

PROJECT JOURNAL

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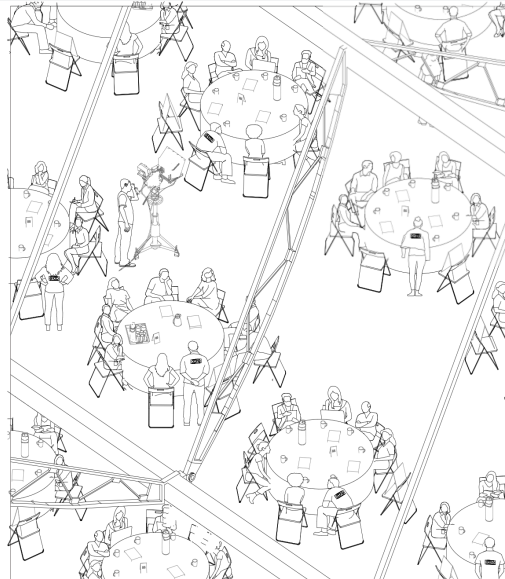
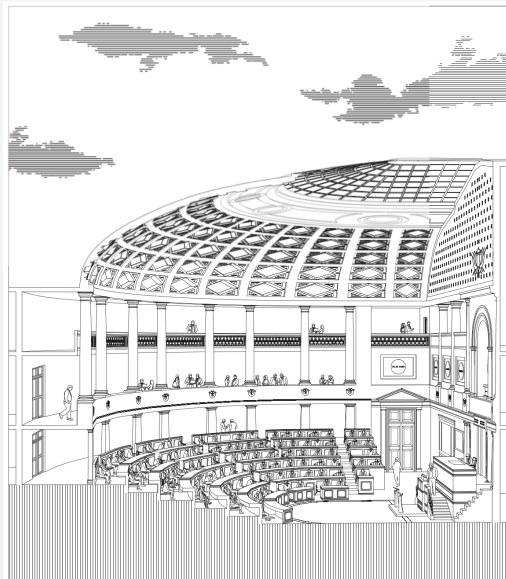
AN INTRODUCTION

This document is a collection of products collected and made throughout my graduation year. It is chronologically ordered by with it aims to reflect the desing process of my graduation project. The different exercises that were given by means of the studio briefs and the presentations (P1 to P5) can be sean as key moments throughout this process and are recognisable as such in this journal. Especially the rese-arch plan on page 69 and the reflection paper on page 185 should elaborate on the graduation process.

Future Bank

Week 1.1-1.3

2021-22 MSc3 AR3AI100



G1000 A Machine for Innovating Democracy, students Meihui Qi and Johan Löwstett, 2019 Studio City Hall Brussels

Working Together.

The project for the transformation of the Belgian National Bank, which provides the starting point for our 2021 graduation studio, embodies two significant aspirations which will together inform the collective research that we will undertake. The first of these provides the economic underpinning for the project. This is the consolidation of the Bank's property portfolio, focusing their activities within their principal site and subsequently selling off ancillary buildings.

The main building complex on Boulevard de Berlaimont, in the centre of the City of Brussels, will become the workplace of the Bank's 1500 office-based staff, while secure facilities for the storage of currency will be transferred to a new building on the periphery of the capital. The Bank, as it presents itself to the city, will transform from being a closed fortress and a partly industrial space for the minting, printing and storing of money to a knowledge centre. An office environment, where people will type and talk and think together. Part of a network of governance and that engages with the European Union, the National Government, the wider banking infrastructure, cities, companies and, ultimately, citizens.

Designing the right working environments for the diverse activities of this Future Bank will be central to the ongoing success of the reformed institution. What relations will they define between people? How can they foster a positive and

engaged culture and create a sense of wellbeing while avoiding unnecessary hierarchies and silo's being created which undermine the possibilities for innovation which will be required if our economy and society is to transform itself in ways that allow it to meet the enormous challenges we collectively face?

Understanding the past is fundamental to designing for a possible future and so our work starts with an examination of the history and changing culture of the office, as it has been translated through architecture. Within the Research Course, we will explore these questions broadly, contextualising them through the investigation and analysis of a number of buildings that exemplify the history and development of the office as an idea, through time and in different cultures. The Design Studio will focus and consolidate this more broadly based research through the making of several, related pieces of work.

Working in pairs, students will document each of the 16 chosen office buildings, redrawing them at a series of agreed scales, in order that they can be situated, understood, and compared. These will include, a situation plan, building plans, key sections, facades, a detail plan of an office layout.

Working in groups of four, students will create a model of a spatial fragment within 8 of the precedents that focus on key moments of the development of the office building as a modern type, across the last century. These models will take as their starting point photographs of significant aspects of the office

**Interiors
Buildings
Cities**

Palace

OFFICE PRECEDENT STUDIES

Architectural drawings by Pascal Henle & Robin Weishaupt



The Economist Building
London, England
1959-1964
Alison & Peter Smithson

OFFICE PRECEDENT STUDIES

The Economist Building

The Smithsons were commissioned by The Economist magazine to design a new headquarters in Piccadilly in 1959. They designed an exquisitely large pedestrian plaza as a trio of highly detailed towers, each built on a different scale and covered in Roach stone, inspired by the small alleyways and courts of the old City of London. The office interiors were based on their extensive investigation into The Economist journalists' working routines. Sir Geoffrey Crowther, the editor, remarked at the opening that the staff had felt "trepidation" upon first meeting the Smithsons, but now "leave them with awe and affection."

Peter Dallas-Smith, managing director of the Economist, commissioned the pair to build their editorial offices as well as new spaces for their neighbors: a gentlemen's club, a bootmaker, a pharmacy, and a bank. The Smithsons were regarded a rogue option at this stage, having just completed the Sugden House and Hunstanton School, especially in a section of the city so rooted in traditionalism.

The project resulted in the 15-story Economist Tower, five-story Bank Building, and an eight-story residential building constructed around a small plaza, one of London's earliest infamous privately owned public spaces. Each building is a square with chamfered corners and an external frame made of Roach stone, a rougher variant of the Portland stone, which is more commonly used in this part of the city

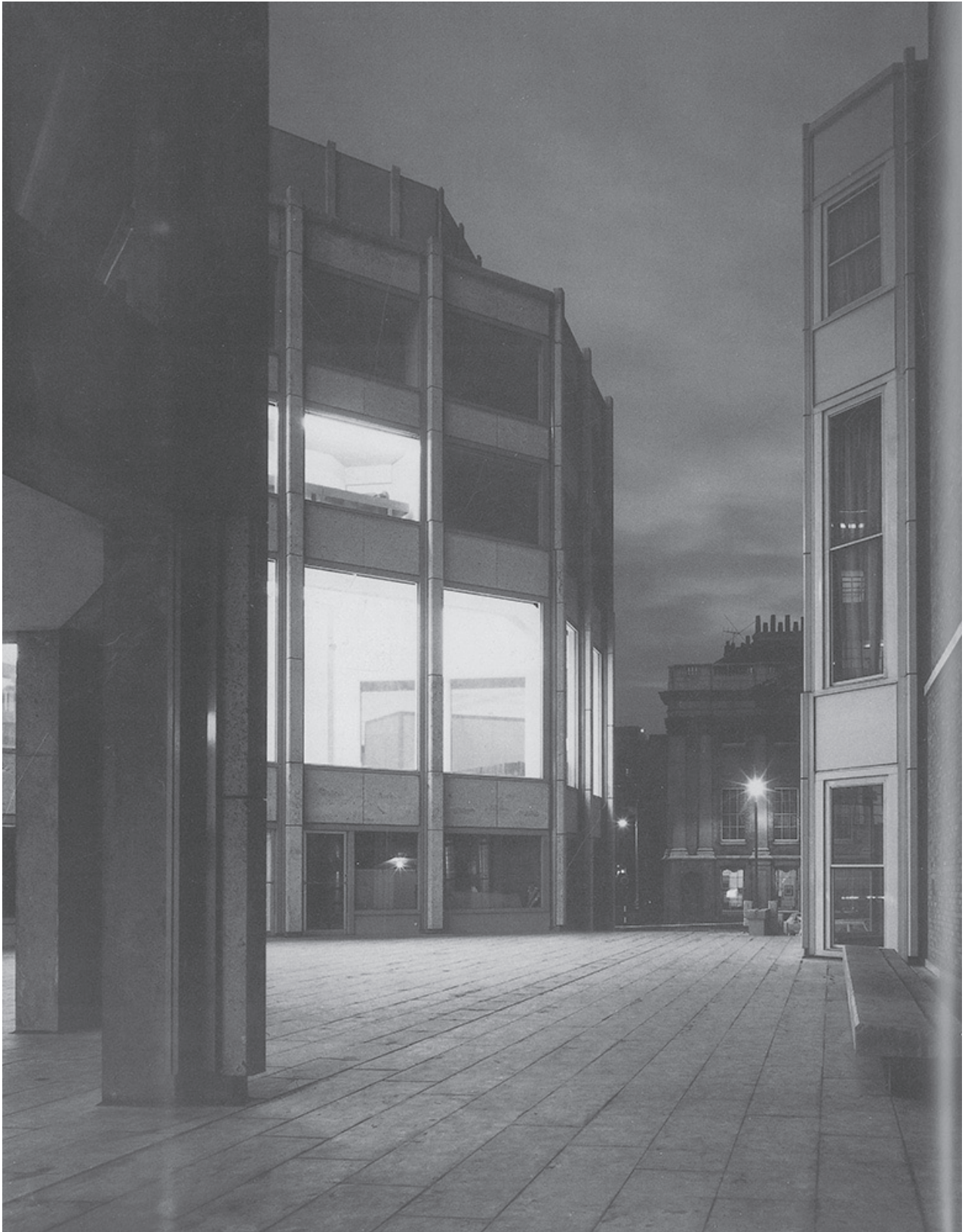
As could be expected from the Smithson's, the construction was rather experimental. It was technologically innovative, as it was the first office building in London to provide air conditioning. The building can subtly be seen as egalitarian, as its narrow form allowed everyone, "be she editor or assistant," to enjoy breathtaking vistas of the city, as the Economist described it in 2016.

OFFICE PRECEDENT STUDIES



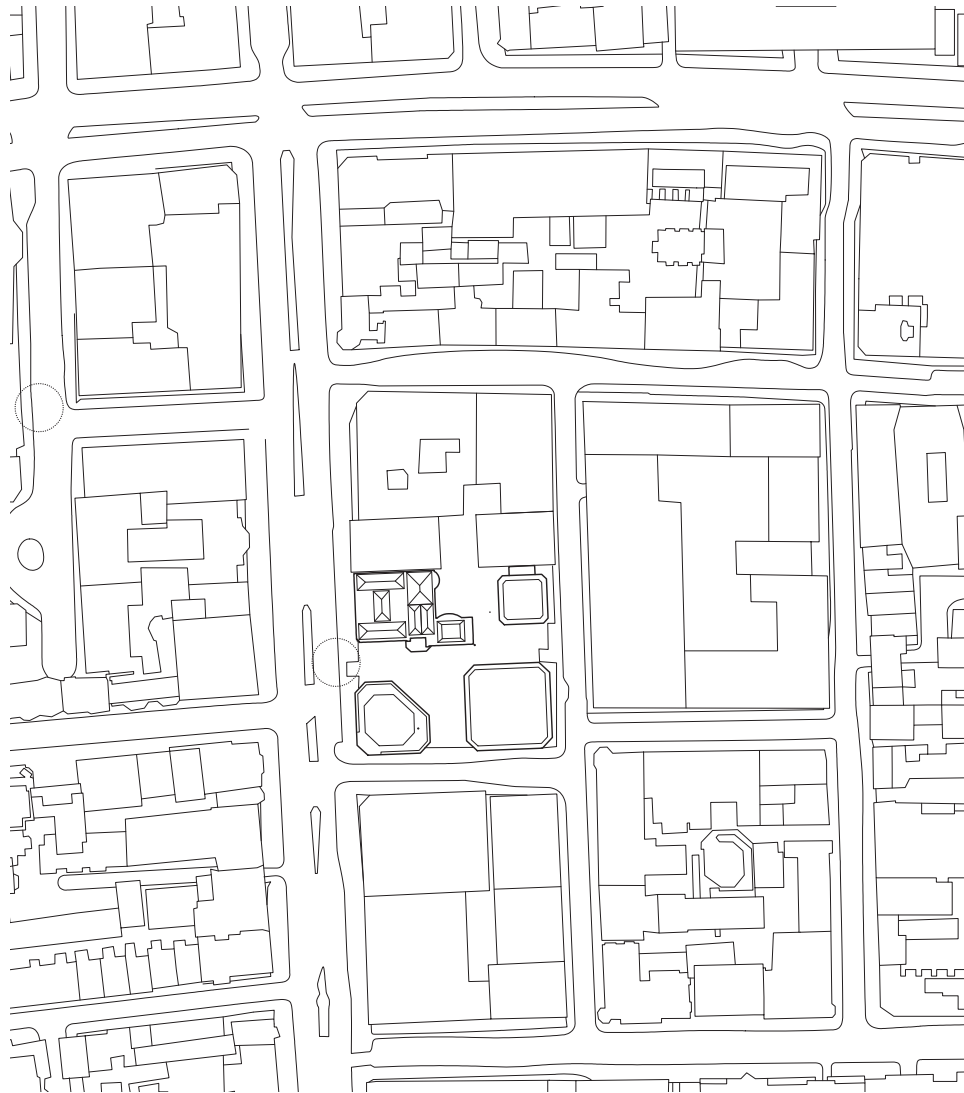
Interior banking hall and working spaces of Martins Bank. Colin Westwood.

OFFICE PRECEDENT STUDIES



Night view of the plaza looking toward Brook's Club. Henk Snoek, 1964.

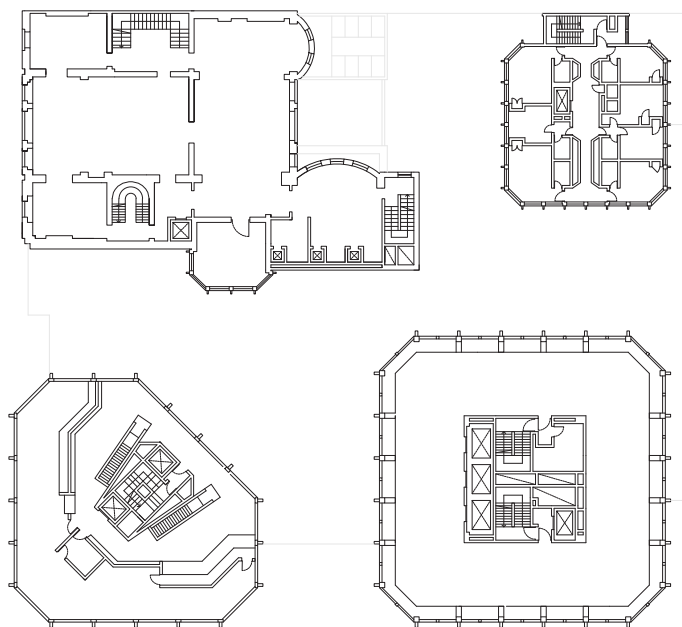
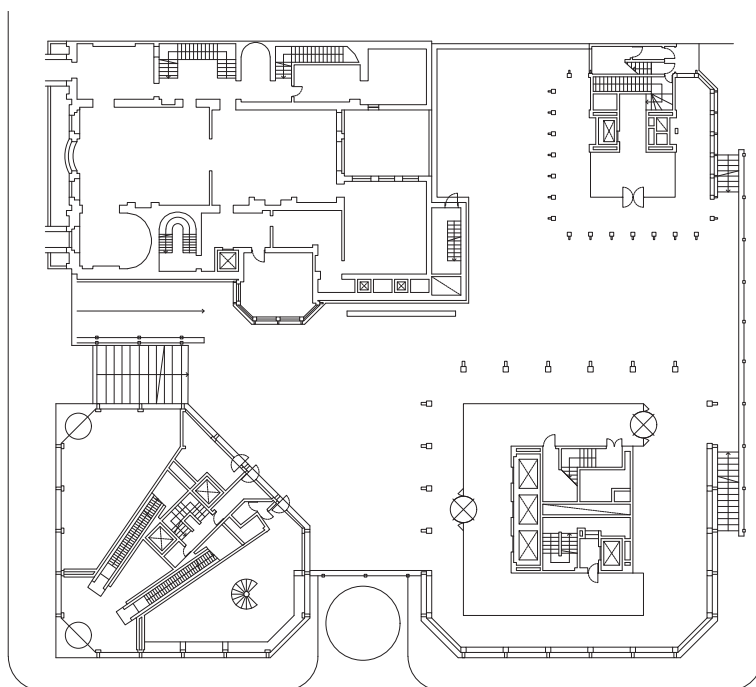
OFFICE PRECEDENT STUDIES



Site plan
Scale 1:2000
The Economist Building
London, England



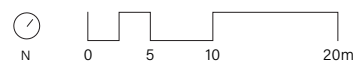
OFFICE PRECEDENT STUDIES



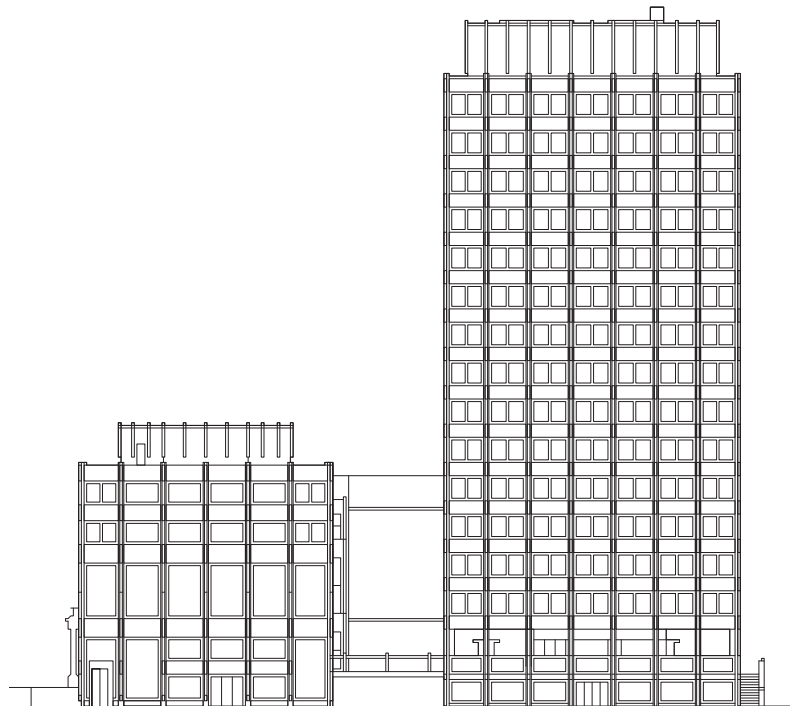
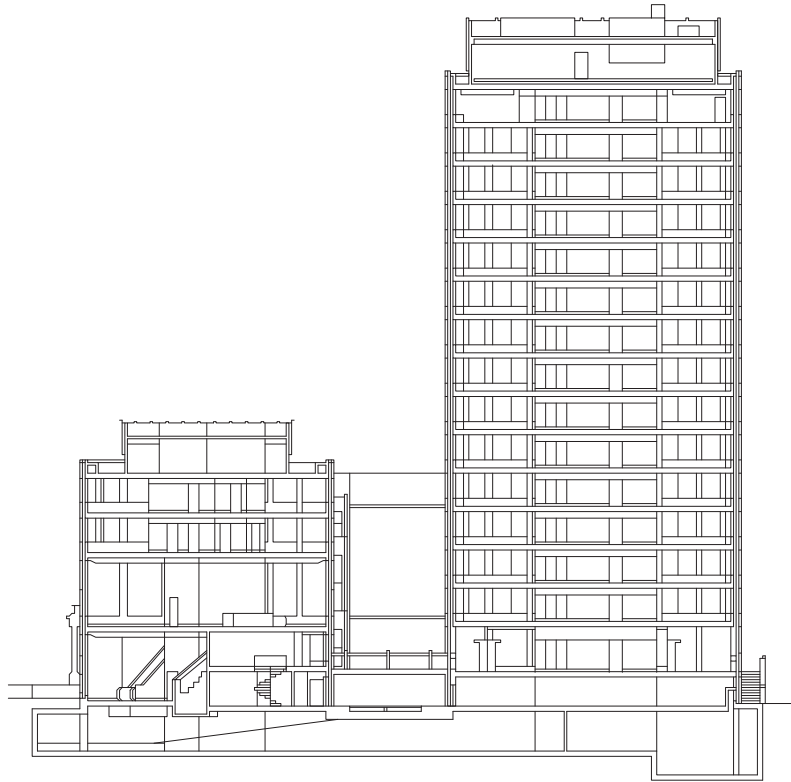
(top) Ground floor, (bottom) First floor

Scale 1:600

The Economist Building
London, England



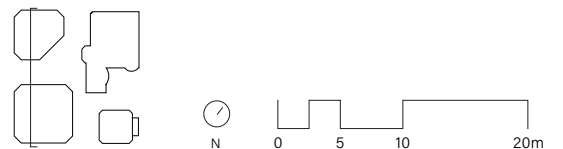
OFFICE PRECEDENT STUDIES



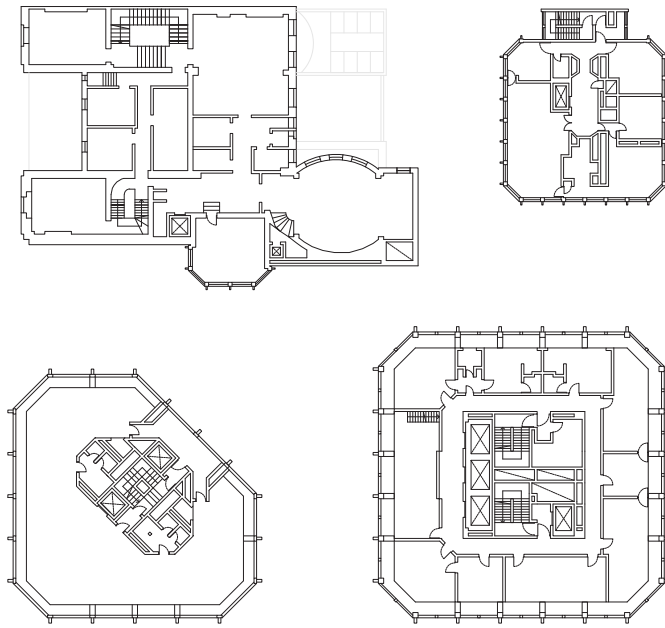
(top) Section, (bottom) South elevation

Scale 1:600

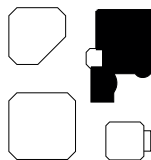
The Economist Building
London, England



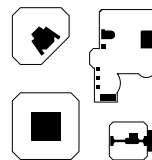
OFFICE PRECEDENT STUDIES



building mass



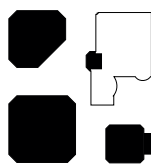
existing building



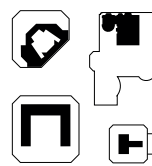
circulation cores



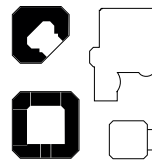
public plaza



new buildings



lobby space



office space

Typical floor plan
 Scale 1:600
 The Economist Building
 London, England



WORKING TOGETHER

Paper model of office interior by Pascal Henle, Ebrina Koster, Julia Linde & Robin Weishaupt



The Ford Foundation
New York, United States
1963
Roche Dinkeloo and Associates

WORKING TOGETHER



Comparison of the photographed office interior of the Ford Foundation (top) and the paper model (bottom)

WOKRING TOGETHER



Close-up images of paper office furniture

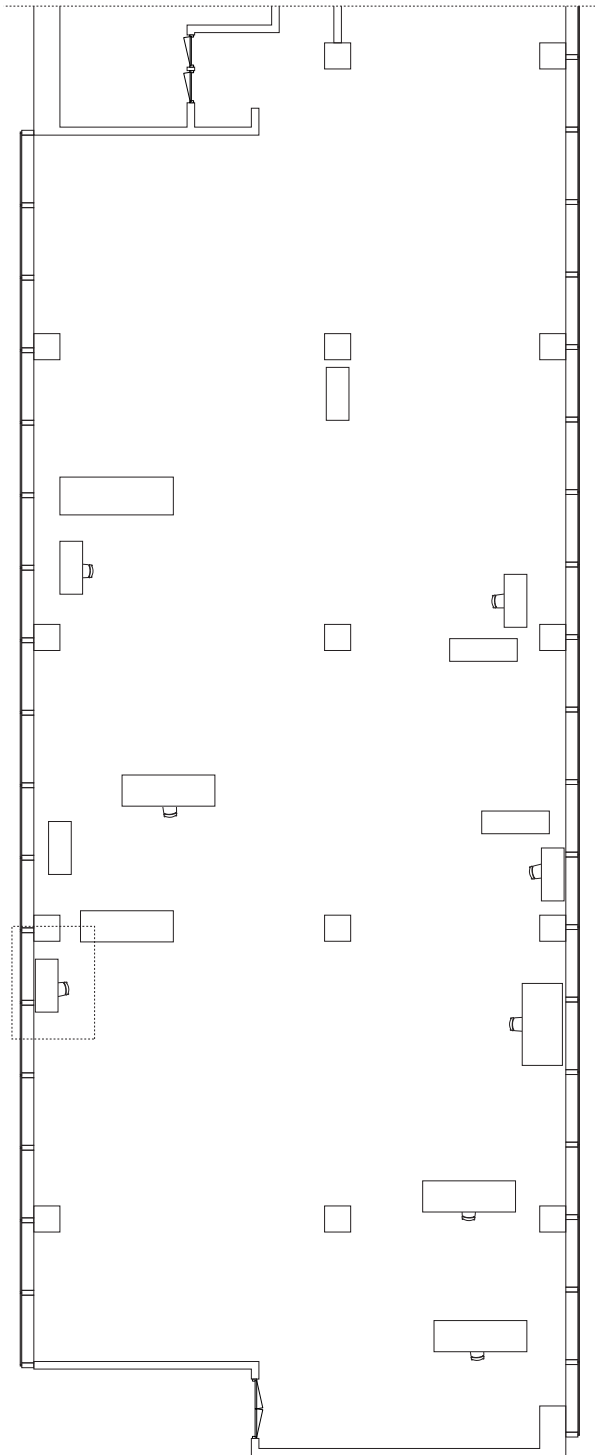
DESK DRAWINGS

Line drawings of a personal work space



Weenagebouw
Private rental office space
Rotterdam, Netherlands
Pepijn's Desk

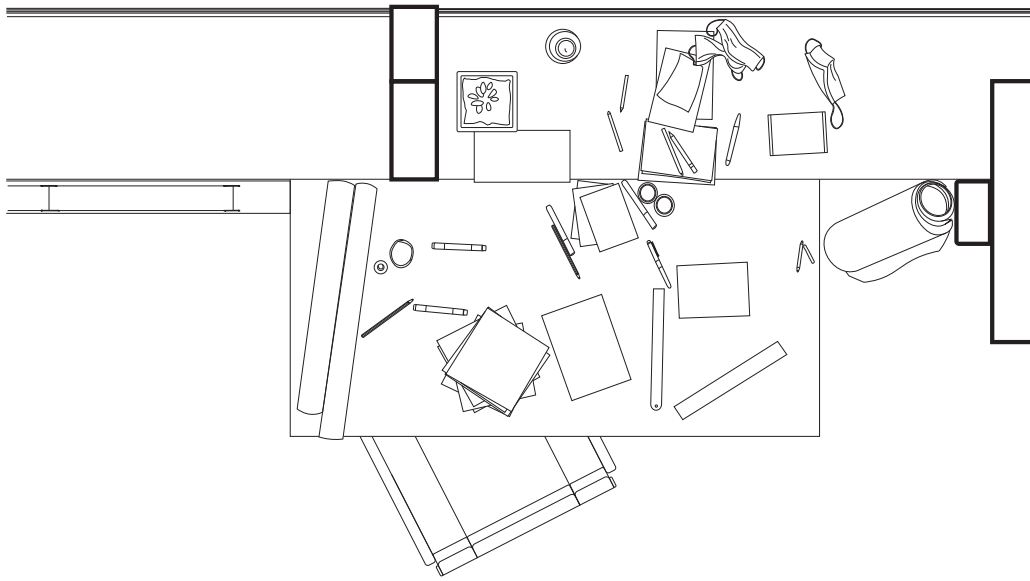
DESK DRAWINGS



Site plan
Scale 1:200
Weenagebouw
Rotterdam, Netherlands



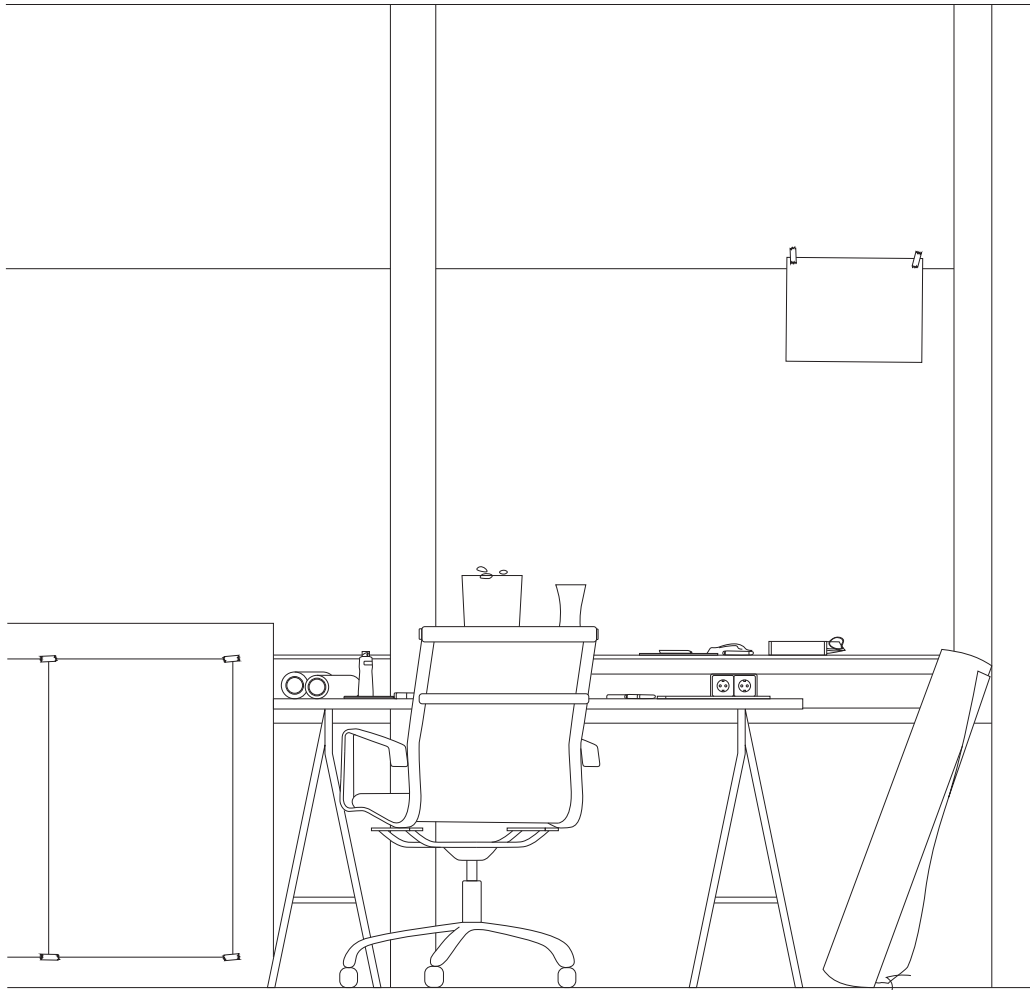
DESK DRAWINGS



Desk plan
Scale 1:20
Weenagebouw
Rotterdam, Netherlands



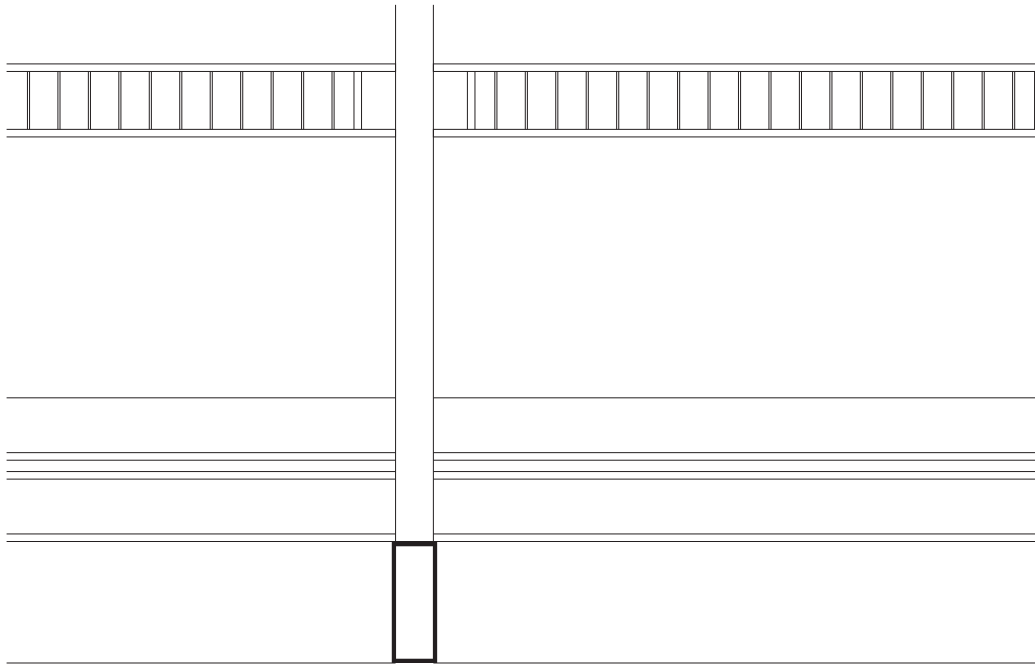
DESK DRAWINGS



Desk Elevation
Scale 1:20
Weengebouw
Rotterdam, Netherlands



DESK DRAWINGS



Ceiling Plan
Scale 1:20
Weenagebouw
Rotterdam, Netherlands



USER SCALE AND SOCIAL RELATIONS

Reading response to office readings

The word 'Desk' relates to the smallest scaled surroundings of one's work environment in the office. It relates to a personal space that is part of a bigger corporate whole. This would suggest that even in a work environment such as the office space, which is associated with efficiency and businesslike behavior and relations, there is a personal layer of usage. It seems contradictory to have a personal space, which is associated with privacy and informality, in a work-related and formal context. There seems to be a tension between personal usage, human behavior and corporate protocol, the interest of a company. How is the behavior of a person effected by the impersonal surroundings of an office space? Or is the office environment in any way shaped by the user? Then, how is the human behavior in an office space translated spatially?

In her text, Spain (1985) writes about the user behavior on the office floor. More specific, she elaborates on the social relations between the male boss and the female office clerk or secretary and how these relations are translated spatially. In work relations, men have the power and company specific knowledge which is obtained by their private working spaces and their ability to physically withdraw themselves from the public office floor, 'closed-door jobs' (Spain, 1985). Women on the other hand, are typically working in an open environment with little privacy, the 'open-floor jobs' (Spain, 1985). The power dynamics of the gender differences are spatially identifiable as closed versus open, or private versus non-private. With the Bürolandschaft, a completely open floor planning for office spaces, coming into fashion, the workspace was physically transformed into a more democratic space. The additional effect of the office landscaping, the change of social roles or gender stratification fails when over time screens are placed, and private offices are installed for the office managers. "Those who had power in conventional offices still had it." (Becker, 1981:59; as paraphrased in Spain, 1985).

This would imply that the societal power dynamics between men and women, which are spatially recognizable on the office floor, are unchangeable with architectural interventions.

This idea of society influencing the architecture of office spaces is also being discussed in Duffy's text 'Office Buildings and Organisational Change' (1984). Three pairs of contrasting buildings, The Sun Life Insurance Company and Oriel Chambers, The Larkin building and the Guaranty building, and the Seagram and Ninoflex, are being compared to find the effect of internal and external factors on the design of office buildings. Overall, there is a shift noticeable from having a sense of private space in the office surroundings to anonymity. Personal offices become big open floor plans. The oldest office building being analyzed, The Sun Insurance Office, has a domestic feeling. "There is little function differentiation at this period between the home and office; a fireplace for heating, the bureau for storage – only the seating arrangement hints at office use." (Duffy, 1984, p. 162). In the early 60's, this has changed with, for example, the Ninoflex offices. Working conditions improve with the adoption of the Bürolandschaft in the office design, but the employee's privacy is compromised. Simultaneously, a shift in the personalization of the office interior is noticeable, or rather, a de-personalization. Company specific decoration of the office space, as is clearly noticeable in the Seagram building (Duffy, 1984), make place for generic office interiors.

These shifts in aesthetics and spatiality in the office design are due to technical, financial, and societal changes. Real estate factors have played a big role in the developments of the generic office building. "Buildings have been seen as negotiable commodities first and objects of use secondarily." (Duffy, 1984, p. 279).

Therewith, societal changes, such as new managerial dynamics getting into fashion, have an impact on the architecture of office buildings, which results in a more dynamic floor plan. Both Spain and Duffy elaborate on outside forces or societal constructs that influence the design of offices, and therefore, the use of the space on an individual level. According to Spain, this effect is one-sided: social dynamics remain intact in a socio-democratic office plan. This raises the question: 'In what way can architecture partake in a sustainable and democratic social climate?'. Spain emphasizes on the unbalanced power dynamics between men and women. These issues can also be interpreted as social relations. This way, other 'contemporary' social groups, such as queer people, people of color and people with disabilities can be included. For what society does an architect want to design?

BANK PRECEDENT STUDIES

Architectural drawings by Julia Linde & Robin Weishaupt



De Nederlandse Bank
Amsterdam, the Netherlands
1961 - 1968
M.F. Duintjer

BANK PRECEDENT STUDIES

De Nederlandse Bank

The first pile was driven at the end of 1961 and the building is set upon 3000 piles, which carry a 76 m high multi-story building, quadratic surrounded by lower buildings and two unequal inner courts. The building houses 1200 people.

The lower buildings consist of four wings. In the northern wing we find all departments, dealing with money circulation. On the roof of this northern wing are the staff's canteen and recreation rooms situated. In the western wing we find suites for the managing board and secretarial offices on the first floor. Several meeting rooms, a lunchroom for the managing board as well as the rooms of Deputy Directors are situated on this floor. In the eastern wing we find the residential quarters for the staff members.

The multi-story building has a ground floor and 17 floors. It is fully air-conditioned. The top floor contains a reception room for the managing board, part of the air-conditioning installation and other space is taken up by the motors of the elevators. Each floor of the building has 565 m² working space and 215 m² for elevators, stairs, lavatories, two consulting rooms and hallways. Entrance hall for public and staff are separated on principle.

