MASTER THESIS 2020

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## PREFACE THE DRAWING & THE SPACE

Over the past few years I learned that the analogue drawing method is the best approach for me to put down an idea. Even when a project is finalised in a digital format, within the design process, especially when making the first attempts to a design, it always started with a hand drawn sketch. And I am not talking about those typical architectural "sketchy" drawings where they draw straight lines, where the perspective is correct, where the corners are intensely emphasised, and usually drawn in a black pen. To me, those are gorgeous presentation drawings. Drawings that really impress. There are of course some people who have learned to control this technique very well and manage to put down a beautiful drawing in just a blink of an eye as to speak. And I am in awe of their skill because at this point in my life I have not been able to do this.

So what I mean with a sketch are those rough, imprecise, (almost) ugly drawings. Some might think they are drawn by the hands of a small child. Yet these are the most honest and raw drawings from me that I try to put down black on white when an idea pops up in my mind. It sometimes happens that they are hard to understand for other people as they are drawn in a language that is meant for me to understand, a language that I use to register ideas so that they do not get lost when work is in progress. I have to admit, they are far from attractive to look at.

During the design process many premature things are going on at the same time, while research is being done and it certainly can get a bit chaotic sometimes. Not too many people are impressed with how fragmented, incoherent, and unrefined the work is at that moment. But I believe that it is during this phase that we need to surround ourselves with people who allow us to be this messy and understand that things will come together eventually, but for this to happen that we are given the time and space to do that.

And that is the main reason why I opted for The Drawing & The Space as my master thesis studio. From my past experience with Jo Van Den Berghe in studio Anatomy in collaboration with Mira Sanders back in 2019, I have met mentors who understand that by giving the time and the space to a student to develop a project will lead to a very rewarding result. This was not always the case for me the past couple of years in university. It is very common for teachers to require students to hand in documents in specific file formats and have them follow strict guidelines during the design process. For some this approach is productive, for others it works restrictive when it comes to the individual's creative potential. So it was my greatest pleasure to have Jo and Mira guide me through the design process of Anatomy by giving their students the freedom to explore our own individual fascinations and our approaches to designing without judging. It taught me alot about myself and what methods work best for me.

PREFACE

Now I have the honour to have Jo Van Den Berghe and Thierry Lagrange as my guidance again for my master thesis. Studio The Drawing & The Space takes a similar approach as studio Anatomy while also allowing us to choose our own specific case with the drawing as the main tool to develop and communicate architectural space. The case I chose for my master thesis is my project from studio Anatomy: Locus Esse. This was a dear work in progress of mine which I greatly enjoyed working on but is left unfinished. This project envelopes a whole lot of my fascinations and I feel that there is still potential to explore it and develop it further.

So first, let me introduce you to Locus Esse from Studio Anatomy.



# studio ANATOMY

**INTRODUCTION STUDIO ANATOMY 2019** 

LOCUS ESSE, meaning "a place to be" in latin.

F ascinated by the 'romantic' language of the monuments on the Dieweg graveyard, I felt strongly motivated to explore the possibilities that can arise when poetics and technics come together during the design process. I believe that architecture should in no case exclude one and only focus on the other. Both technics and poetics are of equal value and the balance that is the result from when those two compliment each other is what makes an architectural space most intriguing.

Through this assignment, where a sequence of three rooms of moratorium spaces shall be designed, I wanted to explore those exact possibilities between technics and poetics by taking several elements into account from the environment of the graveyard.

The topography of this site is sloped, allowing for interesting play in levels. This also means the flow of -water-, which I find a beautiful natural element to work with. I strongly believe architecture and nature do not have to compete to one another. In fact, it is most beautiful when both can be in the presence of each other. Elements such as trees, grass, moss, and other kinds of vegetation are almost a bonus if they are present on the site, making the spatial experience much richer. Another element that cannot be ignored is the orientation. The use of natural daylight, play between shadow and light, maybe even time wise as the sun rises in the morning and sets in the afternoon... Such are valuable things to consider that adds to the poetic side of a spatial experience.

Although architectural decorative elements and ornamental shapes imitating nature will never feel the same as nature

itself (due to materialisation and what not), I do think it has its own charms. The development of growing natural vegetation, patterns and textures can teach us important lessons in how we design architecture. Proof of that can befound in buildings dating back in the times of the Greeks and Romans, the Catholic Church and the Art-Nouveau style. The eye and feeling for crafting details through ornament and decoration seem almost lost and forgotten in the present day. To me, ornament does not have to be a bad thing or deemed unnecessary. During the research process from this assignment inspired by this romantic environment, I see this as an opportunity to experiment with ornamental and decorative elements as part of and mixed in with the technic-poetic possibilities.

The moratorium spaces, to me, are spaces where the visitor takes their time to be there, something that invites you to experience the space before entering the next one. To make this ambition true, I would like to incorporate the previous mentioned elements and interests into my design process in order to find a poetical expression in my architectural language while staying true to technical and rational aspects. And this process goes the other way around as well. By investigating the technical construction of the architectural detail, I believe this can have a significant influence on the poetic expression. The interaction between those two is what makes not only the result, but the design process most interesting in architecture.

Academic Design Office **Studio ANATOMY 2019** 

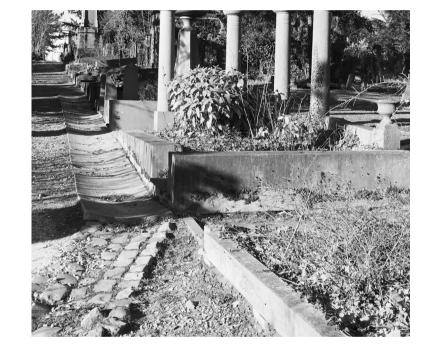
by Mira Sanders & Jo Van Den Berghe

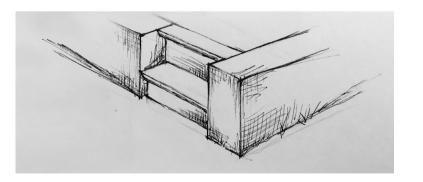
## POINT OF INTEREST

On the west side down the slope of the graveyard I came across this burial monument that immediately caught my attention. As I was walking up the hill along this open monument, I felt how the side block was an ideal height for me to serve as a bench thanks to the slope. Coincidentally, this side block happened to be broad enough as well. Was it really a coincidence? Or was it the intention of the architect of this monument?

Compared to other burial monuments, I found this one to stand out in its intention. Unlike the others where the monument is an object to look at, this one seems rather an inviting one. It allows the visitor or even a passing by person to sit down, take a short break while enjoying the warm afternoon sunshine.

On the corner happens to be a little stair as well to actually make this monument accessible. To me, the presence of just these two steps is a clear sign to the visitor to take a moment to really be there.





1 | Architectural elements on human scale Both height and width of the beam along the slope created a sitting element.

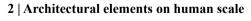
Reference: Aldo Van Eyck - Burgerweeshuis

## THE HUMAN SCALE

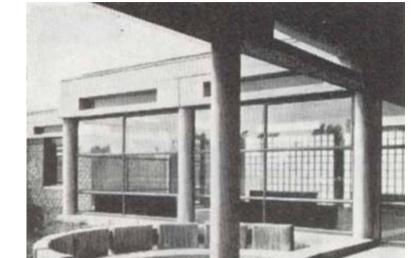
The side block immediately made me recall the project Burgerweeshuis by Dutch architect Aldo Van Eyck where he used architectural elements adjusted to the human scale. This way, the user is free to interpret such elements in how to use it, making architecture much richer in its language but as well as easy to adjust to a different use over time.



Not completely deadfastly designed for a specified purpose, but rather leaving some room open for interpretation.

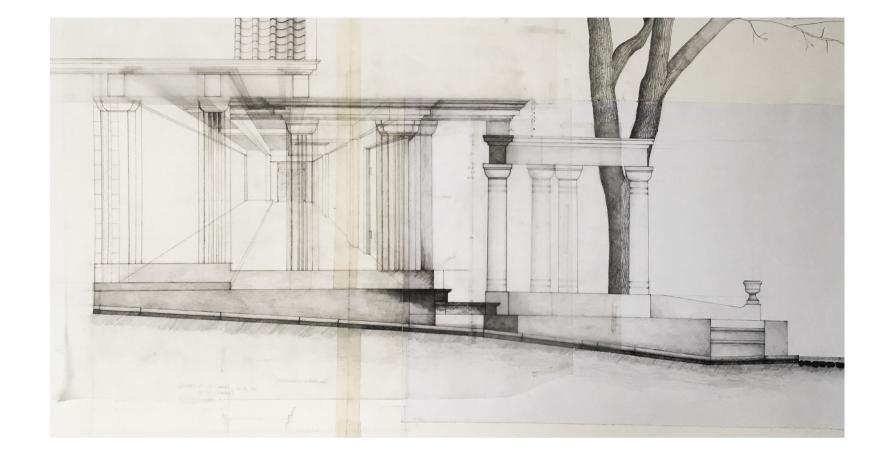


By using human scale dimensions, the architectural elements could become more than just for example a corner. It allows for different interpretations depending on the user.









#### 1 | Dividing into parts

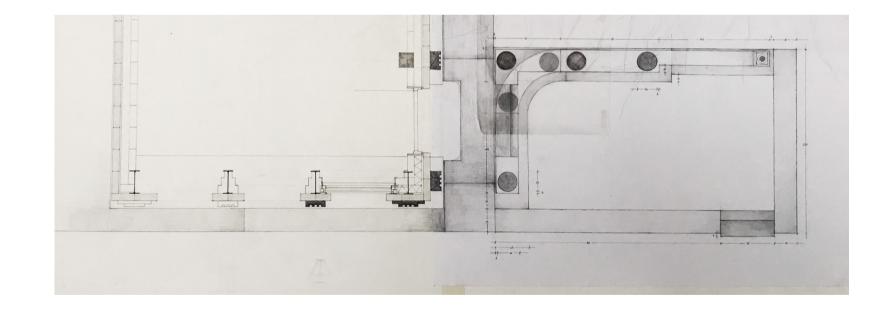
- A) The first pedestal: bottom layer / floor
- B) The second pedestal: "border" element
- C) Elements dividing space (walls, columns, ...)
- D) Cornice
- E) Roof

#### 2 | Extending the "sitting area"

As the slope continues to go up, I would like to extend the use of the first and second pedestal elements along the path, creating a longer area.

#### 3 | Continuing the rythm in facade

To build an extension, I prefer to continue the rhythm of the existing columns into the facade.



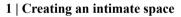
#### 4 | Second pedestal interior experience

As the pedestal is repeated, I have adjusted the width of the second pedestal, way past the window, to the interior, creating a deep windowsill on the inside

## **ORIENTATION**

After having accepted the invitation to take a seat there, I enjoyed the late midday sun and realised how well of a position it was to take a break there during my walk. Surrounded by large trees and bushes, I felt very relaxed within this atmosphere.

Because the columns of the monument were positioned in this certain way that created a corner, a very strong front and backside was distinguished. The front having full frontal daylight shine upon it, while the backside became much more intimate due to the light travelling trough the gaps between the vertical figures, and leaving behind a trace of elongated shadows.



The space feels calm due to the contrast in light and shadow.

Reference: Edward Hopper - Room in Brooklyn

#### 2 | Frontside

Situated next to a path that seperates the trees and bushes from the monument, midday sun shines fully on this west side. Along the path are two gutters.

#### 3 | Backside

A large oak tree finds itself behind the small columns of the burial monument. The shadow of these columns are casted on the mossy ground which compliments the linearity of the surroundings, creating a certain intimiate atmosphere.









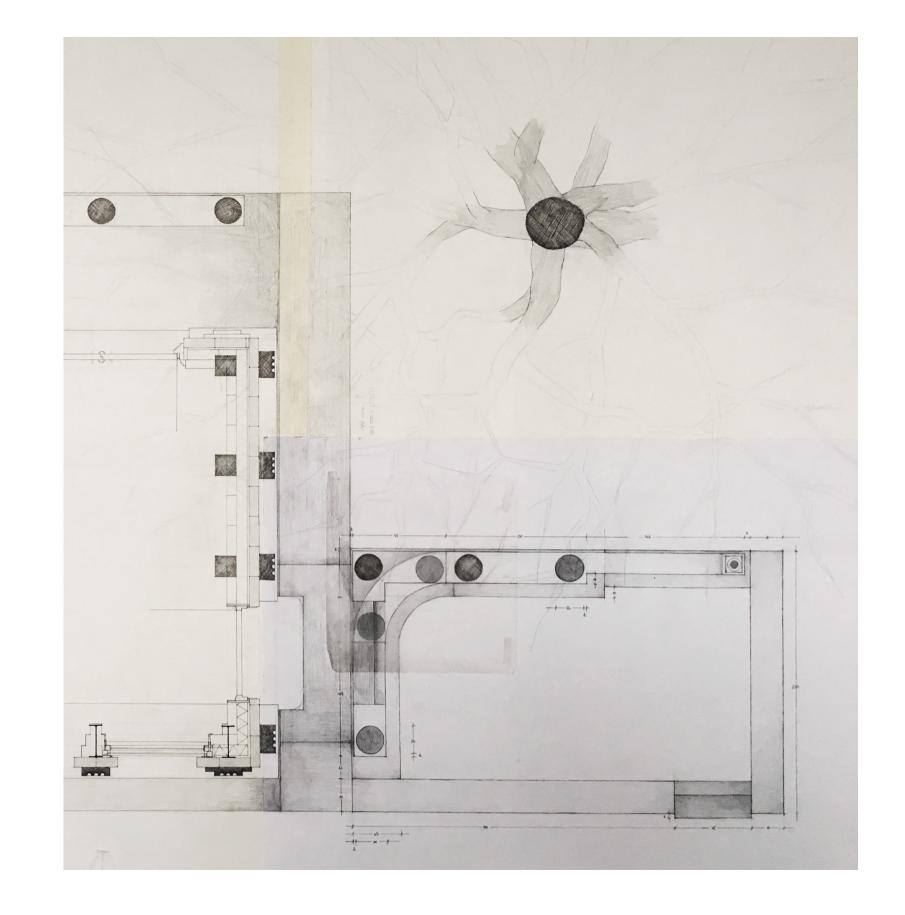
PHOTO: Oak tree behind tombstone

LOCUS ESSE



1 | The Existing Intimate Space

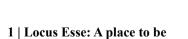
Found behind the existing monument, I would like to create a corner around the oak tree, almost like a hidden corner.



## ROOMS

Around this spot I find there are many interesting elements in the surroundings, elements that are worth making part of the architecture, part of the spatial experience. Environment and architecture together giving this location their own new definition. Therefore, I would like to call the exterior space the first room, blurring the line between 'a building' and 'a place'. I find it important that architecture goes into dialogue with its environment, which means architecture has to be specific. In this case I would like to say that the "exterior room" is more than just one spot, it covers all the spaces that exists outside a building, around the building, and/or created by the architecture of the building, as each 'side' should be in a specific dialogue with what is situated on that 'side'.

Having defined the first room as the exterior, I would like you to continue to imagine the walk with me: we have spent our time outside, whether on a cold rainy or hot summer day. The next thing to do is to go inside for shelter, for refreshments, for rest or simply for your own interest.



The exterior The Water Temple The Fireplace

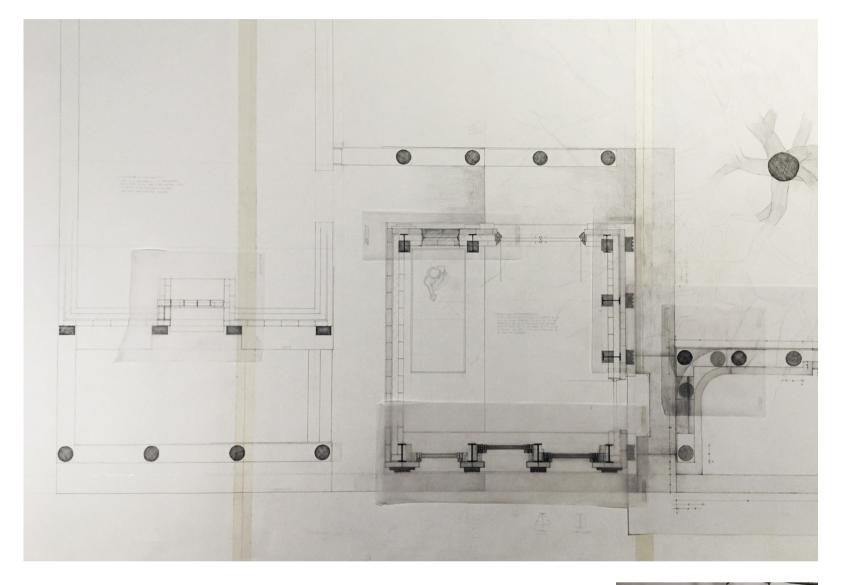
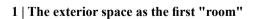




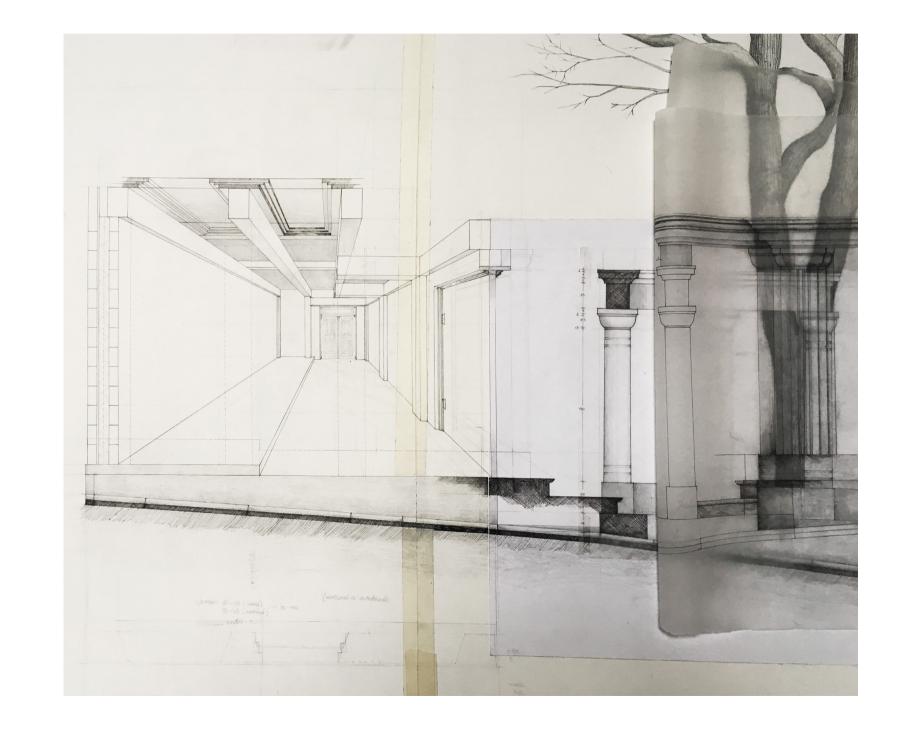
PHOTO: Entrance to Room of Water DRAWING: ONE POINT PERSPECTIVE — Room of Water

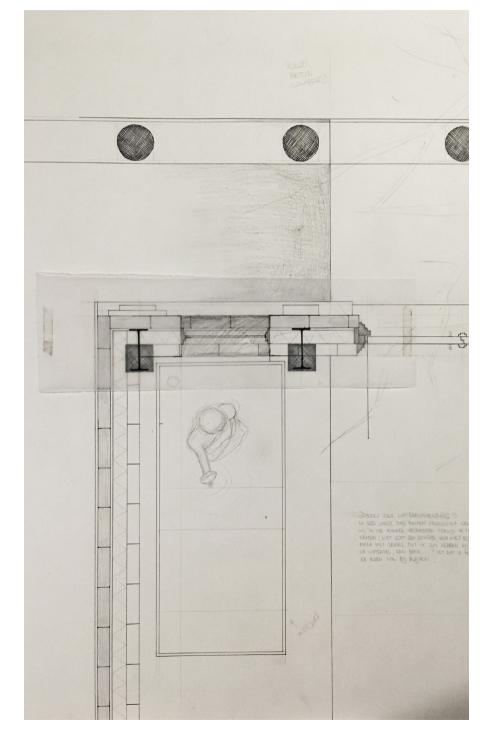




#### 2 | Second room: Room of Water

The next space to encounter after the outside, should be an inside space, providing shelter and the possibility to refresh oneself.





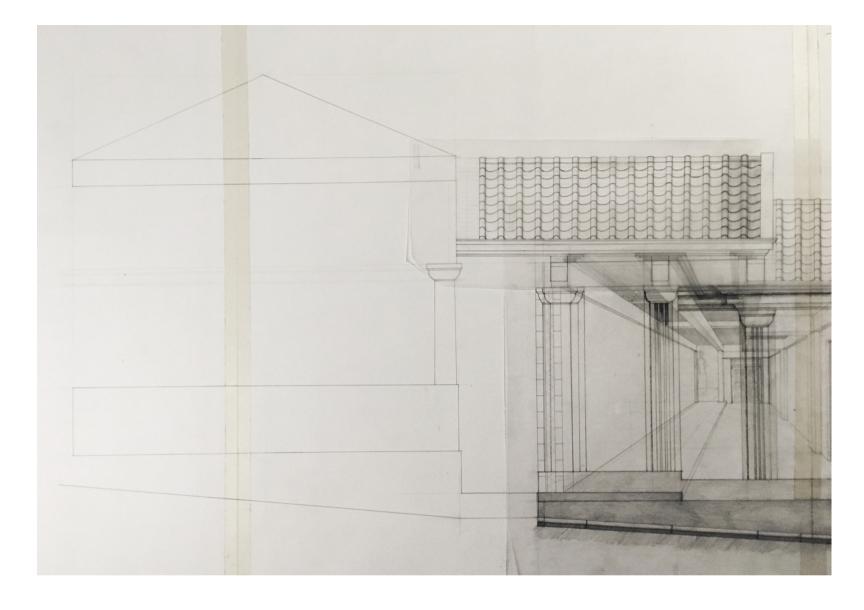
#### 1 | Second room: permanent presence

In this second room, an interior space, I would like to introduce a statue as the water source. The idea is that the collected rain water is stored underneath the building. From there, the water gets cleaned and will be pumped up to the statue.

As follows, framed by the small window, we can see someone pouring out water from a cup. The flow of water indicating activity, and the statue as our company. This is the permanent presence of the Locus Esse. The idea that someone is always here at this place.



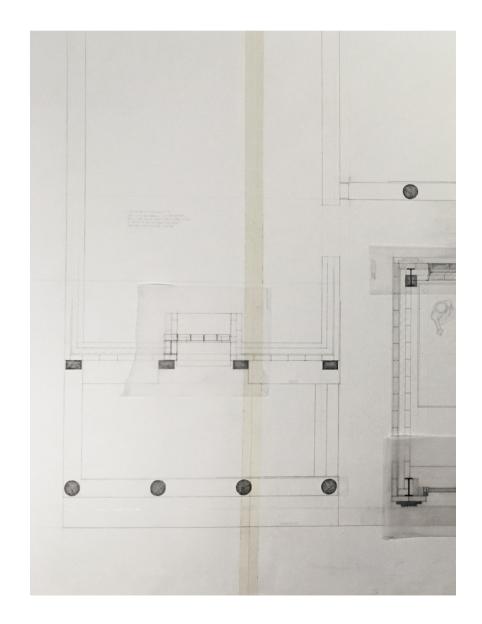
**PHOTO: Sculpture in the Room of Water** 

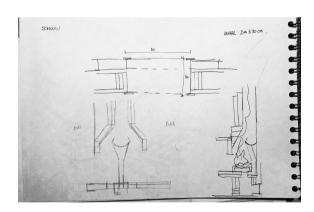


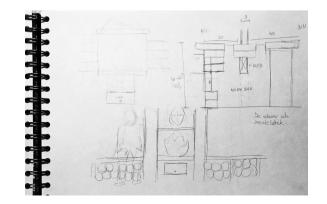
#### 1 | Third room: a place for comfort

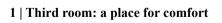
After having refreshed oneself, we take our time to install ourselves in a sheltered space, a space that provides warmth and comfort. I would like to give this space an intimacy, as the opposite to the 'openness' from the outside experience.

