AR3AR111 RMIT Graduation Studio- Mixed Projects Studio (2012-2013):
Research and Reflection Report

Student Name: H.N. Tai (Helen)
Student no.: 4186664
Supervisors: Wouter Willers, Frank Koopman
Table of Content

1. Thesis plan  2
2. Research Report  11
3. Position paper  39
4. Reflection  43
1. Thesis Plan

1.1 Introduction
   - Personal Motivation
   - Subject of studio

1.2 Aims of the project
   - Main research
   - Context
   - Problem statement
   - Research Question and sub-research questions

1.3 Methodology
   - Research Method
   - RE/Design Method
   - Synthesis

1.4 Social and scientific relevance

1.5 Planning

1.6 Literature & References
PERSONAL MOTIVATION

After centuries of rapid construction, both land space and resources are getting more and more limited. It is no longer easy to find empty plot for every new building. A common solution now is to demolish the existing ones to provide space to build. However, I think this is unsustainable to our environment and produces more waste, whereas the way R-MIT design and reuse existing buildings can provide a more environmental-friendly alternative.

Architecture nowadays is no longer only matters of art and science, it is more related to our society and people. Therefore, I think architects and developers should not have the privilege to knock down every existing building only to exhibit new designs and satisfy their ambition. As professionals, architects should respect history of a place and memories of the people. They should bear the responsibility to protect the existing heritage, while also addressing the needs of construction in modern times. R-MIT approach attempts to balance the interests among different parties, which is something we need to learn pay attention to these days.

Conservation and restoration knowledge is especially needed in my hometown Hong Kong. Infrastructure and property developments are often emphasized instead of heritage protection because of financial issue and lack of land. In last decade, there was always heated debate between the government-developers and preservationists/citizens whenever redevelopment came across. In fact, many historic buildings (both British colonial and traditional Chinese architecture) were demolished already since the 70s. Yet, it is a pity that the government still does not have the initiative to preserve the very few remaining heritage buildings.

The demolition of Star Ferry Pier (from 1958) and Queen’s pier (from 1925) in 2006-2007 for new infrastructural and commercial developments has provoked large-scale protest from general public, leading to discussion of preserving buildings which are collective memories to our citizens. Although the protest ended up in vain, it has raised people’s concern about preservation of old buildings.

In that sense, I understand the difficulties to balance disputes between development and preservation. Through learning in R-MIT studio and studying good examples of preserving and restoring old buildings in the Netherlands and in Europe, I hope to find out the way to resolve the dilemma in R-MIT approach, and if possible, to contribute my knowledge back in Hong Kong.

SUBJECT OF STUDIO

The “Mixed Projects Studio” this year focuses on West of Amsterdam Central, where many locations are not in use nowadays, and needed to be redeveloped. The site area we are focusing on, is North of the ‘De Clercqstraat’ and the ‘Jan van Galenstraat’, at the South of ‘IJ’, at the West of the ‘Nassaukade’ and at the East of the ‘Einsteinweg’ (A10) as shown on the map below.

Research and analysis are carried out across different levels of scale, including urban, architectural and technical levels. Topics related to cultural history, social economic structure, urban landscape, architecture and building technology will be studied.

Throughout the research, conclusion and value assessments will be made as departure points for design and intervention of the existing buildings.

SITES:
1. Westerpark
   an old industrial area now transformed to the cultural hotspot of Amsterdam and Holland.
2. Pink office Building
   Not in use anymore, under construction.
3. Complex R.K. St. Josephkerk
   Now in use as climb hall, nice gardens and playgrounds
4. Elsevier building and "schooltriangle"
   Design by Dudok not in use.
5. Houthavens
   Surrounded by the IJ already having transformations in this area.

Legend
1. Gashouder, Westergas terrein, Google Images
2. Pink office Building
3. Complex R.K. St. Josephkerk
4. Elsevier building and “schooltriangle”
5. Houthavens
6. Haarlemmerpoort
   The gate to the old city centre
7. Foodcentre
8. Project X NL Architects Building
9. Willem van Rijn
   Designed by Merkx+bakker
1.2 AIMS OF THE PROJECT

MAIN RESEARCH

In the Mixed Project Studio in R-MIT this year, Amsterdam West is chosen as the study area. According to information from the Municipality of Amsterdam, Amsterdam West received little attention during the city planning process, because a lot of people living there are migrants from non-western countries and with lower income. Also, there are a number of abandoned office buildings within the area showing how the area is under used.

However, reviewing the historic development, we can notice that important infrastructure, for instance Haarlemmer-trekvaart and Willemspoort, was introduced in Amsterdam West early in 1631. This is because Amsterdam West has a good geographical location to connect the trading ports in Amsterdam Center and other cities in western side of the Netherlands (e.g. Haarlem). The historic importance of Amsterdam West should have provided opportunities for more prosperous development within the area. Yet, it was not the case throughout the history.

The main research is to study the historic development and urban planning of Amsterdam West, to find out how was its urban fabric evolved in the past, why was not its previous importance continued in the history, and what can be done to improve the present situation of the Amsterdam West being under used.

CONTEXT

Early in 11th century, residents settled at the location where Amsterdam Center situated nowadays. Subsequent development of Amsterdam expanded outward from Amsterdam Center. In early 18th century, due to the fortification encircling Amsterdam Center, expansion could not go further. It was not until mid 19th century, that the fortification was demolished for further city expansion.

Since then, the city grew further outward again, and urban development towards West of Amsterdam began. Because the two areas were developed in different eras, Amsterdam Center and West had different modes of development and different extent in urban growth. Despite the fact that Amsterdam West was developed much later than Amsterdam Center, the introduction of Haarlemmer-trekvaart and Willemspoort in 1631 and 1839 respectively did help to bring the prosperity to Amsterdam West, due to its significant location along the trading route between Amsterdam Center and Haarlem. Yet, the two important infrastructures were no longer in use in 1839 and 1878, due to construction of new railways. The significance of Amsterdam West as an entrance to Amsterdam Center decreased because of the fast transportation developed.

The subsequent clear division of industrial and residential developments within Amsterdam West led to fragmentation within the area. In the later urban growth, the Northern and Southern parts within Amsterdam West area had their own developments: Large scale industrial developments, such as Houthaven, was planned in the Northern part of the area near the IJ for easy water transportation, while small scale residential developments were located in the Southern part of the area. In between was the Bretenzone which was remained undeveloped intentionally under the AUP (Algemeen Uitbreidingsplan) to provide a green buffer between the industrial and residential area. Alstoms and Teleport (business area built in 1980s) are within the Bretenzone. Also, Food Center Area situated in between the residential neighborhoods in the South currently functioning on its own without much connection with the neighborhoods.

The clear division of functions within Amsterdam West area has been beneficial for the growth of residential neighborhoods from being affected by the pollution and nuisance from industrial area. Yet, it also resulted in fragmentation within the area, that the Northern industrial area, middle Bretenzone, Food Center Area and Southern residential area functioned on their own without good interconnection.

1. Presentation by Remco Duddler from Physical Planning Department City of Amsterdam (September 2012 at TU Delft)
PROBLEM STATEMENT

Reviewing the historic development, Amsterdam West did not continue its previous prosperity because it lost its importance as the gateway from Haarlem to Amsterdam Central, due to the construction of railway providing quick transportation between Amsterdam Center and other cities in the Netherlands.

Clear division in urban planning (Amsterdam West can be perceived as four zones: Northern industrial area, middle green Brettenzone area, Food Center Area and Southern residential area) prevented the residential area from being polluted by industrial activities. However, the interconnection between neighborhoods in the area was reduced, resulted in fragmentation within the area.

Besides, due to the present low income and non-Western minority population in the West, the urban planning of Amsterdam West has not received much attention.

