

Activating the
“glass box”



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Adapting 20th Century Heritage
Heritage & Architecture | TU Delft

REFLECTION PAPER

Reflection

In this section, I am going to reflect on how and why the chosen approach for my graduation project did or did not work and to what extent.

I want to thank my mentors for their valuable feedback that, from time to time, shook my thoughts up and led me to unexplored fields. After the second presentation (P2) feedback on how realistic the proposed mix of functions is, I realized that I need more argumentation on the program for the building because it is in a very fortunate and expensive location. The feedback also guided me to pay attention to the project's impact on social, urban, and architectural/heritage scales.

After each piece of feedback I received from my tutors, I studied the case and tried to translate it into my work. Moreover, I really value the discussions with my fellow students that inspired me and helped me find answers. It is as interesting to learn from my own work, seeing how my graduation project and approach have shifted from the beginning.

HOW I ARRIVED TO THIS GRADUATION PROJECT

The studios in the program MSc Architecture, Urbanism and Building Sciences concentrate on contemporary issues that are relevant now and in the future. I have chosen to specialize in the architecture track because I find that my personal interests and characteristics are well-suited for it. According to Pritzker award winner Thom Mayne, architecture is a way of seeing, thinking, and questioning (Mayne, 2005), confirming my belief that it is a compound of aesthetics, psychology, and technicalities. I am keen on the conceptual level where those features come together and result in a functional object of a building—be it in transformation or newly built. It was not hard to decide which track of the mas-

ter's degree to choose because I like that in the scale of one building or an ensemble aesthetic part can be thoroughly explored. This scale has a closer bond to people's everyday lives. The components and layout of the building, as well as facades that become part of the region's identity, make a building an interesting field of work.

Moreover, I want to create innovative and sustainable design solutions that are beneficial not only for human users but also for the environment. With the AIA (American Institute of Architects) president's Carl Elefante's slogan, "The greenest building is... one that is already

built," (Elefante, 2018) I chose the Vacant Heritage studio for my graduation year to explore the reuse of existing building stock as a means to catalyze positive change in the uncertain and complex challenges of the future.

The office space (like in the police stations) is constantly being reconsidered or abandoned, especially after the pandemic (Covid-19) that changed the nature of our work environment. New ideas need to unleash the potential of vacant offices and I am keen to find out what the outcome of the graduation project will bring.

