

REFLECTION

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Short design description

Antwerp has a very important port history and the existing lock is a reminder of that. In my design for the new M HKA, the underground lock will be transformed into exhibition and forum spaces, while a new building will be built above ground. Public stairs are positioned in the centre of the building, connecting the spaces under and above ground in one big continuous movement. The stairs end at a lookout point over the water just outside the main building volume, providing a scenic view of the water and connecting the park side to the waterfront. These public stairs are accessible without a ticket. Alongside the stairs, the elevators are located so that the experience will be connected to those of the stairs. Making the experience accessible to everyone who visits the building.

The existing building will be demolished while the concrete and the glass of the existing building will be reused for the new building. The building will predominantly have a wooden structure, with the exception of the concrete basement floor. The volume has several setbacks to refer to the scale of the surrounding buildings. The façade of the building is made of glass blocks with wooden joints. The wooden grid is sometimes kept open with green peeking through or replaced by a bigger window frame. To design this façade I had to technically design an element which doesn't exist, because of the combination of glass blocks, wood and an offset in the stacking of the blocks. This resulted in a unique translucent and transparent façade element wrapping around the building.

The process

As part of our studio's project requirements, alongside designing the building, each of us was asked to maintain a project journal. This journal served as a comprehensive record of my process, capturing it from the beginning of the year, where we worked on various assignments and extensively studied relevant literature to position ourselves within the broader realm of modern art museums, and my design process up to the graduation presentations. I sometimes found it hard to keep up to date with my journal. The task of organizing and compiling all the work I had done, making it coherent and comprehensible for others, posed a challenge. It was (and still is) a lot of work, but I am also glad I could use the journal as a guideline for my presentation and I could keep track of all the work I had done. Furthermore, the journal proved to be a valuable resource for reflection and reference.

At the beginning of the studio, our weekly readings delved into diverse subjects relating to modern art museums, which prompted me to think about the position of contemporary art museums. We discussed concepts like the 'white cube' and the 'anti-museum'. I found it fascinating, yet initially challenging as I sought to position my design idea within these frameworks. Later in the process, I realized that I didn't have to choose one side or the other. I could take different elements of these concepts and implement them in my design.

While researching and reading the literature, we were also working in groups on analysing a variety of museums. In a group of four, we meticulously recreated an image of a gallery space from Lina Bo Bardi's MASP, the museum of modern art in Sao Paulo, by building a model and photographing it (page 3). This assignment was a good way to get me to think about the appearance of gallery spaces, including materiality, atmosphere, but also fixtures and construction. It also provided a valuable framework of references that proved instrumental in guiding my subsequent design process.

For the second assignment, we were asked to individually design a gallery space or spaces for an assigned artist of the M HKA (page 4). This presented the first opportunity for me to translate the research we had done into an actual design. The elements of the spaces we had previously analysed served as references to use in my design. I started thinking about circulation, lighting, materialization, etc. It was good to see how we could already translate our previously established framework into practice.

Then we started with research into our final assignment: a new building for the M HKA. We researched this collectively with our studio and looked into the city of Antwerp, the site, the M HKA and the project dossier for the new M HKA. We divided up tasks and I took on the research into the lock and the docks that were located underneath the project location. I had an interest in this topic because of its heritage value and the potential of the spaces, as well as its potential to address the challenge of reducing the building's height described in the brief. Simultaneously, I was reading the project dossier and noted that the building would be 22.500m² which, on the given plot, would translate into 10 stories and would be 80 meters tall.

