Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Graduation Plan: All tracks

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Lonneke
Student number	4032802
Telephone number	
Private e-mail address	

Studio	
Name / Theme	Heritage & Architecture - Housing Amsterdam
Teachers / tutors	Lidwine Spoormans en Wido Quist
Argumentation of choice of the studio	I have never done a heritage project before and I would like to broaden myself within the different chairs of architecture, I think renovation, a very relevant topic of today, can't be missing within this learning process.

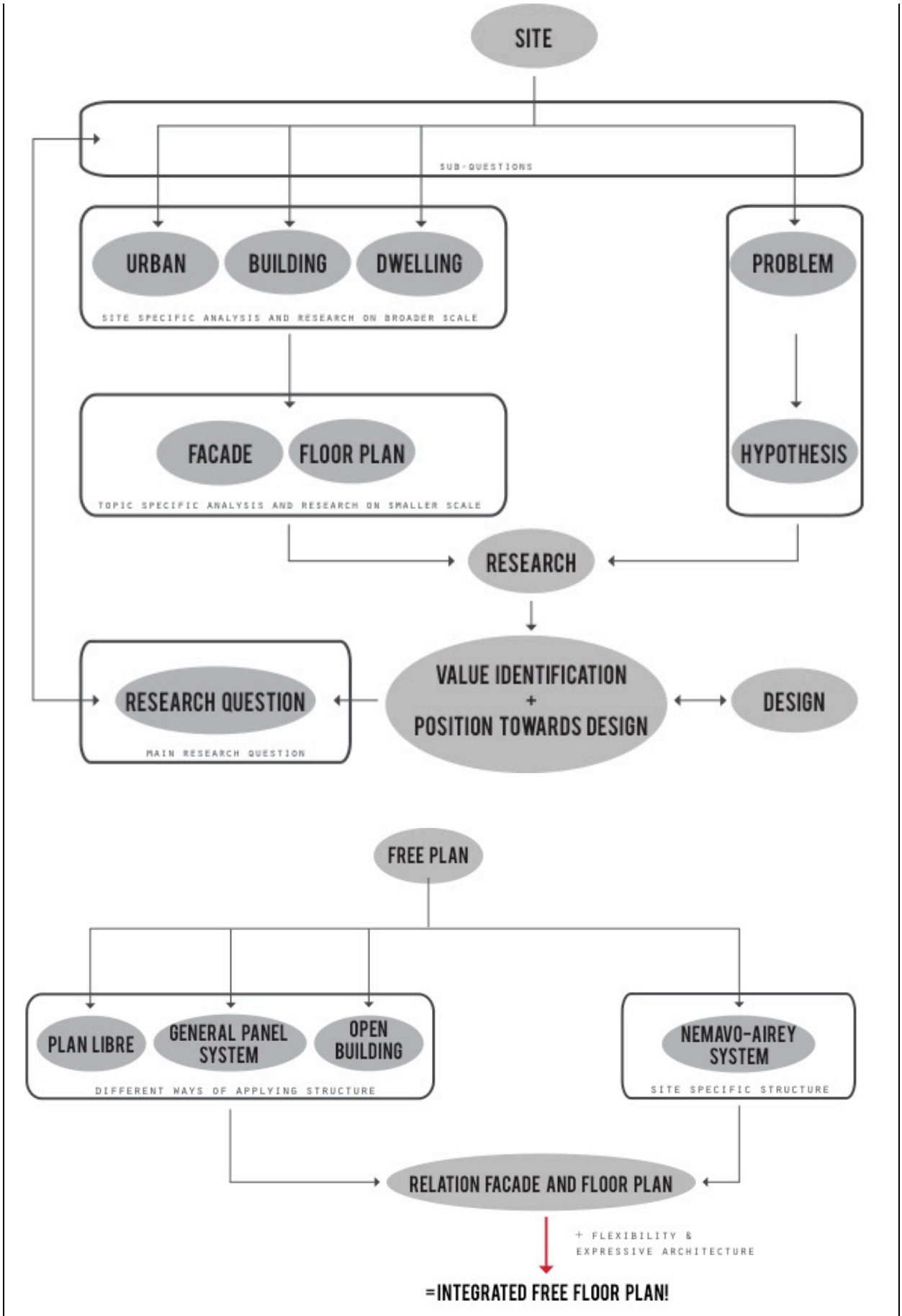
Graduation project	
Title of the graduation project	Flex Plan within structured skin
Goal	
Location:	Airey-Strip - Amsterdam West
The posed problem,	The Airey-Strip is built in the reconstruction period after the second World War. In this period it was the task to build as much as possible in a really short time. That is why prefabrication was introduced. The English Airey-System is one way of prefabrication. After some modifications, in the Netherlands called NeMavo-Aireysystem. The system is recognizable because of the concrete panels of 625x375 mm in the exterior. This concrete façade represents the ideals of modern architecture of the 50s with its emotional and cultural value and should be therefor kept in its original origin. The Airey-System is consisted of a construction of concrete columns in the façade, which create a really strict grid. Because of this a floor plan that is free to develop derives. The advantage of a free floor plan caused by the Airey system presented in the façade, has not been put to use. This fascinated me and triggered the start of my graduation project.

research questions and	Sub-questions: 1. What is the role of the façade and the interior of the building? 2. Should there be a relation between the façade and interior partition? 3. What are other ways of providing a free floor plan? Main question: What is the relation between the inner- and outer structure of The Airey-Strip in order to create an integrated free floor plan?
design assignment in which these result.	By the use of the research that has been done, I would like to improve the NeMavo-Airey System in order to create a total flexible floor plan, which can be developed by the owners themselves, with their own interpretations, to expand the lifespan of the building. Therefor the possibilities of the interior configuration are investigated by using the 5 layers of a building with a specific attention to the different ways of accessibility. To create a flexible floor plan within the existing skin, the cultural value of the architectural appearance of the Airey-System has to be taken into account and owner participation should be encouraged. The modification of the building is not only an improved version of the Airey-Strip but should be applicable in other buildings whereby the Airey-System has been used.

