

# Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



## Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners ([Examencommissie-BK@tudelft.nl](mailto:Examencommissie-BK@tudelft.nl)), 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:

<b>Personal information</b>		
Name	Liselotte Klerk	
Student number	4398467	
<b>Studio</b>		
Name / Theme	AR3AH0105 Adapting 20 <sup>th</sup> Century Heritage Vacant Heritage - Politie Bouwmeester	
Main mentor	Joana Dos Santos Gonçalves	Design
Second mentor	Frank Koopman	Building technology
Third mentor	Wido Quist	Research
Argumentation of choice of the studio	<p>In the Netherlands today we are dealing with a housing shortage caused by a growing population in a small country. Since the land area will not increase, we will have to make do with the space we have. The vacancy of buildings can play an important role in solving (a part of) this problem. Since my graduation project addresses this vacancy problem, this studio is in particular a good fit to my subject.</p> <p>Personally I have always been fascinated with heritage, originating from my childhood vacations to France. The impressive atmosphere of castles and churches, built hundreds of years ago, has always stayed with and is the reason I choose this field in the first place. The idea that so many men had built these buildings by is incredible and worth preserving. Another theme I would like to address in my graduation project is therefore the atmosphere in (heritage) buildings.</p> <p>During my studies here at the faculties, I have become interested in architecture from all times. I believe that even when designing new buildings, knowledge of the past will help you. Old techniques can be used, adapted or perfected and understanding design choices in de past helps to choose and motivate our own choices.</p>	

## Graduation project

Title of the graduation project	Layering of time in the Police headquarters in Rotterdam
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### Goal

Location:	Doelwater 5, Rotterdam
The posed problem,	[Problem Statement]
research questions and	[Research Question]
design assignment in which these result.	[Design Assignment]

### Problem Statement

Since the formation of the National Police in the Netherlands in 2013, they are dealing with a big real estate challenge. A part of their real estate needs to be redeveloped (Heritage & Architecture, 2021). In this graduation studio we elaborate on this redevelopment through research and design.

My choice for the headquarters building in Rotterdam is motivated by the buildings myriad of colors and different materials, which gives a unique look. Combined with the opportunity the building could be, since it is such a big building in the city center of Rotterdam, makes it a unique chance to for my graduation project.

Currently the building is still in use by the police. The building mainly contains office spaces and meeting rooms. Since more services of the police are becoming digitally (Weessies, 2017), this building has become too big for the required uses. Although some of the office space could remain in use by the police, a large part of the building will have to be repurposed and given a new function. Additionally, the appearance of the interior is also in need of renovation. The use of color and materials provides an outdated outspoken look.

Rotterdam is a modern city that has become a popular place to live in recent years. (Gemeente Rotterdam, n.d., p. 9) The police headquarters building could be very suitable for residential housing due to its gross floor area of over 25,000 square meters, the existing office structure and the prime location in the city center of Rotterdam directly behind the city hall.

Given this large amount of unused space at a prime location, the problem statement can therefore be formulated as: How can the Rotterdam police headquarter be redesigned and repurposed for residential use, whilst preserving the values of the building.

## **Research question**

The research will consist of four parts with as main theme of layers of time. Resulting in an overall understanding of the term and an answer to the research question that relates to the perception of this specific building:

How does the layering of time in the facades of the police headquarters of Rotterdam expresses itself, and how does it influence the perception of the building?

### **1. Layering of time**

This term became a concept in architecture but in this research the focus will be on the perception of this layering on different levels. The first part of the research paper will elaborate more on this term.

### **2. The layering of time of the Police headquarters in Rotterdam**

This part relates the term to this specific building. Analyzing the physical layers of materials in the facades, the visibility of the different building parts from different time periods, finding the stories of the building, looking at the change of the surroundings, etc.