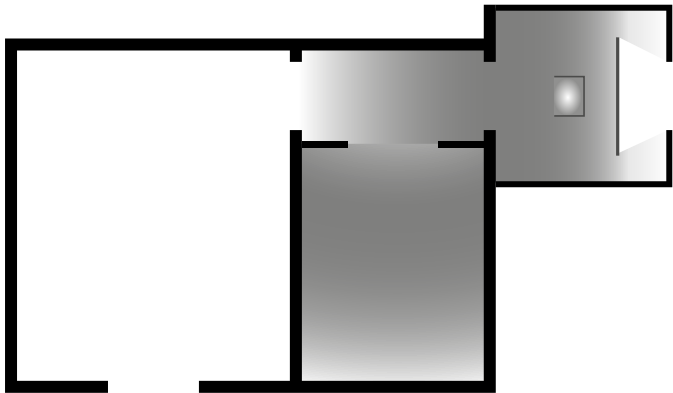
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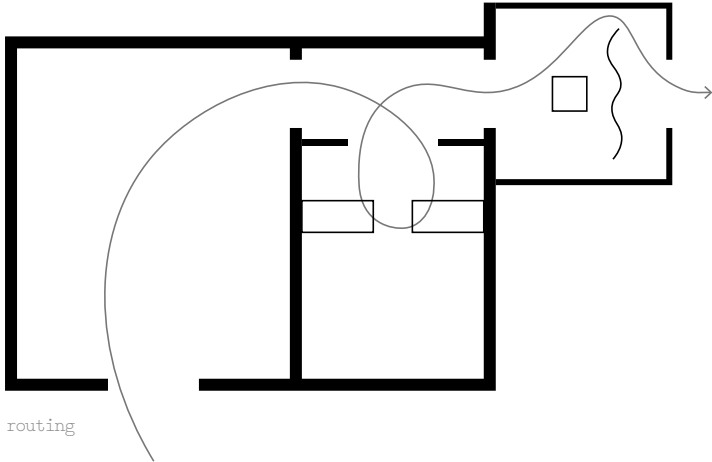
final image of the model



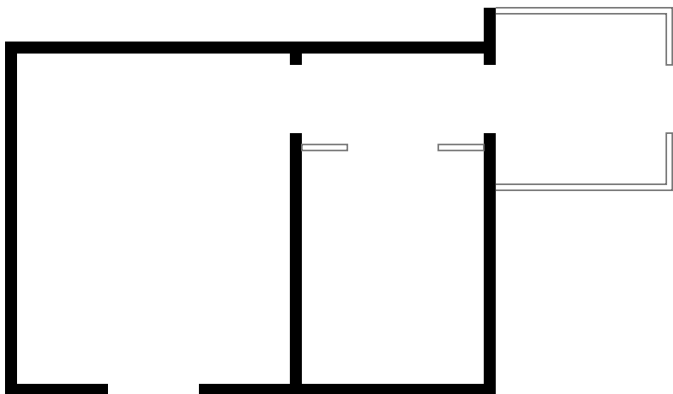
original picture of the MASP



lighting



routing



temporary vs fixed walls



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>> After all of these assignments, we started on our first design proposals for P2. The main focus was **how to design a new building for the M HKA?** This design would be different for everyone according to the questions they were asking during the design process.

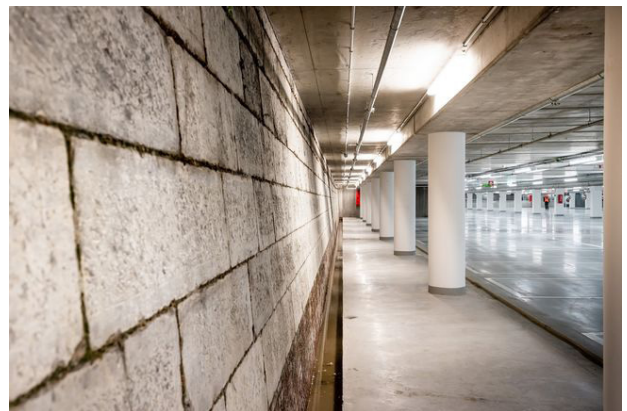
As mentioned before, according to the project dossier the museum would be really big, so this brought up the next question, **how to handle the size of the building?** I don't mean this just in the sense of designing the building, but also in the sense of figuring out how to deal with such a big building. I would never be able to design all of it, on my own, in the given time. Mostly after the P2 I was getting overwhelmed by the size of the building. I needed to start really designing it, but where to start? And where to stop? During the whole design process I have been struggling with these questions. It would feel like I was making progress one week, but then I would get a question about something I hadn't thought of in a while and would have to look into that, but then the next there would be another topic I hadn't thought of and would move on to that. I had a hard time dealing with all the questions and all the things I still had to do. In the end, I had to really just take it one week at a time. Just see what I could do in a week and accept that I couldn't work on everything all the time.

For the design I was trying to downsize the building envelope. I cut and downsized some functions in the programme of requirements. I also added setbacks to the volume related to the surrounding buildings, to make it feel more in scale with them and to add more of a human scale to the building, I made the façade out of glass blocks, with these smaller elements breaking up the façade and the wooden seams adding a tangible feel to the building. Lastly, I decided on excavating the historic lock and docks, to use the potential of those unique spaces, while also making it possible to accommodate part of the programme underground.

