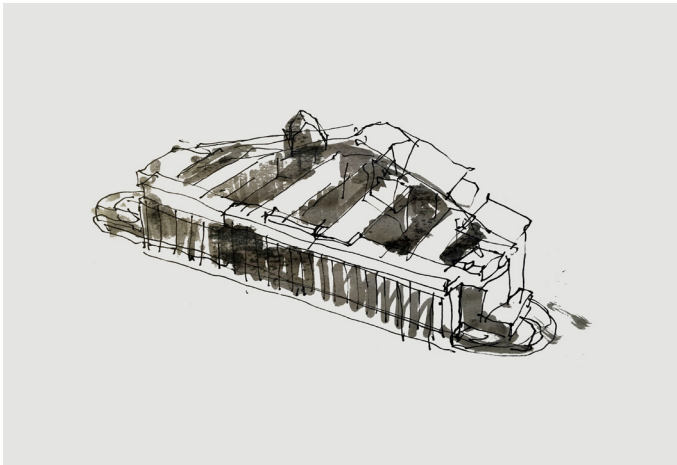


Aneesh Nandi



Grappling with
the Future
Bank

Colophon

Aneesh Nandi • 5237769
MSc. Architecture 2022

Interior Building Cities MSc3/4 2021-22
Faculty of Architecture and the Built
Environment, TU Delft

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week 1.1

2021 09 02-09

Studio notes: Introduction session

1.

Tutors: Daniel Rosbottom (DR), Sam de Vocht (SV), Mark Pimlott (MP), Susanne Pietsch (SP), Jurjen Zeinstra (JZ), Birgitte Hansen (BH), Amy Thomas (AT), Mauro Parravicini (MA)

2.

Introduction lectures by MP, DR on IBC chair direction/ methods: model-making, drawing, constant analysis/ development. *Attention and Craft*. Careful making paired with thorough understanding of context. Older projects - references/ precedents for graphical quality. Large-scale models, desaturated colours. BH - Journal as a space for reflection on presentations/ notes/ references.

3.

Introduction to Brief 1: working together by JZ. Case studies/ precedents of 8/16 canonical projects that represent key moments in the (western) development of the *office* as a typology.

USA

- Wright, Larkin building, Buffalo, 1906
- Sullivan & Adler, Guaranty building, Buffalo, 1896
- Wright, Johnson Wax building, Racine, 1939
- SOM, Union Carbide building, New York, 1960
- Roche & Dinkeloo, New York, Ford Foundation, 1968

UK

- Rogers, Lloyds, London, 1986
- Smithsons, Economist building, London, 1964
- Berlage, Holland house, London, 1916
- Foster, Willis Faber Dumas, Ipswich, 1975
- Ellis, Oriel Chambers, Liverpool, 1864

Sweden

- Lewerentz, National Insurance Board building, Stockholm, 1932
- Torp, SAS headquarters, Stockholm, 1988

Germany

- Henn & Quickborner, Osram headquarters building, Munich, 1965 (*)
- Hoger, Chilehaus, Hamburg, 1924

Netherlands

- Hertzberger, Centraal Beheer, Apeldoorn, 1972

Italy

- Ponti, Pirelli building, Milan, 1958 (*)

Final count: USA 5, UK 5, SW 2, GR 2, NL and IT 1.

4.

Introduction to project brief by DR: Large, imposing national bank in Brussels, next to church near the centre of the city<?>. 200m long facade, 91,000sqm (twice of APJSC) Competition project, limited brief.

Questions: Public space in a bank? Its relevance in 2021? Only for 1,500 people?

Strange details: large hall with double-roof, labyrinthine circulation, built incrementally. More on this later.

5.

References:

IBC chair/ studio. Collegrama lecture by MP
Student work on TUD repository
Thomas Demand. Paper models

Brief 1. Working together

Osram headquarters, Munich, Germany, 1965-2019

Source: Muck Prezet



Architect: Walter Henn -- 70 year old practice, now large international firm with 380 employees over 40 nations. Corporate, large scale commercial projects. + Quickborner Team for interiors.

Photos: Heinrich Heidersberger, Muck Prezet, Hans-Georg Esch.

Key words from the Architect's website

- Square plan layout
- Functionality/ aesthetics -- international modern architecture
- 6 storeys; 22,260 sqm ~ 2.5 lakh sqft
- Steel framed, stand-alone structure
- Open plan, flexible, adaptable, freely-configurable
- 850 people over 4 floors
- Ground floor public program -- canteen, special offices, lobby
- Fully air-conditioned
- Light metal facade -- double glazing -- fixed windows
- Balustrade panel and vertical silver bars
- External lamaellae for solar protection
- 'Silver glistening cube'

Pirelli building, Milan, Italy, 1958

Source: RSG architects

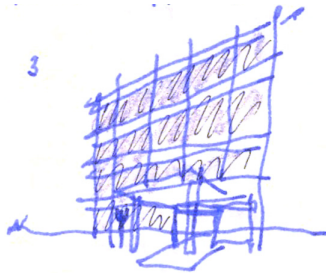
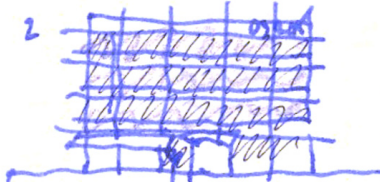


Architect: Studio Ponti Fornaroli Rosselli in collaboration with the Studio Valtolina-Dell'Orto.
Gio Ponti 1891-1979 -- Italian architect and designer, career spanning 60 years.
Structural consultants: Pier-Luigi Nervi & Arturo Danusso
Photos: Fachini, Ciceri

Key words from the Architect's website

- First non-rectilinear tower
- Pirelli: Multinational tire and gasoline company
- G+32+2B storeys; 34,100 sqm ~ 3.6 lakh sqft
- Unprecedented, innovative structural design in concrete; 'finite' tapering form
- 'Precise shape, dictated by reason, without flaws, totally resolved' - Gio Ponti
- 11m model constructed to test structure
- 'Open season declared on unnecessary weights' - Pier-Luigi Nervi
- Aluminium and glass cladding
- 'Equilibrium, not impetus'
- Building detached from lower structures by ramp, linked by bridges.

*Osram building photographs as seen on Architect's website
by Heinrich Heidersberger*





1.
Modernist transparent glass box -- revealing lights inside. Building as display/ advertisement for the Osram light company.



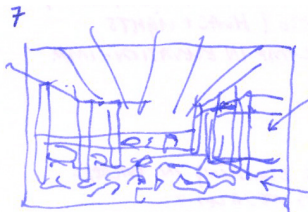
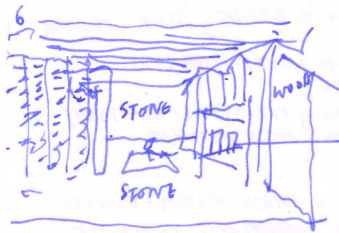
2.
Wide horizontal bands, narrow vertical bands. Lightweight awning demarcates canteen space and canopy marks the entrance.



3.
Blinds closed -- denial of natural environment. Artificial, hermetic volume; dependent on HVAC and lighting. Old lamp adjacent to entrance, of historic importance.



4.
Building as clearing in forest, adjacent to highway. Logo appears on all sides -- uniformity, symmetry regardless of solar orientation.





5-6.

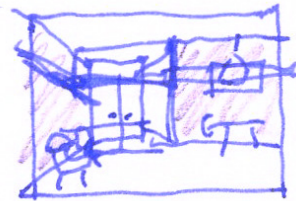
Entrance area and covered car port leads to waiting area, connected by independent vestibule volume. Waiting area emphasised with the use of wood, stone, leather, carpeting, articulated false ceiling, glass/ light sculptures. Main vertical circulation core is seen as a void on the wall surface. (6, right) The external old lamp is prominently visible. (5, centre)

7.

Burolandschaft layout. Staircase core volume (right) creates an illusion of enclosure. Uniform/ 'infinite' grid ceiling. High exposure/ burnt image suggest dark interiors.

8.

While the plan uses standard, modular units of furniture, there is hierarchy within the open plan. Men have some enclosure via partitions and cabinets whereas...





9.
Women are arranged in rows, facing away from each other -- organized to ease supervision and surveillance?

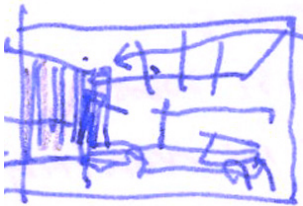
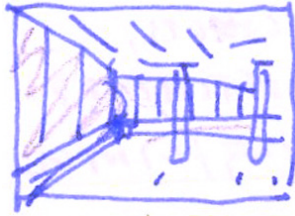


10.
Executive offices and various special rooms are conservatively furnished - leather, wood, carpets, artwork -- in contrast to the experimental Burolandschaft.



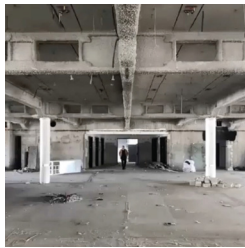
11.
These materials create a more domestic environment. Only the ceiling grid is the same as the open offices. Lighting treated as horizontal bands/ lintels.

Osram building photographs, present-day
Muck Prezet, Hans-Georg Esch

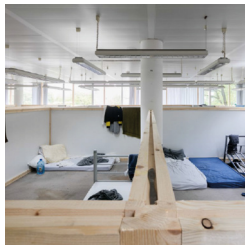




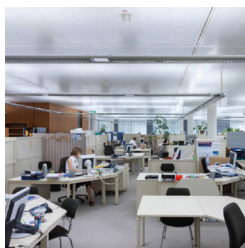
1. Stripped flooring reveals electrical floor points on fixed grids, and heating radiators along building edge.



2. Composite structure, castellated steel sections of two depths with fireproofing layer.

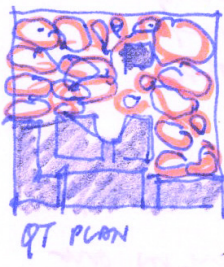


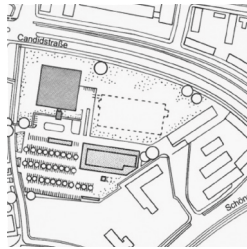
3. Building used as housing for refugees before being demolished in 2019, using eye-level height partitions to create enclosures in the large floorplate.



4. The building is also used as a conventional office space, with present-day furniture and equipment replacing the Burolandschaft.

Osram building drawings





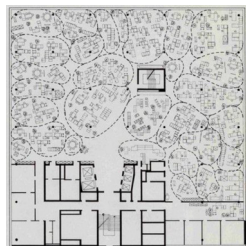
1.
Site plan
Building in landscape,
object/ field. Fronted by
parking lot and vehicular
circulation.

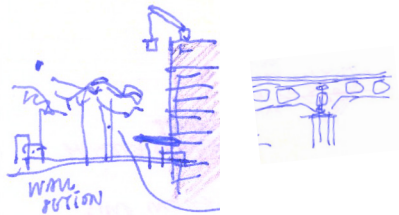
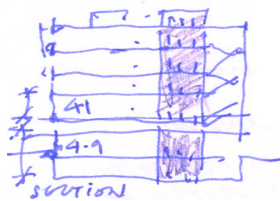
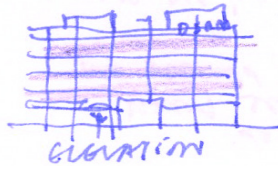
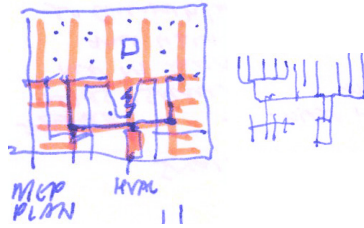


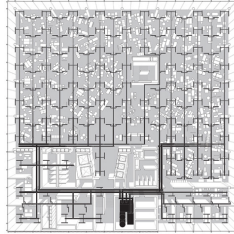
2.
New site plan by Ortner
and Ortner show proposal
to demolish and redevelop
precinct as irregular
urban blocks integrated
with landscape.



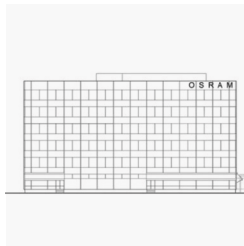
3-4.
Typical floor plan
Figure-ground relation
-ship between large
opaque mass with one
free-floating volume;
within an even grid of
columns. Opaque part
houses circulation and
services/ installations; as
well as executive offices.
Quickborner places
'Clouds' of office furniture
arranged within open
office. Planters define the
edge of circulation paths
within the large 50x50m
floorplate.



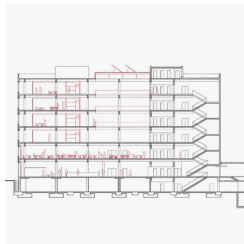




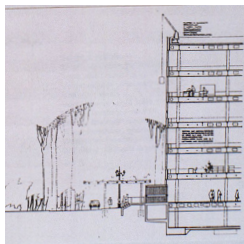
5.
Service/ installations
Technology ahead of its
time: branching network
of ducts integrated with
structure and lighting --
uses light fixture as intake
grills.



6.
Facade
Elevations defined by
grid lines -- aluminium
verticals supersede the
horizontal panels. Logo is
evenly spaced on this grid.



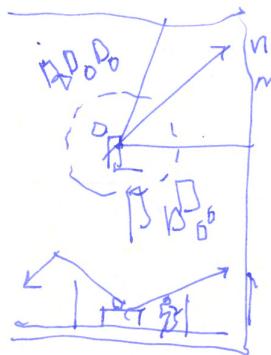
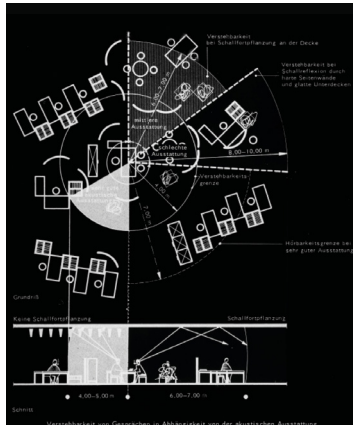
7.
Section
'Pancake' stacked floors
with little variation:
only ground floor and
basement are different
heights.



8.
Wall section
Facade crane depicted
to suggest maintenance
strategy. Castellated
beams allow services/
installations to pass
through.

Interiors by the Quickborner team

Source: Quickborner team



From “In Praise of Cybernetics: Office Landscaping and the (Self-)Conditioning of Workers” by Andreas Rumpfhuber

Wolfgang and Ebehard Schnelle formed Quickborner as a private consulting firm, working directly with clients to come up with scientific solutions for effective management and organization. They were furniture designers. QT included mathematicians, information scientists, artists, architects.

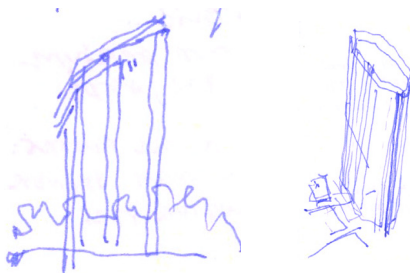
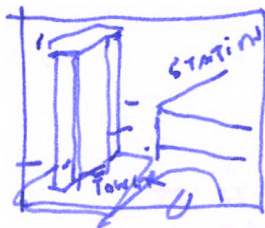
Here, cybernetics is applied -- looking at humans as productive machines that rely on communication networks and relationships. Cybernetics emerged in post-war Germany as a reaction to the political turmoil of the time.

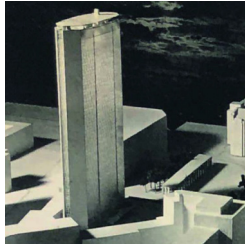
Interactions and information flow among employees was computed to create efficient systems, with the emancipatory larger goal to automate tasks and create more leisure time. This is why modular, inexpensive furniture is used for all workers -- brown formica and metal structure. In an ideal scenario, the workers had equal say in the design solutions, and they were not imposed top-down. In practice, however, things were less flexible.

The seemingly random layouts are informed by analysis of noise levels, sight lines, team affiliations... The ‘irregular rhythm’ of the plan creates ‘subjective spaces’ that are unique, each seat/ group with a view of the entire open-plan floor.

In this project, the architecture takes a backseat to the interior. Burolandschaft goes on to inspire Herman-Miller, whose ‘Action office’ transforms open offices to cubicles in the US.

Pirelli building photographs/ models





1.
Relationship with
Milan central station
-- prominent location,
dominated by the tower to
this day. Surrounded by
typical G+4 urban blocks.



2.
Tapering profile disguises
the bulky volume of the
tower. Form inspired
by North and South
American skyscrapers.

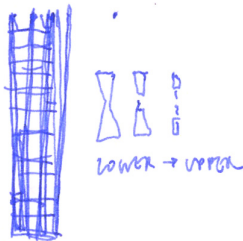
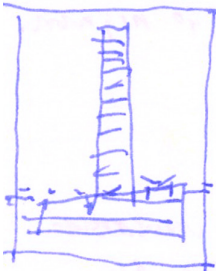


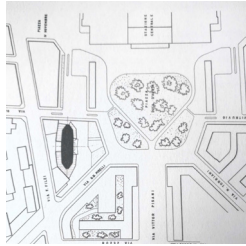
3.
Interior photos show
dark, deep spaces despite
narrow width of building.
(16m) People are seen
sitting in rows, facing one
direction -- Taylorism?



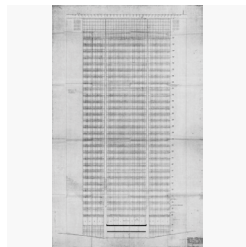
4.
Height of rooms seem low
due to false ceiling below
beams and long length of
the photos. Ribbed beams
are expressed in some
parts of the interior.

Pirelli building drawings

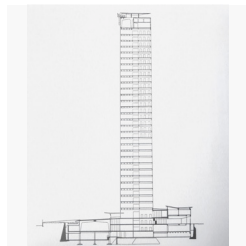




1.
Site plan takes up an entire urban block, defines street edges with lower buildings -- 'no more streets like trenches'



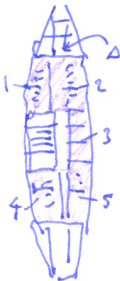
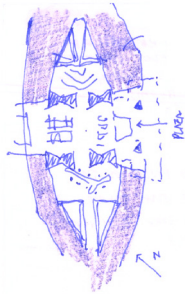
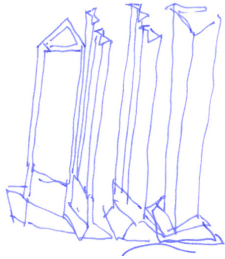
2.
Facade shows large tower topped with parasol -- light/ sharp edge to building. Elevation shows tapering columns, intersecting the horizontal ribbon windows.

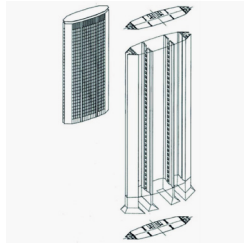


3.
Section shows a large basement below plaza for parking, petroleum trucks, auditoria, and cafeteria -- creating an infrastructural and public plinth.

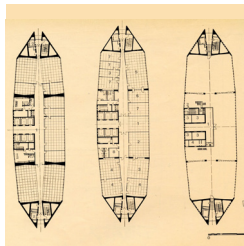


4.
Structure is 'finite' as it tapers with increasing height, responding to the decreasing loads.

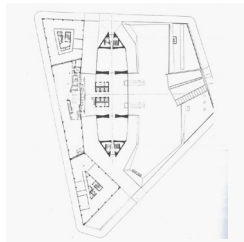




5.
Seen in this diagram, there are essentially 4 series of columns dividing the floorplate (5 including the core) into 3 parts.



6.
This triptych of plans shows the receding column sizes in plan as one goes higher in the building.



7.
The ground floor ramps down along the building edge. Lobby and core connected via a bridge to the plaza. Only half the elevators go to all floors.



8.
Typical plan has lots of negative spaces within triangular RCC columns. The plan is typically subdivided into 5 zones with an axial lobby linking the edges.

week 1.2

2021 09 09-16

Studio notes: Research

1.

JZ. Francis Duffy records changes in office typology over time, uses two case studies from similar epoch to highlight how it was never a 'consistent' brief.

- Sun vs. Oriel: Specific vs. Generic
- Larkin vs. Guaranty: ditto + technology
- Seagram vs. Ninoflex: US capitalism vs. Europe

Variety in office design is seen as an outcome of the embodied values and propaganda shaping the era, as much as the management styles. Buildings as propositions.

2.

Crazy wall, in chronological order:

Ellis, Oriel Chambers, Liverpool, 1864

- Modular, chimneys are structural.
- Central circulation lobby
- Bay windows?

Sullivan & Adler, Guaranty building, Buffalo, 1896

- Courtyard for ventilation
- Tripartite facade
- Terracotta facade

Wright, Larkin building, Buffalo, 1906

- Overlooking atrium: factory supervision
- No windows, top-lit
- Vertical circulation in corners

Berlage, Holland house, London, 1916

- Courtyard/ light shaft
- Tiled interiors, intricate details -- 'Dutch design'
- Stepped back on top to align with context

Hoger, Chilehaus, Hamburg, 1924

- Tunnel cutting across building -- important paths
- Stepped section
- Narrow-depth plan to ensure light and ventilation

Lewerentz, National Insurance Board building, Stockholm, 1932

- Central courtyard as garden, curved lobby with free-floating sculptural staircase.
- Proto-modern, combining rational plan with ornamentation
- Large 'verandah' like DSCU

Wright, Johnson Wax building, Racine, 1939

- Heights respond to FLW's proportions
- Mushroom columns and furniture follow same design language, cocoon
- Glass tubes for lighting

SOM, Union Carbide building, New York, 1960

- Modular matrix, universal grid/ order and control
- Francis Knoll furniture
- Horizontal bands vs. verticality of form

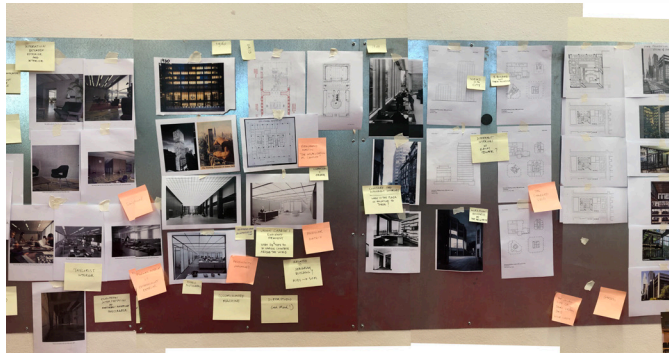
Smithsons, Economist building, London, 1964

- 'Charged voids' and cuts allow plazas to be read
- Addition to existing complex, related to its proportions.
- Composition of varying yet complementary forms

Roche & Dinkeloo, New York, Ford Foundation, 1968

- Rich client, underutilised expensive real estate.
- Connection with Delhi -- hotel with atrium, Joseph Allen Stein
- L-block with double-loaded corridor

Source: Ron Barton



Hertzberger, Centraal Beheer, Apeldoorn, 1972

- Modular tartan grid 9x9m
- Circulation as orthogonal axes - Roman town?
- Polyvalence and structuralism

Foster, Willis Faber Dumas, Ipswich, 1975

- Hermetic container, sealed, total environment and ecosystem for work and relaxation.
- Escalators and few lifts; stacked openings in slabs
- Grid intersecting random site edges



Rogers, Lloyds, London, 1986

- Flexibility x Neoliberalism, AT
- Large symbolic central atrium/ square
- Rectilinear plan with functional attachments

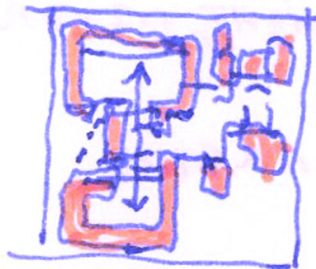
Torp, SAS headquarters, Stockholm, 1988

- Groundscraper, central axial street
- Urban spaces in suburbia
- Plans with fingers, airport analogy

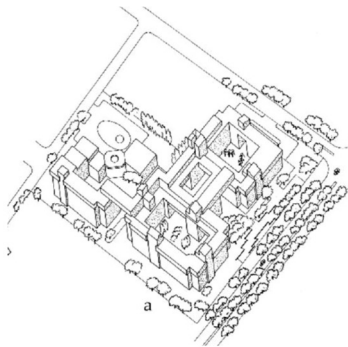
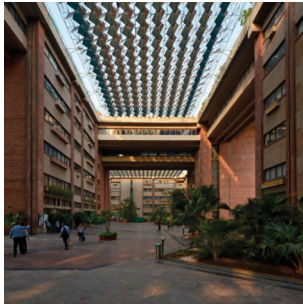
3. Childhood office

Joseph Allen Stein, India Habitat Centre, New Delhi

- Team: Stein Doshi Bhalla
- Structural design: Mahendra Raj
- Finished in 1993, same age as me
- 97,000sqm over 36,423sqm (9 acres) -- similar area as NBB
- 3,000 employees, 30-40 institutions
- Shaded plazas and auditoria, active ground floor functions, social plinth open to public.
- Regionalist/ Post-modern; American/ California modernism in Delhi
- Stein designed Ford Foundation building, connection with Roche?



Source: Sanyam Bahga & Gaurav Raheja



Brief 1. Working together

1. Notes

- Photographs are corrected for parallax using special equipment, viewfinder has lines/grid to orient frame.
- Drawings for model-making should be documented regularly, interesting part of the process.
- Model photography with bounced light, never direct light.
- Thermal flyweel, heating/ cooling cycles

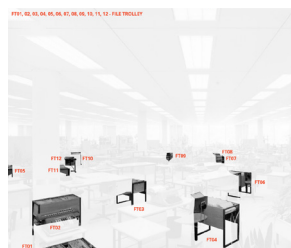
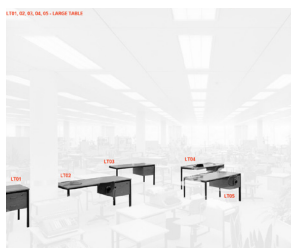
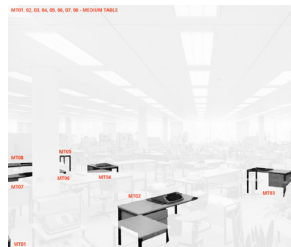
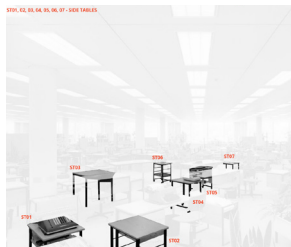
2.

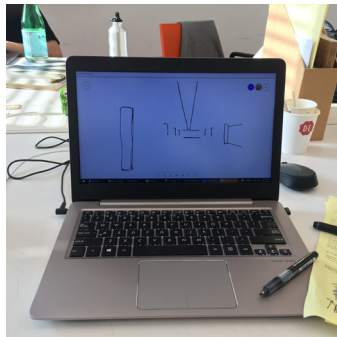
Model-making process

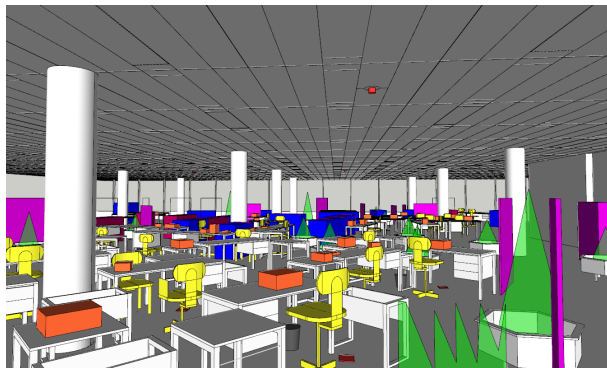
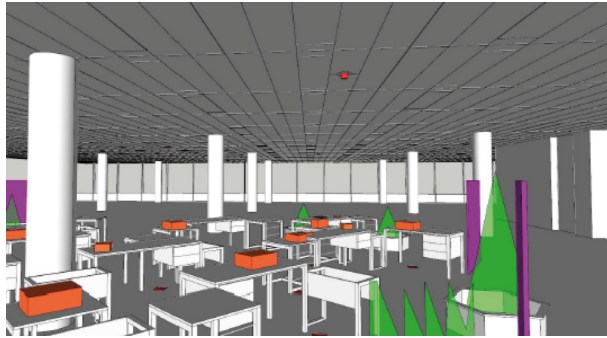
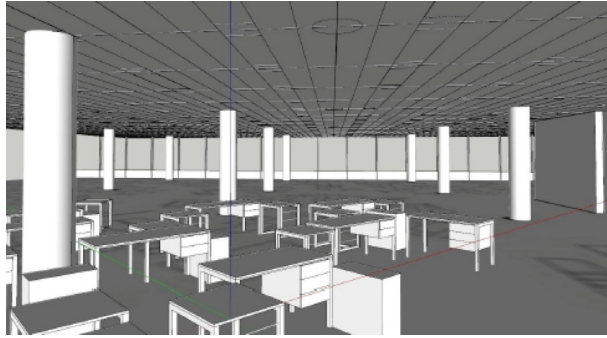
First, A photoshop file that dissects the photograph into an index of all the constituent layers of elements: planters, chairs, various desks, equipment, backdrop elements...

Then, a virtual model that assembles these elements in a floorplate based on visual approximation of the image's perspective; to serve as a tool for the physical model assembly.









