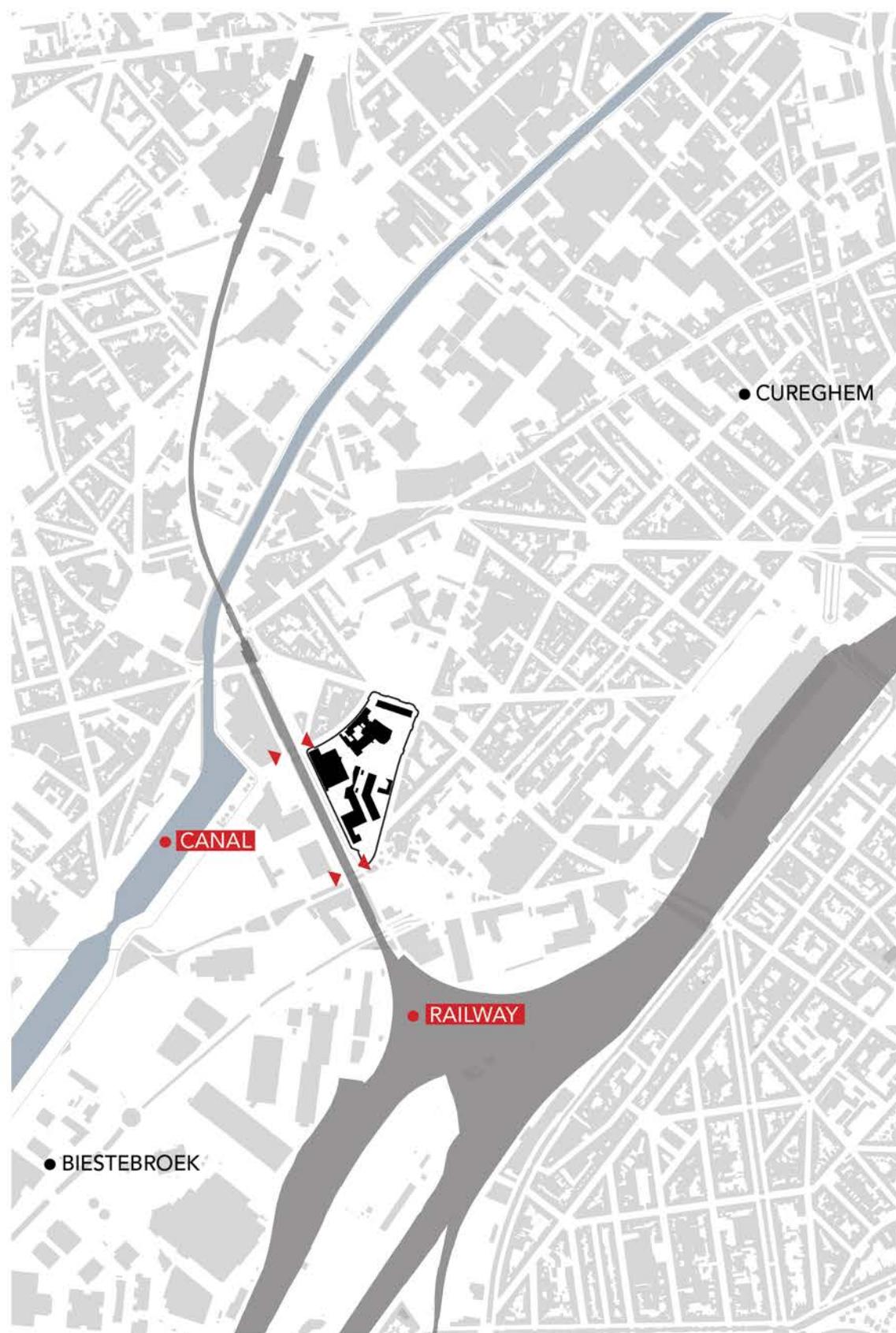




P5 | Productive Complex

Urban Architecture-Spolia



SITE-ON THE MARGIN OF CUREGHEM

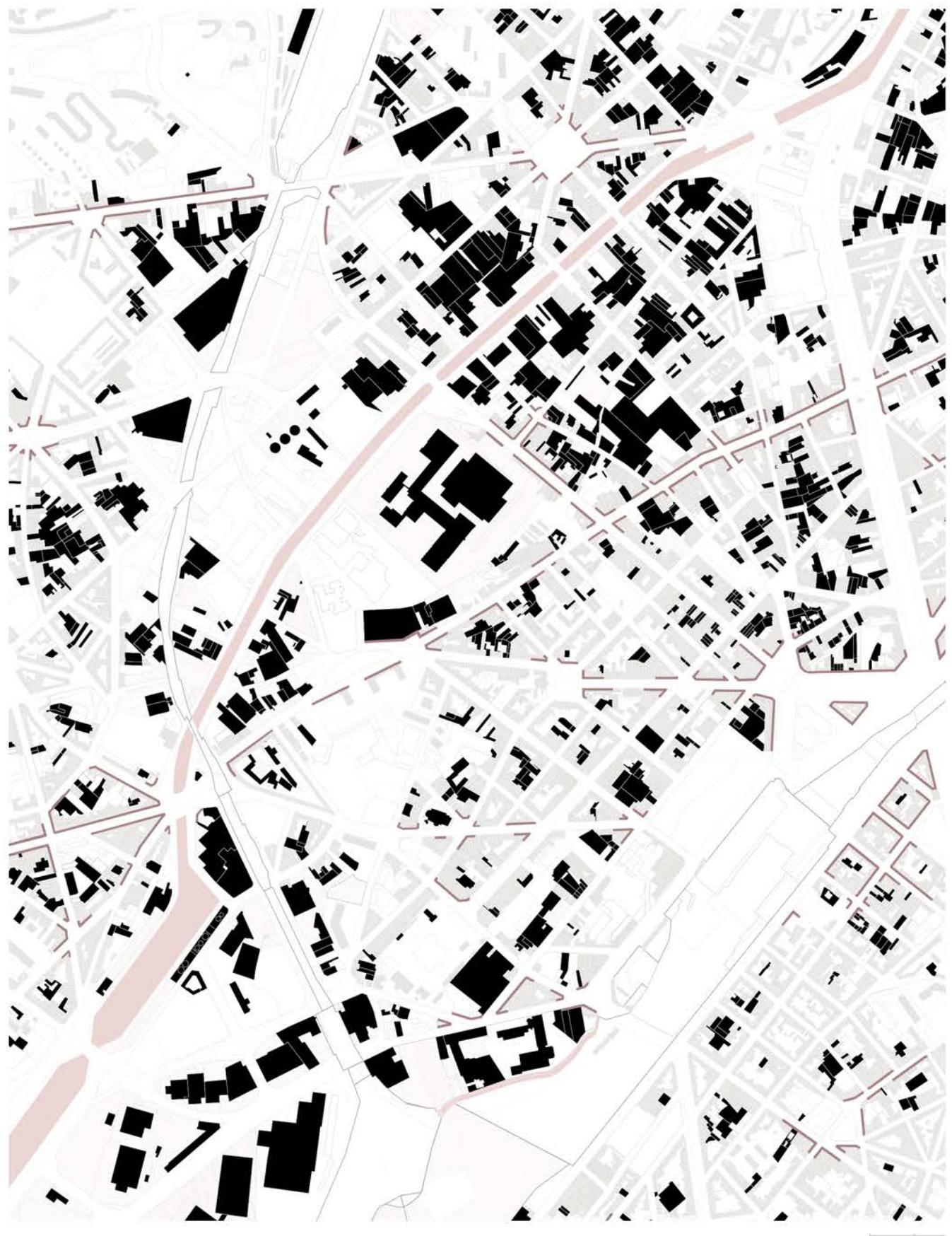
The block is located between the industrial land and the urbanized residential area. It is bounded by the railway and connected to the industrial area and the canal port via two arched passages. The canal and the railway used to facilitate the industrial development and result in distinct mixed urban tissue.



Aerial view of one of Brussels' diverse neighbourhoods, Heyvaert.(source: <https://citiesofmaking.com/newurbanmanufacturing/>)

MIX OF LIVING AND WORKING IN URBAN TISSUE

Historically, Anderlecht has always been a city with intense mix of living-working arrangement in different scales. It accommodates a wide variety of programmes and diverse combinations of them based on tailor-made facilities. With varied use of spaces, people living and working in the urban tissue contribute to a vibrant urban life.