In the future plan by municipality of Amsterdam, Amsterdam is planned to be densified. For Amsterdam West, the Northern industrial area and Southern Food Center Area will therefore be redeveloped for living and working purposes. The neighborhoods in North and South will thus have similar functions. At the same time, Brettenzone will no longer function as green buffer, but will be redeveloped into a metropolitan park serving as a new communal space, and reducing the fragmentation in Amsterdam West by connecting the neighborhoods in North and South. However, to achieve this, the accessibility of Brettenzone from the neighborhoods needs improvements.

Willem van Rijn area, which is an industrial area located to the South of Brettenzone, is going to be redeveloped into living and working purposes in the future plan. The area has the potential to act as an entry point from neighborhoods in the South to the Brettenzone and further North in the future, thus, enhancing the North-South connection between neighborhoods in Amsterdam West.

RESEARCH QUESTION

How can Willem van Rijn act as a stepping-stone to enhance the North-South connection between neighborhoods in Amsterdam West?

Sub-research question:

Concerning the area:
- How has been Amsterdam West's urban structure developed?
- What are the characteristics of urban development in Amsterdam West in the past, present and future?
- What are the respective characteristics of Brettenzone and the North and South neighborhoods?
- How are these neighborhoods connected at the moment, and what kind of connection will be needed in the future?
- How is the present accessibility of the Brettenzone, and what can be done to improve its accessibility?

Concerning Willem van Rijn:
- What relationship can be established between Willem van Rijn, Brettenzone and neighborhoods in the South?
- What is the program/function needed in Willem van Rijn for establishing this relationship?
- Who will be the future user in Willem van Rijn?

Concerning the intervention:
- Can Willem van Rijn area, Teleport and Westerpark in Brettenzone, and Food Center Area develop together and function as a whole?
- How can the redesign provide opportunities for future developments of Brettenzone?
- Can the intervention reduce the fragmentation within Amsterdam West area?

GOAL

The objective of the graduation project is to develop Willem van Rijn area as a stepping-stone from neighborhoods in the South to the Brettenzone and further North. As a result, the North-South connection between neighborhoods in Amsterdam West can be enhanced.

Willem van Rijn currently provides low rent offices and studios for independent creative artists. In the graduation project, new cultural facilities for community will be introduced into the building, transforming the building into a community cultural center with both artist studios and cultural facilities for the community. The combination of two functions benefits the artists and residents mutually, that the originally introvert cultural activities open to the neighborhoods, while artists can interact with the local residents and get more inspirations.

The cultural facilities in the building aim to serve the neighborhood around, and to attract people from neighborhoods in the South. Whereas the artist studios in the building help to induce more creative industry in the Willem van Rijn area, and to establish relationship and provide support for other nearby working areas (especially creative industry) in Brettenzone and Food Center Area. Willem van Rijn can therefore become an urban connector between neighborhoods in the South and the Brettenzone.
RESEARCH METHOD

In this session, I am going to talk about what research method I have used or going to use. To begin with, it is necessary to first define the theme/question of research. The theme is Amsterdam West in RMIT Mixed Projects Studio this year, which is given by the studio brief.

The second step is to carry out extensive research on factual data. The structure of analysis introduced by RMIT studio is a good framework for the research, which includes analysis of the past, present and future across the three levels concerning urban, architecture and building technology. (Fig. 1)

This framework allows collection of a wide range of information from global vision to details, from historic and cultural background, history, uses and construction of building, thus providing me an overall and more thorough understanding of the area and the architecture.

To gather these factual data, I have used or will use the following methods:

1. Literature
To understand the background information, including the history and evolution of Amsterdam West, books and journals are really useful. However, I am not a Dutch speaker, whereas many of the literature about our theme is in Dutch. It is much appreciated that our Dutch classmates paid extra efforts to translate and summarize ideas from literature.

2. Internet
Internet is another resource which is more suitable for me. Apart from providing a more up-to-date information, the information can be easily translated into English for me to understand. However, the authenticity of this source need to be verified, for instance by comparing multiple sources.

3. Archive
To gather more detailed and accurate information of the building, in my case Willem van Rijn, I have also been to archive of NAi to look for drawings, maps, old photos. I have also visited the municipality of Amsterdam to gather more information.

4. Site visit
Visiting the site allowed me to explore and experience the site and architecture more thoroughly. Not only because it is sometimes difficult to just understand the site and the building by texts, images and drawings, but during observation in-situ, as well as talking to the people there, I can get more diverse perspectives about the area. Besides, I can experience the area in a more human scale, as well as the interior of the building.

The importance of observation with the property is also stressed by the government and professionals in building archeology and heritage, because the data from methods 1-3 mentioned above can actually be altered, and not necessarily to be genuine. (Hendrik 2009)

5. Interviews
Interviews is very useful to understand what people there think and really need. During the visit to Willem van Rijn, we have interviewed the users and found out how they use the building nowadays. More interviews with the people in the neighborhoods will be carried out in the future.

Thirdly, after collecting a wide range of information, it is important to evaluate and filter the data which is relevant and useful for our research. Architectural researchers have to ask “how and why” questions. This involves fact-finding, systematic analysis and documentation in an orderly manner. (Jong, 2002) I have asked more specific questions (sub-research questions), such as ‘How did the harbour of Amsterdam evolved?’ ‘Why is the Breetzenzone intentionally undeveloped?’, ‘What will be the future urban planning in Amsterdam West?’, to help me sort out the data into different categories.

The fourth step is to interpret the data in our own way such as mapping and redrawing. Mapping specific aspects in the area of Amsterdam West, for instance green space, built/unbuilt, infrastructure, etc., helps me unravel the ‘DNA’ of Amsterdam West and how it has been evolved. By redrawing the plans, sections and details of the building Willem van Rijn, I understood more, such as the rhythm, proportion, the construction of the building. Re-interpreting the data myself is really useful to uncover some ‘hidden’ aspects that are not easily observed by just going through the existing literatures and drawings. It is worthwhile to note that interpretations need to be grounded as clearly as possible in factual data, so that third parties can follow the line of reasoning. (Hendrik 2009)

The next step is to come up with problem statement that leads to further research, or conclusions and value assessments to determine the comparatively important components of Amsterdam West and Willem van Rijn at the moment, which provides starting points for design later.

These values should be authentic and objective, induced and verified based on references, different perspectives and comparisons:

i. References: contextual or within the building;
ii. Perspectives: from global to detailed;
iii. Comparison: history (overall, architectural, construction, usage, etc.) (Hendrik 2009)

Using the value assessments, we can determine our positions and starting points for further research and design.
RE/DESIGN METHOD

The design methods introduced by Industrial Design of TU Delft provided me a clear guideline and procedure to design. After some alterations to suit the RMIT approach, the modified strategy can be laid out as follows:

1. Creating a RE/Design Goal
2. Generating and visualizing RE/Design Ideas and Concepts
3. Decision and Selection
4. Evaluation of RE/Design

Creating a RE/Design Goal
RE/Design goal is the starting point of design, which is generated by research and defined by the problem statement resulted. The goal will be revised from time to time after continuous researching and designing to be more specific and accurate.

Generating and visualizing RE/Design Ideas and Concepts
Numbers of ways can be used to generate ideas and concepts:

i. Mind Map
   First, I will use mind map to visualize the connection and relationships between the problems, goal, ideas and possible solutions. Using mind maps, I can organize my design approaches in a logical and systematic way, and analyse the advantages and disadvantages of different approaches.

ii. Brainstorm
   Sometimes, using mind maps is too logical to generate design ideas, which lack the consideration of artistic and aesthetic aspects. Brainstorming ideas, no matter how crazy it is, can help me generate ideas in a broader sense.

iii. Discussion
   From my experience, it is useful to talk to friends to brainstorm ideas. Two heads are better than one. By considering and integrating different perspectives from different people, design concepts can become more comprehensive.

iv. Models, sketches, drawings
   These are the physical means architecture students always use to test out and visualize their ideas. Through these means, we can develop, visualize and evaluate our concepts.

v. Case studies/references
   By conducting case studies of architecture and design that have similar context or aims, I can have a better understanding how previous professionals address the problem and achieve their goals. Referring to other designs is important because I can get the ideas how feasible my concepts and design can be in reality.

