

AAHM01: A Degree Project in Architecture,
LTH

2019

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Author	Rasmus Rosenblad
As examiner	Tomas Tägil
As mentor	Jesper Magnusson



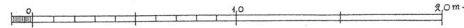
LUNDS UNIVERSITET

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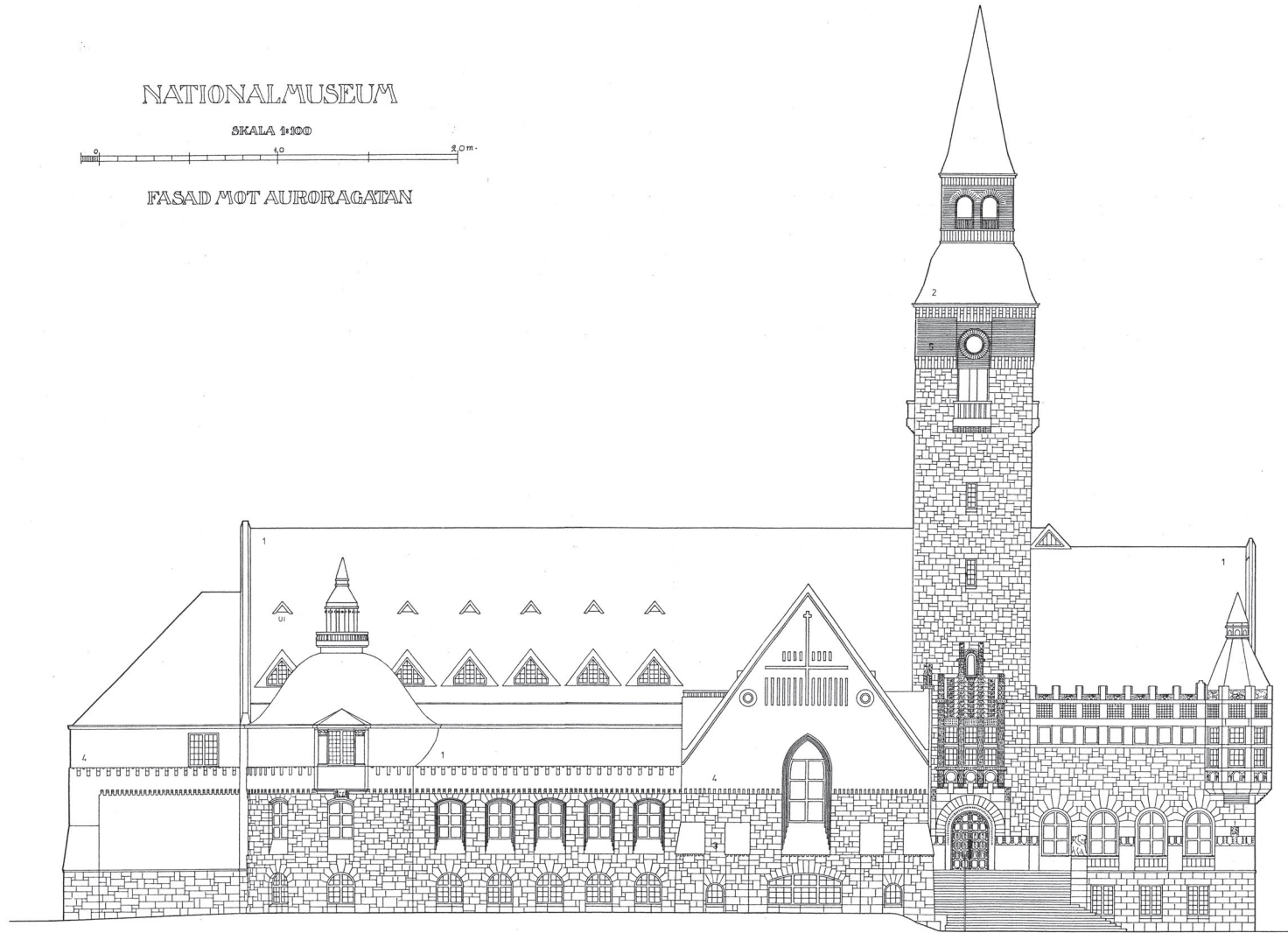
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NATIONALMUSEUM

SKALA 1:100



FASAD MOT AURORAGATAN



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|---|--|---|
| 1 | LIUSKEKIVI, VANHA | TAMMIKUNNAT, VANHAT |
| 2 | KUPARIPIELI, VANHA | LASEERAUUS JA LAKKAUS |
| 3 | GRANITTI, VANHA | VANHAT KATTEET SALTETTÄÄN |
| 4 | RAPPAUS, VANHA | U = LILJAN IKKUNA |
| 5 | OHIT KALKKIMALJUS
VAALEA POLTTAMATON LAMBRA
PUHTAMINKUUR. PUURIN | OSA MUUTETTU TAI MUUTETAAN
SÄLEKÖKSI |

POHJANA YLEISTEN RAKENNUSTEN YLHALLITUKSESSA
V. 1977 TEHTY PIIRUSTUS
(OHJ. KANSALLISARKISTOSSA)

INTRODUCTION

The museum in Helsinki is a project about architecture that adapts to its surroundings. It is a project that explores how to add properties to a culturally significant site without disturbing it. Properties that enhance the visitor experience and adds positive, activating elements to the city as a whole. How does one design an extension to a culturally significant, fragile site?

The objective for this project is to design an extension for the National museum in Helsinki, to solve the current issues that the museum is facing in regards to limitations in space and issues in internal visitor flows. The framework for this task, is given by a brief of an open architecture competition. What issues is the museum facing, and what parts of these issues is the brief trying to adress? Could something more be done to solve the problems of the museum than that which is asked for?

The aim for this project then, is to find an architectural solution that tries to solve the issues that the National museum in Helsinki is currently facing within the margins of the limitations imposed on contestants in the brief of the open competition.

This is done through an analysis of the main building and its surroundings, in order to determine what the current issues are, if there indeed are any. Following this analysis I discuss the brief of the competition and try to pinpoint what it is that the brief is trying to find an answer to. Are the right questions being asked? Is the framework of the competition imposing the correct limits on its contestants, and is it possible, through these limitations to solve the architectural challenges that the National museum in Helsinki is facing?

In accordance to the rules of the competition I design a concept for the museum that intends to better both interior and surroundings.

I will take the reader through ideas that I think will solve the issues found in the current architecture and later concretize these ideas into a proposal for the extension of the building.

In the end I discuss and reflect on how the addition relates to the current museum and its surroundings. What qualities are added, which are lost? Is this a good enough proposal? Will this make for an good visitor experience? Was the framework imposed on this task by the brief able to ask the right questions of the contestants?

THE SETTING

An introduction to the site and the neighborhood

Setting the scene



Töölö Bay, The National Museum peeking up behind The Finlandia House

SETTING THE SCENE

The setting for this work is in the heart of Helsinki. The National Museum is placed right next to Mannerheimintie, the largest road in the city, and has impressive architectural neighbors. Right across the street lies the Finlandia House, the final work of Alvar Aalto, which in turn is neighboring the Music Academy which is placed in a pleasant park. Close by lies Oodi, the new public library, Sanomatalo, a mediahouse, and Kiasma, an iconic modern museum designed by Steven Holl. In the immediate periphery lies the Finnish parliament. You can argue that we are as close to the center of Helsinki as we can possibly get.

Outside this sphere of important architecture, we find a wealthy neighborhood consisting of houses in typical pastel colors of those constructed in the early 1900's. It is a busy part of town towards Mannerheimintie, but quieter and calmer on the other. We are in Töölö. Small, cozy restaurants at street corners, large apartments converted into offices and dwellings that have undergone many

changes in their last hundred years of existence. The occasional tree, a rarity in modern city planning, springs up from the street, bringing a piece of nature into the city.

Töölö is indeed a pleasant part of Helsinki, home, and setting for this work.

● You are here

Setting the scene



Töölö



Kluuvi



Kruunuhaka



Ruoholahti



Kamppi



Punavuori



West Harbour



Eira



Ullanlinna

THE NATIONAL MUSEUM

A brief recap of the museums last century



The National Museum in 1920, four years after grand opening

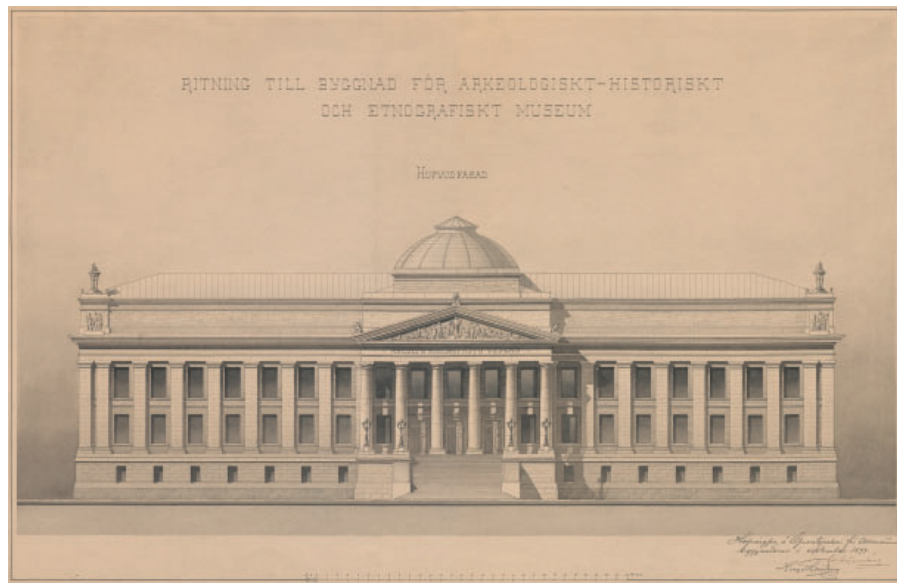
HISTORY

The story of the museum begins with a lack of space in 1887. This lack of space is revolving around archeological and historically significant pieces of art and crafts from The University of Helsinki, The Finnish archeological association and pre-historic associations that just have agreed to combine their collections, but cannot find anywhere to display them. To display these important pieces of art the city of Helsinki agreed that a museum was to be built and donated a piece of land for it, along with its funding. The good people at the city of Helsinki even hired architects that drew the museum. It was to be a magnificent, neo-classical building that followed a strict design principal in order to convey the buildings importance. Three floors, stacked on top of each other with each floor representing a different era in history.

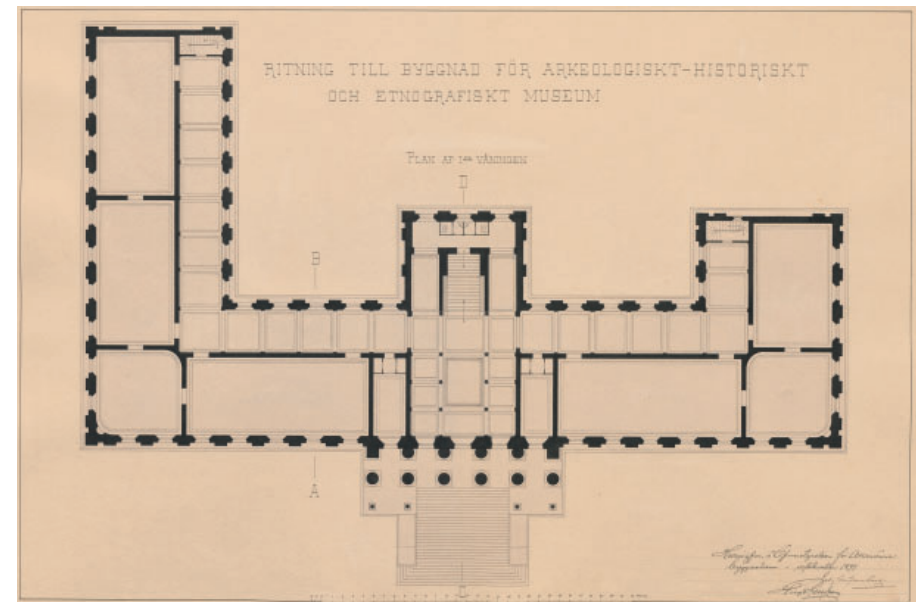
Architects Herman Gesellius, Bertel Jung, Armas Lindgren, Harald Novius and Lars Sonck meanwhile, were chocked to hear about these plans. They were fed up with the architectural norms of the new

classicism, and rebelled against an idea of having yet another boring new-classical palace being built in one of the best pieces of real estate available in Helsinki at the time. Together they challenged the city, by a writing an open letter in which they criticized the plans for the new museum, and demanded that an open architecture competition would take place instead. This was an attack towards the old and dusty conventionalism in the architectural style that the city had, in their opinion, conducted for far too long.

The city eventually succumbed to the pressure these rebels of architecture exerted and agreed to arrange an open architecture competition for the design of the new museum. After a long and tedious process of reviewing the competition proposal, one in particular stood out. It was titled "Carl XII" and offered an interesting and fresh take on how a museum could be planned. In the classical system rooms are ordered in axes diverging from a central point, where rooms then are ordered in a consecutive manner, and floor



Facade drawing of the original proposal for the National Museum



Entrance plan for said proposal

plans are identical to each other, simply stacked on top of another. What differed in this new proposal was what could be considered to be complete architectural anarchy of the layout, at the time at least. The proposal was designed in agglomeration, a design system in which one central point was defined from which all exhibition halls could be accessed. A certain flow led the visitor through the exhibition, and during the tour, the visitor was constantly surprised to find that each hall substantially differed from the previous one in an architectural manner. Furthermore this system allowed future expansions to be built in a more flexible manner as individual exhibition spaces were no more bound to each other.

The winners of the competition turned out to be our rebels, Gesellius, Lindgren and Saarinen, with the entry Carl XII. The proposed museum was designed to be entered from the South, from the direction of the city center. This, the most important façade, was envisioned to bear the most detailed and rich references to older

Finnish architecture. The other facades were much less detailed. As previously mentioned the floor plans followed an agglomeric system, where the center space or the entrance was a gateway to all the parts of the museum. These parts varied greatly in their architectural expression as to fit the objects and artifacts on display. For example the religious collection was displayed in a large church-like exhibition hall with a high ceiling. The interior spaces were reflected on the exterior, with the religious hall, taking the shape of a church-like presence on the outside.

So, our rebels have won the competition, and are allowed to design the new museum. The plans for the new museum are ready in 1904. A year later 1905, the architecture office however splits up. The museum though is too important to get in the way of this, and all architects agree to continue working on the project, even though the rest of their mutual projects are divided or scrapped. Construction begins in 1905 and by 1908 the exterior is finished.

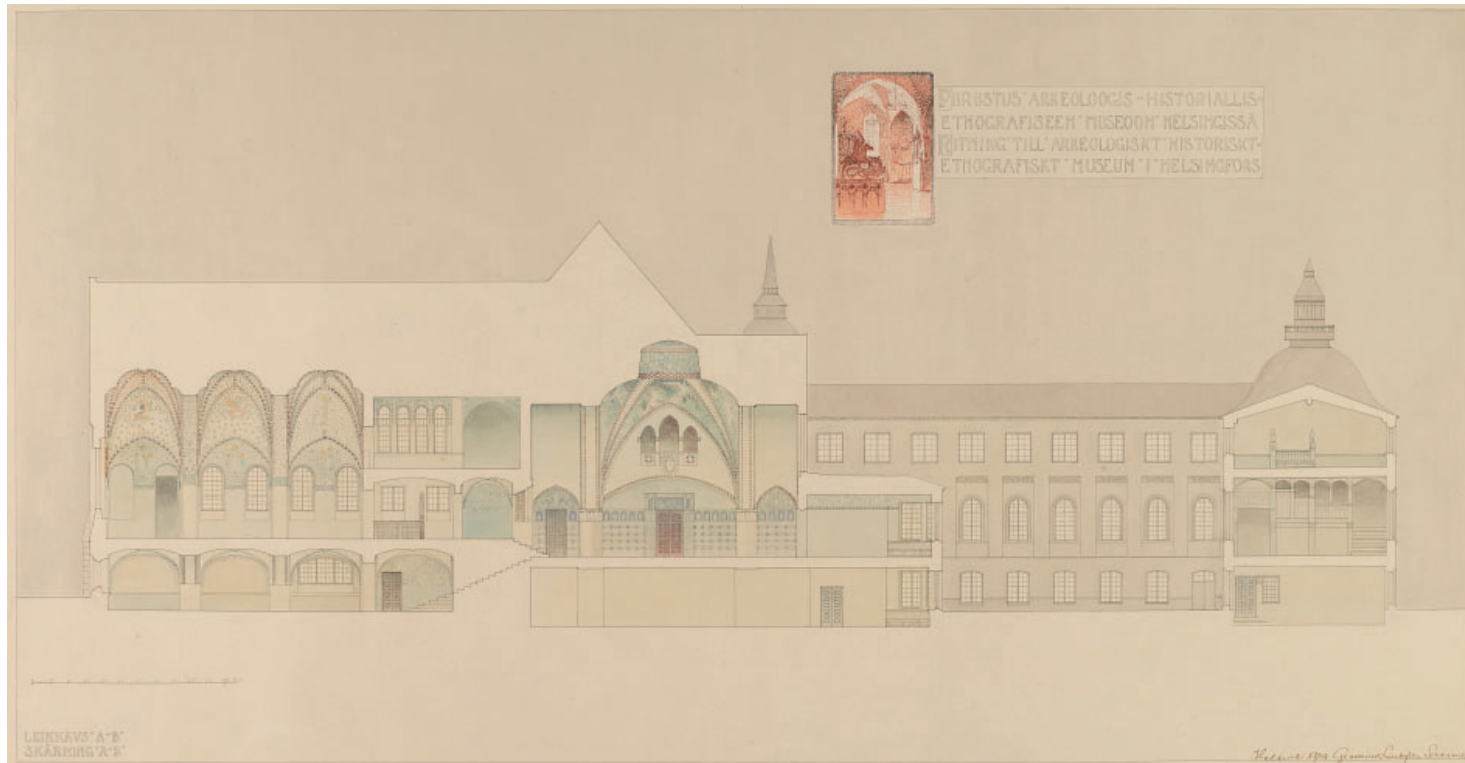
On the interior however, work continues for two more years. In the last years the budget has been drained to such an extent that sacrifices in architecture needs to be made. These sacrifices are however only visible on the inside, as the exterior is finished. The toll to the interior due to these financial troubles was at the time the hardest on the public, as much of the interior decorating had to be done after that the museum had opened for the public in 1916. For example, the iconic frescos of renowned Finnish painter Akseli Gallen-Kallela were finished as late as 1928. When opening its doors, the archeological and anthropological sections of the museum were no where close to being finished, and could only be made open to the public in 1923.

After opening its doors however, the people were satisfied with it. The agglomeric design seemed to work, and offered a fresh take on how a museum could work. The building became an iconic piece of Finnish architecture with nothing like it being produced again.

The museum was however constantly struggling with a lack of space, but could solve these for over 70 years by building smaller room dividers and expand on storage spaces. It was only after the 1970's that the need for space became too much to bear and the museum had to invest in multiple extension projects and renovations. Many of these extensions never came to be due to the nature of the now culturally significant status of the building.

The history of the National Museum is one of constant struggle it seems. For every step forward there seems to be a step back. But through this constant struggling it seems that the people in charge are left with time to ponder about the options, and eventually make the right decisions. If it concerns financial problems, problems with the design or extensions, it seems that after given enough time a suitable solution finds its way to the surface. It is through these difficult solutions that the museum has today become an iconic building that Finns truly appreciate.

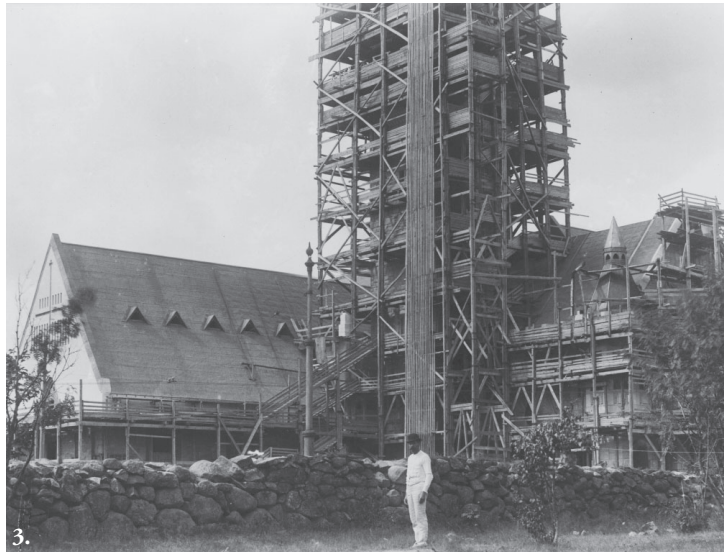
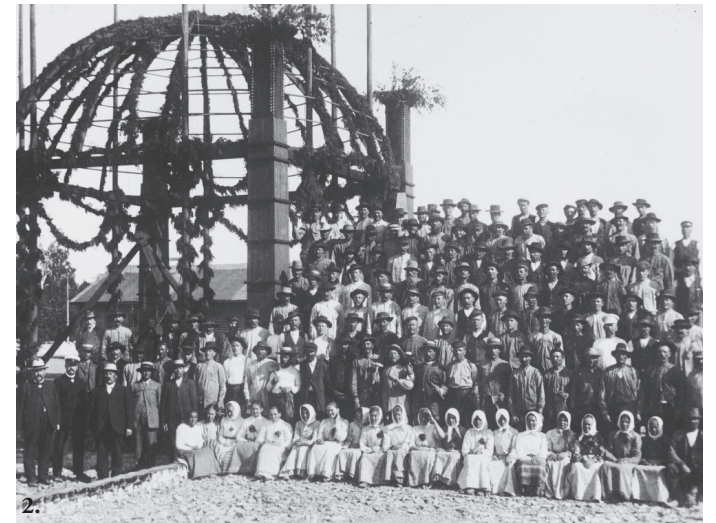
Setting the scene



Section of "Carl XII", note the intricate detailing of the interior walls

CONSTRUCTION

1. Moving massive stone blocks in the early 1900's
2. Workers on the construction site
3. Building the main tower
4. Wood workshop, finishing the interiors





The "church hall" in the 1920's

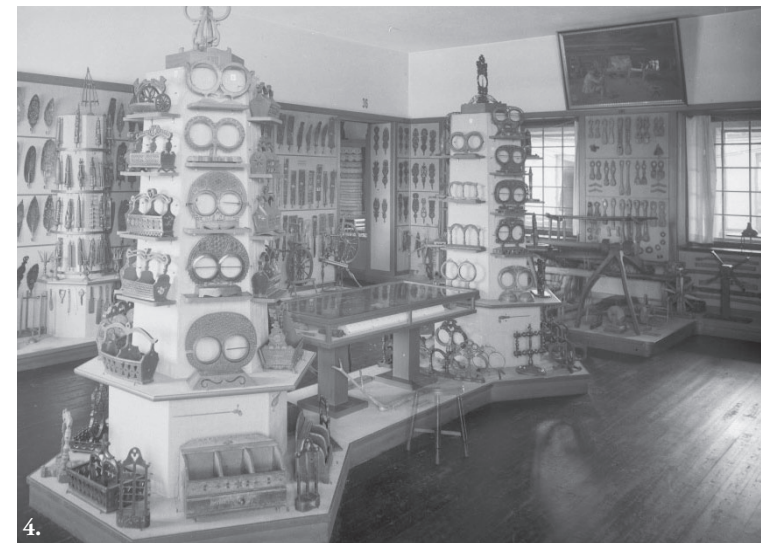


Renowned Finnish painter Akseli Gallen-Kallela inspecting his work on the fresco

Setting the scene

OPEN FOR THE PUBLIC

1. School class seeing a reindeer for the first time
2. The weapons room
3. Pre-historic exhibition
4. Unknown exhibition



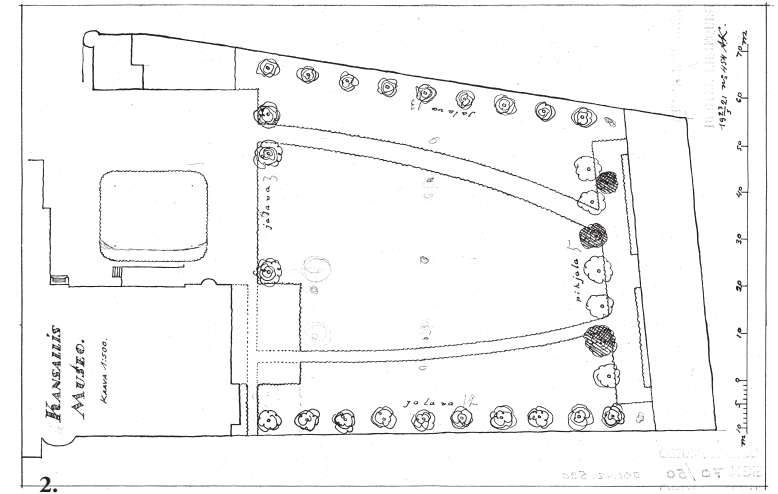
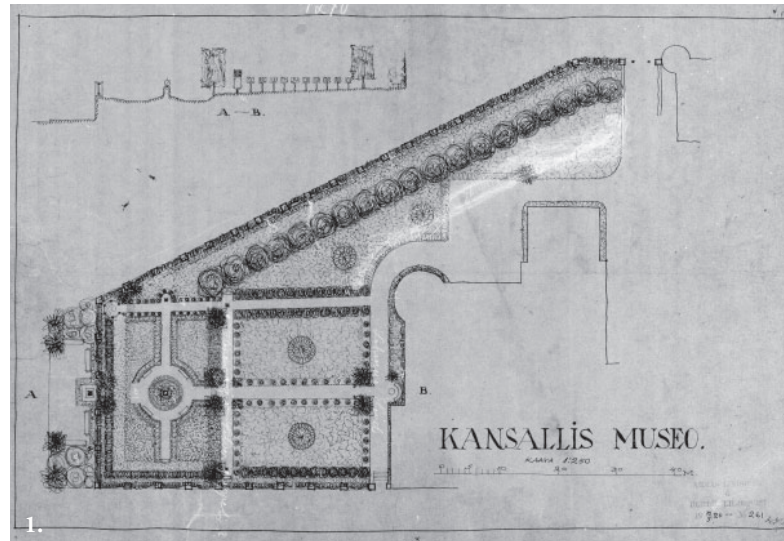


From above in 1930's Helsinki

Setting the scene

OPEN FOR THE PUBLIC

1. Plan for the garden to the south
2. Plan for the garden to the north
3. Fixing the garden in 1930
4. The temporary coffe shop in 1952



THE MUSEUM TODAY

The premise of the National Museum of Finland is to exhibit and show the public the story of the Finnish people. It does so by telling the story of Finns from the stone age to modern times, through the sizable collection of around half a million individual items of varying kinds. The museum shows a permanent exhibition of said story, where each element and epoch is represented in rooms that are specifically designed for this task. Religious art is for example displayed in a church-mimicking room. In addition to the permanent exhibition the museum shows a multitude of different temporary exhibitions, that vary from anything between digital arts to an exhibition exploring the world of bugs.

The Museum is however, not only limited to showing the art and crafts of our history, but is also the workplace for over a hundred people. The work done here encompasses everything from research to science, mainly archeology and historical anthropology.

The museum lies on the grounds of a park as previously mentioned in the heart of Helsinki. On the site there are three main buildings. Of these the most important one is unsurprisingly the National Museum. In addition to it though, a small building, the “Häkälä” is situated towards the entrance to the East. This building was previously used to bring art into, while simultaneously burning a fire in, in order to smoke out small insects or parasites using the art as a home. The third building “vaunuvaja”, freely translated into “cart-shed”, was meant to act as storage facilities for art, but quickly found a new use as offices and conference facilities.

The grounds are encompassed by a heavy stone wall that wraps around the site, occasionally becoming one with the buildings on site.

Setting the scene





↑ N SITE PLAN, TÖÖLÖ 1:2000

SITE PLAN →

1. Main entrance
2. Entrance 1 to garden
3. Entrance 2 to garden
4. Entrance gate to garden
5. Secondary entrance
6. South Garden
7. North Garden
8. Tower of the main building
9. Tower for staircase
10. Häkälä
11. Trash shed
12. Entrance for Vaunuvaja
13. Linnanpiha
14. Halkopiha

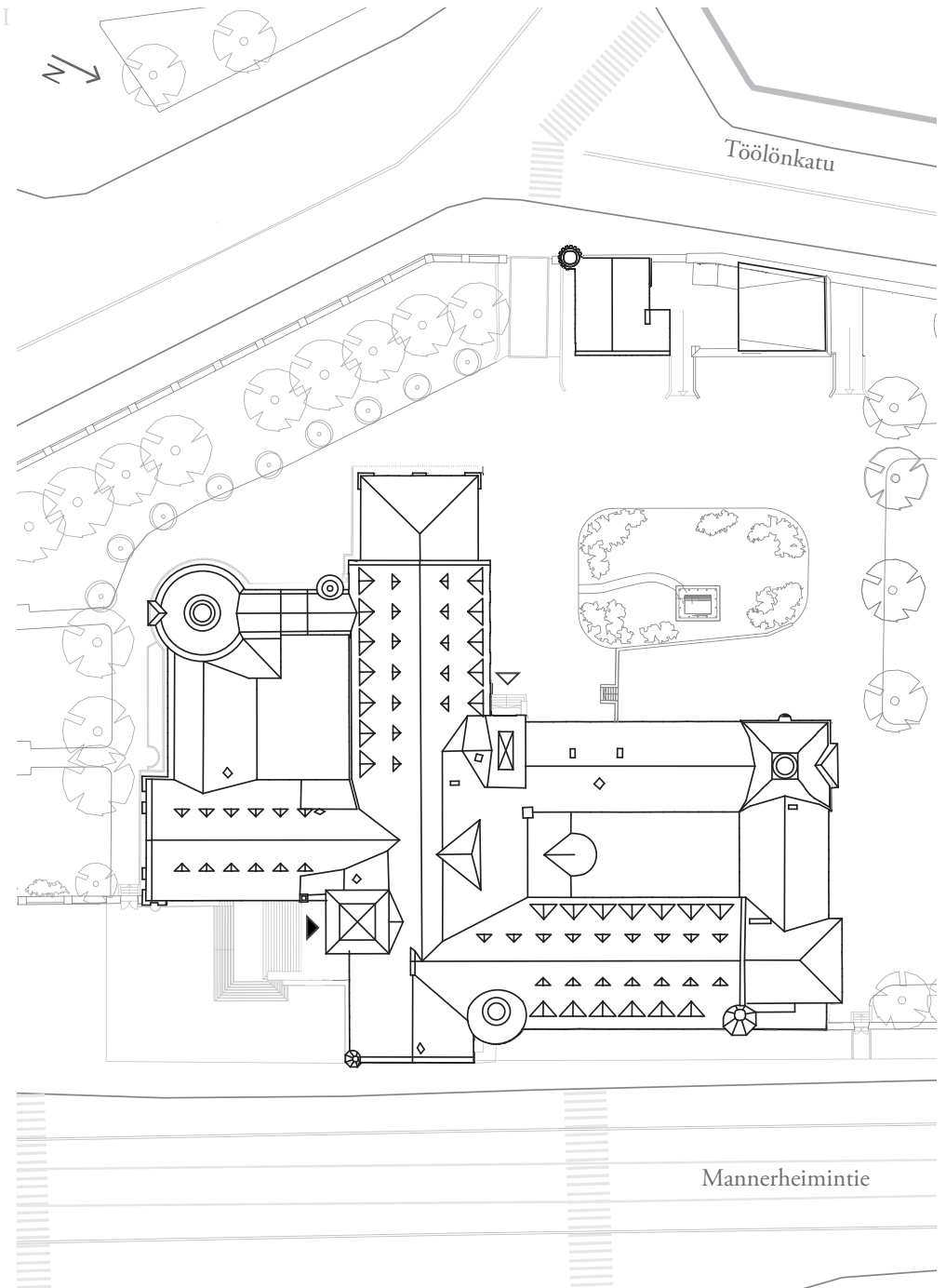
FROM ABOVE

INTERACTIONS WITH THE ENVOIRNMENT

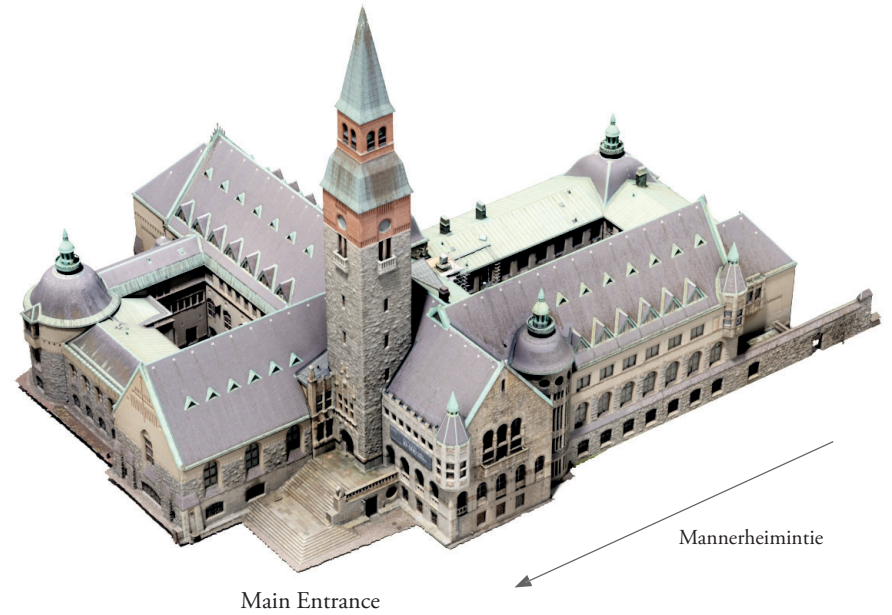
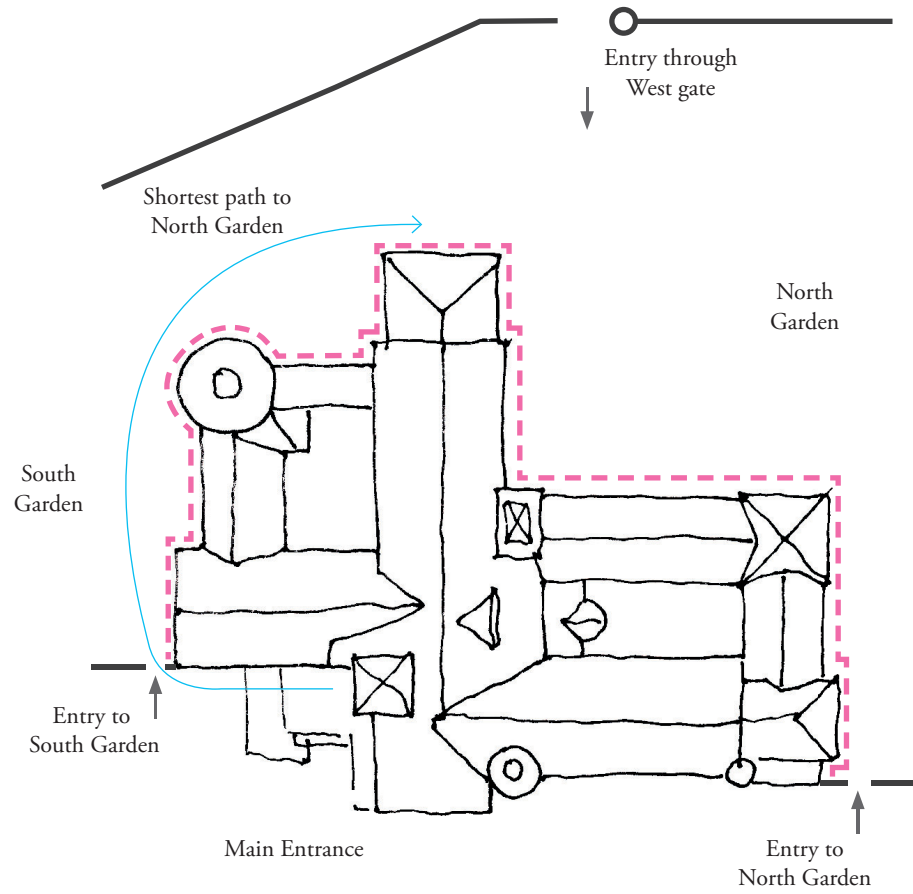
The main entrance to the National museum is situated to the South, from Mannerheimintie. A large staircase and tower symbolizes the importance of this entrance and pulls the visitor inside. The surrounding garden is accessed only through three openings in the heavy wall surrounding it. Visitors of the museum cannot from within the museum access the garden. They have to walk out through the main entrance and enter it through the opening in the wall. Even this way, the visitor will not access the main part of the garden, and has to walk around the backside of the museum to enter the large park to the north. In other words the museum is turning its back to this garden, which is problematic, because the garden is so clearly a big part of the museum as a whole. Entering it is not prohibited, rather encouraged, which brings us to the question of why it is so difficult to get there.

The answer lies in the staircase. The staircase is for employees only, connecting to workspaces and other supporting functions for the museum. The only part of the museum connecting it to the park is blocked for visitors.

Part I



Setting the scene



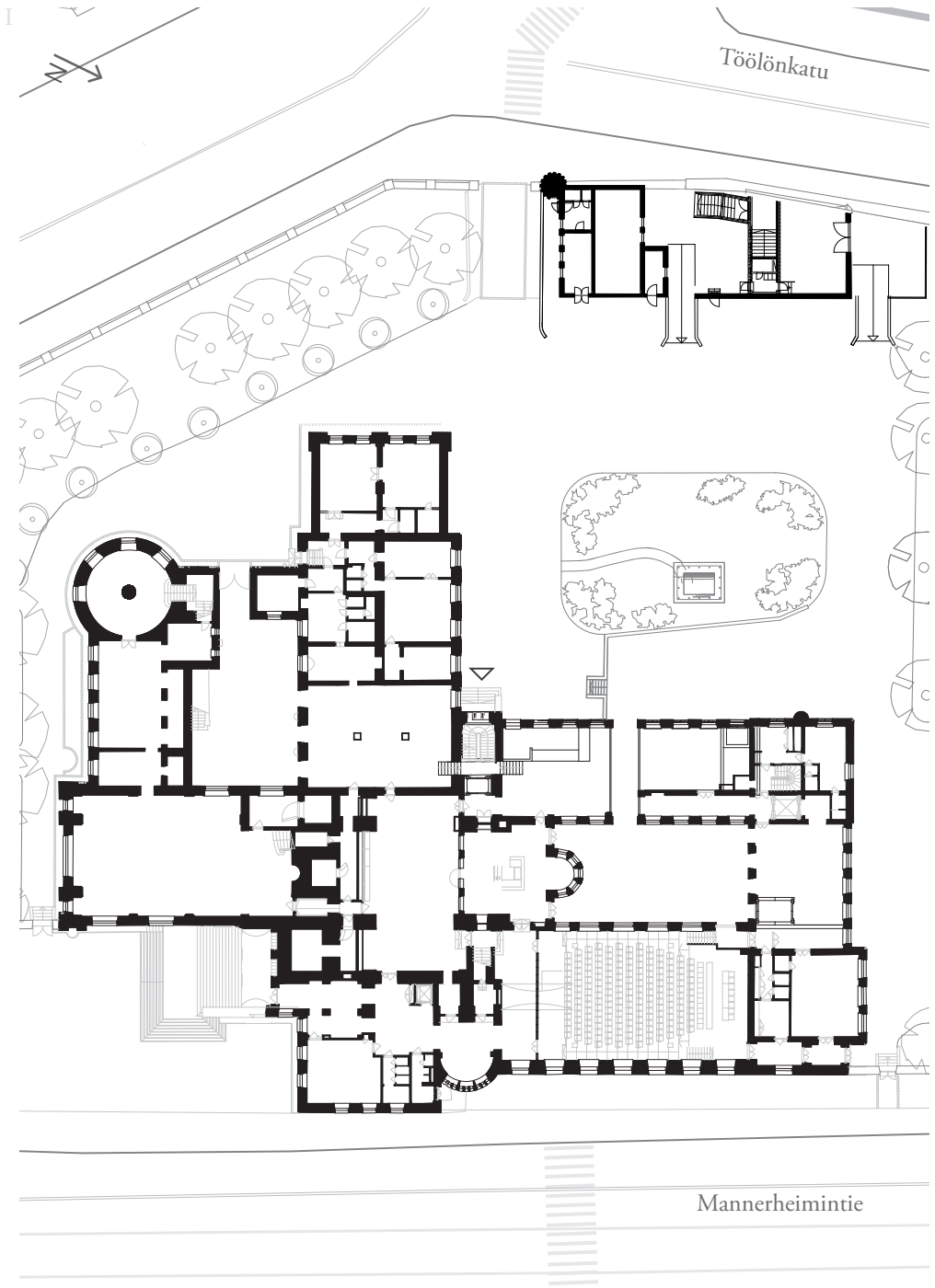
GROUND FLOOR

TWO COURTYARDS

The ground floor is beneath the entrance floor, the second floor. Here we find a mixture of spaces ranging from workspaces to a lecture hall, and some exhibition spaces. Two courtyards act as lightinlets for the windows facing them. These courtyards are used in the summertime for cultural activities and seating for a café. The courtyards are connected to the garden, however, visitors cannot access the garden through them because the ticket sales happen on the entrance floor. The second courtyard, Linnanpiha, is in addition to this, only accessible from the second floor of the museum by a staircase. This means that this courtyard is a dead-end for visitors and they have to turn around in order to continue the tour.