P1 RESEARCH ON LIVING & WORKING

In P1, we made a research into the relationship between Working and Living in the context of Anderlecht. In order to understand the distribution of productive activities, we identified and classified existing programmes in the selected area, with the industrial buildings and areas highlighted. Then based on the distribution of productive activities, the characteristic of productive activities in different blocks is identified. And according to the composition of working and living spaces, the accessibility and perception of working space, we define the relationship presented in different blocks. A number of representative blocks are selected and categorized, illustrating the diversity of typology of the living-working relationship on the scale of block.



ENCLOSMENT

The block contains working programme that has inconspicuous entrances to the street



INSERTION

The block contains the main space of working programme that has well-marked frontages to the street



PERMEATION

The block contains working programme that has several frontages and entrances permeating the facades of the block



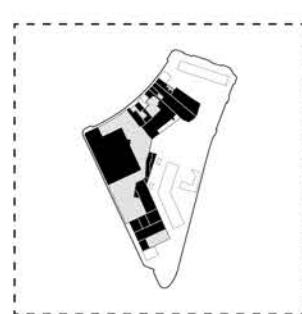
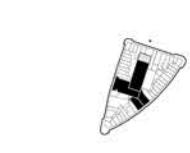
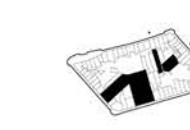
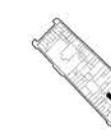
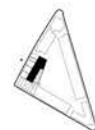
JUXTAPOSITION

The block is composed of independent working and living programme sharing the same solid border



SEPARATION

The block is composed of independent working and living programme separated by vacant space



The site block features separation between living and working spaces, and assumes fragmentation on the whole.



1930s
(Source: <http://bruciel.brussels/>)



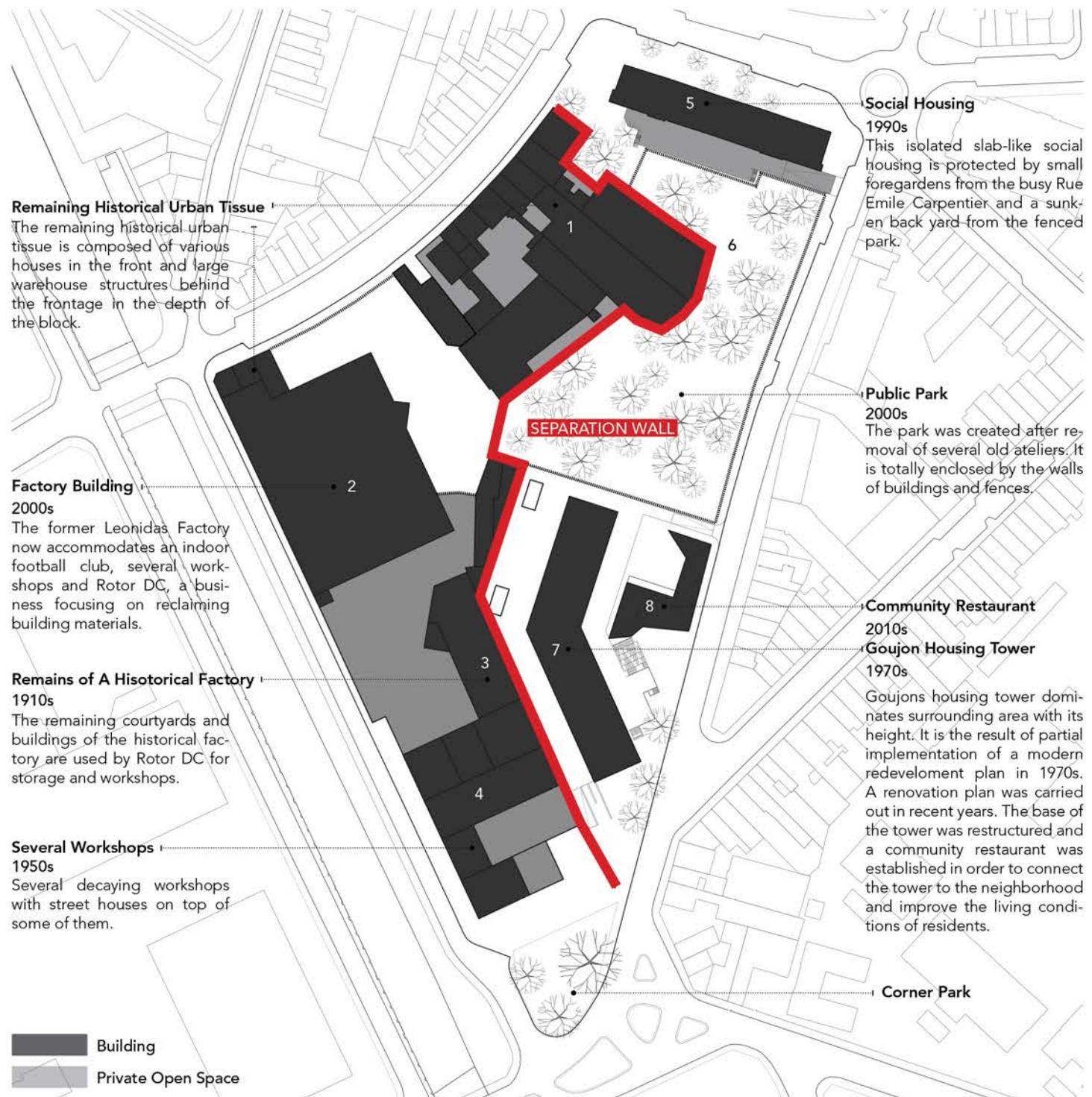
1970s
(Source: <http://bruciel.brussels/>)



1990s
(Source: <http://bruciel.brussels/>)



2010s
(Source: <http://bruciel.brussels/>)



1. Remaining Historical Urban Tissue (photo taken by Xuanyu Liu)



5. Northern Social Housing (photo taken by Xuanyu Liu)



2. Former Factory (photo taken by Xuanyu Liu)



6. Fenced Public Park (photo taken by Yanwen Zhu)



7. High-rise Goujons Social Housing (source: Aurélie Hachez)



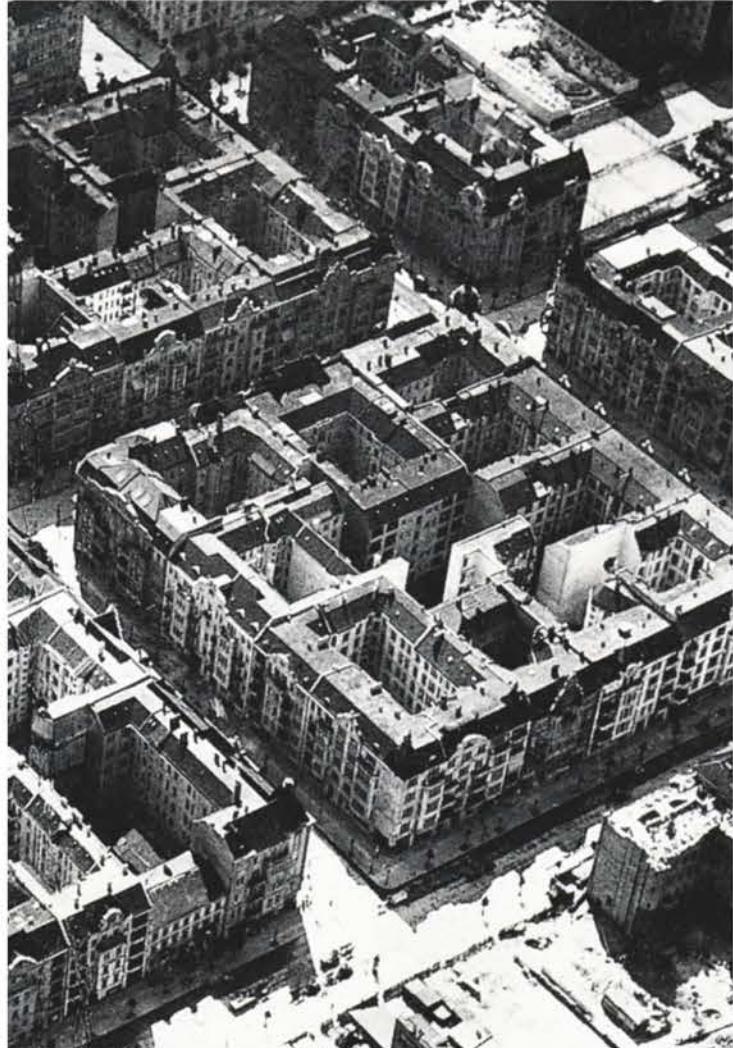
4. Southern Workshops (photo taken by Xuanyu Liu)



8. New Community Restaurant (photo taken by Xuanyu Liu)

SITE BLOCK-FRAGMENTS

The site block is composed of fragments dated back to different times. All these fragments are isolated from each other to some extent with limited spatial and programmatic interaction. More broadly, the block is divided into two halves by a separation wall tracing the covered river Senna. The west half is dominated by



A typical Berlin rental barracks around 1900. (source: Vincent Krompier's lecture on Oct. 4th)



Development around Chamissoplatz in Kreuzberg in Berlin, showing a spatial diversity and flexibility. (source: Berlin Urban Design A Brief History, p79.)