(attempt unfinished)

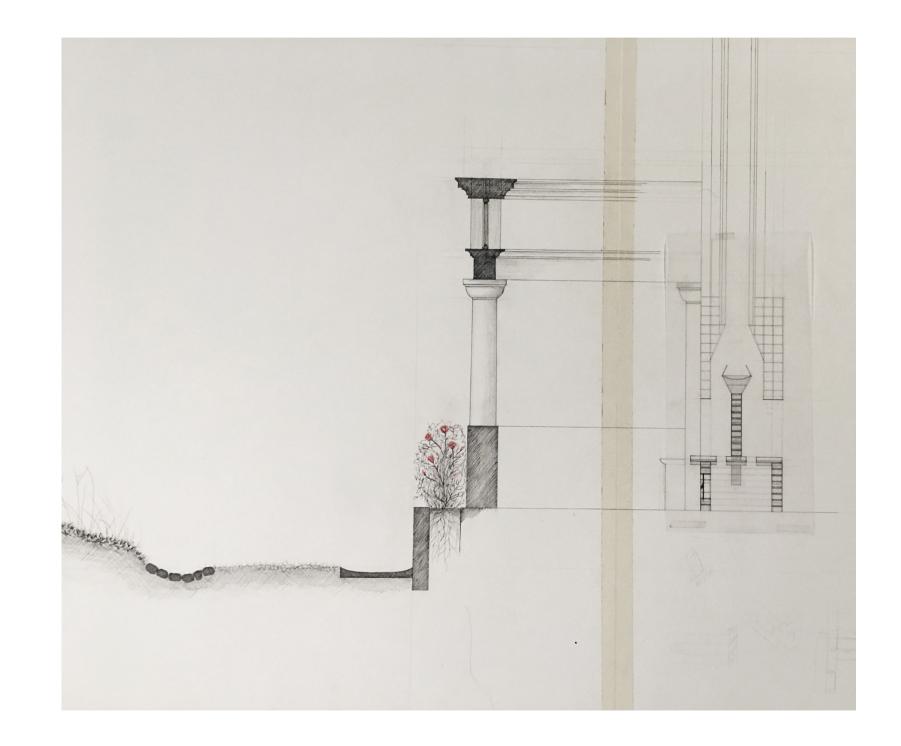








I want to create an inbetween space on the exterior that is has access to a fireplace. The idea that this fireplace could be used on both sides of the wall became an idea.



**28** 

**29** 

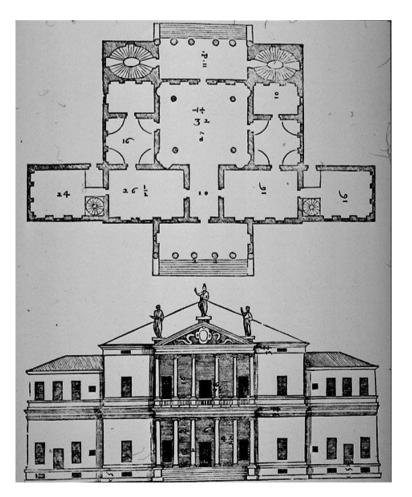
Columns are neither a wall nor a window, yet a sequence of columns can create a certain zone, which I call an 'inbetween' space, a space that is neither fully exterior nor interior, but somewhere between those that can both separate space and allow flow and direction at the same time.

Inbetween spaces create an extra buffer zone, an extra layer to the spatial experience that blurs the edge between outside and inside. As I earlier spoke of naming the exterior space as the first room where architecture should go into dialogue with the environment, I think this is where the inbetween space can play an interesting role. The inbetween space can serve as the connection, an interaction between exterior and interior spaces.

#### 1 | Inbetween space

On the frontside of the building, the colomns are placed outside the facade, creating an extra zone. Whereas on the backside facade the columns are implemented into the facade, not creating an extra volume to the building, but rather taking some 'outside area into the building'.

Reference: Andrea Palladio - Villa Cornaro





REFERENCE: ANDREA PALLADIO - VILLA CORNARO, PIOMBINA DESE 1553 (IT)



**30** 



#### 1 | First Inbetween Space

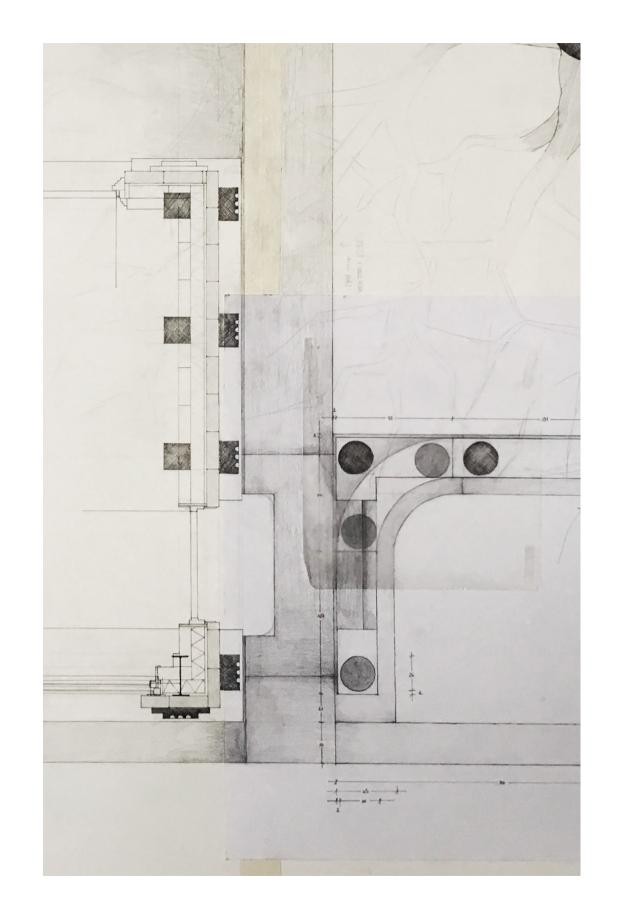
I would like to introduce the first inbetween space at the entrace. The shift from being outside to going inside a building is something I would like to be a gradual experience. First having to walk up the existing monument (no roof) then to coming under a small roofed space (before the door).

#### 2 | Connecting space

A) The first connection we make is in fact to see the other side. About 70cm in width, it is not comfortable to walk through it to the other side, but rather to pique the interest of the visitor to enter the building to go to that space, like an alley. (see: section drawing)

B) The physical connection of this inbetween space is the passage to enter the building in the other direction. (By entering the existing monument, the entrance)

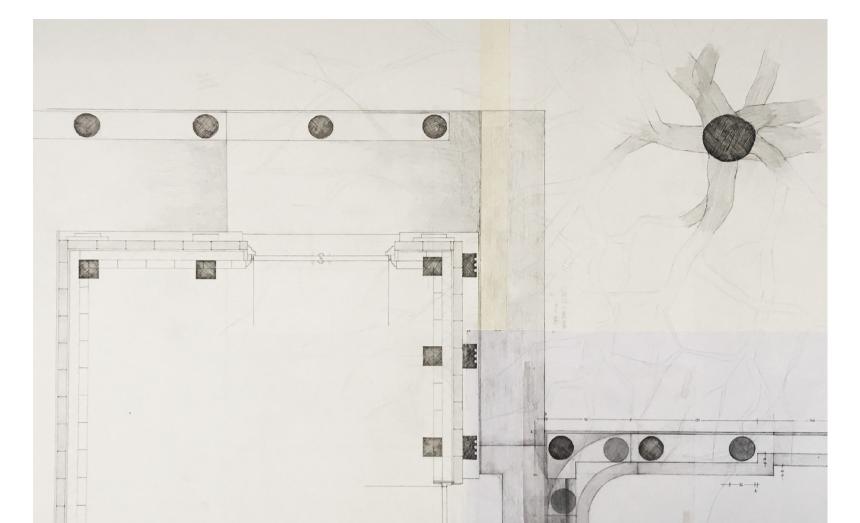
(see: plan drawing)







DRAWING: PLAN — Corridor



#### 1 | Second Inbetween Space

As we move on from the first space to the second, I chose the transition to be with another inbetween space. This one:

A) serves as a physical border to the "backyard", but does not obstruct you from seeing that there is a backyard, aligned with the oak tree.

B) serves as the physical connection (as a passage) to the previously spotted intimate space around the oak tree and the juxtaposed interior intimate space (will be further elaborated on later).



THE "INBETWEEN" SPACE

## MATERIALIZATION

On the west side down the slope of the graveyard I came across this burial monument that immediately caught my attention. As I was walking up the hill along this open monument, I felt how the side block was an ideal height for me to serve as a bench thanks to the slope. Coincidentally, this side block happened to be broad enough as well. Was it really a coincidence? Or was it the intention of the architect of this monument?

Compared to other burial monuments, I found this one to stand out in its intention. Unlike the others where the monument is an object to look at, this one seems rather an inviting one. It allows the visitor or even a passing by person to sit down, take a short break while enjoying the warm afternoon sun shine upon their face.

#### 1 |Shape of the opening

Horizontal framing versus vertical framing, influencing on how light enters the space.

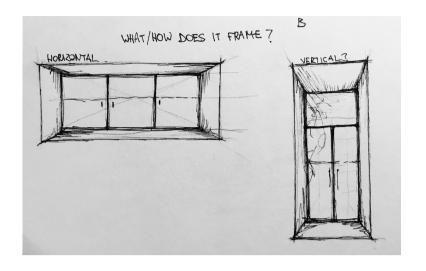
#### 2 | The wall and the opening

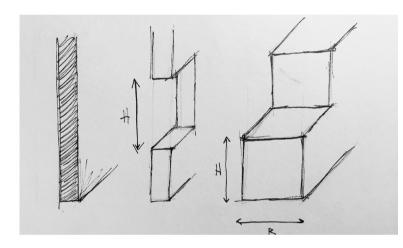
- A) Thickness of a wall
- B) Dimensions opening: Height & Width
- C) Possibilities arise when we play with those two factors

#### 3 | Exterior & interior windows

Openings in the interior walls are in fact windows as well. No glass and frames makes the interior window and interesting element in the interior experience.

Reference: Adolf Loos - Villa Muller









REFLECTION NOTE





#### 1 | First Waiting Room: the exterior

Situated next to a path that seperates the trees and bushes from the monument, the midday sun shines fully on this west side. Along the path are two gutters.

#### 2 | Architecture and natural elements

How architecture and nature can compliment each other. Through volume, texture, colour, materialization, ... giving architecture an extra value by making use of present elements.

Reference: F.L. Wright - Fallingwater

#### 3 | The window as ornament

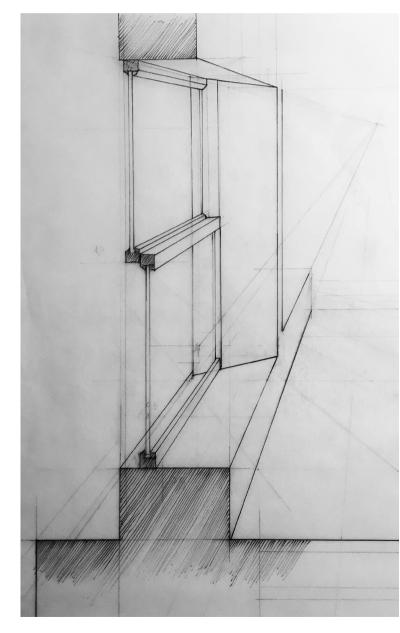
The window opening becomes ornamental in the facade when designed a certain way (depth, angles, height, borders, ...)

Reference: Robert Venturi - North Penn Nurses Association

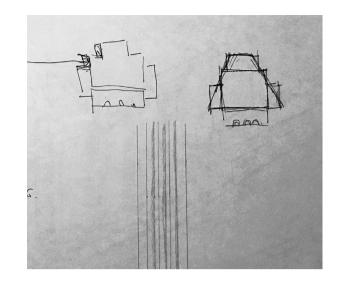
#### 4 | Second Waiting Room: the interior

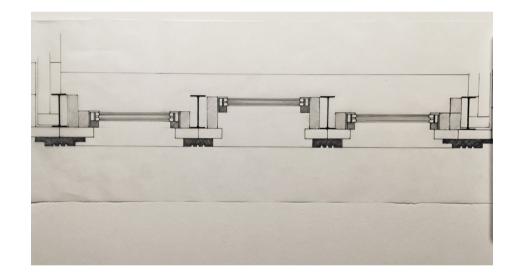
Instead of a wall that separates the outside from the inside space, I would like to have an interactive one, made possible through the window.

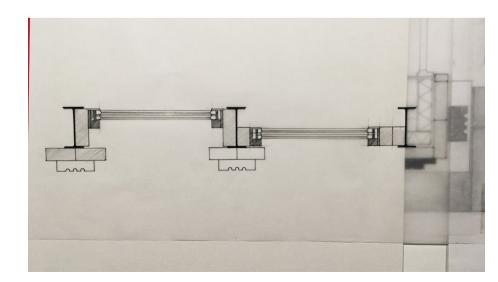




DOCUMENTATION: VERTICAL SLIDING WINDOW







#### 1 | Window/wall construction Making the window a space

#### 2 | Shifting from oblique to stepped Thinking on how to fit the window frame to the column/wall

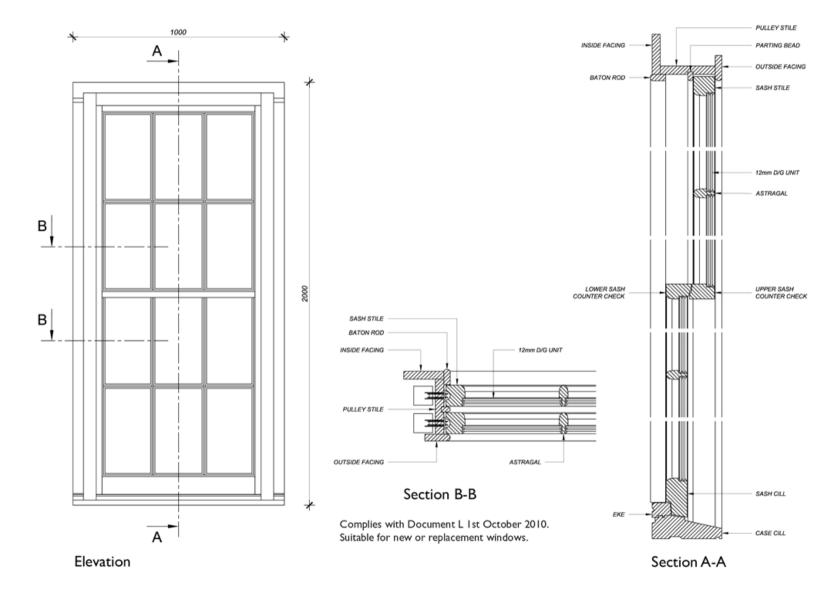
2 | Window/wall construction Stone placed around the column

#### 3 | Window/wall construction Stone placed inside the column

4 | Second Waiting Room: the interior Instead of a wall that separates the outside from the inside space, I would like to have an interactive one, made possible through the window.

#### 5 | Opting for a vertical sliding window

The opened window is there for the outsider to look inside due to the slope and the pedestal: an adjusted height, while on the inside, the opened opening of the window is rather low.



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DRAWING: FACADE —FRAGMENT

#### 1 | Rhythm

The column will be repeated in the facade, except not round and individually standing, but rather part of the facade to keep the verticality in the architecture.

#### 2 | Window as a place to be

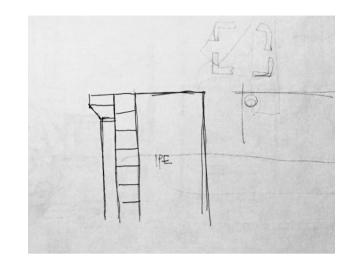
Both from the inside and outside, the window becomes a place and each side has a different function:

From the outside: as we sit on the stylobate we can look inside.

From the inside: the window becomes a furniture thanks to the large window sill.

#### 3 | Composition of the Wall

I chose IPE profiles to serve as columns inbetween windows for its hollow and thin shape, giving me freedom to place the window frames. The wall will be composed of natural stone.



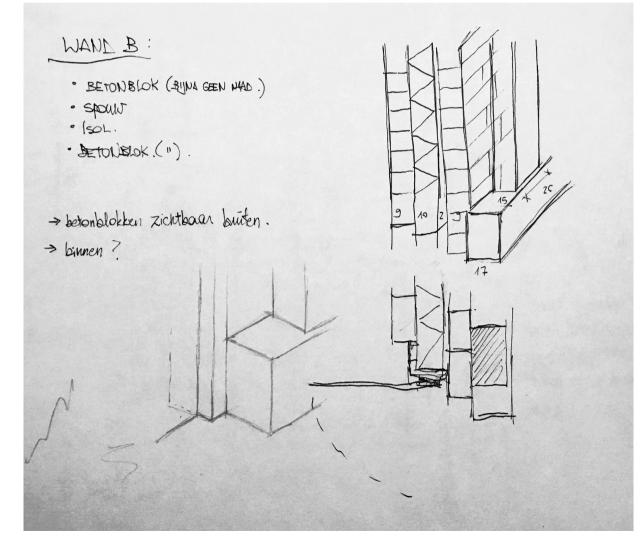


PHOTO: Interior view



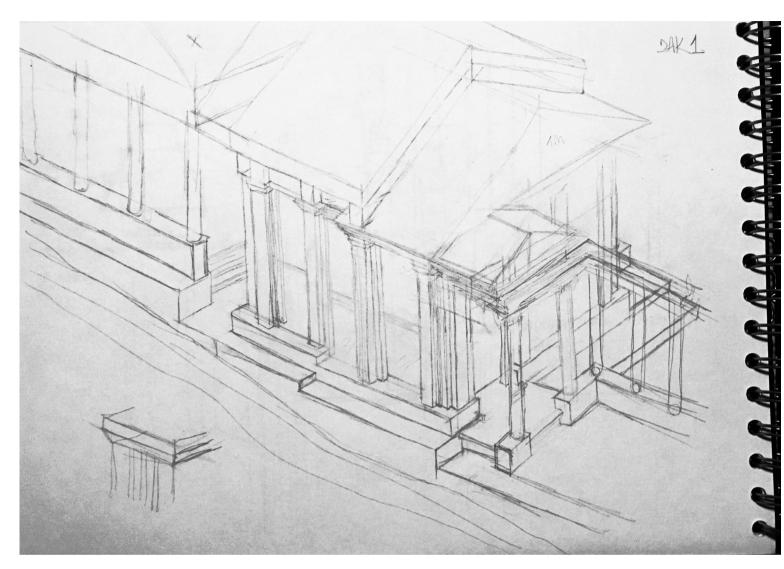
#### 1 | Interior

IPE profiles defining the walls and ceiling.

#### 2 | Pedestal in the interior

The window as a place to be: we sit down at the window. For this is also the reason why it opens from down to up.





#### 1 | The roof

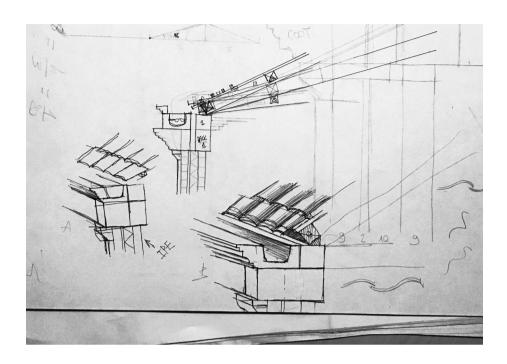
The roof will be in 'layers', as it gets a new height by following the slope. This way rain water will travel like small waterfalls through the gutters.

#### 2 | Water

Important element which I would like to make visible and even tangible in/on the facade. I will do this by using the 'facade columns' as rainwater pipes. Each having three open grooves which leads the rain water down the building.



**SKETCHES** 





#### 1 | Roof composition and the gutter

How exactly will rain water be caught in the gutter? And how does the gutter lead the water to the 'water pipe' (column)?

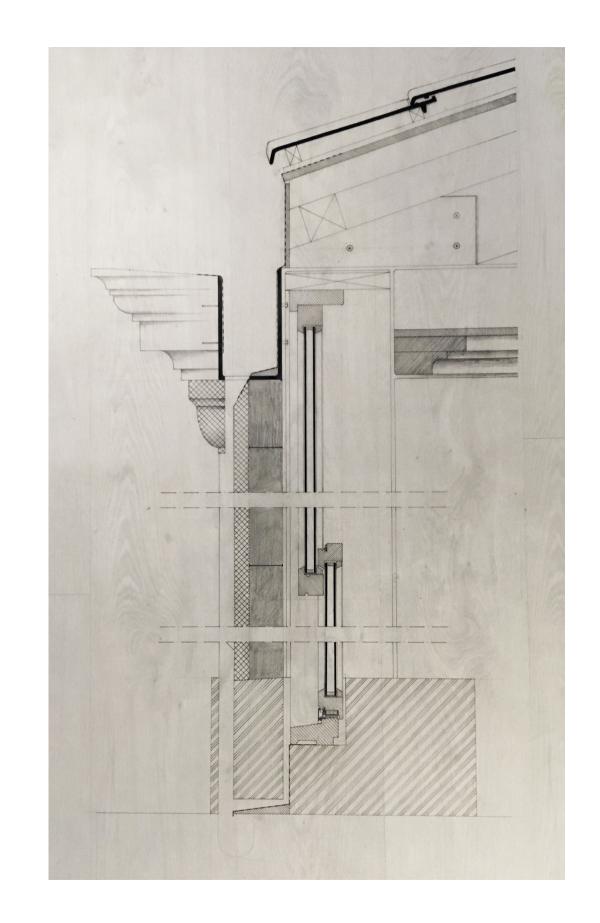
#### 2 | Strong cornice around the building

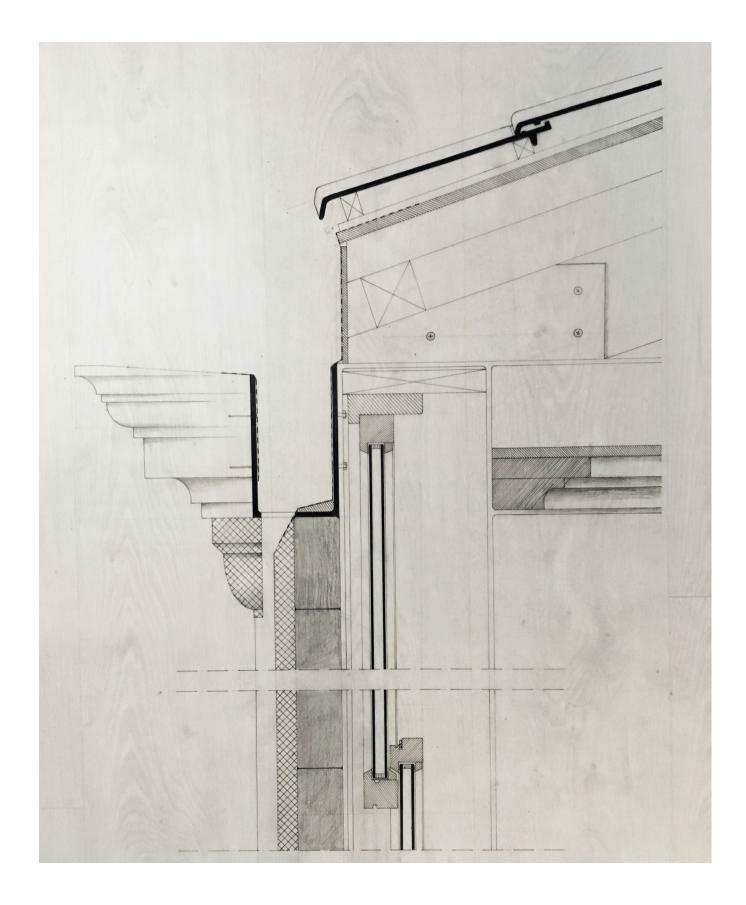
The cornice is the gutter and for this reason, allows us to see how the water travels along the building.