BANK PRECEDENT STUDIES



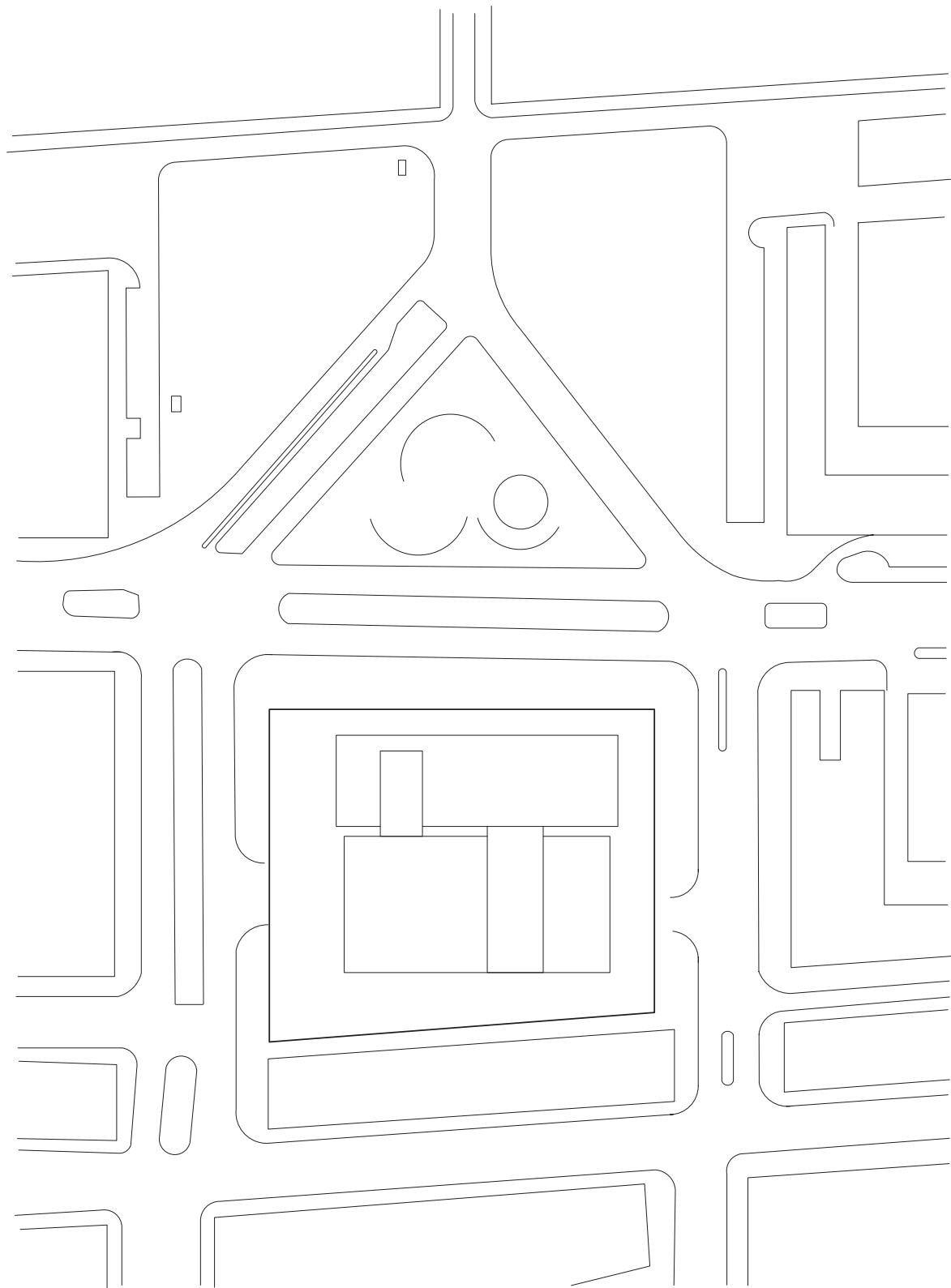
Front facade of De Nederlandse Bank.

BANK PRECEDENT STUDIES



Interior of the office spaces (top) and the public banking hall (bottom) of De Nederlandse Bank.

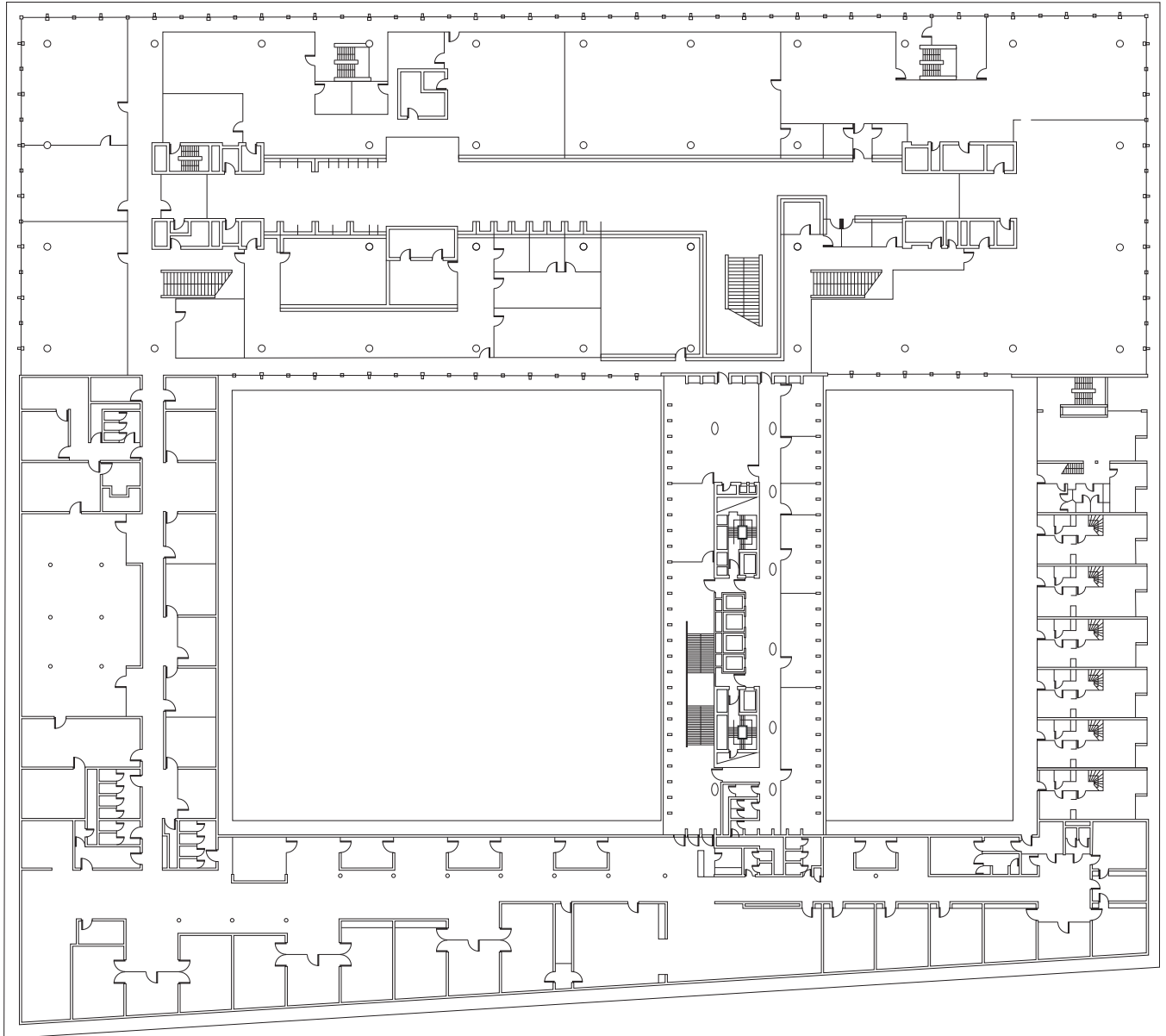
BANK PRECEDENT STUDIES



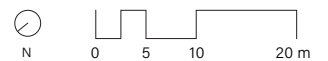
Site plan
Scale 1:200
De Nederlandse Bank
Amsterdam, the Netherlands



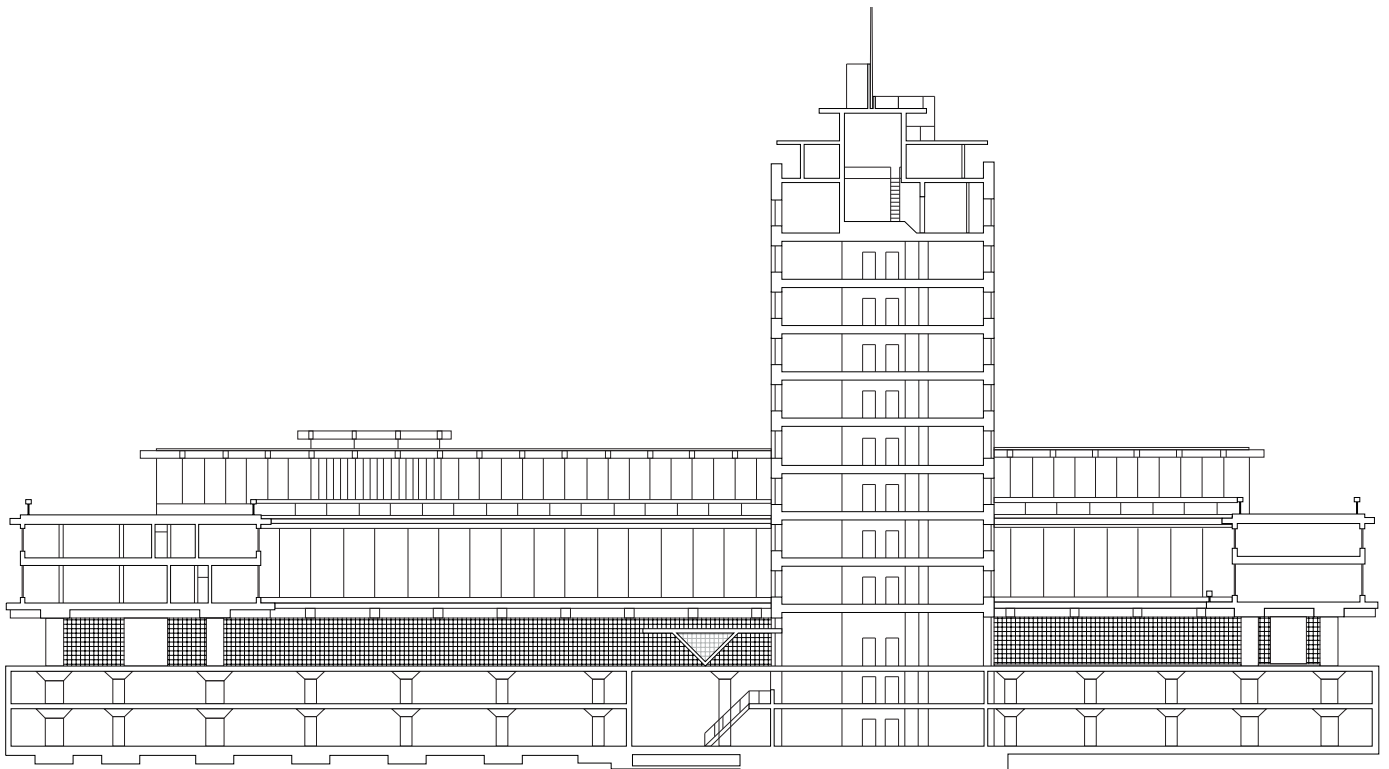
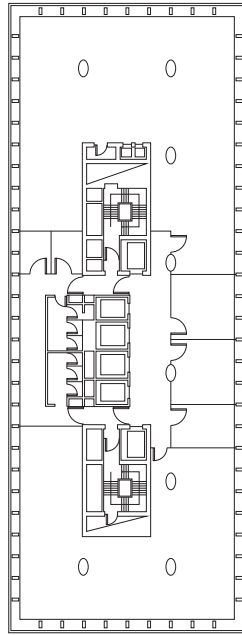
BANK PRECEDENT STUDIES



First floor
Scale 1:750
The Economist Building
London, England



OFFICE PRECEDENT STUDIES

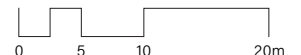
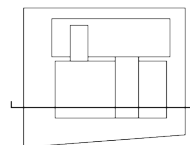


(top) Typical floor plan tower, (bottom) Section East - West

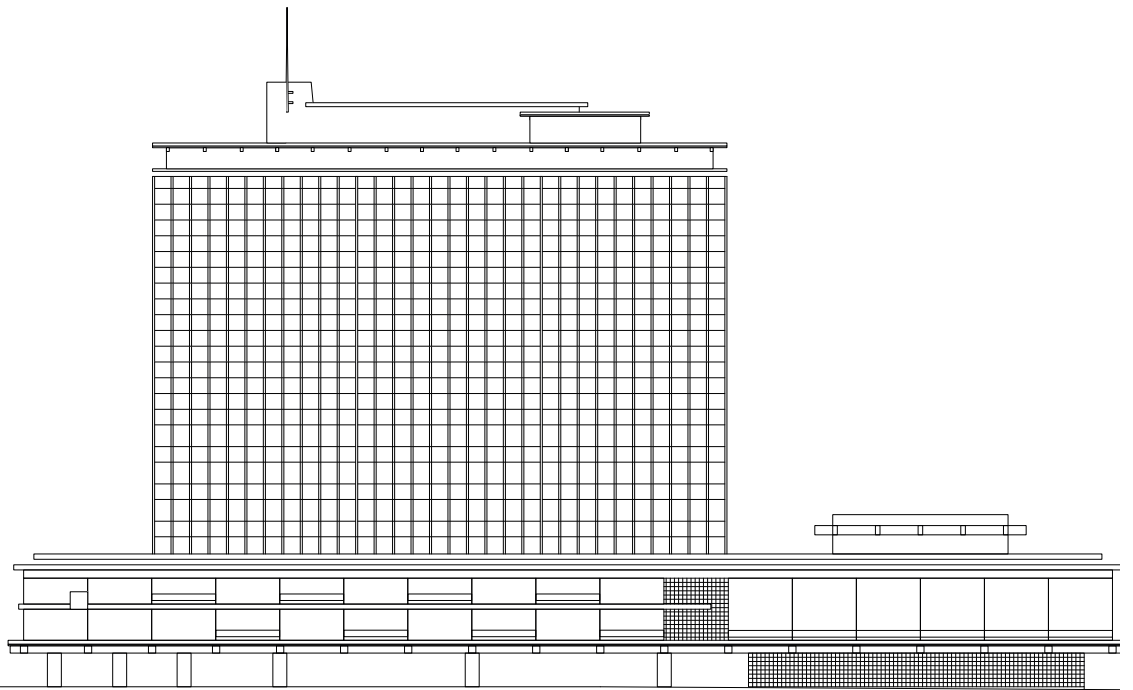
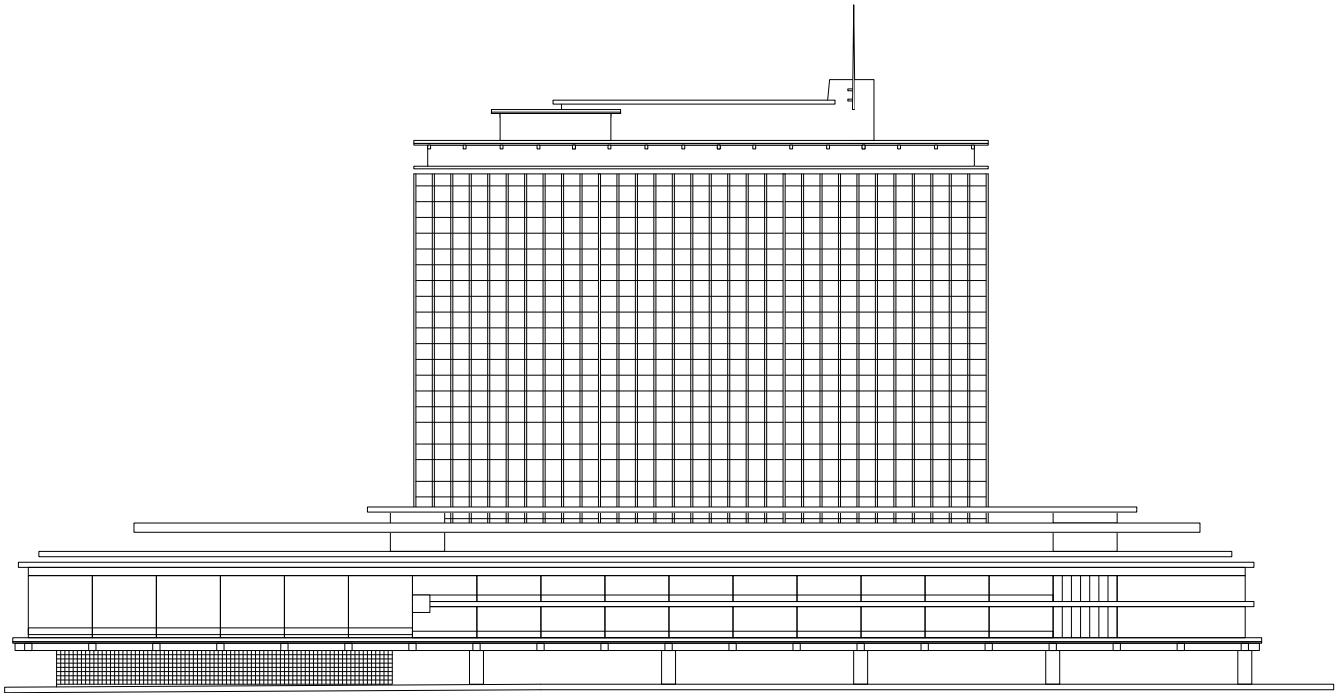
Scale 1:750

De Nederlandse Bank

Amsterdam, the Netherlands



OFFICE PRECEDENT STUDIES



(top) Elevation West, (bottom) Elevation East

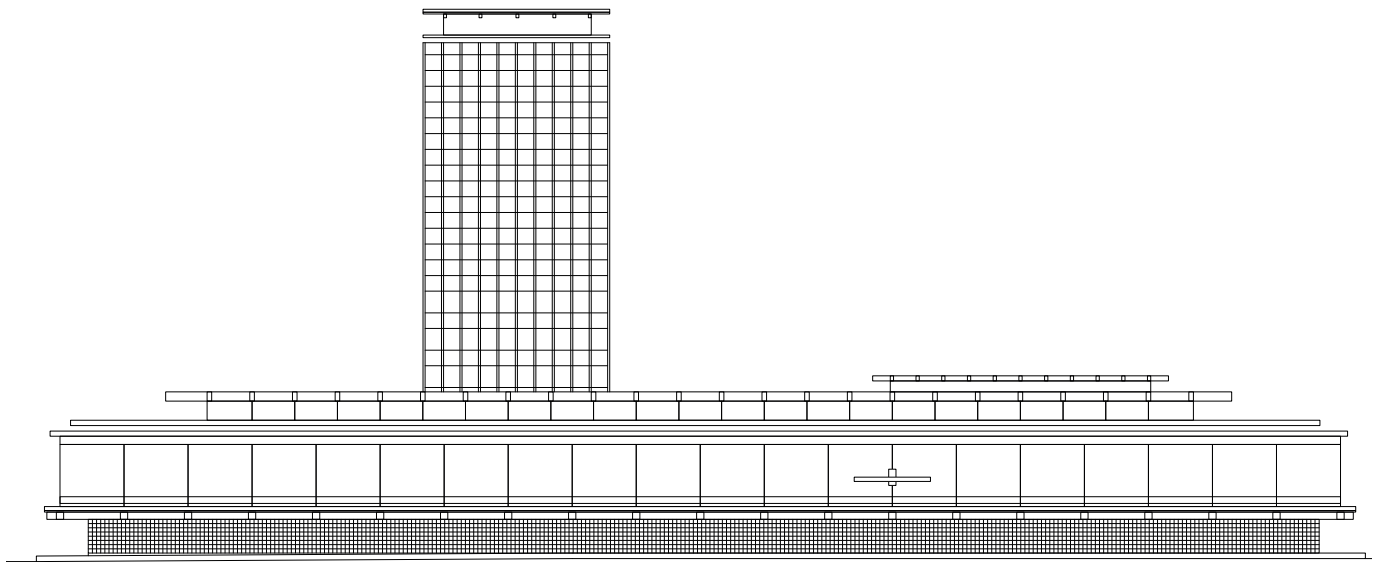
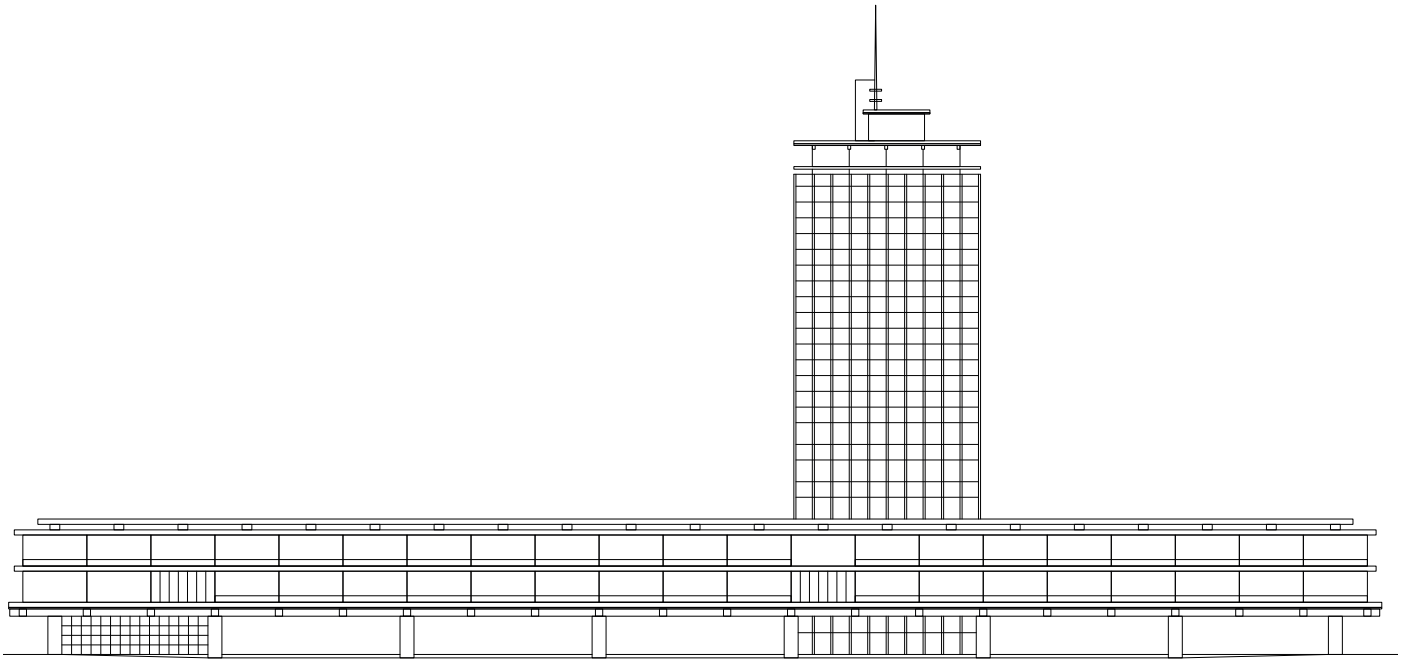
Scale 1:750

De Nederlandsche Bank

Amsterdam, the Netherlands



OFFICE PRECEDENT STUDIES

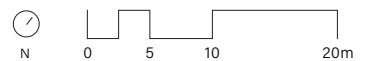


(top) Elevation North, (bottom) Elevation South

Scale 1:750

De Nederlandsche Bank

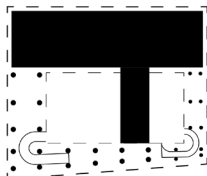
Amsterdam, the Netherlands



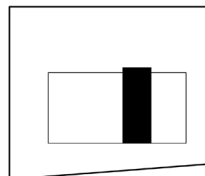
OFFICE PRECEDENT STUDIES



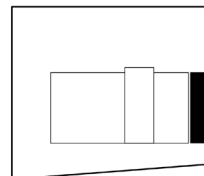
Building mass



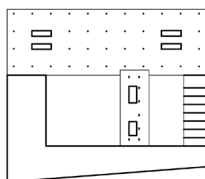
Publicly accessible ground floor



High building volume



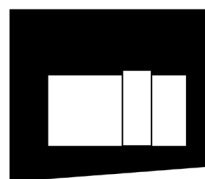
Housing



Building structure



Public banking hall



Low building volume

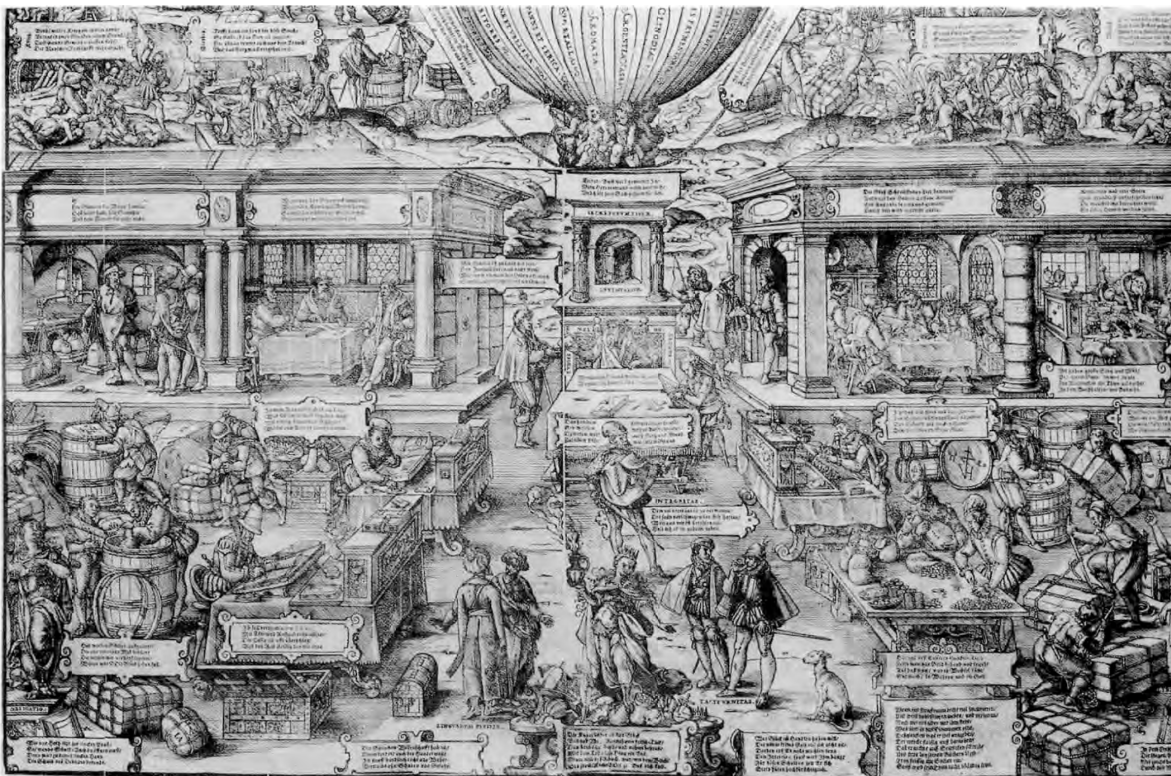
RETHINKING THE ROLE OF THE BANK

A reading response to the bank readings

Historically, a bank was a highly physical space. The printing and storage of money took place on site and trading and financing were physical activities that depended on social relations. Image 1 displays these banking activities as a harmonious composition of social interactions, the perfect banking hall. Over time, banking has become less tangible. Clerical paperwork is replaced by computers, financing becomes a digital activity, and the fabrication of money is outsourced. Through these actions, the bank neglects its central role in society.

The distancing between bank and society is physically noticeable in the banking hall of Brussels, which has become an undefined space. Modern banking activities seem to be detached from physical implications. Bankers fabricate artificial money, using tools and jargon the common man would not understand. The direct impact on the individual becomes clear when the housing market crashes

in 2008, the bubble has burst, as can be seen in *The Big Short* (McKay, 2015). The brief 'Future bank' addresses this shift for the National Bank of Belgium. A question which arises, is what the consequences of digitalization and outsourced banking are for the physical bank building in Brussels, and what role the modern bank can play in society.



Jost Amman, woodcut of merchants and their activities, later 16th c. (London, British Museum). From: Pevsner, N. (1976). *Exchanges in Banks*. In *A History of Building Types*. Princeton: Princeton University Press.

RECONNECT THE BANK AND CITY

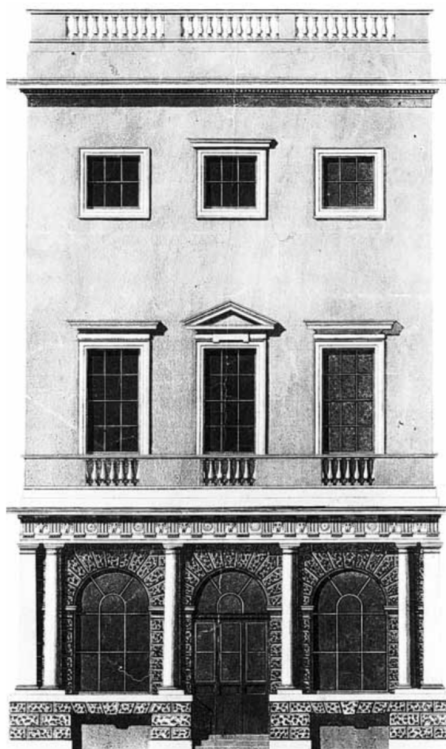
A reading response to the bank readings

The bank façade aesthetically displays the position of the bank within the city, or at least, the role it aspires. When looking into the building typology of banks, throughout time, a pattern of representation can be distinguished. The first bank exteriors were similar to those of palazzi, Italian grand houses. In the 1800's, the bank architecture in England was fashioned after that of English town houses, as can be seen on image 2. The facades appeared to be domestical to ensure a personal relationship between the bank and its customers (Thomas, 2021). The façade of the bank represents its position in the city.

The domestic origin of the exterior's aesthetic is one that can also be recognized in the early architecture of office buildings. For example, the façade of The Sun Insurance Office in London (1849) (image 3) was a contemporary translation of an Italian palazzo, and the interior had a domestic quality. A more recent example would be the

Economist Tower and accompanying bank and apartment building by Alison and Peter Smithson (image 4), which have a plaza and palazzo-like quality.

National bank buildings such as the National Bank of Belgium or the National Bank of England were built in a monumental classicistic style. The gradually expanded bank buildings turned into a conglomeration of buildings, with a city structure and a fortress-like façade. The one-to-one relationship is replaced by grandeur, but serves the same purpose, to ensure the clients' trust in the bank (Thomas, 2021). Now that banks have become less approachable and more private institutes, the grandeur of the bank architecture, with its immense monumental facades, is enforcing the disconnect with the city. This raises the questions: How can the National Bank of Belgium be reconnected with the city and society? In what way can the bank's façade re-ensure a personal relationship with citizens?



Sir Charles Asgill's private banking-house in Lombard Street in 1804. Source: Guildhall Library Print Collection. From: Thomas, A. (2021, October 14). Bank Architecture [PDF]. <https://brightspace.tudelft.nl/d2l/le/content/398793/viewContent/2514402/View>

COMPARING THE CLASSICAL AND CONTEMPORARY BANK FACADE



8.2 The Sun Insurance Office, London, 1849.



(top) The Insurance Office, London, 1849. From: Duffy, Francis. 'Office Design and Organizations (Originally Published 1974)'. In *Architectural Knowledge: The Idea of a Profession*, by Francis Duffy and Les Hutton, 29–43. London: E & FN Spon, 1998.

(bottom) The Economist Building. From: Seier+seier. (2010). *The smithsons*, Peter and Alison Smithson - Economist Building, London. 1959-1964. [Photograph]. Flickr. <https://www.flickr.com/photos/seier/5427505450>

Future Bank

MSc3 AR3AI100 Week 1.5–1.8



Knossos, GR, 1994. Mark Pimlott

Social Plinth

If one key aim of the Belgian National Bank is to provide a new consolidated workspace for its employees, another is to capitalize upon the possibilities that might be discovered in its reduced need for security. The Bank proposes to use this opportunity for openness to begin to define what it describes as a *social plinth*. As it is currently defined, the brief sees this social function in terms of representation. It will offer an invitation to the public to enter the world of the bank, to drink a coffee or look at a painting from the collection perhaps. However, one might imagine the opening up of the Bank's site in more fundamental terms, as a catalyst for transforming the ways in which the institution works, or as a means to define its role and responsibilities to society in new terms. Through this brief we ask you to begin to consider what this might mean.

During the remaining weeks of the research course, you will be studying historical examples of banks and examining the developing ways in which their banking halls, forms and facades have engaged with the city and the citizen in representational terms. Thought of in terms of architectural language, the plinth can be understood as a base or fundament upon which other things stand. It is a visible manifestation of the founding of the building, a new ground or platform from which the rest of a wall can be constructed. As such, it often takes on a different expression and material condition for both aesthetic and technical reasons. In making a new ground

to negotiate with or overcome the limitations of an existing topography or terrain, the plinth can also be understood as something which separates, distances or objectifies the architectural edifice which is constructed upon it, elevating it above its surroundings. This is the manner in which a plinth is traditionally understood in artistic practice, as a base or pedestal upon which an artwork – a sculpture or a statue – is placed in order to objectify it and enhance its presence and power in relation to both the viewer and the context. In this way it can also be understood as a scenography, or a stage; an architectural device that can monumentalise and express power and authority.

The idea of a social plinth is one then that requires both critique and interpretation. Is it to be understood as a re-grounding of the institution, as the antithesis of monumentality, as a platform for dialogue? Is it a foundation from which the transformed Bank of the future might be constructed? Or is the very notion of a plinth one to be countered?

The image of the plinth as a robust base, that defines the stability of the whole, has long been employed in the architecture of bank buildings, to assist in proposing them as strong and stable institutions, which people could trust. However, what has long been thought of as a stable economic model, which banks underpinned and National Banks helped regulate, a model of continuous growth supported by industrial production and the extraction of the very materials of which

Interiors
Buildings
Cities

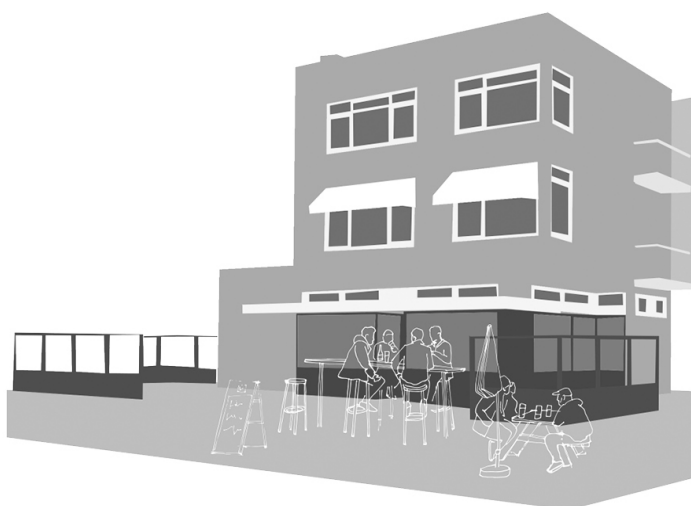
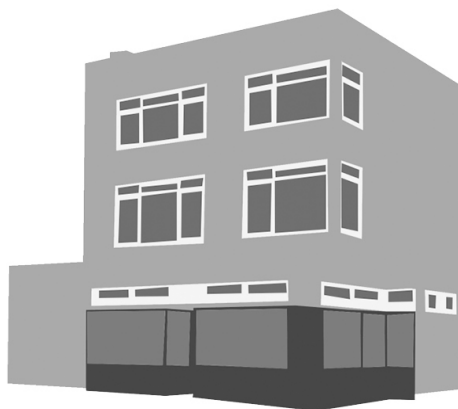
Palace

SOCIAL PLINTH

First interpretation of project brief

What is a social plinth? The term 'social plinth' implies that there is a certain connection between interior and exterior. A connection that invites people from the street to interact with the building and with others. It suggests a meeting place of some sorts, situated on the street level, hence the term 'plinth'. One of the first images that comes to mind is that of a crowded terrace of a café on a sunny afternoon. People sitting underneath the pulled-out canopy, the chairs and tables slightly rearranged to accommodate them and their company. Some ask for an ash tray and others for a bowl of water for their dog. When the evening starts and the temperature drops, half of the visitors are covering themselves with blankets provided by the waiters. People make changes to the space to accommodate their personal needs. This layer of appropriation is added by the usage, so by the users themselves. How can a plinth be designed in such way, that it invites people to use it?

SOCIAL PLINTH



Abstraction of building and user layers (own image)

P1_SOCIAL PLINTH

Reframing private gestures

The issue of representation in the bank's façade is addressed in the studio's brief 'Social plinth'. The term 'social plinth' implies a certain connection between interior and exterior, a connection that invites people from the street to interact with the building and with each other. These social interactions, or human appropriation, that take place and the designed, architectural surroundings are comparable to Stewart Brand's Shearing Layers. According to Brand: the thicker the line, the longer the lifespan. The model is not fully relevant for the design of a social plinth for the National Bank of Belgium, the related idea of a buildings being a process instead of being a fixed form is.

The layer of human appropriation, Brand's 'stuff' layer, are visible throughout cities. It adds a sense of human scale to the urban fabric which makes it more inhabitable. An example of this would be the Delftse stoep, the narrow strip of 'undefined' space along the canal houses in Delft. The space is neither public, not private. It seems to be part of the street profile but is often furnished and used by the owners of the attached house. The strip of has a domestic appearance and has a social character. The Delftse stoep can be seen as a social plinth, consisting of individual private gestures, creating a public intervention. A question which is raised by these findings, is what these collective private gestures mean for the public space. Or how can these private gestures be reframed to attract and accommodate public life?

When analyzing the Hopstraat in Delft, various attributes can be distinguished to be part of the layer of human appropriation, the private gestures. As can be seen in the model, mainly plants and seating is added to accommodate the use of the outdoor space by the residents. These elements are applied to the facade of the City Hall of Rotterdam to find an answer to the question. First, public benches are added. This gesture is similar to the publicly used

benches along the facade of many palazzi, such as Palazzo Medici Ricardi in Florence. With these benches and the additional furniture, the pedestrian area becomes a space to relax and spend time. It could be used as an extension of the public function of the City Hall, a private gesture for public use.

SOCIAL PLINTH

Analyzing the Delftse stoep



The Hopstraat in Delft is a typical street for the city of Delft, located in the city centre

SOCIAL PLINTH

Line drawings of the different facades in the Hopstraat



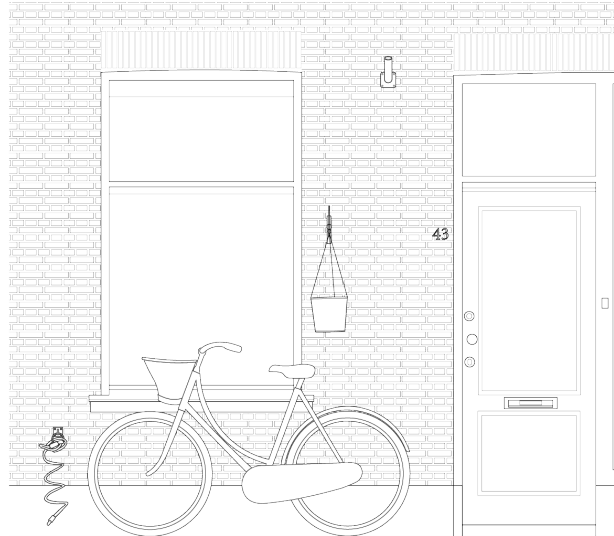
SOCIAL PLINTH



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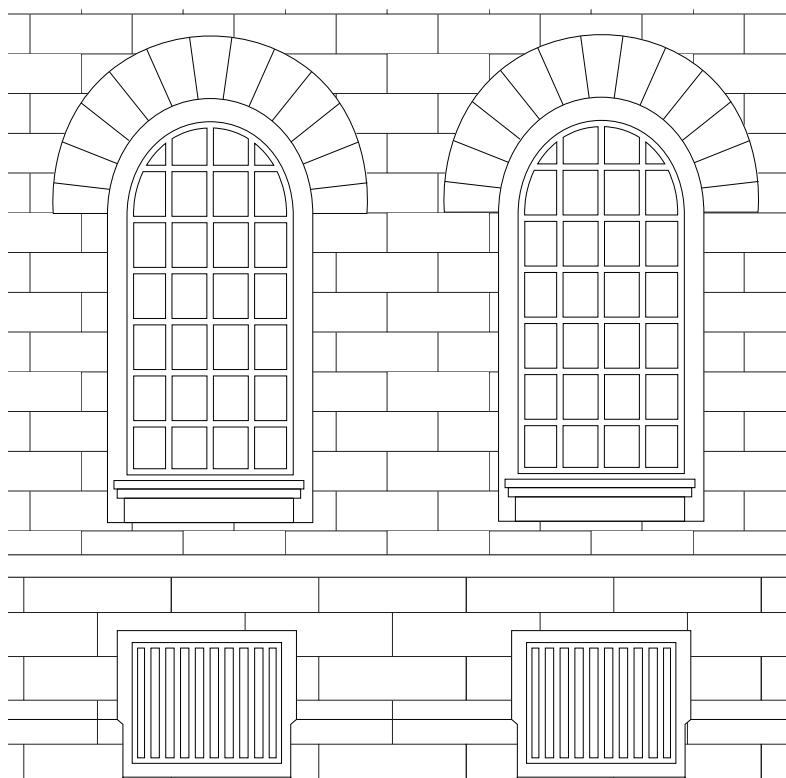
Paper model of elements of appropriation



Paper model of 'elements of appropriation' that have been distinguished by analyzing the Hopstraat in Delft

SOCIAL PLINTH

Line drawing of a monumental facade



A fragment of the monumental facade of the City Hall of Rotterdam

SOCIAL PLINTH

The intermediary space



In the model above, the 'objects of appropriation' which could be distinguished in the Hopstraat have placed in front of the monumental facade of the City Hall of Rotterdam. The private gesture is reframed in order to create a social plinth or a transitional zone along the facade. Besides the interior and the exterior a third space can be differentiated: the intermediary space.

