# Transformation of the National Bank of Belgium



A depiction of the office and bank, broken down into scalar themes.

# Fellow Students

Mirthe Andriessen Ron Barten Laurens de Munck Natalia Drożdżowska Jelmer Elsing

Pablo Escamilla Sanchez

He Weiyuan

Marianne Hermann

Anthea Karakoulis

Ebrina Koster

Lai Yi-Chen

Bas Leemans

Li Ho Kong

Li Jieqi

Julia Linde

Aneesh Nandi

Alejandro Arrecubieta Oest

Cameron Reid

Alessandro Rognoni

Sophie Soenen

Meitar Tewel

Izabel Todorova

Rumy Toncheva

Giulia Vieira Dellosso

Sebastian von Rosen

Bart Vos

Wei Rui

Robin Weishaupt

Carmen Wientjes

Renske Worm

Yu Chen

# Studio and research mentors:

Sam De Vocht Matthijs Klooster Sereh Mandias Daniel Rosbottom Mark Pimlott Susanne Pietsch **Table of Contents** 

01 The desk A place of belonging within the office

02 The Workplace The reconstructed image

03 The Office Observed through the plan

Case Study: The Ford Foundation

04 The Office Case Study: The Economist Building

05 The Office The typical Plan, The Open Plan and Bürolandschaft

06 The Office The Nomad Employee

07 The Social plinth An observation of demarcated space [Bart Vos]

The half-public domain [Bart Vos, Ron Barten]

08 The National Bank of Belgium A empty shell in the city

09 The Future Bank A series of thresholds

10 A spatial Comparrison The shear size of the National bank of belgium

11 A study into the bank Österreichische Postsparkasse, Otto Wagner and Na-

tional Bank of Belgium, Marcel Van Goethem

12 Transformation of the National Bank of Belgium A shell for appropriation

13 An intelligent ruin Objects of abandonment

14 Redevelopment of the Be; gium National Bank An extended facade

15 Redevelopment of the Belgium National Bank The Banking Hall

17 Redevelopment of the Belgium National Bank Opening of the Façade

18 Redevelopment of the Belgium National Bank

The Palace as a cultural institute

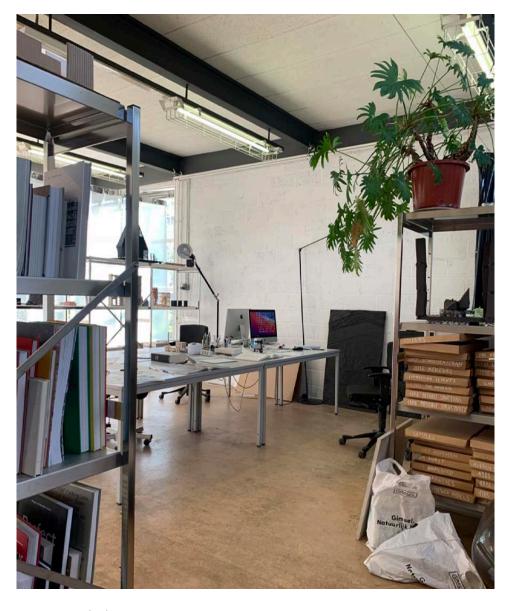


# The desk

# A place of belonging within the office

In contrast to the common practice of analysing and designing buildings from the scale of the city downwards this journal takes the desk as its starting point. An object which in its most basic form provides a flat surface at a comfortable height. Going beyond the history of the office and bank building the table has always maintained its fundamental function. However, we can even see the shifting ideologies of the office as well as technological advancements being reflected with its design.

The table as a module of an office building has been used to control its user. Its position and design defining the social interaction to others whilst reflecting social hierarchies. The computer has become a common theme across the use of the current office desks. The keyboard and mouse become take up the most central position on the table whilst papers, books, cups, and pens are scattered around it.



(01)

(01)
Office Space, Atelier Tomas Dirrix, Rotterdam, 2021

(02)

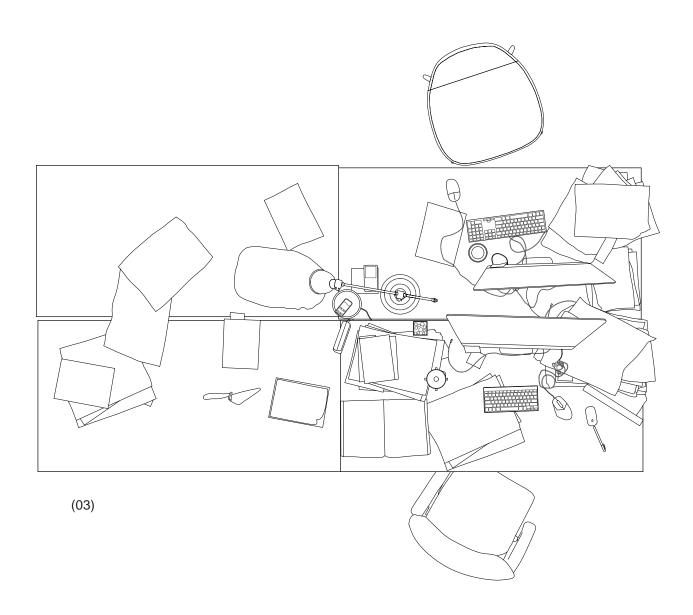
Stitching together photographs of the workspace





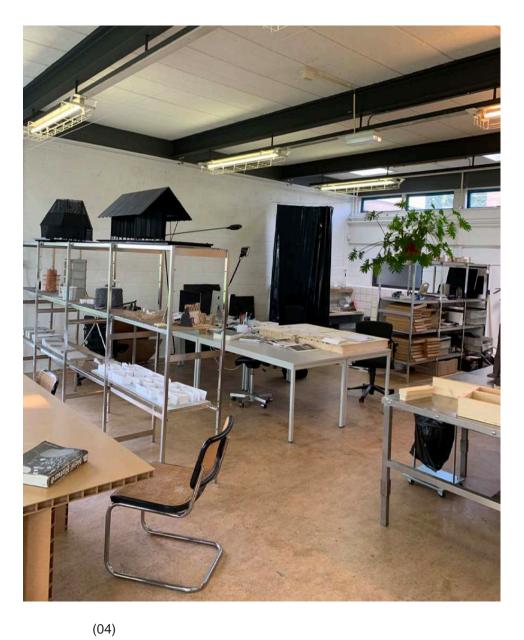


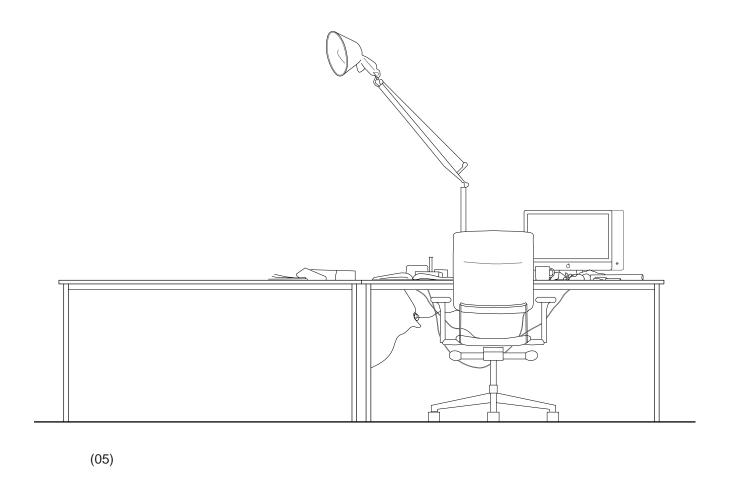
(02)



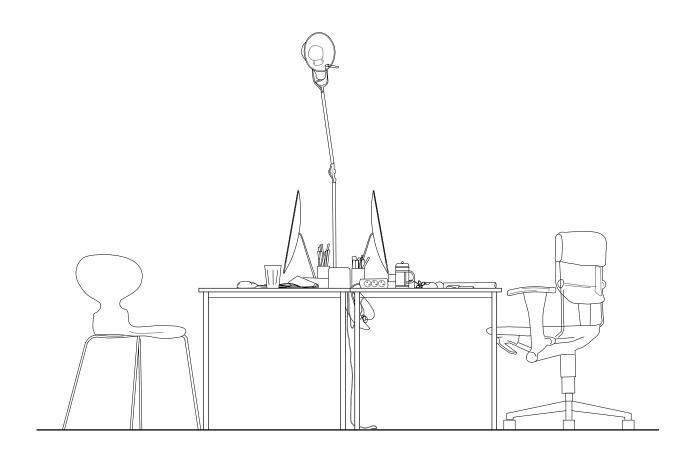
Four Tables with two working stations in Atelier

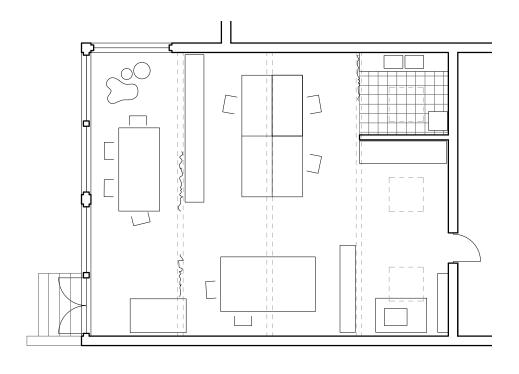
(04)
Office Space, Atelier Tomas Dirrix, Rotterdam, 2021

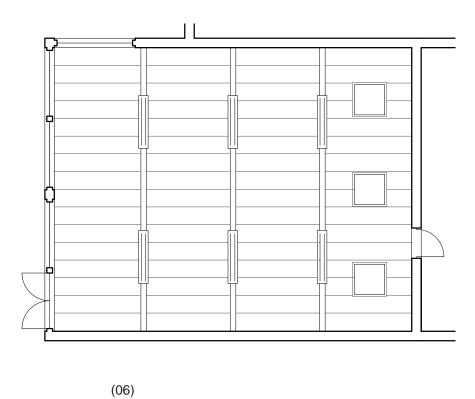




(05) Elevation - Table within atelier







(06)
Floor Plan Overview and
Reflected Ceiling Plan





(01)

The reconstruction of an image. Much like a stage set the inherent perspective of the image becomes the model. The close foreground being rebuilt with detail, whilst the background becomes an abstraction of surfaces. The light within being artificially recreated and its hues manipulated with coloured paper. Like the work of Thomas Demand the model is not intended to be an exact replica but rather evoke a second look in which it reveals itself as an abstracted paper model.

By reconstructing the office its structure, dimensions materials, and objects are dissected. Within the ford foundation designed by Roche and Dinkeloo in the 1960's, each workspace becomes is furnished with a set of leather finished tables, built-in telephone, the large shelves of book, the caret and coffee table. The executive's office depicted evoke an image of exclusivity. The table itself almost empty apart from a single pen to make executive signatures.

The bank as a constitution will remain. However, this redesign should change its interaction with the city and its clients. More access. More transparency and more trust. The integration of public facilities and non-bank owned services is important for the reactivation of the site. By turning the courtyard into the heart of the structure the frontal facades become the backside.

A continuous room of interiors. Similar to the other route through Brussels, the courtyard forms part of the city's circulation routes.

The platforms at each end of the bank on which the statues sit can similarly become a public platform, similar to that of the church.

(01)

Thomas Demand, Copyshop, 1999



(02)

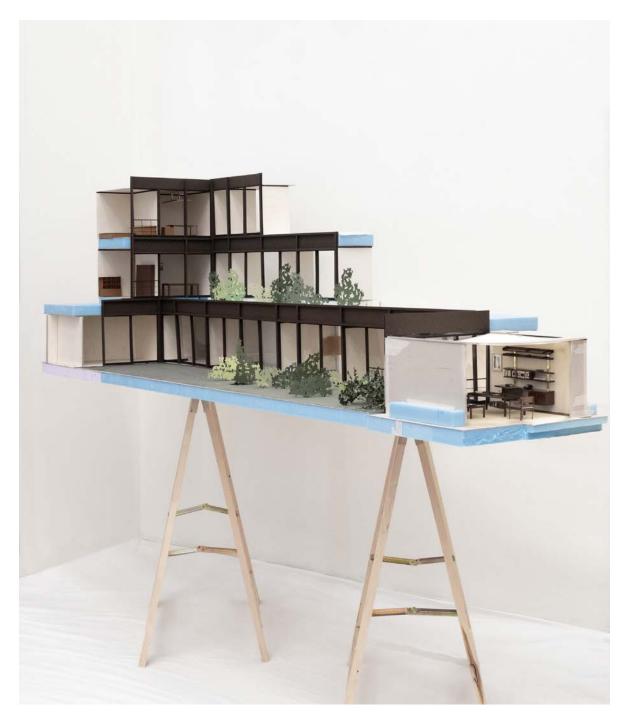


(03)

(02)
Jacques Lemercier, Engraving of Michelangelo's sectional model for San Giovann dei Fiorentini, 1607.

(03) Interiors Buildings Cities model collection.

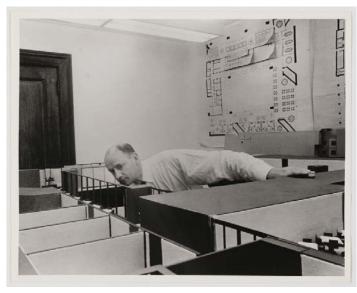
(04)
Kevin Roche in Ford Foundation model. The Model as an Object (Model:Pascal Henle, Ebrina Koster, Julia Linde, Robin Weishaupt Image:Laurens de Munck, Bas Leemans)



(04)



(05)



(05)



(06)

(05)Kevin Roche in Ford Foundation model 1963.(Source: Kevin Roche John Dinkeloo and Associates)

(06)

Ford Foundation - Model 1:20 Pascal Henle, Ebrina Koster, Julia Linde, Robin Weishaupt



(07)



(80)



(09)

(07

The image as a object A set of furniture

(80)

The background as the model

(09)

Ford Foundation - original photograph



(07)

(89)
The image as a object A set of furniture



## The Office

# Observed through the plan Case Study: The Ford Foundation

#### The office

The office building as we know it today, originated from the separation of commercial use from residential functions. Around the early nineteenth century office buildings were first constructed to be rented out to smaller companies as opposed to build by those companies themselves. This marks the start of generic floorspaces in which order was given through an underlying grid. Although the grid became the datum on which most future office plans were projected, we can see a linear progression of the office arrangement influenced by both external and internal factors. The External factors relating to building construction and real estate and the internal being office technology and office organisation.

## The plan

Within history, the plan as a projective device can be seen as the cornerstone of architectural practice as we understand it today. The plan as a projection of a physical condition not yet in existence, in contrast to being a documentational tool by early stonemasons and builders during the construction of buildings. Unlike the Elevation and perspectives which are perceivable in real life, the plan is a horizontal cut through the built form exist only as an organisational abstraction of space - a two-dimensional construct of its built form,

Consequently, the plan gives geometric order to the daily practices of life. Using boundaries and openings, daily life is arranged into ordinary and repeatable patterns. The order and relations in which our daily practices are placed consequently defines the way in which we live and act.

By closely studying a plan (section and elevation) one can read the very specificities of architectural arrangement. The positions of elements such as walls, columns, doors, and windows reveal the underlying functional and spatial organisation. The way in which our daily practices are arranged. Often revealing inherent, social relations, power structures and underlying ideologies.

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

Kevin Roche and John Dinkeloo established their practice in 1966, after heading the firm of Eero Saarinen for several years. The Ford Foundation Headquarters is regarded as the pair's first major success, a combination of Roche's unique ideals and Dinkeloo's innovative structural solutions. All of their buildings aimed to demonstrate a belief for "A unique solution for a unique problem" and in the case of the Ford Foundation, the problem was the isolated workplace. This revolutionary design introduced an office typology in which employee interaction extended beyond departments and levels, reaching even to the public through the unique arrangement and central garden.

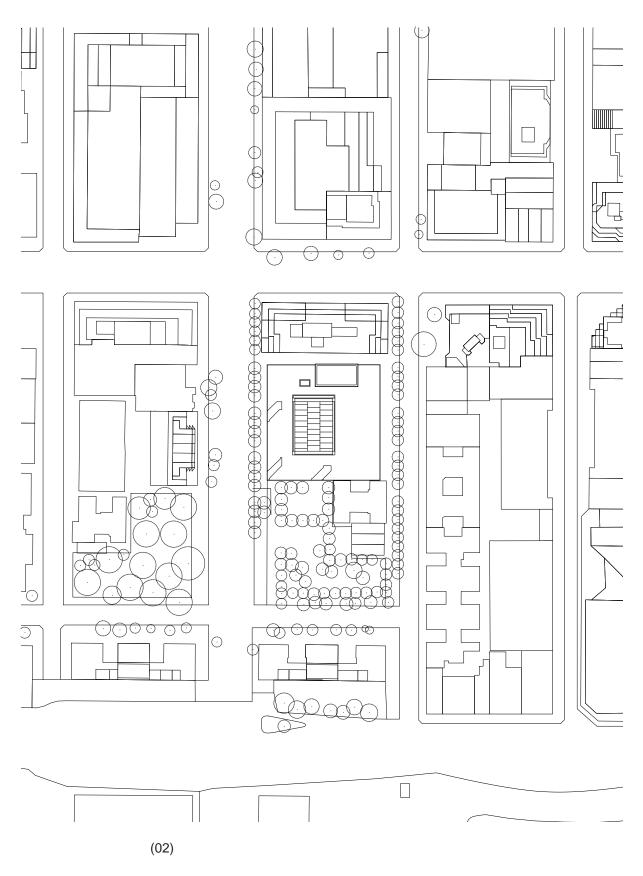
At the time the American workplace was undergoing a shift towards "New American Middle Class" which was composed of white-collar workers. Therefore working was moving away from rural working into mass societal living. Workplaces were becoming machines for efficiency and rational work. "In an organisation, the problem of common purpose is critical. A group of people spend a working house dedicated to some purpose with the Ford Foundation we have 300 people with the similar aim. It is important in that type of community for each to be aware of one another so their common aim can be reinforced."

Therefore this idea of a community was at the fore-front of the design of the Ford Foundation and this new office typology, which promoted a new understanding for employees, supported this social vision. The result is a self-contained cube with a full-height central atrium. Senior employees are assigned glass cubicles opening into the garden so each person could see one another and the garden as they worked. The glazed perimeter atrium creates an image of a dynamic collective working towards a common goal. Functioning as a communication interface and an image to communicate.

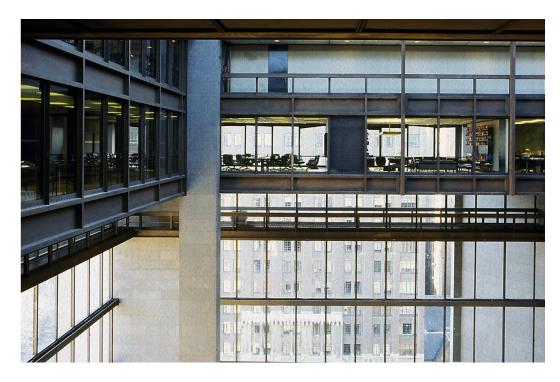


(01)

(01)
The Ford Foundation Exterior (Source: KRJDA)



(02)
Site plan, Scale 1:2000. The Ford Foundation
New York, United States. (Drawing: Ebrina Koster,
Julia Linde)



(03)



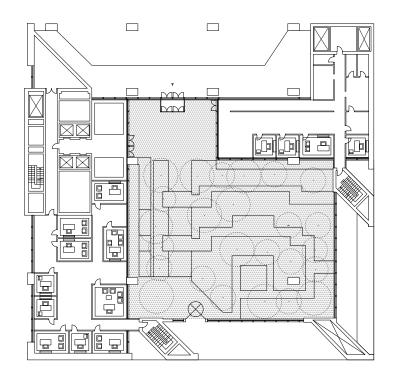
(04)

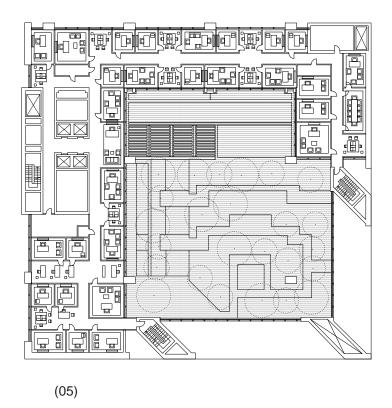
(03)

Upper Floor (Source: KRJDA)

(04)

Inner Garden (Source: KRJDA)





(05)
Ground floor and 1st floor. Scale 1:600. The Ford Foundation. New York, United States. (Drawing: Ebrina Koster, Julia Linde)



(06)

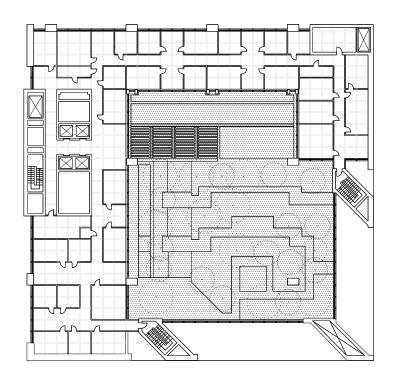


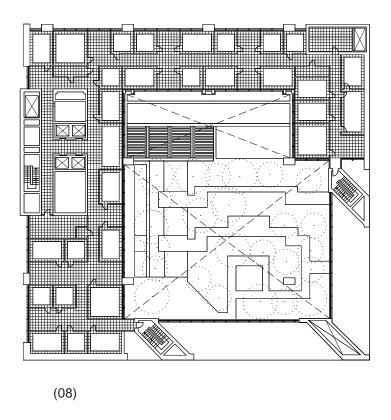
(07)

(06)
Physical model of Ford Foundation (Source: KRJDA)

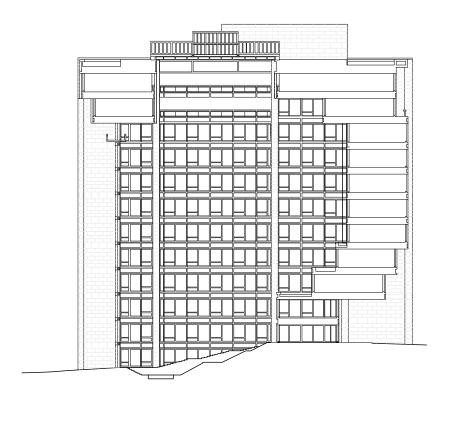
(07)

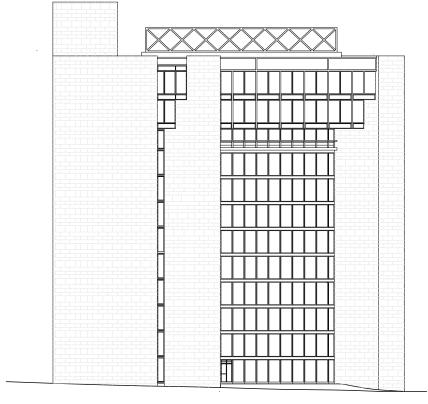
Inner Garden and reception area (Source: KRJDA)





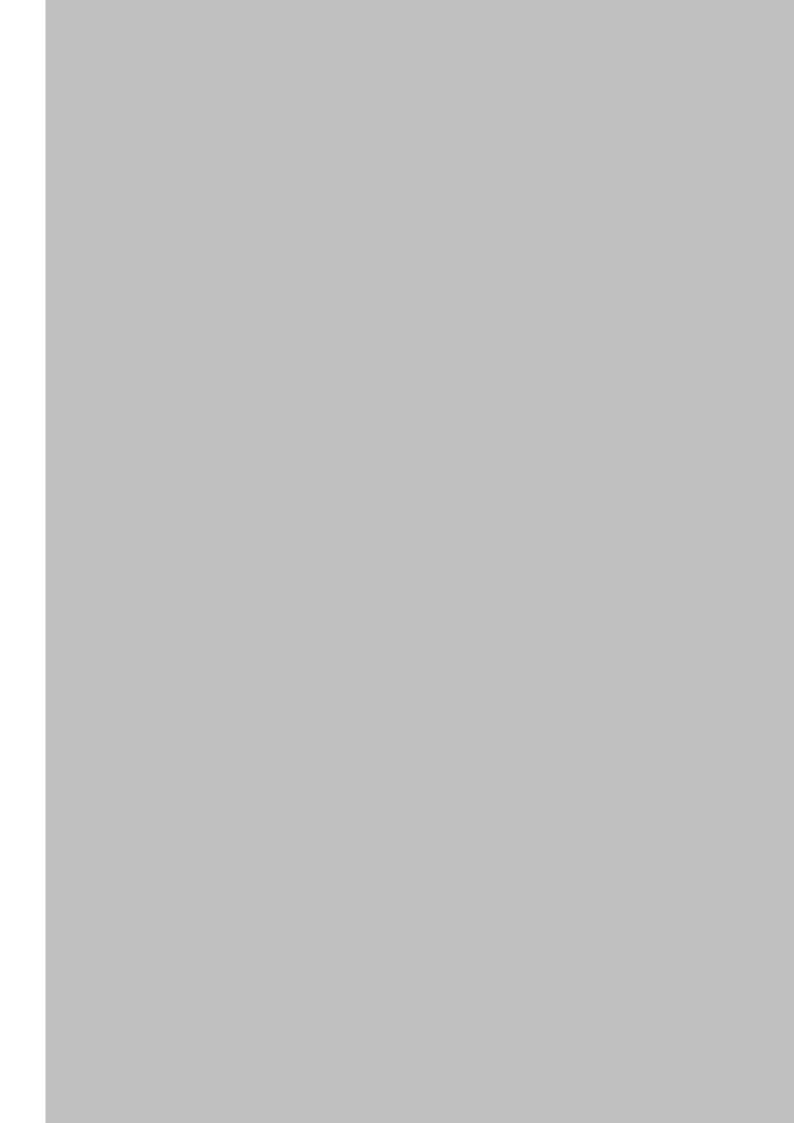
(08)
Ceiling Plan and Floor Finishes. Scale 1:600. The Ford Foundation. New York, United States. (Drawing: Ebrina Koster, Julia Linde)





(09)
Cross section and North elevation. Scale 1:600. The Ford Foundation. New York, United States. (Drawing: Ebrina Koster, Julia Linde)

(09)



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

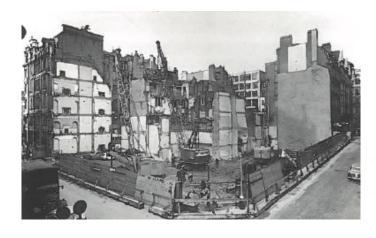
The Smithsons were commissioned by The Economist magazine to design a new headquarters in Piccadilly in 1959. They designed an exquisitely large pedestrian plaza as a trio of highly detailed towers, each built on a different scale and covered in Roach stone, inspired by the small alleyways and courts 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, hav-

ing 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.







(01)
Images of Demolition and Construction (Source:The Charged Void: Architecture, Alison & Peter Smithson, The Monacelli Press)



(02)



(03)

(02)
The Economist Building Exterior (Source: Unknown

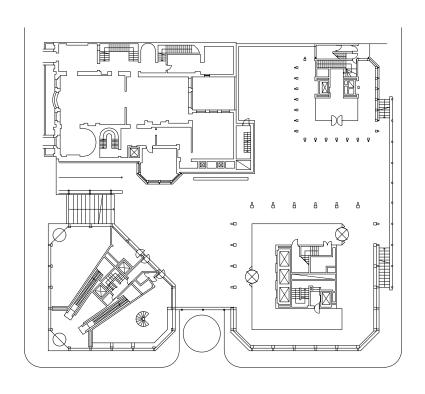
(03)
Site plan, Scale 1:2000, The Economist Building London, England. (Drawing: Pascal Henel, Robin Weishaupt)

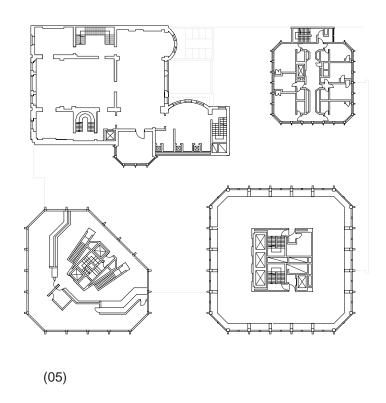




(04)

(04)
Interior banking hall and working spaces of Martins
Bank. Colin Westwood. (Source:The Charged Void:
Architecture, Alison & Peter Smithson, The Monacelli
Press)





(05)
Ground floor and 1st floor. Scale 1:600. The Economist Building. London, England. (Drawing: Pascal Henel, Robin Weishaupt)

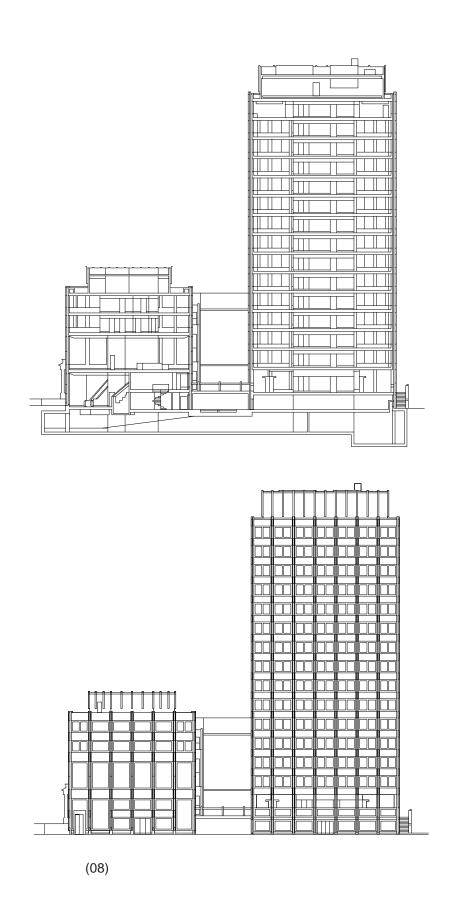




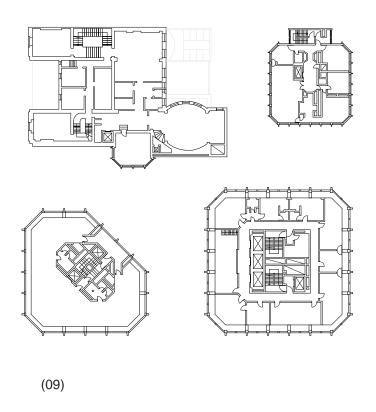
(06)

(06)
Night view of the plaza looking toward Brook's Club. (Source: Henk Snoek, 1964).

(07) Technical Instalations as drawn by DSDHA



(08)
Section || South elevation. Scale 1:600. The Economist Building. London, England. (Drawing: Pascal Henel, Robin Weishaupt)



(09)
Typical Floor Plan. Scale 1:600. The Economist
Building. London, England. (Drawing: Pascal Henel,
Robin Weishaupt)



## The office

## The typical Plan, The Open Plan and Bürolandschaft

The typical plan can be seen as a generic space – an abstraction and reduction of architecture to its barest condition. Reduced to its floor, columns a horizontal plane is established which is connected by an elevator core and defined by its envelope. A space free of obstruction which can be appropriated by means of functionalist partition walls along the building's principal grid. Consequently, the buildings generic reduction removed the building from its ground condition and allows for an equal spatial condition in which staff, furniture and machinery can operate freely.

"When language, cooperation and exchange become the main instruments of production, as occurred in the so-called post-Fordist economy – the diagram of spatial relationships becomes so complex and ever-changing that it becomes impossible to translate it into a fixed spatial arrangement." With the inability to define space within the open floor plan the architect's function was reduced to the shell of the building (structure, floors, facades, plumbing) while corporations could express their dogmas trough partitions, furniture, and organisational principles.

Thus, the corporate tower comes as a direct result of the typical plan and capitalist modes of production. "Building's project an image and have create associations to power, trust, status, wealth." With each corporate tower trying to stand out from the rest it "contributes to the collective decline in symbolic meaning until such time as the character has been transformed, its symbolic capital consumed." With each office tower being abstracted to its exchange value the image of the corporate tower "must become obsolete"

The rapid reconstruction of the post war and its consequent building boom called for a new office typology. Large scale buildings were optimized to accommodate the massive amount of office workers and to maximise return on investments. The open floor plan as an organisational principle would allow for growth and flexibility which in turn encouraged larger real estate returns. The shift towards the open floor plan happened in correlation with the shift from a state-controlled market to an open one.

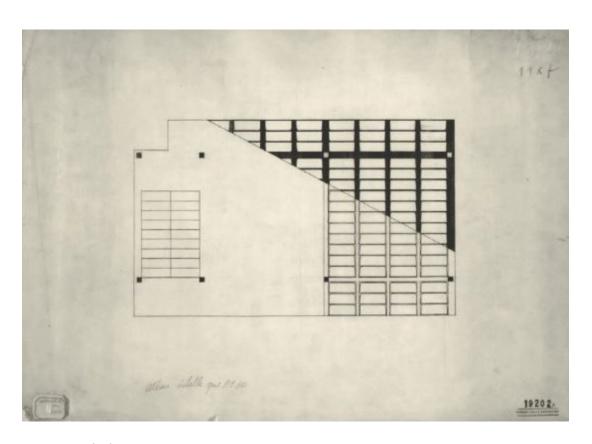
In the later twentieth century large cooperation's moved from scientific management, based on rationalisation and the standardisation, towards social relations. Communication and social interactions within the workplace were seen to be more efficient than the assembly line offices of previous generations. The open floorplan allowed the flexibility to accommodate a more informal and domesticated organisational principles such as the Bürolandschaft - a flat landscape filled with a seemingly free arrangement of lightweight furniture and potted plants. However, the organisations remained subject to hierarchical ordering and constrained to the placement of electrical outlets in the floor. In other words, the Bürolandschaft can be distilled to a reordered, more attractive, arrangement of the factory. The introduction of domesticity or rather domestic elements and layouts into the workplace allowed the office to portray an image of comfort and status - strengthening the image of the white-collar worker and disassociating itself from the stale work environment of the factory.



(01)

(01)
Albert Kahn, Typical Interior, Highland Park Ford
Plant, 1908-1910

(02) Le Corbusier,Maison Dom-ino, 1914



(02)



(03)

(03) Lecture on Workplace - Amy Thomas, 2021



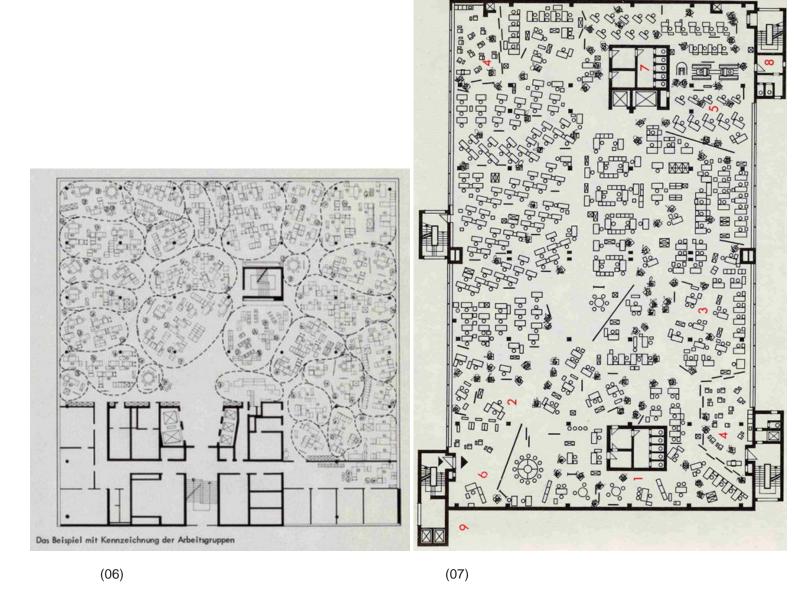
(04)



(05)

(04) Stylepark Quickborner Team Planungsmodell

(05)
Model - built by Laurens de Munck, Ron Barten, Aneesh Nandi, Renske Worm
Reconstructed Image of the Osram Headquaters



(06)

Quickborner's scheme for the offices of Osram in Munich

(06)
Floor plan of the Bertelsmann Verlag in Gütersloh, 1961

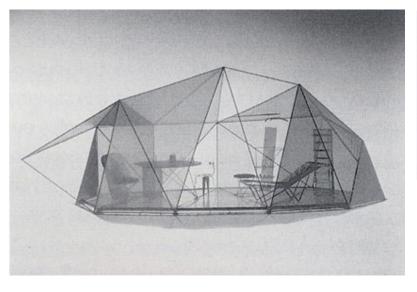


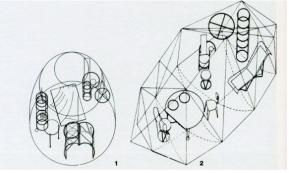
## The office

The Nomad Employee

With the invention and accessibility of portable digital devices and online communication systems the employee has become progressively removed from the physical office. Enhanced by the pandemic, the imposed digitalisation of many office jobs has forced employees to work from home. Thus, reducing the connection to the workplace to the computer, laptop, and mobile phone. The employee is liberated from the physical confinement of the office building. Like the Dwellings for the Tokyo Nomad Woman by Toyo Ito, there is no longer a reliance for a physical kitchen, bathroom or in this case office space – the individual can reappropriate the home or the city as a workspace. The relationship to the cooperation is reduced to the digital interface whilst the workplace is undefined.

