Graduation Project Amsterdam at Sea

Redefining the boundaries of Amsterdam West

Focusing on the Brettenzone, intented as a buffer

AR3AR051 RMIT Thesis Plan (2012-2013 Q1)

Esther Odijk 1503197

Content

Personal motivation

During my high-school I was always inspired by impressive perspective drawings. This lead to my first encounter with architecture, off course I was already drawing houses when I was little, but this made me think about what a building does with its surrounding. The way people experience a building and the way it functions is one of the things I wanted to learn when I started my study at the Faculty of Architecture.

The studio of RMIT was for me a choice which became logical during this study in Delft. I started my education at the bachelor and realized that there was and still is a lot of surplus of empty buildings. This is going to be a challenge in the future for every architect. The question will be, how to deal with these buildings that have lost their functions. During this studio my motivation to start at this Faculty of Architecture is one of the most important things as well. The challenge to make this building useful and attractive again has to deal with the experience of people and the connection with its surrounding.

The area of Amsterdam-west is dealing with a lot of empty buildings which need a new function. The site became very divided during time and functions changed, there are many opportunities to create a good functioning and attractive area again. Doing this while making use of all the buildings that are existing already, is therefore a big challenge. In my opinion, it is nice to make a new function fit into an existing building, while dealing with the character and specific old details of it. The principles of making a new design for an existing building are therefore different each time you have another building. You need to rediscover the meaning of the building, the architect, the possibilities and influences of that time. All these things must be known in order to a design which respects the old.

Project Studio

This year the studio of RMIT is situated in Amsterdam-West, as told above this area in Amsterdam has a lot of empty buildings at the moment. During time functions changed, offices grown too big and moved out, have been bankrupt or other consequences made them to leave their buildings. This is a common problem in the Netherlands. Amsterdam is a good example looking at the history of the Netherlands and the development the city has gone through. As described in the master course description of the project, is this area characteristic for the DnA of Dutch cultural landscape due to its complex and historical layering (Meijers, 2012).

From September till January analysis will be done for Urban, Architectural and Building technology aspects. These analysis will lead to value assessments and will give guidelines for choosing one of the buildings for making the re-design. After doing more and more research for this building, from the beginning of the second quarter of this semester, there will be a good start for making the re-design.

From the end of January till July the design will be improved and elaborated, until the final design is finished. During this period research will help to complete the architectural and building technology aspects for this design. At the end of July the graduation project will end and the final re-design will be a complete project, consists out of an urban masterplan, the re-design for the building and all its technical aspects.

Within the area is a selection of ten buildings, including offices, a big market hall, an old defence gate etc. All these buildings have lost their function and therefore the relation with the surrounding changed. In this studio we are focussing on redeveloping one of these buildings. Looking at what is needed in the area and the condition of the building, the re-design should improve these aspects.

Image 1: I amsterdam sculpture at museumplein

Context

Amsterdam

Based on the history of Amsterdam it is clear that the city was and still is very important for the Netherlands. The industry played an important role in this story, the harbors started in the city centre known as the canaldistrict. When the harbors became too small, they made new plans and expanded to the West and East of the city. Finally when the connection with the Northsea was optimized, the harbors at the west side of the city became more and more important. Different kind of industries settled there, for example the wood harbors, gas industry and later on the petroleum bussiness.

These were all important for the development of Amsterdam itself and made Amsterdam important for the surrounding cities as well. Therefore the 'Haarlemmertrekvaart' and the railway were important developments for transportation and show up early in the history of the city.

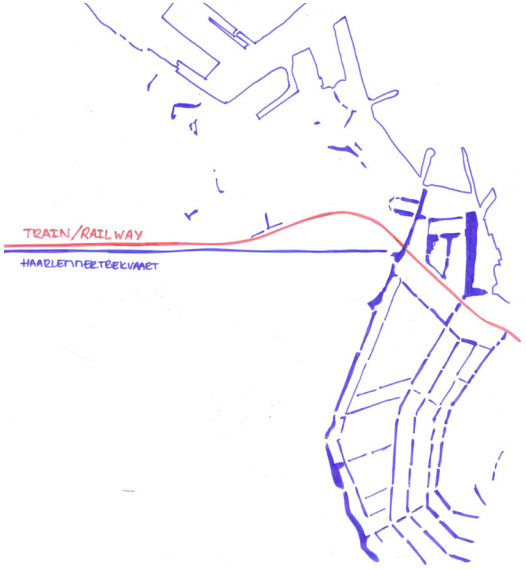


Image 2: Railway and Haarlemmertrekvaart

Amsterdam - West

When Amsterdam expanded, the West developed into two areas North and South. The North has become an industrial area meanwhile the South has become mainly residential. This seperation is because, Amsterdam had several transport connections with Haarlem, as told before, these were visible seperations in the urban structure and seperated the area in a very hard way. The residential area was formed by different plans and became very diverse, which is noticable when you are biking through the different neighborhoods.

During this growth more and more of the green around the city dissapeared. Because of the seperation between North and South a piece of green remained next to the railway. In the beginning this was just a left over piece of green, but later on serious plans were made to use this as a bufferzone between industry and residential, called the 'Brettenzone'. Nowadays the two areas are functioning on their own, the in between zone of green is acting as a big green wall, which is not open to the public.

