reflection report:

A GREEN CANYON
-
building towards a healthy life and style
Personal information

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Starting by explaining the studio and the assignment as a small introduction for my reflection report. In this report I will reflect on the research and design taking in account the product, process and planning. For this report I used the texts, which I have written for other courses, as a basis.

The studio of Public Realm – Rotterdam has a research period of half a year which sets the founds for the next coming half year where a design is made for a specific location in Rotterdam. In the first half year an analysis is made on different topics in line with your own personal interest, after which a zoom in on the location follows. The masterplan is a group based urban scenario from which each will individually or in couples continue with a preliminary design until the p2. In the studio the core focus lays on the social, cultural, political and economic problems and searches for solutions taking into consideration the contemporary debate on the role of the public realm within the urban tissue and the current redevelopment.

The city of Rotterdam has been over the last decades the subject to great urban redevelopments because of the bombing, in 1945, during Second World War. The new policy, nowadays, to prevent the shrinkage, the emigration of higher educated citizens are part of these redevelopments. By Densification the municipality attempts to attract people back to the city. Their method is adding new types of dwellings and high quality urban spaces in the city. The location St. Jacobsplaats is a complicated area with all different kind of infrastructural and historical layering. There are a lot of differences in height and the location is divided in two parts by the tunnel of the train. Goudsesingel, Pompenburg, Haagseveer and Lombardkade cut the location of from the rest of the city. Due to the ongoing transformations there is a big diversity in the building types. The program is unilateral, it is a residential area. Parking as a dominant function. Because of above mentioned problems the activity and use of public space is really low. Or citing the words of the studio: “Nowadays the area is a weak green space, waiting for a new role, surrounded by some urban block dated back to the 80, comparable with the important transformation occurred in the nearby Blaak area.”

At this moment St. Jacobsplaats is an enclave within the city. The people are living as in a village but with the privileges of the city close by. This makes the location even more separated of the city.
how?

phenomenological approach combined with objective analysis

first visual perception
district analysis

what?

static

movements

movements in the city

programmatic distribution

intermediate conclusion and comparison 1

intermediate conclusion and comparison 2

intermediate conclusion and comparison 3

conclusion on district level

conclusion

specific analysis

strip analysis

site analysis

conclusion on site level

strategy for masterplan

strategy for masterplan

specific conclusion, about the site?

1 3 5
2 4 6

1 2 3

1 3

1 2

city form (6 topics)

programmatic distribution

flows

demographics

people

questionnaire

1 3 5
2 4 6

1 3

1 2

Rotterdam

1 3 5
2 4 6

1 2 3

1 3

1 2
The analysis started with the visual perception of the site. During a couple of field trips mental maps were made as Kevin Lynch discusses in his book ‘The Image of the City’. Because this is a very subjective approach a next step was necessary. The objective analysis. For this we also based our research on the theory of Kevin Lynch with the five basic elements, roads/streets, nodes, areas/districts, edges and landmarks. The objective analysis contained two parts the ‘what’ and the ‘how’ which addressed the different topics static, movement and people. The ‘what’ by static is city form and the ‘how’ is programmatic distribution. For movement it is the movements in the city and flows. For people its demographics and a questionnaire.

Can we conclude that Rotterdam is a hybrid city after the analysis on district level? On the scale of the building we cannot convincing. There are a couple of hybrid buildings but they can be counted on one hand. Looking one scale bigger, the nodes, hybridity is clearly present. Different types of programme come together and also different types of infrastructure. Furthermore there is an important historical node at the top of the site. Also on district level hybridity is found. The district is located on the intermediate space between the city centre which is multifunctional and the monofunctional periphery. But with this research the final conclusions for our site could not jet be drawn. So continuing with the analysis of the strip. The strip is the area from ‘Hofbogen’ to the ‘market area’ containing the site as the pivot. This zoom in shows more detail in the earlier findings. Some nodes appear to exist of a couple. As goes for borders and boundaries. These can be researched more specific about their quality.

After the analysis the step to the preliminary design was made. This brought a shift into the methods of research as well. In the next half year the research mainly existed out of case studies and sketching two- and three-dimensional. As said during the first lecture at the Tutorial Research Methods by Stefano Milani: “The drawing is the very place an idea is founded.”. So by sketching over and over, ideas will develop. The biggest problem is starting, the scare of the white paper. The case studies were related to the different topics researched, typological, programmatically, materialization and sustainability.
After the analysis we continued as a group to make a masterplan proposal. We ended up with parameters setting guidelines for the design. From this point I continued the journey of the design alone. One of the conclusions from the analysis is the goal for St. Jacobsplaats to become part of the city again, being another part of the puzzle of the fragmented city of Rotterdam. Connecting with its surroundings without losing its own identity. Improving the connection between the north and south part of Rotterdam is an important step in this process as well. Other conclusions are re-activating the public space at St. Jacobsplaats, endorse public life and densify the area. Greenification will help to attract people to the area because it gives quality to the public space and helps with the densification of the urban area. Although the buildings surrounding the site are merely residential and not really hybrid, the new building is hybrid to provide the stage for possibilities to events. The multifunctional programme attracts people to come to the site. The varied program orientated on health and urban agriculture combined with dwellings have to attract people back to the city. The building is a longitudinal element containing a public route which connects the different programs and the public spaces. Public and private spaces are interwoven with each other, a gradient space, semi-public, softens the boundary. The P2 presentation was also the moment of the swift of the larger urban scale towards the smaller scale of the architecture on the level of the building. Designing by the analysis of case studies, literature studies and research by design, sketching and the making of models combined with the analysis and theoretical background of the literature, design decisions were made and tested. Going back and forth between, testing ideas to the concept helped making decisions and led to a consistent design.
urban design - the link