Cooperation's have realized the financial benefits that a flexible workplace has provided (at the cost of communication). With most of the workforce working from home profits can be further maximised as the leased office spaces have either become smaller or disappeared altogether. However, split opinions on the remote working have been expressed by both the large cooperation's and the general workforce. By distributing their employees between the remote and physical office, large corporations can maintain their productivity whilst only partially loosing communication. With many employees wanting the flexible workspace to be optionally implement, the fundamental idea of the domestic being a retreat from the world is threatened. Should the home really become an extension of the office?





(02)

(01)



(02)

(01)

Model: Pao Dwellings for Tokyo Nomad Girl / Toyo Ito and Kazuo Sejima / 1985

(02)

Drawings: Pao Dwellings for Tokyo Nomad Girl / Toyo Ito and Kazuo Sejima / 1985.



## The Social plinth

An observation of demarcated space
[Pascal Henle, Bart Vos]
The half-public domain
[Pascal Henle, Bart Vos, Ron Barten]

The awning, as a temporary addition to the built form, acts as a demarcation of space in which informal activity¹ can take place. As opposed to the fixed attachments and cantilevers of large office and bank buildings, the shop and café act in a state of flux. Whilst active the awning along with benches, fold out chairs, planters, newspapers become elements which, arranged as a set, stimulate a social plinth.

Using a primitive construction<sup>2</sup> of an awning we arranged a series of configurations in which it becomes part of permanent, exhibition, waiting, transition or neglected space. The awning itself being defined by its minimal useful dimension; one at which it remains intimate at the scale of the individual whilst active at the larger scale of the building.

Never existent in isolation, the awning stands in direct relation to its adjacent structure.

Creating a juxtaposition between the static and temporary, heavy and light, formal and informal. As observed, the awning as an attachment to a non-utilized building front, can only minimally activate social activity but rather acts as a demarcation of space. This demarcation remains ambiguous; its ownership and use being questioned by its observers and is only given meaning by its associated furniture, signage, and activity. The space below becomes as important as the awning itself or perhaps the awning merely acts as a catalyst to the activity it frames?

By interiorizing the awning and removing it from its primary function as a shelter, these spatial implications are further enhanced. Placing it within existing, familiar spaces, we documented the ways in which the circumscribed space of the awning takes on a new meaning. Whilst never really activating space it creates an informal intimacy and the connotations of the coffee table and

entrance door are altered.

How can the flexible awning as part of a set of objects successfully embed social function in the monumental existing structure of the Belgian National Bank?

- 1 Activity which is not destined within a certain parameter or dictated by external voices.
- 2 Reduced to its minimum a white canvas stretched by a timber frame. Self-supported and flexible to enhance its portability.

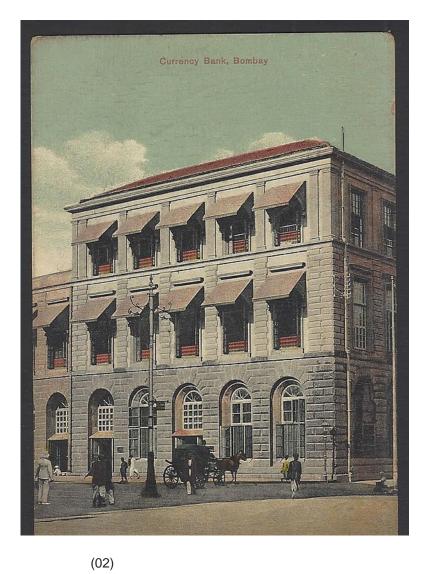


(01)

(01)

Des Halles Centrales, Brussels, 1890

(02) Currency Bank, Bombay





(03)

(89)

Inauguration de la Bourse, Brussels, 1873

(89)

Heide von Beckerath, Apartmenthaus am Kurfurstendamm, 2006



(04)



(05)
The awning and its associated plinth - Amsterdam

























(06)
Observations of cafes, shopfronts and entrances in Rotterdam & Amsterdam

























(07)

Observations of cafes, shopfronts and entrances in Rotterdam & Amsterdam





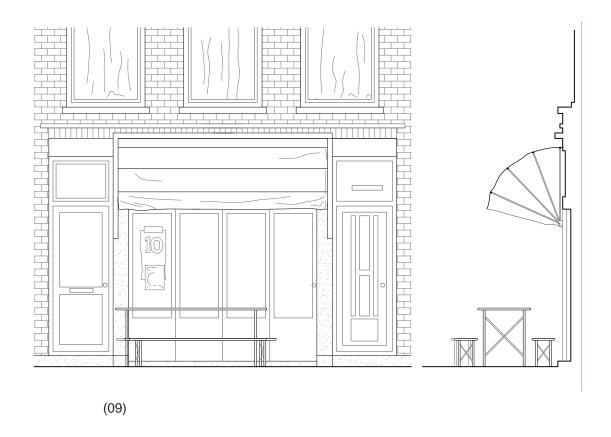












(09)

Sectionand Elevation

(10)

The reconstructed awning as a paper model







(11)

(11)

The awning - closed state
The awning - furnished state
The awning - open state
The awning - reappropriated state





73



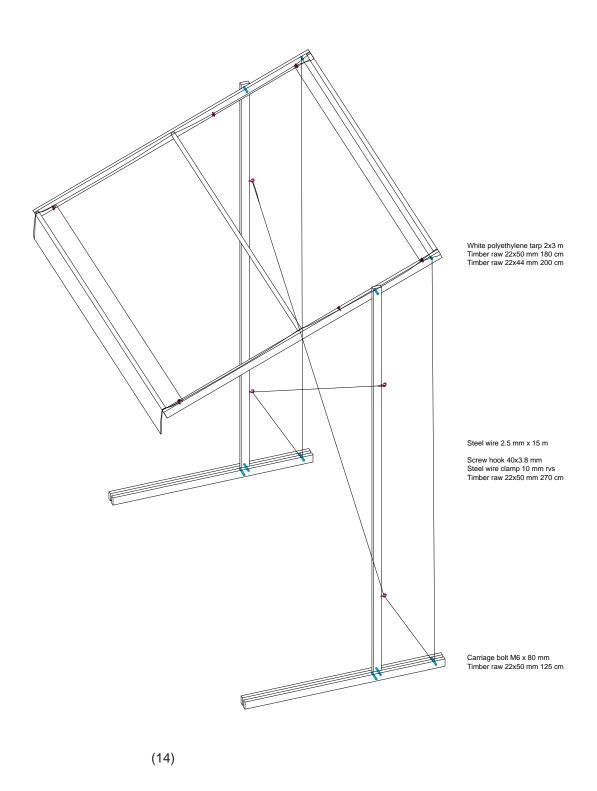


(12)

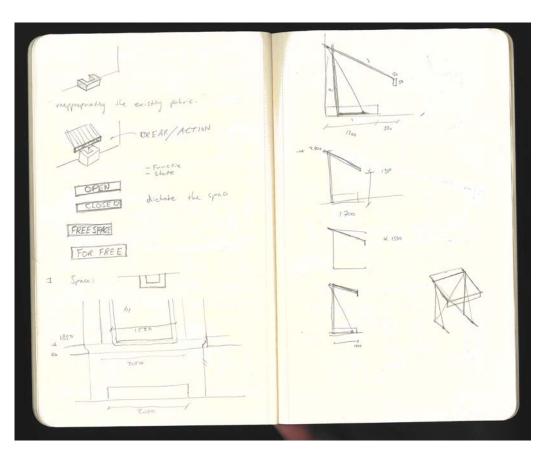
(12)
Non-utilized building front
(13)

Juxtaposition between the static and temporary

(14) Detailed Axonometric 1:33



Interior Buildings Cities - Pascal Henle - 2021/22



- (15) Sketches and Measurements
- (16)
  The constructed awning

(15)



(16)





(17)

(17)

Transition space

(18)

Permanent space

(19)

Waiting space



(19)

(20)

Detail of canvas connection and support

(21)

Detail of adjustable anchor and hinge,





(20)





(21)



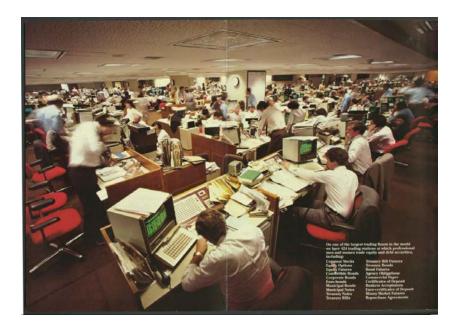
## The Bank

## The National Bank of Belgium A empty shell in the city

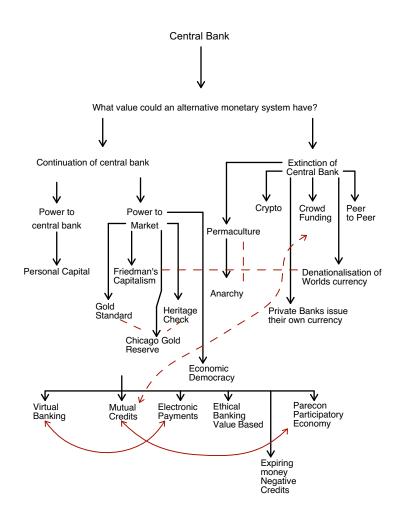
Listing / no clear connection. The author being an architecture historian from a art background. In history you have different ways of interpreting buildings. 2d Painting. 3d Sculpture. Architects design 3 dimensional spaces and 2 dimensional surfaces. Disciplinary awareness/ what is his scholarly position. "Architecture as an aesthetical object" a piece of art. A very Eurocentric history of bank and trade buildings. Particular area of history he touches on. Architecture not as a social object unlike Duffy. Tries to make a chronological progress. Bank is developing. He talks about transformation of styles. Courtyard to closed halls. A set of terminologies used among historians. All these works of art have a client and a powerful banker behind them. Client architect relationship. It creates a value system attached to capitalist society.

Historical (development of society, the merchant, exchange, architectural typology)/ architectural / researcher (what data does he use to support his argument)
What kind of a building is it, what is the value of a banker? Image is a connection to duffy text-social relations and flows within the bank and hierarchies. The banker has financial power. Bank of England currency. Same time it was colonising India. The money the Bank was built on was from the colonize. How does banking operate today. No more physical money.

Banking is immoral, but also has the most power. Not appreciated but the money comes with it. History of ownership/ who is the person where most trade appends. They have the power. Ownership is very defined – power. Who owns the European central bank? Architecture is a bee in a capitalist hive.



(01)



(01) Stock Market. Lecture on the Bank - Amy Thomas, 2021

(02)
Diagram of the structure of the central
Bank

(02)



## The Future Bank

## A series of thresholds

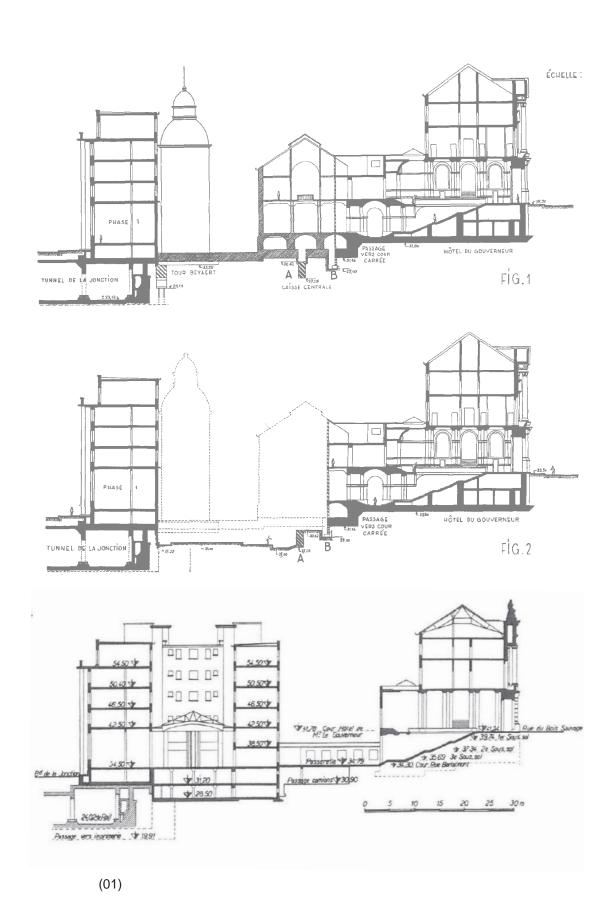
The bank building, which function has been reduced to that of an office, stands as an empty shell in the city. Its monetary system having largely shifted to the inconceivable realm – has replaced the bank teller with the ATM and digitised its communication to the public. The banker as we know him has increasingly become detached from the physical bank. Working remotely, he does not belong to a fixed workplace, but using a laptop can reappropriate the home, city, or former office for commercial activity.

No longer acting as a producer and safe keeper of physical money, the bank's fortified façade, formerly used to invoke the public's trust, has remained as a boundary that confines the public domain to the outside. With the Belgian National Bank seeking to integrate social functions, the occupation and expression of the bank building need to be questioned and redefined.

Using the social plinth, as a set of ordinary flexible elements, the bank's shell can be transformed into a threshold. Within this space, the awning, furniture, and associated objects act as a flexible extension in which public activity can take place. A space used to negotiate between the private and the public, between the office and the city. For example, by placing the coffee table on the sidewalk, beyond the interior of the cafe, it becomes part of the public domain. Within the interior of the bank, these cross-boundary thresholds can be reapplied, and the distinct separation of public and private can be distorted.

Consequently, the office and public activity no longer exist in seclusion but on a spectrum in which a sequence of threshold spaces defines its privacy. Each one, establishing another layer until a fully secluded space is reached. As opposed to the open floor plate, the 'nomad employee' is liberated to the free use of private, semi-public,

or public space. Partially overlapping with the spaces occupied by the customer and re-establishing the relationship between the bank and the city.



(01)
Development of the courtyard in Section ca 1:750





Afb 3.7: 18.6.53



Afb 3.8: 7/8/53



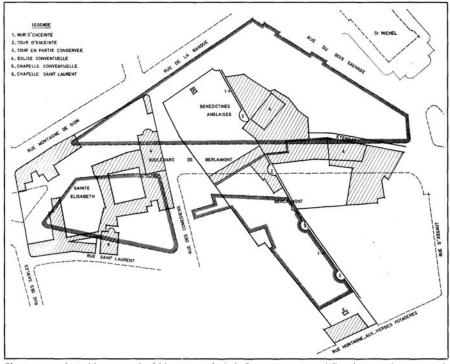
Afb 3.9: 9/9/53

(02)

(02)

BNB deconstruction and construction - the progressive remodeling of the site. The interaction between the new and old and the periodic appropriation of spaces.





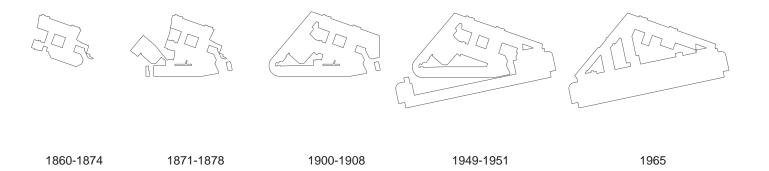
Plan montrant la position exacte des bâtiments actuels de la Banque par rapport à l'emplacement des couvents de Sainte-Elisabeth, des Bénédictines anglaises et des dames de Berlaimont.

(03)

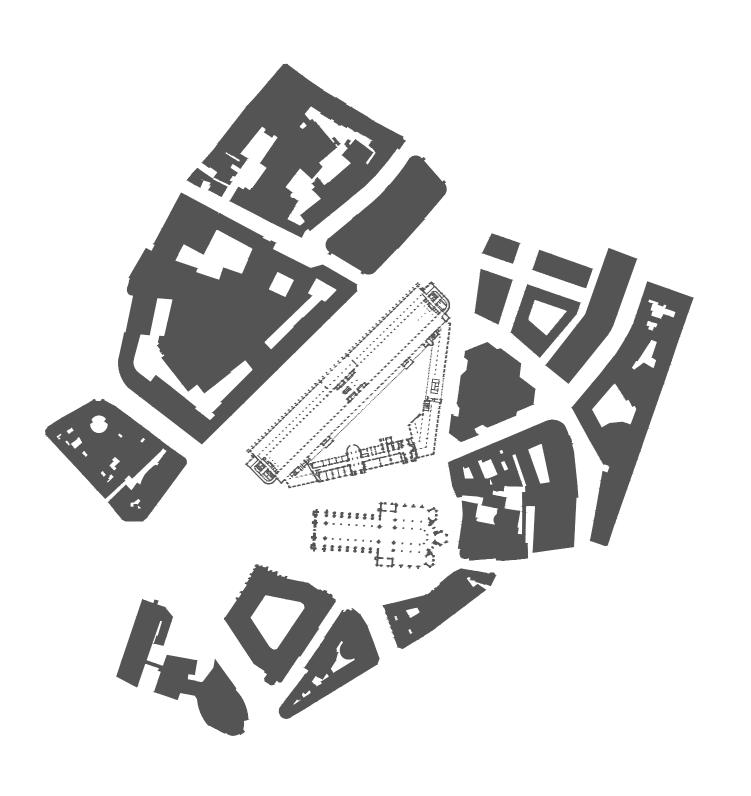
(03)

Footprint of the National Bank of 1950 compared to the convents present before Beyaerts' bank

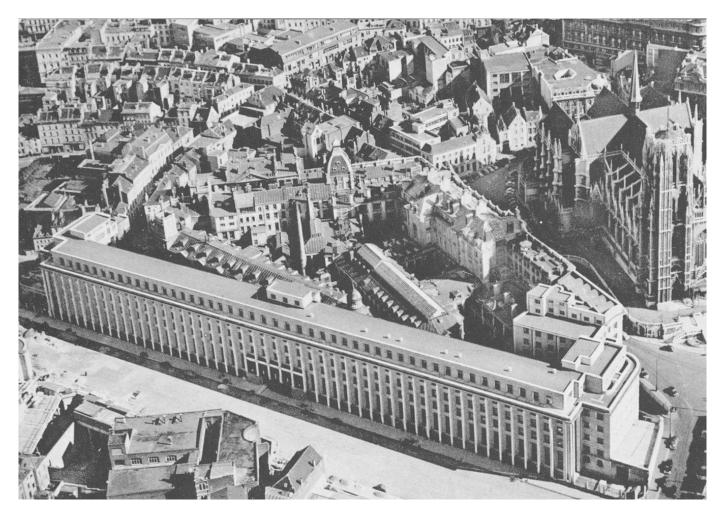




(04)
Development of the bank over time



(05) Nollie Plan



(06)

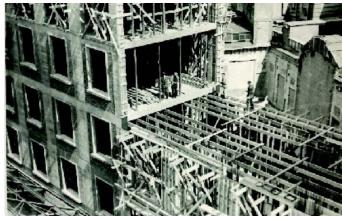


(06)
Completion of the first phase of the Marcel Van Goethem's Belgium National Bank in ca. 1951

(07)
The redevelopment of the inner "courtyard" in ca. 1965

(07)



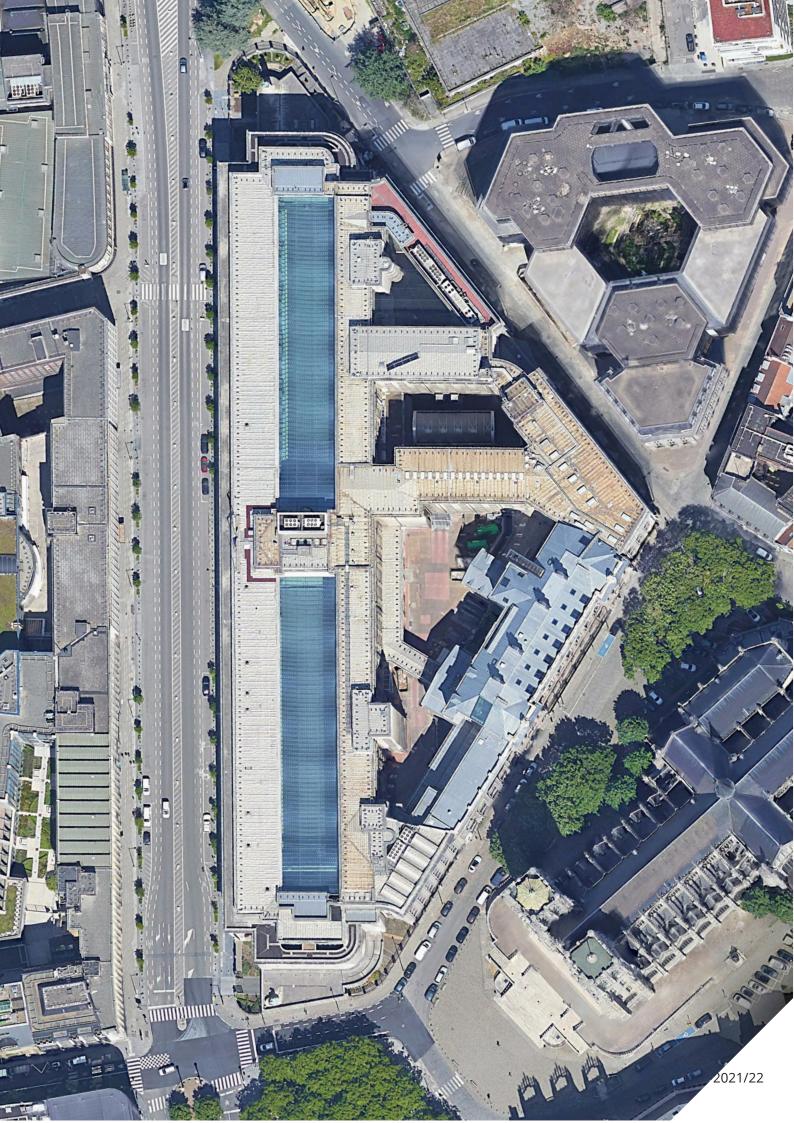




(06)

(80)

Construction, main block BNB
Can this structure be reaaproriated, expanded, adjusted or updated





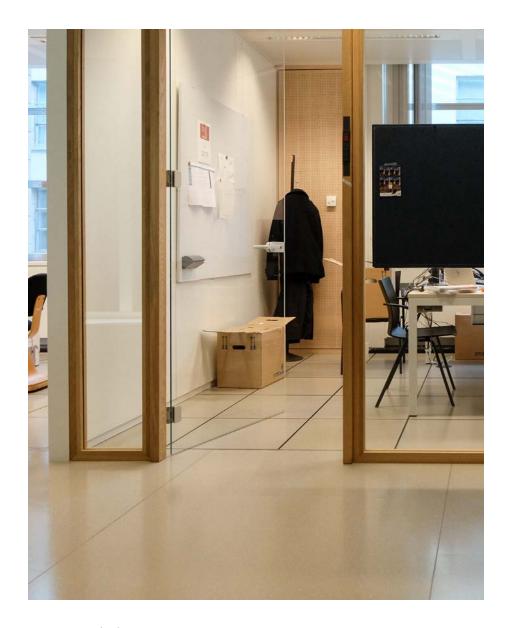


(07)

(07)
The banking hall (Image: Dok Architects)



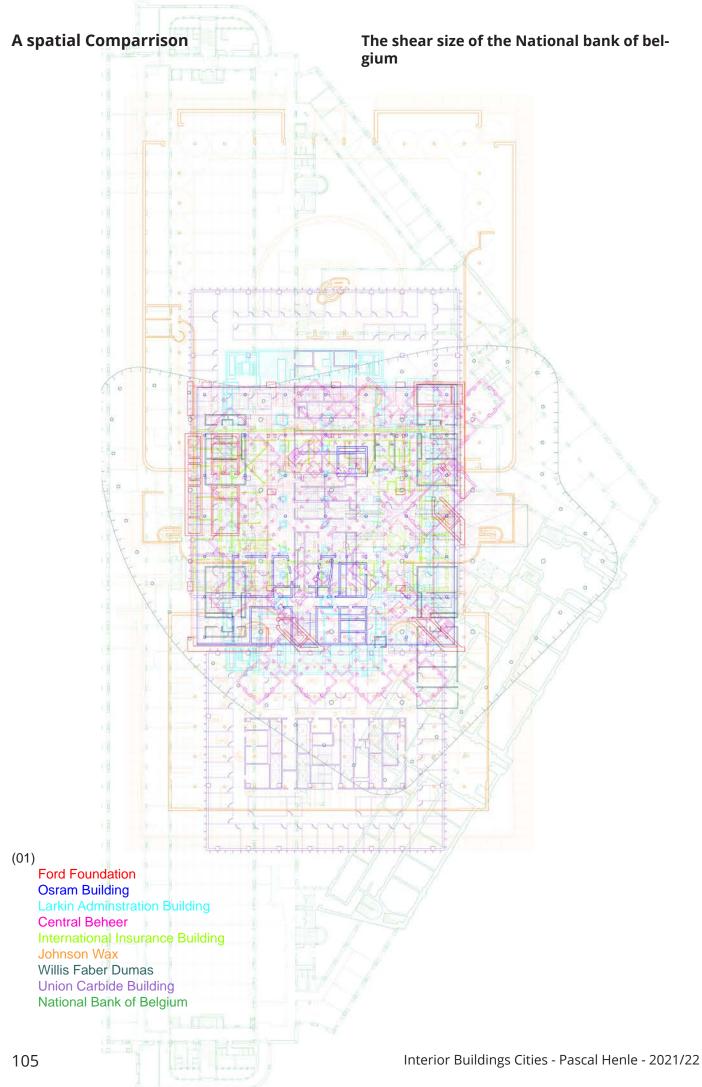


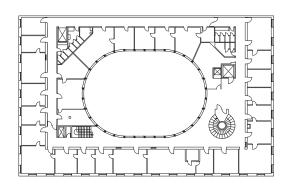


(80)

(08) The banks interior



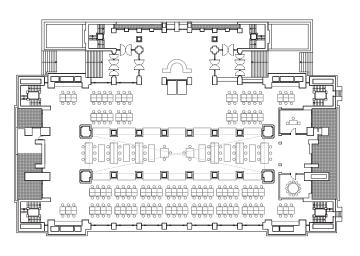




(02)



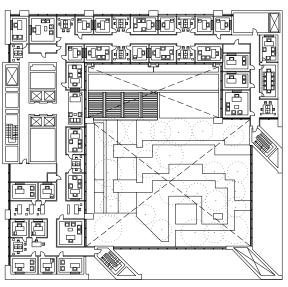
(02)
International Insurance Building
Sigurd Lewerentz in relation to the current Belgium
National Bank 1:750



(03)



(03)
Larkin Adminstration Building, Frank Lloyd Wright, in relation to the current Belgium National Bank 1:750





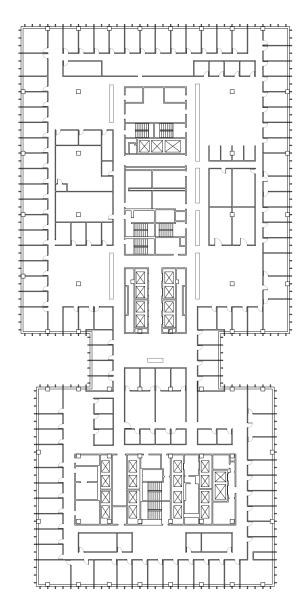
(04)

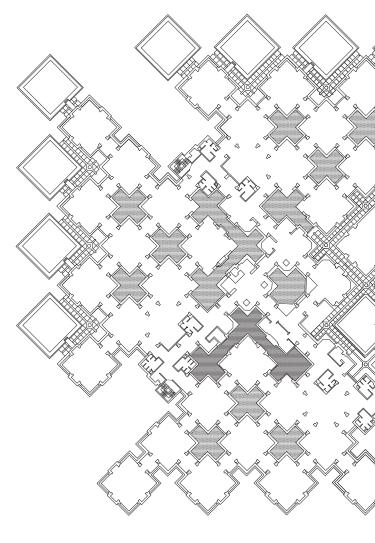


(04)
Ford Foundation, Typical Floor Plan in relation to the current Belgium National Bank 1:750



(05)
Osram Building, Typical Floor Plan in relation to the current Belgium National Bank 1:750





(06)

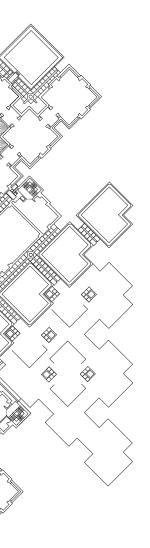


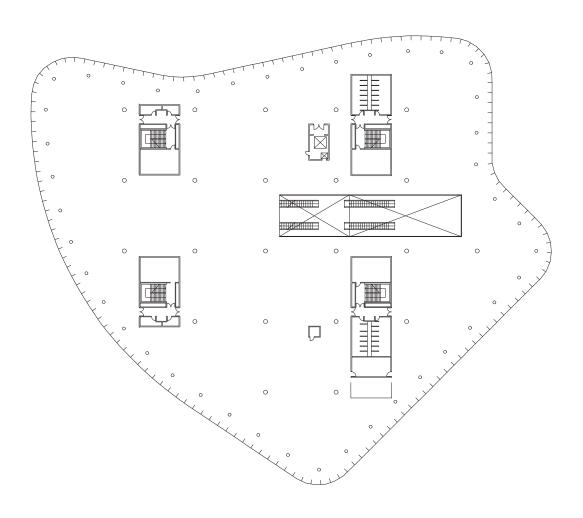
(07)



(06)
International Insurance Building
Sigurd Lewerentz in relation to the current Belgium
National Bank 1:750

International Insurance Building
Sigurd Lewerentz in relation to the current Belgium
National Bank 1:750

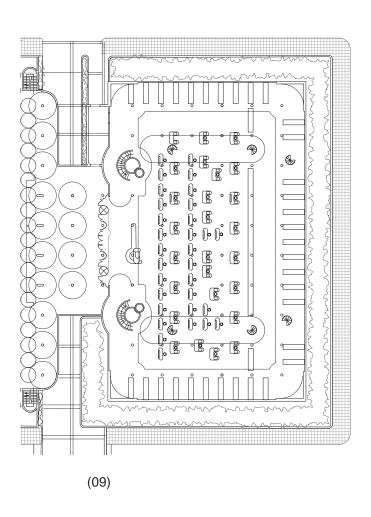


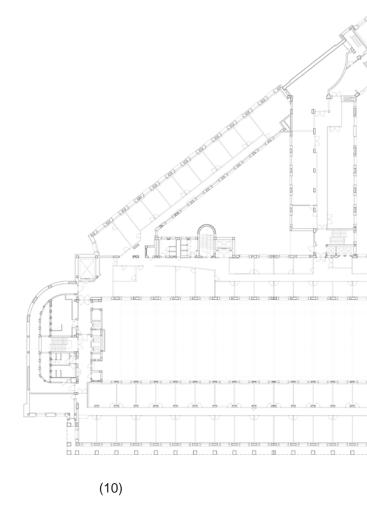


(80)



(08)
International Insurance Building
Sigurd Lewerentz in relation to the current Belgium
National Bank 1:750

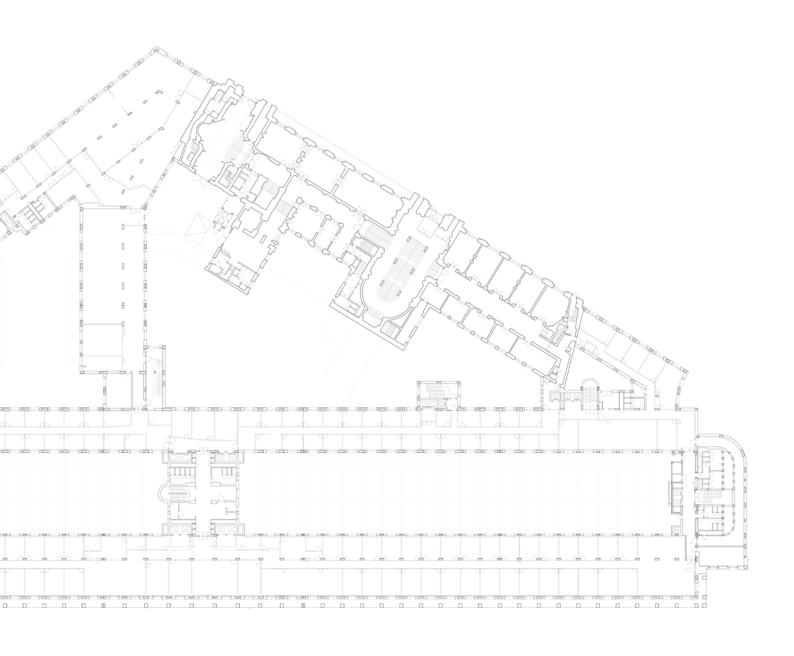






(09)
Johnson Wax (Partially seen in floor plan),Frank
Lloyd Wright, in relation to the current Belgium National Bank 1:750

(10) Belgium National Bank 1:750





## A study into the bank

Österreichische Postsparkasse, Otto Wagner and National Bank of Belgium, Marcel Van Goethem

"Otto Wagner's (1841-1918) claim "Something impractical can never be beautiful" was the result of decades of architectural task analysis and superior skill. In every structural detail, every feature, every piece of furniture designed by Wagner, practicality and usability lead to intelligent, coherent, highly aesthetic solutions." 1

"The cladding of the facade with aluminum-clad iron bolts - to give an example - represents on the one hand a technical necessity, a programmatic display of modernity, but on the other hand also an important symbolic message: the iron-clad treasure chest stands as an archetype for the safekeeping of the saved and invested money." <sup>1</sup>

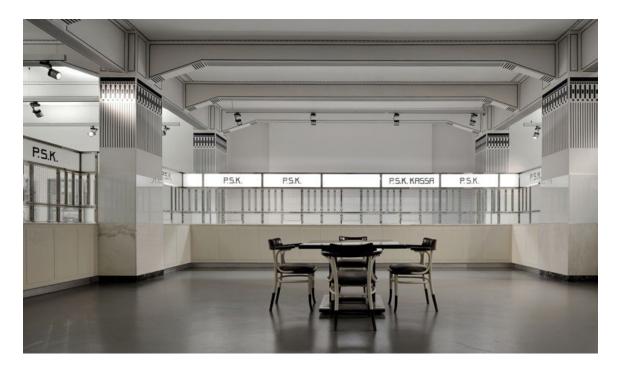
"Through the main entrance the visitor ascends a flight of stairs to the grand Kassenhalle, where customer services are located. The hall is designed like an atrium, with a large glass skylight allowing natural light to enter the heart of the building at all times. Natural light is not used only for stylistic reasons, but also to reduce the cost of electric lighting. Even the floor of the main hall is constructed of glass tiles, allowing natural light to reach further down to the floor below, where the Post Office boxes and mail sorting rooms are located. Wagner kept decoration in the main hall minimal, using only glass and polished steel as materials. The decorative effect is created by the simple but elegant use of the material itself." <sup>2</sup>

"The building's office space is divided according to the axis of the outside windows, again making use of natural light as much as possible. The interior walls are non-load-bearing, and can therefore be re-arranged according to need, a feature that has become standard in modern office buildings." <sup>2</sup>

1 www.ottowagner.com/oesterreichische-postsparkasse 2 Otto Wagner. Die österreichische Postsparkasse. Falter Verlag, Wien. 1996.



