

THESIS Reflection

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MScP4: Reflection

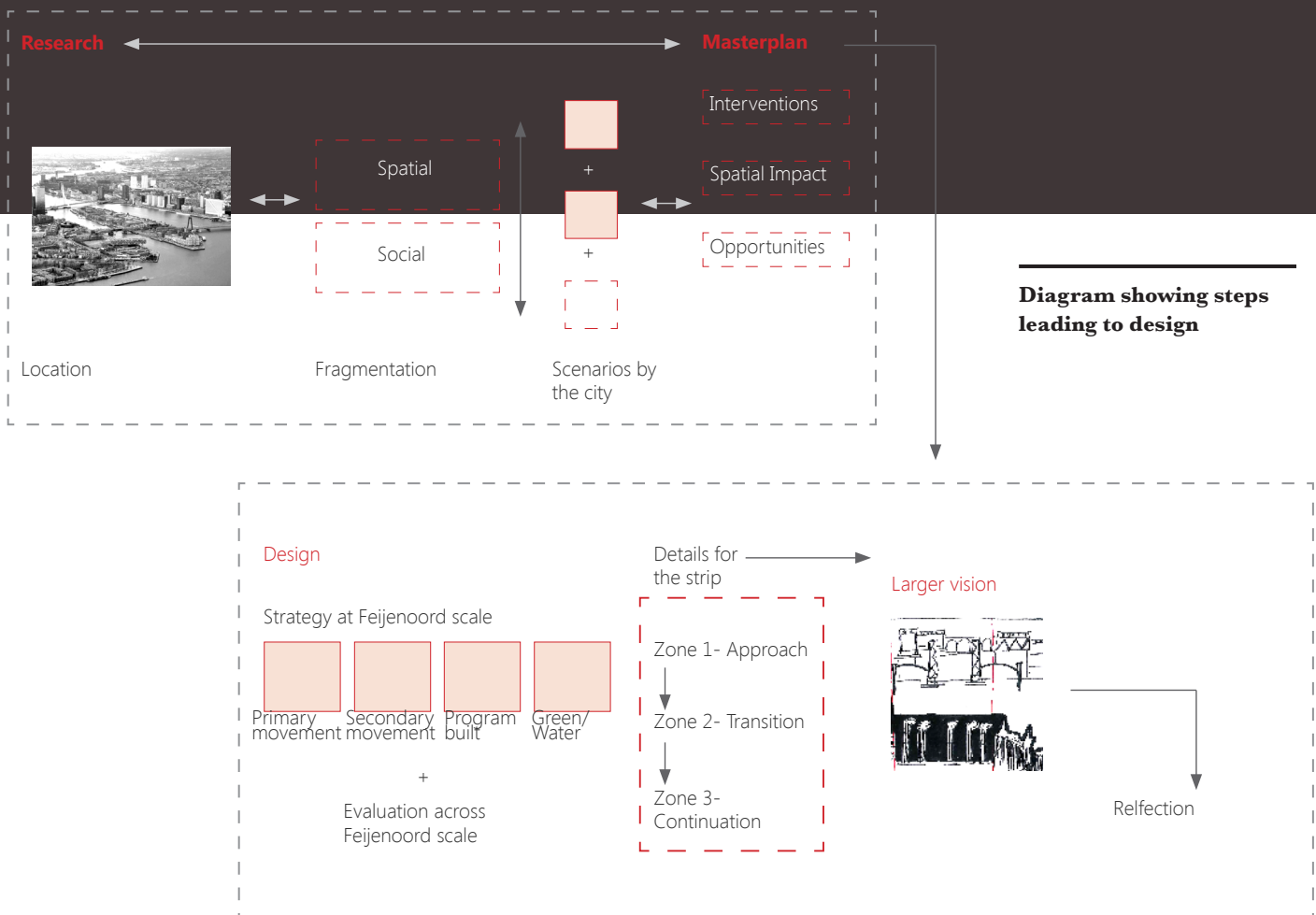
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Graduation year:MSc 4

Keywords:green- The Hef bridge; movement; infrastructure; public place; Feijenoord; fragmentation

INTEGRATION of infrastructure within Feijenoord to address spatial and social FRAGMENTATION



Introduction

INTEGRATION of public infrastructure to address spatial and social FRAGMENTATION

When I started researching, initially it seemed that Rotterdam has a confused identity and it was hard to find the differences in the spatial fragments of the city. The current architecture was seemingly unassuming. The great glass city could fit into a category of anonymous 'exhibitionist' architecture that could belong anywhere.