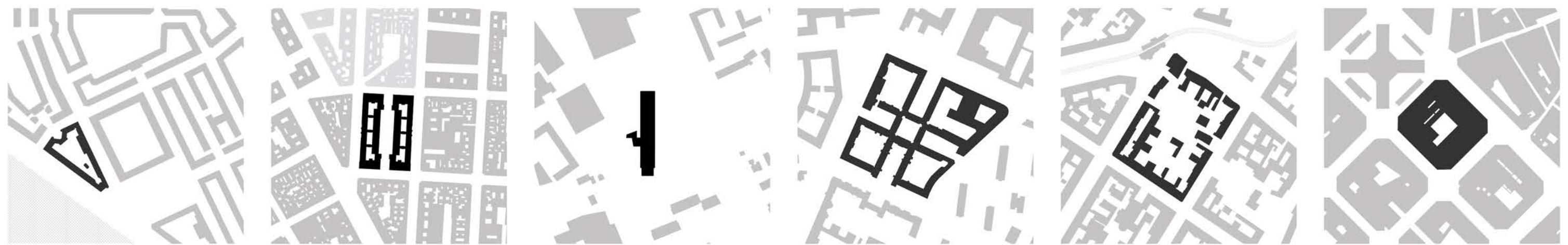


A clear and impressive contrast between the facade language and spatial atmosphere on the outside and the inside of Grünberger Höfe. While the outside of the block presents an outgoing appearance and embraces lively urban life, the inside of the block is more restrained and provides peaceful and intimate communal space. (photo taken by Xuanyu Liu)



INSPIRATION FROM BERLIN BLOCKS

The difference between the inside and outside of Berlin Block impressed me a lot. While the exterior of the block helps with lively urban life, the interior of the block is able to accommodate intimate private gardens or a quiet public park. The urban block as an intermediate urban element, not only achieves a coherent transition from publicness to privacy, but also presents sort of spatial diversity and flexibility, to which the dimension and structural system contribute a lot. The similar large size and the emptiness in our site mean similar potential.



Amsterdam Het Schip
Built in 1920s

Madrid Casa De Las Flores
Built in 1930s

Marseille Cité Radieuse
Built in 1950s

Berlin Ritterstrasse-Nord Block
Reconstructed in 1980s

Berlin Schlesisches Tor Block
Renovated in 1980s

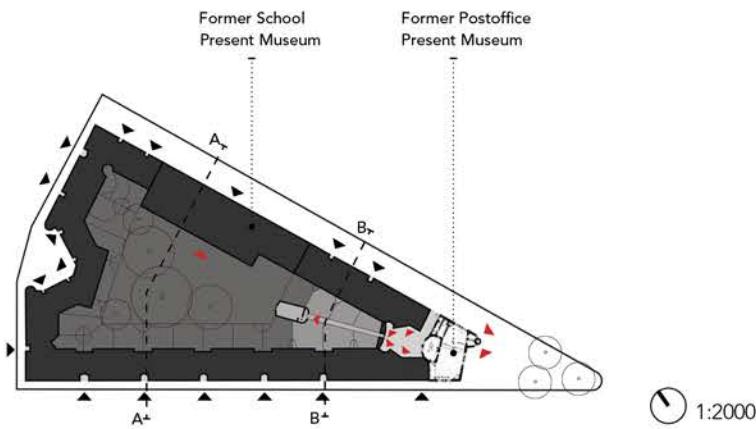
Barcelona Càndida Pérez Garden
Renovated in 2000s

P2 RESEARCH ON URBAN BLOCKS

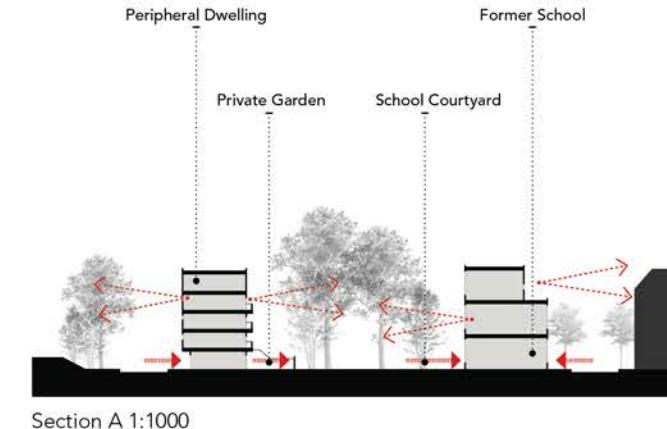
After P1 research on Working and Living on the basis of urban block and excursion to Berlin. I continue the research on the medium urban scale with urban blocks as study objects. Six representative perimeter blocks across from west Europe are selected as study cases. They are studied in the aspects of contextual relationship, spatial and programmatic relationship and facade language in different orientations, in order to figure out how the blocks work as a whole and how they are shaped throughout their history.



This triangular block is located at the edge of the new extension area of Amsterdam at the beginning of twentieth century. Its concave part in the north corresponds with the entrance to Zaanhof, and its south corner is marked by a post office and a small square.



The residential block integrates an existing school and a new post office. The heart of the block is occupied by the courtyard of the school and a series of private gardens belonging to the ground-floor dwellings. A small lane starting from a common courtyard behind the post office serves some of these gardens and leads to a communal room. Some dwellings have the entrances through this open-access courtyard.



The frontage of the peripheral dwelling features small windows and recessed entrances towards the railway and Zaanstraat. But the ground-floor private gardens and balconies on upper floors define the inside facade. The school opens to both sides of the block perimeter with large glazed windows. The partitions between the courtyard of the school and the private gardens block out the sight, while the independent gardens are visually connected where the service lane runs through.

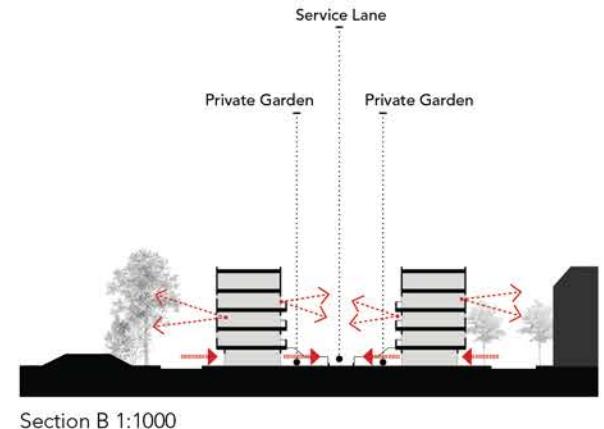


PHOTO-EXTERIOR



The block facade incorporating a former school on Oostzaanstraat. (photo taken by Xuanyu Liu)



The north residential square addressed by a tower. (source: <https://www.eigenhaard.nl/>)



The former post office faces a small public square with an expressive volume and facade. (source: <https://www.hetschip.nl/en/>)



The block facade treated as a whole with continuous horizontal brick lines and three vertical sessions on Zaanstraat. (source: <https://www.hetschip.nl/en/>)

PHOTO-INTERIOR



The former school is open to the courtyard with large glazed windows. (photo taken by Xuanyu Liu)



The ground floor of the peripheral residential building is equipped with private gardens, while the residents on upper floors enjoy the collective courtyard through balconies. (photo taken by Xuanyu Liu)



The communal room and the modest facade of the peripheral residential building. (photo taken by Xuanyu Liu)



The intimate collective patio connecting to the street via an arched passage leads to the service lane and the communal room through a gate. (photo taken by Xuanyu Liu)

Amsterdam Het Schip

1920s Construction of the block incorporating an existing school.
 2000s The post office was transformed to a museum devoted to Amsterdam School.
 2010s The former school building was transformed for the expansion of the museum. Houses were renovated.