Decision and Selection
After generating a collection of concepts, we need to justify the pros and cons of these ideas, and further develop our ideas from broader to more detailed perspective. This can be done by making score sheets to compare across different ideas on criteria such as feasibility, aesthetics, etc, to understand which concepts are more suitable and in line with my design goal.

Evaluation of RE/Design
Evaluating the RE/Design is to reflect on my design on the following aspects:
-Is my design goal achieved?
-How relevant the design is to my research questions and problem statement?
-Have I address the values from previous value assessments?
This will lead to further design and research.

As shown in Fig.X, the Research and RE/Design have their own cycle which loops again and again to develop more specific research and more detailed design. The two cycles also interact and work with each other in the following ways:

-After defining our positions from the research cycle, we can use these as starting point to set our goal for RE/Design (Design by Research)
-In the RE/Design cycle, we need to evaluate on my RE/Design against our research questions, problem statement, value assessment, position, etc.
-After evaluating my RE/Design, further themes and questions can be set up for more specific research (Research by design), and thus more detailed design
1.4 SOCIAL & SCIENTIFIC RELEVANCE

SOCIAL RELEVANCE

The research and design is social relevant. During the analysis, not only the context, urban developments and architecture are investigated, aspects more related to inhabitants and the society, such as the demographics, future provision of housings and offices, etc, are also considered in the scope of research.

Social aspects are considered because in Amsterdam West lives a wide diversity of people, including Dutch, non-western migrants, working class, traditional families, people with low income and education, artists, etc. It is important to take these people into account because they form the population in Amsterdam West.

The problem of Amsterdam West being underused is actually the difficulty and challenge the municipality of Amsterdam is facing at the moment. Through the project, it is hoped that new ideas can be generated to take part in addressing this current social problem.

Also, in researching the building Willem van Rijn, we have also talked to the owner and users there, to understand what they think about the building. The owner was also interested in our RE/Design of this building in the future, providing opportunities that more interaction with the owner and users could be achieved.

SCIENTIFIC RELEVANCE

The project is scientific relevant because of the synthesis of research and design. In general, designers are free to design according to personal preferences and intuition. The research part provides framework for design according to research results and logics.

During the research, information we gathered are objective. Through comparisons and further research, the values of the research targets can be induced, and thus, becoming our design position and starting point.

This step by step procedure works in a scientific way so as to give reasons for our design steps and approach.

Also, because of the clear steps in research and design, other designers can easily follow up to further improve and develop the research and design.

1.6 LITERATURE & REFERENCES

T.M. de Jong & D.J.M. van der Voort (2002). Ways to study and research, Delft University Press
H. Zijlstra (2009) Analysing Buildings from Context to Detail in time ABCD research method, IOS Press BV
J. Jacobs (1992) Life and Death of great American Cities, Vintage
D. Lowenthal (1999) The past is a foreign country, Cambridge University Press
## 1.7 PLANNING

### HISTORY THESIS

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### THESIS PLAN

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### HERITAGE DEVELOPMENT

### GRADUATION STUDY

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### PROJECT 1

#### Research & Design

- Site visit
- Urban analysis
- Architectural analysis
- P1 presentation
- P1 report

#### Research & Design

- Transition of research conclusion into design principles
- Urban concept
- Program of requirements
- Architectural concept development
- Preliminary design (layout, structure, facade, sections, details)
- P2 presentation
- Graduation plan

### PROJECT 2

#### Design 1

- Plans 1:100/100
- Cross-section 1:200/100
- Facade 1:100/100
- Facade fragments 1:30
- Research on materialization
- Structural detail 1:20
- Important detail 1:5

#### Design 2

- Theoretical & thematic support of research
- Design and reflection on architectural and social relevance
- Situation drawing 1:500/2:1000
- Plan b.g. in scale 1:500
- Plan 1:100/100
- Cross-section 1:200/100
- Zoom in parts 1:50
- Facade fragments 1:30
- Structural detail 1:20
- Important detail 1:5
- Presentation models
- P4 presentation (presentation slides)
- Evaluation

### PROJECT 3

#### Presentation slides
- Presentation model

### Christmas

### Spring Break
2. Research

2.1 Urban Analysis
2.2 Architectural Analysis - Molenwerf 1
2.3 Building Technology Analysis - Willem van Rijn
2.4 Choice of Building
2.1 Urban Analysis
- How has been Amsterdam West’s urban structure developed?
- Conclusion & Value Assessment
2.1 Urban Analysis

Observation: Clear function zones

From the current situation in Amsterdam shown in Fig.1, it is found that buildings with mixed programs (living and working) concentrate at the center of Amsterdam. Whereas in our project area, clear function zones can be observed: the Northern part is mainly working area (industry and business), while the Southern part of our project area is mainly for residential uses. Brettenzone and Food Center Area lie in between.

To understand how this clear urban structure was formed, the history of residential and industrial development in Amsterdam West will be studied.

Urban Development in History - Residential

Due to the population growth in Amsterdam since industrialization in late 19th Century, housings expand from city center outwards. In Amsterdam West, residential developments generally expanded from East to West. These expansions were planned under 1877 Plan Kalff, 1922 Plan West, 1935 AUP and 70-80s renewal plan.

The planned residential urban fabric was influenced by industrial development (Western Gas Factory and Food Center), infrastructure (Haarlemmerdijk and railways) and municipality’s measures (1921 annexation, Woningwet, AUP and Westelijke Tuinsteden) in the past, as shown in Fig. 1a-c.

Factors influencing the residential development:
- Presence of Haarlemmerdijk, railway, Western Gas Factory
- Notion of function zones in AUP *
- Food center area established
- 1921 annexation allowing further expansion to the West
- Notion of clear function zones from AUP *
- Woningwet: more consideration of greenery within urban fabric

Source: H.N. Tai

* In AUP, four urban functions (living, working, recreation, traffic) were distinguished in AUP to have their own place for development. Working space focused on the existing town and western harbor area. New residential areas were planned in the west and south. Parks and greenbelts were planned between residential and working area providing recreation.

Source: http://nl.wikipedia.org/wiki/Algemeen_Uitbreidingsplan

Residential development:
- 19th Century ring (Expansion plan by Jan Kalff in 1877)

Factors influencing the residential development:
- Presence of Haarlemmerdijk, railway, Western Gas Factory

Source: H.N. Tai

Residential development:
- 20-40 ring (Plan West by H.P. Berlage in 1922)

Factors influencing the residential development:
- Notion of function zones from AUP *
- Woningwet: more consideration of greenery within urban fabric

Source: H.N. Tai
Urban Development in History - Industrial

Since industrialization in late 19th century, there were increasing trading activities in Amsterdam. Harbour in Amsterdam Center were no longer sufficient. Harbour development thus expanded from Amsterdam Center towards Amsterdam West. In our project area, harbour developed generally from East to West along the coastal area next to the IJ. Industrial activities developed along these harbours because the location was good for water transportation and trading.

The industries in the North were separated from the residential area in the South by the Brettenzone (a green area intentionally left undeveloped) to minimize nuisance to inhabitants in the South. This was also the aim in AUP in 1935 that each function got their own area in the development.

Infrastructure also influenced the development of industries. The construction of railways and canals defined the terrain of Western Gas factory and Food Center, whereas the construction of A10, new Sloterdijk station and Teleport benefits each other.

To conclude, locations near water were preferable for industrial developments. The urban structure of industrial developments were also influenced by residential development, infrastructure and municipality’s measures in the past.

