P4 REFLECTION

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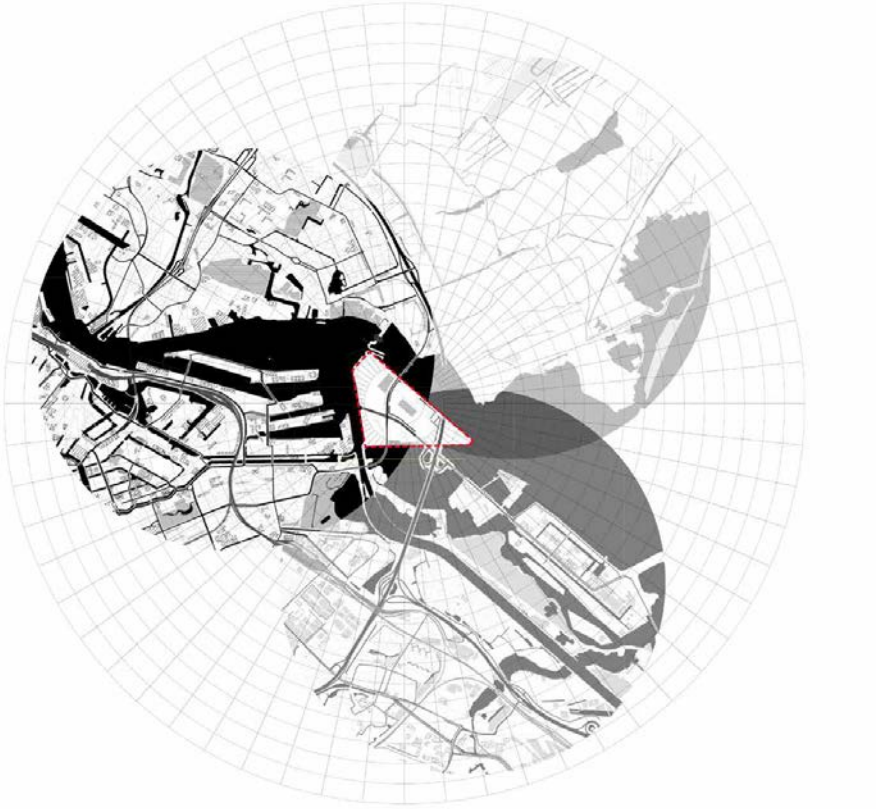
STUDIO

Complex Projects - AMS MID-CITY
Theme: AMS MID-CITY
Tutors: Sven Jansse, Stephan Verkuijlen
Graduation Project: A symbiosis: water navigation and water entertainment – redesign the water infrastructure based on time horizon 2050
Location: Zeeburgereiland