Reading response 1.1

Office buildings and organizational change Francis Duffy (1980)

The author is a key figure in the development of the office design typology. In the optional texts, we see his role in arguing for treating the office building as a dynamic entity composed of temporal layers that can be optimized to extract maximum efficiency from it.

In this text, he studies the historical trajectory of the office building typology through three key moments in its development. In the first set, a quasi-residential office for an insurance company, modelled after a palazzo, is contrasted against a modular, restrained building meant to be leased out to different tenants. The latter is seen as a direct forebear of the modern office building.

In the second set, two American pre-war buildings highlight diverging yet simultaneous trajectories brought on by rapid development of technology. The first shows the impact of scientific management principles in the organization and structure of private offices; and the second shows the beginnings of speculative real estate driven production of modular office towers.

The last and most contemporary set again reveal how the private and leased office parallelly respond to trends in management styles and real estate forces (in the American context) respectively. The interior reflects this contrast: the leased offices are left completely to the tenant's control while the private office imposes a very specific type of interior layout on its employees (which is an outcome of detailed analysis of inter office communication and information flows).

These precedents are seen as tangible results of changing attitudes to managerial organization, real estate markets, the values and aspirations of society at these different points in time. In doing so, the tension between the architecture and the forces that shape it are revealed -- questioning the agency (or complicity?) of the architect in the production of office space.

In today's world, the role of office space is rapidly changing. In the UK, for example, there is excess office space that is being converted into small apartments for profit without any consideration about how the units work within frequently deep floorplates⁽¹⁾. This is indicative of the direction we may be headed in at the behest of the financial forces.

If architects are far from being the key protagonists in this process, the role of a speculative design studio (such as ours) should not attempt to 'solve'/ find architectural meaning in the immediate brief requirements posed by the clients -- which, historically, are seen to be in a constant state of flux -- but rather dig further, investigate, and question these requirements themselves first. Doing so will enable us to move past designing 'trivial details'. While in an academic setting, we have the liberty to propose design strategies that may never see the light of day but at least attempt to engage with the myriad grave realities we are faced with today.

-

⁽¹⁾ Park, J., 2018. A new low in office-to-residential conversions. [online] Building Design. Available at: <<https://www.bdonline.co.uk/opinion/a-new-low-in-office-to-residential-conversions-/5095069.article>> [Accessed 16 September 2021].

Reading response 1.2

Spatial segregation in the workspace
Daphne Spain (1992)

The author is a sociologist and academic who studies urban and environmental planning. This text is from her book *Gendered Spaces*. The text investigates the typical American workspace of the 90s, revealing how women and men interfaced with this setting in vastly different ways.

She draws a stark contrast between the typical male manager who operates behind 'closed doors', supervising the typical woman working as a secretary in the 'open floor'. The career trajectories of these men and women are studied and compared, revealing how the physical setting reinforces gender inequalities.

At the intersection of class and gender, this segregation is a part of a broader trend of the proletianization of the office clerk, who over the turn of the century loses autonomy, agency, and is subjected to supervision.

This can be attributed to the popularity of scientific management principles that treated the workplace as an assembly line; with its workers treated as mechanical cogs in its wheel. In doing so, it also created a middle layer of managers who were only responsible for keeping the wheels running. The influx of women in the workforce was largely limited to the category of workers, who were underpaid (and thus more profitable) than their male counterparts. This, along with emerging myths about what was appropriate for women's work, brings us to the contemporary period when this paper was written -- where the disparity and segregation is entrenched in the very built environment.

Architecture as an industry and profession lags significantly when it comes to hiring women and promoting female voices. In contrast, interior design is seen as a female domain -- which some commentators attribute to the inherent femininity of the profession ⁽¹⁾.

I see parallels with the text in the way interior design is not taken as seriously as architecture, and consequently its predominantly female workers (presumably open-floor) paid less. And yet, most of the closed-door leaders in this profession are men according to very recent data ⁽²⁾. It is, perhaps, not too much of a stretch to imagine that the gendered spatial segregation persists even in the slickest corporate interiors of modern-day America, with the latest I-macs replacing typewriters -- making this text more relevant than ever.

-

⁽¹⁾ Betsky, A., 2016. Can We Overcome Design's Gender Problem? - Metropolis. [online] Metropolis. Available at: <<https://metropolismag.com/projects/aaron-betsky-can-we-overcome-designs-gender-problem/>> [Accessed 16 September 2021].

⁽²⁾ Blumenfeld, J., 2020. Does Interior Design Have a Gender Problem?. [online] Contract Design. Available at: <<https://www.contractdesign.com/practice/business/does-interior-design-have-a-gender-problem/>> [Accessed 16 September 2021].

week 1.3

2021 09 16-23

Studio notes: Research

1.

AT Lecture: The changing workplace or: the political economy of flexibility.

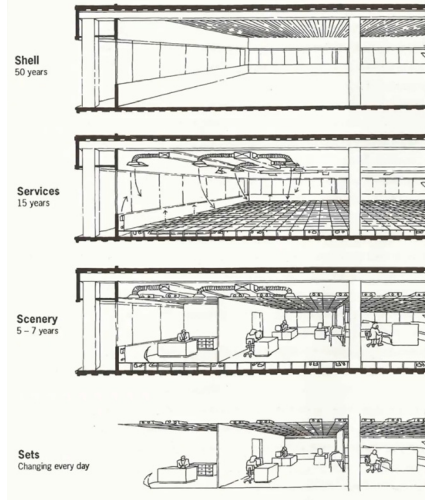
- Flexibility as a desirable, important feature of office architecture as a response to 'churn'
- 'Churn' as a repeated process of tumultuous change that requires overhaul of workspaces - IT related.
- Neoliberalism and self-governance of the individual, 'homo economicus'
- Obsolescence and DEGW temporal layers of building; present implications?
- Clerk/ craftsman; proletianization of the workforce.
- The return of the 'knowledge worker', emphasis on user comfort and ambience.
- Market co-opting wellbeing and other legitimate concerns about the workspace.

2.

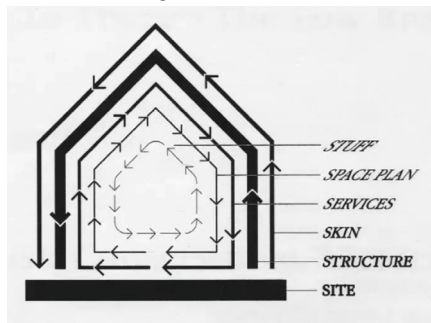
References

- Forty, Adrian. *Objects of Desire : Design and Society, 1750-1980*. London: Thames and Hudson, 1986.
- Meel, Juriaan van. *The European Office: Office Design and National Context*. 010 Publishers, 2000.
- Thomas, Amy. 'The Political Economy of Flexibility: Deregulation and the Transformation of Corporate Space in the Post-War City of London'. In *Neoliberalism: An Architectural Project*, edited by Kenny Cupers, Helena Mattsson, and Catharina Gabrielsson. Pittsburgh: Pittsburgh University Press, 2019.

Source: The Changing City, London (1989)



Source: How Buildings Learn (1994)



Brief 1. Working together

All precedent drawings to be compared as a coherent set, consistent lineweights, symbols, conventions, and template.

MT and AN: Drawings from all groups were compiled on one CAD file together to gauge relative scale. The 16 projects are arranged as vertical bands of fixed widths placed on a wall such that they can be compared with each other easily. Scale 1:300.

Observations

- Layers and lineweights were explained in detail to all groups, and reviewed before final printing -- implemented more or less successfully. Same print shop used to prevent ink/paper differences.

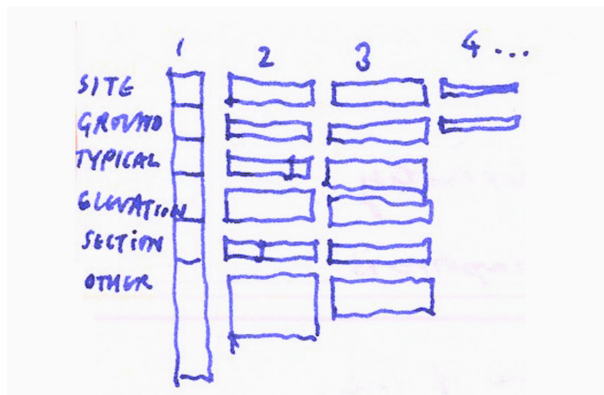
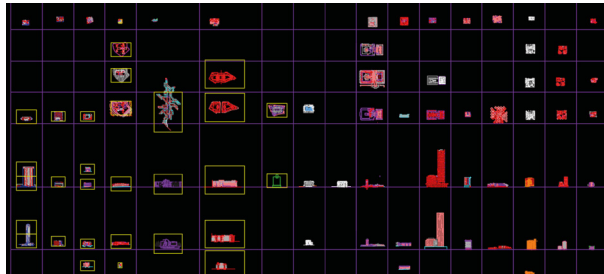
Darkest	0.40	Black	Cyan	structure
Dark	0.20	Black	Blue	walls
Medium	0.13	Black	Red	symbols
Medium	0.05	Black	9	partitions
Light	0.00	120G	14	furniture
Lightest	0.00	180G	250	misc.
Noplot	0.00	-	White	drafting

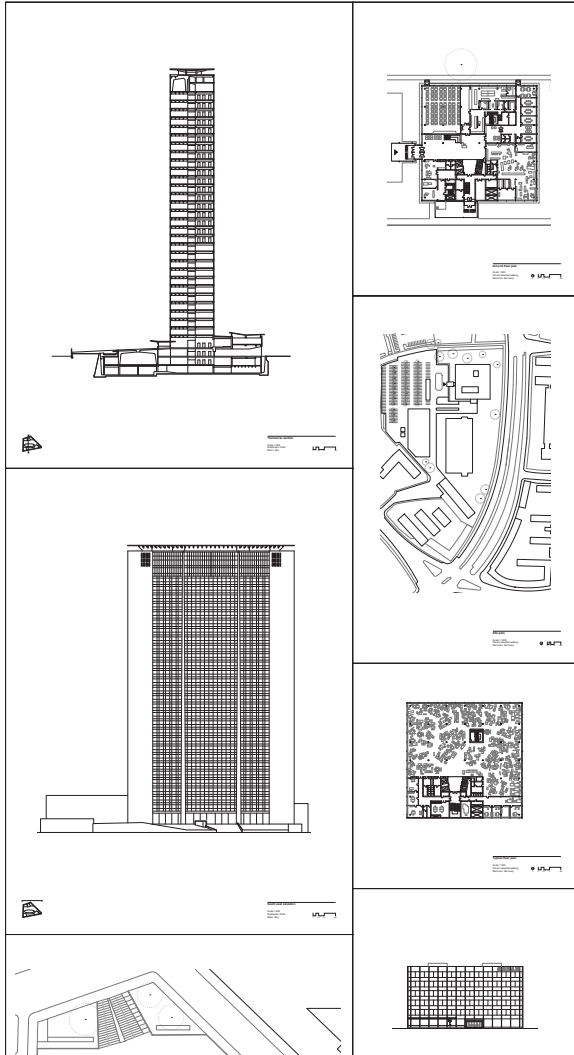
- In future, using illustrator to ensure lineweights are consistent?
- Staggering variety in the size and scale of projects, ranging from A4 to AO in plan.
- Level of detail and the meaning of facade/ ornament -- in the older buildings, denser lines -- a need to abstract for representation; but this reflects the complexity of the façades.
- Graphical standards book mentioned by DR?
- Graphical conventions and their geographical roots: etymological research?

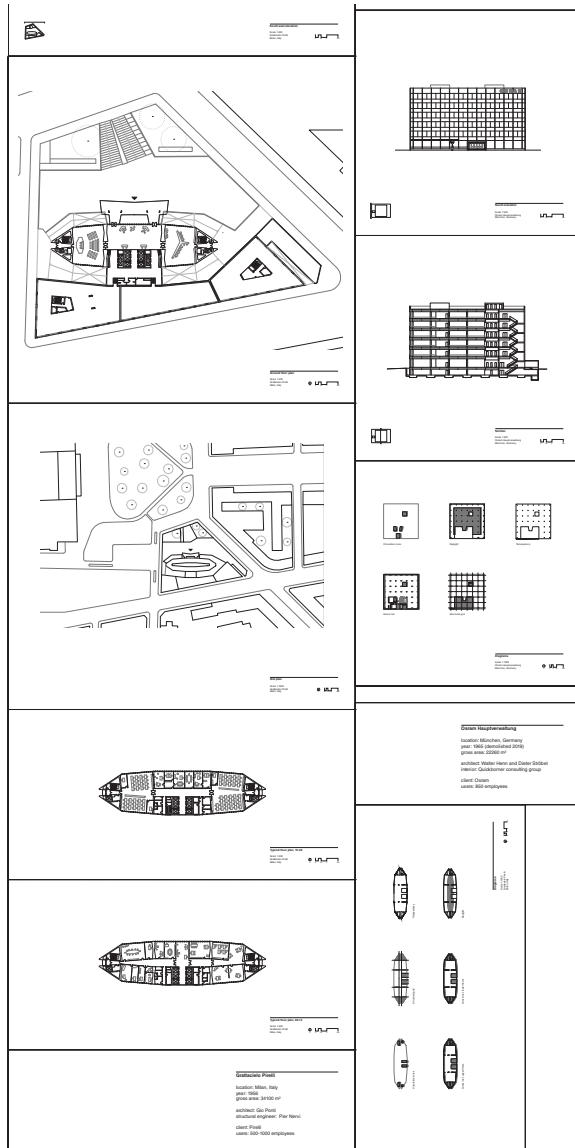
LIVE WEIGHTS:

#	THICKNESS	COLOR (CDD)	PRINTS
A 1	0.40	BRICK CYAN	BLACK
A 2	0.20	BLWS	"
A 3	0.13	RED	"
A 4	0.05	09 GRAY	"
A 5	0.00	17 MATTEN	" (95 GRAY)
A 6	0.00	250 GRAY	230 GRAY
0	0.10	DOES NOT PRINT 200-PURPLE	

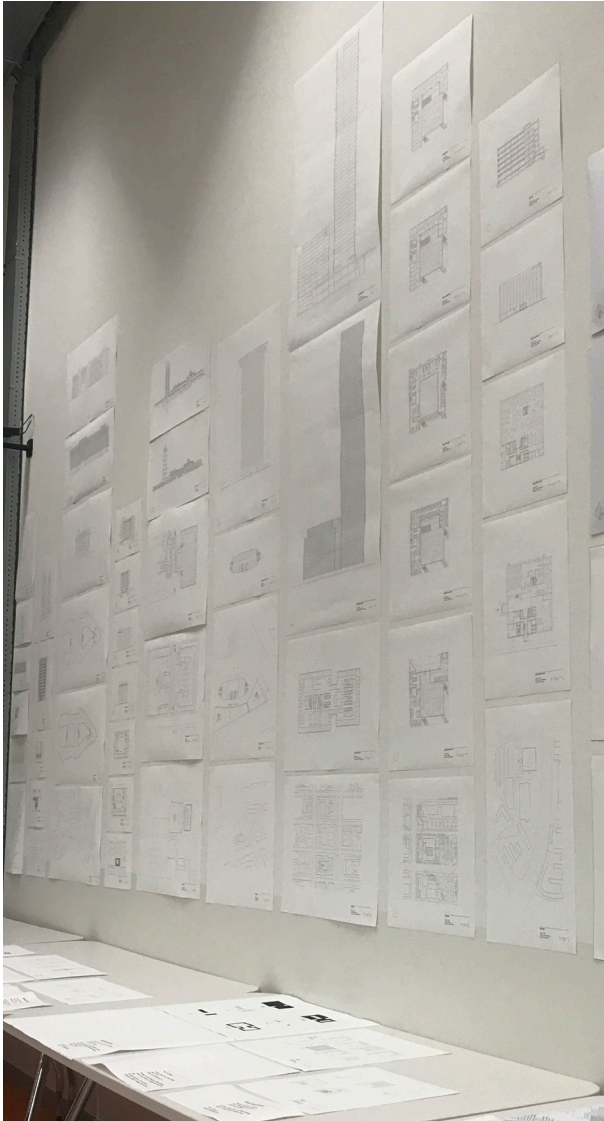
HATCH: PILL @ 50% OPACITY.



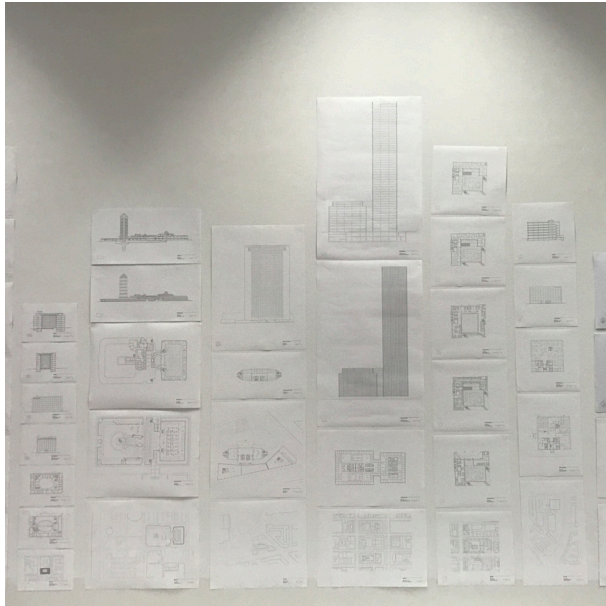




Source: Ron Barton



Source: Ron Barton



Reading response 2

Corporate towers and symbolic capital Kim Dovey (1991)

The author is an architectural and urban design critic based in Melbourne, where he teaches and researches urban design. In the text, he uses advertisements to explain the notion of symbolic capital -- seen as a 'symbolic, aesthetic, or mythological aura' that surrounds office towers. The context he studies, Melbourne, is seen as a city suffering from an over-supply of these workspaces, requiring its developers and promoters to leverage their symbolic capital to sell them.

Through a series of categories: external image, location, foyer, view, interiors ..., the author illustrates how this 'aura' is created through a combination of skin-deep architecture and creative copywriting, all to disguise the capital-making machine that is the actual structure. These visible elements are then given extra attention while the rest is kept at the bare minimum -- seen in how building heights of office floors are reduced as much as possible while the foyer is celebrated. In all of this, the author holds architects complicit. He concludes with a call to action, asking architects and designers to design better cities for the future and not fall prey to 'lucrative self-denial'.

The latter shapes much of the landscape in cities like Gurgaon and Bangalore, where I've grown up and worked. They indeed spread like weed, egged on by predatory multinational capital. They are produced by a bevy of corporate design specialists like SOM, HOK, Gensler., each looking to extract the maximum value from the land. Greenwashing is the latest aura-l layer: certification, solar panels, aesthetic landscaping etc. is used to convey a new,

environmentally conscious form of development; although the extent to which million sqft. developments wrapped in double-glazing façades imported from Europe are sustainable is debatable (as also seen in the other reading/ audio interview). This practice of symbolic capital is not limited to office buildings, but also extends to housing: apartments are bought and sold on the basis of very similar auras and myths architects and their clients attach to built objects.

Within this flawed system, even successful architects practice 'lucrative self denial' in the background: In a surprisingly candid interview, David Chipperfield (who runs a multinational design office) admits to engaging in a large number of retail fit-out and interior projects ⁽¹⁾ while only publicizing/ talking about the firm's institutional and public projects. Perhaps the author is an optimist for hoping for change, especially one brought on by mere 'bees in the capitalist hive'. External factors, such as the ongoing pandemic, have a much better chance at disrupting the status quo.

-

⁽¹⁾ Chipperfield, D., 2020. Face to Face. [online] Dezeen. Available at: <<https://www.dezeen.com/2020/03/31/david-chipperfield-face-to-face-podcast/>> [Accessed 21 September 2021].

week 1.4

2021 09 23-30

Studio notes: Research

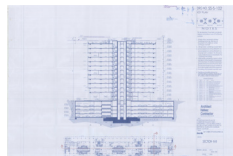
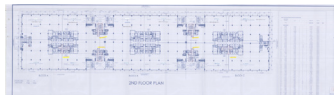
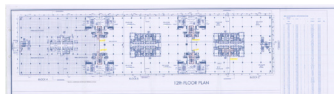
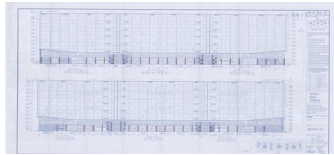
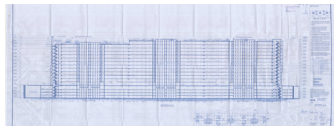
1.

Discussion on Research topic as a group. What are the positions taken/ problem areas/ topics of interest?

- Starting point is the provocation of the 'workplace of the future'. In the neoliberal market-driven reality we are faced with today, the development of the office typology is subject to the whims of the real estate forces.
- As we've seen from the precedents and readings, the tendency is to shift towards deep floor buildings that depend on technology to bring in light and ventilation, as well as circulation. This is because deeper buildings are more efficient when seen in terms of usable (or sellable) floorspace.
- An example from my city is the monolithic 250x50x50m rectangle extruded to 12 floors, casting a deep shadow over its low-height context.
- With the pandemic accelerating the growing trend of office space becoming less desirable, buildings like this face an uncertain future.
- UK: office-to-resi -- poor results
- Osram: demolished and replaced, cannot be re-used without intense intervention.
- This is emblematic of the fate that awaits these office buildings. In the face of the climate crisis, this is an obvious problem.
- Aldo Rossi, Herman Hertzberger talk about buildings allowing multiplicity of functions - flexible, polyvalent.
- This variety cannot be imagined for office buildings that are rigid in the way they can only be used as commercial space and little else.
- Relates to circulation (Lobbies -- Robin Evans), how the building responds to the city (IHC)
- Live-work as the future of post pandemic workspaces?



Source: DLF developers



2.

Alternative ideas

- Architecture studios/ offices and how they fit within the historical trajectory of office space design. Norman Foster's supervision deck is like a factory? -- Cafe working culture?
- Subversive details? The role of the architect in the present day is limited to doing what is asked -- a bee in a capitalist hive. Good architects question the brief and create subversive elements within their work? Offices like OMA and BIG are expected to produce brand-name architecture that creates subversive moments that are officially sanctioned by the clients by virtue of them hiring them. Smaller studios do so under the radar -- undermining the brief to benefit the users/ environment/ profession in general.
- Office in reel life; development of office typology can be studied from movies that centre on workspaces -- like 'the Intern' or 'American Psycho' -- which are two distinct moments in the development of the north American/ New York office space.
- Multiplicity x office -- Swiss knife building with live-work/ social flexibility.
- Study of office circulations, 'blurred paths' -- opportunities for multiplicity based on paths through the building?
- Tiny desk concerts as a subversive act -- reappropriating office space for other activities points to a certain inherent ability to make the most of available space?
- Permeable ground: Office ground floor -- how it meets the city, the amenities it offers to the public realm? (IHC) City -- building

3.

MP Lecture 'Fundamentals'

- John Berger -- open, precise, acute attention
- 'Shaping of a subject'
- Renaissance: primacy of the body superseded by the mind.
- Grids and abstract forms supersede organic city shapes and forms.
- Paris, colonial settlements, US grid
- Material culture: response to the 'real world' through references and symbols. the ways of making things and the meanings they hold.

4.

References

Edward Ford, Material Culture

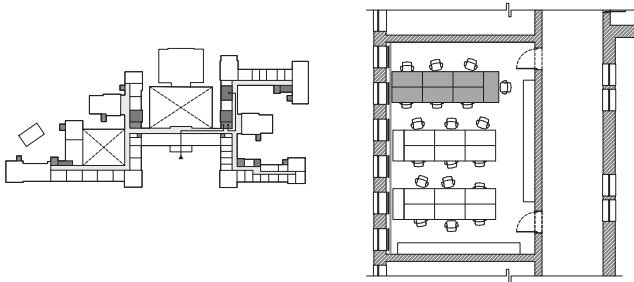
John Berger, Ways of Seeing

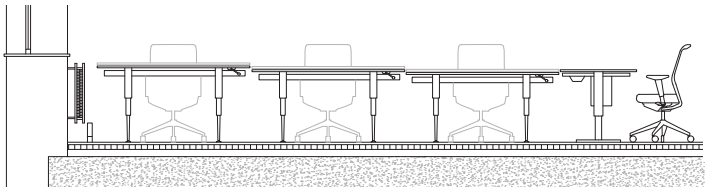
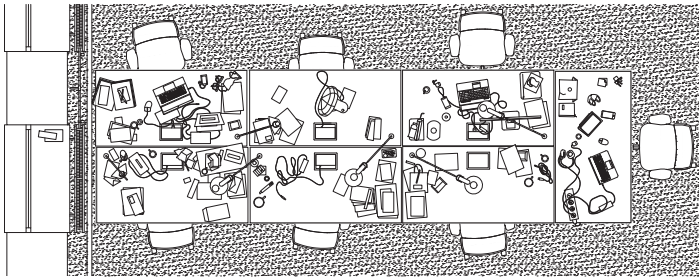
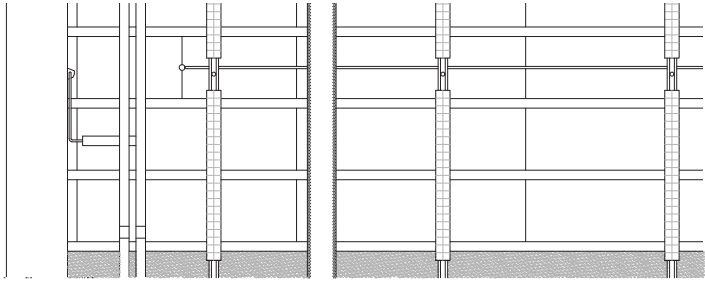
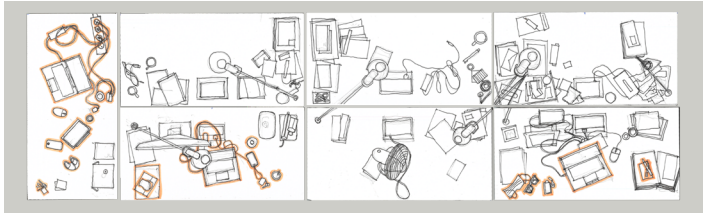
Foucault, Reform

Brief 2. Office plates

Office furniture documentation exercise -- selected the PhD students' desks at TU Delft. Notes:

- Supposed flexibility and hot-desking, used as conventional individual desks.
- 'Flexible workspace and authoritarian surveillance' Dion Kooijman and Rypke Sierksma
- Vitra, uniform and ubiquitous
- Standing desks, adjustable; with integrated lamp and electrical points.
- Exposed services -- heating pipes are insulated
- Lacks storage space, people tend to leave their belongings behind.
- No drawers/ shelves nearby, things accumulate on the desktop surface.
- Since not all desks are used, some become 'dumps' for their neighbours.
- People carry their primary devices from home with themselves, peripherals left behind.





week 1.5

2021 09 30-07

Studio notes: Research and Design

1.

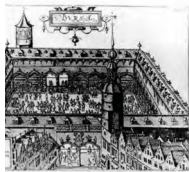
BH. Pevsner, A history of building types: Banks and exchanges. historic development of the bank typology.

- 'Bike shed isn't architecture'
- 2D is the painter's way, 3D the sculptor's way, combination -- space -- architecture.
- Rambling, conversational, British-German art historian, obsessed with styles.

Observations:

- Various kinds of exchanges: Silk, Wool,...
- Courtyard/ enclosed open space as precursor to the hall?
- Bays as a mode of measurement?
- Greek as the standard for banks
- Fishbowl banks, modernist facade Chase bank by SOM 'close to perfection'.

Source: Pevsner



Exchange, 1531, by Dominicus van Waghemakere



12.9 Amsterdam, Exchange, 1668-71, by Hendrik de Keyser



2. Discussion about banking halls and precedents

Observations:

- Banking hall exists in some form or another in banks of different size and shape; a place where the public can interface with the institution.
- It acts as a threshold between the bank and the city.
- The larger, more ornamental halls serve to create an image and identity of the bank as much as the external facade, similar to office buildings (Dovey)
- Earlier banks, skylights as a source of light when the buildings are closed off for safety/ protection, like Bank of England.
- National banks are conservative -- private banks are experimental: 'timelessness' vs. 'institution'.
- Buildings turn from opaque to transparent with the shift in banking methods, SOM is a good example.

3. Introduction to Brief 3. Social plinth.

Notes:

- Public plinth, critical part of program. Currently seen as a cafe and restaurant for bank employees and not the general public.
- Plinth as negotiator: space for intervention
- Plinth and activities on it as stage/ scenography
- Form/ Plane/ Action
- Plinth to create a space that enables a process and outcome?