### **3. Valuation of layering**

Listed monuments are described in a small text concerning the values of the building that made it worth preserving. In order to find the values related to the layers of time in this building, an attempt is made to formulate a text similar to the constructed texts concerning national monuments, but focused on the perception of the layering of time on the exterior of the building. Using this framework as a tool to construct a text will help capturing the values properly.

### **4. Input for redesign**

A new intervention can be seen as another layer of the building. Understanding the values of the existing layers of time will help creating a new one.

## **Layering of time**

The bombing of Rotterdam on May 14, 1940, left the city destroyed. One might expect that the original Police building of 1935-1938, designed by Ad van der Steur, would be destroyed by this tragedy. However, drawings of the current design show that the old building had apparently survived the war. The 1981-1993 building of Maarten Struijs appears to be a redesign and addition to the old building. Although the original building is still standing, the redesign has rendered it unrecognizable. The literal new layer of insulation stucco covers the brick facades and the classic sloped roof had to make way for a wavy, elevated roof, which refers to the water of the Haagseveer. This 80s redesign radiates the post-war ideas of the city: Everything was possible. But looking at it from the present time, the building looks chaotic and outdated.

The redesign as a new layer to the building has become the inspiration for the base of this research. Layering is a known concept in architecture, but in this research the focus will be on the perception of this layering on different levels.

The physical layers of materials in the facades, the visibility of the different building parts from different time periods, but also stories about the building can form layers of time. Stories about the time the old police building was used as a prison during World War II or the use of the offices spaces nowadays. Layers fixed in people's memories. The change of environment and the history of the location can also be described as a layers of time. In which the history is a layer as well as the future of the location, because the surroundings of the building will change in the upcoming years, like it has changed in de past. For example, the apartment complex on the other side of the Doelstraat will make way for the highest skyscraper in Rotterdam.

### **Valuation of Heritage**

I have always been interested in heritage buildings and their meaning in today's society, but this mostly concerned much older buildings. With its lack of obvious beauty from ancient times, the values of this building might be less clear but not necessarily less important.

Finding elements that give this building value will not only clarify the preservation of this specific building, it can also function as a framework or method to deal with less obvious heritage buildings in the future.

The Police headquarters building in Rotterdam is not listed as monument, but probably still recognized as heritage by some. According to the website of the Rijksdienst voor het Cultureel Erfgoed, the list of national monuments is a reflection of what we, experts and citizens, consider important to preserve for the future. It is therefore possible to submit a proposal to nominate a building for designation as a national monument. (Rijksdienst voor het Cultureel Erfgoed, sd) In order to get listed, a building has to meet several requirements.

In addition to the obvious heritage reasons to preserve a building, like cultural-historical or scientific values, there are also other values that make a building worth keeping. To start with one of the most relevant themes of our time: sustainability. Demolition of a building is a waste of resources and a lot of embedded energy will be wasted. (Kuipers & de Jonge, 2017, p. 29) In this case, the gross floor area of over 25.000 square meters would generate an enormous amount of waste.

Another valid reason to preserve heritage is that people can value a memory or sensation connected to a building or place. Since this valuation is very personal and elusive, it is a challenge to stay objective. The idea of some places having an individual spirit arises from ancient times and was often connected to religious expression (Kuipers & de Jonge, 2017, p. 61) This 'spirit' can give a heritage building a distinguished identity; it gives a place a soul. (Kuipers & de Jonge, 2017, p. 61)

## **To show or not to show**

In 1917, the KNOB formulated the "Ground Principles" with the purport of 'preserving before renewing'. (Kalf, 1917, pp. 69-75) This approach was ... to the reconstructive restoration approach of Pierre Cuypers at that time. Later, in the Venice Charter in 1964, was stated that: "The conservation of a monument implies preserving a setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition or modification which would alter the relations of mass and colour must be allowed." (ICOMOS, 1964)

To the present day, the approach towards preserving heritage keeps changing. The terms continuity and contrast are of great importance here. According to Job Roos the choice between harmony or contrast is essential in redevelopment, but there must also be room for imperfection or the unexpected (Roos, 2007, p. 12) The choice for contrast or continuity in relation to the layering of time forms the question what to show and what not?