INTRODUCTION

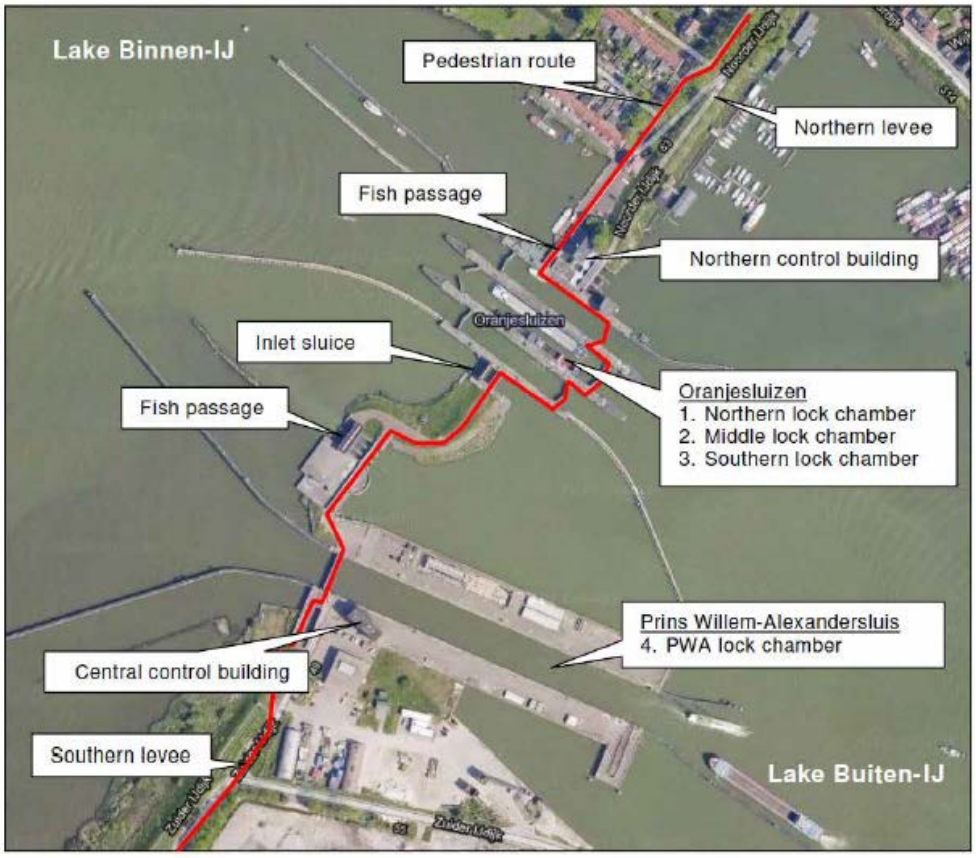
Amsterdam has always been a city based on innovation & technological pragmatism. The city was essentially built from a marshy delta, with an erratic tide and was transformed into a military, economic, and logistically robust urban fabric in only a few centuries. Assuming that large changes will happen in Mid-City of Amsterdam, the current fringe-belts located within the ring zones of Amsterdam Metropolitan City, urban areas where strategic development projects are taking place were selected. In our site Zeeburgereiland, built in last 80s mainly served as a new residential area for new habitants from the world, currently is divided into five parts by three roads: the A10 high way, the Zuiderzeeweg and the s114 road. The pivotal question for the site will be: ‘How to establish its own self-sufficient character as an island in time horizon 2050?’, and ‘as a city-lab what kind of island do we want?’

Aspect 1

the relationship between research and design.

The studio research that was done in the first semester of the graduation studio was based on two types of research: hard research in which we mapped different aspects of the region, as well as more investigative research methods; looking into the socio-demographic aspects. This combination of two types of research led us to the regional plan, which combined for example infrastructural interventions as well as policies to increase social mobility.

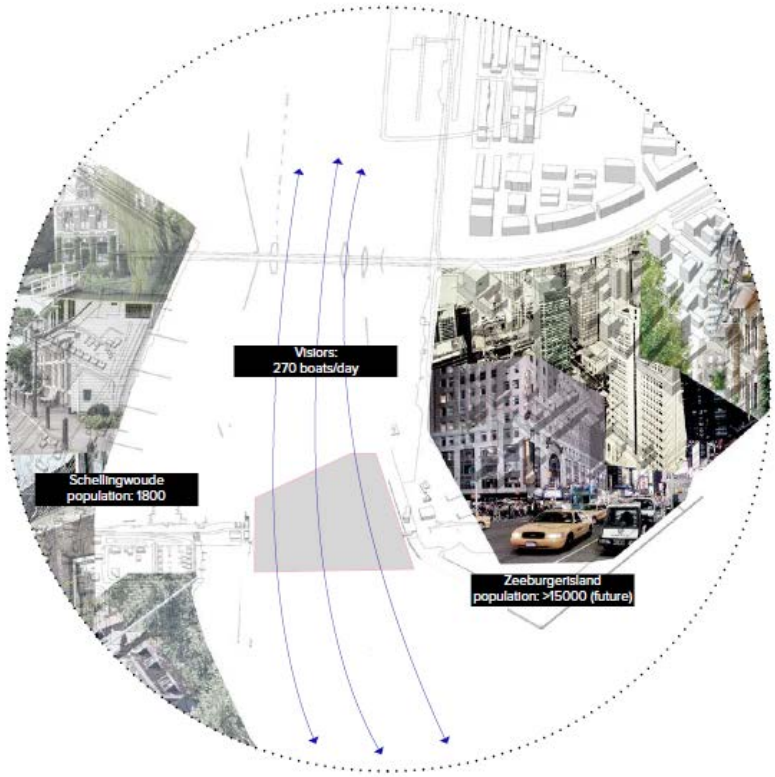
For my own project I've used a similar combination of two types of research, where 'hard' site investigations led to the waterway network of the Netherlands and the current condition of the Oranjesluizen, The more investigative research I did are mainly two parts, first part of my research are the schematic structure of the considered water system around the site, the influence of spatial planning in the Amsterdam-Almere region on the site and time data for transportation and locking process that lead to a improved water lock with fast ferry navigation. And the second part of my research are the water recreational activities along the River IJ, the historical development of the Zeeburgerisland that lead the water lock area to a water recreational place and the continuation of the landscape as well. The research I conducted led me to a clear problem statement with the issues that needed to be addressed, and the detailed site, user, and hydraulic structure analyses I did led me to a clear brief about what needed to happen on site. The above research leading to an integration design of the water infrastructure and water recreation become my main design component.