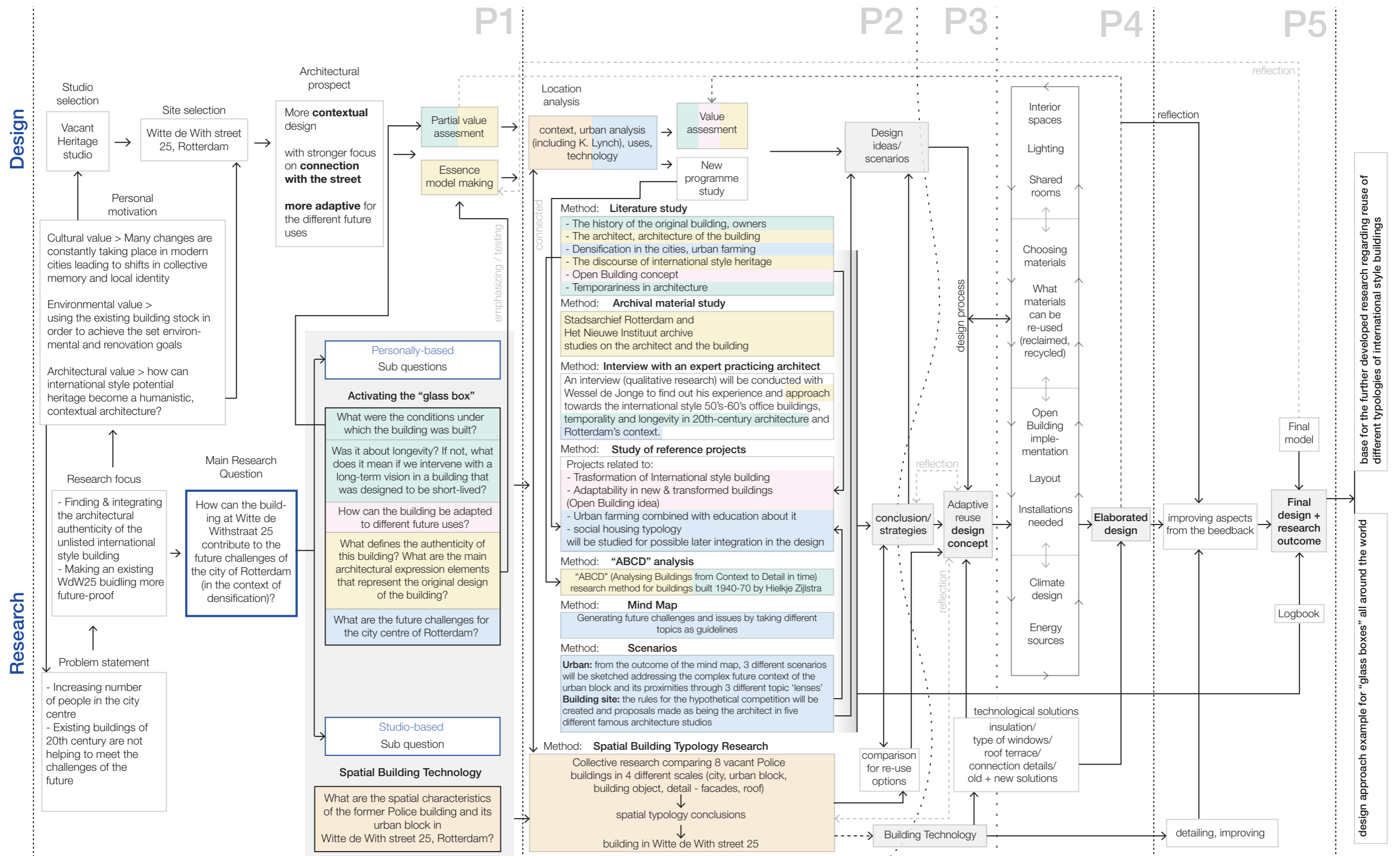


Figure 1: The research plan structure diagram
Source: Own work

RESEARCH METHODS & APPROACH

The research methodology consists of **collective** - Spatial Building Typology (SBT) (Zijlstra, 2021) and **individual research** with the close involvement of the design medium.

SBT research is initiated by the Vacant Heritage graduation studio and it is a simultaneous process with individual research and design research. By **comparing various spatial aspects on four different scales** (city, urban block, building object, and detail - facades, roof), the eight police buildings were examined and afterwards conclusions drawn. This displayed the chosen case study in the context of a very wide typology of edifices.