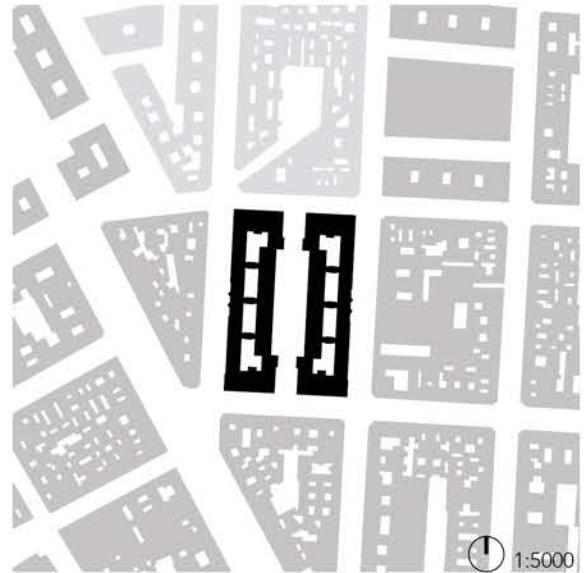
Reference: Panerai, Philippe; Castex, Jean; Depaule, Jean-Charles; Samuels, Ivor. *Urban Forms, The Death and Life of the Urban Block*. Architecture Press, 2004.

Sonne, Wolfgang. *Urbanity and Density in 20th Century Urban Design*. Berlin: DOM Publishers, 2017.

MUSEUM HET SCHIP AMSTERDAM. <https://www.satijnplus.nl/portfolio-items/museum-het-schip-amsterdam/?portfolioCats=3>.

Het Schip. <https://www.hetschip.nl/en/about-the-museum/locations/het-schip>.

Het Schip. https://www.eigenhaard.nl/projecten/w_hetschip.



The standard block in Madrid Ensanche is 120 x 80m in size, aligned north and south. It features two long C-shaped double slabs on the periphery of the block and a large garden on the interior of the block. Gates and small courts mark entrances at the north and south ends. Each C element is composed of two parallel slabs for apartments and a long interior patio which is divided by alternate stairtowers and one-story laundries serving apartments on each sides. The central garden used to be public-accessible, but due to vandalism, it is now only open to the residents.

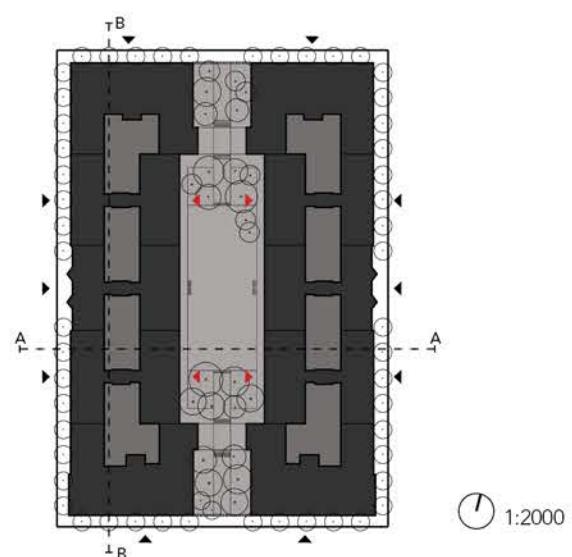


PHOTO-EXTERIOR



The south corner featuring a terrace and cantilevered balconies on upper floors and the arcade for shops and main entrance to the apartment on ground floor. (source: <http://archjourney.org/>)



The main entrance to the apartment building marked by the recession and balcony on the first floor. (source: <https://elpais.com/>)



The north facade featuring cantilevered balconies on upper floors and show windows on the ground floor. (source: <https://www.urbipedia.org/>)

PHOTO-INTERIOR



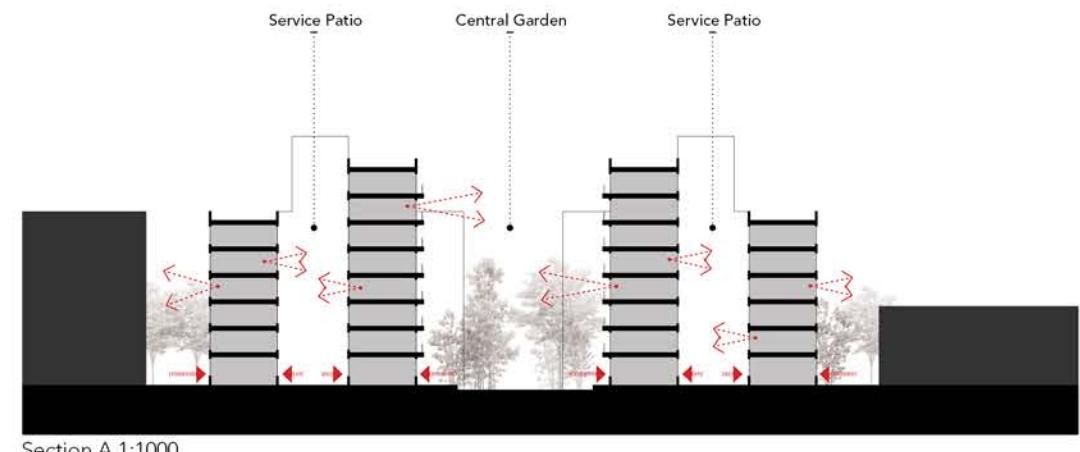
The peaceful planted courtyards. (source: <https://www.afar.com/>)



The gate between small courts and the central garden at the north and south end. (source: <http://archjourney.org/>)

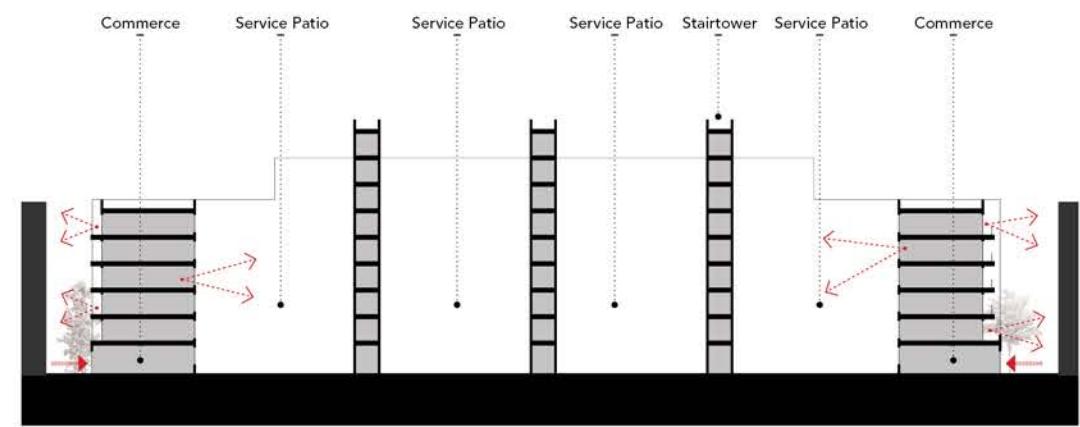


The pergola and balconies of apartments in the central garden. (source: <https://www.urbipedia.org/>)



Section A 1:1000

On the perimeter, the slabs are 6 floors, while on the long side of the garden the slabs are 8 floors in order to make more apartments take advantage of the garden. The 9-meter-wide patio separating the slabs into two zones of dwelling allows for windows on both sides of the apartments, improving ventilation and natural lighting in the entrance hall, kitchens and baths.



Section B 1:1000

Each pair of slabs consists of four patios that function as service courts and stair towers alternate with one-story laundries. The stairs thus serve apartments on each side of the double slab. At both the north and south ends, there are cantilevered balconies facing towards the streets on upper floors and display windows for commerce on the ground floor. At the south end, the balconies are set back and equipped with flower pots wrapping the corner. And this is where the name of the block comes from.