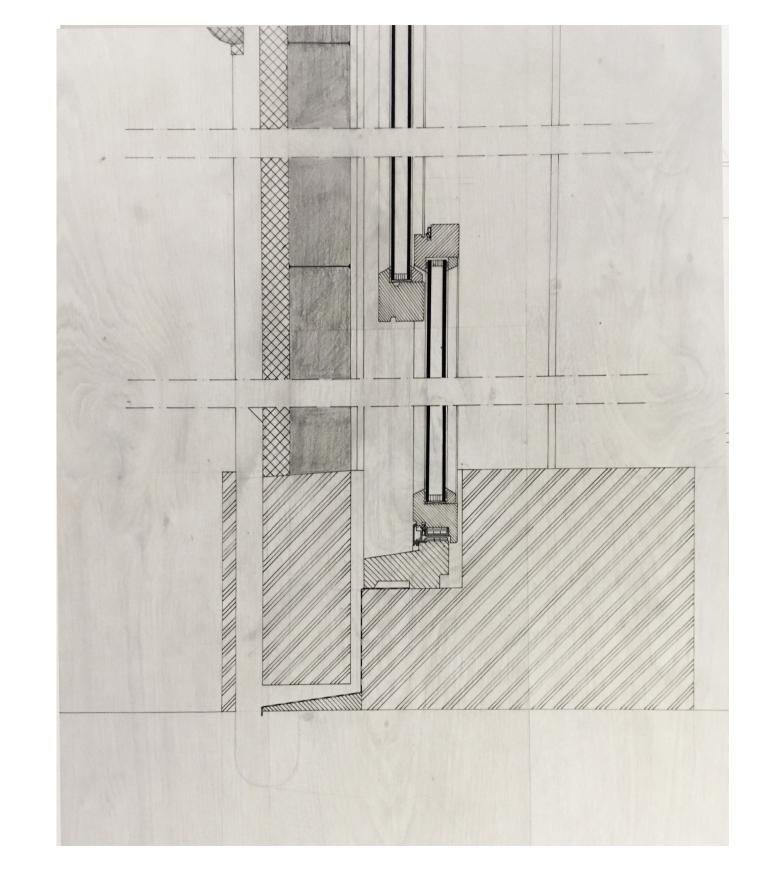
#### 3 | Construction detail

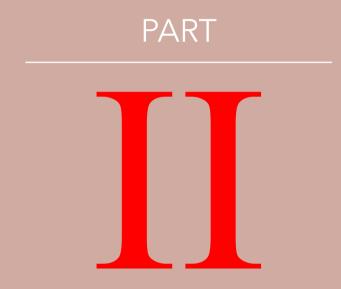
Note that the drawing is a combination of two sections from roof to stylobate:

- A) Section through the gutter (left side)
- B) Section through the vertical sliding window (right side)









# MASTER THESIS 2020

**INTRODUCTION MASTER THESIS 2020** 

My biggest attractions were and still are the romantic pillars from the tombstone situated on the Dieweg Cemetery in Ukkel which I picked as my starting point in studio Anatomy. The iteration of columns leads to the inbetween space: the space between the individual columns, but also the space between the columns and other bodies or elements.

Let us take a wall for example. On one side of the wall is the interior and on the other side is the exterior. On the exterior side we place a row of columns where the roof extends to. Now this is the part that I find very interesting. The inside and the outside space are not necessarily separated by only the wall. The row of columns becomes part of the separation which stands in the middle of the interior and exterior space, while it creates a space of its own. There is no "hard" distinction anymore in this line between inside and outside. This blurred boundary is something I am very eager to explore. From my personal experience, this inbetween space has always been a very pleasant spot whenever I have encountered it. It gives a kind of layeredness to the architectural space and also adds to the richness in the spatial experience.

So how does my body relate to and interpret architectural elements? How do elements relate to each other when they are placed in a certain spatial composition and how will it affect the view? It is in the composition of (architectural) bodies is where tensions can arise in the spatial experience. For instance, the repetition of the columns gives off a very strong and strict expression in the architectural language, but is not the same kind of strictness as in symmetry. Repetition follows rules, which I would perhaps prefer to call parameters. Rules are indeed strict, parameters however, are able to vary. These parameters can be set by ourselves, focusing on things that we would like to incorporate into the design process.

One of such parameters are trees. The reason why this romantic graveyard is an appealing site to work on are the large trees which you cannot ignore. There cannot be enough emphasis laid on how trees are of great value to a site. To put a tree in a juxtaposition with the architectural column: the tree trunk actually appeared to me as a "natural" column which resonated with the pillars of the tombstone when I first encountered this site. Trees also have a structure in how they grow: roots, trunk, branches and leaves. They provide shade, cool down the environment when it is hot and vegetation in general lets us experience the seasons. A tree could become an element in the architectural space which could play a part in the atmospheric experience.

The topography of the cemetery was an important asset in the development of the project. I continued the architectural language of the existing tombstone which is inspired by the Doric order. While new parts of stylobates, columns and cornices were added, the topography influences the relation between the human body and the architectural elements. This is something I would like to keep present in the design. The topography and its influence on how "bodies" behave towards each other. Back in studio Anatomy I have attempted to create new elements based on the existing ones as a means to keep the architectural language coherent (mostly on the exterior). This was an effective learning method to understand how the architectural order works by extending it. But the continuation led of course to a language in the facade that is quite the same as the original tombstone. The challenge for me now is to create my own language based on what I have learned from copying and making variations and adjustments to the architectural order.

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As I started to design rooms within -buildings-, things soon became more complicated as more elements were introduced to the story such as beams, steel profiles, walls, windows, roofs, ... All these elements were starting to take shape as

structure was taken more into consideration. This became another parameter that has an impact on the design of the buildings and rooms. How will things look like if the capacity of the material of structural elements are pushed to certain limits? Especially when more contemporary materials become an option?

All the things I have just mentioned in the above are the components that I will use in the development of the master thesis taken from what I have learned from studio Anatomy. The center of this project where all these components will come around together is a courtyard that I would like to design.

#### The courtyard: an enclosed space

During studio Anatomy I was in search for an architecture that would invite the visitor to take their time to be there: Locus Esse. I would very much like to keep this as my main objective, to create a place for contemplation and to feel present. The repeating elements, the layeredness in the boundary between interior and exterior, the views through the inbetween spaces (comparable to little streets and alleys), and the slight height difference in the topography made me conclude that the spatial composition is what all these things are about.

The spatial composition means several things to me which I would like to elaborate on first: it is how all the architectural elements are positioned towards each other on a specific site *where other bodies are present* that are also considered to take part in the design. Also how does the visitor find himself in this spatial composition? My intention is that the visitor should not just be an observer of the space but be taken into account as part of the composition as well.

Intuitively, I thought of being surrounded would make me feel more part of an environment than when I am standing from a distance and looking at "grouped" objects. (In this project the "grouped" objects are the rooms that I have developed.) In the latter situation the buildings/rooms appear more as a composition to behold. What I want to achieve is a composition that encompasses the existing elements of the site, the architecture that I design and the persons present there. So by imagining a space where I feel surrounded I came to think of several buildings separated by "inbetween" spaces. The spatial layers of the earlier designed buildings motivated me to continue to create more layers of space that would "fade in" or connect to each other, but also all gradually coming to a "core" space.

This core space would appear as an enclosed courtyard, becoming the center of the buildings. When we mention a courtvard. I imagine most of us think of an exterior space, surrounded by facades of buildings. But I think this courtyard can be more than just an outside space because it is enclosed. If I am allowed to simplify a bit, the only thing that makes the courtyard an exterior space is the lack of a roof. I do not believe that this criteria should be defining whether a space is an inside or outside space. We have known how spaces can be different depending on its dimensions in length, in depth and in height, also in how bright and how dark they are, and how warm and how cold they feel, ... But what about how much of an interior or exterior a space is? In this thesis I want to research my fascination for the layers of spaces that blurs the line between the "interior and exterior".

Then there leaves me this question: what is the purpose of this courtyard in the context of a cemetery? I believe this courtyard, the enclosed "outside" space, is the connection between all the places and spots for being. My aim is to create an architecture that connects through space, through view, and through presence but also connects with the site where it is situated on. A cemetery is to give a place to those who have passed away. But it is also a place for those who want to visit and who want to pay respects to the ones who have passed away. That is the motivation for me to create "a place to be", a place for contemplation, a place for taking your time, a place for being present in thoughts of those who are gone - for the ones who are visiting.

And the way I want to do this is by introducing layered spaces to this walk around and through the rooms of the buildings. A spatial experience where the visitor is invited to be at their own pace, feels the intimacy of finding oneself in an enclosed space yet free to explore.

#### Studio THE DRAWING & THE SPACE 2020

by Thierry Lagrange & Jo Van Den Berghe

#### OVERVIEW SITE // PLAN

#### drawn on scale 1:20

view down the path



view from north-east



3 view from north-east



4) view from north side



Y facade along the path

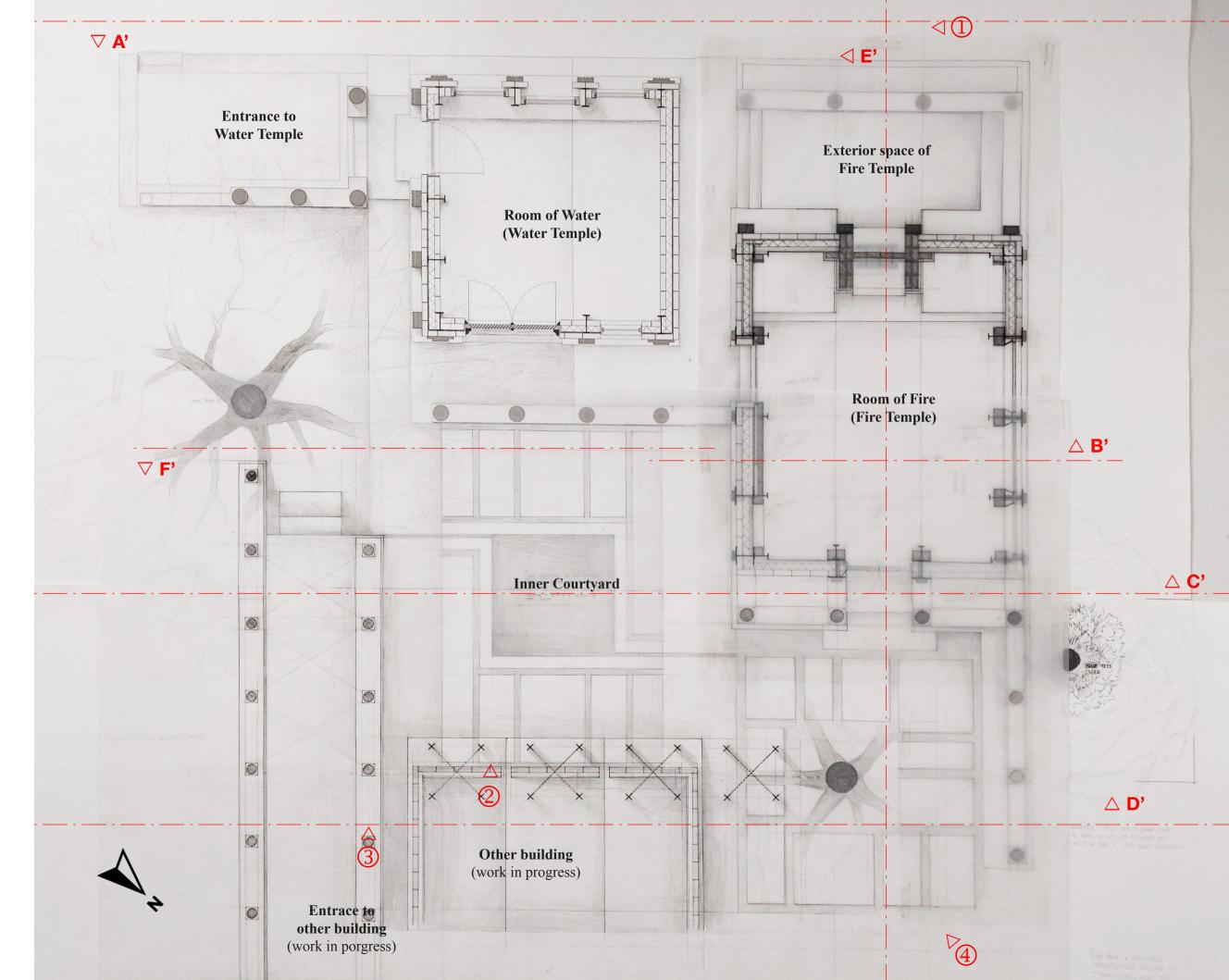
**B'** section: room of Fire

section: facade of Fire Temple

D' view to temples

E' section: room of Fire

frequency facade of third temple



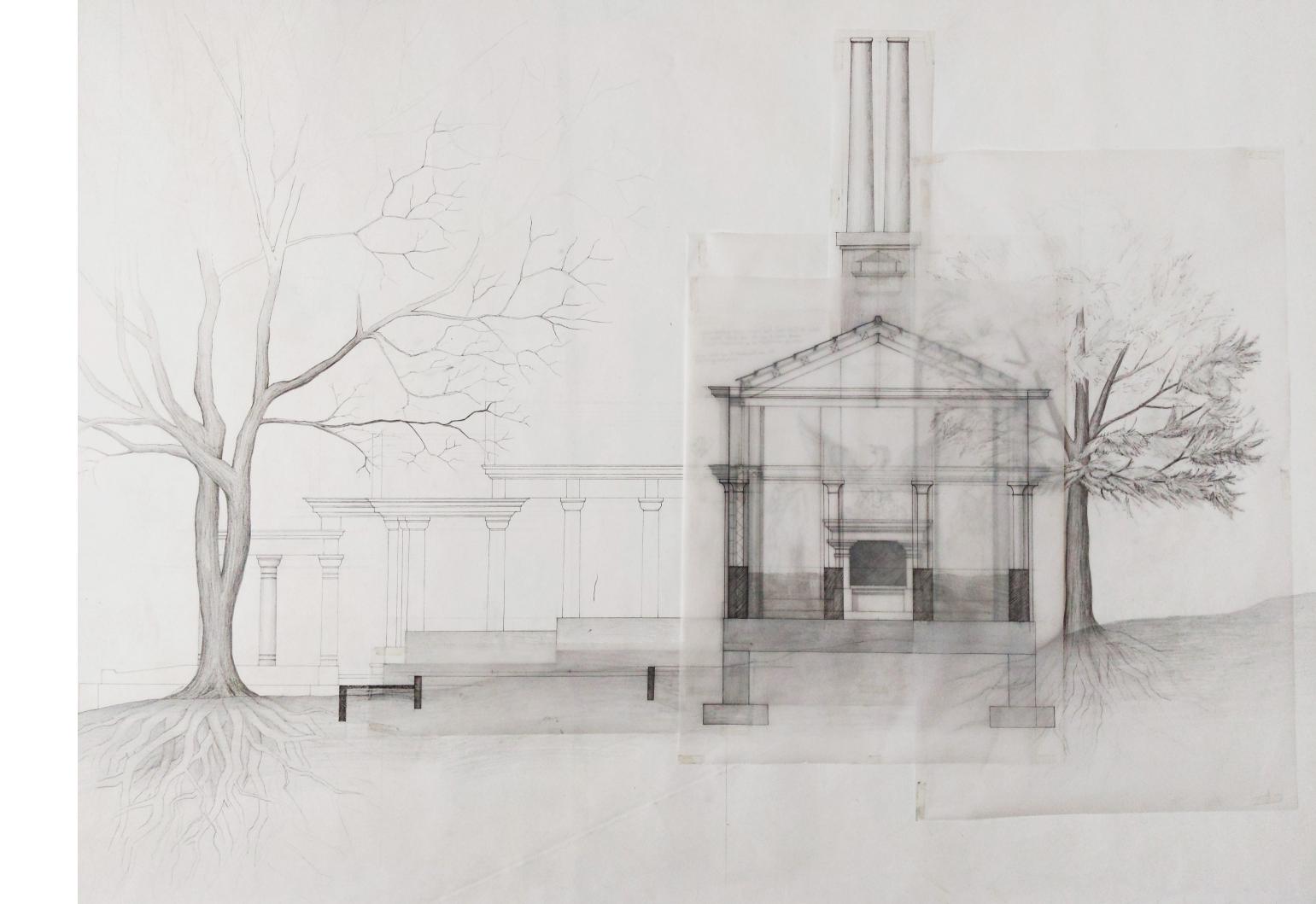


## SECTION B' Room of Fire (Fire Temple) drawn on scale 1:20



## SECTION C' Facade of Fire Temple

drawn on scale 1:20



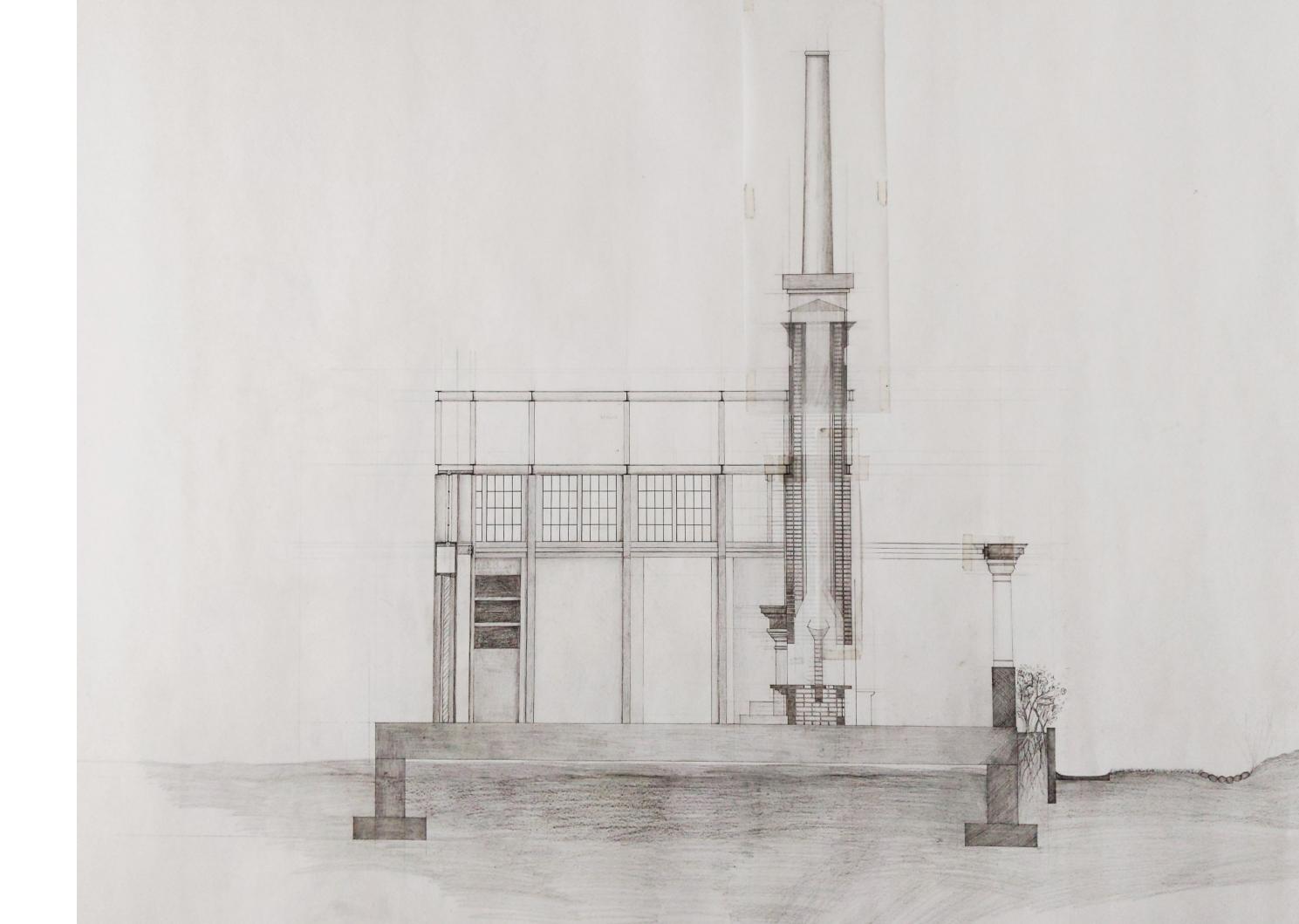
### SECTION D' View to temples

drawn on scale 1:20

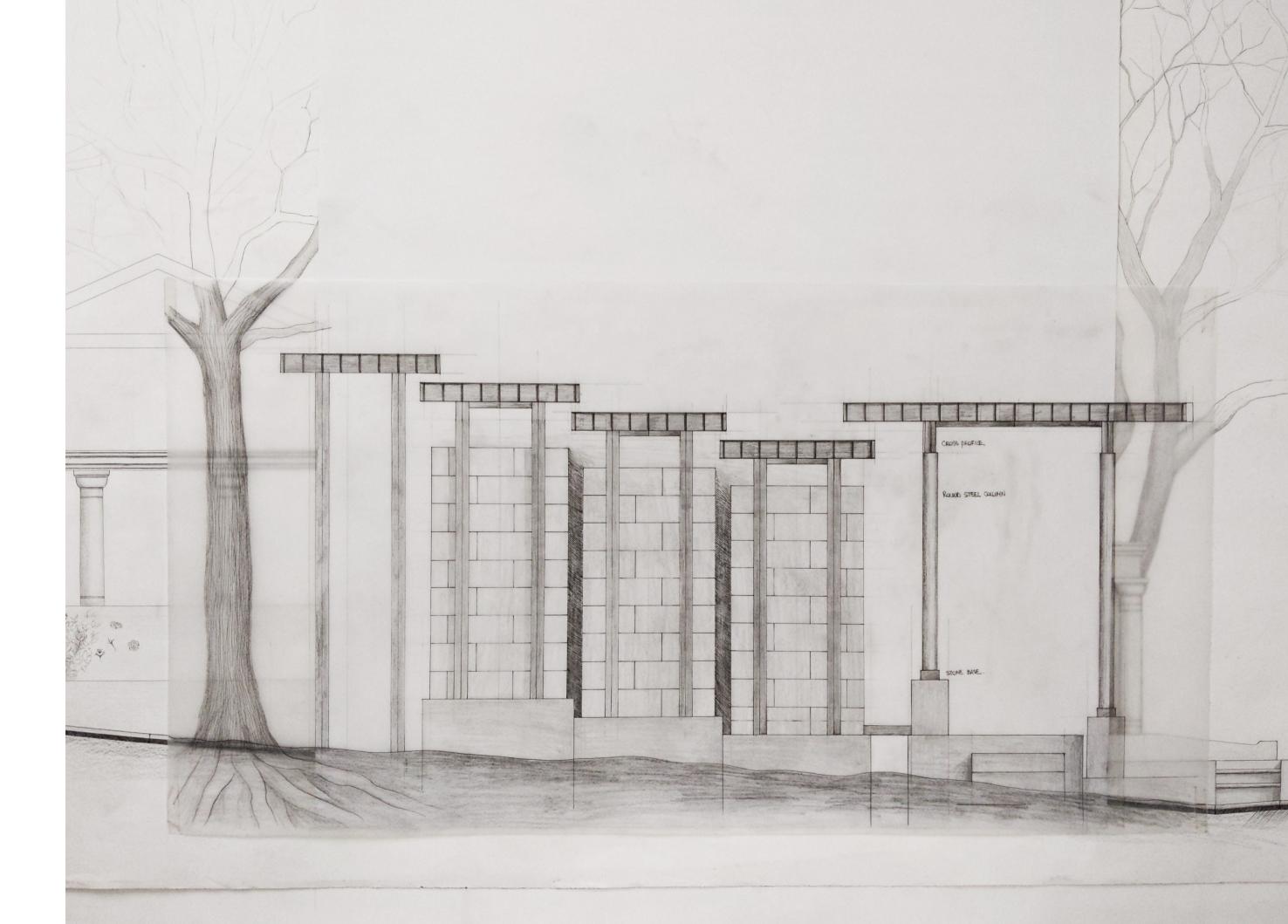


## SECTION E' Room of Fire (Fire Temple)

drawn on scale 1:20



# FACADE F' Third temple (work in progress), colonnade as its entrance drawn on scale 1:20



The way we situate ourselves in a space is defined by the constellation of objects. The designer positions architectural bodies in a specific way to reveal the architectural gesture. This is where I believe the spatial experience begins. A space takes its shape as the architect composes the space by adding volume to void, or by taking volumes out to create void. Some areas consist of more volume, and some areas of more void. This translates into height and depth of space and mass or thickness for architectural bodies.

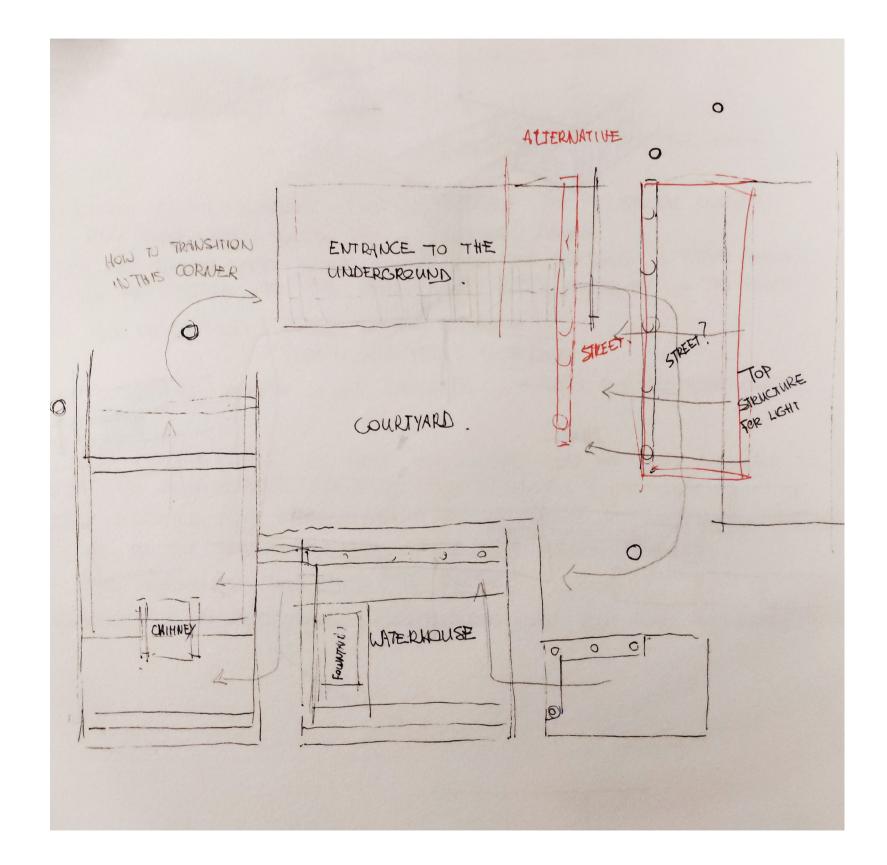
I believe one of the most important senses to perceive the spatial experience is through the eyes. We are able to trace the architectural gesture in the spatial composition through what is made visible from a certain point of view. It is very similar to how painters choose the perspective to generate depth and spatiality in their paintings. Or how photographers choose their point of view to capture space in their photos.