SOCIAL PLINT

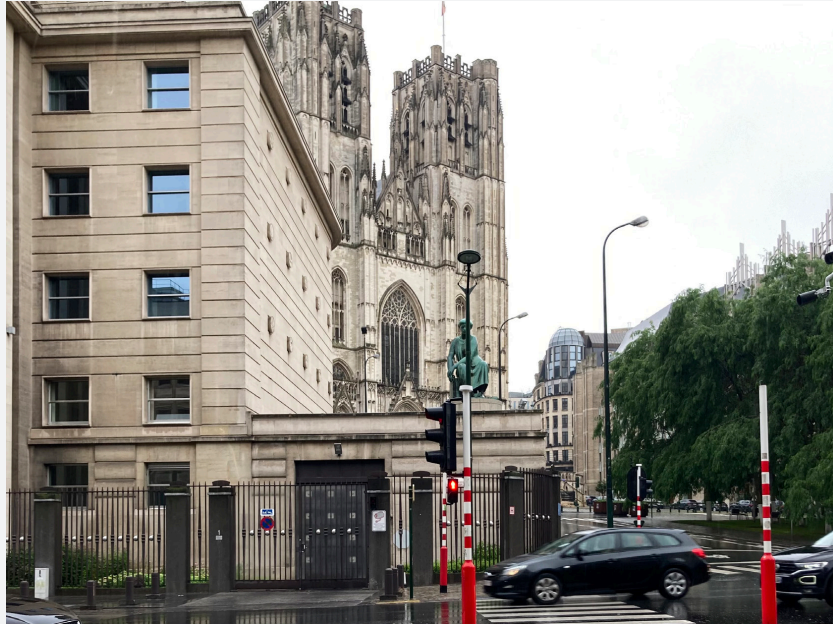
Architecturally facilitating human appropriation



For the continuation of this project, I will focus on the architectural implementation of these elements of appropriation. Rather than creating a temporary intermediary space by means of different furniture pieces, the intermediary space will be considered as part of the design of this graduation project. Palazzo Medici Riccardi in Florence (see image above) can be seen as an example of this architectural implementation of facilitating appropriation.

Future Bank

MSc3 AR3AI100 Week 2.1-2.3



Belgian National Bank. View towards Saint Michael and Gudula Cathedral, 2021. Mark Pimlott

City Bank

Having begun to address some particular issues which arise from the brief for the transformation of the National Bank: the forms and histories of the workspace and the idea of the social plinth, we will now turn our attention to the building itself and its situation within Brussels. The façade of the National Bank on the Boulevard de Berlaimont is a continuous colonnade, nearly 200m long, an attenuated temple with little to no hierarchy. It is set against a vast, anonymous street, straightened in relation to the building and the infrastructure below and with a similar sense of disdain for the scale of a human, representing the building's current position as an institution, an entity impossible to either deny or to penetrate. The facades on Rue de la Banque are still more anonymous, apparently undifferentiated, suggesting only that some sort of bureaucratic or administrative labour goes on within. A major part of the facade to Rue du Bois Sauvage, on the other hand, is specific. Although its evocation of a palace in a grand manner may not be particularly inviting to everyman, that same everyman might at least have an idea of significant spaces within: entrances, staircases, salons, inner sanctums. This representation of the Bank also gives a sense that the triangular site on which it sits was once an aggregation of individual building blocks, set within a dense urban grain, before their remnants were sublimated within its present, fortress-like condition. Around it, other institutions are gathered, within a part of Brussels which is at an intersection, in section, of the highly differentiated urban conditions that constitute the

city, but which is nonetheless bereft of many of the qualities that exemplify it. Therefore, multiple images, suggestions, and relations constitute the 'identity' of the National Bank in the City of Brussels. Together, they might be considered to invoke the several ideas, which the Bank has wished to communicate about itself to the city and the nation over the course of its history: that it is a serious institution, opaque in its operations but with connections to elites and traditions, which is working hard and anonymously on behalf of the State, and by extension, its citizens. The collage of the building exemplifies this sense of aloofness, assisted by the disconnectedness of each of the three sides of the sites: a virtue, one might say, of the triangular block that has been in place for a very long time. But are the fictions of this arrangement and the distribution of its various identities relevant in the present, and how might it be adjusted or transformed to indicate a new reality and a new future for the Bank, at the centre of a transformed economy?

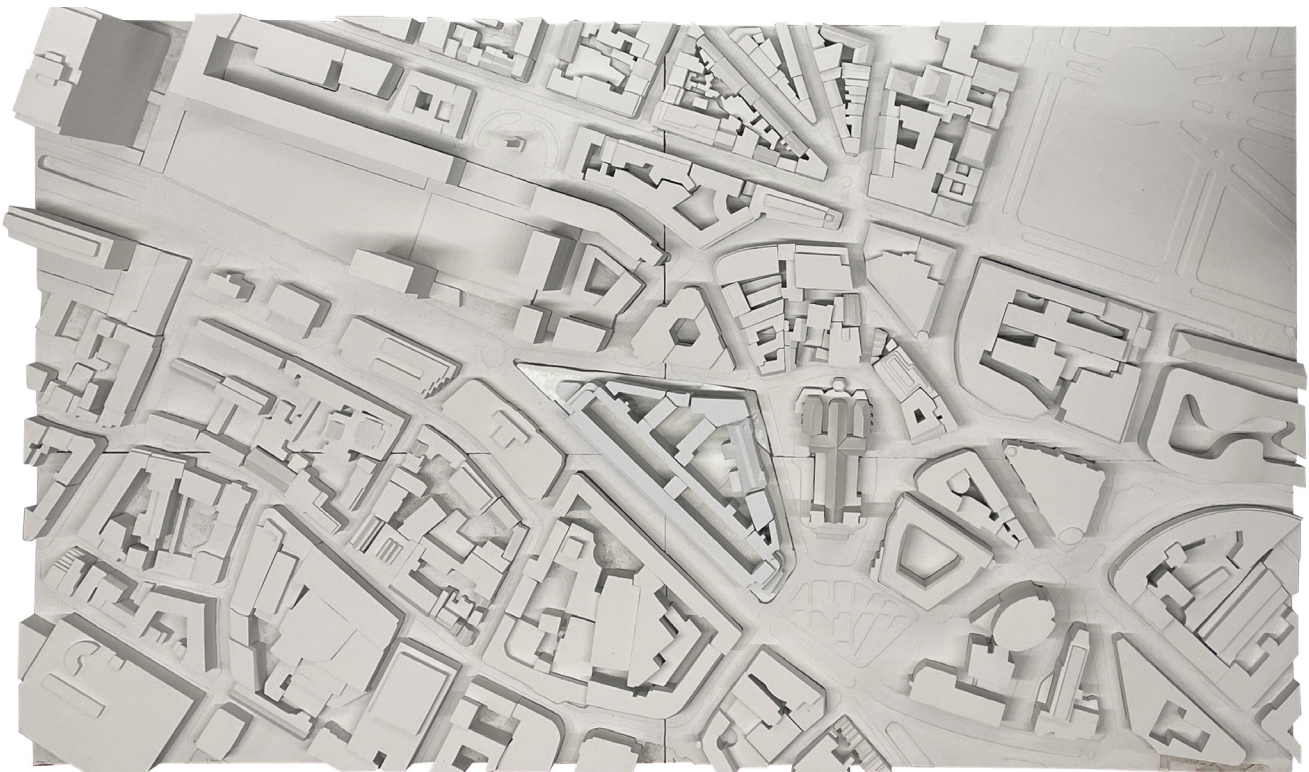
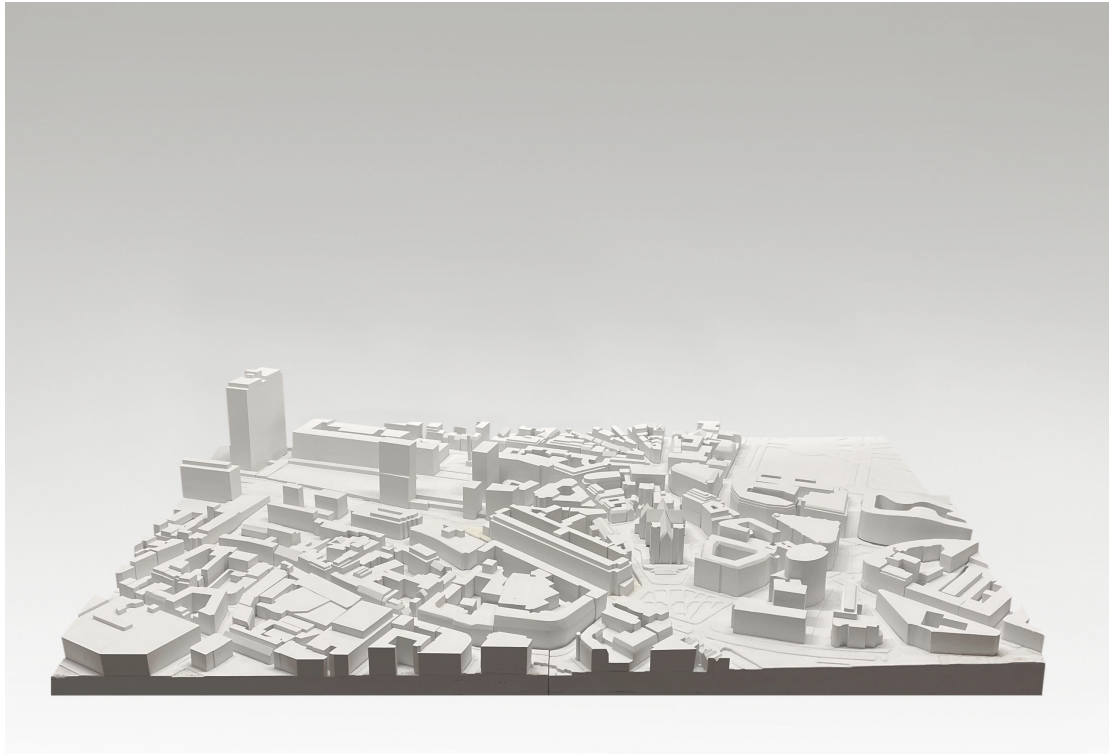
If one is able to penetrate beyond the security lines, which mark the limits of possible engagement for most of the public, into the block's interior, then one discovers a complex, aggregated structure in both plan and section, a labyrinthine and heterogeneous architecture that represents the multiple tasks and hierarchies that the Bank historically developed and depended upon. Much of this complexity and many of the spaces that accommodated are now redundant and perhaps irrelevant to the issues of today. Although the Bank project is ostensibly concerned with the consolidation of its Brussels

Interiors
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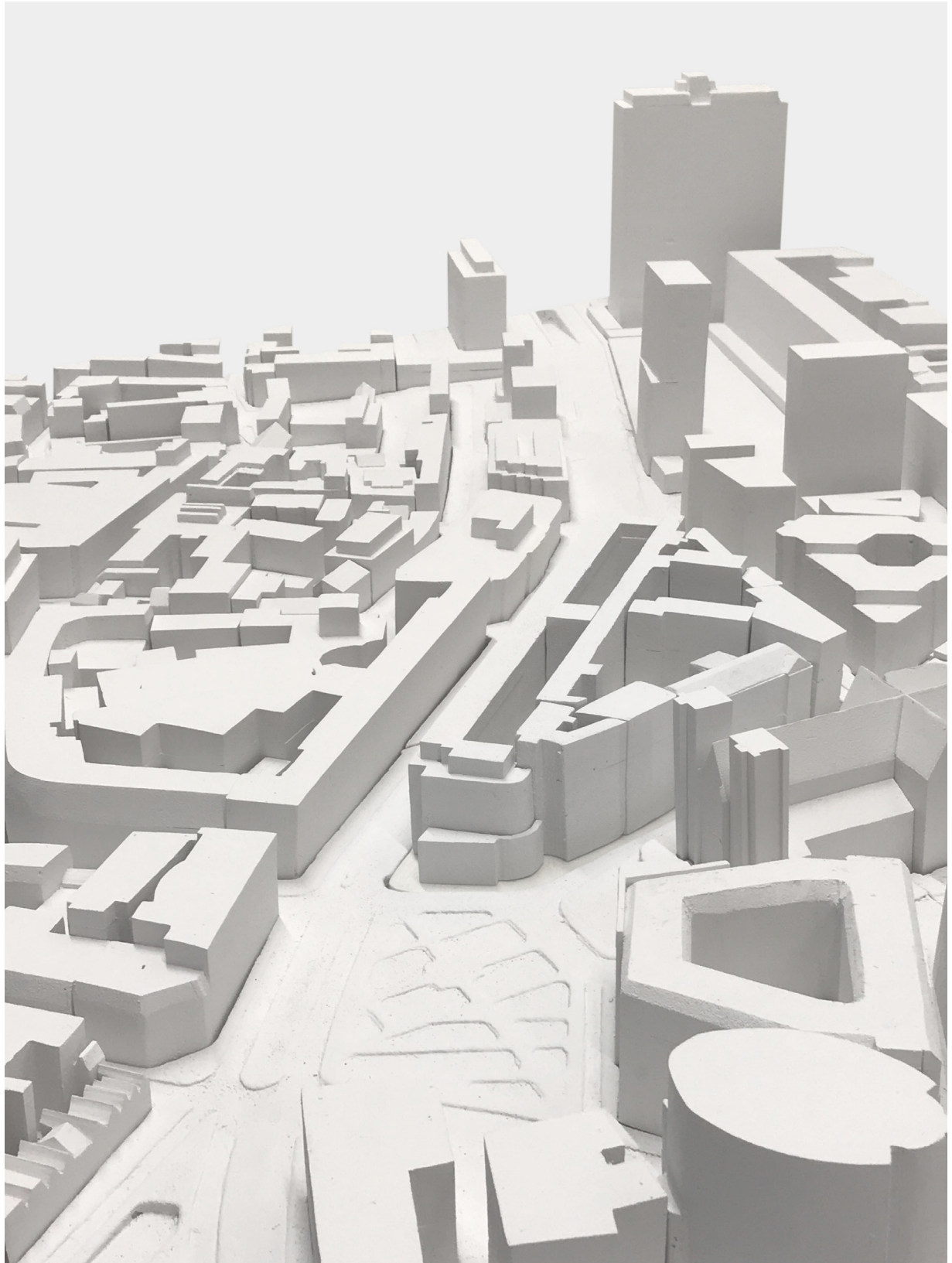
Palace

CITY BANK

Site model of the National Bank of Belgium



1:500 site model as part of the group research. Photographed and edited by Laurens de Munck



CITY BANK

Historical literary research for the group research book

Organization of historical bank building

Beyaert's proposal for the national bank building initially followed a functional logic, contrary to what the extravagant exterior ornamentation may indicate. The governor's house and office, as well as the board of trustees and the hall of general meetings, were all hidden behind the grand facade. The eastern entrance provided entry to these rooms. Parallel to this, a second volume with banking services (on the first floor) and the counter hall (on level -1 in reference to Wilde Woudstraat) was joined by a cross connection; the latter was accessible through the other door. The structure followed the then-standard practice of all large new bank buildings, in which the public was welcomed in a single hall (here 36m long, 14m high) from which all treasuries and everyday functions could be accessed.

The second construction phase involved 3 buildings:

- A new, huge ticket hall ('Caisse des recouvrements') was built along Berlaimontstraat, almost on the same level as the former ticket hall's public (lower) floor. The offices were on the upper floors. A tower staircase surrounding a light well with a bust of Beyaert on top served as the main connection between the buildings of the first and second phases. Despite the volume's considerable presence along Berlaimontstraat (due to its length and visually strong presence), no public access was available through this facade. Another significant flaw in the new ticket hall was the absence of air. All types of solutions were explored as early as 1873, but no fundamental changes were made in the end. Despite the fact that this expansion was praised by other architects such as Jules Brunfaut, the room's functional inadequacies were likely a factor in Van Goethem's choice not to maintain it during the post-World War II construction campaign.
- On the Bankstraat (then still rue Neuve Saint-

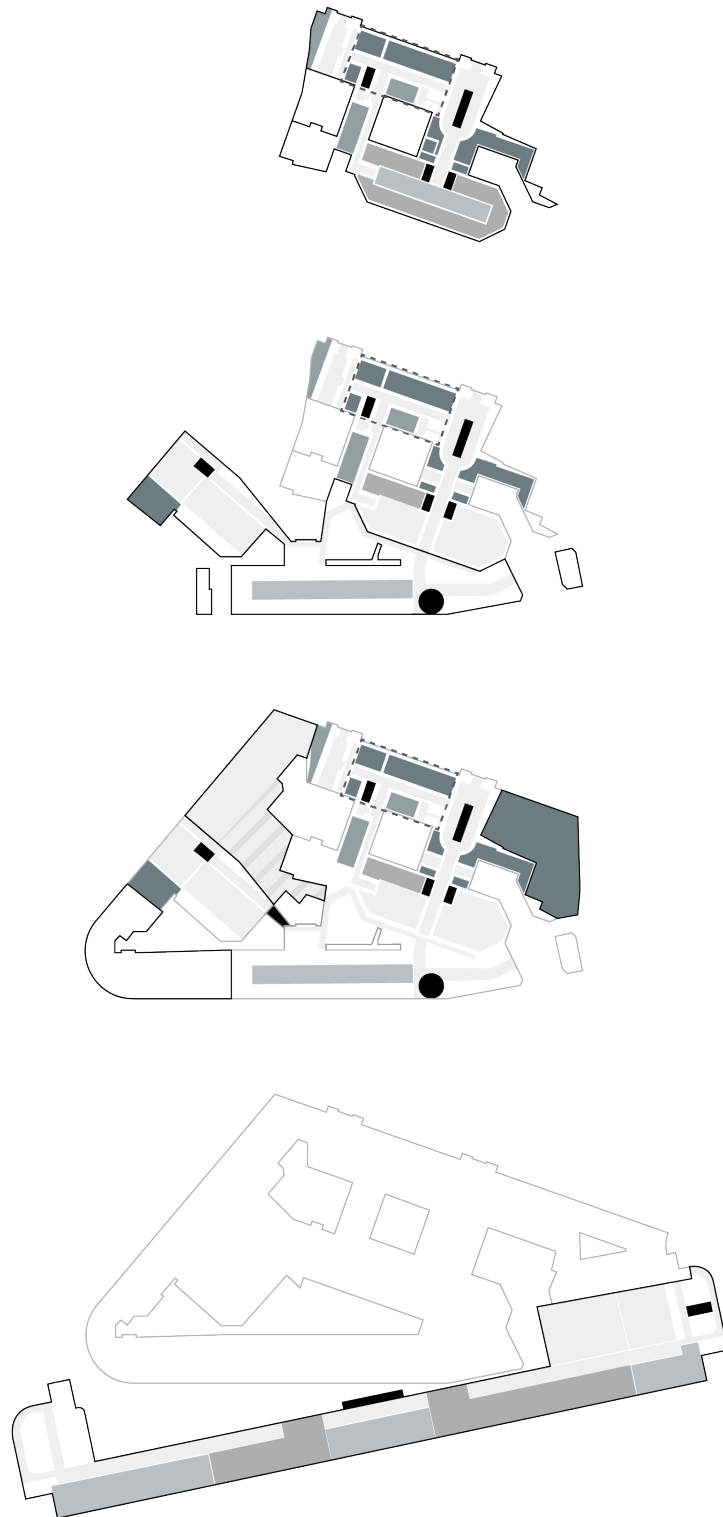
Gudule) were the 'House of the Treasury' and the Printing House of the Bank, with a studio behind it and its own steam power station.

- The old ticket hall was remodeled and was used as a passageway.

The third building phase was prompted by a chronic lack of space caused by the departments' continual expansion. Beyaert was also in charge of the blueprints. His plan was to place a corner building on the Bankstraat/Wildewoudstraat to connect the Governor's original hotel with the additional wings from the second phase. However, his death in 1894 prevented the further development of these plans. Between 1900 to 1908, Beyaert's successor, Louis de Rycker (1853-1906), an architect who worked for the Bank for virtually his entire career, completed the extensions.

CITY BANK

Organization of the bank building compared to the different building phases



- | | |
|--------------------|--------------------|
| ■ banking hall | ■ hallway |
| ■ costumer service | ■ safe |
| ■ storage space | ■ technical space |
| ■ residency/hotel | ■ supporting staff |
| ■ staircase | ■ office space |
| | ■ printing |

CITY BANK

Research of the bank building for the group research book

Organization of current bank building

Three interventions were made by him:

- On the Oratoriënberg, a cylindrical corner building crowned with turrets, statues by De Bluts and ornaments by Houtstont.
- A corner building on Bankstraat and Wildewoudstraat with a printing works extension, technological installations, and new safes. In 1901, an imposing chimney (35m high, between 3 and 1.75m broad) was erected here to heat the houses as well as burn bills.
- A management office expansion of the Hotel van de Gouverneur on the Wildewoudstraat. By employing the same white stone and a comparable, but more somber Louis XVI style, De Rycker attempted to blend this enlargement with Beyaert's construction. These new wings also meant a new administrative organization: the directors were no longer in direct contact with their services.

The main building of NBB 1 (the two parallel wings along the de Berlaimontlaan) by architect Marcel van Goethem originally had 7 floors, subdivided as follows:

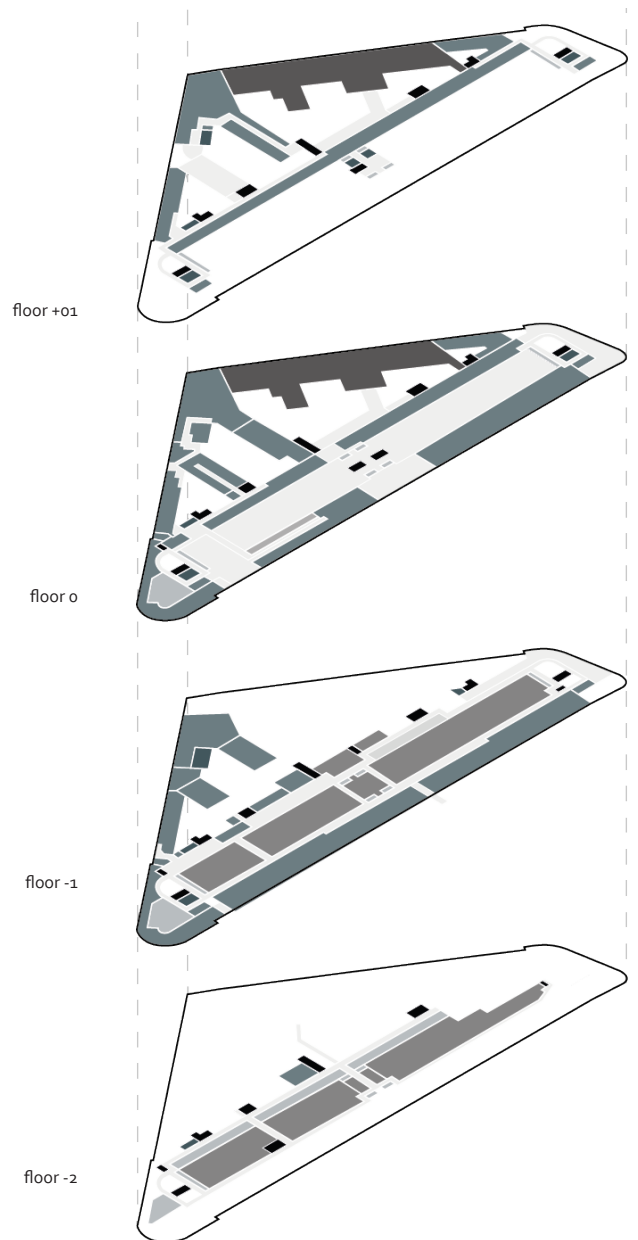
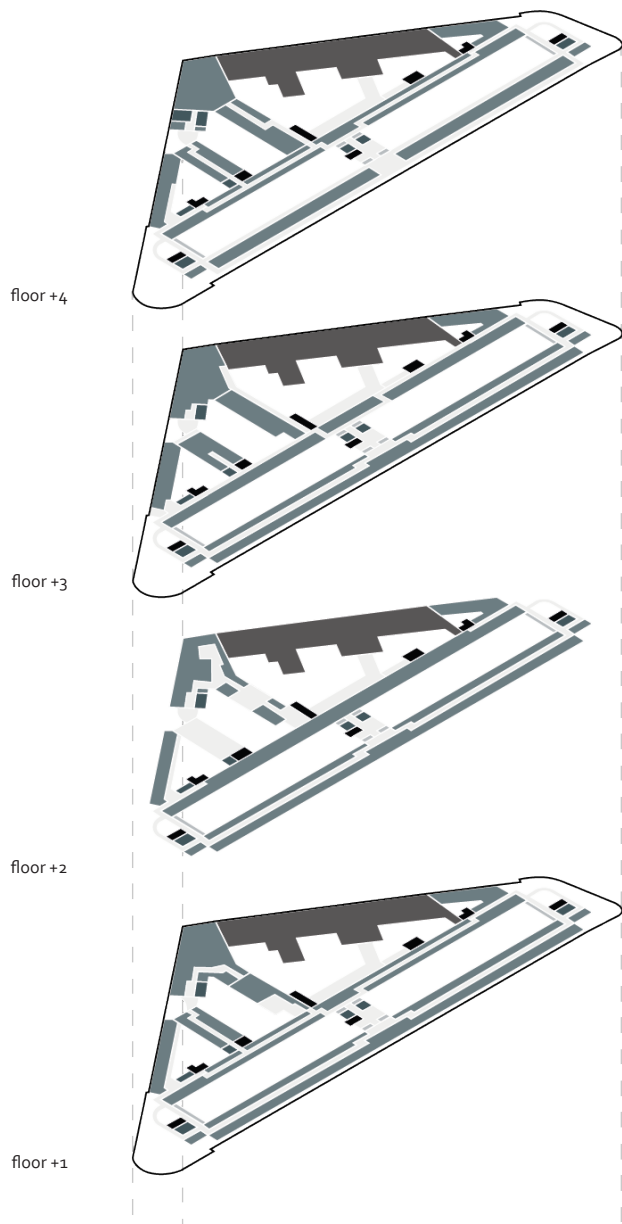
- Basements:
 1. - 2: safes
 2. - 1: staff entrance with, among other things, cloakrooms and lockers (north side) + safes
- Ground floor: in the center the entrance hall (with mezzanine), with the (quasi-identical) ticket halls of the Hoofdkas and the Rijkskas on both sides, separated from each other by a semicircular, open staircase.
- 3 floors with offices of the various services. The service médico-social at +1 with its own consultation room and a small gym is worth noting. The (provisional) refectory and relaxation room were housed on the fourth floor (later in BLoc XVII and XVIII).
- Floor +4:

1. Side Berlaimontlaan (Bloc I-V): springs back from the facade and has a roof terrace above the colonnade (side Berlaimontlaan). It houses the boardrooms in the south wing; council chambers and dining rooms in the north wing.
2. Side Koer (Bloc XI-XIV): staff refectory
3. Floor +5: offices and meeting rooms

The Aile Extension had a slightly different layout, including the drawing rooms.

Storage areas, technical areas and the economat were housed in the volume along the Bankstraat and in the two 'combs'; on the 4th floor was the kitchen (Bloc XVI) and the relaxation area (Bloc XVII) with raised podium and curved rear wall, decorated with a fresco by Maurice Van Saene (1911-2000). Later, the relaxation area moved (expanded?) to the 4th floor of Bloc XVIII. From the refectory there was also access to the roof terrace (on Bloc XV).

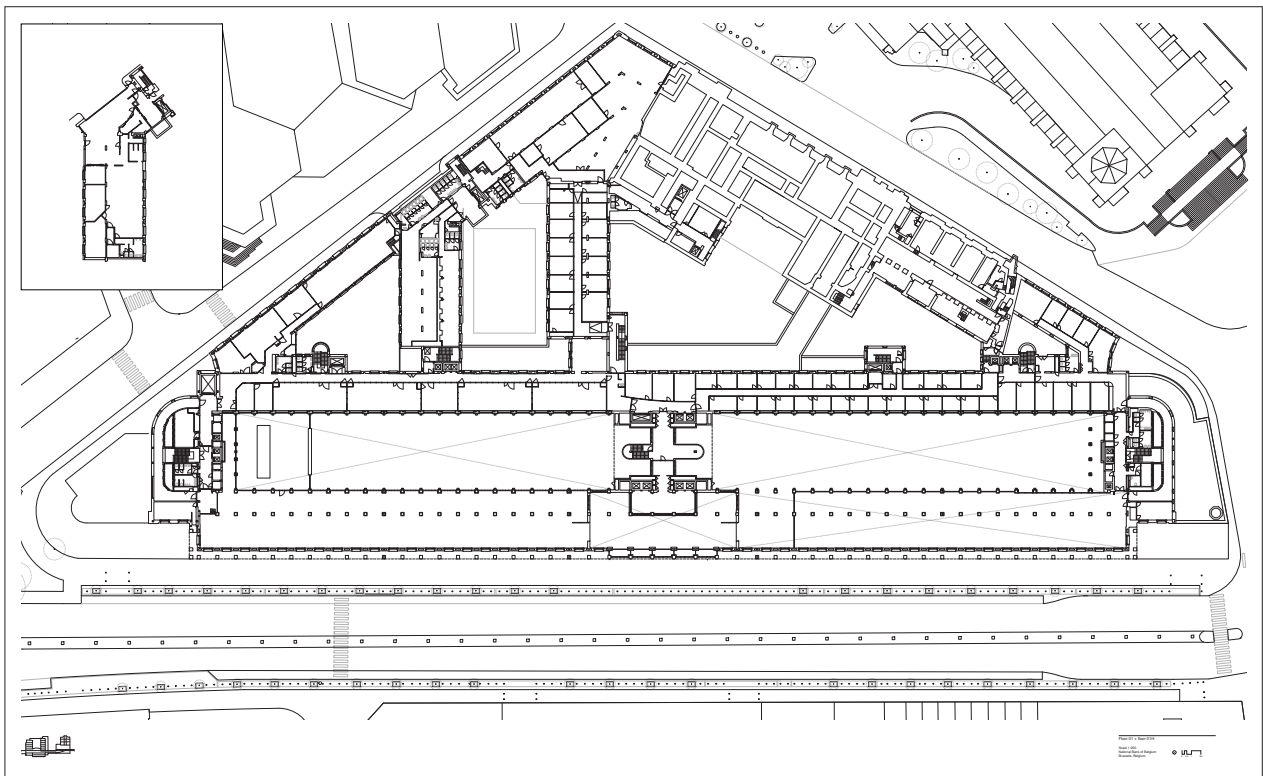
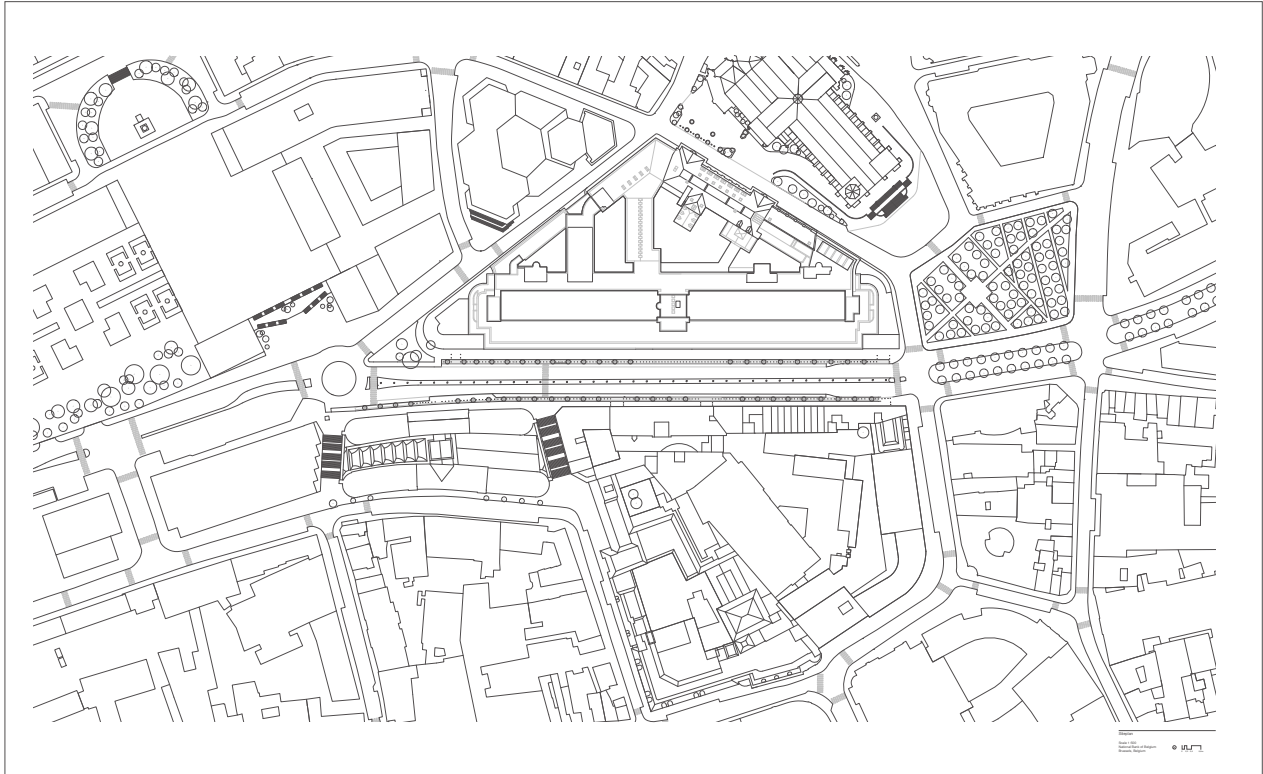
CITY BANK



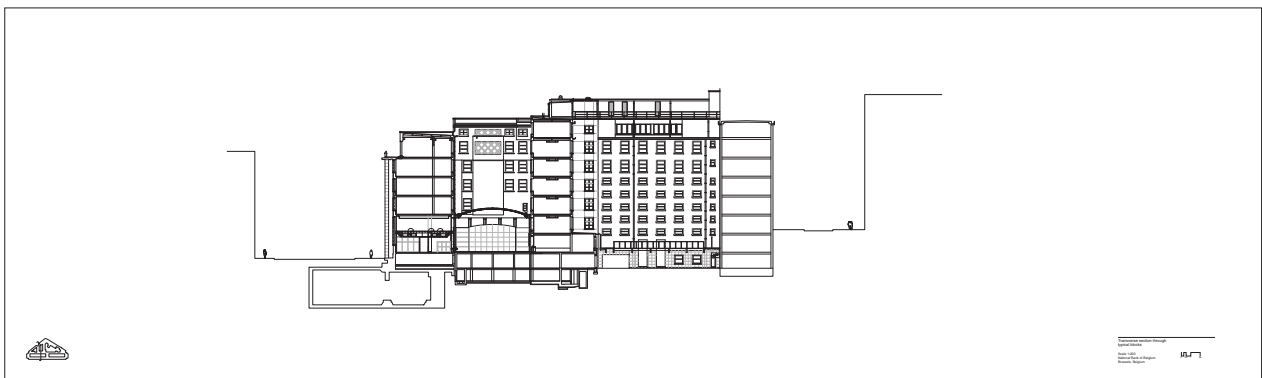
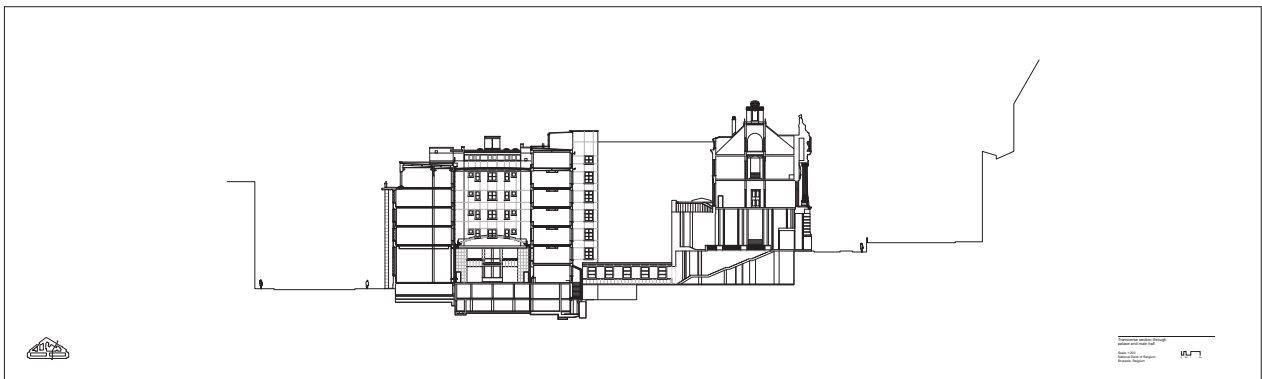
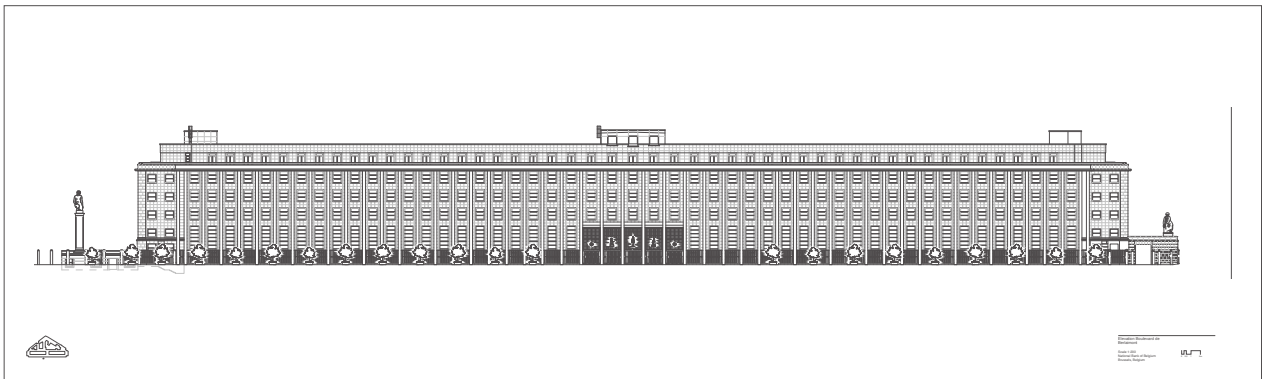
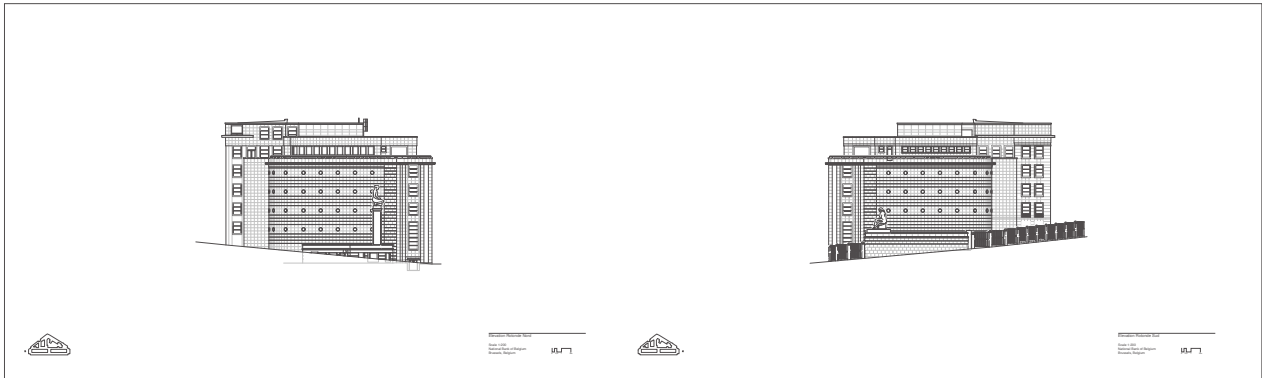
- | | |
|--------------------|--------------------|
| ■ banking hall | ■ hallway |
| ■ customer service | ■ safe |
| ■ storage space | ■ technical space |
| ■ residency/hotel | ■ supporting staff |
| ■ staircase | ■ office space |
| | ■ printing |

CITY BANK

Architectural drawings as part of the group research



The architectural drawings have been made by a small group of students. I have collected the different drawings and created the panels, using the same lay out to make the different drawings comparable.