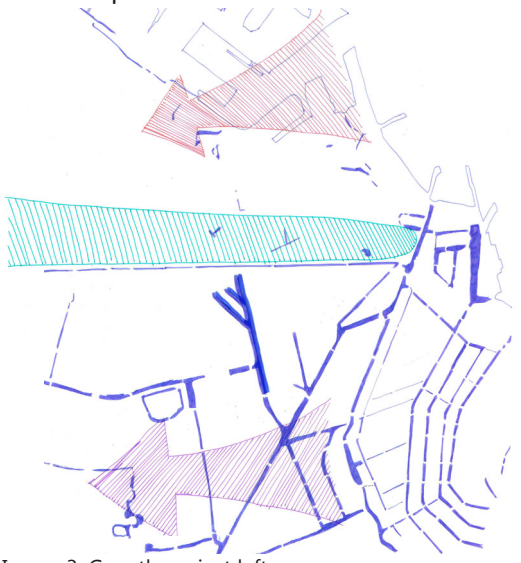


Image 3: Growth against left over green

Location

The ten locations are spread out over Amsterdam-West, in the beginnig my choice for a building was leaded by the first impression. The location of the buildings was therefore a good starting point for the analyzes of the building. Therefore my case study was the Graficolor building of Benjamin Merkelbach, it was on a good location next to the water with good accessability. During the analysis a comparison was made with another building of the same architect in Amsterdam-West as well. This led to the choice for an interesting building for my redevelopment assignment.

The building I chose is the Willem van Rijn building, located next to the Brettenzone. It is an industrial area without any relation to the residential area located next to it, called 'Bedrijventerrein landlust'. The building is interesting because it has been built over time which is visible in the facades.

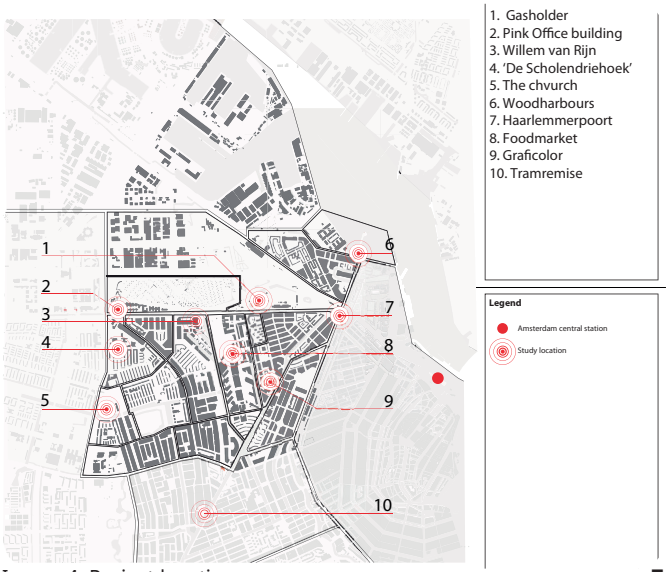


Image 4: Project locations

Problem definition

Urban level - Amsterdam West

The urban context of Amsterdam West has a lot of boundaries, which have been formed during time. Plans for the residential area were made by different architects in different time periods, therefore you have different neighborhoods with a lot of transitions. The area is enclosed by a highway on the left side, the A10. The first thought would be that this could give a big barrier but in real life you are not experiencing it very much, because there are enough connections with the other side of the highway and the noise is reduced enough. As told before there is a seperation between north and south, this is done by another transition zone. This is the north boundary of the residential area the so called 'Brettenzone', which was first intended to be a buffer zone between the industrial and residential. Not clear yet is how this bufferzone should work, at the moment it is more like a big green wall without any connection. You can pass this zone at the left side of the area, next to the A10 where a lot of offices are situated. Another option to get from north to south, or the other way around, is next to the city center where the 'Westergas terrein' is, which is the only public green in this whole 'green zone'. Briefly, this bufferzone called Brettenzone is not functioning as it should be, the focus of this project will therefore be on this Brettenzone and redefining the way this buffer should work.