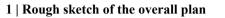
So based on what we can see, we could also come to understand the gesture of the architecture. Of course this is a very direct and perhaps an obvious way of communicating the gesture. So let us first talk about the importance of the view. Generally what we can perceive in our sight is most likely one of the first things which will attract our attention. I believe this is an important consideration for the designer regarding the gesture they would like to express. The view which draws our attention leads to the invitation towards something and this could induce curiosity to the visitor.

The gesture could also be expressed through the movement of the body lead by the accessibility of the architecture. In other words, I think we naturally tend to follow the path with the lowest threshold, not too many objects standing in our way, or the path that seems most comfortable (in architecture this generally translates into stairs, corridors, doorways, bridges, ...). So with these two given factors, the visual connection (triggering curiosity) and the physical accessibility, I tried to make the spatial composition in such a way that the visitor is led by their own curiosity to what they saw and felt attracted to while the accessibility to it follows a different direction. In order to get to the attraction, the visitor explores through the spatial composition and

therefor discovering the voids and masses through a different dimension than the view to it. The engagement of the body moving through the voids and masses brings a different kind of awareness of the architecture. The visitor becomes part of the composition.

THE SPATIAL COMPOSITION





Before going into detailed research and developing anything specific, I made a rough sketch of what the overall project could look like plan-wise. It was to give myself an idea what I wanted to create, and I came to the conclusion that I wanted to develop an enclosed courtyard.

# 2 | Speculative painting: oak tree II / Room of Fire

The second oak tree on the site would also become part of the design and I wanted a dialogue to occur between the tree and the column in some way because the trunk is interpreted as a column by me. For this reason I felt like creating a part where a column could stand on its own without a facade would reinforce that dialogue.

# 3 | Speculative painting: corner meeting Room of Fire / corridor corner meeting

Thinking in terms of the spatial composition and the building elements, it was obvious that the building elements are what is going to shape the composition. In this painting it was an attempt to use the base as more than the stylobate of the building. By extending it just a bit more it could be given another purpose and in this case it could become a bench within the courtyard.

# 4 | Speculative painting: third room / colonnade / view through alley

The inbetween space is something I would like to keep present in the design and this could take shape in the form of an alley where two buildings do not connect.

Another way of creating an inbetween space is by extending building elements (in this case the column and base) from the facade. So in this painting I tried to sketch both to give myself an idea from a one perspective view in order to feel the depth of it and what possible quality that can bring as another spatial layer.

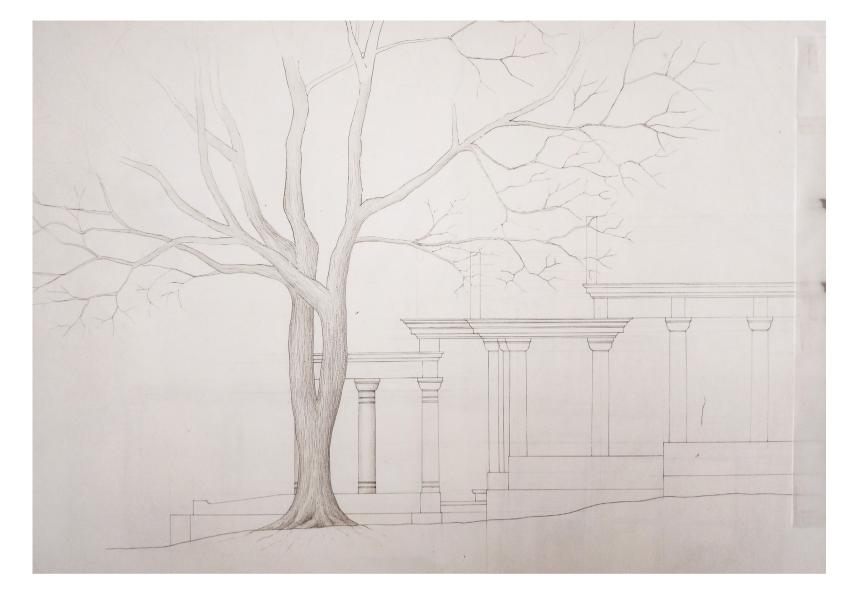






DRAWING: PLAN — Courtyard (early phase)

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### 1 | Fragment of plan

Overall lines drawn across the courtyard in an attempt to look for possibilities on how to develop the other parts in accordance to the existing temples.

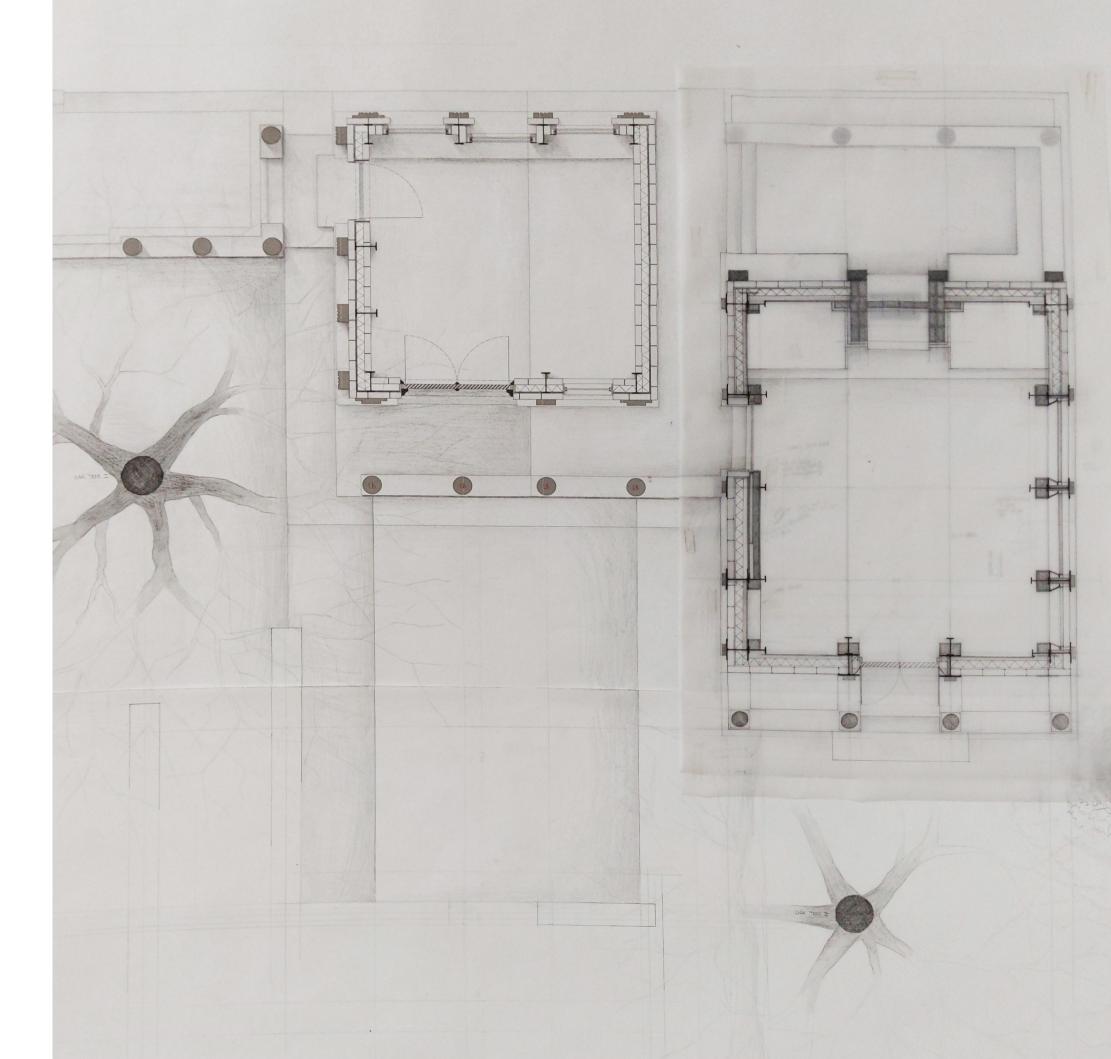
### 2 | Facade drawing from north-east view

The first oak tree aligned with the columns.



### 1 | Plan

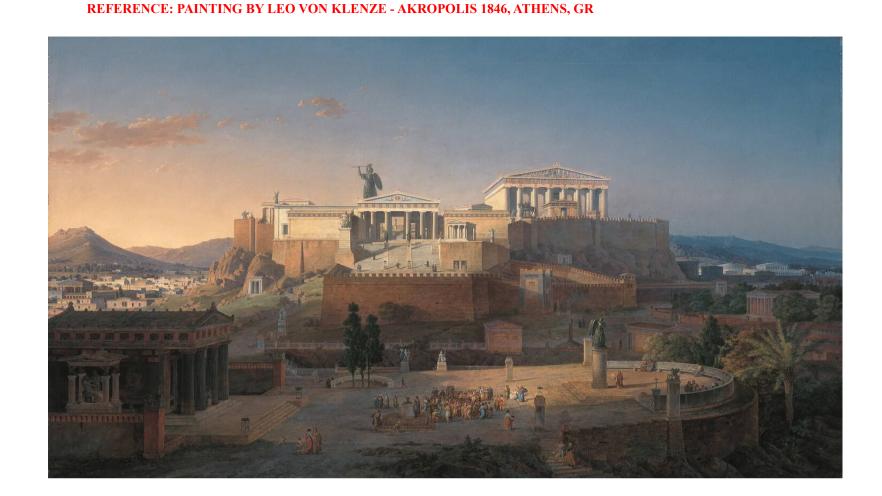
Overall view including the two oak trees aligned with the columns, connecting lines on which columns are placed. It is coming closer to an orthogonal grid which I think strengthens the feeling of the trees being part of the design.



# 1 | Section drawing from the north-east perspective

Overall overview on both oak trees being aligned with the columns behind it to make the trees become part of the composition as columns. I did it in a very orthogonal direction based on a rigid grid which can also be seen on the plan on the previous page.





### 1 | Full view of Akropolis, Athens

A painting by Leo von Klenze shows a full view of Akropolis in Athens. It is situated on a hill where each temple and building seem to be positioned according to the view. When standing on a specific spot, the visitor is able to look at another building from a well chosen perspective, showing the other temples almost photographically. From my own experience, the walk to the Parthenon follows a path that is subtly carved on this hill. It almost feels like it a path you "naturally" follow which lets you discover the other buildings, instead of a path leading you to the climactic building on top of the hill.

### 2 | Plan of Akropolis

When looking at the plan of Akropolis we see that the buildings are seem randomly scattered all over the hill but this proves differently when actually being there. You will realise the buildings were built according to the view from the visitor, starting at the base of the hill, instead of being designed in a masterplan.



### 1 | Facade drawing

Museum Island in Berlin is a group of museums situation on an island. This beautiful drawing shows how all the buildings engage in a dialogue with each other. It shows how the public space between these buildings are the connecting inbetween space.

### 2 | Photo showing reflection of water

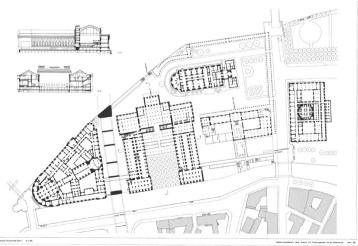
The colonnade along the river is reflected on the water surface. Museumsinsel is very specifically designed for the shape and elements of this site.

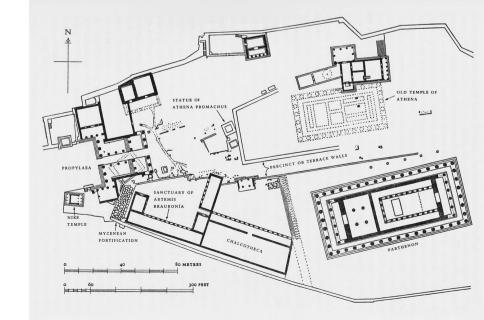
### 3 | Birds eye view drawing

### 4 | Masterplan

The masterplan of Museumsinsel is the opposite of Akropolis. The buildings are positioned according to the axises of streets and rivers. It is a lot more plan-wise composed which makes it a more formal complex. While Akropolis makes me think more of wandering on a hill with photographic views on each of the buildings, Museumsinsel makes me think the island is a complex composition where you start discovering the space once you find yourself in it.









# COLUMN

The columns were one of the main reasons why I chose that specific spot on the graveyard. A dialogue between them and the surrounding large trees appeared to me as I walked by while the afternoon sun shone through. This created a strong pattern between shaded lines and lit surfaces on the ground right behind the tombstone. Although the columns were standing in between me and the space beyond it, being able to see that there is another larger space behind it piqued my interest to go explore that space behind the tombstone.

What that small row of columns did was physically separating the space while keeping the view connected to it. Although you could still walk between the columns to go to the other side but this row of columns serves as a 'soft' boundary, dividing the space nevertheless as we indicate one side as 'frontside', and another as 'backside'.

The tombstone became an entrance to a first building as a starting point of this project. The reason for that is because the existing columns were a size that resonates with the human scale. Well, at least my scale, as the column is about my own height. Although there is no roof, the height of the entrance is still tangible because of the height of the columns. Likewise with the oak tree found behind the tombstone. The height of the tree trunk set a certain height to that open space. The presence of another body gives us the ability to relate to the space. The first one being the column that indicates a space that serves as an entrance. Another one is the tree behind the grave which indicates the height of the courtyard. (I will talk more about this courtyard later on).

Earlier in the introduction I mentioned parameters playing a part in the development of the design. There are two parameters affecting the position of the column. The first one being the trees as they appear to me as a column from nature. This natural column should correspond to the built ones and vice versa. To align the built columns with the two big oak trees, the trees become visibly more part of the design. The other parameter is the offset between individual columns. The distance between columns is strongly influenced by the topography. The height level of the site changes slowly and therefore affecting the base, creating steps in the stylobate.

A column is placed after each new step. This in turn will affect the cornice. This way, the topography can be read in the construction of the building: from base to top.

In this chapter I would like to discuss a couple of references that helped me in the design process. Starting with the Classical Order of architecture. The tombstone is built in neoclassical style. There is a general base which serves as a platform to walk on, another smaller pedestal for the columns and on top is the cornice. Since I kept these building elements in my design, I find it important to understand how they were originally used. Bases and columns were primarily built from massive material. Over time, large massive volumes of natural stone were replaced by cheaper and more convenient materials and methods. One of such is steel which gained much popularity during the industrial revolution. Mies Van Der Rohe became one of the most prominent modernist architects who has turned the functional shape of the steel profile into an aesthetic in his designs. I took a closer look at his corner solutions in some of his skyscraper buildings as well as his column designs from other projects. It appeared to me how these steel profiles serve both as technical components and as the aesthetic of his architectural language. By getting into Mies' work I learned how technicity and poetry of the materiality can strengthen each other.

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THE COLUMN



### 1 | Five Orders with base and entablatures.

The first original orders from the Greeks consisted of only the Doric, the Ionic and the Corinthian. It was some time later that the Romans added the Tuscan and Composite.

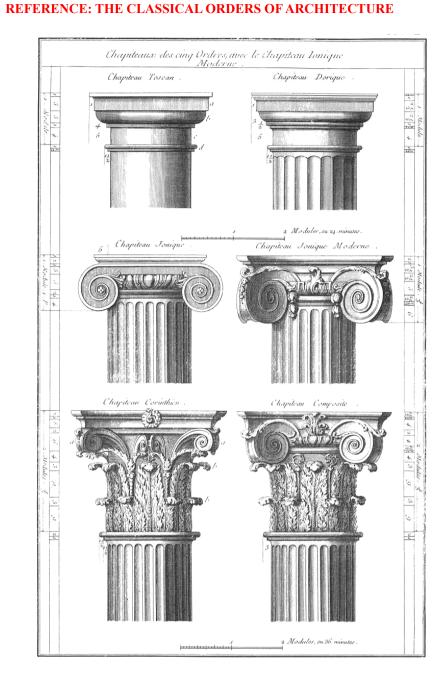
- 1) Tuscan: a simpler version of the Doric order, the shaft is plain.
- 2) Doric: the shaft is decorated with 20 flutes. The original Greek Doric column stands plain on the stylobate without an individual base.
- 3) Ionic: the shaft has 24 flutes.
- 4) Corinthian: the shaft has also 24 flutes. This column is seen as the most elegant one.
- 5) Composite.

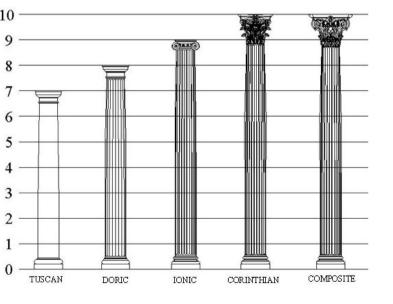
### 2 | Different capitals of the orders

- 1) Tuscan: similar to Doric
- 2) Doric: round capital
- 3a) Ionic: capital is made of two opposing volutes.
- 3b) Modern Ionic: more decorated version of the regular Ionic
- 4) Corinthian: decorated with acanthus leaves
- 5) Composite: a hybrid of the Ionic and the Corinthian

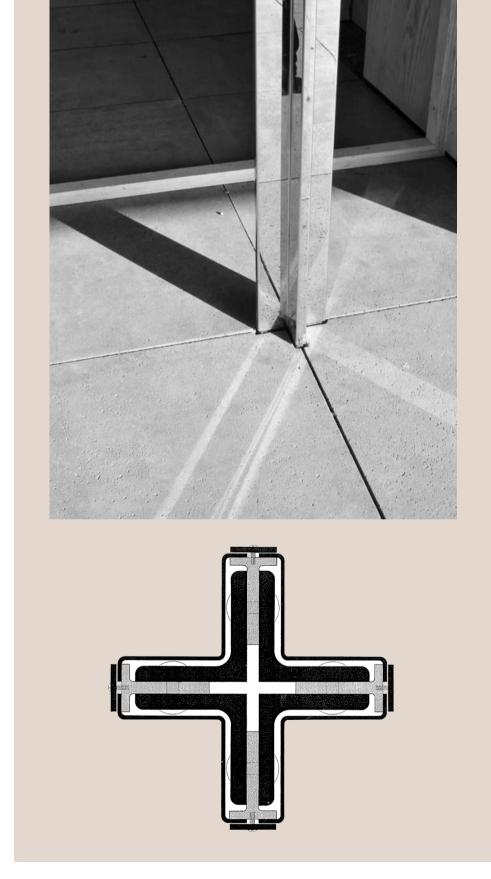
### 3 | Ratio of the five orders

The height of the column is typically set by a ratio. This ratio is calculated by how many times the diameter of the base of the column fits into total the height of column. This will affect the slimness of the column as originally each order corresponds to a type of body. The Doric resembling that of a man - more robust and wider. The Corinthian resembling that of a female bodymore slender, and softer as the capital is decorated with acanthus leaves. The Ionic is something in between the Doric and the Corinthian.





REFLECTION NOTE





### 1 | Photo of steel column

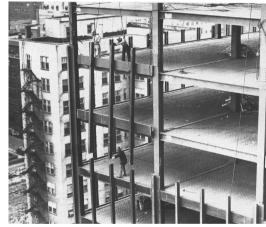
The column appears to be a cross shaped profile in a steel material.

### 2 | Horizontal section drawing of the column

If we look at the horizontal section, the column consists of multiple parts. It is assembled with four corner profiles facing inward to create the cross shape, kept together by screws. The smooth metallic surface is not part of the load bearing structure.

### 3 | Photo of the column in the pavilion





### 1 | Aerial photo of the 860/880 Lake Shore **Drive Apartments**

### 2 | Photo during construction

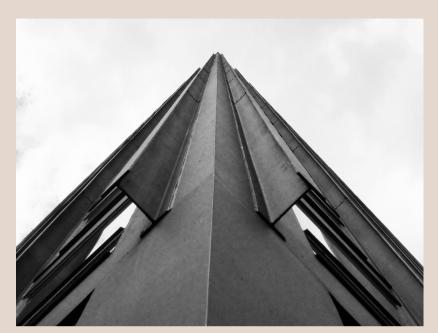
Primary structure: steel frame. Concrete floor slabs inbetween. Steel plates cover the sides of each floor. More horizontal (smaller) steel profiles are attached to the facade which becomes the part where window frames are attached to.

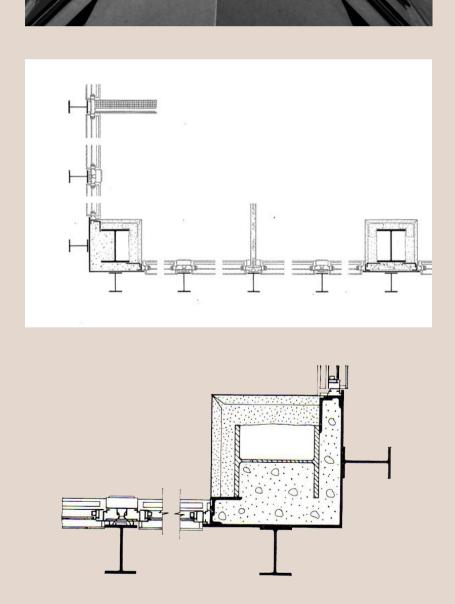
### 3 | Photo of the corner of the facade

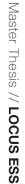
Smaller profiles on the corners have no real function beside being part of the overall architectural expression.

### 4 | Technical drawing on plan

### 5 | Construction detail: corner solution



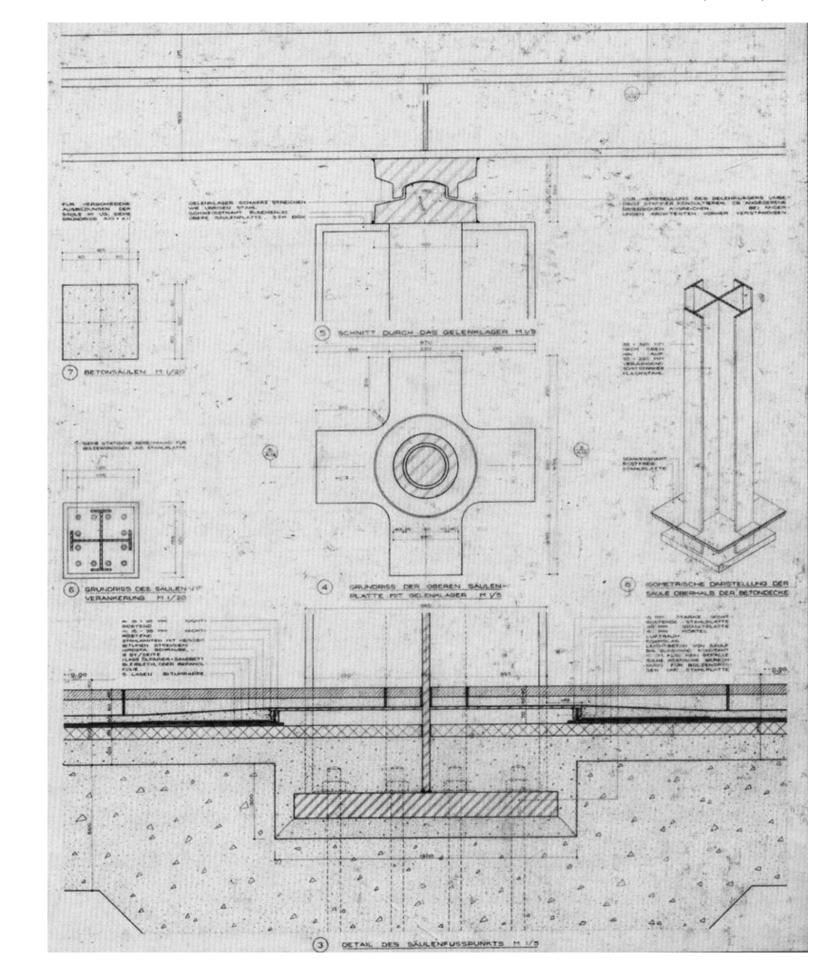




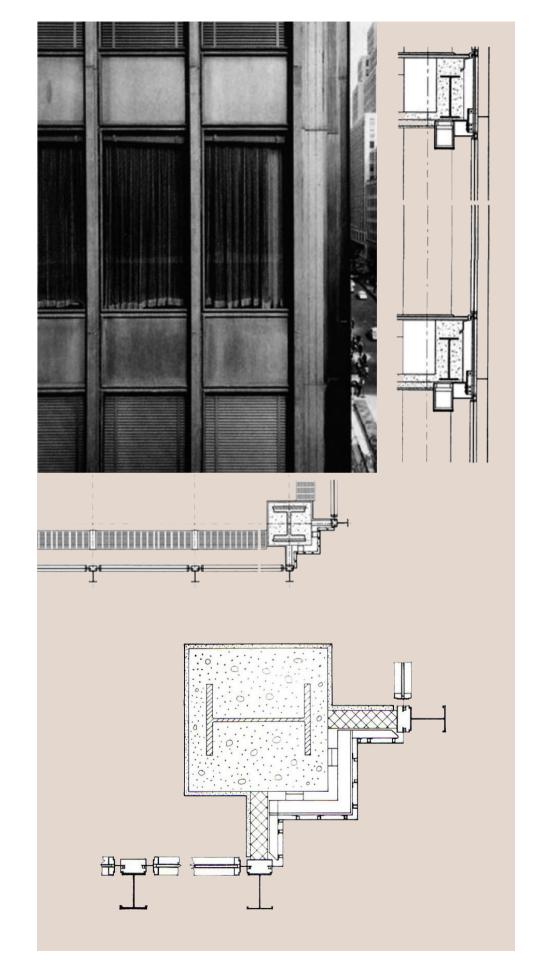
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# ANSICHT DER SAULE M 1/20

REFERENCE: LUDWIG MIES VAN DER ROHE - NEUE NATIONALGALERIE 1968, BERLIN, DE



REFLECTION NOTE





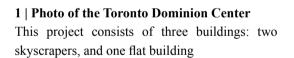




- A) horizontal section
- B) vertical section
- 2 | Construction detail: corner solution
- 3 | Aerial photo of the Seagram Building
- 4 | Photo of the corner of the facade







### 2 | Photo of the interior of the flat building

All load bearing elements can be seen both from the inside and outside.