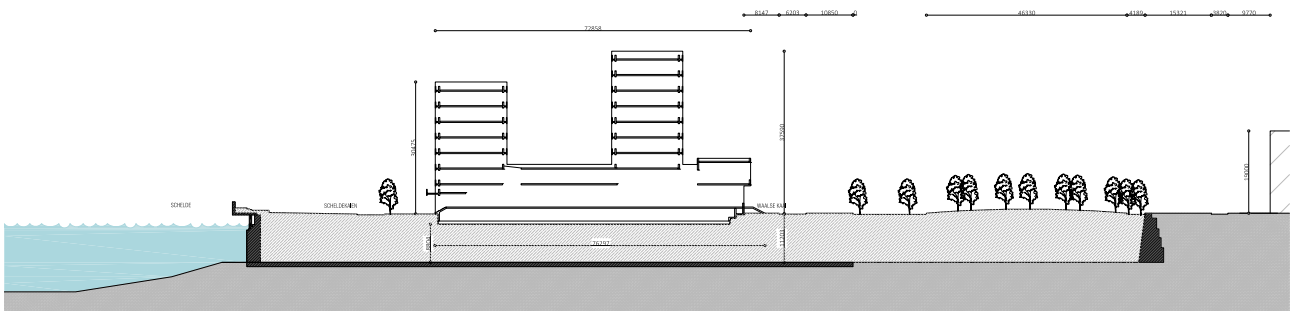
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the lock and part of the docks in ca. 1920



exposed dock wall



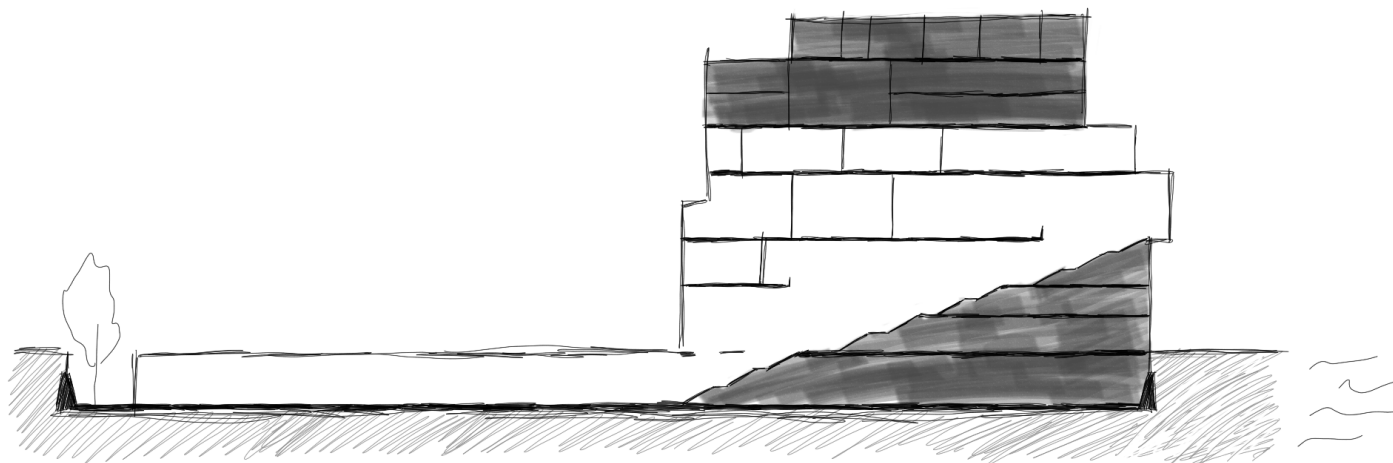
sections through the current court building

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>> The project dossier for the new M HKA discusses the topic of 'industrial roughness and domestic intimacy': The M HKA could have this combination of the roughness connecting to the former port setting and a 'white cube', while still being a warm and flowing institution. For my design I would be excavating the underground lock and docks and connecting these to a new building. So an important question for me became **how can this connection between the rough docks and the new building be made in a coherent and connecting way?**

In the centre of the building, I designed a staircase going all the way from the basement floor to a captivating lookout point on the second floor. Along these stairs I designed one continuous wall to make it feel as one coherent building. However, visualizing the staircase proved to be a challenge, and I sought feedback from tutors to refine its appearance. Creating a digital 3D model provided some insight, yet shaping the staircase remained a complex task. Things needed to happen along this stair - exhibitions, cabinets, events - so people would actually use it, but how could I visualize this? To clarify this, I created a 1:100 sketch model which could be used to move and carve out walls. This approach enabled me to explore different variations and ultimately shape the stairs.