RESEARCH PLAN

Research plan

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4466314

Daniel Rosbottom
Mark Pimlott
Sam De Vocht
Jurjen Zeinstra
Amy Thomas
Birgitte Hansen

RESEARCH PLAN

Introduction

The Belgian National Bank has been forced to reconsider its physical design and representation in the urban fabric due to a significant shift in banking and finance. The graduation project 'Future Bank' encourages students to go further into the topic, not only questioning and exploring the realized modern bank, but also reconsidering the bank as an institute. The goal of this studio is to turn the Belgian National Bank into a contributing member of the urban fabric and society, with ramifications for employees and citizens.

The first semester of the graduation studio consists of a series of project briefs. Each brief tries to evoke a design-oriented approach to research the given themes or respond to the raised issues.

Brief 1: Working together

Brief 2: Public platform

Brief 3: Individual project

The first brief, a group assignment, is to make a highly detailed model of a photo of one of the offices building precedent studies. In this case, a luxurious office in the Ford Foundation by Kevin Roche John Dinkeloo and Associates. The task requires students to begin with a thorough examination of the space's usage and to consider the project at many scales: interior, building, city, the studio's approach.

After this, students are asked to work individually on the second brief, an open design assignment entitled 'Social plinth'. This brief asks to question the Belgian National Bank's mostly representation definition of a 'social plinth'. The research and design for this brief have helped to develop an interest in the possible social role of the bank for its employees and visitors. In the present banking environment, the ramifications of a lessened physicality of banking and a lack of social contacts and meeting locations have been examined and are addressed further in this research plan. This research plan is a collection

of interests and outcomes from readings, lectures, seminars, and research and design assignments, and it may be utilized as a jumping-off point for the third brief 'Individual project'.

RESEARCH PLAN

Research questions

During the first ten weeks of the course, the lecture series, the seminars and debates, the research assignments, such as the precedent studies, the design briefs and the discussions that followed, have addressed various issues on different scales in relation to first, the office building and later, the national bank building. Several issues have arisen as a result of these activities:

- a. *How will digitization and outsourcing of banking and finance affect the bank as an institution and the physical bank building?*
- b. *How can the Belgian National Bank re-establish its link with the city, and what function might the bank's façade play in this process?*
- c. *How does a building's plinth effect the relationship between interior and outside, or private and public space?*
- d. *How may a private party's gesture benefit the general public? How can be such a gesture be materialized?*

These questions aided in the structuring of the research and design process. Simultaneously, they supported the exploration of project-related interests as well as the assembly and structure of this research plan. By addressing the following issues and ideas, this research plan yields a problem statement and research question, which will contribute to the continuation of the project after the P1:

How can the Belgian National Bank be rethought from a systemic and architectural standpoint so it encourages interaction among bank workers and can make a public gesture to connect to the urban fabric?

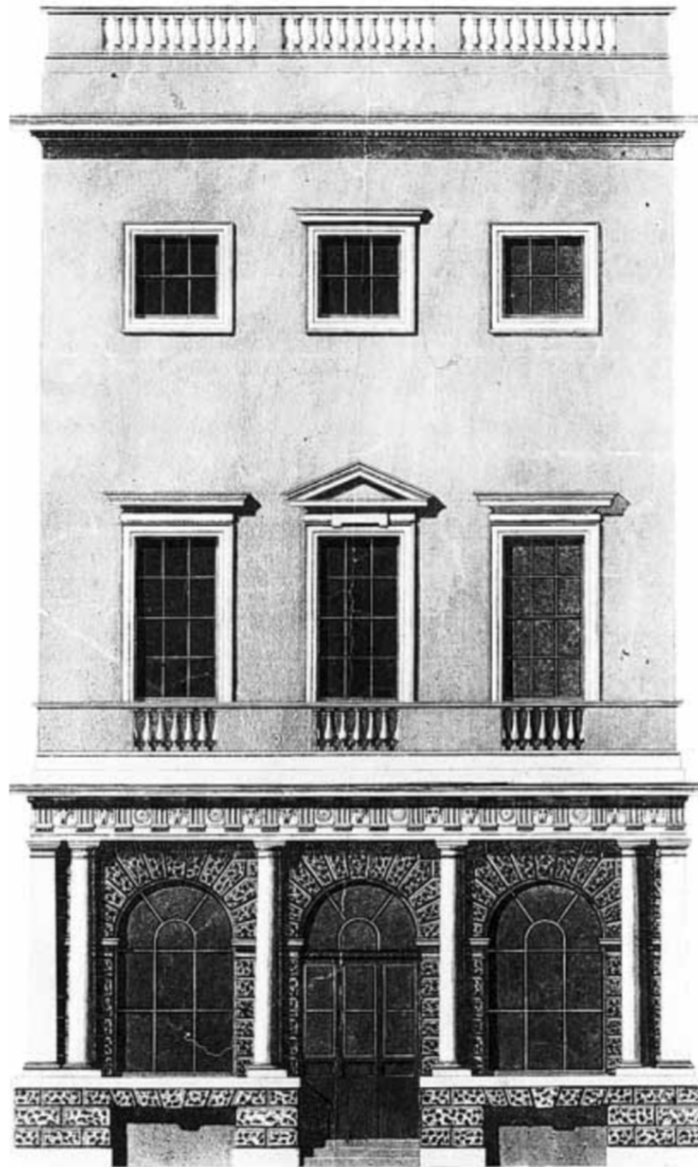
RESEARCH PLAN

Positioning

The exterior physique, representation of the bank on its façade, and use of the exterior space will be examined in this section. The questions, as well as the readings, lectures, and assignments for the graduate course, are utilized to determine a position and then develop the problem statement.

Reconnecting the bank and city

The bank façade aesthetically displays the position of the bank within the city, or at least, the role it aspires. When looking into the building typology of banks, throughout time, a pattern of representation can be distinguished. The first bank exteriors were similar to those of palazzi, Italian grand houses. In the 1800's, the bank architecture in England was fashioned after that of English town houses, as can be seen on image 1. The facades appeared to be domestical to ensure a personal relationship between the bank and its customers (Thomas, 2021). The façade of the bank represents its position in the city.



Sir Charles Asgill's private banking-house in Lombard Street in 1804. Source: Guildhall Library Print Collection. From: Thomas, A. (2021, October 14). Bank Architecture [PDF]. <https://brightspace.tudelft.nl/d2l/le/content/398793/viewContent/2514402/View>

RESEARCH PLAN

The domestic origin of the exterior's aesthetic is one that can also be recognized in the early architecture of office buildings. For example, the façade of The Sun Insurance Office in London (1849) (image 2) was a contemporary translation of an Italian palazzo, and the interior had a domestic quality. A more recent example would be the Economist Tower and accompanying bank and apartment building by Alison and Peter Smithson (image 3), which have a plaza and palazzo-like quality.

National bank buildings such as the National Bank of Belgium or the National Bank of England were built in a monumental classicistic style. The gradually expanded bank buildings turned into a conglomeration of buildings, with a city structure and a fortress-like façade. The one-to-one relationship is replaced by grandeur, but serves the same purpose, to ensure the clients' trust in the bank (Thomas, 2021). Now that banks have become less approachable and more private institutes, the grandeur of the bank architecture, with its immense monumental facades, is enforcing the disconnect with the city. The graduation design for the studio can contribute to the reconnection of the Belgian National Bank and the city and society and to regain a personal relationship with its customers.

RESEARCH PLAN



(top) The Insurance Office, London, 1849. From: Duffy, F. & Hutton, L. (1998). *Architectural Knowledge: The Idea of a Profession* (pp. 29–43). London: E & FN Spon.

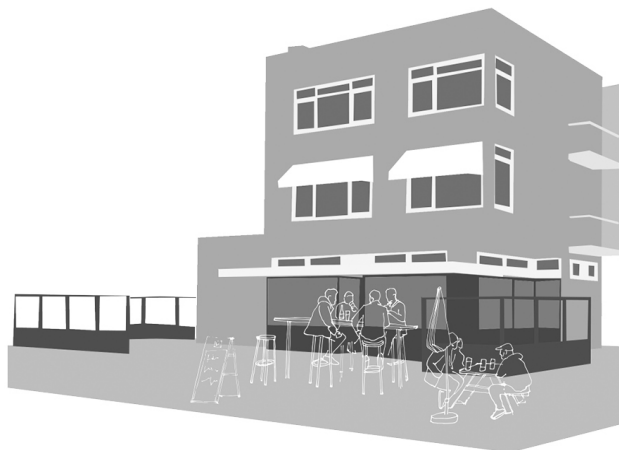
(bottom) The Economist Building. From: Seier+seier. (2010). *The smithsons, Peter and Alison Smithson - Economist Building, London. 1959-1964.* [Photograph]. Flickr. <https://www.flickr.com/photos/seier/5427505450>

RESEARCH PLAN

Reframing private gestures

The studio's brief 'Social plinth' addresses the topic of representation in the bank's façade. The term 'social plinth' denotes a link between the inside and exterior of a building, one that allows passers-by to interact with the structure and with one another. These social interactions, or human appropriation, that take place and the designed, architectural surroundings are comparable to Stewart Brand's Shearing Layers, as can be seen in image 4. The thicker the line, the longer the lifespan, according to Brand (1994). The concept isn't entirely applicable to the design of a social plinth for the National Bank of Belgium, however the related idea of a buildings being a process instead of being a fixed form is.

RESEARCH PLAN

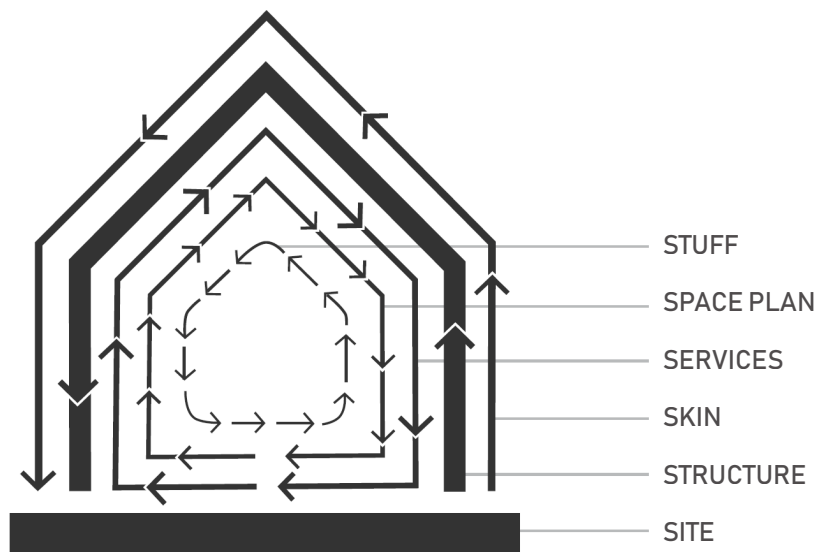


Abstraction of building and user layers. (own image).

RESEARCH PLAN

Brand's 'stuff' layer of human appropriation can be seen across cities. It gives the urban fabric a sense of human size, making it more livable (see image 5). The 'Delftse stoep,' a thin strip of undefined space along the canal houses in Delft, as seen in image 6, is an example of this. This is neither a public nor a private space. It appears to be part of the streetscape, although the owners of the adjacent houses frequently furnish and utilize it. The strip has a social character and a domestic appearance. The Delftse stoep can be considered as a social plinth, made up of discrete private gestures that come together to form a public intervention. The notion of re-framing these gestures in such a manner that they contribute to the public area by allowing for public use may be applied to the project further. It's worth noting that the intention and execution of a public gesture by an institution like a bank differs from the accumulation of personal items in a public setting. Houseowners appropriating the plinth would be a primarily selfish, whereas for the bank it could become an extension of its rethought social role, a public gesture.

RESEARCH PLAN



(top) Shearing layers. From: Brand, S. (1994). *How buildings learn: What happens after they're built*. New York: Viking Press.
(bottom) The appropriation of the public space by inhabitants in the Hopstraat, Delft. (own image).

RESEARCH PLAN

Reflective problematization

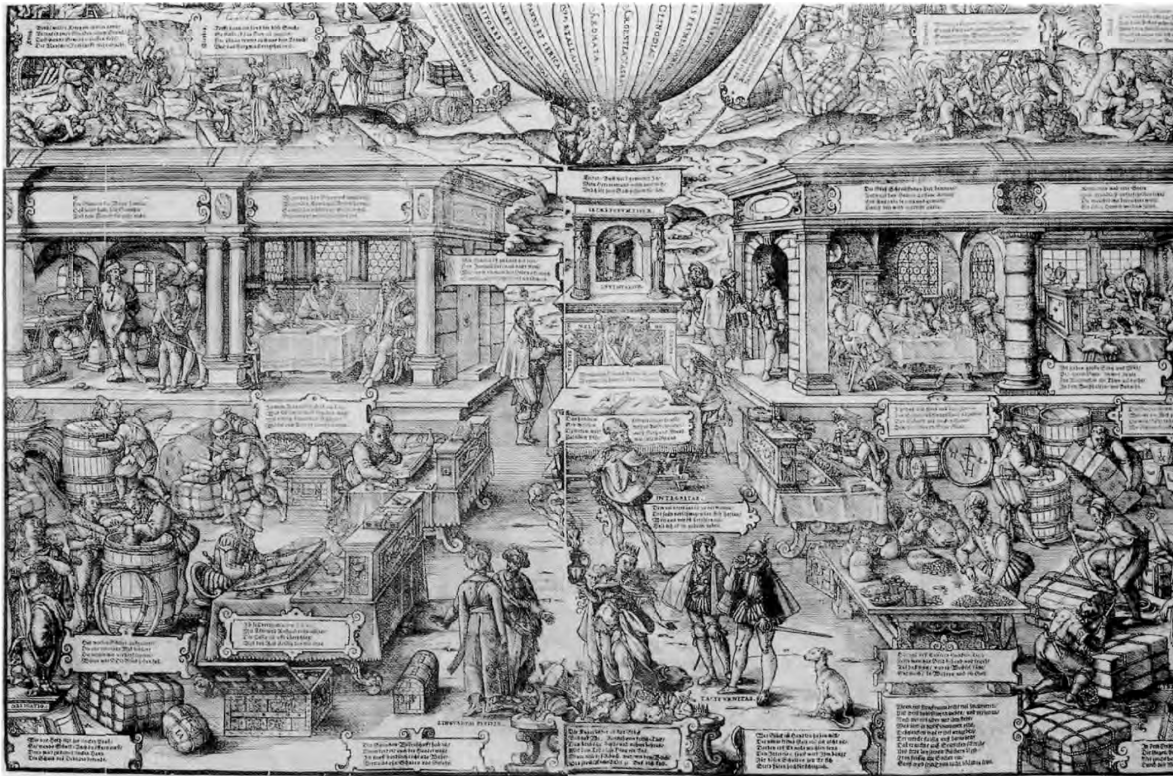
Historically, a bank was a highly physical space. Money was printed and stored on-site, and trade and financing were physical activities that relied on social relationships. These banking operations are depicted in Image 7 as a harmonic arrangement of social interactions, the ideal banking hall. Banking has grown less tangible over time. Computers replace clerical paperwork, finance becomes a digital activity, and money production is outsourced. The bank is neglecting its fundamental role in society as a result of these acts.

Modern banking appears to be detached from its physical consequences. Bankers create artificial money with instruments and jargon that the average person does not comprehend. When the housing market falls in 2008, the bubble bursts, as depicted in *The Big Short*, the impact on individuals becomes evident (McKay, 2015). The bankers' acts have immediate physical implications, even if there is no physical relationship.

Digitalization has an impact not just on the employee-customer relationship, but also on employee-employee interactions. By reducing the physicality of banking, the communal use of common areas such as the banking hall and general circulation throughout the building has decreased, and therefore the chance of contact has reduced. Employees are more reliant on the department to which they are assigned.

The outsourcing and digitalization of banking distance the bank as an institute from society. Employees at banks are disconnected from their customers, and they are unaware of the implications of their work. They are cut off from their coworkers since their workplace does not allow for casual meet-ups. A radical redesign of the bank, involving the democratization of work and common spaces, might be the solution. Employees' encounters should be facilitated, particularly by providing

casual meeting places. Then, the line between public and private space should be redrawn to allow for interactions between workers as well as between the bank and the city. The social function of the bank should be rethought for this graduation project so that it stimulates employee interaction and makes a public gesture to connect to the city's urban fabric.



Jost Amman, woodcut of merchants and their activities, later 16th c. (London, British Museum). From: Pevsner, N. (1976). Exchanges in Banks. In A History of Building Types. Princeton: Princeton University Press.

RESEARCH PLAN

Methodology

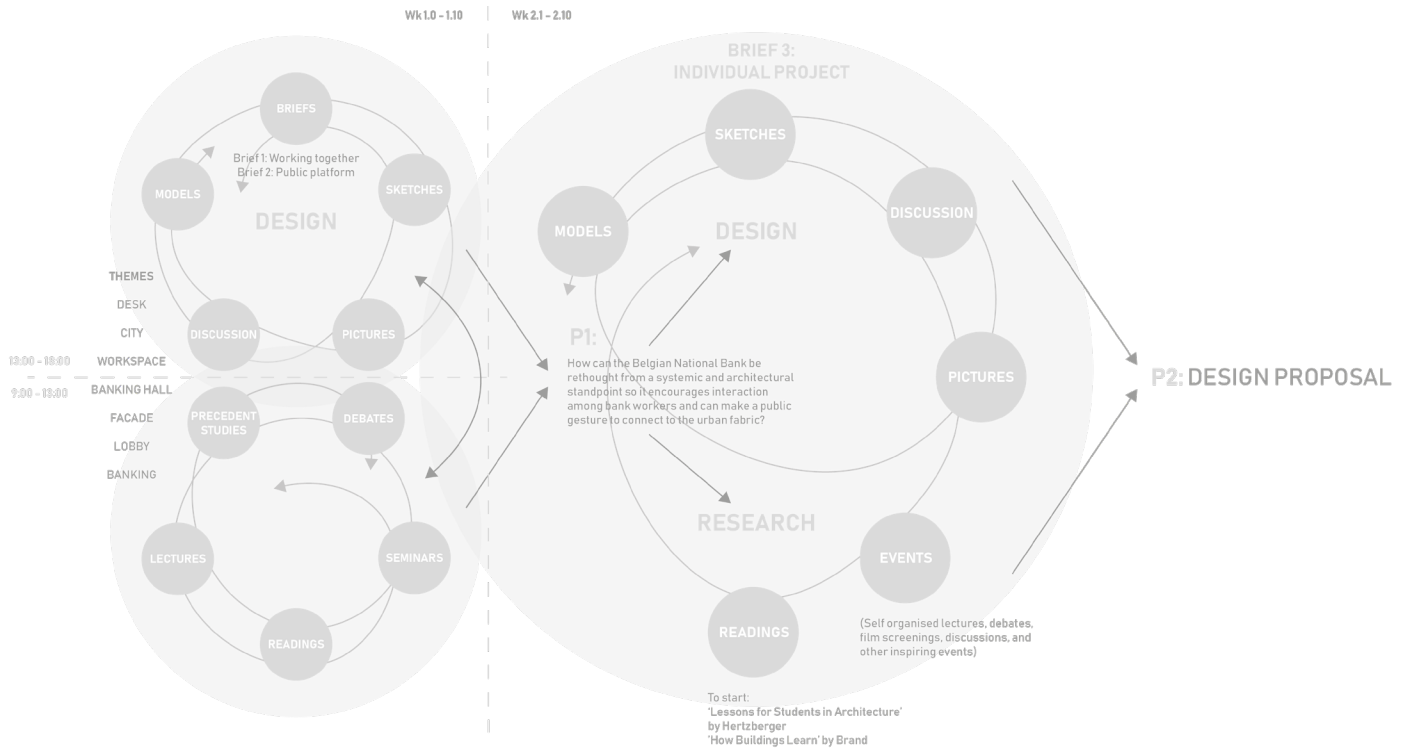
Two project briefs and a series of research seminars, discussions, and lectures make up the first quarter of the Interiors Buildings Cities graduate course. Because the research course and design tutorial are held on the same day, they are more likely to interact with one another. Through the overarching week themes, research and design are linked and intertwined, resulting in a woven research and design process.

This process will continue in the second quarter, after the completion of the P1 and the development of this Research Plan. Research and design will take place concurrently, as they did in the first quarter. This way, the research is not just gathered before the design phase. It will not be a static, pre-compiled source of information, but rather will respond to and feed back into the design task. Following the P1, the third brief 'Individual project' will be introduced. Because the terms of this brief have yet to be discussed and are open to interpretation, a dynamic and responsive research design approach will aid in shaping the process and further developing the defined interest and ideas, which will be constructed in the design proposal that will be presented at the P2.

For the comparison of the precedent studies, the office and bank buildings, that is executed as a group project by the studio, the different projects have been drawn in a similar scale, level of detail and overall style. The social plinth assignment adopts this principle: a set of related drawings are created from which conclusions could be drawn. To be able to draw these comparisons and findings, as well as to create a cohesive whole, a similar manner of working should be adopted in future research and design.

The interest in the user layer and the relation between public and private space, acquired during the design work for the second brief, the 'social

plinth', has inspired to do more research. For example, Herzberger's book 'Lessons for Students in Architecture' elaborates on both the relation between public and private, and that of form a usage. He discusses how architects can contribute to the balance between public and private and how form and usage respond to each other, how they reciprocate. In addition, Brand's book "How Buildings Learn" will be studied to gain a deeper knowledge of the interaction between buildings and their use. Reading these books will help to solidify the notion of stimulating encounter and reconsider the threshold between public and private space.



Process diagram

The design and research process for the graduating studio is depicted in the diagram above (picture 8). During the first ten weeks of the course, there is considerable overlap between research and design, as previously stated. They are linked because they are held on the same day and respond to similar themes. The arrows depict the relationships between different design and research products, as well as how design influences research and vice versa. After the P₁, the synthesis of the activities during the first period, the course's structure changes. Research is not organized separately, but rather as part of the overall process. The development of the design proposal may necessitate more research in order to go deeper into a certain subject or idea. Students will be asked to take the lead in the research to support their project. Inspiring events might be arranged, such as guest lectures, film screenings,

or discussions. These activities, together with the design work, will be needed to construct the P₂ design proposal.

Diagram of process for the Interiors Buildings Cities graduation studio. (own image)

RESEARCH PLAN

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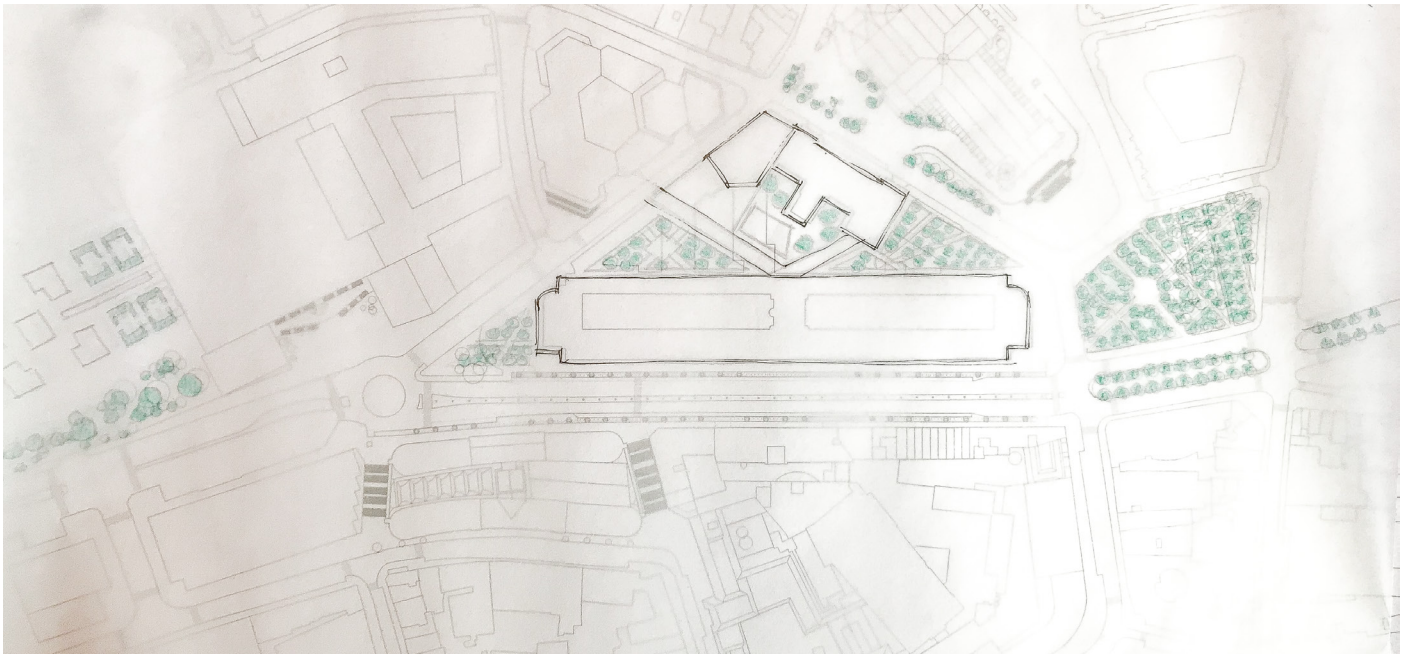
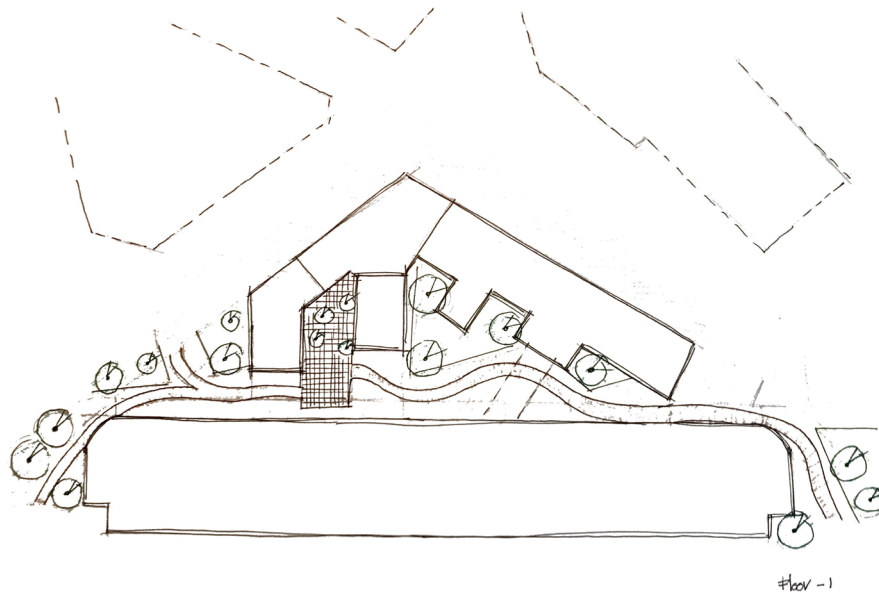
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FIRST DESIGN IDEAS

Connecting the parks in around the site by opening up the building

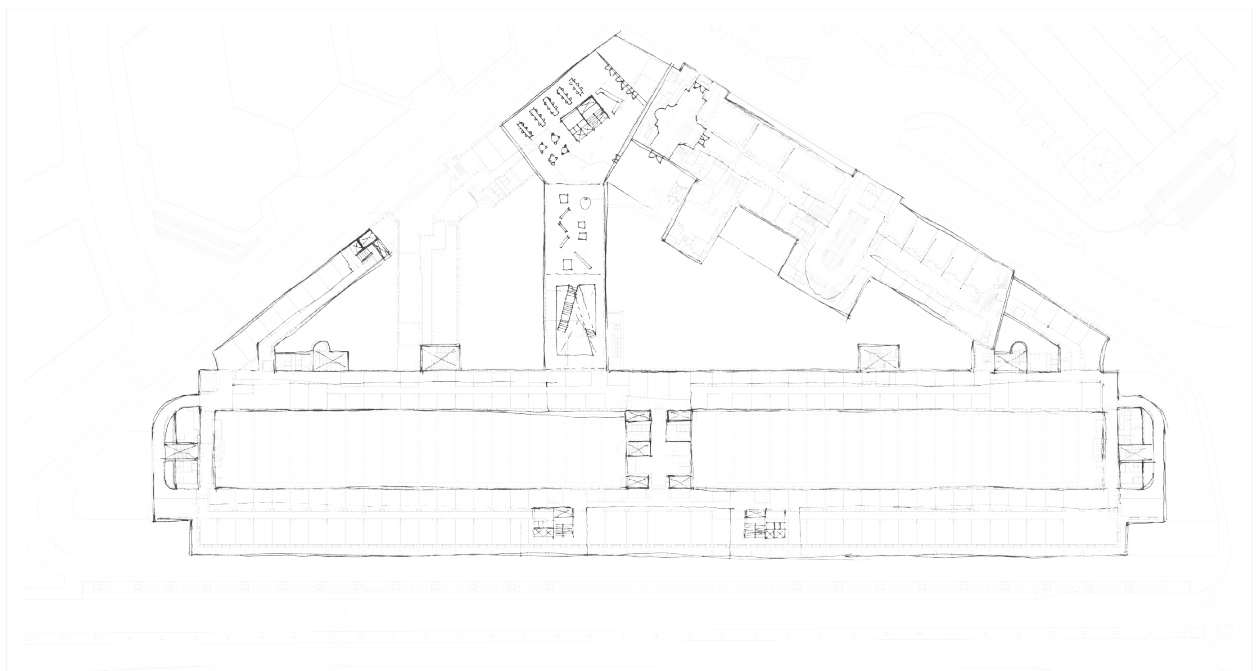
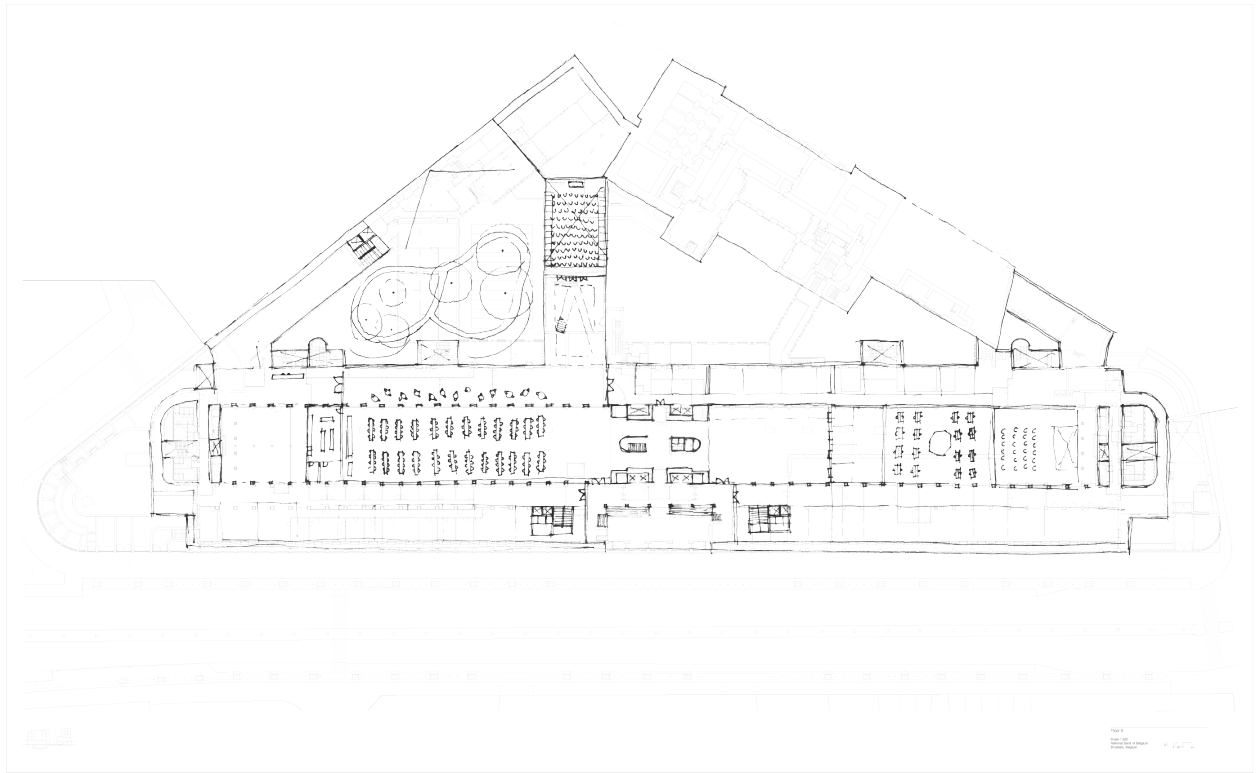


FIRST DESIGN IDEAS

Character of parks around the bank building

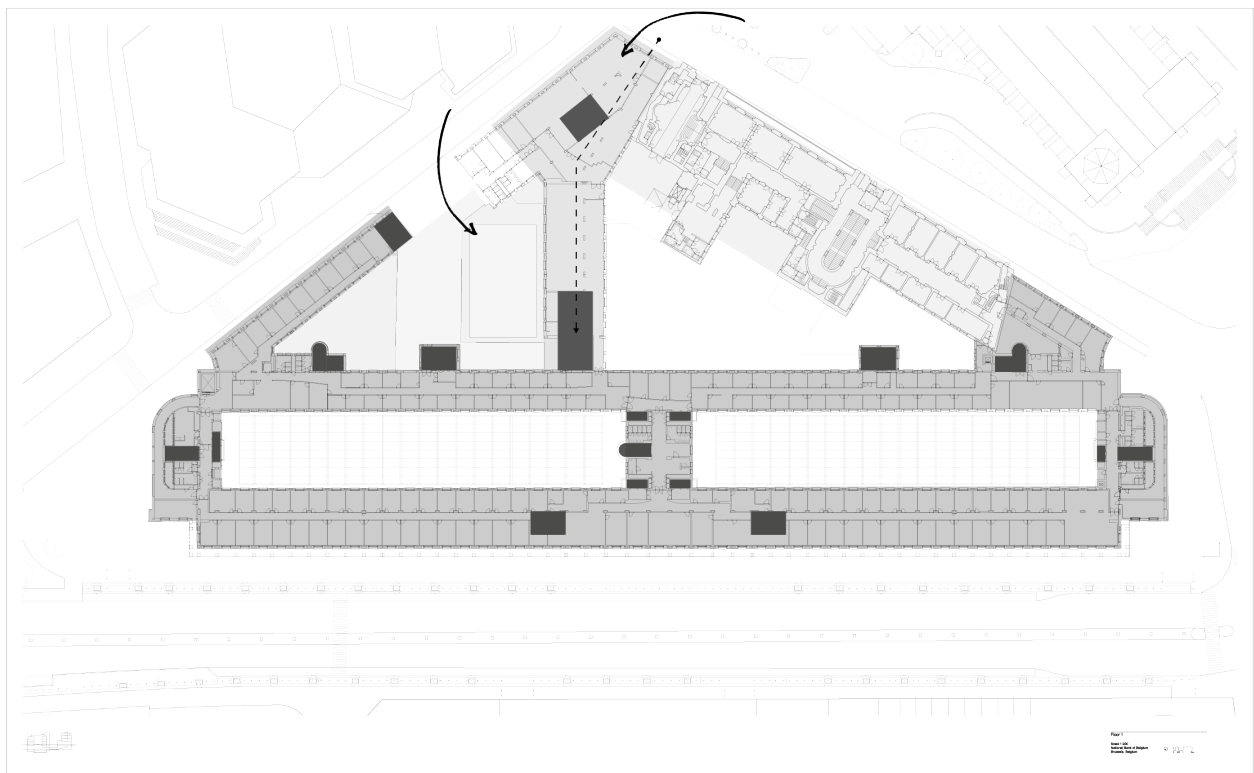
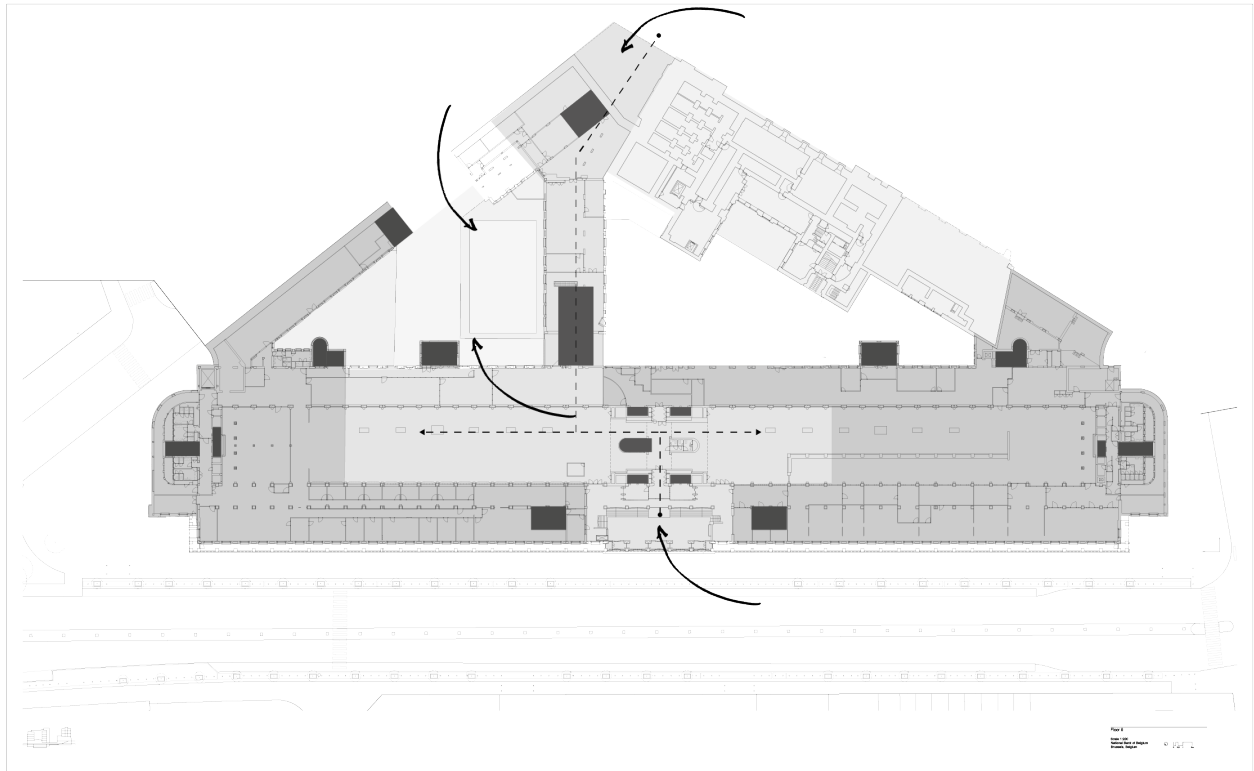