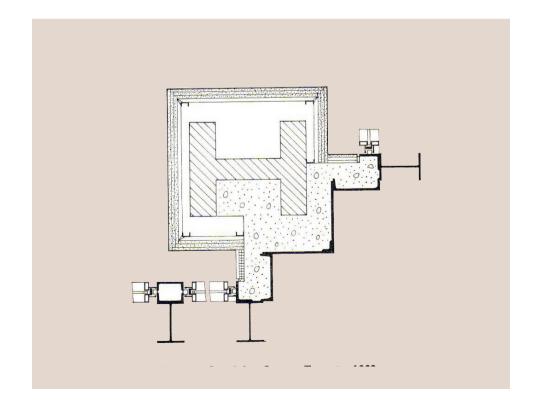
### 3 | Photo during the construction of the flat building

Primary structure: steel columns on the sides supporting a steel grid ceiling (works like one horizontal element), creating a large open space beneath. The beams in this grid ceiling have to be high enough to prevent bending from its own weight. (Very similar to Neue Nationalgalerie in Berlin)

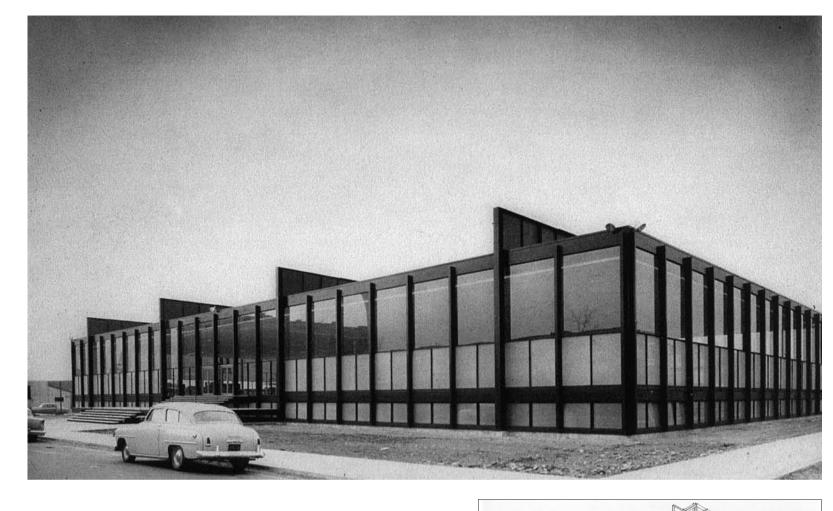
### 3 | Construction detail: corner solution of the skyscraper







REFERENCE: LUDWIG MIES VAN DER ROHE - S.R. CROWN HALL, 1956, CHICAGO, USA

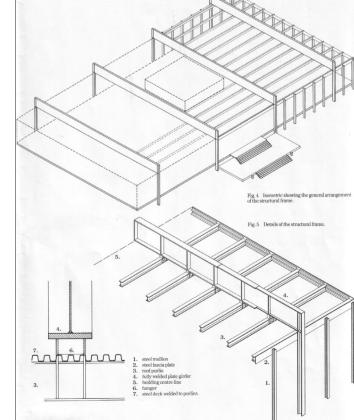


### 1 | Vertical section

### 2 | Photo of S.R. Crown Hall

### 3 | Scheme of structural principle

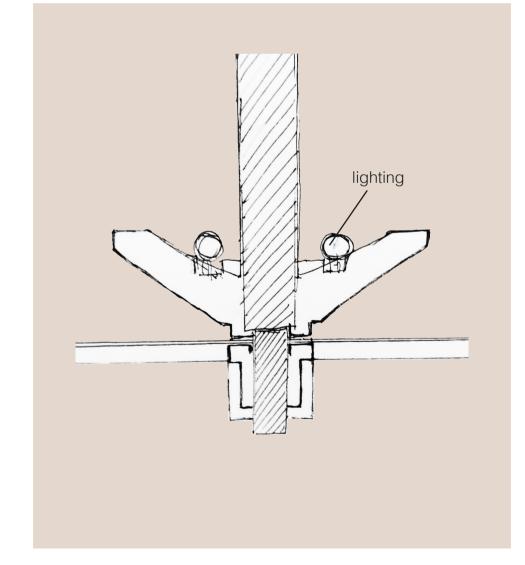
To achieve an open space with no columns or walls: the primary structure consists of very large beams supported by a column on each end. Secondary structure (which makes up the roof/ ceiling structure) are smaller beams attached to the bottom of the large ones (they hang on the large beam).



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REFLECTION NOTE







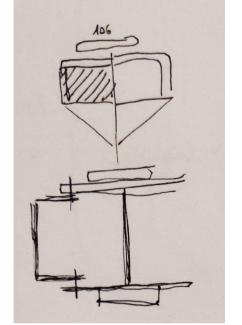
### 1 | Photo zoomed in on the vertical element I suspect these are not structural columns.

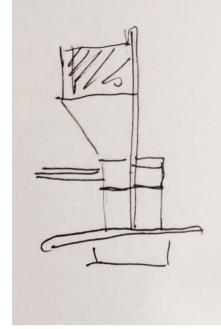
### 2 | Construction detail: vertical element (SKETCH - speculation)

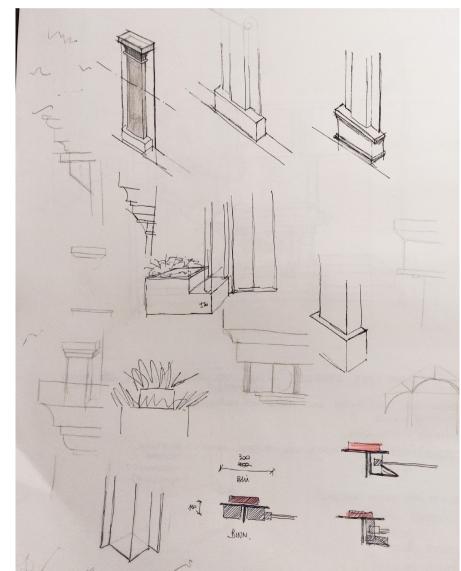
Lighting integrated in these "columns" to illuminate the work yet stays out the visibility of the onlooker.

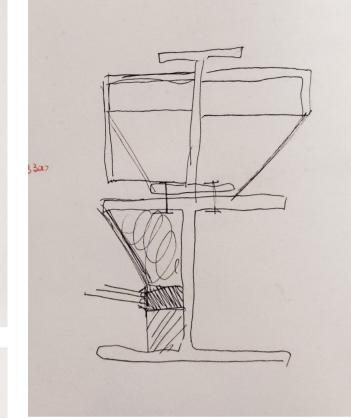
### 3 | Photo of a wall in the Calouste Gulbenkian museum (part: permenant collection)

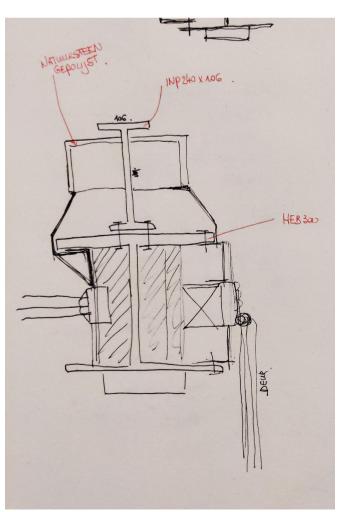
These vertical elements are not load bearing columns. They are merely separations put against walls specifically designed for housing pieces of art.

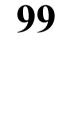


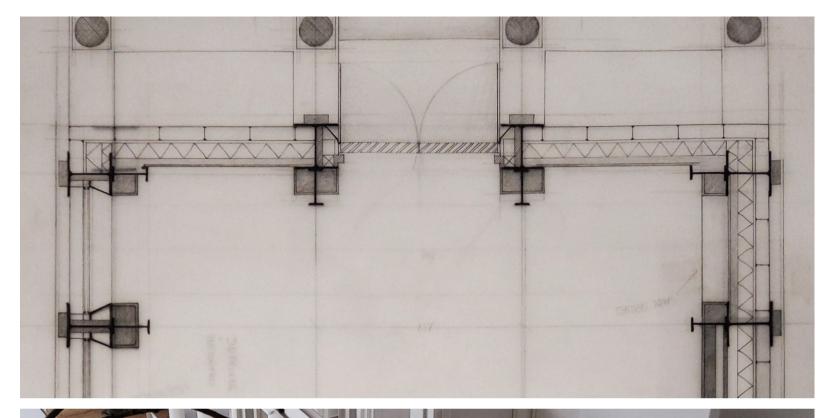












### 1 | Fragment of plan of the Room of Fire

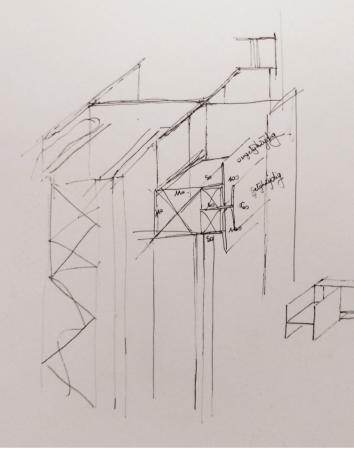
Learning from Mies Van Der Rohe's columns, I tried to develop my own version of the column that would still feel massive enough to go together with the existing neoclassical style on the one hand, and yet taking its own language on the other. I wanted to create an architectural language where sharp edges in its structural elements are visible.

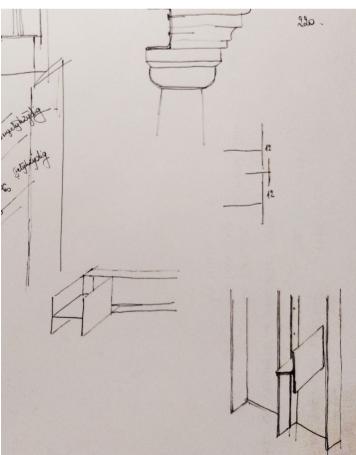
### 2 | Sketch of a construction detail

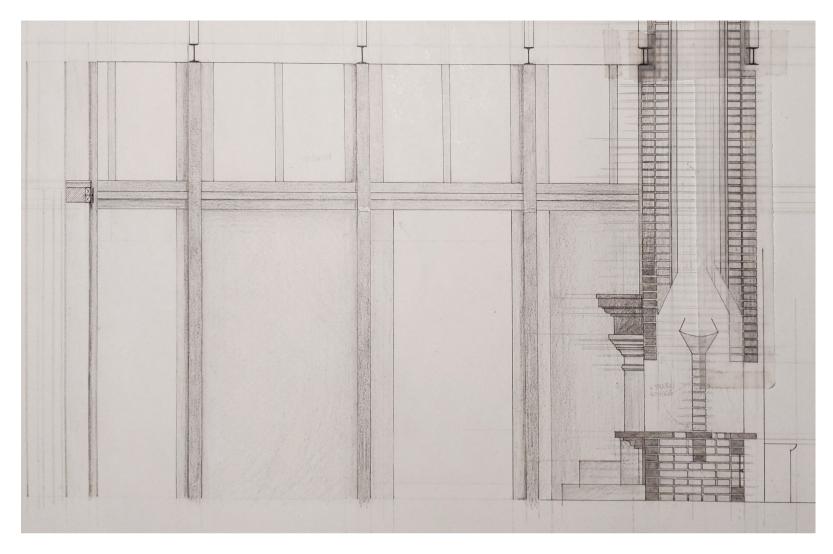
The facade of the Room of Fire consists of two "levels" here (shown on the section drawing on the next page). A beam would separate the two levels for horizontal stability of the structure. In this detail I tried to design the beam structure that would take the same principle of the columns: a flange of the profile slightly sticking out.

### 3 | Sketch of construction detail

These are very premature sketches of getting the idea right on what could be possible from what I desire.



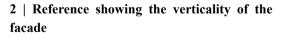




### 1 | Section drawing of the Room of Fire from the interior view

I wanted the columns to stand out spatially with the flange of the profiles without the interruption of the beams in order to amplify the height of this room. The beam structure is constructed behind the flange of the column to allow the continuïty of the flange of the column for its maximum verticality.

In this drawing you can see that the second level of the facade is like a band of windows and will allow daylight to enter the building from above.

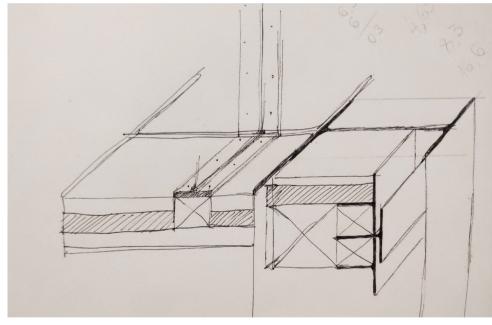


In this project of Hans Poelzig, the facade also has this continuous "column" that reaches to the top, similar to the steel profiles in Mies Van Der Rohe's skyscraper buildings in America, although this one is created in brick. I think it is more expressive to make the column part of the facade than covering the column with the facade.

### 3 | Sketch of the construction detail

I tried to sketch the most important components of the corner solution where the beam and the column meet and also how the window of the second "level" of the facade connects.





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REFLECTION NOTE

### 1 | Structural: HEB300 + IPE240

Both are joined together through screws and bolts.

### 2 | Exterior column: black granite

On the exterior a granite column stands separated from the structural part. It is placed in a custom made steel console. This console is screwed to the stylobate.

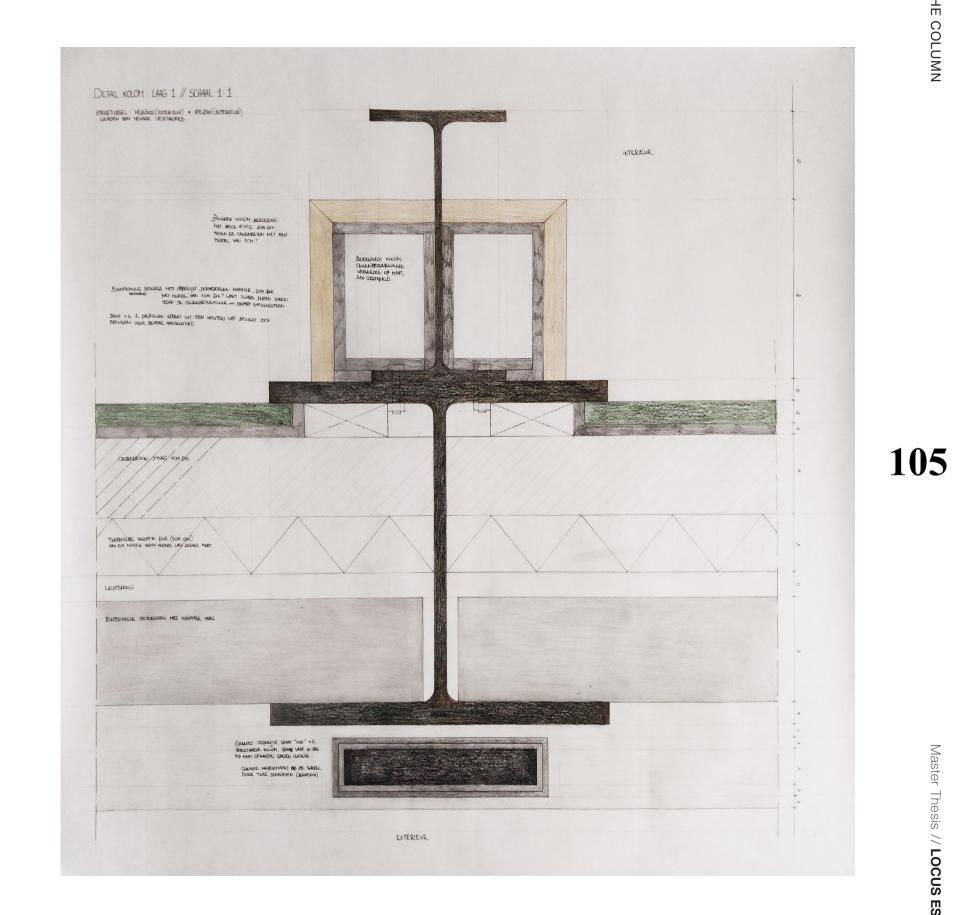
### 3 | Wall

The wall composition from exterior to interior:

- 1. concrete blocks
- 2. air gap
- 3. thermal insulation: PUR
- 4. aerated concrete blocks
- 5. mortar
- 6. marble plate as interior cladding

### 4 | Interior column: beige marble

Blocks of aerated concrete is placed against the IPE240. It is then cladded by marble.



### 1 | IPE240

The IPE240 continues to stretch vertically while the HEB300 stops. On top of the HEB comes a sill covering it and also where the console of the stone column will be mounted on.

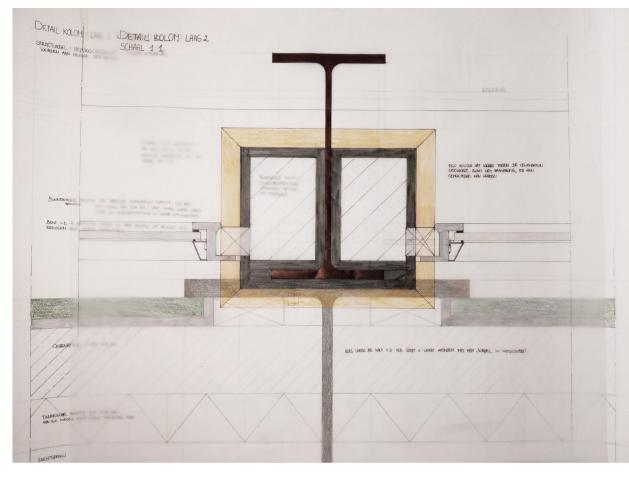
### 2 | Horizontal beam

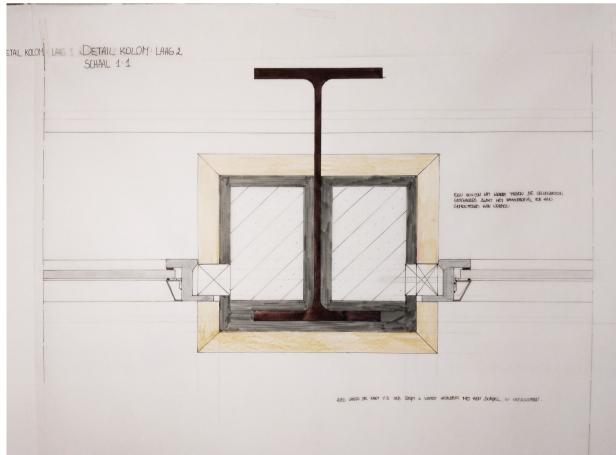
On the vertical section there is a part of the detail that consists of four profiles. The inner IPE is the structural part for horizontal stability. The T profiles are joined together with two wooden parts to this IPE.

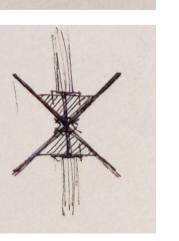
### 3 | Level 2: band of windows

The window frames are connected to a wooden part which is screwed to the aerated column.

### CONSTRUCTION DETAIL HORIZONTAL SECTION: COLUMN // LEVEL 2, SCALE 1:1



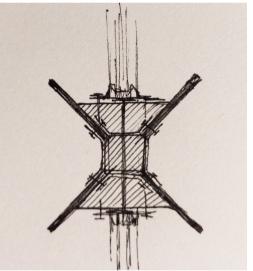


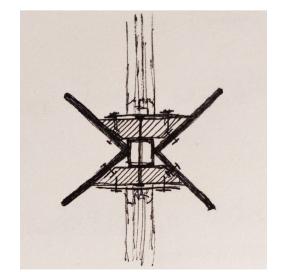




**SKETCHES** 

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### 1 | Sketch 01

I was not satisfied with the exterior look of the column structure as well as the roof of the Fire Temple. For the change I needed to make adjustments to the existing construction detail. This rough sketch shows that I intend for the HEB300 to stop at the "first level", the IPE will extend further up (between these IPE's comes the first band of windows). Then interrupted by a sill. On top of this sill comes a new "mini" column, shaped X in horizontal section. In between will be a very small band of windows.

### 2 | Sketch 06

This one was the first possible working detail of this mini column that is in the shape of an X. But then the angle is not 90° from the exterior view, so that is not quite it yet.

### 3 | Sketch 08

This is the following possible working detail of the X column where the exterior (left) and interior (right) view of the angle is 90° sharp instead of a trapezium shape. I added a steel square tube in the center, found in between the trapezium metal corner anchors which holds the L profiles together. The wooden parts are placed against those and are screwed to the square tube in the center.

### 4 | Sketch 02

The X is the desired shape but the problem here is that there is no logical way to connect a window to it. The parts consist of steel plates and screws.

### 5 | Sketch 03

Adding wooden triangle parts to allow for connection possibilities for the window. But the problem here is that there is no solution to how the wooden parts will connect to the X profile.

### 6 | Sketch 04

Adding a round tube in the center where the wooden parts can be screwed against. The steel parts are held together by four metal corner anchors in the shape of a trapezium. These will most likely have to be fabricated specifically for this connection.

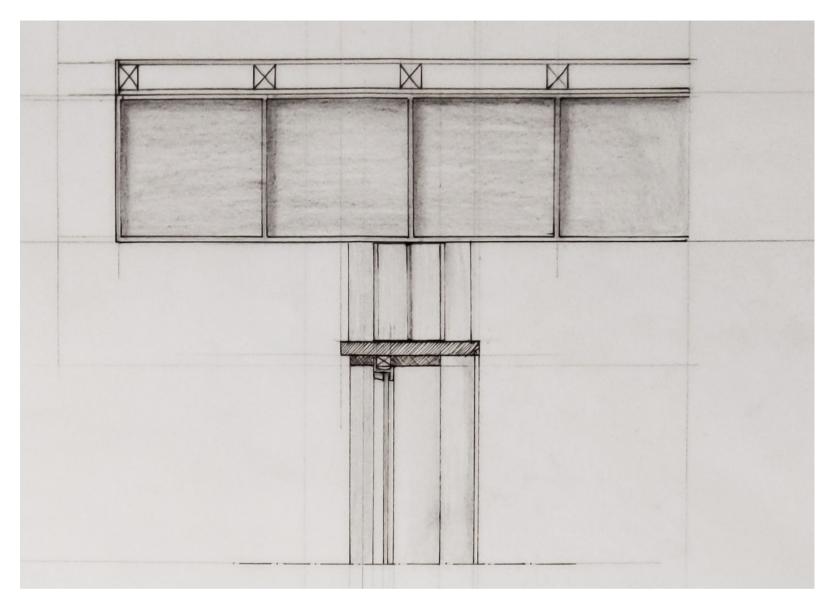
### 7 | Sketch 05

The round tube seemed illogical, so that has been replaced by a square shaped element in horizontal section. In this sketch this part is wood. Also the steel plates have been duplicated because it would seem easier because of the corner of the square element in the center. For some reason it was still not quite it. The next adjustments resulted in sketch\_05 (on the left page).