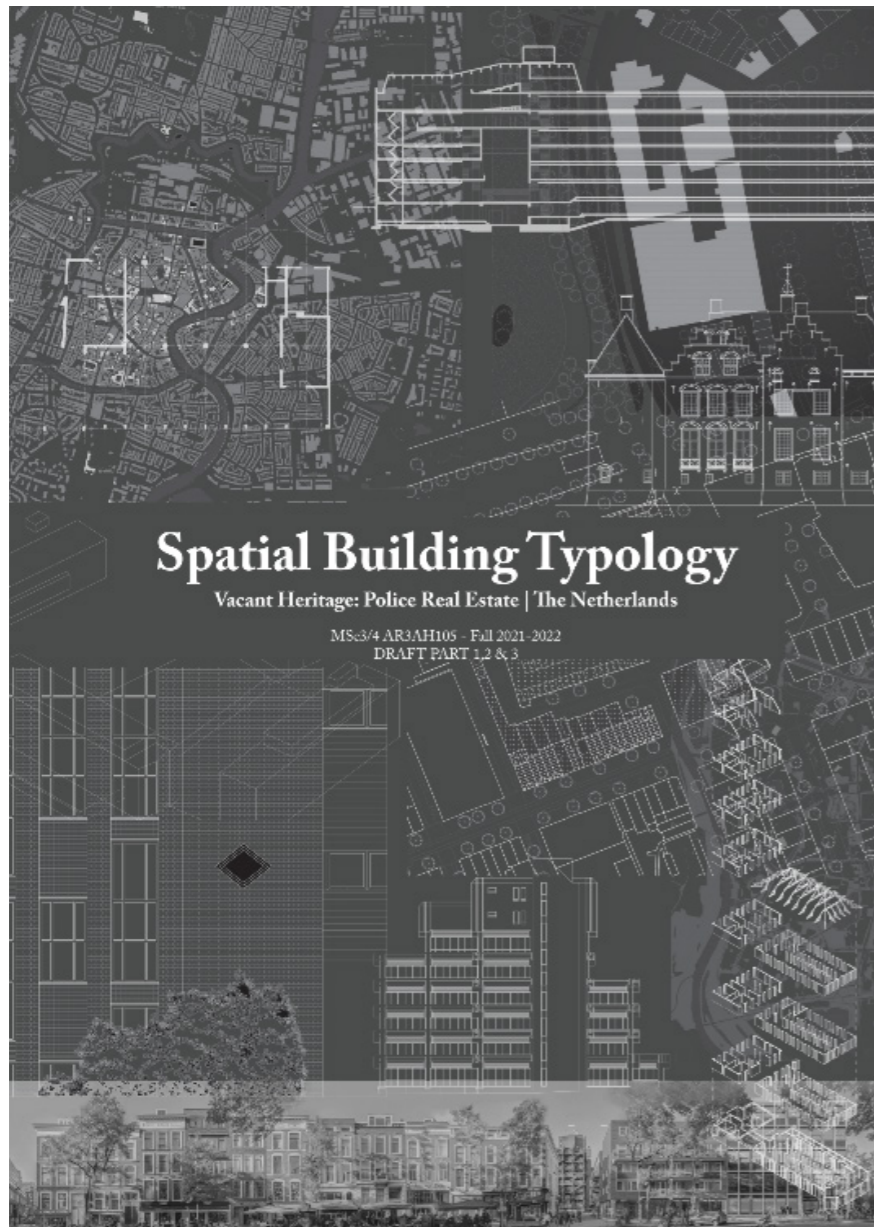


Figure 2: The cover of SBT collective research book
Source: <https://books.open.tudelft.nl/home/catalog/book/29>

In favor of individual research, SBT studies defined the spatial characteristics of the former police station building in Witte de Withstraat 25, Rotterdam. The results were compared with the individual research-based case studies for the possible reuse options.

Individual research consists of **7 main methods** (see figure 1) - literature study, archival material study, interview with an expert practicing architect, case study of relevant projects followed by “ABCD” research method (“Analysing buildings from context to detail in time: ABCD research method”, Zijlstra, 2009), and mind mapping followed by creation of the future scenarios for the urban block and the building - that are aiming to answer the individual sub-questions of the research.

The **literature** readings laid the theoretical base on the discourse of international style heritage and its transformation, the Open Building concept and temporariness in architecture (historical research). An **interview** (qualitative research) was conducted with Wessel de Jonge, the co-founder of DOCOMOMO International and a well-known practising architect running his ar-

chitecture company WDJArchitecten with particular expertise in the field of adaptive re-use of 20th-century heritage, to find out his experience and approach towards the international style 50’s-60’s office buildings, temporality and longevity in 20th-century architecture and Rotterdam’s context.

By **visiting Stadsarchief Rotterdam and Het Nieuwe Instituut archives** and reading magazines, newspaper articles and investigating the original drawings, information about the original and previous renovations’, original ideas behind the design, architect’s background was gathered (historical research). **Partial value assessment** (based on Heritage Value Matrix, developed by N.Clarke & M.Kuipers in the book “Designing from Heritage: Strategies for Conservation and Conversion”, (Kuipers & De Jonge, 2017) was done followed by the **essence model** (see figure 4) which helped to define the main architectural characteristics.

After the first research presentation (P1), the location and context analysis of the building were carried out together with a program workshop that defined the suitable function for adaptive-reuse.