DIAGRAMMING IN PLAN



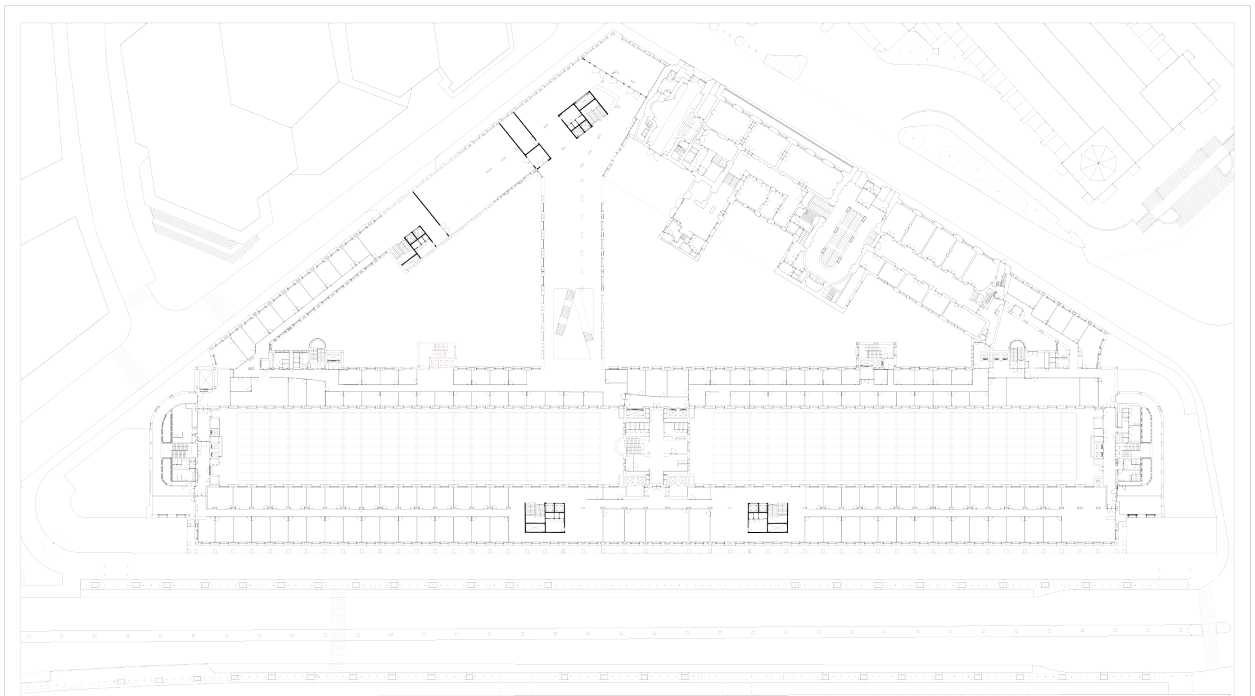
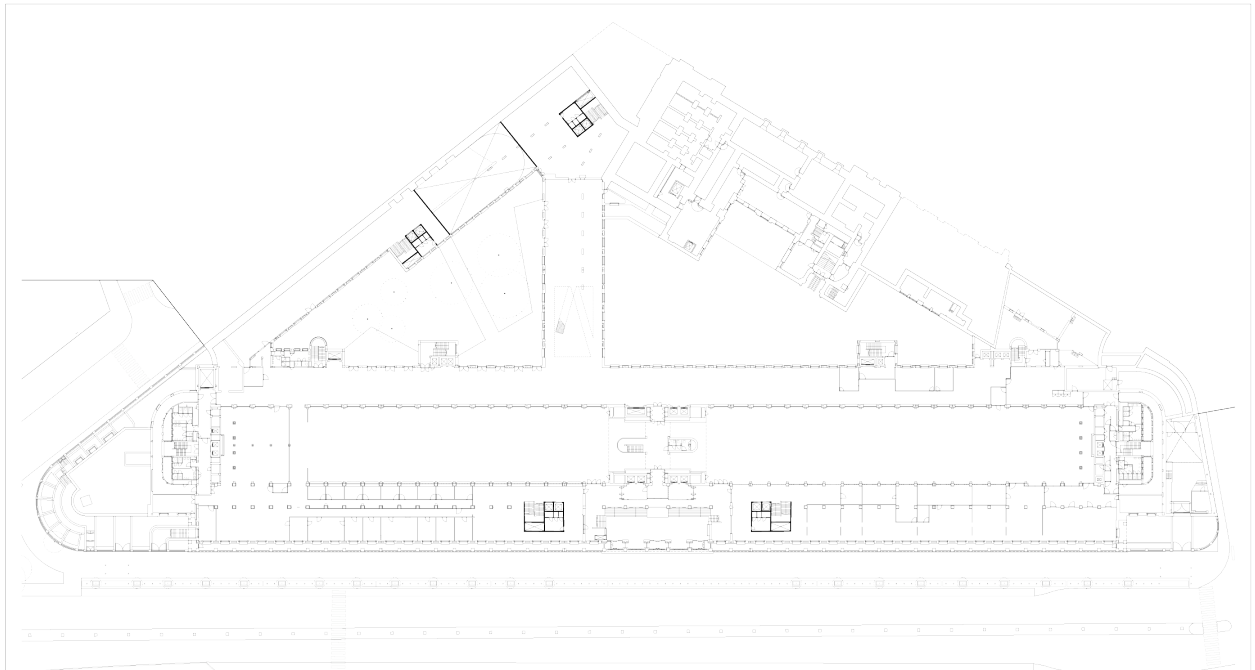
DIAGRAMMING IN PLAN

Program, added staircases and new connections throughout the building



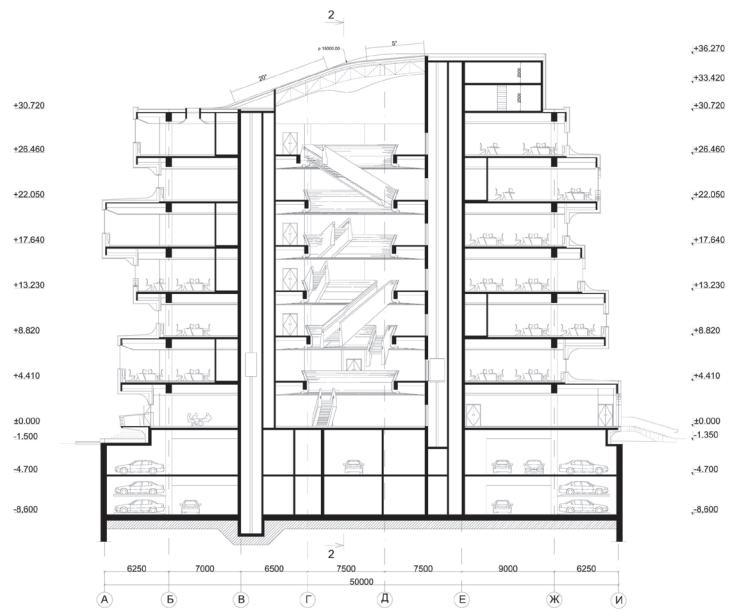
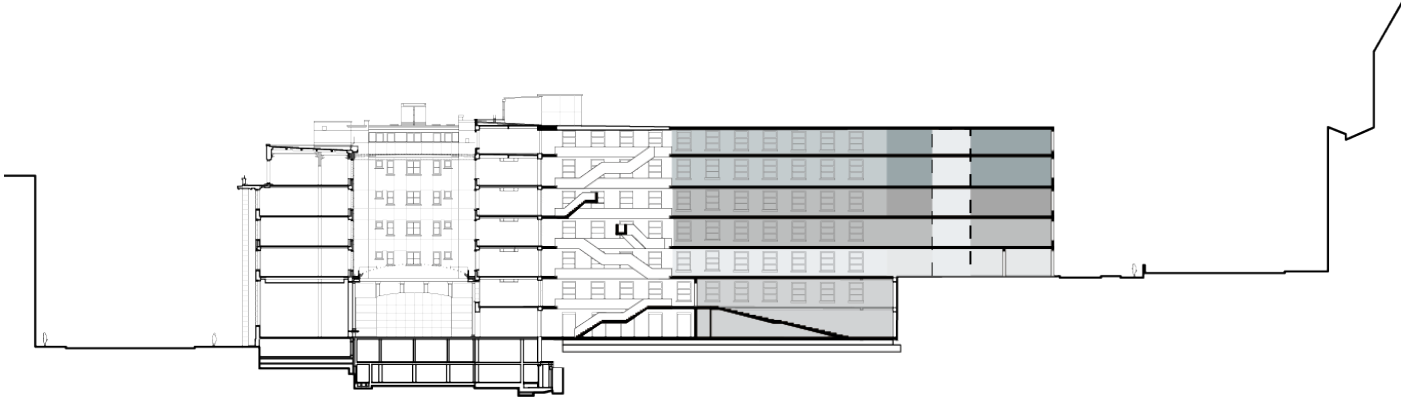
DIAGRAMMING IN PLAN

Addition staircases



A NEW BUILDING CORE

A new main staircase that leads to all functions



Future Bank

MSc3 AR3AI100 Week 2.4-2.10



Photograph of room with models, of the National Theatre, South Bank, London, with added autograph remarque perspective drawing, 1991, Sir Denys Lasdun RA (1914 - 2001)

Bank Building

As we have collectively experienced, the National Bank of Belgium is an accreted, conglomerate form, the complex outcome of many plans, large and small, grandiose and expedient. Together these have combined to create an almost impenetrable, labyrinthine structure. One might understand this as a direct, spatial translation of the many hierarchies and segregations that historically defined both its working processes and the relations between its employees. In some ways, we might also imagine it as a representation of the financial system itself. Since the first buildings of the bank appeared on the site, this has become ever more complex and increasingly challenging to understand and control. The inherent dangers of the ever more tenuous grasp, which institutions like National Banks have managed to maintain on the proliferating and increasingly abstracted mechanisms of the market, are demonstrated in the disastrous effects of the 2008 financial crash on the lives of ordinary people and since by new threats, such as the rise in cryptocurrencies and the inability of governments to adequately control tax or address the global climate emergency.

Our project takes as its starting point the premise that all this is understood. A bank has always been a place to store valuable things, but now it must demonstrate that it knows what needs to be valued. For us then, the opportunity to physically remake the Bank is seen as a means to clarify and transform it into an

open, transparent and publicly engaged institution, which can speak and listen to all parts of society, as well as itself. We propose that its physical, material character – its architecture – has agency in re-understanding its role as a catalyst. One that can assist in the enormous challenge of profoundly reshaping the economy, redefining society's attitude to the expenditure of resources and the questions of fairness that must underpin such a transformation.

The processes and thinking that reshape this reinvented Bank will have as much bearing on the project's success as the final forms and spaces. Questions abound: What will be kept? What can or should be taken away? What will happen to the materials that are no longer needed? What new materials are necessary, and what is their embodied footprint? The Future Bank should understand the environmental impact of its consumption and retention of resources.

In its redefined form, it will need to more fully address people and nature, as well as *things*. How, for example, will it define a better working environment, one that encourages innovative and open thinking across a spectrum of expertise? How will it represent and communicate its ideas and the necessary changes in systems of regulations, not only to the network of financial institutions of which it is a component, but also to wider society, its own government and those of other nations, as well as at the level of the individual? How will the new relationships it fosters allow the Bank to listen to those many

Interiors
Buildings
Cities

Palace

BANK BUILDING

Net area calculation of the existing bank building

	area mm2	m2
floor B3		
netto area	152450607,9	152,4506079

floor B1		
hallway	113675337,2	1136,753372
staircases	118939304	118,939304
lifts	89063828	89,063828
toilets	15319305,68	15,31930568
technical space	502927573,8	502,9275738
storage	358656134,9	3586,561349
total		5449,564732

floor B1		
hallway	2200928288	2200,928288
staircases	170226082	170,226082
lifts	119309237	119,309237
toilets	17218484,27	172,1848427
technical space	1064028743	1064,028743
storage	4561225019	4561,225019
office space	98863322,79	98,86332279
extra	450326006,6	450,3260066
total		8837,091541

floor o		
hallway	1356634140	1356,63414
staircases	163328402,7	163,3284027
lifts	96269293,82	96,26929382
toilets	165110488,9	165,1104889
technical space	527902908,4	527,9029084
storage	566604944,5	566,6049445
banking hall	2831333453	2831,333453
entrance hall	386769120	386,76912
service space	96005622,23	96,00562223
office space	2672818588	2672,818588
extra	835684080,9	835,6840809
total		9698,461042

floor o1		
hallway	1183667135	1183,667135
staircases	172190099	172,190099
lifts	102577223,8	102,5772238
toilets	205764437,4	205,7644374
technical space	173772686,5	173,7726865
storage	45006758,05	45,00675805
office space	2495906878	2495,906878
extra	1012850436	1012,850436
total		5391,735655

standard floor (x4)		
hallway	1892689509	1892,689509
staircases	152469064,3	152,4690643
lifts	102577223,8	102,5772238
toilets	196796307,2	196,7963072
technical space	122148332,5	122,1483325
storage	90039726,76	90,03972676
office space	4031545496	4031,545496
extra		0
total		6588,26566

extra floor (x2)		
netto area	298852703,1	298,8527031

floor 5		
hallway	1128208224	1128,208224
staircases	130096584,3	130,0965843
lifts	55981466,62	55,98146662
toilets	145147597	145,147597
technical space	45586673	45,586673
storage	131810263,1	131,8102631
office space	181270364,9	1812,703649
extra	271673873,7	271,6738737
total		3721,208331

total NBB1		60201,27995
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	area mm2	m2
hotel floor		
entrance hall	350584015,6	350,5840156
hallway	320547121,9	320,5471219
staircases	77435605,65	77,43560565
toilets	77769152,74	77,76915274
rooms	518031486,9	518,0314869
extra	64956852,78	64,95685278
total		1409,324236

hotel floor 1		
hallway	146078940,6	146,0789406
staircases	206049027,3	206,0490273
toilets	49250737,25	49,25073725
rooms	640334259,1	640,3342591
extra	95795428,39	95,79542839
total		1137,508393

hotel floor 2		
hallway	69327465,23	69,32746523
staircases	33789585,2	33,7895852
toilets	40987650,89	40,98765089
rooms	555506731	555,506731
total		699,6114323

total hotel		3246,444061
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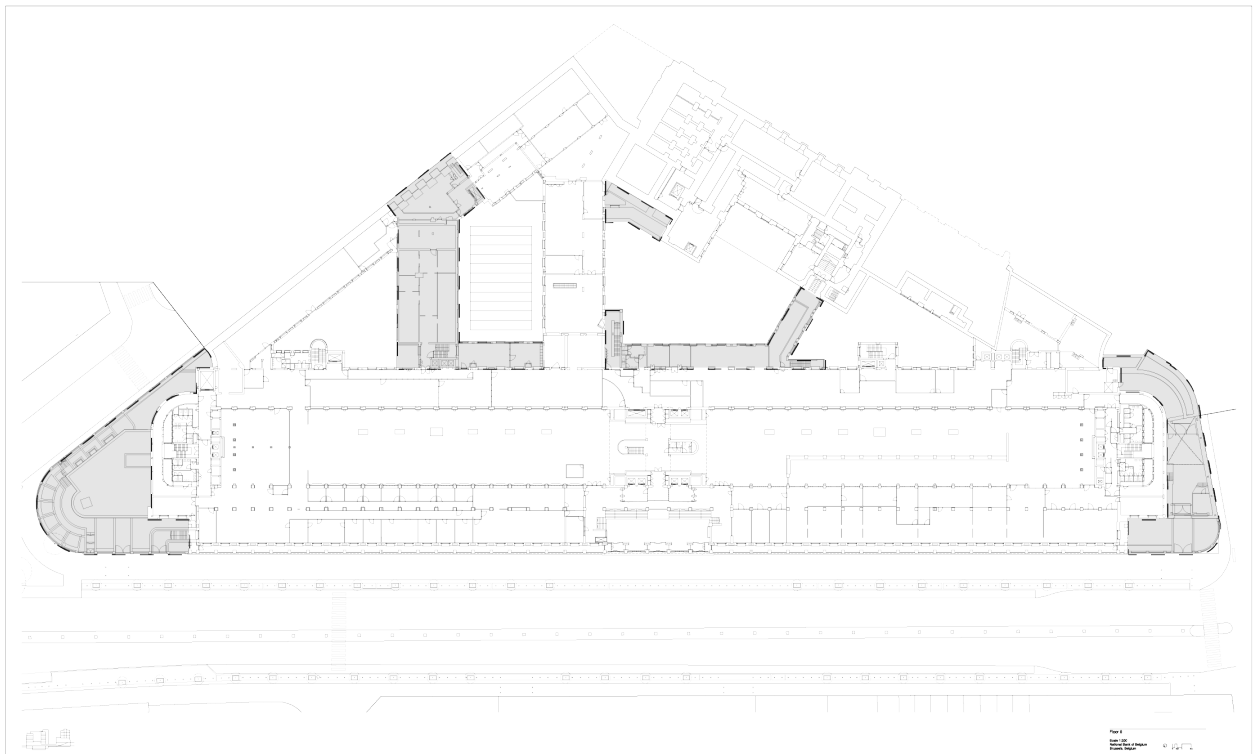
	mm2	m2
floor area	298852703,1	298,8527031
		x 10
		2988,527031

BANK BUILDING

Estimate of the requested area per function in the project brief

function	description	total area	breakdown	notes
office	typical	22500	15m ² p.p.	
	specific	300		
	senior managers	400		
	HR	120		
	trading hall	240		
	crisis centre	150		
	reception	25		
	foyer	140		
	auditorium	380	250 seats	
	finishing kitchen	40	catering for 300 people	
	VIP meeting	35	8 people	
	press room	60	20 seats	
	wardrobe	35	200 people	
	central meeting room	640	425 person, 432 person, 320 person, 135 person, 1100 person	
public functions	entrance hall	60		
	reception desk	40		back office for 3 people
	waiting area	40		
	public meeting room	120		2x12 person, 2x6 person
social functions	counters	210		
	museum			
	restaurant	900	500 seats	
	VIP restaurant	120	60 seats	
	kitchen	40		
	recreation room	200		
	the club	20		
	external recreation space			
	lounge	130		
	exhibition space	300		
	coffee bar	150		
	library	500		
	legal library	50		
	innovation lab	50		
changing rooms/jh	60			
medical facilities	150			
service functions	general facilities and circulation			
	toilets		160 m ² per floor	
	general storage room	2000		
	central archives	980	4500 m of shelving	
	art store	150		
	security	40		
	IT	400		
	server rooms	80	30 m ² per floor	
	data centres	800	100 m ² per floor	
	refuse			
	delivery zone			
	print shop	450		
	workshop	450		
	parking	500	150 cars, 20 motorcycles	
bike parking	150			
building services				
rental offices	7000	offices: 6000 m ² , gym: 500 m ² , nursery: 500 m ²		
floor area (m ²)	40655			
general facilities	13			
total floor area	52851,5			

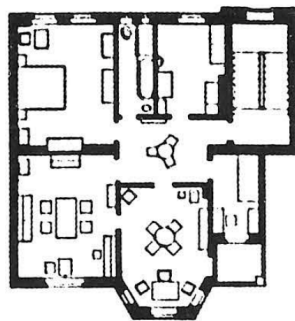
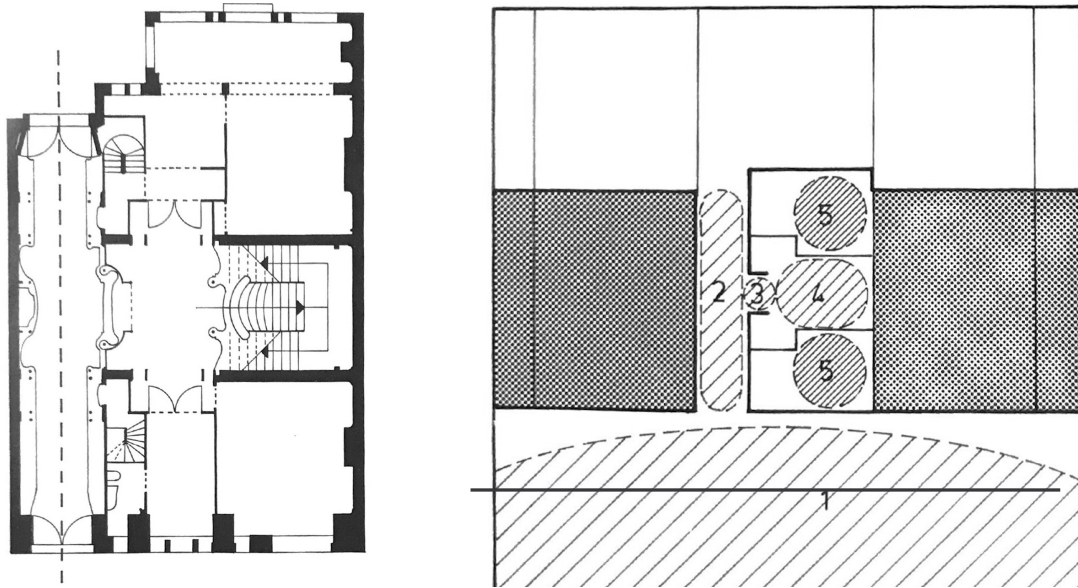
	mm ²	m ²		
1x100	14091864	140	140	
1x35	8162303	80	80	
1x20	60000000	60	180	
1x12	4647828	45	180	
1x5	15000000	15	60	
				640



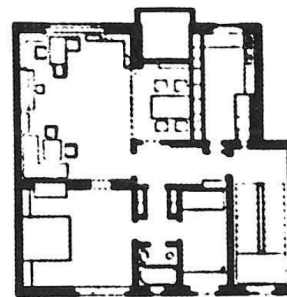
From the calculations above we can conclude that after matching the existing floor space with the floor space needed for the functions in the project brief, that there is still a gap of 3000 square meters. The floor plan shows the parts of the building that might be demolished.

P2_REFRAMING PRIVATE GESTURES

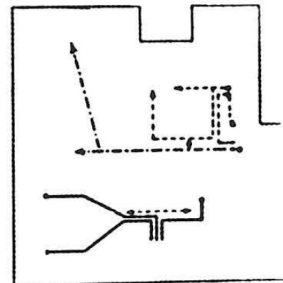
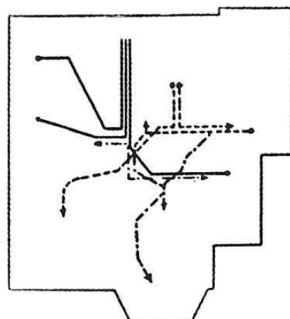
Analyses of bank building through Hertzberger's and Klein's methodologies



A. Bad Example

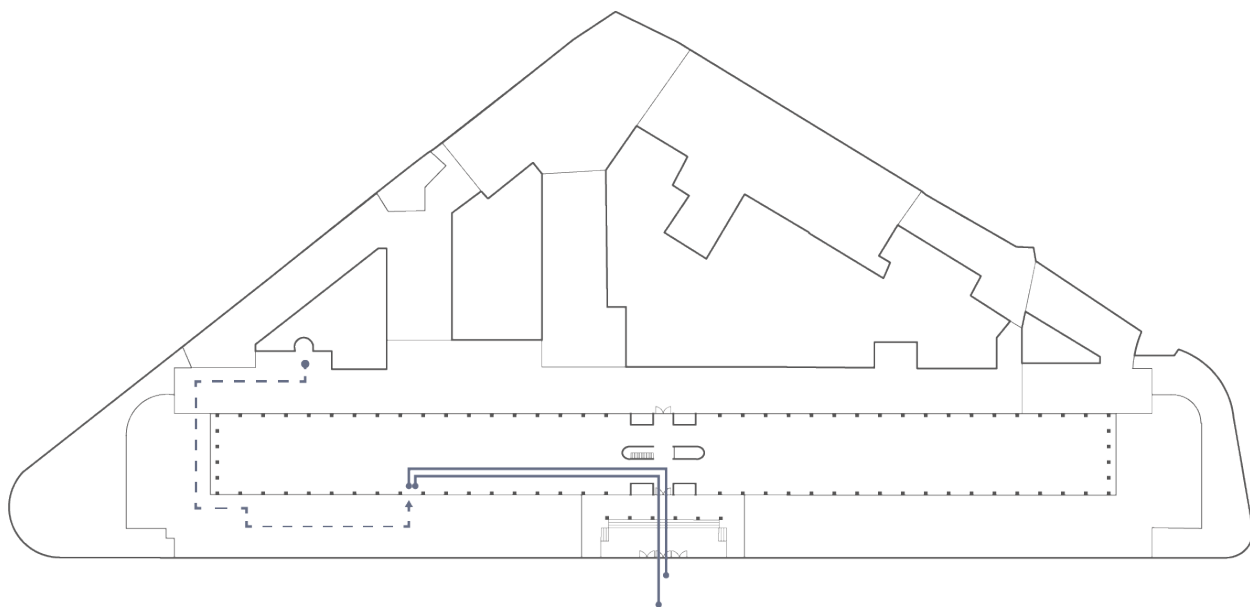
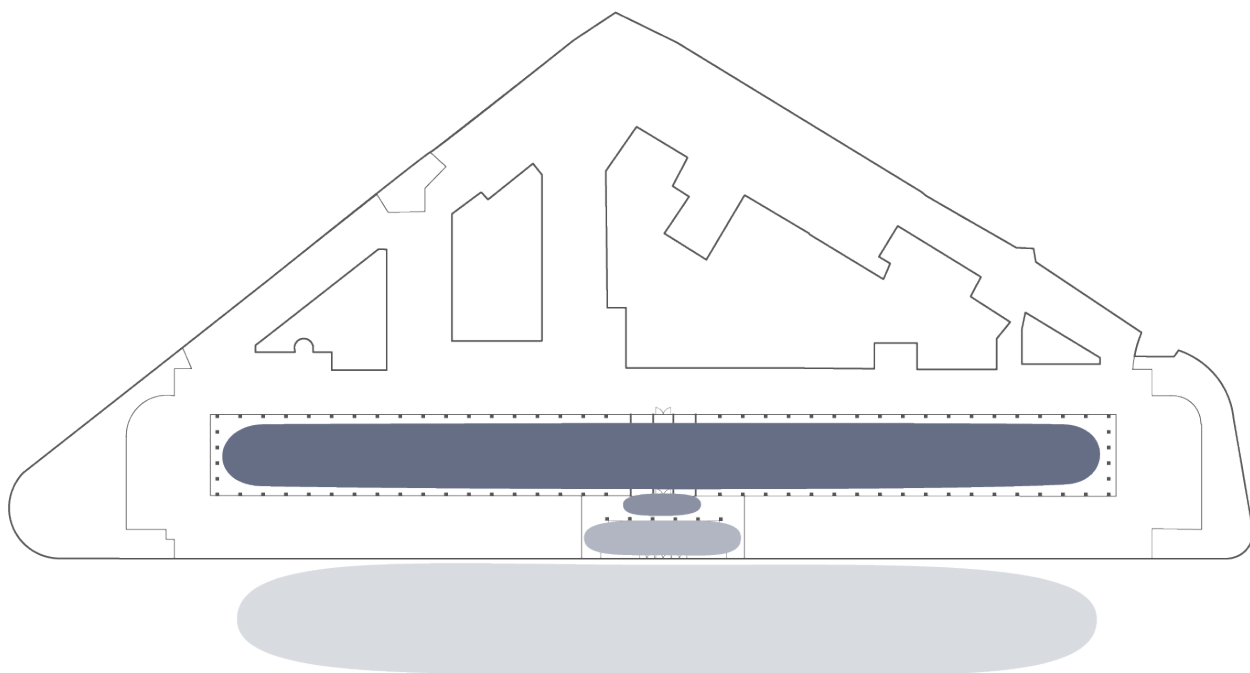


B. Good Example

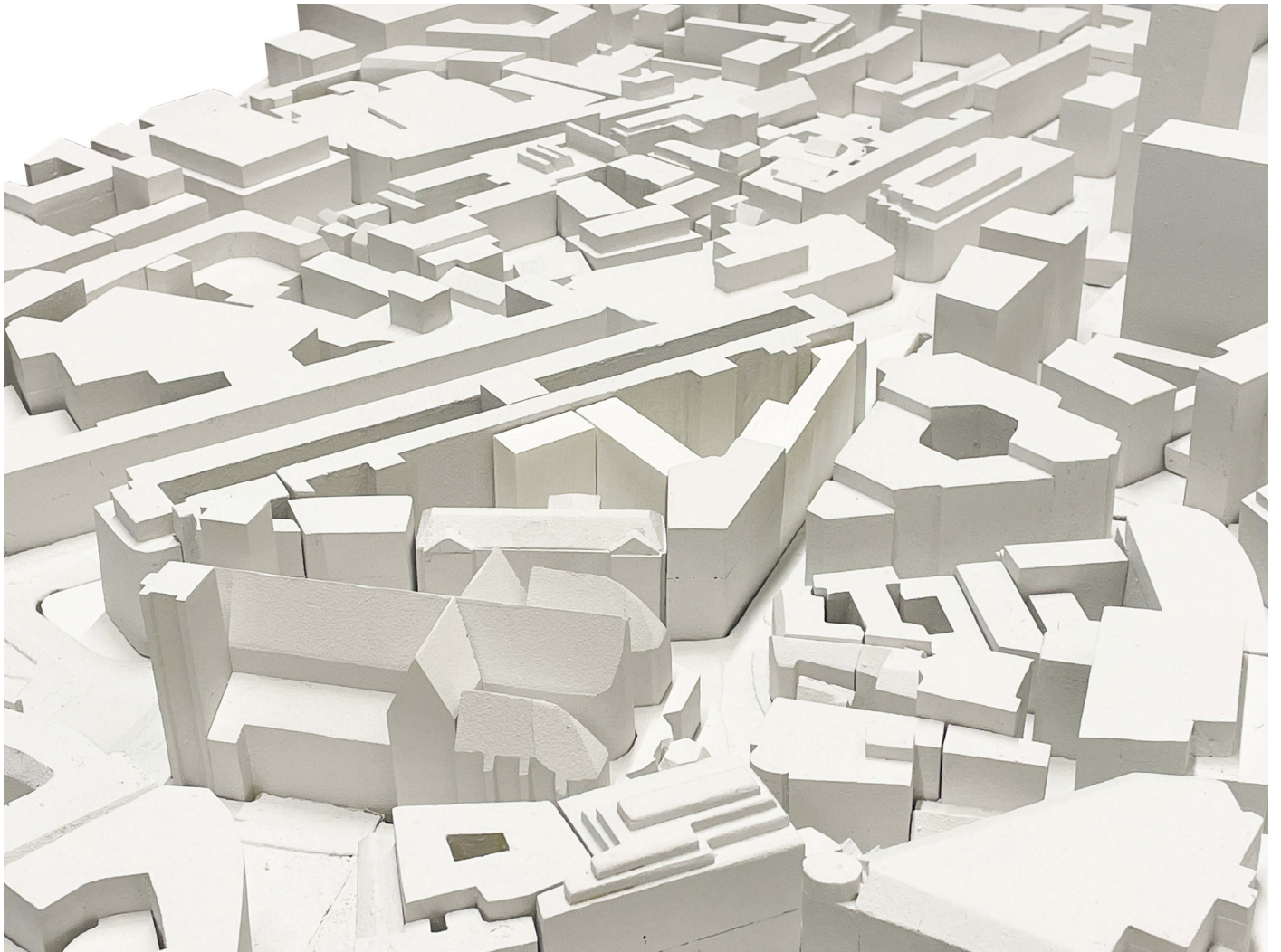


(top) Territorial differentiation, from: Hertzberger, H. (1991). *Lessons for students in Architecture*. Rotterdam: o10 Publishers. (bottom) Alexander Klein's Flow-line diagrams, from: Evans, R. (1978). *Figures, Doors and Passages*. Cambridge: The MIT Press.

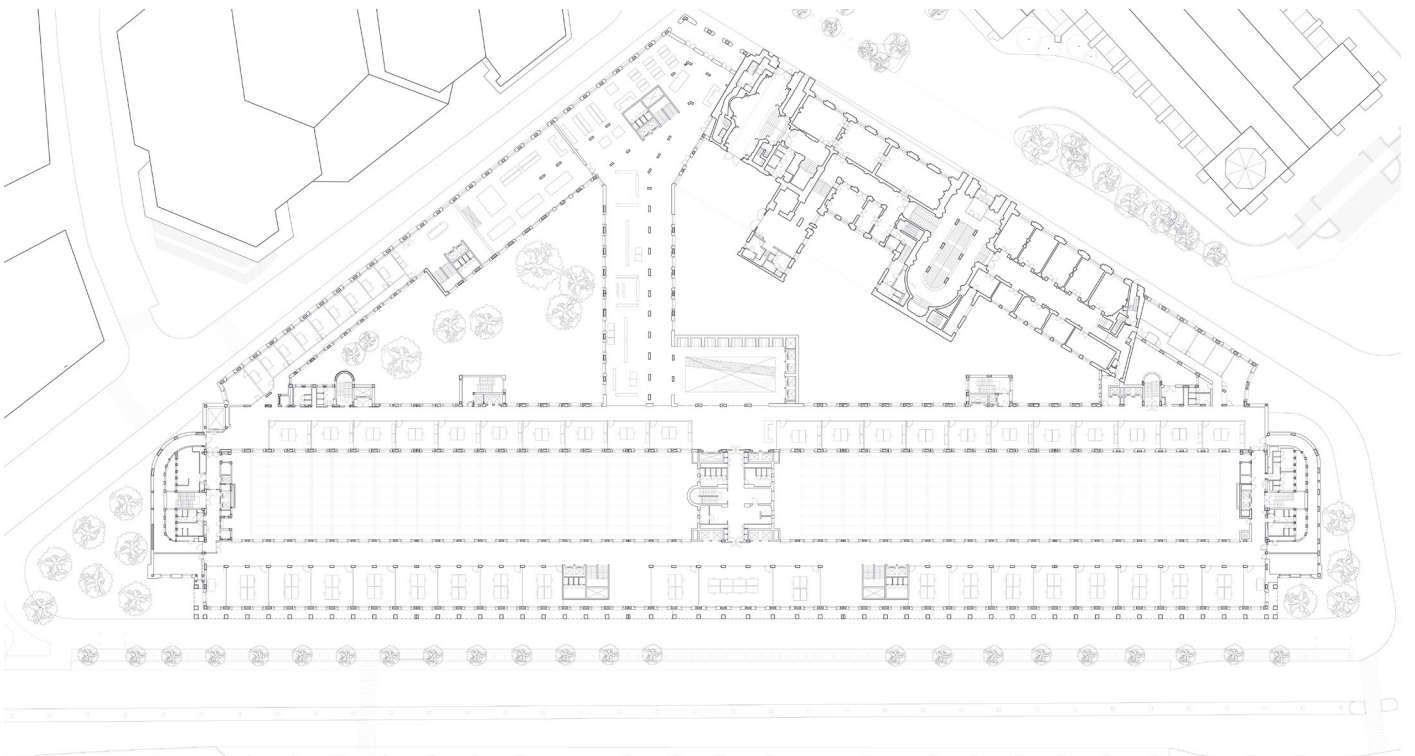
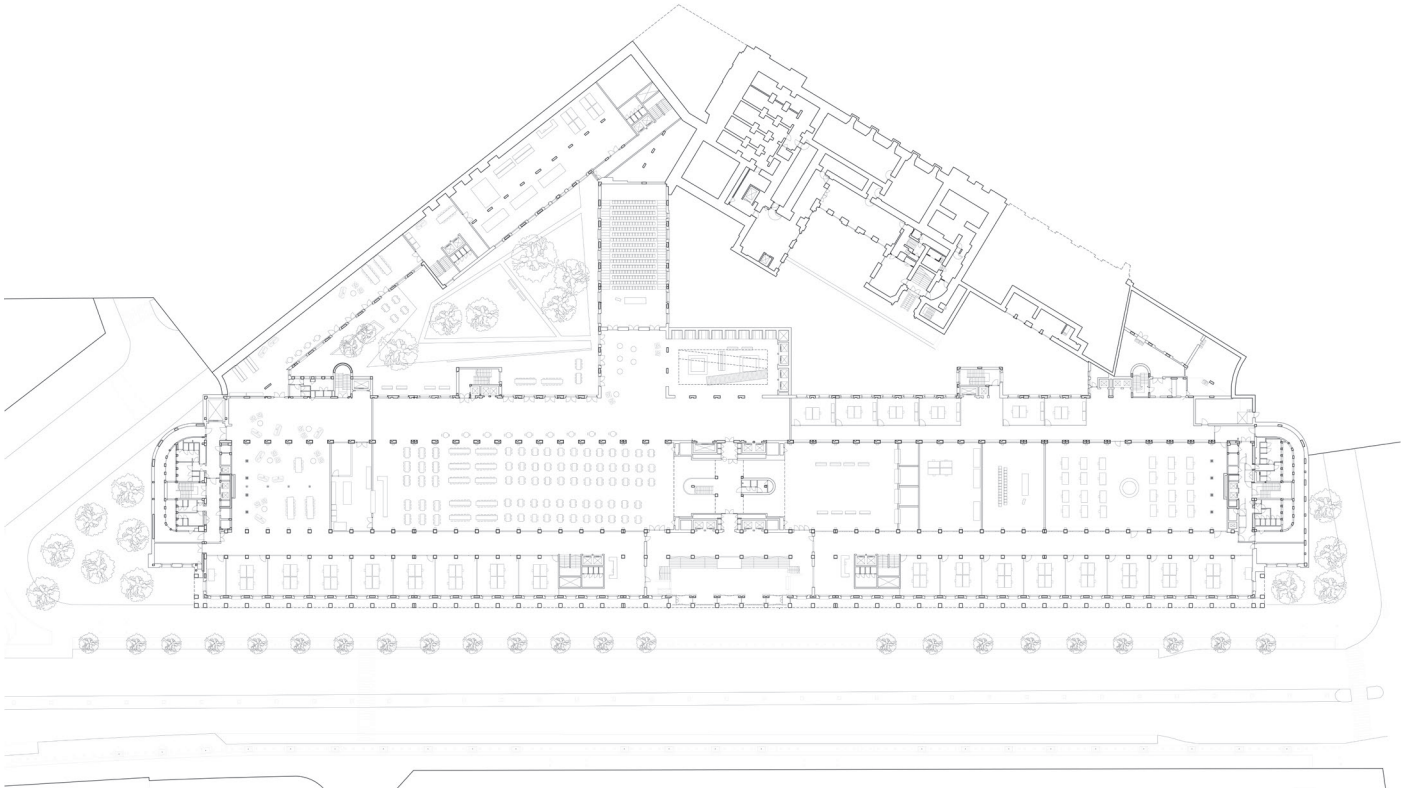
APPLYING ANALYSES TO BANK BUILDING



MASS STUDIES OF PROPOSAL

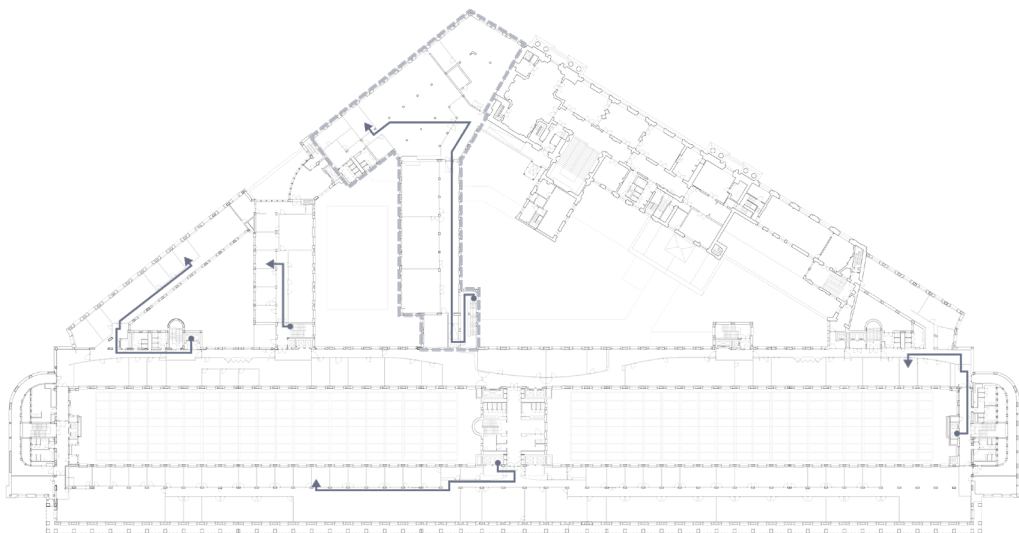
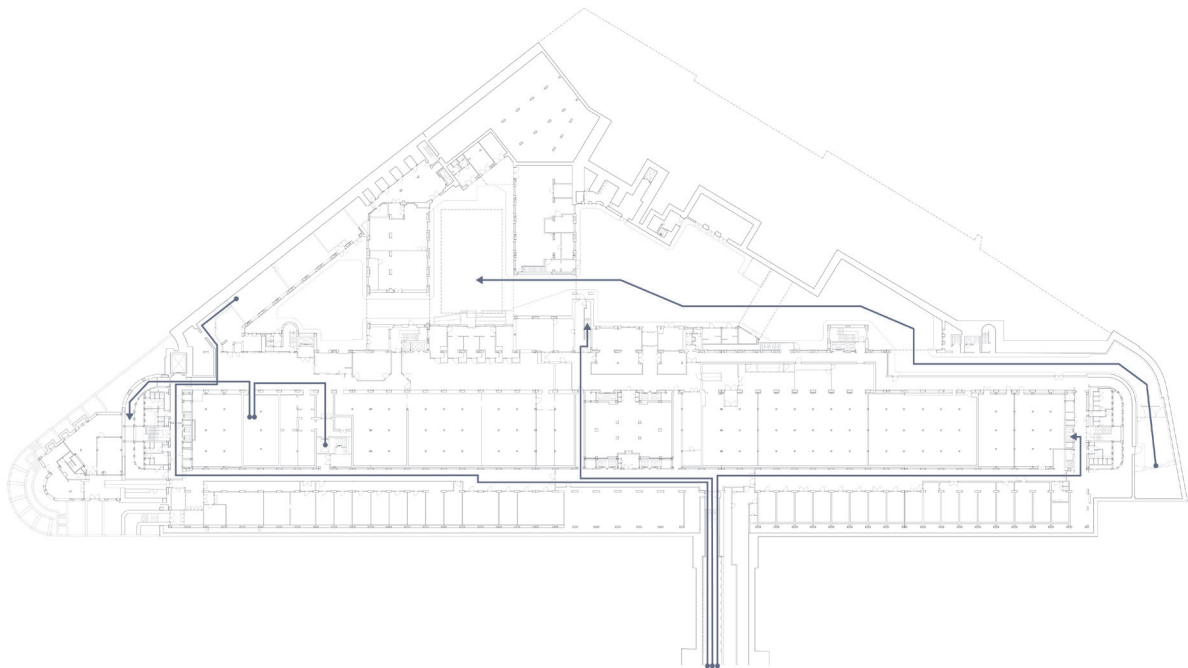