Reading response notes

Uncommon Sense: A Vision For A Post-Capitalist Society, Yanis Varoufakis

- Google/ other tech companies as sinister as the Soviet Union -- tracking and can 'crush' something if challenged.
- 'Dispatches from an Alternative present - Another now' book about a speculative future. Fiction as conflicting opinion -- learning from hypothetical arguments between different viewpoints.
- IMF as a liberal insider, complicit in poor decision making surrounding the Greek economy.
- Current world: 'Ponzi capitalism' and 'Federalism' -- the worst parts of the state and monopoly capitalism combined.
- Capitalism unrecognisable from Friedman's ideals
- Stage 1: Post-war golden era from 60's and 70's -- fixed exchange rate, EU/ Japan dependent on the US and gold rate.
- Stage 2: Liberalisation by Thatcher/ Reagan, opening up post-colonial countries like India in the 80's and 90's.
- Stage 3: 2008 crash, social democracy movements. Nationalisation of South Korean bank in response.
- Stage 4: Contemporary non-capitalistic market society, with work culture, no meaningless work -- repetitive & soul crushing/ drudgery.
- Top down culture is taken for granted, oppression is interwoven into society.
- One vote/ one share -- limits the size of corporation.
- Central bank's role to handle accounts for all taxpayers.
- Divident vs. income

The basics of Money and Banking, VU university press, Wim Boonstra & Linda van Goor

- The colonial history of banking -- Dutch VOC and the Bank of England
- Bank as intermediate
- Transactions are 'monitored, assessed, evaluated'
-- naive compared to Big Short/ 2008?
- Other kinds of banking -- Islamic, Chinese, Value-based, different ownership structures.
- Cooperatives as a promising alternative
- Helicopter money = covid stimulus checks?
- Central banks provide printed money, oversee payment systems, advise on economic policy, 'lenders of last resort', financial systems and monetary policy.
- Stability is the goal of monetary policy
- European Central Bank in Frankfurt is the central bank of the eurozone, of which NBB is a part. They have a vote, along with other euro-currency countries. NBB and other national banks execute policy decisions already made at the ECB.

Theory chair, Episteme, lecture 36:47

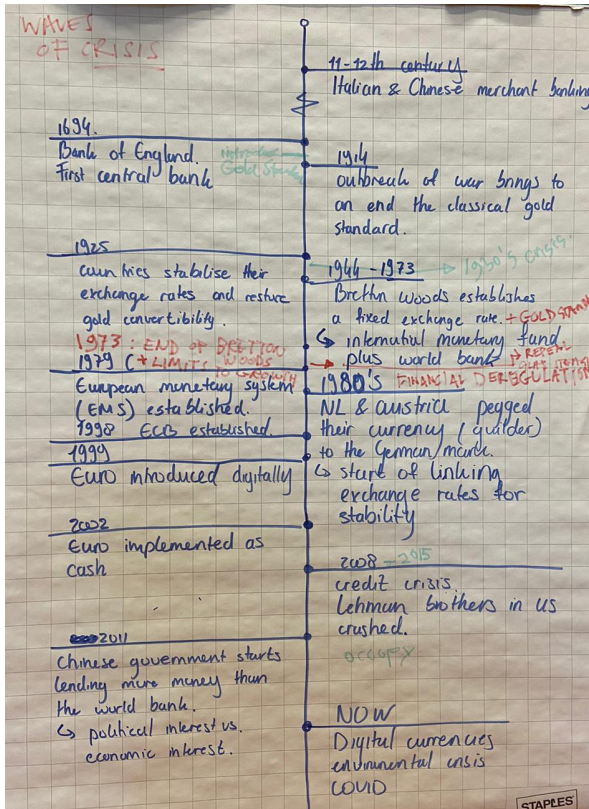
- | | |
|------------------------|----------------------|
| - Typology/ Morphology | order |
| Phenomenology | perception |
| Semiology | symbols |
| Praxiology | user -- practicality |
| Material | making -- process |
| Ecology | relationships |

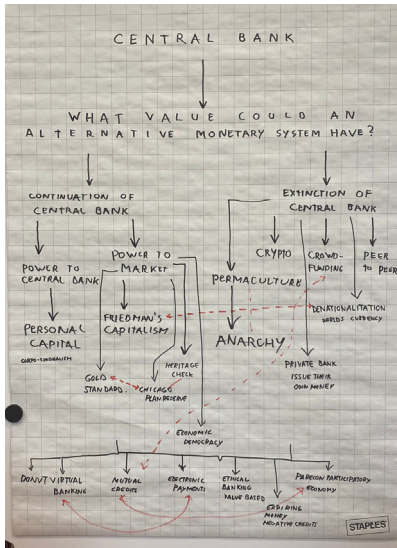
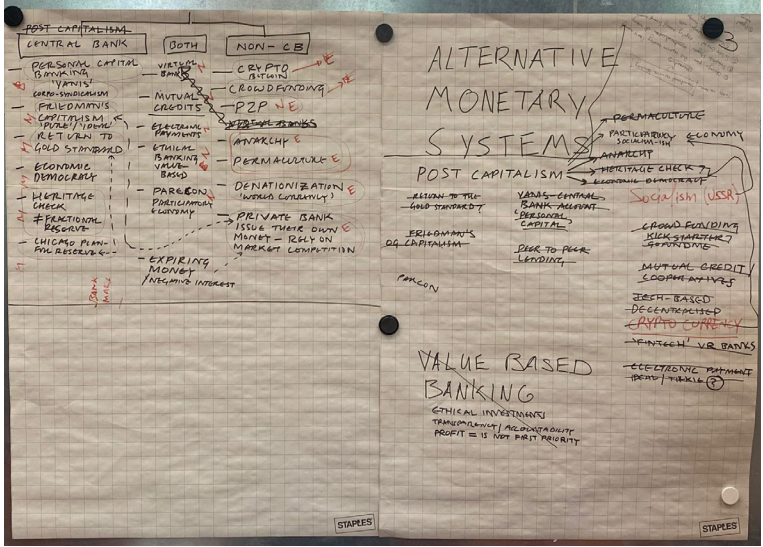
week 1.6

2021 10 07-14

Studio notes: Research

1. Discussion on the history and future of banking
 - Broad developments that shaped the way the financial world operates today.
 - Alternatives centred on different value systems that could change the way the central bank is perceived.
 - This exercise improves general awareness about the financial world, and hints at possible internal shifts that can have architectural implications.





2.

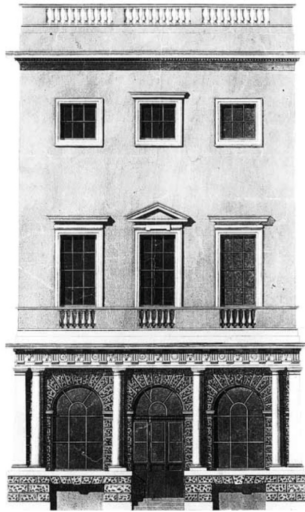
AT: Lecture 'Bank Architecture and the Paradox of Visibility'

- Men and Money BBC + Mayfair set
- Confidence in the Bank -- Bold display
- Almost religious, key institution
- Neoclassical/ Georgian 'Fortress of Conservatism'
- Faces/ Paper/ Screens as the development of banking technology
- Facade as carrier of meaning
- Historic development: Small banks, discreet and not ostentatious
- Development of the BoE corresponds with increased war effort, and need to secure vaults from riots etc.
- Democratization of banks with shareholders starts the trend of large banks, public symbols of security, strength and permanence.
- Size>hall>trust
- Contrasting interior and exterior
- Credit is linked to 'belief' -- religious?
- Reliance on invented tradition, Eric Hobsbawn: seeking historical legitimacy through architecture.
- After WW2 and modernism -- transparency, fishbowl banks
- India, regional variations interpret the bank in different ways
- Llyod's building by Rogers brings certain historic, sentimental objects into a 'modern' context to create a link with tradition.

AT: Online talk on the history of banks

- Offices as factories, open plan
- Rise of social factors: growth and good management leads to the individual as an important element
- Knowledge economy vs. production
- Culture of the icon and mass media

Source: Amy Thomas



Brief 3. Social Plinth

1.

Introduction to key concept: staircase and external edges of the building as potential 'social plinths' that relegate the building to the backdrop. Feedback:

- Occupy edges of structure
- DR Backdrop/ tribune -- plinth as stage
- MP St. Paul is a symbol of authority
- DR/MP Space for misuse, appropriation
- SV What happens below the staircase?
- Deal with broader social issues like climate change
- Deep threshold (TM)

2.

References

- Dmitris Pikionis - Paths to Acropolis
- FairFin
- Marche du Midi, Brussels
- Aldo van Eyck, City playground
- It's a wonderful life, Mutual society
- Richard Wilson, Oil tank
- Cordoba mosque
- Free University Berlin -- mat building
- Kunsthal, Malmo (*)

Source: Archipicture.eu



Source: Wikileaks



Source: Rahul Mehrotra



Town hall of Mumbai, with its thirty-four steps. Photo by Rahul Mehrotra.



Town hall of Mumbai transformed on Independence Day. Photo by Rahul Mehrotra.

week 1.7

2021 10 14-21

Studio notes: Research

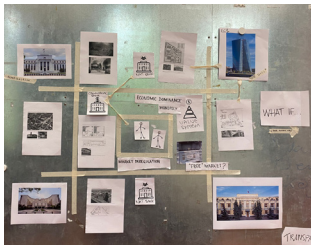
1.

Discussion on possible research topics related to banks and financial world

- Inside/ outside: the banks are simultaneously closed off / opaque and public, institutional places. This makes it different from average office buildings, which only serve its workers.
- The courtyard/ atria/ halls in the bank is the space where the two worlds collide: where the bank meets the public. Possible design: externalise the hall -- reverse the Roger's Lloyd building to have the hall on the external facade with services internalised.(*)
- Looking at tangible interactions between the people and the bank.
- Representation/ image of the banks, decoding the symbolism employed on facades and in the use of certain materials -- actual transparency?
- Study on elevations as the primary mode of drawing for banks
- Changes/ evolution in the workplaces within the bank, AT lecture Underwriter's table, DEGW etc.
- Temporal additions and interventions that transform the nature of these spaces -- multi functional? mix use?
- The role of competition briefs: interpretation and questioning the requirements.

2. Discussion w/ BH

- Architect as interpreter of brief/ program, degree of flexibility in competitions etc.
- Conversations, collaborations, negotiations and co-operation as ways to work.



Brief 3. Social Plinth

Temporary interventions

The Mumbai town hall and Asiatic society library was built as a colonial power structure in 1833. In the present day, it operates as a government office that is, for the most part, closed off to the public.

However, the monumental steps that lead up to the building belong squarely in the public domain. It is one of the most important open spaces in the city; partly an outcome of how it is prominently placed within it. These steps act like a plaza; a space to collect and gather in various forms. Sometimes these activities are more elaborate, involving the construction of temporary interventions that convert the very nature of this public space.

This act of creating ramps, stages, enclosures,... can be seen as an 'kinetic' articulation of the 'static' monumental steps (Mehrotra, 2008). More importantly, this is independent of the colonial edifice behind it/ relegates it to the background. This strategy suggests looking beyond the rigid building and plot lines to create social spaces.

Feedback:

- Study Altes museum, Schinkel: Stoa as extension of city, trees as continuation of columns beyond the building edges
- After party, KGDVS -- spaces inbetween buildings
- Co-opting space -- looking at something?
- Serlio: scena comica, tragica, satirica
- Uffizi pallazo
- Jardin au Luxembourg, Paris
- SP German Festvie Architecture





1.
Bombay town hall and Asiatic society: A colonial edifice. Built 1820-1833, by Alexander Cowper for East India Company



2.
Town hall divides the colonial 'white' town from the rest of the city. Fort can be seen in the backdrop of the town hall.



3.
The Town hall sits on a prominent axis in the city, leading to the sea on one side and terminating in a circular park (front of the hall) surrounded by markets and shops.

This makes the steps of the Town hall a natural public space in the city, from where one can see the sea on a clear day.



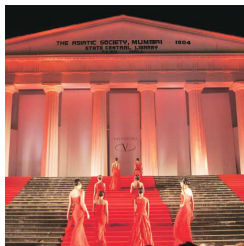
4.
The steps on an average day, occupied by a varying group of people at different times of day. Here, schoolchildren use the space on a break.



5-6.
Selfies against the facade:
1899 vs. 2020



7.
The steps converted to an open air theatre for a concert, during Kala Ghoda arts festival.



8.
The steps converted to a ramp for a fashion show

week 1.8-9 (P1)

2021 10 21-28

Brief 3. Social Plinth

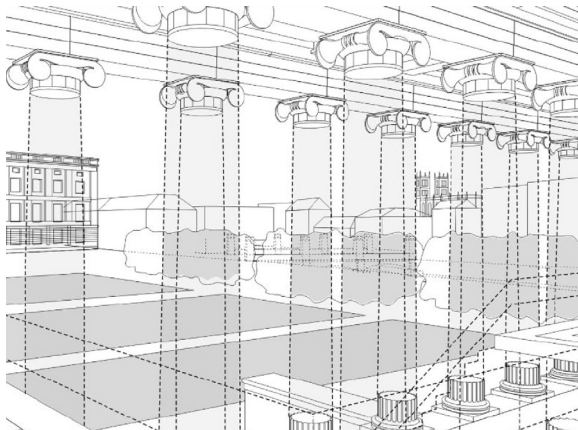
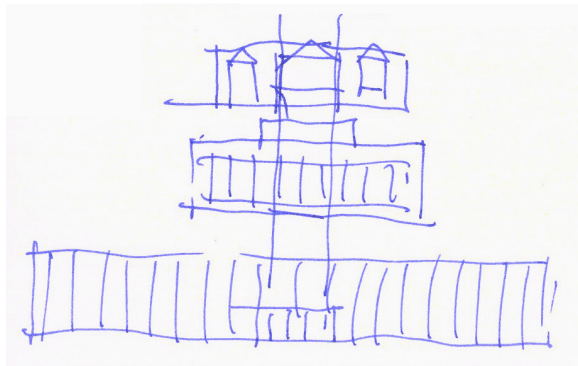
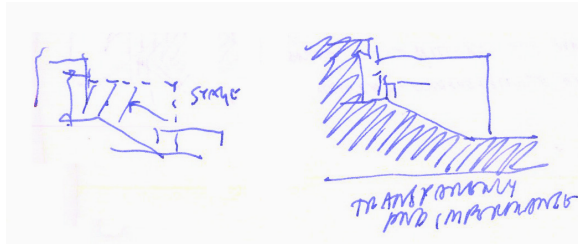
Observations:

- Scale of the entrances of the three buildings: Altes, Town hall, and the NBB; are all symmetric and have similar proportions ~25m.
- Perspective drawings by Schinkel distort the locations of prominent buildings designed by him to highlight their presence. DR sees them as a dynamic view, responding to movement through the space of the foyer and stoa.
- Contemporary additions in the Altes museum close off the foyer from the stoa -- can be seen as a temporary intervention.

Feedback:

- Mark Pimlott, La Scala -- intervention in a modernist campus, activating the unused open space by inserting a small multifunctional volume.
- JZ. Herman Hertzberger mentions staircases and their potential in his books for students. He uses it in his school buildings.
- Statement has to touch upon socio-political agenda/ attitude.
- MP. Arcade? light/transparent like the Town hall.
- DR. How does the ground relate to the building?
Study Pompidou centre





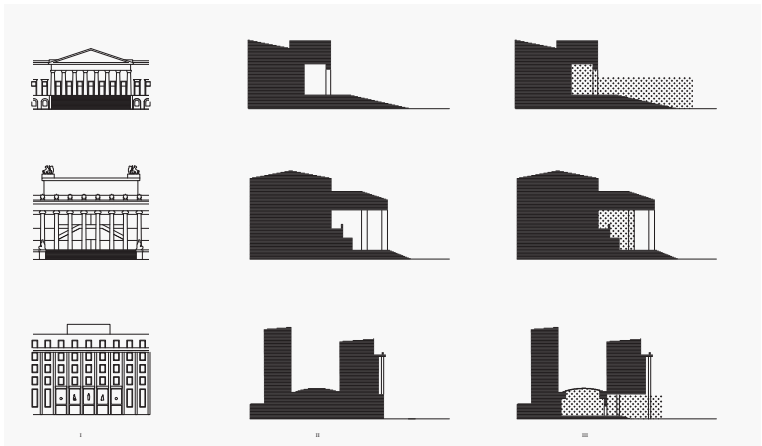
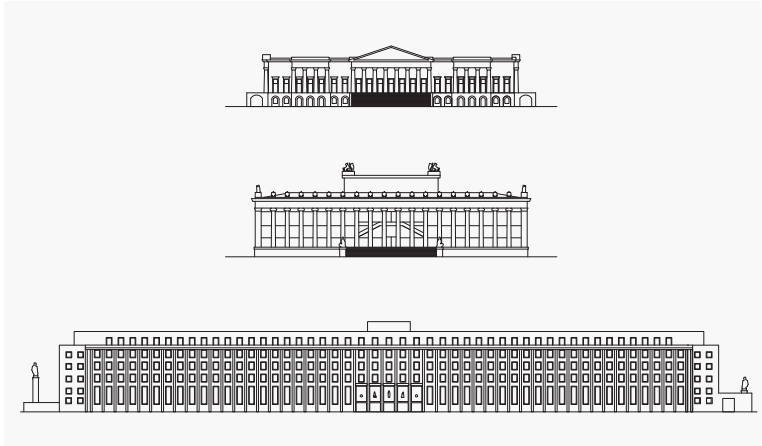
P1 presentation

Social plinth as threshold space

Banks are opaque. This is especially true for the Belgian National bank (BNB) with its monumental 200m facade and continuous, shallow colonnade. It is not a welcoming building. Its entrance is meek compared to its overall scale. This series of models compares the BNB to two very different buildings: a museum in Berlin, and a colonial town hall in Mumbai. Their main entrance openings are roughly the same size, ~27m.

The Altes museum is an open, welcoming building. The stoa and foyer invite the public to engage with the museum via large frescoes (destroyed in WW2) as well as to look back at the city, framed through its colonnaded hall. Today, a glass partition divides these two spaces, extending the enclosed boundary of the museum (consequently reducing the amount that is freely accessible).

The Mumbai Town hall, like the BNB, is an opaque building. It is a government building that is, for the most part, closed off to the public. However, the monumental steps that lead up to the building belong squarely in the public domain. It is one of the most important open spaces in the city; partly an outcome of how it is prominently placed within it. These steps act like a plaza; a space to collect and gather in various forms. Sometimes these activities are more elaborate, involving the construction of temporary interventions that transform the very nature of this public space. This act of creating ramps, stages, enclosures, ... can be seen as a kinetic articulation of the static monumental steps. More importantly, this is independent of the colonial edifice behind it/ relegates it to the background; its opacity is immaterial to the success of this public space.



The social program in the BNB hall can similarly coexist with the opaque bank around it if it becomes a part of the city; if it acts as public space. Mixing lessons from Altes and Bombay town hall, this first proposal removes BNB's main security doors and glazing, and adds a canopy to signify the entrance. This makes the vestibule a part of the sidewalk, so that it may draw in and collect people.

DR Feedback:

- Deep threshold, exterior -- interior tension.
- Where is the interior, where is the street?
- Need more dramatic welcoming gesture
- NBB overwhelming but weak
- Playing with relations between models
- Belgium: both a coloniser and colonised

BH Feedback:

- Loos and 3D design strategy
- Public life, bourgeois spaces of Schinkel
- Social space and object: performance of people in the public space. public agency
- Articulate social determinants -- Belgian narrative, cultures and subcultures
- Drawings draws upon multiple fields of information, as 'thought systems'
- Deconstruct classicism as a language
- Contextual research, gaps in knowledge as practitioner in Brussels



1-3.
References for entrance
plinth going below ground

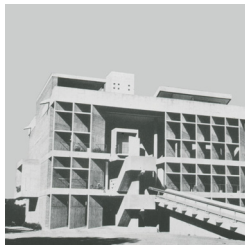
Pompidou centre, Paris
Renzo Piano and Richard
Rogers



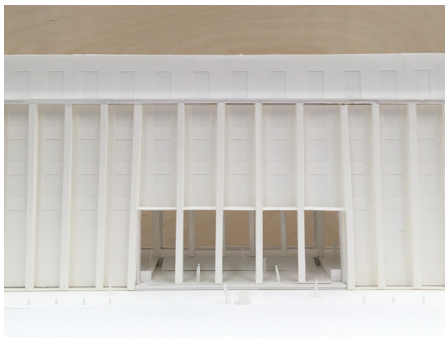
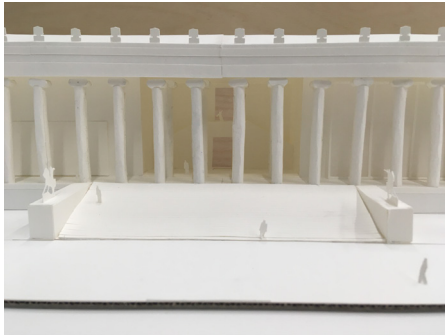
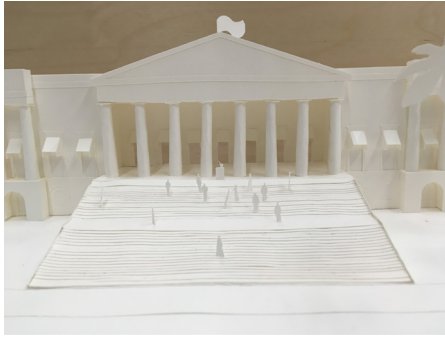
Polytechnic university
Museum, Moscow; Junya
Ishigami

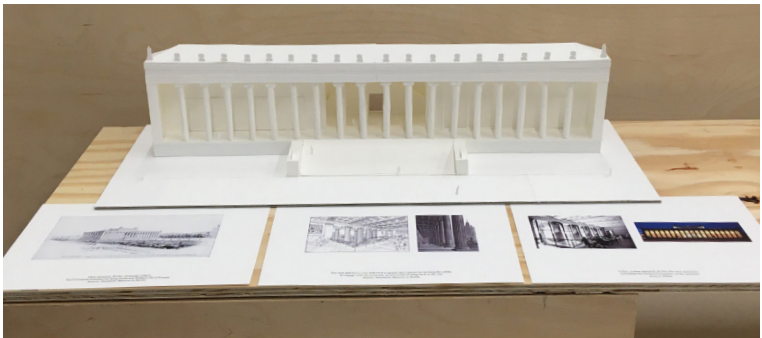


School of economics,
Milan; Grafton architects



4.
Entrance plinth above
ground, canonical
example: Mill owner's
building, Ahmedabad; Le
Corbusier





week 1.10

2021 11 04

Research plan: Afterlife office +

Introduction (275 words)

Superseded by the European central bank, and subject to transformations in the financial-banking sector, the National Bank of Belgium (NBB) has lost a lot of its defining features as a national bank (such as vaults for storing gold and the minting press; all of its secure storage spaces have been/ are being shifted to other facilities). (NBB, 2020) As such, the NBB in 2025 would primarily function as an office building for its 1500 office and research staff. The architectural competition brief for the National bank of Belgium, which forms the basis of the IBC studio's brief, proposes a redevelopment of this precinct in line with this new role.

Apart from dealing with questions of what it means to be a future bank (IBC, 2021), this studio brief is seen as an opportunity to investigate the future of existing workspaces. It draws on the readings provided in the studio to speculate an ideal future for the north-european office building -- which has been in a state of flux for a while; accelerated by the ongoing pandemic. The research component, parallelly, is also an opportunity to continue studying aspects of architectural representation that interest me. Specifically, I wish to critically engage with the drawn artefacts as a means of communicating and producing architecture.

The research plan and activities aim to investigate these multiple threads, with the expectation that they would feed into and inform the design process in an operative way. The two-fold goal with these themes is that they address key gaps in my knowledge as I grapple with this studio brief; whilst simultaneously remaining broader in scope than the specific site/ program/ brief in question.

Academic positioning (1039 words)

In last semester's history thesis course, I wrote about how 'representation' shapes 'reality': the central premise was that the way the architect draws influences the built outcome significantly. The paper argues that the use of a certain mode of drawing or the layers of information depicted in them drastically affects the object being designed, as opposed to the conventional understanding of its role as a passive, transparent medium. For example, a reading of Glen Murcutt's heavy use of the detailed section results in buildings that are extruded, horizontal structures -- and James Stirling's predilection for axonometries results in built geometries that often align at 45 degrees.

This paper -- Representation shapes reality -- first gives an overview of the history of drawing -- which is seen to be closely linked to the history of the architecture profession as we know it today. The overview establishes a historical trajectory and identifies patterns in the use of certain types and modes of drawing. These types and modes are then analysed in further detail. This part is bookended by an overview of the way architectural historians and theorists like Robin Evans, Edward Robbins, Mario Carpo ... (among others) have examined the role of the drawing. With this background information at hand, the paper studies the work of contemporary architects SANAA and RCR to examine the hypothesis. In my opinion, the case studies I did were not sufficient to establish this link convincingly. In the graduation studio, I hope to continue this trajectory.

To return to the key issue of workplace design, the following paragraphs first look at the historical development and identify issues with the key protagonist: the deep-plan office.

Office buildings and organizational change (Duffy, 1980) displays key moments in the historical development of the office typology through a few, specific precedents. These precedents are seen as tangible results of changing attitudes to managerial organization, real estate markets, the values and aspirations of society at these different points in time. In doing so, the tension between the architecture and the forces that shape it are revealed -- questioning the agency of the architect in the production of office space. The author implies that architects are far from being the key protagonists in this process, being relegated to designing 'trivial details' (p.279, Duffy, 1980) for developers and other real estate forces.

As a result, the leaseability/ saleability of office space becomes a key determinant of success. In Corporate towers and symbolic capital (Dovey, 1992) the author uses advertisements to explain how symbolic capital -- the 'symbolic, aesthetic, or mythological aura' that surrounds office towers -- is deployed for this purpose. Through a series of categories: external image, location, foyer, view, interiors ..., the author illustrates how this 'aura' is created through a combination of skin-deep architecture and creative copywriting, all to disguise the capital-making machine that is the actual structure. These visible elements are then given extra attention while the rest is kept at the bare minimum -- seen in how building heights of office floors are reduced as much as possible while the entrance foyer is celebrated. In all of this, going a step ahead than Francis Duffy, Kim Dovey holds architects not just marginalised but

complicit. He concludes with a call to action, asking architects and designers to design better cities for the future and not fall prey to 'lucrative self-denial'. (p. 187, Dovey, 1992)

In the European context, the development of the actual workspace coalesces into variations of a repeated deep-plan floorplate, typically around 15-20m, arranged in large vertical or horizontal structures. (Meel, 2000) This is an evolved version of even deeper buildings in the past: the Osram building by Walther Henn, built in 1965, a 'canonical' precedent studied in the studio, is a perfect example of this. This architecture is an outcome of advancements made in technology over the course of the 20th century to allow lighting, ventilation, circulation and other services at this scale. (Duffy, 1980)

The deep-plan and its associations with the emergence of neo-liberalism and notions of flexibility (in the British context) are studied in *The political economy of flexibility*. (Thomas, 2019) The author refers to Francis Duffy / DEGW's research into envisaging the office building as a series of temporal layers: shell, services, scenery, sets -- that can adapt to changing needs and uses. It explicitly establishes a 50 year lifetime for the actual building shell. in *Obsolescence: An Architectural History* (Abramson, 2016) the benchmark preceding this norm is seen to be anything from a few decades to a few years -- buildings torn down and replaced at their prime to serve newer requirements that challenged the constraints of their rigid construction in some form or another.

This proved to be a very effective formula, becoming the go-to strategy for office buildings thereon. In this way, DEGW's legacy continues in the proliferation of flexible deep-plan buildings with optimized services across the globe. After the 2008 financial crash, India (particularly the Delhi - national capital region) became the stage for globalised architectural practices/ corporate design specialists, egged on by predatory multinational capital. (Dharia, 2014) An example close to my home is the DLF Cyberpark, a 250 x 50 x 50m behemoth that comically dwarfs its surroundings -- it is the epitome of form follows finance.

In today's world, office space is increasingly becoming less relevant or desirable. As an architect faced with a design challenge to redevelop a structure that includes a fair amount of unused/ empty office space, this is especially relevant. In the UK, the problem of excess office space necessitated policy intervention. 'Office-to-resi' regulations of 2014 allowed developers to convert this space into apartments to be able to recover their investments. While it sounds like a good idea in theory, it has had mixed outcomes: very little attention is paid to how the units work. Small apartments are carved out of deep plan buildings, some remain windowless and unventilated. (Park, 2018)

Elsewhere, deep courtyards are carved out of such buildings to bring in light and ventilation. The Osram building was to be re-used in this way in an architectural 2015 proposal by Muck-Petzet; with a hollowed-out lightwell making small studio apartments possible. This proposal was recently rejected in favour of its demolition and replacement by newer, RoI-friendly buildings by Ortner & Ortner, in 2021.

Reflective problematization (717 words)

Both of these examples paint a picture of the world we're headed in at the behest of financial forces at the helm. The deep-plan office resists attempts to use it for any other purpose than commercial; necessitating heavy interventions to convert them. Even then, the outcome falls short of being ideal. Demolition and replacement seems to be the de-facto solution, and is indeed the fate that awaits most of these buildings. This is an obvious concern seen in the context of the enormous weight the construction industry puts on the plant's resources and climate.

The downward trend of office space demand is compounded by the ongoing pandemic, and some voices herald an imminent commercial real estate bubble-burst (Colombo, 2020). Faced with this reality, the deep-plan office has to adapt -- just to live out its expected 50 year lifespan, or perish. This paradoxical outcome of 'flexible' design as rigid, inflexible spaces -- is seen as a central concern of this research direction. The ubiquity of this type of architecture highlights the need to study and review strategies to ameliorate this condition.