To sum up, residential and industrial area were generally developed from East to West, and were planned to have Brettenzone as a buffer zone in between to minimize the negative effects caused by the industry. In addition, the location, infrastructure, and municipality’s measures in the past were factors affecting how the urban fabrics was formed.
How has been Amsterdam West’s urban structure developed?

Current Urban Structure (Overall)
The development of clear function zones in Amsterdam West shows influences on current urban situations including the connectivity between neighbourhoods and density of buildings in Amsterdam West.

Density of Building
As a result of clear industrial and residential development, it is observed that the urban fabrics in the North of our area are less dense than that in the South, because the industrial activities in the North require more spaces for transportation and between factories.

Connectivity
Currently, with clear zones of functions, housing in the South and industries in the North function within their own area. Together with Brettenzone and Food Center Area situated in between, which have their own circulation within, there are not many connections between South residential and North industrial area across Brettenzone and Food Center Area.

The connections of neighborhoods across Brettenzone and Food Center Area are further limited due to the presence of railways and canals.

Density of Building
As a result of clear industrial and residential development, it is observed that the urban fabrics in the North of our area are less dense than that in the South, because the industrial activities in the North require more spaces for transportation and between factories.
Current Urban Structure (Zoomed in): Neighbourhoods with different characters

The urban structure in Amsterdam West was developed generally from East to West without superseding the previous development. Therefore, the influences from different times in the history can still be observed from the current urban structure with neighbourhoods of different characters. The different characters can be seen in aspects of functions, building typology, population density and demographics.

FUNCTIONS
From the function map of industrial area in the North, the inland area developed later in 1980s are business in nature, reflecting the shift from industrial to business activities in the past.

POPULATION DENSITY vs BUILDING TYPOLOGY
The residential population in neighbourhoods towards the East are denser than that towards the West. This is because neighbourhoods in the East were planned to respond to the huge demands of housings due to rapid population growth in the late 19th century. Whereas later on, housings in the West are less dense and more open, due to the increased consideration about light, air, greenery and open spaces in AUP and Woningwet.

DEMOGRAPHY
Neighbourhoods with different characters also allow variations in demography. In general, the Eastern side has more Dutch residents, whereas the Western side has more Non-European immigrants. Also, populations in the Western part are comparatively younger than the Eastern part. The reasons for that is because the neighbourhoods in Western side have more social housings which are cheaper when compared to the housings in the Eastern part.
In the future, Amsterdam West still plays an important role in supporting the population growth in Amsterdam. According to Structuurvisie Amsterdam 2040, the municipality of Amsterdam planned to achieve the target of constructing 700000 new housing units in Amsterdam. Apart from expanding from the center outwards like what it was in the history, harbour area and Food Center Area in Amsterdam West will be redeveloped into living and working to achieve the housing goal. Brettenzone will be developed into green metropolitan park providing leisure and greenery to the neighbourhoods.

Also, in the North part of our project area will become more accessible as infrastructure will be upgraded. There will be direct metro connection from Isolatorweg station to Amsterdam Central Station and Amsterdam North after 2030. A10 will also be upgraded with new exits in Sloterdijk in 2013. These measures will improve the connectivity of Amsterdam West to Amsterdam and other cities.

With the above future developments, North and South area in Amsterdam West will have similar functions. There is not a need for Brettenzone to function as a buffer area anymore.
Conclusion & Value Assessment

CONCLUSION
How has been the urban structure in Amsterdam West developed?

PLANNED CLEAR URBAN STRUCTURE

From the above analysis, it can be concluded that Amsterdam West was developed generally from East to West due to the expansion from Amsterdam. It was intentionally planned to have a clear urban structure (residential in the South, industrial in the North, Breitenzone and Food Center Area in between), so that industrial and residential activities can grow continuously within their own areas, and to minimize the negative effects from industries to residential neighbourhoods. The development of urban fabrics underwent the influences of housing, industrial, infrastructural developments and municipality’s measures.

DEVELOPMENTS ACROSS DIFFERENT TIMES

The urban fabrics were developed across different times in the history without superseding the previous development. Therefore, the influences of different in history can be still visible in the current urban structure, resulting in neighbourhoods with different characters, as observed in functions, building typology, density and demography.

VALUE ASSESSMENT

POSITIVE (+):
- Amsterdam West supports the harbour and residential expansion from Amsterdam
- Clear zones and presence of Breitenzone to allow continuous growth of respective area
- Neighbourhoods with different characters allow diverse functions and populations in Amsterdam West

INDIFFERENT (0):
- Connection are not enough between different zones. With future developments of living area in the north in future, more connection will be needed

NEGATIVE (-):
- Waterfront is used by industry and not easily accessible by residents in the South
2.2 Architectural Analysis (Molenwerf 1)
- How has the immediate context of Molenwerf 1 developed?
- What are the reasons behind the architectural composition of Molenwerf 1?
- Conclusion & Value Assessment
Immediate Context of Molenwerf 1: History

Molenwerf, where the Molenwerf 1 (Pink Office Building) is located, is part of Sloterdijk at the Western end of our project area. It currently lies within the Brettenzone and next to A10.

When studying the history of this area, it is found that the development of this area in the past was influenced by infrastructure construction and expansion needs from Amsterdam Center. The area was a village before 19th century, and was transformed later into industrial area, transportation hub and business area in different times.

Molenwerf was part of the old village of Sloterdijk with industrial mill stood until the 19th century. Due to the construction of Haarlemmer trekvaart in 1631, a toll was placed in Sloterdijk, bringing more prosperity to the village. Together with the railway going through Sloterdijk in 1839, industry in Sloterdijk grew.

GROWTH OF INDUSTRY

Molenwerf was part of the old village of Sloterdijk with industrial mill stood until the 19th century. Due to the construction of Haarlemmer trekvaart in 1631, a toll was placed in Sloterdijk, bringing more prosperity to the village. Together with the railway going through Sloterdijk in 1839, industry in Sloterdijk grew.

TRANSFORMATION HUB

Molenwerf, together with other villages in Sloterdijk, were gradually demolished because of the annexation of Amsterdam in 1921, adoption of AUP after WWII, construction of Sloterdijk station in 1956, and the construction of A10 in 1970s. Area to the North of 1956 Sloterdijk station is the only remaining village today to preserve the village’s history.

To the South of 1956 Sloterdijk station, school and factories such as printshop and laundry developed. In front of the train station was once the bus terminal (1950s-1985) and tram terminal (1982-1985) before they were relocated to new Sloterdijk station in 1985.

In 1985, Molenwerf was no longer transportation hub in the area due to the relocation to new Sloterdijk station (the current one). In 1980s, new business area developed in Teleport. Previous industrial area in the South of Molenwerf also transformed into business area. Molenwerf 1 (pink office building) was built around that period in 1981.

TRANSFORMED INTO BUSINESS AREA
Immediate Context of Molenwerf 1: Current situation

As a result of transformation of the area in the past, especially the infrastructural developments, the plot where Molenwerf 1 currently stands is very unique. The building stands on its own not surrounded by other buildings, but by roads and the A10 motorway (1). Yet, because of the green area acting as a buffer between the Molenwerf 1 and the A10, the building is not disturbed by noise very much (2).

Molenwerf 1 was built at the same period the Teleport area (built in 1980s). However, it is separated from Teleport by A10, and is not part of the teleport area due to different nature of the office building (3).

Molenwerf 1 is still close to the railway (current Sloterdijk NS Station) (4). The location is accessible by train, metro and from A10, but the building is no longer located within the transportation hub area.

The building also have close relationship with nature. It is adjacent to the green allotments (Volkstuinpark Sloterdijkermeer) (5), with its Southern side right next to the Haarlemmertrekvaart (6).

How has been the immediate context of Molenwerf 1 developed?