Restoring a building back to its original form can sometimes lead to a less authentic building than leaving the various modifications over time visible. This often requires copying parts that are lost, when replaced the historical value of this new part that represent the old is questionable.

In the book temp, mo. mo. they recognize the added value of showing layering over time, saying that it is a well-established opinion within the conservation of monuments to attribute cultural-historical value to changes over time (Quist, Stroux, & Bierman, 2012, p. 21).

If an interior or exterior of a building has been drastically changed several times, it will have had a different appearance in each time phase. The discussion about which atmosphere should then be restored during restoration or, if desirable, during transformation is an interesting discussion.

## **Design Assignment**

The formation of the National Police in the Netherlands in 2013 led to the redevelopment of several of their buildings. The location, size and structure of the headquarters building in Rotterdam is specifically well suited to convert into housing, which fits my ambition to contribute to reducing the housing shortage.

Additionally, this design will incorporate a societal function to increase the feeling of a local community. Due to the population ageing, loneliness is an increasing problem in our society. But this loneliness does not only occur in the elderly. Due to the increasingly digital world, there are also many younger people who are feeling lonely. The COVID pandemic has shown that many people are (alone) at home more, which only aggravates this problem. A redesign of the police headquarters therefore gives an opportunity to also tackle this problem of local interactions.

Rotterdam has traditionally always been a socially oriented city. The Woonvisie Rotterdam states that an aim is to achieve a city where people can live and participate together. But also a city for younger and older people, with many self-reliant residents, who have an eye for each other and their environment. (Gemeente Rotterdam, n.d., p. 11) A collaborative living project to combat the loneliness of the people therefore suits the location well.

Like I wrote earlier in this text, I am interested in heritage buildings and their meaning in today's society. The ideological ideas of Struis are now being overshadowed by the new developments of the city and no longer fit the vision of the city, if they ever did. A new function for this building asks for a new appearance, a new layer of time. Knowing how the layering of time in the facades is perceived, will provide guidelines for this new appearance of the building.

## **Process**

### **Method description**

In order to find an answer to the research question, the four parts will be investigated in the following ways:

The first two parts overlap, because the headquarters building in Rotterdam is used as a case study to make the concept of layering clear.

The physical layers of the building will be analyzed and showed in drawings and schemes. The city archive provides drawings of the different time periods of the building. These drawings will be the base for the analysis.

The stories behind the building will be found in literature and by interviewing people who work there now, used to work there or are connected to the building in some other way. These stories will generate another level of layers of time relating to the perception of the building

The argumentation from the architects for the designs is found in some articles and books written by them. The written texts of the architects represent their perception of the building.

The changes of the surroundings are also analyzed, using historical information and policy documents of the municipality for information about changes in the future. A building relates to its surroundings. When the environment changes, the perception of the building will change as well, since the composition of the building in its surroundings is part of this perception.

The third part will make use of the structure of the texts, constructed for national monuments as a template to describe the values relating to the perception of the layering of time in the facades.

In the last part of the research will generate starting points for the new intervention. How the layers of time are being perceived in the facades of the building will create conditions for a possible new intervention to these facades.



## Literature and general practical preference

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## Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?
2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

Although the layering of time is a known concept in architecture, it remains a relevant theme when we talk about heritage, because as Meurs says in his book 'Heritage Based design': "each intervention adds a new 'layer' of history to the building" (Meurs, 2016, p. 36) My research will add knowledge to this field and can be used as a framework for others in the future to better understand the importance of these layers of time in (heritage) buildings.

On a larger scale, this project will contribute to combating the housing shortage and counteracting isolation in society caused by the aging of society and the current COVID pandemic. Which are both a very current problems in today's society.