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THE STAIRS



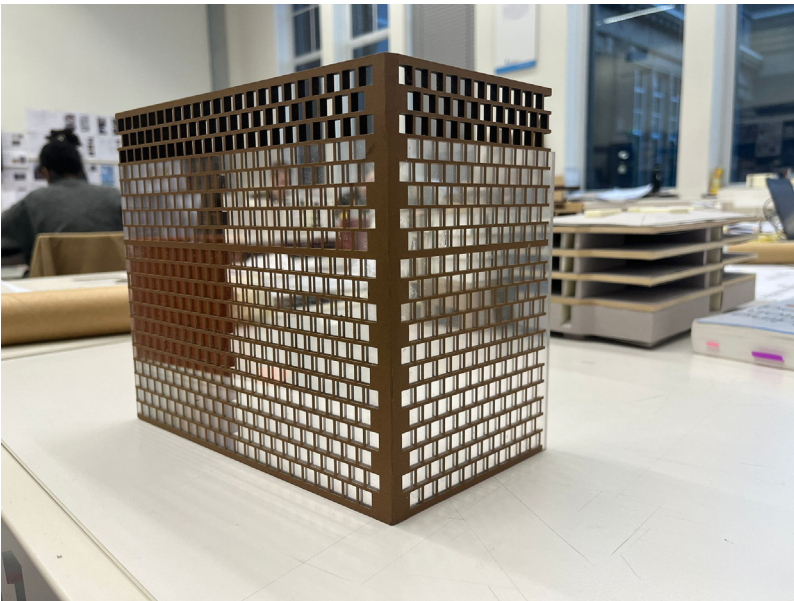
impressions of the stairs

1:100 sketch model

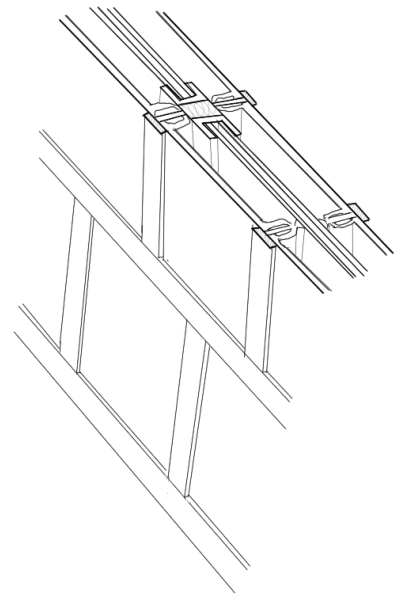
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>> Lastly, I did a lot of research on the technicalities of the façade. I tried to not only answer the question of what it would look like, but also **how would the façade work?** After careful consideration, I decided on using glass blocks stacked with an offset and finished with wooden strips (next page). This unique system effectively fragmented the imposing scale of the building's exterior while delicately introducing subtle nuances from the interior through the offset in smaller elements.

I wanted to use a system which is demountable, allowing for the replacement of glass blocks if necessary and promoting the reusability of the facade structure. It was hard to find any references for this structure. At first, I wanted to try to make it a double façade system to enhance insulation performance. After I did a lot of research into glass blocks and glass block systems, I found well-insulating glass blocks (Sevess glass blocks) which I could use for the transparent blocks. I also decided on using translucent, insulated blocks in other parts of the building, I could focus on designing a system for a single glass block façade. Developing a system for a single glass block facade still proved challenging, given the prevalence of mortar-based or non-offset structures in existing glass block facades. After doing more research into glass block systems, I found one glass block system (the Matrix Wall by Extech) on which I could base my detail and I modified it to realize my envisioned architectural expression.