### 8 | Sketch 07

Not content about sketch\_05 because the corner was not sharp enough. I wanted it to be specifically 90° as it gives more sharpness in depth.

I thought of two corner profiles (L shaped but evenly long on both flanges) held together by small corner anchors. The wooden parts are connected to it by a large screw going all the way through the center. The center does not feel very strong here, as if it could snap easily. Sketch\_07 addresses this problem (on the left page).



### 1 | Third level and roof

The cross shaped column as the third level of the column is the connection to the roof structure. The roof is steel slab, similar to a Vierendeel truss.

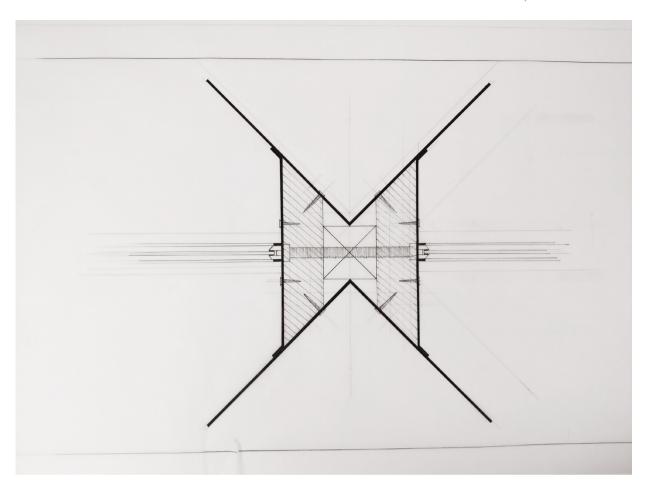
### 2 | Cross shaped column

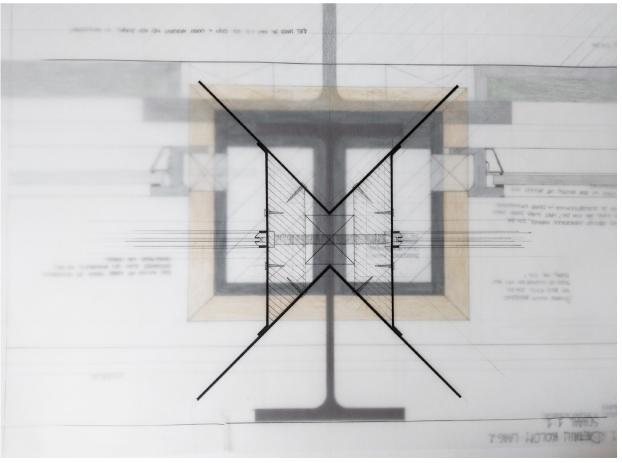
This is the element that is carrying the truss.

### 3 | Level 3

I feel that the cross shaped column is too large. The flanges should be shorter and thicker.

Note: There are some mistakes regarding some elements that are out of scale: the window details seem to have the wrong dimensions and the flanges of the X column appear to be too thin to be structural elements. Due to the lack of time I have not been able to correct them.





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# LEVEL 3 — LEVEL 2 —— LEVEL 1 —

### 1 | OVERVIEW

### Level 3

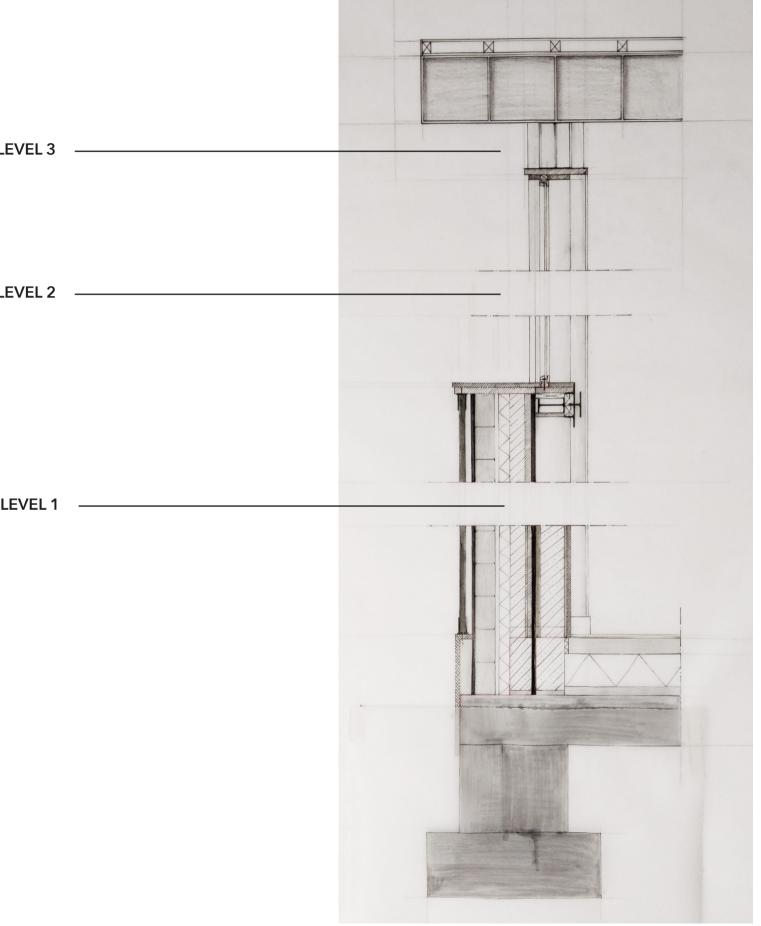
Truss as roof structure placed on cross shaped column. Between the cross shaped column is a small band of windows.

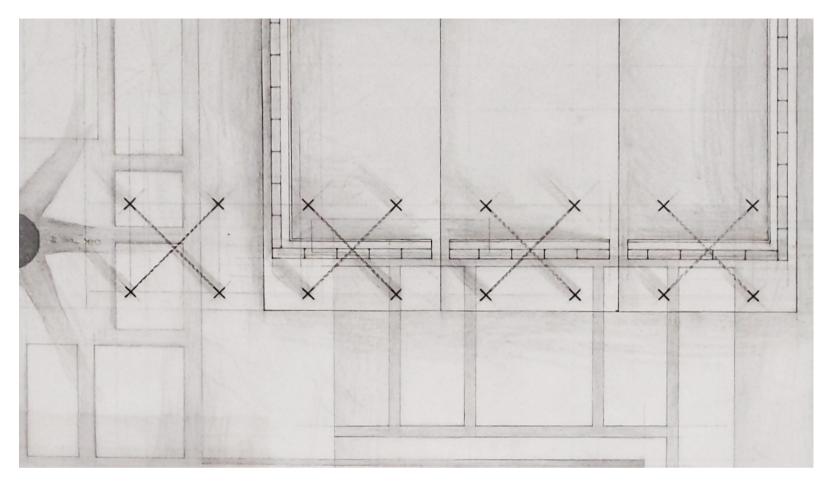
### Level 2

Large band of windows placed between the IPE240 on top. This serves as the equivalent of the cornice for the Fire Temple. An assemblage of T-profiles and I-profile become the horizontal beam that separates the first and second level. It is connected on the inside of the IPE240 column so that front flange of the column remains uninterrupted.

### Level 1

Connection of HEB300 and IPE240 and the wall to the stylobate.





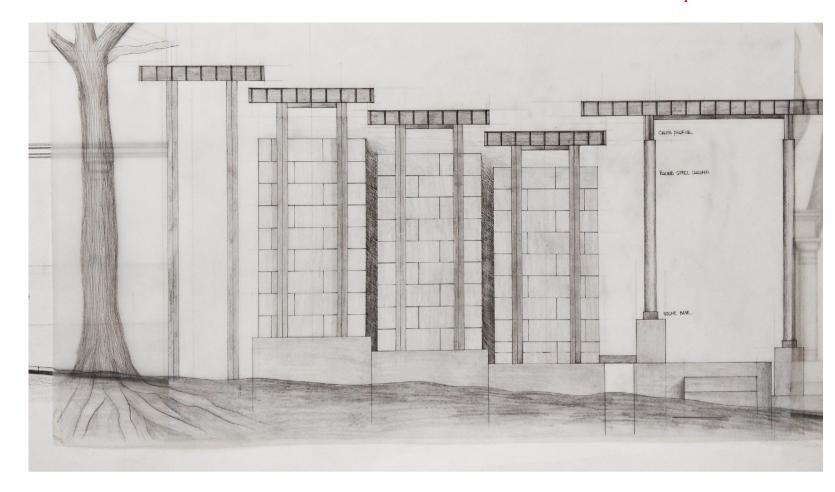


The X shaped column from the top layer of the Fire Temple inspired me to develop a new column for the third Temple which explores the inbetween space differently.

The idea is that four X column together will work as one column. On the plan you can see I drew dashed lines connecting them together. Those are the small beams on top holding them together. The reason for having four columns serve as one is because the inbetween space becomes more intersting to use: the wall is placed in the center leaving an inbetween space both on the exterior and interior.

### 2 | Column of Four

The four X columns are connected by duplicated metal slats. One pair is interrupted by the other pair in the center. Therefor they are connected by metal corner anchors.



### 3 | The inbetween sapce of the facade

The facade of the Third Temple consists of three parts. The principle here is that each different level of the stylobate is meant for one group columns. Each group of columns has its own part of a wall. The walls are interrupted each time the height changes. This small gap between the walls will appear as a dark vertical line element in the facade, similar to a column. The walls do not touch the roof element and it is this horizontal strip of inbetween space and the roof itself that become the equivalent of the cornice.

The roof is a waffle slab, one element making the whole span, supported by two groups of columns.



The interplay between void and mass within the spatial composition brings a richness to the spatial experience. I would like to call that the different layers of space. These spatial layers is what I believe the sum of the different kinds of inbetween spaces. The distinction between those layers lies in their purpose and in the intensity. It is important to elaborate on these two terms first and what they mean in this project.

### The purpose

In this project the boundary between different layers is defined by its purpose, and not necessarily by a physical element standing between them (although that is not an exclusion). To give an example to better understand this: the space of a corridor does not have to be a straight space between two walls. In this project I often used the iteration of the column as a way of shaping the space while the inbetween space between the columns allows for a visual connection to another space or can even become a space of its own with its own purpose. If the base of the column takes a height which can serve as a sitting element, then suddenly the corridor is more than just a space to walk through, it also becomes a space where you can sit and rest. So while we look at space from this point of view, the physical experience will feel more as a gradient where one kind of space can slowly transition into another one. Within the transition opportunities can arise to introduce other attractions which in turn results in the intensity.

### The intensity

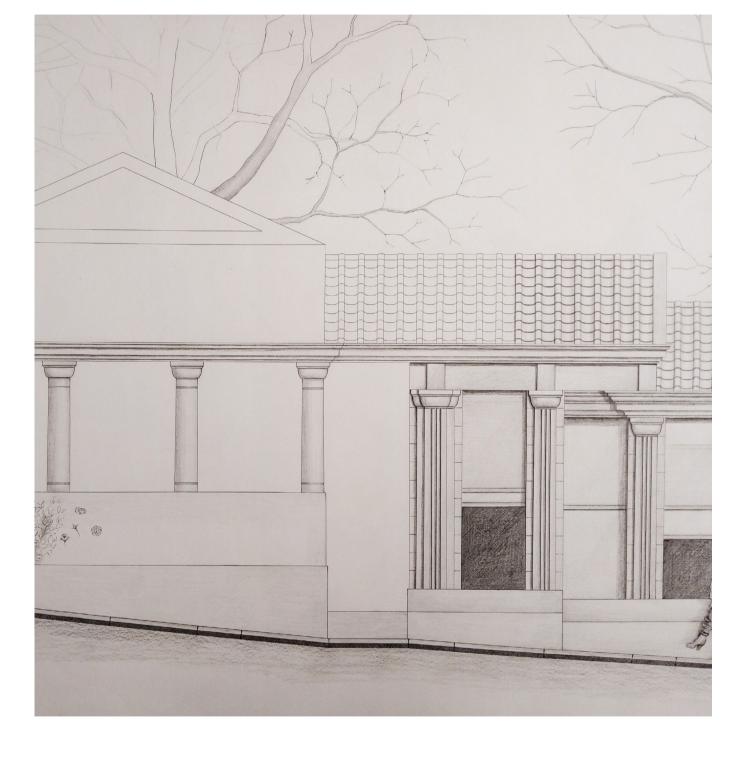
What is the intensity of a space to me? So let me go back to what was earlier mentioned: a space is generated by architectural bodies with a certain scale that is positioned in a specific way: the depth of void and the mass of volume give shape to a space but can also create a gradual connection to another space at the same time. So more layers of spaces become part of the spatial experience. Again I will give an example to make this clearer to understand. I will try to achieve this spatial gradient by creating denser areas by extending the base while the wall transitions into

columns. This way a new spatial layer is added which is the space between the wall and the column and it could be given a different purpose. The intensity can be increased based on how much the layers interact with each other or in other words how strong their dialogue is with each other.

The inbetween space has got a great value in its ability to create layers of space in elements that separate space. By using the inbetween space we are able to turn the separating elements into a connecting space. Instead of a hard distinction, there is now a gradual transition: a spatial gradient.

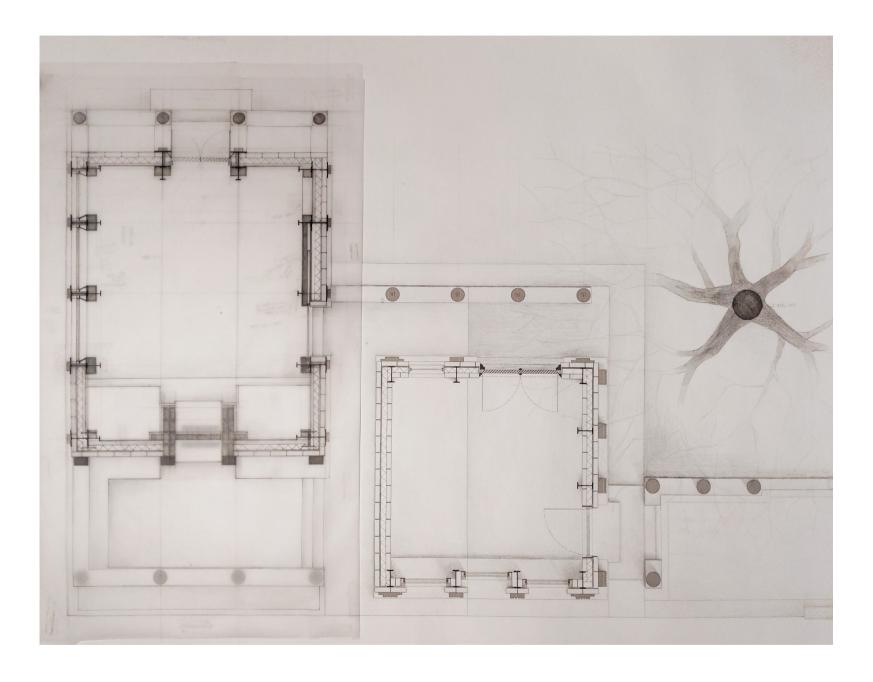
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Master Thesis // LOCUS



### 1 | The space between the two temples

The alley between the two buildings becomes a connecting space between the interior and exterior space of the Fire Temple.



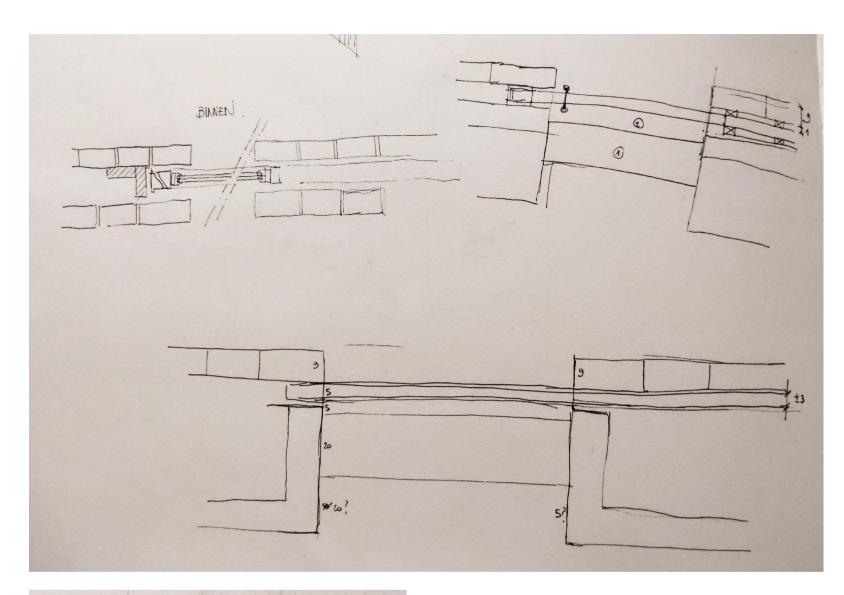
### 2 | Plan

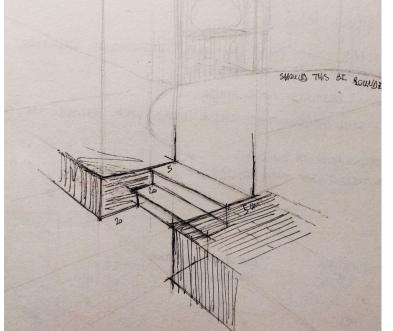
The alley separates the two temples. As you can see on the plan there is a passage leading to a doorway to the Room of Fire from another axis. A problem occured as the height difference did not feel smooth to me when entering the Room of Fire. The height difference between the stylobates were too high and therefor the threshold felt too big to me.



PREMATURE SKETCHES

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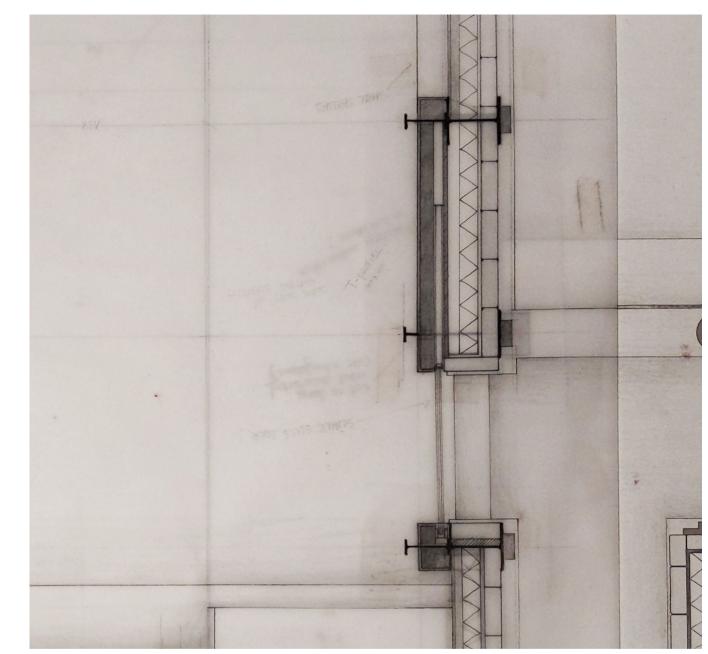


### 1 | Sketches of a sliding door

The doorway to the Room of Fire would be a transparent glass sliding door. The door has to slide into the wall. It was a matter of trial and error while dealing with the height difference of the stylobate as seen on the image below.

### 2 | Sketch of a solution for the stylobate

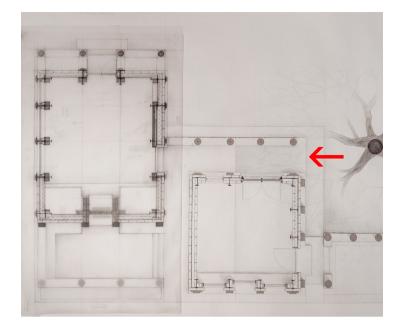
Because I wanted to implement the topography into the stylobate and really wanted this temple to be on this height, I had to find a solution for better accessibility. I thought a small stair could work but then again it came into conflict with the sliding door where the door panel has to slide into the wall.



### 3 | Fragment of plan: horizontal section of the sliding door

Eventually I was able to find a way to make the stair and the sliding door work together. The door panel would slide into a wall which is extra thick. This thickness is the same as the one from the "decorative" parts of the column. The wall appeared to me as a very wide column. This solution proves to me that the inbetween space can be used in various ways while maintaining repitition of the column which is part of the language.

### PHOTO SCALE MODEL: Other inbetween space



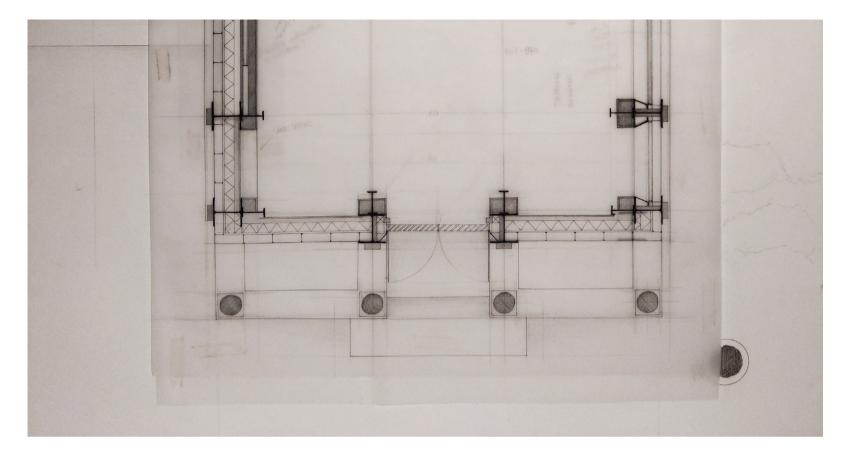
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### 1 | The view

In this inbetween space I wanted the visitor get a view to the other side across the Room of Fire. From this point of view I intended for the visitor to not really see what the Room of Fire actually is. Instead, the view here would be a vertical window of the Room of Fire, which allows us to see the bushes and vegetation at that window. The floor of the Room of Fire would be dark polished natural stone which will show the reflections of it. It is only when you go to the Room of Fire that you will see what that space is.







# 1 | Section drawing of the facade of the Fire

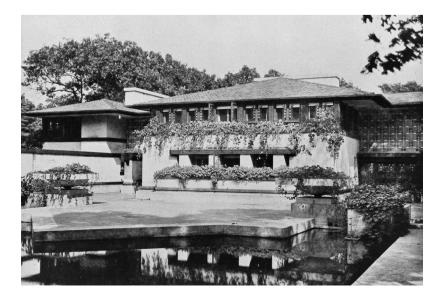
The front facade of the Fire Tempel consists of an inbetween space. On both the left and right side the pedestal of the column is heightened to make it become a planter for vegetation. In the center is the entrance to the Room of Fire. The fireplace is right in the center of the view upon entering the space.

### 2 | Fragment of plan

On this fragment you can see the entrance to the Room of Fire. On the sides are the two planters.

### 3 | Inspiration from Frank Lloyd Wright

I was inspired by the projects of F.L. Wright. He always takes great consideration for the vegetation in his projects, both that were present on the site and also vegetation he likes to add to his architecture. An example is the Avery Coonley House. You can see how the architecture gives place to vegetation to grow. I think by making trees and plants part of the design, we can come closer to nature.



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# $1 \mid \mbox{The quality of having vegetation as part of } \\ \mbox{the design}$

In this rigid and sharp edged architecture I feel that plants are a presence that could give softness to a place, increasing the romantic feeling for a place to be.

# PLACE TO BE

The stylobate of the original tombstone was the element that invited me to sit there at that spot. Because of the sloped site, the low end was the height of a step. The high end was the height of a bench. It was this mediating element between me and the slope that became a spot where I could take a moment to rest. From there I felt that there is a great potential to use architectural elements as a mediator between the environment and the visitor.

The stylobate here translates the topography of the environment into the architecture. The base is the starting point of the spatial composition. Since the site is not flat the stylobate will have a higher end and a lower end. This means the choice on how far the stylobate will stretch is very important to what purpose the stylobate will have. Is it going to be a balcony, a stair, a sitting element, a platform to stand on, or could it be something else? The position and the size of the base are in fact assigning potential attractions to it. These attractions are further developed within the inbetween spaces which will then have its role in the spatial gradient.