As a counterpoint to the deep-plan, The architecture of the city (p.46, Rossi, 1982) reminds us to critique 'naive functionalism'. In schemes like the Gallarate quarter, the architect uses a concept he terms 'distributive indifference' to compose spaces that are not functionally predetermined -- or generic, in a sense. This is informed by his study of historic buildings that outlast functions they were made for, and in how their transformation allows 'maximum functional freedom'. (Rossi, 1970)

This variety cannot be imagined for the deep-plan office -- it lacks the multiplicity inherent in the kind of buildings Aldo Rossi talks about. The factors that shape this are the building depth, structure, height, circulation paths, the way the services are organized. In a similar vein, Herman Hertzberger talks about 'polyvalence' as a quality that allows spaces to be interpreted and used in different ways (Hertzberger, 2014) This is particularly important when one looks at the rapid changes that offices are expected to undertake post-pandemic (Davis, 2021), going as far as live-work hybrids. (Bochinska & Katz, 2020)

Another aspect brought on by the sheer scale of the NBB's site and program is the degree to which the open spaces within it are accessible. Looking at precedents like the Economist building by Peter and Allison Smithson, or the India Habitat Centre by Joseph Stein, suggest an alternative where the city is brought into the site, blurring the edges in between them. In the IHC, the building gives back to the city by interspersing public programs like auditoria, restaurants, halls, and galleries. The result is a diverse environment for both the office workers and the public. (Bahga & Raheja, 2019) Aldo van Eyck and Piet Blom talk about the reflexive relationship between the building and city, and propose multiple strategies. (Jaschke, 2008).

To summarize, the research would investigate the typological possibilities and advantageous functional adjacencies of an ideal office building. This building would thus perhaps not only be able to be adapted for other uses -- rendering the structure useful for much longer, but also have to contain a lively mix of functions and activities that interact with the city around and within it, by taking advantage of the polyvalence/ multiplicity baked into its architecture.

This does not have to mean an endless cycle of heavy construction interventions; kinetic, temporary interventions could be employed against the structure to allow new possibilities and meanings. (Mehrotra, 2008) It would try to extract key lessons from case studies and precedents, and be applicable for both new-build and reuse of existing structures.

For the parallel trajectory of the analysis of drawings: the research component would focus on Office KGDVS and Harquitectes. They are both contemporary European practices, whose work has been published by *El Croquis* as monographs (*El Croquis* 203 and 185)(additionally, Harquitectes is going to be present at the BK faculty in December to give a lecture of their work). They produce very different architecture; and my contention is that an in-depth analysis of the way they draw will show how the representation parallels this fact. At a first glance, the conceptual KGDVS draws pared back and abstract - almost diagrammatic - drawings to explain their work; which contrasts the way pragmatic and restrained Harquitectes draw extremely precise and detailed drawings.

Methodology (357 words)

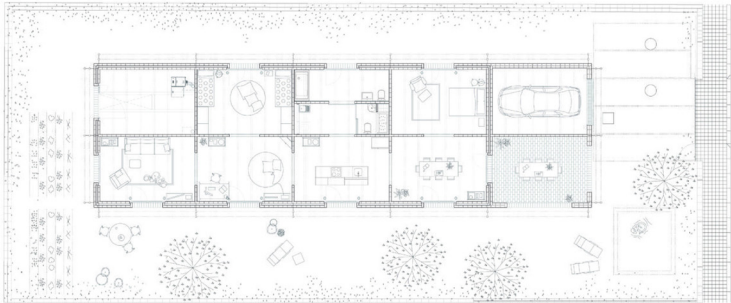
The goal, with the analysis of their drawings, is to establish the basic premise/ hypothesis that I started with last semester, but also to learn from these architects via the proxy of careful analysis of their drawings. The drawings are seen as a device that draws from different fields of information, bringing them all together in one place to bear on the architectural object. In this regard, I see this work in the same vein as *Comments on drawings of 20 current architects* (Moneo & Cortés, 1976) which went on to become an instructive, pedagogic tool.

With the afterlife office research, the first step is to identify appropriate case studies and precedents to study the ideas of multiplicity and polyvalence in depth. While this would no doubt include the work of their respective authors, it would expand to include other instances where one sees these characteristics. Parallely, case studies of architecture where office program exists alongside other functions would illustrate real-world strategies in building organization. Examples of repurposed existing office spaces would be particularly helpful in this regard.

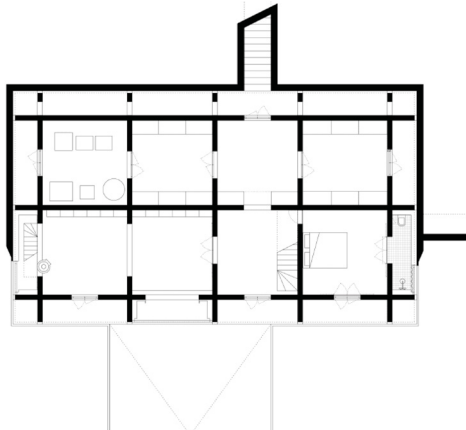
These case studies are expected to be condensed into a series of operative architectural strategies; or a tool-kit that can be used in the studio project (and also, beyond it). This tool-kit would have to be assessed relatively along a series of criteria/ metrics like cost, context, complexity, effectiveness... to ascertain their applicability. For instance, the live-work model proposed in *The case for live-work buildings* (Bochinska & Katz, 2020) is reductive and simple enough to be universal, even though it remains deeply rooted to its American/ New York context in the way its plan is organized and its building envelop interacts with the city and street. Similar arguments could be made about the Korean Officetel, which combines living quarters with workspaces in mix-use buildings. (Baek & Gohaud, 2017)

As stated before, the expectation is that this research can become a resource for me, not for just the studio project at hand, but also inform my future practice. The DLF Cyberpark is a reminder that grappling with the afterlife of the deep-plan office is a far-reaching/ potentially universal design problem worthy of study.

Source: Harquitectes



Source: Office KGDVS



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week 2.1-2

2021 11 11-25

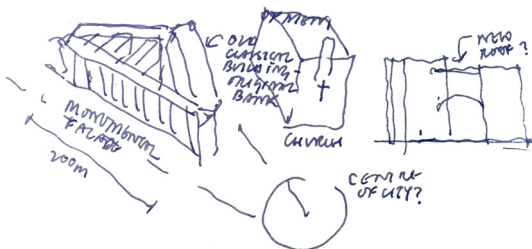
Brief 4. City Bank

Brief to collect information about the site and building. Notes:

- Bank as an institute 'impossible to either deny or penetrate'
- Dense site, once an aggregation of individual housing blocks
- 'Serious institution'
- Complex aggregated structure in both plan and section, a labyrinthine architecture.
- 60sqm per person of space in the building

Site visit notes:

- Feels smaller in real life
- No places to sit at the site, anti-homeless chairs
- Residential mix-use, new constructions are luxury housing and new police headquarters
- Basement low-height, vault spaces are quite disproportionate.
- Governor's new offices on the fourth floor of the colonnaded building.
- Meeting and dining rooms for VIPs on the fifth floor with marble cladding.
- Courtyards at -1 level, cash and trash trucks.

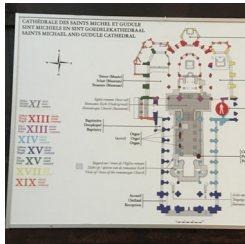




1. Terrace extensions mirror Mehrotra's 'Kinetic cities'



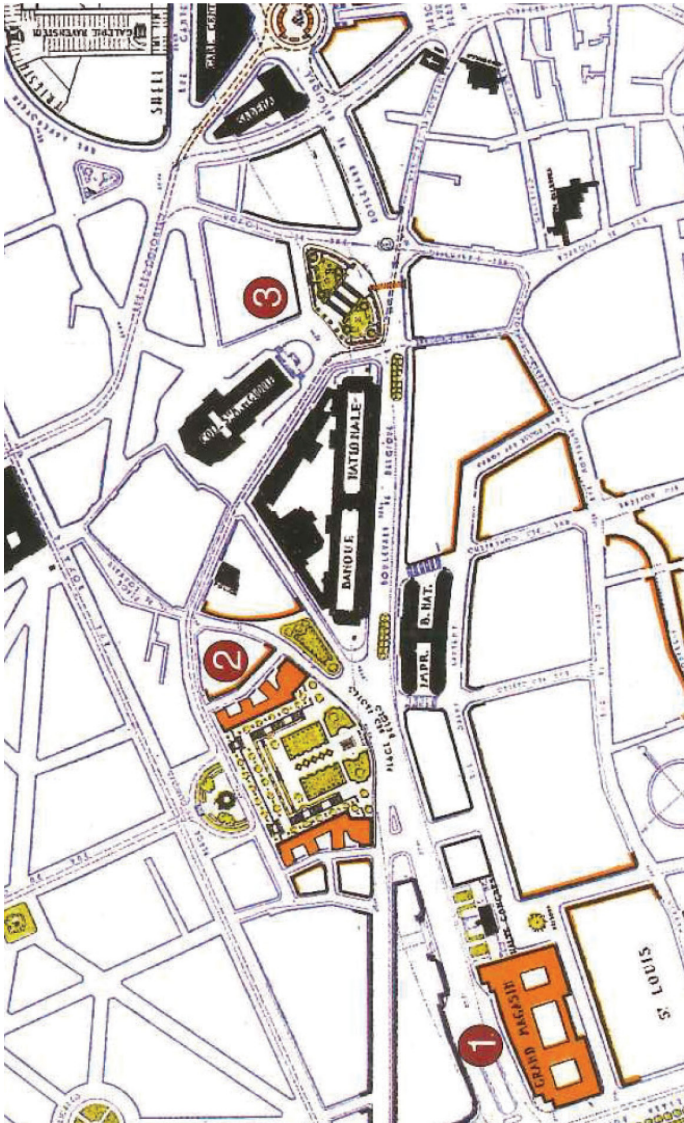
2. Trees in the urban park are arranged in a grid and painted with anti-termite treatment.

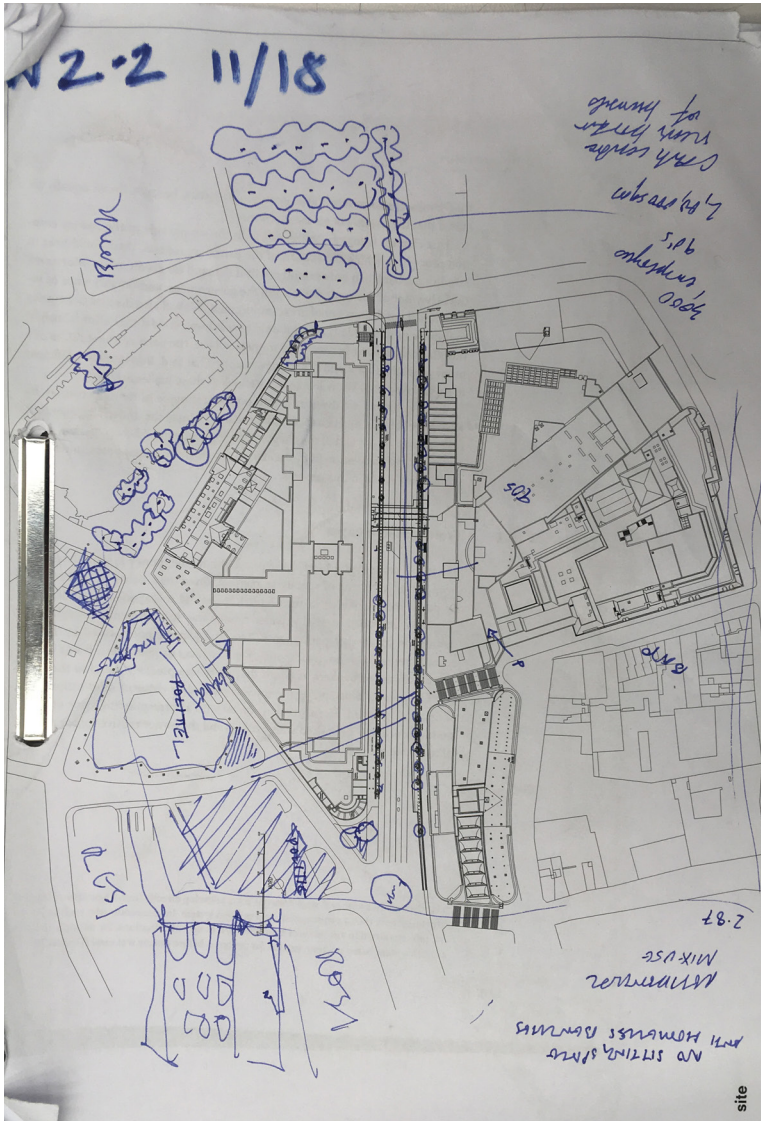


3. Church built incrementally over time like the bank.



4. To-let signs around the site, sign of derelict neighbourhood or overpriced real estate





week 2.3-4

2021 11 25-09

Brief 4. City Bank

Feedback:

- Perspective, ground-level model that allows street-level views and photographs
- Drawing list: focus on cleaning up and adding new section drawings

Research plan meeting with SM:

- Office+housing as main thrust of program
- Building's Palace had residential role -- already a house
- HdeM project Nueus museum, Berlin -- question the brief and propose a different solution -- Chiara Friedl
- Eireen Scheurs -- DASH, home work city for living and working, 2019
- Flanders review 13, study projects of contemporary architects in Belgium to understand context



Collective drawings

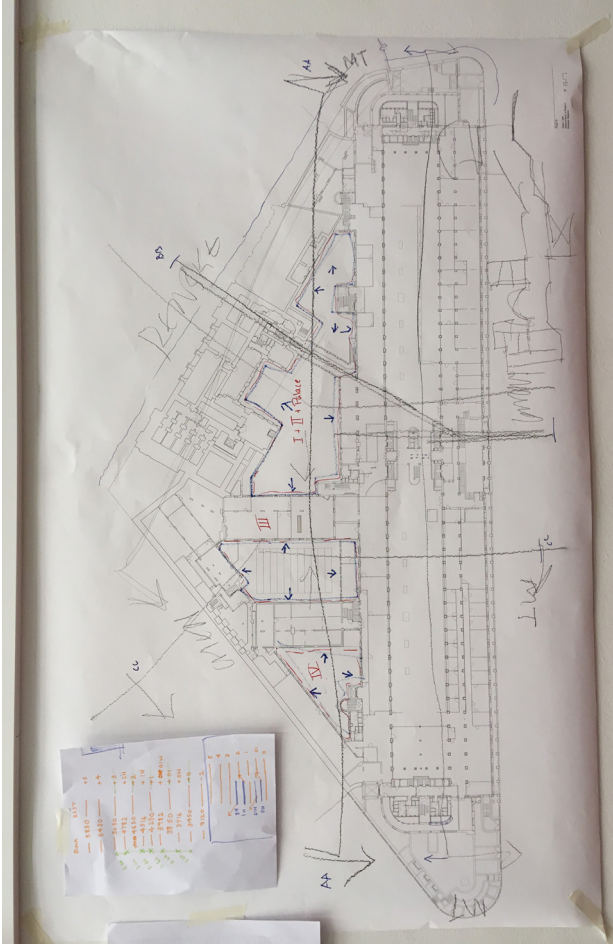
Process:

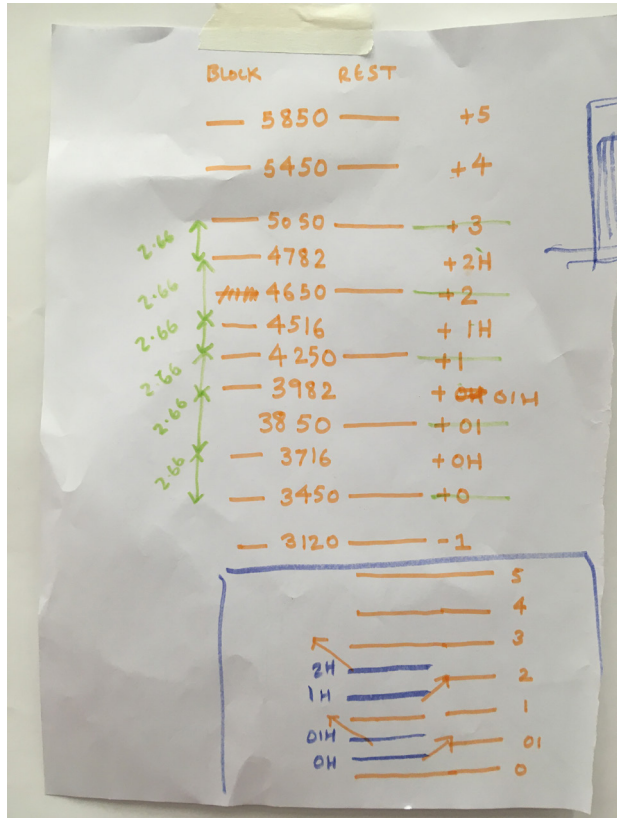
- Organization of team into individual tasks and drawings, follow-up and responsible members.
- Layers, scales, and lineweights configured for 1:200 and 1:500 plots

Discoveries in the drawings:

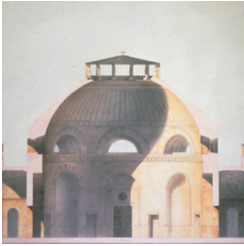
- Expansion joints that show how the building was built in parts.
- Railway line drawn in section comes very close to the building in a certain point, leading to vibration issues documented in the competition brief.
- Basement 2 wall is shared with the railway line
- Various tunnels link the palace to the newer additions and vice versa, not all shown in the drawings for security reasons.
- Narrow connecting blocks and small courtyards at the junctions of buildings
- Fourth floor reads as an addition on top of the existing building floor.
- Inbetween floor with split levels

ID	Name	Who	CAD	PDF	Scale	Plot
1						
2						
3	Plans					
4	Context plan (in metres)	MT	context	SC-1	1:300	1350x841
5	Site plan (in metres)	WH/AN	siteplan	SC-2	1:500	1350x841
6						
7	Basement 3-4	AN	plans	P-83	1:200	1350x841
8	Basement 2	AN	plans	P-82	1:200	1350x841
9	Basement 1	AN	plans	P-81	1:200	1350x841
10	Ground floor	MT/AN	plans	P-8	1:200	1350x841
11	Mezanine floor	MT/AN	plans	P-21 + P-21H	1:200	1350x841
12	First floor	AN	plans	P-1	1:200	1350x841
13	Second floor	AN	plans	P-2 + P-2H	1:200	1350x841
14	Third floor	AN	plans	P-3	1:200	1350x841
15	Fourth floor	AN	plans	P-4	1:200	1350x841
16	Fifth floor	AN	plans	P-5	1:200	1350x841
17	Sixth floor	AN	plans	P-6	1:200	1350x841
18	Roof plan	AN	plans	P-7	1:200	1350x841
19						
20	Elevations - external					
21	North east elevation along Retevade Road	MT	elevations	E-1	1:200	1350x426
22	Southwest elevation along Eclovent du Belaircot (2008)	MT	elevations	E-2	1:200	1350x426
23	South east elevation along Retevade Road	RY	elevations	E-3	1:200	1350x426
24	South west elevation along Rue du Bois Sarrage (palace)	RY	elevations	E-4	1:200	1350x426
25	South east elevation along Rue du Bois Sarrage	YC/AN	elevations	E-5	1:200	1350x426
26						
27	Elevations - internal					
28	Internal elevations of courtyard 1	RM/MT/AN	elevations	E-6	1:200	1350x426
29	Internal elevations of courtyard 2	EK/MT/AN	elevations	E-7	1:200	1350x426
30	Internal elevations of courtyard 3 (palace)	SS/EK/MT/AN	elevations	E-8	1:200	1350x426
31						
32	Sections					
33	Longitudinal section through main hall	WH	sections	S-1	1:200	1350x426
34	Longitudinal section through courtyard	YC/WH	sections	S-2	1:200	1350x426
35	Transverse section through palace and main hall	RY/WH	sections	S-3	1:200	1350x426
36	Transverse section through typical blocks	YC/WH	sections	S-4	1:200	1350x426
37	Section through terraces	SS/WH	sections	S-5	1:200	1350x426





Bank of England interiors



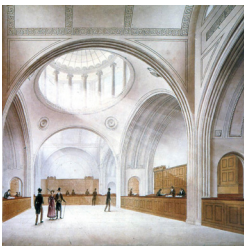
1.
Dramatic roofscape
composed of vaults and
domes that bring in light
to the large halls beneath.



2.
Halls dwarf the scale of
people within; ceremonial
power and role of bank in
the society

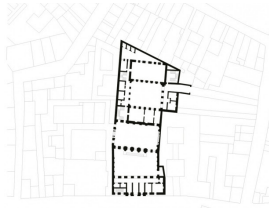


3.
Rotunda as key moment of
circulation through bank



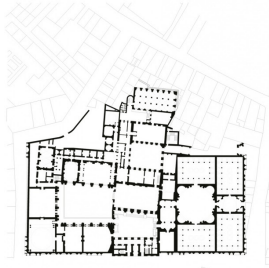
4.
The matter-of-fact
'Colonial office'

Expansion over time



George Sampson 1732-34

1.
George Sampson 1732-34



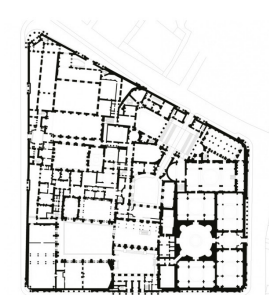
Robert Taylor 1734-88

2.
Robert Taylor 1734-88



John Soane 1797-1801

3.
John Soane 1797-1801



John Soane 1801-1833

4.
John Soane 1801-1833





Architectural Elevation
Scale: 1:100
Author: [Name]
Date: [Date]



Architectural Elevation
Scale: 1:100
Author: [Name]
Date: [Date]



Architectural Elevation
Scale: 1:100
Author: [Name]
Date: [Date]



Architectural Elevation
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Author: [Name]
Date: [Date]



Architectural Elevation
Scale: 1:100
Author: [Name]
Date: [Date]



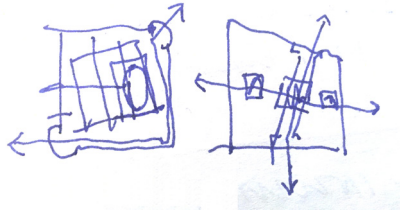
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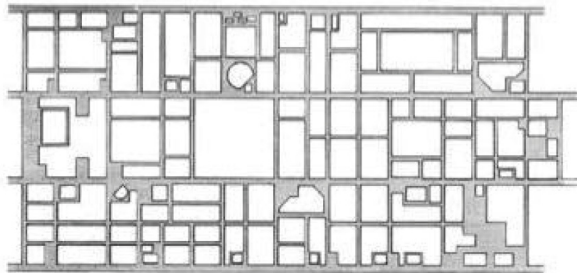
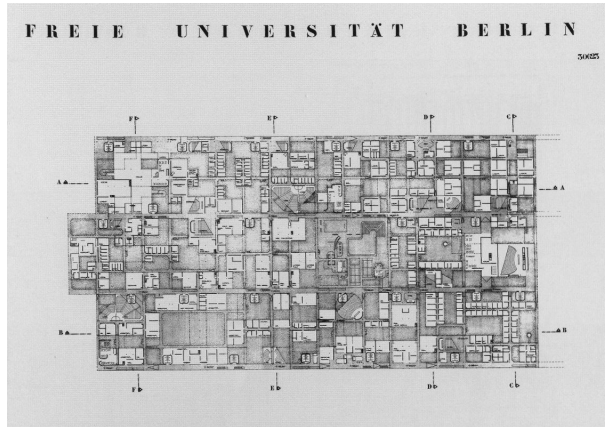
Notes:

- Similarities with Bozar; same scale
- Both are horizontal urban block yet porous, accessible/ walkable.
- NBB was 'outside the wall'
- Religious proximity to church



Feedback

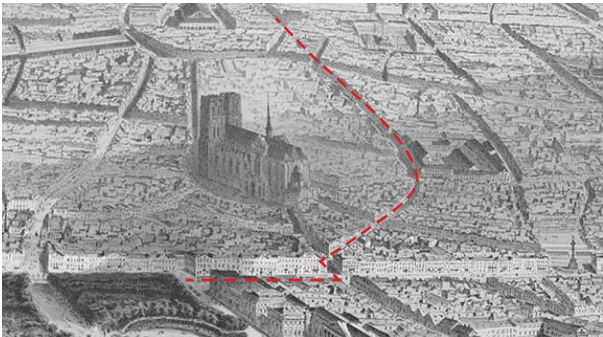
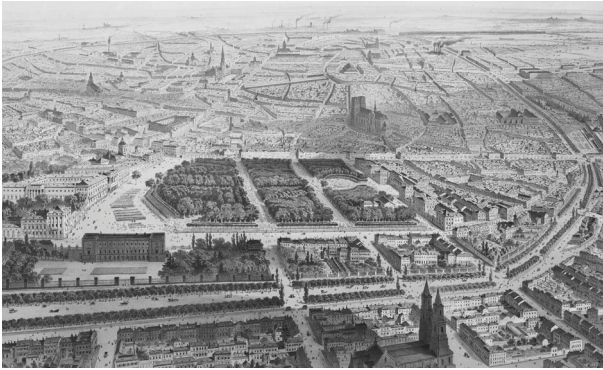
- SM: see Freie University Berlin; Mat building. Can the NBB be reimagined as a modular, open grid?
- Sequence of public spaces as a diagram.
- What are the public rooms?
- Roof lanterns by Lutyen and Wagner are similar to the rooflight at the NBB
- Presence of the bank in the city, the reciprocal relationship of seen/ being seen: sited on boulevard in the centre of Brussels.
- Transition between bank and pedestrian/ cars

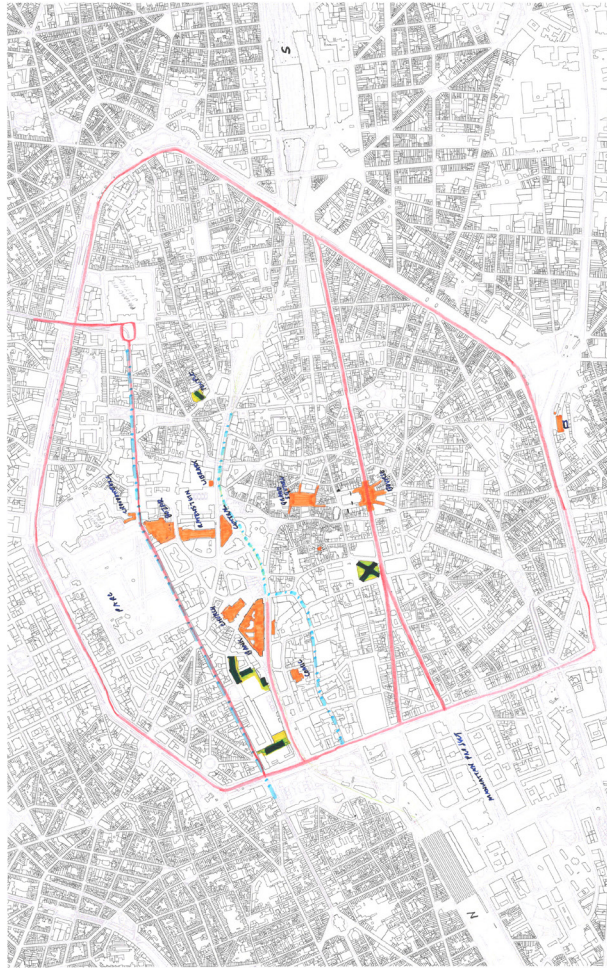


week 2.5

2021 12 09-16

NBB immediate context: traces of urban links





Building to Urban block



1. Bank exists as part of street facing church, surrounded by houses.



2. Bank expands, swallowing the urban block through incremental expansion.



3. Underground railway line rearranges the urban fabric, making the street into a wider boulevard while increasing the footprint available to the bank.



4. Bank functions start spilling outside the urban block. New site outline breaks the continuity of the street (now called Rue Comediens)

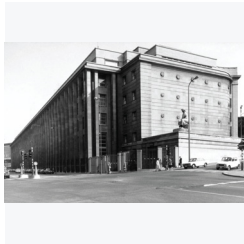
NBB corner forms its 'image'



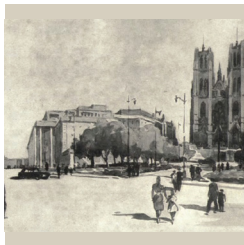
1.
Perspective of the South corner, facing the plaza in front of the church. Series of black cars illustrate the slope.



