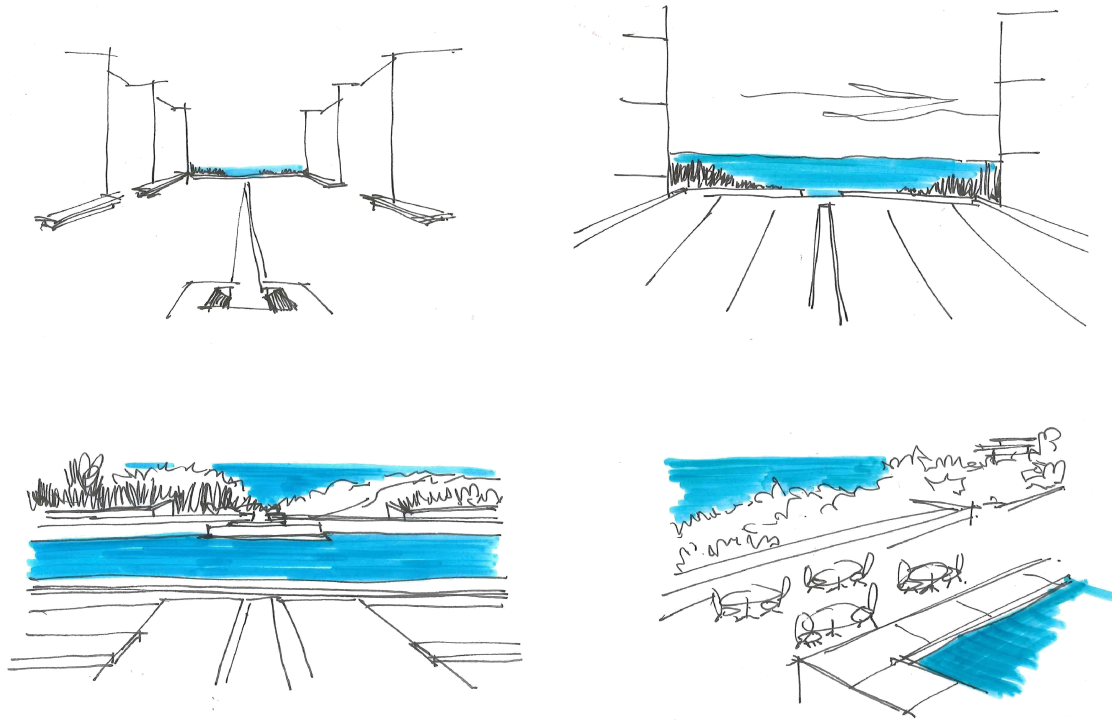
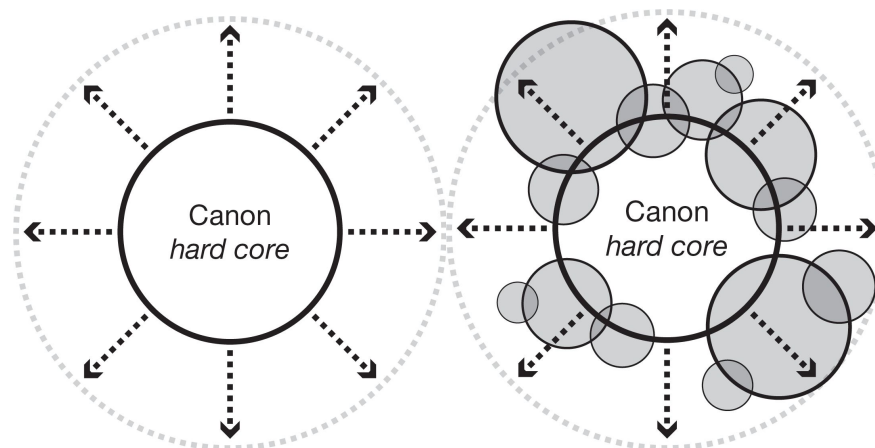


IMAGE 1-3 Visual Analysis on course Aspects of Water Related Design (Resource: Author)

IMAGE 1-4 Analysis on Knowledge Structure on course Lecture Series Research Methods (Resource: Author)



The relationship between research and design

The research part of the graduation project is the indispensable argument to support my design part. All the design conception came from the description of the site's current situation in the research book. Why do I choose rehabilitation center as the main program? Why do I choose to connect a waterfront area and a inland campus area? Why choose special climatic strategies? They are all explained based on the specific ecological and economical situation.

Based on my research, Houston is the Medical Center in Texas with high qualified health care facilities, UTMB is an important district in Galveston Island. I did a series of interviews and

questionnaires to analysis existed problems in Galveston island, especially for the campus. The site I chose is interesting because it is a intersection zone between university campus and port area. It is abandoned currently with high qualified landscape resources, like a future waterfront area, the campus also officially take the site into their future campus expansion plan. Besides, due to the water safety requirement, something must be done on this site because it is like a choke point of UTMB.