(01) Österreichische Postsparkasse Main Entrance (Source:Unkonown)

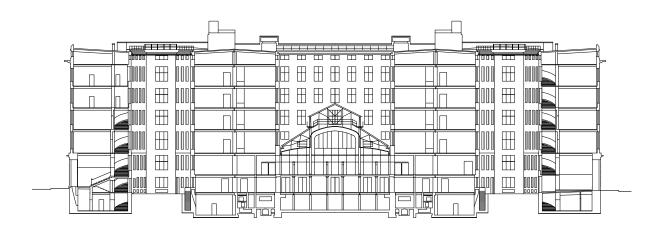


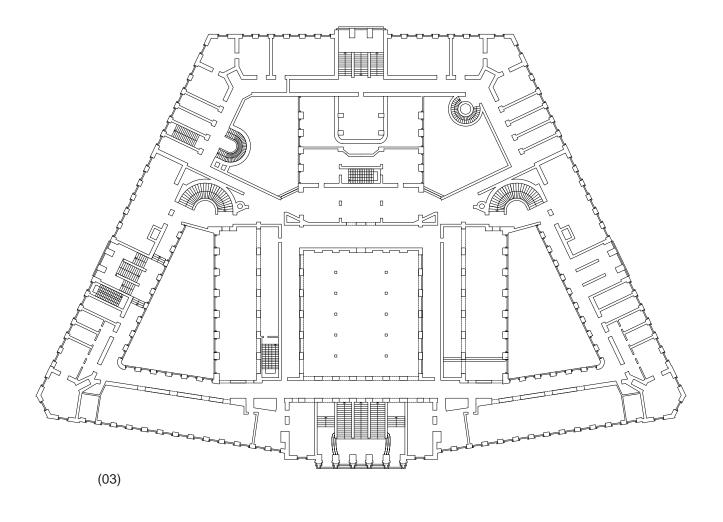
(02)



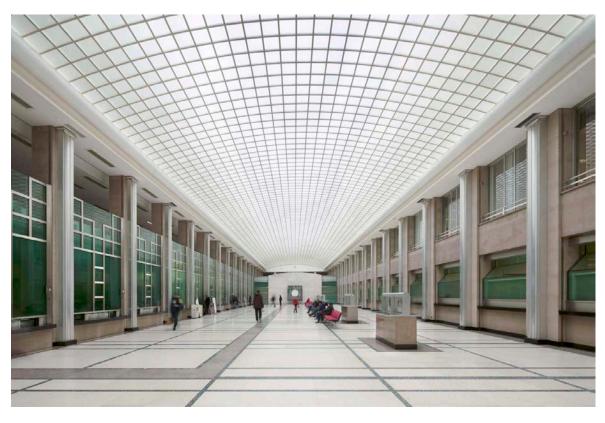
(02)

(02) Österreichische Postsparkasse, Meeting Spaces





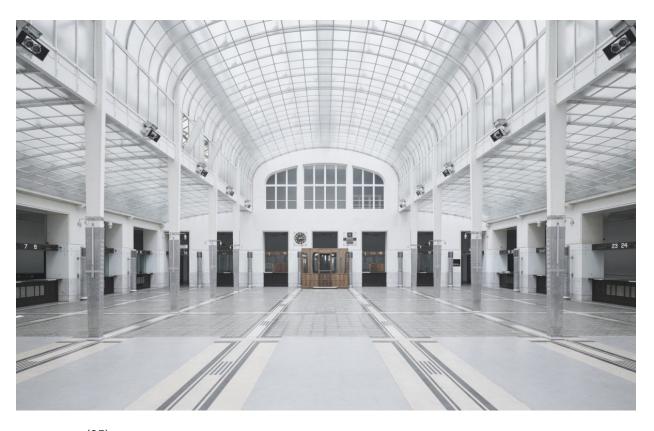
(03)
 Österreichische Postsparkasse, Otto Wagner,
1906 Vienne Austria, East Elevation 1:750
(Drawing: Pascal Henle, Ron Barten)



(04)

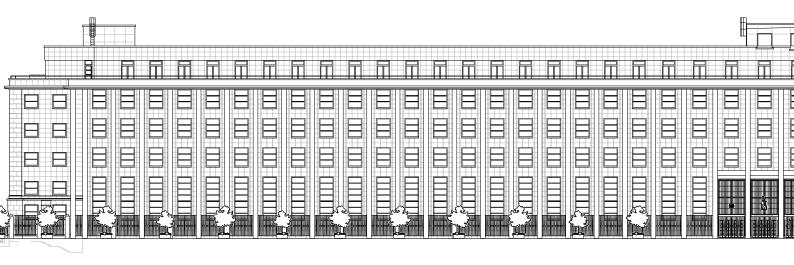
(04)

National Bank of Belgium. Banking Hall (Image: Arjen Schmitz)



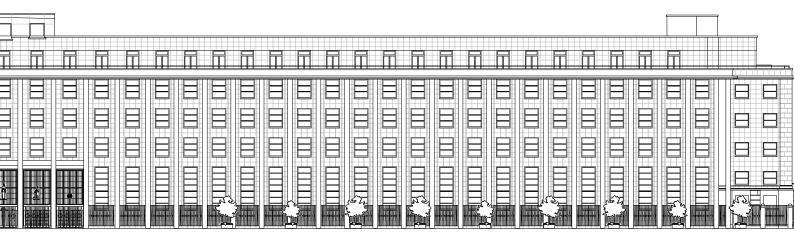
(05)

(05) Österreichische Postsparkasse, Otto Wagner, 1906 Vienne Austria. banking Hall (Image: David Schreyer)



(06)

(89)
National Bank of Belgium, Elevation Boulevard de Berlaimont 1:750



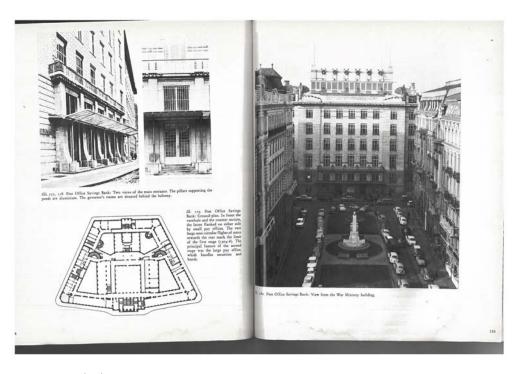


(07)

(89)
Österreichische Postsparkasse, Otto Wagner,
1906 Vienne Austria, East Elevation 1:750
(Drawing: Pascal Henle, Ron Barten)



(80)



(09)

(08)
 Österreichische Postsparkasse, Banking hall,
 Banking Tellers, Heating System. (Image: David Schreyer)

(09)
GA Global Architecture Otto Wagner, Extract



## Transformation of the National Bank of Belgium

## A shell for appropriation

The National Bank of Belgium consists of a series of phases to create a conglomerate structure that ills up the entire triangular plot. Whist from the exterior the bank portrays a powerful image and an impressive colonnade of columns along the boulevard, the interior courtyards of the bank are a shaped by the building restrictions of the palace and the maximum depth of an office floor plan. The courtyards or perhaps lightwells allow a minimal amount of natural light into the 8 story deep voids. Being historically under a constant mode of transformation (partially removing the historic and rebuilding) the interior courtyards remain as residual pits used for services and waste.

Through the demolition of the two central building blocks of the bank, the site can be cleaned up to make space for a new 'building' that would provide circulation between the existing building blocks but also on the scale of the city. A 'shell' that would raise the courtyards level by two stories to allow light in. A shell that would connect all the buildings, whilst being appropriated by sets and sceneries.

The bank as a constitution will remain. However, this redesign should change its interaction with the city and its clients. More access. More transparency and more trust. The integration of public facilities and non-bank owned services is important for the reactivation of the site. By turning the courtyard into the heart of the structure the frontal facades become the backside.

A continuous room of interiors. Similar to the other route through Brussels, the courtyard forms part of the city's circulation routes.

The platforms at each end of the bank on which the statues sit can similarly become a public platform, similar to that of the church.

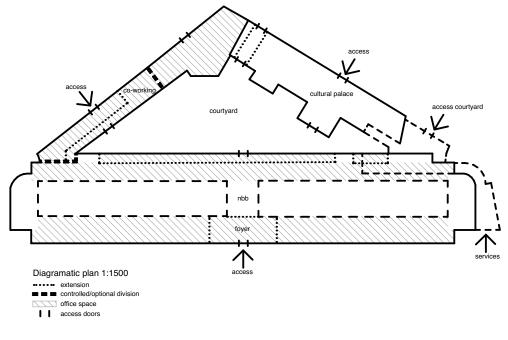


- (01)
  Interior Courtyard
  study model. 1:2000
  Removing two interior building blocks to
  allow morelight into the
  space and adjacent
  offices.
- (02)
  An infill that expands
  the main building block
  allowing for more efficient use of the floor
  plates.
- (02) Programatic Division

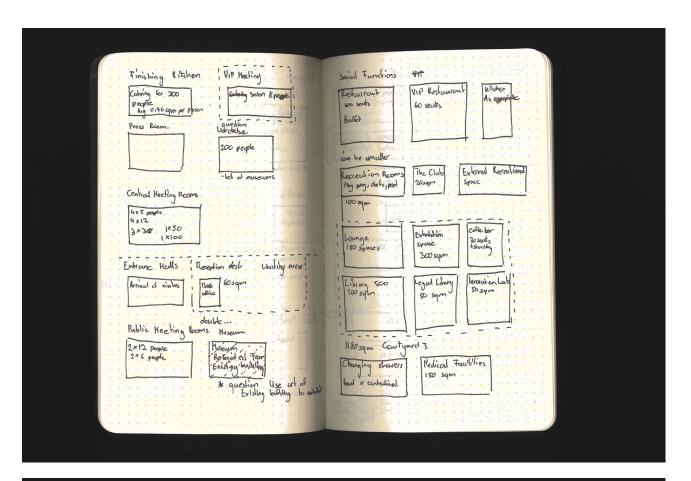
(01)



(02)



(03)

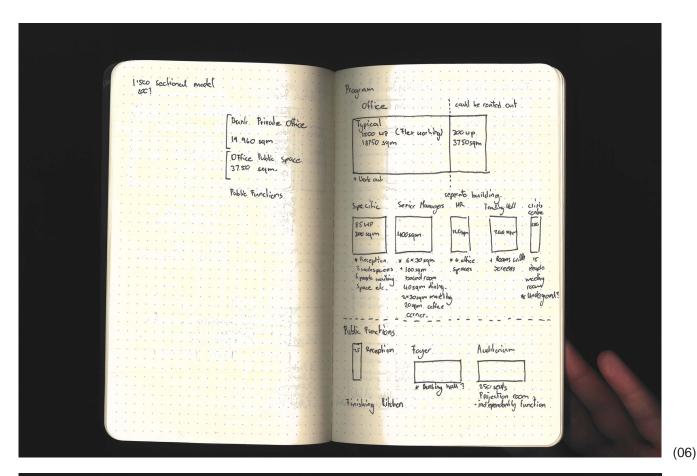


Service Functions Cundergrand General Facilities and circulation 1.3-1.5 net to gress multiplication 1500 General Storage Rooms. 2000 sqm Undorground. Central Archives. 3rd and 4th building -nd feel as an infill under pad forade Art Stoe 150 sqm 200 + 200 shak - regressed the pulace. Public. Scruce Rocoms losque per Flour - does it become a new object Wokship 450 sam - boild in model of the intill and and push the other volumes against it Dala Certre 100 sym Horkshop per - does the Pulace get a new facade Print shop 450 sqm Refuse 6cs 80s 90s 10s 20s ... now segment Carporking 150 cars 20 Melolilles Politay Zone - de Historic everley. But only what is left Bilic Park as brusset standard Building Services - the 4 Buildhas as additions - what happens to risidual blocks the sides Ronbord 7000 Squn 6000 offices 500 gym 500 hisny the view on you peak around the corner ... Limat do you see. - pessibilly reconlique the site

(05)

(04)

(04-07)
Sketches of Program, and initial design ideas

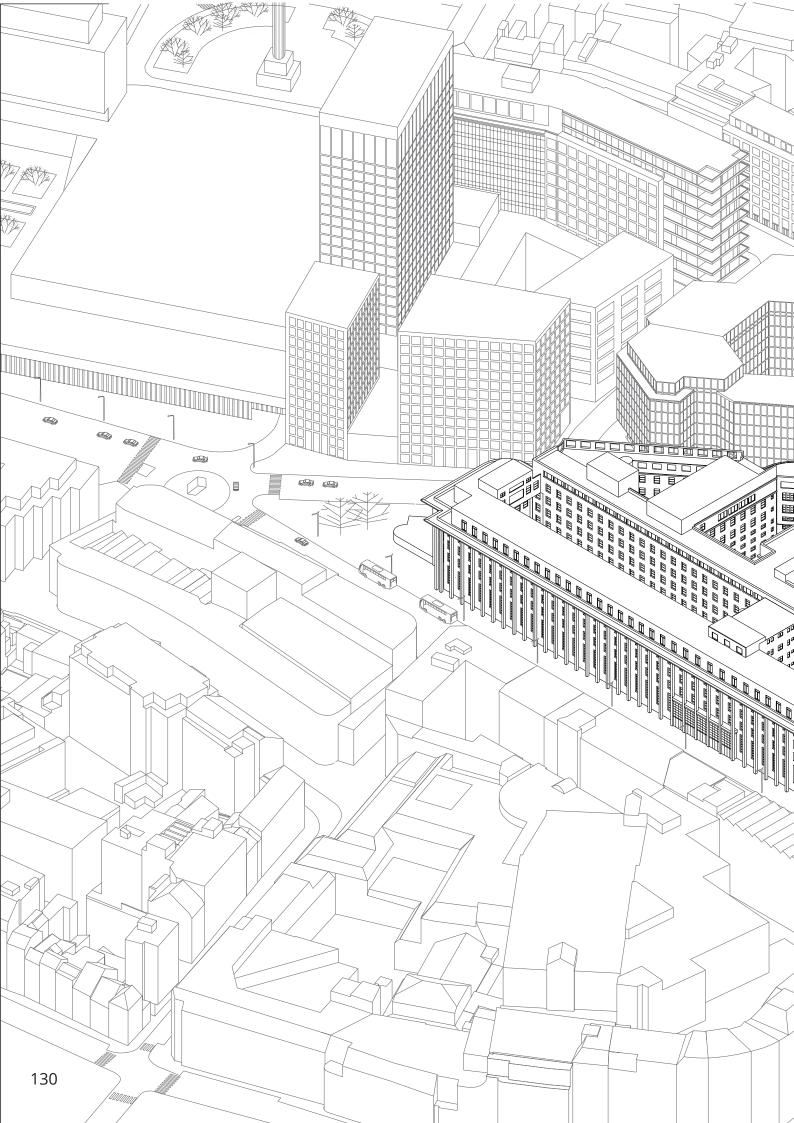


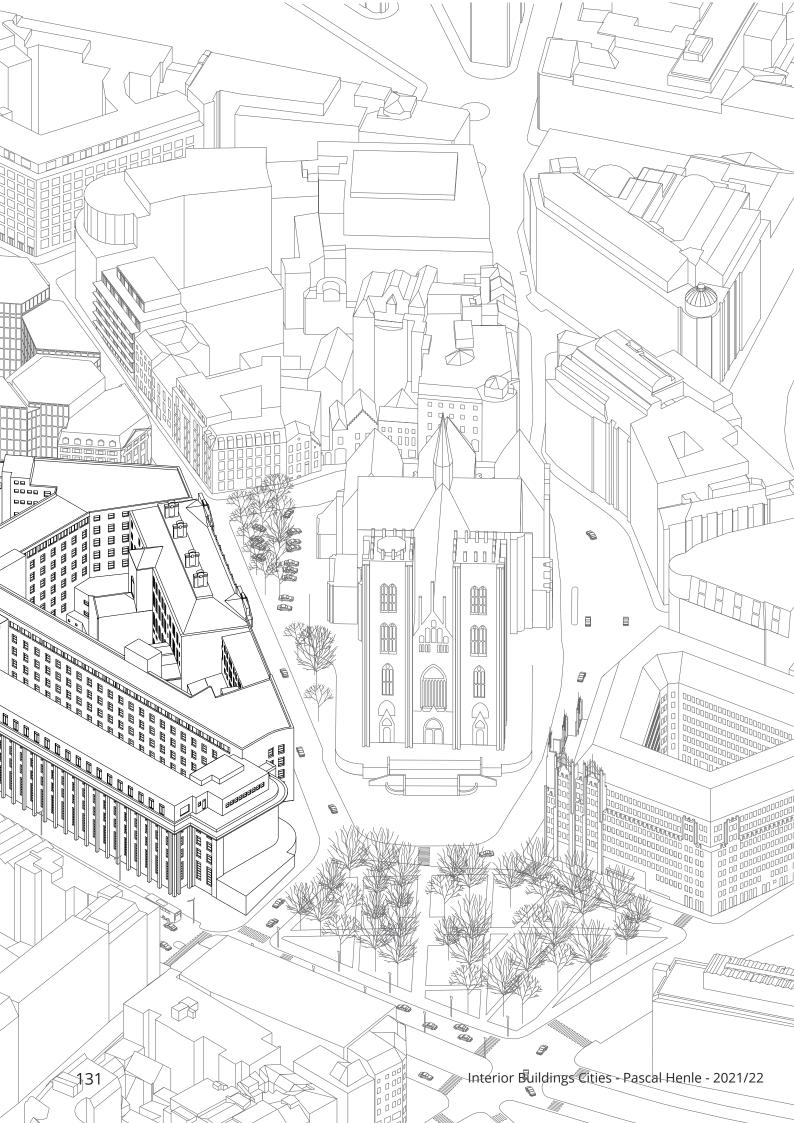
- Compare contryonds of other bransels project Artist Residences Public Place / Cortagord Vicker horka exhabition Topic of track / Value and correray.

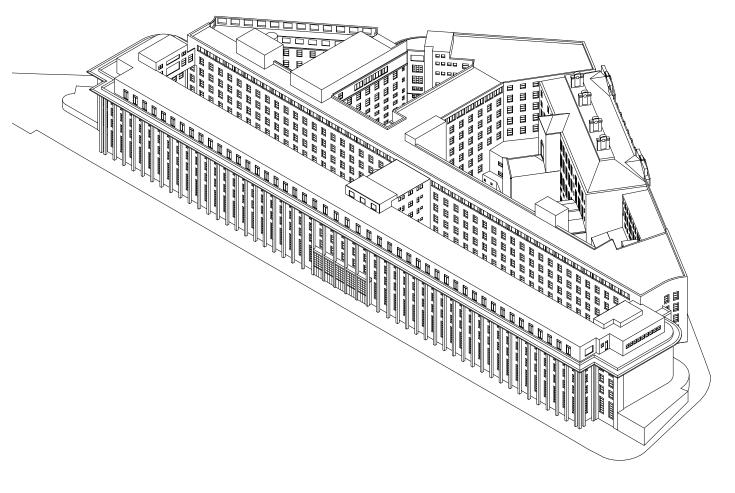
The Idea of tracking value for time Exhabition -Hotel Having Artists In which artist trade their shill for accommodation (Charling) Studio Spaces Palace Residencial + Arhist Interchangable

- If more people are
needed or less
outs in flux + Meeting Public occess (Exchaine meeting rams) How where, when to REGROUNDING THE PALACE | Public | Somi-Rublic | 1 Parking 2 Bank 3 Expansion 4 Exhabition 5 Arlist Studio Private gallog creutive or ist

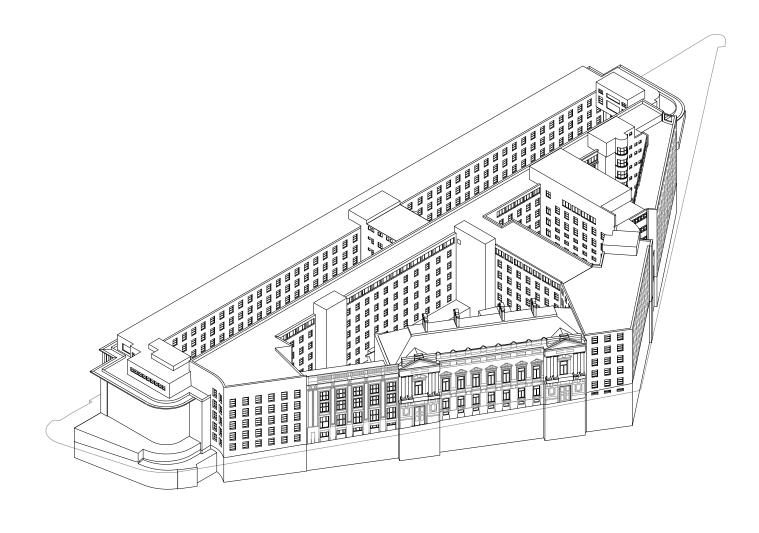
(07)



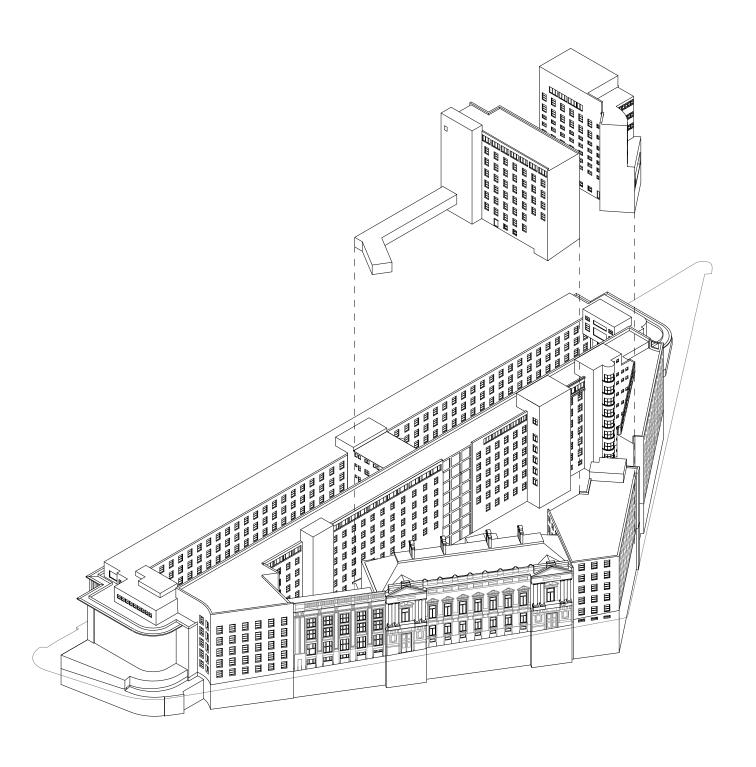




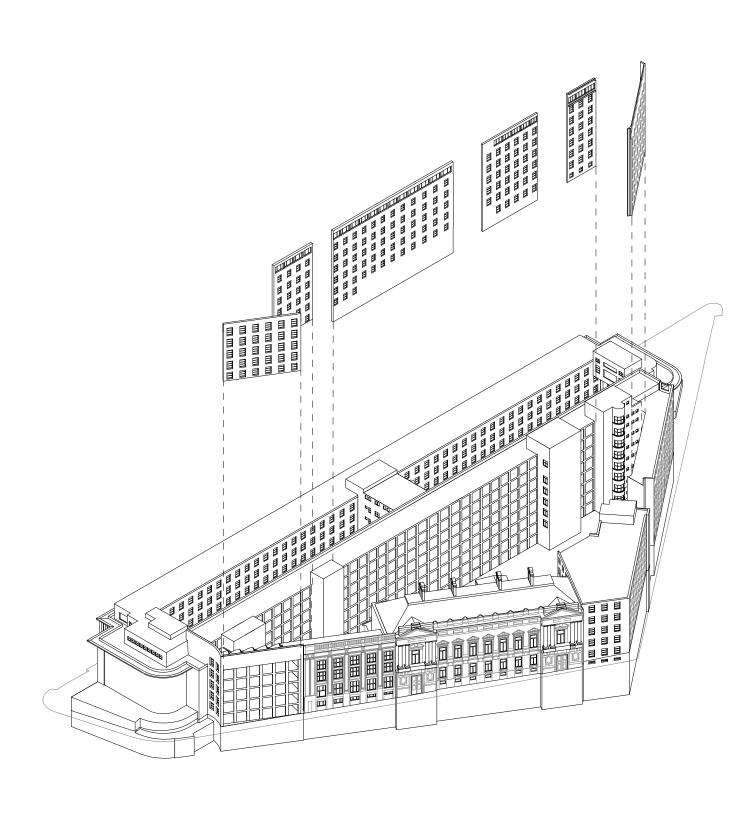
(08)
Axonometric View National Bank of Belgium - Current



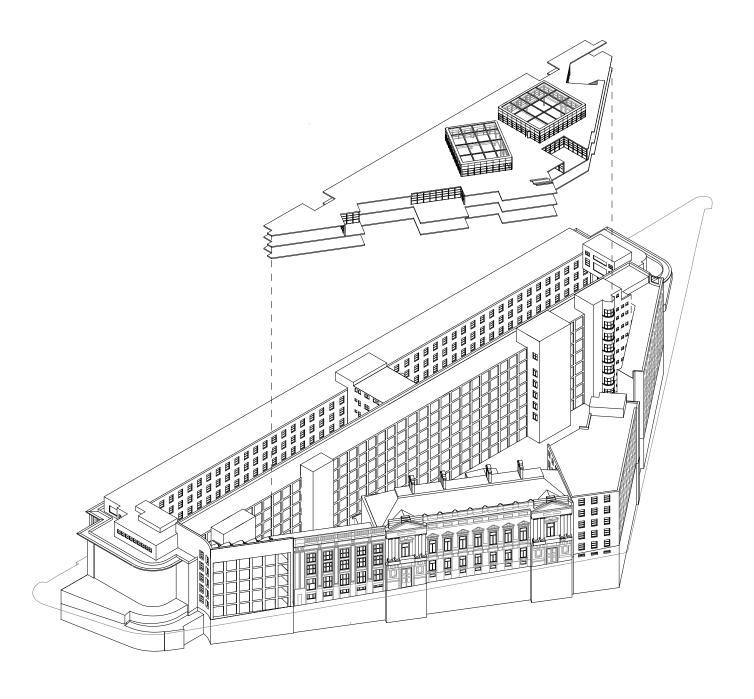
(09)
Axonometric View National Bank of Belgium - Current



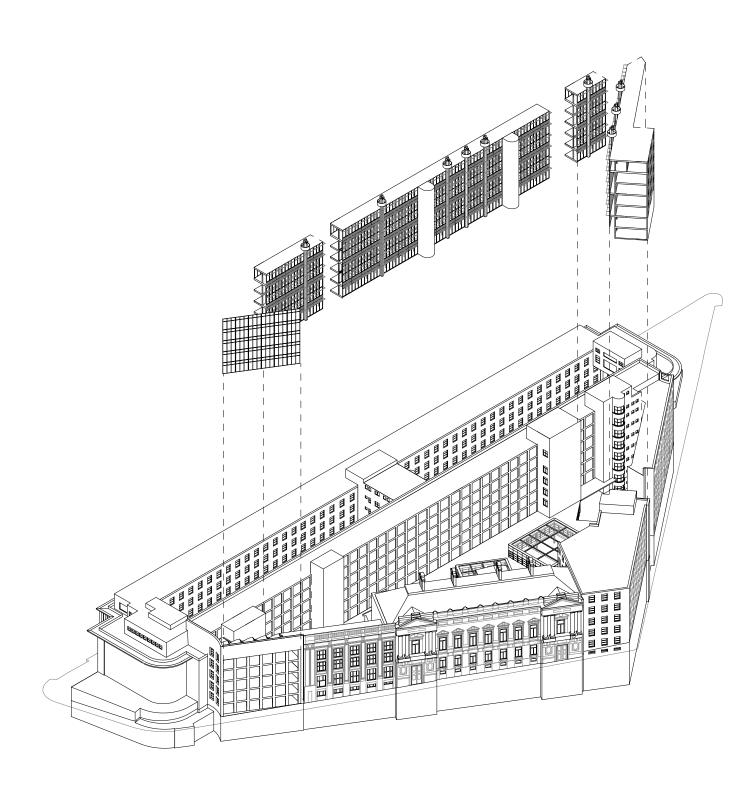
(10) Axonometric View National Bank of Belgium - Removal of building blocks



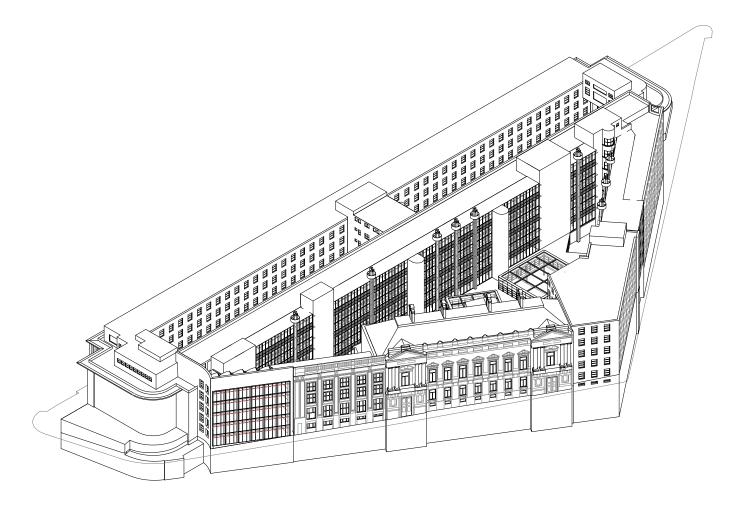
(11)Axonometric View National Bank of Belgium - Removal of facade



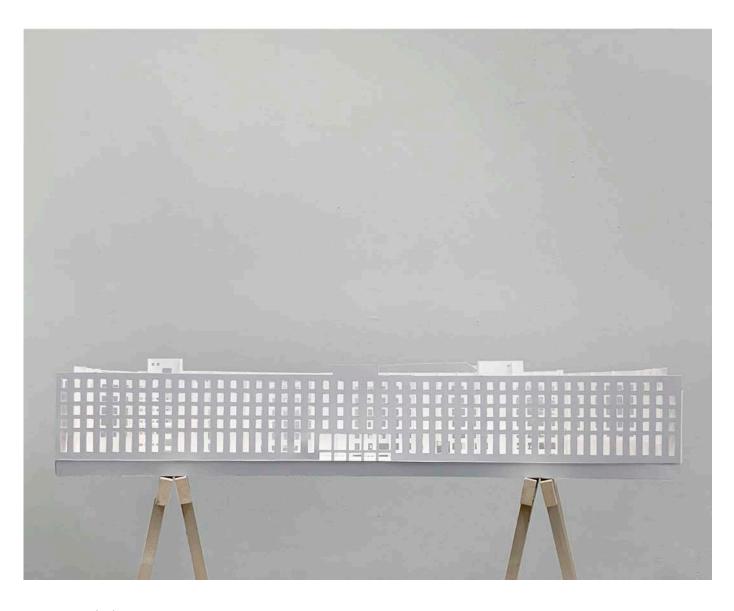
(12)
Axonometric View National Bank of Belgium - Addition of Courtyard



(13)
Axonometric View National Bank of Belgium - Addition of Facade

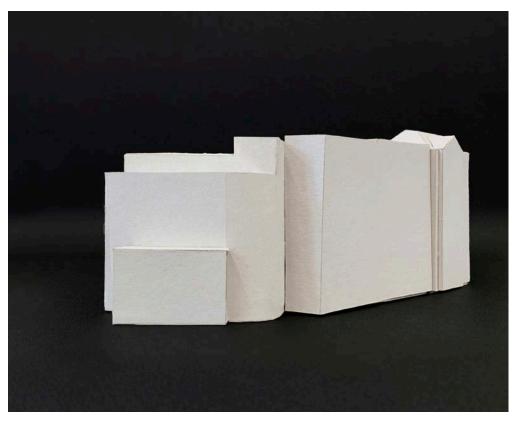


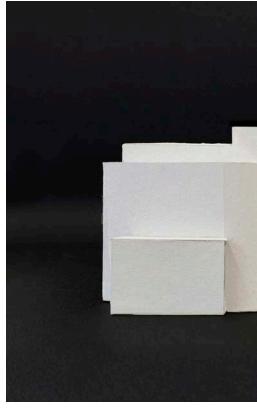
(14)
Axonometric View National Bank of Belgium -Design Overview



(15)

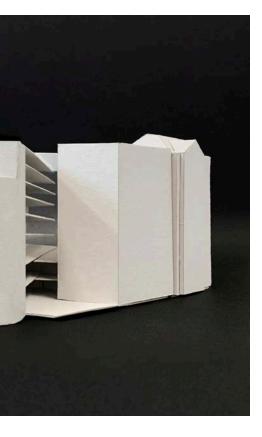
(15)
The National Bank of Belgium reduced to layers and openings.

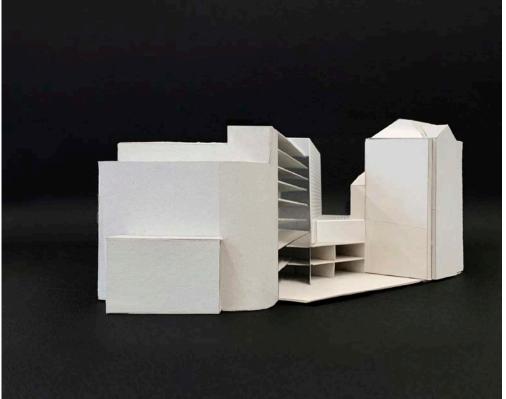




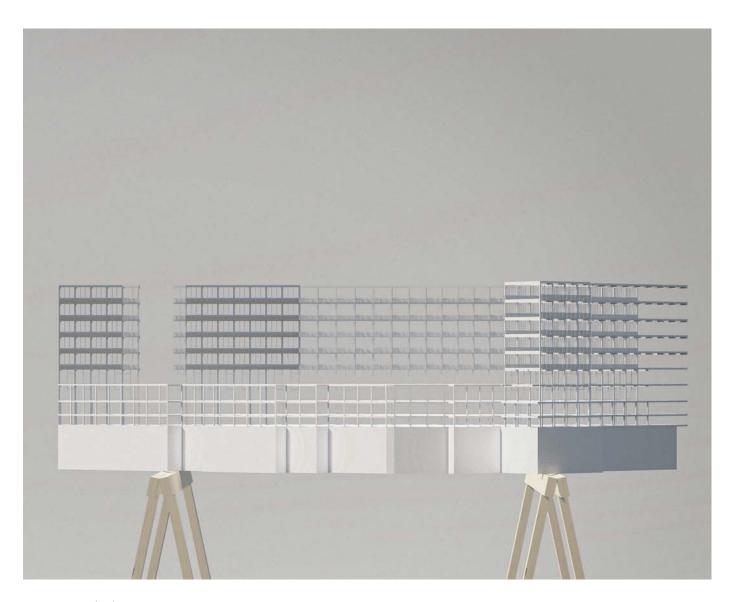
(16)

(16) The opening of the Facade, Study Model 1:1000





(17)
The infill as a model. Acting as a central Building block.