Madrid Casa de Las Flores

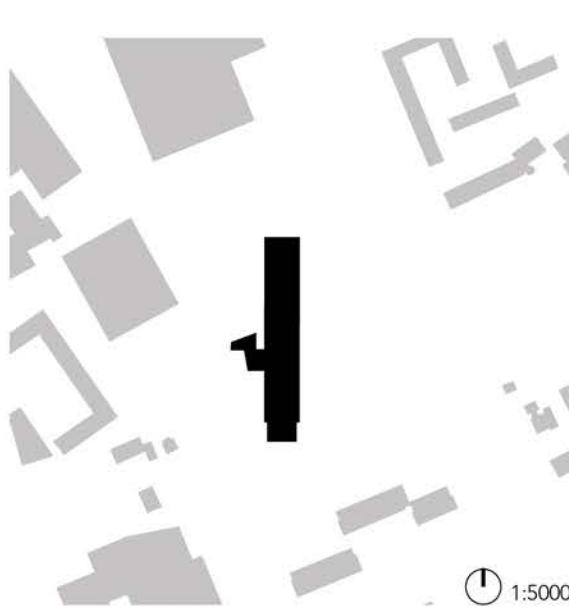
1930s The block was designed and constructed as a prototype of modern apartment for the newly developed urban area in Madrid.
2000s The block was completely restored and modernized.

Reference: CASA DE LAS FLORES. <http://archjourney.org/projects/casa-de-las-flores/>.

El conjunto urbano-arquitectónico llamado "Casa de las Flores". https://web.uchile.cl/vignette/revistaurbanismo/CDA/urb_simple/0,1310,SCID%253D20034%2526SID%253D691%2526IDG%253D2%2526ACT%253D0%2526PRT%253D20030,00.html.

Casa de las Flores. <http://sostenibleperdona.blogspot.com/2011/04/casa-de-las-flores.html>.

Los geranios de Neruda sobreviven en la Casa de las Flores. <http://madrilanea.com/2017/12/05/los-geranios-neruda-sobreviven-la-casa-las-flores/>.



Le Corbusier's Unité d'Habitation rejects the place, or rather, the context from the very beginning. It is conceived as a monument standing in the landscape. Marseille Cité Radieuse is no exception.

PHOTO-EXTERIOR



The isolate volume standing alone in the open space. (source: Le Corbusier: *l'unité d'habitation de Marseille*, 1992, p52.)



The vertical gesture keeping away from the road. (source: Le Corbusier: *l'unité d'habitation de Marseille*, 1992, p52.)

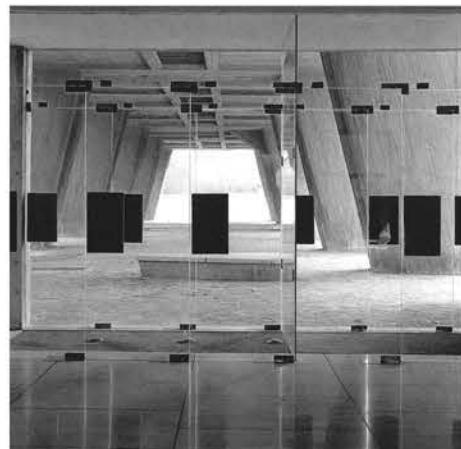


The open space around the building. (source: Le Corbusier: *l'unité d'habitation de Marseille*, 1992, p43.)



The uniform facade with balconies and the gallery. (source: Le Corbusier: *l'unité d'habitation de Marseille*, 1992, p94.)

PHOTO-INTERIOR



The pilotis and the main entrance to the building. (source: Le Corbusier: *l'unité d'habitation de Marseille*, 1992, p59.)



Commercial space inside the building. (source: Le Corbusier: *l'unité d'habitation de Marseille*, 1992, p98.)

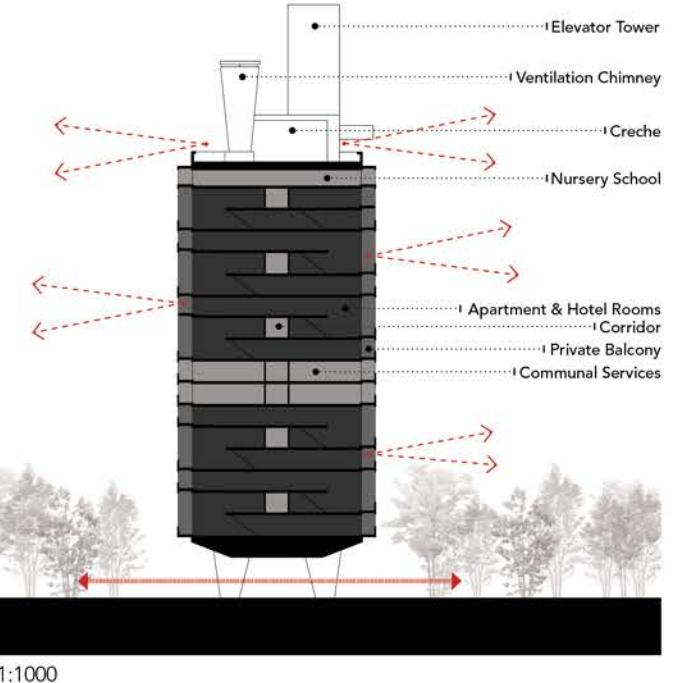


The communal service on the roof top. (source: Le Corbusier: *l'unité d'habitation de Marseille*, 1992, p111.)



The balcony mediating between private dwellings and public open space. (source: Le Corbusier: *l'unité d'habitation de Marseille*, 1992, p93.)

Plans 1:1000



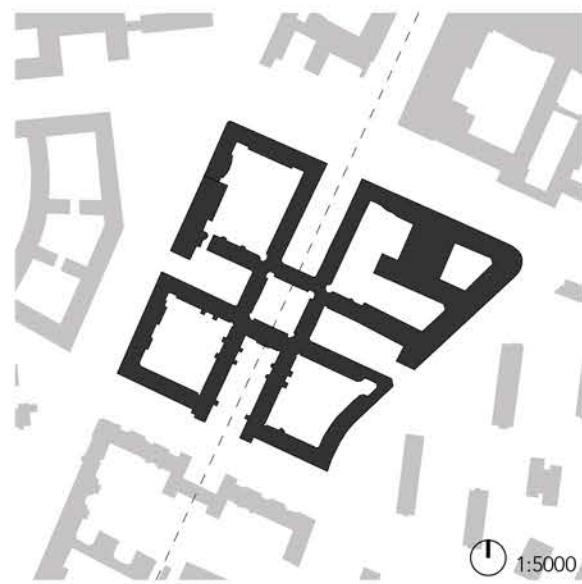
Compared with traditional tissue, all relationships are inverted and contradicted according to Philippe Panerai. It can be interpreted as a vertical block. Firstly, the dwellings are accessed from the indoor central corridor rather than the open-air street. Secondly, the commerce space is shifted from the street ground floor to upper floors in a gallery. The same comes to the communal facilities that are organized on the top or elsewhere. These mean some of the important roles of original outside streets are replaced by the inside and vertical circulation system. Finally, the open space, normally the internal courtyard, is inverted, which means the block now is located in the open space rather than the opposite. And the private balcony now functions as the previous courtyard facade or individual garden, and mediate between the interior dwelling and the exterior open space.

Marseille Cité Radieuse

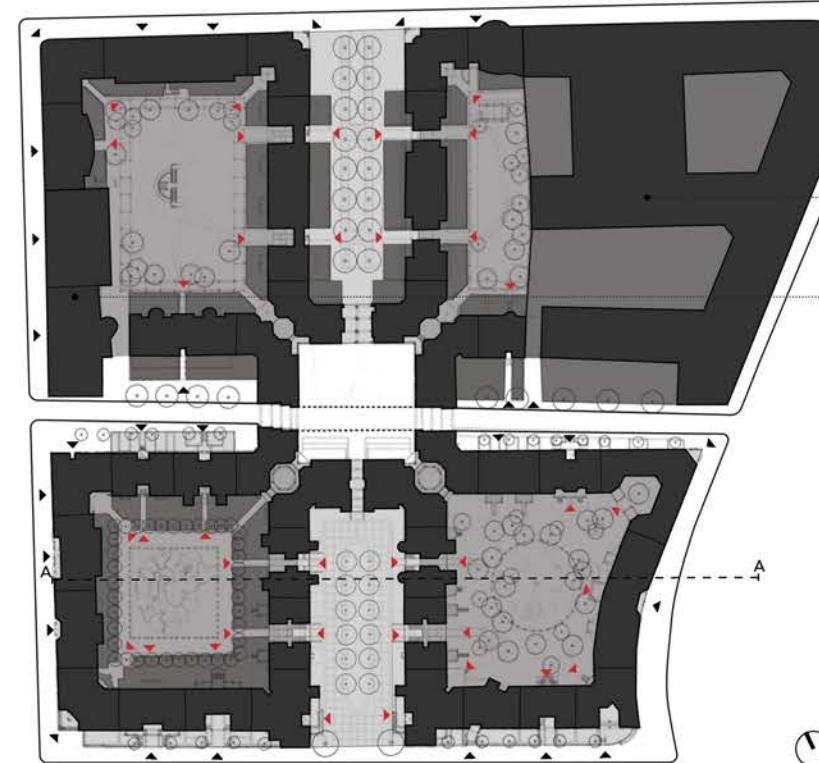
1950s Construction of Cité radieuse in Marseille as the first and the most influential housing of Unité d'habitation.