The immediate context of Molenwerf 1 has been influenced mainly by infrastructure developments. Molenwerf 1 is standing on its own island surrounded by roads and infrastructures. Reviewing the history development of Molenwerf area, it can be found that the unique context of Molenwerf 1 is resulted from the past development of the area, especially the development of infrastructure (Haarlemmertrekvaart, railway, tramway, A10) that defined the plot.

Also, in the past, the building was located in the transportation hub, and had close relationship with the train station to its North. Yet, due to the relocation of Sloterdijk station, the building is now standing alone without much relationship with other surrounding buildings.

Molenwerf 1 is currently close to teleport and Sloterdijk station but separated by A10. Therefore, when compared the current situation to the past, the area is much less important than the time when it was a transportation hub. This is also a possible reason that Molenwerf 1 has been now emptied for 5-6 years.

VALUE ASSESSMENT

POSITIVE (+):
- location near sloterdijk station and A10

INDIFFERENT (0):
- standing on its own without much connection with the surrounding buildings

NEGATIVE (-):
- detached from teleport area and relocation of Sloterdijk station decreased the importance of the area.
2.2 Architectural Analysis (Molenwerf 1)

What are the reasons behind the architectural composition of Molenwerf 1?

Architect & his motif

Piet Zanstra (1905-2003):

Piet Zanstra was a functionalist, a member of Groep 32 influenced by Le Corbusier’s work. Yet, apart from only focusing on forms and functions, the group were also interested in artistic aspect of building, including proportions, details, curved lines etc.

"For the older generation functionalists was architecture a matter of pure design of structures for pure functions. We found that the beauty of form was important, "and" Form follows function is true, but not entirely true." - Piet Zanstra

Groep 32 attempted to combine straightforward, business architecture with artistic elements. This motif of practicality with artistic expression can also be observed in the Molenwerf 1 (Pink office building).

EXPRESSION OF MASSES

The building can be perceived as a composition of masses with different levels. The breaking down of masses make the building look less massive, and also help to express and differentiate different programs/functions from the exterior, e.g. the entrance, communal space on G/F.

Despite the expressive composition of the building, organization of the building was actually designed in a very practical and functional way:

ACCESSING THE BUILDING

The building does not have a specific front facade due to the various directions of approaching the building. The main entrance of the building was designed at the corner so that it is easily accessed from every direction. The back facade is on the West side with only car access.

CIRCULATION

The circulation of the building is clear with 4 service cores (consists of 4 staircases, and 2 lift cores) giving vertical access to every floors, and efficient use of floor space.

PROGRAM

Due to the lack of information, the program division in the past was not clear. Yet, with large, full height windows on G/F giving more interactions with the street, compared with smaller windows on upper floors, it could be deduced that G/F probably had a more public/communal function, whereas the upper floors were offices that are more private. Carparking was designed underground but not on the street level to maintain the relationship with the street. Different functions were located according to practical concerns.
What are the reasons behind the arch composition of Molenwerf 1?

**Expressive Composition vs Functional Organization**

**MASSES vs SERVICE SPACE**

In Molenwerf 1, the expression of masses and the functional composition of spaces are mutually important:

The structure of Molenwerf 1 is a post and beam structure, with 4 vertical cores running through the floors. The structure tried to be standardized for economical reasons. For example, on ground floor, all columns are the same (400mm x 400mm) except the round column at entrance.

These columns were arranged and aligned with the service cores in a way that they created a 'service space' of 5500mm wide (space in orange).

When we study the relationship between the masses and the service space, it is found that the masses are arranged to interlock at these service spaces. The masses are sharing these service spaces which consist of lift, stairs, and corridor, the common facilities in the building.

As a result, even though there are various compositions of masses conceived on different floor plans, the spatial organization are still clear and functional along the L-shape service space, providing clear circulation and spatial division.

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**CONCEPT DIAGRAM**

- Columns defined service space
- Different masses interlock at service space

**Source:** Sarah Chebaro

**Edited:** H.N.Tai
Expressive Composition vs Functional Organization

MASSES vs SPATIAL GRID

When studying the spatial grid of the building (which is defined by the columns and masses), it is found that two 2000mm grids were designed adjacent to the 5500mm service space, as shown in the axonometric diagram.

The 2000 mm grids define a zone between the service space and the remaining office area in each mass.

Because of insufficient information, it is not known if the 2000mm grids function as a transition space between the service space and office area in the past. However, during the site visit (Molenwerf 1 is currently being transformed into a hotel), we can see that the new hotel layout utilize this space as the porch of each hotel room, creating a transition space between the common corridor and the hotel room. It is possible that this space has been used similarly in the past as transition space between the common service space and the more private office area.

Besides, the 2000mm spatial grid also defined the entrance block from the adjacent blocks to accentuate the entrance, by having curved windows along the 2000mm grid.
What are the reasons behind the arch composition of Molenwerf 1?

Attempt to express in a more artistic manner with the use of unusual pink colour concrete panels.

Facade Expressions vs Use of standardized material

Apart from expression of different masses, the architects also generated various facade expressions from standardized windows and concrete wall panels. In the diagram on the left, the South elevation of Molenwerf 1 is decomposed to study the facade pattern.

It is practical for office buildings to use standardized material to save time and money during construction. Yet, Zanstra also incorporated different combinations of standardized material, giving a little bit of variations and artistic expressions on facade, instead of being monotonous.

The use of unusual pink colour concrete panels also hinted Zanstra’s attempt for more artistic expressions on facade.

Interplay of Masses and Facade Expressions

This variation on facade is further accentuated when combining with different masses. When studying the facade, masses with the same height do not have the same facade expression. The only exception is the masses with 1 storey height (purple) consistently having the same facade expression of type 1.

The architects tried to interplay different masses with different facade expressions, to generate individual appearance for each block.
Spaces & Details

Spaces and details were also main concern in Zanstra’s design motif. The sketches on the right illustrate the spatial and technical details in Molenwerf 1, which include the entrance, courtyard, windows and external blinds.

CONCLUSION

From the above analysis, it is found that in Molenwerf 1, Zanstra attempted to convey his design motif to combine practicality and artistic expression. Practicality was addressed through the functional organization and spatial composition, and the use of standardized material for fast construction. Whereas the composition of masses, expression of facades and concerns on spaces and details were methods used for giving a more aesthetic but not monotonous expressions.

VALUE ASSESSMENT (ARCHITECTURE)

POSITIVE (+):
- the building is new and in good condition (e.g. no major damage) for redevelopment (economical)

INDIFFERENT (0):
- post and beam structure is flexible when re-dividing the space, but also not able to provide a large unobstructed space
- Variation in mass and facade expression by standardized material is quite common nowadays amount office buildings

NEGATIVE (-):
- appearance of the building is not attractive

Reference photos

Source: H.N.Tai

Source: H.N.Tai & Sarah Choharo
2.3 Building Technology Analysis (Willem van Rijn)

- How was the construction and renovation history of Willem van Rijn?
- What are the differences in constructing Phase 1, 2 and 3?
- Conclusion & Value Assessment
How was the construction & renovation history of WvR?

2.3 Building Technology Analysis (Willem van Rijn)

Q1: How was the construction and renovation history of Willem van Rijn?

Construction History

Willem van Rijn is located to the South of Haarlemmer-trekvaart, and West of the Westelijk Marktkanaal. It was an industrial building for NV Willem van Rijn. It was constructed in three phases: first in 1938 by B. Merkelbach and Ch. JF Karsten, and was expanded in 1960 by B. Merkelbach and P. Elling, and 1967 by office of P. Elling.

Source: H.N.Tai

1938 - Phase 1

1960 - Phase 2

1967 - Phase 3

Source: Esther Odijk
Edited: H.N.Tai
How was the construction & renovation history of WvR?