The ground floor of the museum can be divided into four main uses. Exhibition space, workspaces, conference spaces and a café. They are all situated in different corners of the plan, which is good, as they interfere with each other the least this way.

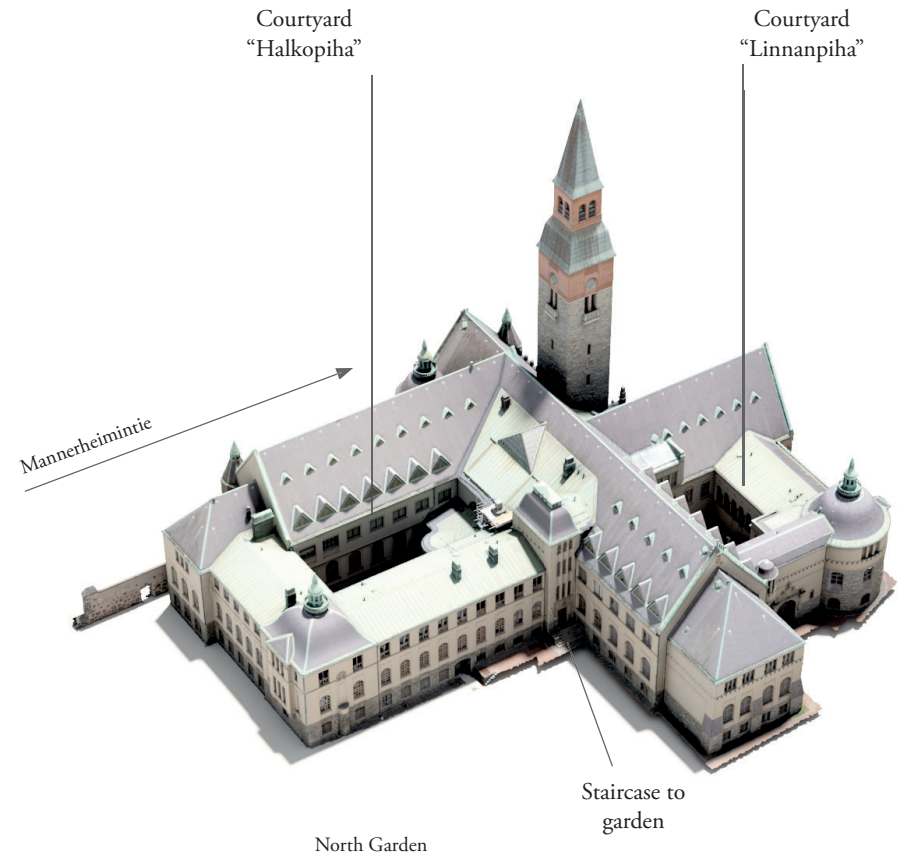
Part I



Setting the scene



- | | |
|---|--|
|  Exhibition rooms |  Conference rooms |
|  Office and administrative |  Café and kitchen |
|  Staircases |  Small elevator |



FLOOR 2

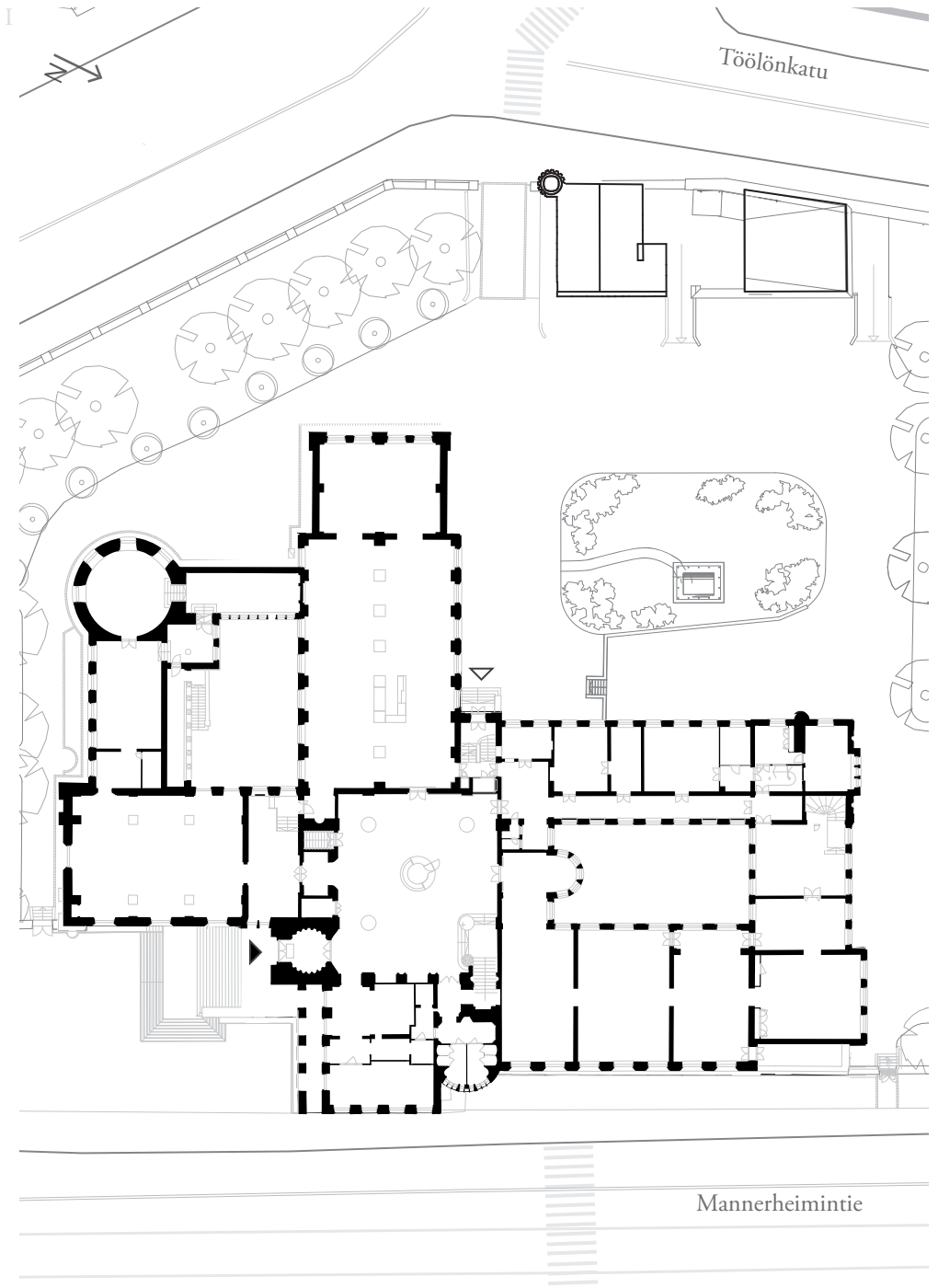
THE ENTRANCE HALL, A CONNECTOR

Floor two is the entrance floor. Upon entering through a smaller entrance, the visitor is pulled into a large and magnificent hall that is two floors tall covered in frescos, with a light inlet in the top of the ceiling. From here, after purchasing tickets and hanging off coats, you can access the museums different parts in accordance to the agglomeric principal. This entrance hall acts as a node, from which all exhibition spaces can be accessed. This entrance floor connects to the upper and lower floors by a staircase in the east, or a small elevator close by.

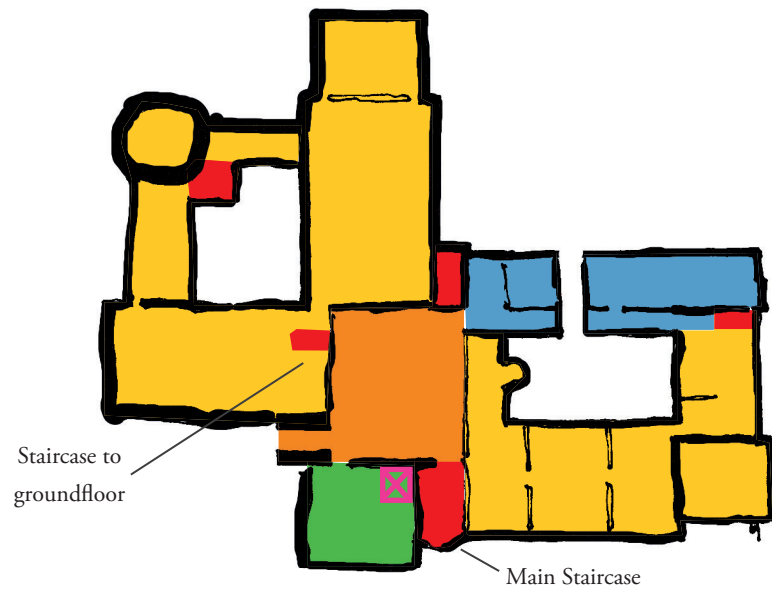
The flows on the second floor for visitors is good. There can be some confusion as to where to start, but the most logical way to start is by entering the church-like hall to the south and continuing the tour in a loop to once again enter the entrance hall, after which you can enter the exhibitions to the north. You can access the upper floors from north, or from the main entrance staircase.







The staircase to the garden however, the main connection to the park, is not open to visitors.

Part I

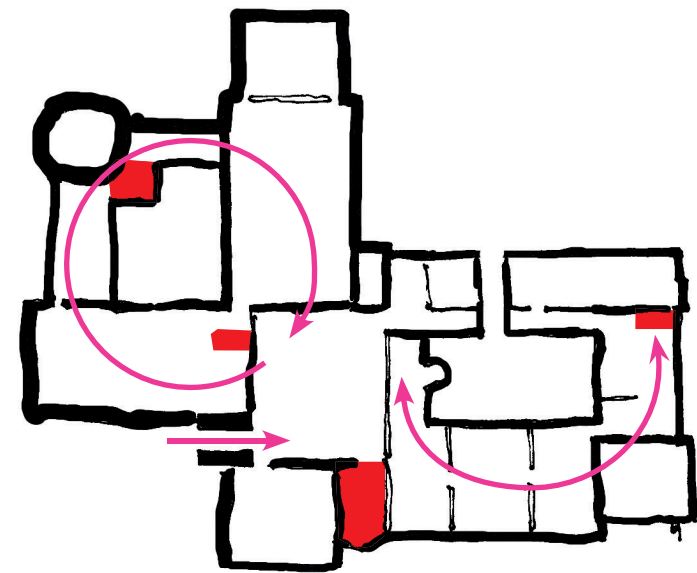


ROOM LAYOUT AND STAIRCASES



- | | |
|---|--|
|  Exhibition rooms |  Staircases |
|  Office and administrative |  Coatroom and toilets |
|  Entrance Hall |  Small elevator |

VISITOR MOVEMENT

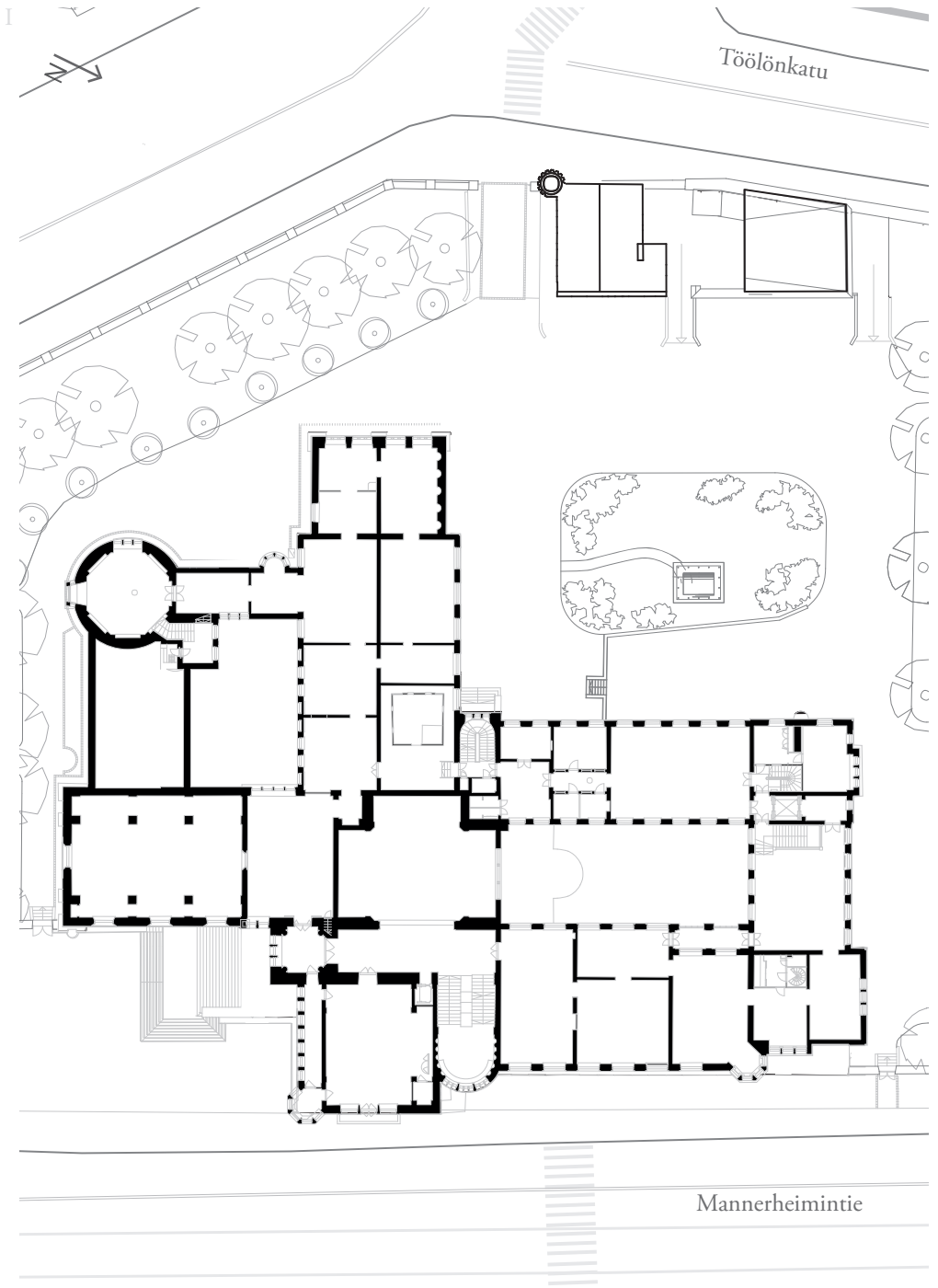


FLOOR 3

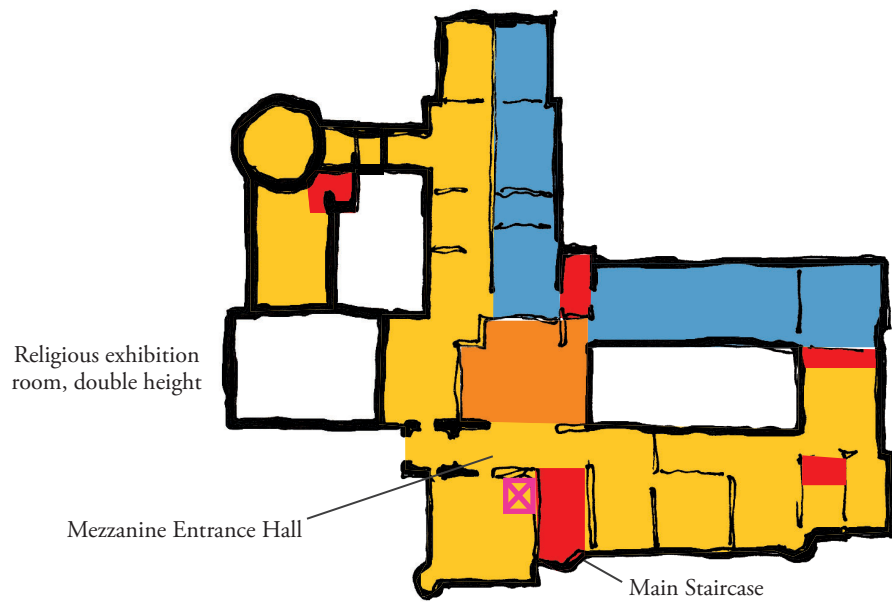
EXHIBITION SPACES

The majority of the third floor consists of exhibition spaces that can be accessed from the floor below by three staircases. The frescos in the main hall get closer to the visitor from the mezzanine that links the two parts of the museum together, forming a logical flow for visitors. Offices and administrative spaces are located to the west, accessed by the staircase that links the museum to the park.

Part I

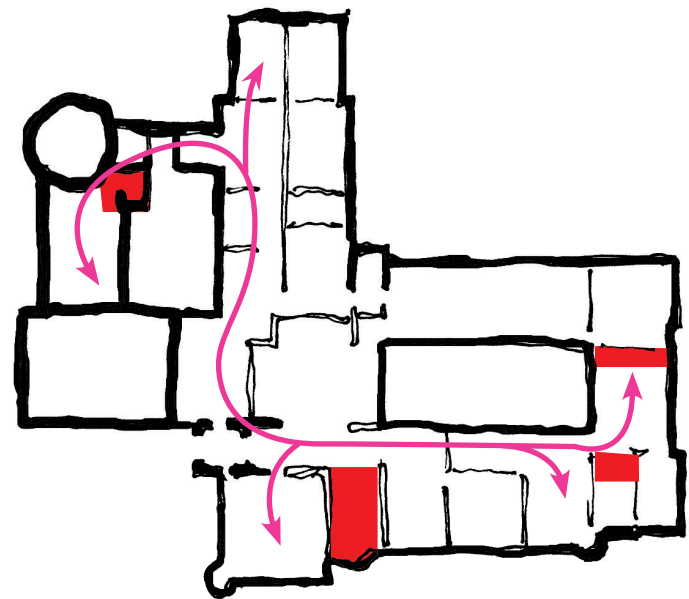


ROOM LAYOUT AND STAIRCASES



- Exhibition rooms
- Office and administrative
- Staircases
- Entrance Hall
- Small elevator

VISITOR MOVEMENT

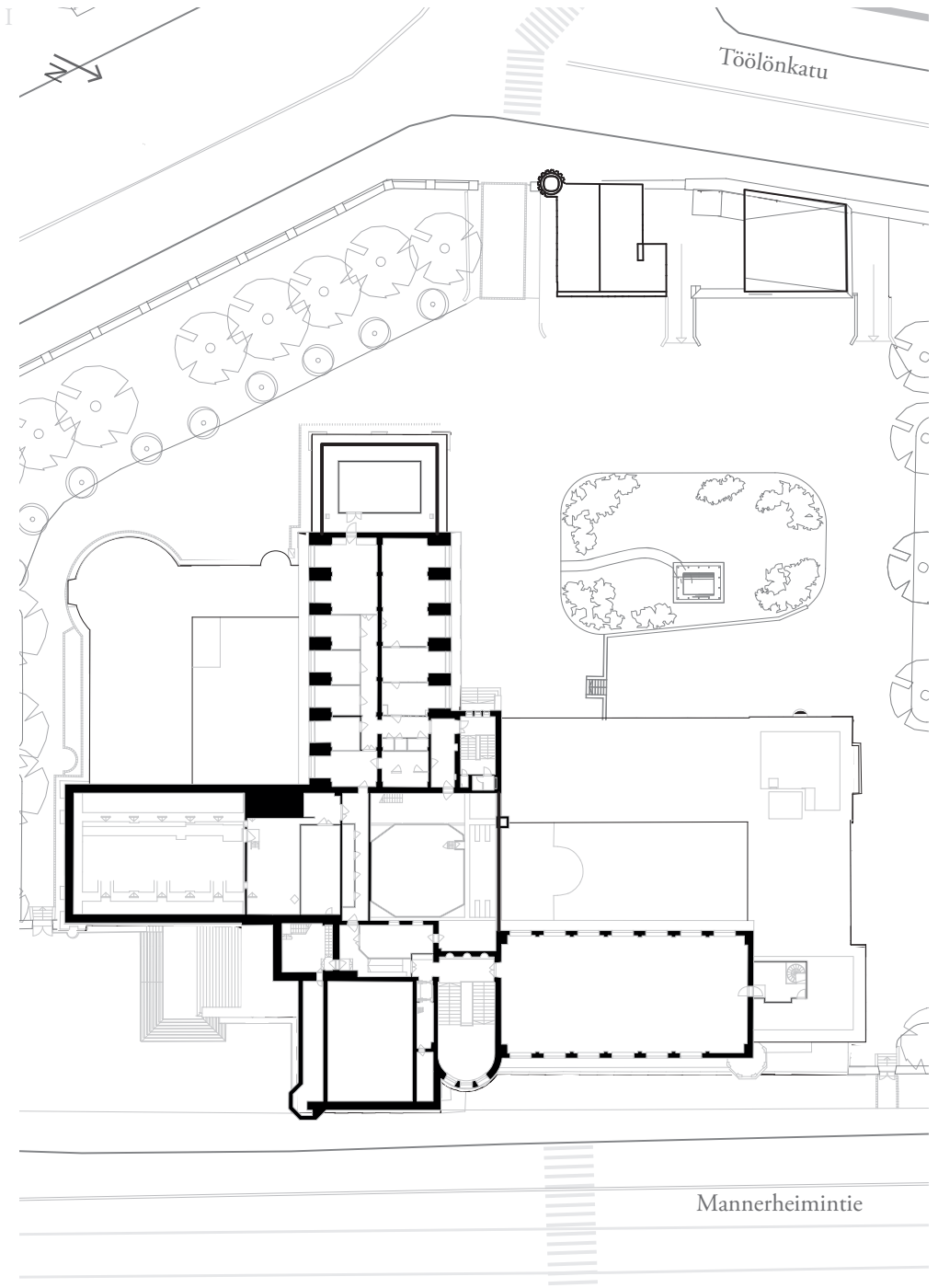


FLOOR 4

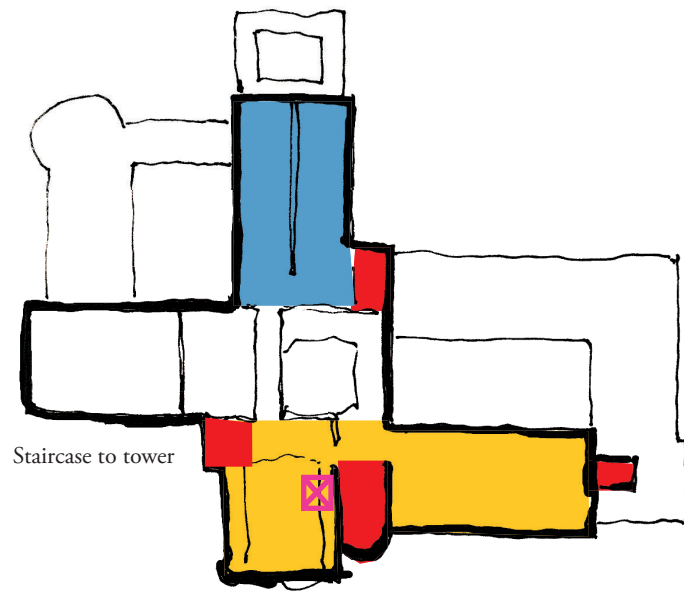
The fourth floor is limited in floor space. It consists of just one space open for visitors. This space is for children, where they can learn more about the Finnish history through games and other interactive learning possibilities. The space is located to the east in one big room. The rest of the space on this floor is limited to office spaces, which can be found to the west. Visitors access this floor by the stairs to the east or north, while employees use the staircase to the west, that links the lower floors to their office spaces.

In the center, we can see the roof for the light inlet in the entrance hall. To the south the church hall.

Part I

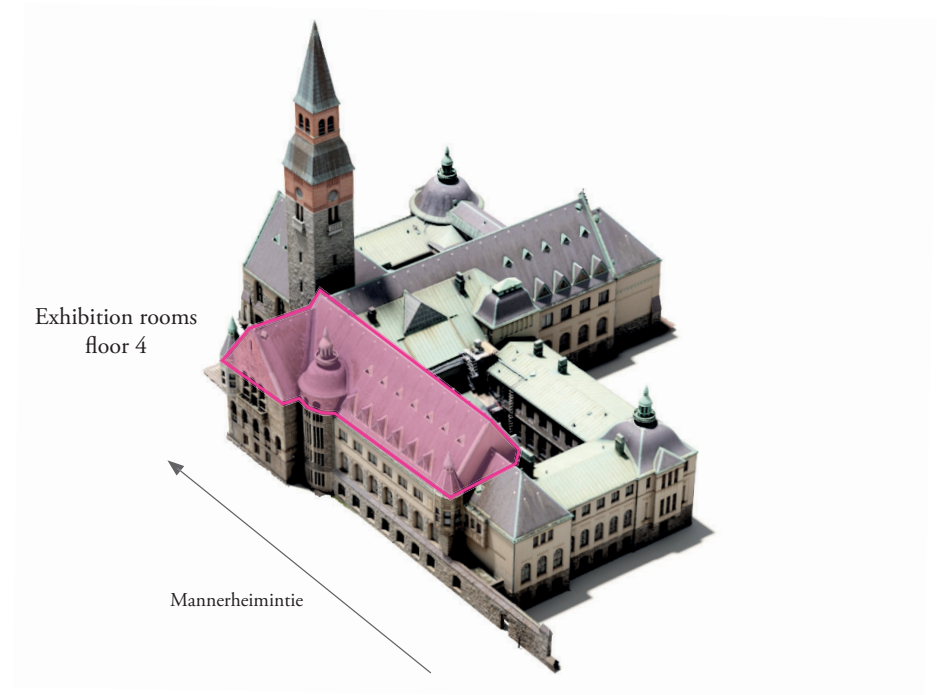


ROOM LAYOUT AND STAIRCASES



- Exhibition rooms
- Office and administrative
- Staircases
- Small elevator

FOURTH FLOOR FOR VISITORS

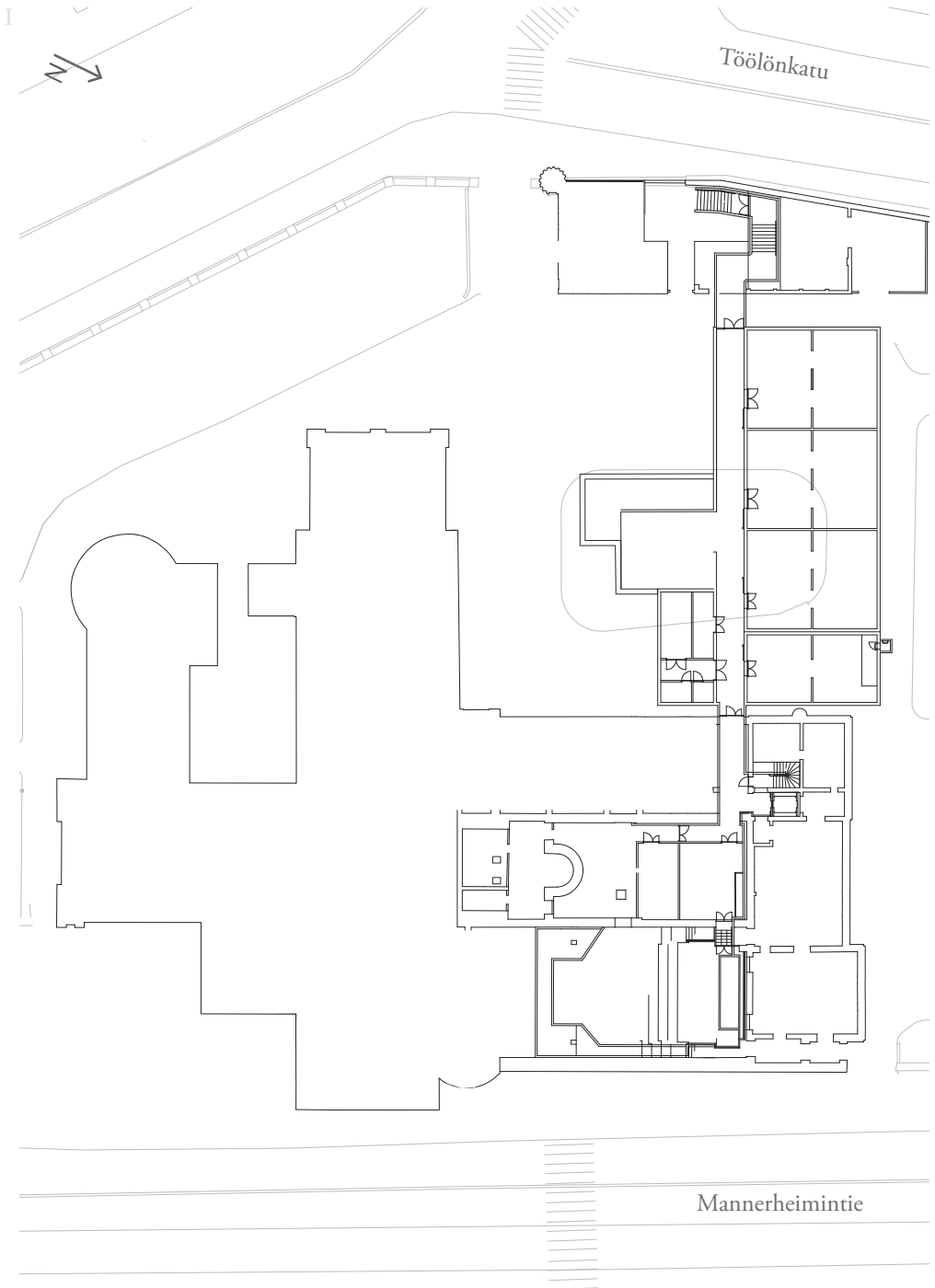


BASEMENT

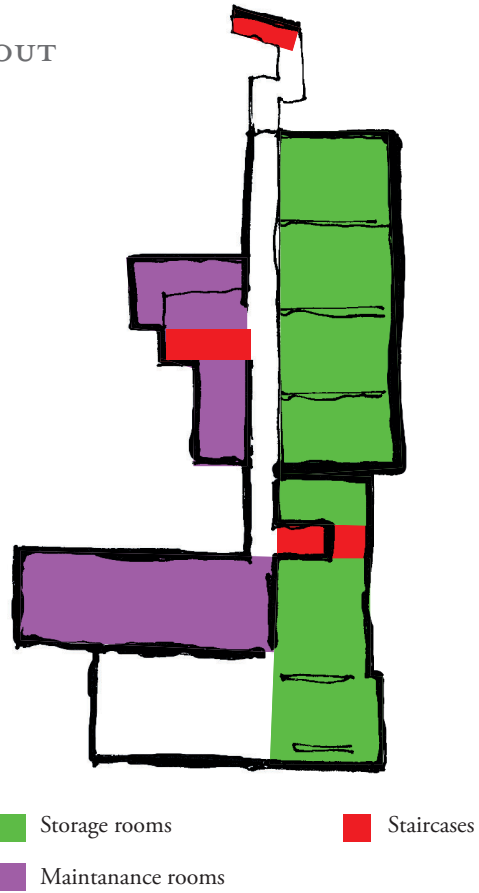
The National museum also has a basement. It was constructed throughout 1993 - 2000, and acts as storage facilities for art that is not exhibited. The basement links together “the Häkälä” building to the west with the national museum. It is this way that art gets transported into the museum. In addition to this, the basement links to the underground parking facilities through an elevator and staircase. The basement also houses maintenance rooms.

These underground storage and service facilities are the only extension that has been built during the museums history. While building this underground extension, the museum was renovated and the lower floor conference spaces were added.

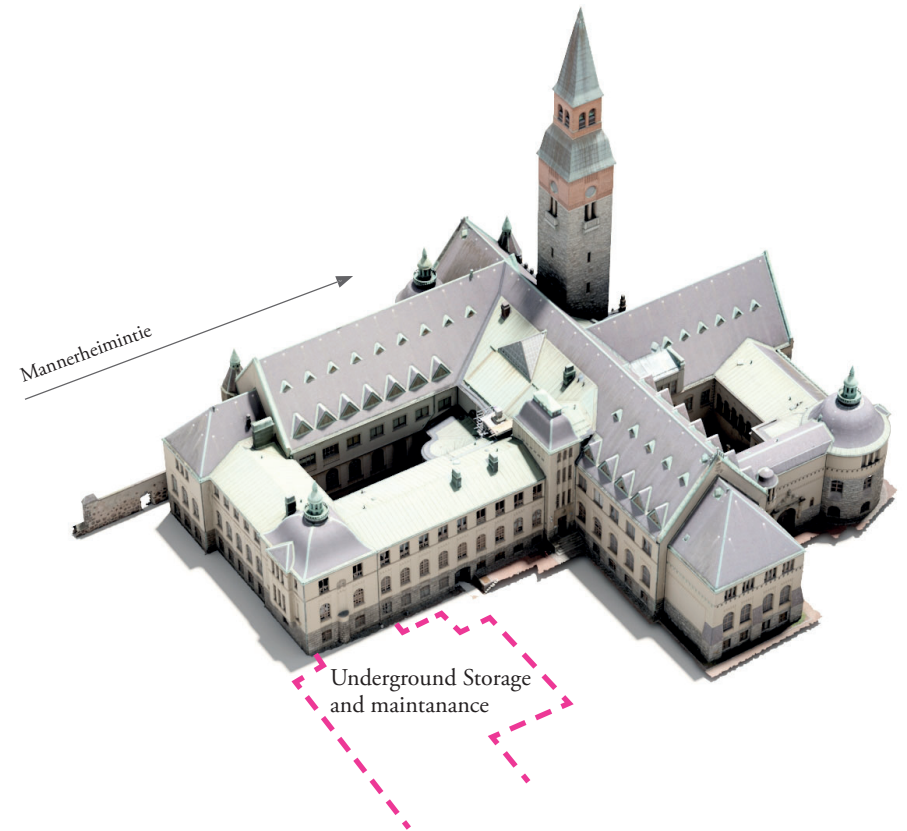
Part I



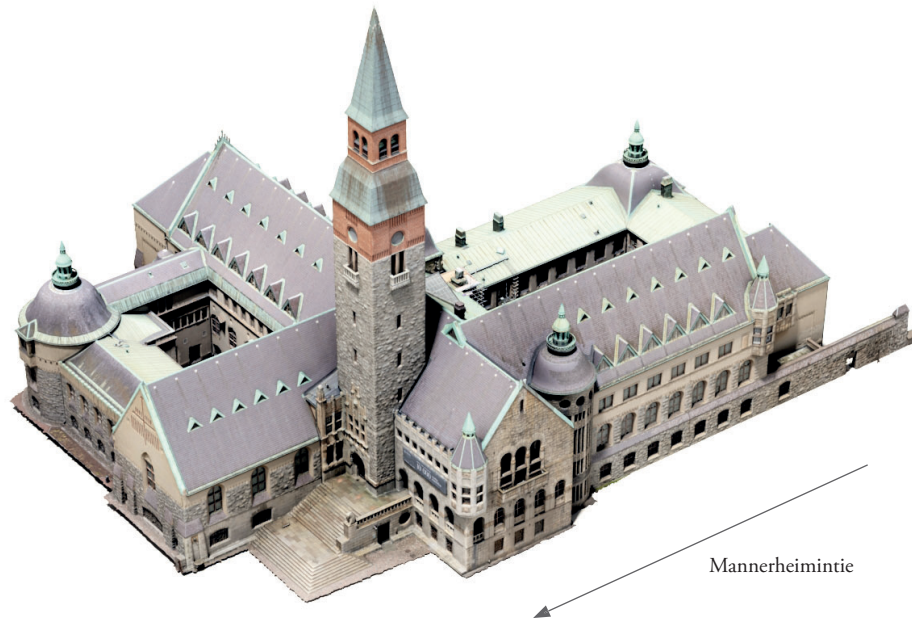
ROOM LAYOUT



UNDERGROUND IN RELATION TO MAIN BUILDING



THE NATIONAL MUSEUM



EAST

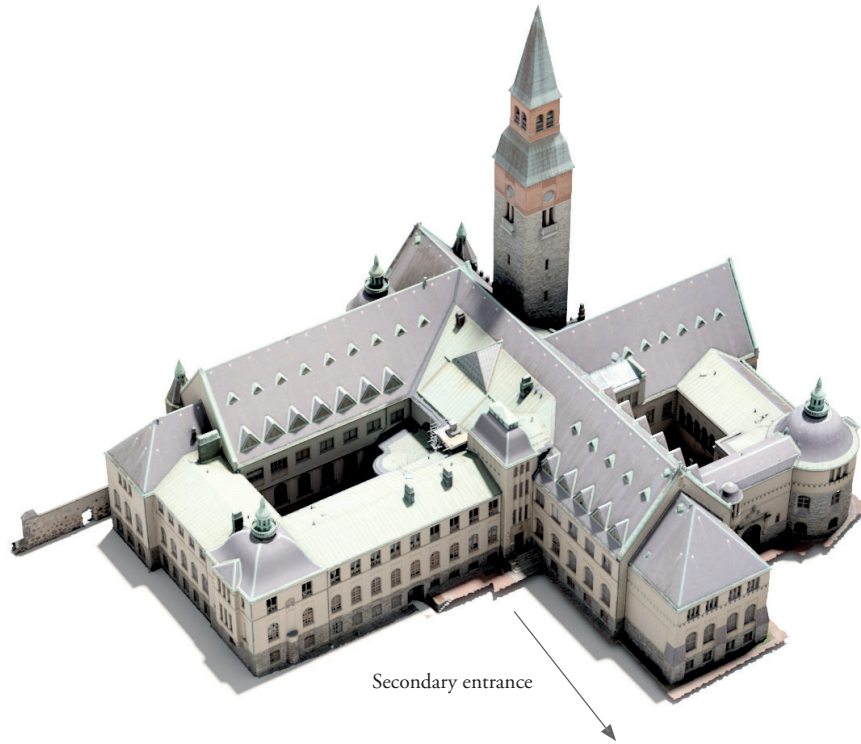
Main entrance from Mannerheimintie
a highly trafficked road leading into
the center of the city



NORTH

Directed towards the south garden,
elevated by about a meter above the
street level

Setting the scene



Secondary entrance

WEST

The west side is facing the secondary entrance, that leads to the park of the museum



Mannerheimintie

SOUTH

Facing the museum park and sharing the wall with it



Frescos by Akseli Gallen-Kallela in the entrance hall



From the park "Hesperianpuisto" across the road

Setting the scene

2019

1. Exterior from north-east
2. The south garden
3. Courtyard 1
4. Temporary seating courtyard 2



HÄKÄLÄ ENG. “SMOKER”



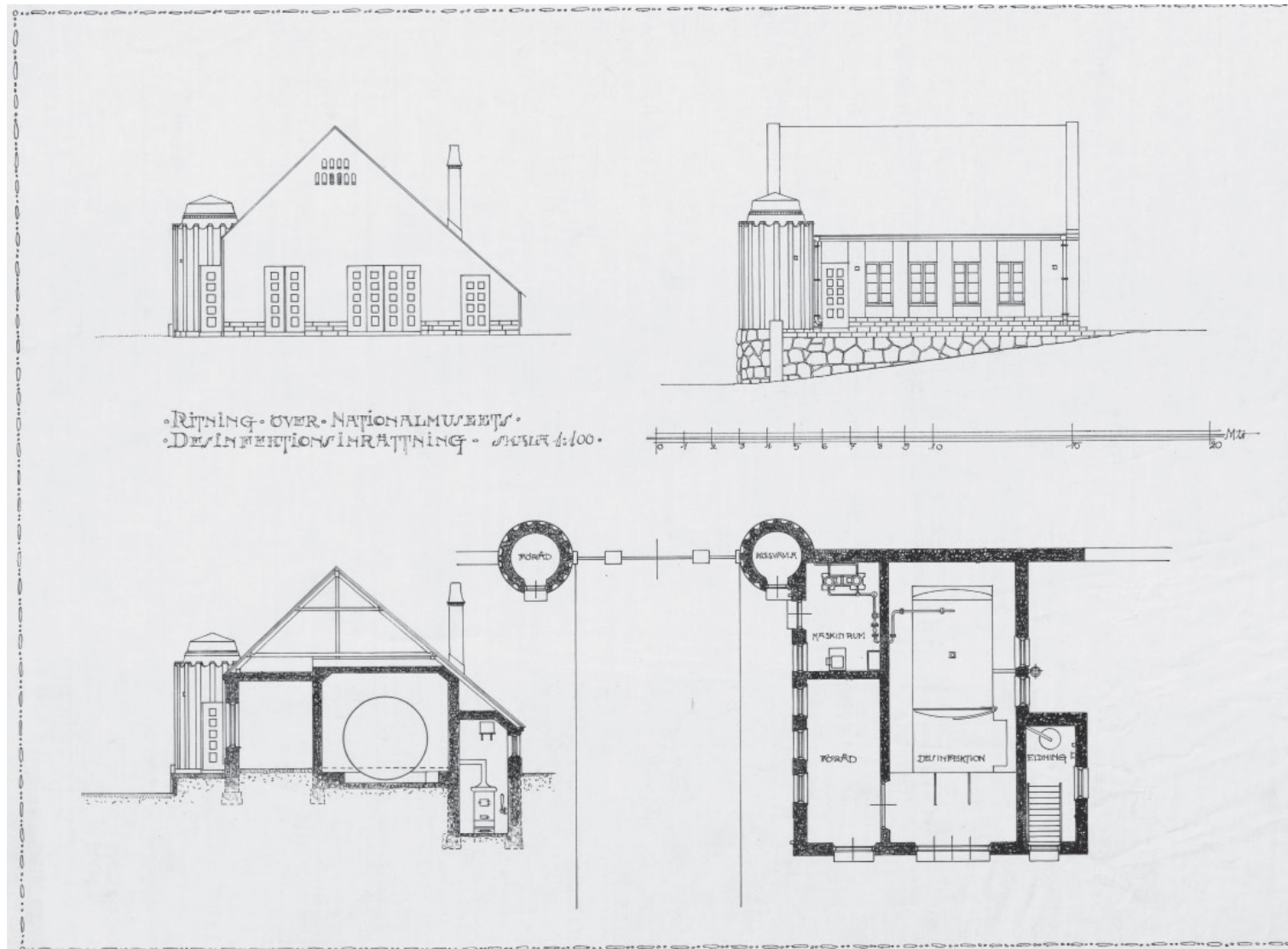
ENTRANCE

Häkälä, from the southern entrance.
Note how the building merges with
the surrounding wall



FROM THE PARK

The height differences in streetlevel
and groundlevel on museum ground
is quite notable here



Plans and facades, the second tower never got built

VAUNUVAJA ENG. “CART-SHED”



FROM THE PARK

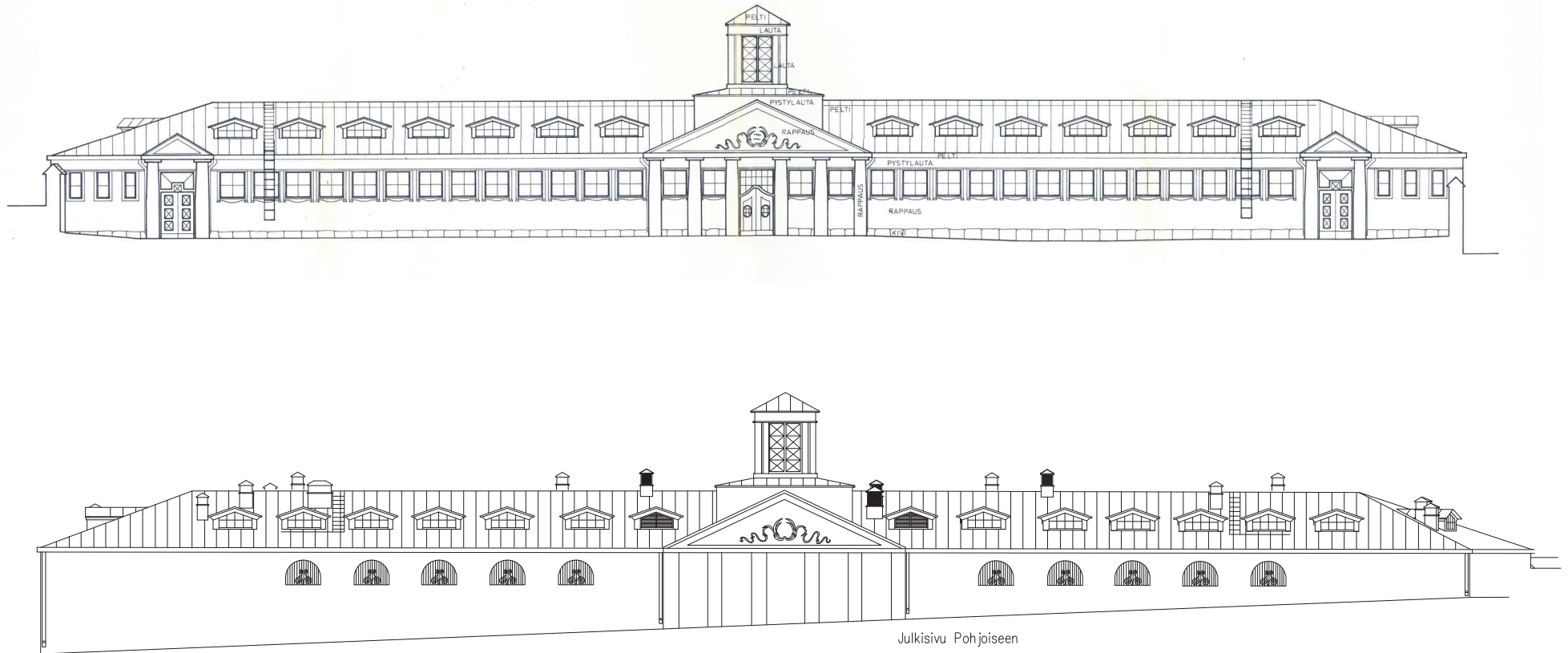
An interesting observation is that the architectural style mimics that of the original proposal for the National Museum



MERGING WITH WALL

The cart-shed, as all buildings on site merge with the surrounding wall.