PROPOSAL IN PLAN



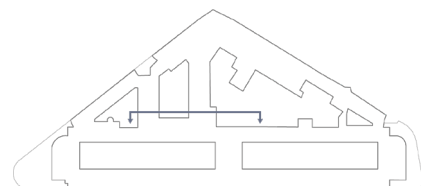
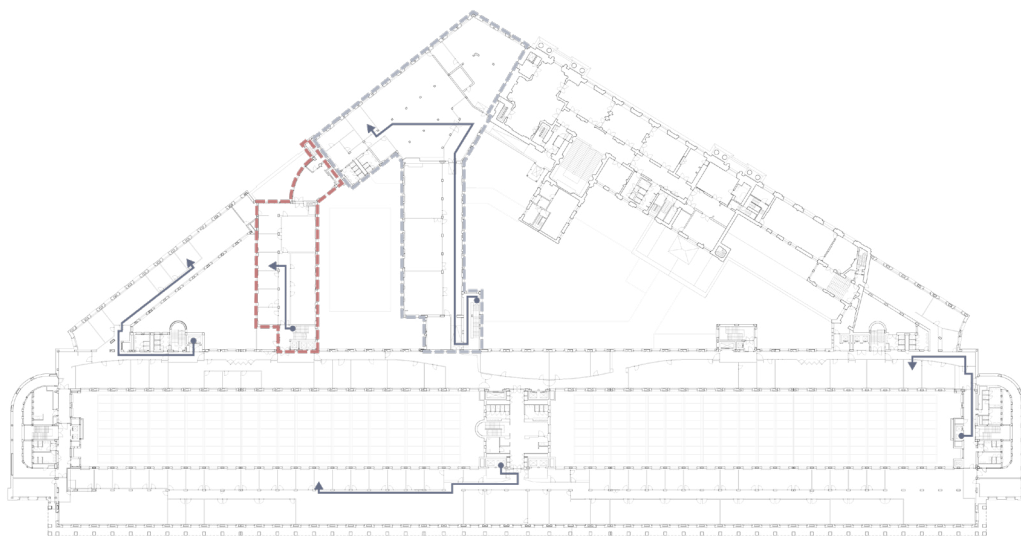
APPLYING ANALYSES TO BANK BUILDING

Alexander Klein's Flow-line diagram



Flow-lines of employees entering the NBB1 building

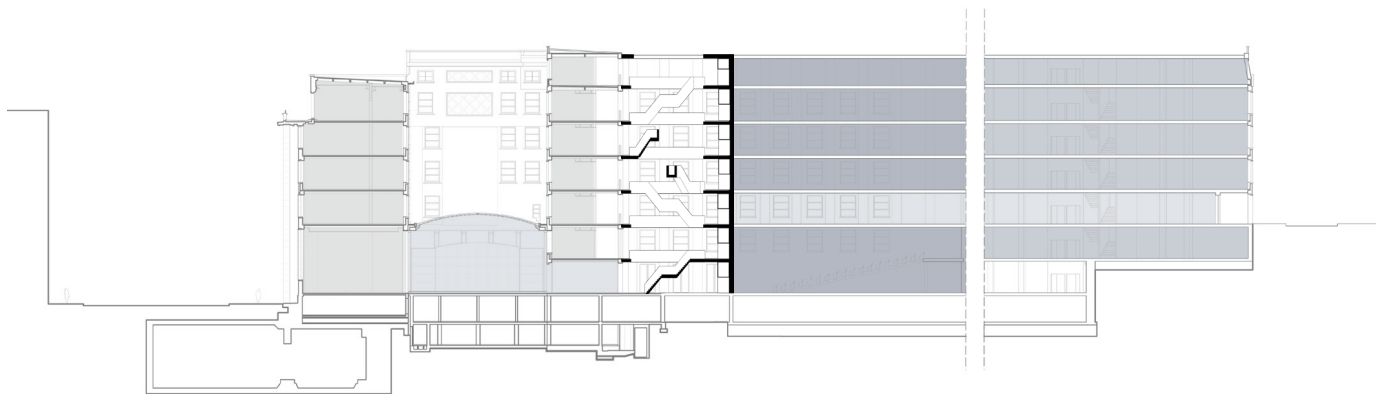
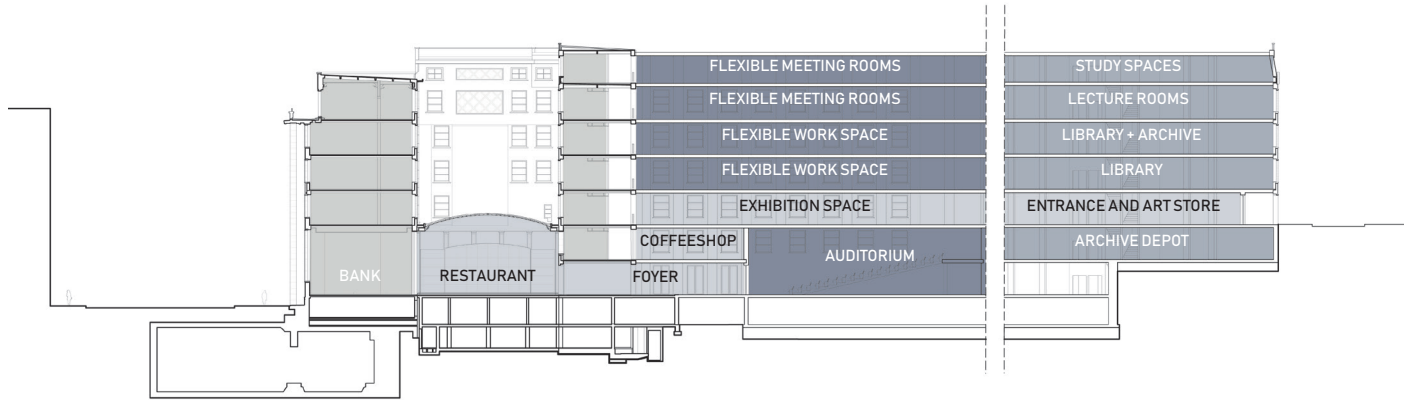
APPLYING ANALYSES TO BANK BUILDING



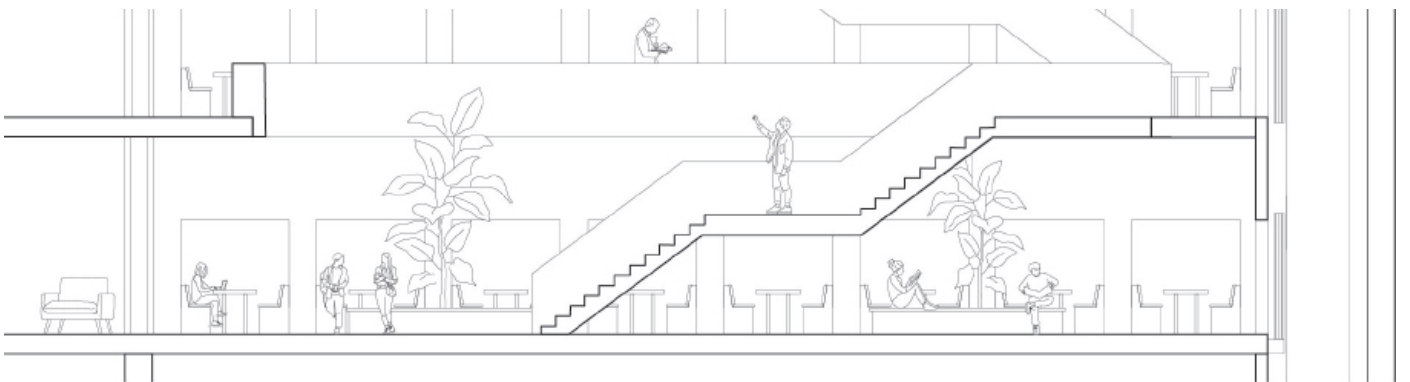
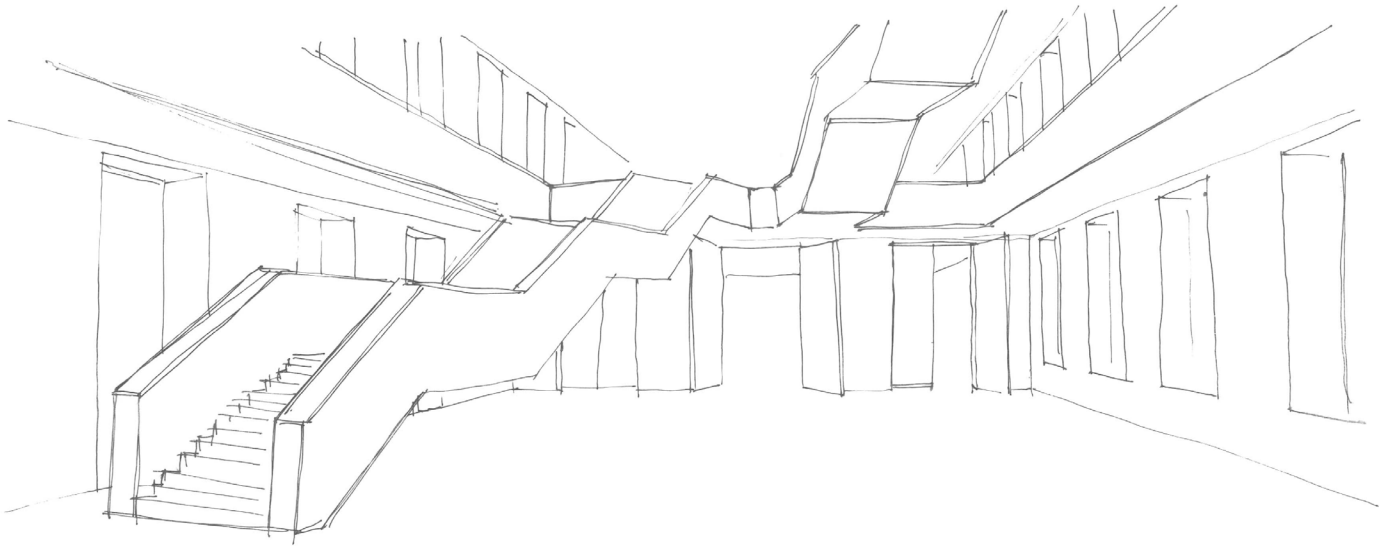
In conclusion: one of the building's wings does not connect to the other wings properly.

PROGRAM IN SECTION

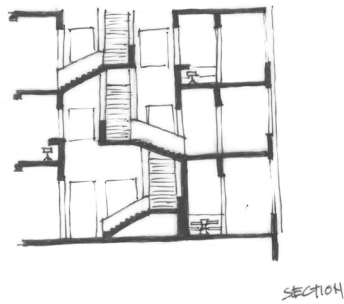
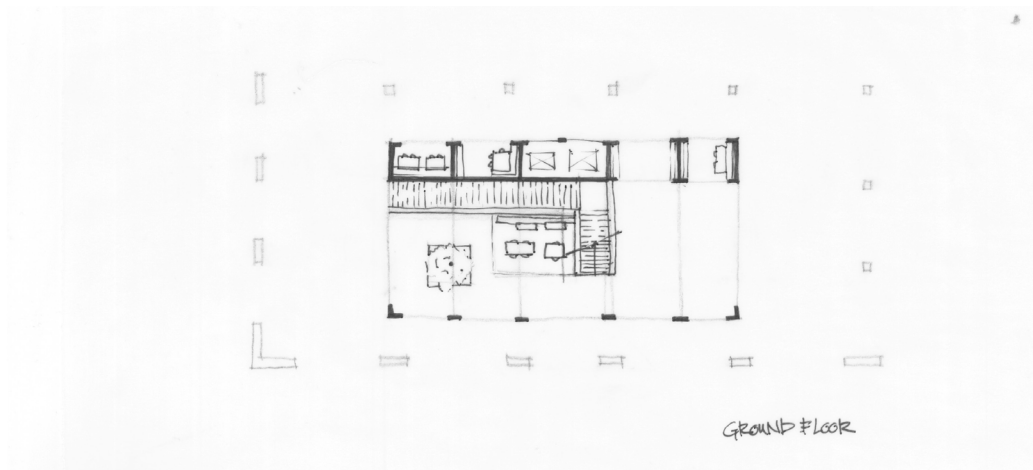
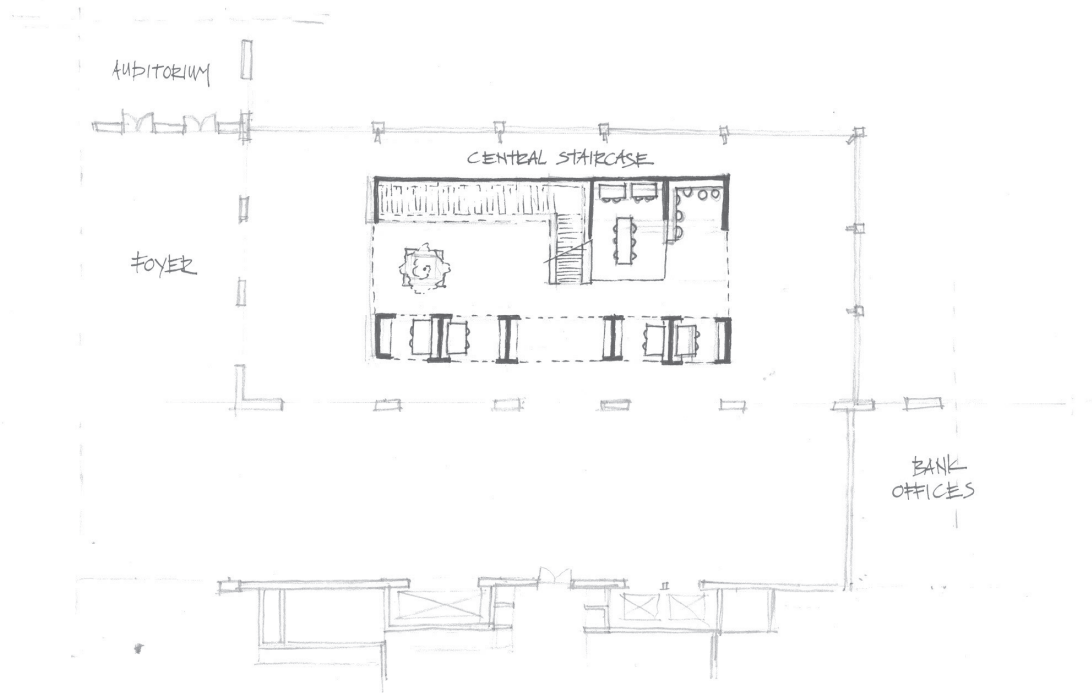
Creating a public and private part within the bank building



CREATING A NEW CENTRAL CIRCULATION CORE

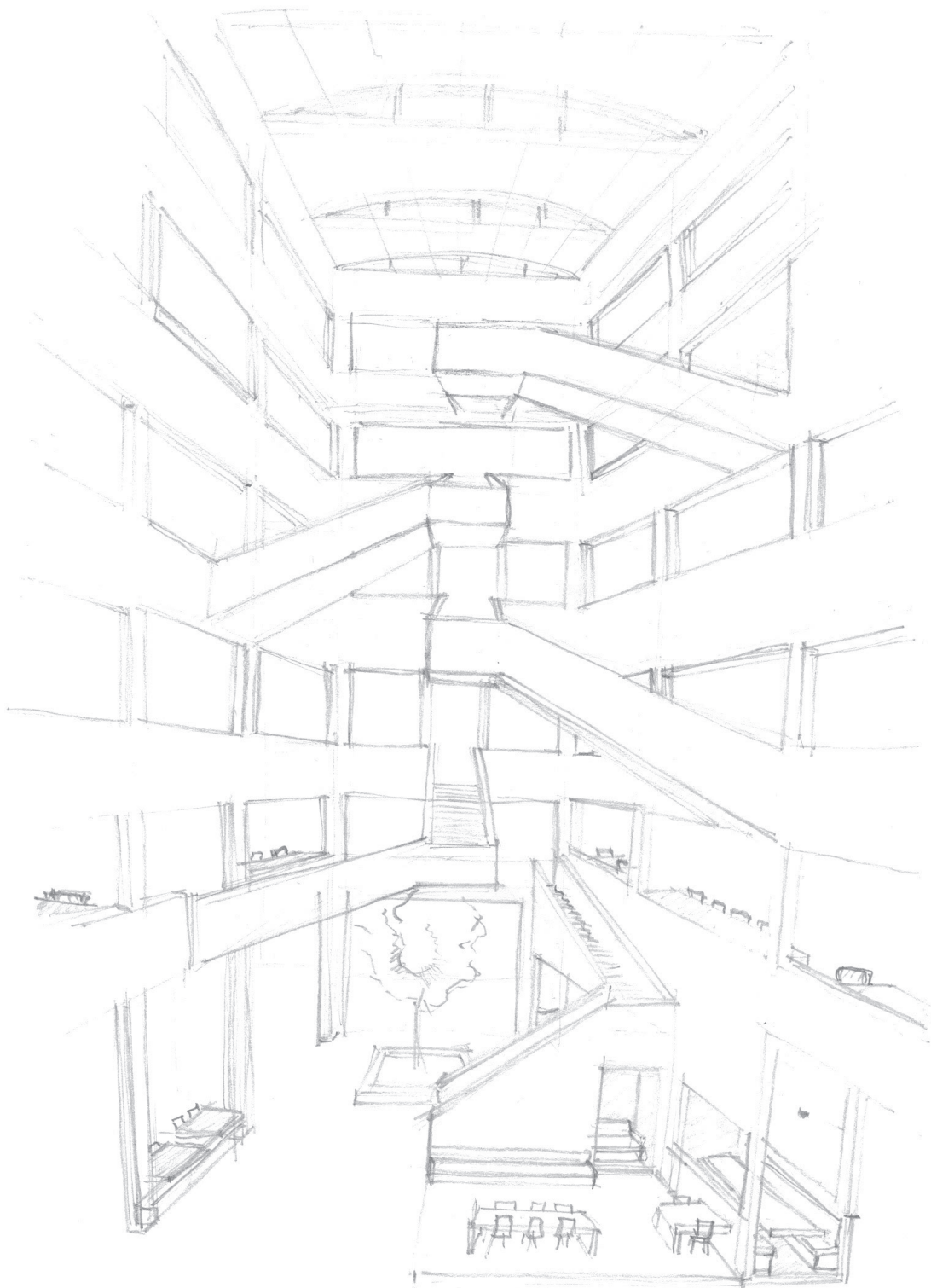


FURTHER DESIGN CENTRAL CORE

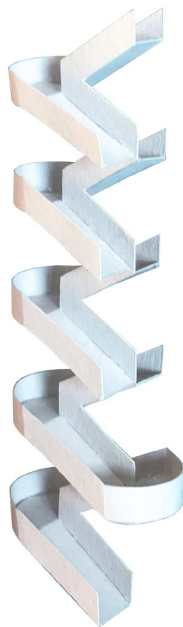
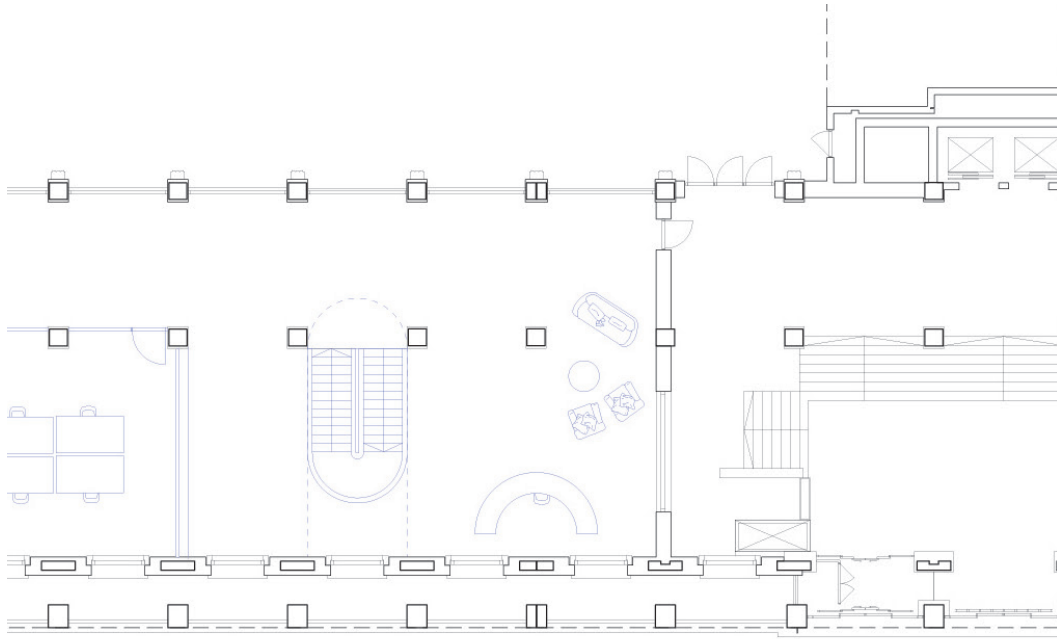


Sketch central staircase in plan and section

FURTHER DESIGN CENTRAL CORE

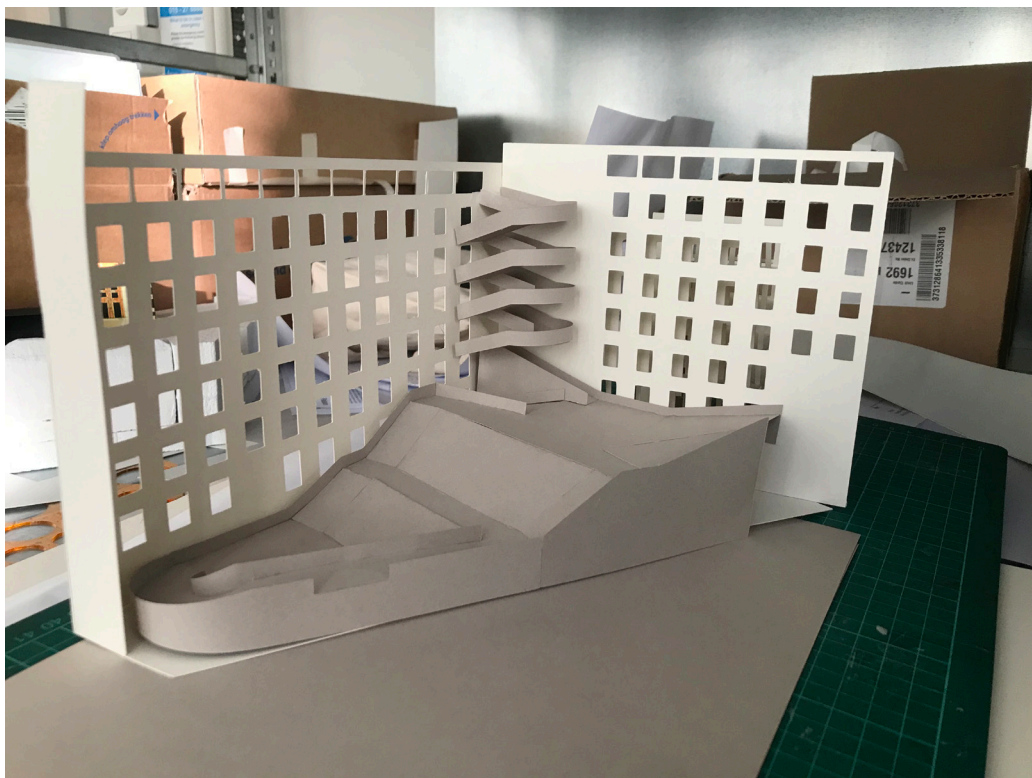
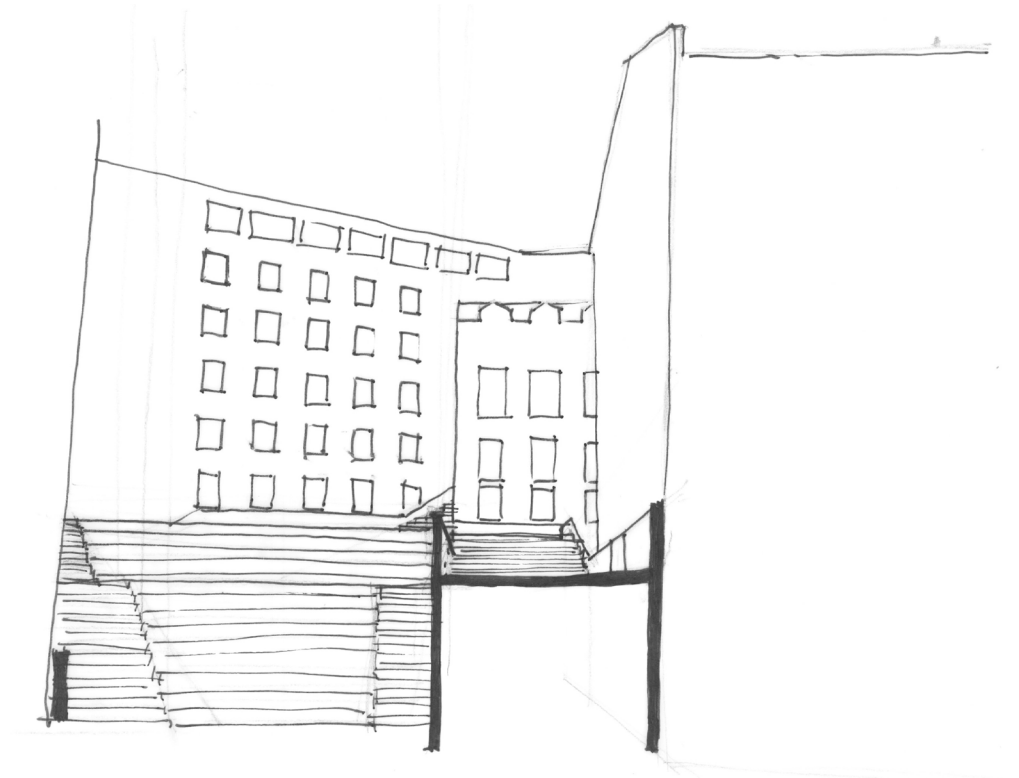


DESIGN IDEAS ADDITIONAL STAIRCASES

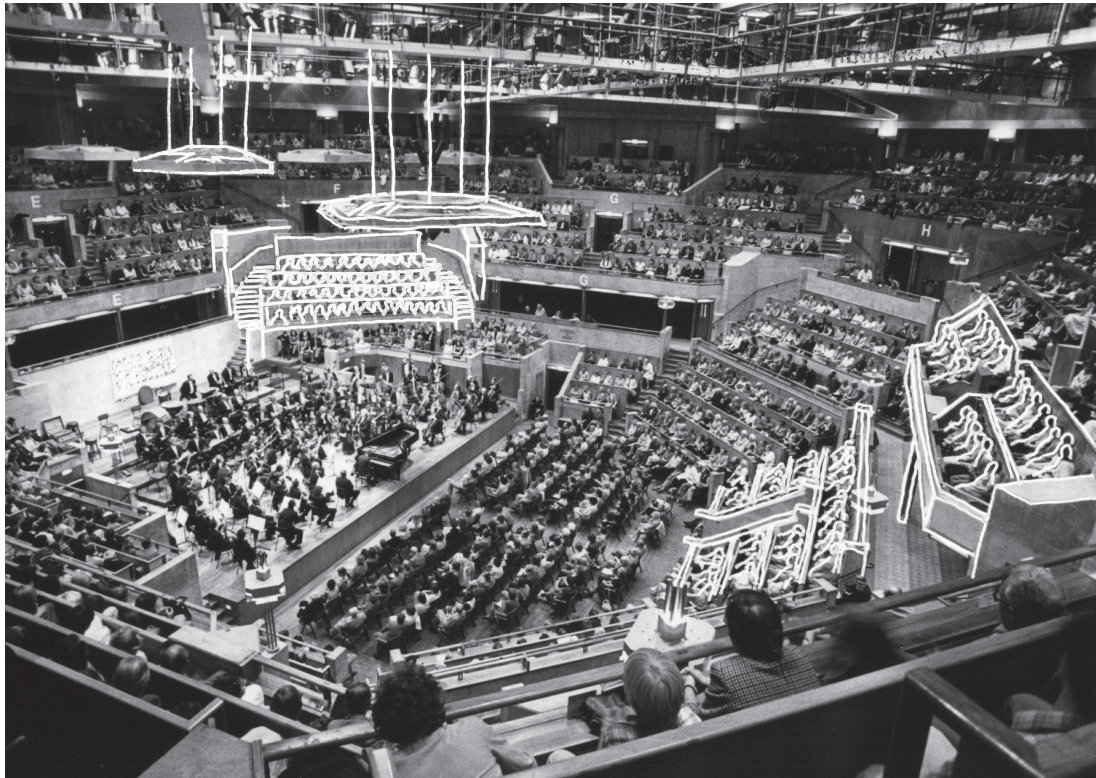


Functional staircases inspired on existing staircases in plan

PAPER MODEL COMBINING AUDITORIUM COURT AND CENTRAL STAIRCASE

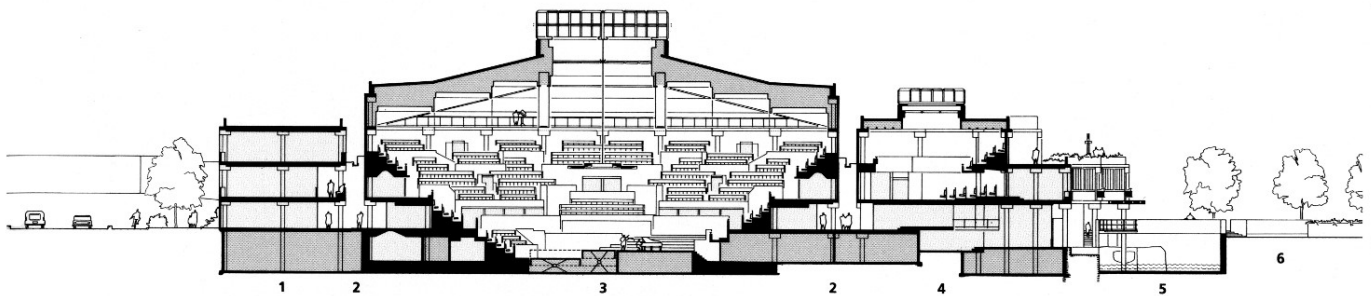
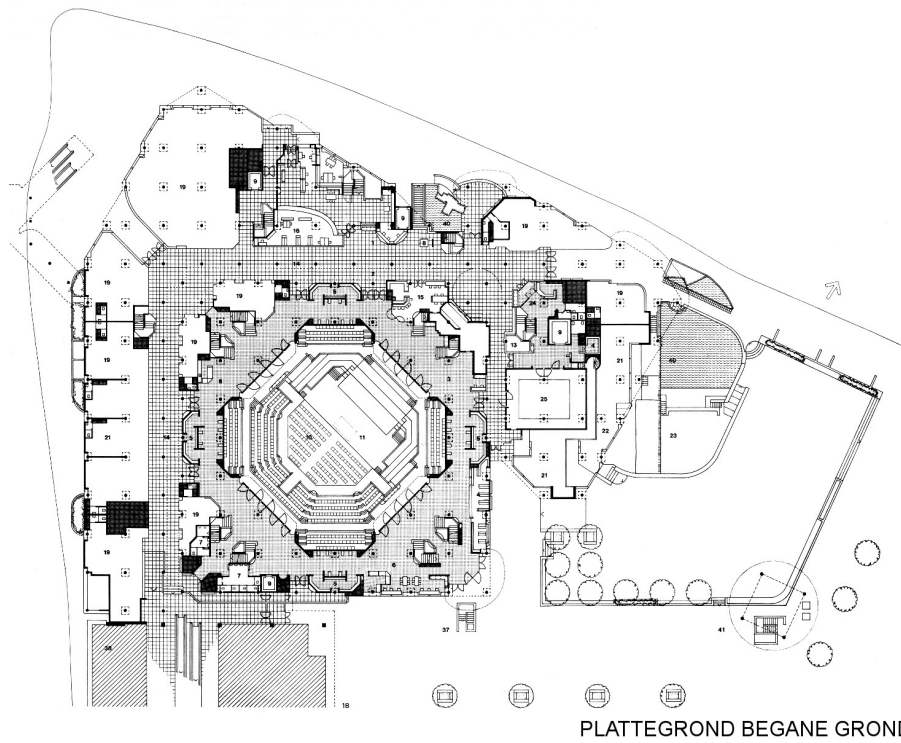


AUDITORIUM PRECEDENT STUDIES



Vredenburg music centre, Utrecht by Hertzberger. Retrieved 22 February 2022, from: <https://www.ahh.nl/index.php/en/projects2/13-cultuur/119-vredenburg-music-centre-utrecht>

AUDITORIUM PRECEDENT STUDIES



- 1 Winkels
- 2 Winkelpassage
- 3 Grote Zaal
- 4 kleine Zaal
- 5 resten bastion slot Vredenburg
- 6 Vredenburg plein

DOORSNEDE

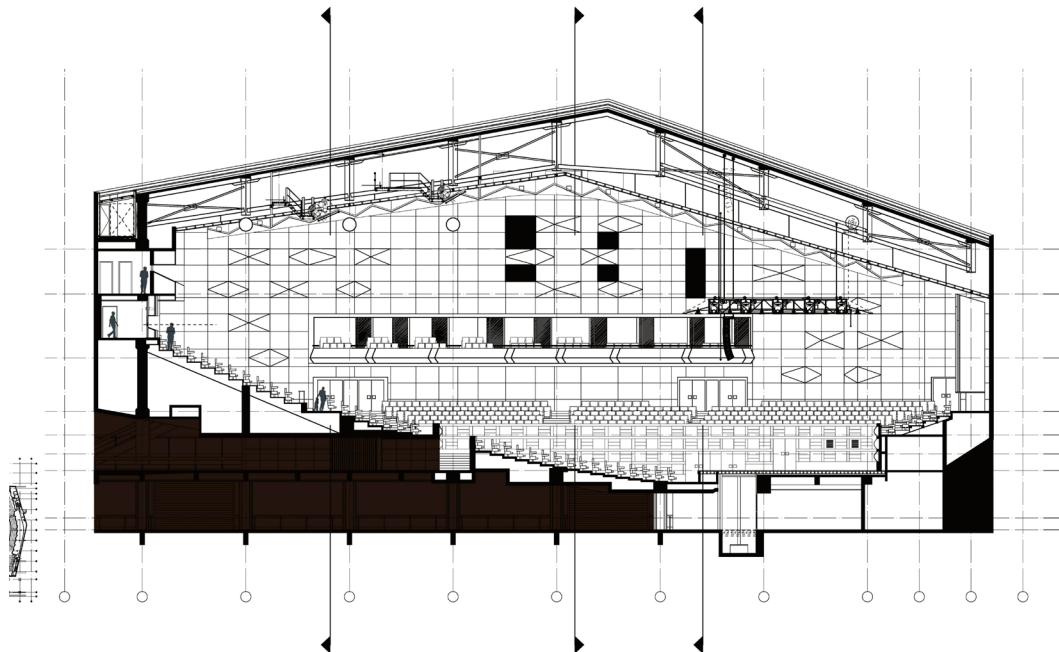
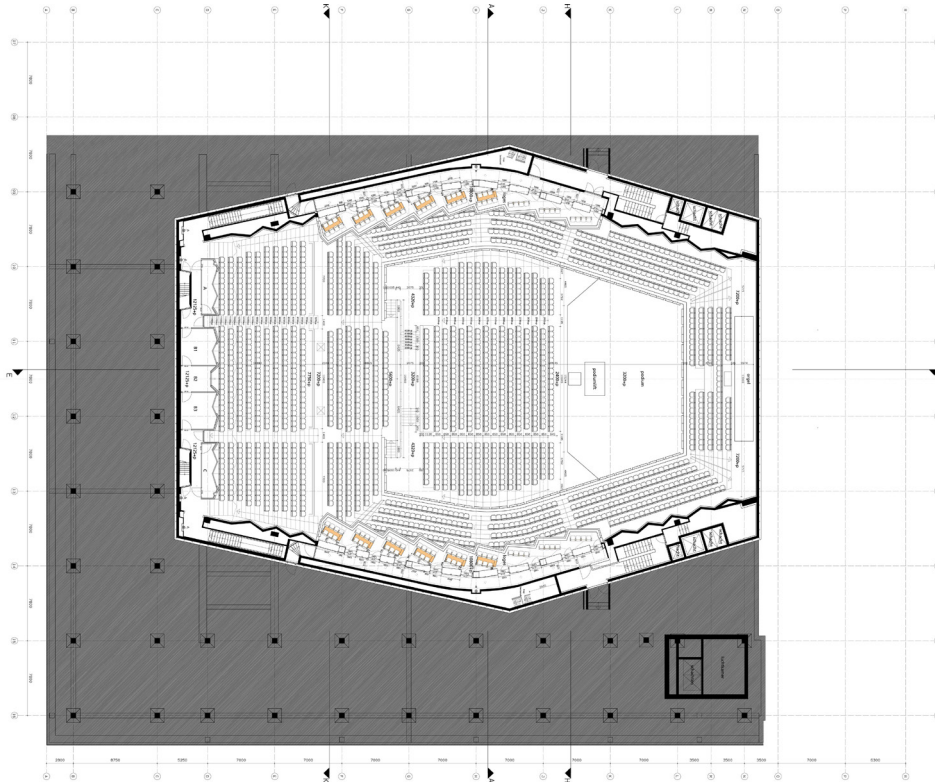
Vredenburg music centre, Utrecht by Hertzberger. Retrieved 22 February 2022, from: <https://www.ahh.nl/index.php/en/projects2/13-cultuur/119-vredenburg-music-centre-utrecht>