1996 - i) replacing from steel to plastic window frames, ii) alternation of entrance, iii) removal of rooflight, iv) addition to the tower

In 1996, the building was renovated by Laurens de Boef transforming the industrial building for creative industry providing offices and studio spaces (Da Vinci Bedrijvenhuis). The following changes were made: i) replacing from steel to plastic window frames, ii) alternation of entrance, iii) removal of rooflight, iv) addition to the tower.

In 2006, the tower was renovated to add more windows, making the interior space brighter and more suitable for work. New brick works were done on the tower’s facade due to the addition of windows.

Renovation History

Source: H.N.Tai

Source: Esther Odijk

Edited: H.N.Tai

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Q2: What are the differences in constructing Phase 1, 2 and 3?

In this analysis, the differences in construction, material and services when constructing Phase 1, 2 and 3 will be investigated.

Construction (Phase 1 & 2)

Although Phase 2 was constructed more than 20 years after Phase 1, it was intended to express the two phases with the same style. Therefore, the construction methods used are also the same.

As shown in the sketch diagram and beam plan, outer facades in phase 1 & 2 consist of load-bearing masonry walls, concrete beams and columns. The floor system (1 way wooden floor slab with primary steel beams and secondary wooden beams) is supported by the concrete columns and beams within the load-bearing masonry wall. Also, steel columns were used in the interior space, which are thinner and less massive.

The foundation consists of concrete footing with wooden piles. It is found that there are more piles under the position of steel columns, because the steel columns are the only element for vertical load transfer at those positions, while the outer walls consist of both concrete columns and masonry wall, both transferring the load to the strip concrete footing. Piles are also distributed to support the load-bearing walls of the staircase core.

Kettingverband (‘Chain’ Bond) was used for the construction of thicker brick wall to support the load. The bond consists of two stretchers plus one header, with the vertical joint between the two stretchers lying between the centers of the headers above and below.

Structure vs Material (Phase 1 & 2):

- **Beams**: concrete, steel, wood
- **Columns**: concrete, steel
- **Slab**: wood
- **Wall**: load-bearing brick wall
- **Piles**: wood
- **Foundation**: concrete

Kettingverband (‘Chain’ Bond)
Construction (Phase 3)

Due to the construction of tall tower in Phase 3, concrete structure was used which was different from the material and structure in Phase 1 and 2.

The structure of basement and typical floors are different: For basement, concrete walls are used to prevent water entering. The floor system consists of 2-way concrete slabs with primary and secondary concrete beams, supported by concrete columns. For typical floors, 2-way concrete slabs are supported by concrete columns with concrete column heads. The walls are non-load-bearing on typical floors.

The foundation included concrete pad foundation with concrete piles. From the pile plan, more piles are found to support the lift and staircase core. There are less piles on the upper and left side of the pile plan, because these position do not need to support the load of tower. (The floor area of the tower is smaller than the basement)

Raking Stretcher Bond was used in the wall construction, to build thinner and non-load-bearing walls along the facade. This bond consists of the whole stretcher. It is different from the standard Stretcher bond that the vertical joints are not aligned with the center of the stretchers above and below it.

Structure vs Material (Phase 3):
Slab, Beam,
Column, Piles,
Foundation: concrete
Load Transfer (Phase 1, 2 & 3)

In all phases, loads are transferred from floor slabs, to columns and then to the foundation.

For Phase 1, the previous rooflight is supported by primary and secondary steel beams, and the load is then transferred to concrete columns to the foundation.

For phases 1 and 2, the outer load-bearing walls transfer weight to the ground, while the outer walls in phase 3 are not load-bearing and do not transfer weight.
What are the differences in constructing Phase 1, 2 and 3?

For location of the details, please refer to the previous page

A. Typical Wall Section (Phase 1)

(The wall construction method of Phase 1 the same as Phase 2, with addition of one storey)

From the typical wall section, it is found that the wall is composed of masonry and concrete beam (lintel) and column (not shown in the section), where as the floor is composed of wooden floor, beam, ceiling hangers and acoustic ceiling tiles. The thickness of wall decreased towards the top level, probably due to the less load they need to bear. There is gap in between the masonry wall for water drainage. Yet, it is unknown why this gap does not exist in all masonry walls on the facade. Concrete foundation with wooden piles (below water level) are used.

B. Roof light (Phase 1, demolished)

The rooflight is supported by primary and secondary steel beams, and the load is transferred to the ground through the concrete beam and column of the wall.

For the rooflight itself, it consists of corrugated asbestos cement sheets on the outermost layer, to prevent water entering. There is no clear illustration about the water drainage from the rooflight.

The rooflight consists of roofdeck supported by the structure of wooden purlins with iron trusses. The inner surface is covered with plaster on expanded metal rib.

C. Steel window (Phase 1 & 2)

The steel window frames were originally used in the building. The steel window frames are fixed to the masonry on the top and bottom, while fixed to the wooden frame on the sides. Natural stone is used for the interior tiles of the window stool. Metal flashing is used to prevent rain water running along the wall.

D. Prefabricated concrete panel (Phase 3)

The concrete panels are fixed to the concrete structure of the building. There is space in between, with the gaps on the panels for water drainage, to allow water to run out of the facade.
What are the differences in constructing Phase 1, 2 and 3?

**Roof Drainage (Phase 1 & 2)**

In phase 1 and 2, roof drainage pipes run along the facade. Because the roof is angled, water runs to the edge of the roof, and are drained through the pipes there.

For phase 3, the drainage is probably hidden along the facade, because no obvious drainage pipes can be observed on its exterior.

**Main Central Heating**

Main equipments of the heating services such as water tanks, boilers, expansion tanks are located on the roof (6/F) of the tower in Phase 3. Supply water pipes run downward to rooms below through vertical pipe duct. These pipes go below the concrete floor slabs of the corridor, and then enter each room. They go along the walls to the convectors in the rooms. The return water pipes go the opposite way.

**Services (Phase 1, 2 & 3)**

**ROOF DRAINAGE (Phase 1 & 2)**

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**MAIN CENTRAL HEATING**

Main equipments of the heating services such as water tanks, boilers, expansion tanks are located on the roof (6/F) of the tower in Phase 3. Supply water pipes run downward to rooms below through vertical pipe duct. These pipes go below the concrete floor slabs of the corridor, and then enter each room. They go along the walls to the convectors in the rooms. The return water pipes go the opposite way.
Ceiling Services

PHASE 1 & 2

Phase 1, staircase

Original wires between wooden beams and suspended ceiling

After 1996, new services added below the original suspended ceiling

PHASE 3

Phase 3, typical floors

Services exposed, without suspended ceiling (including electric wires, water pipes for heating system)

Damages

Source: H.N.Tai

Source: NAi

Source: H.N.Tai

Location of original wires between wooden beams and suspended ceiling

Location of new services

Location of services, exposed without suspended ceiling

Services (Phase 1, 2 & 3)

Ceiling Services

In phase 1 and 2, the original ceiling services were hidden between the wooden beams and the suspended ceiling. After the renovation of the building in 1996, the suspended ceilings were stripped off. New services were also added below the original suspended ceiling location.

For phase 3, there is no information about suspended ceiling in the original design. Yet, when observing the present situation, services, including electric wires and water pipes for heating system, are exposed and run beneath the concrete slab.

DAMAGES

There is no obvious damage in the building. Only two damages are observed in Phase 3:

- Small cracks on the plastered wall below the concrete beam was found due to compression. Yet, this crack is very minor and is only on the plaster layer, but not the structural elements.
- Mold is found underneath the beam at the staircase on 5/F. The reasons for that is not verified, but could be due to the moisture from the heating services above the mold location.

CONCLUSION

WHAT ARE THE DIFFERENCES IN CONSTRUCTING PHASE 1, 2 AND 3?

Willem van Rijn underwent three phases of construction and two times of renovation.