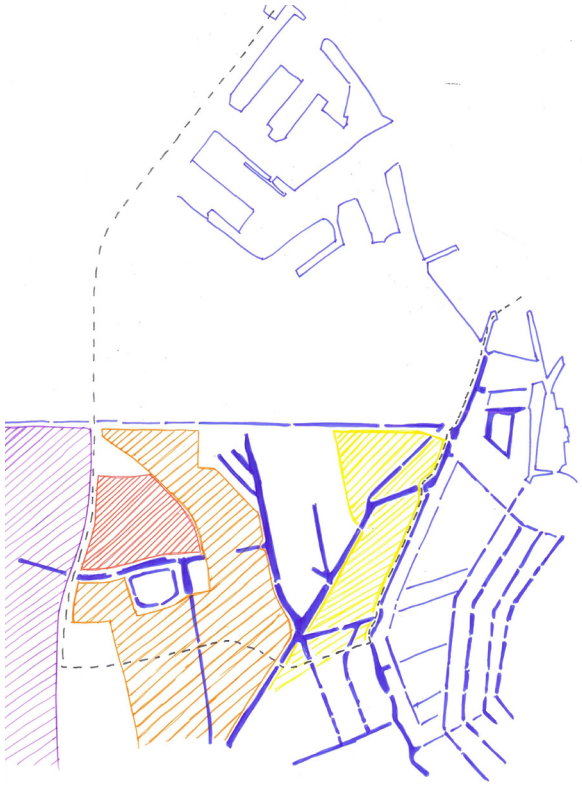


Image 5: Divisions within the residential area

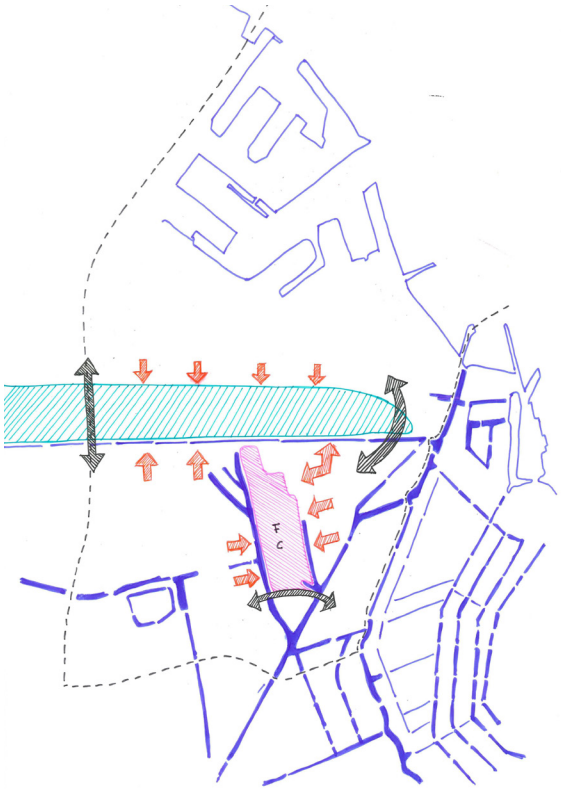


Image 6: Bufferzone acting like a barrier

Image 7: Green wall of Brettenzone

Architectural level - Willem van Rijn

As told before the building of Willem van Rijn is situated in an industrial area, right next to it is a residential neighborhood which has no connection to it. The transition between these two situations is not functioning very well. It is not a pleasant environment to stay for a longer time, it is said that criminality is therefore high over here.
Also employees working at Willem van Rijn have told several burglaries have occurred, so safety is a real problem here. Because of this problem a lot of fences are placed around the building and make the building very inward orientated. Problem here is that social control is not there during the nights, the industrial area is totally empty and so an interesting place for intruders. As told above, the functions of living and industry are very separated and so the problem of safety by social control is the main focus which needs to be researched.

The building of Willem van Rijn itself is a building which have been developed through the years. Nowadays the building of Willem van Rijn lost its original function as a factory for Bosch and is used by 'Davinci bedrijvenhuis', an organization which provides office spaces to independent entrepreneurs in the creative design industry. In my opinion the most important problem here is that the building is not longer meeting the needs and expectatins of their users. As told above the building is very inwards orientated, but the inner court is now used for parking, so the function of the inner court has downgraded what it was before. Again safety is a big problem so the appearance of the building changed and got big fences around the inner court and the basement windows. Stated problems through the levels site, architectural and details:

Context problems:
- The area is too monotone in function, therefore there is a lack of social control
- The building is ignoring its surrounding at the moment, is acting inwards

Architectural problems:
- Re-design of the floorplans from Laurens de Boef are not functioning very well
- The newer facades from 1967 are affecting the image of the old fashioned facade from 1939
- Entrance is hided behind a big fence which keeps people from coming into the building
- The courtyard is functioning as a parking place, lack of appreciation from users

Detail problems:
- The different facades are literally glued to eachother
- Insufficient lighting in the hallways
- Old fashioned steel windows are replaced by cheap 'plastic window frames'

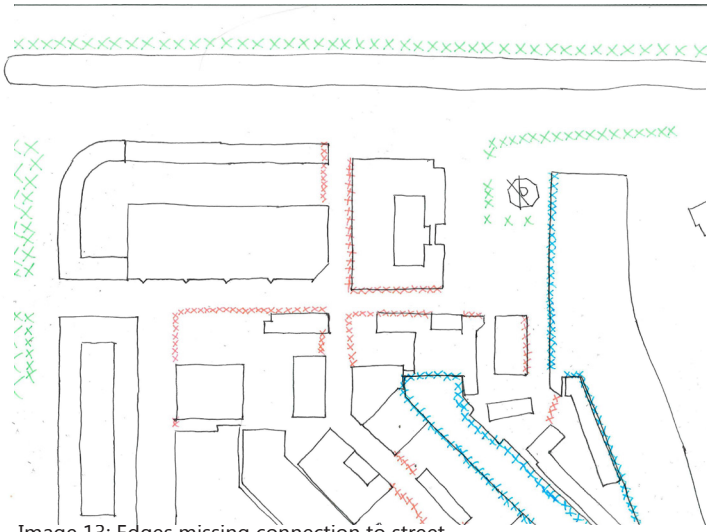


Image 13: Edges missing connection to street

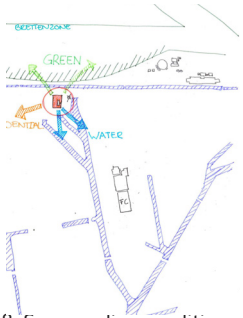


Image 8: Surrounding qualities

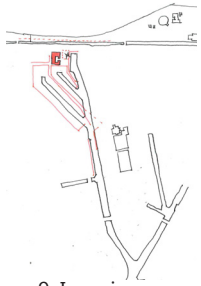


Image 9: Ignoring surrounding

Image 10: Surrounding functions

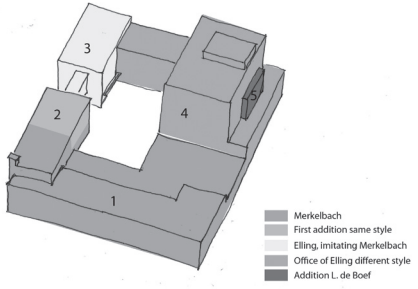


Image 11: Building in time

Image 12: Front side

Research Question(s)

The research questions coming from the analyses and problem statements will guide the project in the upcoming semester.

Main Question:
Is it possible to make a good connection with the bufferzone and make the area of Willem van Rijn a safe and nice place to stay again?

Sub Questions:
What is a bufferzone?
- What is the effect?
- How to use a bufferzone?
- How could this be useful in this situation?

How to create social control in this area?
How can the usability of the area be improved?
- What is the new function for the area?