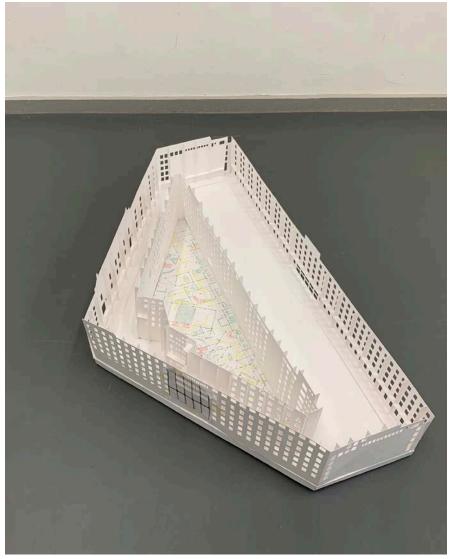


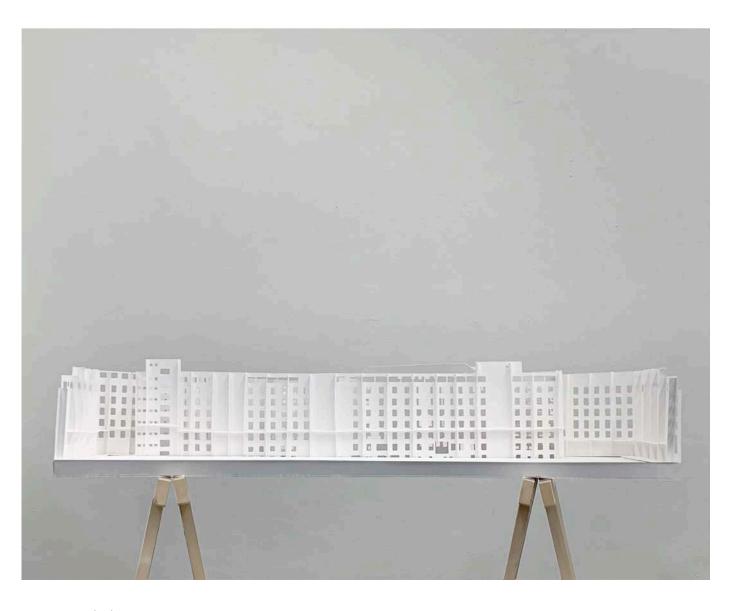
(17)



(17)







(19)

(18)
The courtyard inserted within the bank

(19) The National Bank of Belgium reduced to layers and openings.



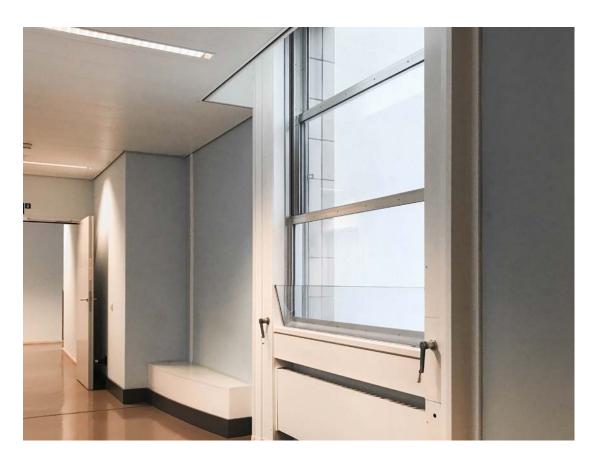
(20)

(20) The opening of the Facade, Study Model 1:1000

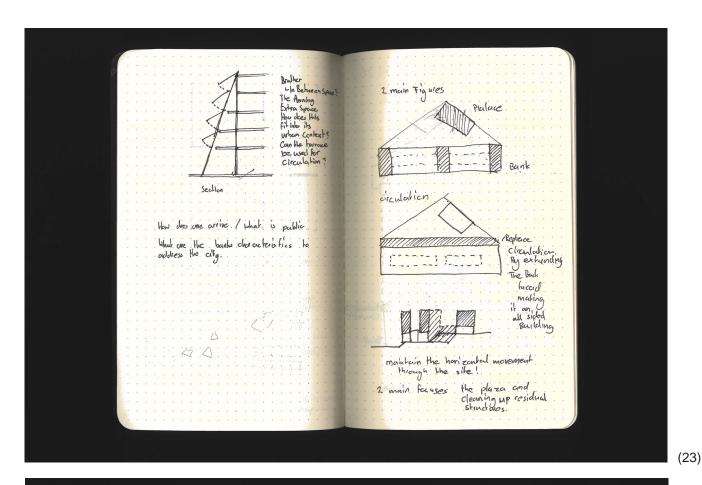


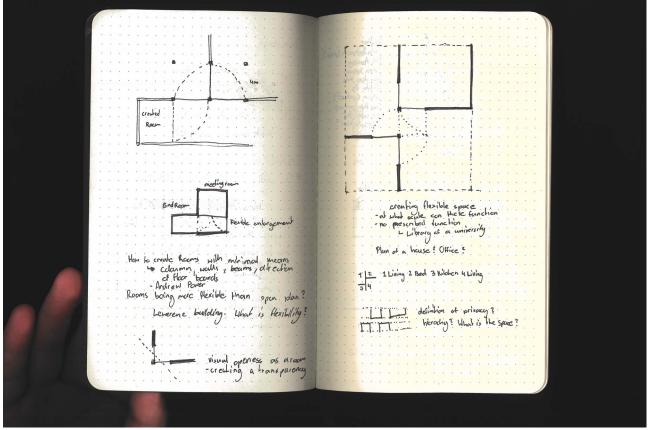
(21)

(21)
The National Bank of Belgium reduced to layers and openings.



(22)





(22) Interior Photographs of the bank

(23)
Sketches relating to the office organisation

149

(23)



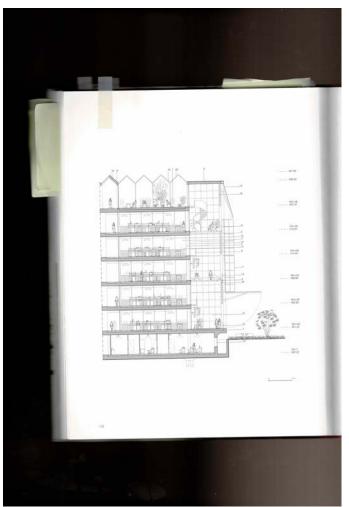


(24)



(24)

(24) The banks interior (Image: Bas Leemans)

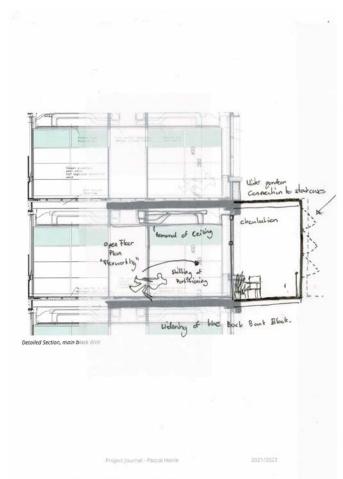




(25)

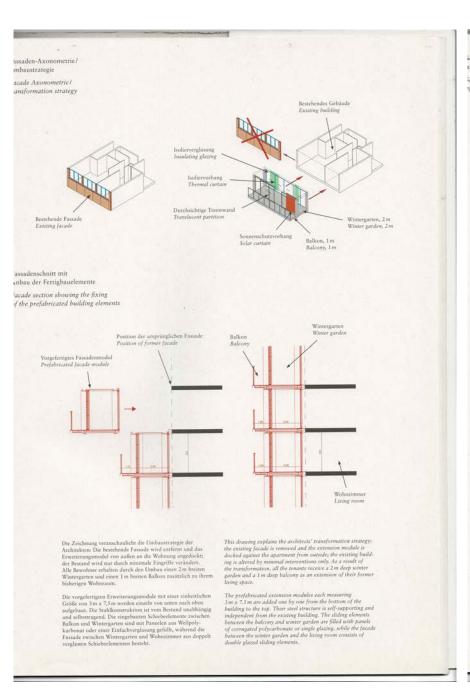
(25)
Scans of Bruther 2G Magazine. An Extended corridor

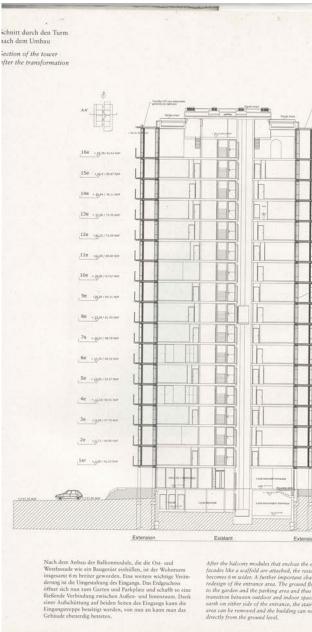




(26)

(26)
Concept of the extension of the facade



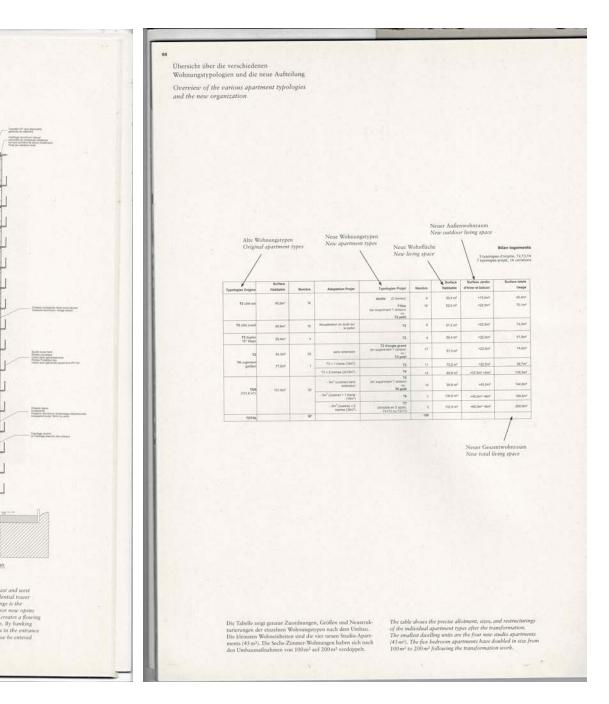


(27)

Transformation of 530 dwellings, block G, H, I, by Lacaton & Vassal with Frédéric Druot and Christophe Hutin

(27)

Lacaton vassal always adds to the building giving more living space to the individual. An extension to the built form. In the case of the bank rather than adding the bank needs to condemse. Give away space to the public. Subtracting rather than adding. Creating space by contracting. Opening up to the public and consensing istself to optimize its process.



(28)

The expansion of the of the office spance by stripping away layers of the office and placing these layers, consiting of patitions, ceilings and instalations into a new shell. A scenograhic approach to inhabit the courtyard.











(28)



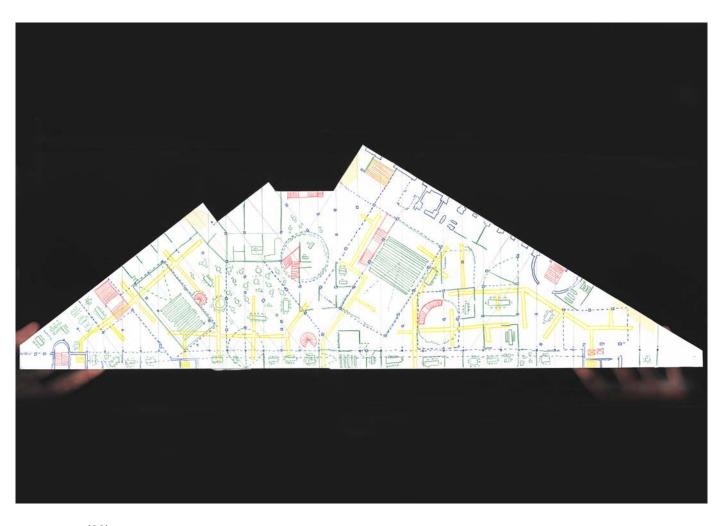






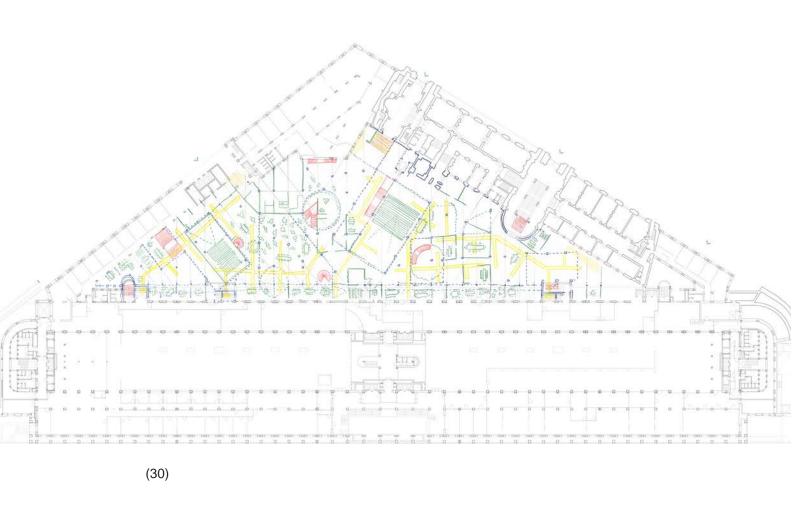


(28)

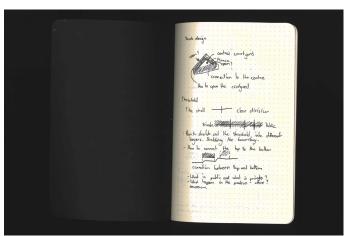


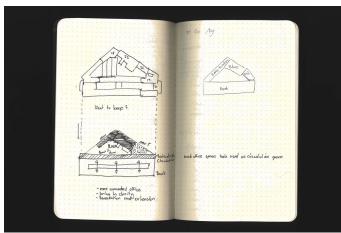
(29)

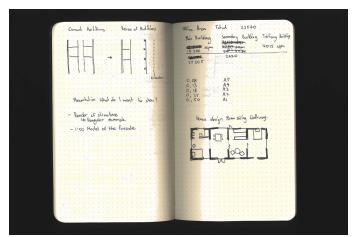
(29)
Hand Drawn plans of the courtyard, dipicting structure in green, instalations (ventilation) in yellow, circulation in red, scenery in green.

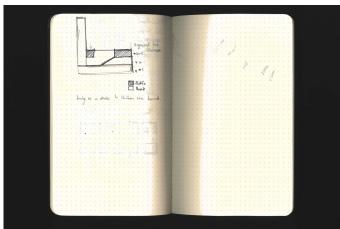


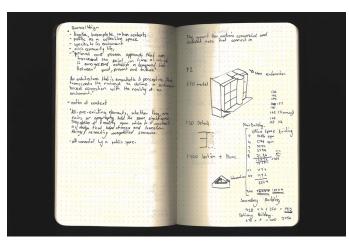
(30) The courtyard as inserted into the plan.

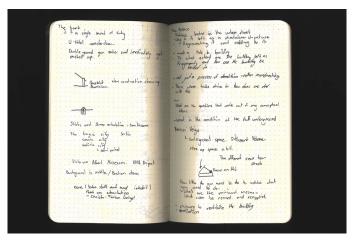








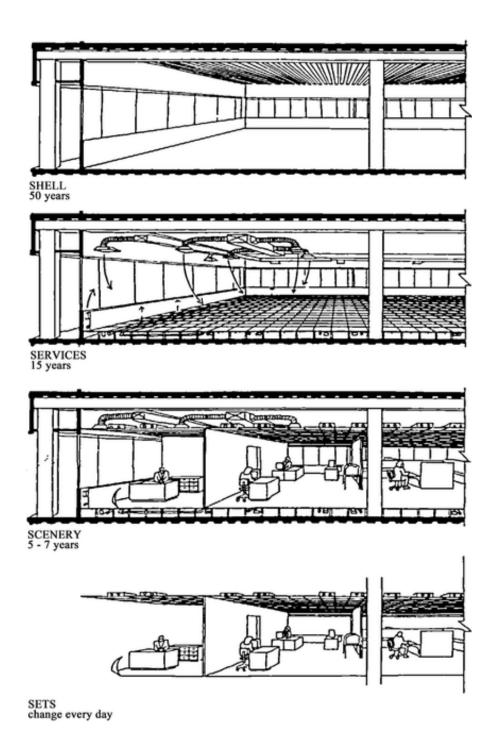




(31)

(31) Sketches and notes relating to the courtyard, entrances, office layout and tutor feedback.





(01) Duffy

concerning the adaptation, reuse or redeployment of the existing building fabric





(02)

What is the connection between a garlic distribution company, a server refurbishment company, a primary school in Gouda, and an industrial residual waste store? They all provide the circulair building components for the exhibition Private\_Eye\_Butler\_Spy, opening on March 11, 2022 at Arcam!

Architect Hanna Rudner is responsible for the exhibition design and organised a workshop with [impromptu] – a collective of recent graduates of Architecture, Urbanism and Industrial Design at TU Delft, in the weekend of 28 and 29 January 2022.

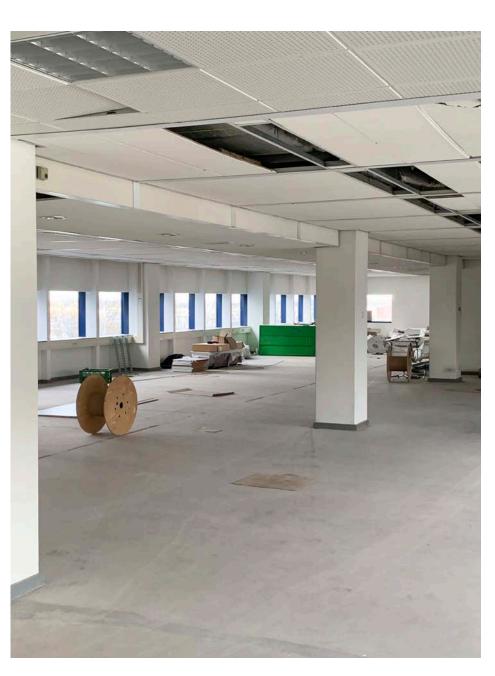
e-waste workshop participants: Ron Barten, Clara Beckers, Kaj Boonstra, Kat Bruh, Hadrien Cassan, Pepijn Determann, Diana Dungyova, Pascal Henle, Allard Meijer, Andreea Pirvan, Hanna Rudner, Hannah Sheerin, Kim Sinnige, Jesse Verdoes

(02)
E-waste as circulair building component for Private\_
Eye\_Butler\_Spy

(03) Missing Ceiling Plates revealing cables, pipes and ventilation instalations. Schiphol airport, Amsterdam



(03)



(02)









Lecture on: La Royale Belge Bovenbouw Architectuur / Caruso St John / DDS+

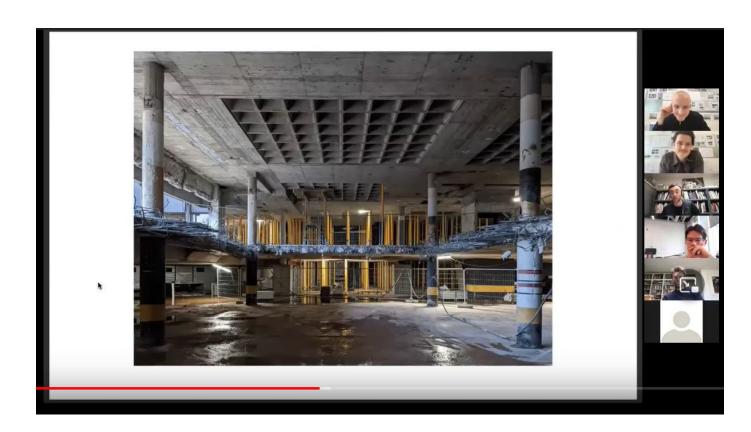
Archived material as a influence on the design proposal. Drawing back on original ideas of the architect but alos references of similar buildings built in the same era

(04)
Images of the Royale Belge in its original state from the exterior. Images of the typical office floor. Image of the current reconstruction. Images of the reformation of the typical office floor, through the addition of a new facade and insulation. (Source: Lecture Bovenbouw - In Progress Series)

(05)Original Construction Image (Source: Lecture Bovenbouw - In Progress Series)(06)

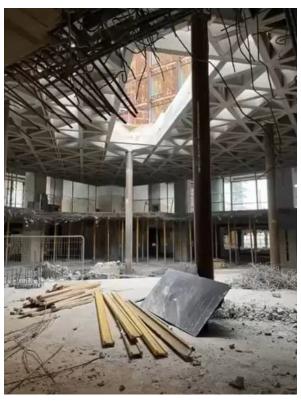
Opening up of the ceiling to allow light into the space (Source: Lecture Bovenbouw - In Progress Series)



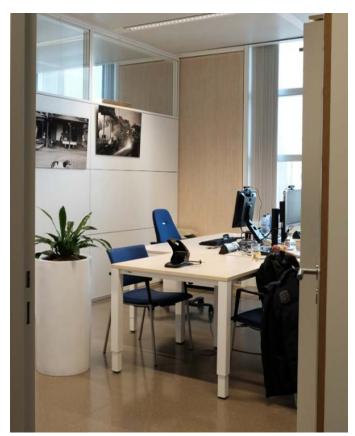








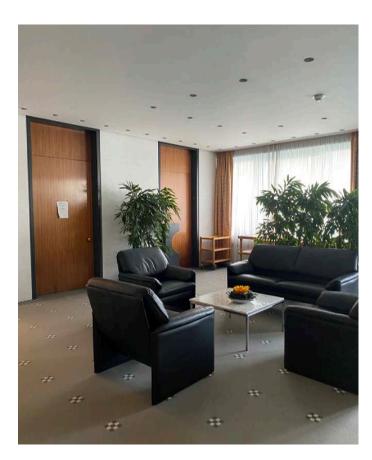
(06)





(07)

(07)
The Current arrangement of furniture within the National Bank of Belgium





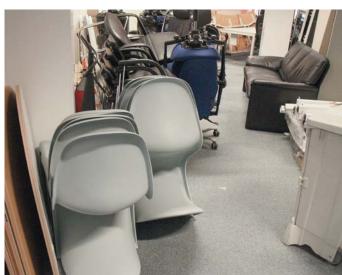








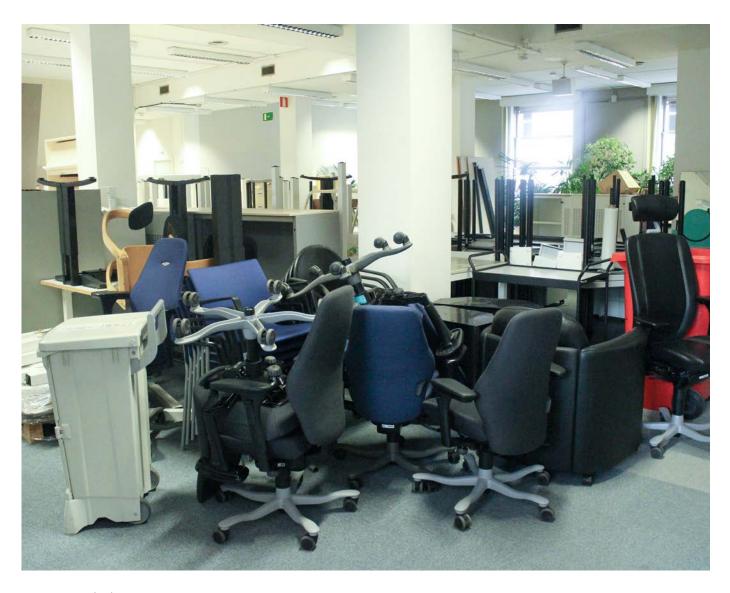




(80)

(08)

Collection of stored furniture currently in the National Bank of Belgium.



(80)

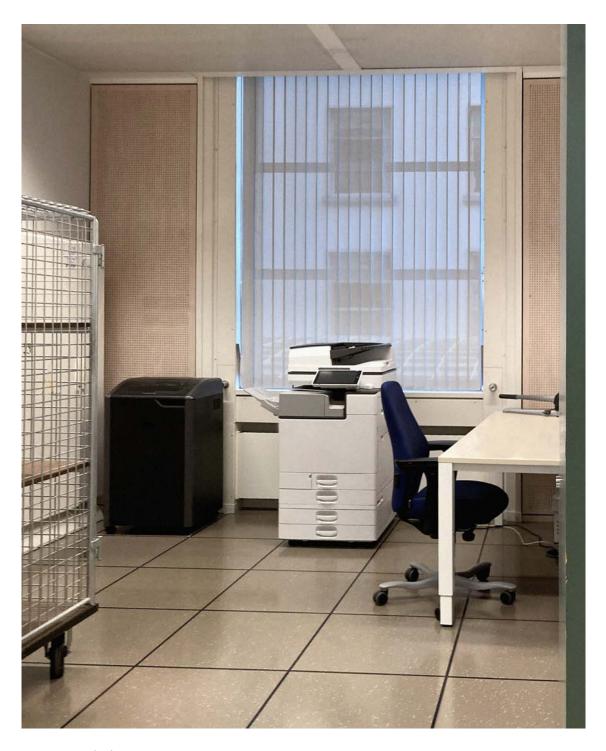




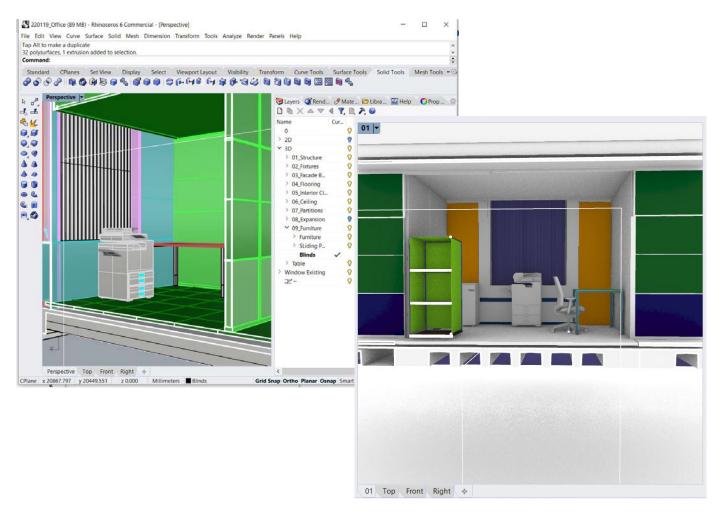
(09)

(09-10)

A comparrison between Thomas Demand's, Copyshop 1964 with the interior Qualities of the NBB, (Image: Bas Leemans)



(10)



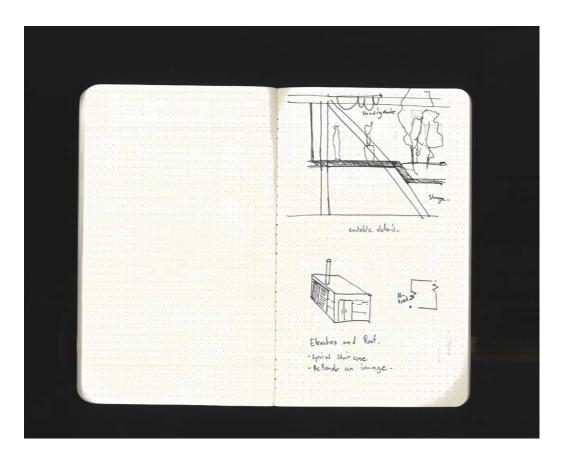


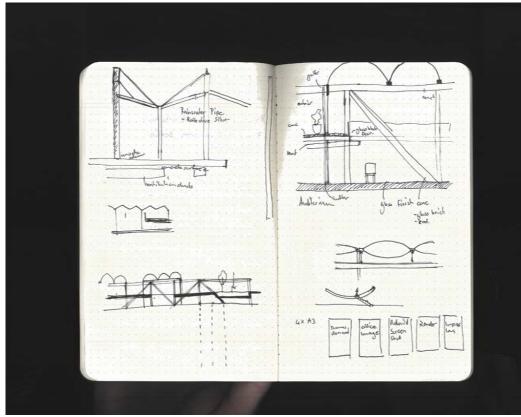


(11)

(11)
Digitalisation of the image using three dimesnional digital modeling tools and render software

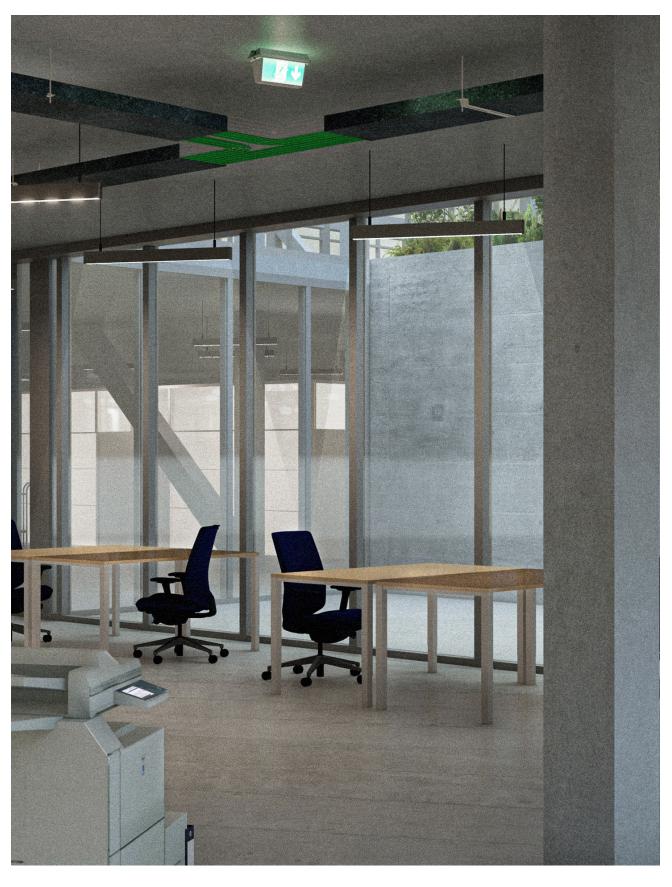






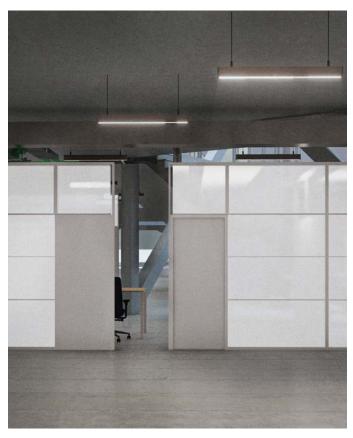
(13)

(13)
Sketches of double height space, lightwells and structures



(14)

(14)
A scenographic arrangement of furniture pieces within a new shell, changing the conventional office setup and furniture arrangements

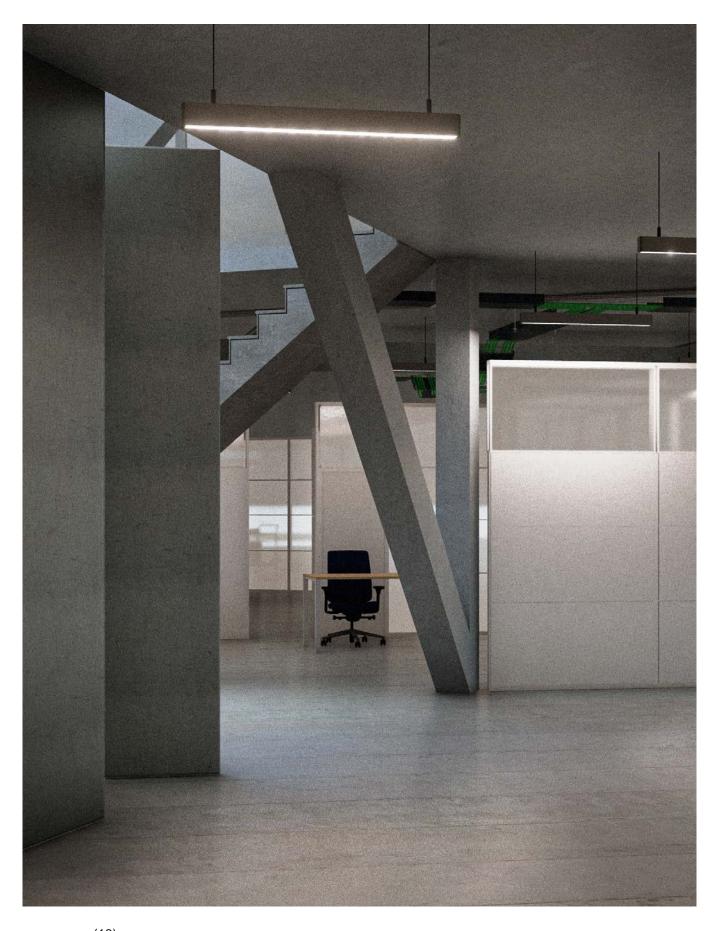




(15)



(17)



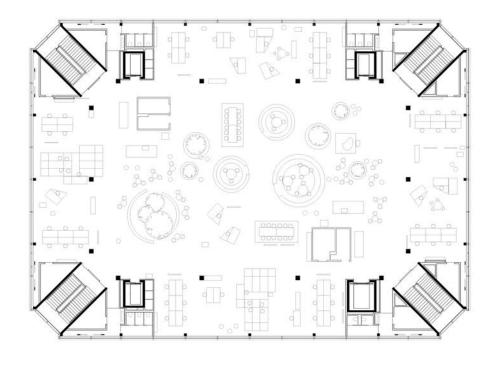
(18)







(19) Karamuk Kuo (Image: Studio David Klemmer)



(20)

(20)

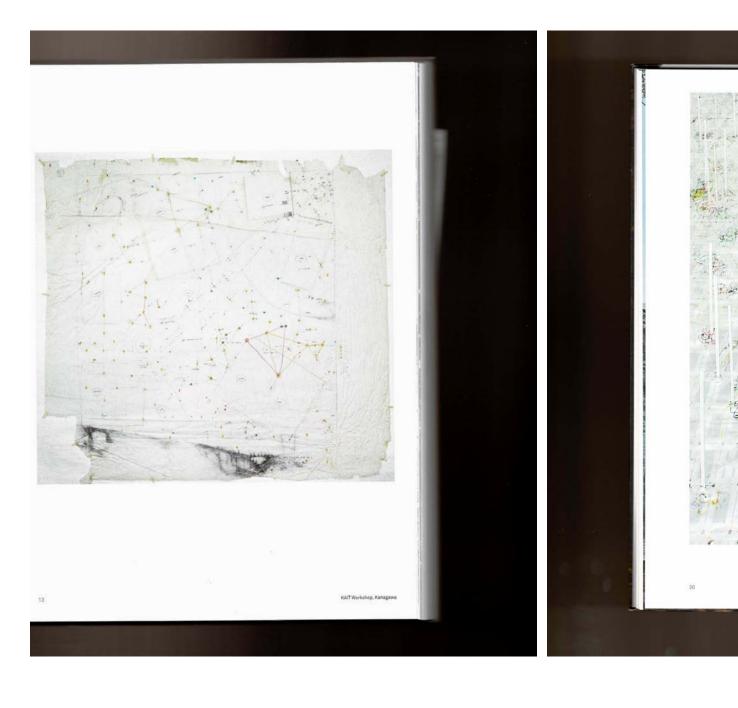
Christ & Gantenbein Roche multifunctional workspace building

Christ & Gantenbein "What is interesting, however, is the tenacity with which typological research was pursued for decades-not with the goal of moulding the courtyard as an inferior space, but of extracting spatial, functional and aesthetic qualities from this courtyard."