In phase 1 and 2, various materials, including steel (beams and columns), concrete (beams, columns, foundation), wood (piles, beams and slabs), and brick (load bearing wall) were used for the structure. While for phase 3, due to the need to construct a taller tower, the structural beams, columns, floor slabs, foundations and piles were all concrete, without load bearing wall on the facade.

As the facade in phase 3 is not load bearing, extensive change of facade was possible in the tower in 2006. Whereas in phase 1 and 2, only the window frames and small parts of the facade were changed.

Although the three phases were constructed separately, provision of some services such as heating was centralized later in the tower of phase 3, serving the three phases as a whole.

VALUE ASSESSMENT (BUILDING TECHNOLOGY)

POSITIVE (+):
- Strong structure: No visible damage, concrete structure is reusable (sustainable)
- Non load bearing wall in phase 3 allows facade to be changed easily

INDIFFERENT (0):
- Constructed in 3 phases with different structure

NEGATIVE (-):
- Inconsistent brick facade due to alternation/renovation in 1996 and 2006
2.4 Building Choice (Willem van Rijn)

- Value Assessment
- Position
2.4 Building Choice (Willem van Rijn)

**VALUE ASSESSMENT**

<table>
<thead>
<tr>
<th>+</th>
<th>0</th>
<th>-</th>
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<tbody>
<tr>
<td><strong>Urban</strong></td>
<td>- Relationship with water and green: adjacent to the Brettenzone (future metropolitan park), haarlemmer-trekvaart, Westelijk Marktkanaal</td>
<td>- Currently located within the only industrial area in the Southern part of our project area</td>
</tr>
<tr>
<td></td>
<td>- The area is going to be redeveloped into living and working area</td>
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**Architecture**

- Careful composition of masses & levels
- Entrance, steel windows frames, floor tiles and handrail of stairs from 1938 were kept
- Open space of the building changed from open to introvert
- Constructed in 3 phases with different architectural expression
- Courtyard is currently used as carpark

**Building Technology**

- Strong structure: No visible damage, concrete structure is reusable
- Facade in phase 3 can be changed easily
- Constructed in 3 phases with different structure
- Inconsistent brick facade due to alternation/renovation in 1996 and 2006

**REFERENCES**

The Mint, Sydney
Morgan Library, NYC

**POSITIONS**

The following positions for redevelopment are concluded from the value assessment of Willem van Rijn, categorized into urban, architecture and building technology aspects:

**URBAN**
- Utilize the relationship with green and water
- Improve relationship with Brettenzone & FCA
- Improve relationship with the neighborhood

**ARCHITECTURE**
- Express the idea of masses and levels
- Keeping the historic assets in the building, such as entrance, steel window frames, floor times and handrails from 1938
- Utilize the courtyard and introduce communal program

**BUILDING TECHNOLOGY**
- Keep the existing structure
- Make good of the facade brick work
3. Position Paper
In the future planning of Amsterdam, densification of the city plays an important role to accommodate the growing number of people. Redevelopment of industrial area into living and working area, especially in Amsterdam West (the site for the RMIT Mixed Project Studio this year), will be adopted for a more intensive use of space. In this position paper, I am going to reflect on the present stage of my MSC-3 project. I will first explain the cultural values of Amsterdam West and Willem van Rijn (the building I am going to focus in my graduation project); second, by what approaches I am going to incorporate these values into my design; and lastly my position as architect on cultural values and redevelopment issues.

PART I: CULTURAL VALUES

1. AMSTERDAM WEST VS AMSTERDAM CENTER

i) Value in the past - Amsterdam West supported the growth of Amsterdam Center

In the past, Amsterdam West has an important role in supporting the growth and prosperity of Amsterdam Center. This is because Amsterdam West has a good geographical location to connect the trading ports in Amsterdam Center and other cities in Western side of the Netherlands. Therefore, early in 1631, Haarlemmertrekvaart was constructed to provide a shortest trading route connecting Amsterdam Center and Haarlem through Amsterdam West. Yet, the significance of Amsterdam West as an entrance to Amsterdam Center decreased later, and Haarlemmertrekvaart was no longer in use in 1839, due to the development of fast transportation, such as railways, highways.

ii) Present and Future Value - Amsterdam West sustains the densification of Amsterdam

Amsterdam is getting denser and denser. The need to accommodate the increasing amount of people triggers the expansion of urban development from center outward. Amsterdam West will be therefore redeveloped from industrial to living and working area, playing a significant role to support the densification and expansion of Amsterdam.

2. AMSTERDAM WEST

i) Urban structure value - Brettenzone balanced the development in Amsterdam West

Amsterdam West has been extensively developed since the late 19th Century. The Northern and Southern parts within Amsterdam West area had their own developments: large scale industrial developments, such as Houthaven, were planned in the North near the IJ for easy water transportation, while small scale residential developments were located in the South. In between was the Brettenzone which was remained undeveloped intentionally under the AUP (Algemeen Uitbreidingsplan) to provide a green buffer between the industrial and residential area. Allotments and Teleport (business area built in 1980s) are later on developed within the Brettenzone. This clear division within Amsterdam West area has been beneficial for the growth of residential neighborhoods from being affected by the pollution from industrial area.

In the future, the Northern industrial area and the center Food Market Area will be redeveloped into mixed living and working functions. The Brettenzone will be upgraded into metropolitan park which will benefit inhabitants around. However, due to the presence of railway tracks and Haarlemmertrekvaart to the North and South of the Brettenzone, as well as the Westelijk and Oostelijk Marktkanaal surrounding the Food Center Area, interconnection between neighborhoods in Amsterdam West may not be very efficient.

Fig 1. Future urban planning of Amsterdam West
3. WILLEM VAN RIJN

i) Age Value

Willem van Rijn was a factory building for the company Bosch, consisted of showrooms, workshops, offices, garages and two service homes. The building has gone through design and construction in three phases. Phase one was designed by B. Merkelbach and Ch.JF Karsten in 1938, and further extensions were done by B. Merkelbach and P. El-ling in 1960, and by the office of El-ling's decease (fig. 6). In 1998, the new owner and architect Lauren de Boef transformed the previous Bosch factory into workspaces for creative industry (Da Vinci Bedrijvenhuis). Further alternation was done to the tower (Phase three) in 2006-2007 to create new offices and studio spaces.

Willem van Rijn building has gone through continuous transformations to cater to the changing needs, functions and users in the building. The additions and alternations in different generations come together in a harmonious way.

ii) Community value

The idea of bringing social improvements was accomplished through the design and programs of Willem van Rijn in various phases. Merkelbach, who was the first architect of Willem van Rijn, was an idealist architect with strong social commitment. He aimed to improve the quality of people's life through designing pleasant living or working envi-ronment. This intention was implemented in his projects including Willem van Rijn. Moreover, when the building was renovated in 1998, the owner/architect Lauren de Boef also had in mind to provide affordable spaces for new artists founding their business. This idea and value of social com-mitment should be continued in the building in the future.

iii) Architectural value

Details in the past

In the present Willem van Rijn building, some of the details from the 1938 were kept adding the historic values of the architecture. These include the curving entrance, as well as staircases, steel windows and floor coverings in the interior. Yet, some of these details, for instance, the entrance (glass wall replaced by glass blocks) and the steel window frames (replaced by PVC window frames) were altered during reno-vation, diminishing these fine past features.

-Courtyard

Due to the additions in different phases, the original open space within the Willem van Rijn premises gradually closed off and became an enclosed courtyard. The changing com-position of masses gives a different identity of the building to become more introvert, increasing the inter-relationship between different functions within the buildings. Yet, the present courtyard is used as a car park, but not utilized for communal activities within the building.