In the coming decades Texas will face with a significant problem of population aging, new constructed health care facilities, especially rehabilitation centers will be needed in the future. Galveston Island as a place of tourism, with low building density and excellent coastal landscapes, will be regarded as a ideal place of rehabilitation.

The relationship between the theme of the graduation lab and the subject/case study chosen by the student within this framework (location/object)

My project focus on the architectural field compared with the urbanism's projects. It followed macroscopical plan of Galveston's future surge protection and UTMB's campus expansion. It involved into multiple water related strategy and climatic consideration because of my waterfront site and tropical hurricane risks. I chose Salk Institute and Rehabilitation Centre Groot Klimmendaal as my case study examples. They are all health care buildings with similar program, and Salk institute is a perfect reference about how to deal with the relationship between water and buildings.

The relationship between the methodical line of approach of the graduation lab and the method chosen by the student in this framework

My design of waterfront rehabilitation center is a part of UTMB's future expansion plan. More health-care facilities are needed these days and the new building can activate the waterfront area which used to be a waste land besides a harbor district. It provide a qualified waterfront public space to the citizens and also emphasize the aesthetic field while dealing with various water risk projects.

The relationship between the project and the wider social context

Delta Intervention Studio followed a traditional research method which can ensure a high level of finish of students' Architecture design. We took multiple schemes evaluation every time when a decision were made. And got back to the last stage when the decision proved to be inappropriate. It slow down the process but made every step reasonable, followed this kind of method I sufficiently improve my design project and make it convincible. It is a smart study method promoting me reach the initial design goals.

Problem Statement

Because Delta Intervention Studio is an interdisciplinary studio, we need to cooperate with students from urbanism and civil engineering. The education program seems amphibious to some level. It may fit for the urbanism students better than students in architecture. And there are lots of analysis on urban scale, it helps more in urbanism's graduation project. When it comes to the students in Architecture, it is difficult to make a logical story when zoomed in to a smaller scale or architectural scale.

At the first and second quarter in the graduation year, we experienced a time of confusion, until we started to go deep into an architectural design part.

The most difficult part

The most difficult part in my graduation Design Process in my mind is how to apply a research method into my own design. It means that, in Delta Intervention Studio, every step in the design progress, every decision you made, needs an argument, you have to create a reasonable and logical argument to support the design and convince others, then you can go on to the next step. Sometimes you have to return to former step to try other possibilities when you encounter some obstacles. In order to make the whole progress convincible, I need to repeat evaluating different schemes time and time again. It makes the progress slow but reasonable, once you touched the ground, you gain confidences that the building could be built more than a assuming design.

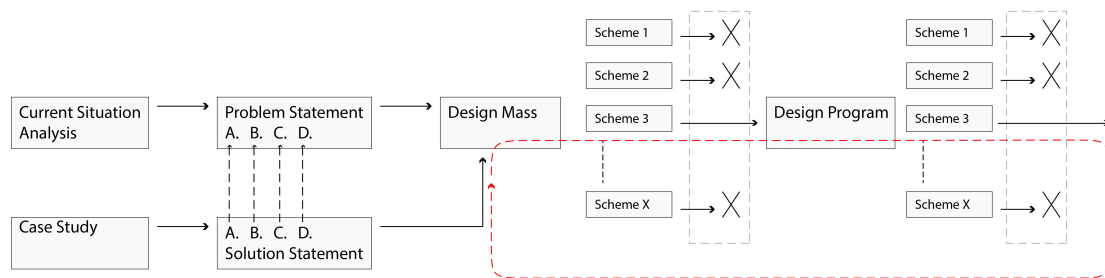


IMAGE 1-5 The illustration of Delta Intervention Graduation Studio Research Method

What has worked?What has not worked?

Many of the analysis on the water condition, especially 3*3*3 maps, have few things to do with the design part, the scale is too large, for example, the development of Galveston's Water System the expansion of Houston in 1800s. Perhaps it helps when dealing with sites in Houston city center, but my site is on the Galveston Island.

What have you learned?

Be more objective, rather than subjective. The graduation studio impressed me with the logical progress of a design coming in to being, and the integrity of a design. Even a minor detail may represent the core conception of a building, which means that only go really deep into the design, you can evaluate whether you realize your initial architectural pursuit.

What should be differently approached next time?

Next time I will have a narrative structure in my mind in advance about the site and own architectural thought rather than many fragments of information. And be more objective especially in the stage of original design conception statement and design mass decision.