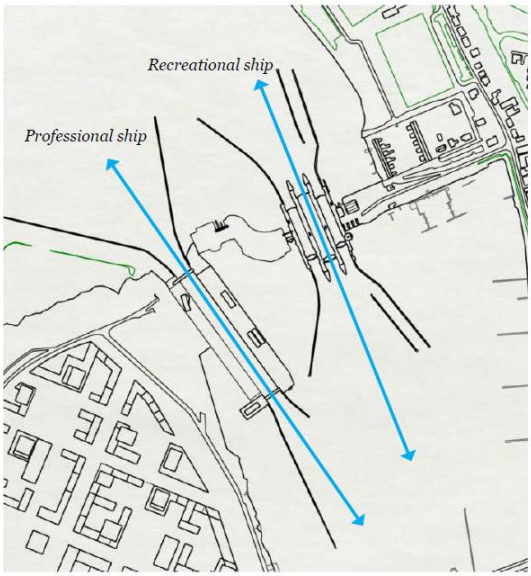


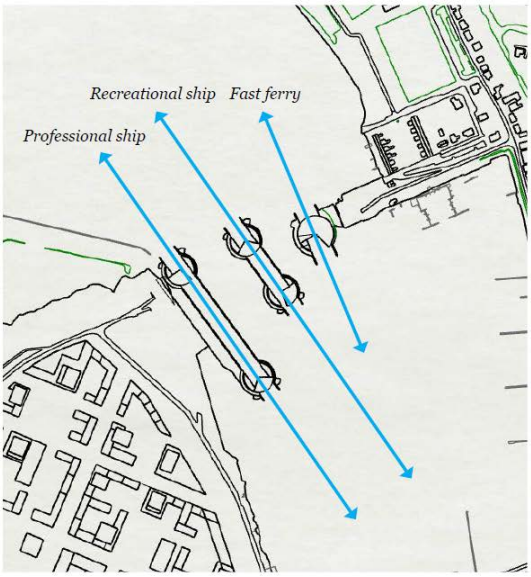
Aspect 2

the relationship between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS).

The research-based Graduation Studio and seminar is to develop scenarios for the City of Amsterdam on a time horizon 2050, taking into account future technological developments or urban innovations in the field of mobility (self-driving solutions and electric vehicles), energy-water-waste resources (circular approach) and health facilities. Most importantly, the scenarios need to be based on the understanding of the city structure and its historical development that new technologies might affect. How will people live, work, travel and move in the future cities will be at the core of each graduation thesis. The studio's work can be divided into two parts. The first part of the studio (Msc3) focuses on the research and development of the master plan while the second part (Msc4) is structured as a continuation of the first phase. The MSc 4 project, is testing the arguments of the developed masterplan with an individual building intervention: New Aquatic center – integration of the improved water navigation and water entertainment..







Aspect 3

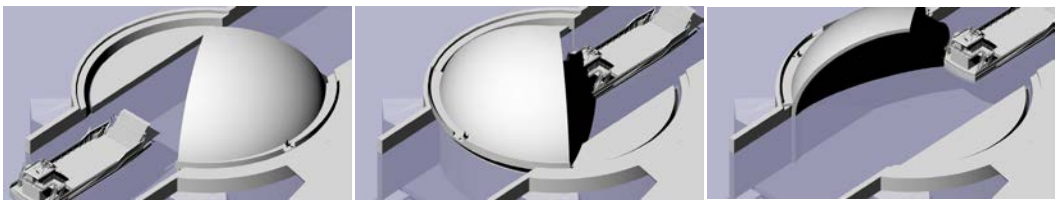
Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.

1. Observation method - The field trip to Zeeburgereiland was organized in order to provide us with detailed insight into the sight and surrounding neighborhoods. In addition, case studies were done in order to understand how the water lock works/ what are the main parts of the water navigation facility, etc.

