



Relationship Between Graduation Project with Studio Topic, Master Track, and Master Programme

The transformation of the National Police in the Netherlands in 2013 brought new possibilities for urban redevelopment in particular city areas. Around 700,000 m2 of current real estate of National Police will be divested in the upcoming ten years (HA Lab, 2021, p.5). Around 30% of real estate objects owned by the police in the Netherlands need to be redeveloped considering renovations or functional adaptation.

The Vacant Heritage studio focuses on adaptation and reuse of existing proposals for different Police Stations in the Netherlands, considering the aspects: Heritage & Design, Heritage & Values, and Heritage & Technology.

The suggested police stations for transformation project were in 10 cities

or towns of the Netherlands: Amsterdam, Rotterdam, Den Haag, Haarlem, Eindhoven, IJmuiden, Dordrecht, and Middelburg.

The Vacant Heritage studio conducted a research which started with a group work: eight different case studies of Police buildings in the Netherlands were selected for the SBT (Spatial Building Typology) analysis. Buildings were reviewed in four scales: city centre, urban block, building object, facades and roofs.

One of the redevelopment cases is about the inner part of Groningen city, which I decided to analyze more extensively. I chose this situation due to the several factors that will be discussed below.

Scarcity of space and architectural challenges in Groningen

Nowadays, repurposing an existing building can have a drastically positive impact on the living environment. Due to sustainability and increasing scarcity of space and materials, reuse and adaptation can be considered as one of the most valuable redevelopment strategies.

The aforementioned scarcity of space is an emergent and alarming issue in the city center of Groningen. When analyzing Police stations in the Netherlands I came to realize that the one in Groningen is the most architecturally challenging and it motivated me to choose it as the main case for my graduation project. Groningen Police Station is a 13.000 m2 building that needs to be adapted to the new function or be transformed according to the Dutch National Police reformation.

My personal interest in strategies for adaptive reuse and improving livability of space

I have been interested in adaptive reuse since the 2nd semester of my MSc

studies. During the course on Heritage and Architecture Design Studio, I worked on a modernist Presikhaaf neighborhood, built in 1965 in Arnhem. Strategies for redevelopment were proposed after analyzing CIAM ideas, socio-economic setting and needs of the area.

During this course, I realized that I would like to gain more knowledge in this field because I believe that adaptive reuse will be one of the main challenges and possibilities to build more sustainably. Also, it has a significant influence on social and economic factors.

In addition, this choice of Groningen Police station adaptive reuse is related to personal fascination in analyzing human scale and livability in architecture through the lens of a camera. After years of working in the architecture photography field, I have realized that one of the best methods to capture the essence of a building is observing and picturing people interacting with architecture and the space around it. I realized that the context is as important as the building itself. I have learned to use a similar approach when working with architecture projects. I find it fascinating how the building's interconnectedness



Urban context of the Politiebureau Rademarkt building . Photo from personal archive, 2021

with the surroundings impacts the general feeling while in that space.

Interconnectedness, human scale and livability of the environment are crucial topics to the area where Politiebureau Rademarkt is located, and it closely reflects on my fascination with taking architecture pictures. The oldest inner part of the city is the most densified area surrounded by historical fortifications and canals. Even though Groningen's centre is the most vibrant and attractive place in the municipality, a massive modernist style Politiebureau urban block forms an isolated island in the most attractive historical part of the city.

I believe that the Groningen Police station project has a lot of valuable aspects considering the scale of the building and city context. Adaptive reuse of the building could perfectly transform the area into a livable environment where users are considered the essential part of the building.

Relation Between the Graduation Project to Wider Context.

The Netherlands is facing a severe housing crisis. There is a necessity to to create 845.000 new homes due to its growing population by 2030 (NL Times, 2020). According to prognosis (Capital Value, 2020), the housing shortage is greater than recently estimated and will continue to grow. Especially in Groningen, where the Police office building is located, the need for housing is one of the greatest in the Netherlands (Dutch review, 2021).

One of the main housing crisis indicators in Groningen is a massive shortage of student housing. The city is known as one of the youngest cities in the European Union (Northern times, 2022), mainly due to the University of Groningen and the Hanze University of Applied Sciences, where students come to study from various places in the world. According to the reports (Northern times, 2022), 23% of residents living in Groningen were between the ages of 18 and 29.

In Groningen, the housing crisis influences rising property and rental Consequently, it affects young people or families who cannot afford to buy property while students cannot find a place to live in general (Dutch review, 2021). In September 2021, student activists started protesting against the student housing crisis in Groningen. One of the activist groups refused to leave Groningen university while their requirements for more student housing were fulfilled (NL Times, 2021). At that time, many students were living in emergency shelters or campsites. One of them I interviewed for my research: Moritz lived in the van in the campsite for a couple of months because he could not find any affordable place to stay. As he said, it is way more challenging to find a space to live in when you are a male international student.

Next to the student housing crisis, international students have to cope with other serious problems: the lack of social connection, cultural integration and finding a job to afford a high living cost. (Northern Times, 2022).

Building more houses is one of the ways to tackle the housing crisis, but it is crucial to understand that there is a possibility to transform an existing building into housing instead of solely building new ones. The design proposal for Vacant Police heritage in Groningen city aims to cope with previously mentioned social and economic problems. It is important and urgent to understand that adaptive reuse of the building can significantly influence life in Groningen.