What is a good function for the building, to create a public attraction/ place for longer stay in Amsterdam-west again?
- Does it need a new function? or only a small extra?

Design Assignment

Willem van Rijn and its surrounding should connect the bufferzone with the neighborhood again. The area needs to be attracting people from around and should be a safe place to stay for a while.

Goal

The goal of this project is to make a redesign for the Willem van Rijn building which should increase the quality:
- of the area in general, especially the (social) safety and usability and
- of the building itself on the aspects of architecture, spatial and technical issues

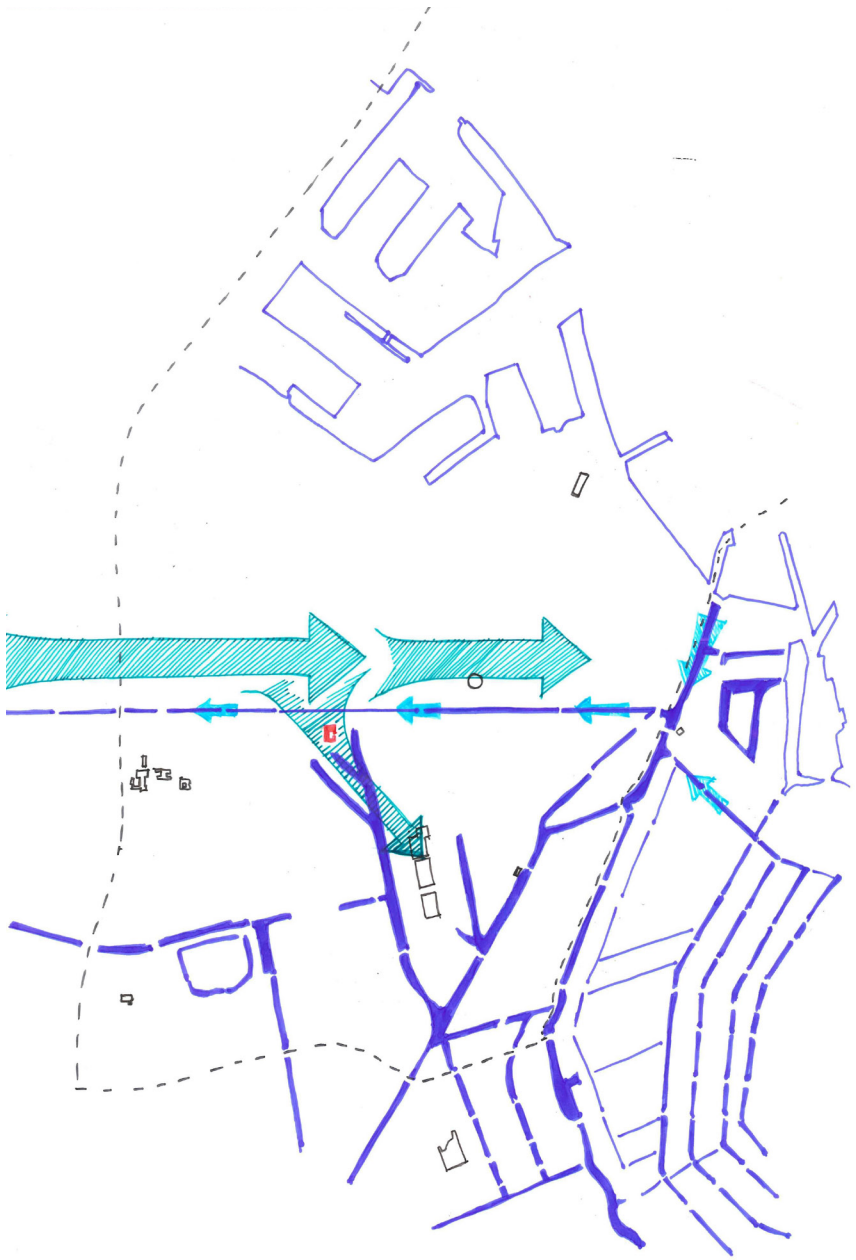


Image 14: Involving Willem van Rijn

Research Methodology

Doing this amount of work required a good strategy. The analyses were done for three different scale levels, urban, architectural and building technology. This has been done in several ways and for different time periods, past present and future. For the first analysis I started to get to know the area. Therefore I observed the area by boat, bike and on foot, made drawings and photographs. Looking at the method described in the book 'Analysing Buildings from Context to Detail in time ABCD research method' this would be part of the first step of my research, visit the site (Zijlstra, 2009, p. 63). We split up all the parts of the urban analysis to be sure that we could get all the information we needed, the group existed out of 23 people of which we made teams. Every team had a subject and so I was focussing on the history of the site. We gathered all the information we needed asked ourself questions and made drawings and conclusions of it, this is still part of the first step. After everybody made his analysis we combined all the information and conclusions and I summarized the parts I thought were important for my own report. This is the base for the personal analysis of the urban situation, which will be fulfilled during the design and research process.

Zooming into the buildings on the site I already told that I chose the Graficolor building to analyse. Gathering all the information was the first step again, this took a long time and a few days searching through the archive of the NAi. After this first step of the research, we came to the second step again the 'analysis stage', we analysed the context, found the brief of this project, looked for typical things of the architect, and placed it in the typology within the field of architecture. The third part of the analyses, the building technology part, was done for Graficolor as well. Here we analysed the structure, materials, services etcetera.

Design Methodology

After all these analyses I worked towards my P1 presentation and focussed on position within this design assignment. This was done by a small literature research and reference study which will be continued during the design period, this is as how John Chris Jones it has called a design process which is shielded from the 'eye of research' (Jones, 1980, p. 46). This is what is going to be the base for my second phase as well, doing 'Design by research' after a while it will evolve into 'Research by Design' (Groat & Wang, 2002, p. 105).