When wandering through the spatial gradient, we encounter attractions and our curiosity leads us towards it. The spatial composition suggests direction to us through the purposes of its architectural elements. They lead us to a space which is dedicated to a quality of a natural element. The first one being the refreshing quality of water:

It is a warm summer day and I am walking down the path where I notice that the window is slid open of this temple. As I come closer I could not help but take a look inside and I see a statue pouring water out of a cup. I sit down on the stylobate right below my knees at that window. While the sun shines on me, I look around and I hear the sound of the the chirping birds and the water from the statue. Feeling the heat of the sun, I feel tempted to go inside this building. I walk a bit further down and see a courtyard on the other side, past the columns of the entrance monument. Walking up the steps, I decide I could visit the courtyard later. Inside the Room of Water, I could not help but touch the pedestal of the statue. It almost seems like the statue is standing on water. It feels cold and refreshing.

The second one, the opposing element of water is fire. The temple next to the Water Temple dedicates a space to the warmth that fire brings us:

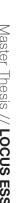
PLACE TO BE

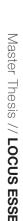
The sky looks dark and gray. From afar I see smoke blown away from a chimney between the treetops. I walk towards it and find a temple where the rainwater is flowing down the grooves of the pillars. A bit further ahead I see a fireplace in this roofed exterior space. But there is no fire yet there is smoke coming out of the chimney. From the band of windows at the crown of this temple I see a warm light is shimmering inside. I walk through the small alley which leads me to a small colonnade aside of a courtyard. At this point I am no longer standing in the rain but I see the rain is taking its presence here: raindrops hitting the water surfaces of the pedestal, streams of water running down from roofs and splashing on the tiles of the courtyard. I proceed to enter the Room of Fire and find another lit fireplace on the other side of the wall from the first fireplace I encountered.

These were two of the many scenarios from my imagination where I would feel the presence of nature around me and how I came to develop the spaces and architecture of this project. I imagine how the elements of the environment can be taken in by me. Firstly, through my senses. Secondly is the architecture communicating, translating and creating an experience for me. The inbetween spaces which makes up the spatial gradient, the purposes and intensity of the architectural elements are all meaning to make me take my time to experience the natural environment here. The physical locus becomes a very mental locus for me when I suddenly realise the presence of the natural elements and myself. For each step that I take I discover something new that catches my attention. I take a moment to look at what is before me and it becomes a character of the space inside my mind.

> "Cogito, ergo sum" - René Descartes, a phrase that has inspired me.

REFLECTION NOTE









### 1 | Reference: The inbetween space as a barrier

The colonnade of the Saint-Peters square of Vatican city is a prime example of using a space as a barrier on the one hand and as a space to be on the other. The colonnade serve as "arms" wrapping around the square

# 2 | Reference: the inbetween space as a place

Although the colonnade is used as a barrier, it is also a space of its own because of the inbetween spaces between the large culumns which makes the barrier permeable. Also because of the large scale, the bases of the columns become small resting spots where people can sit and take shelter from the hot sunlight during summer.

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**DRAWING: FACADE** — Room of Water

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### 1 | Facade drawing of previous temple

The part of the "place to be" is the stylobate from the Room of Water that becomes a sitting element influenced by the topography.

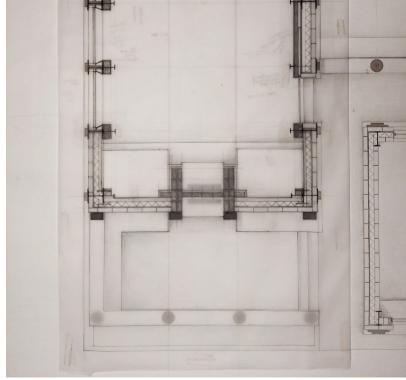


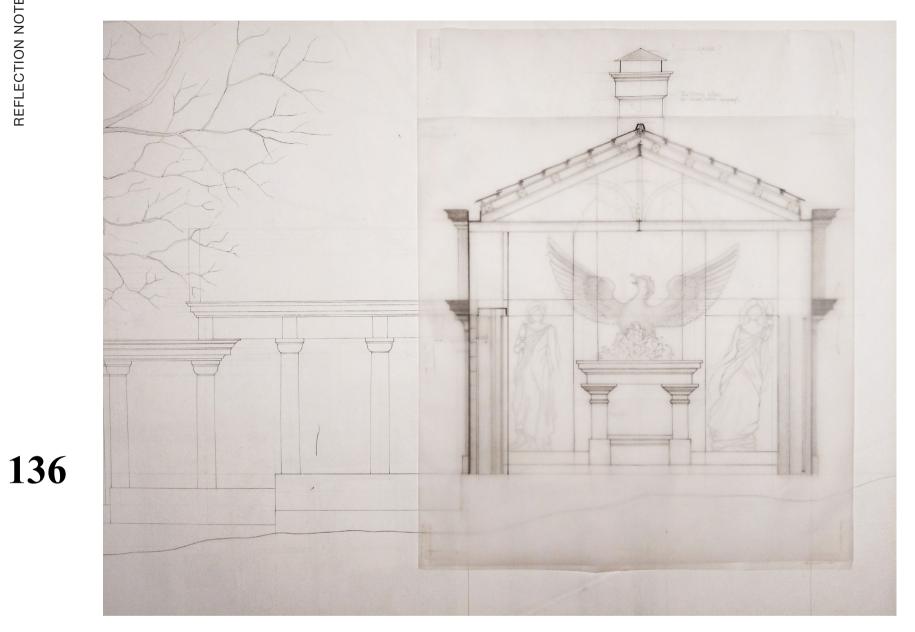
### 2 | Facade drawing of the Fire Temple

The Fire Temple is the opposing temple next to the Water Temple where the fireplace becomes the purpose: the Room of Fire is a place for warmth. I thought of a fireplace that could be used both from the interior and the exterior. The exterior space becomes another spatial layer. I developed this exterior space based on the principles of the previous temple. First attempt here is that the language stays similar as a way to keep it coherent. But in chapter The Column I intended to leave behind the neoclassical style and wanted to find my own language. The stylobate becomes a place for plants and flowers. I choose for vegetation to become part of the architecture here.

### 3 | The fireplace on plan

As seen on plan the fireplace can be used from both sides.

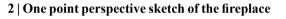




### 1 | Section drawing of the Room of Fire

The Room of Fire is the opposing temple next to the Room of Water where the fireplace becomes the purpose: the Room of Fire is a place for warmth.

I tried to accompany the atmposhere with some sculptures of a phoenix and angels "bringing light and warmth" but that did not turn out as I had imagined. So that is something I would rather leave behind.



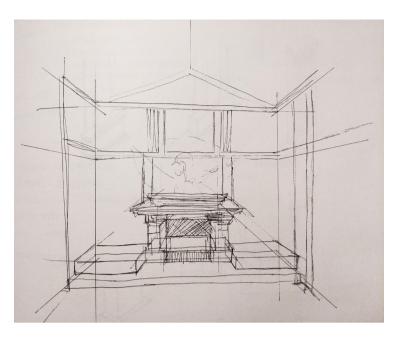
I tried sketching the fireplace and how that would take its position in the Room of Fire. I wanted it to be in the middle and part of that wall while standing on a pedestal — giving it a very prominent spot.

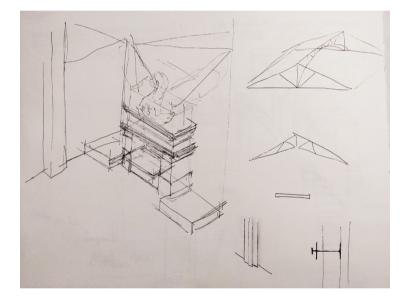
Earlier I already mentioned that I did not like my first attempt in the design as the language resembles too much to previous design of Water Temple and the original burial monument. I wanted to leave behind the Neoclassical style in order to search for my own. Despite that, I do want to keep the Classical language in the fireplace. Because I continue the principle of the stylobate, the column and the cornice, but translated into my own language using steel profiles, I wanted something in that space to refer to that principle.

# 3 | Perspective sketch and possible roof

Perspective drawing of the fireplace and some small sketches of a possible roof structure in steel frame.

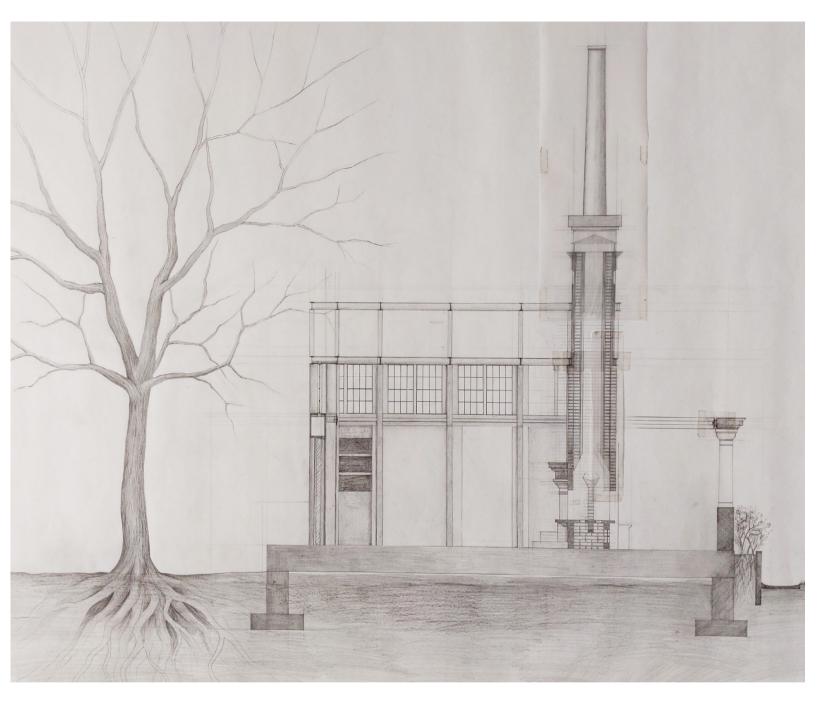
In this first attempt, the roof structure takes triangular shape, resembling the one from the previous temple. But I feel that it is too much the same thing as what was created before.







1 | Section drawing of the Fire Temple The second level: band of windows.

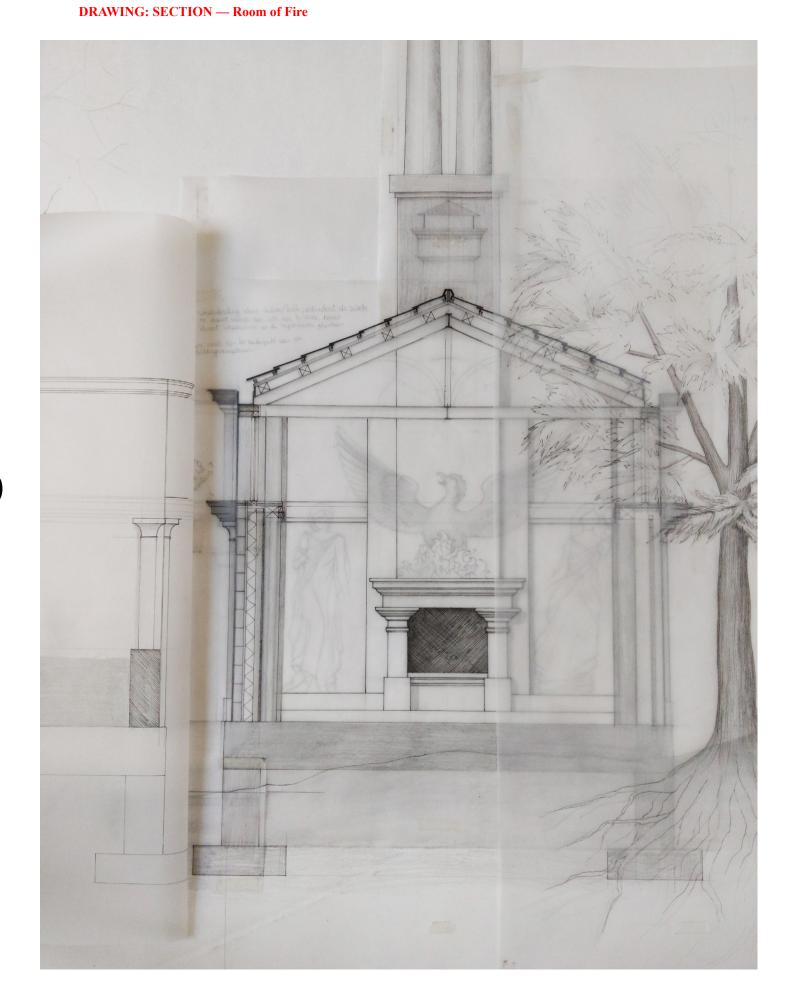


### 2 | Section drawing of the Fire Temple

A few things were changed and added:

The chimney is enlarged, the space between the columns on the left became a sort of a book case. (It was a way of experimenting with what I could do with it since the part of wall next to it is thicker for the sliding door).

Overall I am not very content with it as it turns out rather formal and does not seem very intriguing.



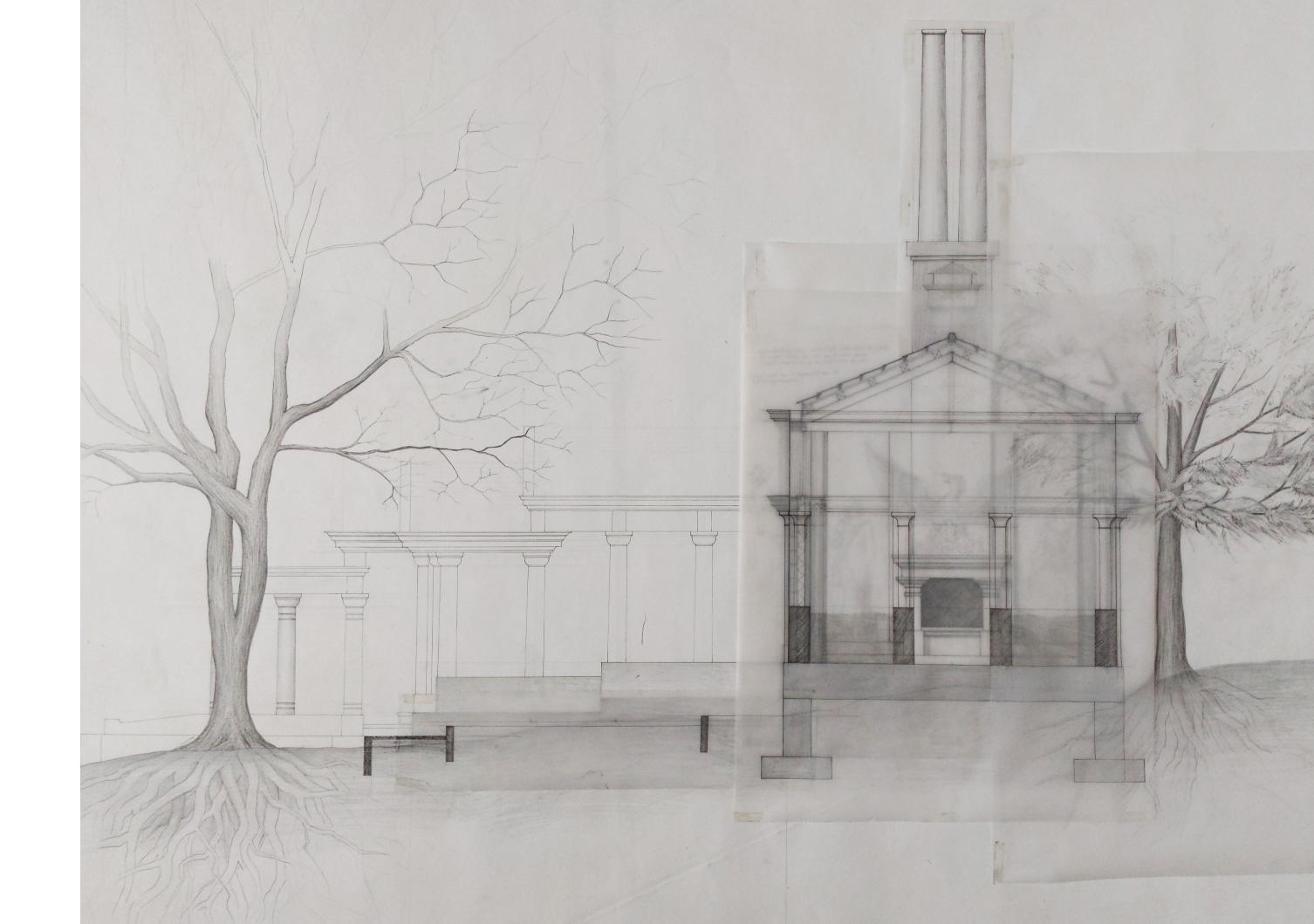
### 1 | Section drawing of the Fire Temple

Some adjustments: the details of the wall, foundation, the ceder tree next to it, no more sculptures.

The whole interior language is different from the neoclassical style except for the fireplace. I wanted the fireplace to take the previous language in order stand out with its own stylobate, column and cornice. It is a point of reference for the principle for all the other elements of this building.

# 1 | Overall section drawing

I was not satisfied with the shape of the previous chimney. It was small and appeared more as a regular/conventional chimney. In a later phase I decided to exaggerate the chimney in height: completely sticking out and sending the smoke high into the air where the wind blows stronger. I chose to have two pipes as a way to refer to the column and its inbetween space.



THE INNER

COURTYARD

# My fascinations of this project are the several things that enrich the spatial experience for me. The first consideration is the spatial composition and how the architectural elements and other bodies are the general building blocks for that. The most intriguing one is the column to me. And the reason for that is because it is able to create the inbetween space, which is the second consideration, in order to achieve a more layered spatial experience, which I interpret as a spatial gradient where space gradually flows into the other.

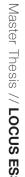
This gradient of spaces mean that spaces are divided by other spaces which kind of flow into each other because the boundaries between each one is spatially permeable. And that is what attracts me: is the boundary dividing or actually connecting a spaces to each other? I feel that the dividing element between interior and exterior is a mediating space and therefore it is blurring the line. I tried to achieve this with the alleys and the corridors, and also the inbetween space of the columns. I have explored the spatial composition from a macro approach and also from the scale of the architectural construction detail. But I feel I am missing the link between the macro and micro scale which is for me the blurring between the interior and exterior experience. The gradient is not yet enough explored in depth and I felt I needed something specific to work with which could make it possible for this exploration.

What came to mind is an inner courtyard. The courtyard is often regarded as an exterior space within a building, or it is a space surrounded by buildings. But then again, it could also be interpreted as an interior space because it is surrounded and enclosed. In any case, the courtyard is already missing the hard distinction between interior or exterior for me. I think the courtyard is an appealing space to work with for my exploration of the spatial gradient between the interior and the exterior space.

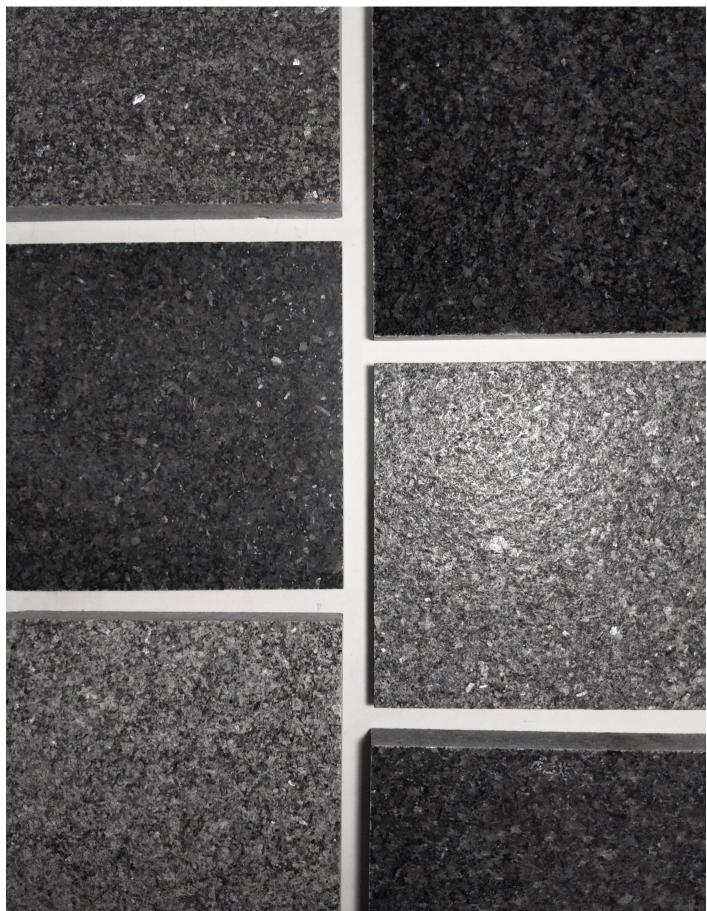
Although not certain whether the courtyard is an interior or exterior space, but it is certainly an intimate space. On the one hand the courtyard is a place to escape to from the closed off spaces inside a building. Perhaps for some fresh

air from the outside? But why not do this just outside the building? The quality of the courtyard is that it is not exposed to external factors that would disturb the peace and silence we may seek. The inner courtyard is able to appropriate a piece of open air to its building to a very intimate level. Unlike a balcony, a terrace, a garden, ... all having a view facing the outside world, a courtyard is secluded within a complex and gives a sense of intimacy towards oneself, a place to contemplate and to become more aware of our own.

The idea of the inner courtyard is an enclosed space. But I did not want it to be completely closed of with walls. I want my inner courtyard to be a place where I could feel safe but not isolated from the world. It is in fact on the contrary, I want to feel connected to the environment. I believe that being able to feel safe will contribute to what the Locus Esse is about: to be at your own pace, to contemplate and to be present with ourselves and the environment.



MATERIALITY: NATURAL STONE



#### 1 | Six versions of the same granite

I went to a stone dealer company, Brachot-Hermant, in Deinze to get more information on natural stone. I learnt that natural stones are classified into two groups: hard and soft stones. Marble, limestone, ... are part of the soft stones which come from the so-called sedimentary rocks. These are acid sensitive which means that if they are polished and used for exterior means, it will lose its gloss over time due to the acid in rain. This fact influences my choice of materials. Hard stones, such as granite (real granite), are acid proof which means its finish of the surface will not deteriorate. Additionally, I learnt that there exist composite and ceramic materials, which are also an option. These materials are fabricated to imitate natural stone. They do have the advantage that they are acid-proof and can therefore be used for exterior applications while maintaining its finish.

The more polished the stone is, the glossier the surface will look. But more importantly is how more intense and deeper the colour of the stone will appear. There are different techniques to finish the stone which will lead to different results.

#### 2 | Comparison

The sample on the left of this photo is polished using "aquapower". The darker sample on this photo is called "letano"

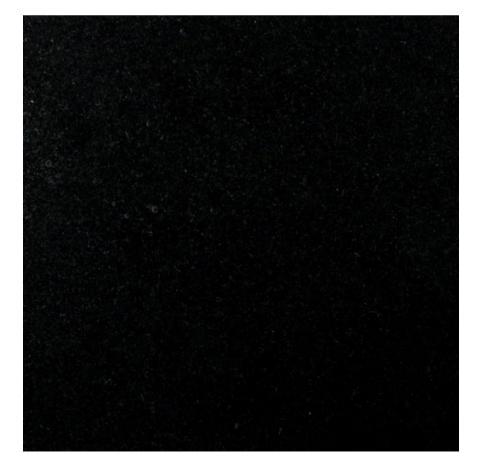
#### 3 | Comparison

Darkest sample on the top of this photo is "polished", the right bottom is called "anzano".





REFLECTION NOTE



## 1 | Natural stone: Jet Black granite

On the exterior side, a part of the column is separated from the structural steel columns. It is in fact a decorative element which is the black polished granite. I wanted it to stand free from the structural part literally because both have different purposes within the composition of the column. It is actually a very small inbetween space between the steel and stone column.

I wanted this part to be a natural stone with a strong polished surface. This shows the trace of human manipulation of a natural material: craft.

#### GRANITE

As discussed earlier, I needed a hard stone for the exterior: the granite is a natural stone which is acid proof and will not loose its finish so easily. The stone has to be dark, black, to become the most prominent part from the exterior view. The texture should look homogenous in contrast to the other exterior materials which has a rough textured surface (the steel and the rusty, the rough concrete blocks)

#### 2 | Hot rolled steel

The structural part of the column is the HEB300 and IPE240 joined together. I wanted both to have a dark colour with a matte finish. Black would be too strong for the steel part as the steel is actually the "supporting" part: the structure. But I wanted the steel to be visually supporting as well. So I opted for a dark grayish/graphite colour with slightly green (colour of the steel structure on the first image) and rusty (second photo) undertone: hot rolled steel. I prefer this "rough" look of steel more for this project because it shows that although it is manufactured, steel is can also be affected by the process of natural laws during manufacturing and the traces of it here are visible.