Setting the scene



Facades, note the change in heights on street level again

CONCLUSION ABOUT THE MUSEUM TODAY

The National museum in Helsinki is an iconic and important building for Helsinki. It is a one of its kind building because it is such a good example of national romanticism in architecture. The building merges elements of classical Finnish architecture and mixes them with other typical Finnish elements, like the Finnish nature and the story of Kalevala, in an effort of trying to convey the story of Finland through architecture. The inside of the building tells that same story, with its architecture and exhibitions that revolve around the Finnish history and identity.

The space the National museum occupies in Helsinki forms a beautiful garden, in the middle of the city. Surrounded by the iconic heavy walls that merge with the buildings, creating an idyllic place, an enclosure where visitors can enjoy the grounds much like they were intended to be enjoyed when the museum was designed a century ago.

There is none like it. It is an important building to Helsinki as a city, and indeed Finland as part of our identity.

Many things work great on the inside still, such as the original idea of agglomeration that the architects Gesellius, Lindgren and Saarinen designed the building based upon. The idea behind it, to have a central node from which all of the museum could be accessed, still holds today. The internal flows on floors 2 - 4 are pleasant for the visitor experience. The museum is in great shape after the renovations and offer an exciting journey through Finnish history both through the interior design that reflects on Finnish identity, and of course, through the exhibitions that follow the same theme.

However as years have gone by the needs of the building have changed. Exhibition- and storagespace has grown short, needs for employees have grown and the people in charge of the museum want to expand and give visitors more to enjoy. There are many issues with the museum as of today that remain unresolved.

These include transportation between the floors for the disabled. A single, small elevator is meant to service all visitors. It is

understandable why this elevator is discreet. It is it because of the very fragile building it is constructed in and the obvious difficulty in making any changes to the museum.

Another big issue in my opinion is that the garden of the museum is not very well activated. The museum turns its back towards the garden and if visitors wish to explore it, they need to walk out through the main entrance and enter the garden from outside of the walls surrounding the museum. The closest entrance to the garden is located about 15 meters from the main entrance. Through this the visitor gets to one of the two parks, and if one wishes to go to the bigger of these, you have to circle the back side of the museum in an unnatural way. While the garden is pleasant to stay in, it offers little to the visitor and is poorly connected to the main building in general.

The courtyards are another problem. They are activated for visitors, but only in summertime. In summertime “Linnanpiha” serves an array of different cultural activities, such as plays or exhibitions. While “Halkopiha” works as seating area for a café located on the

bottom floor of the museum. In addition to only being accessible and activated during summertime, they do not open to the surrounding park. The only architectural element that opens towards the garden of the museum is the staircase building. But this works as an employee entrance and connects the parts of the museum together which are limited to employee use.

In conclusion I find that the museum works well for visitors and that the flows on the inside as of now work well. The museum has not made any changes to the general principle of visitor flow that the museum originally was planned after and offers a great experience for guests.

The museum is an important building for Helsinki, not just because of its significance to the city as an architectural element, and a green garden, but because of its culturally significant status. This iconic building is a one of its kind example of the national romanticism in architecture and an important part of the Finnish cultural heritage.

THE BRIEF

An introduction to the brief for the architecture competition and discussion about the goals and challenges of it



Entrance Hall

AN OPEN ARCHITECTURE COMPETITION

The Finnish Heritage Agency, the National museum of Finland and the Senate Properties arranged an open architecture competition for the extension of the National Museum in January 2019.

I will present and discuss the brief of the competition. The brief for this competition is what laid the frames for my thesis as I have tried make my proposal in accordance to it.

What are the problems they have defined with the museum today and what are the objectives of the competition? Are the objectives set correctly as to find a sollution that makes for a better museum and do they take into consideration the nature of the fragile site in a serious enough way?

The organisers state the nature and purpose of the competition for the new extension as follows:

“The Annex will facilitate the hosting of extensive and demanding international exhibitions..” and “..will be adaptable to a variety of cultural, arts and leisure events, conferences and other functions.

The Annex will also house the National Museum’s main restaurant, including an outdoor terrace”. The brief continues, “The current museum building, the Annex and the courtyard park that is available for civic and corporate events around the year, will form a unique complex. The core of this concept is a multicultural perspective on Finnish society, its cultural heritage and its evolution. The “New National” is to be a functional and architectural reinterpretation of the concept of “National” (Meaning the reinterpretation of the current museum concept).”. Furthermore they want the new addition to “..enter into a dialogue with the National Romantic design features of the historic main building to create a compelling, ambitious and attractive architectural complex.”

The purpose of the competition is stated clearly in the brief and their vision for the new extension is well explained. The organizers want the addition to be able to facilitate a wide array of functions that will improve the museum experience for guests and visitors. In addition to this, they state perhaps most importantly that the new annex

should enter into a dialogue with the main building, I interpret this as that the organizers want to find an addition to the site, that is a natural continuation of the old museum building. An extension that respects the old, while adding new qualities to the site, which I think is a good starting point. However good intentions the purpose and nature section of this competition has, I think it is right to question the vagueness of it. It is of course completely subjective if many of these criteria are indeed fulfilled in the winning entry. For example, “a unique complex” can be interpreted as many a different thing, as can “attractive architecture”. If these properties are indeed subjective it is up to the jury to decide if the properties of the entries are deemed “attractive” or “unique”. So, the competition actually asks for a “unique complex” and “attractive architecture” from the personal viewpoint of each member of the jury. A counter for this is to add jury members in order to shift these personal views towards a median, which better reflects a wider array of people. The jury in this competition consists of 11 people, of which 5 are architects. Who is to say how many people are enough? And is the fact that under

half of the jury consists of architects, that are indeed supposed to be experts of this field, a further issue? It is difficult to say, and in reality we cannot let everybody have a say in what is beautiful and what is not. Maybe it is better to have a select few make the decisions for us, as long as these few rotate and are changed throughout competitions.

The operating concept is the part in the brief where the current problems and issues are presented. Why is a new extension needed? The brief states the following:

“The current museum building has limited potential for facilitating the increasingly diverse operations required by the duties of the National Museum. Modern museum activities incorporate flexibility and variety in organising events, and this cannot be achieved in the current premises of the National Museum”. The brief goes on to state limitations imposed on the museum in terms of “physical obstacles” and trouble introducing new technology and structures to the main building, because of conservation. The brief continues “Moreover, the museum building does not have spaces to accommodate a large

number of visitors at once” and “The Annex is also hoped to enable completely new operating models..”. The plan for the new extension is according to the brief to not only feature The National Museums own productions, but to be able to show other international events and shows. “[The extension] ..can be used as an independent unit separate from the other functions and timetables of the main museum building”. In addition to this the brief asks for a restaurant that “will be a central feature of the new premises” and the garden to offer a “unique setting as a venue available throughout the year for both spontaneous and organised activities”. They want to build a new annex because, according to the brief, the main building will better be able to be fully dedicated to permanent exhibitions, while the extension is meant to serve new and demanding exhibitions that require modern architectural elements and design features. “The unique character of the current museum building will be highlighted in contrast with the new Annex”, the brief states at the end.

I agree with the fact that the National Museum is better off with

concentrating fully on permanent exhibitions and making the main building as close to the original design as possible. This is done without forcing change upon an old building that is meant for exhibition of a specific sort of exhibition. In my opinion it is good that the intention with the competition is to conserve the old and instead focus on the new. However, as it is such a fragile site, and such a difficult environment to work with, I begin to question if this even is the site for this kind of museum? If the intention is to build a museum that needs new architecture, why force it upon this site? The question becomes even more apparent after the brief states that they want to preserve the old museum and make it more like it was before. The National Museum of Finland, which controls the National Museum of Helsinki, has multiple museums in their possession on many different sites in Finland. If they want a museum that can sustain these new “demanding and international” exhibitions, why not build the entire thing somewhere that is not as culturally significant as this place? If it really is so difficult and worth preserving, which it is, then how come they insist on building

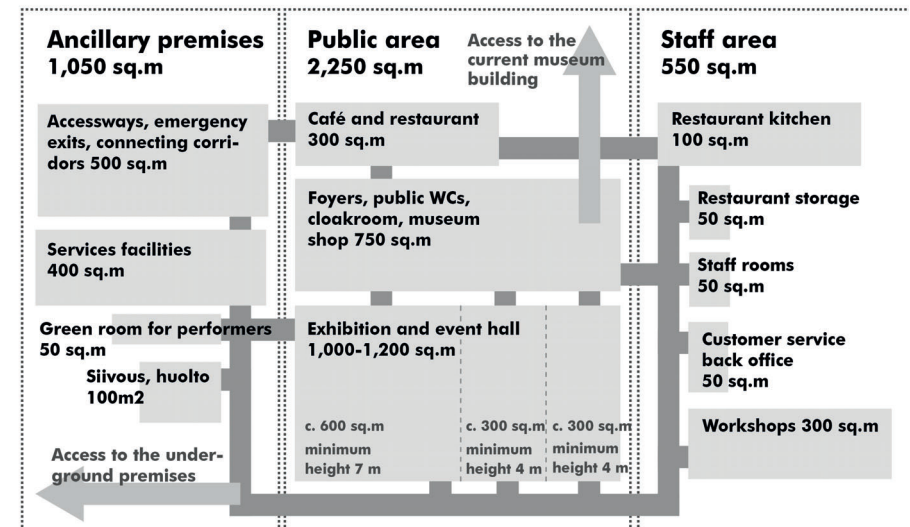
here? An answer I can think of is that they want to create a place that combines the old Finnish identity with the modern one, and to pull people in by offering this new and modern museum experience to be able to tell the story of the Finns to more people. It is an important story to be told, and maybe this is the right way of spreading that story. The brief does state very firmly that “The history, values and protection objectives of the site shall be taken into account in all design work on the National Museum Annex”. Is it too much to ask? Plan a large new structure on a culturally significant site that is extremely fragile, it needs to house a multitude of new architectural elements and be a modern beautiful building, just do not disturb the qualities on the site. It sure is a difficult task.

What functions then is it that the brief precisely wants the Annex to support? Are the functions added going to change the museum, and the experience of the visitor for the better? Are there any functions that are superfluous? The functions for the new annex as stated in the brief are:

Public area	2250m2
Entrance foyer and customer service premises	300m2
Exhibition and event hall	1000-1200m2
Exhibition and event hall foyer	200m2
Museum shop	50m2
Restaurant and café premises	300m2
Cloackroom and lockers	100m2
Public wc's	100m2
Staff area	550m2
Restaurant kitchen	100m2
Restaurant storage and ancillary space	50m2
Customer service area	50m2
Carpentry workshop	200m2
Exhibition workshop	80m2
Metal workshop	20m2
Staff rooms	50m2

<u>Ancillary premises</u>	1050m²
Green room and dressing room for performers	50m ²
Accessways, emergency exits, connections	500m ²
Service facilities	400m ²
Building services room, cleaning and waste management	100m ²

I do not feel like there are any superfluous functions. But I do feel strange about the brief so clearly stating the sizes of them. There has to be creative freedom to be able to make good architecture, and imposing too strict guides I feel, severely limits the creative freedom of the architects. That said, I understand that you can deviate from these directions as the brief also states. But it still will require more effort to deviate from them than to abide by them, as they force you to explicitly explain why you deviated from the guidelines. It is in the end however understandable that these restrictions are set, as the museum has their own vision of what the annex will encompass. To the right, a diagram of the programme and relations between spaces.



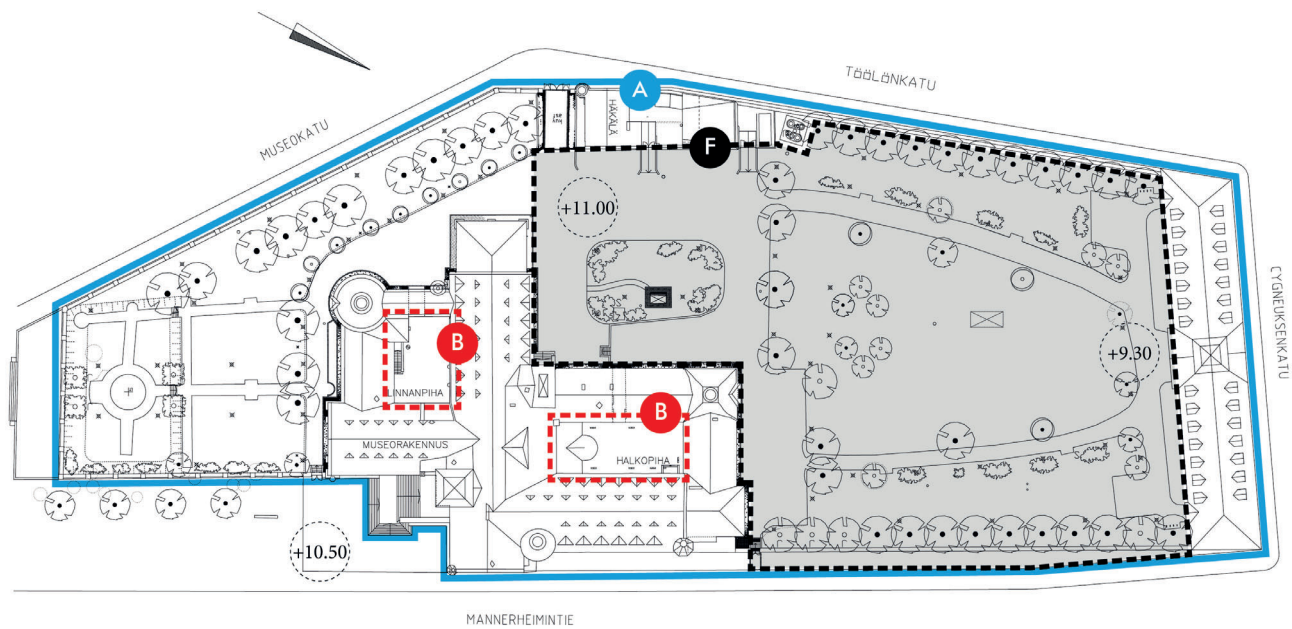
Competition area

- structures above ground
- courtyards (light wells) proposed to be roofed over

A Changes may be made in outdoor areas

B Courtyards (light wells), for which usage and possibly a roofing design must be specified

F Area in which above-ground portions of the Annex may be located



The brief also gives clear guidelines as to where to plan the extension on site. The area is only partially restricted, limits being imposed in the brief to respect the main building. Furthermore limits are given by stating how low beneath the ground the extension can be built, and at what parts of the site. The brief also states that the majority of the new building is supposed to be drawn underground in the garden. The 2012 expansion far below the museum grounds connected to a large parking facility has a reserved space for an elevator that is meant to transport art and material with it from below to the top.

In conclusion, I find the brief states relatively clear guidelines for what is wanted from the new extension and what the end product should be like. However, the brief made me question if a new annex really is the best alternative for this site. A lot of the brief explains how valuable and significant the building is, and that they want to preserve it, even alter the exhibitions as to better reflect the past of the National Museum. They want to do this by building a new extension that is supposed to activate the park, and have said building house

a range of different functions to better the visitor experience. Some of this will happen above ground, some below. But it does raise the question about whether or not an extension is the right way of going about to restore the National Museum to its former state. The only argument I can think of as to why this extension has to happen is that the National Museum wants to be able to attract more guests and be able to tell the story of the Finns from today as well as that story which begins in the stoneage.

I do not know if this is the real reason behind the competition, but it is the only answer I can think of as to why this extension could not be a separate museum on a more practical site.

Cross-section

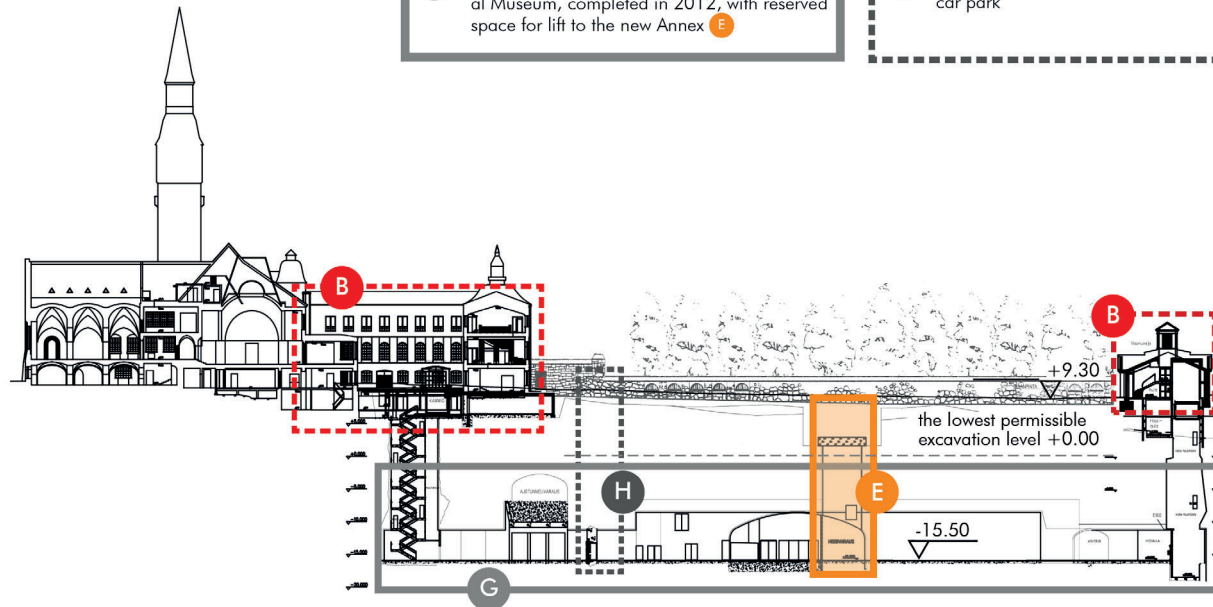
- underground premises
- lift access

B Functional changes may be made to existing premises

E Existing reserved space for lift to the loading bay

G Existing underground premises of the National Museum, completed in 2012, with reserved space for lift to the new Annex **E**

H Proposed new lift access to the underground car park



THE PROPOSAL

My proposal for the expansion. Explored through
a collection of abstract ideas later concretized into
architecture.



IDEAS IN RELATION TO THE BRIEF

This chapter describes a collection of ideas that try to solve the issues identified with the National Museum. The ideas are restricted to the limits that the brief imposes on contestants in the open architecture competition and tries to solve the additional wishes that the competition jury wants to be fulfilled.

The problems identified with the National Museum today are the following:

- The museum as of today, turns its back against the surrounding garden. The main building lacks a proper connection to said garden, that would allow visitors to visit it and enjoy it. Accessing the garden today, happens from outside of the surrounding walls even if visitors have bought tickets and are inside of the main building.
- The courtyards are not active during the winter and lack a connection to the garden. This limitation is imposed on them because of the difficulty in controlling flows of people with and without tickets.

- A lack of space in general that has resulted transforming parts of the museum into spaces that were not intended for the uses that they have been transformed into. Specifically the lower floor café, is not particularly well placed, as it is on a hard to reach spot on the ground floor.

- The connection between floors for disabled people is as of today restricted to a single small elevator positioned awkwardly in the museum floor plan.

The brief imposes restrictions on answering these questions and wants to add features to the museum and its surroundings that the jury has deemed to better the museum experience. The restrictions and additive wishes are the following:

- The jury wishes to find an option into better activating the garden of the museum for visitors and for events that are either spontaneous or organized.

- The National Museum wishes to be able to host demanding international exhibitions in larger spaces and with less restricting elements than that which is currently available.
- They want to activate the two courtyards of the main building to be able to function in the winter as well as in the summer.
- They ask for a new restaurant complex, that can serve both museum and act as an independent actor when the museum is closed.

And maybe most importantly they want to separate the main building and the new extension, in order to bring the old museum back to displaying permanent exhibitions, while the new annex will house rotating and constantly varying exhibitions. They want these two elements however, to be linked together. They want the new annex to, as the brief stated “enter into a dialogue” with the main building, to form a compelling and attractive architectural complex. They are looking for more flexibility and to meet the demands of

the “increasingly diverse expectations” of what a museum can offer. They claim that the old museum simply cannot meet these demands.

The ideas I have for how to solve the issues with the current museum, and how to incorporate the wishes that the brief states are what the next chapter is about. These two categories of changes to be made do align with each other occasionally, but differ from each other as well. For example I am not certain that this is even the correct site for such a large museum complex, simply because of the difficulty in trying to design an extension that can respect the site fully, while adding such a large amount of features to it. While designing I will try to make something as discreet as possible, that respects the old and adapts to the site as much as possible. But also something that satisfies the jury's wishes for a compelling and attractive architectural complex that does enter into a dialogue with the current museum and park. Both what is needed to better the museum as it stands today and what the brief asks for needs to be fulfilled.

IDEAS – INTERIOR, EXTERIOR AND FORM

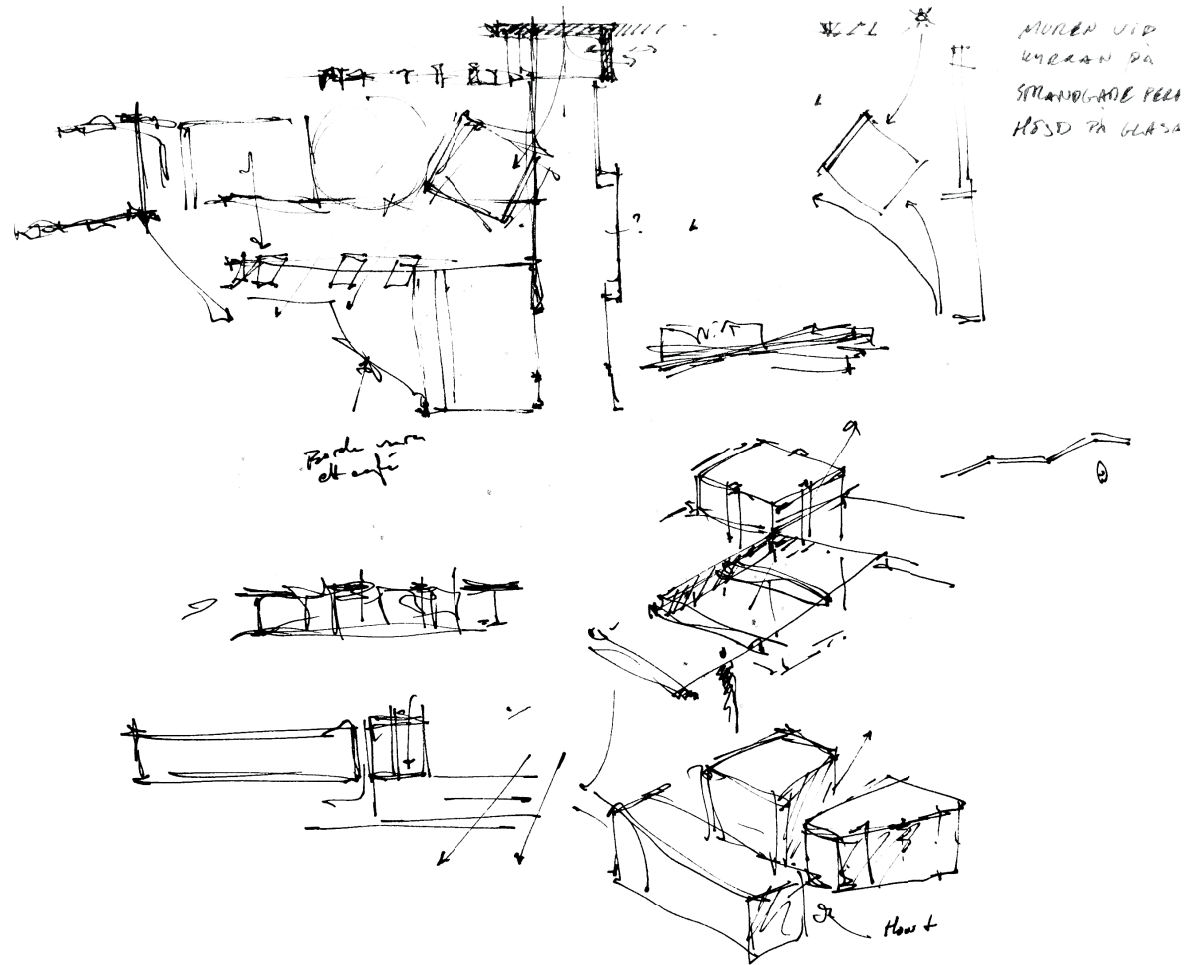
The abstract ideas that are presented in this chapter are what lay as foundation for the proposal. I have chosen to divide my ideas into three categories.

Interior, which are ideas on how to solve problems inside the current National Museum building, followed by exterior, ideas that encompass those that concern the elements of the expansion. And lastly ideas concerning the actual design of the extension.

These ideas are what defines the core of the proposal. They are what the final proposal for my suggested expansion are built upon. They are the final product of the extensive research on the museum and my vision of how to better the museum while taking into account what the brief is asking for in ways that I deem to make for a better museum for its visitors.

These ideas combine additive elements with enhancements made to the architecture present today.

These ideas try to take the brief into account, while trying to solve the issues that I have identified with the main building. The ideas act as steps towards a final product where a transition between the old museum main building and the new extension is as seamless as possible and does not try to take up to much of the spotlight. I want the new annex to work together with the old museum and become a functional piece of architecture that combines the old part to the new in a sensible way.



Sketches from notebook

INTERIOR IDEAS

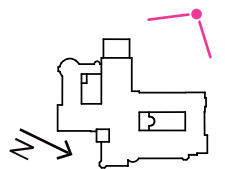
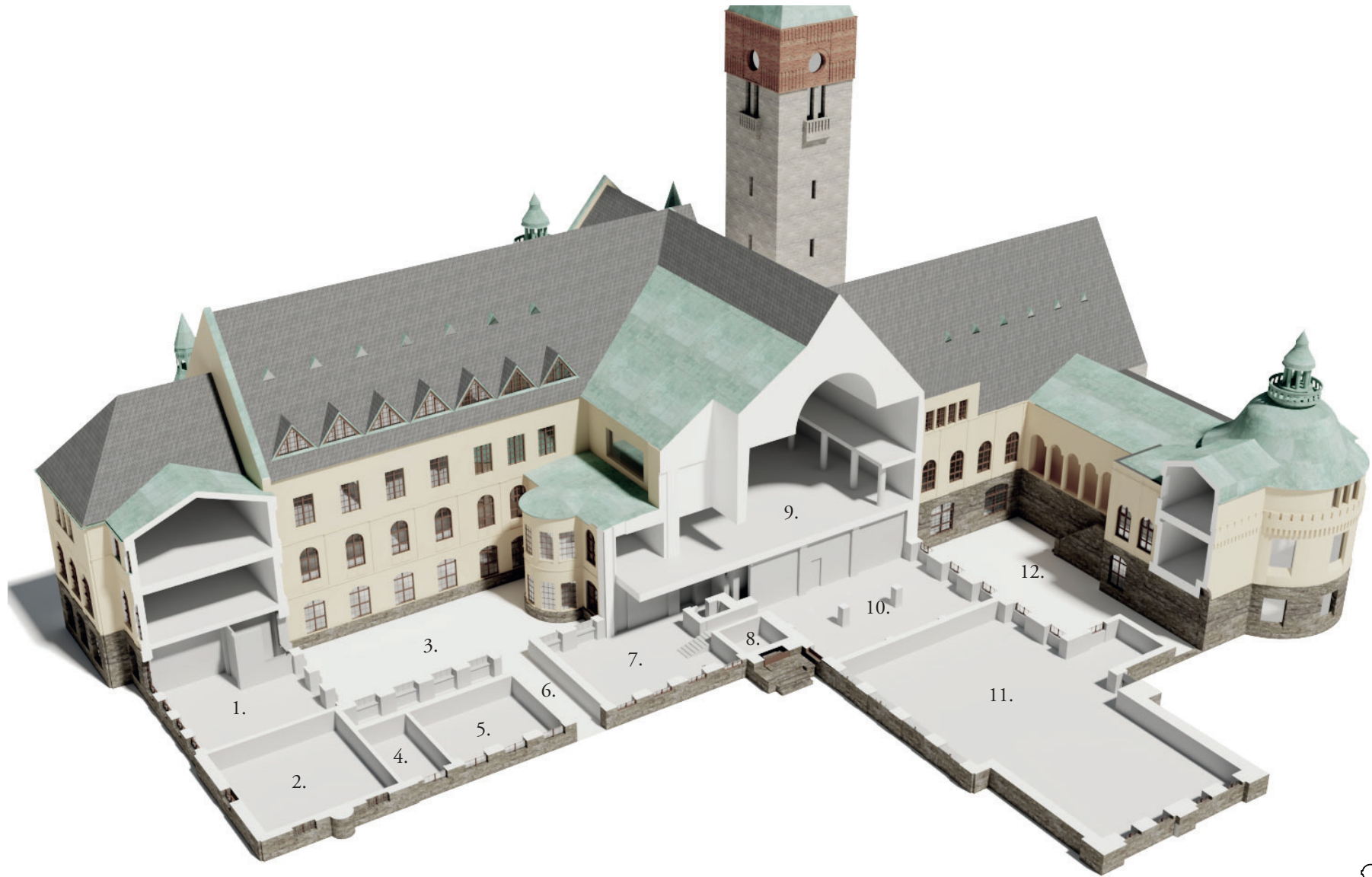
We'll go through the "interior ideas" first, i.e. the ideas concerning modifications inside the walls of the National Museum. We will explore these ideas through sketches that explain the general problem being addressed and how I intend to solve them, these sketches are later going to be concretized into a proposal.

The cut you see to the right is a cut through the ground floor of the museum where the majority of changes are going to be made. I've also chosen to include a section of the upper floors, in an effort to visualize the positive consequences my actions on the ground floor will have on them through the changes proposed.

The room layout to the right shows that the ground floor as it is today is quite hard to work with. The ground floor is as of today not linked to the surrounding garden and the courtyards are not active during winter time. The main use for the ground floor today is office spaces and other administrative purposes.

ROOMS

1. Office
2. Office
3. Courtyard I
4. Misc. Space
5. Office
6. Exterior Hall
7. Kitchen
8. Staircase
9. Entrance/Main Hall, floor 2
10. Library
11. Offices
12. Courtyard II



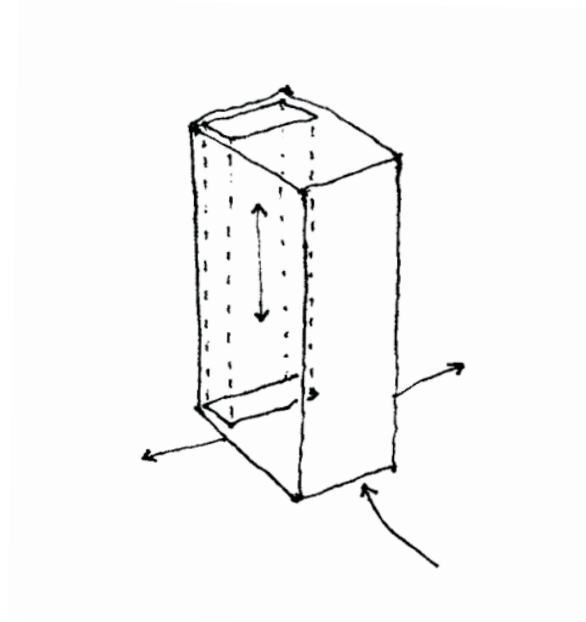
INTERIOR IDEA 1

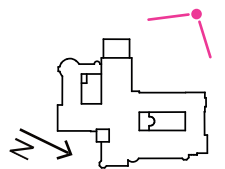
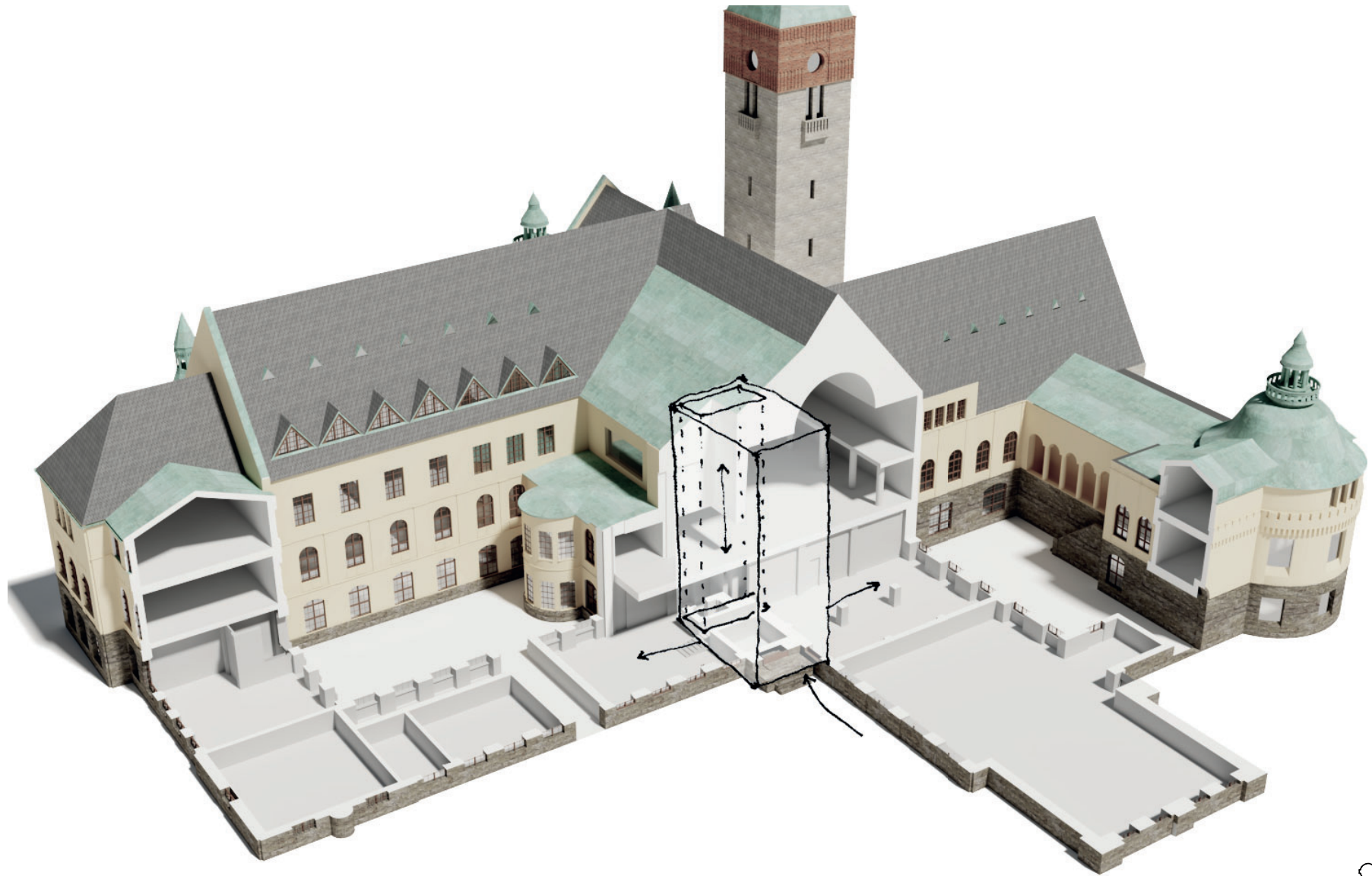
ELEVATOR AND STAIRCASE – A CONNECTOR

The first idea is to better the flows of the interior and connect them to the garden. There is a staircase connecting the floors to one another today. This element is clearly visible from the outside as well. The problem with the current setup though, is that it only serves staff and so does not connect the interior of the museum to the garden for visitors.