There are a few moments were reflection is planned in the schedule, for example the P1 we already had. In the coming semester we have the P2 and P3 which are moments where we present the whole plan so far, these are good points in time to reflect on the work I have done. Because these moments are quite far away from each other it is, in my opinion, useful to look back and reflect on the project somewhere in between as well. This will help to look with an overview to the project and be sure that you keep in mind what the main goal of the project is (see fig. X).

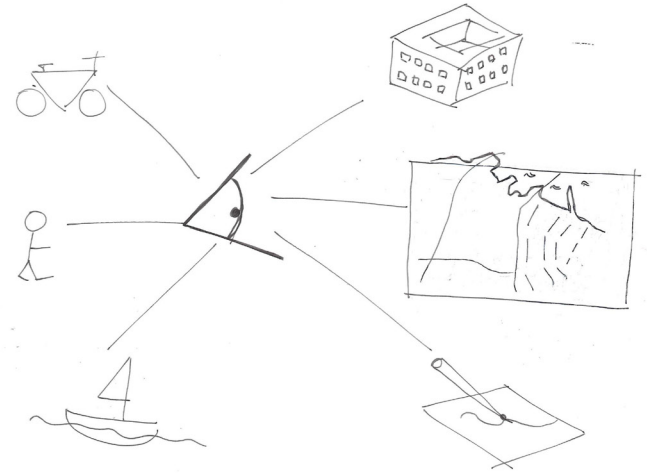


Image 15: Analysing the site

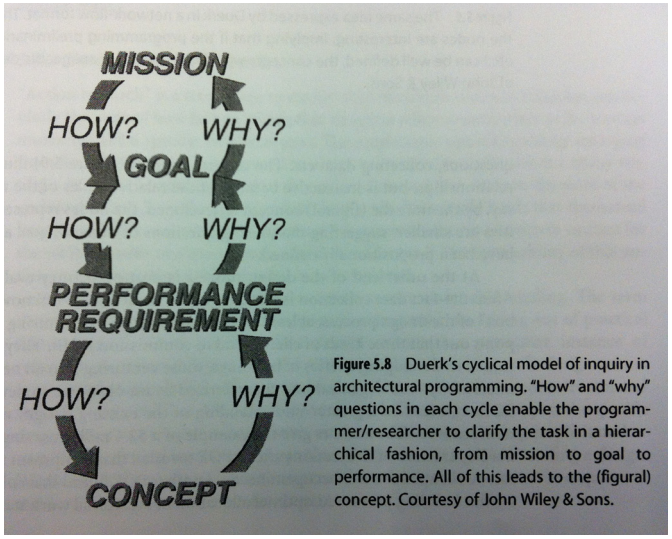


Image 16: Reflecting on mission

Analyses Past/Present/Future

Urban context

Amsterdam West has got the opportunity to grow because of the economy which was driven by the harbors in the beginning of the history. As told before the harbors of the west were more interesting than the harbors at the east side, because of the connection made with the Northsea. After a while the harbors grew bigger and bigger and it became interesting for offices to be close to this industry. The connections were good by traffic and they were close to the products. This northern area of the west of Amsterdam grew out to be a big office area. The railway and the 'Haarlemmertrekvaart' have caused a growth even more to the west intead of around the city center.

Besides that the area southern of the west of Amsterdam, was built with mainly residential as well. The plan of Kalff was one of the first which was outside the city defensive wall. The yellow area in the image 18 was part of this plan. The plans were based on the underlaying peat structure and was mainly a basic plan which was intented to be filled in with private initiatives. The area of the foodcentre was laying on the edge of the city, later on it got enclosed by other residential plans. Working to the left of the map the plans changed. The last plan in purple was the plan of Van Eesteren, known as the AUP. The design of these building blocks were innovative at that time, daylight was an important element for this. The former blocks with houses changed into rows of houses.

As already told above Amsterdam grew in two parts to the west. The industrial north and the residential south. This was divided by the two barriers of the railway and the canal. The green got pushed out of the city center and more and more green dissapeared. But during this growth a piece of green remained and got appreciated again after a while. The railway is nowadays situated above this green zone, called the Brettenzone. So on one side the canal and at the other side the railway makes this zone difficult to enter without tunnels or bridges. Which is indeed the fact of today, the green zone is a big green wall which stays closed for the public. There are allotments in this area but they have a big fence all around. Which was intented as a buffer zone is actually working as a barrier.