The analysis stresses the fact that the intervention should be a new piece in the puzzle of the fragmented city of Rotterdam, with its own identity, but still connecting and solving the now existing borders and boundaries. A really important connection that has to be made is the connection between the north and south of Rotterdam. Pompenburg is at this moment a big boundary which is really difficult to cross. A lot of noise has to be overcome when crossing this border, height differences as well as a busy traffic route. In the design it should be taken into consideration that solving the problem of crossing the node of Pompenburg should not result in a new border, respectively blocking Pompenburg. This counts for the physical but also for the visual connection. A under pass is made with also gives access to the relocated station hub. The cyclists who are visitor of the Educational Health Centre can park their bikes here as well. The voids with water ponds under need provide daylight. The water helps spreading the light in the under pass.
The element that connects North (Hofbogen) and South (market area) is broken up in three pieces by different types of infrastructure crossing the element. The route though the building cutes it in two halves.
The architectural design concerns the site at the market side of Pompenburg. The building mass is divided in two naves of dwellings. There are three types of dwellings to widen the target group of the location. The ground floor of the building mass is a separated level with a variety of public functions, like a restaurant, biological supermarket, bicycle mender and other retail focussed on a healthy lifestyle.

At the head of the build the Educational Health Centre is located. On top of this school a ring of student housing is found. Creating a courtyard.

The school has a big atrium with is public accessible during daytime. The atrium is an example of the earlier mentioned semi-public space which functions as a gradient between public and private.

The quest for densification is answered by the dwellings, were the public functions take care of the activation of public space. By the garden, public and private, the greenhouses and the atrium with the garden the need for greenification is fulfilled.

The canyon is an in-between space with a high architectural quality and lots of activity. The in-between spaces between the canyon and the surrounding buildings are more quit and function again as the gradient between public (the canyon) and private (the dwellings).
The north south connection is on the scale of the district. Zooming in on the location the connection on a smaller scale is needed as well. The Hofbogen, the green side of the city - plans are made to make it into a similar project as The Highline in New York or Promenade Plantée in Paris -, is linked to the market area, the urban side of the city, by route and programme. The programmatic distribution is also related to this gradient of green to urban.

Another border on the site is the train tunnel. The design has to help to soften this division and connect both sides. Although the different characters of the spaces should be kept. One side more urban and public, the other more green and private or as we stated in the masterplan semi-collective. Switching between public and private creates an inviting play of architectural qualitative spaces together with the programme making the route through the building more inviting. This all with taking in consideration the quality of the green. This area is densified without losing the green quality of it.

Giving back more green and a clear distinction between public and private and a transition zone. The connection between the left of the tunnel en the right is maybe not a direct one but the building mass helps clarifying the different areas. Keeping the ambiguity of the site.

The search of hybridity in Rotterdam has to be done on different scales. Starting with the hybrid building. Hybrid buildings as Steven Holl states in ‘Hybrid Buildings, Pamphlet Architecture 11, 1984’ as a pure building type where a concentration of many social activities are within an architectural form. The modern city has acted as fertilizer for the growth of architecture from the homogeneous to the heterogeneous in regard to use. Urban densities and evolving building techniques have affected the mixing of functions, piling one atop another.

Looking at the construction the hybrid quality of the building is expressed by the combination of different types of construction.
The building has a hybrid construction. A load bearing structure of concrete and steel and different types of floor systems. Also the placement of the isolation is different. Most of the time at the outside like the traditional way but at the ground level and in the Educational Health Centre at the inside of the skin. The most difficult task was overcoming the difficulty of the train tunnel on site. Bridging this large structure without touching or disturbing it. With large beams the span could be made. Because of the height of the beams the parking could be nested in the cavities that arise.

The materialisation has two parts. The outside of the building mass is treated as a unique entity. This facade exists out of floor height transformers with integrated solar cells. When people are at home they have a maximum view through the glass facade. When leaving they shut the transformers and the solar cells can collect solar energy. By shutting the transformers the climate inside the room is preserved.

The school is cladded with corten steel as blinds and the dwellings are inside the canyon cladded with wood. The ground level is as transparent as possible with simple glass facades.

Next to the choice in materialisation with the interactive facade is the atrium also a sustainable solution in the design. The atrium in the school has an outside climate and is used as the storage for hot or cold air, respectively winter and summer. The trees inside filter the air which can be used for the functions as the theatre and restaurant of the school.

The load bearing structure has a grid size of 7200 m so it can be changed in another function. The walls can easily be removed and replaced when needed.

A heat storage in the ground helps to divide the heat evenly over the functions. Some buildings produce more heat than needed others can use that heat.
conclusion - the journey

With much joy I look back on the journey, which was at some points quite rough. After P2 towards P3 a lot of different designed passed by. When I really started testing each step with my concept of the canyon the design developed rapidly and resulted in a coherent story. Making the choice to continue individually after P2 has had positive and negative sides. Positive because I really could follow my vision and make a thorough research, negative because of the time and the limited degree of discussions.

The relevance of the assignment is found in the design task that has challenged me as a student to really dive into the different layers of the city of Rotterdam. Connecting the building not only with the direct surroundings but on the level of urban block, the district and even the city. A solution is found for the social, political and economic problems. The design assignment in the studio of Rotterdam provides the possibility to improve the density of the city without losing the quality of the green.

In general the design can be an example of solving the problem of crossing a border by an architectural statement. Furthermore the design participates in the architectural debate about densification and hybridity.

all images are made by own hand, otherwise stated.