2.
Similar photo showing heavy vehicular nature of this street in the past.

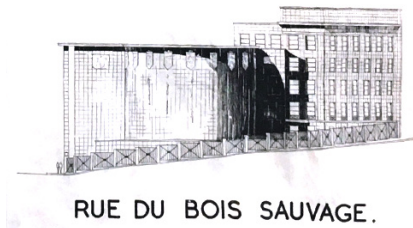
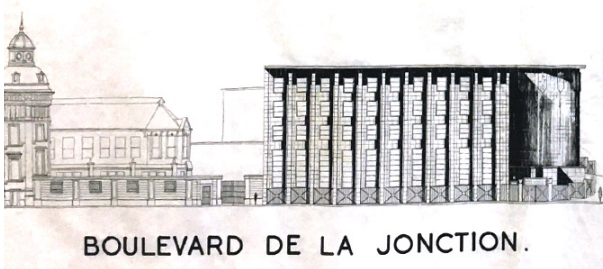
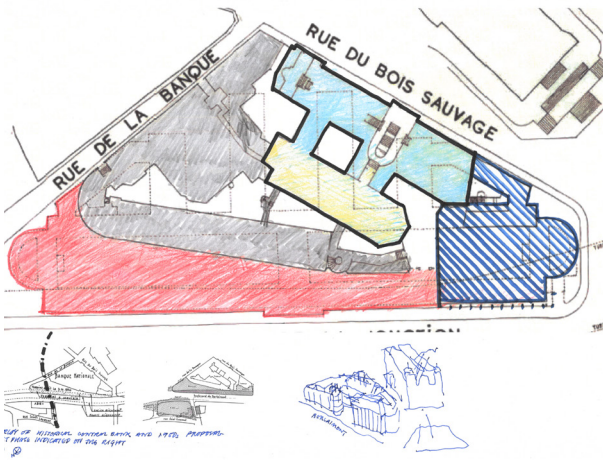


3.
Another photo from same angle, a decade later.



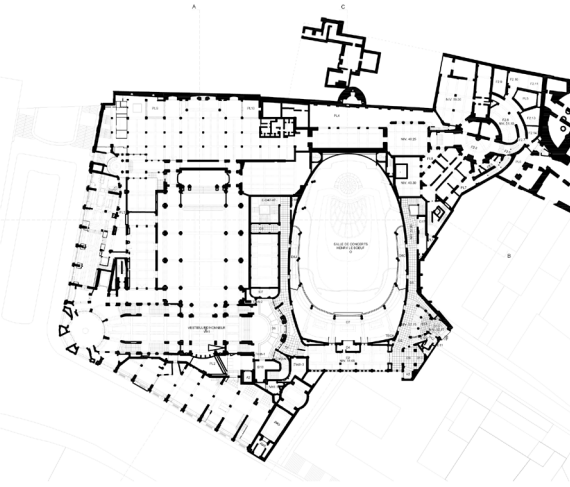
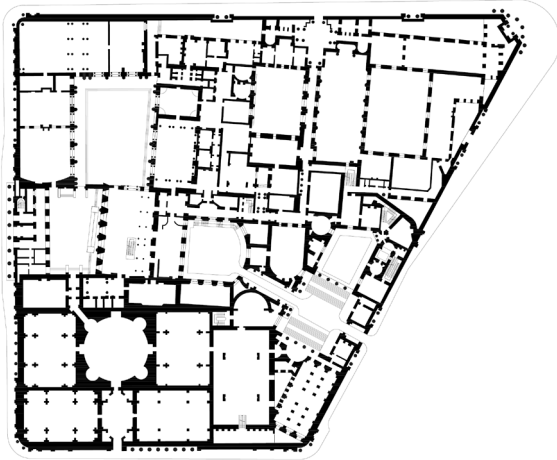
4.
Painting of the bank as a hulking mass hidden behind trees of the plaza.

NBB segment showing its incremental construction

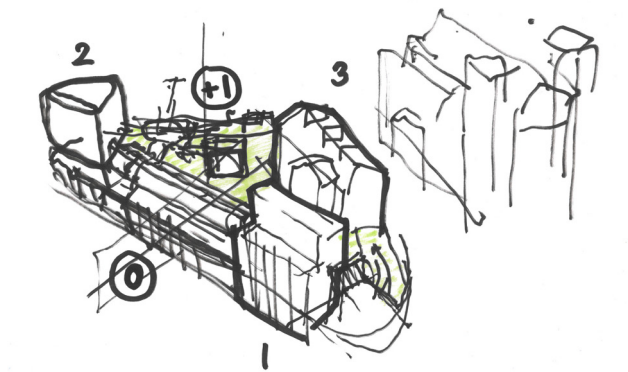
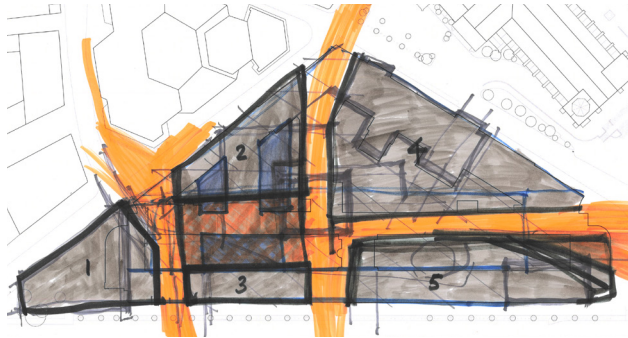
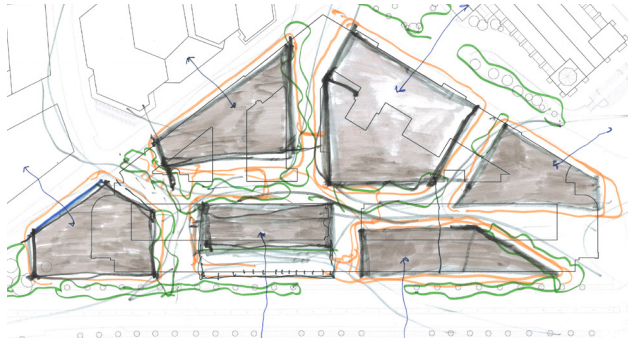




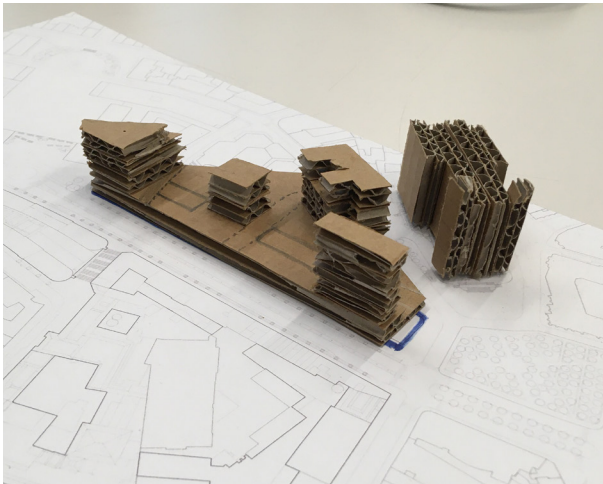
BoE and Bozar: Low-height, dense urban blocks



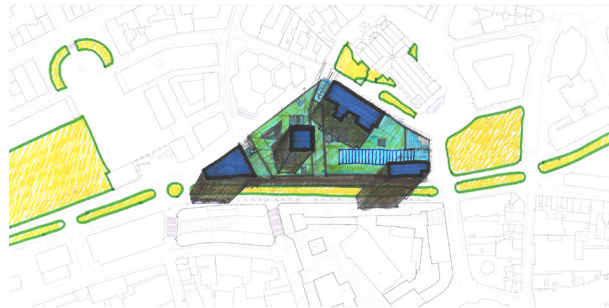
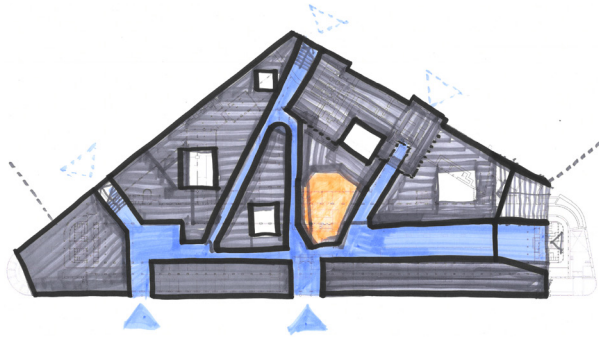
Continuing urban lines through the site



Section/ massing intent to create rooftop



Combined proposal

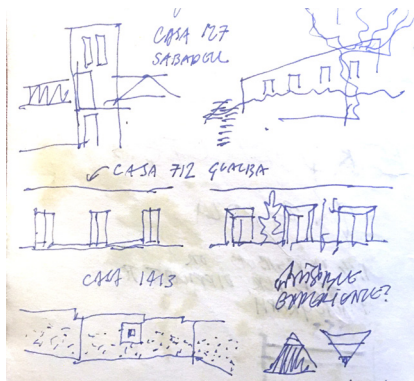


Feedback

- Poche space and passage: public interiors
- Good example of urban passages? Bazaar van Tabriz, Iran
- Vegetables grown on the roof of the structure -- example in Brussels, near bank
- Luc Deleu, Urbanism
- High-rises in Brussels, relationship between church and towers in context
- Ravenstein -- coworking spaces?
- Courtyards in Brussels?

Harquitectes

- Invisible/ difficult to photograph
- Contemporary vernacular: use of common-sense materials and techniques
- Formalism and graphic complexity to structural and volumetric play
- Structure and facade perform in multiple ways
- Interior and active conditions
- Use of large models and bold drawings with markers to illustrate concepts and ideas.
- Regular geometry against 2 sides of irregular edges
- Winery project, brick veil of insulation



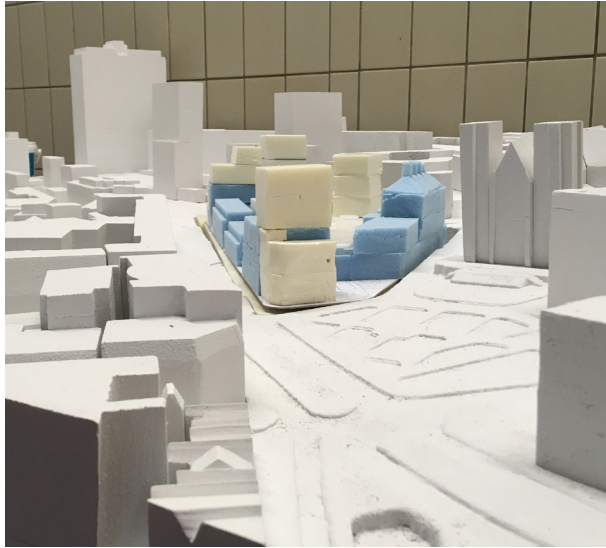


week 2.6

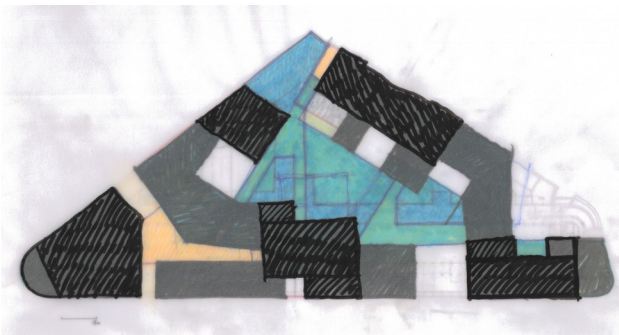
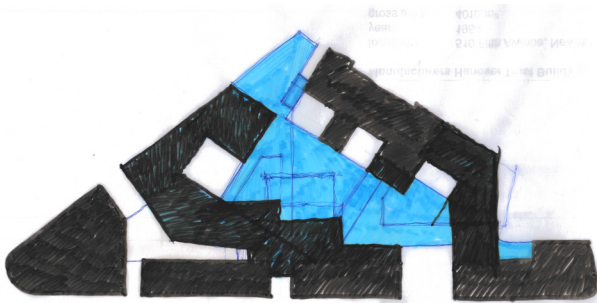
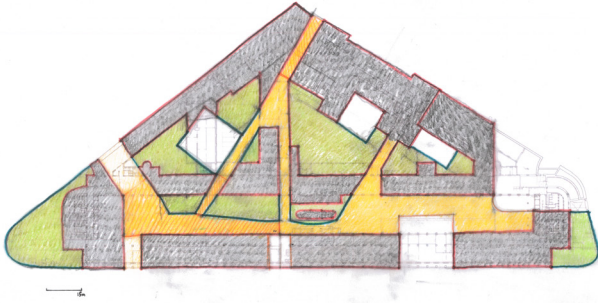
2021 12 16-23

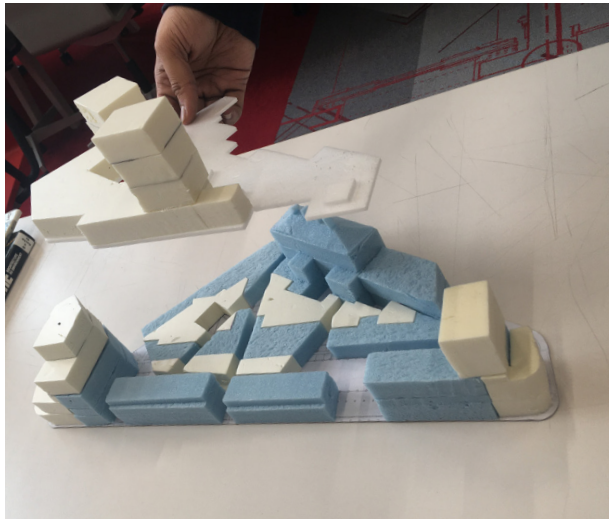
High-rises in Brussels: proposal by BUUR





Ground-scraper and new block

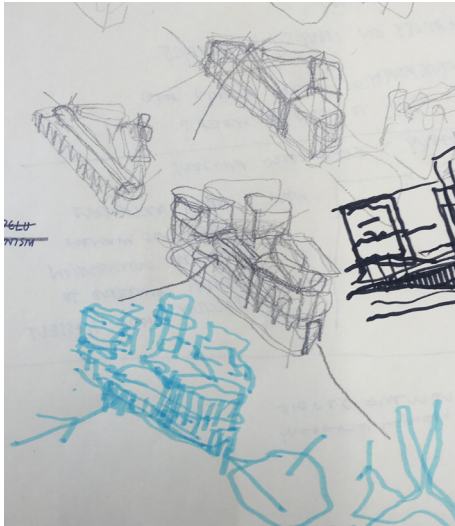




Notes

With shrinking program, the NBB has the opportunity to catalyse a process of urban healing, reconnecting itself to the grain of the city streets and blocks.

Proposed interventions create new figure-ground relationships, revealing the history of the site. Built volume is added and subtracted to create a varying section along the street and an accessible rooftop public space.

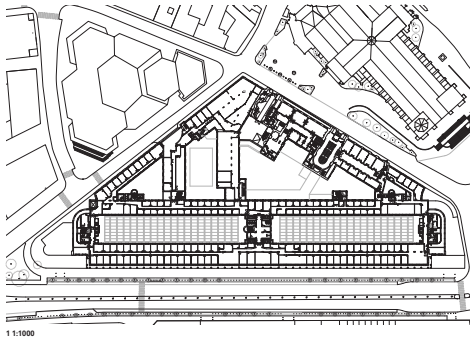
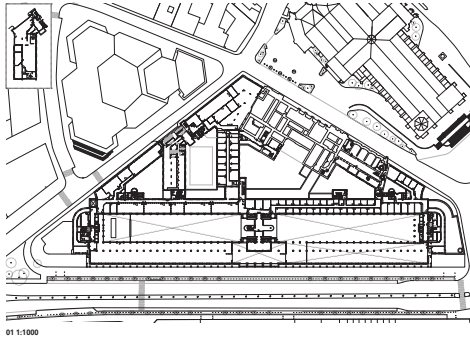
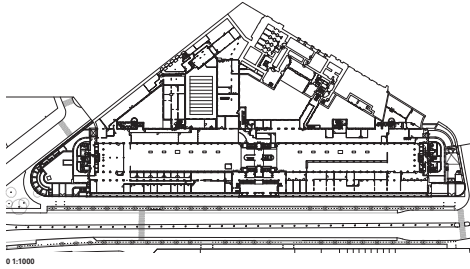


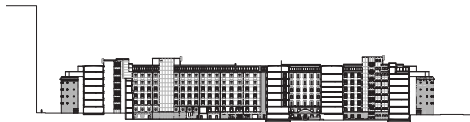
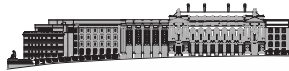
Feedback

- Precise and economy of means; most with least.
- Who is the public?
- Where is the bank?
- Stirling gallery, London
- Victoria and Albert museum

Feedback SM research

- Part 1. Evaluation of the building: qualities that can be kept, and what can be removed (see: BIM/ volumestudie)
- Can be in the form of drawings/ photographs/ models/ text that document and analyse the existing condition.
- This interpretation is an act of design: it will be the basis of decisions taken to intervene in the building and propose changes. Clear problem-solving strategy
- Part 2. References/ case studies of similar projects and interventions that adapt and modify an existing building
- Kooning Academie, Rotterdam (*)
- Noa architects, Stadhuis Menen: precise additions and connections
- Noa Hasselt: prison converted to school
- Drawings and analysis of these buildings to understand how the old and new co-exist.
- Wolf food sharing





week 2.7-2.8

2022 01 06-13

Progress

Feedback DR 12/20

- Create coherent urban spaces, focus on quality of the negative space.
- Public program - what is being added? how does it interface with the bank?
- Bank - how does it work? how does it correspond with the brief? Arrival?
- 'Catalyst' of change: tied to issues of program and interpretation
- Do not forget back of house movement
- Economy of means; precise and exact interventions
- Circularity and re-use of material
- Think in plan/section, interrogate building
- Create strategies: diagrams, models, text to show clear intent

Research/ design themes moving forward

- Studying the potential of re-using existing concrete from demolished buildings as load-bearing structural components. Potentially as walls?
- Study the history of the building complex through its various periods of intervention. Also, the surrounding urban environment. What does it highlight?
- Study the existing building to understand the issues that exist in it.

Re-looking at the BIM folder documents

O.0 Brief

- Poor connectivity between palace, oud direction, and MVG blocks. Rationalized circulation system is an important part of the brief.
- Requirements: conference centre, kitchen, public counter and public plinth, art museum, and rental offices. Training and administrative centre.
- Non-standard hours for public program
- Security: modularized, lockable building.
- Collection of rainwater and new facilities for energy and gas
- Mobile workforce, agile. Flexible workspaces.

1.2 History note

- Monasteries next to church, until the revolution - replaced by the emerging bourgeois
- 1859, Architecture competition, completed in 1869 by Baeyart.
- He intended the representative 'hotel' wing to retain value with later extensions. It houses the governor's office and residence.
- In 1876, additions are made, which are more organic in plan compared to previous gridded phase, aligned to the site edges.
- Lots of revisions, 14th version was built. Building hall has problems with ventilation.
- 1908, De Rycker adds more blocks including a printing press for bills with an ornate, french renaissance facade. MVG was not a fan, and thought it was superficial.
- Nothing for 30 years - underground railway line allowed the bank to expand (bank negotiated 9m extra by shifting line south)
- MVG proposal c was selected, oriented towards the boulevard 'symbol of the modern city' and away from the church.
- Circular edges were a response to Baeyart and Rycker's buildings.

- State of the art, technological advancements like elevators, vacuum messaging, ventilation etc.
- Buildings had to be built while bank was still operational. This constrained the construction process but also the very architecture of the building: the width of the NS beam wings are controlled by the distance between them and the older blocks.
- This way, the older buildings have a presence in the current plan of the project.
- Soil has low load bearing capacity.
- MVG wanted to make a second connection to the hotel
- Colonnade is purely ornamental, made of prestressed stone
- Second layer of glazing above the atrium was added as a means of avoiding insulation and removal of the heritage-protected windows.

1.5 Valuation

- 'Functionality and monumentality' key values
- KCML protection of existing building includes round staircase cores.
- Building with low f/f height was for printing and can be removed.
- Straight-flight stairs were meant to be escalator - and other stairs that were meant to connect to the 'comb' can be removed.

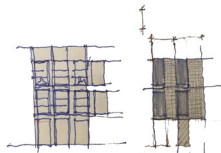
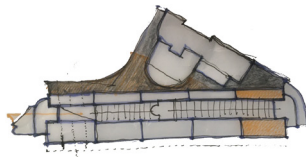
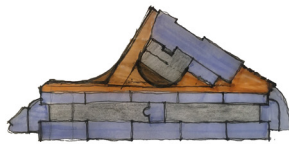
9.2 Activity based working

- Behaviour/ bricks/ bytes.
- Shared workspaces, flexible desks: 90% of users.
- Social/ specific/ standard spaces
- Open together// closed together// individually closed// individually open

Proposal 01/13

Notes:

- Horta house staircase: hierarchy
- More staircases need to be added for fire exit.
- Can the bank exist only on the ground? area needs to be checked.
- Can have commercial banks in the hall, how many banks are there in Belgium?
- Website of the NBB - what kind of outreach do they offer?
- Housing needs plenty of sunlight
- Plinth/corner - public/private?
- Draw sections!
- Future Brussels 2040, ecological network



Studio workspace

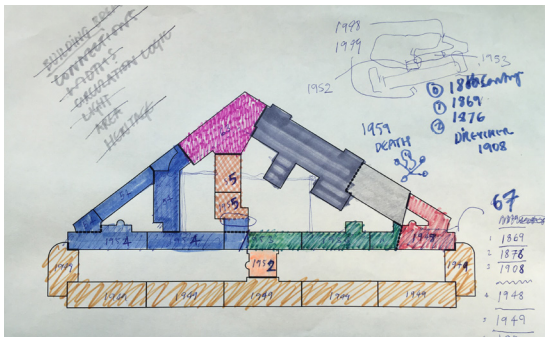
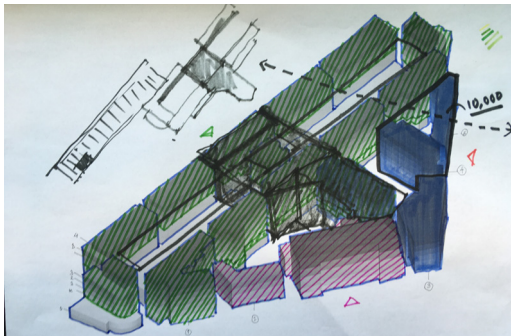
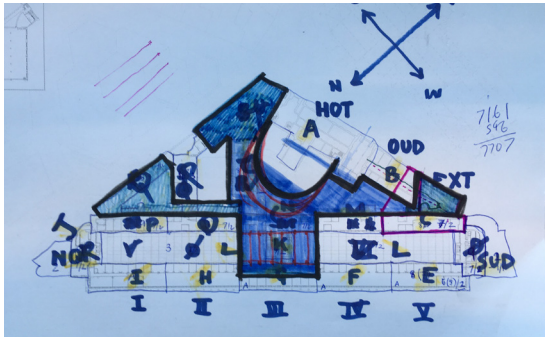




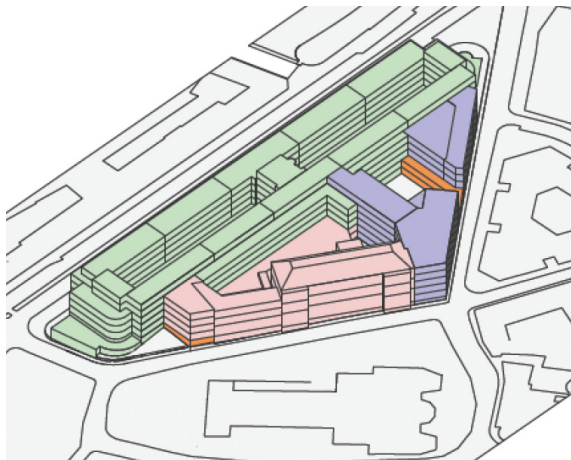
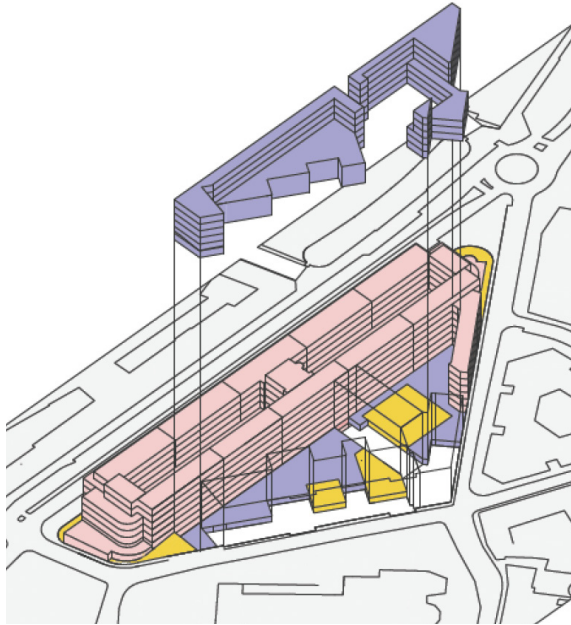
week 2.9

2022 01 13-20

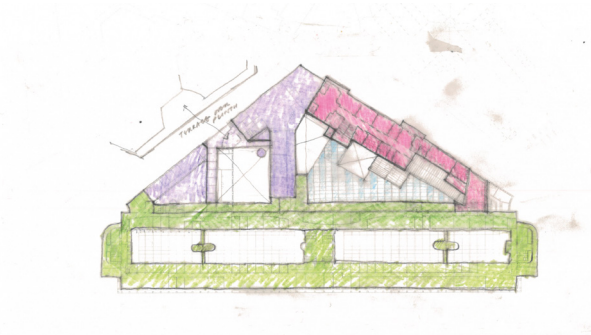
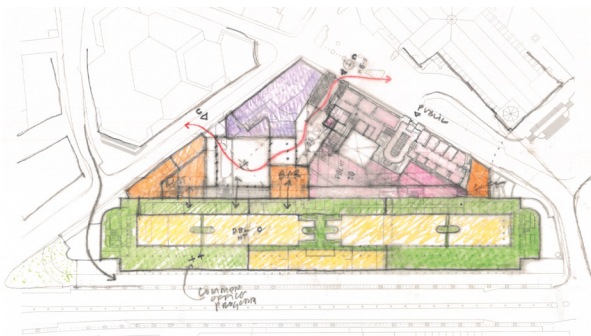
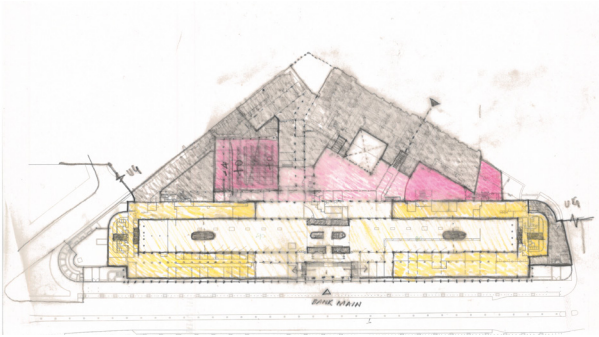
Process

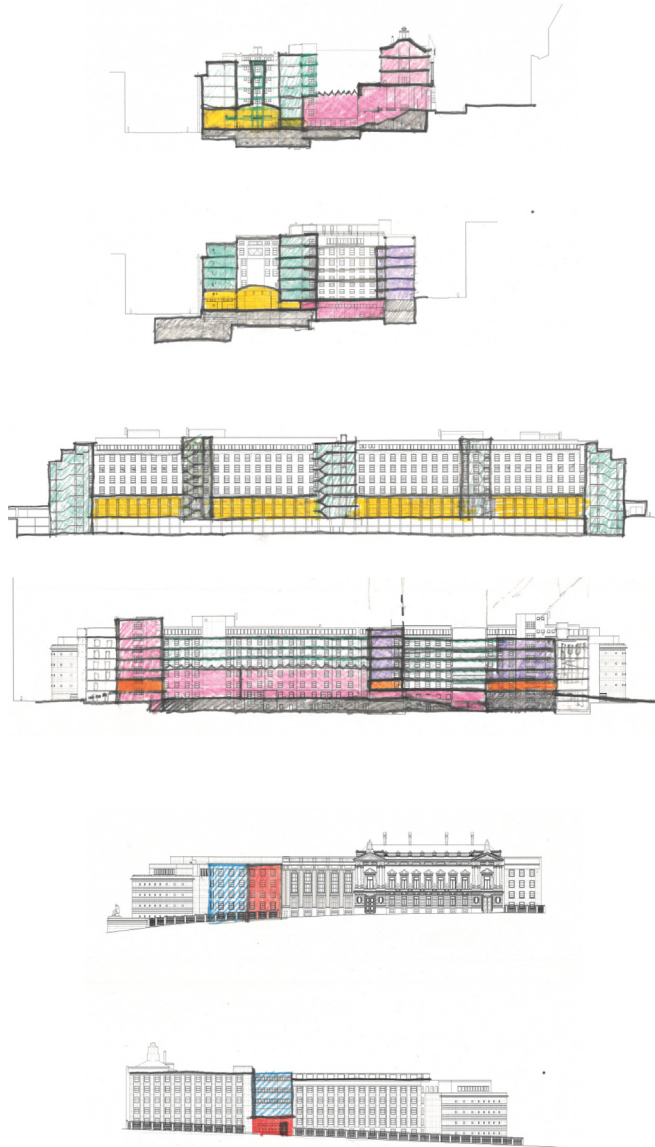


Axos of proposal



Drawings of proposal





Feedback

Sam

- Connection between upper and lower Brussels - response in the building?
- (*) Staff workers entering the building from the sides in the past
- Circular edges/ making the building more symmetric?
- Plaza in front of the church: turn into axial connection?
- Can the public use the hall? what is the potential, can it be split?
- Interaction between the bank and public courtyard

Mark

- What is the 'centre of gravity' of the project, is it in the new or old buildings?
- The proposal rearranges the program around the courtyards, creating new possibilities.
- What is the identity of the project and the role of the intervention in this?
- Quality of the courts
- Relations between the existing patterns of associations and new forms of movement in the courtyard/ atrium space
- Identity of the scheme in the city
- Aura of the hall as a pristine, modern space dedicated to working.