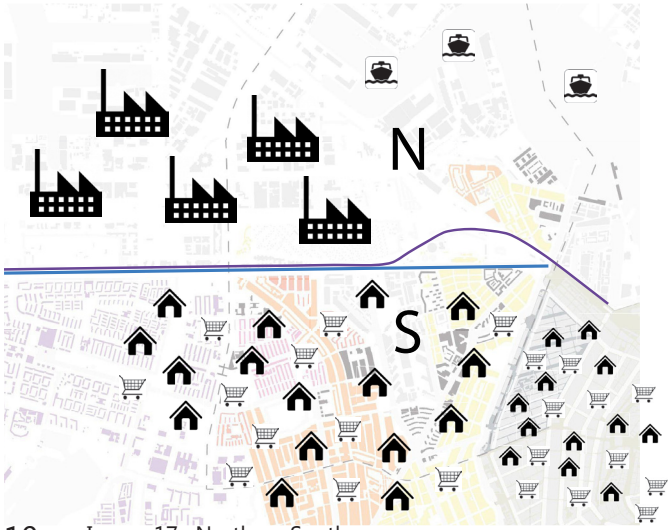


Image 17 : North vs. South

Image 18 : Urban Fabric

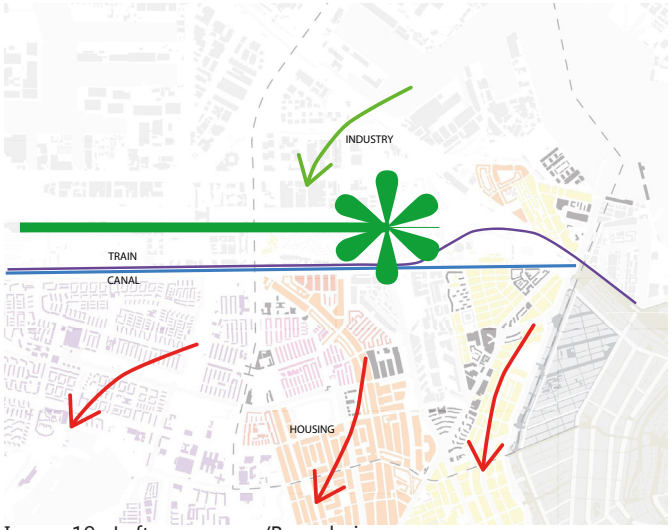


Image 19 : Left over green/Boundaries

Architectural object

Graficolor

As a case study I analysed the Graficolor building of Benjamin Merkelbach. He made the design for Willem van Rijn as well. Graficolor was a press ink factory and was part of the graphic industry of Amsterdam. This graphic industry was an important industry for Amsterdam at that time, around 1938. The building was located at the 'Kostverlorenvaart' and the mainentrance was situated at the 'Van Hallstraat'. So the location provided the building of a good accessability.
The basement connected to the water was used for storage of raw materials. The ground floor connected with the inner court was used for the offices, showroom and partly factory. This factory continued on the first floor where heavy machines were used. The construction was specially designed for this. At the second floor are two small houses situated.

Benjamin Merkelbach

Merkelbach is a well known architect en founder of the '8' and the 'Opbouw'. He played a big role with this group in an innovative style for that time, called functionalism.
Within all the work of Merkelbach the Graficolor building was one of the first typical buildings designed in this style of 'functionalism'. A lot of designs followed in this style and so we can say that Graficolor was part of the starting point for this new style of Merkelbach.

Willem van Rijn

In 1938 Benjamin Merkelbach was the designer of the original situation, it was designed as a factory for the Bosch machines. After this his partner Piet Elling worked on a first addition in 1961, a few years later in 1967 the last addition finished the plot of the building done by architects working in the name of Elling. The first addition was quite well-done in the same style of Merkelbach, but if you look carefully you can see some differences in finishing the design. The second part was done in a different expression, which does not really fit the former ones.

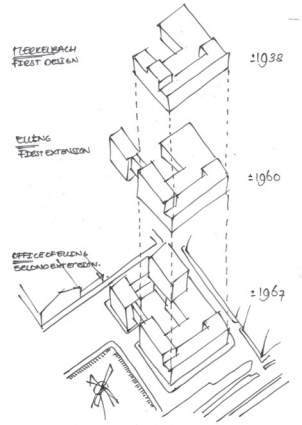


Image 22 : Extensions Willem van Rijn

Image 20 : Gebr. Hartmann Graficolor (1938)

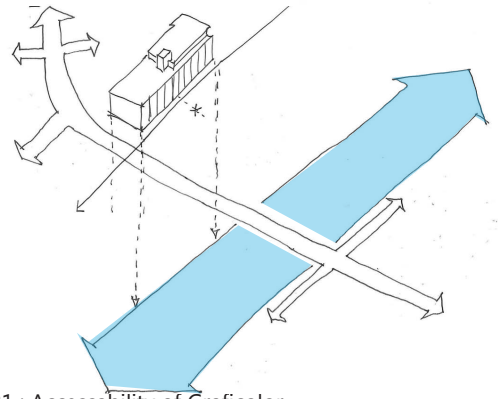


Image 21 : Accessability of Graficolor

Image 23 : Willem van rijn (1939)

Research Topic

For my redesign I would like to know more about the Willem van Rijn building. Topics for my research will therefore be, the usability and possibilities for a redesign for this building.

Conclusions

Quality Assessment

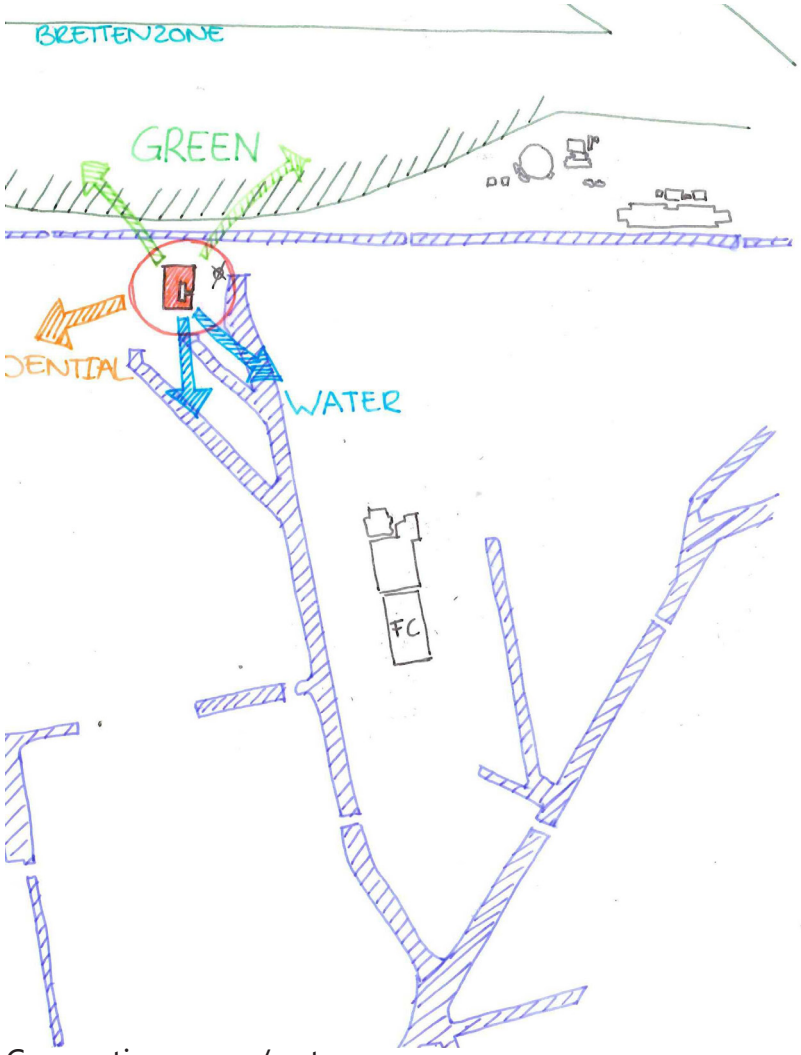
The value assesment of Willem van Rijn points out that most of the building is valued indifferent. It was a design in the beginning of the career of Merkelbach, so it is not in a typical style yet. The way of constructing was a common used system those days.
The qualities of the area are that there is a lot to improve, the chances are there. The connections with the water and the green are nearby. Willem van Rijn is on the best location to make a connection with the Brettenzone to the residential area.