test model of the facade



sketch for a double glass block facade

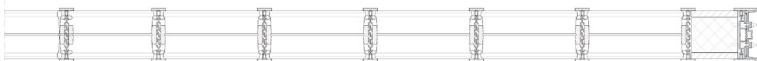
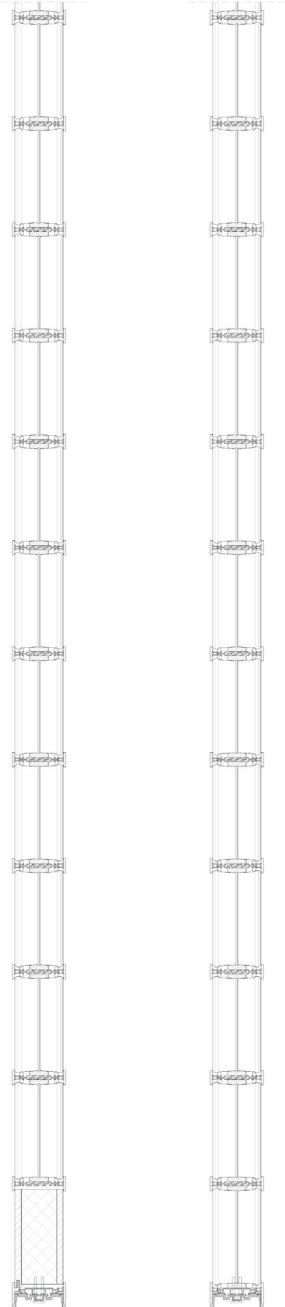
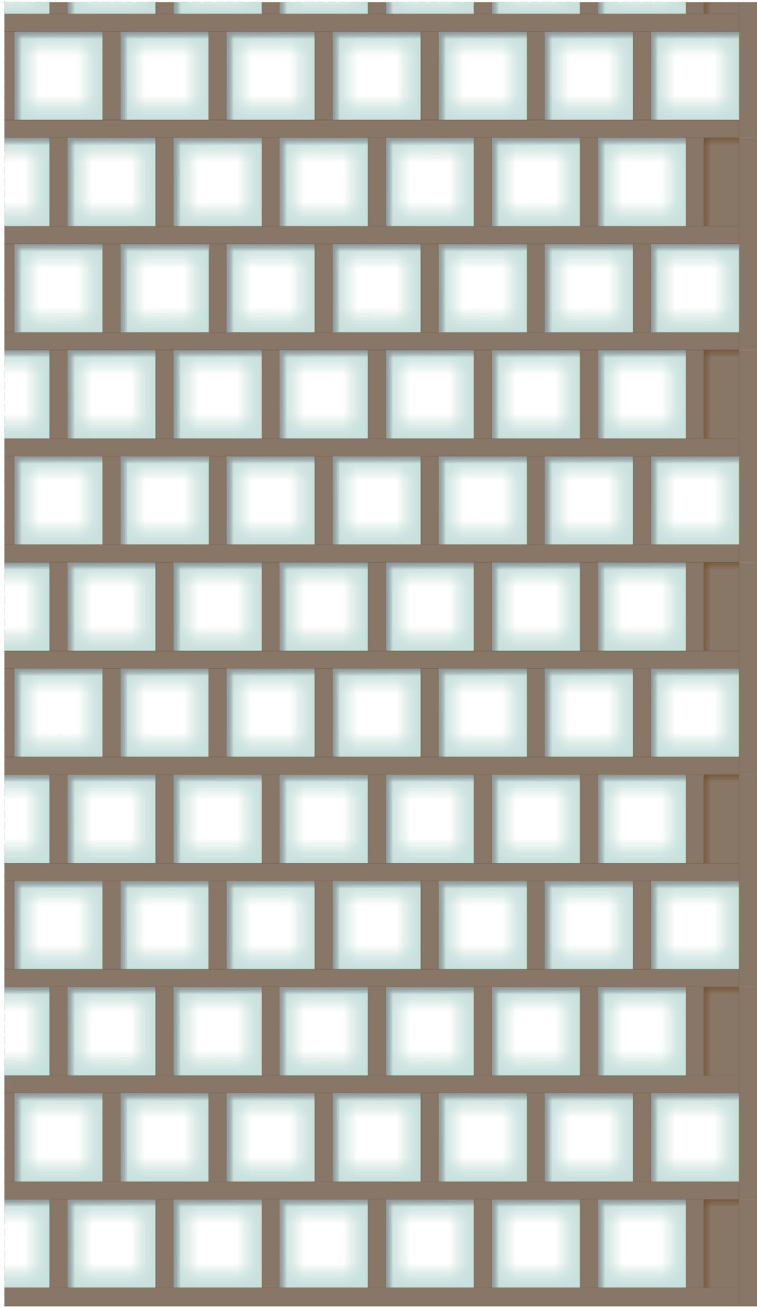