"A wonderful inventiveness has spawned a full range of proposals that break open the hermetically closed form of the development in favour of a spatially rich system: entrance courtyards are created by setting the building form back from the street. Or complex connections emerge between the courtyard and the street space in places where the building form is partly broken apart."

From typology transfer towards an urban architecture

Read brussels typology and courtyard typology. South of site is individual blocks and north is more smaller consolidated







(21)
Kanagawa Institute of Technology, Junya Ishigami (2G edition 78)

The relationship bewteen the drawing, the model and the project. Dipicted as stills, in which the projects becomes defined in its current state but expressing the same concept.



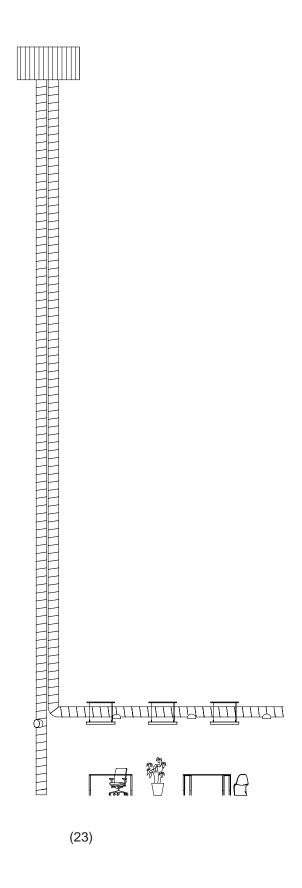


(22)

(22)
Baukunst and Bruther. UZH forum . Zurich renders: ArtefactoryLab

(23)
Section of ventilation and the workplace



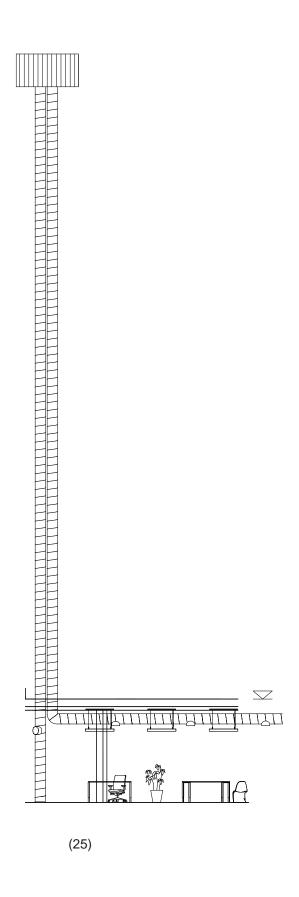




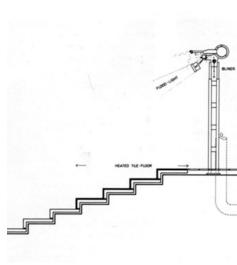
(24)

(24) Interior Render and Cabling

(25)
Section of ventilation and the workplace inside its context

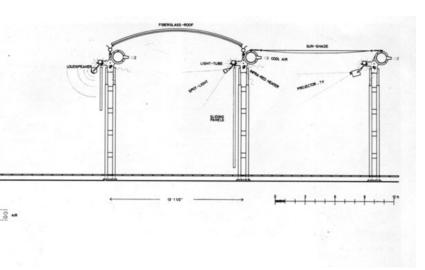


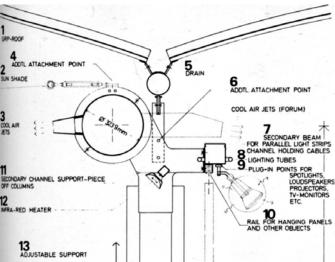




(26) (27)

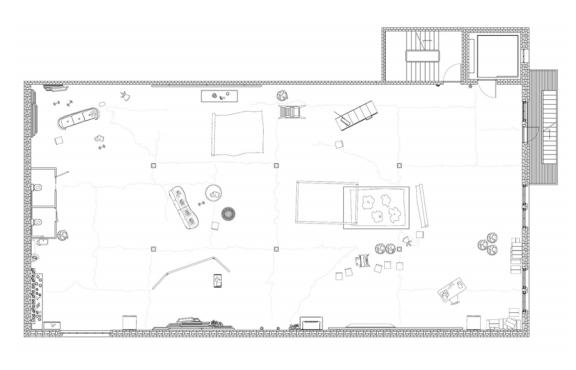
(26-27) Hans Hollein. Media Line Olympic Village,1971.





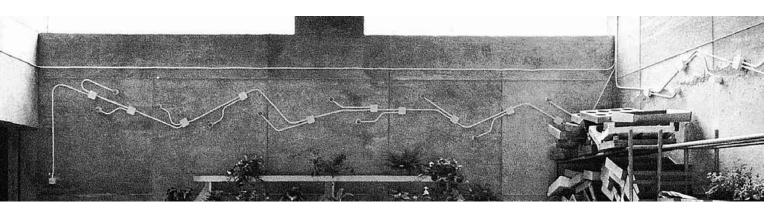


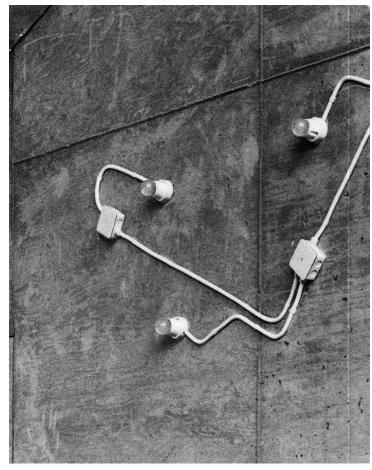




(28)

(28)
Andy Warhol's Silber Factory. 1961-68
(Drawings edited by Camilla Lemb, Oriana Nguyen, Lex Schaul)





(29)

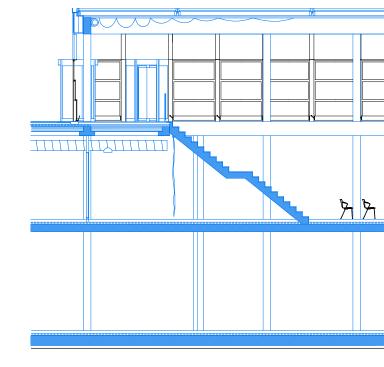
(29) Sigurd Lewerentz, Blomsterkiosk,1969. Photography: Karl-Erik Olsson-Snogeröd

The Informality of the lose object in space in comparision to the seemingly undefined layout of electrical wiring and lighting

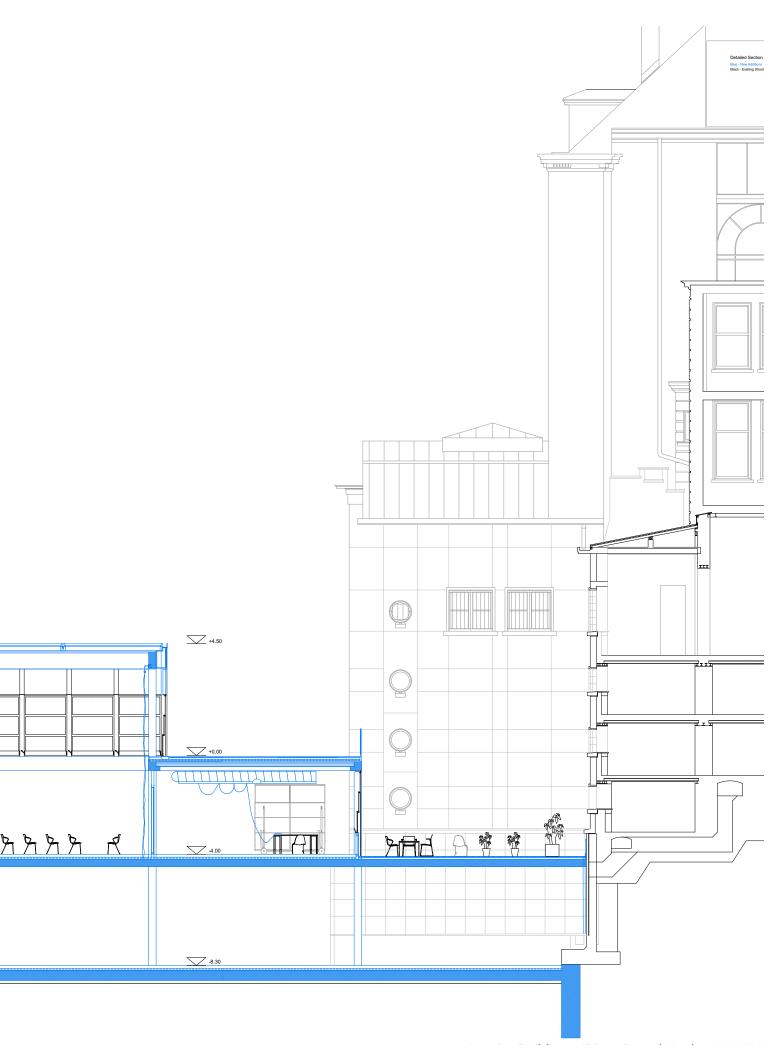


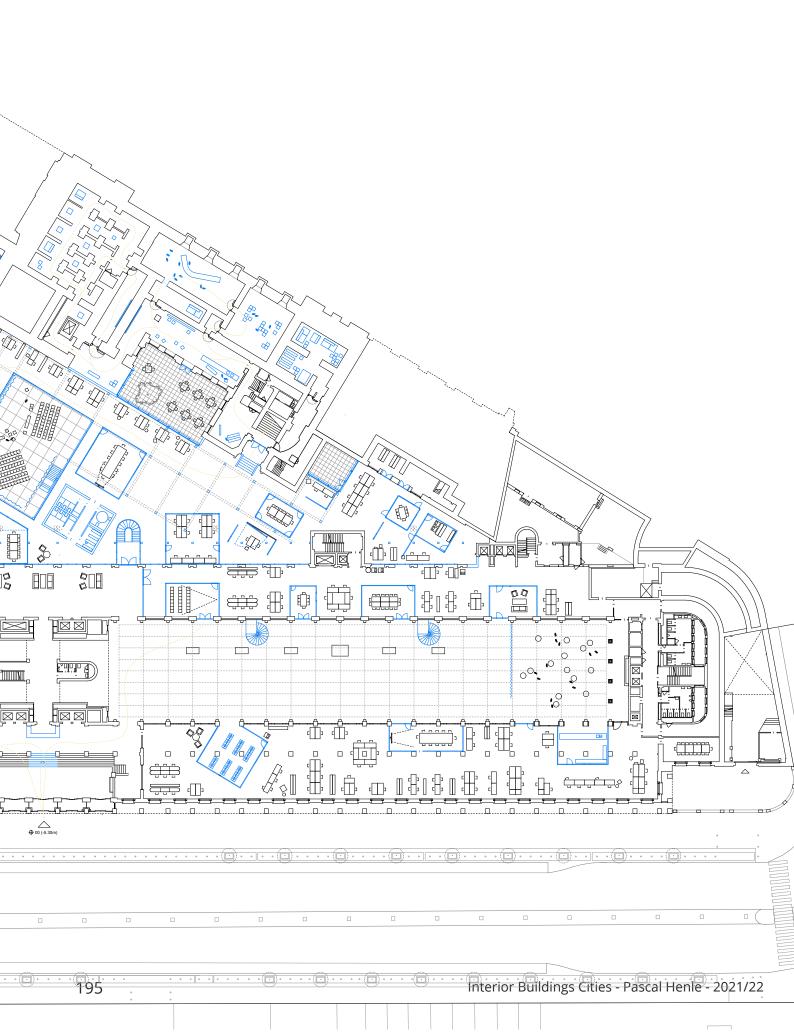


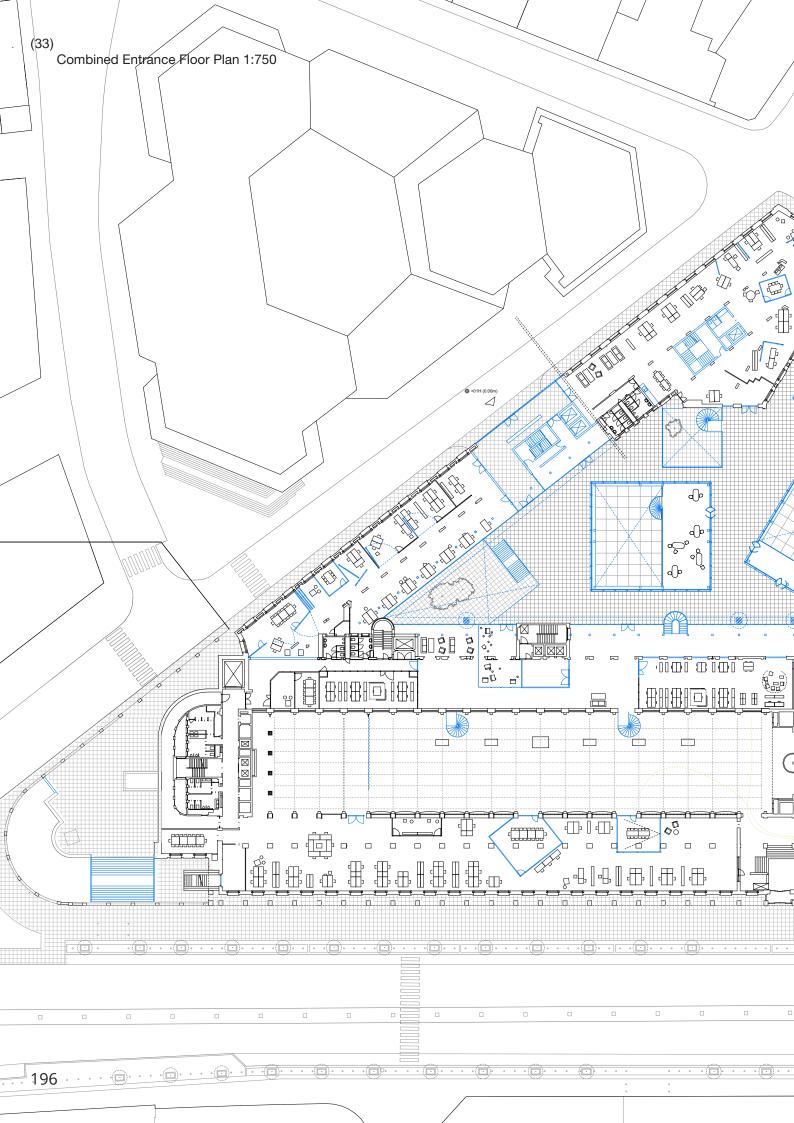
(31)

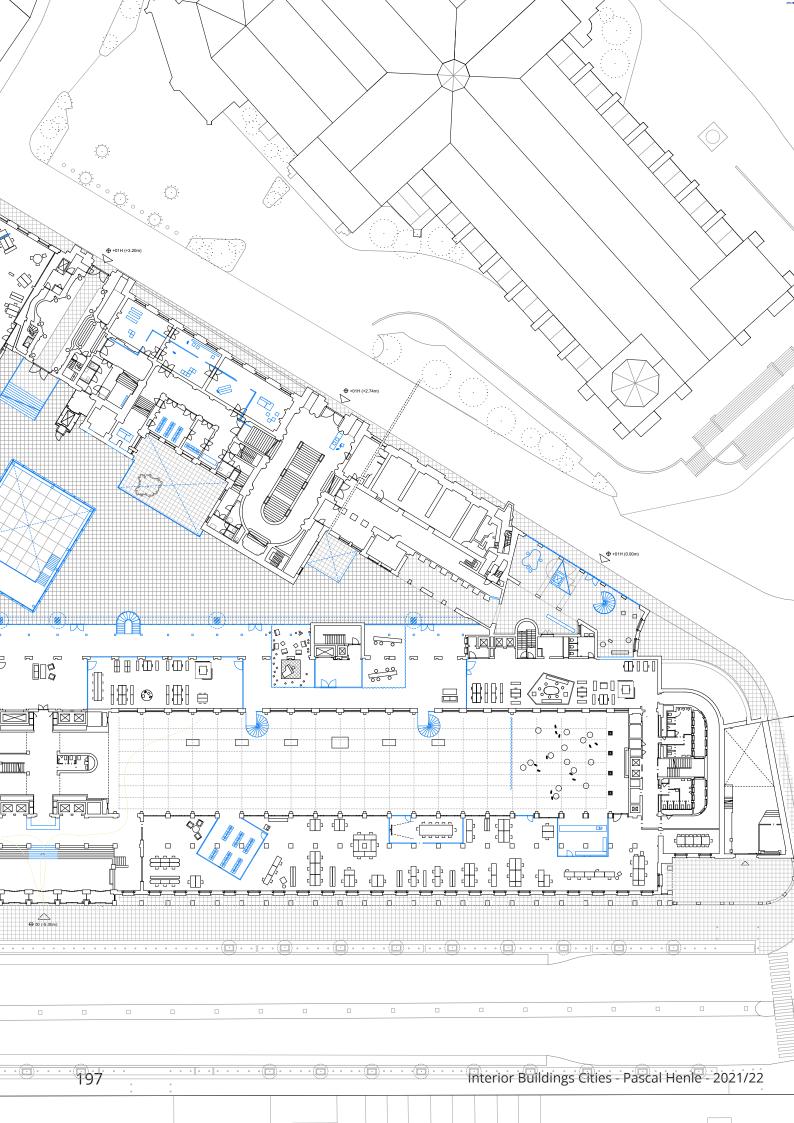


- (31)
  Model of the courtyard dipicting a workspace and using furniture of the Palace
- (32) Courtyard Detail 1:50









Doorzon. Silversquare Central, Brussels city center.

(34)
A shell of a concrete building, painted in white

(35) Sets and sceneries defining spaces





(34)



(35)

Floor plan, Doorzon. Silversquare Central, Brussels city center.







(38)

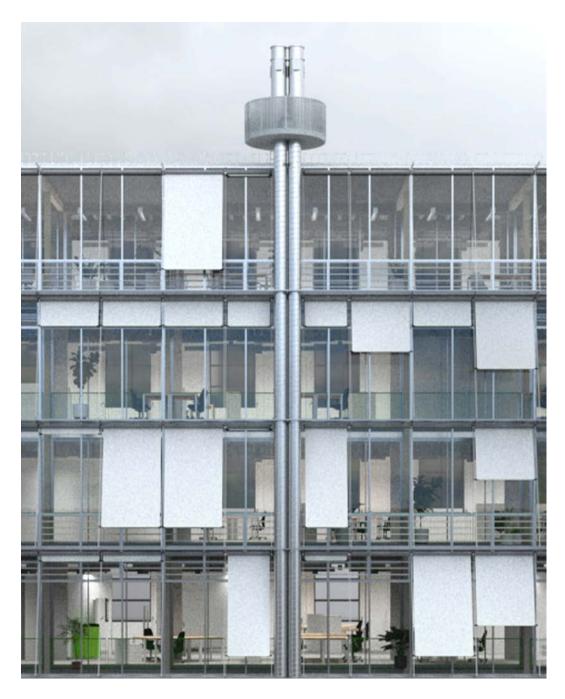
(37)
National Library of France - Dominique Perrault
Architecture (Images: Pascal Henle)





(38)

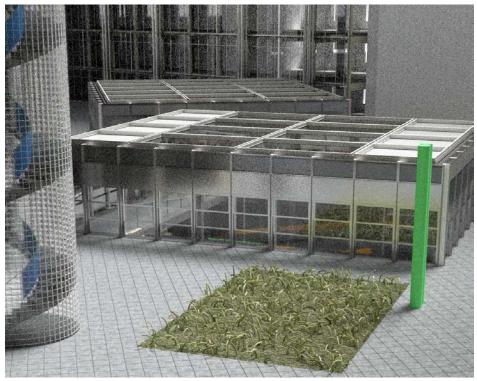
(38)
Storage of Panton Chair (Verner Panton, 1959/1999) within the existing office space of the NBB
Dipicted in the courtyard (Image:Pascal Henle)



(39)



(40)



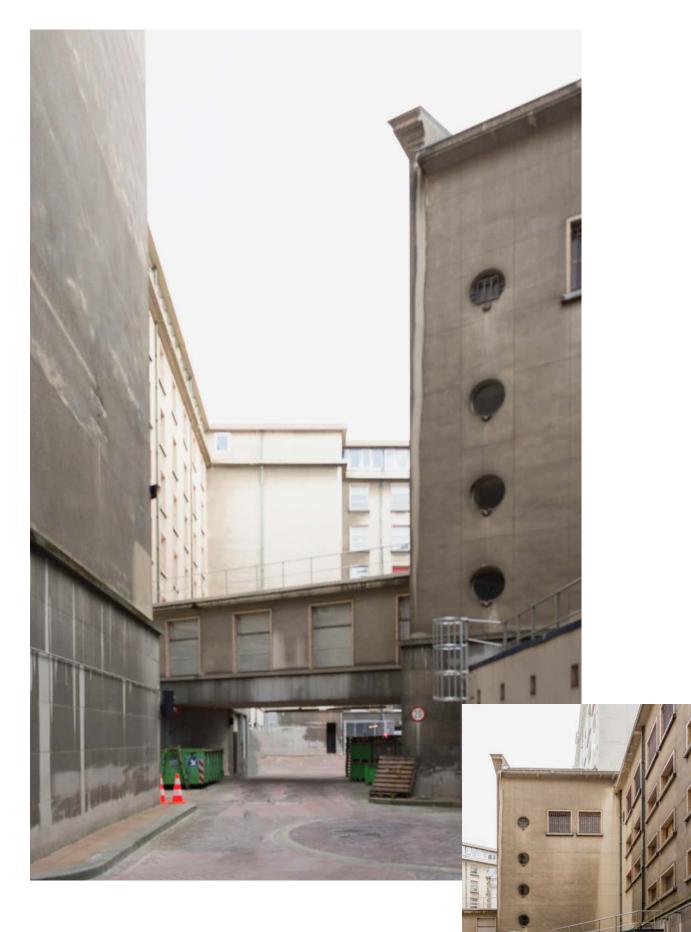
(41)

(39)

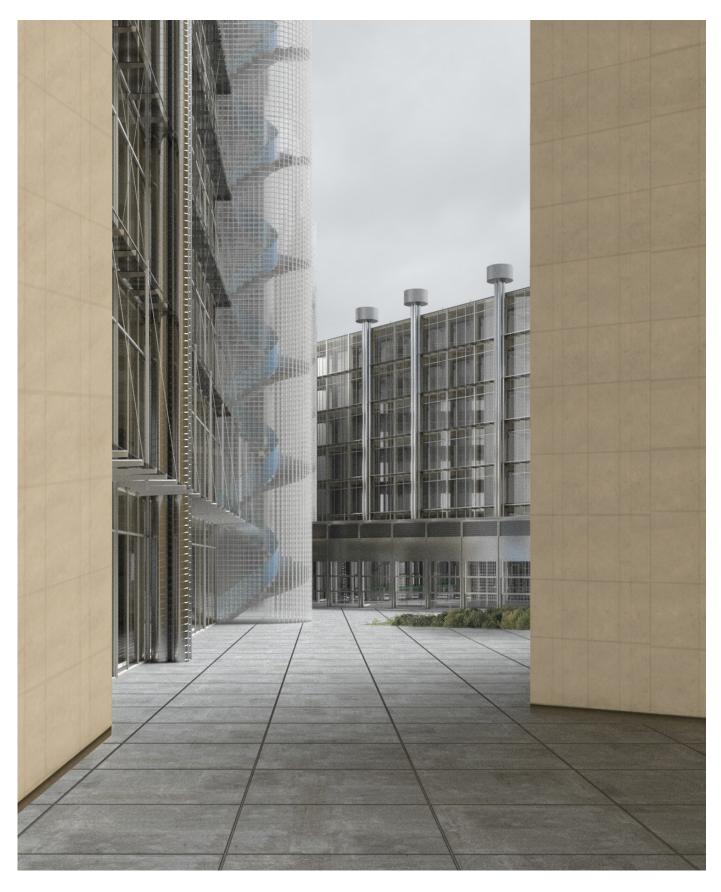
Facade render with updated shading

(40)

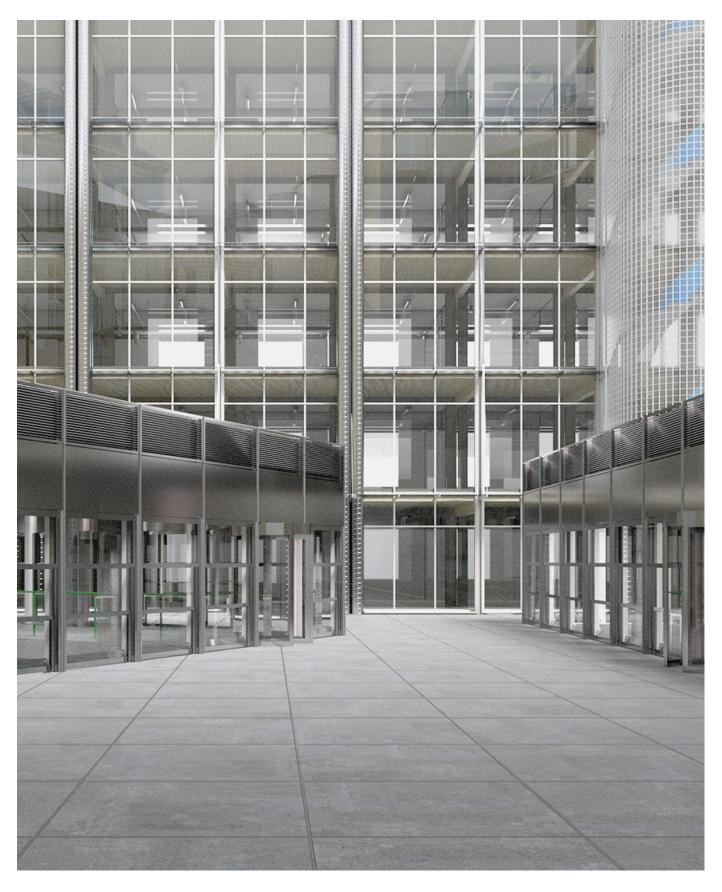
Render of the courtyard on a cloudy day



(42)
Existing Courtyard condition.
Image: NBB Archive



(43)



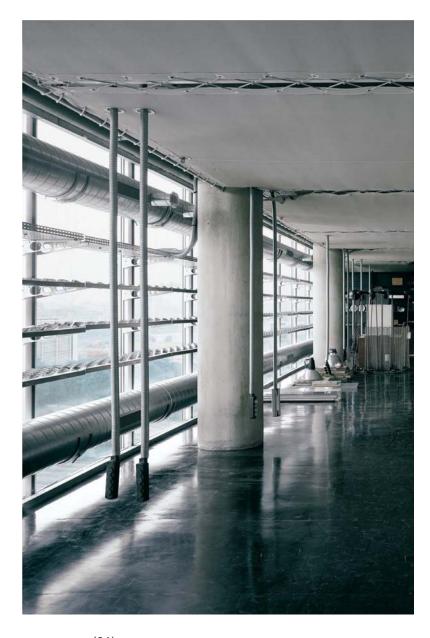
(44)



# Redevelopment of the Be;gium National Bank

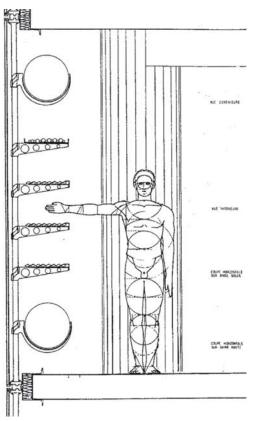
An extended facade

The extended facade was progessively developed through sketches, models, 3d modeling, renders and references throughout the semester. The detailing, as well as architectural design went hand in hand and informed the resulting outcome. Not in the usual 2d detail drawing but straight from the 3 dimesnional model dipicted in an axonometric.



(01)





A study in Dominique Perrault, Industrial Hotel Jean-Baptiste Berlier, Paris, 1986-1990

"The answer to this singular atmosphere is a glass box, able at the same time to reflect all these circulation flows on its surface and to open up to a clearly urban landscape showing the different activities that take place in the interior.

Though the site's challenging configuration was no surprise, program specifications left the nature of future tenants' activities wide open. This explains the office building and industrial space hybrid that emerged. The Hôtel Berlier was designed to be as adaptable as possible to the unknown business functions it would house. This strategy was developed through open plan floors and tight bundling of electrical systems, organized around the two central blocks containing the stairwells, technical and elevator shafts and lavatories.

The most apparent architectural innovation is the role given to the curtain facade. Its technically 'dense' organization manages the building's ventilation and filters light (mainly through sunshades). Visually, its 'sensitive skin' resembles a glass block scattering variegated light onto its surroundings and distributing fluctuating light intensity within, depending on the weather and time of day. In sum, "it's a building that changes its skin" says Perrault."



(02)

"The bioclimatic approach to this office building turned out to be the key to a more generic approach to creating sustainable space. The underlying principle is a simple juxtaposition of a vertical <u>spatial concept comprising</u> three consecutive zones: an uninsulated, unconditioned <u>outer corridor</u>; an insulated and conditioned functional <u>space</u>; and a central, generous, insulated, but unconditioned <u>court</u>.

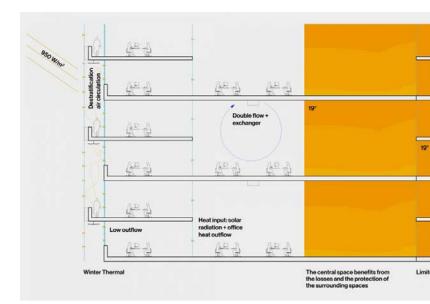
"The central, double-height space provides intrinsic generosity; the workplace is suddenly a site of luxury, and this space multiplies the functional potentials of the traditional office. The high, central space ensures the optimal incidence of light onto every workplace. This open space (30 per cent of the total office area) is neither heated nor cooled. Conditioned offices become the insulation of the space, which is only equipped with natural ventilation. This leads to considerable savings on consumption costs.

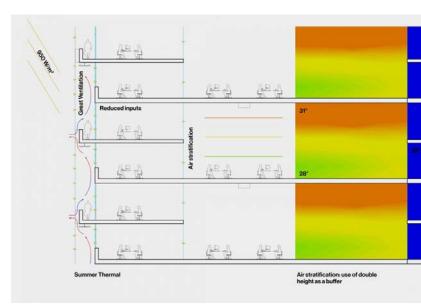
The conditioned office space is set on two floors and corresponds to a more traditional work environment. With a depth of 7.5 m and ceiling heights of 3.0 m, this space guarantees a hybrid configuration, easily adaptable to any use.

The corridor works as a doubly ventilated, high-performance skin, but is accessible and serves as circulation and informal meeting area around the functional core. Human presence within this space and the high single glazing will create greater transparency of the building, generating an urban attraction in both directions.

A general concept, which can be exemplary for future building principles: generic, adaptable, flexible, spacious."

