GRADUATION PLAN: It is time for new vernacular buildings.

Mimi Merel Oldenhave November 2020



This graduation plan is part of the graduation project: It Is Time For *New Vernacular* Buildings

Project: Master Graduation Studio: Second Life Specialization: Architectural Engineering Master: Architecture, Urbanism and Building Sciences University: Delft University of Technology

Student | Mimi Merel Oldenhave

Final DesignTutor | Martijn Stellingwerff Initial DesignTutor | Anne Snijders Building Technology Tutor | Paddy Tomesen Research Tutor | Martijn Stellingwerff

External Examinator | Alper Alkan aE Coordinator | Mo Smit Head of aE chair | Thijs Asselbergs

Date | November 2020

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

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Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (<u>Examencommissie-</u> <u>BK@tudelft.nl</u>), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

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

Personal information	
Name	Mimi Oldenhave
Student number	4271351

Studio		
Name / Theme	Second Life	
Main mentor	Martijn Stellingwerff	Form and Modelling Studies, Architecture
Second mentor	Paddy Tomesen	Architectural Engineering, Architecture
Argumentation of choice of the studio	ArchitectureRedevelopment is a relevant topic in the Netherlandstoday. More and more of the architecture work willconsist of redevelopment, especially officeredevelopment.In the context of office redevelopment theinterventions that we can employ are limited. Inbuilding redevelopment we speak of a 'zero-point' ofthe building. This is the point up to which the buildingcan be "peeled-off" such that it can be reused insteadof being demolished. In practice, this means strippingthe façade down to the structure. Because the buildingvolume and the building lines are fixed, redevelopingoffice buildings often comes down to a façade design.It was my interest in (re)designing the urban facade andits connection to the street and adding quality that ispresent in historic centres. This matched with thepossibilities and challenges of the studio.	

Graduation project

Title of the graduation project	It is Time for New Vernacular Architecture		
Goal			
Location:	Kingsfordweg 1, Sloterdijk, Amsterdam, The Netherlands		
The posed problem,	There are three mayor problems with modern architecture. (This became clear during my research when I compared modern with vernacular architecture.)		
	AESTHETIC PROBLEM The modern aesthetics is very repetitive and monotonous, because of the high technical level everything is standardised, versus the handmade natural low-tech variation of the vernacular aesthetic.		
	FUNCTIONAL PROBLEM Modern (office) buildings are very mono- functional and have no hierarchy. Vernacular areas, on the other hand, are multifunctional and have a direction because they relate to a centre.		
	TECHNICAL PROBLEM In the technical field, modern society is dominating over nature, exhausts nature and creates a lot of waste and toxins. In contrast, vernacular buildings are in balance with nature. There is no waste or no toxin production and change is self-evident.		
research questions and	How can we learn from vernacular architecture and use this in office redevelopment?		

design assignment in which these result.	Redevelopment of the facade and the urban context with three challenges:
	AESTHETIC CHALLENGE Creating liveliness, and a location specific and personal facades
	FUNCTIONAL CHALLENGE Making change in use and preferences in the facade possible
	TECHNICAL CHALLENGE Using biodegradable materials

We can learn from the aesthetic qualities by comparing the qualities of the facade regarding the affordances of liveliness and the expression of liveliness and translating them into abstract concepts and parameters that can be used in the design process.

Process

Method description

In the end the research was a qualitative research by a facade comparison that was interpreted through logical argumentation, theory literature and historical literature. I think this approach worked out well and managed to add knowledge on how to use observed aesthetic quality into the design process without copying an image.

The overall process of the project was not very smooth. Because I was doing qualitative research it was hard to predict and plan. This is one of the characteristics of qualitative research. However, I think this is a very important aspect of creativity. The moment we know what to expect we are not open to discover something new.

Literature and general practical preference

Patterns in Architecture

- Alexander, C. (2002). The nature of order : an essay on the art of building and the nature of the universe. Berkeley, California: Center for Environmental Structure.
- Salingaros, N. (2014). Complexity in Architecture and Design
- Salingaros, N. A. (2000). The structure of pattern languages. Architectural Research Quarterly, 4(2), 149–162.

Urban layout

- Beske, J., Dixon, D. (2018). Suburban Remix, creating the next generation of urban places. Washington: Island Press.

Material Use

- Rau, T., Oberhuber, S., Hennekeler, R. & Jong. (2016). Material matters : het alternatief voor onze roofbouwmaatschappij. Amsterdam: Bertram + de Leeuw Uitgevers.

Emotionally Durable Design

- Chapman, J. (2012). Emotionally Durable Design. https://doi.org/ 10.4324/9781849771092
- Kwan, P. Y. (2012). Exploring Japanese Art and Aesthetic as Inspiration for Emotionally Durable Design. Retrieved from https://www.designedasia.com/ 2012/Full_Papers/Exploring Japanese Art and Aesthetic.pdf

Reflection

(See reflection paper)