exterior facade



interior facade

THE FACADE

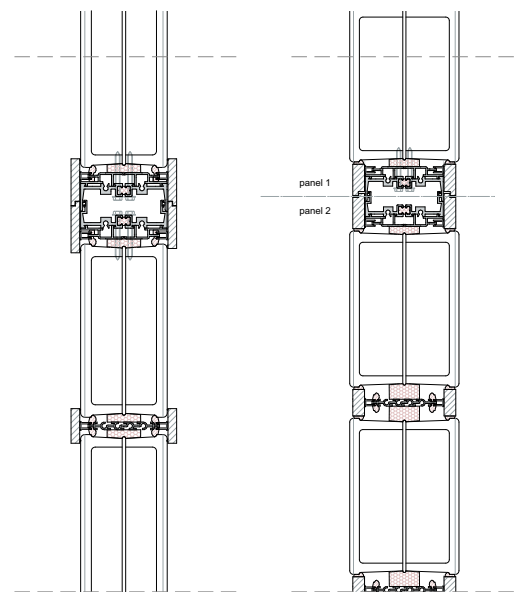


After the P4 in May

I did not get a green light after the P4 in May, so I had more time to refine my design. I looked into types of wood and reference projects to get a better idea of the materialisation. Given the significant presence of wood in both the interior and exterior of my project, it was imperative to look into the specific wood types that would be used. For the façade, I decided on using Accoya wood, a very durable and sustainable wood, but I also worked on the detailing, ensuring the wood's longevity. I positioned the wooden strips in between the glass blocks, instead of on top (see below), minimizing the potential impact of rainwater exposure in the long term.

I have also dedicated my time to refining the floorplans, ensuring they were logical and readable. Having the stairs as the centre of the building and designing the routing around that. Furthermore, working on defining the continuation of the big stairs; the lookout point and the smaller staircases continuing the route. Alongside the plans I designed the façade, adding windows where they were needed and applying different kinds of facades to the different functions. Really find a way to structure the façade coherently.

I tried to look into all of the points that were mentioned at the P4 in May. Some of which were more straightforward, while others were more conceptual. During the last couple of months, a significant portion of my time was dedicated to being really precise in the plans. Not having too many small mistakes in them was not the only challenge, but also the task of translating my design decisions into the plans. My architecture teacher had pointed out to me on multiple occasions that I had overlooked some details of the plan or that certain elements I had drawn weren't easily comprehensible to others. In the end, I had to work on creating better clarity in my design documentation.