Graduation plan

Interiors Buildings Cities - Palace

Sam De Vocht Architecture

Sereh Mandias Research

Argumentation of choice of the studio

Research, drawing, theory and modelling overlap into a complex whole at Interiors Buildings Cities. What is also apparent is the rigour demanded by the chair, creating work that is 'resolved at all scales. I am drawn to both aspects. I see them as a challenge to engage with architecture beyond the quotidian 'problem-solving' approach that is taught in architecture schools and reinforced by practice.

Title of the graduation project

Grappling with the Future bank:
creating a 'legible' bank

-

The posed problem, research questions, and the design assignment in which these result

This graduation studio project takes on an architectural competition organized by the National bank of Belgium. This is an enormous public institution (90000sqm) in the middle of the city, with certain spaces of significant value like the daylit bank hall, which is also largely true to its original finishes. In the brief, the NBB challenges the designers taking part in the competition to not only provide for their new workspace requirements, but also address the public via a 'social plinth'.

Analysis: Understanding the existing conditions through a detailed study of the building, its history, its qualities, and flaws.

Reuse: How can parts of the building be reused in their existing or slightly modified state, ranging from the building structure itself to removable elements such as the windows?

Proposal: what is the intervention required to address the issues identified in the first stage + the competition brief, keeping in mind the principle of the economy of means.

Superseded by the European central bank, and subject to transformations in the financial-banking sector, the National Bank of Belgium (NBB) has lost a lot of its defining features as a national bank (such as vaults for storing gold and the minting press; all of its secure storage spaces have been/ are being shifted to other facilities). (NBB, 2020) As such, the NBB in 2025 would primarily function as an office building for its 1500 office and research staff. The architectural competition brief for the National bank of Belgium, which forms the basis of the IBC studio's brief, proposes a redevelopment of this precinct in line with this new role.

The project is seen as an opportunity to intervene in a large public institution that plays a significant representative role in the city, country, and continent. It attempts to create an open and democratic building that is organized around a heart of public program. It integrates itself with the city on one hand, while creating efficient workspaces on the other.

Apart from dealing with questions of what it means to be a future bank (IBC, 2021), this studio brief is seen as an opportunity to investigate the future of existing workspaces. It draws on the readings provided in the studio to speculate an ideal future for the north-european office building -- which has

been in a state of flux for a while; accelerated by the ongoing pandemic.

At a practical level, the proposal subtracts sub-optimal parts of the building and replaces them with an insert that negotiates with different programs, routes, levels, and conditions. The identity and architectural qualities of this insert are questions that I intend to investigate in detail in the upcoming semester.

-

Process: Method description

Research, drawing, theory and modelling overlap into a complex whole at Interiors Buildings Cities. The design process is ingrained in the way the studio is structured: through studies in modelmaking of canonical precedents to conceptual stands on the architectural meaning of social plinth; to collective research on the Bank and its surroundings – all of which lead up to the individual projects.

For this, I revert to using precedent research, model making and drawing analysis to develop strategies to deal with urban and architectural issues I identify with the structure through my research in its working and history.

The studio also involves writing as a means of understanding one's design decisions as well as for processing and finding links between information that one encounters while researching diverse topics. The 'Project Journal', an integral part of the studio's working culture, is a constant work-in-progress process of documentation and thinking.

Put together, this process of looking carefully and understanding what exists is critical for me to formulate a design proposal that avoids being a frivolous or 'bold' architectural statement but instead attempts to create a harmonious, restrained intervention. This intervention necessarily stems from practical issues such as access to vertical circulation or lack of cohesion between floor plates. While addressing these immediate concerns, it looks to answer broader questions about the National bank as a catalyst for change.

-

Literature and general practical preference

To return to the key issue of workplace design, the following paragraphs first look at the historical development and identify issues with the key protagonist: the inflexible office.

Office buildings and organizational change (Duffy, 1980) displays key moments in the historical development of the office typology through a few, specific precedents. In Corporate towers and symbolic capital (Dovey, 1992) the author uses advertisements to explain how symbolic capital -- the 'symbolic, aesthetic, or mythological aura' that surrounds office towers -- is deployed for this purpose. Through a series of categories: external image, location, foyer, view, interiors ..., the author illustrates how this 'aura' is created through a combination of skin-deep architecture and creative copywriting, all to disguise the capital-making machine that is the actual structure. In all of this, going a step ahead than Francis Duffy, Kim Dovey holds architects not just marginalised but complicit.

He concludes with a call to action, asking architects and designers to design better cities for the future and not fall prey to 'lucrative self-denial'. (p. 187, Dovey, 1992)

In the European context, the development of the actual workspace coalesces into variations of a repeated deep-plan floorplate, typically around 15-20m, arranged in large vertical or horizontal structures. (Meel, 2000) This is an evolved version of even deeper buildings in the past: the Osram building by Walther Henn, built in 1965, a 'canonical' precedent studied in the studio, is a perfect example of this. This architecture is an outcome of advancements made in technology over the course of the 20th century to allow lighting, ventilation, circulation and other services at this scale. (Duffy, 1980)

The inflexible deep-plan and its associations with the emergence of neo-liberalism and notions of flexibility (in the British context) are studied in *The political economy of flexibility*. (Thomas, 2019) The author refers to Francis Duffy / DEGW's research into envisaging the office building as a series of temporal layers: shell, services, scenery, sets -- that can adapt to changing needs and uses. It explicitly establishes a 50 year lifetime for the actual building shell. in *Obsolescence: An Architectural History* (Abramson, 2016) the benchmark preceding this norm is seen to be anything from a few decades to a few years -- buildings torn down and replaced at their prime to serve newer requirements that challenged the constraints of their rigid construction in some form or another.

In today's world, office space is increasingly becoming less relevant or desirable. As an architect

faced with a design challenge to redevelop a structure that includes a fair amount of unused/empty office space, this is especially relevant. In the UK, the problem of excess office space necessitated policy intervention. 'Office-to-resi' regulations of 2014 allowed developers to convert this space into apartments to be able to recover their investments. While it sounds like a good idea in theory, it has had mixed outcomes: very little attention is paid to how the units work. Small apartments are carved out of deep plan buildings, some remain windowless and unventilated. (Park, 2018)

This example paints a picture of the world we're headed in at the behest of financial forces at the helm. The inflexible office resists attempts to use it for any other purpose than commercial; necessitating heavy interventions to convert them. Even then, the outcome falls short of being ideal. Demolition and replacement seems to be the de-facto solution, and is indeed the fate that awaits most of these buildings. This is an obvious concern seen in the context of the enormous weight the construction industry puts on the plant's resources and climate.

The downward trend of office space demand is compounded by the ongoing pandemic, and some voices herald an imminent commercial real estate bubble-burst (Colombo, 2020). Faced with this reality, the deep-plan office has to adapt -- just to live out its expected 50 year lifespan, or perish. This paradoxical outcome of 'flexible' design as rigid, inflexible spaces -- is seen as a central concern of this research direction. The ubiquity of this type of architecture highlights the need to study and review strategies to ameliorate this condition.

Architects such as Aldo Rossi and Herman Hertzberger address issues of flexibility in their writing. The former studied historic buildings that outlasted functions they were made for, and highlights how their transformation allows ‘maximum functional freedom’. (Rossi, 1970) The latter talks about ‘polyvalence’ as a quality that allows spaces to be interpreted and used in different ways (Hertzberger, 2014) This is particularly important when one looks at the rapid changes that offices are expected to undertake post-pandemic (Davis, 2021), going as far as live-work hybrids. (Bochinska & Katz, 2020)

Another aspect brought on by the sheer scale of the NBB’s site and program is the degree to which the open spaces within it are accessible. Looking at precedents like the Economist building by Peter and Allison Smithson, or the India Habitat Centre by Joseph Stein, suggest an alternative where the city is brought into the site, blurring the edges in between them. In the IHC, the building gives back to the city by interspersing public programs like auditoria, restaurants, halls, and galleries. The result is a diverse environment for both the office workers and the public. (Bahga & Raheja, 2019) Aldo van Eyck and Piet Blom talk about the reflexive relationship between the building and city, and propose multiple strategies. (Jaschke, 2008).

To summarize, the research and design investigate the typological possibilities and advantageous functional adjacencies of an ideal office building. It would take the existing building as the starting point and preserve as much as possible. The ‘new’ parts would thus perhaps not only be able to be adapted for other uses -- rendering the structure useful for much longer, but also have to contain a lively mix of

functions and activities that interact with the city around and within it, by taking advantage of the polyvalence/ multiplicity baked into its architecture. This does not have to mean an endless cycle of heavy construction interventions; kinetic, temporary interventions could be employed against the structure to allow new possibilities and meanings. (Mehrotra, 2008) It would try to extract key lessons from case studies and precedents and be applicable for both new-build and reuse of existing structures.

-

What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

The MSc. Architecture course at TU Delft aims to teach students to "...design as a means to deal with the technical, social and spatial challenges in the Built environment". The project situates itself in today's precarious reality: both in terms of the responsibility of architecture as a trade in the face of the Anthropocene; and as a means of being a solution to the myriad practical issues affecting real-world organizations with regards to the buildings they inhabit.

-

What is the relevance of your graduation work in the larger social, professional and scientific framework?

IBC teaches one the ways of paying close attention to detail and conducting thorough research. (A design attitude/ process) The studio attempts to create designers who can deal with design challenges that go

beyond the scope of the brief – in this case, a national bank. While it asks questions about sustainability, reuse, adaptability, representation, and power... centred around the architectural output, all of which qualify as relevant topics of research in their own right; perhaps the relevance of the work is more in the rigor and concerns that shapes it, moulding the designer's abilities in the process.

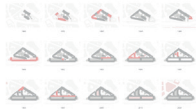
The graduation project and studio emphasise on the role of an architect as an interpreter as well as creator; harnessing our ability to understand wide-ranging themes and concerns and synthesising them into a coherent project. The specific research outcomes of the process would be instructive for me personally, and also to future students; as concrete outcomes of a thorough design process – as I have learnt from MSc. Architecture students who have graduated before me.

On a personal note: as a mid-career architect, this course and studio is an opportunity for me to develop new, richer ways of conducting design investigation and resolution; which would shape the modus operandi of my future architectural practice.

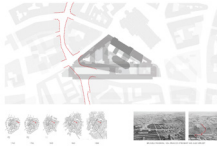
week 2.10 P2

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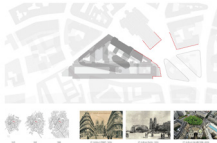
Presentation storyboard



1.
Construction sequence of
the bank from the 1860s
to the present day



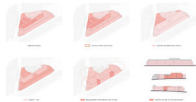
2.
Historical connection
between upper and lower
Brussels - lost during rail
expansion.



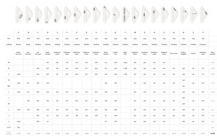
3.
Cathedral square had
axial buildings, explaining
the blank facade of the
bank.



4.
Width of newer additions
were determined based on
the distance from the old
buildings.



5.
Building analysis
diagrams that document
the existing conditions.



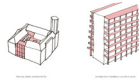
6.
Block-wise area
calculation in plan/
section, breaking down
the building in 20 parts.



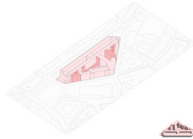
7.
Area program analysis:
45% bank offices
20% public program
15% rental offices



8.
Process - grand urban
gestures tempered by
increasing awareness of
building's intricacies.



9.
References for precise
additions of volume:
courtyard infill and
extension.



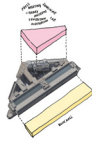
10.
Removed buildings and
cores that need to be
updated.



11.
New volumes give the
courtyards definite
geometry and add
required floor area.



12.
Broadly, the bank, public
institutions, and rental
offices form 3 chunks of
program.



13. Diagram explaining 2 key spaces that enhance the role of the citizens in the national bank's processes.



14. The public programs build on existing initiatives for taking feedback and publishing statistics.



15. The bank hall houses all the banks in Belgium, as well as its own counters.



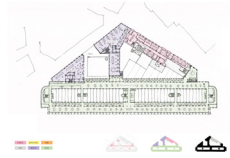
16. Lower ground floor plan - bank hall and public foyer



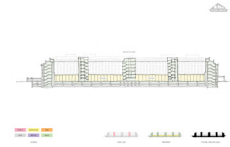
17. Upper ground floor plan - access to rental and bank offices.



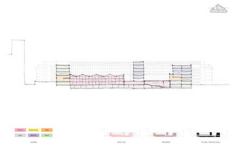
18. Public 'alley' through building complex



19.
Typical floor plan showing office arrangements in rental and bank wings.



20.
Long section through bank hall - shows new fire exit cores



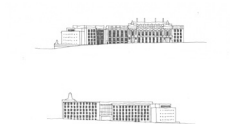
21.
Long section through courtyards - show new public program embedded in courtyards.



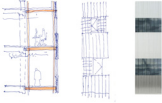
22.
Short section through Hotel entrance stairs - show public entrances to the complex.



23.
Short section through courtyard - show the scale of alley courtyard.



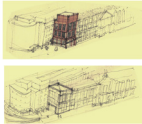
24.
Elevations along Bankstrat and Wildewoudstrat show hints of intervention inside.



25.
Light metal sheet cladding
Facade trial for courtyard
block extension



26.
Stitched elevation
of building along
Wildwoudstraat



27.
Sketches of addition next
to south rotunda, opening
sizes;



28.
Materials integrating into
existing fabric, in line with
earlier additions



29.
Contrast of articulation,
hierarchy of lines and
surfaces



30.
Potential re-use of
concrete from demolished
buildings in new
additions.

Presentation feedback

P4 18th/19th May

P5 21st/22nd June

SV

- Proposed fire exits clash with bank atrium roof, geometry intersection needs resolution.
- Connection with city on N and S edges need more work, can refer to temporal extensions like the P1 social plinth. Entrances need more definition.
- Library in Hotel would need to take on additional load of books, would that be feasible? Check the structural drawings.
- Structural req of library is 750kg/sqm. Building currently 300-500kg/ sqm. Hotel unknown.
- Current and future insulation requirements of the MvG building?
- Shed roof appropriate given roof geometry? How does it fit the vocabulary of roofs?

EE

- Atrium of the bank - existing level may be changed?
- Character of extension, subtle vs. prominent.
- Proposal results from analytical investigation

MK

- Treat public as 'urban landscape' of accessible rooms instead of one continuous space?
- Facade development of courtyard facing sides as light, metal skin?

SM

- What does 'legible bank' mean? name needs work
- Programming vs. the influence of architecture
- Susanne: 'Values' being added? what is the attitude with which one approaches the project?

week 3.1-3.2

2022 02 03-17

Introduction Intelligent Ruin

Matthijs/Mauro

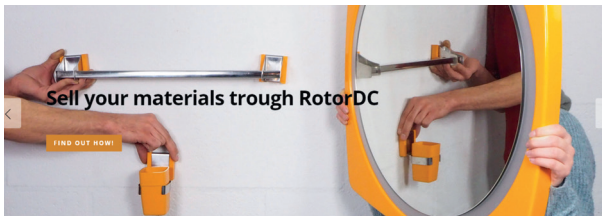
- Role of BT in the studio is to integrate comprehensive structure, climate, energy/sustainability concepts into the design.
- Indoor comfort: ventilation and temperature
- Detailed design of façades - circular, future proof

DR

- Adaptive re-use: building Scaffold/ framework
- Making more possibilities - program agnostic approach. Create architecture that is generous and accommodating out of existing conditions.
- Architecture as temporal action

References

- ROTOR-DC, cataloguing and re-using parts of the existing buildings meticulously.
- Bob van Reeth 'Good Architecture': Cultural durability and distributive a la Rossi
- Dean Hawkes 'The Environmental imagination'



720 available



Downlighter from WTC by Raak ca. 1976

€ 5,00 - € 99,00

available



Cabinet handle in aluminium 1950s

€ 48,00 € 6,00

available



Small door knob in chromed brass ca. 1974

€ 9,00 € 7,00 /pair

16 available



Profiled handle 'Ledeganck' ca. 1950s

€ 8,00

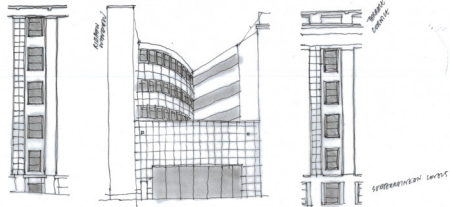
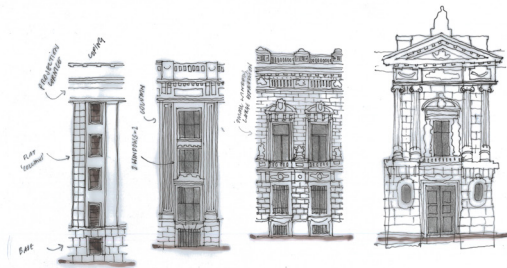
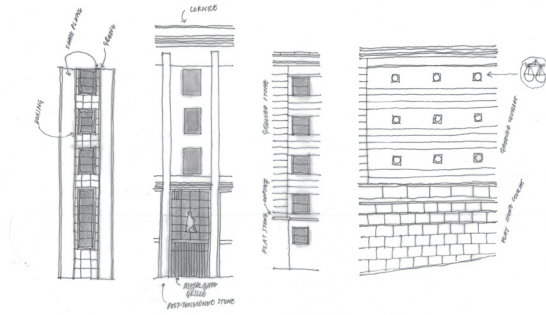
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Photomerged facades



Detail of typical facade bays





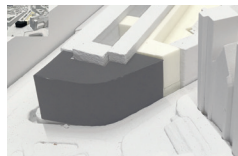


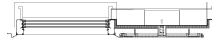
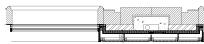
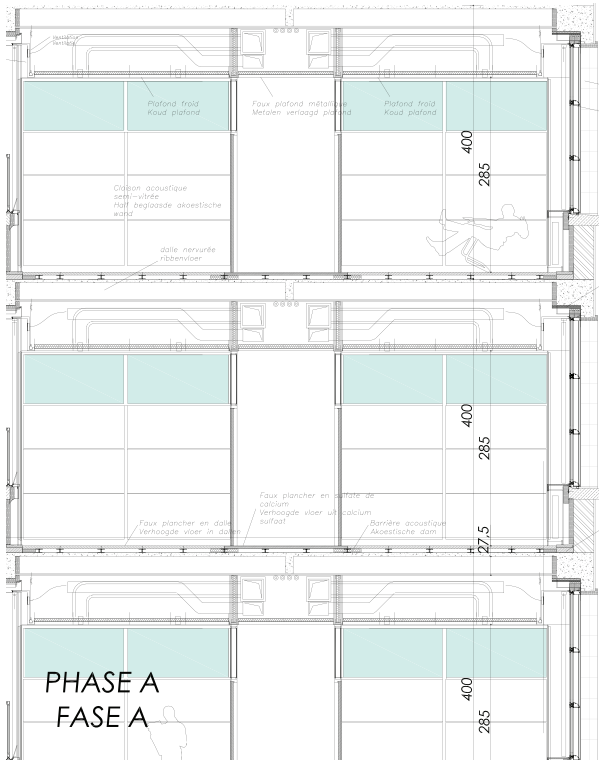
SP

- 'Intelligent ruin' as an approach to project: the scheme adds to the volume, acknowledging the flaws in the existing and improving it.
- Creating a sequence of moments, perhaps from era to era. Movement through a passage rupture; interior to exterior.
- Ingress of light as a factor to consider. Model should be representative of the quality proposed.
- Identity: Discreet and generous. Not a building wearing red pants
- The idea of 'building on', or continuing, like Asplund/Chip/Dollgant. As opposed to OMA or Liebeskind who 'stop' the building, treating it as an historical object and start afresh next to it.

References

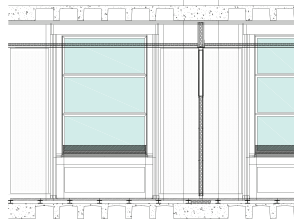
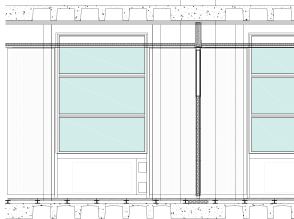
- Fred Scott 'Altering architecture'
- Diener and Diener 'Architecture and the city'
- Asplund - Gothenburg city hall
- Chipperfield - Neues museum
- Dollgant - Pinakotek Munich
- Diener and Diener - Naturkunde Berlin<?>





ELEVATION BLOC 11
VOORAANZICHT BLOK 11

ELEVATION BLOC 19
VOORAANZICHT BLOK 19

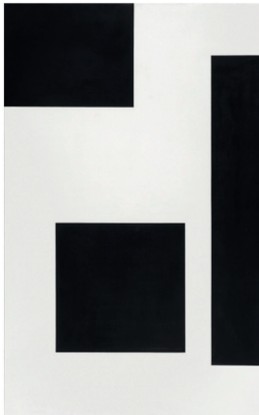
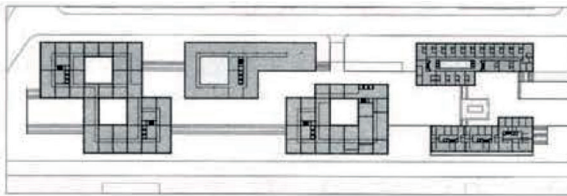


week 3.3

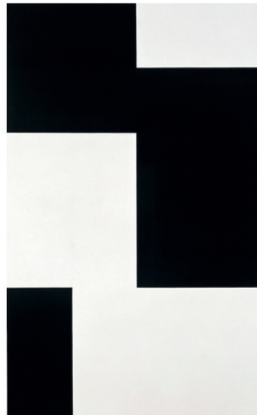
2022 02 17-24

Nuggets from *Notes on the architecture of Diener & Diener* by Martin Steinmann

- Conflict between urban and architectural scales/ or the relationship between the house and the city
- “Bring a place into order with one house” - idea of a singular gesture.
- Acknowledge multiple meanings “where it cannot exist”; open/ closed
- “Weight” as a measure of space: graphic, gestalt figure/ ground effects? Perception theory and visual forces.



Helmut Federle
Ohne Titel
Untitled
1990



Helmut Federle
Ohne Titel (Riga)
Untitled (Riga)
1991

Nuggets from *Good architecture* by Bob Reeth

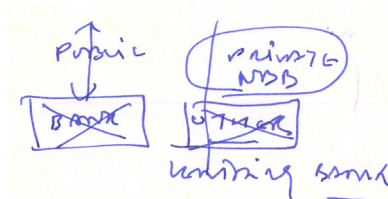
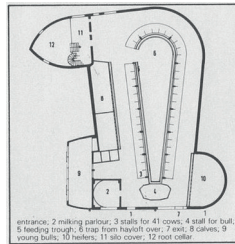
- Straightforward and generous.
- 'Arbitrariness' of formal invention vs. solving 'building problems'. Structure?
- Limitation as a form of defence, and also a prerequisite for durability. Facades that respect structural spans?



Tutorials

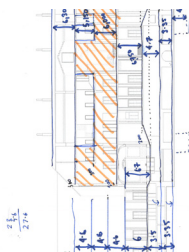
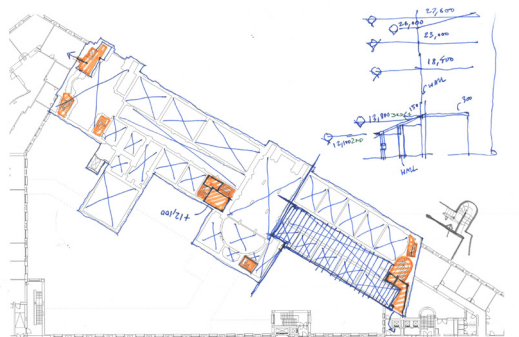
DR feedback, proposal

- The overall organization makes sense - idea of a *forum* that links public, institutional functions.
- Make the cut through the building full height/ roofless: fluid flow through.
- Relationship between bank and individual: Bank hall with representative counters of all Belgian banks can become *trading hall* and can be integrated better with *forum*.
- Hugo Haring Cowshed as example of specific functionality.
- Victorian roof over forum, that takes the slopes of the hotel and extends them.
- Play of levels, accessible roofs, with a route through from Cathedral to forum
- Building-landscape through forum, same as Matthijs's P2 feedback.



MK feedback, intelligent ruin

- Structure of Hotel: loadbearing masonry and wooden structure.
- 300mm deep slab that does not span anything more than 4-5 m
- Low loadbearing capacity, library would have to be adapted to 'reading room' to be accommodated. Storage may be at a different level.

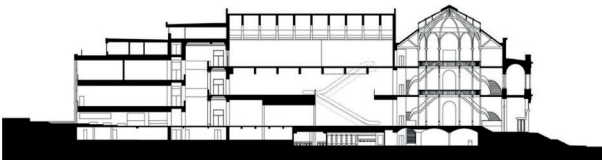
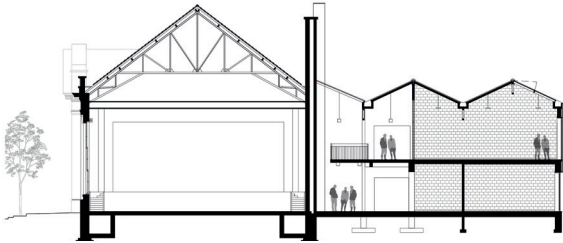


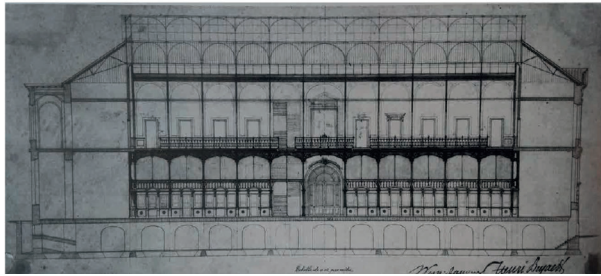
1.	B2	- BK	- 0,150 €
2.	B2	- BK	- 2,300 €
3.	B2	- BK	+ 7,950 €
4.	B2	- BK	+ 4,300 €
5.	3	- 2 PARTS	+ 7,000 // + 7,800 // + 9,200 €
6.	2	- BK	+ 12,575 €
7.	3	- 2 PARTS	+ 15,000 // + 15,750 €
8.	4	- 2 PARTS BK	+ 11,000 €
9.	5	- 2 PARTS	+ 12,750 // + 23,000 €
10.	6	- 2 PARTS	+ 24,700 // + 27,000 €
11.	7	- ROOF	+ 28,000 // + 55,200 €

week 3.4-5

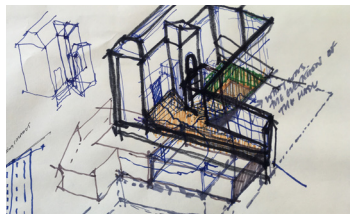
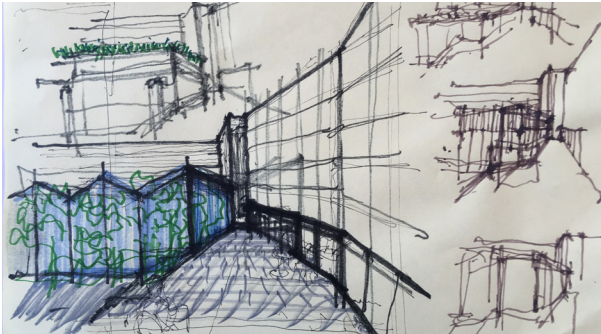
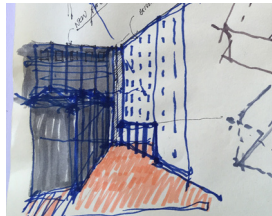
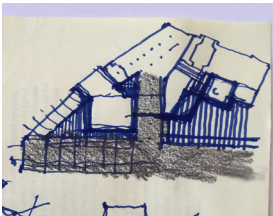
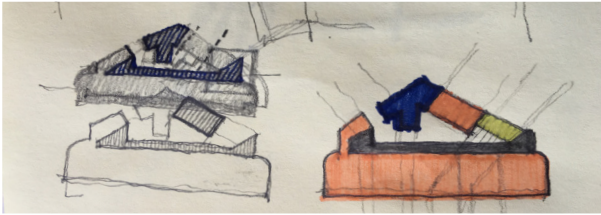
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Greenhouse references





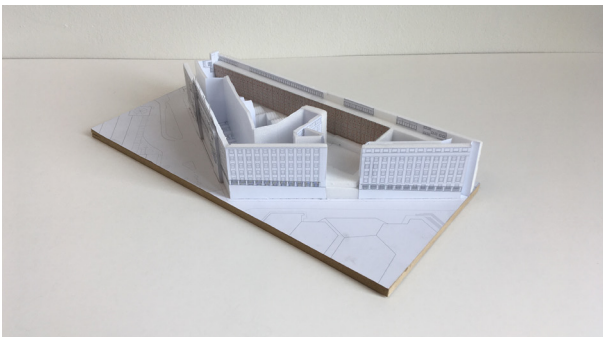
Forum-landscape



SDV feedback

- Wall sections paired with facade drawings would work as an effective combination for the analysis to be understood.
- Prefabricated bricks lack 'human touch' and appear artificial: quality of facade - precise or imperfect?
- Boekentoren Ghent: library with tower for storage and separate reading room
- Roof: Gap between building and extension as a possible strategy for meeting the two.
- Gap can be used as a path to link two ends of the forum, creating a through-path.
- Draw diagrammatic circulation routes





DR+MP feedback

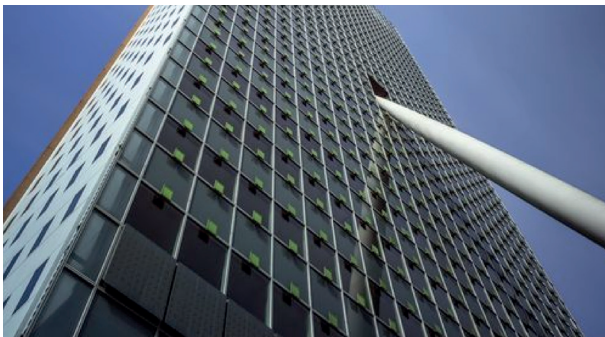
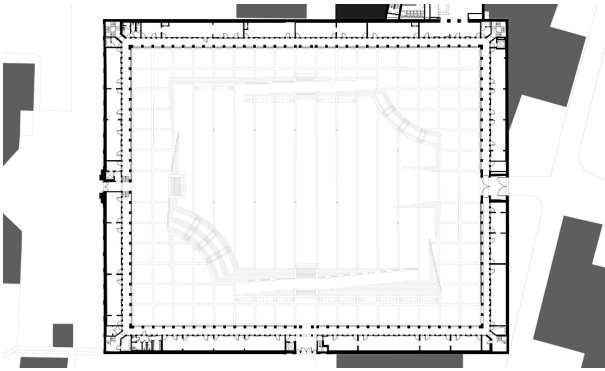
- Where are the windows coming from? count and check, design to accommodate the number available.
- Terrace not convincing, taller windows along the top floor?
- 'Shiny' parti of the new additions, consistent materiality.
- Aluminium and wood combination? How is the wood cladded to protect from weathering.
- Trabeated facades of the existing building and their relationship with the new:
- The building charts the development of facade technologies and attitudes to design. From the heavy and ornamental hotel of Bayeart and Rycker to the modernist interpretation by Goethem, the way cladding/ structure is built changes dramatically. The addition continues this evolution, interpreting the language in wood and metal cladding.
- Reinforcing the identity of the bank as a single building and not a city block.
- Close edge of triangular block, giving the courtyard a clean, articulated shape.
- Should forum roof intersect with the extension facade? would help to reduce some windows.
- Passage between the two is not a great space currently. Terrace spillout?
- Nature of the courtyards? how are they used, and by whom?