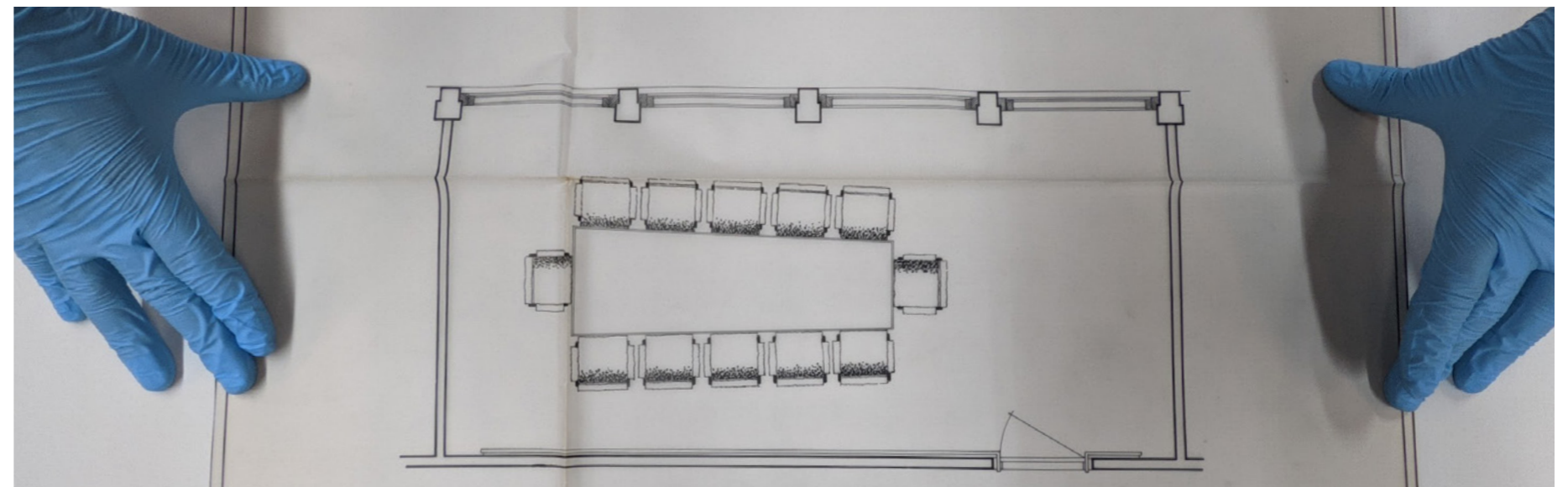


Figure 3: Original plan of the conference room in Witte de Withstraat 25 | Source: Own photo taken in Het Nieuwe Instituut archives

Reflection



Figure 4: The essence model with existing and original entrance spaces
Source: Own photo taken in 2021, BK City, Delft, The Netherlands

In the meantime, **design development** began with envisioning the architectural scenario based on the research questions and creating an **essence model** of the Witte de Withstraat 25, Rotterdam building. **Location analysis** was conducted with the help of SBT, but additional aspects appeared to be handy to know and explore. Because the police buildings in the SBT research were so different in size, architectural style, and location, the research did not reveal the approach for me - the answers I was looking for I mostly found out during individual research. Furthermore, the “ABCD” research method and the Heritage Value Matrix were applied to assess the building’s values.

The aforementioned steps were taken in order to identify the main architectural expression elements that represent the original design of the building.

To determine what the future challenges for Rotterdam’s city centre will be, I have implemented the **mind mapping** method to generate potential issues in future cities by using various topics as guidelines. Based on the outcome of the mind map, **3 different scenarios** were sketched (simulation research), addressing the future context of the urban block and its proximities through 3 selected topic “lenses” – “Green + most accommodated”, “Green + most economically viable”

and “Green + most resilient. These urban scenarios determined the functions and appearance of the Witte de Withstraat 25 building. In addition to this, the rules for the **hypothetical competition** were devised and proposals were made as being the architect in each of the five famous architecture studios (suggested by my design mentor). Trying out different approaches within the set of rules created helped me to better understand the qualities of the site and argue for its further design development.

Additionally, **case study projects** chosen based on the 4 topics were studied in order to understand and use knowledge of these different spheres. Those were: (1) International style office transformation, (2) adaptability over time, (3) urban indoor farming, and (4) a tower built on top of the existing building. Instead of comparing the case studies, the key design solution taken from each project studied was used as a theoretical reference for the redesign of Witte de Withstraat 25.