Starting Points for RE/design

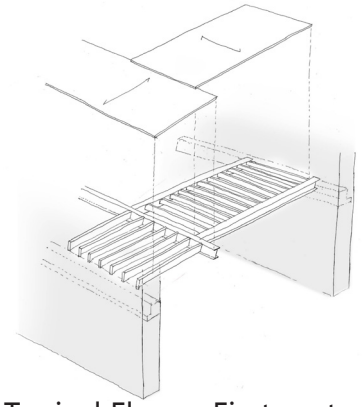
Looking for:

- Public attraction
- Mixed functions area
- Public green
- Unity
- Urban composition
- Re-conceptualization

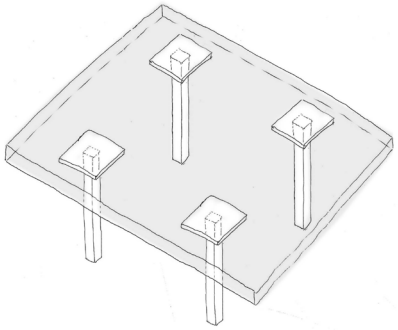
Is it possible to create this on the scale of Willem van Rijn?



Connection green/water



Typical Floor - First part



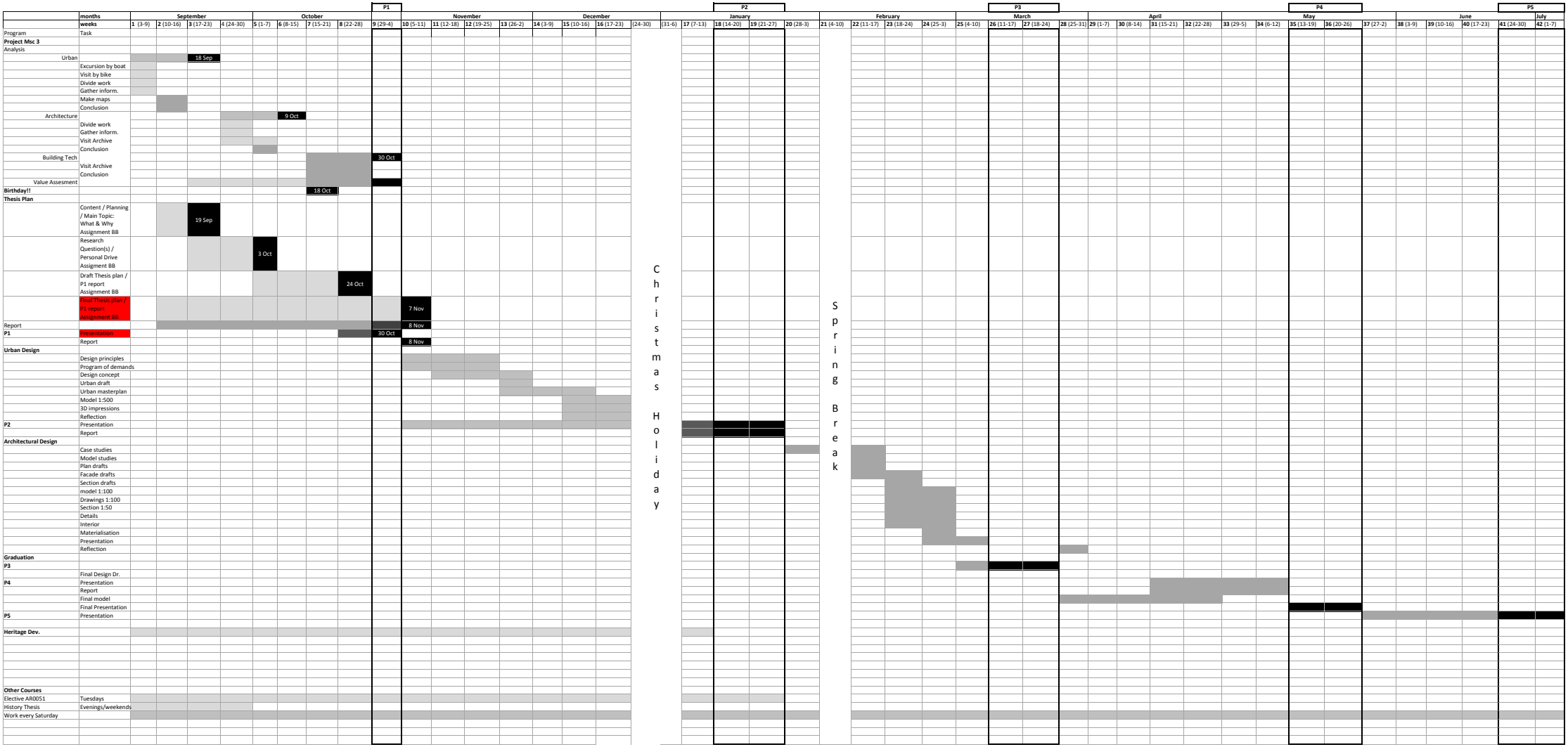
Typical Floor - tower

Social

The social relevance of this project can be seen on two scale levels, the neighborhood and the urban scale.
First the neighborhood scale, this is were the most impact will be generated. The people living in the area should have benefits of the project. When we visitied the site it appeared to be unsafe and not very attractive to stay for a while, understood from conversations with neigbors and other users. Therefore the relevance of the neighborhood is important, to improve the surrounding for the users.
When we look at the things which need to be improved to achieve what is described above, issues as criminality, safety, usability and accessibility appear to be important. This is exactly were the assignment is going to be relevant for the social impact of the bigger urban scale. These problems occur everywhere and are not only for this assignment interesting issues but also for any setting which has comparisons with this one.

Scientific

The research questions and the analysis which will be done for this, will guide the project in a scientific way. The three analysis will generate an objective outcome, after this a subjective conclusion will be the base for further research. Therefore the outcome of the project will be useful in a scientific way as well. The research for the buffer zones for example could probably be implemented in different plans with buffers to improve an existing situation or create a new one, by using this research as a part of the guidelines.


P1
P2
P3
P4
P5
months
weeks
September
October
November
December
January
February
March
April
May
June
July
Program
Project Msc 3
Analysis
Urban
Excursion by boat
Visit by bike
Divide work
Gather inform.
Make maps
Conclusion
Architecture
Divide work
Gather inform.
Visit Archive
Conclusion
Building Tech
Visit Archive
Conclusion
Value Assesment
Birthday!!
Thesis Plan
Content / Planning / Main Topic: What & Why Assignment BB
Research Question(s) / Personal Drive Assigment BB
Draft Thesis plan / P1 report Assignment BB
Final Thesis plan / P1 report Assignment BB
Report
P1
Presentation
Report
Urban Design
Design principles
Program of demands
Design concept
Urban draft
Urban masterplan
Model 1:500
3D impressions
Reflection
P2
Presentation