MK feedback

- Wall structure needs to be unloaded to take new load of lean-to structure.
- Cladding: use material available at site.
- Increase beams in cross direction (122x66), and make structure span correctly at +1 lvl.
- Demountable, as well as acoustic dampening performance.

week 3.6-3.7

2022 03 10-24



MP feedback

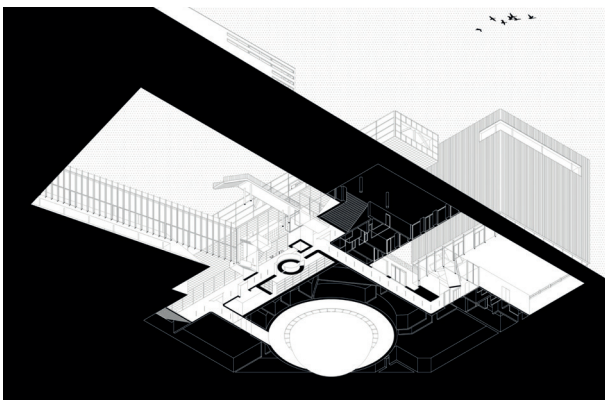
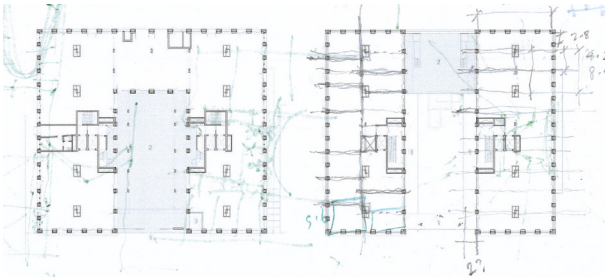
- Intimate relationship between 'forum' and 'extension' - the two structures belong together?
- Forum as a 'residue of history', highlighting location of Baeyart hall.
- Van Nelle quality: icy, cold, reflective glass
- Courtyard needs something special to draw people inside: garden?
- See greenhouses for section inspiration: forum as winter hall, with trees?
- Draw interior perspectives: what is the quality of the workspaces?

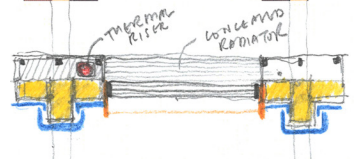
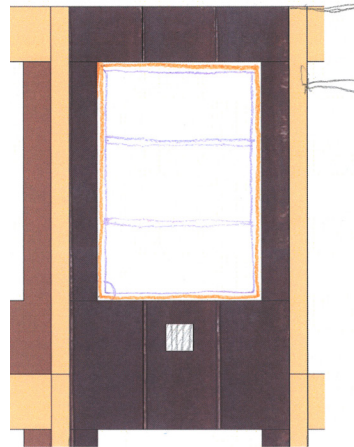
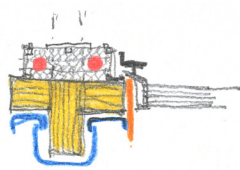
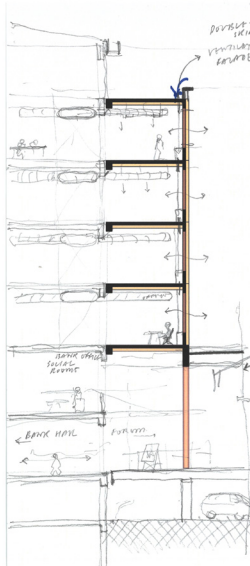
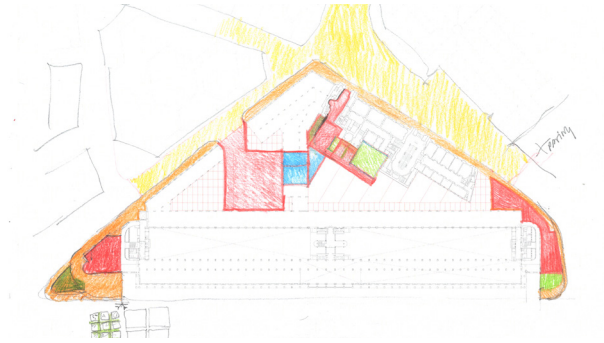
MK feedback

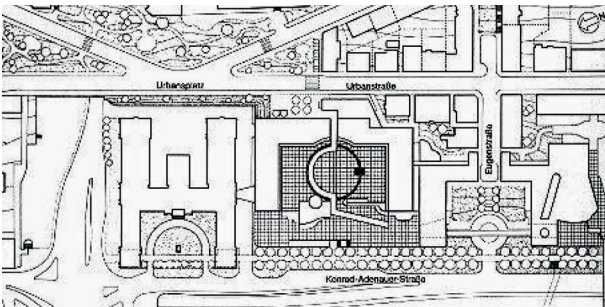
- Cladding re-uses standing seam roof made of copper/ metal, replacing it with green roofs.
- Current copper roofing being replaced in the buildings. About 7766 sqm of old roofing left.
- See: Schieblok, Rotterdam. Green roof added to 60's building. Green roof used to grow vegetables for terrace restaurant.
- Extensive green roof uses lichen/ moss. Intensive roof has more significant depth that also holds water - better thermal performance as a result.
- Glass bricks can be a source of light at night: see KPN building by Renzo Piano. Try elevation options with varying options of punctures
- Interior facade extension as an act of improving the quality of the courtyard; which was a neglected space earlier.
- Learning from the Baeyart and Rycker building: hierarchy, symmetry, and ornamentation. Compare elevations side by side.

Notes

- Solid 11 by Tony Fretton as a typology between office and housing: flexible and program-independent via use of grids and shafts; which allow the spaces to be 'polyvalent'.
- Role of the proposal to 'Demystify' interesting-digestible-public exhibition space
- Use worm's eye view!
- Material of street-cobblestone and paver blocks
- Quality of metal joinery: vertical/ horizontal? Insulation layer?







SP feedback

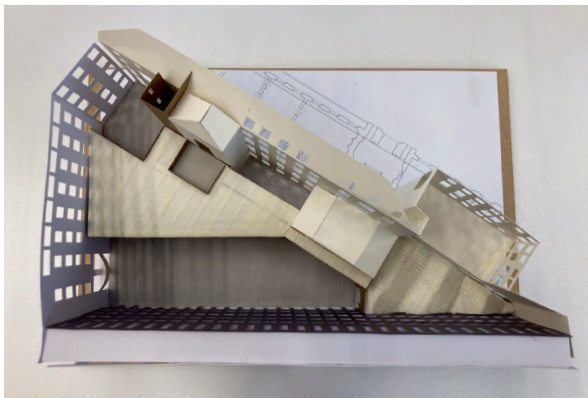
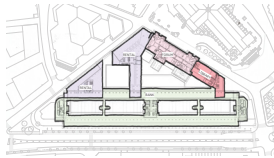
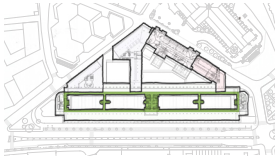
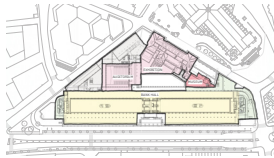
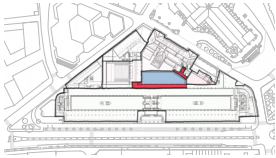
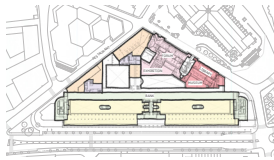
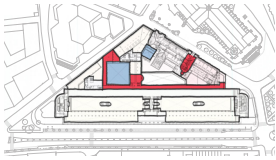
- Missing clarity and meaning in the courtyards
- Entrance or back? pass through monumental facades to access these spaces.
- Scharoun library, Berlin - distributive function of the central space.
- Draw in furniture and use of this monumental space - where do the functions come? What is the flow of people through it?
- What is the 'greenhouse' giving back to the buildings around it?
- Monumental space that only has a sculptural purpose: see Stadsgallery, Stuttgart by Stirling. Public walkway intersects the empty atrium.
- Sequence through courts: see Hackesche, Berlin. Wheelchair accessibility important.

MK feedback

- Detail needs to be added - explaining logic of construction and joinery.
- Cooling: horizontal vent is better. Ventilation shaft fitting on facade needs to be detailed.
- Surface of the layer to which the vent is attached? Metal needs to be folded back to create stiffness.
- Idea of using staircase core as solar chimney possible: apply earth-fire-water principle?
- Radiant heating used in conjunction with heat storage device that can be shown in the climate diagram. Stores heat 20-50m below ground in summer, to be used in winter.

week 3.8-3.9

2022 03 31-07



SDV feedback

- Strong formal intervention in the courtyard, a repetition and reinterpretation of the existing two banking halls with a perambulatory space.
- Repeating the figure of what is already there could be made more explicit during the presentation of your ideas.
- Ventilation at peculiar moments in space. Won't people feel a draft?

MP feedback

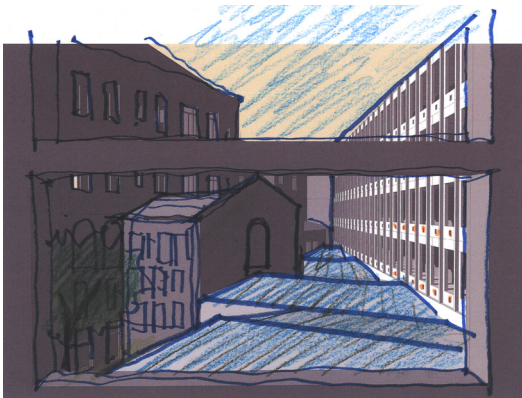
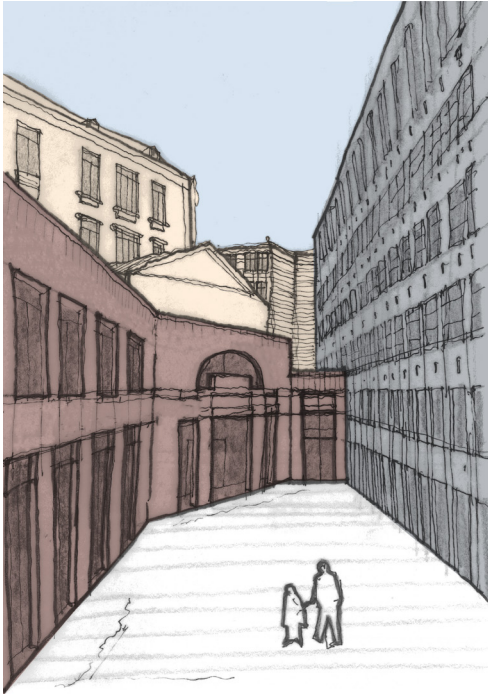
- Limits of access and the nature of access. Banking hall: how public is it? Picnics in the banking hall?
- Quite problematic are two cores in banking hall
- Sharing of circulation is highly unlikely
- 'Didactic' presentation, show not tell.

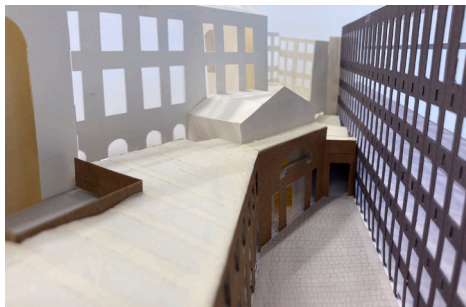
MK feedback

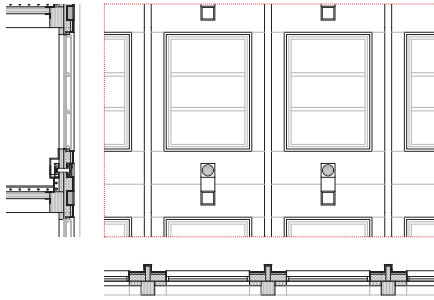
- 22 elevators in the whole building. What is crucial? Do you need to have another staircase in the middle? Urge you to zoom in on the 1:20 scale, detail is missing in the diagrammatic plans.

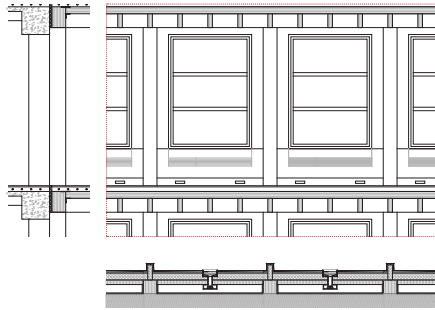
P3 Reflection

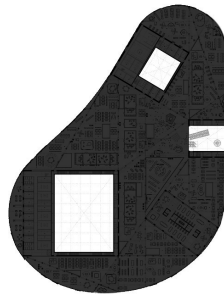
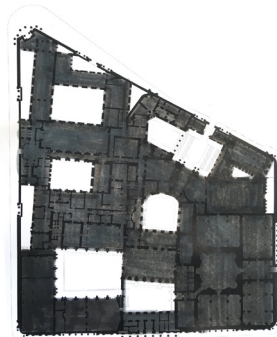
- The monumental facades of the NBB enclose three service courts. This inner world, in contrast to the exterior, is an aggregation of ad-hoc volumes that lack character.
- Occupying and reanimating these spaces; facades of various depths create two public courtyards with deliberate geometries, proportions, and relationships with the existing buildings.
- The facades house new civic institutions that demystify the workings of the Bank. It profits from the new public route through the urban block.
- This intervention also adds necessary technical and service spaces to facilitate its role as a workspace. (both for the Bank and rental offices.)





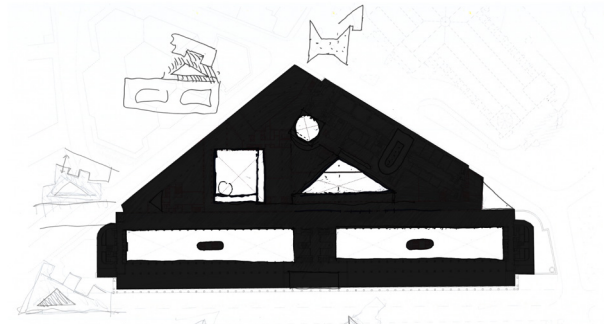






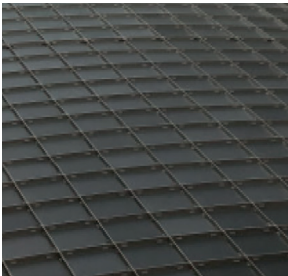
DR+SP feedback

- Poche space between new facades and existing building is less important in hierarchy.
- Not extensions of existing buildings, but an inverted new building. A third building between the old back faces. Reversed, fills the courtyard.
- Inbetween floorplates are resultants: like the meat inbetween a sandwich.
- What height do they go to? Doesn't have to cover the whole thing.
- Spaces, and not resultants. Like a reversed sock. Definite geometry makes a 'pure' void-figure: symmetric, defined courtyard.
- Overall: landscape of voids. 1:500 model that shows these voids.
- Voids define the geometry of the staircases/ functions within these resultant forms. Accomodating it within its language? Things in things: courts with objects in them - same family of shapes and forms.
- Facades have independent character: informed by existing facades. Acts as moderator.
- Rooms with routes: Bank of England, KGDVS
- Grids and repetition of openings, proportions.



week 3.10

2022 04 7-14



MK feedback/ deliverables

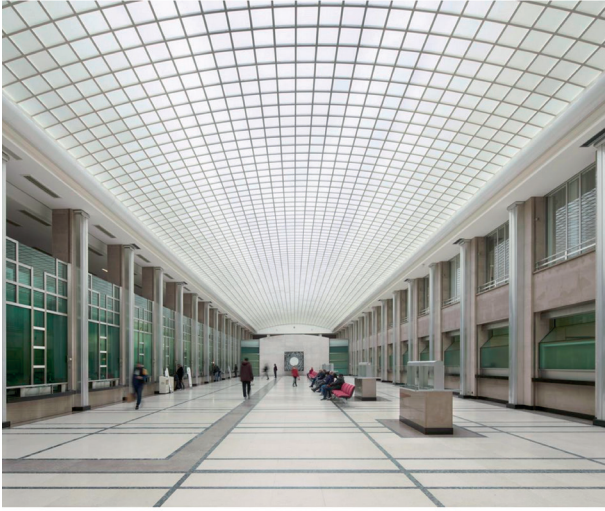
- Windows are new, that look like old. Need to check
- Details of glass roof, over time.
- Facade 1:20
- Details 1:5 showing process of assembly/ sequence of construction
- Climate diagram
- Zoning of different climate areas
- Construction grid diagram
- Make facade old vs. new

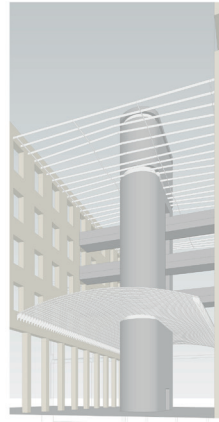
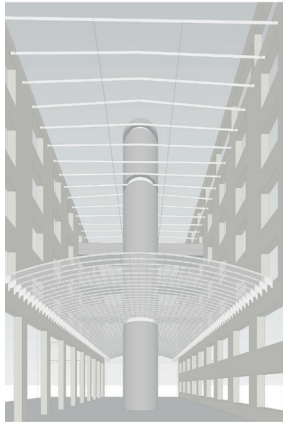
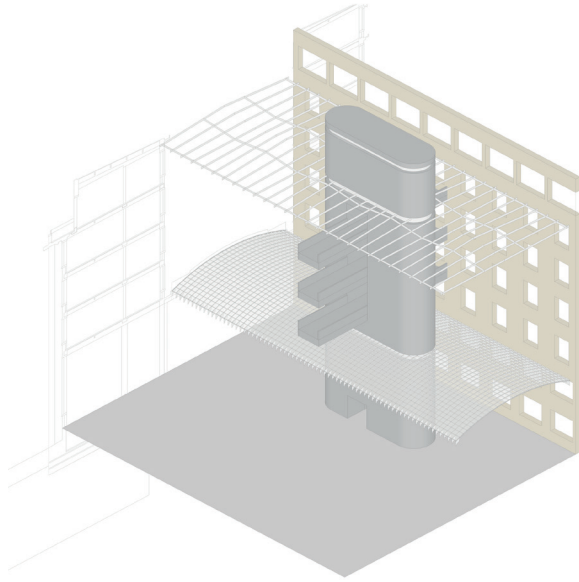
Bovenbouw lecture

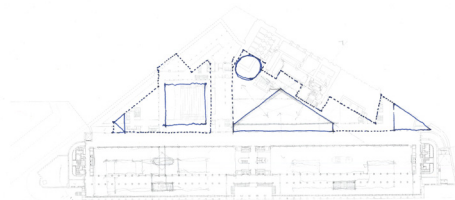
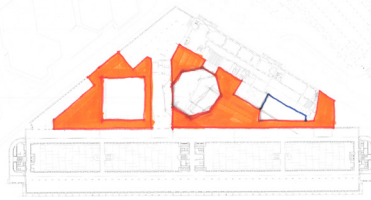
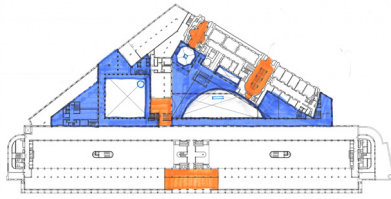
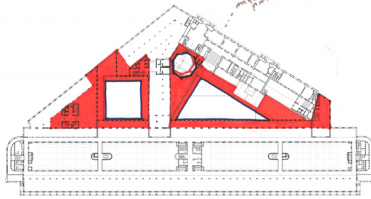
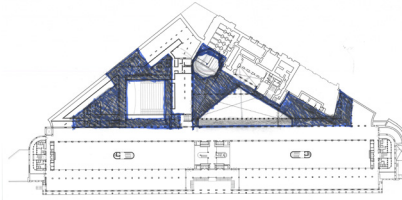
- Correcting mistakes made during the time the building was occupied by different tenants: ad-hoc interventions that degraded the character of the building
- Building has dominating material presence, and character. They force a certain kind of intervention that speaks the same language
- Obvious response to the building language: respectfully repeating what was lost or what the building aspired to be. Some parts are new, stainless steel and terrazzo signify new interventions in this context.
- A+ adaptive reuse issue 292

Leike

- Playful objects in the courtyard
- POPS in New York: Private owned Public spaces
- How to rob a bank? Can engage/ question more.

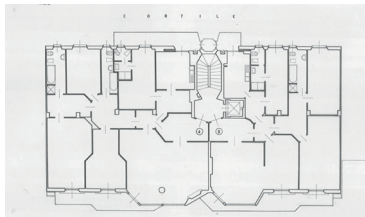






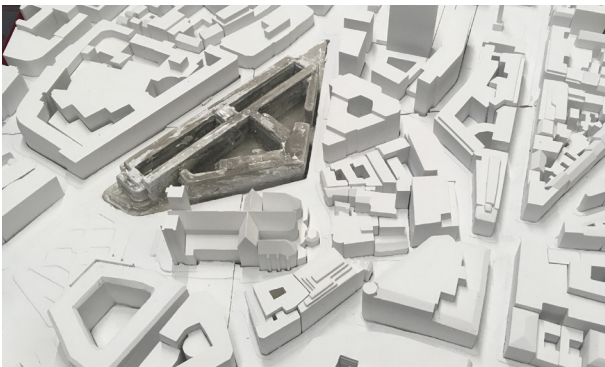
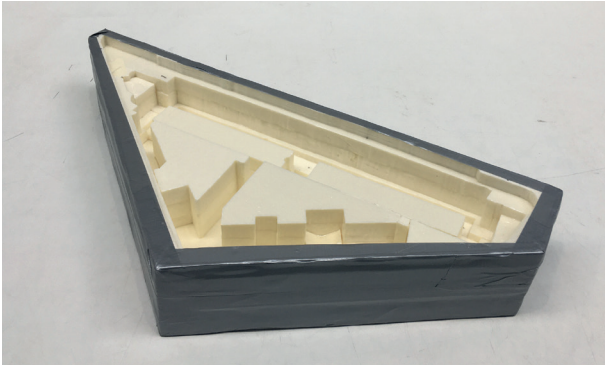
Feedback DR + SDV

- Variations on a theme. Different geometries and symmetries.
- Intersections between new and old facades
- How the corners are resolved
- Central core should be removed, and functions accommodated within the new interventions in the back courtyards.
- Standardize height of additions, create datum: 12m
- Italian architects working with form: Caccia Dominioni, Mario Ridolfi
- Segison Bates Hampstead
- EMI Fransbury Park



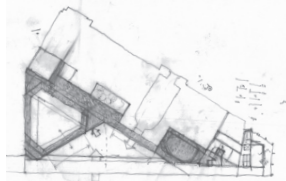
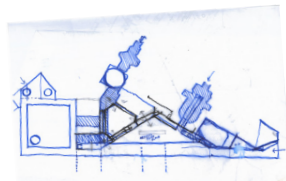
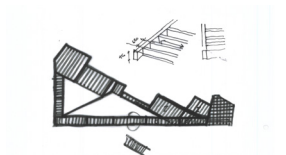
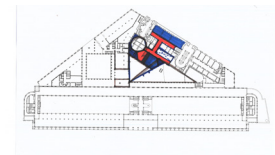
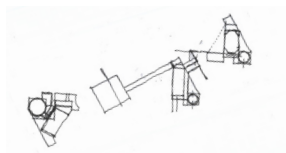
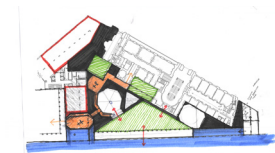
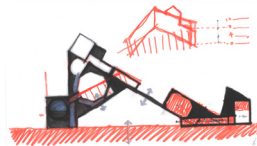
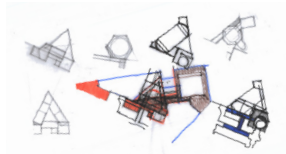
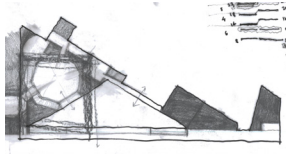
week 4.1-2

2022 04 14-28



Feedback DR + MP

- Add building in front of facade, give it depth
- Levels and plans - piranesian public route
- Volumes vs. rooms in the model
- Circulation axo
- Nature of courtyard?



Transport of Air, Heat and Cold

Mixed Transport Systems: Water and Air

Hygienic air flow rates

Water system

Central plant

Terminal unit

Terminal unit

Water system

So, this has important consequences for the architect, who needs to reserve enough space for the ductwork.

Very often mixed systems are used: the hygienic air is heated or cooled in an air handling unit, bringing this way a part of the needed heat and cold, and the remaining part is done by a water system.

This saves a lot of space in the building. You see on the slide left a heating mode, and right a cooling mode.

Summarizing, you must make a difference between the transport of hygienic air, and the transport of heat and cold.

For the transport of hygienic air, 4 systems can be used and only 2 of them, mechanical.

Transport of Air, Heat and Cold

Size of Ducts with Water or Air

Volume flow rate $Q = A \cdot v = \pi \cdot r^2 \cdot v$

Acceptable velocity:

- Main air duct: $v_m = 10 \text{ m/s}$
- Water pipe: $v_w = 1 \text{ m/s}$

$\rightarrow \pi \cdot r_w^2 \cdot 10 = 3483 \cdot \pi \cdot r_a^2 \cdot 1$

$\rightarrow r_w = 348.3 \cdot r_a$

$r_w = 19 \cdot r_a$

So, by using these values in the equation above, we find that the radius of the air pipe should be 19 times the one of the water pipe!

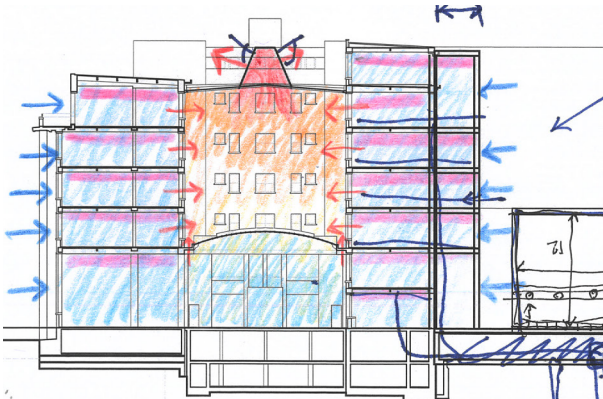
You see it here how that is.

In general, the water pipe leading from the boiler to the radiator has a diameter of about 2.5 cm.

To transport the same quantity of heat with air, a pipe of diameter 38 cm is needed, which would look like this air pipe.