In an effort to activate the backside, or garden, of the museum we need to figure out a way to access the museum from this side as well. Turning this staircase into a merge between visitors and staff, is good as it improves the connectivity of the staircase in regards to the rest of the building. The stairs will still connect to the working spaces, but will in addition connect the floors and open up the museums back side to the surrounding park.

By adding an elevator into the back-side of the staircase it can now also be used by handicapped people to access each floor, something that the brief wanted for the interior. The elevator will be added to a space previously used for cleaningclosets.





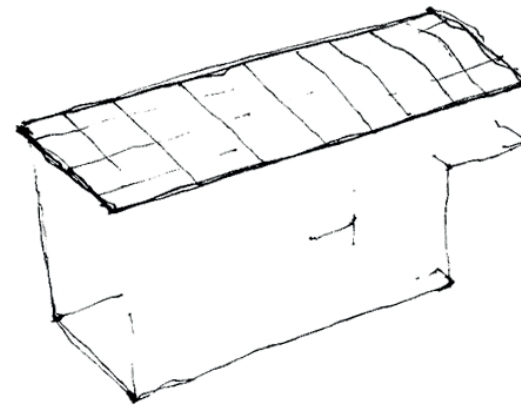
INTERIOR IDEA 2

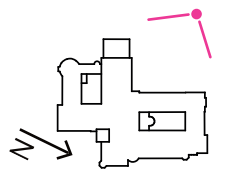
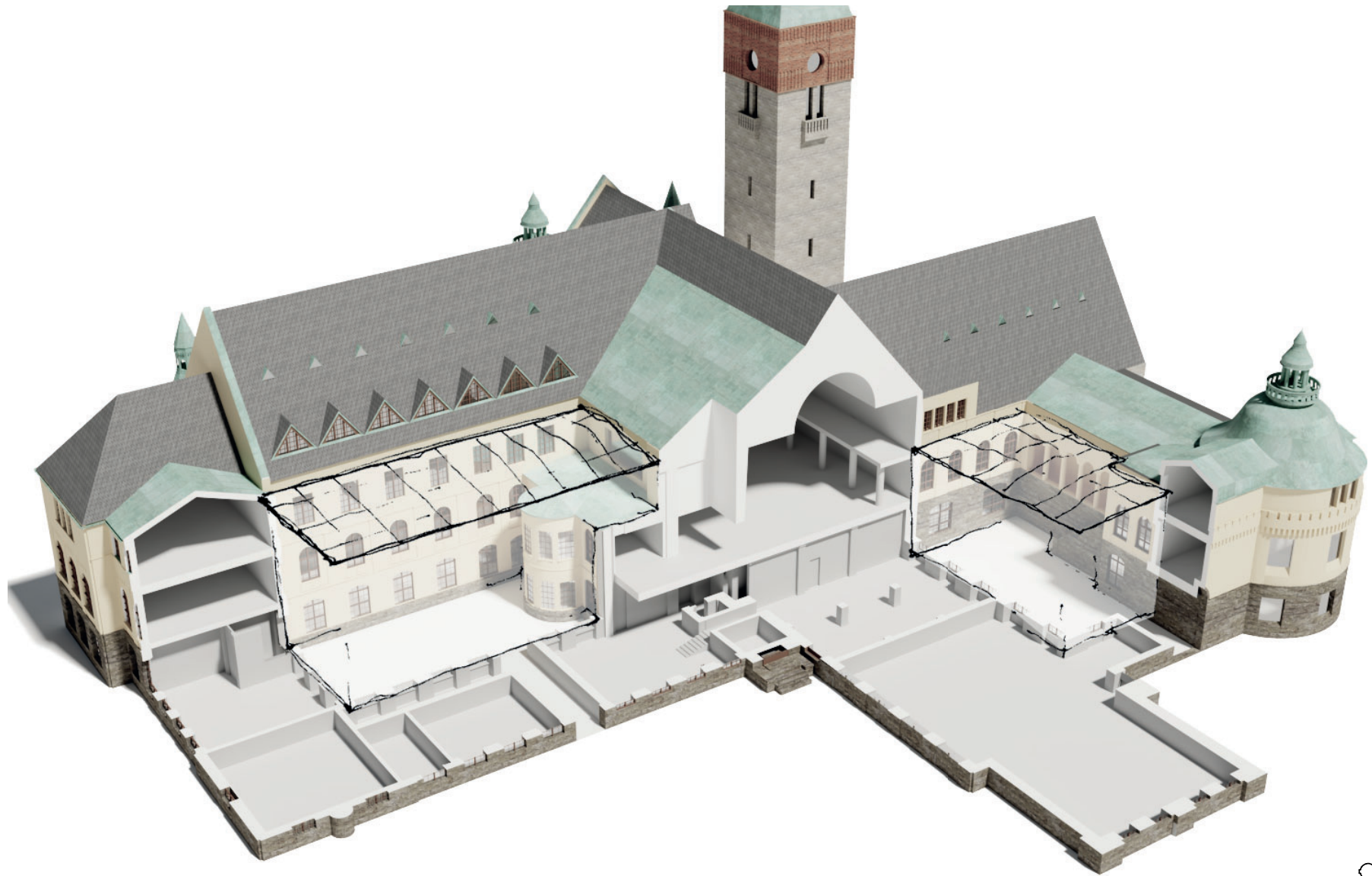
ACTIVATING THE COURTYARDS

The second idea is to activate the courtyards. These have enormous potential, and have this far only been used in the summer. Their usage has been limited to a small seating area for a café and for the occasional cultural event.

The competition brief stated that they are looking for options for how to activate these spaces by designing a roof on top of them.

By covering them in glass, we create two indoor spaces that are warm around the year and can in addition to their previous uses be utilized as additional exhibition space. These two new spaces now have the potential of being linked to the garden, offering yet another much needed connection to it.





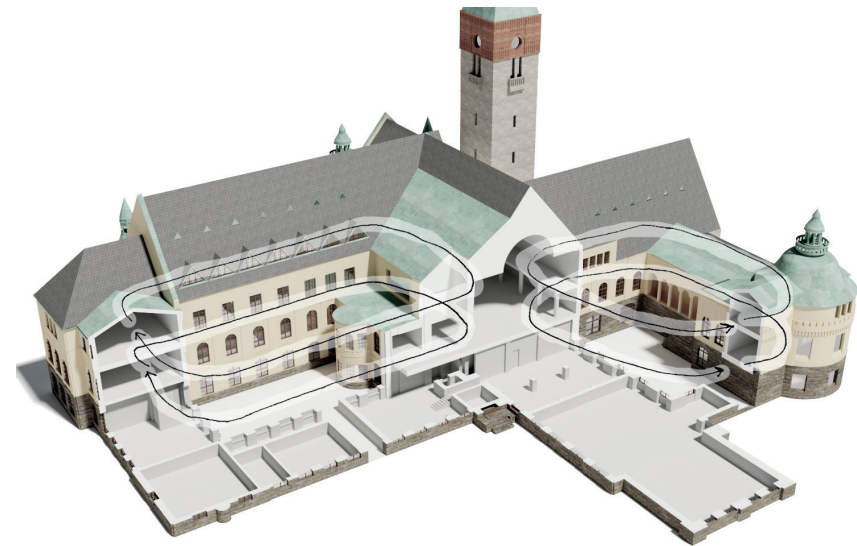
INTERIOR IDEA 3

RETHINKING THE FLOWS

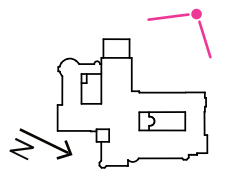
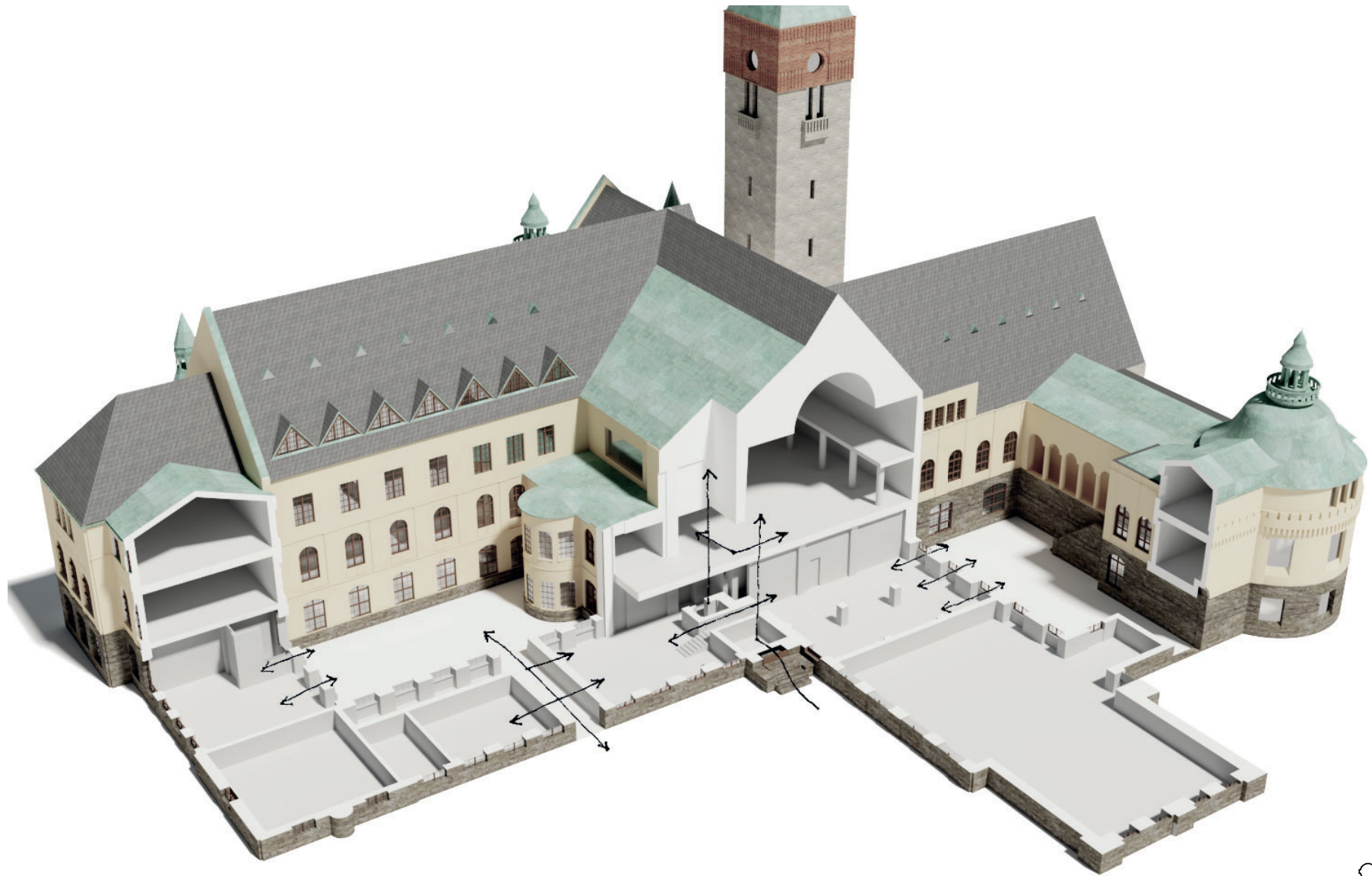
The flows inside the museum are for visitors today limited to the wings of the museum. There is good reason for this, as the ground floor mainly consists of office spaces and other administrative purposes.

However, since the museum currently has its back turned towards the park and lacks exhibition space I wanted to change the ground floor to better accommodate for both connecting it with the park, and making more space for exhibitions. This space will take advantage of the new elevator and staircase as well and try to connect the courtyards to the ground floor.

I propose a remodelling of the ground floor. I propose to open up ways to move around the museum, by altering heavy walls, so that we can make room for a new, much more functional museum experience. By creating these openings the ground floor becomes a functional linking piece of a larger complex, but the room layout needs to be ordered a bit to fit this new purpose.



Previous flows, concentrated to the wings of the museum

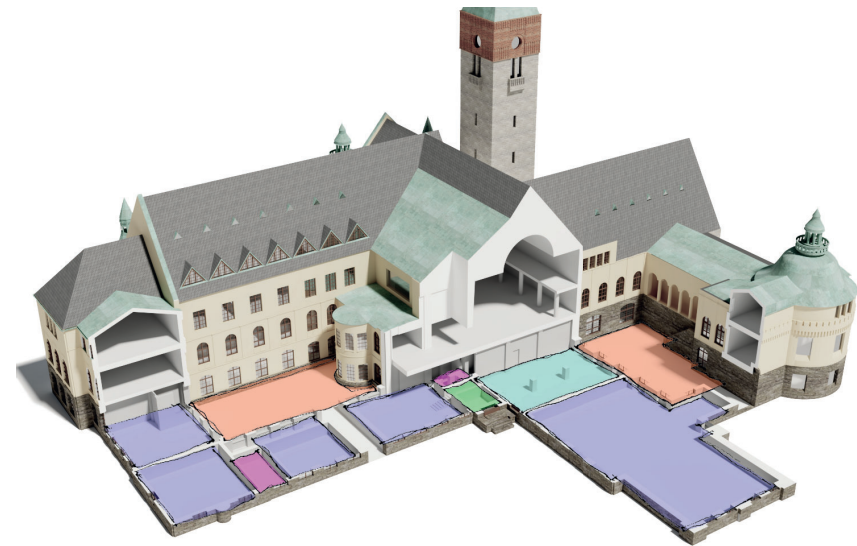


INTERIOR IDEA 4

REIMAGINING THE ROOM LAYOUT

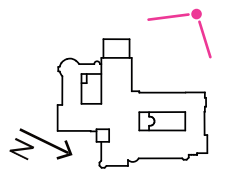
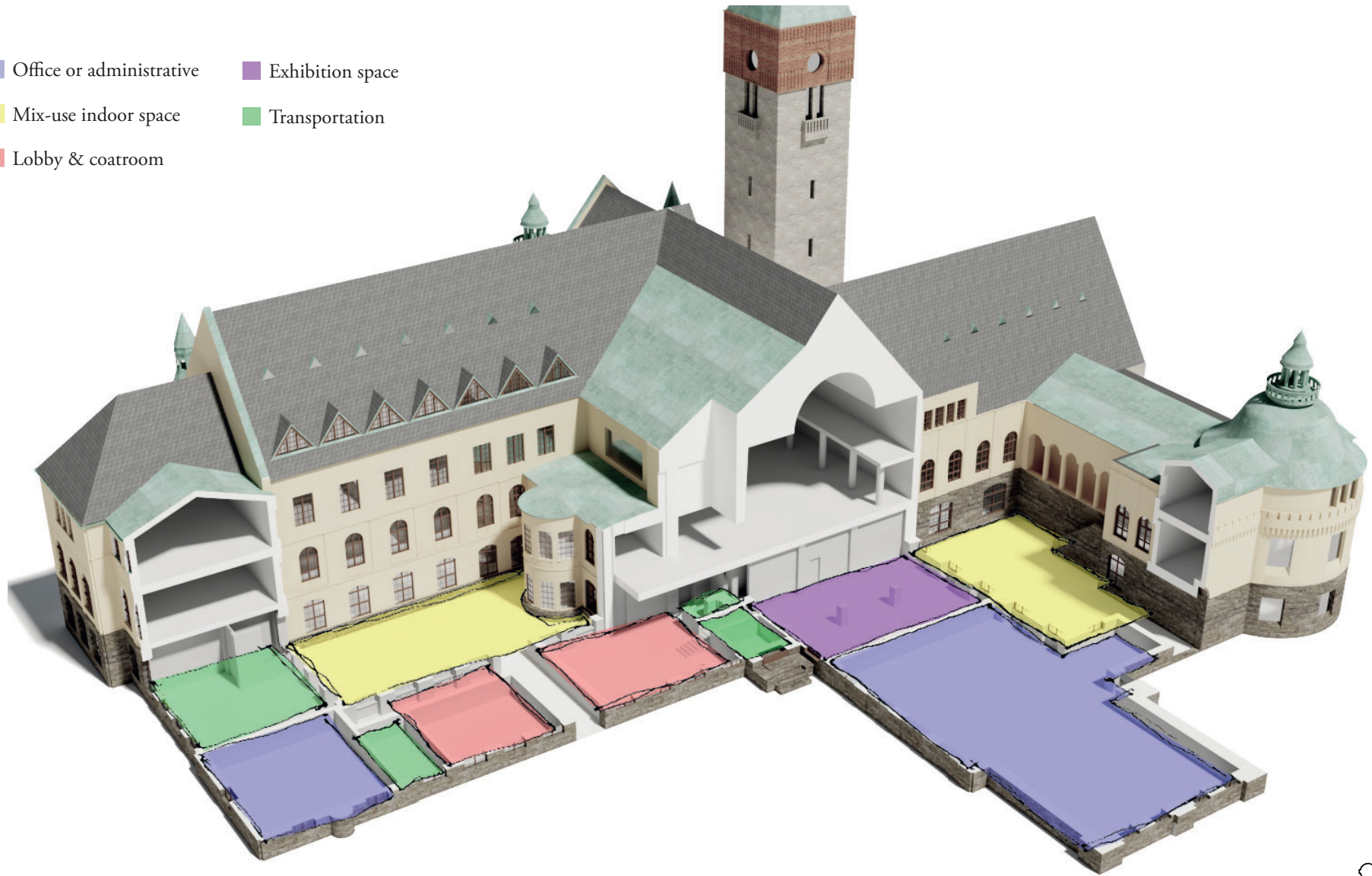
As previously stated, the ground floor as of today is mainly revolving around supporting and administrative purposes. Because of the possibility of expanding I propose to change the room layout on the ground floor to act as exhibition spaces, in order to better the flows on this floor. The spaces that are being taken away could be moved to a more functional place in regards to both workers and visitors.

To the left, the room layout as it is today, colored with appropriate colors for the spaces they represent. To the right my suggestion of a new room layout which will connect the ground floor to the garden, help with the internal flow between floors, and connect the two courtyards to each other with an exhibition space, foyer and coatroom between them. Also added are rooms that include staircases and extra elevators that will link to the future museum expansion underground.



- Office or administrative
- Maintenance room
- Open-air courtyard
- Library
- Transportation

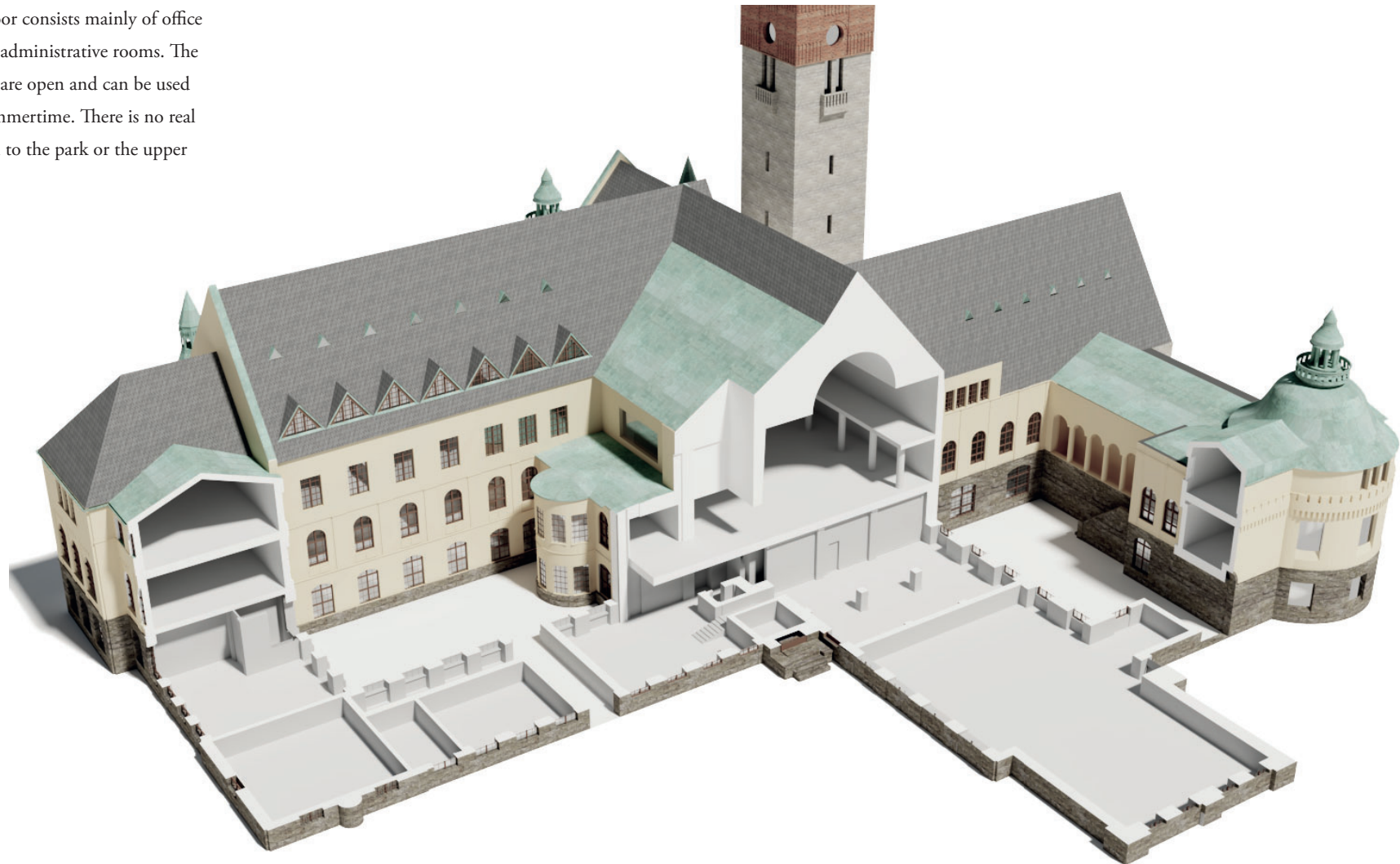
- Office or administrative
- Mix-use indoor space
- Lobby & coatroom
- Exhibition space
- Transportation



IMPLEMENTATION

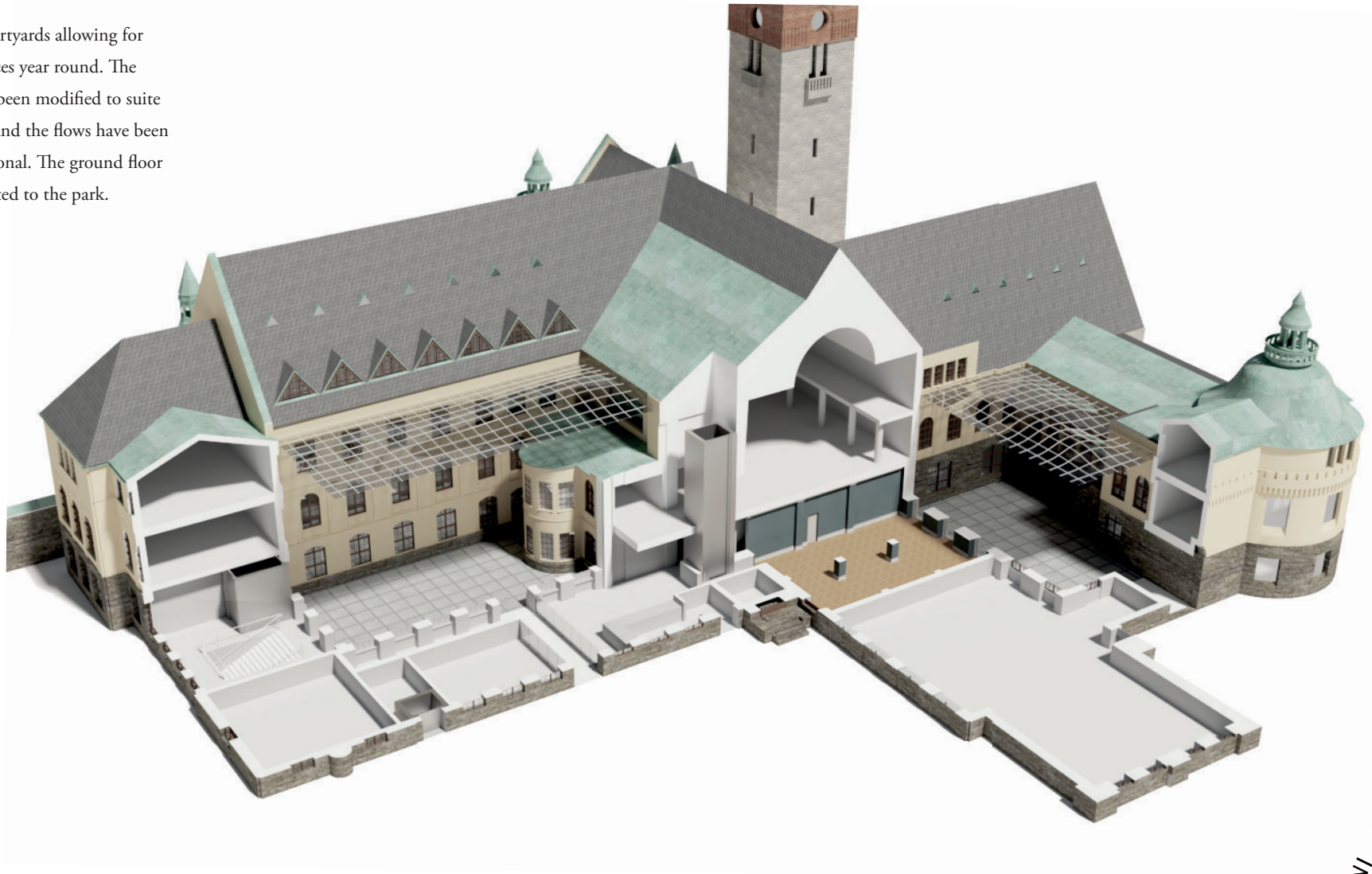
BEFORE

Ground floor consists mainly of office spaces and administrative rooms. The courtyards are open and can be used only in summertime. There is no real connection to the park or the upper floors.



AFTER

Covered courtyards allowing for mix-use spaces year round. The rooms have been modified to suite exhibitions and the flows have been made functional. The ground floor now connected to the park.



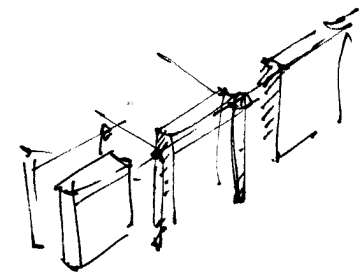
EXTERIOR IDEAS

Exterior ideas are considered ideas that are situated outside of the walls of the main building. These include small modifications to the park and a large exhibition area below ground as well as a restaurant.

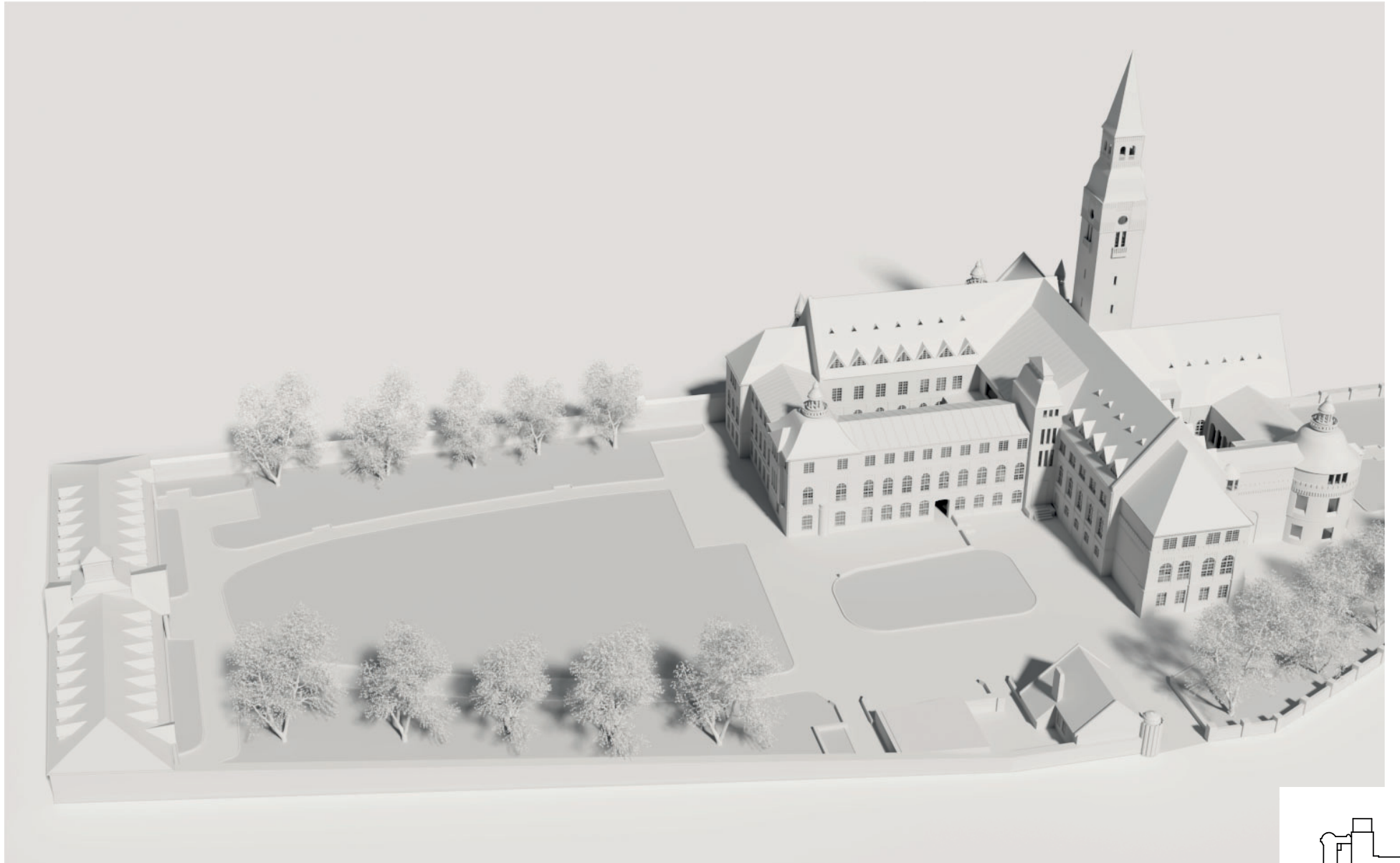
The exterior ideas are presented in a white model which covers not only the National Museum, but also the garden. I have on purpose left out the Southernmost part, since I did not deem it to need any alternations.

The main issue with the current park is that it is not connected to the museum in a proper way. Although accessible from three points, you cannot access it from within the main building.

I propose to connect the museum to the park, and create an addition that respects the old main building and creates a smooth transition between old and new.



From the sketchbook



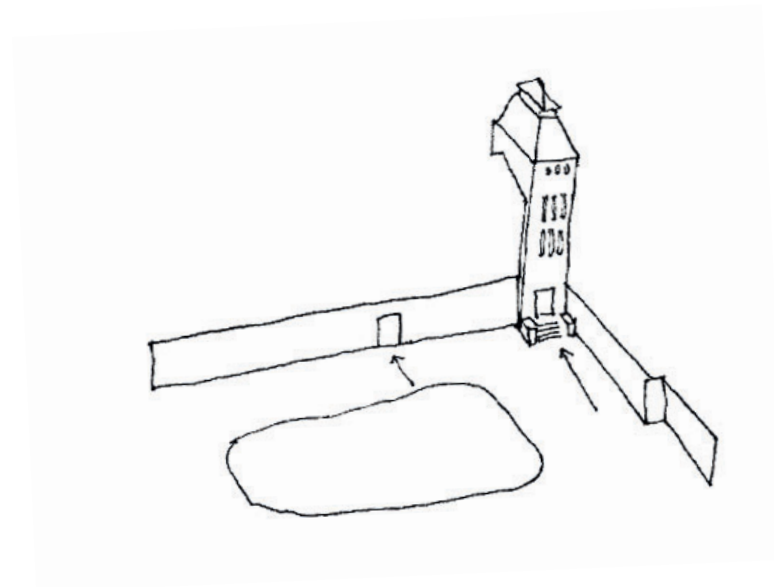
EXTERIOR IDEA 1

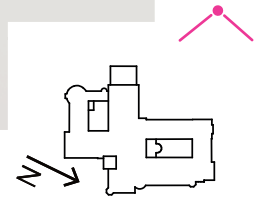
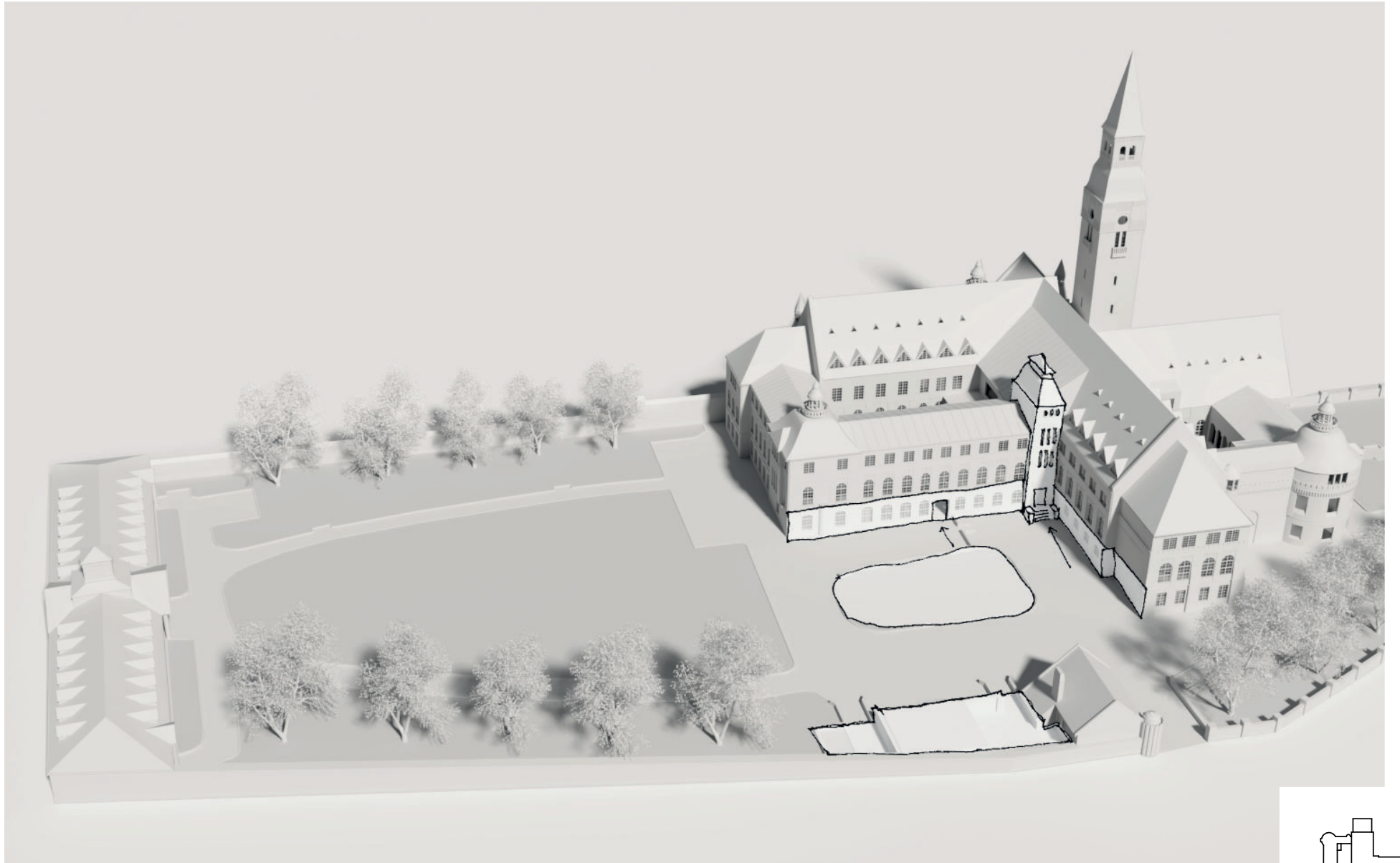
TAKING ADVANTAGE OF PRESENT ELEMENTS

I wanted to take advantage of the elements that are present on the site. How can we, through what is already provided on site, make the place better in accordance to what the brief wants?

Firstly, I wanted to create a new use for the staircase where it acts as a connector between floors and connection to the park. Secondly, the passage leading into the courtyard could be used for yet another link to the park. Thirdly, the stone base of the National Museum, became an inspiration in creating the architectural design for the addition. And fourth, the small plot of grass in the immediate vicinity of the three previous elements could be modified to further link the new extension to the site.

I want the extension to leave the spotlight to the main building, but to still offer an exciting and functional addition to the site.





EXTERIOR IDEA 2

ONE RESTAURANT, THREE VOLUMES

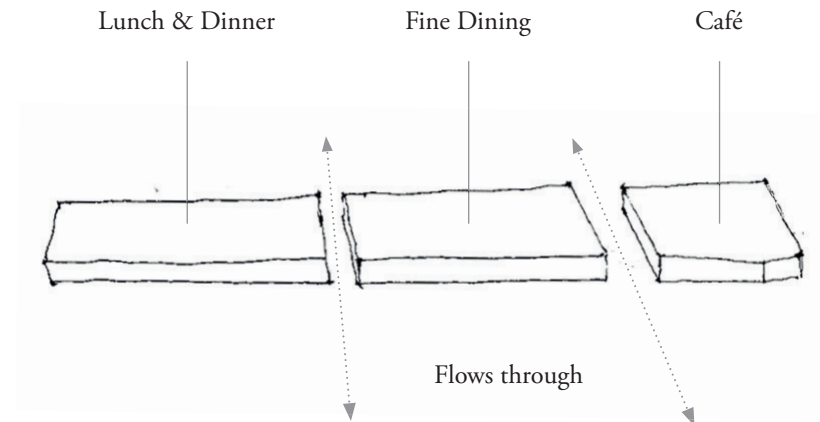
The brief states that they want a new kind of restaurant, one that can operate independently from the museum, while still catering to the needs of visitors to the museum.

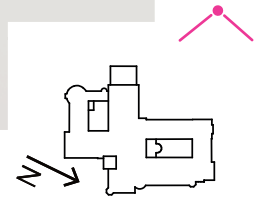
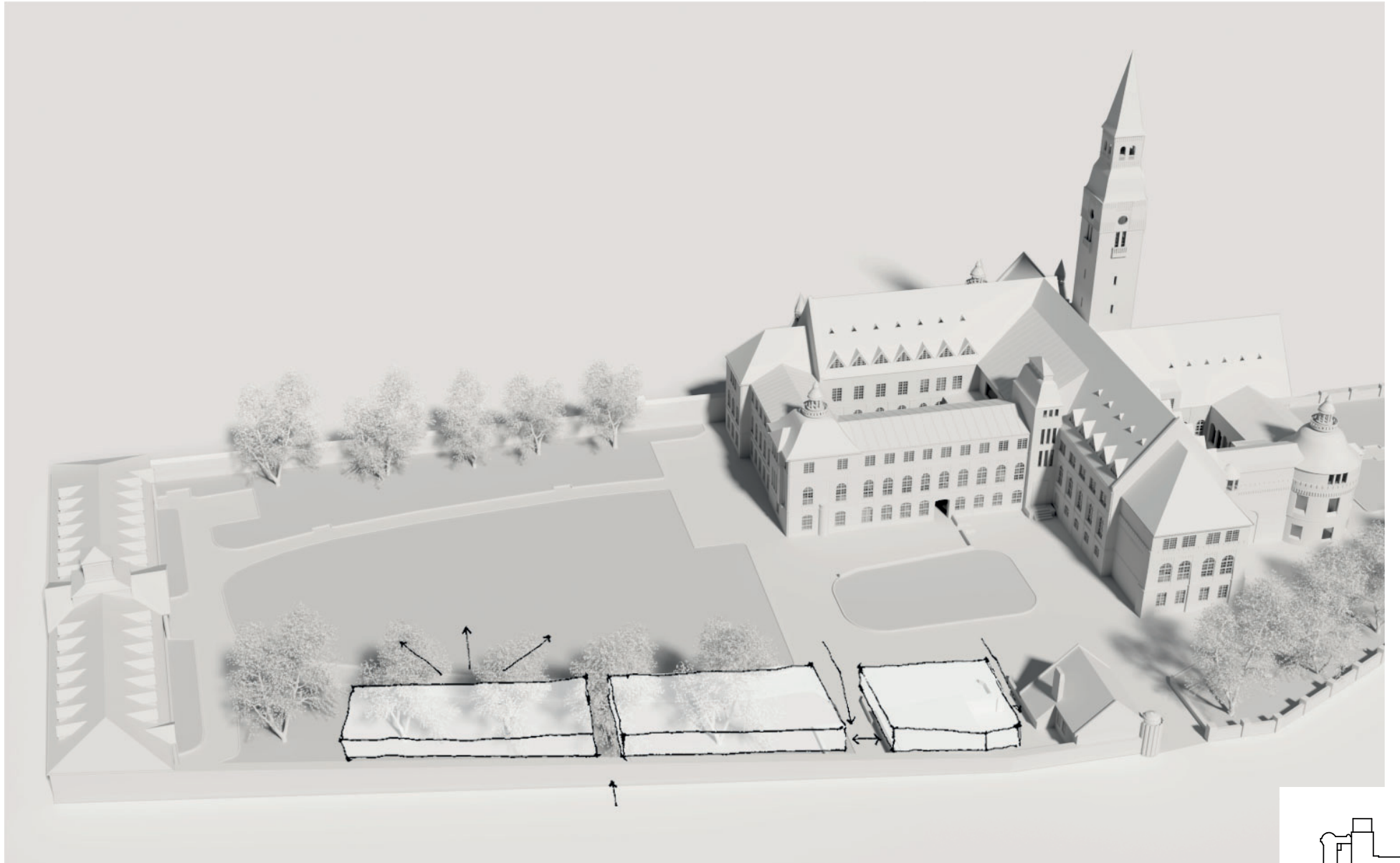
Instead of planning one large restaurant on site, I decided to divide the restaurant into three volumes, to reduce the footprint on the site and make them more discreet. They are separated from each other, to allow people to move between them with ease.