Reference: Sbriglio, Jacques; Parisis, Jean-Louis; Bigo, Hughes. *Le Corbusier : l'unité d'habitation de Marseille*. Marseille : Parenthèses, 1992.

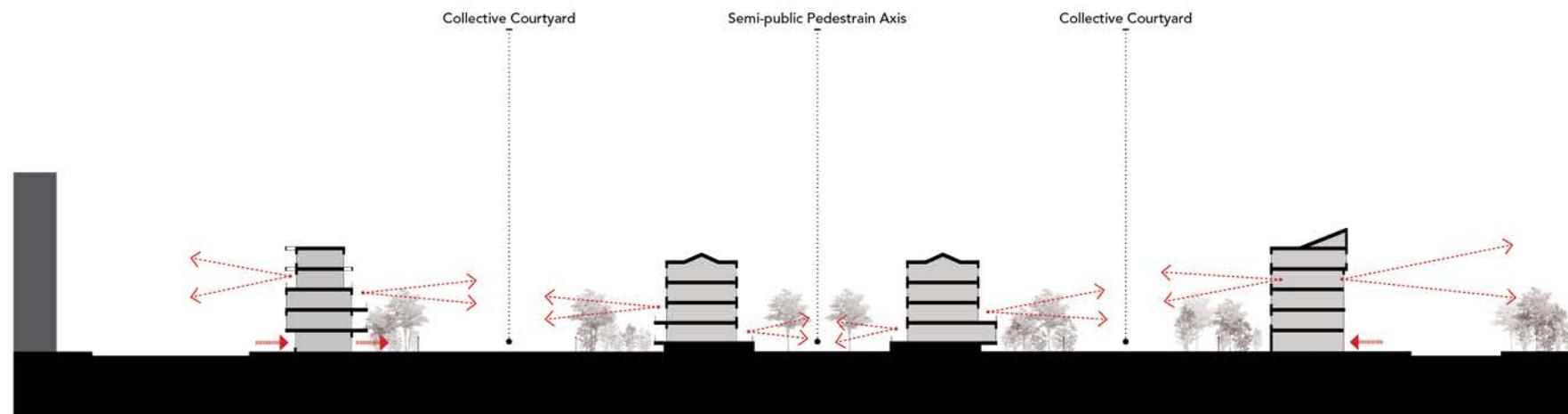
Panerai, Philippe; Castex, Jean; Depaule, Jean-Charles; Samuels, Ivor. *Urban Forms, The Death and Life of the Urban Block*. Architecture Press, 2004.



Ritterstraße-Nord Block continues the north-south promenade-like axis developed earlier, which leads to the garden of Berlin Museum. Together with Feilnerstraße, the whole area is divided into smaller manageable blocks with perimeter development.



Ritterstraße-Nord residential block is characterized by a coherent separation as well as unity between public, semi-public, communal and well-preserved private space. The block is divided by traffic-claimed east-west Feilnerstrasse and north-south semi-public promenade, whose intersection is claimed by a square. Through the passages at the corners of the square and doorways on the periphery, four collective garden courtyards are accessed, in which the pergolas and plants shelter tenant gardens. Also the recessed entrances and front gardens mediate between housing and public streets. All of these contribute to an intimate and quiet living atmosphere in the urban environment.



Section A 1:1000
The peripheral housing presents a restraint appearance facing the urban space. However, a series of balconies, terraces and tenant gardens features the inside of the periphery construction, interacting with and taking advantage of the collective courtyard as much as possible. In the courtyard, the private gardens are sheltered by pergolas and plants, ensuring intimate private space and quiet communal gardens.

Berlin Ritterstraße-Nord Block

1980s Construction of the block incorporating the former Reich debt administration building in northeast corner and the structure ruins of the former Merkur department store.

Reference: Krier, Rob. Rob Krier: Architecture and Urban Design. London : Academy Editions, 1993.

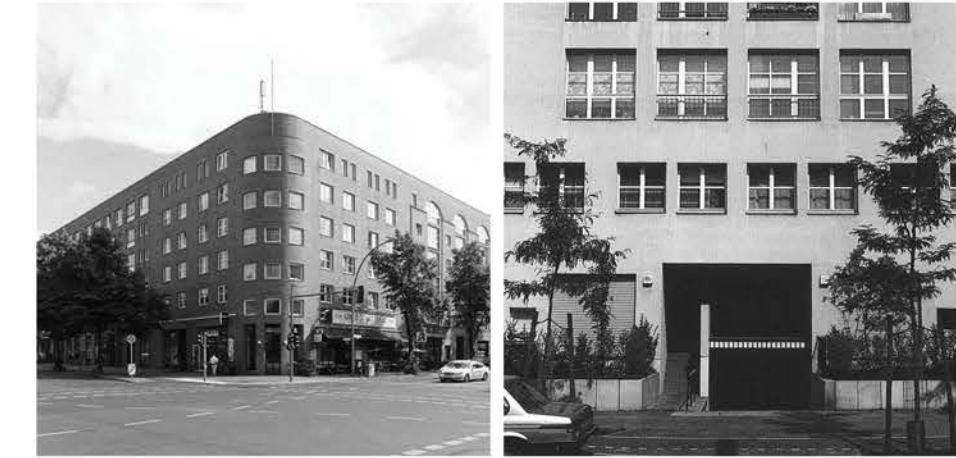
Krier, Rob. Town spaces : contemporary interpretations in traditional urbanism. Boston, MA : Birkhauser-Publishers for Architecture, 2003.

Wohnanlage Ritterstraße-Nord. <http://f-iba.de/wohnanlage-ritterstrasse-nord/>

Ritterstrasse North & South Sites, Wohnpark Am Museum, Rob Krier, Kollhoff/Ovaska and others. <https://architectureinberlin.wordpress.com/ritterstrasse-north-south-sites-wohnpark-am-museum/>

Ritterstraße-Nord residential complex. <https://www.visitberlin.de/en/ritterstrasse-nord-residential-complex>

PHOTO-EXTERIOR



The restraint corner house on Oranienstrasse/ Lindenstrasse with commercial space on ground floor. (source: <http://f-iba.de/>)

The frontage of housing on Ritterstrasse with an elevated ground floor and a recessed entrance. (source: Rob Krier: Architecture and Urban Design, 1993, p49)



The semi-public promenade from Ritterstrasse leading to the central square. (source: Rob Krier: Architecture and Urban Design, 1993, p48)

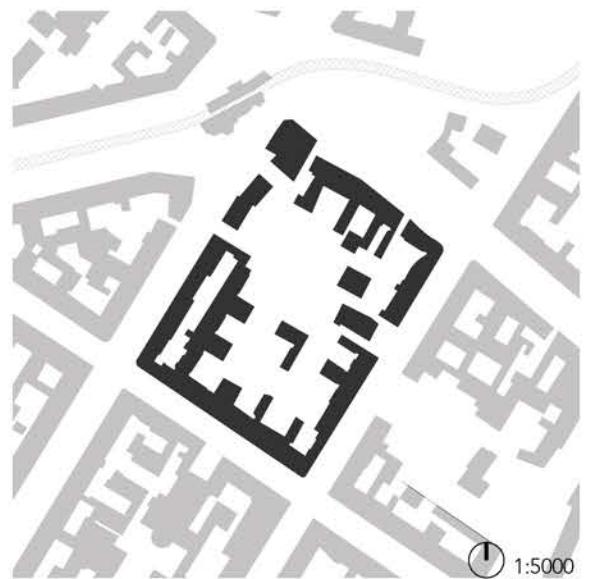
View of the central square accessed from the promenade and Feilnerstrasse via archways. (Rob Krier: Architecture and Urban Design, 1993, p47)