Hypothetical competition for the site:

results as being an architect in one of the 5 architecture studios

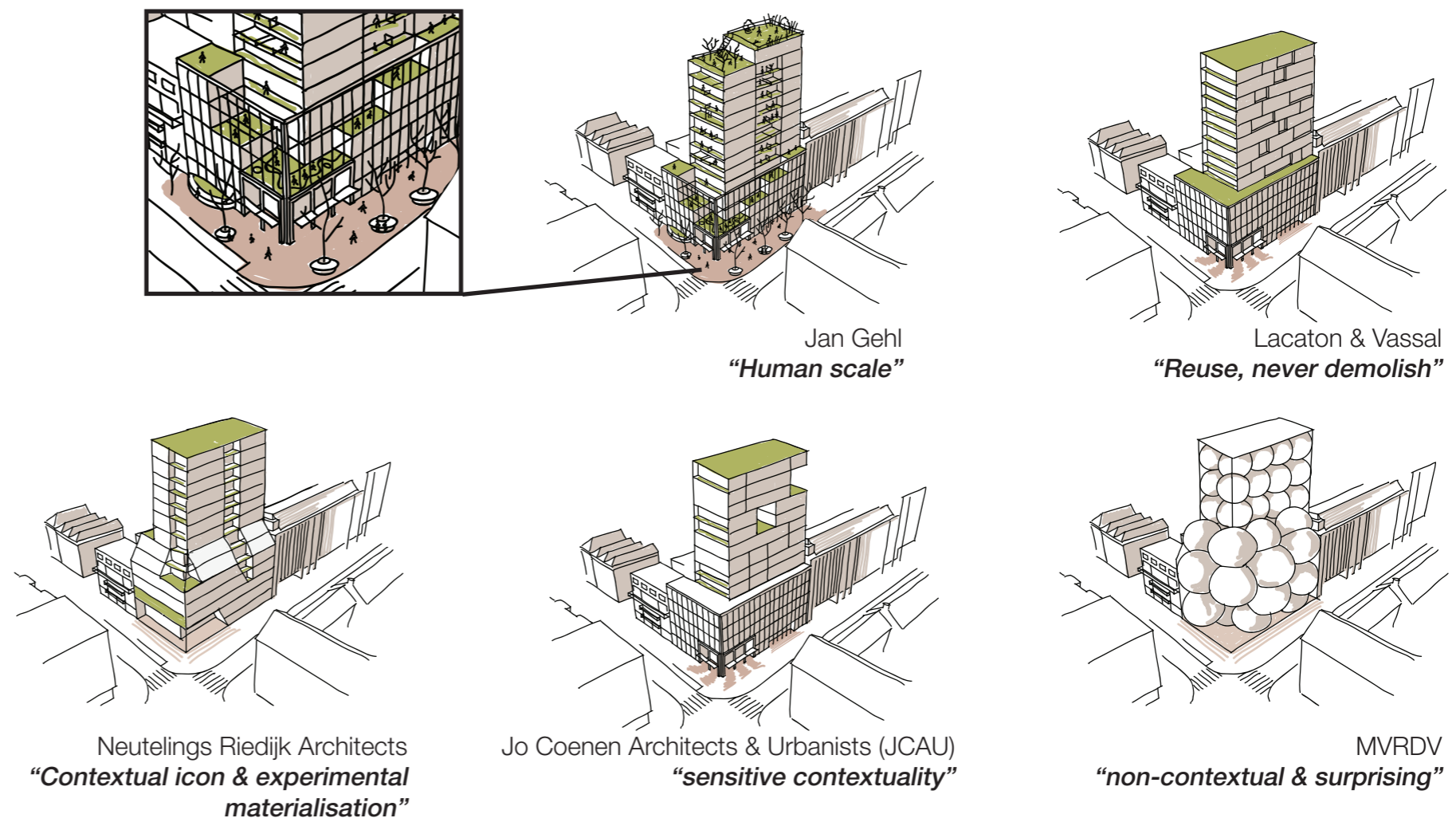


Figure 5: Design sketches as being an architect in one of the 5 architecture studios
Source: Own drawings



Figure 6: Escursion in Amsterdam North visiting the buildings built based on the Open Building principles
Source: Own photo taken in November 2021, Amsterdam, The Netherlands

The **design scenarios**, in combination with the **new program study** and the findings of historical and qualitative research, resulted in the preliminary adaptive reuse design concept presented in the second presentation (P2).

After that, the design was elaborated by incorporating **building technology research** and delving into the concept creation for the **facades**.

The point where I got stuck in the design field was the moment I forgot to reflect on my previous findings and follow the idea I had already distilled as my project direction. It was about the two different identities of the location. Instead of looking for a separate concept for the façade, I only had to follow what I had already discovered as my narrative. I realized this when I shifted from designing only on the computer to paper modelling, as my design mentor suggested.