The three different volumes allow for a gradient of different functions. The first, a coffee-shop/bakery where the average client spends around 15 minutes to fuel up and enjoy the weather.

The second, a traditional restaurant with customers staying around 30-60 minutes.

The third, fine dining, targeting visitors coming for only the gastronomy experience, staying between 2-3 hours.





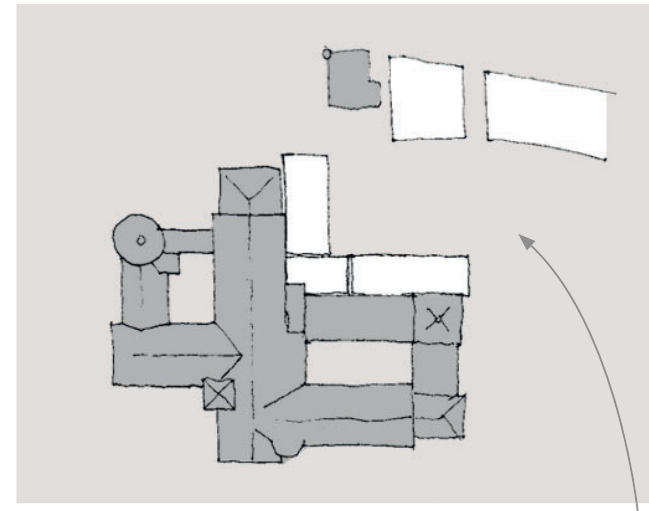
EXTERIOR IDEA 3

THE SPACE IN BETWEEN

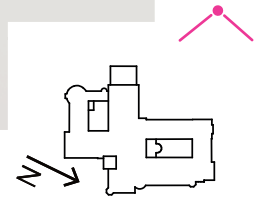
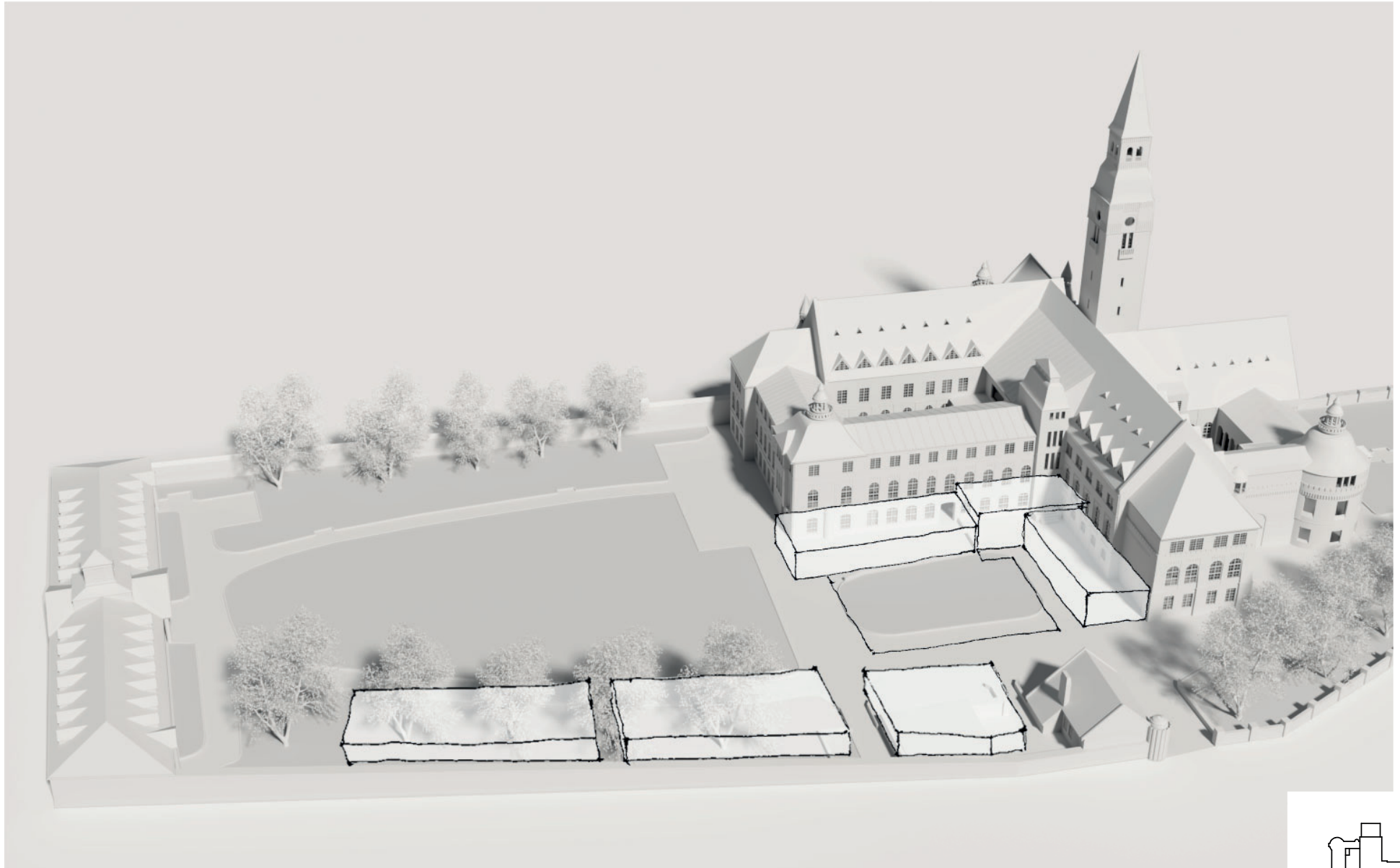
The volumes that are visualized to the right contain a new entrance for the museum together with the volumes for the restaurant. In addition to this it includes a new park, an improved version of the previous one. The entrance building is submerged into this new park. The entrance does this in order to better merge into the landscape, becoming less apparent in height.

The volumes act as new wings for the museum, while creating a place in between. This place encompasses the visitor, and acts as a courtyard that connects the buildings to the surroundings.

The volumes are situated in close proximity to the National Museums stone base and to the massive stone wall that surround the park. This is done because I want them to blend in with the heavy stone elements to appear more discreet and take up less focus.



Courtyard of negative space



EXTERIOR IDEA 4

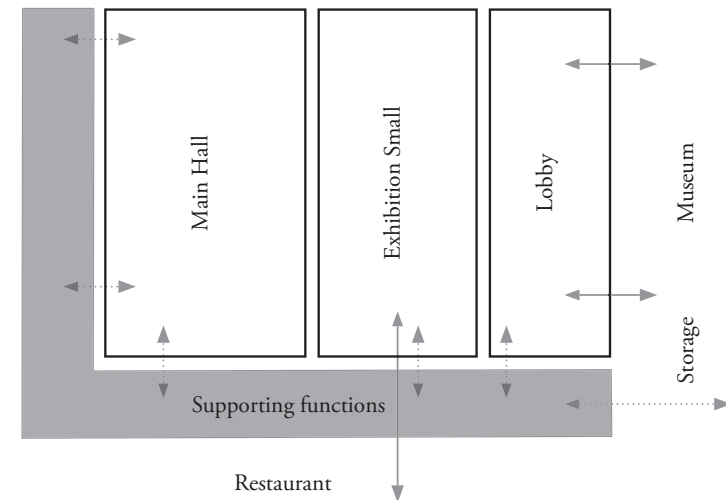
THE NEW MUSEUM, A LINKING PIECE

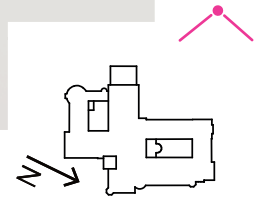
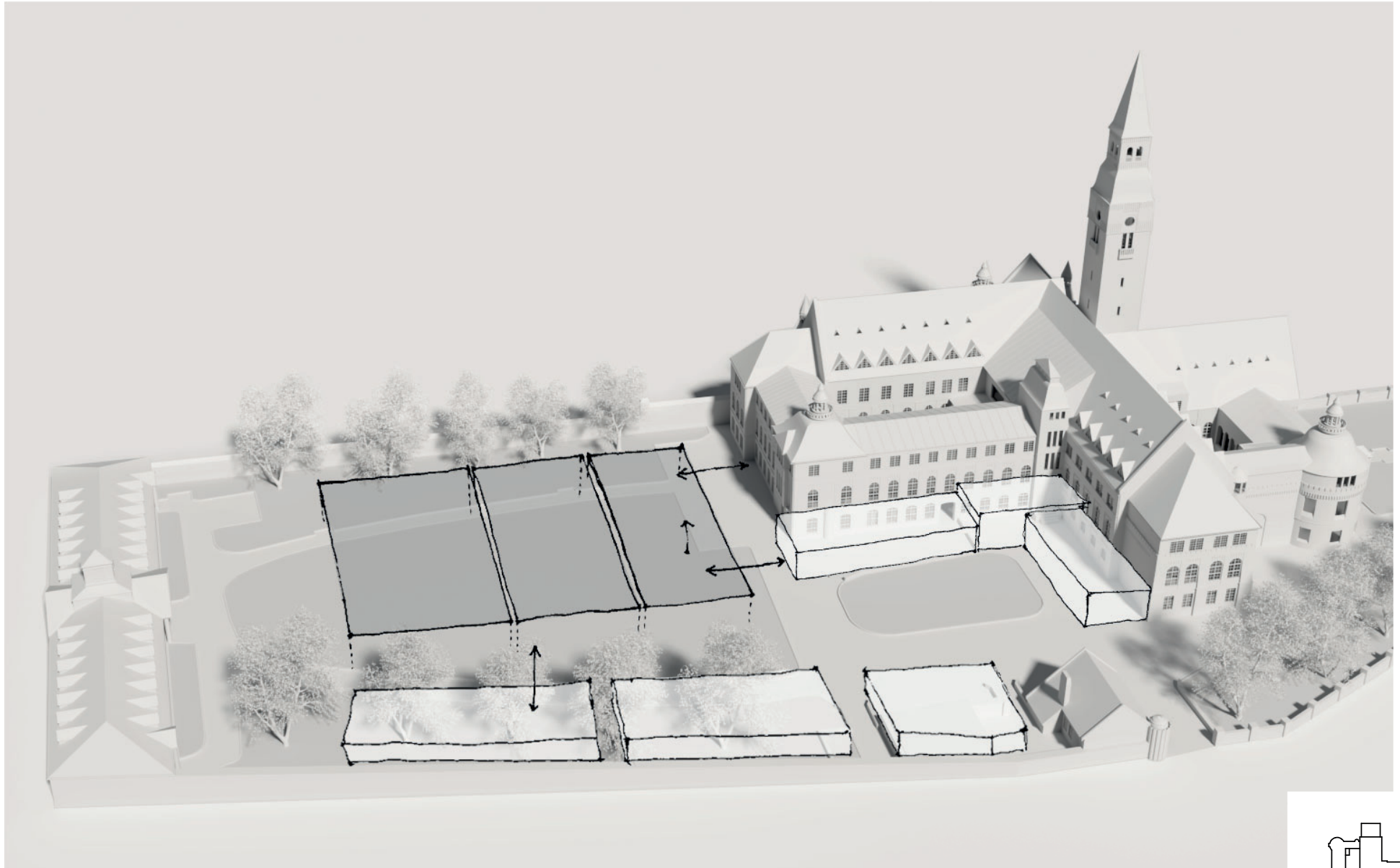
The brief states that the exhibition part of the extension should be built below ground. The brief also states an area that is to be used for this part of the competition, this area is restricted to the North-East part of the park.

I want the museum to act as a natural extension of the museum itself. It does this by acting as a gradient, where the interior spaces change throughout your visit. They change from open above ground to intimate when entering them below ground, to open up when reaching the main hall.

I also wanted the new exhibition spaces to act as a connection between the National Museum, its new entrance building, the restaurants, and the underground storing facilities that are situated under the new entrance. Like a puzzle piece that links all elements together.

CONCEPTUAL FLOOR PLAN



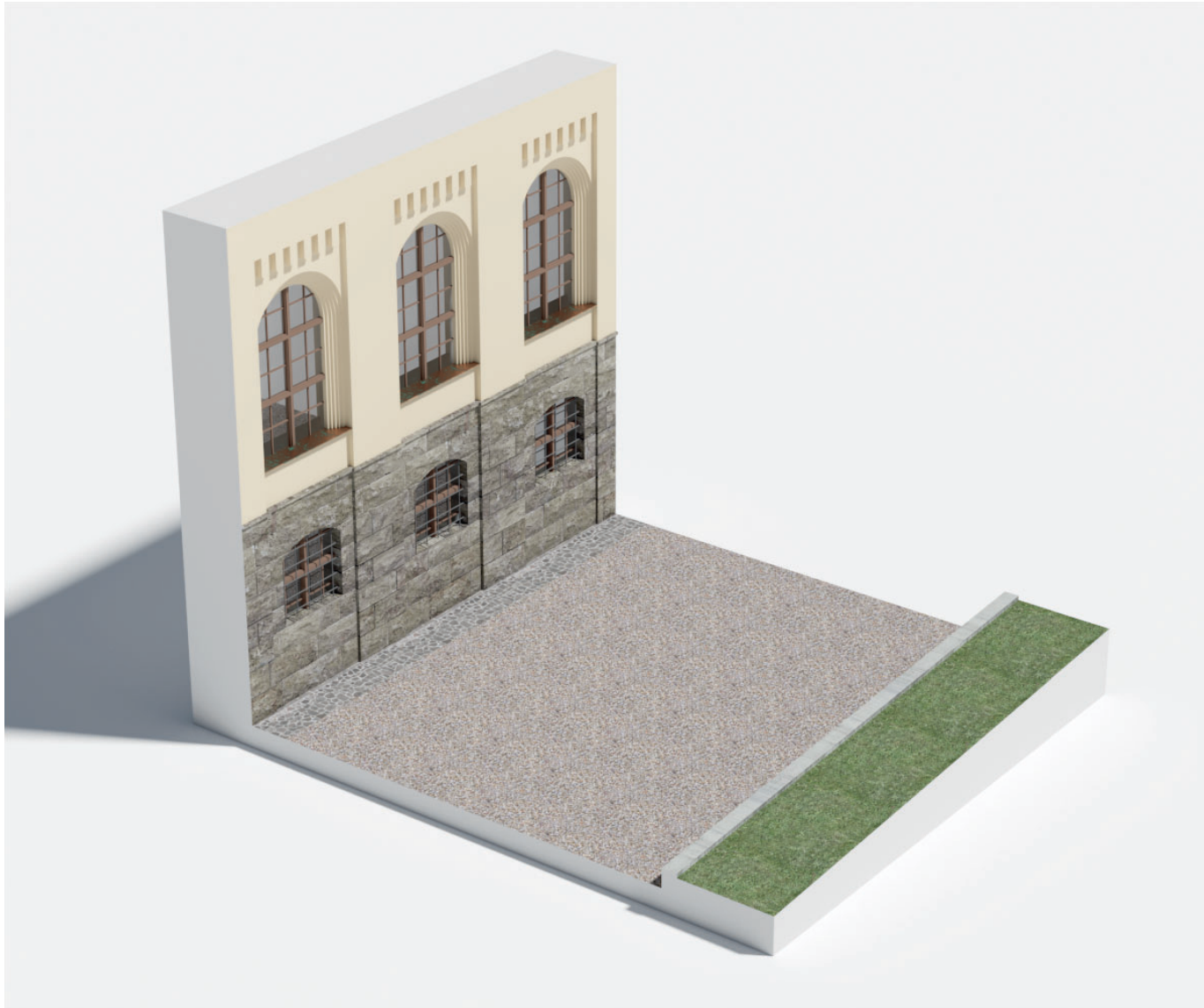


SHAPE AND FORM

This is an exploration of the derivation of the final architectural form and design. How have I come up with the design that matches that of the current architecture? The major difficulty was in creating a design that speaks the same language, is functional and at the same time contemporary.

The brief wanted the annex to enter into a dialogue with the current museum. I wanted my addition to speak the same language as the current building and merge with it in order to create a transition between spaces that is seamless. However I also want the visitor to be able to tell the differences between old and new. I wanted my design to be simple enough to highlight the old features, but introduce new elements that connect visitor to the surrounding garden.





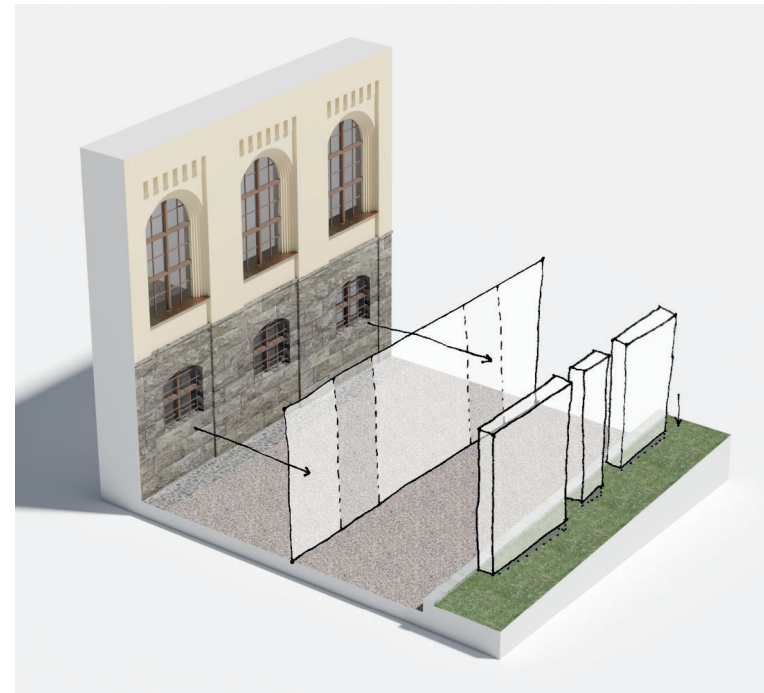
ITERATION 1

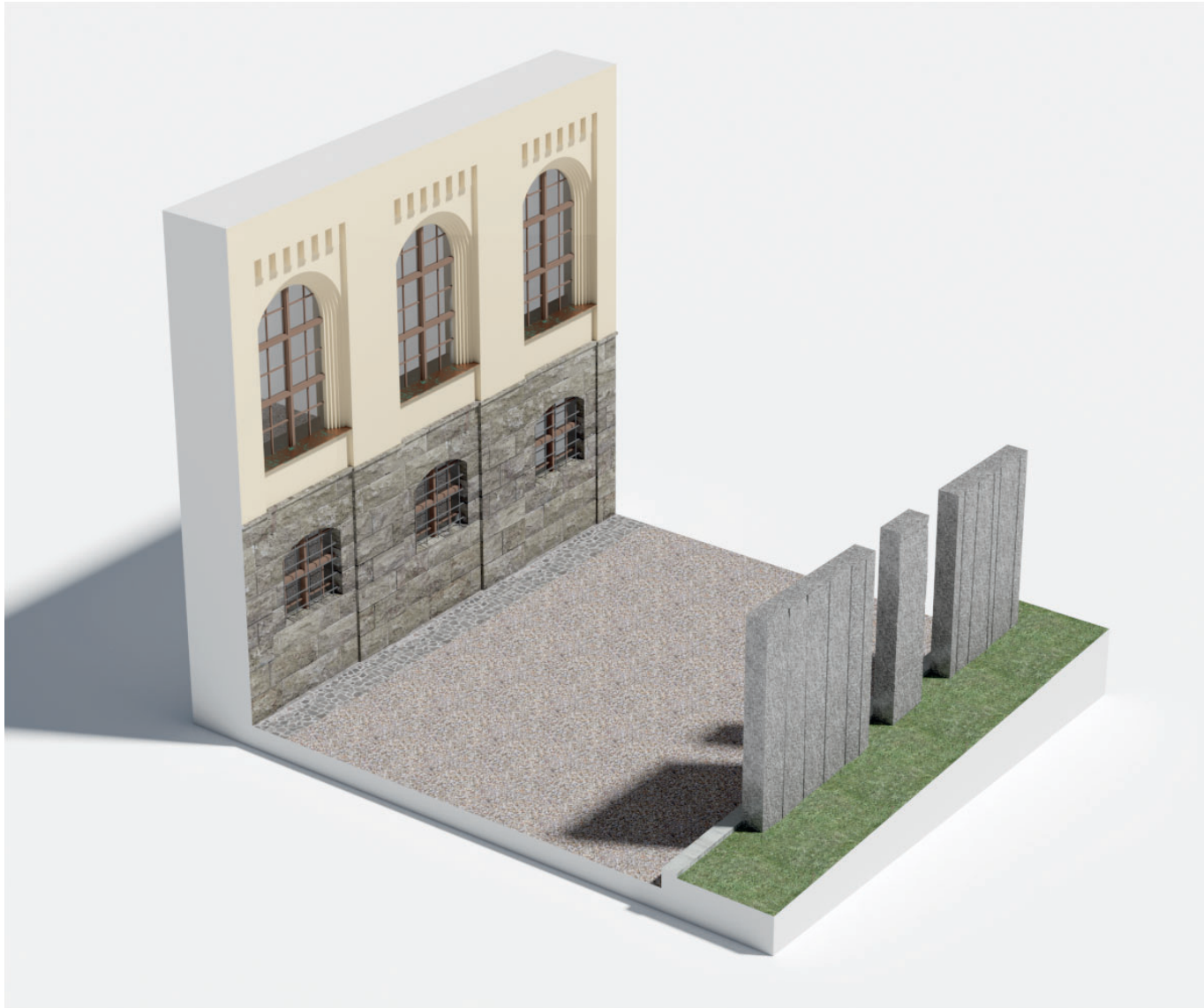
INSPIRATION FROM A ROUGH STONE WALL

I drew my initial inspiration from the stone base, that covers the entire circumference of the National Museum. This base is a heavy element with elements occasionally protruding from it, and light inlets scattered throughout, but obscured by grating.

I wanted my design to resemble this heavy base, but do so in a way that is functional for the interior illumination. I extruded the heavy elements and abstracted this wall into simple, heavy stones, that let light shimmer into the space created between museum and newly created wall.

I did not want my addition to sit in the limelight alone, I wanted the old museum to cooperate with my proposal. This is why i submerged the stone elements into the ground, and instead leveled the ground as needed for the interior spaces.





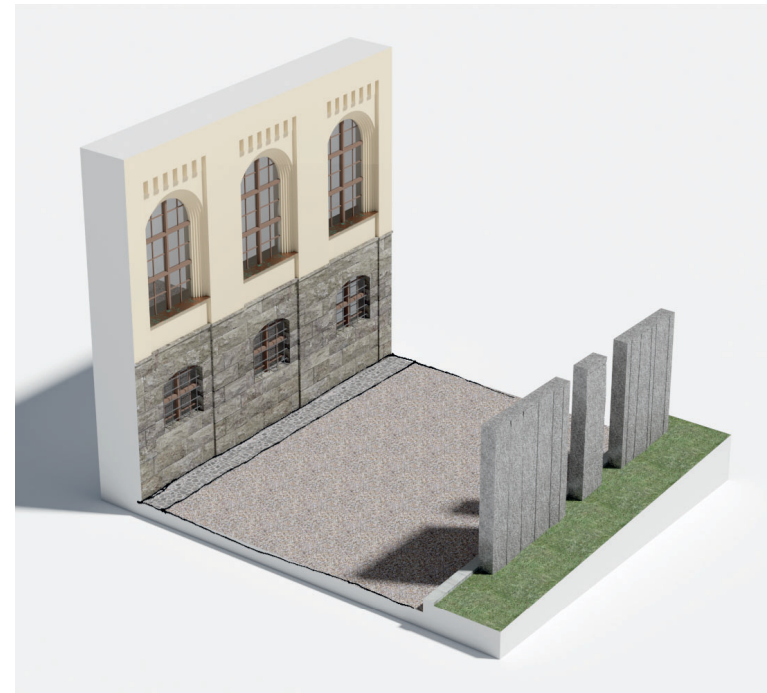
ITERATION 2

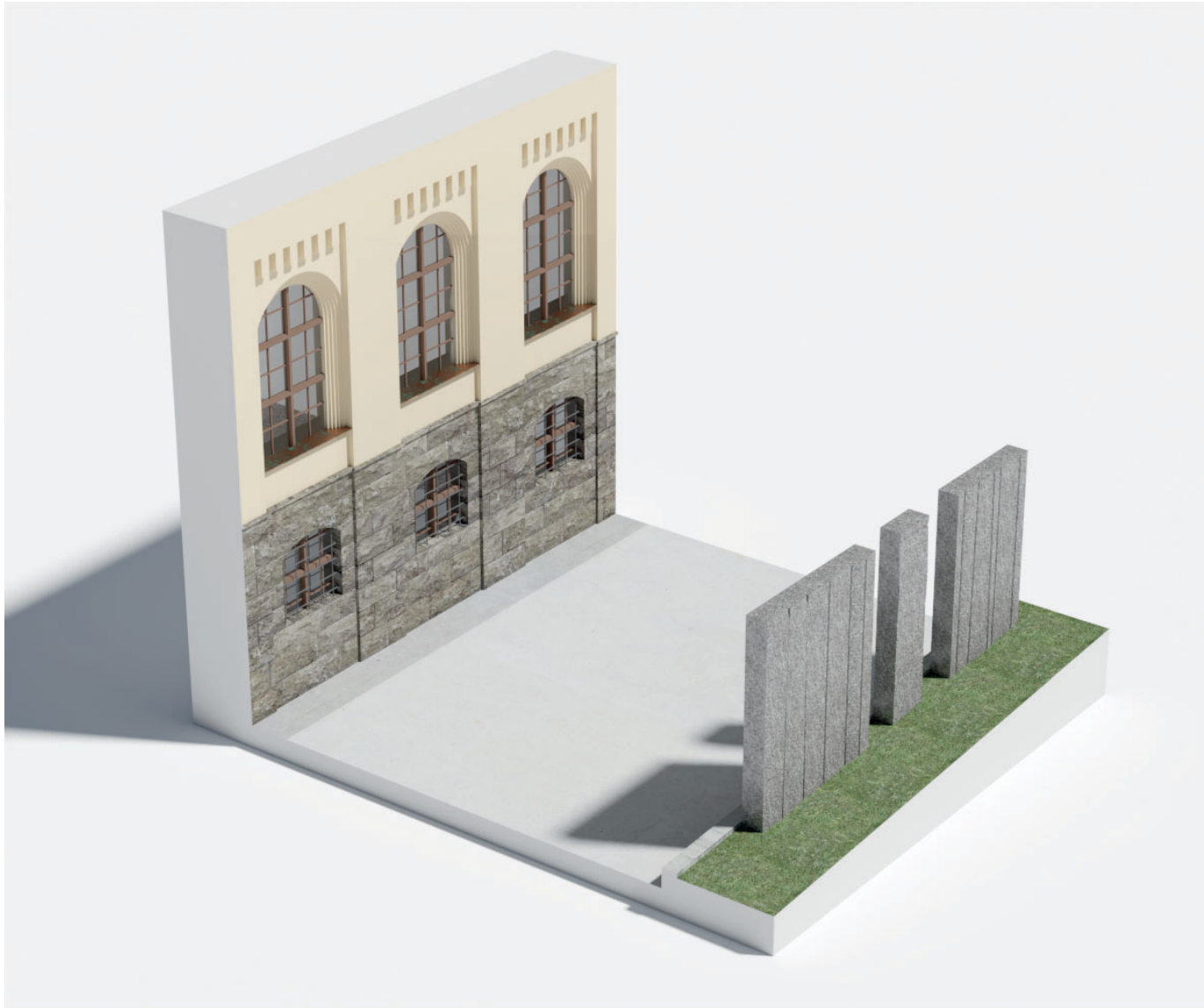
ABSTRACTING THE GROUND

The ground in the immediate vicinity of the National Museum is covered with gravel. In between gravel and wall, a stone covered path, that merges into the wall.

For the interior spaces that I created, I wanted to emphasize these previous elements that are such an important quality of the place. To do this, the new floor, is of polished concrete and comprised of two separate elements. The element close to the wall, previously stone, now becomes a darker concrete while the previously gravel covered path, is abstracted into a lighter concrete.

This polished concrete will be light, and anonymous enough for part of the visual focus of visitors to be directed towards the old part of the museum.





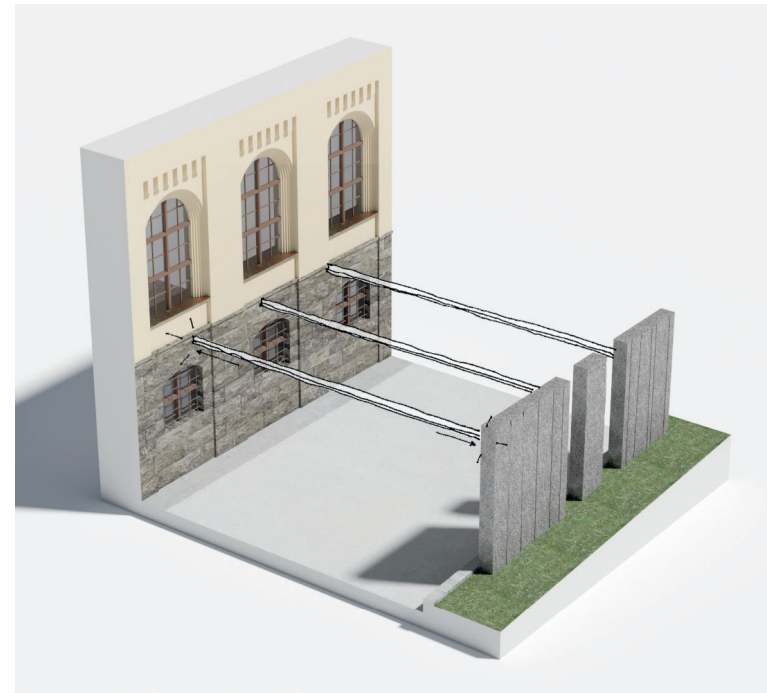
ITERATION 3

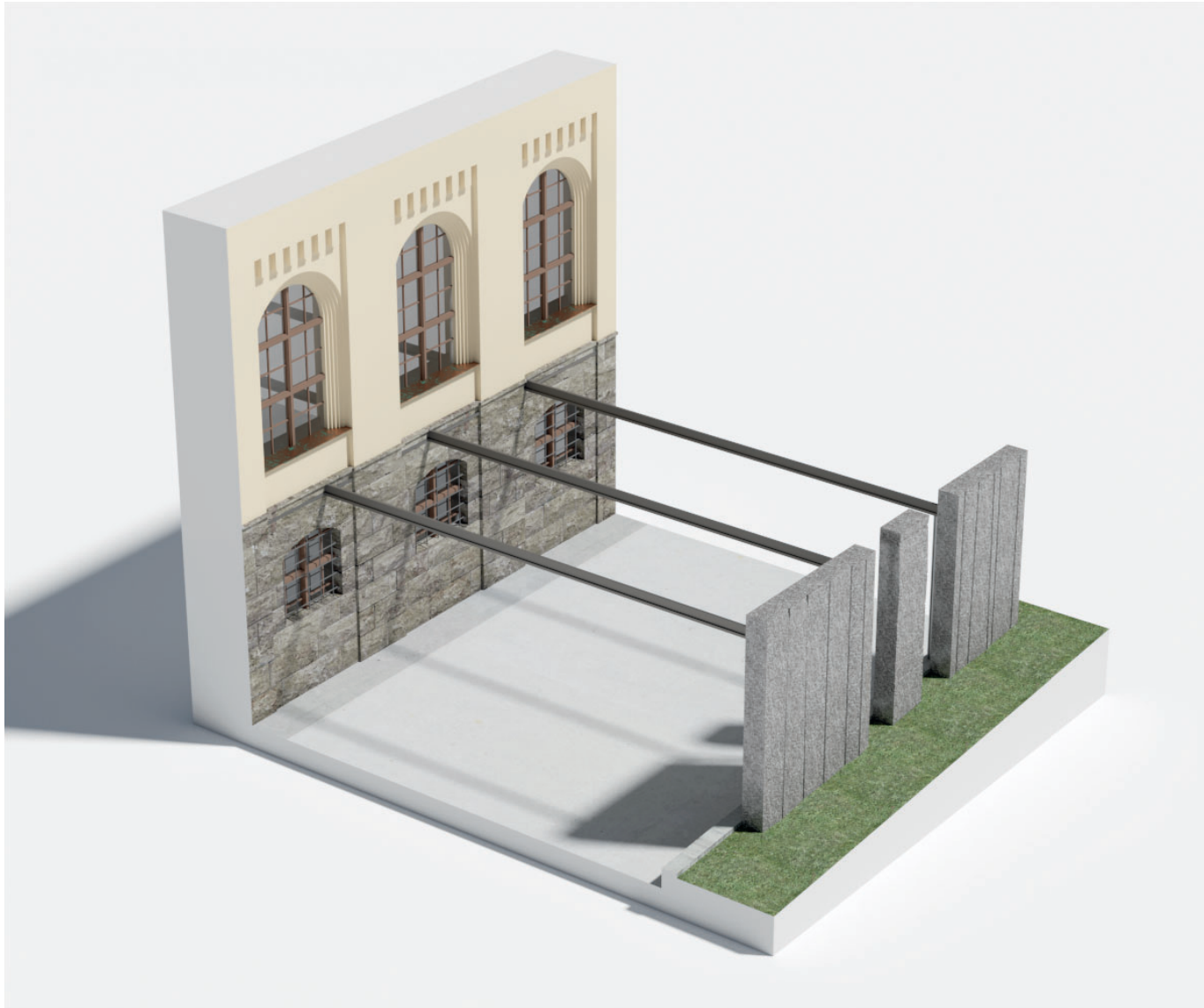
CONNECTING THE TWO WALLS

Connecting the museum wall with the stone blocks gives the stone blocks their functionality as they are going to support the roof.

The blocks are connected to the old wall with steel beams, that are gently inserted into the stone wall. The functionality of the stone blocks also becomes apparent now, as they provide an important role as structural elements of the architectural design working together with the steel beams.

The steel beams do not cover the stone base of the main building as a bearing wall would. This leaves the wall exposed on the inside. Furthermore, this decision, just as the glazed courtyards, will allow sunlight to continue to shimmer into the rooms and spaces of the old museum.



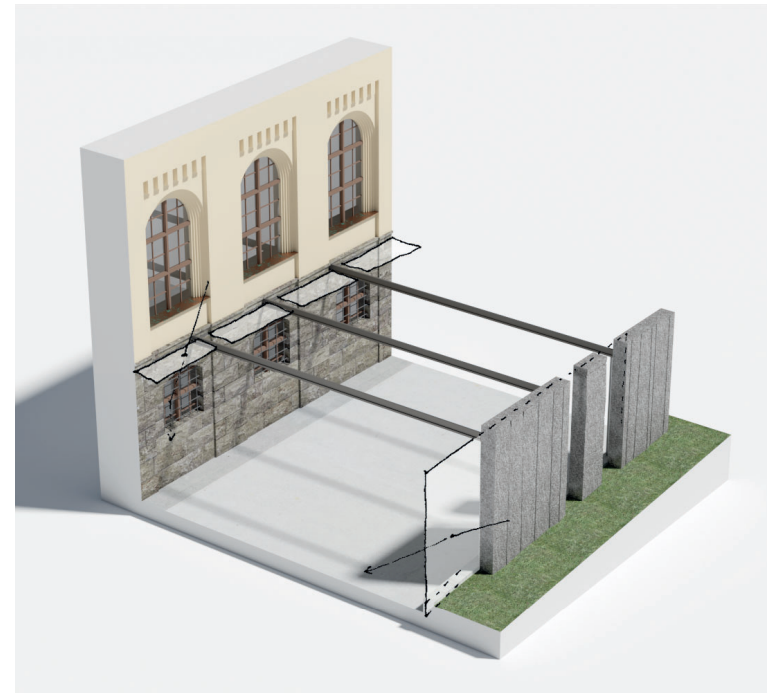


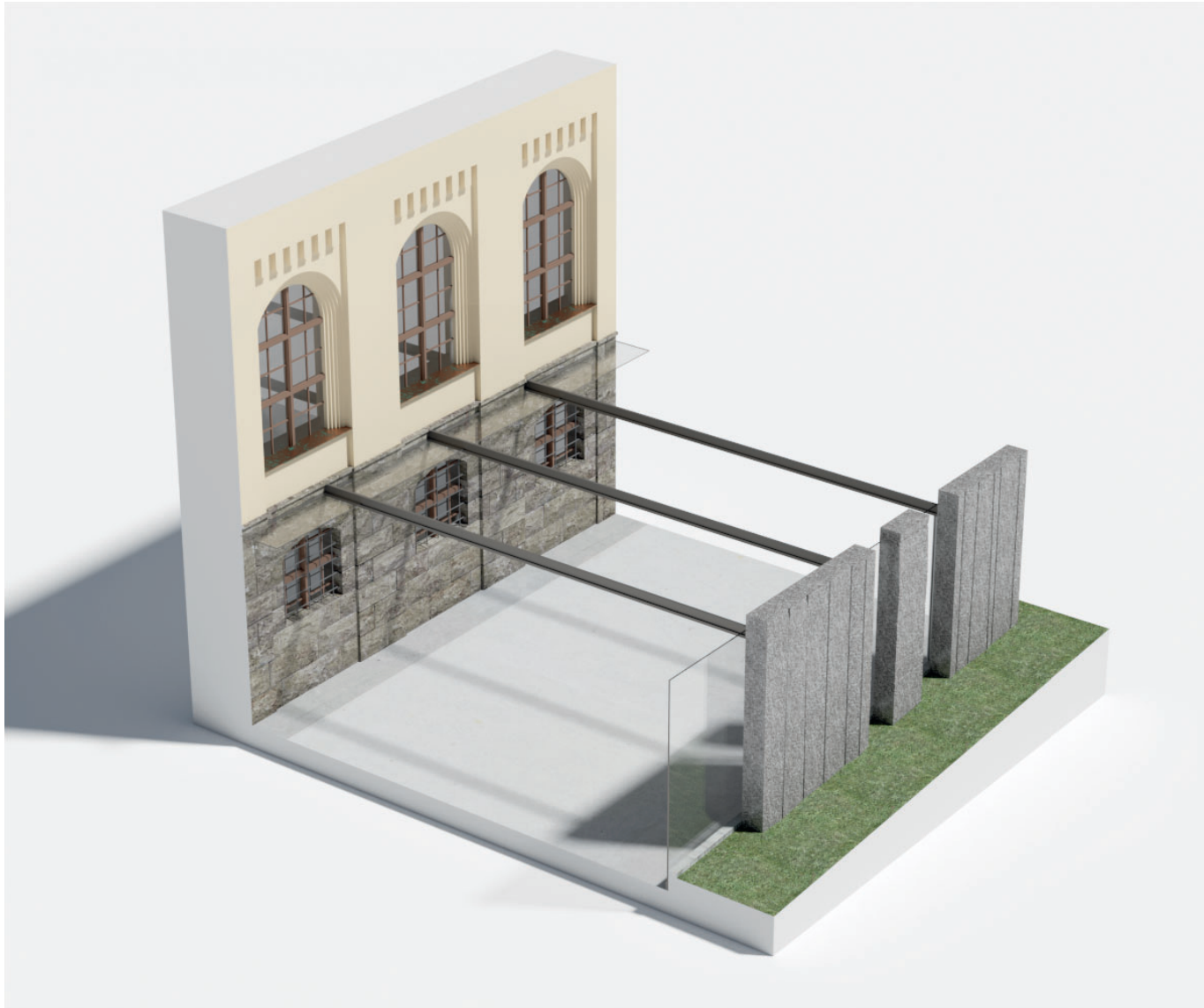
ITERATION 4

LIGHT

A glass wall covers the stone blocks on the interior. The blocks become fully separate elements of the architecture, and the interior achieves maximum illumination while standing separate from the block wall. The blocks still keep their structural properties, but become “statues” that are submerged into the park.