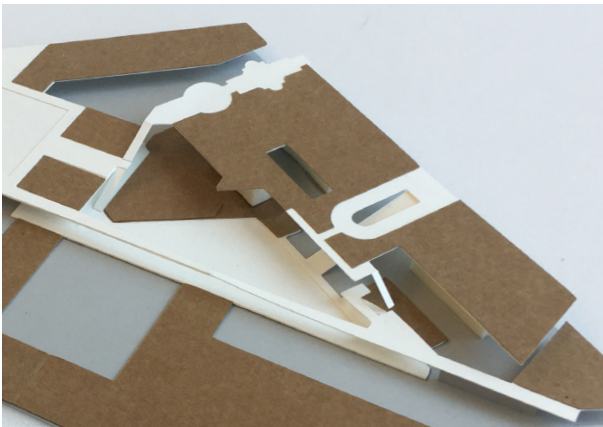
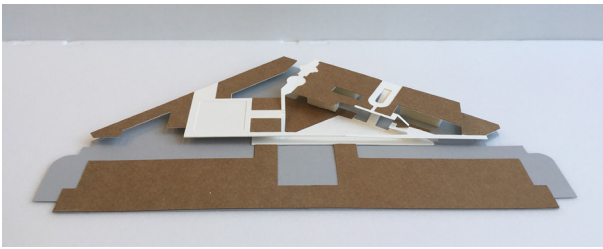
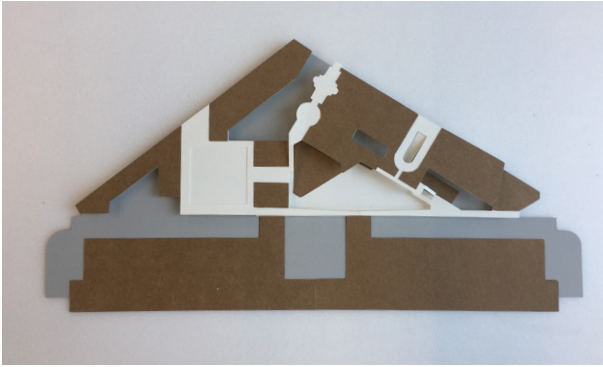
And there is an additional thing to think of, and that is the size of the heat exchanger in the room itself.

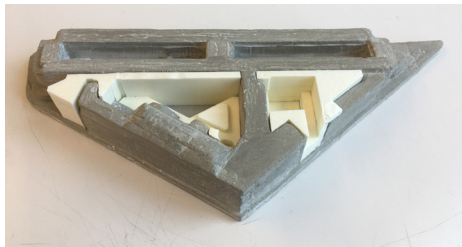
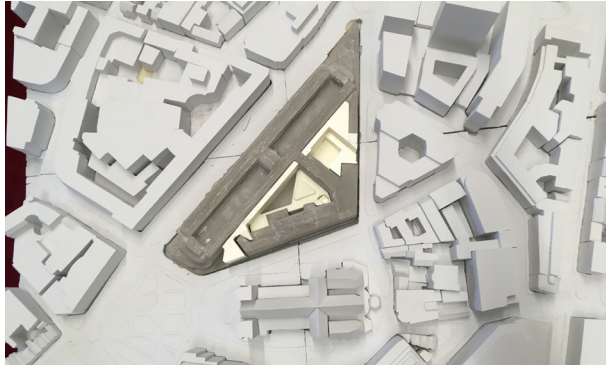
In a lecture about heat exchangers, you have learned that the surface area of the heat exchanger can be calculated with this

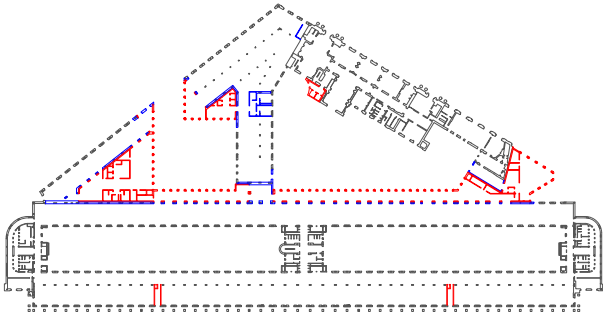
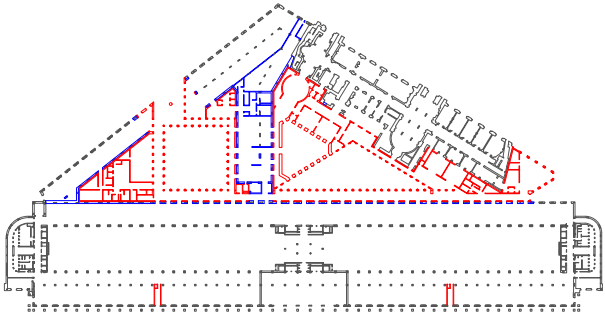
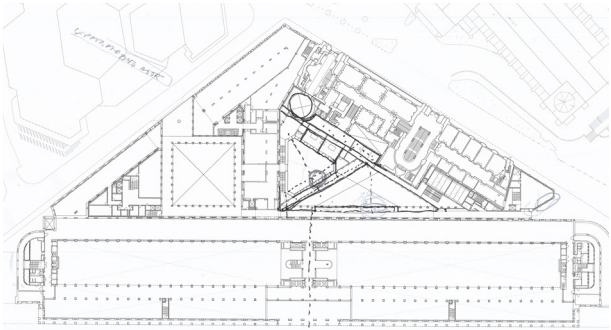


Climate consult Laure Itard + MK

- Mixed system using air and hydronic systems.
- Always present: primary heating/ cooling via Hydronic system - radiant heating pipes. Heats/ cools to a fixed temperature all year: 24 degrees. Connected to geothermal wells below the ground.
- Current system provides forced ventilation to spaces. Cooling via cold ceilings, which tend to have condensation problems.
- ~~Ventilation supply via existing mechanical system:~~ Current AHUs are present on the terrace, and branches distribute fresh air to the rooms. Extra heating/ cooling provided by Variable Refrigerant Flow HVAC. User-controlled through independent cassette/ wall units.
- Bad for Corona ^ as air keeps recirculating in the room, letting pollutants stay within the space.
- Ventilation and extra heating/ cooling via centralized HVAC (supply only) that uses mixers to regulate local temperature.
- These new AHUs are located on terrace, and spread evenly over the new cores (5 instead of 3). This reduces the duct sizes.
- Exhaust via natural ventilation. Filtered pressure vents added to new and existing facades to aid with ventilation even where windows cannot be opened.
- Atrium room modified to act as solar chimney, with openings to exhaust air from the offices. Heat recovery coil stores solar heat in the basement/ geothermal well.
- Control: vents and windows can be opened/ closed. HVAC temperature can be changed by modifying fan speed or using a mixer.







Notes

- Independent structure, vessel within vessels
- Mirroring with site: courtyard and new volume resembles site plan and context.

Feedback DR + SP

- Reads as an architectural device linking different parts of the NBB.
- 'An infrastructure of connectivity' floating above the courtyard
- Plan resolve to have no dead-ends, can form a continuous loop.
- Staircase in the 00/01 junction - forms a smooth movement for office comers
- SP- volumes need resolution, larger scale model to understand ramifications.
- Elevation and architectural detailing needs to come in to inform how the volume deals with the void-figures: lighter at the bottom w/ collonade and heavier top perhaps?
- Italian Lago: paths bifurcating and re-joining, going past piazzas/ fountains etc.
- Gallery in the main triangular room? can look but not engage in what's happening there.
- Near-symmetries of the plan - resolvable?



week 4.3

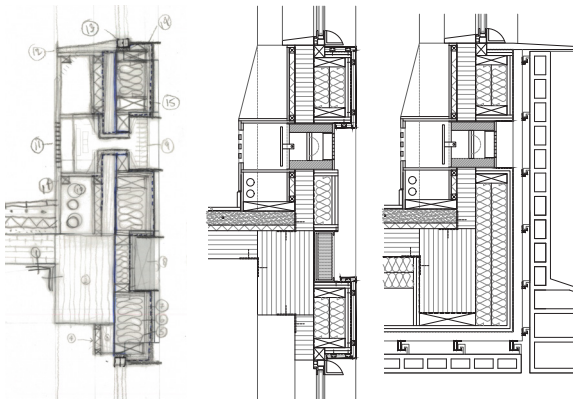
2022 04 28-5

Feedback MK 2022 04 29

- Wooden base with insulation, covered with cement fibre boards - clad with metal (study standing seam details)
- Main structure: need recessed steel connections for fixing. No need for levelling: directly apply insulation and then top with screed.
- Skirting/ cavity logic needs to be corrected
- Wooden detailing inside can take the proportion/ size of CLT band and use that as a standard dimension that is mirrored elsewhere.

2022 05 06

- Colour and texture for drawing
- Water-tightness of facade
- Teracotta hooks can be integrated, extruded in two pieces. Columns can take on the angles of the structure



Reflection
2022 05 10

Introduction

Interior Buildings Cities graduation projects focus on the theme 'Palace': representative public buildings that have the potential to foster collective public life within and around them. This year, the National Bank of Belgium (NBB) was chosen as the studio project.

The NBB is an enormous building complex (90,000sqm) that encompasses a triangular urban block in the centre of Brussels, largely inaccessible and 'opaque'. Superseded by the European central bank, and subject to transformations in the financial-banking sector, the NBB has lost a lot of its defining features as a national bank (such as vaults for storing gold and the minting press; all of its secure storage spaces have been/ are being shifted to other facilities).

As such, the NBB in 2025 would primarily function as an office building for its 1500 office and research staff. The architectural competition brief for the NBB, which forms the basis for this year's IBC studio topic, proposes a redevelopment of this precinct in line with its new role.

Process

Research, drawing, theory and modelling overlap into a complex whole at Interiors Buildings Cities. The design process is ingrained in the way the studio

is structured: through studies in model making of canonical precedents (brief 1. working together) to conceptual stands on the architectural meaning of a social plinth (brief 2. social plinth); to collective research on the Bank and its surroundings (brief 3. City bank) – all of which led up to the individual projects.

The studio also involved writing as a means of understanding one's design decisions – as well as for processing, and finding links between information that one encounters while researching diverse topics. The 'Project Journal', an integral part of the studio's working culture, is a constant work-in-progress process of documentation and thinking.

Engaging with the project meant understanding and questioning the competition brief (brief 4. Bank building) and the material conditions of the existing buildings, as well as studying them as a collection of interwoven systems. (brief 5. Intelligent ruin) We developed our own ideas and positions based on our discussions with the design and research tutors, while drawing from the earlier collective work. These conversations happened around architectural drawings and models of scale/ detail specific to the ambitions of the student.

Shaping the courtyards, public routes, representative facades, and interiors were critical concerns driving my project. Precedent studies and analytical drawing/ model-making methods were used in this investigation. Working on a strategic part(s) (brief 6. Fragment) was encouraged, allowing one to solve matters of resolution and technical detailing at key moments of the intervention.

Approach

In the present day, the monumental facades of the NBB enclose three service courts. This inner world, in stark contrast to the exterior, is an aggregation of ad-hoc structures that lack character or cohesion. These inadequate parts of the existing building stock are replaced by two new volumes.

Occupying and reanimating these spaces, the additions create two public courtyards with deliberate geometry – pure symmetric shapes – clarifying the edges of the existing void, informed by studying precedents of representational, formal courtyards.

They can be read as two new facades with varying depths ‘filling the gap’ between the new courtyard and old courts; or as two distinct inside-out buildings. Programmatically, they are tightly knit with the existing buildings : these additions provide necessary floor area for workspaces and public rooms alongside new public circulation routes.

A broad ‘zoning’ distinction can be made between the ‘private’ bank and rental workspaces, and ‘public’ institutions within this urban block.

Public institution

The Bank as-a-public-institution has three faces: Library + Museum, Forum, and the Bank hall.

i. Library and Museum

Facing the St. Gudula park, a triangular corner building addresses the city on behalf of the interventions within the site. Stepping back slightly

from the site edge, it creates a mini-plaza in front of itself, like the Cathedral next to it.

This visually distinct building marks the public entrance to the NBB complex. At the same time, architectural gestures (like the continuous cornice, materiality and opening proportions) unite it with its neighbours. Together with the De Rycker wing, it houses the Bank Museum, the Bank's art collection, and Library – and is open-access to the citizens and tourists that frequent the park.

ii. Forum

The Baeyart hotel and adjacent new volumes are programmed as a 'Forum' – a collective, civic institution that demystifies the workings of the Bank via expoundary exhibitions, research and discourse; and allows the average citizen to take part in the Bank's decision making processes.

The Forum relies on the hotel's representative facade on Rue Du Bois Sauvage to signify the new importance the NBB places on public engagement. Its formal entrance is through the hotel's erstwhile carriage driveway, opening into a circular arrival court. From here, visitors may head to the new auditorium, multi-purpose hall, and exhibition spaces; or access to the two principal levels of the hotel, which comprises meeting/ seminar/ discussion rooms of various sizes and importance within its opulent interiors. The interiors of the new additions are a restrained continuation of the old, with parquet flooring and wall surfaces articulated with plasterwork.

iii. Bank hall

The Marcel van Goethem building, with its sober collonaded facade along Boulevard de Berlaimont,

is retained as the 'Bank' within the urban block. Small adjustments such as removing the fencing and metal gates make the edifice more approachable, while acknowledging that the Bank no longer stores valuable objects. Inside, the Bank hall – which was designed as a place to work and interface with the public via counters – is returned to its original condition by removing later additions (like the partitions and mezzanine floor) and bringing back workspace/ counters.

Today, while the bank hall is publicly accessible – and the open counters can be approached – they only serve to exchange coins and currency. In the competition brief, the Bank seems open to providing more functions for the counters. This scheme additionally proposes giving key banks in the country/ region representative counters within the hall, allowing the visitor to 'visit' multiple banks at once; creating an exchange and giving purpose to this monumental space, while also conceptually validating the role of the NBB as a 'Bank of all Banks' in Belgium.

The three public faces each present themselves to the city independently, and yet collect/ coalesce at the triangle courtyard. Staircases and corridors arranged around the courtyard create an infrastructure of connectivity, seamlessly bridging the various levels of the site, and across the different buildings. It also offers the visitor glimpses into the activity within the public rooms.

The triangle courtyard is seen as an extension of all three, and can house spill-out or independent events. It is accessed directly from the monumental staircase connecting the Hotel to the Bank hall, which is treated as a passage/ public interior, inviting

pedestrians to step into this urban landscape.

Efficient and comfortable workspaces

The Bank offices are housed above the hall in the Marcel van Goethem building. Social/ common programs of the Bank office are arranged on the mezzanine level, taking advantage of the proximity to the public routes and programs in the new courtyards. In the upper floors, the new, additional area makes the narrow parts of the building usable and efficient. The layout eschews the double-loaded logic of the existing in favour of a single-loaded circulation around the central atrium. Open plan spaces are mixed with closed office spaces along the floorplate, to break the 'tunnel' effect of occupying a long building such as this. Fire escape running length rules stipulate addition of new fire escape stairs along with a sprinkler system.

The rental offices allow maximum 2 tenants per floor each, using the two ends of the circulation core as possible entries. Their lobbies are accessed from the square courtyard, which also has a more commercial character in response to the residential developments anticipated around it. Like the Library + Museum, a notch in the building line announces this public entrance to the city. The green terrace over the arcade matches the height of the neighbouring Police headquarters, forming a visual continuation of landscape.

The materiality of the interior is a direct response to the constructive logic of the building: exposed CLT ceiling ribs mirror the concrete ribs of the existing structure, while the new cement flooring (with radiant heating) unites the two. OSB board

(of thickness 20mm, same as the CLT layer module) is used to make fixed storage units and as acoustic insulation, arranged as strips between the ceiling ribs. Existing Interior partitions and furniture are re-used where possible.

Building technology

i. Structure

The new additions are conceived as structurally independent volumes constructed out of CLT that sit in between the existing buildings like a vessel within a vessel, with openings/ connections where required. Basements and floors in direct contact with the earth are constructed in in-situ concrete.

Vertical circulation cores and the sides facing the existing buildings comprise of CLT wall panels, whereas the side facing the courtyards are made of a dense grid of CLT columns. CLT floor and beam ribs span the gap, keeping the overall depth of the structure the same as the existing buildings. (~60cm)

ii. Climate strategy

The current system of ducts and AHUs only provide the office floors with ventilation, while cooling is supplied by cold ceiling panels (in some places) and heating via radiators. These are removed for being inadequate and inefficient. A new, mixed air-hydronic system is proposed. Primary heating/ cooling via radiant pipes in the flooring keeps the slab at a fixed temperature of 22°C all year.

A secondary heating/ cooling supply is provided by centralised HVAC units. These new supply AHUs are located on the terrace, and spread evenly over the

new cores (5 instead of 3, including the ones that run vertically with the new fire stairs). This reduces the duct branch sizes.

Exhaust is via natural ventilation. Filtered pressure vents are added to new and existing facades to aid with ventilation even where windows cannot be opened. The proposal retains the second glass roof over the atrium. It is modified to act as a solar chimney, with openings to exhaust air from the offices. Heat recovery coil stores excess solar heat in the basement/ geothermal well.

An important concept is user control, which is a big part of user comfort in large office environments such as this. Vents and windows can be opened/ closed, and HVAC temperature can be regulated at a room level by modifying the fan speed or using a thermal mixer.

iii. Detailed Facades

The new facades are clad in two materials: terracotta elements that mimic the limestone yellow of the existing buildings, and anodised aluminium panels. The transition between materials is articulated as a ledge that breaks the vertical line, creating a gap between the courtyard facade 'base' or 'plinth' and the 'tower' above.

The office block reuses the existing three part aluminium windows, and adds awnings to protect the interior from glare on the south and west facing sides. New windows follow a similar language but are openable. The facade grid is a multiple of the original 3.9m grid, to resemble the order of the existing facades.

The new facades are generous to the public, with

double-height arcades and furniture/ edges allowing occupation and use . Fins and sculpted forms in the cladding are a direct reference to the articulation of the Baeyart and Goethem buildings. Ornaments in the window sills contain technical equipment for ventilation and lighting.

Conclusion

The National bank of Belgium is envisioned as an open, transparent, publicly engaged institution that draws the city into itself, hopefully becoming a catalyst for change. The attitude the project takes is to deeply understand and interrogate what exists before proposing changes – imbibing the studio dictum of ‘economy of means’. As an outcome, the new and old buildings merge into one another and become a congruent whole – and hopefully, a successful ‘piece of city’.

Relevance

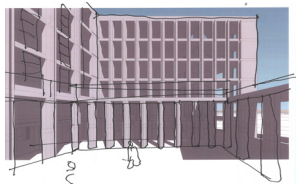
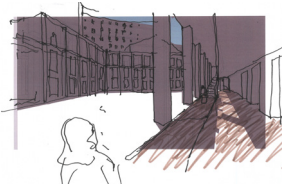
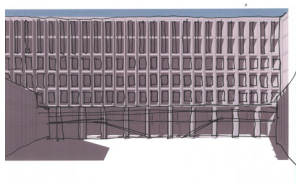
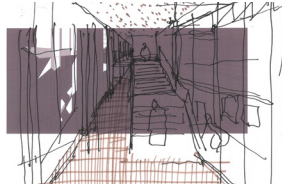
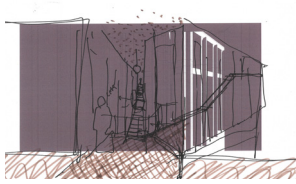
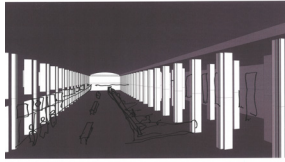
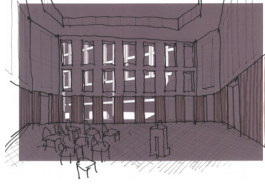
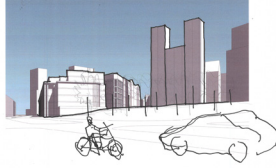
Interior Buildings Cities studio aims to teach one the ways of paying close attention to detail and conducting thorough research. (A design attitude/ process) The studio attempts to create designers who can deal with design challenges that go beyond the scope of the brief – in this case, a national bank. While it asks questions about sustainability, reuse, adaptability, representation, and power... centred around the architectural output, all of which qualify as relevant topics of research in their own right; perhaps the relevance of the work is more in the rigour and concerns that shapes it, moulding the designer’s abilities in the process.

The graduation project and studio emphasise on the role of an architect as an interpreter as well as creator; harnessing our ability to understand wide-ranging themes and concerns and synthesising them into a coherent project. The specific architectural/research outcomes of the process are instructive for me personally, and also to future students; as concrete outcomes of a thorough design process – as I have learnt from MSc. Architecture students who have graduated before me.

On a personal note: as a mid-career architect, this course and studio is an opportunity for me to develop new, richer ways of conducting design investigation and resolution; which would shape the modus operandi of my future architectural practice.

The MSc. Architecture course at TU Delft aims to teach students to “...design as a means to deal with the technical, social and spatial challenges in the Built environment”. The project situates itself in today’s precarious reality: both in terms of the responsibility of architecture as a trade in the face of the Anthropocene; and as a means of being a solution to the myriad practical issues affecting real-world organisations with regard to the buildings they inhabit.

Views of the project



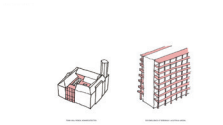
week 4.4-5

2022 05 05-19

Presentation storyboard



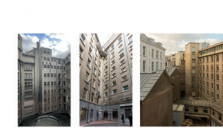
1.
Additions that transform
the nature of buildings
they're linked to.



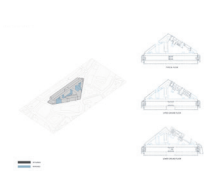
2.
Precise addition of volume
to existing buildings



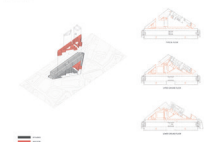
3.
Monumental facades of
the Bank to the public:
how it 'presents' itself.



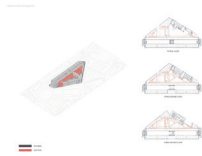
4.
In contrast, the ad-hoc
nature of the service
courts.



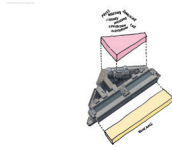
5.
Inadequate parts of the
buildings removed



6.
New volumes inserted,
vessel in a vessel: precise
geometries



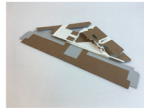
7.
Volumes create a new internal facade for the bank, tightly knit with the existing.



8.
Program components of the brief (*)



9.
Public vs. private parts of the brief (*)



10.
Infrastructure of connectivity: a 'cloister'



11.
Massing in context



12.
Courtyard process - model making, sketches, plans



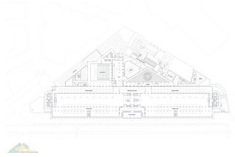
13.
Nolli map (*)



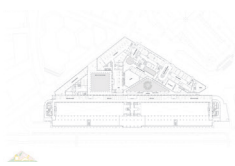
14.
Site plan showing public
paths through the project



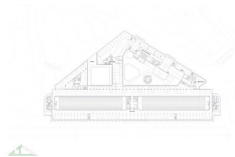
15.
Mirroring the context



16.
Lower ground floor plan
show: bank hall,
auditorium, courtyard



17.
Upper ground floor plan
show: Bank, Forum,
Library/ museum, Rental.



18.
Typical floor plan
show: office plan



19.
Bank hall transformed
into a bank of all banks



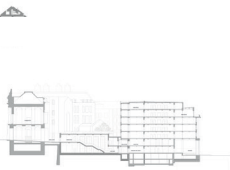
20.
Longitudinal section 1
fix elevation palace
render facade



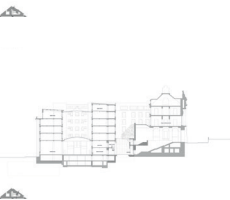
21.
Longitudinal section 2
render facade



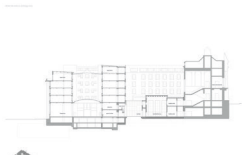
22.
Transverse section 1
render facade



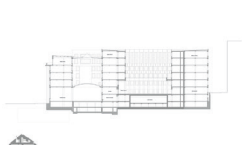
23.
Transverse section 2



24.
Transverse section 3



25.
Transverse section 4



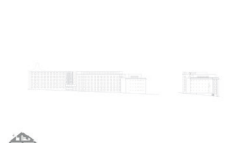
26.
Transverse section 5



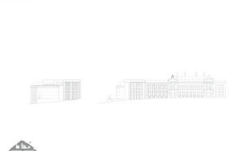
27.
Forum hall



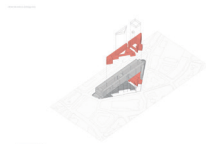
28.
Elevation 1



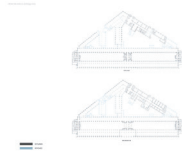
29.
Elevation 2
interventions rendered



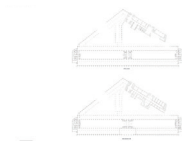
30.
Elevation 3
interventions rendered



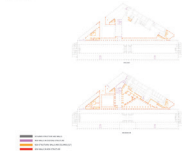
31.
Vessel in a vessel:
structurally independent



32.
Inherited structure



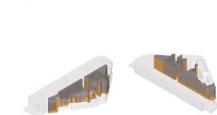
33.
Layers of construction



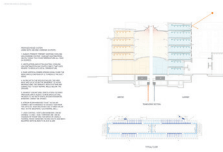
34.
New additions



35.
Slabs and spans



36.
CLT walls and panels



37.
Climate strategy



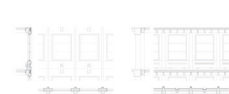
38.
Understanding existing
facades



39.
Facade process



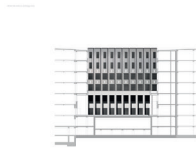
40.
Fragment of interior and
exterior, character of
workspaces



41.
Interior and exterior
details



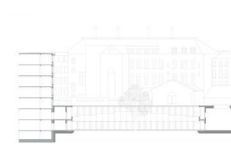
42.
Material references



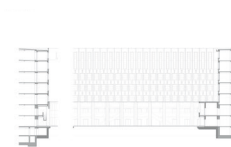
43.
Square courtyard facade



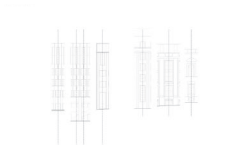
44.
Museum and library
extension facade



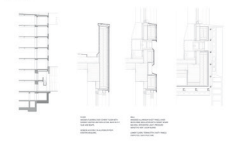
45.
Triangular courtyard
facade



46.
Triangular courtyard
facade



47.
Facade symmetry and
order



48.
Details

Feedback P4: SDV

- You are to interrogate your project, not redesign it.
- Interrogate your own project critically—does it do everything you say it does?
- You made a reasonable effort on the design, but you didn't talk about the qualities you have brought in. It is essential you make an effort to bring these qualities.
- Focus on the public, not only on the screen.
- It is good you were able to reflect on the design in retrospect over the last weeks; it comes to the front in your presentation today. We would have liked to see more representations of the project, other than the extensive energy you have invested in plans and sections.
- Representations of the atmosphere of the project. What is it like to work there, to come for a visit? This we could feel when you made your social plinth project.
- Is there a way that the SOCIAL PLINTH feeds back or could feed back into your project?
- Do you have colour in your project? Do focus on the window and how to represent it. Sky and Earth

- The Nolli plan does not show your story.
- Clarify the public route through the building.
- Could you connect your intervention to the more significant urban route?
- How does it connect to the city around it? The general route as you explain it, is currently not connected to the square you propose next to the church. Shouldn't the two side entrances be part of the public route as well, to reinforce and connect to the court?
- Bank for banks. Vessel in a vessel. The protective metaphor that comes from this. Could you describe the walk from the south (cathedral) into the building plot as one that closes and opens and

- closes and opens, just like a bottleneck of a vessel?
Would that experience be possible also in the section as a guiding principle?
- You place a tree in the middle of the triangle. Better said, the 'heavy point' of the triangle. The tree is rooted in the underground spaces that currently house the service courtyard of the building block. How do you fill up this volume?
 - Poor tree. Only one?
 - Could you explain the ascending walkway in your outside covered walkway or cloister?
 - On Rue de Bois Sauvage: how does one know which entrance to take to go to the park or ...

 - What is the forum? In the plan, the forum space seems to be another of these geometric shapes organising the plan. But you do not count it as such. What is its status?

 - What is your office floor like? The fire escapes are moved? Good.
 - Where are the fire compartments?
 - There are 1000+ persons working in the bank. Do you think the size of the restaurant is enough?

 - Please make sure you always show one drawing per slide, now, it sometimes is hard to follow what you try to convey. F.e., the construction drawings.

 - Mention the brief and how you deal with it.

 - Materiality: terracotta plinth and aluminium facade above. When you strip material and add material, is some of it the same? I refer to a circular building.
 - P5 2022 06 22 14:45

week 4.6-7

2022 05 19-02



For 2022 06 02 Steps

Sunday

- Furned sections

Monday

- MK review friday?
- Print journal, page 234 + cover
- Tickets trip
- Rendered facades for 1:100
- Details 1:25 fragment
- Details 1:5

Tuesday

- Sketchup model, finalize views

Wednesday

- Levels and labelling for plans and sections
- Plotted plans and sections, 1:300

Thursday

- 200 model skeleton: print facades and stick