Further design and technical solutions, together with detailing, resulted in the final adaptive reuse design.

The chosen methodology was adjusted when new research directions or uncertainties emerged. This was directly connected to **my journey through the research topics**.

At the beginning, I was interested in **how to ethically deal** with the international style as a designer. Therefore, I was hoping to apply different approaches to dealing with the building from the perspectives of eight philosophers on ethics. However, I managed to collect the answers I needed on the topic of ethics from the existing literature. The research question I had still lacked specificity.

My second approach was about the fact that the building was **not listed as a monument**. This means that it could be completely demolished. I was keen to find out how could these buildings be adaptively reused and appreciated again. This time for the graduation project, I wanted to set the toolbox for other non-listed international style office buildings. Until I realized that each case is unique and contains numerous nuances, one case study could not be used as a universal rule.



Figure 7: Readings on the relevant topics for the project
Source: Own photo taken in 2021, Rotterdam, The Netherlands

Reflection

Finally, after I had already done some substantial research into the context of the site and created a few future scenarios for the urban block, my final research question emerged. The silver lining for me was that the main topic in the city center of Rotterdam is **densification** (Tillie et al., 2012), and existing buildings should not be seen as an obstacle, but rather a context-based starting point in helping to tackle the future challenges. So, my final main research question has untangled itself into: how can the building at Witte de Withstraat 25 contribute to the future challenges of the city center of Rotterdam (in the context of densification)?

While designing, the main goal was to use Open Building principles. Using these innovative ideas in a new project was already a challenge. However, while implementing them in the adaptive reuse building and in order to achieve an expressive facade of the building, one faces some limits. Therefore, at one point, **testing the limits of flexibility** in the project became the main design task.

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ETHICAL ISSUES & DILEMMAS

In the beginning, all the members of the Vacant Heritage studio signed a **confidentiality agreement** with the police as an institution. I believe this was the most obvious ethical principle that emerged in this graduation project.

But more ethical principles followed me on my way... I chose the building in Witte de With, Rotterdam, among other police real estate, for my graduation project purely because it was **the one that I disliked the most**. To me, from the first encounter, it was connected with ethics. For instance, if you don't like something, you can avoid it, but if you are allowed to change something in the building that doesn't appeal to you, **what is it that you should change to objectively improve it** (objectivity issue)? **Who are you** to change somebody's design (respect for intellectual property issue)? What is **the limit of your impact** and what should be saved for the future if it depends on your decisions? What are the **heritage values** of this building and what elements should be **preserved**? I started to address all these questions and delved into the research to find out the answers.

The main dilemma related to ethics presented itself during the elaboration of the design. Demolishing the existing building would solve structural problems of building a tower extension on top of it, but at the same time this would overlap with environmental concern of not reusing the embodied energy of the existing structure. Moreover, during the design process, I have faced the issue of **how to deal with architect C. Elffers's design without destroying the main idea and respecting his legacy** while "blowing some fresh air" into the site.

Regarding the potential applications of the results in practice, I would be concerned how **the neighborhood** will react on the tower in this area, because some residents might get less sunlight than before.

GREEN	ACCOMMODATED	RESILIENT	ECONOMICALLY VIABLE
<p>local plants, shrubs and grass wherever possible cools the surroundings and improves air quality, creating green parks, public spaces for the city centre. Greenery is home for birds and insects, and will result in better drainage, storage, and filtration of water.</p> <p>Feeding large numbers of people with the least amount of energy will be ensured by the urban farms.</p>	<p>Living together - co-living will help to integrate different social groups to live in cohesive society benefitting each other. This way lonely living people would take less livable space in the city, so more people will get central location.</p> <p>A reduction in parking and more space for cyclists and pedestrians ensure a more liveable and climate-proof city centre.</p>	<p>New structures must be either long-lasting and flexible, or they can be assembled and dismantled - temporary.</p> <p>Long-term structures have to be able to adapt to changing social and natural conditions. Short-term structures will be used for people affected by the natural disasters, refugees, migrants from unlivable areas.</p> <p>Inclusive city - value all people, their needs and contributions equally.</p>	<p>The city will be a productive one. Regarding the food cultivation, individual production as well as urban agriculture farms will be the key elements in the city.</p> <p>Luxury real estate will conquer the best locations in the city center.</p> <p>New ways of financing constructions will lead to various urban initiatives.</p> <p>Alternative reality will be part of the real environment.</p>
SCENARIOS:	GREEN + MOST ACCOMMODATED	GREEN + MOST RESILIENT	GREEN + MOST ECONOMICALLY VIABLE