Process

Method description

Finding the answer to the main research question, sub-questions are formulated during the research phase. This research phase is divided into a site-specific analysis and research on a broader scale and on a smaller scale concerning the topic, the relation between the inner (floor plan) and outer (façade) structure. Within this research about a free floor plan, different ways of creating a free floor will be investigated and compared with the Airey-System. The research forms the base of the designing phase whereby the use of the theory of Bernard Leupen about the different layers of a building and the 'Open Building' theory of John Habraken is used. Within the theory of Bernard Leupen, I used the accessibility layer to come up with different possibilities of interior configurations and dwelling typologies. These possibilities have been tested by using own formulated criteria.


SITE
SUB-QUESTIONS
URBAN
BUILDING
DWELLING
SITE SPECIFIC ANALYSIS AND RESEARCH ON BROADER SCALE
PROBLEM
FACADE
FLOOR PLAN
TOPIC SPECIFIC ANALYSIS AND RESEARCH ON SMALLER SCALE
HYPOTHESIS
RESEARCH
RESEARCH QUESTION
MAIN RESEARCH QUESTION
VALUE IDENTIFICATION
+
POSITION TOWARDS DESIGN
DESIGN
FREE PLAN
PLAN LIBRE
GENERAL PANEL SYSTEM
OPEN BUILDING
DIFFERENT WAYS OF APPLYING STRUCTURE
NEMAVO-AIREY SYSTEM
SITE SPECIFIC STRUCTURE
RELATION FACADE AND FLOOR PLAN
+ FLEXIBILITY &
EXPRESSIVE ARCHITECTURE
=INTEGRATED FREE FLOOR PLAN!

Literature and general practical preference

Anita Blom, B. J., Marieke van der Heiden (2004). De typologie van de vroeg na-oorlogse woonwijken. Projectteam Wederopbouw van de Rijksdienst voor de Monumentenzorg. Zeist, Rijksdienst voor de Monumentenzorg. 52.

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Schilt, J. (2002). De architect en de naoorlogse volkshuisvesting. De organische woonwijk in open bebouwing. Cuypersgenootschap. Rotterdam, Uitgeverij 010: 87-102.

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Zita Messchaert, F. M., Frans Heddema, Paul Meurs (2004). Pracht in prefab, Het Nemavo-Aireysysteem in Amsterdam. Utrecht, Zuidam en Uithof.

Photographs and drawings have been obtained from visits to the site and available documents by Hooischuur architects.

Reflection

Relevance

Out of the literature can be mentioned that: ‘The separation of what is called ‘support’ and ‘infill’ of flexibility and user participation, is rudimentary present in the Airey-System.’ BRON Using and improving the Airey-System will show that flexibility within a building with specific cultural value can expand the life span of the building by owner participation and different dwelling typologies.

Not only the architectural appearance will remain intact, also the opportunity for owners to create their own identity within the interior configuration will enhance the sustainability of the building. This combination of preservation and transformation over time is something that should be taken into account in today’s architecture.

Time planning

MSc 3

P1: RESEARCH

1.1	Introduction
1.2	Visiting the site
1.3 t/m 1.6	Location and building analysis + Research on the topic
1.7	Cultural value part of research report
1.8 en 1.9	Research on the topic + Reparations P1 presentation
1.10	P1 presentation + Concept version research report (27 October)
1.11	Lectures + Feedback research report
1.12	Excursion + Finalizing research report
1.13	Final delivery research report (20 November)

P2: DESIGN CONCEPT

2.14	Graphical presentation research to design concept
2.15	Sketch design + variants
2.16	Graduation Plan + Presentation on facade
2.17	Presentation overview pre-P2
2.18 en 2.19	Defining design concept in plan, section and elevation
2.20	Preparing P2 presentation
2.21	P2 presentations (12 and 15 January)

MSc 4

P3: MID-TERM DESIGN

3.22	Revision of architectural concept
3.23	Redefinition design concept + Detailing program + Details
3.24 t/m 3.27	Climate concept + Defining design in plan, section, elevation and details
3.28	Preparing P3 presentation
3.29	P3 presentations (proposed date)

P4: FINAL DESIGN

4.30	Design refinement
4.31	Production of models and drawings (plan, section, elevation, details, climate and interior)
4.32	Preparing P4 presentation
4.33	P4 presentations (proposed date)

P5: FINAL DESIGN

5.34	Design refinement
5.35 t/m 5.38	Production of models and drawings + Making research book
5.39	Preparing P5 presentation
5.40	P5 Presentation (proposed date)