I started by studying the development changes after 2 major events changed the fabric of the city - the Second world war and the shift of the harbors westwards. The development of the South of Rotterdam- Kop Van Zuid, after the shift of the harbors westwards, led to a large vacuum in what used to be the heart of the city. The infrastructure that once was created to primarily relate to shipping, now had to cater to a different use, the HEF bridge being a prime example of this.

However, in the course of my study I realized that this blurred identity is what the essence of Rotterdam is. It is not confused, it is an optimistic city full of opportunities, creating new identities. It is a fast paced city, constantly in flux. This has characteristically penetrated the South of Rotterdam as well.

In such a fast paced city, does infrastructure integrate itself rapidly enough? Can it also be more than a physical connection and also work a public place typology to connect people?

I wanted to use infrastructure as a grid, as something to orient towards, within a city in flux, by integrating it into the public realm. This would mean different interpretations of what the HEF could be, as well as for future infrastructure, and with a new bridge connection already being planned by the city, I zoomed into the strip/core between east and west Feijenoord as my site.

It was important to keep switching scales to then see how this strip would fit within the larger infrastructure and public networks of Feijenoord.

PROBLEM DEFINITION:

ROTTERDAM:

- Rotterdam is chosen an example of a city in constant flux, based specifically due to 2 main events- the bombing of Rotterdam in 1940 and the shift of the harbors westwards- 1970's, focussing on the shift of harbor Westwards.

- During the industrial revolution a new hotspot for harbors and industry arose on the south side of the Maas. This zone expanded more and more to the west in the beginning of the 20th century because of the distance to sea, the depth and the ships become larger and bigger. After World War II the technological developments took a flight and Rotterdam decided to invest in other industry's than trade and transshipment. Petrol became very important together with containershipping. Because of the enormous ships needed for these industry's and the explosive growth much larger harbors had to be dug and built much closer to the sea.

- In this way the main harbor activity moved more and more to the west and away from the living area's which lead to abandoned harbors and industrial area's.

This also led to fragmentation in the South of Rotterdam, as the infrastructure that catered to the shipping industry no longer served that function, and in certain cases was abandoned- like the HEF.

With new developments like Feijenoord city, slated to come up actively over the next decade, this will require 2 things:

1. Infrastructure to support new traffic and movement intake.
2. To integrate this infrastructure in the diverse urban fabric and everyday life of Feijenoord- preserving its identity, while still responding to the grand architectural gestures, that initiate innovation and economic growth of Rotterdam.

(The current 3 main bridges- Erasmus bridge, the

HEF bridge and the Botlek bridge are at maximum capacity. Travelling to the South of the river is therefore a concern. There is a need for more bridges to be added and therefore the municipality has proposed another connection to the South bank of the river, from Willemsbrug bridge.)

THE HEF:

- Large infrastructural networks such as transportation, water systems, defense systems, dykes, usually leave a permanent mark on the spatial structure and built image of a city- *Meyer, 1999*

- As an example of infrastructure abandoned due to the shift of harbors, the HEF bridge and its context was taken as a starting point into Feijenoord.

The design intervention attempts to integrate the HEF as a public building rather than an abandoned monument, and integrate it as part of bicycle infrastructure and a pedestrian bridge for locals and tourists into Feijenoord, to address contemporary issues today.

- Lastly, there is a question of identity which is experienced, when it comes to public spaces in these areas. Thus this is viewed as an opportunity to lend identity to Feijenoord, and functionality to the HEF bridge itself by its inclusion within the urban fabric.

The project is an approach to address the current issues of Feijenoord by developing a strategy to design a more connected and inclusive typology of public place. This is considered as a plug-in to the existing infrastructural networks of Rotterdam- using other qualities of the region.

The main objective is to integrate new infrastructure and developments into the daily life of Feijenoord with design elements and program that act as activators for an interactive, inclusive public place. To offer a collective identity to Feijenoord, and a different way of moving and viewing the neighborhood.

Research Steps

The analysis and the design solutions all take place over 3 scales- the city, the neighborhood and a more detailed localized intervention in Feijenoord.

LOCATION

Rotterdam is chosen an example of a city in constant flux.