Densification in the central Rotterdam Future scenario 2: GREEN + MOST RESILIENT

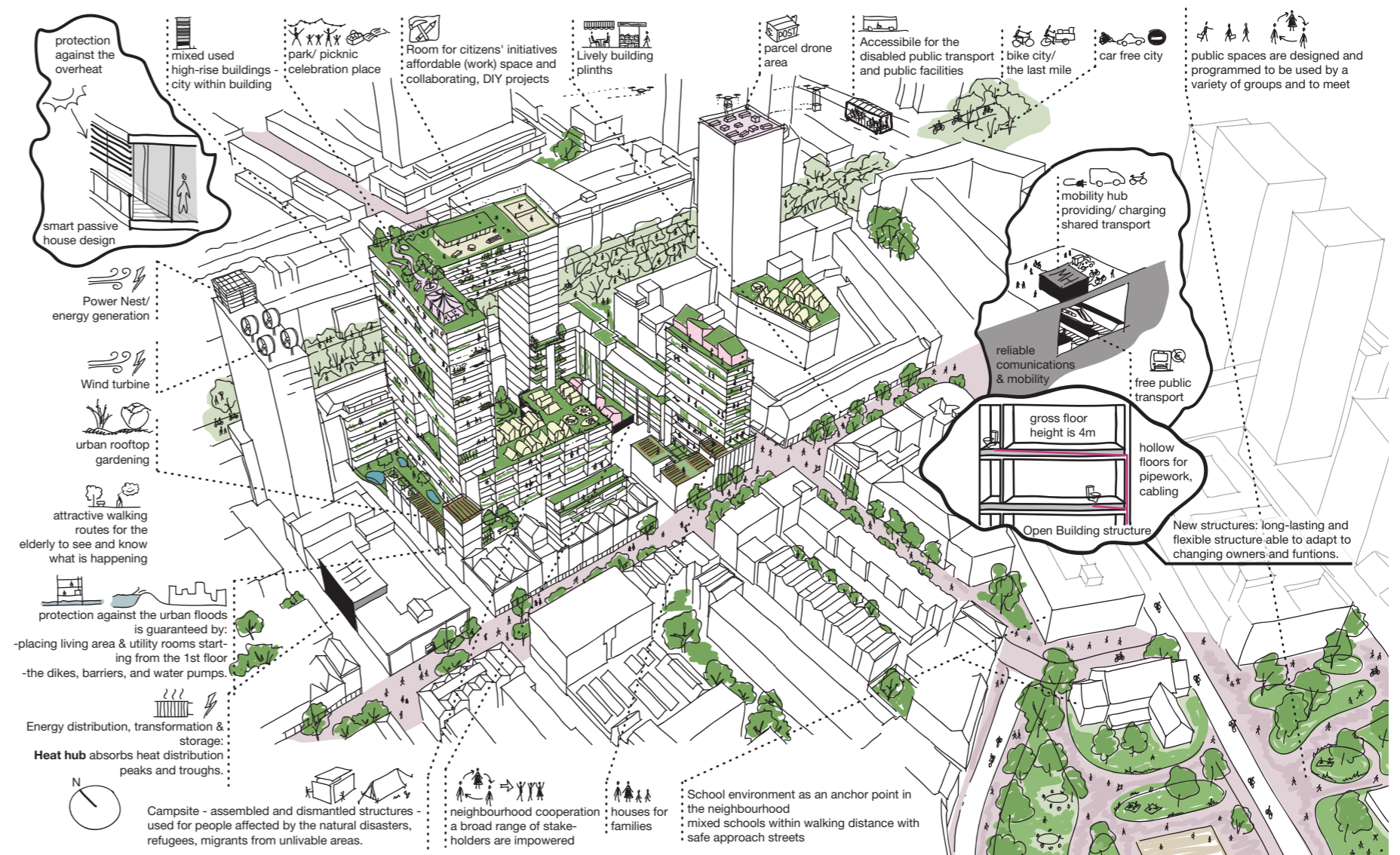


Figure 8: One of the future scenarios for the urban block | Source: Own drawing