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PART II: APPROACHES

In redesigning the Willem van Rijn building, different approaches in both urban and architecture levels can be incorporated:

1. APPROACHES IN URBAN LEVEL

Continuity of the site and urban composition

By reusing the existing Bretenzone and the greenery and canals around the area, the site of Willem van Rijn has the potential to help support densification and growth. This is achieved by providing more green leisure and recreation spaces. There is not a need for drastic alteration of the site, but small alternation of the urban composition to improve the urban connectivity will be appropriate.

2. APPROACHES IN ARCHITECTURAL LEVEL

i) Continue the diversity of ages

The co-existence of different phases in the building generates diversity. The old and new parts in Willem van Rijn were expressed in various compositions of masses and in different styles from the time they were constructed. These varieties come together in a harmonious way, just as Jane Jacobs emphasized the importance of mixing old and new buildings to maintain the vitality of a city. This idea is also applicable in a smaller scale to increase the liveliness of a building. Instead of replacing and covering up the older parts, a possible approach is to express or even emphasize the old features of the building. On the other hand, new masses can be added and expressed in modern ways, for instance with glass and steel, but not imitating what is called the new brick works. In the end, it could be possible ending up in contrasting ideas and expressions, adding up the diversity of ages of Willem van Rijn by diverse materials and composition of masses.

ii) Continue / Reinterpret the concept behind Willem van Rijn

The idea of Willem van Rijn was to improve workers’ working conditions and later on to provide affordable rental spaces for creative industry. My position is to continue this idea of social commitment, and potentially extend it to prevent having prejudices in favor of or against certain aspects during redevelopment.

iii) Preserving or reviving the craftsmanship relics

Details from 1938 represent the historic values of Willem van Rijn. Although some of them were altered in previous phases, they should be kept or even revived to add into the diversity of ages in the building.

PART III: POSITION

In the following paragraphs, I am going to discuss my position as an architect in relation to cultural values and redevelopment issues, that architects should be objective, be able to adapt the past to the present, and to balance interests of different parties.

1. BE OBJECTIVE

Architects should be objective, but not selective when evaluating old buildings/monuments. We should conduct thorough researches on different facets of a building/site, to prevent having prejudices in favor of or against certain aspects during redevelopment.

Currently, historians and architects unintentionally bias towards "the magnificent and the unique", in order to make the past "attractive in modern terms". However, it is not only the splendid parts of a building, but also the ordinary bits and pieces to be considered in preservation and redevelopment, so that we will not end up with biased, desired, or even beyond recognizable interpretations of the past. It is also the same in urban settings, that we should not only preserve the gorgeous monuments, but also consider the context that make up their splendidness. Architect Jo Coenen gave an example of Zaaktboom in the Netherlands, where the historic inner city with its characteristic blunt church tower is rapidly but almost unnoticed being surrounded by a lunar landscape of acoustic screens, industrial estates and motorways, suggesting "urban degradation is just as bad as the dilapidation of an individual monument."

2. ADAPTING THE PAST TO THE PRESENT

Even though we need to be objective in distinguishing cultural values and redevelopment issues, it does not mean we should keep all past legacies intact like exhibits in museums. ‘A heritage is something to be preserved and understood... but also to be modified to meet the needs of a changing world.’ David Lowenthal suggested that ‘prolonged survival usually requires subsequent uses utterly unlike the original one’. Balance between preserving and adaptation could be sought by gradual new constructions ad vocated by Jane Jacobs, so that the old parts are adapted to present needs instead of replaced by completely new constructions. This also results in combination of new and old buildings, providing a society of complexity and diversity to accommodate people from different strata. David Lowenthal also mentioned a similar idea of continuous changes to adapt the past legacies to present situation: ‘Only the continual addition of more recent history prevents the past we revise from becoming marooned in ever remoter antiquity.’

3. BALANCING INTERESTS OF DIFFERENT PARTIES

Professor Paul Meurs highlighted in his lectures of heritage development, the importance of considering various values of the heritage: community, age, design and expert values. This implies the balance between interests of different groups of people, including the commoners, planners, architects and advocacy groups. Any decision on development as well as redevelopment brings influences to these stakeholders. Therefore, they should have the right to participate in the decisions. As architects, we should be aware of the interests of different parties. It would be even better to promote public engagements during design process, to encourage exchange of ideas in early stage of the project.

To conclude, both Amsterdam West and Willem van Rijn have their cultural values, providing a background that Willem van Rijn could be redeveloped with both urban and architectural approaches. These approaches include the continuity of site and urban composition in Amsterdam West, and continuity of diversity of ages, reinterpretation of social commitment concept, and preservation of craftsmanship and relics in Willem van Rijn. While considering the cultural values and redevelopment, I think architects need to be objective, to be able to adapt the past legacy to the current world in a manner without bias, and to balance different people’s interests.

LITERATURE:

8. Ibid
9. Ibid, p. 281
4. Reflection
In this document, I am going to reflect on the research and design in the course of my graduation project, and to evaluate the methods and argumentations previously proposed in my study plan. The reflection includes aspects such as theme, methods used, research and design relationship and social relevance of my graduation project.

1. THEME OF THE STUDIO VS CHOSEN SUBJECT:
The theme of RMIT Graduation studio this year is Amsterdam aan Zee, which focuses on Amsterdam West and the transformation of the Brettenzone from past to future, including culture, history, social economic structure, urban landscape and architectural aspects.

The Willem van Rijn area chosen in my graduation project is located in Landlust, to the South of the Brettenzone, which was planned as an industrial area and is going to be redeveloped into new living and working area. The chosen area was influenced by the historical urban planning of Amsterdam West. It will also contribute a significant role in future redevelopment of Amsterdam West.

The chosen building (Willem van Rijn building) within the area was once an industrial building transformed into offices for creative industries in 1996. There are a number of vacancies in the building at the moment, giving a potential for transformation with the wider urban context for better use.

2. METHODICAL LINE OF APPROACH OF THE STUDIO VS CHOSEN METHOD:
RMIT studio focuses on both research and redesign. Research of RMIT studio can be categorized into 3 parts/scales: urban analysis, architectural analysis and building technology analysis. From there, positive, indifferent and negative values of three scales are extracted to generate starting points for my design. However, I found there is a missing bit between the urban and architectural scale. Therefore, research on social problems in Landlust was added to make my research more comprehensive.

3. RESEARCH VS DESIGN RELATIONSHIP:
Research and design are closely related as mentioned in my study plan. It is a back and forth process ('research by design' and 'design by research') but not a linear process starting from research to design.

In the beginning of the studio, I proposed to redevelop Willem van Rijn building for new cultural facilities to enhance North-South connection across the Brettenzone. This topic was proposed in accordance to the problems found in urban analysis of Amsterdam West.

However, when go deeper into the design process, I found the redesign of Willem van Rijn area is too small for addressing the problem of North-South connection across the huge Brettenzone. As a result, I research more into the neighborhood of the building, and found that social problems in Landlust is a more interesting starting point for my redesign.

Moreover, interventions proposed in my design are based on the value assessments of the research. With the interaction between research and design, the design of the project becomes more reasonable with supporting evidences, even though it took longer to found out a suitable position for the redesign.
4. PROJECT VS WIDER SOCIAL CONTEXT:

The project considered wider social context in addressing the future development of Amsterdam West and social problem in Landlust. Future urban planning of Amsterdam Municipality (Structuurvisie Amsterdam 2040), and the Amsterdamse Wijkaanpak were studied and considered to make the design more realistic and in line with the society.

Also, in researching the Willem van Rijn building, conversations were conducted with the owner and users there, to understand what they think about and want from the building. The owner is also interested in the RE/Design of this building in the future, providing opportunities that more interactions with the owner and users.

In general, the graduation project has been conducted according to my study plan. Yet, longer time was spent than expected to research back and forth to come up with a more suitable topic of the project. However, with the extra in-depth research on social problem in Landlust, the project becomes more reasonable and related to social context. As an improvement, more time could be spared for research in the planning for future projects.