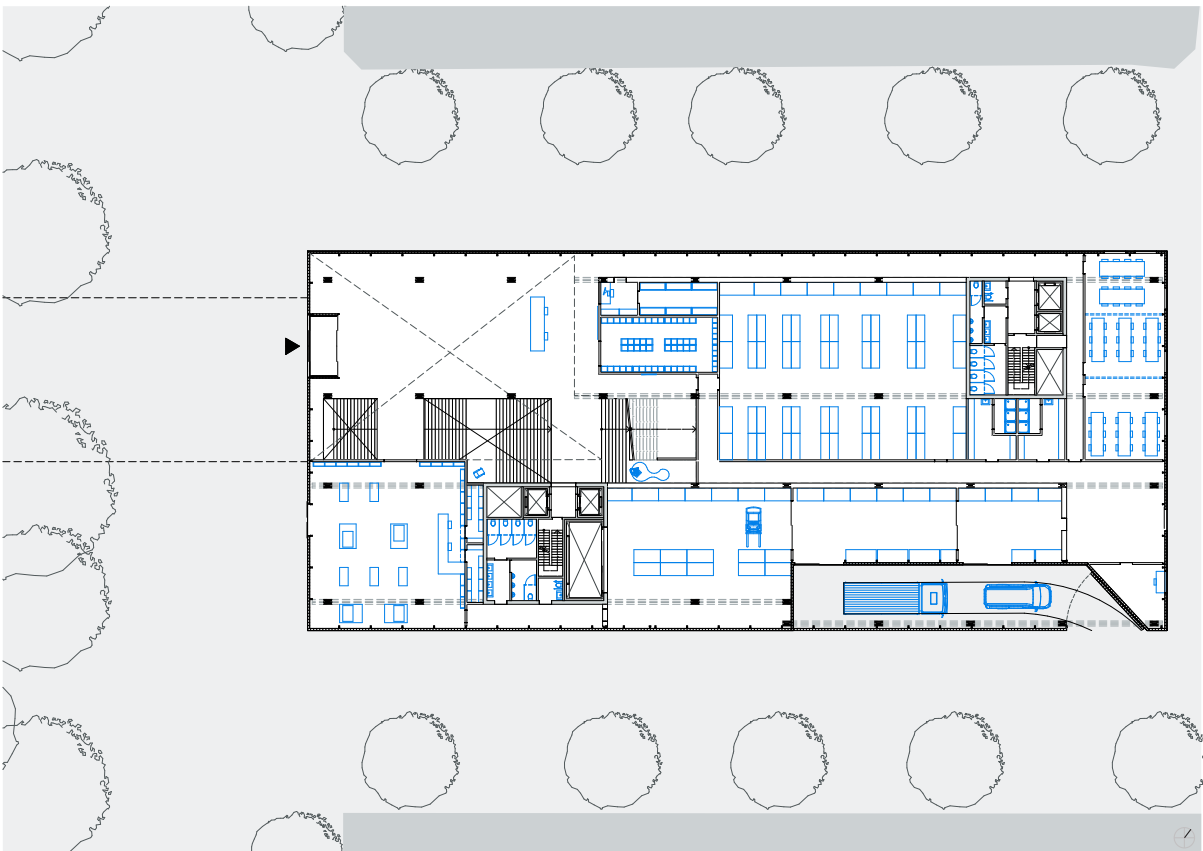
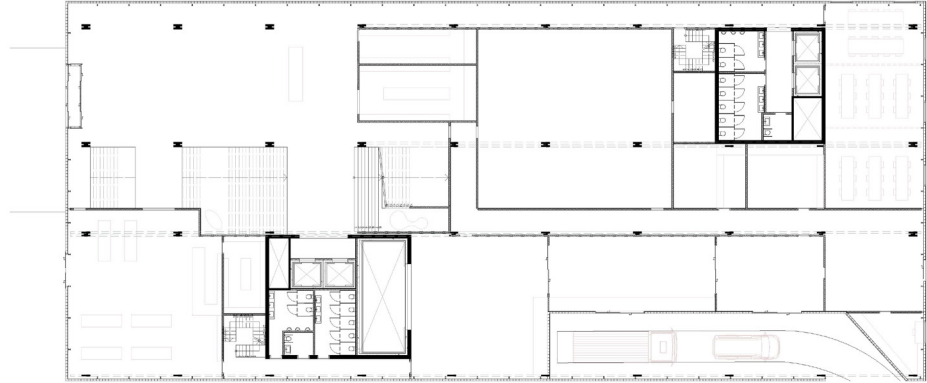


old (left) and new (right) detail

The project in context

My graduation project focuses on the design of a new building for the M HKA, which serves as an exploration of architectural concepts within the context of the built environment, it is a museum within a city, in between a park and a quay. This project is part of the master track in Architecture, but encompasses various elements of the other master tracks. By delving into the technical intricacies of designing the museum, I have collaborated with the BT teacher to ensure a comprehensive understanding of the project's technical aspects. Overall, my project bridges the disciplines within the broader MSc AUBS program, emphasising the multifaceted nature of architectural practice.

In the city of Antwerp, the new M HKA is set to become a significant public and cultural landmark. Its influence will extend far beyond its immediate surroundings, encompassing the entire Antwerp Zuid neighbourhood and leaving a lasting impact on the entire city. While my design of the building may not be realised, the design of the new M HKA holds immense importance. Its envisioned form and character will shape its role and significance. As part of my research, I aim to contribute to the broader framework by exploring various possibilities and considerations for this iconic building. By delving into what it could be, I seek to provide valuable insights that will contribute to the vision and impact of the new M HKA building and the city of Antwerp.



ground floor plans, before and after the P4 in May