PHOTO-INTERIOR

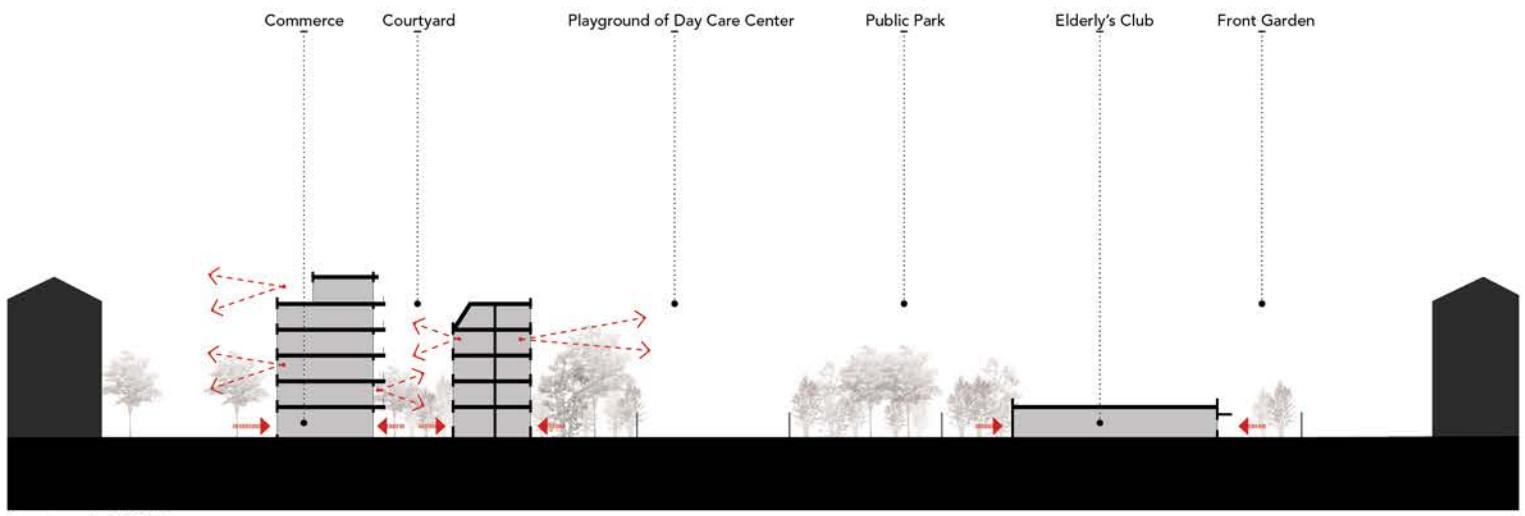
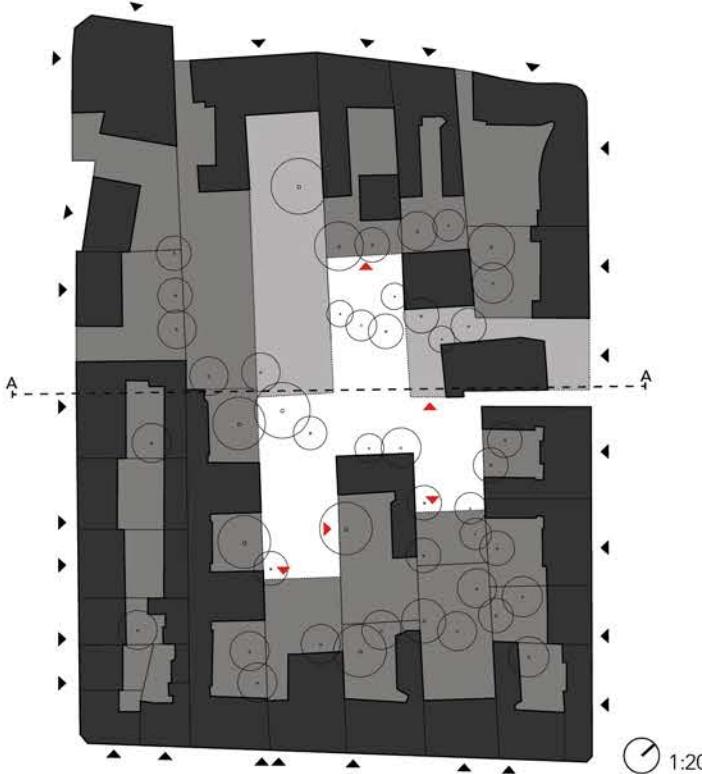


The central communal space enclosed by a pergola in the courtyard. (source: <https://architectureinberlin.wordpress.com/>)

The private terrace facing the courtyard and sheltered by plants. (source: <http://f-iba.de/>)



This is a typical block built in the late nineteenth century in Berlin. The original spatial organization structured by a series of small courtyards was heavily destroyed in the WWII. Then it was restored in the following decades, especially in 1980s by Alvaro Siza. The perimeter of the block was completely restored, while the inside of the block was left as open space.



Section A 1:1000

The perimeter of the block is defined by street houses with commerce or community service on the ground floor. These houses have a main entrance towards the street, which also leads to the private garden at the back of the house. Some of them also have a back entrance connecting to the public park, which occupies the central place of the open inside of the block. The park is accessed from a passage marked by the elderly's club, whose low and modest volume is set back from the block frontage. In this way, the quiet and peaceful ambience of the park is protected by this single-floor structure, while the presence of the park is also revealed by visual connector.

PHOTO-EXTERIOR



The restored building with restraint facade at the southwest corner of the block.
(source: <http://f-iba.de/>)



The one-story construction with fast food restaurant near Schlesisches Tor Station.
(source: <http://f-iba.de/>)



Lively Schlesische Street with restaurants on the ground floor. (photo taken by Xuanyu Liu)



Falckensteinstrasse, an urban life street with paved road and parking area. (photo taken by Xuanyu Liu)

PHOTO-INTERIOR



The intimate backyard of Wohnhaus Schlesisches Tor. (source: *EL Croquis alvaro siza 1958-1994*, p97)



The passage leading to the central park hidden on the interior of the block. (photo taken by Xuanyu Liu)



The well-planted central park with a playground. (photo taken by Xuanyu Liu)



An isolated building with an independent courtyard on the inside of the block. (photo taken by Xuanyu Liu)

Berlin Schlesisches Tor Block

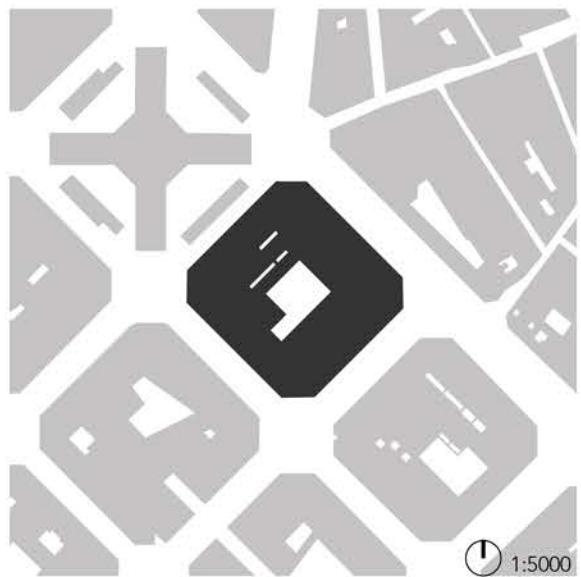
1930s Construction of the block with the implementation of Hobrecht plan from 1860s.
1940s The block was severely destructed during the Second World War.
1950s Reconstruction work started in the following decades after the war.
1980s Focusing on gentle urban renewal and critical reconstruction, IBA 1987 commissioned Alvaro Siza to rebuild the block.

Reference: Fotos: Demonstrationsgebiet SO 36. <http://f-iba.de/fotos-block-90-94-95-119-121-117-125-mariannenplatz-wranglestr-muskauer-str-manteuffelstr-puecklerstr-koepenicker-str-zeughofstr-skalitzer-str-falckensteinstr-schlesische-str/>.