With new developments like Feijenoord city, slated to come up actively over the next decade, this will require 2 things:

1. Infrastructure to support new traffic and movement intake and opportunities.
2. To integrate this infrastructure in the urban fabric and everyday life of Feijenoord- preserving its identity, while still responding to the grand architectural gestures, that initiate innovation and economic growth of Rotterdam.

ANALYSIS OF SOCIAL AND SPATIAL FRAGMENTATION IN FEIJENOORD

Mapping the existing social, movement and built environment of Feijenoord, and how it relates to a larger context was carried out.

Apart from the research gathered through the archives, traffic department of Rotterdam and other sources, site analysis was conducted in particularly Feijenoord. This involved demarcating areas of conflict and opportunity along the public spaces in Feijenoord. Barriers and missing links were concluded with an intent to be addressed with the design solutions.

Case studies for similar infrastructural projects were conducted- one for new binnenwag, and another for Lan Op Zuid to extract issues and solutions used for the same.

Data informing income, education, house ownership, employment was also used in comparison to other neighborhoods.

MUNICIPALITY: DEVELOPMENT OF 3 SCENARIOS

An analysis of future developments that are slated to come up in Feijenoord was conducted based on NPRZ plans and meetings with the municipality of Rotterdam, that is also currently working on developing 3 scenarios for Feijenoord.

Municipal scenarios:

The city has planned for several developments in the Feijenoord area. For the larger development strategy, they follow 3 scenarios which they presented to developers that have existing or new projects coming up in the area, and will be presenting to the national government. They continue to experiment with these general scenarios concerning housing, infrastructure and public space in Feijenoord, leaving the design proposals open-ended.

For the design, as a first step, I used the three scenarios as proposed by the municipality to build upon the masterplan- making decisions derived from either of the scenarios.

The design

MASTERPLAN FOR FEIJENOORD- 7 INTERVENTIONS STEPS- SPATIAL IMPACTS AND OPPORTUNITIES GENERATED

Based on the research and discussions with the municipality- 3 interventions were included on site and designed for:

- The new connection from Willemsbrug to Feijenoord
- Entrepot as the new metro station
- HEF Quartier

Other projects included in the masterplan scale.

Further steps were made to integrate the larger scenarios, with the new interventions.

This led to determining the spatial impacts of the projects and the opportunities derived.

DESIGN STRATEGY

The main aim of the design strategy was to design for interactive and integrated movement within Feijenoord, to create a new public place design strategy and typology- promoting diverse, porous and better connected places and people.

For this the strategy was isolate as 4 layer:

1. Resolving primary infrastructure- vehicular- cars, buses and shared vehicles
2. Organizing a secondary movement network- bicyclists and pedestrians
3. Designing the in-between spaces- through programmatic pavillions
4. Development of landscape and the waterfront

The spatial interventions of the new bridge, how it continues into Feijenoord, the metro station and the harbor led to creating an analysis drawing of how to connect or close these primary infrastructure functions.

- Circulation drawings for all different modes of transport within Feijenoord were drawn:

1. Private Vehicles- cars
2. Public vehicles based on different capacities: Taxis/ buses/ possible tram or trolley connections
3. Cyclists and 2 wheelers
4. Pedestrian
5. Water-based transport

- Following this analysis the number of lanes/speeds/

directions of movement/one-way:two-way was determined.

- This led to formalizing a heavy vehicle- high mobility traffic infrastructure which connected the main bridge into Rosestraat

- Other roads were designed following the required hierarchy and traffic flow.

- Pedestrian+Shared areas were determined.

- The infrastructure that was created led to in-between spaces being formed that required designing, and integration.

LOCALIZED INTERVENTION- DESIGN PROJECT IN DETAIL

The design strategy was further explore in detail using plans and visualizations- showing a sequence of spaces from the Hef bridge- southwards- till the end junction of the paperclip. There were zoned into the following:

1. The approach
2. The transition
3. The community

- based on how the program shift from a more public-tourism based approach to more private community spaces.

IMPACT OF INTERVENTION ON FEIJENOORD- EVALUATION

Finally, certain conclusions drawings were made to test if the design works with the intended goalls of integration, connectivity, diverse-multi-use spaces.

A conenction to the initial motivation and topic was also linked based on:

1. Relationship of design strategy and formal design to earlier plans for Rotterdam South- and general architectural aesthetic of Rotterdam.

2. Re-use of the HEF as a monument- to a public building.

3. Using memory as a tool for design relate to theory of 'home' and 'memory'