Report
Architectural Design
Case studies
Model studies
Plan drafts
Facade drafts
Section drafts
model 1:100
Drawings 1:100
Section 1:50
Details
Interior
Materialisation
Presentation
Reflection
Graduation
P3
Final Design Dr.
P4
Presentation
Report
Final model
Final Presentation
P5
Presentation
Heritage Dev.
Other Courses
Elective AR0051
Tuesdays
History Thesis
Evenings/weekends
Work every Saturday
18 Sep
9 Oct
30 Oct
18 Oct
19 Sep
3 Oct
24 Oct
7 Nov
8 Nov
30 Oct
8 Nov
Christmas Holiday
Spring Break

Books/Articles/Reports

De Jong, T. M., & Van der Voordt, D. J. M. (2005). *Ways to Study and Research: Urban, Architectural and Technical Design*: Dup Science.

Groat, L., & Wang, D. (2002). *Architectural research methods.* New York: John Wiley & Sons, INC.

Haupt, P., Pont, M. B., & Moudon, A. V. (2005). *Spacemate: the spatial logic of urban density*: Delft University Press.

Jones, J. C. (1980). Design methods. New York: John Wiley & Sons, INC.

Meijers, L. (2012). *RMIT Msc Projecten*. Delft: TU Delft.

Zijlstra, H. (2009). *Analysing Buildings from Context to Detail in time ABCD research method*. Amsterdam: IOS Press.

Archives

Nederlands Architectuur Instituut
Museumpark 25
3015 CB Rotterdam

Websites

www.westergasfabriek.nl
www.davincibedrijvenhuis.nl
www.nai.nl
www.spacesyntax.com

Sources images

Image 1: I am Amsterdam sculputure at museumplein : 222amsterdam.webklik.nl/
Image 2: Railway and Haarlemmertrekvaart : Made by author
Image 3: Growth against left over green : Made by author
Image 4: Project Locations : E. van Imhoff, Edited by: author
Image 5: Divisions within the residential area : Made by author
Image 6: Bufferzone acting like a barrier : Made by author
Image 7: Green wall of Brettenzone : maps.google.nl streetview
Image 8: Surrounding qualities : Made by author
Image 9: Ignoring surrounding : Made by author
Image 10: Surrounding functions : Made by author
Image 11: Building in time : Made by author
Image 12: Front side : Photo made by author
Image 13: Edges missing connection to street : Made by B. Maat
Image 14: Involving Willem van Rijn : Made by author
Image 15: Analysing the site : Made by author
Image 16: Reflecting on mission : Groat, L., & Wang, D. (2002). Architectural re search methods. New York: John Wiley & Sons, INC.
Image 17 : North vs. South : Made by author
Image 18 : Urban Fabric : Made by author
Image 19 : Left over green/Boundaries : Made by author
Image 20 : Gebr. Hartmann Graficolor (1938) : De 8 en de Opbouw
Image 21 : Accessability of Graficolor : Made by B. Maat
Image 22 : Extensions Willem van Rijn : Made by Author
Image 23 : Willem van rijn (1939) : beeldbank Amsterdam