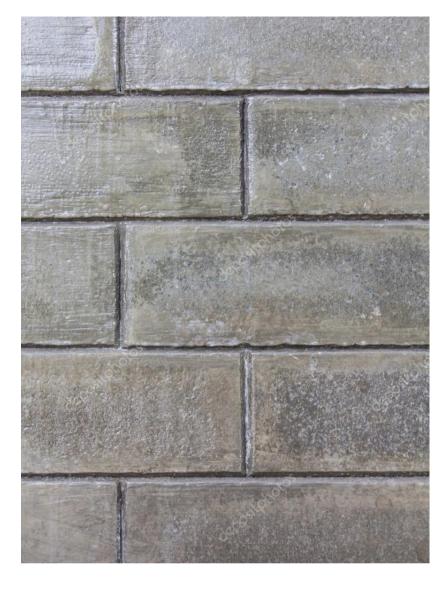








**MATERIALITY: EXTERIOR MATERIALITY: INTERIOR** 



### 1 | Concrete bricks

For the exterior facade, the walls will be made of rough concrete bricks with a thin joint. I believe these concrete blocks are coated. Normal clay bricks did not give me the desired texture. Natural stone was also not the right choice because I wanted it to be an industrial material. This is essential to my architectural language because I would like that industrial products and natural materials compliment each other.

Concrete bricks can be fabricated in any colour actually but I chose the colour gray because it would have a softer presence. From the exterior facade the concrete bricks will be the least prominent, then comes the steel column, and the strongest accentuated is the stone part of the column.

## 2 | Dark red polished granite

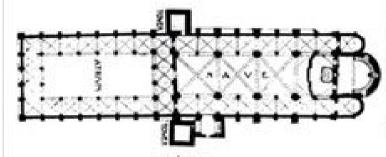
The interior facade of the Room of Fire will have a dark red colour. I want the space to have a darker atmosphere which will feel warm once the fireplace is lit. I imagine when looking inside the windows, I can see a red hue of light inside this temple of warmth, especially when it is dark outside.

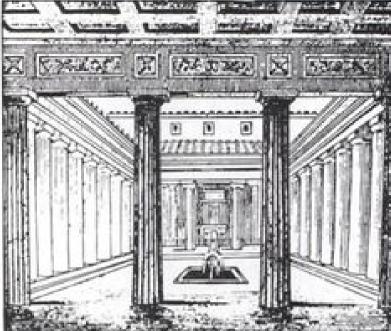
#### 3 | Dark beige matte marble

A lighter colour but still with a warm tone is for the stone part of the interior columns because both the walls and the steel profiles are already dark. In order to make those stand out from each other is having a lighter colour in between them.









atrium Corinthium



1 | A roofed courtyard

The space underneath the roof kind of appeared as a courtyard to me with its open space space while feeling enclosed by the columns around and the roof above it. It somehow manages to create an intimacy with the darkness of the shadow from the large roof. It is like an inversed version of an open courtyard.

The atrium is an opening from the roof to collect rainwater within an interior space. This space appealed to me bacause it is actually creating an interior outside space and blurs the line between inside and outside.

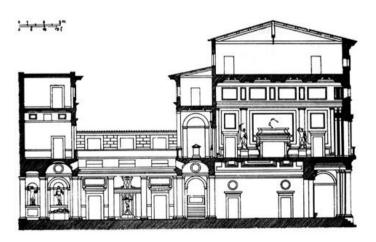
#### 3 | Reference

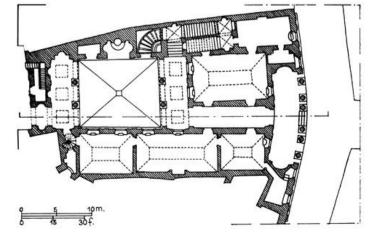
Within the building there is an "outside" space.

2 | Documentation on an atrium









### 1 | A room in the courtyard space

In this palazzo Massimo alle Colonne by Peruzzi, we can see there is a balcony, almost like a room on the second floor that is looking out on the inner courtyard. I found this one in particular fascinating because this balcony is designed with the same intensity as an interior space. It feels much more as an interior space than an exterior balcony. Maybe due to the face that it finds itself embedded in the building.

# 2 | Section and plan of the embedded exterior

This embedded balcony is in fact an inbetween space approached from the interior. On the plan you can see it the layer deviding but at the same time connecting the interior with the exterior space.

#### 3 | The atmosphere of a forest environment

The graveyard of Mount Koya in Japan greatly shows how the large trees of the forest influences the atmosphere of a grave yard. When wandering through them, you almost feel as if you were in a different world, the world of the death perhaps. Yet it does not feel abandoned, empty or dead at all. On the contrary, I think the forest fills the whole graveyard with a mysterious character. The tombstones and light pillars are densely scattered all over the forest. It is another layer of bodies, much smaller than the trees, but a little taller than humans, and they are surrounding us from everywhere just like the trees do, only at a different scale.

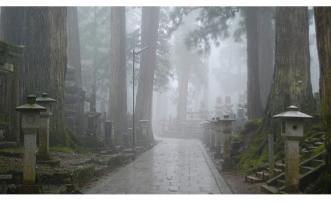
#### 4 | Fog and its eeriness

The typical phenomenon that fits the eerie atmosphere of a graveyard must be fog because it blurs the vision. Once we cannot clearly see in the far, we could get scared not knowing what is happening within a dense forest, realizing you are surrounded by many things. Yet you are only able to see the small bits of it that are close to you. The mysterious character about fog is that it reveals physical elements or bodies bit by bit. It almost forces you to use your other senses in order to fully take in the environment and what is happening. It is a natural phenomenon that makes you present.

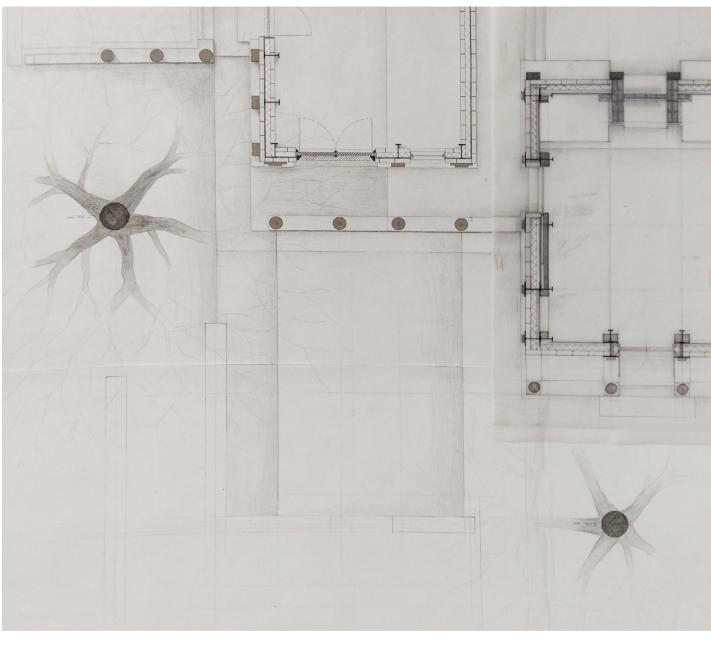
#### 5 | Rays of light

I believe the forest will always have a mysterious atmosphere. Trees and vegetation cause phenomena to happen and it gives the environment a very strong character. When the sun is shining strongly, the light travels thourgh the trees creating visible rays of light filling up the forest.









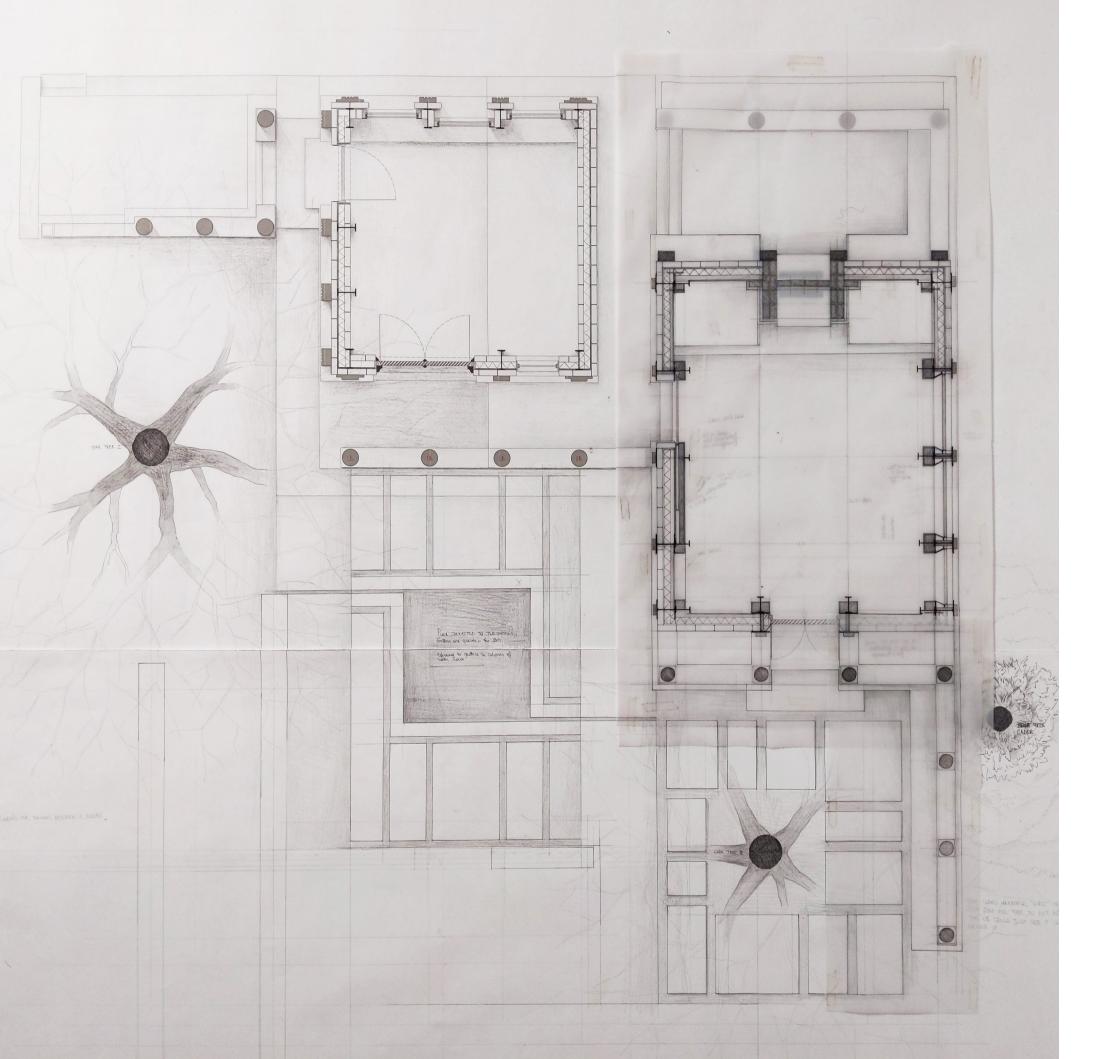
### 1 | Fragment of plan

I wanted the ground of the inner courtyard to be designed where the topography is still present, but adjusted to my preference. I found it important that the courtyard would have a large flat surface area in the middle. This meant that the height difference has to be done somewhere close to the side.



# 2 | Section drawing of the floor elements of the courtyard

As the courtyard would have a designed ground I started to draw the elements of it and how that would be put there in the ground to make these platforms work. There platforms are different from the stylobate in the sense tha I want to create them using the soil and tiles instead of an entire massive block. The reason for this is because I did not want the courtyard to be completely excluding the vegetation of the site, such as the soil, the grass, the moss, ... I would like it to be part of the architecture.



#### 1 | Plan

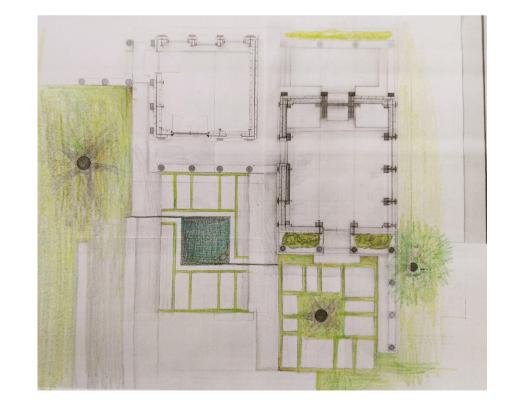
This was a first attempt to draw the tiles of the courtyard. I tried to introduce a pool in the center where the water is collected through a small canal from the right side and flows back out from the left side to keep the water from overflowing. These canals are small grooves similar to the grooves in the columns of the Water Temple. I thought that the vegetation could grow between these grooves as well, similar to how water slips through.

Another courtyard started taking shape which is the space around the second oak tree. I also wanted the ground to be more controlled instead of leaving it as bare soil and moss. I drew very large stepping stones with a larger margin between them for the grass to grow between it. The stepping stones were placed around the oak tree as a way of surrounding it, emphasising the tree on this spot.

#### 2 | Plan drawing experiment with colour

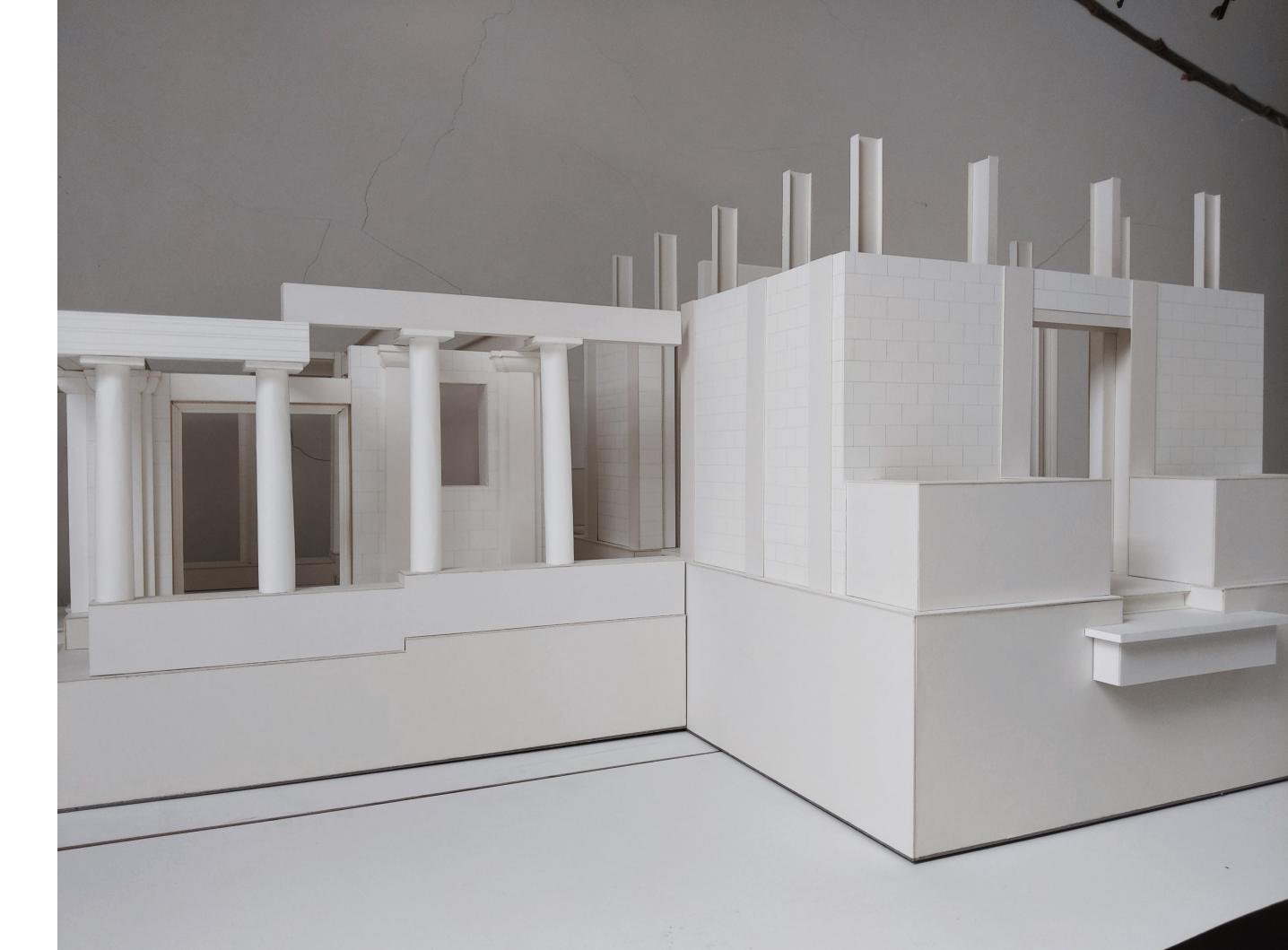
Because vegetation plays an important role in this project, it was important to be able to feel the materiality and the atmosphere of nature. I tried give it some colour to come closer to the atmosphere of being surrounded by vegetation.

Thoughts on the courtyard here: it looks too formal and modest. The buildings and columns already follow a strong grid and the alleys and corridors are very straight axises as well. I think it becomes too rigid with how the tiles are placed like this. Overall I am not satisfied with it and will currently leave this part out.



# 1 | Unfinished Regrettably, I did not manage to finish the Fire Temple scale model as I had intended. It is missing some important details and perspectives, especially the inner courtyard. Due to the lack of time I had not properly been able to design the third and fourth enclosing facades. The flooring of the courtyard has to be reconsidered as well as I was not content with the first attempt. Generally, this project is actually still in progress.

There will always be room for adjustments in the details and new additions to the spatial compositition.



A link to the video presentation, a brief explanation about the project in 10 minutes:

https://www.youtube.com/watch?v=hBO0diZ-Tfs

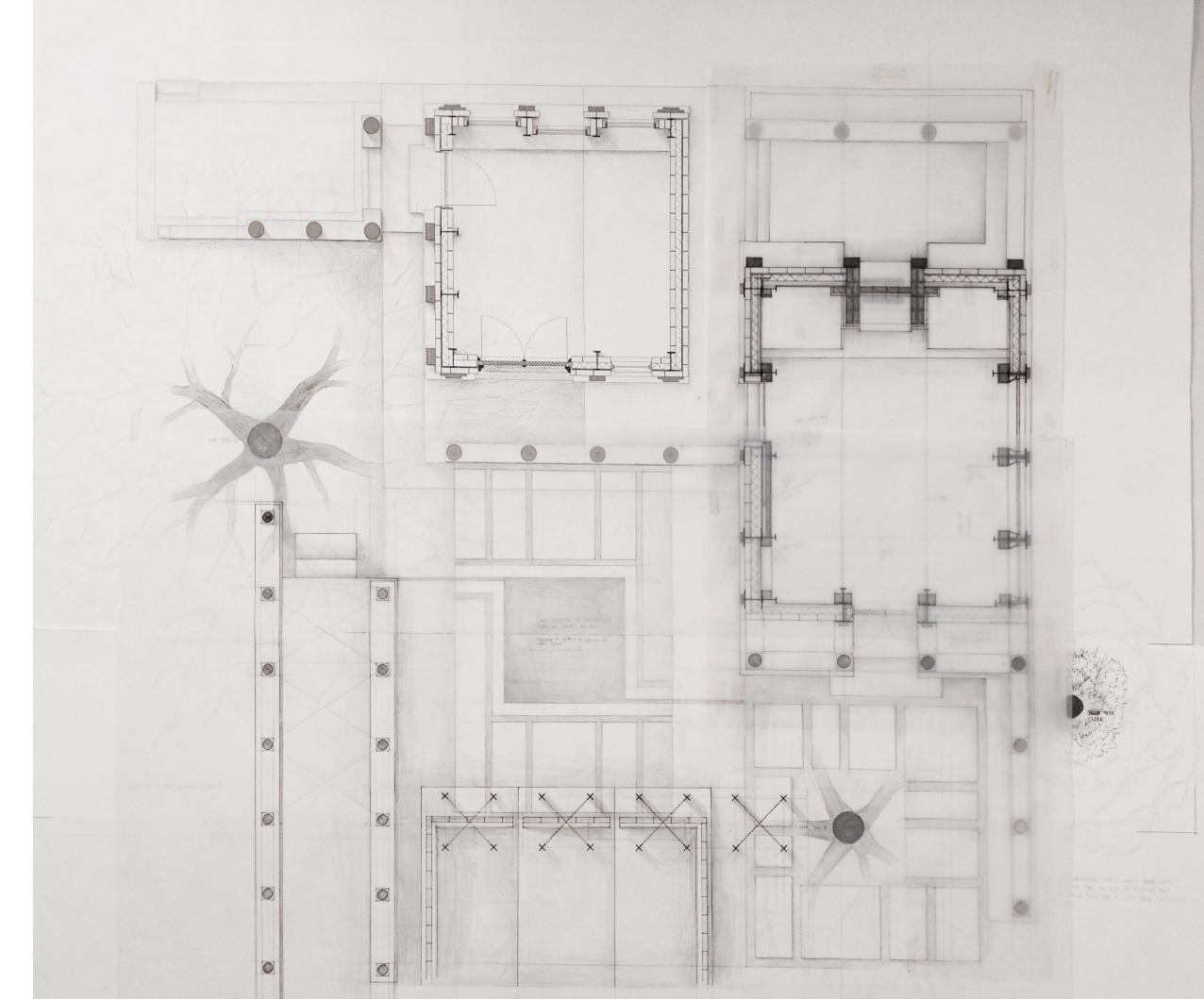


#### **CONCLUSION**

My fascination for the sharp edges of Classical archicture inspired me to explore it. Initially making different versions of the exisiting elements, I gradually came to desire my own architectural language while still keeping the sharpness as the architectural expression. Trying to create a place to be using the stylobate, the column and the cornice as my building principle, led me to discover the possibilities of the inbetween space. This inbetween space became part of what I call the spatial gradient: the layers of spaces from interior to exterior and vice versa. It is another aspect of defining space which gives layeredness to the architectural experience.

The slight topography of the Dieweg Cemetery had a strong influence on the spatial composition in my design. The importance of being able to relate to architectural elements inspired me to break the stylobate into parts. It translates the topography of the environment into the architecture. As I walk through it, I would be able to experience it each time I have to take a step to a different level on the stylobate. My body follows the path with the lowest threshold while my sight induces curiosity to somewhere else. The exploration in this place will require you to be at your own pace. I believe this is how I would feel more connected and present to the locus. The elements of nature such as water and fire were given a dedicated room. A fountain and a fireplace triggered me to push their presence in the architecture and environment. Such as the rain going down the gooves of the column of Water Temple, the smoke blowing away from the chimney of Fire temple. But I also wanted them to be present in the materials: the industrial steel and concrete and the natural stone. Each material had their own specific surface finish which tells us something about the process of making them.

Locus Esse means a place for contemplation and feeling present with the environment and ourselves. The overall spatial composition and the construction details are my ways of revealing the poetry for a place to be.



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Locus Esse, meaning "a place to be", is a project which started back in 2019 in studio Anatomy, supervised by Jo Van Den Berghe and Mira Sanders. The first inspirations came from the proposed site situated on the Dieweg Cemetery in Ukkel, Brussels. In an environment filled with romantic tombstones one particular grave monument stood out to me. This tombstone only consisted of a stylobate, four columns and a cornice. Initially, I was mostly fascinated by the inbetween space and the columns which goes into a dialogue with the trees in the surroundings. Soon I came to realise that the stylobate, the column and the cornice were becoming my building elements to create a physical locus that would become a place for me where I could be at my own pace, a place for contemplation and a place to be present with the environment and myself.

The sharp edges and layeredness in Classical architecture have always attracted me. My desire to learn from it led to a profound research of the construction detail. The logic and precise technicity of the connections between the building elements started to create intense inbetween spaces and corners as I developed new parts. It enables my body to relate to the architectural element. These three building elements from Classical architecture remained the main principle throughout the design while I tried to search for my own architectural language using steel. I feel that steel has the sharp quality similar to carved out stone, but yet different. It is almost the opposite since steel is mostly used as frames (as hollow and light as possible) while stone is a mass, heavy and full. But I believe steel has an other quality other than its practical use.

The master thesis Locus Esse explores the duality between technics and poetics approached both from the scale of the construction detail and from the overall composition in the environment. It is a personal journey where each addition in the design process is a lesson learnt from a previous part. The main aim of the project is to explore the possibilities to create a physical place where I could feel more connected to the elements of nature and architecture.

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STUDIO: The Drawing & The Space

Promotors: Jo Van Den Berghe & Thierry Langrange