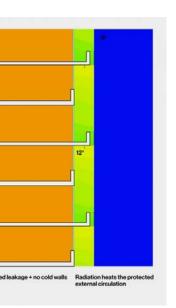
(Source: https://www.51n4e.com/projects/lyon-part-dieu)

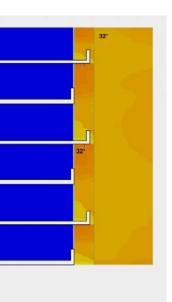


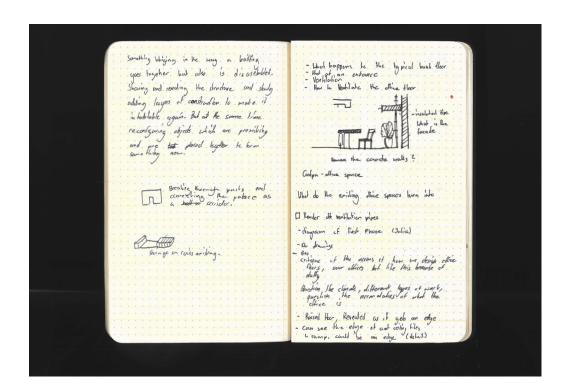


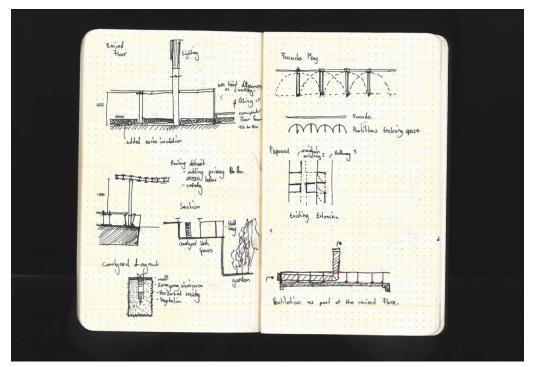
(03)

- (03)
  Summer and Winter Diagrams, Lyon Part Dieu, 51n4e.
- (04)
  Sketches of the extended facade as a mode of climitisation

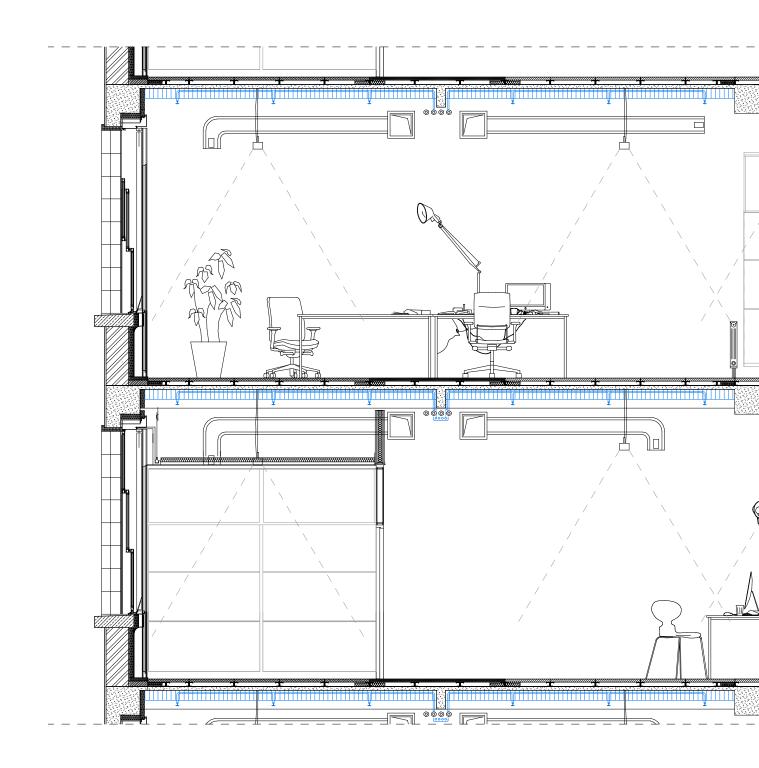


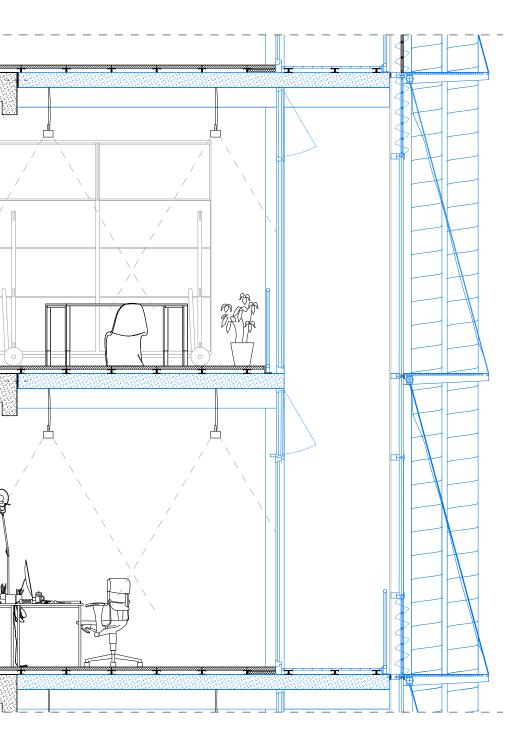






(04)





## Technical Office Floor Detail 1:50

### Facade Buildup in Office

- Double insulated Glass
- Louvre Ventilation System
- Textile Sunscreen
- Insulated Ventiltion Pipes 400mm
- Steel Grated Mesh

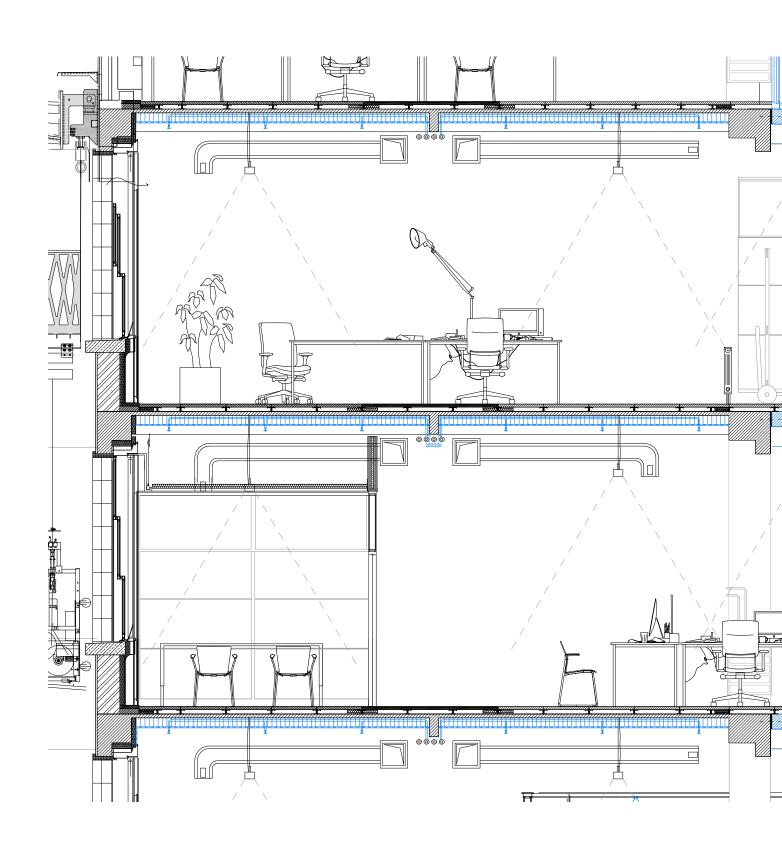
## Floor Buildup in Office Cubicle - Raised Computer Floor

- Acoustic barrier
- Ribbed concrete Floor
- Cold Ceiling

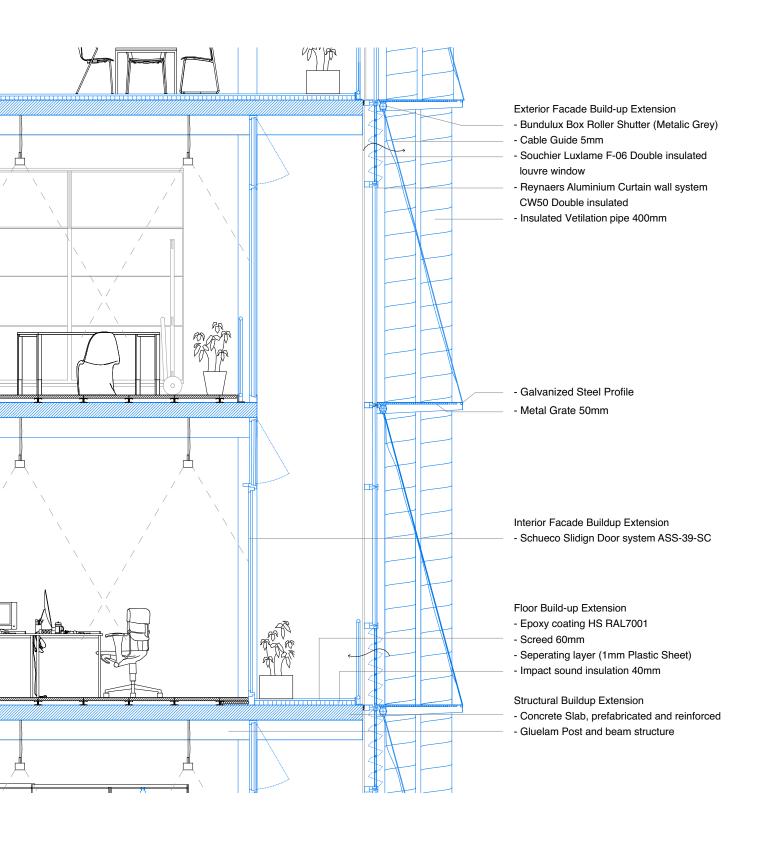
- Floor Buildup in Hallway
   Raised floor made of calcium sulphat
- Acoustic barrier
- Ribbed concrete Floor
- Metal suspended ceiling

## Interior Walls

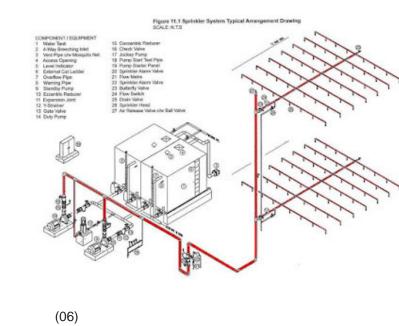
- Semi-Glazed acoustic wal



(89) Detailed Section







(05)



(07)

(05)
Office Building Lyon Confluence. Christian Kerez

(06)
Sprinkler System Typical Arrangement Drawing

(07)
Private House in Thusis / Angela Deuber Architects

(08) T10 bureaux, BAST Intergration of Services and a new Accoustic Layer.

By stripping away the existing ceiling, the ribbed in-situ concrete shell and services such as ventilation pipes, water and electrical wireing is exposed. Although spatial qualities are maximised, new questions of accousitic problems arrise.

Looking at Lyon Confluence Office Building, an intergrated system of of services and accoustic insulation forms an almost seamless shell for a flexible occupation. Lighting and a water sprinkler system are run between the concrete structure and accoustic insulation.

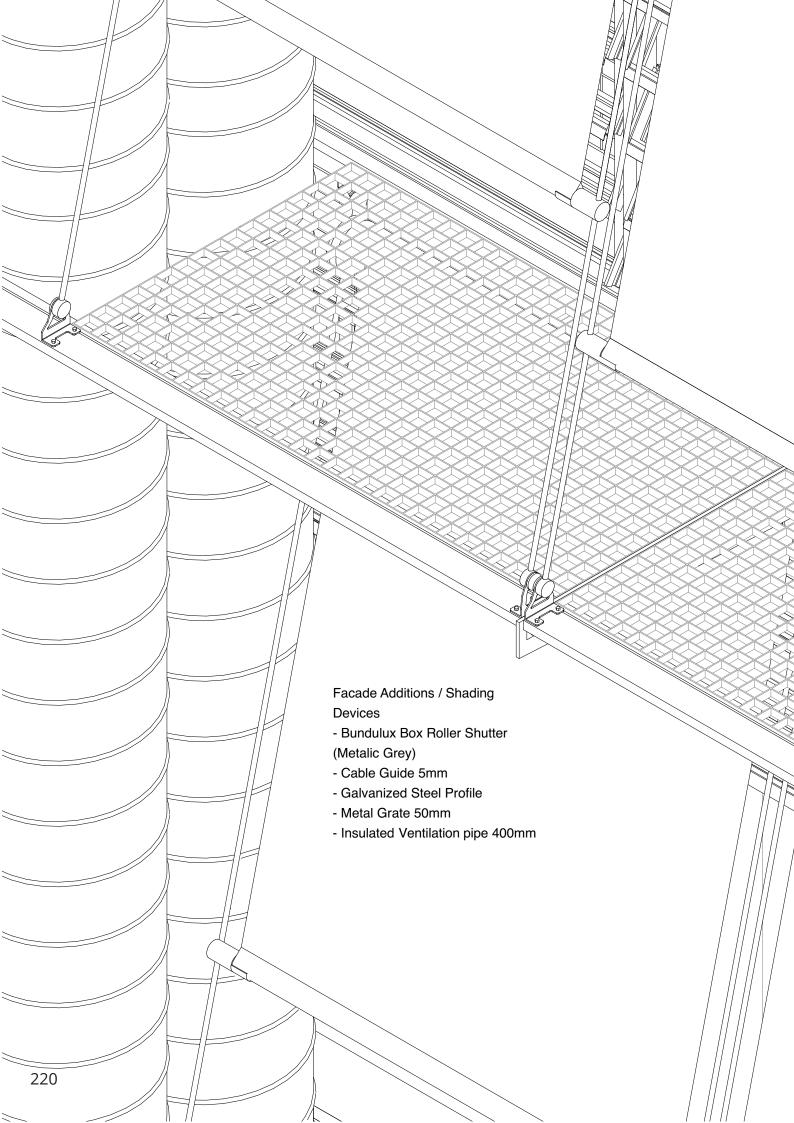
A question of neccesity.

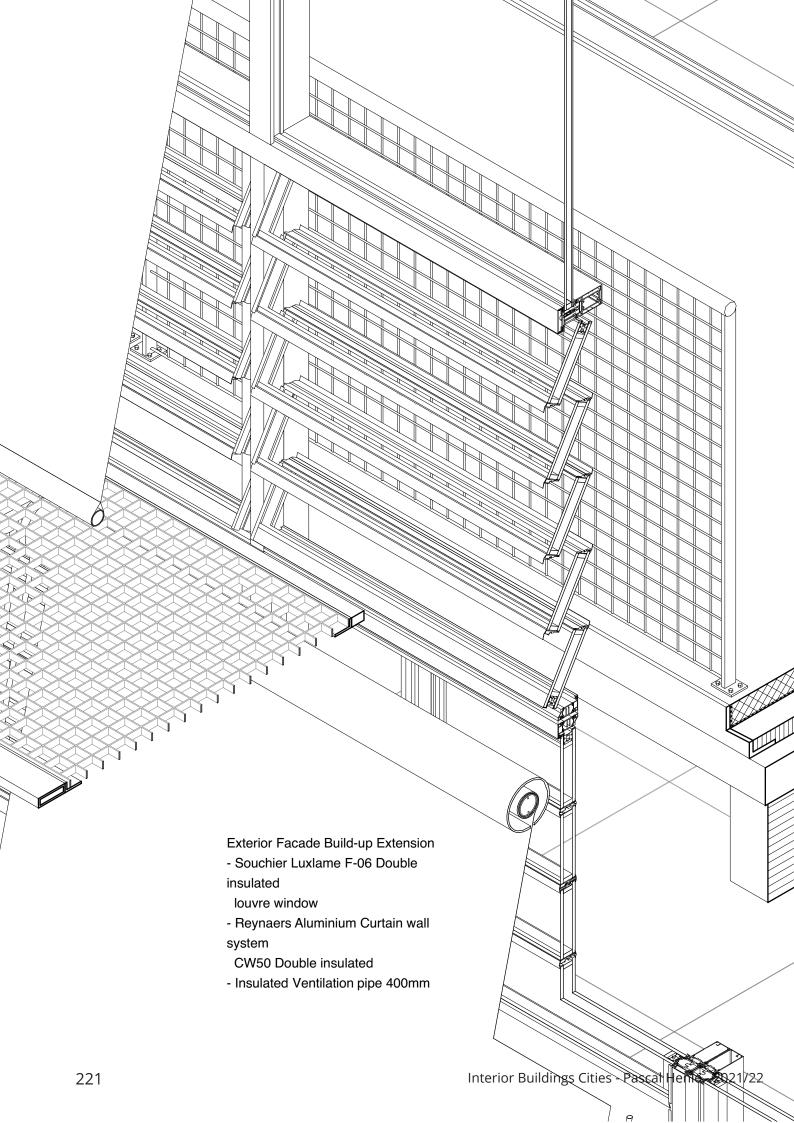
The reduction of insulation to its minimum, or the partial cladding of the building shell, limited to the height of human occupation.

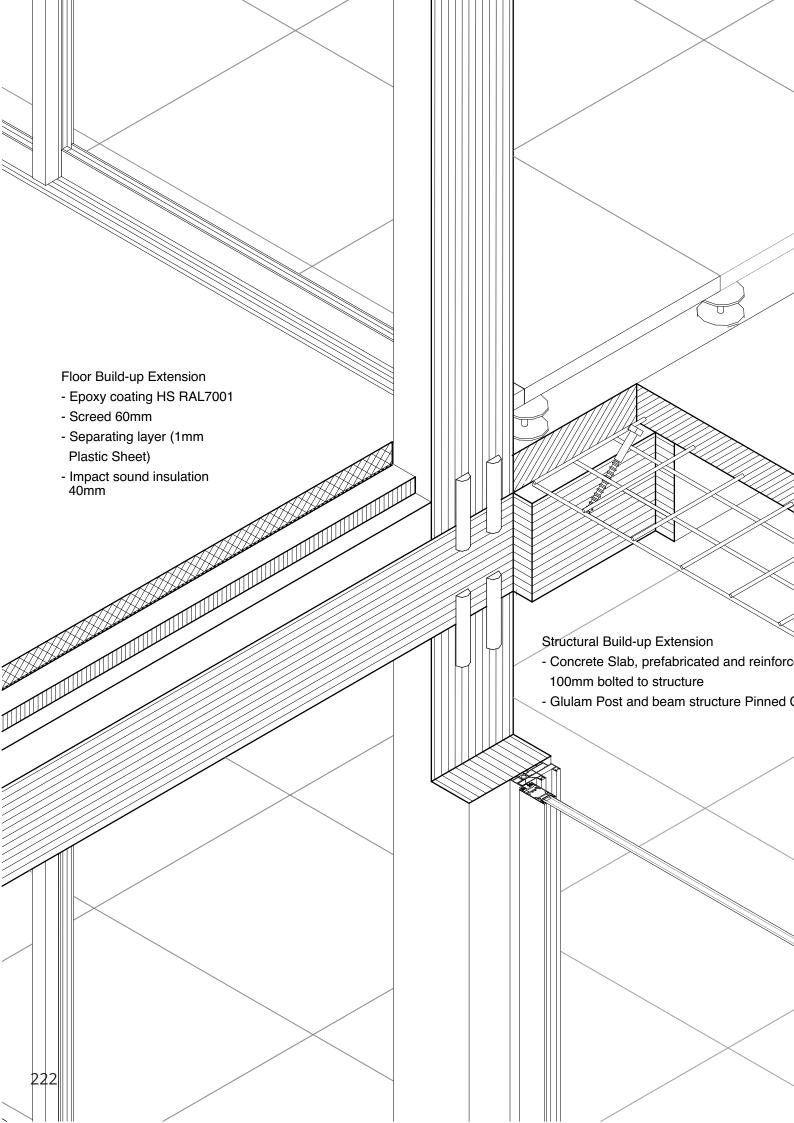


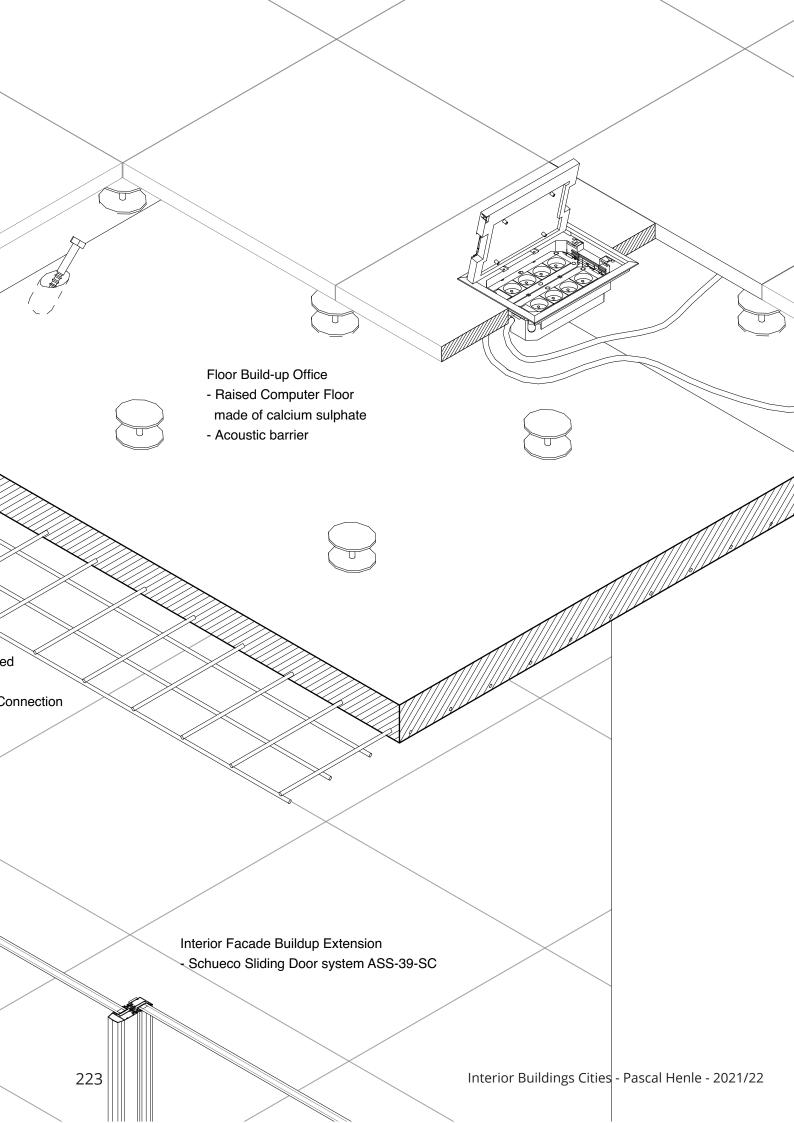


(80)

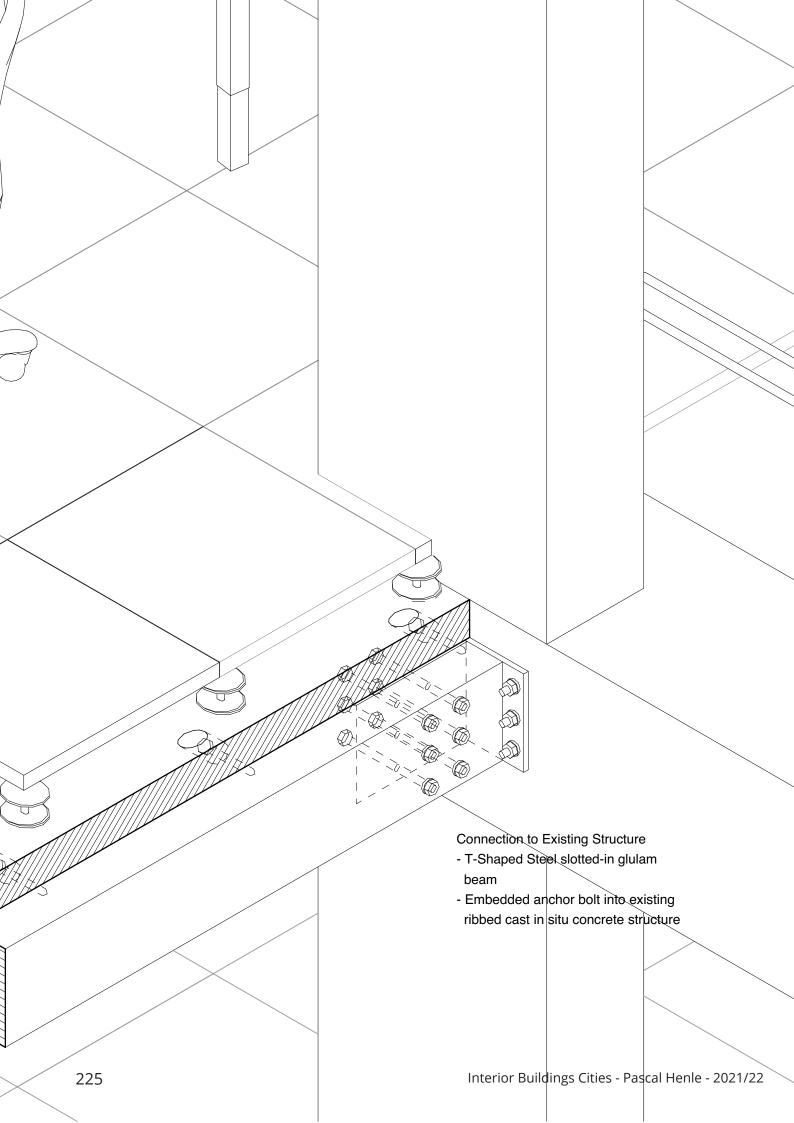


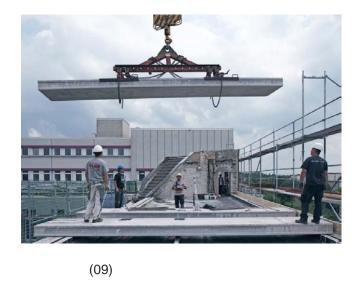


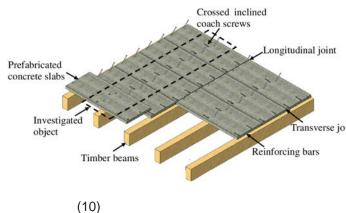






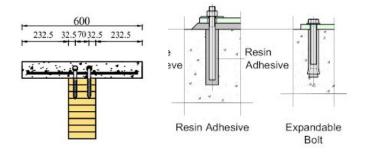






#### Structure

The structure of the extension is made of a timber concrete hybrid structure. A timber post and beam structure is fixed to the existing concrete framework. Using epoxy anchor bolts to connect to the existing structure and a pinned connection between wooden coloum and beam. The flat reinforced precasted concrete pannels are rest on top of the timber structure and could be bolted in to further stiffen the structure.



(11)

End plate

T-shaped steel

T-shaped slotted-in steel

The BC specimen

(12)

(80)

Precast Concrete Slab being lifted into place

(10)

Anchor Bolts (Source: structuraldetailer.com)

(11)

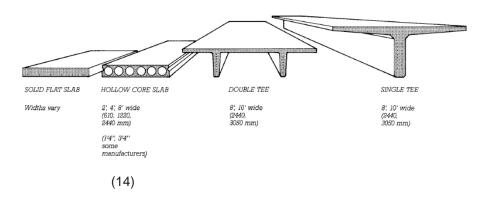
Li, Z., Feng, W., Ou, J. et al. Experimental investigations into the mechanical performance of glulam dowel-type connections with either bolts or screws as fasteners. J Wood Sci 67, 71 (2021).

(12)

Precast concrete Flooring Systems

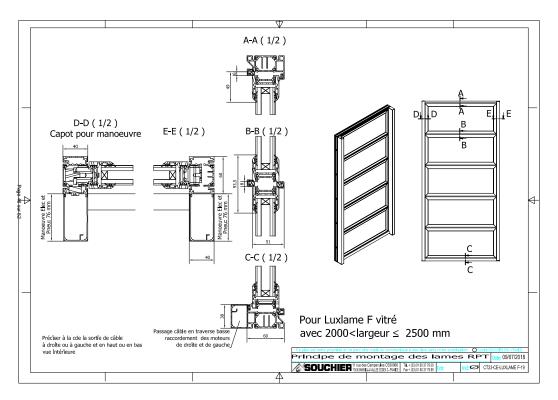
(13)

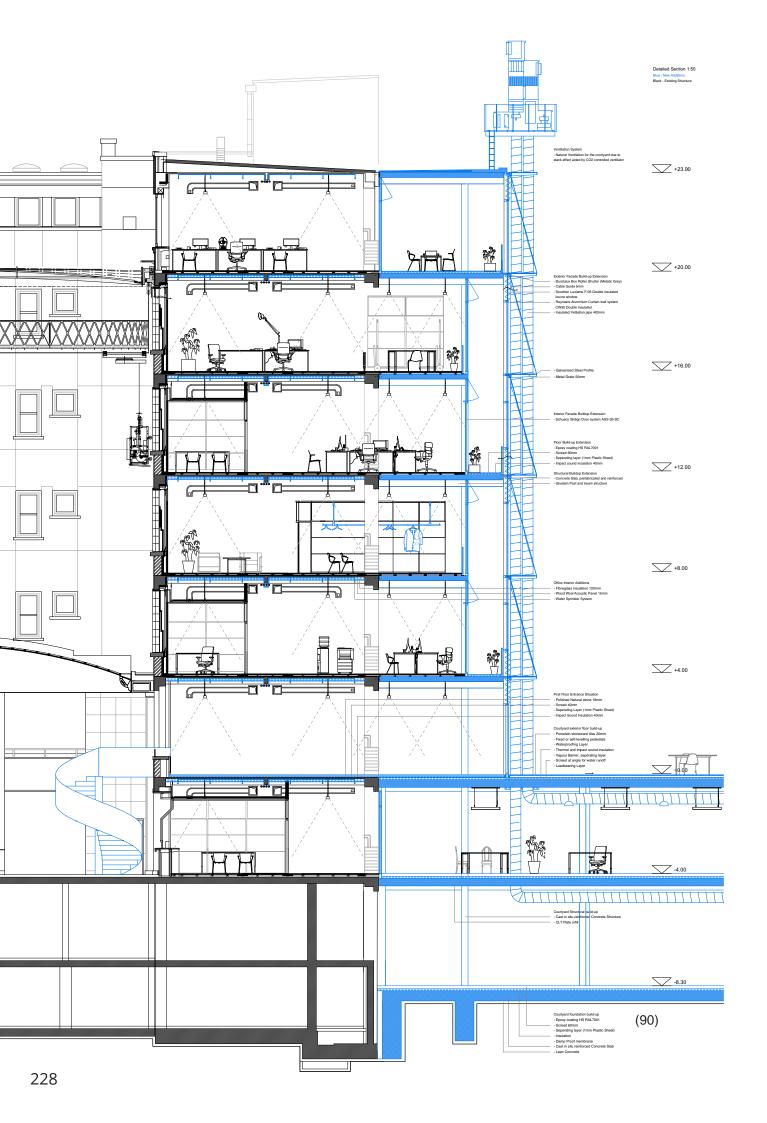
Segmental PTCC floor systems (Source: Experimental and Nonlinear Analytical Studies on Prefabricated Timber–Concrete Composite Structures with Crossed Inclined Coach Screw Connections H,Tao; H,Yang; W,Liu; C,Wang; B,Shi; X,Ling.)



#### Louvre Windows

Allowing for ventilation and insulation and run by a centrally controlled system





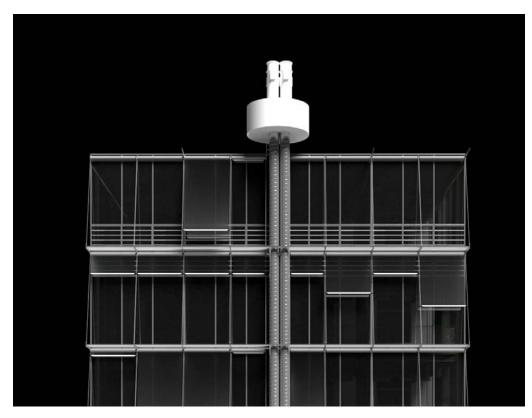


(14)

(13)

Through the introduction of a spiral staircase inside of the banking hall the The relation of the banking hall to the courtyard can be challenged. Partially stripping away the existing glazing and allwoing for freer movement.

(14)
Section of Circulation and relation of the the courtyard to the banking hall



(15)

(89) Facade Study. Black and white.



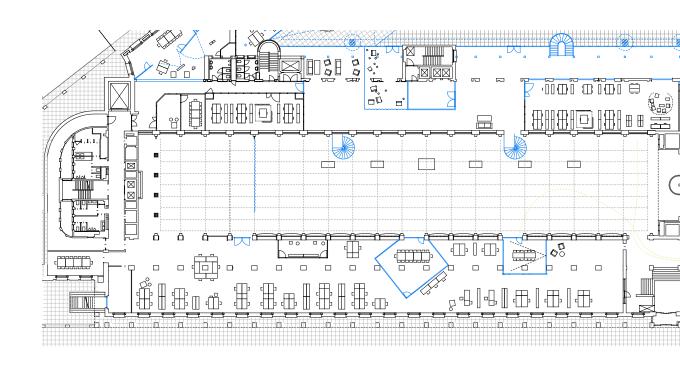
# Redevelopment of the Belgium National The Banking Hall Bank

The Banking Hall remains itself, a void in which one transitions from the public realm of the city towards the private interior and interaction of the individual meeting rooms. The face of





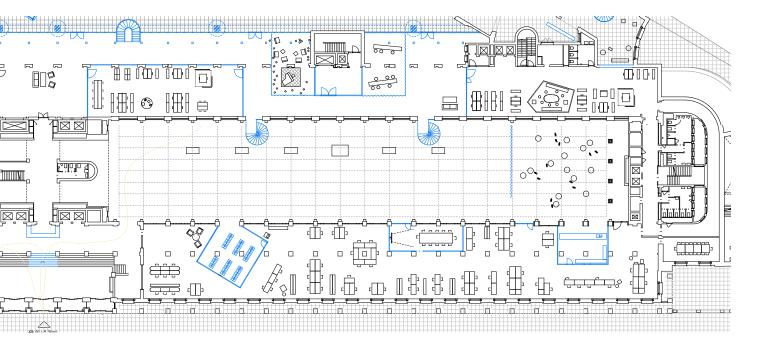
(01)



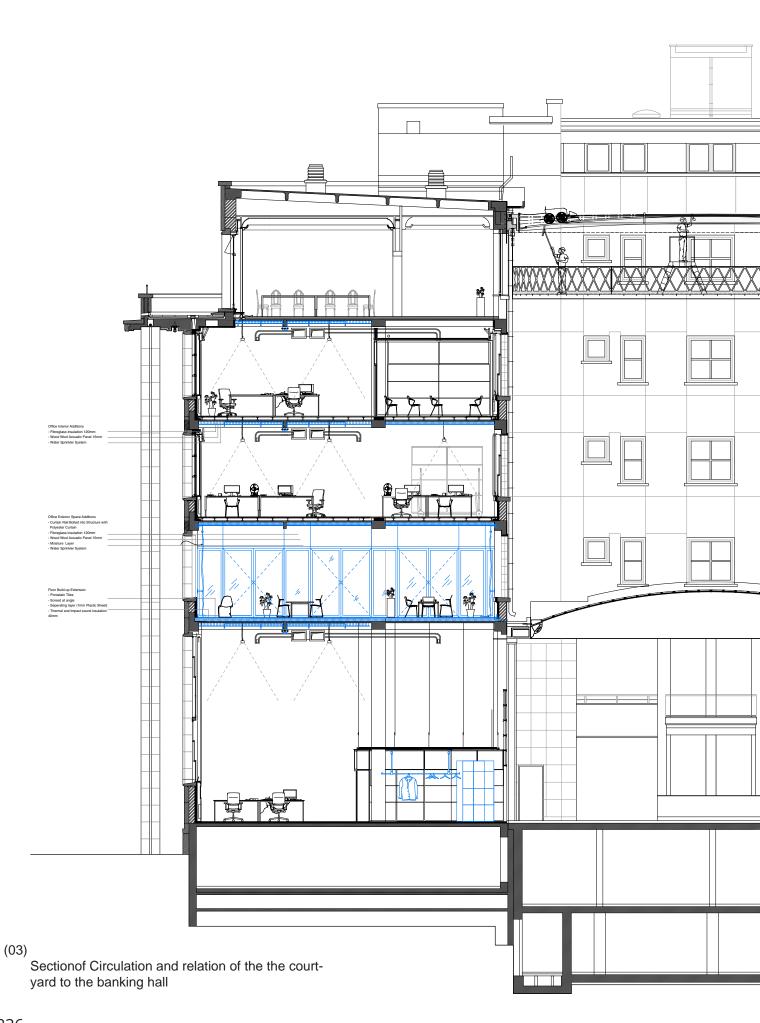
(01) NBB ARchive Banking hall ca 1970's

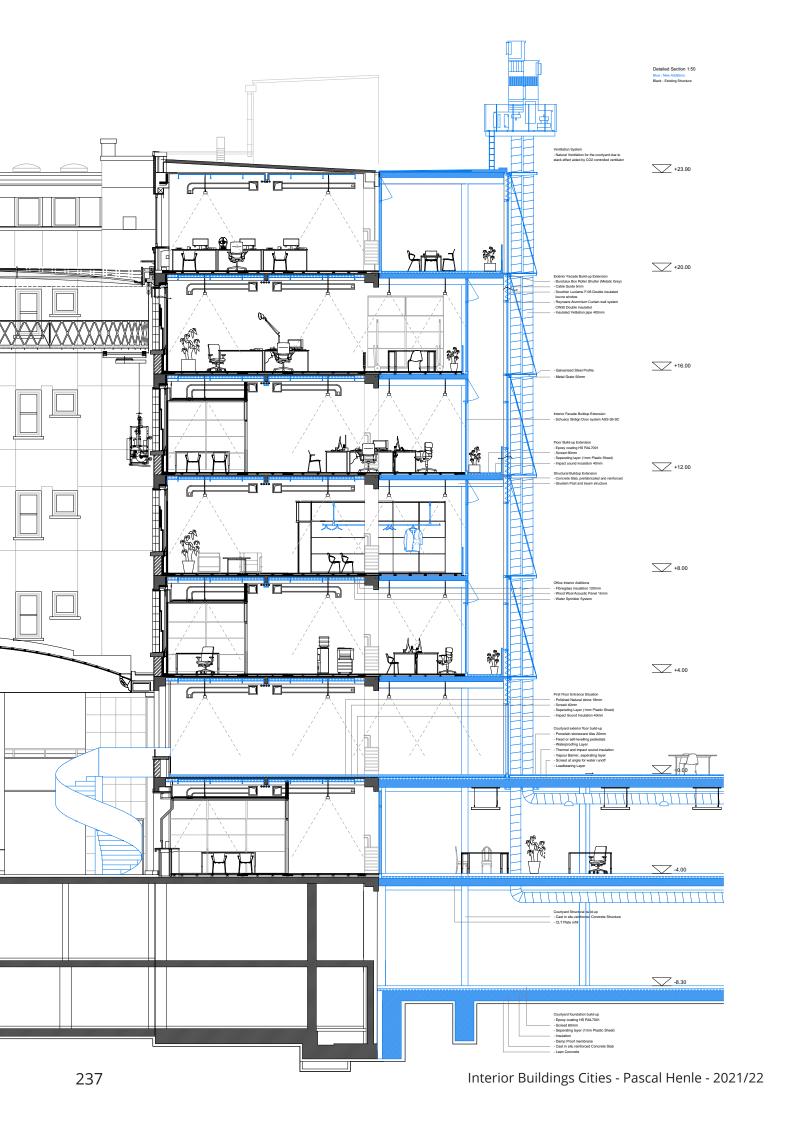


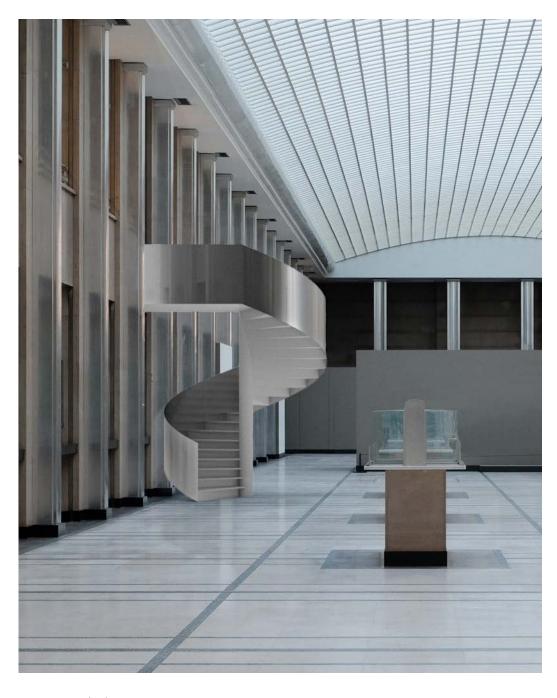




(02)Banking Hall current state (Source: NBB Archive) The front and the back. Almost like a stage set.