AUDITORIUM PRECEDENT STUDIES



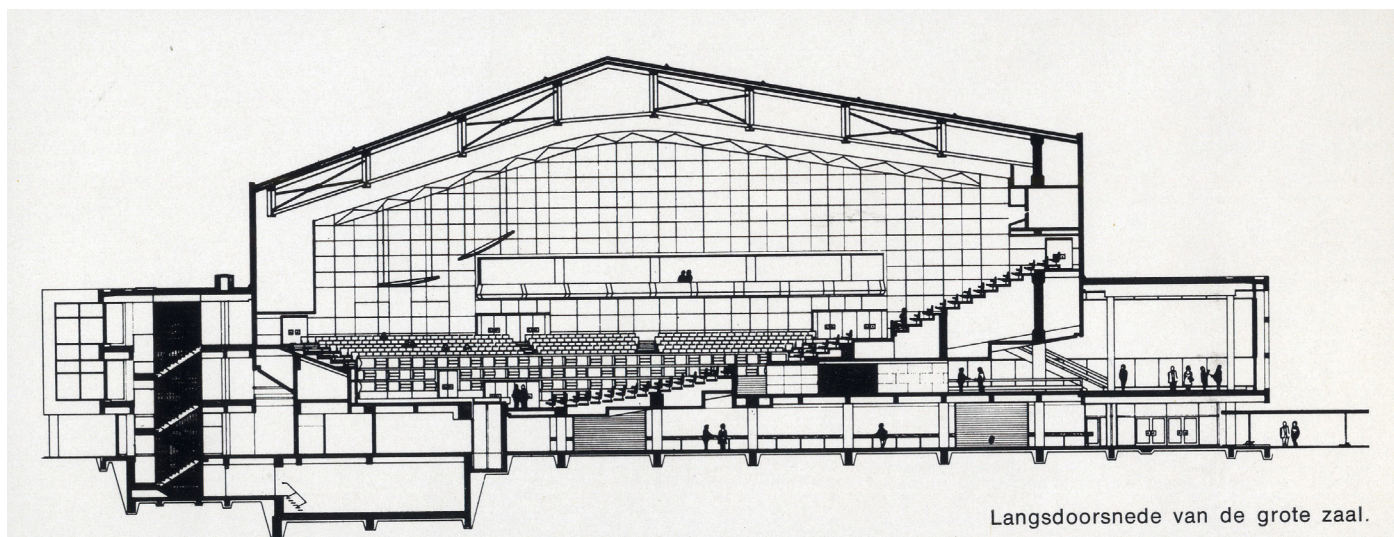
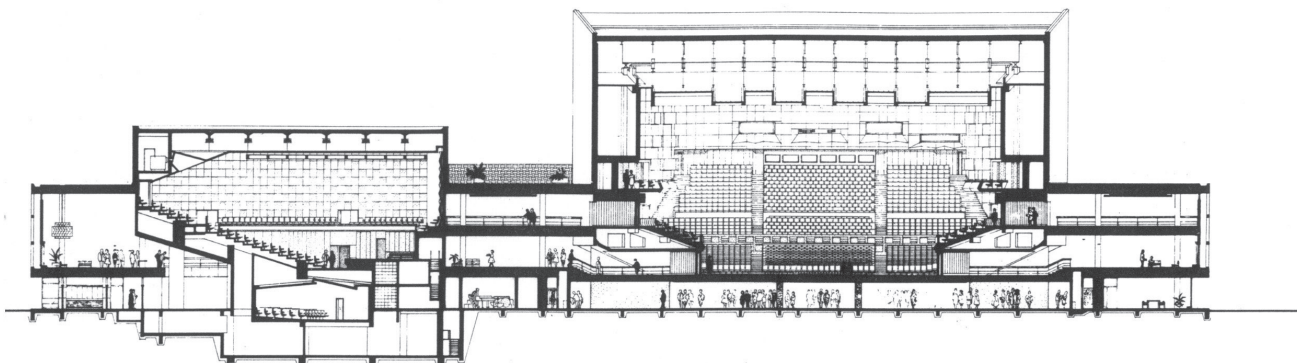
De Doelen, Rotterdam by H.M. & E.H.A. Kraaijvanger & R.H. Fledderus. Retrieved 15 June 2022, from <https://www.kraaijvanger.nl/nl/projecten/concertgebouw-de-doelen/>

AUDITORIUM PRECEDENT STUDIES



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AUDITORIUM PRECEDENT STUDIES



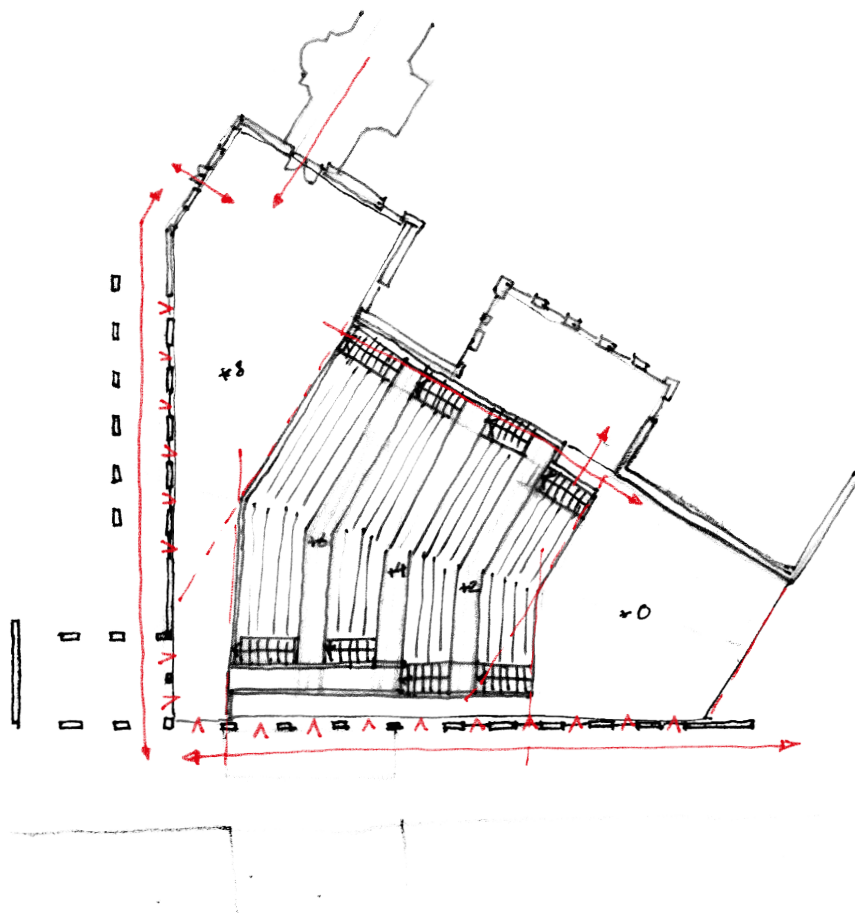
De Doelen, Rotterdam by H.M. & E.H.A. Kraaijvanger & R.H. Fledderus. Retrieved 15 June 2022, from <https://www.kraaijvanger.nl/nl/projecten/concertgebouw-de-doelen/>

AUDITORIUM PRECEDENT STUDIES

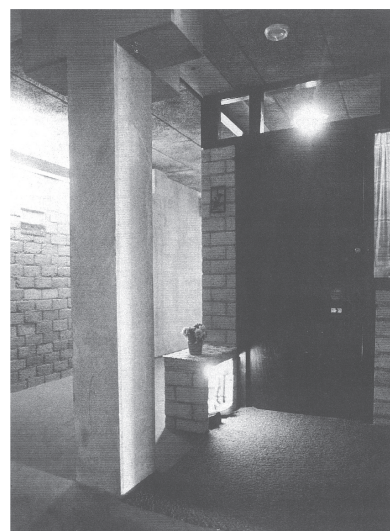
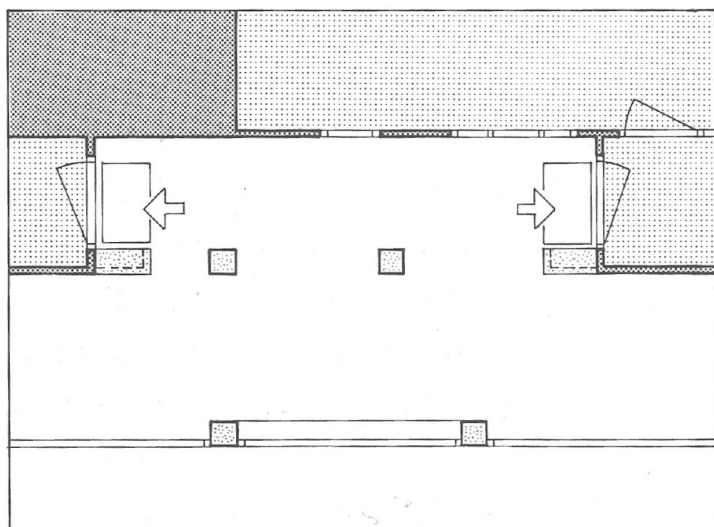
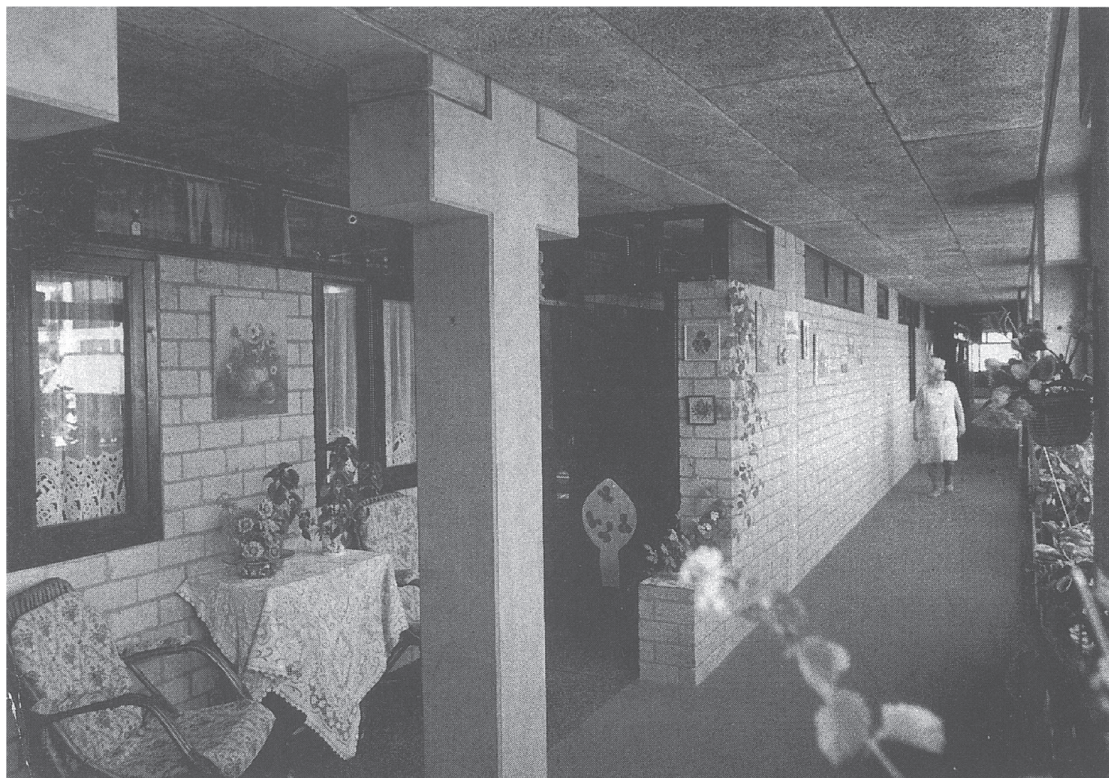


Palais des Beaux-Arts, Brussels by Victor Horta. From: Goslar, M. (2012) Victor Horta 1861-1947. Brussels: Fondation Pierre Lahaut & Mercatorfonds.

PRINCIPLES AUDITORIUM DESIGN

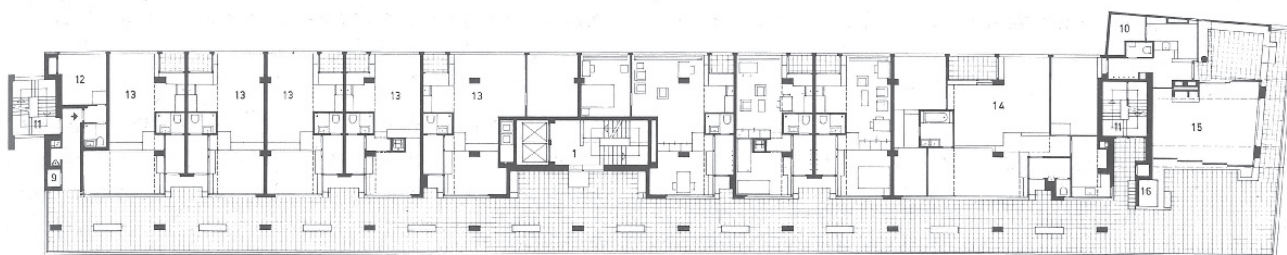


PRIVATE CLAIMS ON PUBLIC SPACES PRECEDENT STUDIES



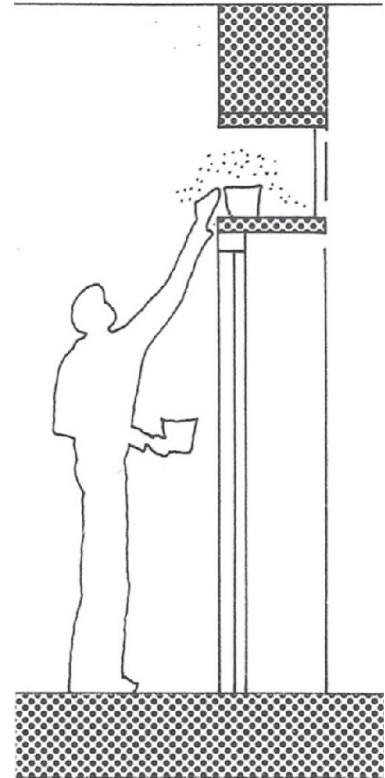
De Drie Hoven, Amsterdam by Herman Hertzberger. From: Herzberger, H. (2005). *Lessons for Students in Architecture*. Nijmegen: Thieme bv.

'THE STREET' PRECEDENT STUDIES



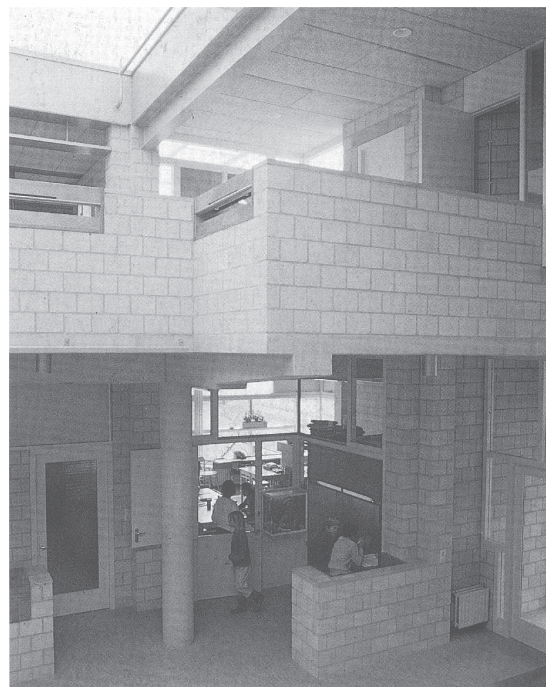
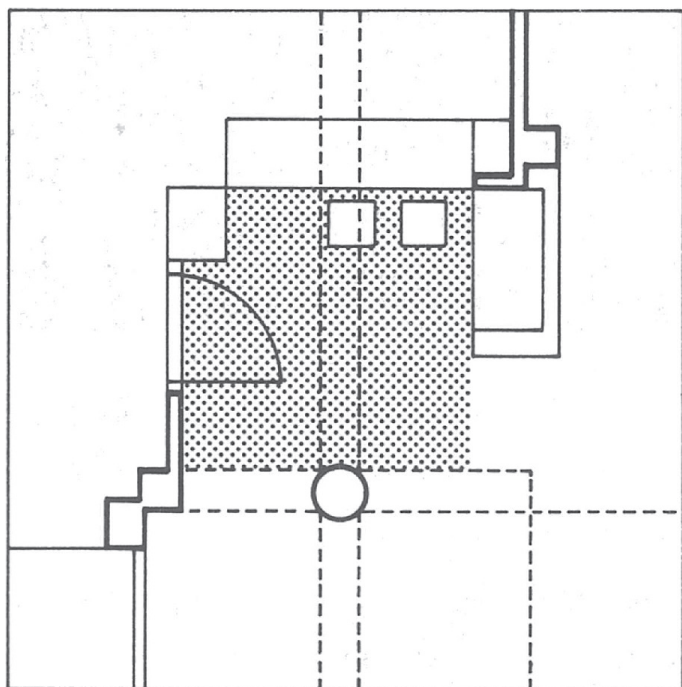
Weesperstraat Student Accommodation, Amsterdam by Herman Hertzberger. From: Herzberger, H. (2005). *Lessons for Students in Architecture*. Nijmegen: Thieme bv.

TERRITORIAL ZONING PRECEDENT STUDIES



Montessori School, Delft by Herman Hertzberger. From: Herzberger, H. (2005). *Lessons for Students in Architecture*. Nijmegen: Thieme bv.

USER TO DWELLER PRECEDENT STUDIES

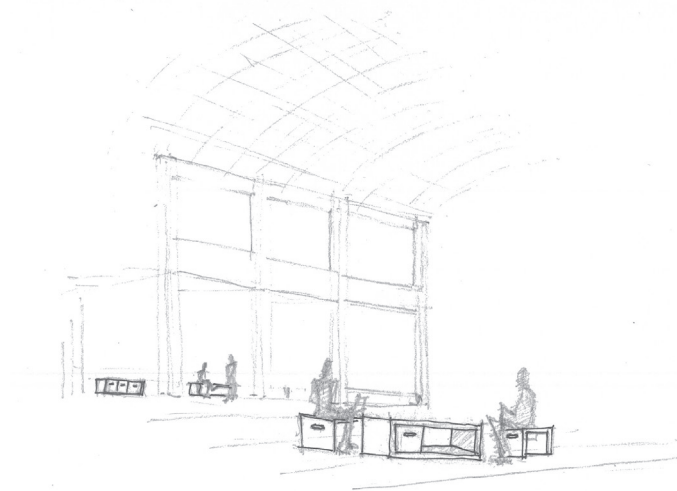


Apollo School, Amsterdam by Herman Hertzberger. From: Herzberger, H. (2005). *Lessons for Students in Architecture*. Nijmegen: Thieme bv.

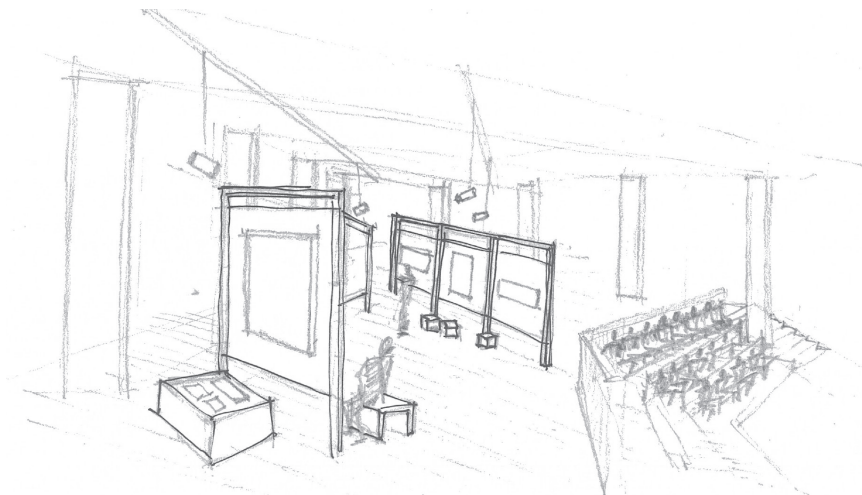
PRINCIPLES INTERVENTIONS ON USER-LEVEL



a.



b.



In the project, three interventions on the user-level can be distinguished. These interventions would be an architectural integration of connectivity between different functions and provoking interaction with the building (a.), the creation of meet-up spaces to stimulate interaction between the users (b.), and of facilitating functionality of flexible exhibition space (c.). All of which are constructed in the 'layel' between the furniture and building scale.

PRECEDENT STUDIES

Christiaan Kieckens



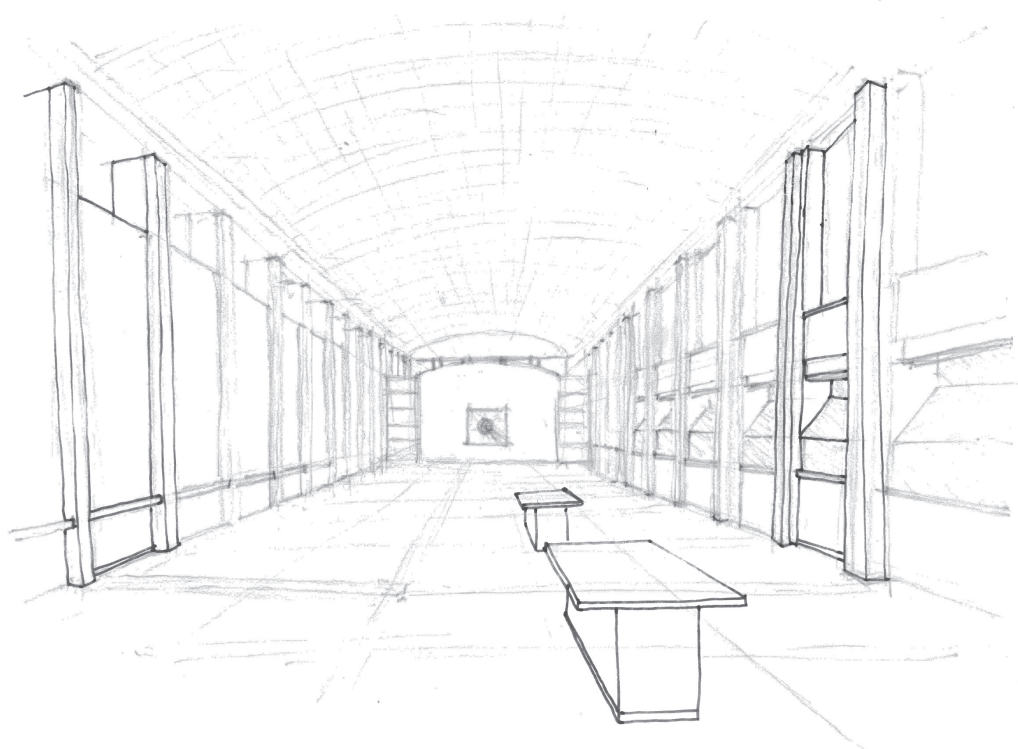
COMPARISON HISTRICAL AND CURRENT BANKING HALL



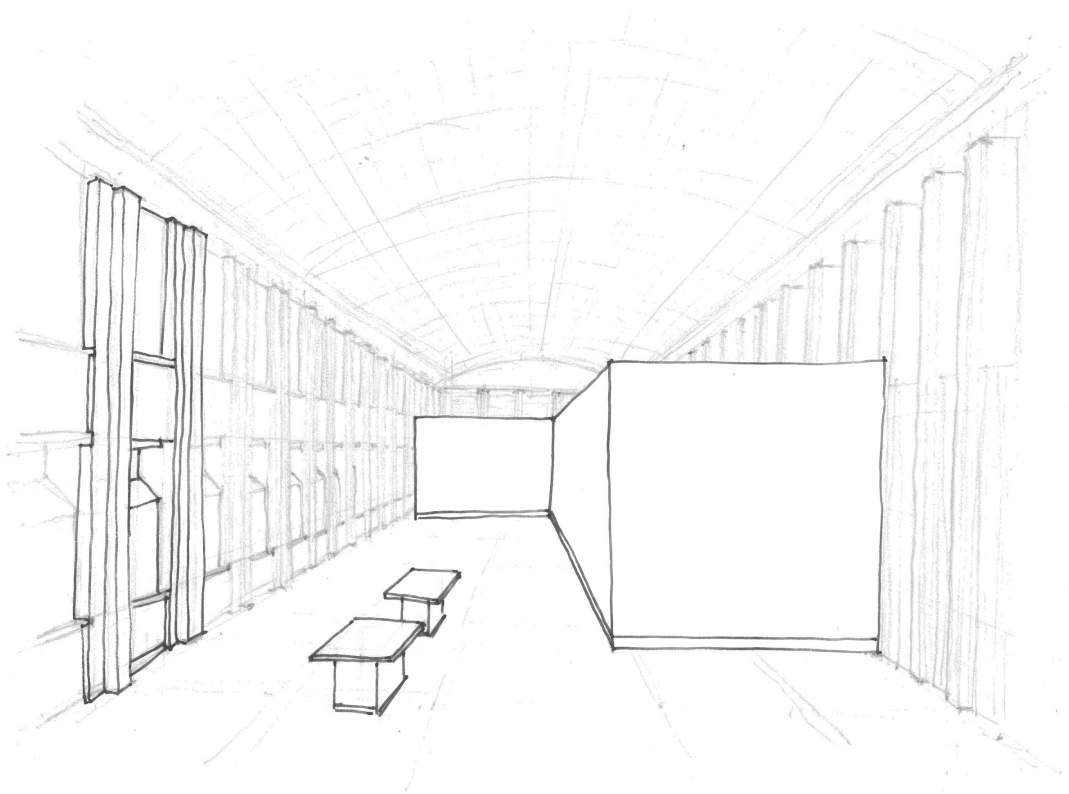
COMPARISON HISTRICAL AND CURRENT BANKING HALL



ANALYSES HUMAN SCALE IN BANKING HALL



ANALYSES HUMAN SCALE IN BANKING HALL



RE-USAGE OF ELEMENTS IN CURRENT BUILDING



RE-USAGE OF ELEMENTS IN CURRENT BUILDING



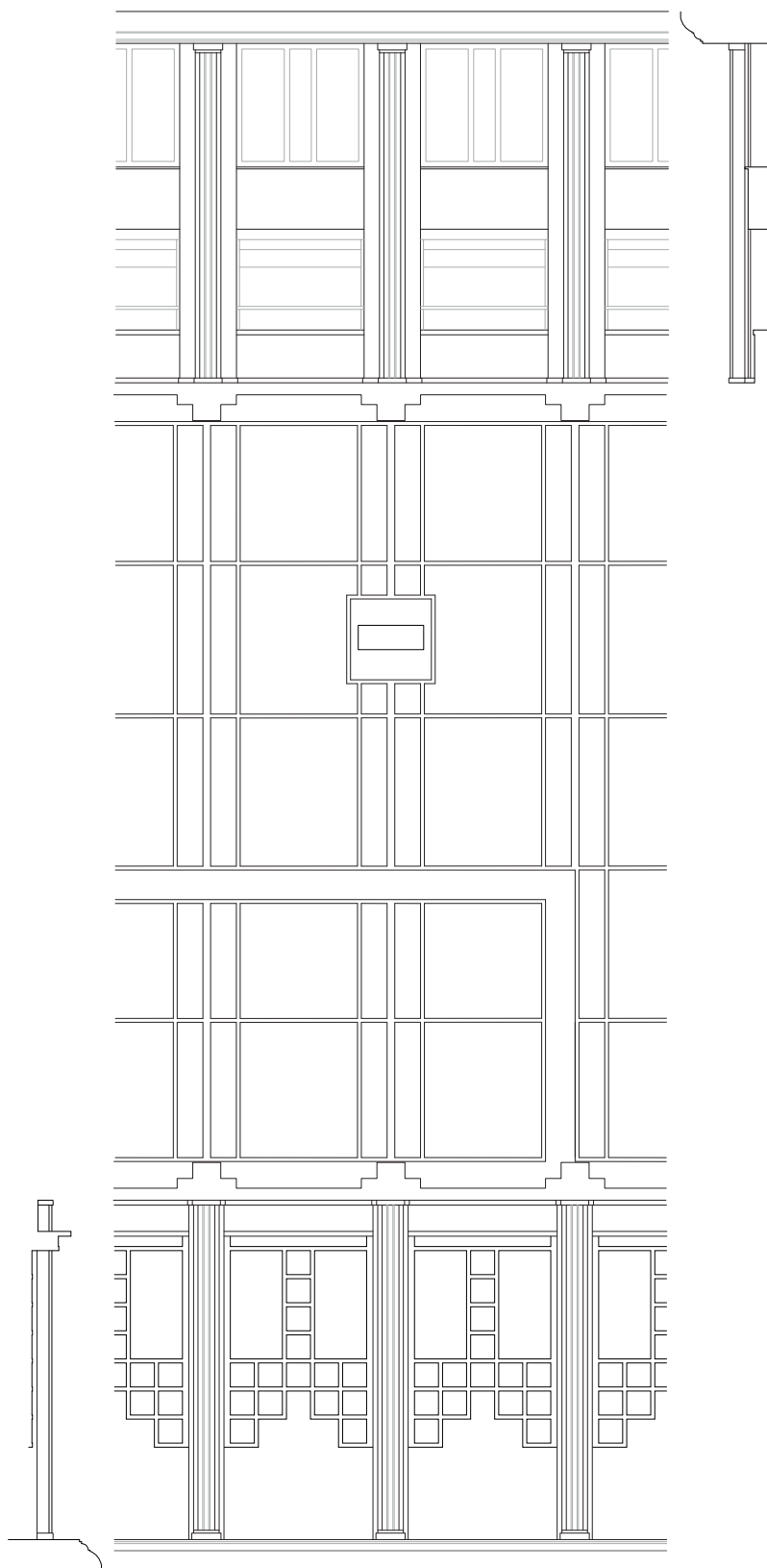
MATERIALIZATION BANKING HALL



MATERIALIZATION BANKING HALL

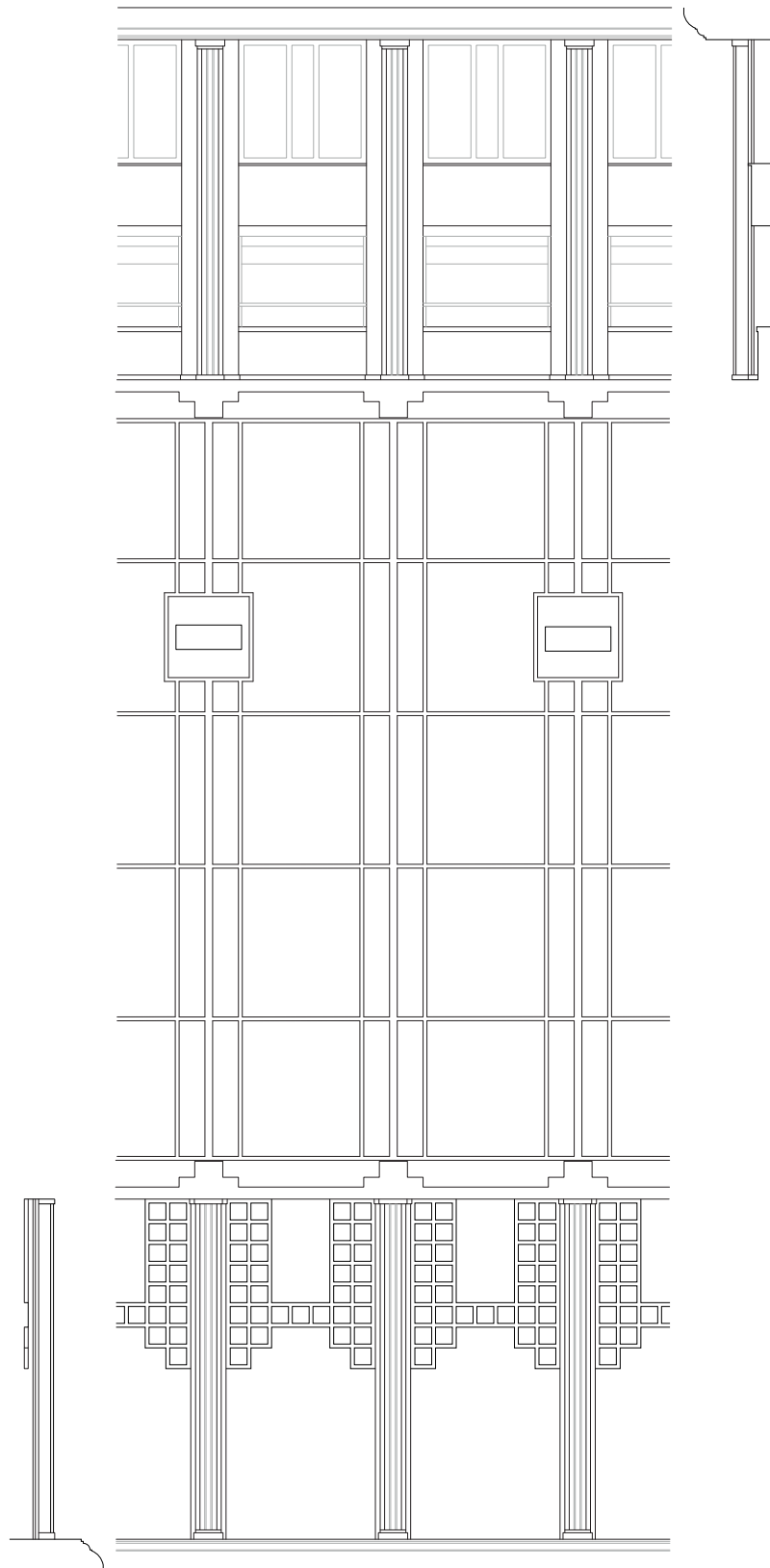


LINE DRAING BANKING HALL NORTH WING



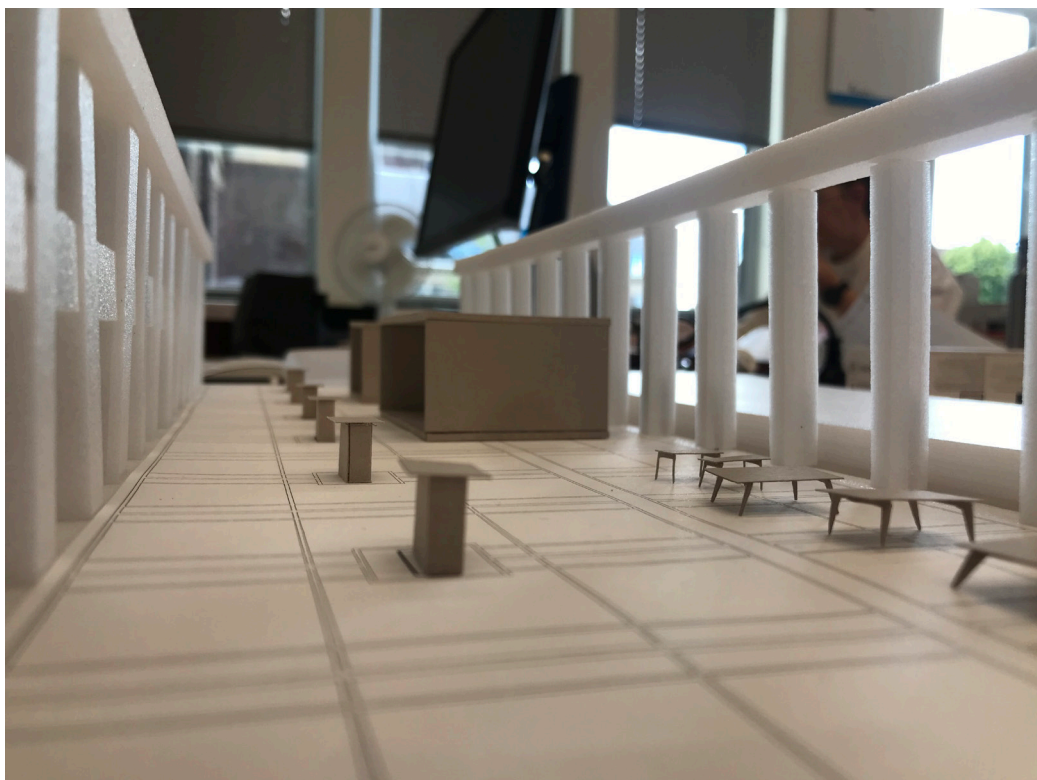
A typical fragment of the interior facade of the northwing of the banking hall.

LINE DRAING BANKING HALL SOUTH WING

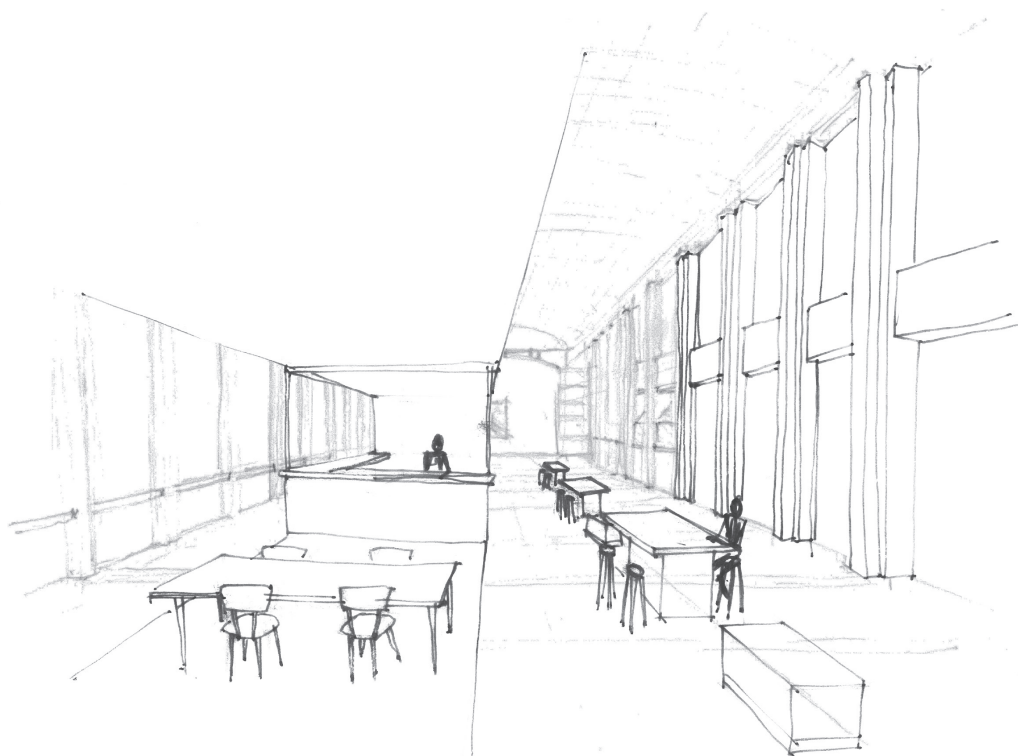


A typical fragment of the interior facade of the southwing of the banking hall.

WORKING MODEL KIOSK IN BANKING HALL

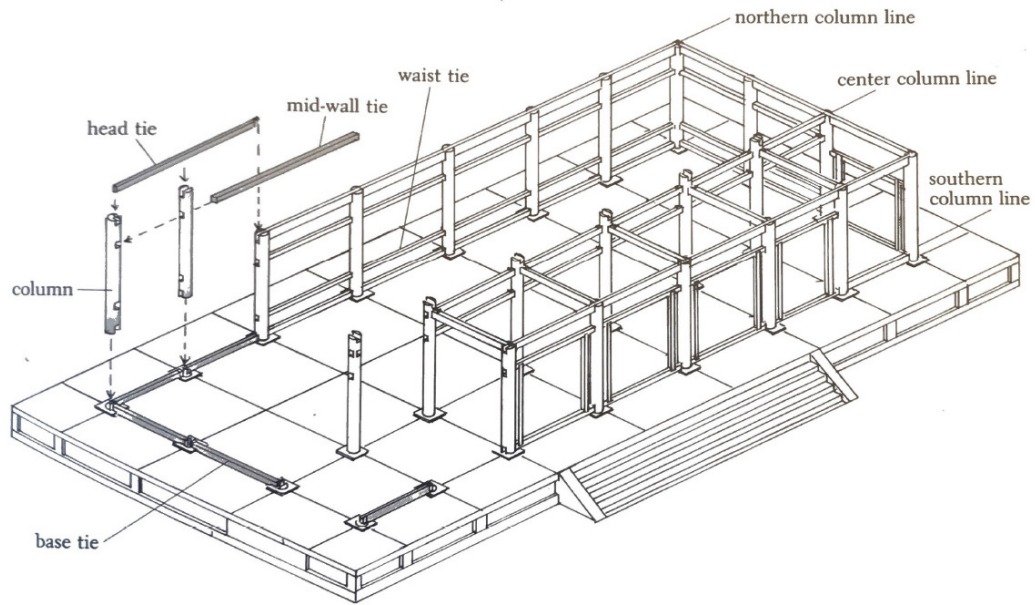


PRINCIPLE KIOSK IN BANKING HALL

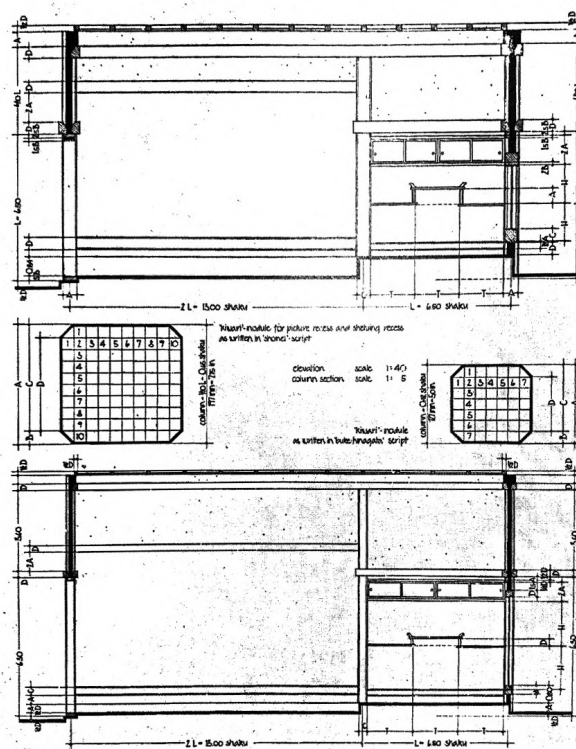


By adding kiosk-like volumes in the banking hall, separate spaces are created within a bigger whole.