The part next to the old wall will have glass roofs, in order to achieve the previously mentioned illumination of the rooms of the National Museum. This will also create a beautiful effect on the old wall, as light drapes across it and highlights the old wall in order to emphasize its features.



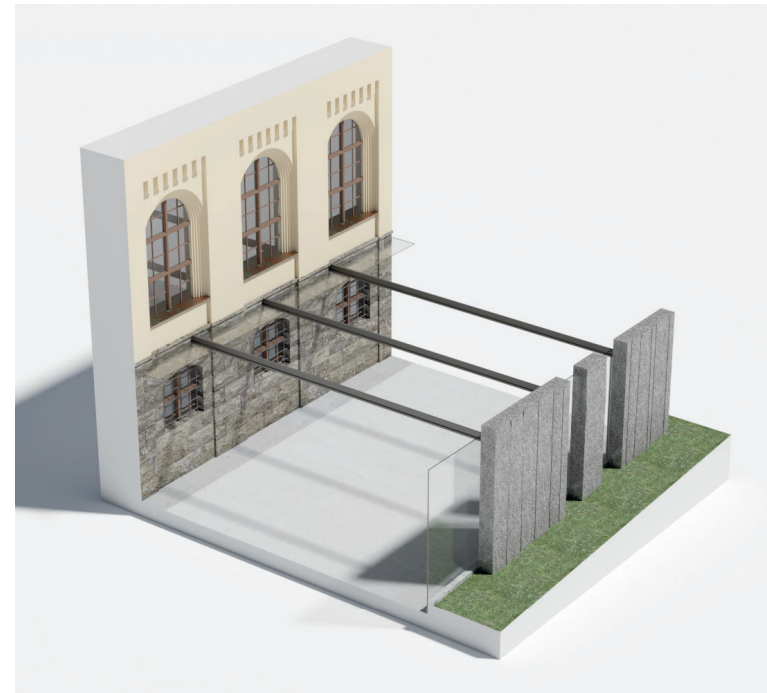


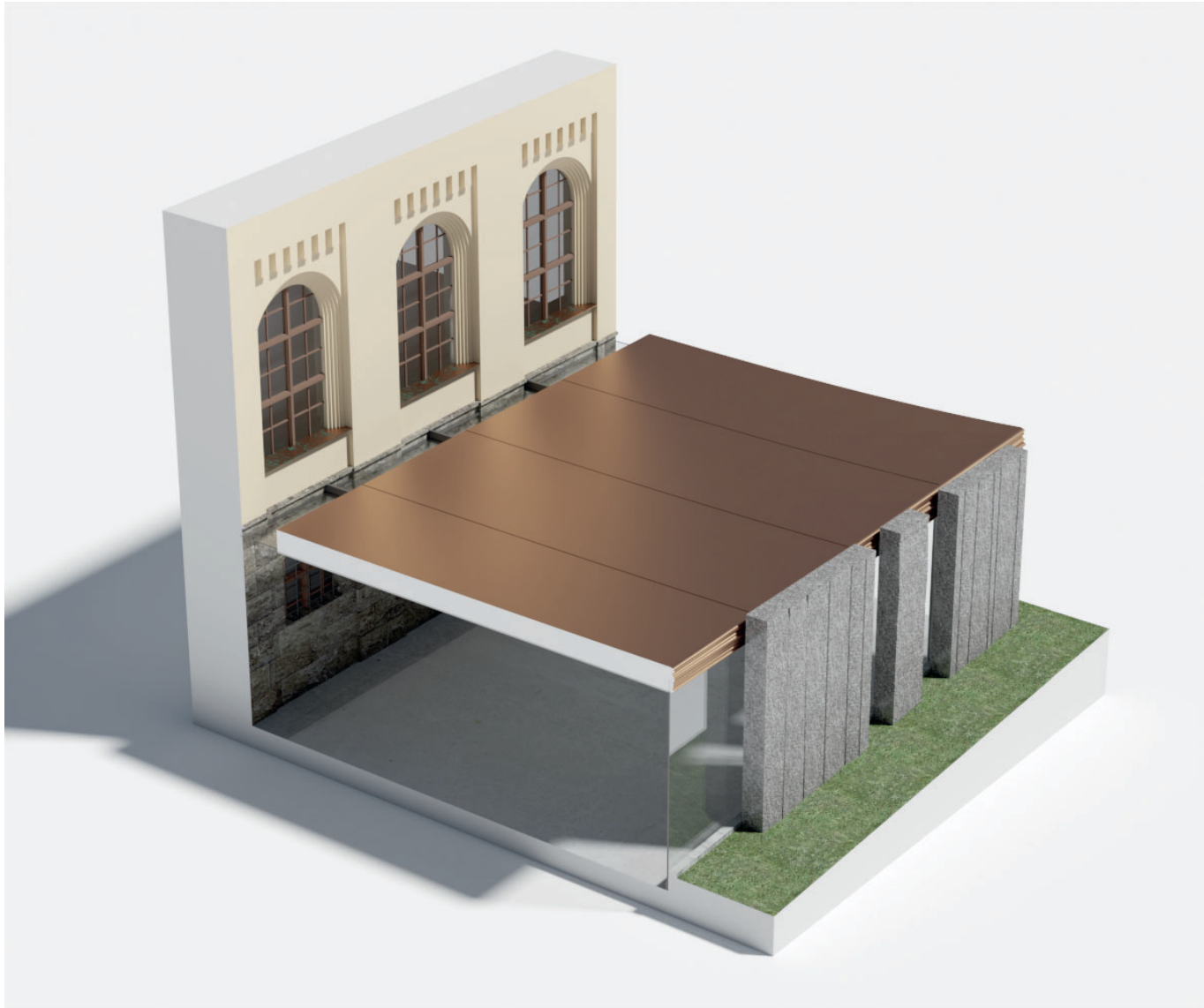
ITERATION 5

THE PLAYFUL ROOF

The roof is an addition, in form of copper, that adds an exciting element into the architecture. The copper roof, with its playful, bent and wrinkled texture, matches the style of the architecture, but offers something the previously added elements does not.

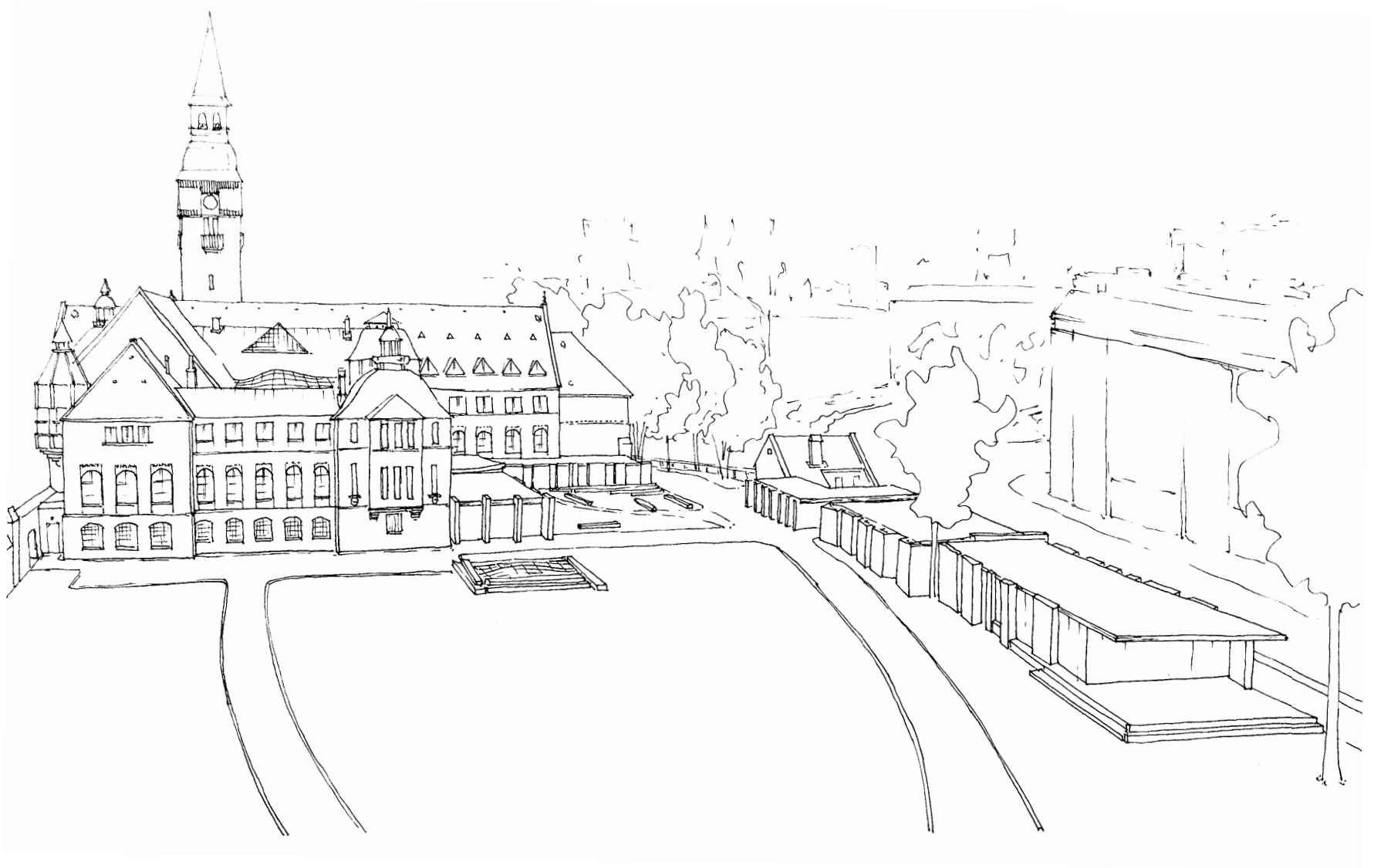
The roof brings a bit of life into a design otherwise consisting of straight shapes. It brings in a material already found in the main buildings roofs. Here it has the same function, to cover, but does so in a way that challenges the viewer with a new view from every angle.





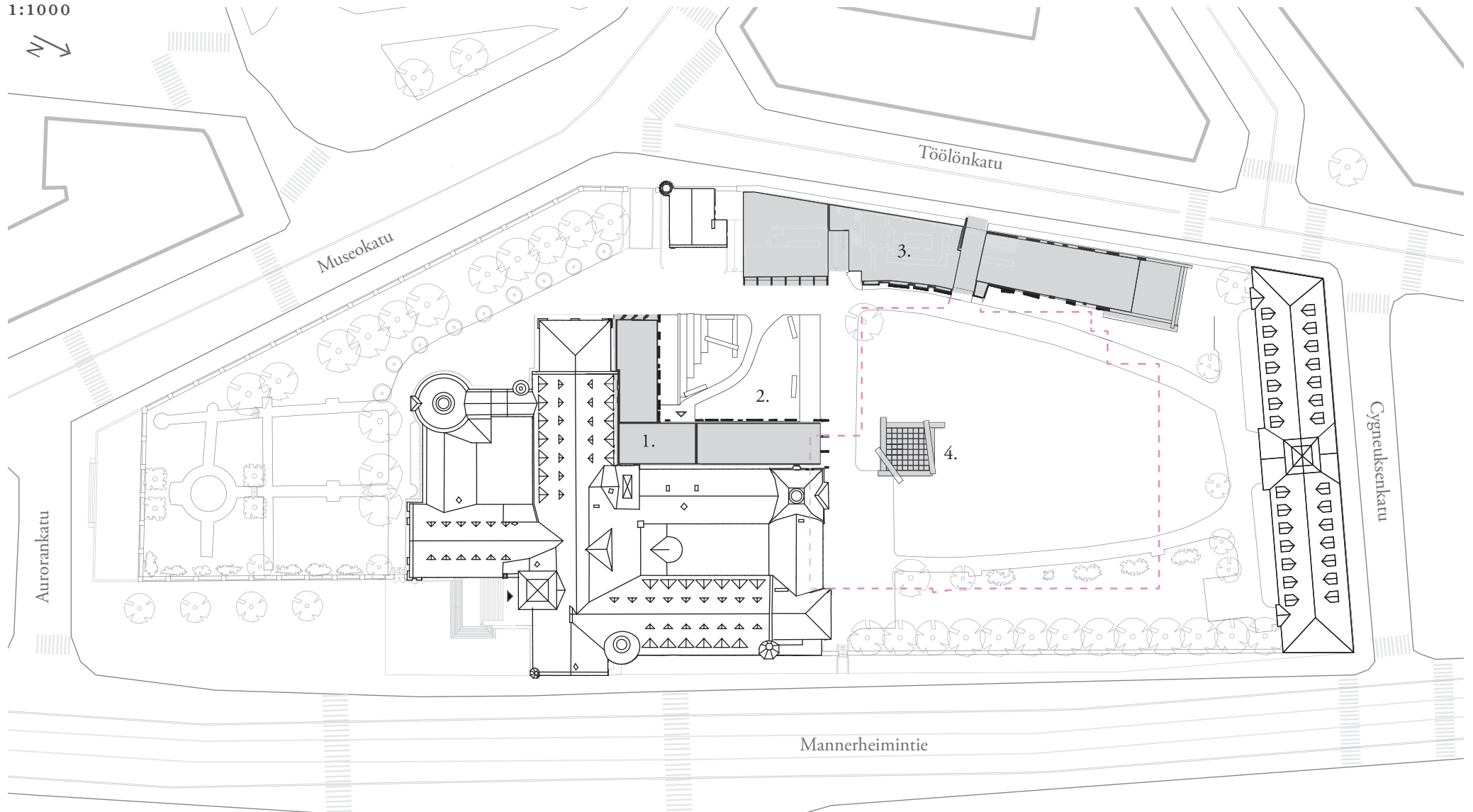
THE MUSEUM IN HELSINKI


Ideas concretized into architecture



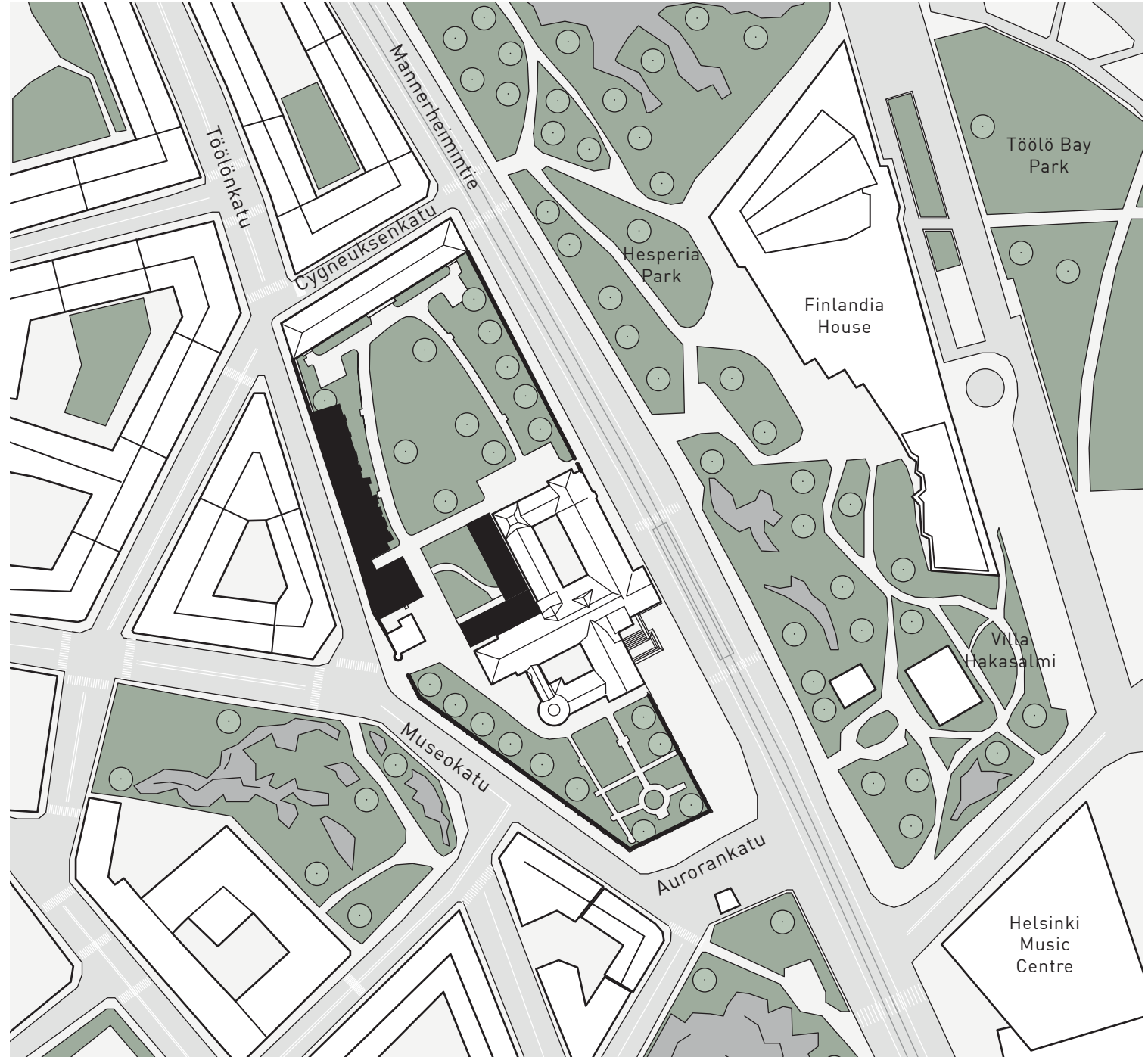
SITEPLAN ADDITIONS MADE ON SITE, IN GREY AND DASHED PINK LINES

1:1000



 Underground museum extension

SITE PLAN, TÖÖLÖ 1:2000 

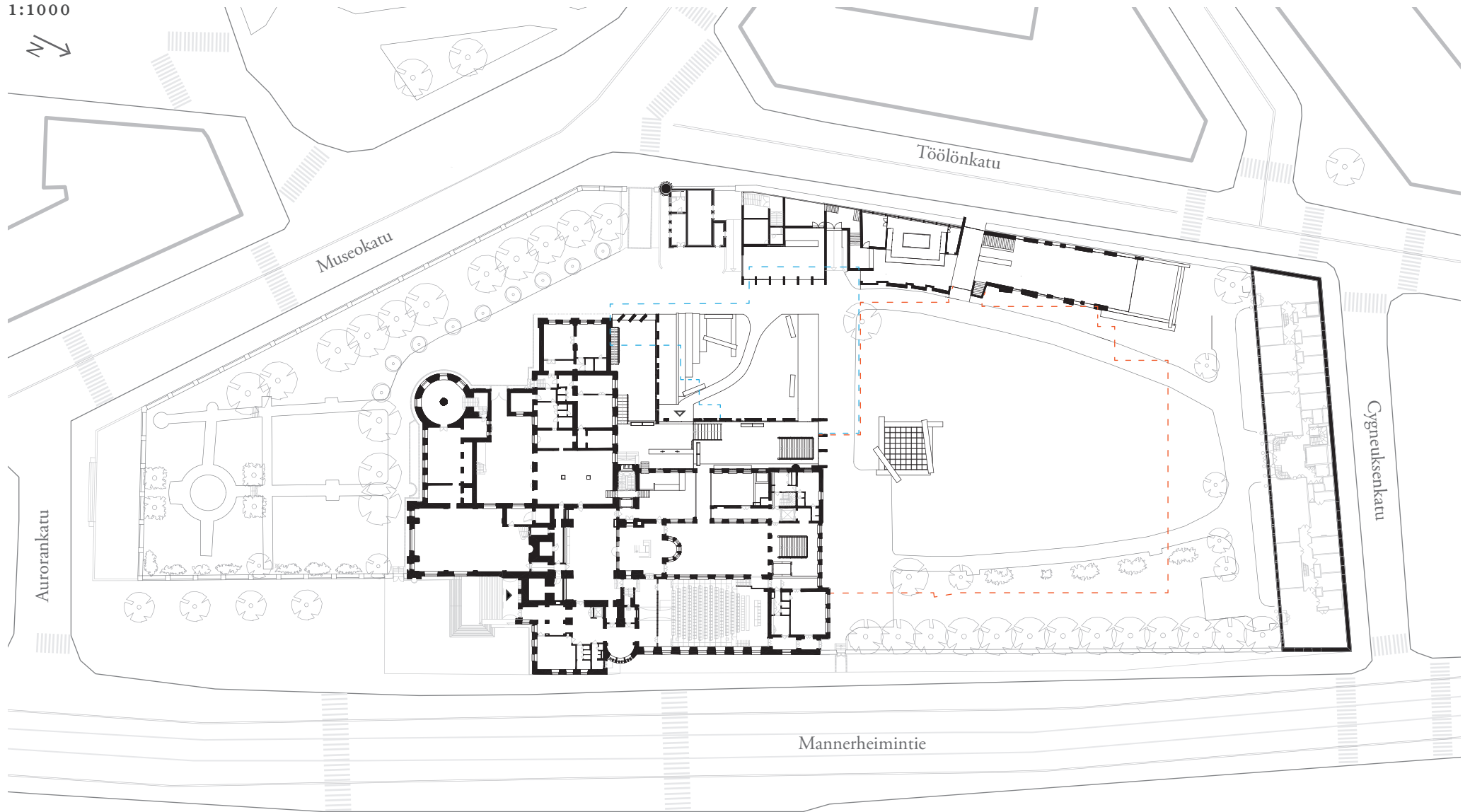




 SITEPLAN 1:1000

1. New entrance building
2. Entrance park
3. Restaurant building
4. Seating around roof window of museum below

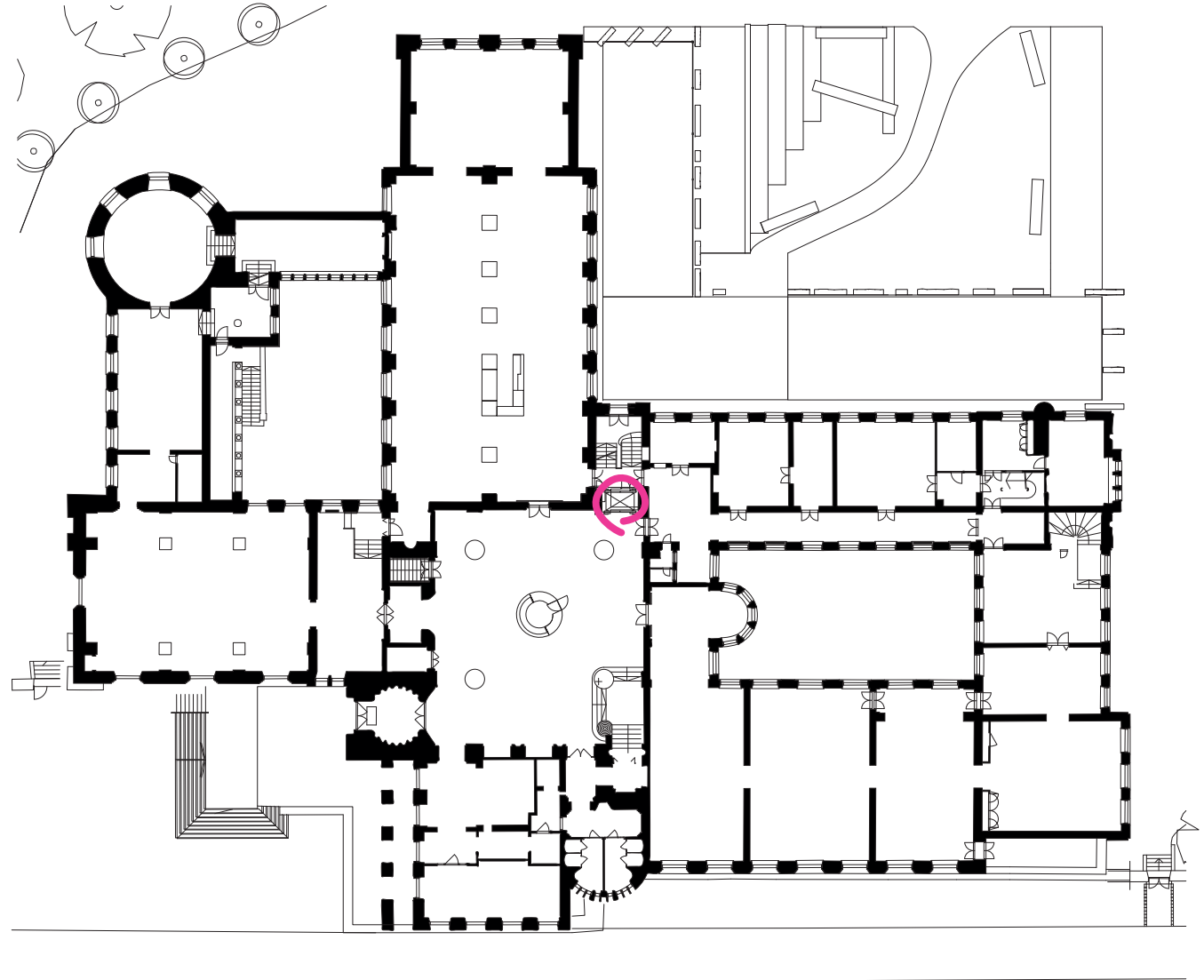
GROUND FLOOR

1:1000



 Underground storage and maintenance  Underground museum extension

SECOND FLOOR
ENTRANCE HALL ELEVATOR





SMALL CHANGE,
BIG DIFFERENCE

Not much happens to the second floor of the museum. The only thing modified and added is the elevator leading up to the entrance hall. This however, will make a major difference in connectivity between inside and outside as well as between the floors.

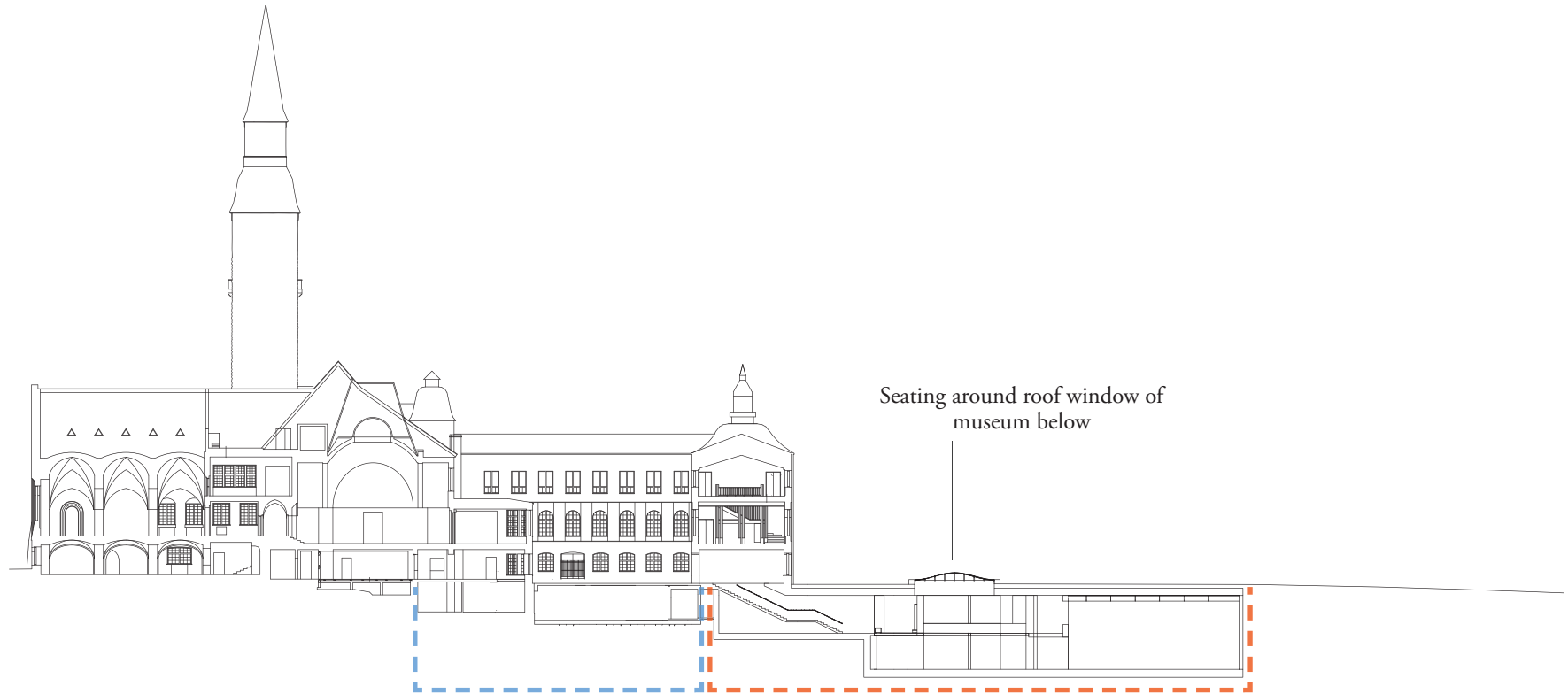
OVERVIEW OF UNDERGROUND MUSEUM EXTENSION



1:1000



 Underground storage and maintenance  Underground museum extension

SECTION
UNDERGROUND EXTENSION IN RELATION TO MAIN BUILDING



 Underground storage and maintenance  Underground museum extension

INTERIOR SPACES, THE NATIONAL MUSEUM

The presentation begins with the redesigned version of the interior spaces of the National Museum. This is the concretization of the abstract ideas we explored earlier. The main problems with the building and the issues stated in the brief that I have tried to better are:

1. Activating the staircase and adding an elevator, as to better the connectivity and better the flows for visitors.
2. Activate the courtyards by glazing them, making them usable year round. These will allow for better connectivity for the museum.
3. Open previously closed walls, allowing for better internal flows and a chance at connecting the courtyards with the new elevator.
4. Rethink the room layout so that the ground floor connects to the garden and so that the rooms are linked to each other in a good way.

The new layout of rooms together with the improved staircase and glazed inner courtyards will better suit the needs for the visitors. The ground floor now connects to the garden and the floors of the museum are better connected to each other. This is done in accordance to the briefs demands. For example, there is the added coatroom on the lower floor, which will serve visitors coming to see only the exhibition below ground.

The ground floor was mainly used for administrative purposes, while the changes made makes it a floor for exhibitions and a floor which connects to the new entrance building, which in turn links visitors to the garden. The administrative spaces that were removed from the main building, are moved to the new annex, where the spaces are better suited for office work.

In order not to be too sudden of a change from the main building to the new entrance, the ground floor of the museum merges with the new entrance building creating a blended space between the two.



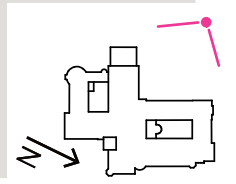
Visualisation of newly renovated exhibition space

GROUND FLOOR



ROOMS

- 1. Now covered courtyard
- 2. Exhibition space
- 3. Offices
- 4. Library/Offices
- 5. New entrance
- 6. Foyer/Information
- 7. Foyer
- 8. Coat room
- 9. Connecting space
- Elevators

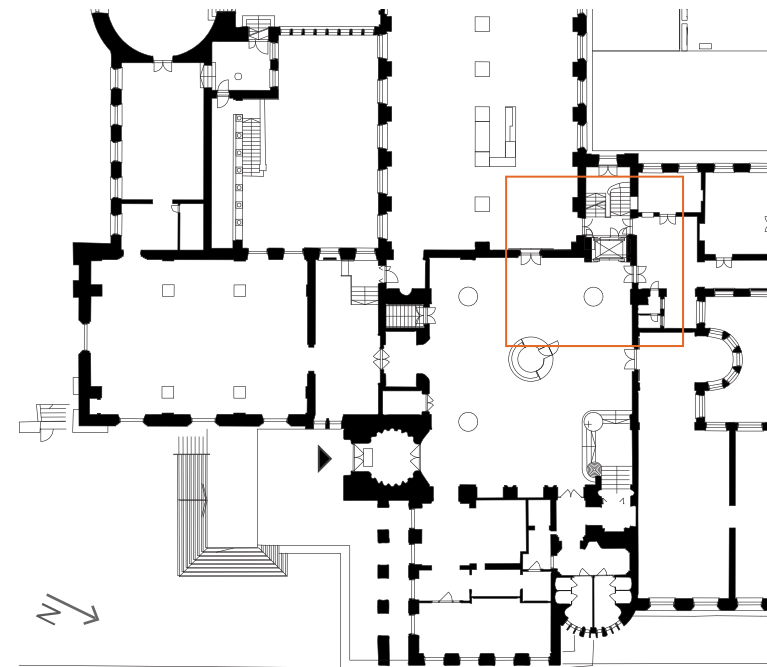


STAIRS & ELEVATOR, A CONNECTOR

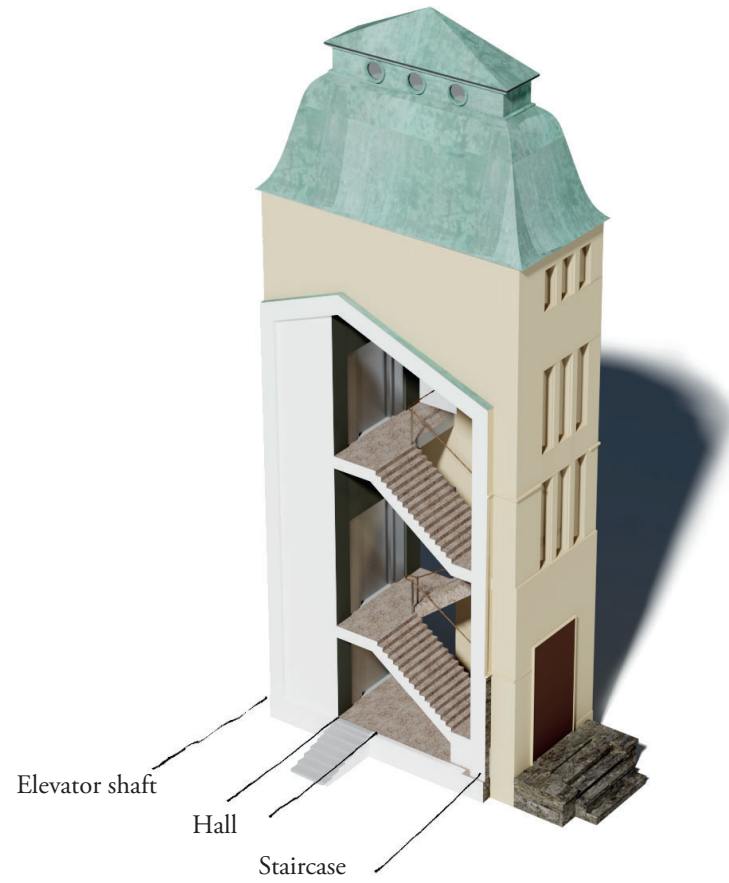
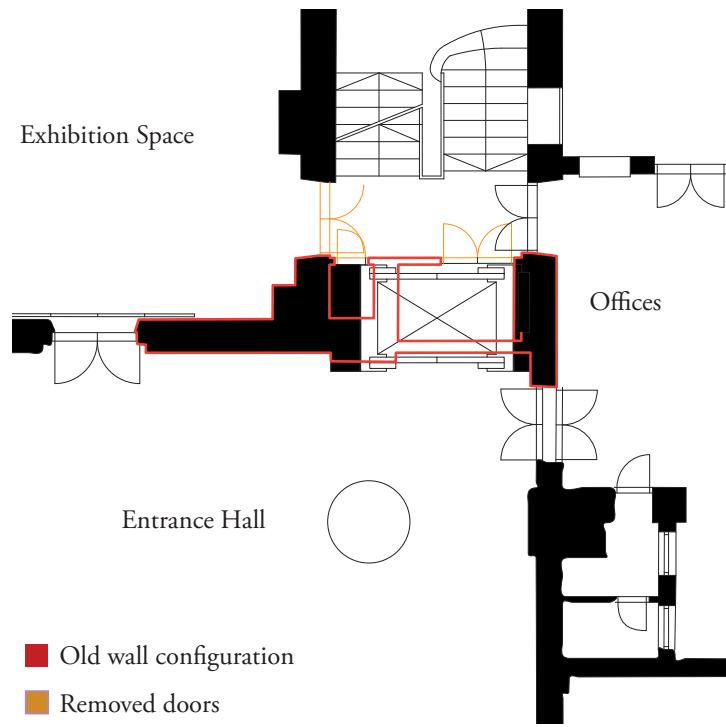
The shape of the staircase is well distinguished on the facade of the National Museum. The perhaps most important idea of this extension came in the form of this staircase. As it is what allowed for the complete redesign of the interior spaces and opened up the possibilities of linking the ground floor to the garden.

I blew new life into this staircase by making it a new entrance from the expansion, modifying the old cleaning cabinet in the far end to now house an elevator, connecting the ground floor in a direct way to the entrance hall on the second floor. And finally making it possible for visitors, as well as staff to use it for transportation both across and between floors.

This is an incredibly convenient modification as it acts as a connector between the entrance, the new lobby, the new inside/outside exhibition room, and the entrance hall.



Floor 2, Entrance Hall

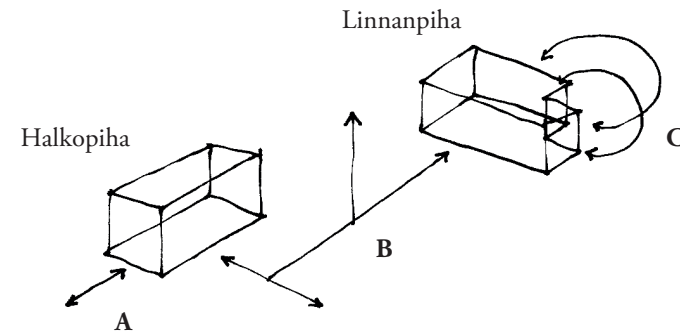


GLAZED ROOFS, ACTIVATING THE COURTYARDS

The two courtyards are redesigned to serve year round instead of being limited to usage on summers. By covering them in a glass roof they can house a range of different functions, while still keeping their original purpose. This purpose being to provide light for the rooms directed towards the courtyards. The two courtyards now become flexible exhibition spaces.

As for courtyard A, “Halkopiha”, it in addition acts as a connector between the new museum information desk, the coathanging facilities and houses one of the two main links to the new, underground museum.

Courtyard B, “Linnanpiha”, is altered more drastically. This courtyard is merged with a smaller, more intimate exhibition space by opening a previously closed wall. This space opens up towards the staircase and links the “Linnanpiha” together with the entrance building.



- A. Connection to the new underground exhibitions
- B. Main connection node between floors and new entrance
- C. Connecting the floors together

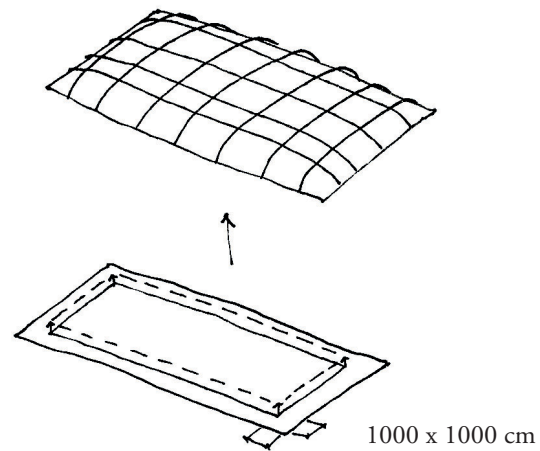


Linnanpiha from above



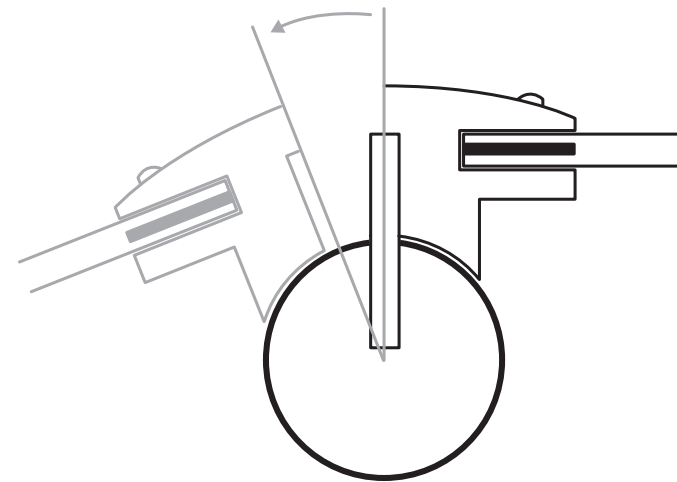
Halkopihha from below

FORM AND DETAIL



ROOFS

The shapes of the glass roofs are derived from the form of the architecture below, but extruded and bent in a way that allows for snow to build up on top of them. They are attached to the walls in a discreet way making seams less apparent



DETAILING

The metal structure is designed circular in order to create soft shadows. The circular shape helps when attaching the glass holding frames as well. The fluctuating shape of the roofs are made possible by this design.