(04)

(04)
Through the introduction of a spiral staircase inside of the banking hall the The relation of the banking hall to the courtyard can be challenged. Partially stripping away the existing glazing and allwoing for freer movement.



# Redevelopment of the Belgium National Bank

#### **The Office Space**

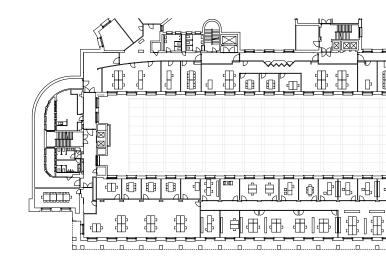
#### The office Floor Plan

What is the ideal office for the NBB? Looking htough its historical archive the workspace seems rather as a manifestation to its occupants. Seemingly endless iterations, ranging from the executive office decorated with marble sculptures, hand crafted furniture and artworks, to its modern prdecessor with modern designer furniture, classroom like office arrangements or even what appears to be a burolandschaft of some sorts adapted to the narrow floor plan of the bank.

Looking at the current structure of the bank and with the modern office moving towards a more open desk situation in which the employee oftne only comes into the office to consuct meetings (more often on zoom than in person) or to enjoy the inherent social aspects of the workplace.

By looking at the historic imagery of the banks diverse office layouts it perhaps provides links of what can happen with some of the retained furniture, spaces and instalations. Not simply taking an idelistic or trending model and overlay it on the design as it often happens in the redevelopment of large institutional office buildings.



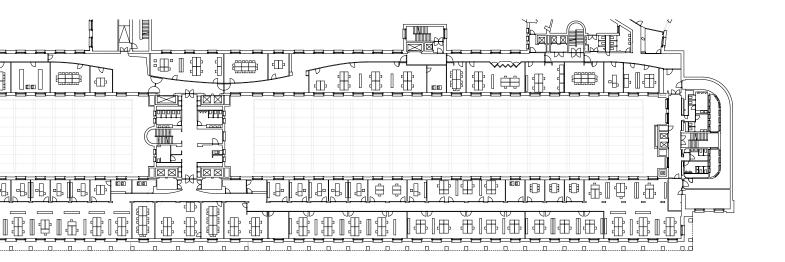


(01)

(01)

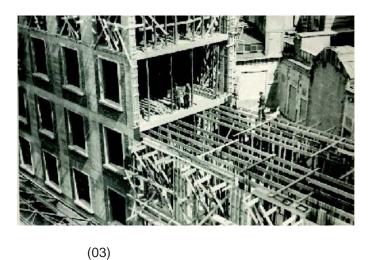
NBB bank employees (Source: Archief Nationale Bank)

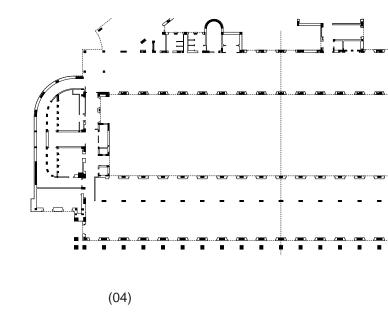
(02)
Typical floor plan of existing furniture layout (Floor 04) NBB 1:750



## Structure

Construction, main block BNB A repetetive grid of cast in-situ concrete coloums and slabs. Build in five segments and hidden in layers of cladding.



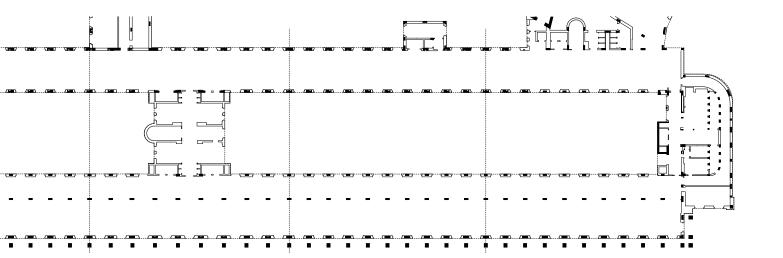


(03)

Bank under construction (Source:Archive NBB)

(04)

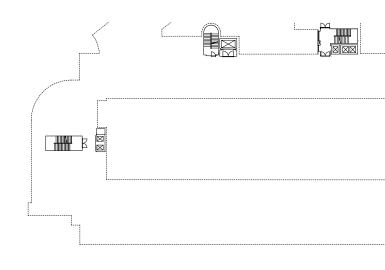
Structural Diagram (Floor 04) NBB 1:750



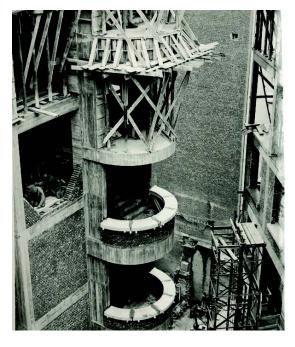
## Circulation

Located within the core and along the inner courtyard facade, the vertical ciculation is limited. The walking routes to the workplace are relatively long.





(05)

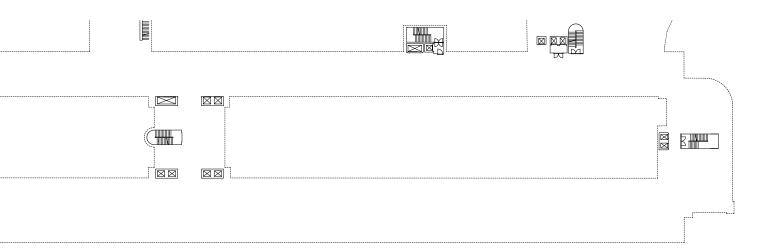


(06)

(05) Interior stair photograph.

(06)
Construction of the stair (Source: Archief Nationale Bank)

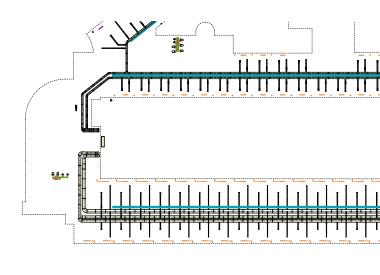
(07) Circulation Diagram (Floor 04) NBB 1:750



#### Services

Hidden behind lazers of cladding and lowered ceilings, the service szstem of the bank remains mainly hidden.

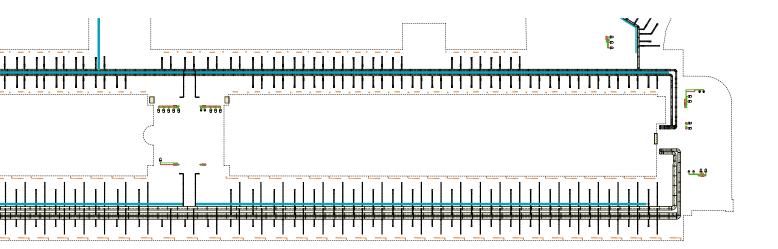


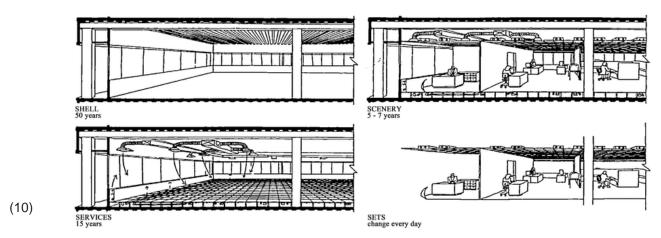


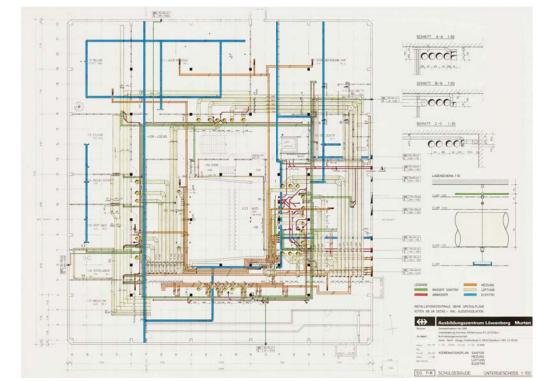
(08)

(08)
Exposed Ventilation System NBB (Source: Archief NBB, foto-albums, doos 'NBB1 Ruwbouwwerken')

(09)
Technical Instalations within the NBB (Floor 04) NBB 1:750



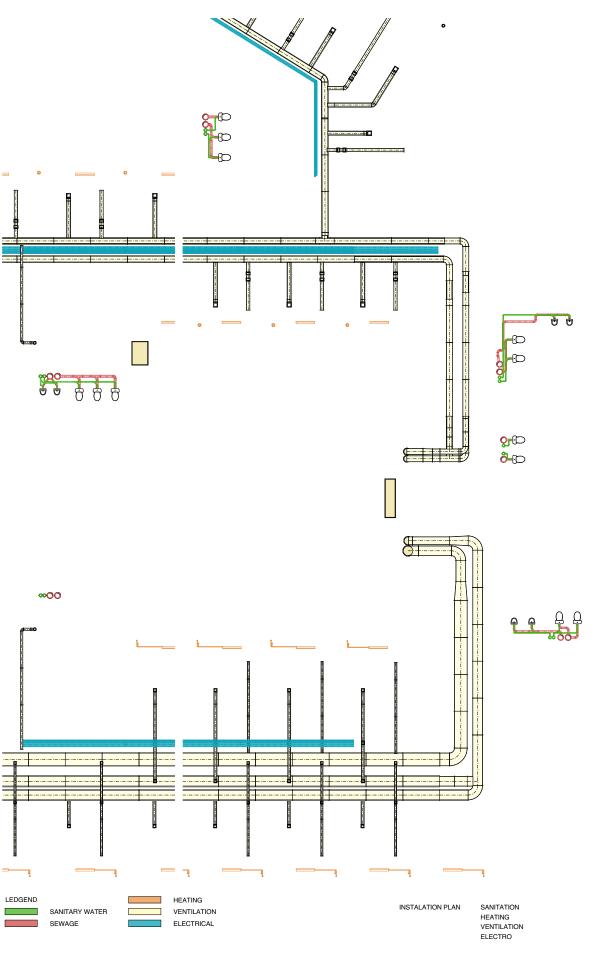




(10) Frank Duffy. Shell, services, scenery and sets

(11)
Swiss Federal Railways Training Centre, Fritz Haller.
(Source: ARCHITECTURE/MACHINE by Moritz
Gleich and Laurent Stalder)

(11)



NATIONAL BANK OF BELGIUM FLOOR 3 1:100

"The primary aim of building's energy systems is to ensure continuously a comfortable and healthy indoor climate.

As we have seen throughout this course, it is first about temperature, having the right indoor air temperatur. When an air handling unit is used, we'll need to control the temperature of the conditioned air being supplied to the room.

And we also need to ensure, the right surface temperatures, resulting in the right mean radiant temperatures. The surface temperatures are partly determined by the degree of insulation, we have no operational control on that. So, in the end we need to control air and water temperatures.

The second objective of HVAC systems is to provide enough clean air, by which we need to control the air volume flow rates.

A damper in an HVAC system, also known as Duct Damper or Volume Balancing Damper is a movable plate, situated in the ductwork that regulates the flow of air and redirects it.



(12)

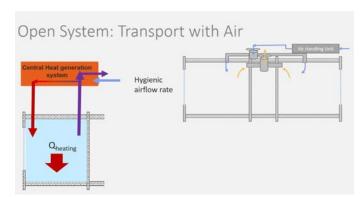
**Product: Ducting Valves** 

Material : Galvanized steel, stainless steel

It can be aided by CO2 control.

A CO2 sensor CCO2 measures the CO2 concentration. If the CO2 increases above a certain level, CO2 set, for instance 800 [ppm],

indicating too little ventilation, the ventilation will be switched on.

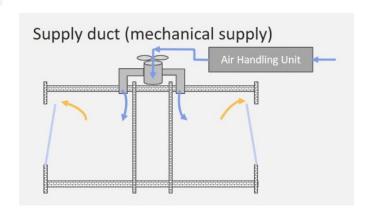


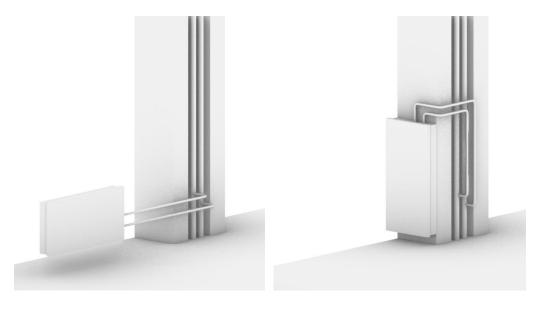
Mixed Transport Systems: Water and Air

Hygienic airflow rates

Water system

"The ones with mechanical supply where the air is pushed inside the building and then flows away through window openings and cracks, and fourth, the ones with mechanical supply and exhaust, generally equipped with a heat recovery heat exchanger."





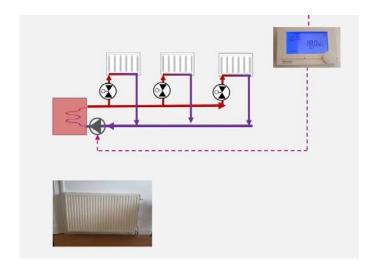
(13)

## Heating of the office

There is in general a central thermostat controlling the heater and the circulation pump.

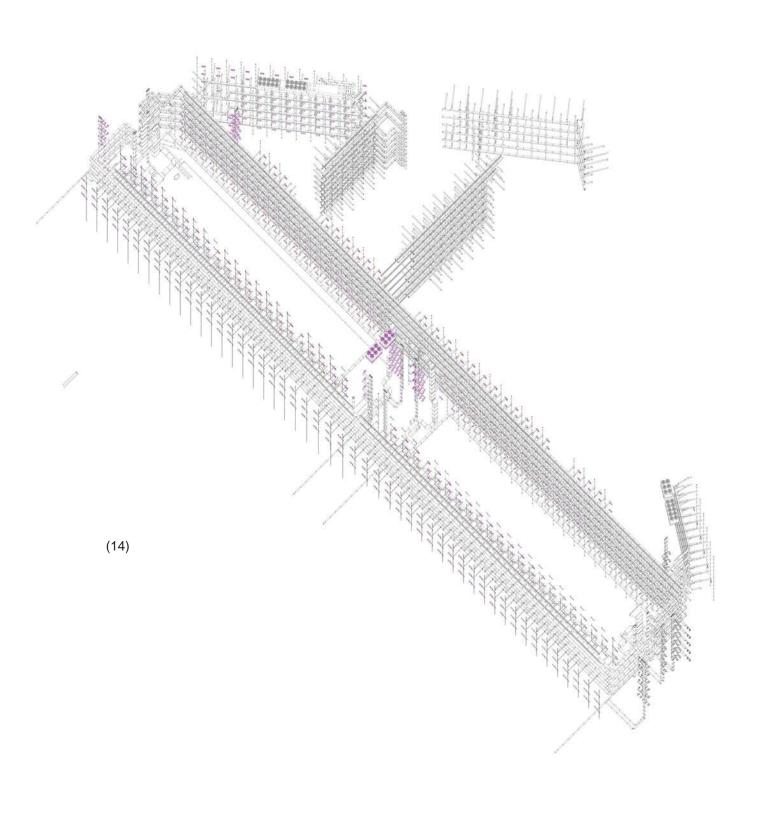
The thermostat is often placed in a room and controls therefore the temperature of that room. So, the temperature in the other rooms will be different. That's why there are valves on radiators, either simple ones, with manual control of the flow, or thermostatic valves controlling the flow based on the measured air temperature close to the radiator.

Source: edX course given by Prof. Dr. Laure Itard, "Efficient HVAC Systems"

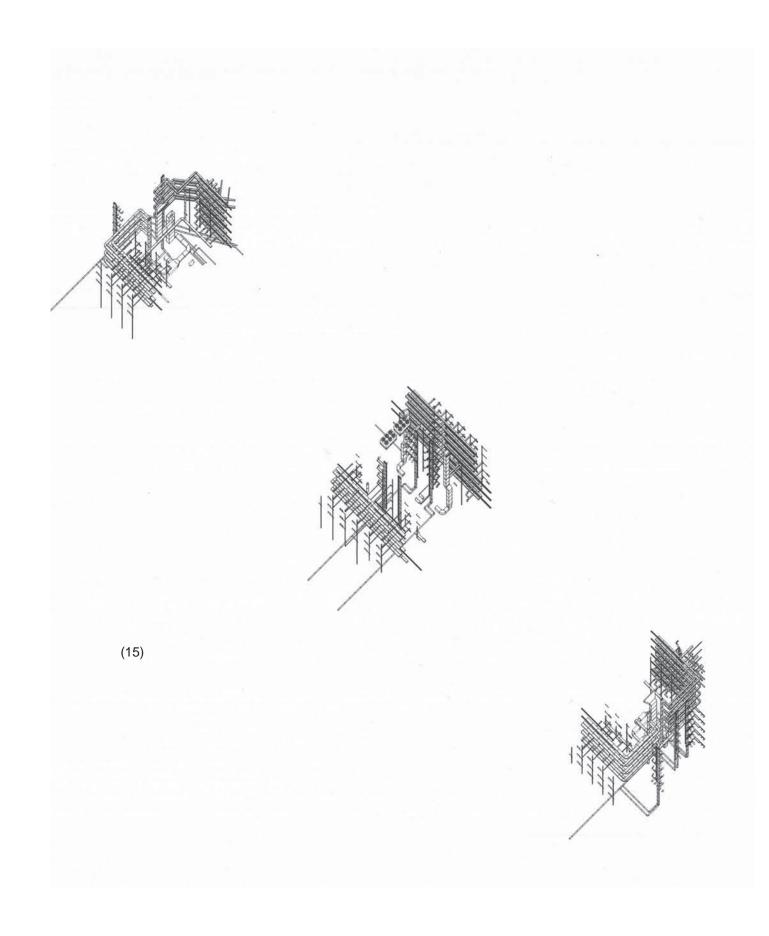


(13)

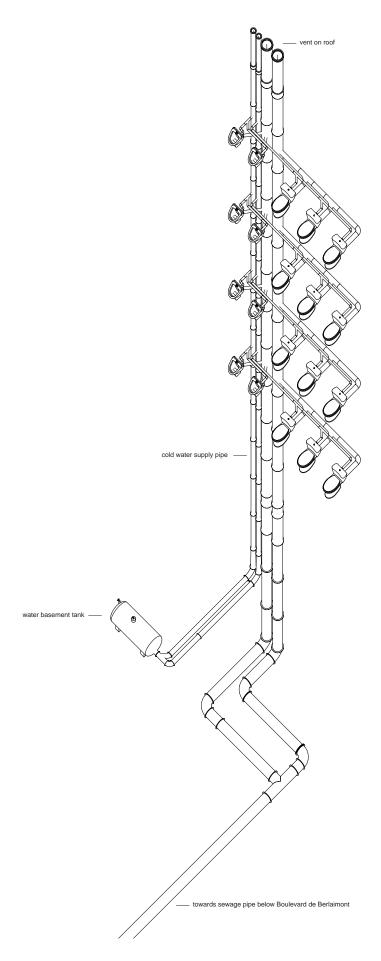
Adjusting the existing radiators to be mounted on the concrete columns to allow free movement between the extension and the existing office floor.



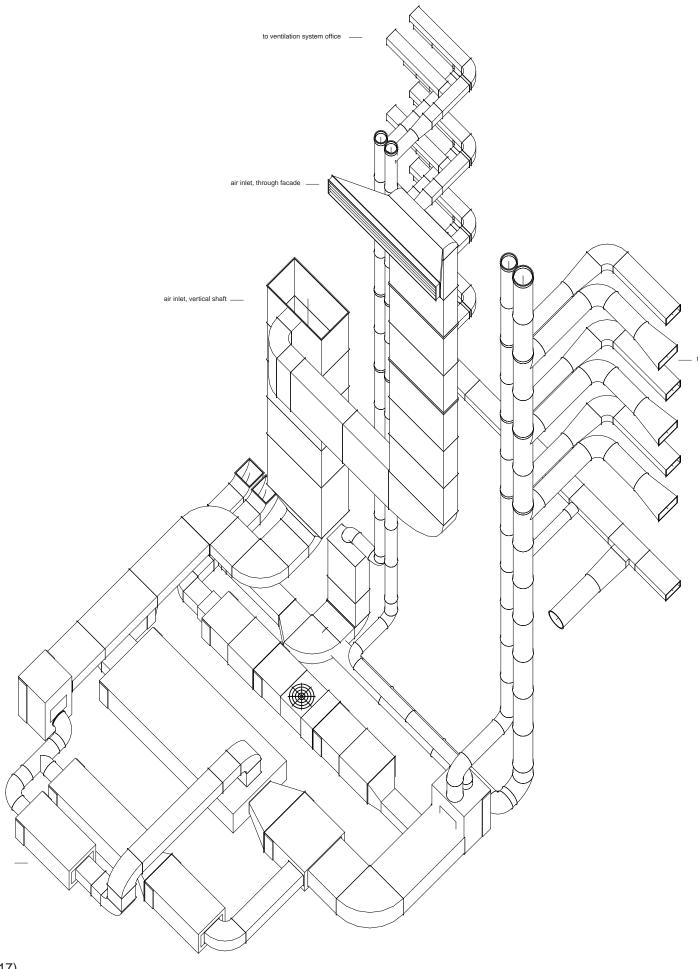
Ventilation, HVAC roof unit, technical space. 1:1000 (Drawing: Bas Leemans, Laurens de Munck)



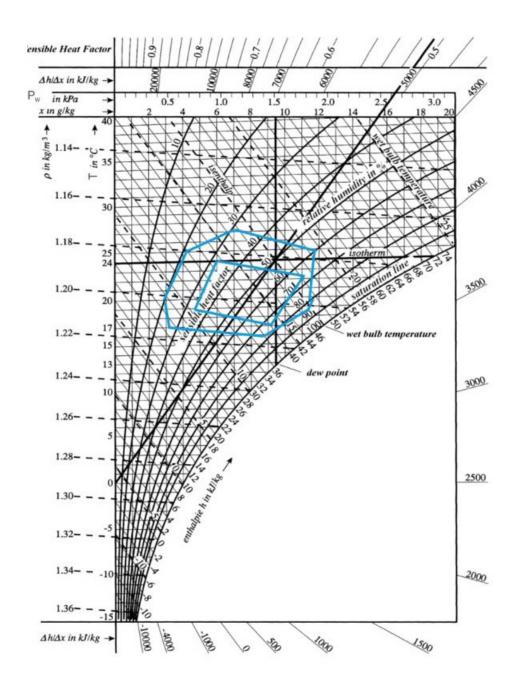
(15)
Ventilation, HVAC roof unit, technical space. Cores.
1:1000 (Drawing: Bas Leemans, Laurens de Munck)



(16)
Fixture, Sewage. Middle Core. 1:100 (Drawing: Bas Leemans, Laurens de Munck)



Ventilation, HVAC, air treatment. South Core. 1:100 (Drawing: Bas Leemans, Laurens de Munck)



(18)

(18)
Diagram from a edX course given by Prof. Dr. Laure Itard, "Efficient HVAC Systems"

"The relationship between relative humidity and air temperature when it comes to comfort.

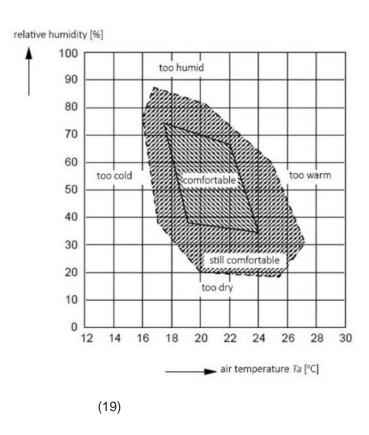
The inner zone is deemed to be comfortable and is followed by a zone where it is still comfortable, after what the discomfort becomes high.

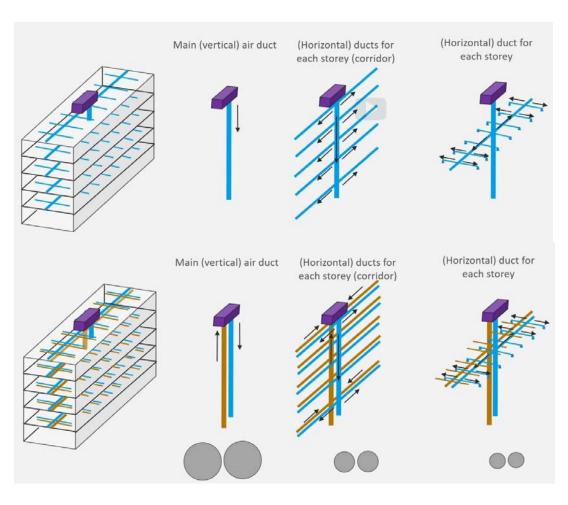
This diagram is in principle only valid for an air-conditioned office room. We can draw this diagram in the Mollier chart, which gives this.

The aim of handling air is to bring it in the comfortable zone, by preference the inner one.

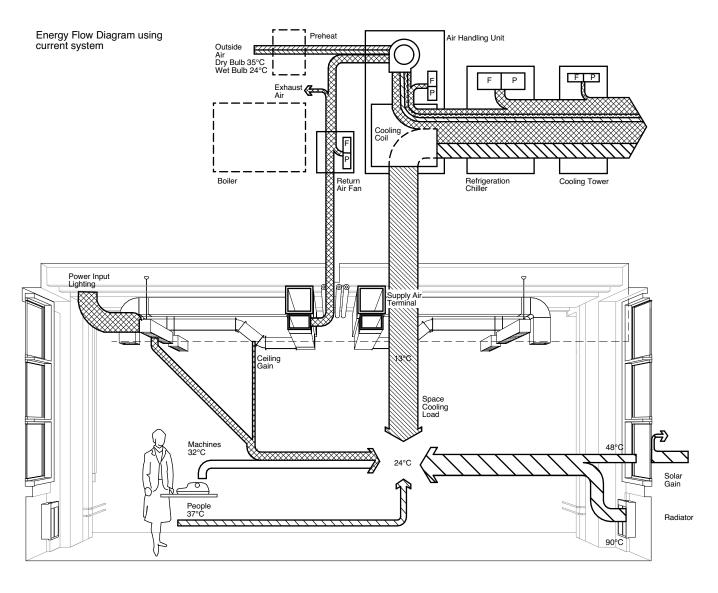
This is done just by heating or cooling air at room level.

Source: edX course given by Prof. Dr. Laure Itard, "Efficient HVAC Systems"





(20)



(21)

(21)
Energy Flow Diagram based of the text and diagrams found in 'Planning and Designing the Office Environment' by D.Harris, A.Palmer, S. Lewis, D.Helimuth, G. Meckler, R. Gerdes.

(22)
First round of comments and adjustments made by Laure Itard

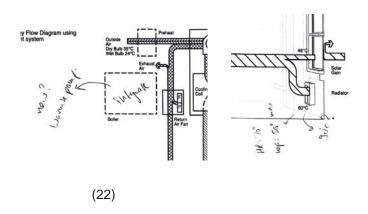
(23)
Climate Diagram, Developed from scheme to refined diagram

#### Reduction

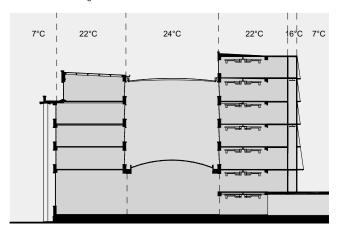
The bank as it currently exists, is a fully contained and controlled environment. The original windows that were able to open were replaced with a fixed window frame along the exterior facade of the bank.

The climate of the bank is controlled by large centralised climate systems. The occupant has little to no contole within this system and opperation costs of a fully climatised workspace has become increasingly expensive to run and maintain.

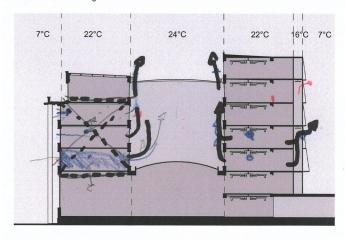
Looking for a more adaptive and sustainable system, the reintroduction of natural ventilation and additions to the facade should allow for adequate control. With the goal being a range of different climates that correlate with the function of the space inside. Office spaces thus, being most regulated for comfort whilst the banking hall and spaces of temporary occupation are less optimized.



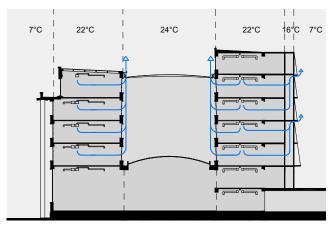
Schematic Climate diagram



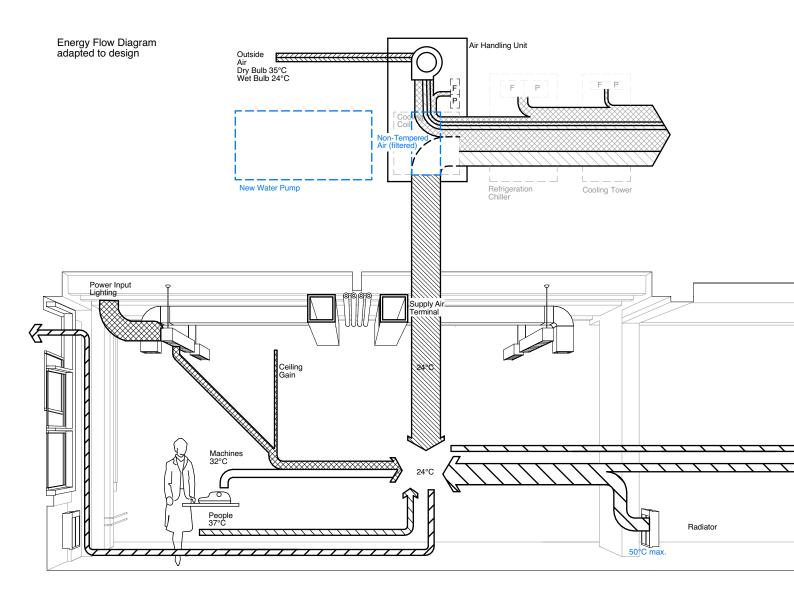
Schematic Climate diagram



Stack Effect. Climate diagram



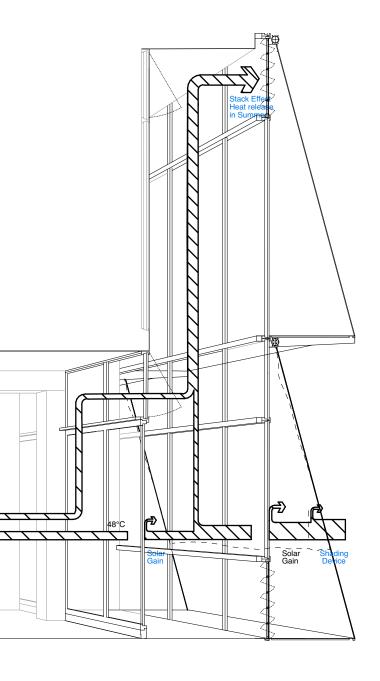
(23)

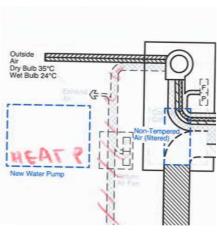


(24)

(24)
Energy Flow Diagram adapted to accomodate natural ventilation through the atrium and the additon to the facade

(25)
Second round of comments and adjustments made by Laure Itard. Replacing the boiler that is currenly run on gasoline to a more sustainable heat pump.



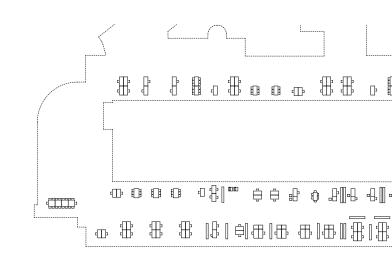


263





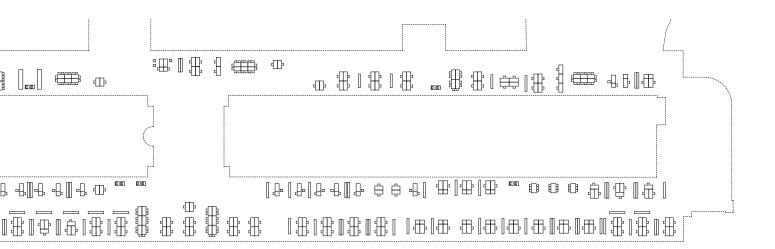
(26)



(27)

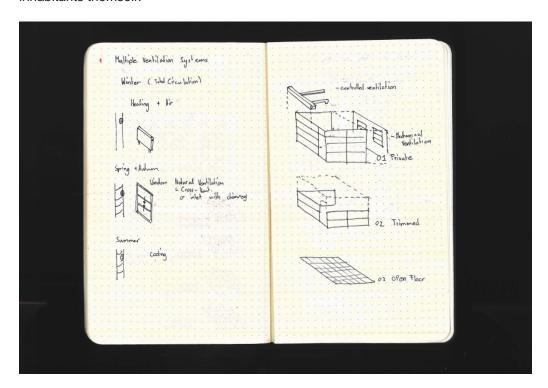
(26)
NBB office floor 1971 (Source: Archief Nationale Bank)

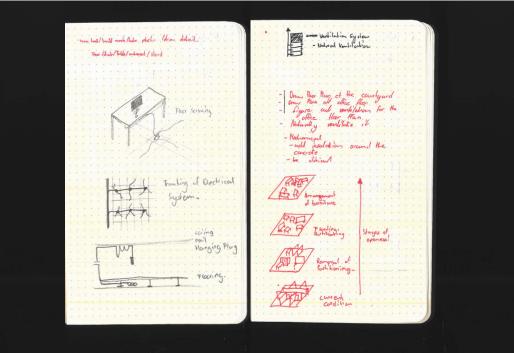
(27) Current furniture layout (Floor 04) NBB 1:750



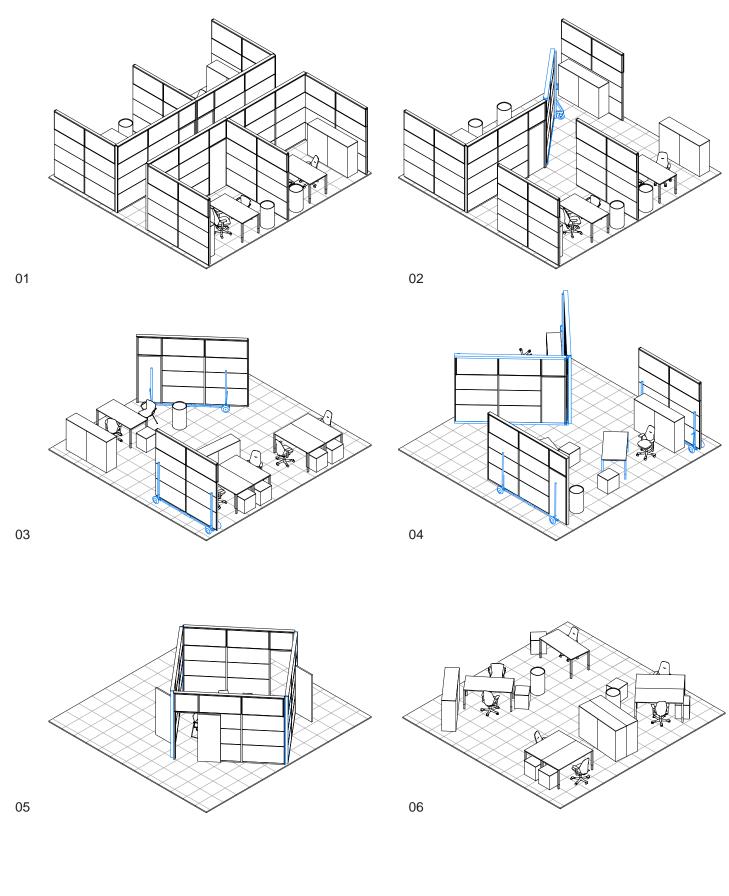
## Manipulations to the existing Partitions

The removal of the existing walls allow the manipulation of space through the lose partition itself. A lose partition used as a screen alone can successfully change the spatial configuration. Placed on a industrial pannel carrying trolley the partitionbecomes movable. Controlled by the inhabitants themself.