PRINCIPLES OF JAPANESE CARPENTRY

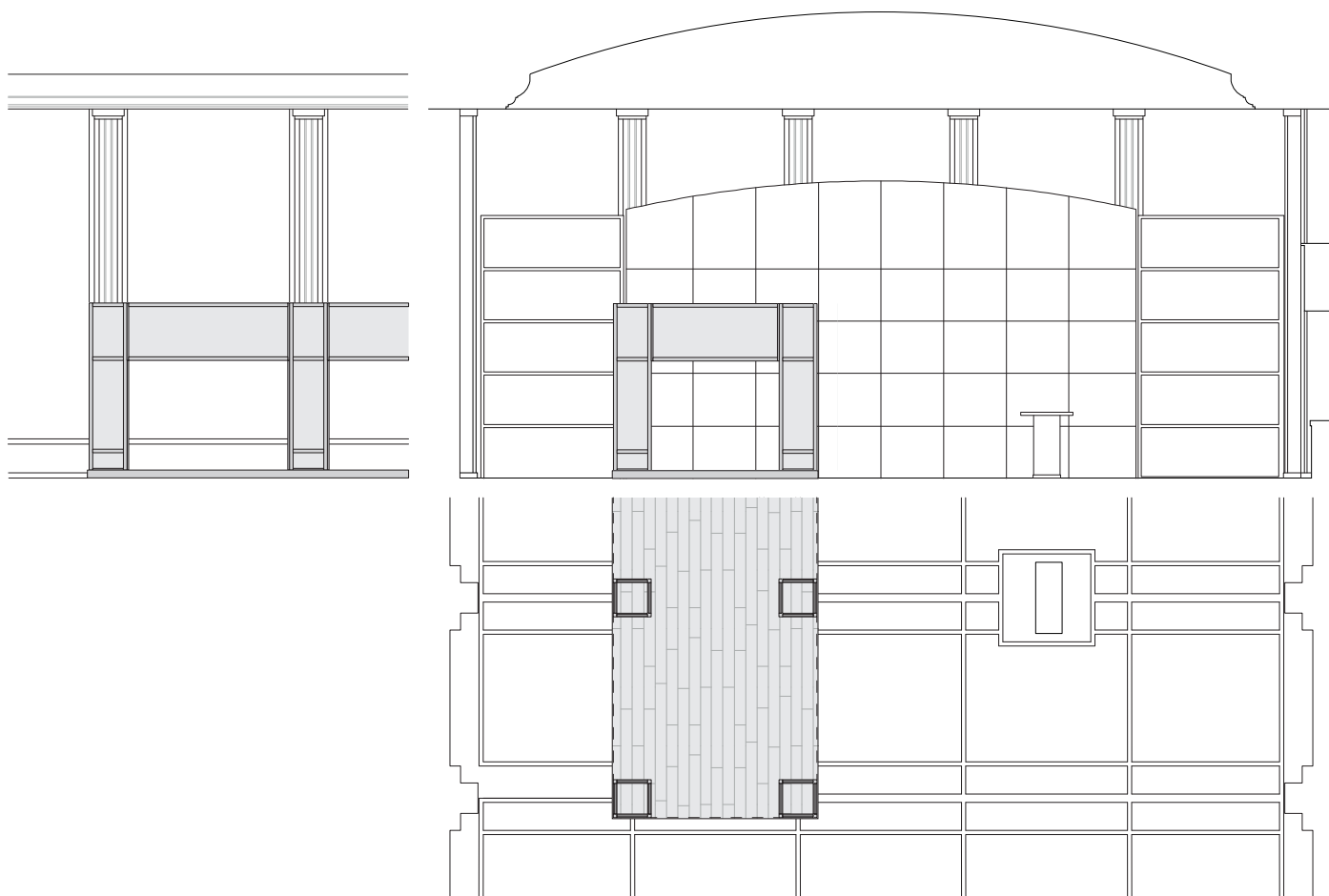


93. The Picture Hall with lower frame nearly completed.



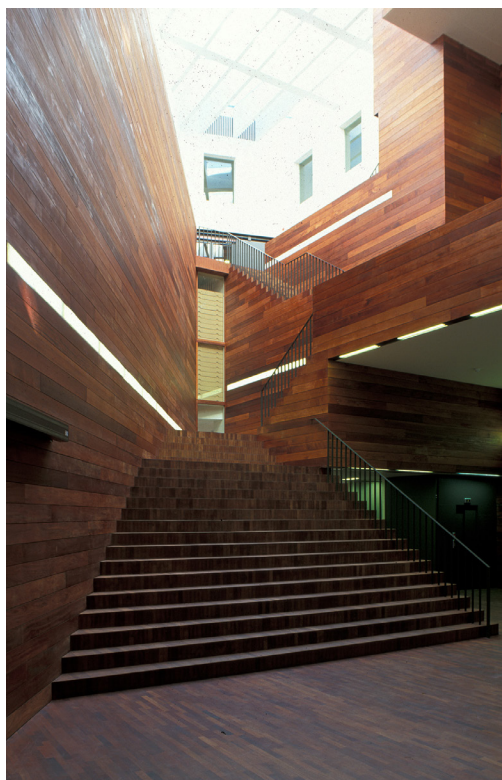
(top) From: The genius of Japanese carpentry: an account of a temple's construction by Azby Brown. (bottom) From: The art of Japanese architecture by David E Young

KIOSK WITHIN BANKING HALL



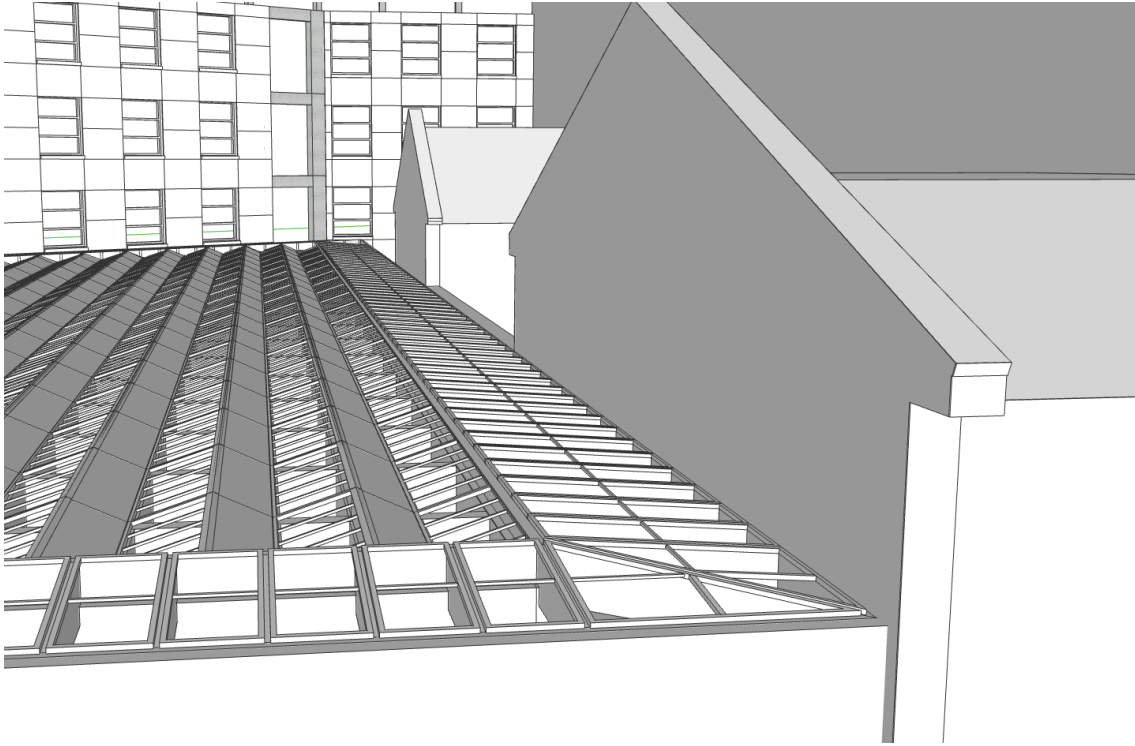
In this drawing, the dimensions of the carpentry of the kiosk responds to the dimensions of the columns and floor patterns of the existing surfaces.

AUDITORIUM INTERIOR ROOF DESIGN



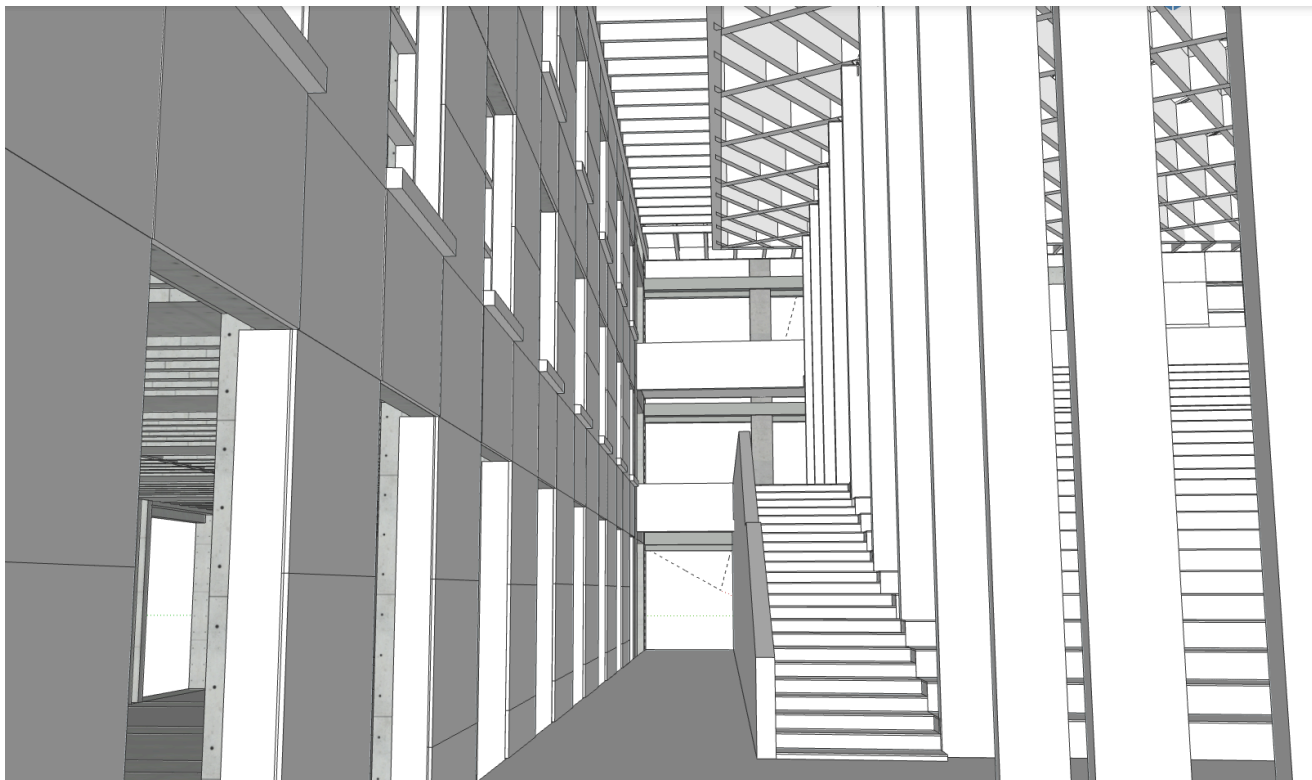
Fashion Museum, Antwerp by Marie-Jose van Hee. Retrieved 26 July 2022, from: <https://www.mjvanhee.be/work/1999-03-fashion-museum-modenatie>

AUDITORIUM EXTERIOR ROOF DESIGN

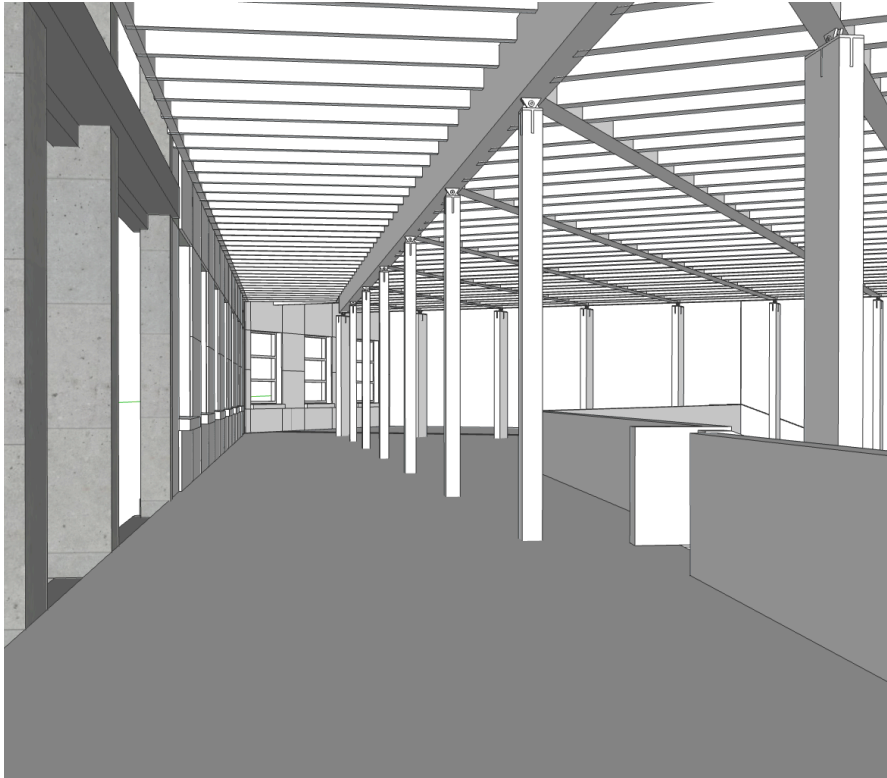


Fashion Museum, Antwerp by Marie-Jose van Hee. Retrieved 26 July 2022, from: <https://www.mjvanhee.be/work/1999-03-fashion-museum-modenatie>

INTERMEDIARY SPACE WHERE THE AUDITORIUM AND EXISTING FACADE MEET



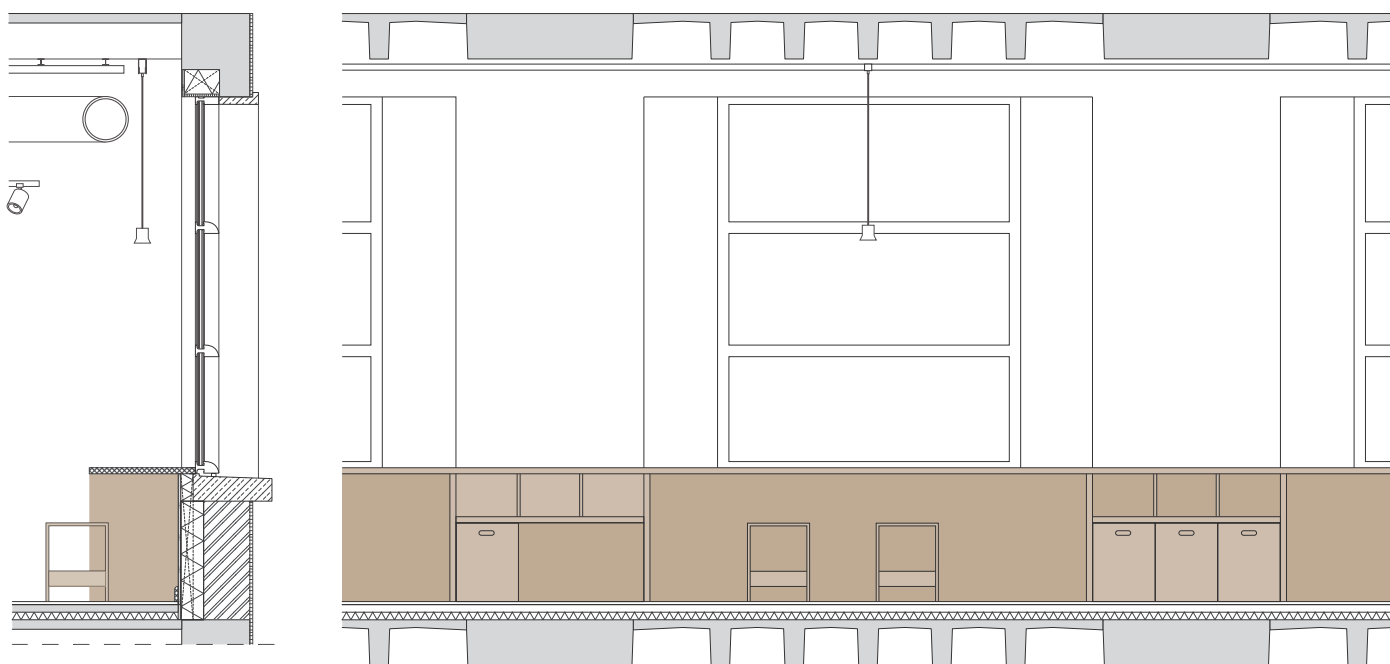
GALLERY AROUND AUDITORIUM



WORKING SPACES ALONG THE FACADE IN THE OFFICES

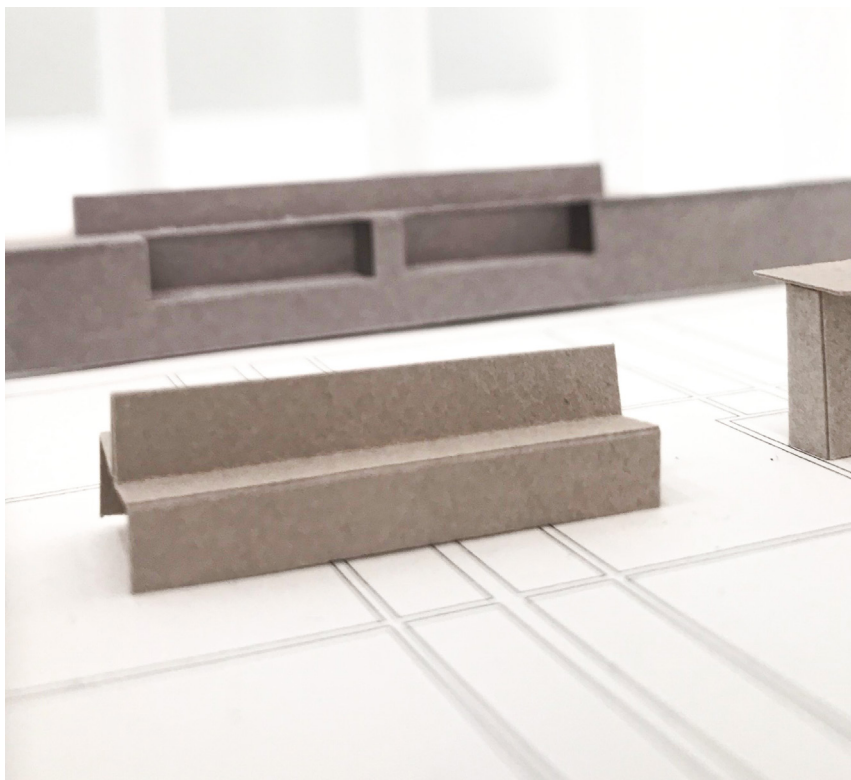
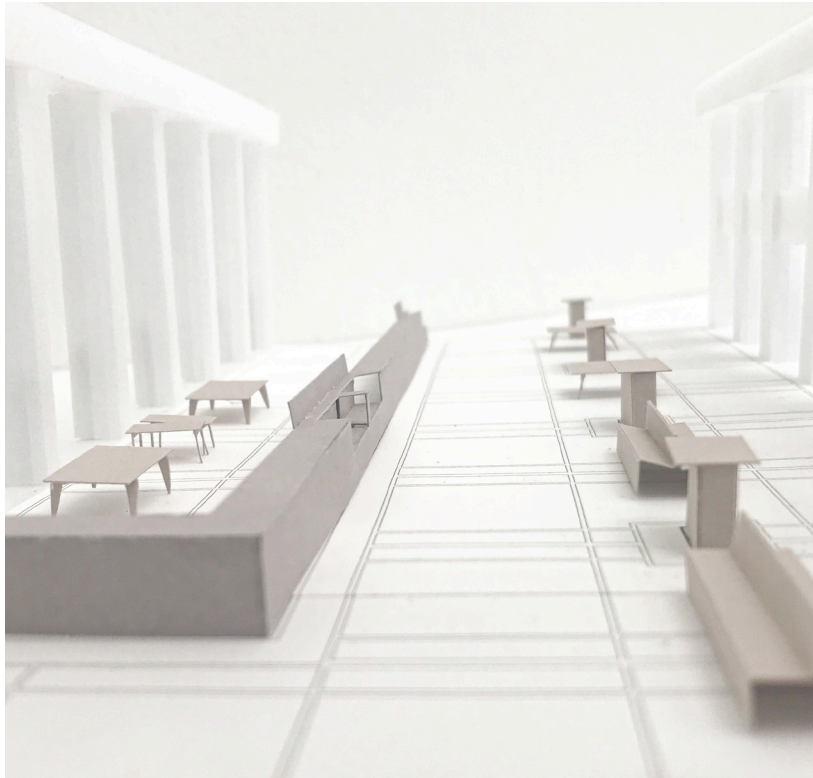


WORKING SPACES ALONG THE FACADE IN THE OFFICES

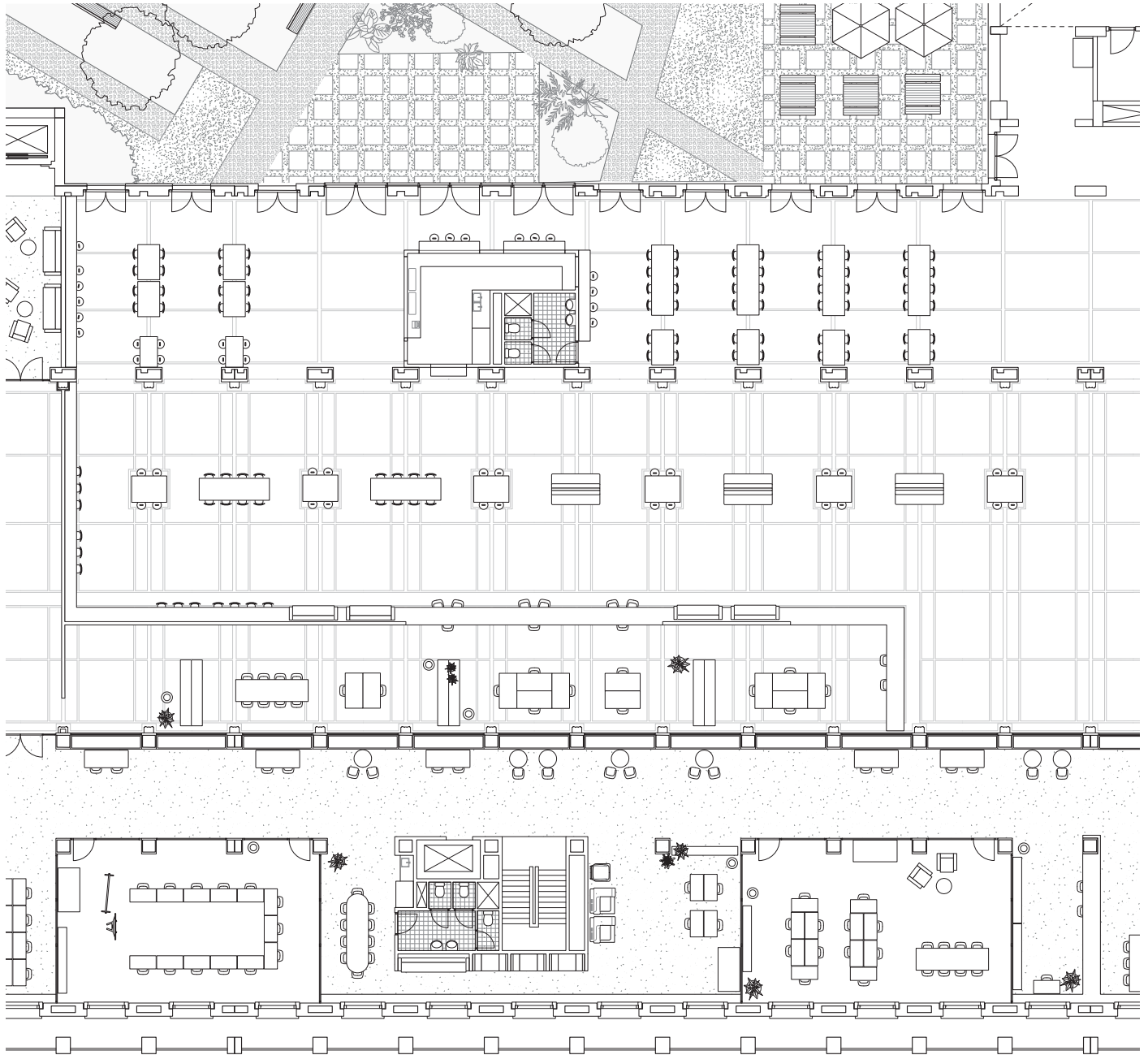


The courtyard-facing facades in the offices spaces can be redesigned to facili

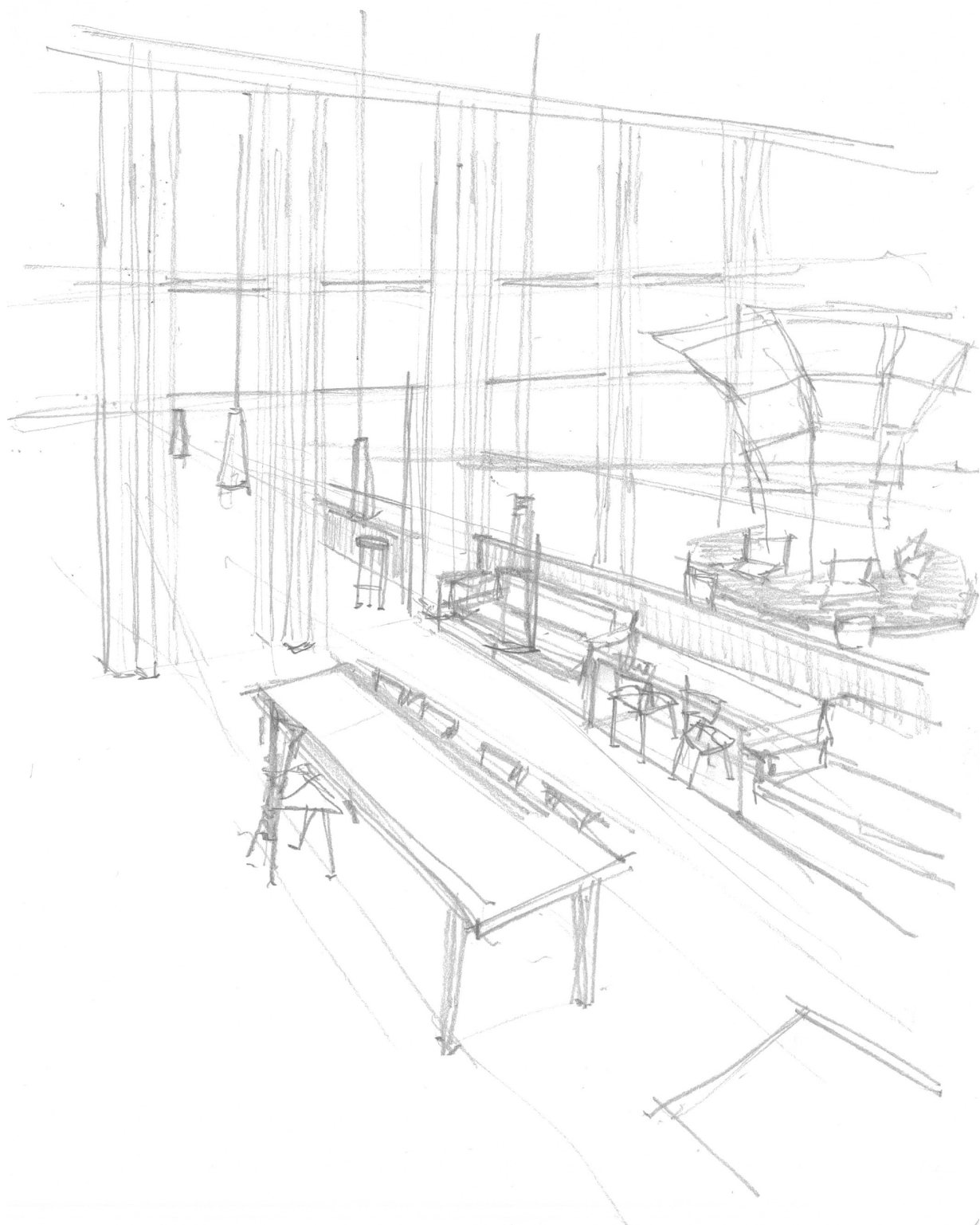
CENTRAL SERVICE DESK IN BANKING HALL



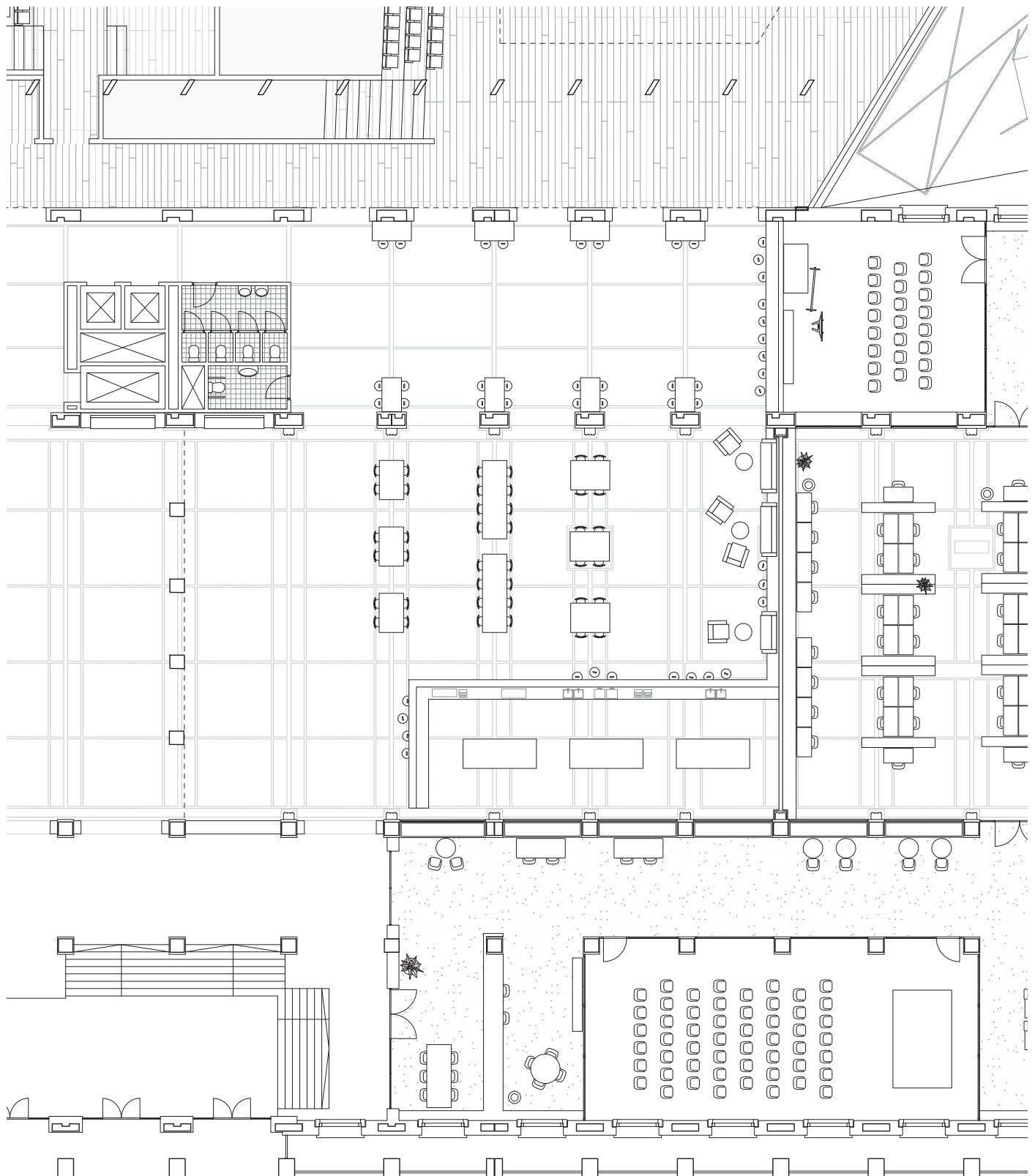
CONNECTION BANKING HALL AND GARDEN



OPEN PARTITION IN BANKING HALL



CONNECTION BANKING HALL AUDITORIUM



REFLECTION PAPER

Robin Weishaupt
4466314
Interiors Buildings Cities
Future Bank

Project description

In this paper I will discuss my graduation project for the Interiors Buildings Cities graduation studio. The studio asked us to research the National Bank of Belgium, to address the bank on an institutional level, and to make a design for the bank building that addresses the urban scale, the building itself, and the actual usage of the bank. The bank building is located in the centre of the uniquely diverse city of Brussels, on the verge of the lower and upper parts of the city. Group research has been done within the studio to understand the building's urban, typological, historical, and social context. Therewith, the problem statement has been concluded. The historically central role of the national bank in the city has been compromised by the digitalization and outsourcing of its original physical activities. The institute is detached from the citizens of Brussels, which is physically noticeable in the building's vacant spaces and abandoned banking hall. For my project, I have established a way to reconnect the bank and its employees with the city, which is called reframing private gestures. I propose the bank makes a gesture towards the city by accommodating educational functions for the Université Libre de Bruxelles. On the user level, I propose to provoke interaction between the bank employees, the students, and other visitors. The private gesture would be to facilitate this interaction and the appropriation of the building itself through its architecture. Central to my project are the shared (semi) public spaces within the building, since these are the spaces where the different functions and, therefore, the different users will meet. An auditorium is designed in the biggest courtyard of the building to connect the separate wings of the

building and reinstall a historical connection. In the paragraphs below, I will further explain and reflect upon the process of my graduation project.

The relation between research and design

The Interiors Buildings Cities studio has a distinct approach. Every few weeks, a new brief is given that focuses on a different aspect of the graduation topic. For the first five weeks of the studio, the briefs focused on the typology of office buildings. After this, the focus of the briefs shifted to the bank building typology. During these weeks, seminars were held every Thursday morning, which focused on the research-part of the studio. The design work for the briefs was discussed with the design tutors on Thursday afternoon. This set-up of research during the morning and design during the afternoon allowed for these two facets of the course to relate to each other. After this first period, I have tried to incorporate this back-and-forth relation between research and design into the process of my individual project. My research tutor has helped me by referencing literary sources and precedent studies to develop certain ideas. For instance, by reading into Herman Hertzberger's, Robin Evan's, and Lacaton & Vassal's notions about the usage of space and materials. I have tried to incorporate these findings into my design, which I discussed with the design and technology tutors. In their turn, they have helped me to develop my project by discussing architectural qualities and referencing relevant projects. I have explored the architectural solutions for incorporating the new educational functions into the project and facilitating interaction between users and appropriation of the building by reading, sketching, drawing and (digital) modeling. These methods and the scheduled design and research meetings have resulted in a responsive relation between these two facets throughout the process.

REFLECTION PAPER

The relation between the graduation topic, the studio topic and master

In my project, I concentrated on two aspects: linking the National Bank of Belgium to the city and reconfiguring the building's layout to reflect this connection and improve end users' day-to-day use. Both focus points are linked to the project's several scales: the urban scale, the building scale, the user level, and the national bank's institutional level as a financial organization. While working on the relation between the national bank and the city of Brussels, the actual use of the building and its surroundings has always been a priority. The anthropological and demographic context of Belgium, the city of Brussels, and the site were all addressed as part of the group research. Acknowledging the dynamic social context of the building while recognizing the implications of the proposed interventions on all scales, relates to the studio's approach and its aim to consider the city and its intrinsic variability.

The research method and approach in relation to the graduation studio

As mentioned above, the research has been partially integrated into the design process. The students of the design studio have collectively gathered information to map the National Bank of Belgium and the city of Brussels in their broader geographical, historical, cultural, and social contexts, to establish a common ground for their individual projects. My personal interests, which have led to the eventual proposal, have been developed by working on various design exercises and gathering relevant information from literature and precedent studies. The starting angle for my project, reframing private gestures, and the main research question were established after working on the studio's design brief, "social plinth" for the P1. The research question 'How can the Belgian National Bank be rethought from a systemic and architectural standpoint so it encourages interaction among bank workers and can make a

public gesture to connect to the urban fabric?' has guided the further research and design process. For instance, Herman Hertzberger's book "Lessons for Students in Architecture" and his projects such as the Vredenburg Music Centre in Utrecht and Centraal Beheer Office Building in Apeldoorn were researched to inquire examples of architecturally incorporating interaction amongst users and the building. This line of thought was used to develop the design. Sketching, modeling, and diagramming have been used in the design process to explore the architectural integration of facilitating connection between the users and appropriation of the building. There has been a back-and-forth between research and design throughout the process. Various design and research exercises, such as form studies to establish a new configuration of the building and flowline diagrams to map the usage of the current bank building, were used. This interaction between research and design and the incorporation of small exercises are in line with the studio's methodology. During the first three quads of the course, we have been given several design and research briefs to explore and inquire about information to develop the design.

The relation between the graduation project and the wider social, professional, and scientific framework

The topic of my graduation project for the Future Bank brief of the Interiors Buildings Cities graduation studio centers around re-connecting the National Bank of Belgium with the city of Brussels. During the first quad of the course, we established the disconnect between the institute of the national bank and the citizens of Brussels. Banking used to be a highly physical activity as trading, money printing, and the storage of gold happened in the bank building itself. Due to the digitalization and outsourcing of these activities, banking has become less tangible over time.

REFLECTION PAPER

The disconnect between the National Bank of Belgium and the citizens of Brussels is most visible in the bank's abandoned banking hall. Simultaneously, the building houses competent staff with expertise in the global and national financial systems and policies. The bank is in possession of a rich archive consisting of historical financial records and objects, which they partially exhibit in their museum. For my project, I consider the national bank as a bank of knowledge. I propose that the bank will house educational functions for the Vrije Universiteit Brussel and the Université Libre de Bruxelles to connect the national bank with the city on an institutional, social, and physical level. Scientifically, this would be interesting since students could learn directly from field-based financial experts. The bank itself would invest in future employees by accommodating these educational activities. Even though the result of this graduation project is tied to the National Bank of Belgium and the city of Brussels, the idea of this connection on a physical and societal level by adopting an educational function is transferrable to other institutions. For instance, to other national banks that might face the same issues.

The ethical issues and dilemmas that were encountered in the research and design

Several ethical dilemmas have been encountered during the research and design process of my graduation project. First, the impact on the environment must be considered when designing the building and determining the interventions that will be made to the existing building. As environmentally conscious architectural designers, we must work with an economy of means. For this project, I have tried to be aware of the existing structures and materials while re-adapting the building to its new function. However, the building had to be adapted and partially demolished to accommodate new functions for the building, such as the auditorium. A new structure must be added to support the auditorium. For the materialization

of this structure, I have chosen to use mainly wood, since it is more sustainable than steel. I have chosen to use steel Vierendeel beams for the roof of the auditorium because it allows for the roof to be more open, which makes the space more pleasurable for the users.

The second dilemma would be the ambition to add new functions, such as the city campus and the accompanying auditorium, which might conflict with the layout of the existing building and the current usage of the space. Some of the work of the bank employees is highly confidential. When partially opening the building to house somewhat public educational functions and a museum, the security line for the bank offices must be rethought. Shared spaces are interesting to facilitate interaction between the different users of the building, but the bank employee will still have to work in a secured part of the building. I have tried to let these functions co-exist by separating the bank's office spaces from the publicly accessible functions. Simultaneously, I create these moments where the bank employees meet the other users by placing shared facilities between the different functions.