Cut through of the glass roof in Linnanpiha



INSIDE/OUTSIDE

The new exhibition room connection to the courtyard “Linnanpiha” is made possible by opening up the windows. This room makes the flow natural on ground floor, as it acts as connector of the courtyard and infodesk.

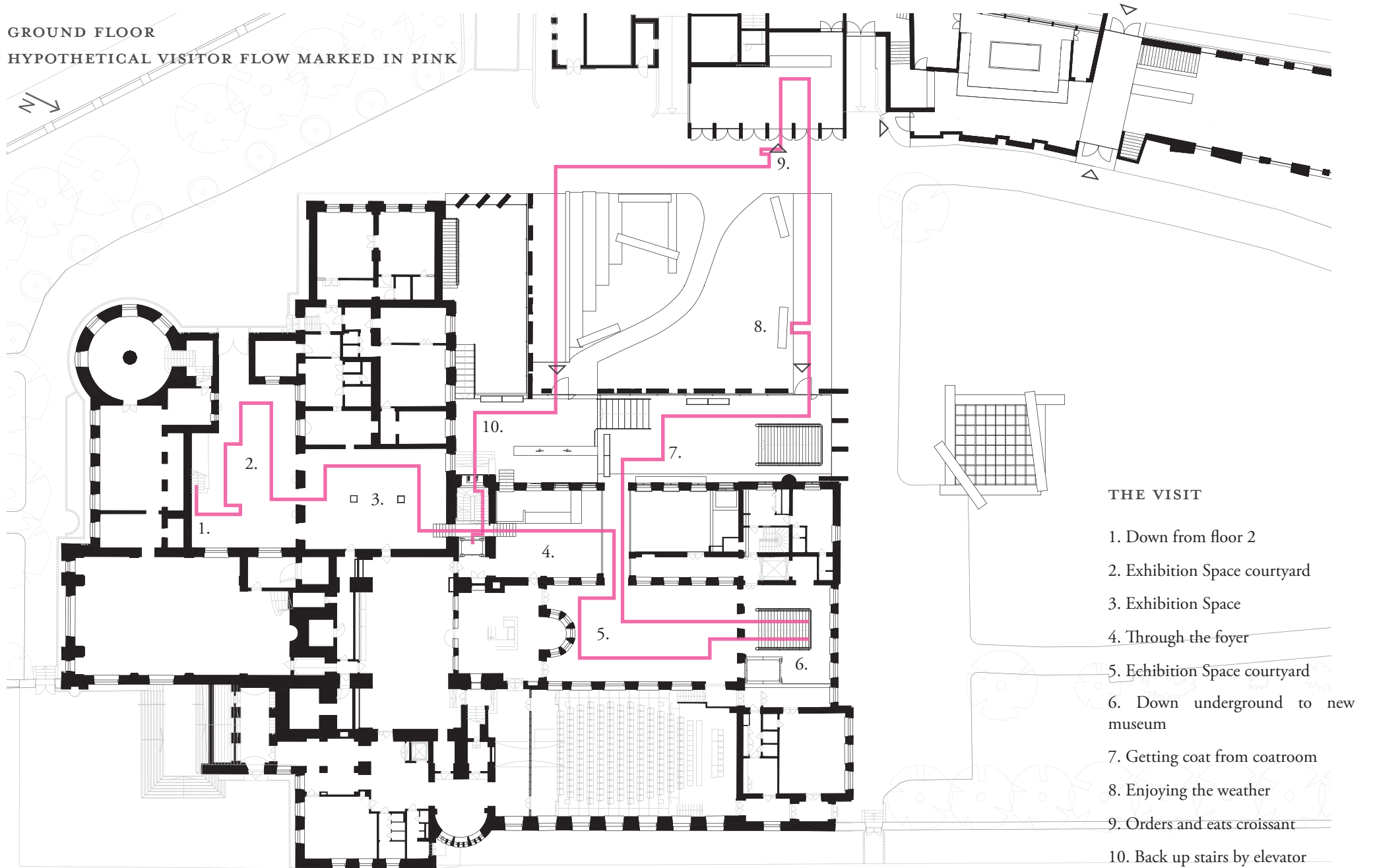


LINNANPIHA

As visible from this visualisation, this now interior room connects the wings of the old museum building together with our newly activated groundfloor. The openings in the far end is where the picture to the left is taken.

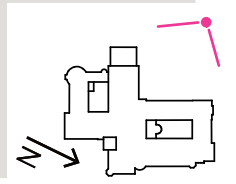
GROUND FLOOR

HYPOTHETICAL VISITOR FLOW MARKED IN PINK



THE VISIT

1. Down from floor 2
2. Exhibition Space courtyard
3. Exhibition Space
4. Through the foyer
5. Exhibition Space courtyard
6. Down underground to new museum
7. Getting coat from coatroom
8. Enjoying the weather
9. Orders and eats croissant
10. Back up stairs by elevator



THE EXTENSION

The extension can be broken down in to the following four parts:

The Entrance

Contains the new entrance, hugging the western part of the museum. Serves as a link to the old museum, merging it with the new park.

The Park

The improved park right next to the entrance. A more dynamic and exciting place to visit that merges park together with extension.

The Restaurant(s)

The three separate buildings, linked together, serving different functions and clientel in all buildings.

The Museum

New underground facilities housing large and demanding international exhibitions.

The extension speaks the same architectural language as the old museum, but with a different dialect. The extension is a contemporary addition that simultaneously is able to respect the site, while adding new and exciting elements to it allowing for a pleasant, ever stimulating visit.

The material palette is limited to rough stone blocks, polished concrete, copper, a range of woods and leather. This, as to keep things simple and easy to understand and process. The design is elegant and functional, bringing in contemporary elements to the century old enviroiment.

The architectural language in this extension takes advantage of the elements provided on site today and transforms them to something new, something that will provide the visitor with an ever changing and stimulating museum to visit.



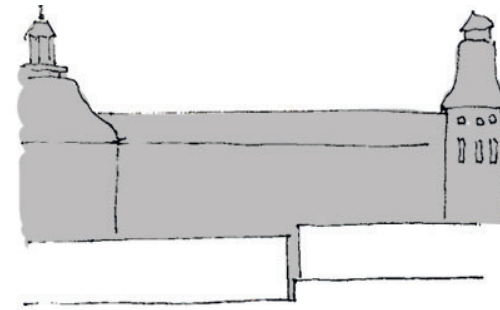
The new entrance

THE ENTRANCE

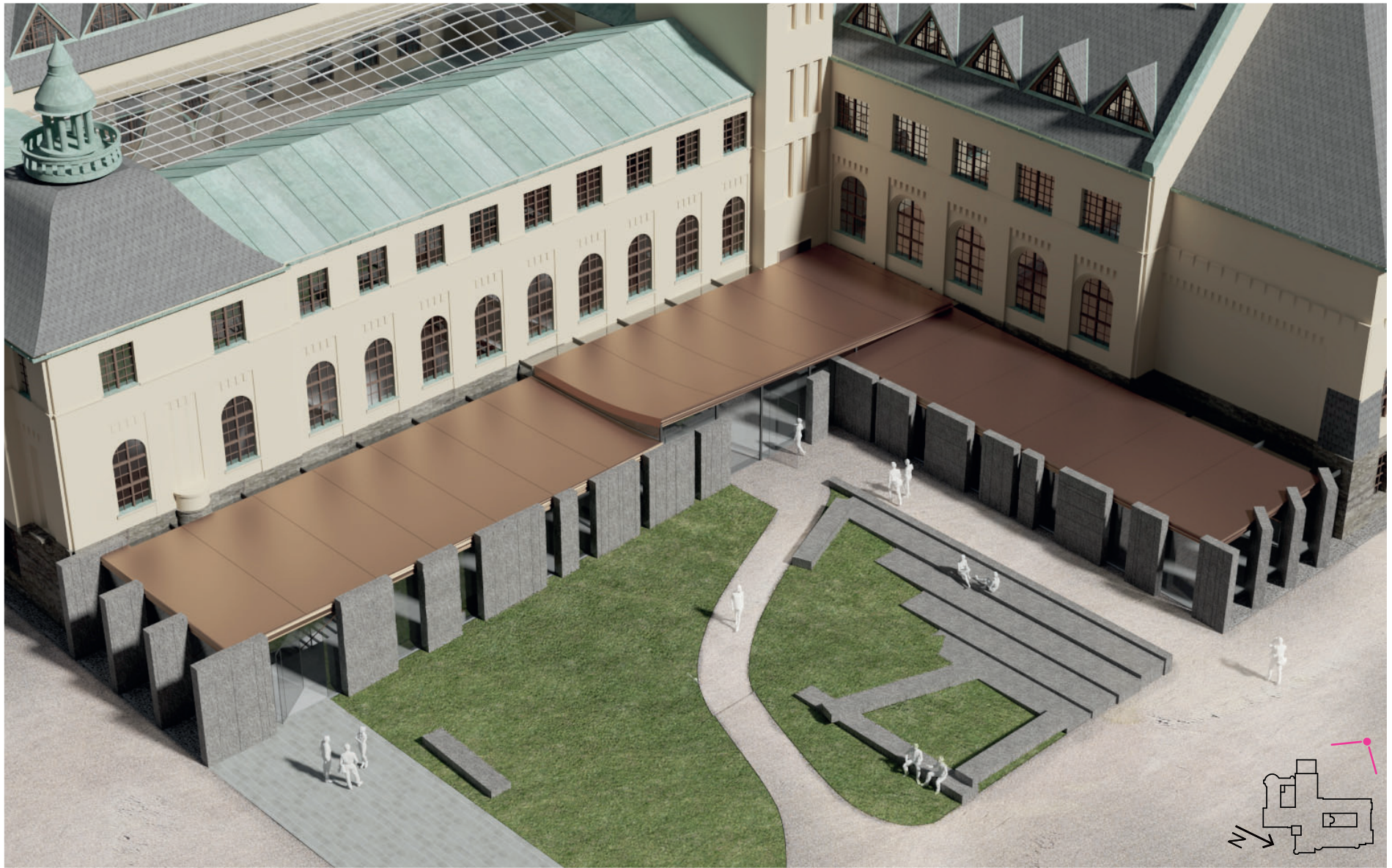
To blend in with the museums main building and environment the entrance tries to speak the same language as the National Museum. The entrance building becomes one with the surrounding garden, and fuses into the side of the main museum building as to bow for the main building. Entering it happens through the small and modified park right outside of it where visitors walk through glass doors leading into this bright space.

From above another thing is also clearly visible. The stone blocks, that from the ground define the buildings architectural language, are from this view clearly just a continuation of the museums old stone base. The stone blocks are an abstraction of a heavy stone wall. They are made functional through architecture. They bear the roof, provide light to illuminate the interior and from the interior open up views of the surroundings.

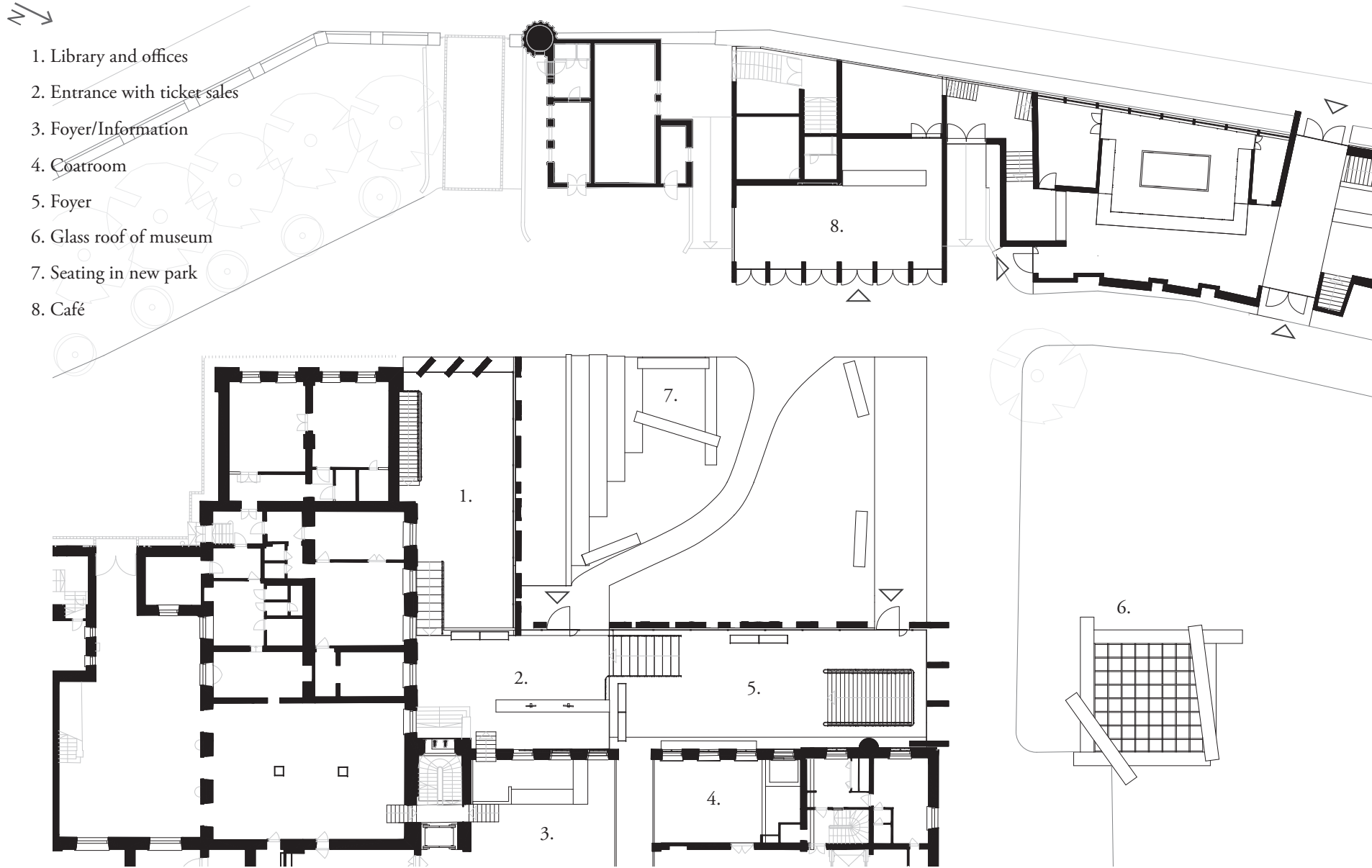
Since the ground is slanted, with a variation of about a meter, the entrance is sunk into the park. This makes for a captivating effect. We are able to keep full height in the interior, yet keep the exterior discreet without having to raise the stone blocks to extreme heights. The park is scattered with the same stone elements, here though, they act as seating for the public.

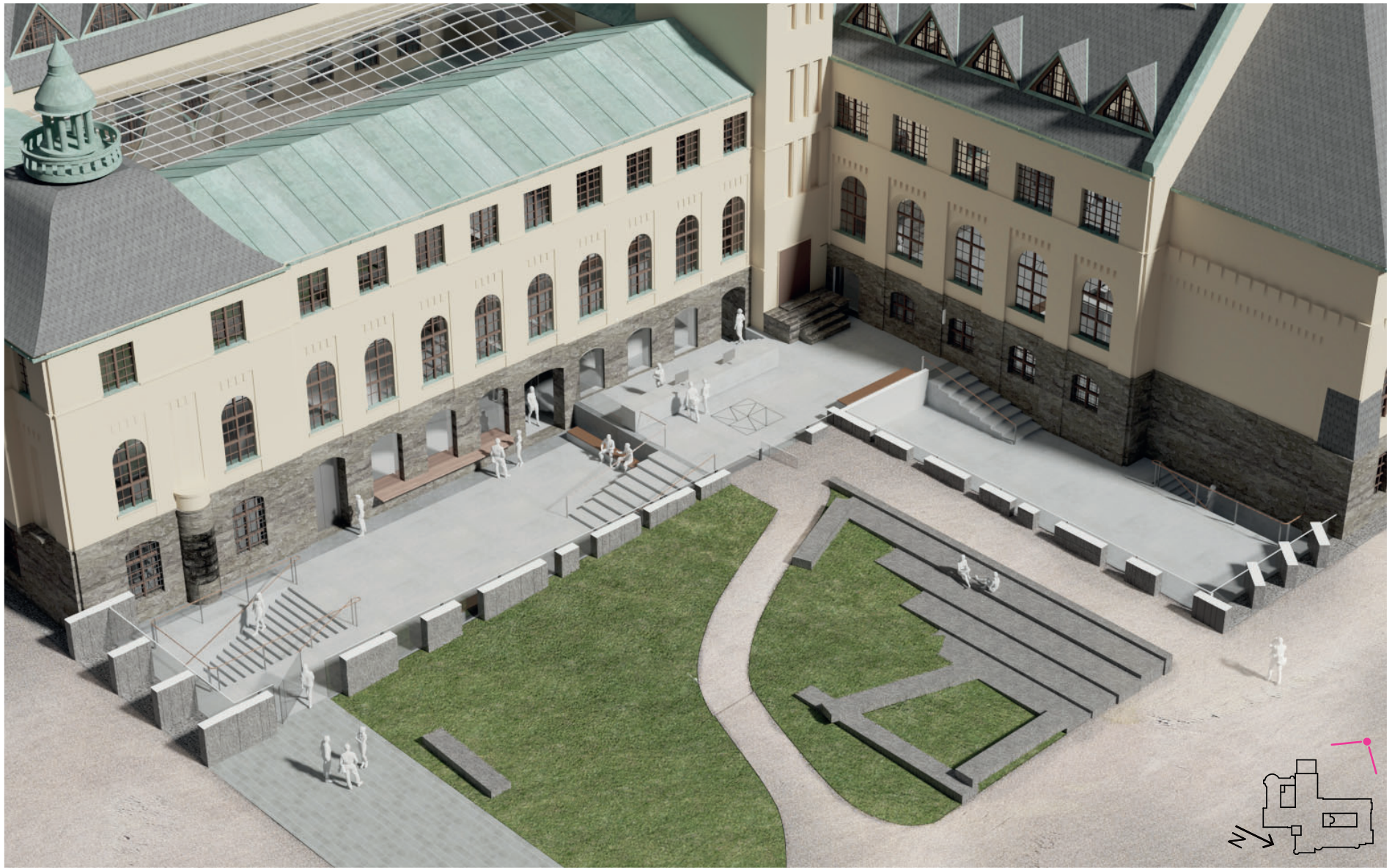


Taking advantage of the slanted ground



NEW ENTRANCE, PARK AND CAFÉ

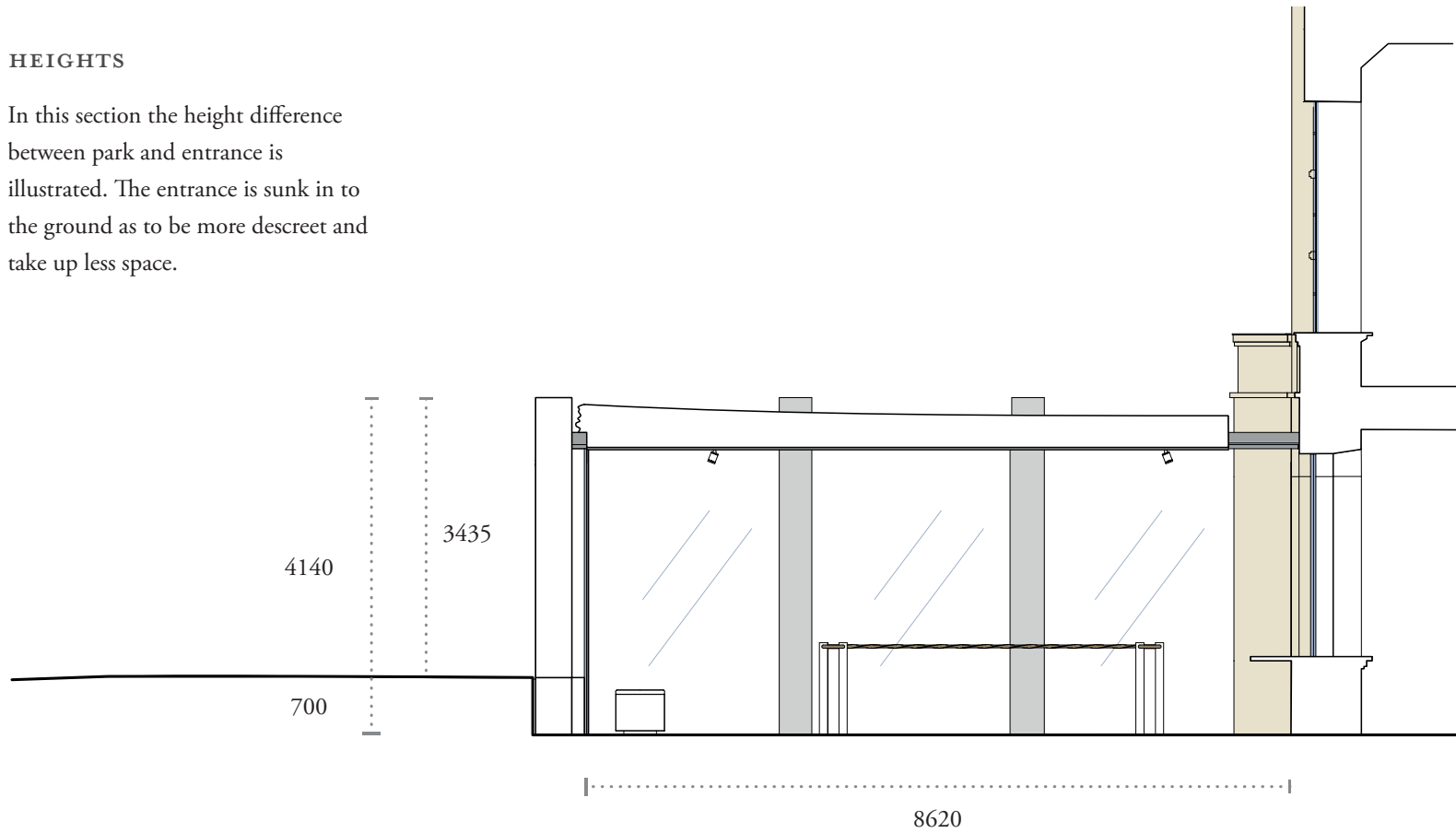




SECTION THROUGH NEW ENTRANCE

HEIGHTS

In this section the height difference between park and entrance is illustrated. The entrance is sunk in to the ground as to be more discreet and take up less space.

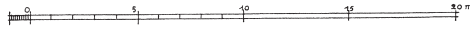




The entrance foyer, interior towards stairs to underground spaces

NATIONAL MUSEUM

SKALA 1:100



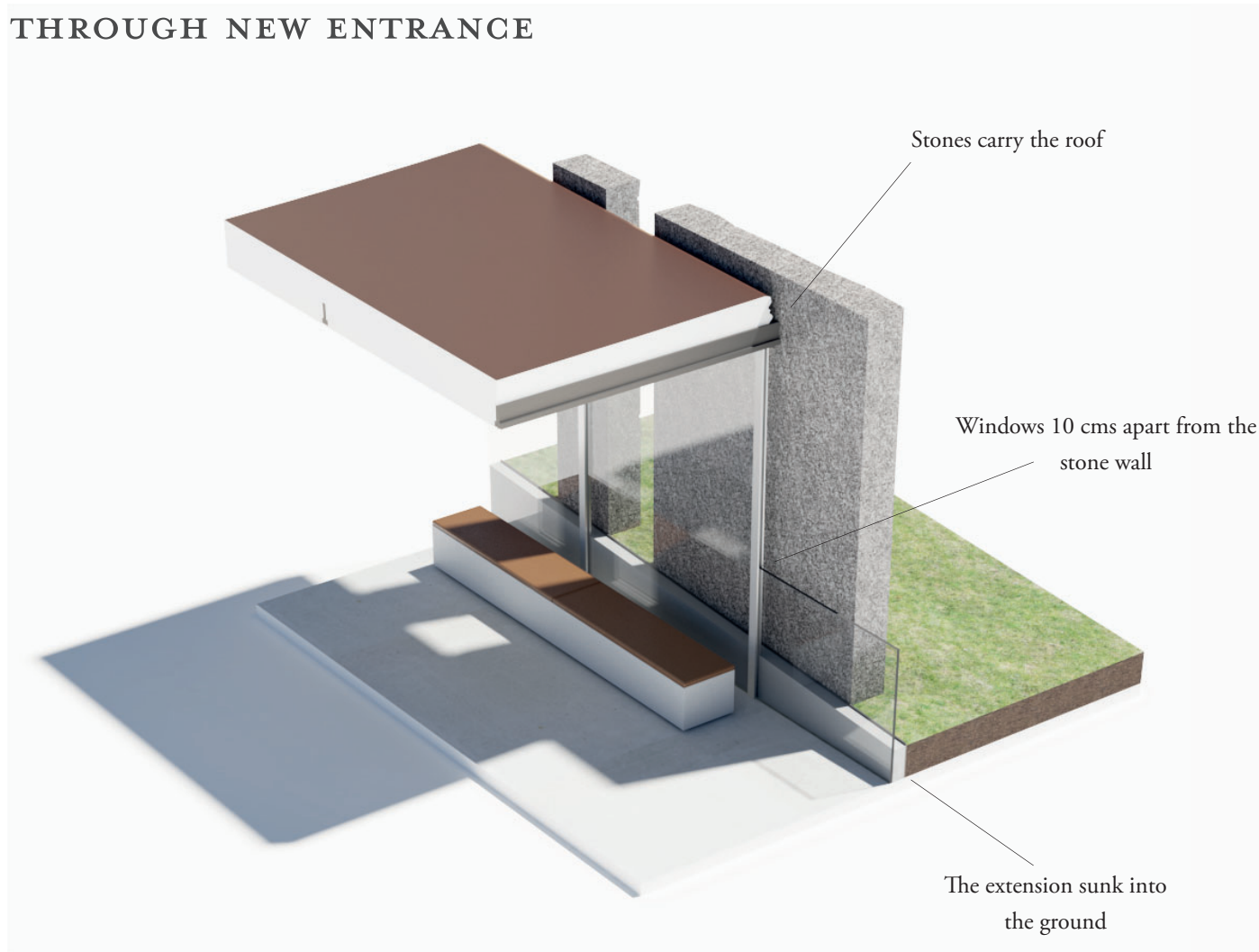
FASAD MOT MUSEIGATAN





The entrance, as seen from the Häkälä

SECTION THROUGH NEW ENTRANCE





The stone blocks of the extension

PARK & CAFÉ

The blocks are rotated as to allow for the most intriguing views. This is perhaps best illustrated when looking at the café. Here, the blocks open up towards the park near the entrance, a park that suits many activating functions, such as working as seating area for the café.

The volumes extend from the museum and the wall surrounding the museum grounds. They create a new courtyard, a courtyard that is open and from which a visitor can access all that the museum has to offer.

The building that previously occupied that which the café now houses, was an improvised shed, used for trash that came from the previous café. This was made nonessential by removing the café from interior of the museum to the outside.



It can't be all serious work. Here's a picture I doodled while I procrastinated

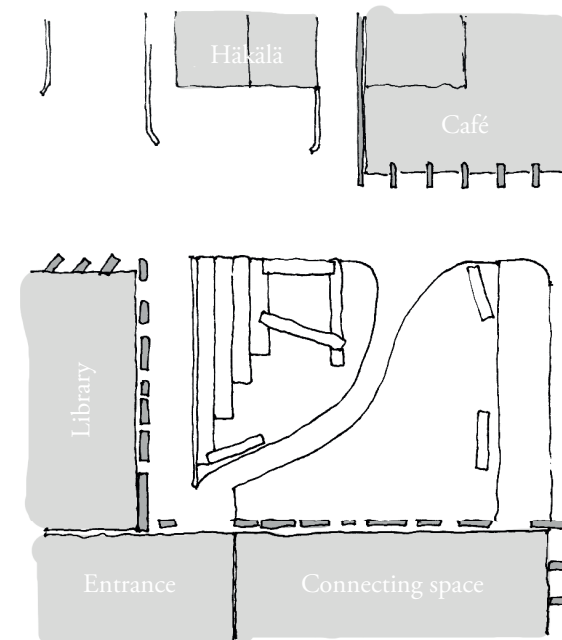


PARK

The new and expanded park is what lies at the center of the new exterior courtyard. It works as a connecting node for flows of people entering the museum from the west, from visitors coming from inside the museum and for people visiting only the museum park. In addition to this, it works as a hang out area with its large stone blocks that are used for seating.

The previous park was small and was not connected to the museum. There were parking spaces which was convenient for staff, but do not make for a particularly nice place to sit down and enjoy the weather. I made the decision to remove all parking in the park in order to up the visitor experience. There is a new parking garage below Mannerheimintie, connected to the museum, better suited for staff parking.

New park, no parking, a pleasant place to visit and move through.

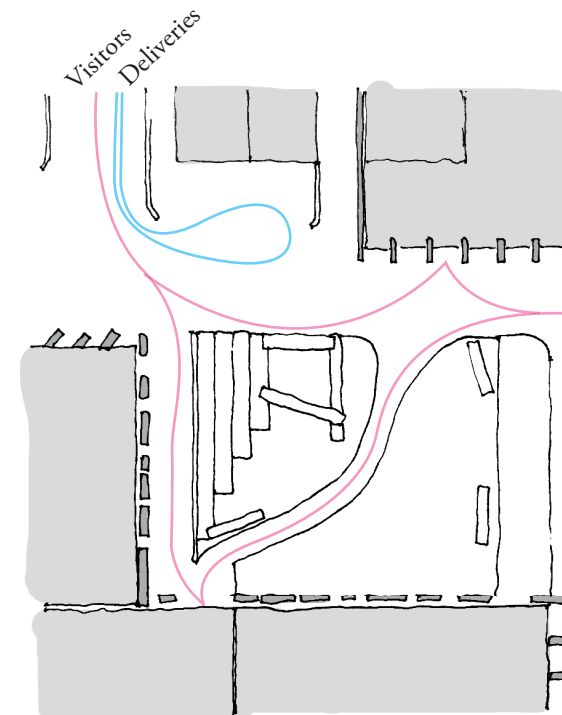




CAFÉ

The café is one part of the gastronomy trio in the museums exterior. It houses a coffeshop close to both the new entrance building and the main entrance to the park itself. The idea of this concept is that the pastries and foods sold here are meant to be produced by the restaurant kitchen, keeping with the same gastronomy image of the other two components of the trio. However, the café has the ability to cater to the fast needs of customers staying between 15-30 minutes. It acts as a compliment to the park and the entrance building, a piece that ties the place together and makes for a pleasant stay.

The building comes equipped with a private room for its staff. The southern part of the building is for the connection with the underground space that houses the storage area for art currently not exhibited. This part is the only thing kept from the previous building, but modified to better suite the architectural language of this design.

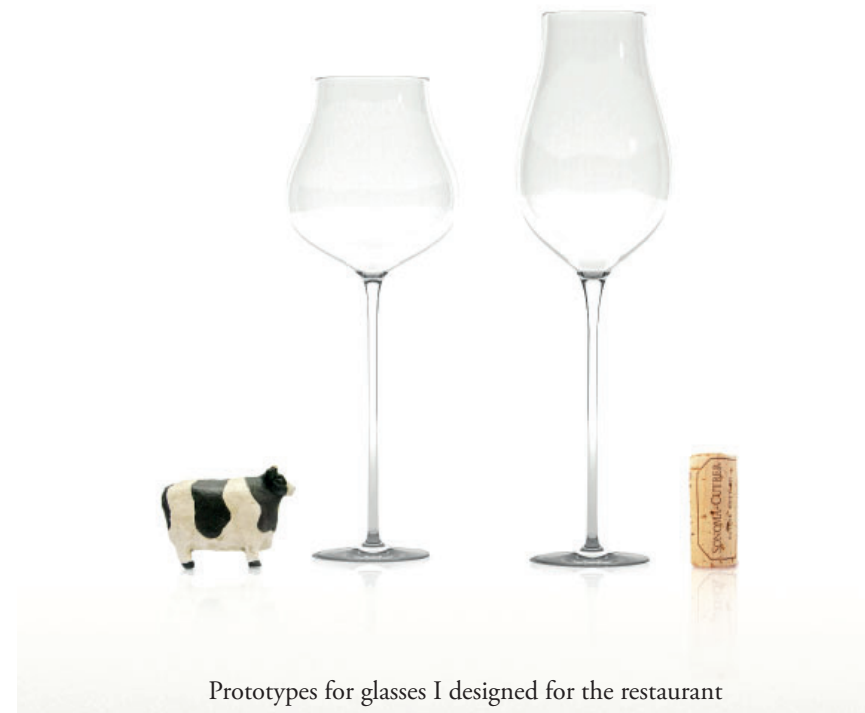




THE RESTAURANT

The remaining two-thirds of the restaurant comes in two different shapes, as to cater the needs of yet two groups of customers. The first being the category staying for 30-90 minutes, combining lunch and dinner guests of both museum visitors and regular diners. The second serves fine dining guests, looking for a more creative restaurant experience and staying for more than 2 hours. The difference in architectural expression also differs quite drastically between these two restaurants. While the lunch/dinner dining room is an open bright space that mimics the language of the entrance with openings towards the park, the fine dining space is intimate and cozy, with a focus on the food and the preparation of it.

The restaurants connect to the street behind the wall, as well as to the new museum below ground, and acts as a further connector of flows. This connection allows for the restaurant to occasionally cater food for the museum if larger events require it. You can, just as well, use the restaurant entrance to enter the museum park as you can the other entrances, this in order to promote the restaurants.



Prototypes for glasses I designed for the restaurant

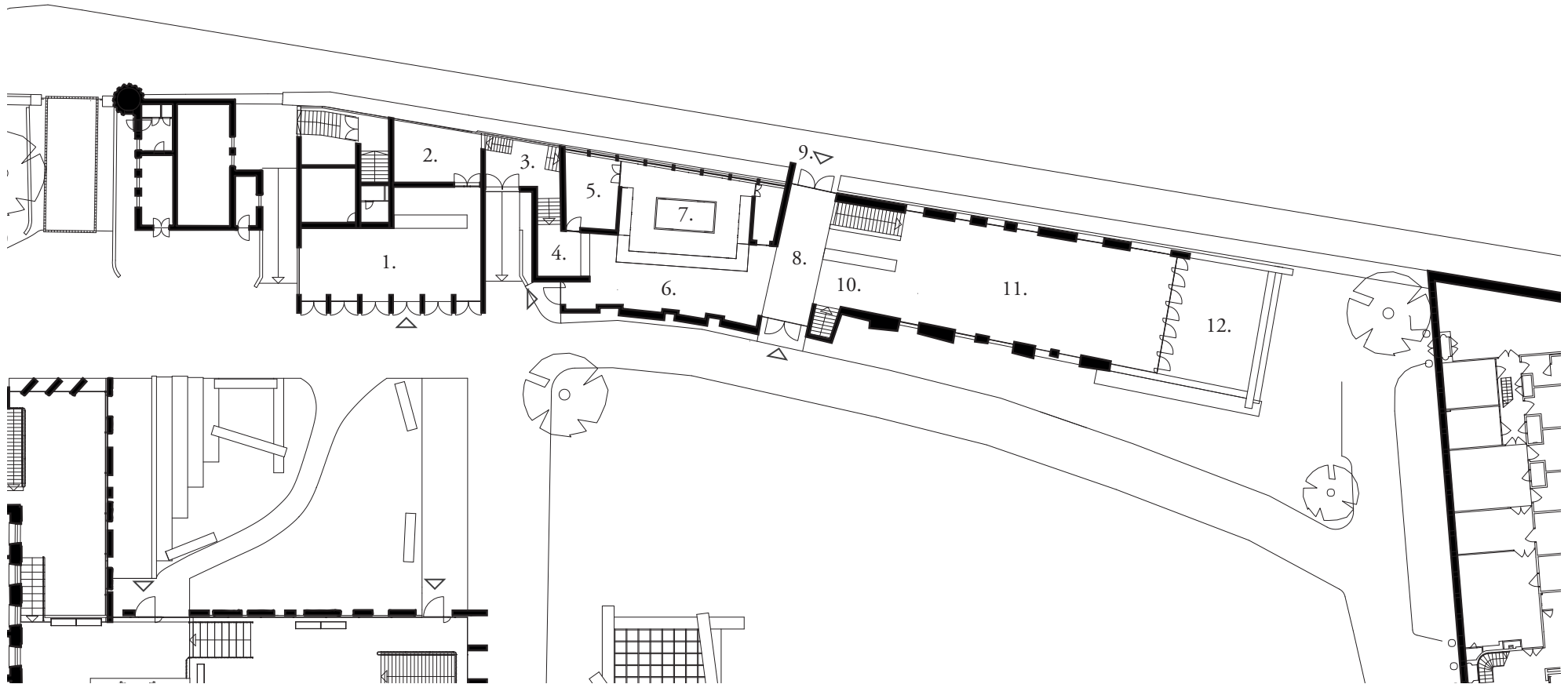


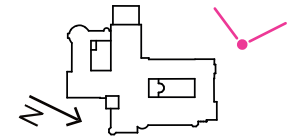
Restaurant, from the garden

RESTAURANTS ONE, TWO AND THREE
GROUND FLOOR



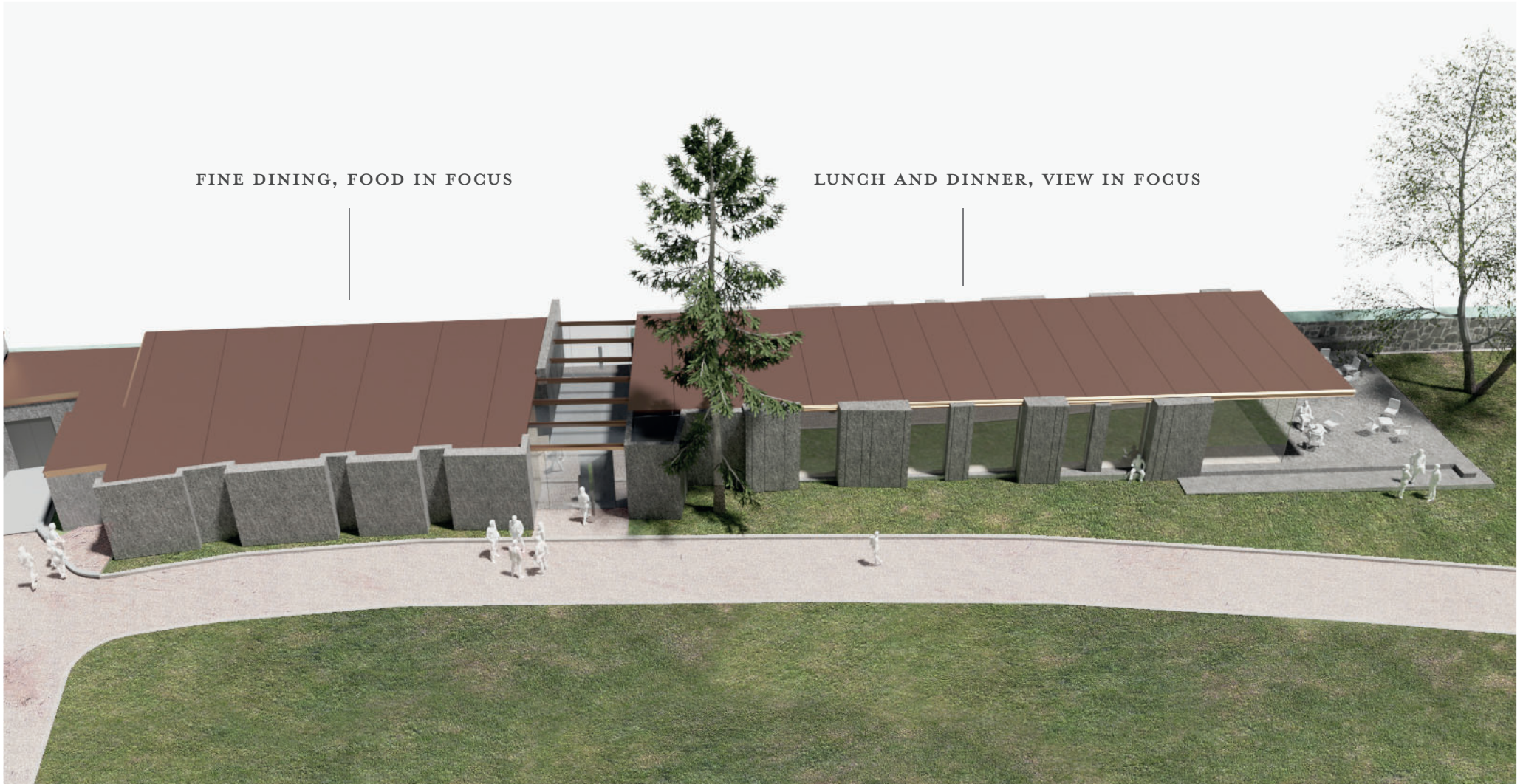
- 1. Café
- 2. Employee room
- 3. Delivery room and connection to cellar
- 4. Reception
- 5. Storage & prep. space kitchen
- 6. Seating, Fine dining
- 7. Kitchen
- 8. Connecting hallway
- 9. Entrance from street
- 10. Reception and entrance to museum
- 11. Seating, lunch and dinner
- 12. Terasse