2. Opinion based method – hydraulic data collection from The Ministry of Infrastructure and Water Management / discussing new locking process possibilities with engineers that are experts in this hydraulic field.

3. Experimental Research Methods - testing assumptions by SIVAK simulation package for new water navigation choice and making models / drawing / sketches for new space choice.

4. Analytical Research Methods - investigation of the area on both hard and soft aspects: by mapping and collecting data of the Zeeburgereiland (infrastructure, resources, social, environmental etc.).

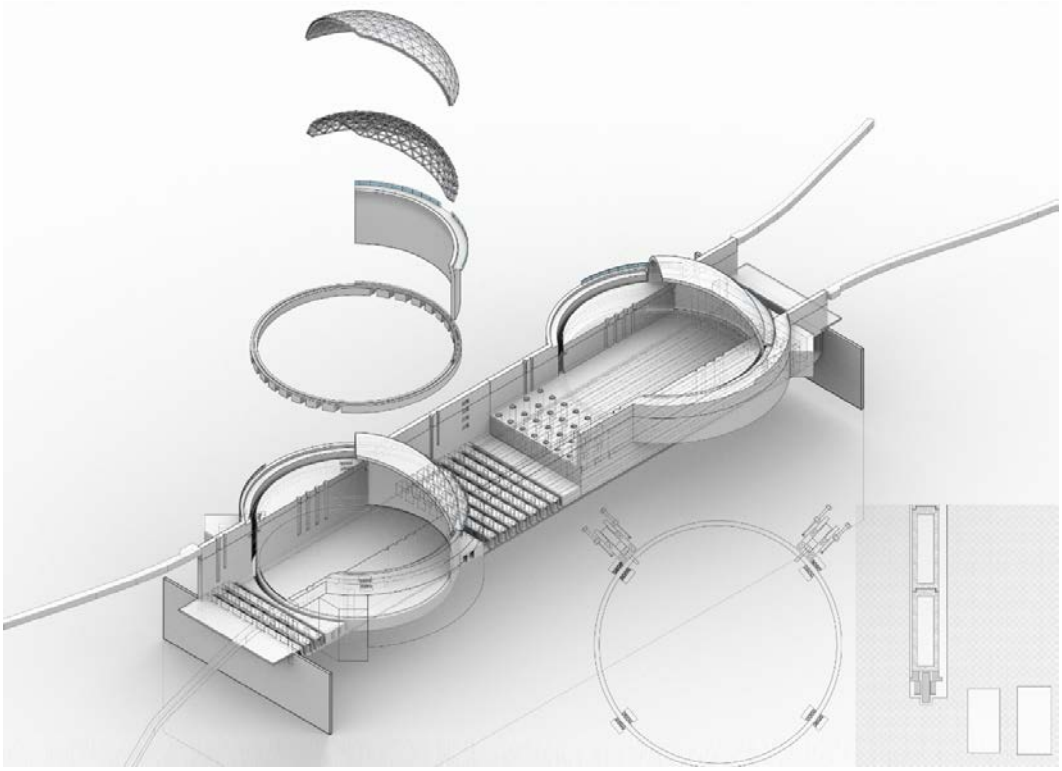


Aspect 4

Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.

With several years' development, the architecture discipline has reached a bottle neck that the traditional space design cannot follow the society's improvement and meet

with people’s expectation due to lifestyle’s change, there appears many new kinds of intervention based on building technology such as water building, 3D print building and also buildings with cross-discipline such as wearable architecture with fashion design, integration design of architecture and infrastructure. My graduation thesis is trying to test the spatial possibility that transforming the traditional hydraulic infrastructure water lock into a new public space with modern design language. The design rethinks the locking process and put forward a renewed locking way and impression that provides a time threshold for the crossing boats and people.



Aspect 5

Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice.

Water lock built in the 19th century utilized grand structure to monumentalize the ingenuity of man. This proposal for shifts the emphasis from the lock gate as a moving part into a space they envelope. Two key moving elements, the lock and gantry, are reinterpreted in their means of motion and form, as a set of rotating conic volumes. One complete revolution of the lock causes the water level within it to gradually fill and conversely drain, allowing boats to reach both river levels through the course of a 360 degree turn. The effect of both large moving objects on the exterior is a temporally transforming facade. In the interior the space created by a set of spherical boolean operations can provide or commemorative shelter or socially open space. One could equate its sublime qualities to those of a dome, presenting the question, how can architects engage infrastructure's potential as a new kind of monumental public space.