By studying the importance of Groningen's challenges and researching the Police office for adaptive reuse, I want to answer the following research question:

- How can adaptive transformation and waste reduction strategies in architecture contribute to solving housing crisis in a sustainable way for the city of Groningen?

Relation Research and Design

As mentioned in the previous paragraph, adaptive reuse of the Groningen police station focuses mainly on topics of the housing crisis. Moreover, while doing research and working on the design proposal, I realized that Groningen police station has a lot of valuable aspects that could be reused by changing as little as possible but at the same time achieving as much as possible.

Function

According to the research, one of the major problems in Groningen is the housing crisis. It widely affects young people, students and families. Therefore, it was decided to transform Groningen Police Office into housing with mixed-use functions as an art gallery, office spaces, communal spaces, and student hostel. Due to the existing structure's possibilities and values, the office building can be transformed into a living function without any structural changes. One of the most significant functional changes is combining several social groups such as students, young people and families into one building block.

Part of the research was to understand how those groups can benefit from one another and engage with each other while also proposing the idea of keeping the privacy of each household by offering specific design strategies. Also, due to the housing crisis, there is a need to create flexible and as small m2 housing units as possible that could be flexible for combining in the future.

Facades

Groningen Police Station is a fully isolated urban block. Connectivity between the building and its surroundings does not exist, while at the same time, it gradually decreases the livability of the area. Urbanist Jan Gehl analyzes that the livability of spaces is unambiguously related to active urban life. He compares the term "livability" with the living room. "In the living room, all members of the family can be occupied with various activities at the same time, but individual activities and people can also function together" (Gehl, 2011, p. 107). Therefore, one of the key factors in redesigning the facades of the building is to create "the living room" in Groningen's old town while saving as many valuable elements of the facade as possible.



Urban context of the Politiebureau Rademarkt building . Photo from personal archive, 2021

Materiality and adaptive reuse

At first, the idea of changing as little as possible and achieving as much as possible started with adaptive reuse of the building and trying to demolish as little as possible. The design proposal is inspired by Lacaton and Vassal's architectural research and approach "Never demolish or removing but making the most of existing resources" (Puente, 2021, p. 45). Next to this approach, the design proposal of Groningen Politiebureau focuses on material reuse. Due to the global material crisis, there is a need to reinvent how we should use materials in architectural design proposals.

- How material crisis could influence the Groningen Police station transformation proposal?

Since there are no major demolishing processes in the Groningen Police station building, there is an idea to get materials from other Police offices that are being transformed or partially demolished in Vacant Heritage studio. The material reuse proposal focuses on collecting materials from my fellow groupmates' projects and reusing them on the Groningen Police Station site. The collected materials would be mainly used for newly added parts of the Groningen building and facades.

Research Methodology

The graduation project is based on the idea that research should influence the design and the other way around.

In the beginning, historical research played a significant role in Police building research. It is located in Groningen old town's urban structure with a unique historical context. Today this part of the old town is the centre of Groningen city. Built in 1971, the massive Police building represents the Post-War architectural period and contrasts with its old town urban fabric. The contrast became even more recognizable after the renovation of the Police building in 1996. The outcome of this research was to understand the area's historical development and how it can influence the design strategies. In

addition, it helped to grasp valuable aspects of the building and keep them during the design process.

Dialogue based design

During the research, I mainly focused on the visitors' experience of the Groningen Politie station area. I am not local in Groningen city, so I was trying to experience the city through the eyes of the tourist. Also, while visiting a city, I met a lot of locals living around the block that gradually became my eyes and ears, helping me understand how the place functions 24/7. Interviews and discussions with locals became one of the most influential factors for my design proposal. Afterwards, I reviewed my proposal together with them. Understanding their wishes helped me propose needed functions for the area. For example, the proposed community centre that, according to the residents, would finally be a place to meet your neighbours and spend time doing various activities.

The Dilemmas of the Graduation Project

One of the dilemmas that I got while proposing an adaptive reuse strategy for Groningen Politiebureau was the idea of entirely changing the function. Since 1971, when the building was built, it always had a Police function. So the question was if the new design proposal should reflect on the historical police identity or ignore it. Finally, it was decided that Police identity is one of the most valuable heritage aspects. Therefore, it could mainly reflect on the façade design proposal by using the distinctive blue colour that the building was painted in 1996 after the renovation.

Another dilemma was related to the closeness of the building that residents described as an area with a "dull" and "cold" perception of the building that the Police office broadcast. However, one of the residents' answers changed my mind about "dullness" and "coldness" being negative aspects. She said that the block works as a barrier from too noisy, full of people city centre. So it is nice to have such a privilege to

stay in an area without hearing music from bars and being calm about your kids safely playing around. Even though, she said, it would be way nicer to see some liveliness of the block instead of an isolated wall in front of your house every day together with high speeding cars. So this answer became one of the most influential answers for considering what function the building should contain.

At the same time, the whole project idea to combine student housing with family units is experimental and challenging. Aside from benefitting from each other, two different groups may struggle to even live together. It means communal spaces have a significant impact on the design proposal and social connections. Communal spaces should become a place to be and meet while at the same time having private space at your own apartment and terraces are also designed.

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