FINE DINING, FOOD IN FOCUS

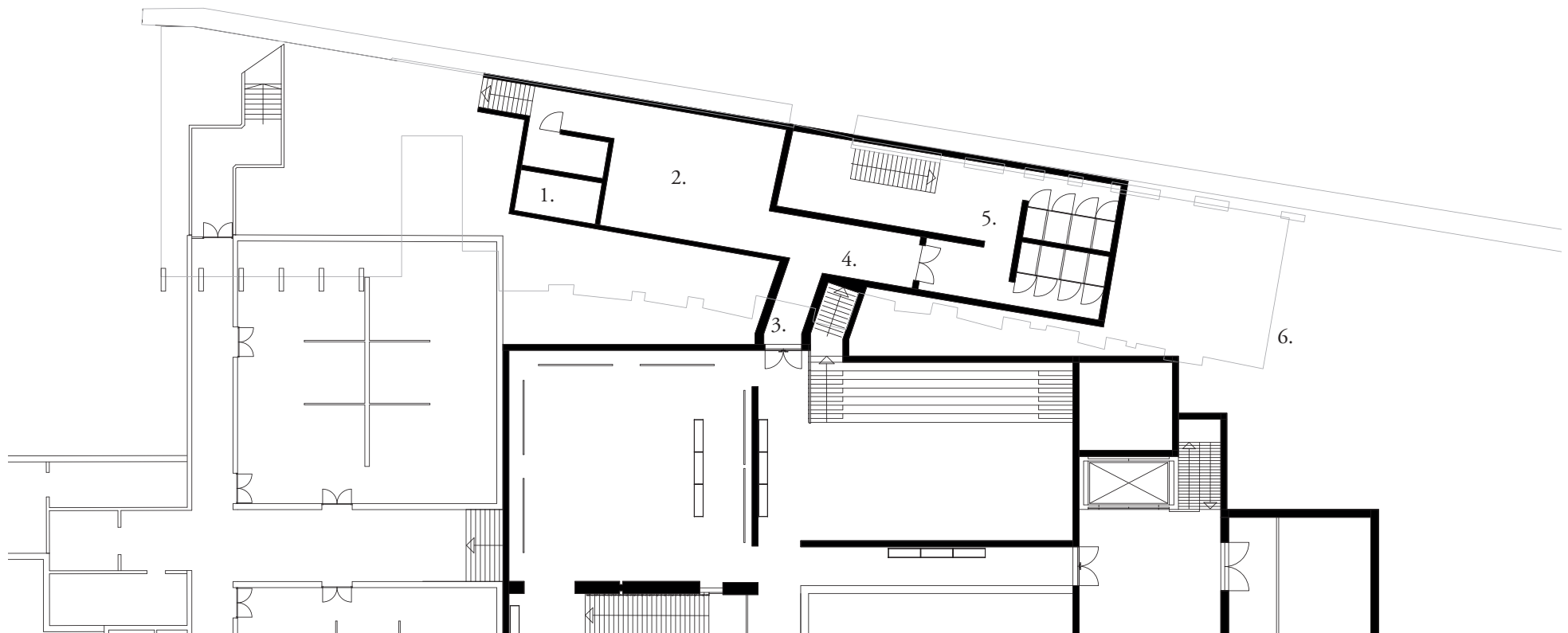
LUNCH AND DINNER, VIEW IN FOCUS

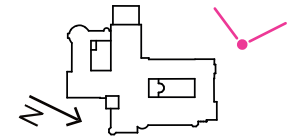


RESTAURANTS ONE, TWO AND THREE
BASEMENT, CONNECTION TO MUSEUM



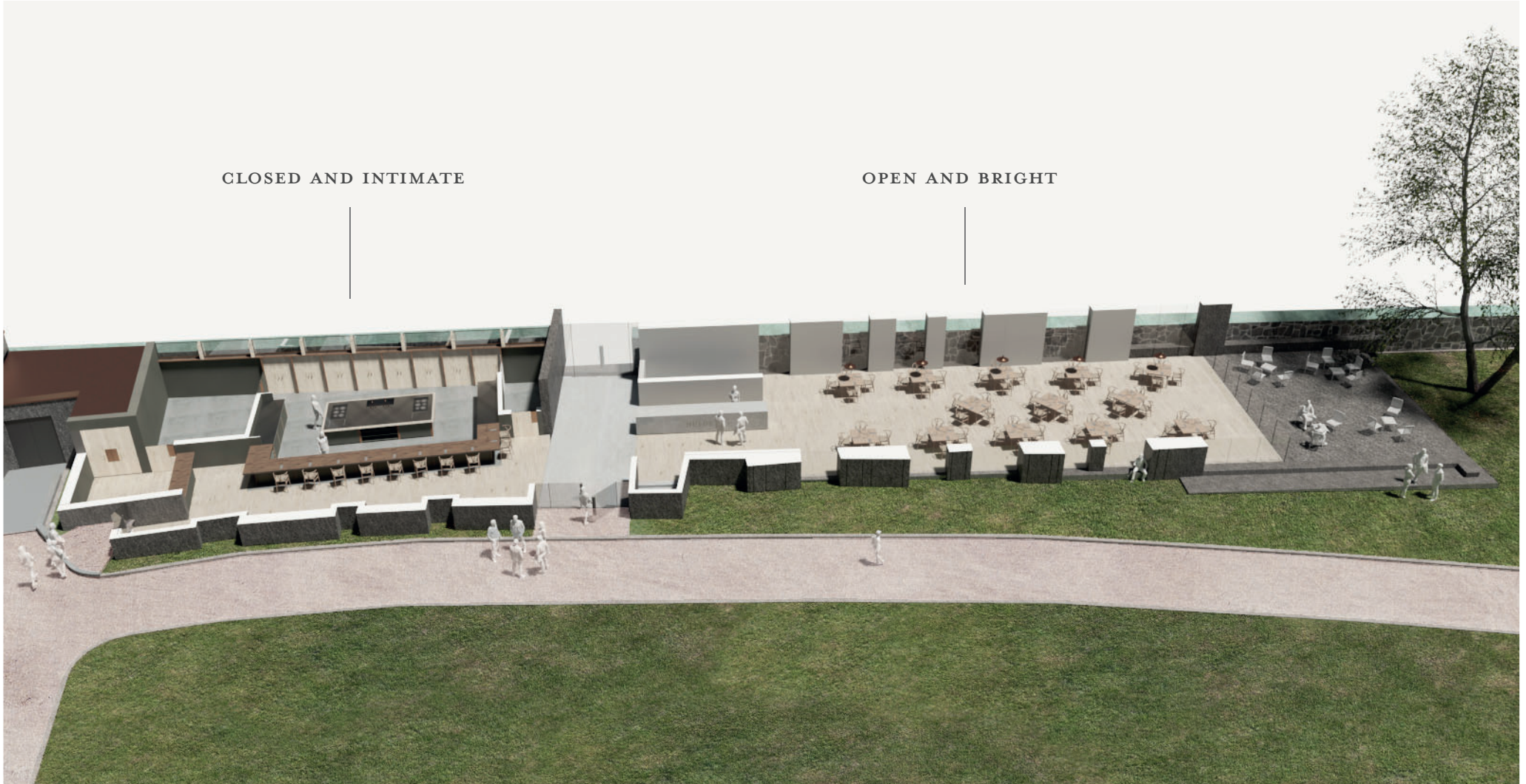
1. Changing rooms
2. Storage and food preparation
3. Connection to museum for catering
4. Connecting stairs for visitors and diners
5. Toilets
6. In grey, the floor above





CLOSED AND INTIMATE

OPEN AND BRIGHT





DINNER / LUNCH

The third of the restaurant focusing on dinner and lunch is a bright space designed with a palette of light woods and seamless windows towards the garden.



FINE DINING

As a contrast to the other two, the fine dining area gives visitors an intimate experience close to the food and the chefs making it.



DINNER / LUNCH

The third of the restaurant focusing on dinner and lunch is a bright space designed with a palette of light woods and seamless windows towards the garden.



From the path in the garden, the walls of the restaurants give the illusion of being free standing stone blocks of varying sizes. At the northernmost part a terrace.

THE MUSEUM

The museum is situated below the ground of the museum park and connects to the old museum, as well as to the new entrance. In addition to this it connects with the restaurant and old storage spaces for unexhibited art. Furthermore the new museum connects through a large service elevator to the underground parking facilities, making it a great way of transporting large pieces of art and exhibition material to and from the museum.

This new addition is bright, contemporary and follows the same architectural language of the architecture above it. Although here, it has been further abstracted and made into a functional, exciting museum space.

The palette of the museum is kept neutral with bright polished concrete and light walls, with detailing in wood, leather and dark steel. Yet the form of the interior is kept exciting through an ever changing sequence of architecture that the visitor ventures through

upon visit. The rectangular oculus as visualized to the right connects the underground to the park, creating a mesmerizing space for the museum lobby, while the rest of the exhibition spaces are lit up by a soothing and soft artificial light, leaving the focus on the art.

The peripheral parts of the underground are supporting functions for the exhibition spaces. Here lie functions such as large workshops, where exhibitions can be assembled and built. Furthermore the periphery covers important functions such as technical areas, staff rooms, greenrooms for artists and other support for the museum.

The flow of the this new museum links seamlessly to the other parts of the museum complex. This space though is meant to exhibit contemporary shows and is meant to differ in its expression from the main building. The two are separate, used for separate sorts of exhibitions, but linked together in order to create a continuous visitor experience.

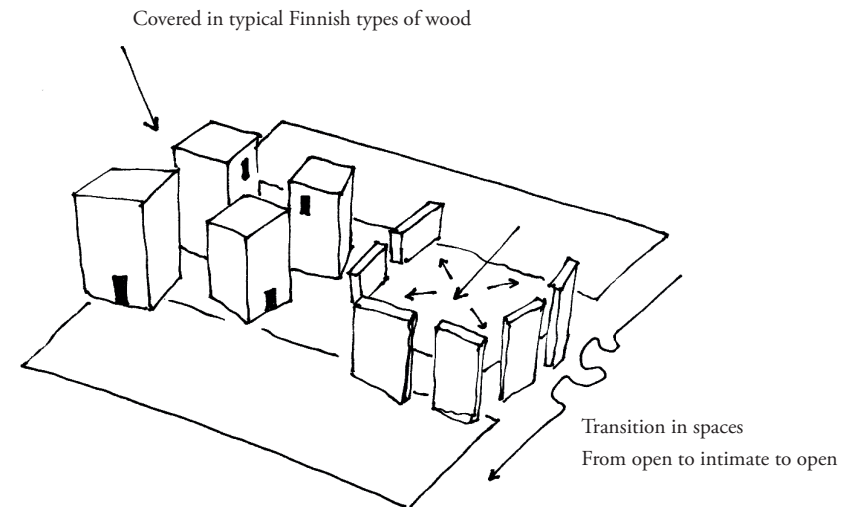


The rectangular oculus does not only provide sunlight, but also a connection to the garden above

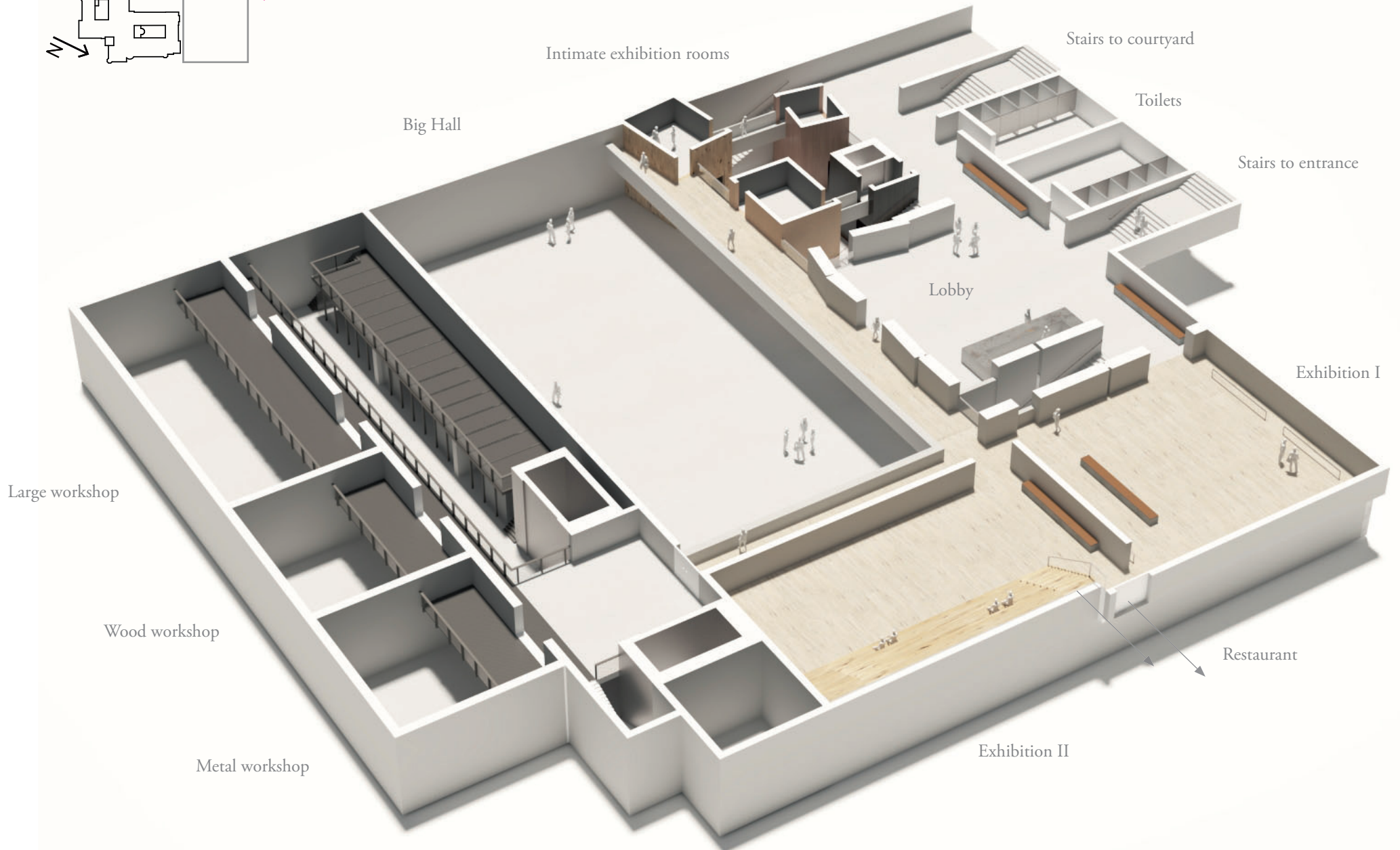
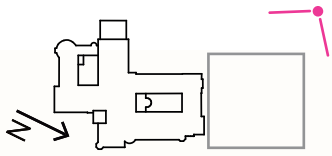
SPACES AND SHAPES

The interior spaces of the museum are ever changing as you move through the exhibitions. When making your way down the stairs the change in space and architectural language is clear. You arrive at a collection of more intimate parts of a whole, each with their own expression, each with different functions. The lobby is bright and connects to the above, while the smaller pillar rooms are individual exhibition spaces clad with typical Finnish types of wood, an ode to this being a place to honor Finnish traditions and achievements. These both connect to other exhibition spaces, the smaller of these a more traditional museum space, while the larger, main hall can support demanding large exhibitions or concerts. All of this is connected with a mezzanine, where the visitor can experience the art from yet another point of view. The supporting functions are kept in the periphery, thus separating the visitor from the employee.

The architectural language of above is venturing down below, creating a simple and elegant, yet complex museum experience.



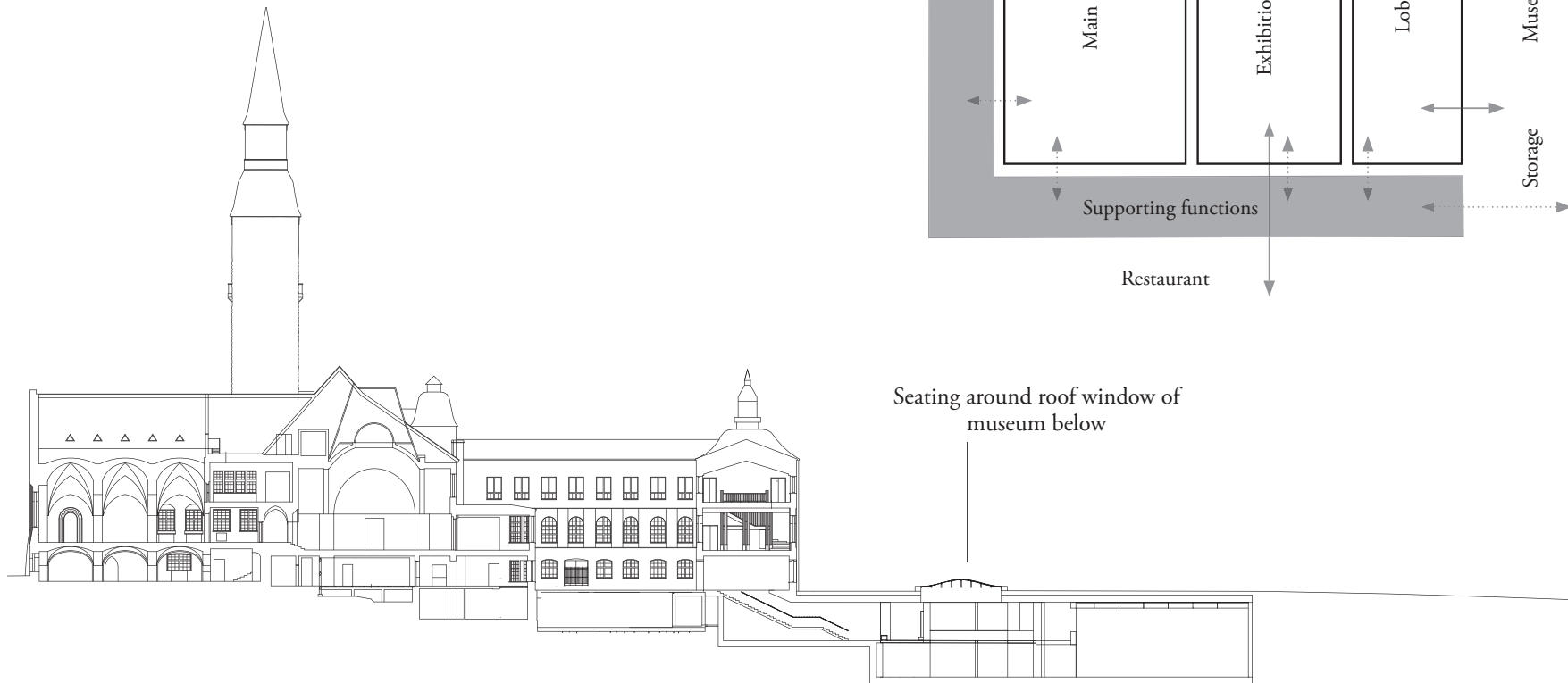
The museum in Helsinki



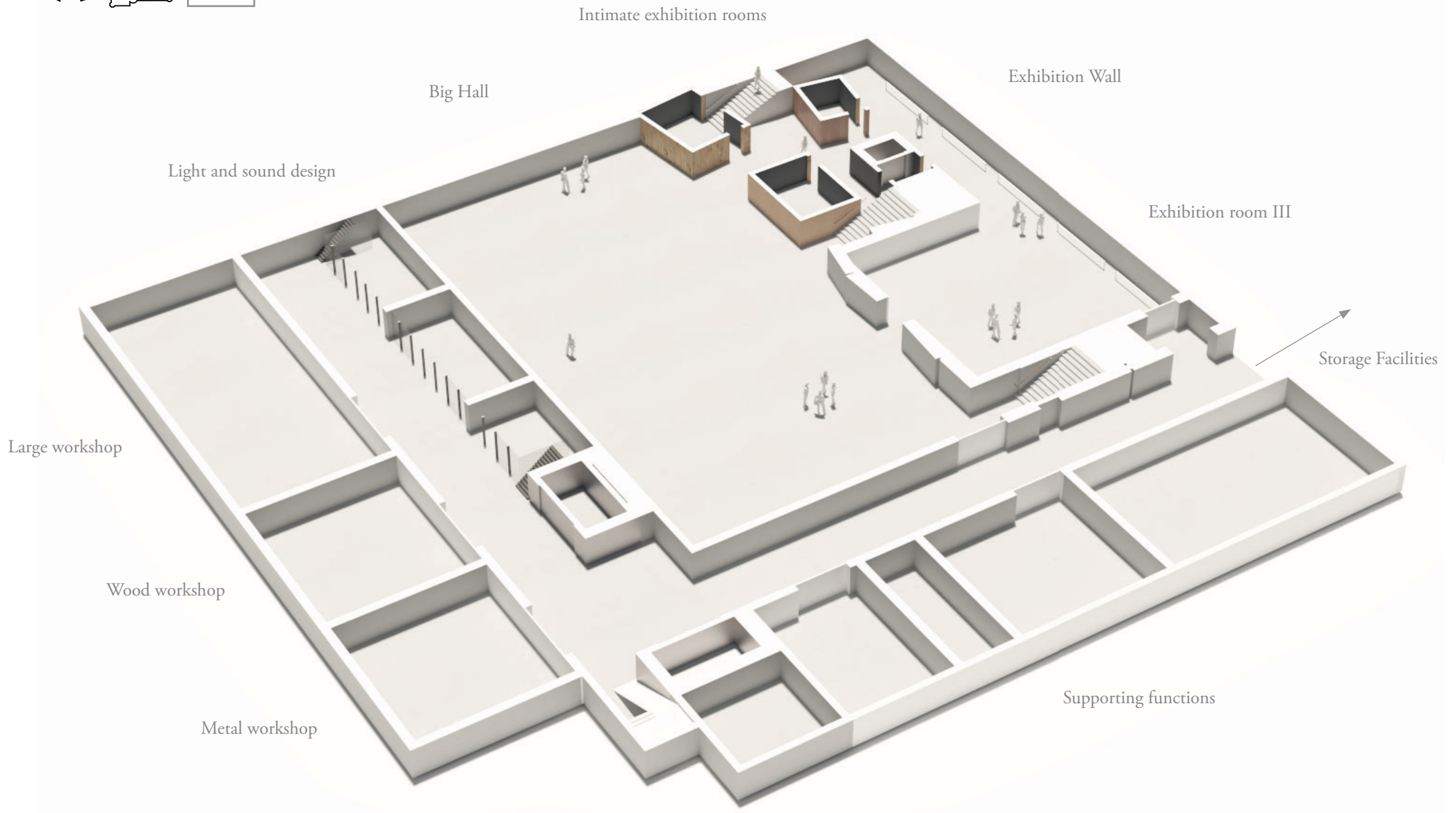
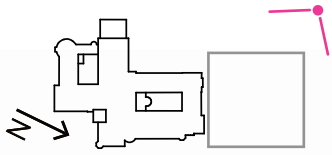
ROOFS CLOSED, DAYTIME, EXHIBITION LIGHTING

SECTION

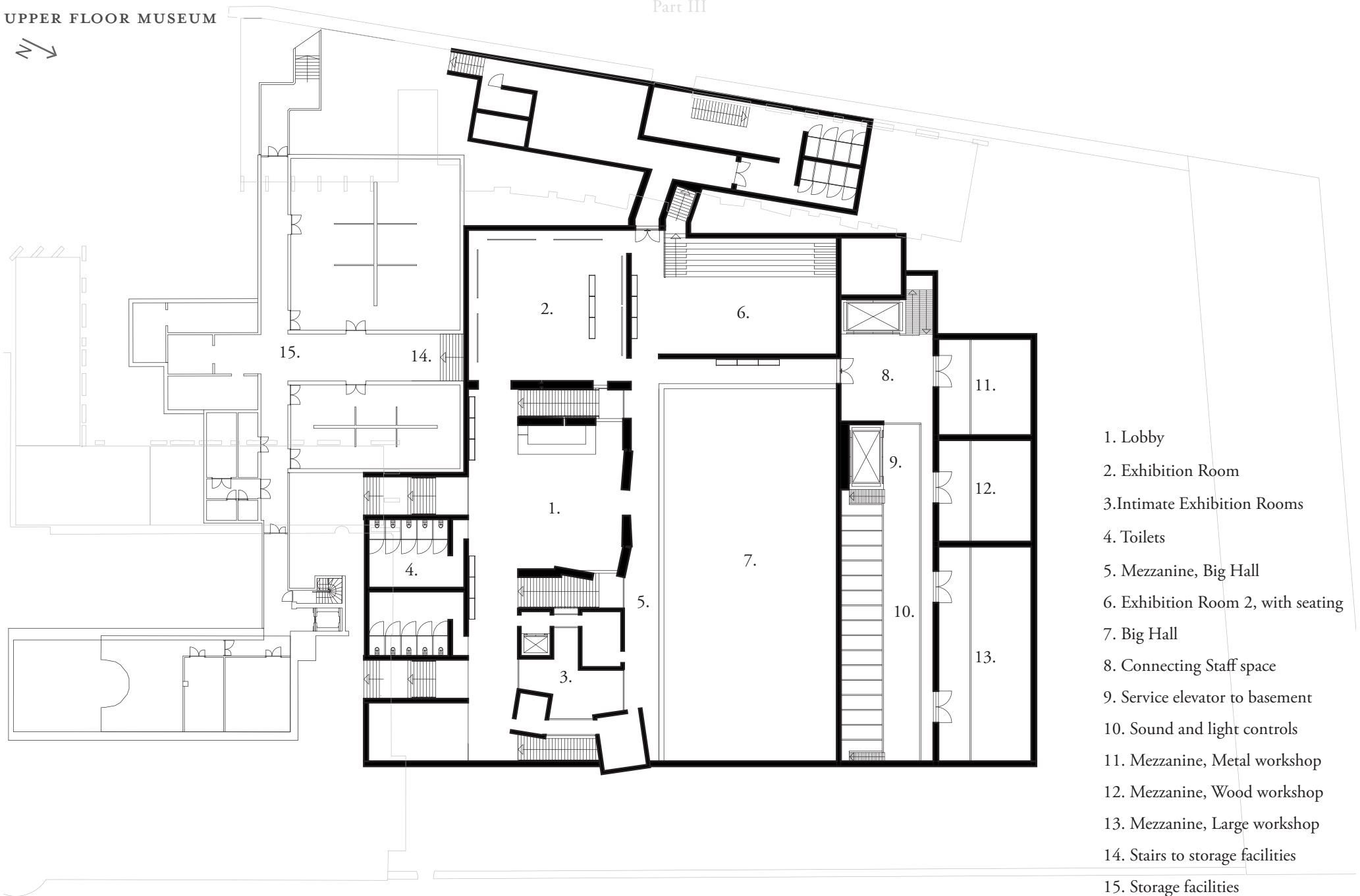
This section through the museum's courtyard shows the relation between the underground museum and the garden. Note the light inlet in the museum roof.



The museum in Helsinki



UPPER FLOOR MUSEUM



BOTTOM FLOOR MUSEUM



- 1. Exhibition Wall
- 2. Exhibition Room 3
- 3. Intimate Exhibition Rooms
- 4. Big Hall
- 5. Storage, sound and light
- 6. Elevators
- 7. Metal workshop
- 8. Wood workshop
- 9. Large workshop
- 10. Maintenance room
- 11. Employee room
- 12. Toilets
- 13. Green room
- 14. Storage
- 15. Stairs to storage facilities

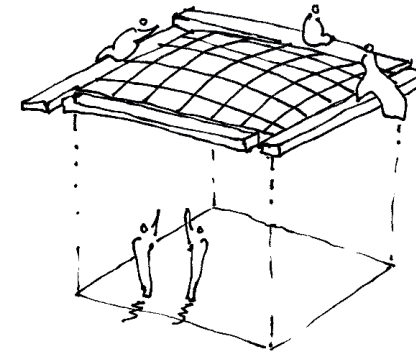
LIGHT

The light of the museum is a soothing, warm and discreet light, meant to maximize the focus on the art exhibited. Bright ceilings illuminate the elegant spaces of the museum.

In the main hall however, there is room for more flexibility as it needs to be able to adapt not just for a wide array of different exhibitions, but also for concerts and other shows.

This is why the entire roof is designed to be able to change in an instant from a more traditional exhibition needing this ambient light, into more specific lighting needs. The roof is made up of flaps. When closed, the flaps let light from the roof illuminate the space. But when opened, not only do the flaps cover the roof light, they reveal hidden structures that can be used to mount a wide array of different lighting equipments to.

This flexible roof allows for the museum to be able to truly change according to what is exhibited, and create an ever changing experience.



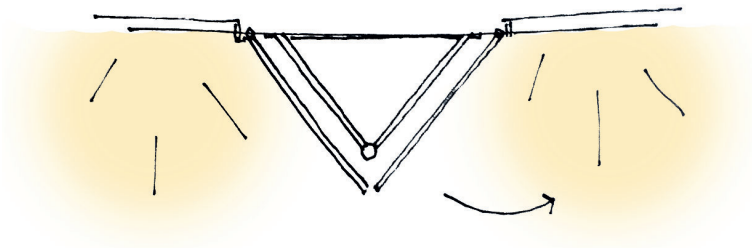
THE OCULUS

Connects the museum entrance to the garden above. It floods the bright space in light and allows the weather to control the feel of the room. On the surface level, the same blocks from the other buildings have been used to create seating for guests.



“The fat rabbit”

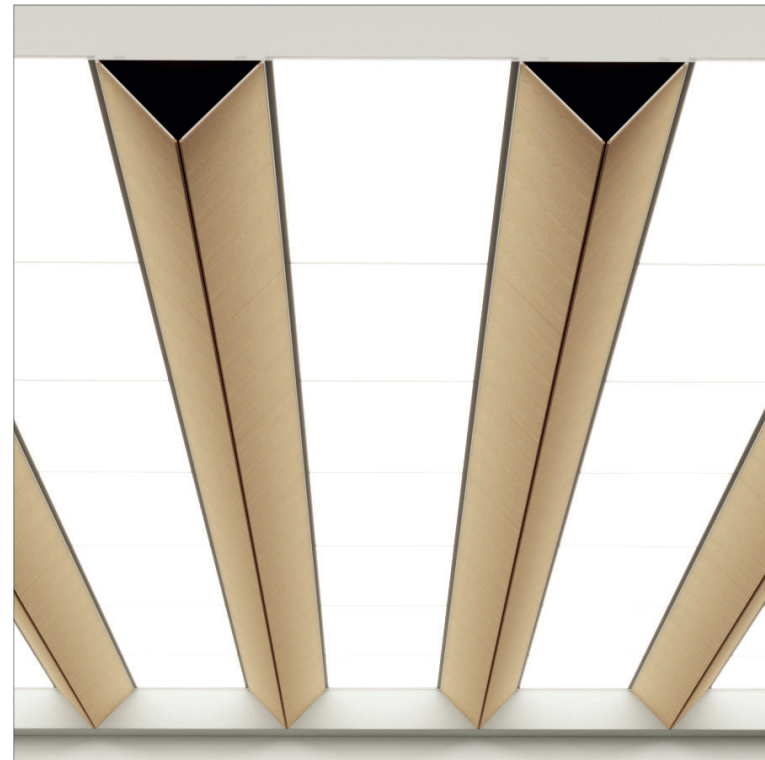
ROOFS CLOSED, DAYTIME, EXHIBITION LIGHTING



CLOSED

When the flaps of the roofs are closed, the roof lights are exposed.

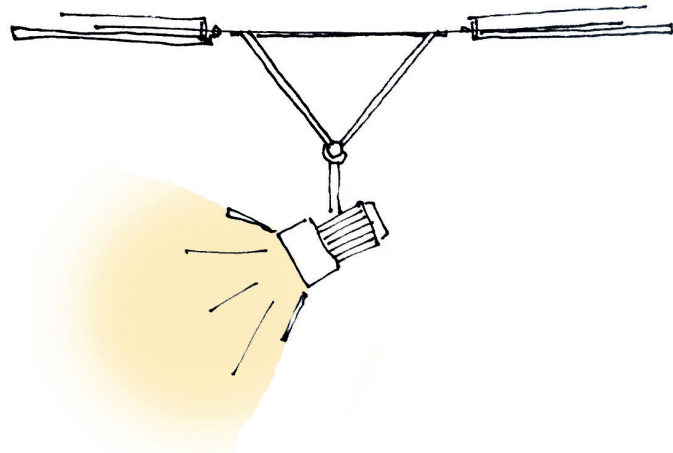
These light up the room in a warm and pleasant light that is suitable for any exhibition. The wood on the outside of the panels provide a warm and neutral feel to the otherwise plain room.





“The big pig”
Museum in daytime, flaps closed, lights on.

ROOFS OPEN, NIGHTTIME, MODIFIED LIGHTING



OPEN

When the flaps of the roofs are open, the hidden structural elements are revealed. These can be used to attach lighting or sound equipment for a more flexible light- and soundscape. The back side of the wooden panels are painted black, as to blend in to the now darker room.

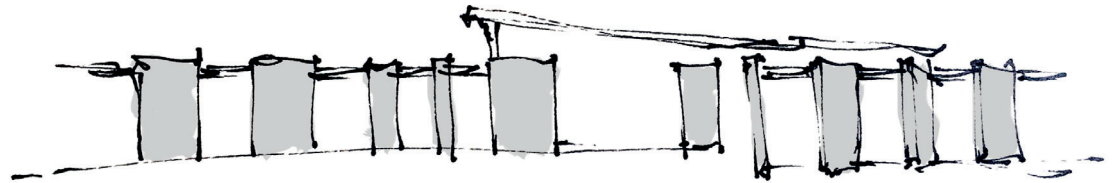




“Silencio”

Museum in nighttime, flaps open, lights out.

DISCUSSION AND REFLECTIONS



DISCUSSION AND REFLECTIONS

The objective of this thesis project was to create an extension to the National Museum of Helsinki that merges with the old main building and connects it to the surrounding garden. I wanted to create an addition to the site that better the museum experience for the visitor, solve the issues of the current main building and add the elements that the brief wished to be added. I wanted this to be done in a way that respects the culturally significant site, in a way that is not too dominant in relation to the old but adds qualities to the site that activates it for the better.

The National Museum of today is a culturally significant building for Finland. It is a one of its kind building in that it is a fantastic example of the national romantic architecture style, that tried to create nordic architectural identity and style. The main buildings design combines many typical Finnish building styles and weaves these together with storytelling elements from Finnish folklore in an effort to tell the story of Finns in its architecture. This story resonates on the interior of the building as well. For example, the entrance hall is decorated with Akseli Gallen-Kallelas frescoes telling the story

of Kalevala, the Finnish folklore. Or the religious gallery, which is displayed in a room shaped to resemble a church both to its exterior and to its interior.

Over time however, exhibition space, storage space and space for workers grew short and the museum had to adapt to these. This adaption happened by adding walls and building an extension below the ground for storage. Parts of the museum was transformed and put to uses that did not match the original design purposes. Because of these modifications parts of the museum now seem strange and improvised. A good example is the café on the lower floor, that is positioned awkwardly for visitors to access. Or the activations of the courtyards, that originally were not intended for visitor access. Or the small elevator that tends to the needs of handicapped. There were problems that the original design had as well. For example, the museum turns its back to the garden behind it, and visitors have to access it from outside of the walls. The museum and the garden seem like they are two separate elements, that have yet to be combined into a functional whole.

The architectural competition wishes to solve problems with the current museum, but to also add a multitude of features to the site in order to create a museum complex that caters to the ever growing needs of visitors. The jury wishes to find a solution that activates the park, the courtyards, and find an alternative for how to display large and international exhibitions. They acknowledge the need for this extension to be able to enter into a dialogue with the old main building on site and respect its architectural integrity. After analyzing the brief of the architecture competition I found that the issues they are trying to solve were occasionally aligned with the issues I found in the current museum. However it seems that what the brief is trying to find an answer to is how to design an architectural extension that separates the new extension and the old main building. The intention is to find a solution that reverts the old main building into its previous use, to house permanent exhibitions on the theme of the Finnish story from stoneage to modern times. While the new extension is meant to house new, demanding and changing exhibitions that describe a modern Finland. A Finland that is culturally diverse and inclusive, meaning that the new spaces

are to show international exhibitions and allow for a more flexible space that reflects on today's culture, taking the shape of for example musical performances. There is according to the brief no way of doing this with the current layout.

I began to question if this really was the correct place for this kind of museum. The immense difficulty in creating a space that suits what the brief was asking for on such a demanding and culturally significant place, seemed to be forcing this place to become something that it could not possibly attain with its current characteristics and features. After questioning the intentions, I came to the conclusion that the intentions of the jury and the organizers indeed were in the right. I believe that they are asking for a place that simultaneously shows the history of Finns and what the Finns have become today. Finland today is culturally diverse and inclusive, which means that a place exhibiting Finnish culture, should be able to include elements that are international as well as traditional.

So in addition to solving the current issues with the museum, the jury is asking for a place to get a glimpse in to contemporary Finland,

and to activate the museum grounds, to better be able to attract visitors to spread the story of Finland.

With my project, the extension, I tried to solve the issues that I had found within the museums main building and to merge it with the park, so that visitors now could access and connect with the garden. I also took into account what the competition was trying to add to the site, and merge these two categories into one, that solves both the current issues and those that satisfy what the jury is asking for. The objective was to create an extension to the museum which speaks the same language as the old, but in a contemporary way, that adds qualities to the site in order to offer an interesting and satisfying museum experience. The extension was meant to be discreet enough for the main building still to take the spotlight, but to simultaneously create a compelling piece of architecture that excites the visitor and offers a logical flow through the new museum complex. I wanted my additions to be linked together and for all pieces to work together in order to create a natural flow between the elements of both old and new puzzlepieces.

I found that the best way to start was to first solve the problems on the interior of the main building. By activating the staircase and adding a larger elevator to it, the entrance hall could be linked with the garden, so that visitors now could enter it from within the museum instead of walking around and entering through the wall. The connection to the garden was further accentuated by covering the two courtyards and linking them to both the ground floor and to the garden. In an effort to increase usability of the ground floor I re-thought the floor plan and made it more visitor friendly to better the visitor flows and connect it to a new entrance building situated towards the garden. This extension serves as a connection with the garden and the new exhibition spaces. This becomes a new secondary entrance to the museum and in addition houses work spaces for the museum. As the brief stated they wanted to find a solution for a new restaurant building that could work outside of the museums opening hours as well. This is why the restaurants are positioned a bit off in relation to the entrance building. The restaurant can serve customers that are not here for the museum experience only. It is however linked to the museum by the underground exhibition spaces, if visitors

want to access the restaurants or when the need for catering services to the museum arises. As for the actual exhibition spaces, they are connected to the main building by staircases and elevators which link to it from both the old main building, and the new entrance building. The underground is linked to the storage spaces beneath the entrance building and to the restaurants.

The whole addition tries to take into account the demand of speaking the same language as the old museum main building. It tries to merge the two together in a seamless way, so that the transition between the two, is as fluent as possible. The architecture respects the old, but simultaneously introduces contemporary elements, that try to open up towards the garden, and in addition to this is designed in a language that clearly states which elements are new and added to the site.

In the brief it was stated that the ambition is to create two separate entities, one that caters to the needs of the old museum and restores it to its previous use. And the other, a space to cater to the modern needs of exhibition spaces that continuously change. I have tried to

achieve this, but blended the two elements together in the ground floor of the main building. The transition between these two spaces, that are in their essence very different, is then a little less apparent.

To conclude I have tried to identify the issues with the current museum, and found problems that need addressing. Some of these problems are identified in the brief as well, but in addition to these, the brief states various wishes that could make for a better museum visit. I have then tried to solve both problems identified, and the wishes for the extension of the museum through this thesis. In this project, I have tried to make the museum better for the visitor by changing flows, adding elements and linking pieces together with each other in order to create a more pleasant and dynamic museum experience.

The end.

Lastly I'd like to thank everyone who has been involved in this project. To Jesper Magnusson and Tomas Tägil for giving me honest feedback and great ideas throughout the whole process. To Erik Lönnbro-Fukino for the many talks throughout the process and for having the mental strength of listening to me complain and rant about it. To Rickard Ramberg for his ideas and feedback. And lastly to Fanny Rehula, for being there through both ups and downs.

Rasmus Rosenblad
Copenhagen 6.3.2019



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- Page 15, Original facade and plan (Finnish Heritage Agency) 2019. *Appendix F1 for Competition “LIITE F1 Kansallismuseo, Rakennushistoriatiivistelmä”*
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