(28)
Sketches of the partions as a series of systems to formulate diverse privacies

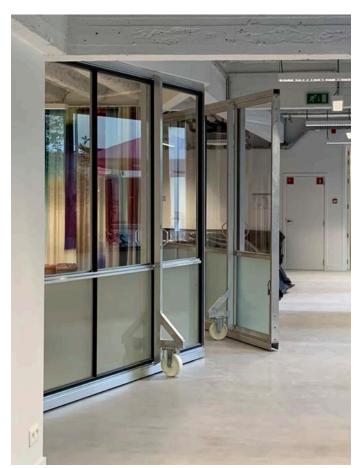


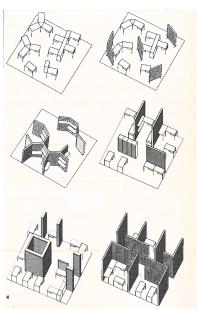
(29)

- 01 Existing Office Layout
- 02 Revolving Partition
  03 Transportable Partition
  04 Storage Room
  05 Meeting Room
  06 Open floor plan

### "Intermediate Elements

Older office landscaping and especially American open plan offices had very few seperating elements between workspaces. Gradually more and more screens, storage units, large plants, etc, have been introduced until the degree of subdivision in basically open space has become very high. Screen based furniture systems have followed this trend since this furniture has taken on many of the functions of the old fixed partition."





(31)

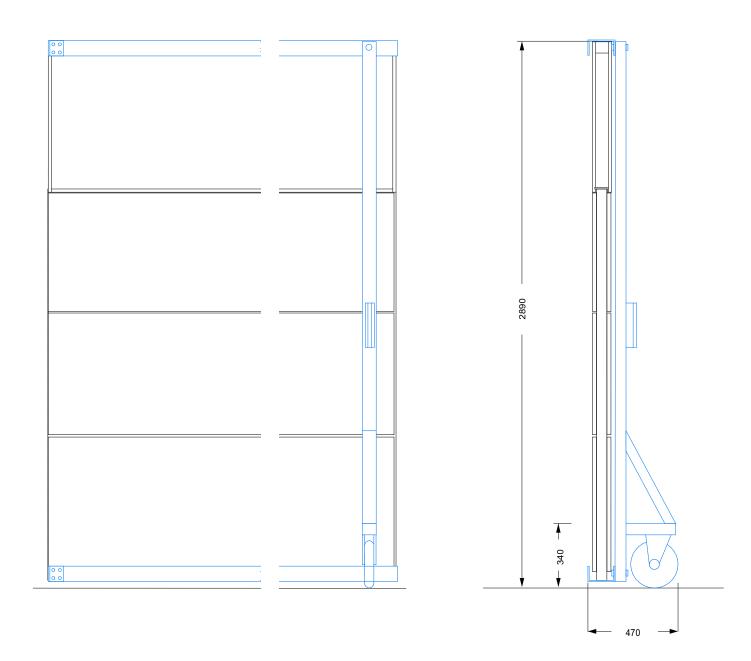
(30)

(30)

Operable Doors, meeting room. Silversquare Central, Brussels city center.

(31)

Extract from "Planning Office Space" Edited by Francis Duffy, Colin Cave, John Worthington



Industrial Castor Wheel System 250mm 1:20



(32)

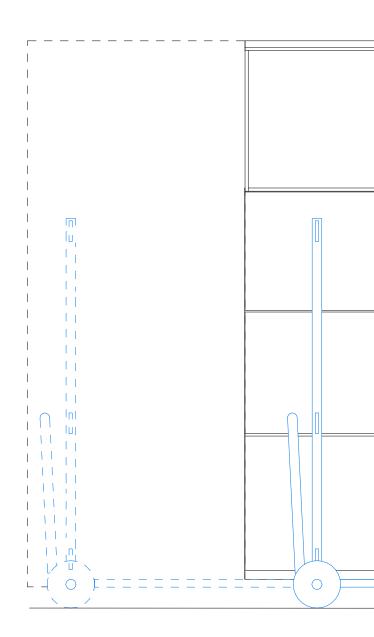
# Maxi Plate Glass Trolley 496

### Capacity: 1000kg

The high capacity Maxi Plate Glass Trolley is the widest trolley in our range and ideal for safely handling larger and deeper glazing units weighing up to 1000kg. Available to hire or buy, this expanding plate glass trolley can be used for carrying loads of different sizes thanks to its extendable and retractable frame which can be adjusted by 1650mm and 5650mm in length.



(33)



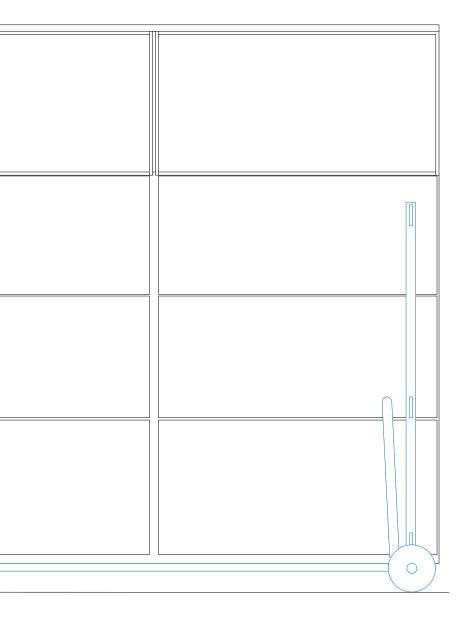
Maxi Plate Glass Trolley 496 1:20

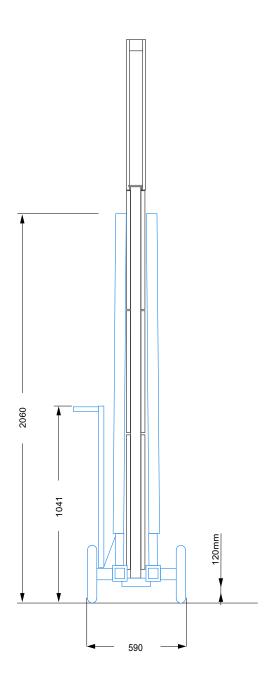
(32)

Existing partition NBB

(33)

Industrial Trolley System used as support to the existing partitions









(34)

(34) Existing Office Layout, Model Study

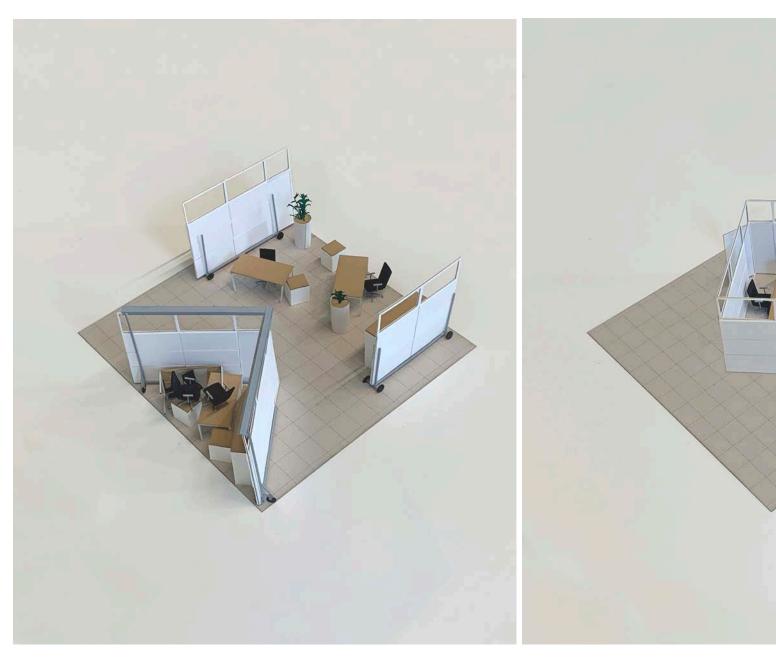
(35)
Revolving Partition

(36) Transportable Partition





(36)



(38)

(37)

Storage Room

(38)

Meeting Room

(39)

Open floor plan





(39)







(43)

(40)



## A Comparision of space

Research into the history of the bank has revealed a sereis of spaces that have seen has seen numerous alterations to the current date. Perhaps most notably are the installation of a lowered ceiling, a computer floor and the introduction of the computer.

These spaces can be compared to the precedents studies within the studio. Showing similaraties in office layouting, furnishing, hierarchical systems and the lack of computer screens.

(40)

Osram Building (Model: Ron Barten, Laurens de Munck, Aneesh Nandi, Renske Worm)

(41)

Larkin Adminstration Building, Frank Lloyd Wright. (Model: Cameron Reid, Sebastian von Rosen, Bart Vos, Carmen Wientjes)

(42)

International Insurance Building, Sigurd Lewerentz (Model: Mirthe Andriessen, Weiyuan He, Izabel Todorova, Rui Wei)

(43)

NBB office floor 1971 (Source: Archief Nationale Bank)





(42)

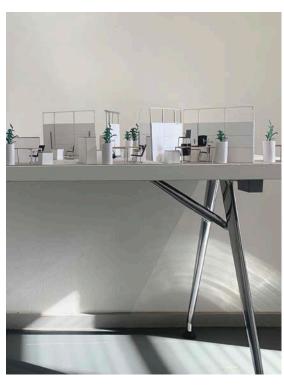


(43)

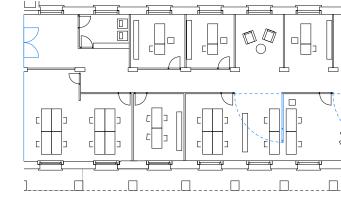
(43)

The gradual opening of the pre-existing condition. Taking the layout of the existing floorplan into consideration, partitions and furniture are slightly altered to provide diverse appropriation of the 'office'. Moving into the space, the repetitve office cubicles remain. The first alteration is the rotation of some partitions allowing rooms to open and close as a whole. The foorplan becomes more adjustable with the partitions becomming fully movable or are used to formulate meeting and storage rooms. Across the floorplan, the office is gradually stripped of its existing partitions and spaces are defined by shelves, planters, tables and chairs.

This system of manipulation hopes to provide a range of conditions in which the occupant can is slighly liberated to shape and chose his own working environment. Whilst the office cubicle can be seen as the most secluded space in which digital communication and concentrated work can take place. The open and semi-open floor plan provide a more interactive place of work which overlaps with the flexible mode of hot desk woking, allowed through the laptop.



(44)

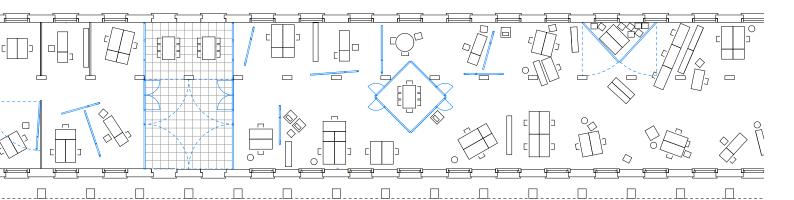


(46)

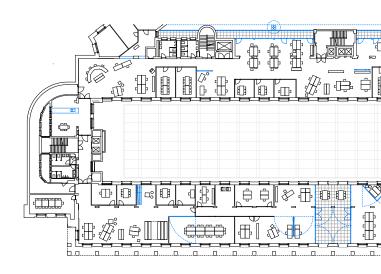
- (45)
  The transition though the maniulated furniture layout through the study of a model.
- (46) Floor Plan of office layout 1:300



(45)







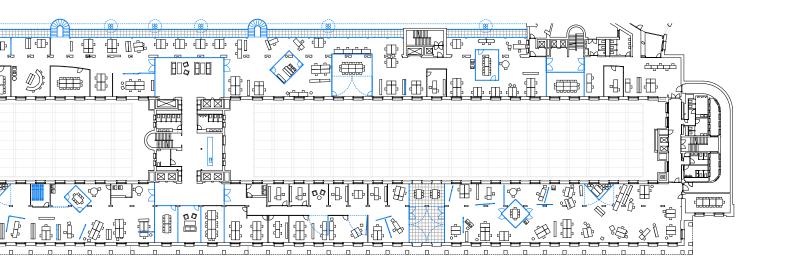
(47)

(47)

Lars Tunbjork, Office (2001)

(48)

Typical floor plan of existing furniture layout (Floor 04) NBB 1:750





(49)



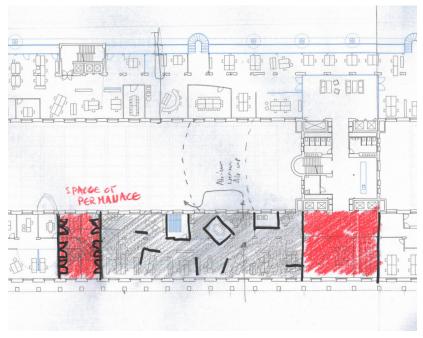
(50)

(49)
Brandlhuber+Emde. Antivilla. Window frame attached to the interior of the existing structure.

(50)
GAFPA. G1006. Reconversion Warehouse - Office,
Gent 2010-2016. A lowered ceiling creating a meeting room.

Creating an interior balcony between the office floors creates a space of permanace. A zone, although within the buildings shell allows for exterior activities. Smoking, coffee breaks and social exchange. Remving the window and its frame allows the free movement of air from the exterior to the atrium space. Moving from from one part of the office to another whist transitioning through the interiorized balocony creates spacaces of interuption to the repetitive nature of the building.

Removal of windows, addition of insulation, curtain wall, water gutters, screed, a raised floor and a railing formulate this intervention.

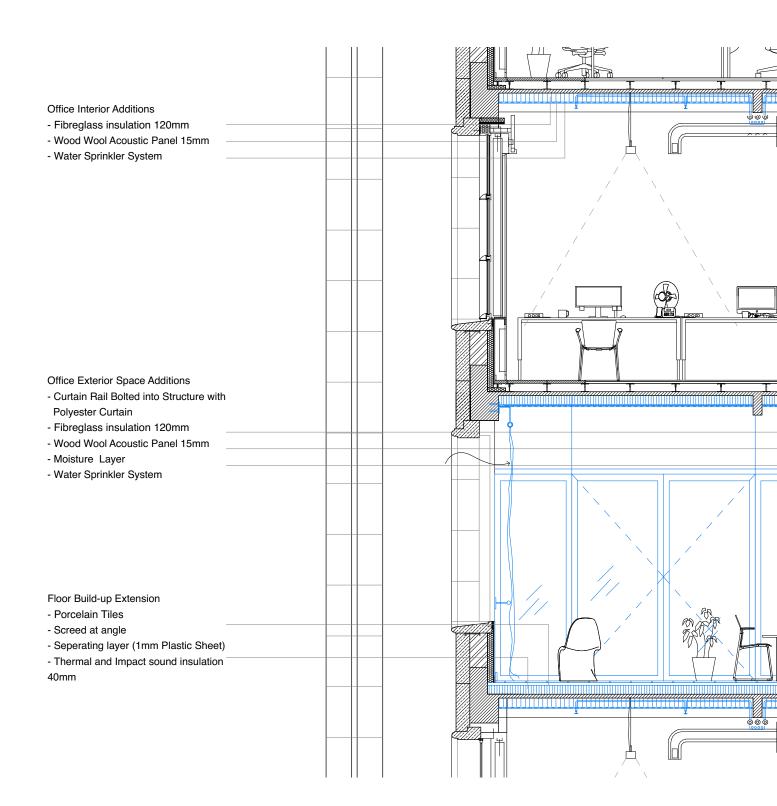




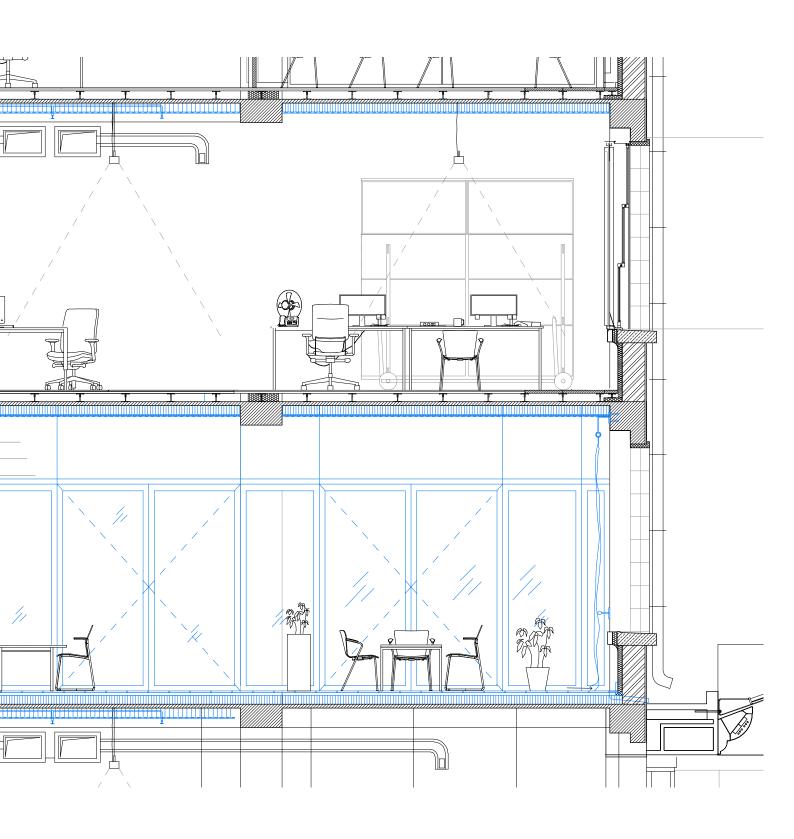


(51)

(51)
Andrew Power. House with a guest room. Empty room connecting two volumes under one roof.



(52) Detailed Section of an empty room. 1:50









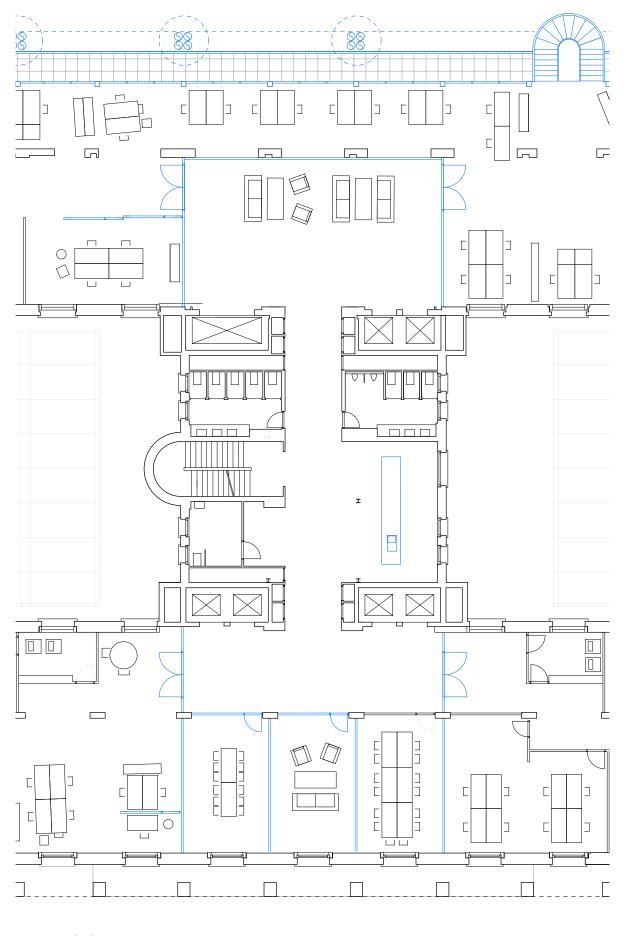
(53)

(53)

NBB office floor Lobby (Source: Archief Nationale Bank)

(54)
Typical Office Floor Plan 1:200
Focusing on the existing central core and the reintrodution of the lobby.

Reintroducing the lobby creates a central space of arrival before entering the office. A waiting space for guests and a physical point of orientation.



(54)



## Redevelopment of the Be;gium National Bank

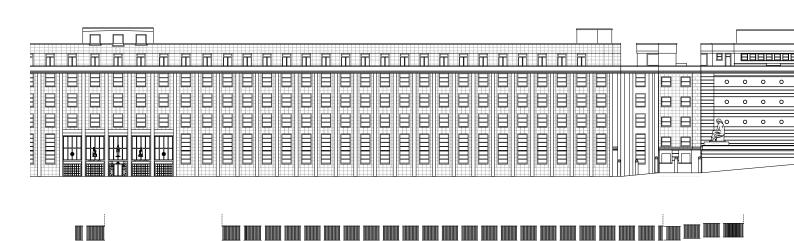
**Opening of the Facade** 

The current bank is a closed of fortress, closed off from the public and seeming unused from the interior. Large fences wrap around the building block and entrances are closed held at a minimum. With the image of the bank changing and shifting from one of power to a more public one, the bank and the public courtyard requires new entrance. The opening of the shell, both physically and metaphorically marks these new entrances within the city. Opening itself up to the city.





(02)



(01-02)

Before and After exterior shell of the bank

(03)

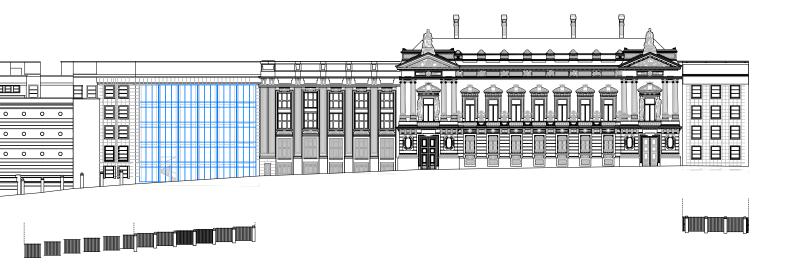
Facade Elevation 1:750 showing new entraces, the removal of facades and addition of staircase





(01)





(89)



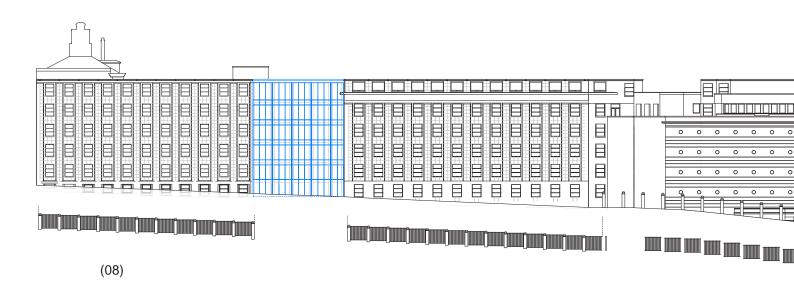


(04)





(05)



(04-07)

Before and After exterior shell of the bank

(80)

Facade Elevation 1:750 showing new entraces, the removal of facades and addition of staircase



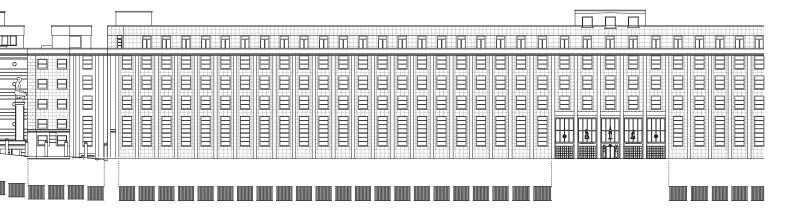


(06)





(07)



(09) AGWA Projects brussels

(10)
Facade render as proposed in the design

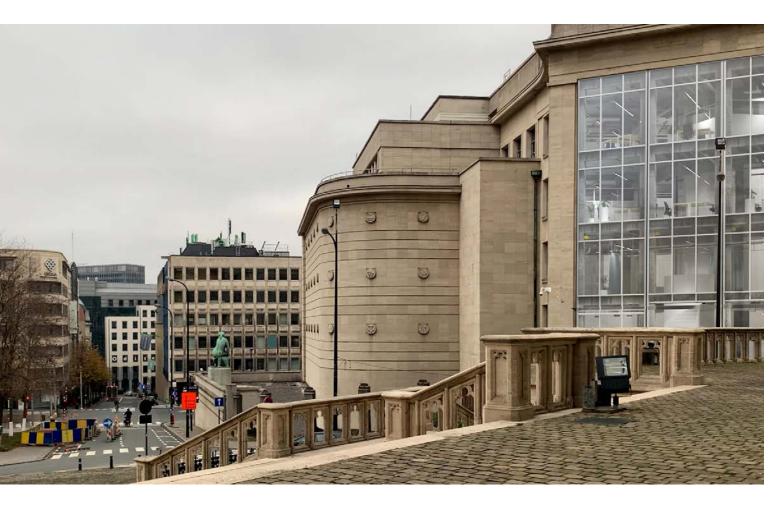
(11)

Current Site setting A closed off facade,
rejecting the public.



(09)

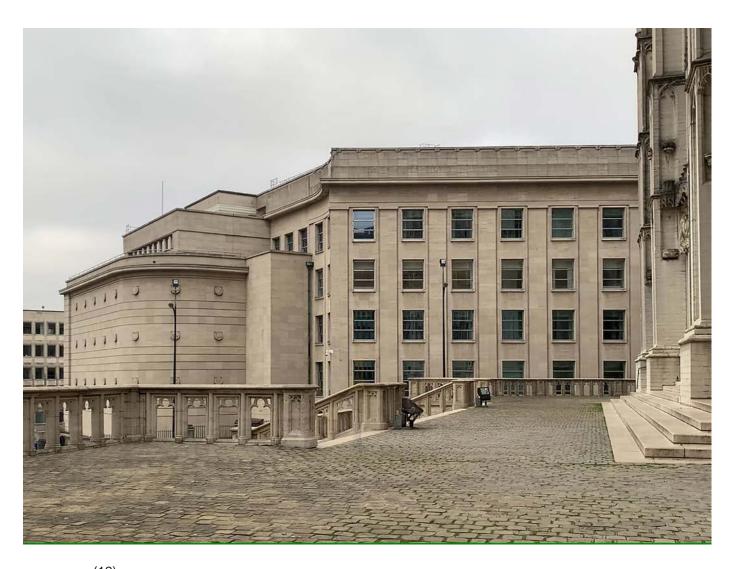




(10)



(11)



(12)

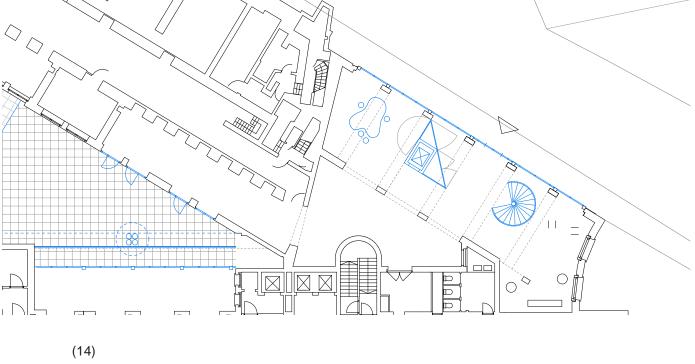
(12) Image of the current situation

(13) Render opening up the structure of the building



(13)





(14) Entrance Floor Plan +1

(15) Existing Condition Place Level 1 and 2



(15)





#forumdesimages
Transformations | Le renouveau du Musée de l'Orangerie

(17)

(16)

The Stripping away of the exiting skin. Read on gordan meta clark

Something intriguing about the way a building is assembled but also can be taken apart again. Showing and revealing the underlying structure and slowly adding layers of construction to make a space habital again. Waterproof and insulated. But at the smae time reconfiguring objects which are preexisting and are placed together in order to form something new.

- (16)
  Musée de l'Orangerie / Paris Renovated (Image: Pascal Henle)
- (17) Process of renovation (Source: YouTube)

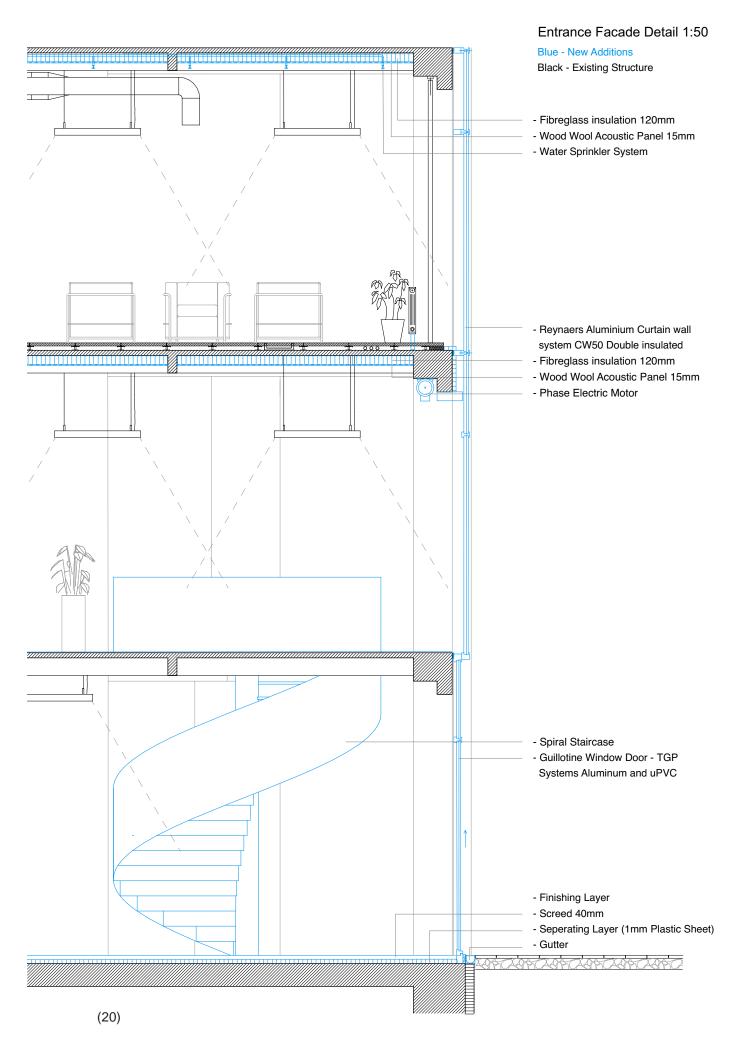






(19)

(18-19) Lecture by AgwA - Harold Fallon as part of Bernd Schmutz studio - TU Dresden









(21)

(20)

Entrance Facade Detail 1:50

(21)

Entrance Model built at scale 1:20









A new public entrance in which large guillotine doors make access to the courtyard publicly accessible. The boundary between exterior and interior is softened. The building becomes one with the sidewalk allowing the free flor of pedestrians. At night these doors can be lowered again - demarcating the bank's boundary.





(23)
The interplay of the digital model and the physical model illustrates their interrelationship. Both rely on each other and formulate the resulting floor plan. But also indicate different states and uses. The refined project and the site under construction.





(24)

(24)

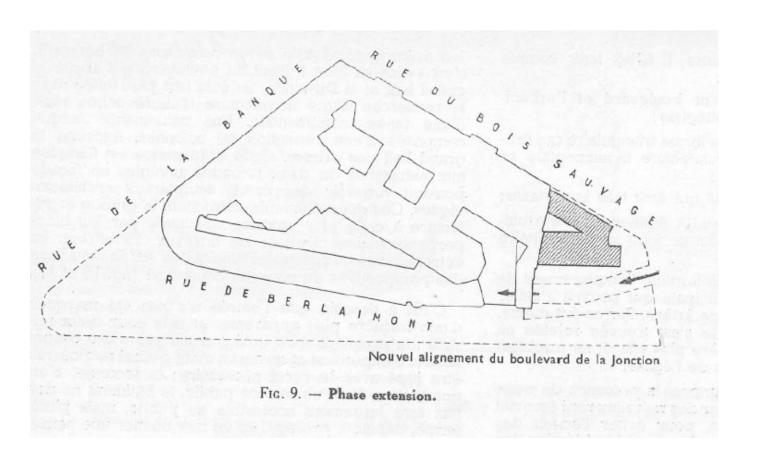
Bruther, Residence for Researchers Image: Pascal Henle

(25)

0148 Rachel, Brandlhuber+ Image: Erica Overmeer



(25)



(26)

(26) Fist Phase Extension under construction

(27) Current State of the vaulted Ceiling Space.

(28)

NBB Archive. Space used as offices



(27)



Afb 3.236: 1971

(28)



(29)

(29) Current State of the Vaulted ceiling Space

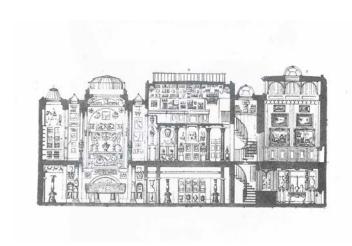


## Bank

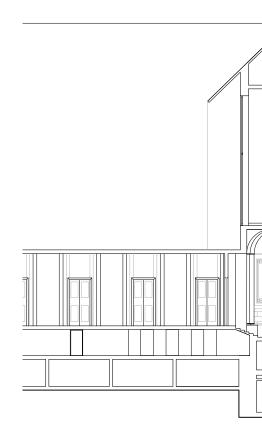


The oldest part of the Bank and only remaining part of the original building is the Palace, also known as the Governors hotel. Currently, the palaces have no prescribed function, although it has formerly been used as a museum or the banks as well as office spaces within the attic of the building. In need for major reconstruction efforts, the palace could maintain its cultural and public function as an exhibiter of the extensive art collection (including modern pieces). Referring to references, a system of white walls could be used to formulate new spaces and maintain the fitting of the palace.

(01)



(02) Section Through John Soane's house-museum at ca. 1:300





(03) Section of the Belgian National Banks's Hotel. 1:300







(04) STOP PAINTING, Peter Fischli Fondazione Prada Venice



(05)

(05) St. Petersburg Studio of Arkhip Kuinji, 19th-century Georgian artist



(06)



(06)

(06)

Abandoned Palace

(07)

Thomas Demand Ruin 2017





(07)



(80)



(09)



(10)

(80)

Construction Image National Bank of Belgium

(09)

Demolition process of Sir John Soane's Bank of England

(10)

The building as a formwork or impreint on the new structure, Brandlhuber. (Source: Accattone 2 - Bruil & van de Staaij)



(89)

(11) Studio depicted through film camera. 2022