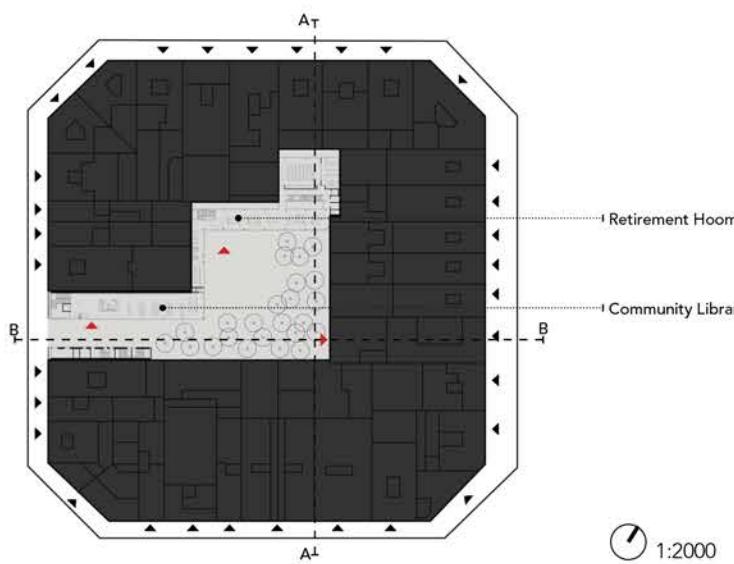
Siza, Alvaro. *Poetic Profession*. Electa, 1986. 146-159.

Cabanes, Paloma Poveda. *Alvaro Siza 1958-1994, El Croquis*. Madrid, 1994. 94-101.

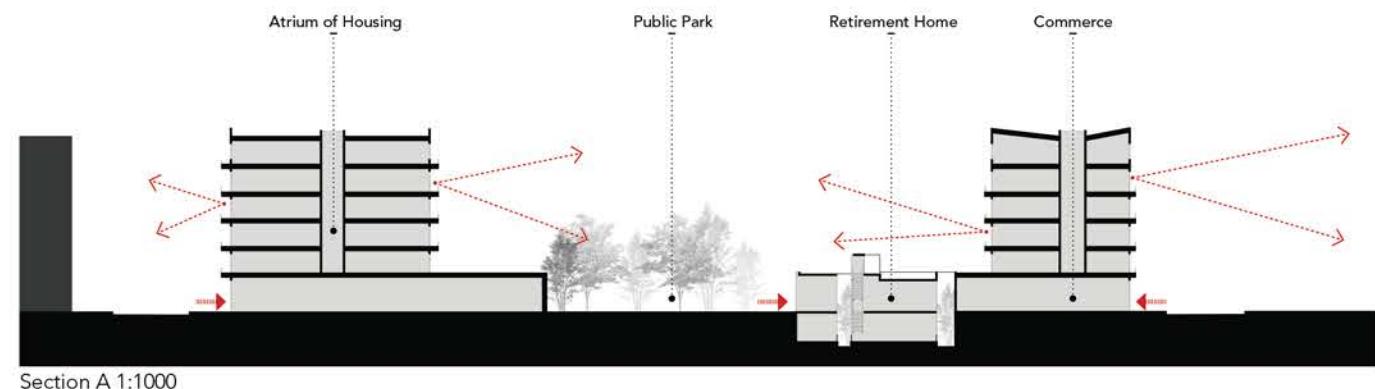
Testa, Peter. *Unity of the Discontinuous: Alvaro Siza's Berlin Works. Assemblage*, Mo.2 (Feb., 1987). The MIT Press. 46-61.



The block is located on the edge of Eixample, adjacent to the medieval city center of Barcelona.



The peripheral housing of the block is directly accessed from the streets, while the community library, the elderly's home and some of the renovated commercial ground floor of the periphery open to the reclaimed courtyard.



Section A 1:1000

The peripheral housing has balconies towards the streets and the courtyard, which means the courtyard is visually collective even if it is not directly accessible for most of the residents. The new structure for community services is in a low volume in order not to block the view of residents in peripheral housing and it opens to the courtyard with glazed facade.

PHOTO-EXTERIOR



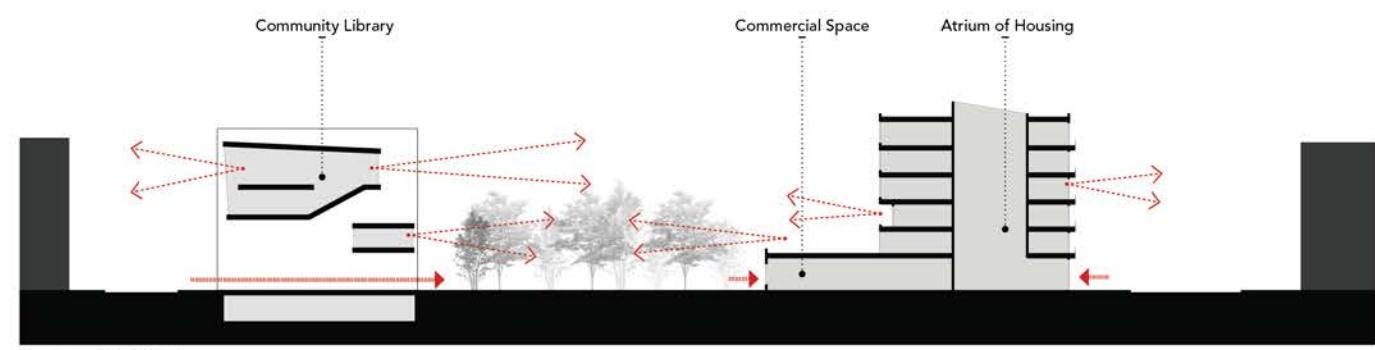
The south corner of the block with reclaimed public and pedestrian space of Carrer del Comte Borrell and Carrer del Parlament. (photo taken by Shuangyun Chen)



The urban facade facing Carrer de Manso with balconies. (photo taken by Shuangyun Chen)



The monumental entrance to the reclaimed public courtyard of the block. (source: <https://www.archdaily.com/>)



Section B 1:1000

The gesture of the new structure marks the entrance to the park. It is the public one but not the only one. A commercial ground floor of one of the perimeter buildings has both entrances to the street on frontage and openings to the courtyard on the rear side.

PHOTO-INTERIOR



The pathway leading to the reclaimed public courtyard of the block. (source: <https://www.archdaily.com/>)



The cosy and peaceful public park inside the block. (photo taken by Shuangyun Chen)



The courtyard with modest balconies of peripheral housing. (photo taken by Shuangyun Chen)

Barcelona Càndida Pérez Garden

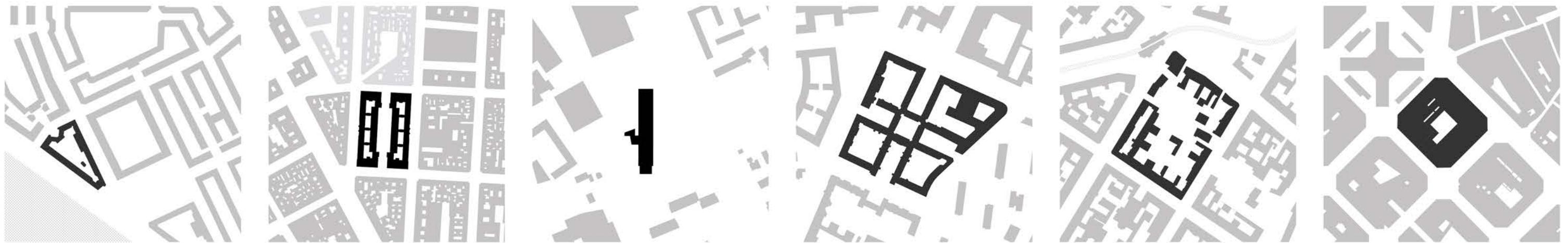
1860s Construction of the block within Cerdà's plan

2000s Renovation of the inside of the block with a community library, a retirement room and a public garden.

Reference: Sant Antoni-Joan Oliver Library / RCR Arquitectes. https://www.archdaily.com/536548/sant-antonio-joan-oliver-library-rcr-arquitectes?ad_source=search&ad_medium=search_result_all

Behind Four Walls: Barcelona's Lost Utopia. <https://failedarchitecture.com/behind-four-walls-barcelonas-lost-utopia/>

The Eixample. <https://barcelonaonthreewheels.wordpress.com/2015/05/09/triclos-reclinados/>



Amsterdam Het Schip
Built in 1920s

Madrid Casa De Las Flores
Built in 1930s

Marseille Cité Radieuse
Built in 1950s

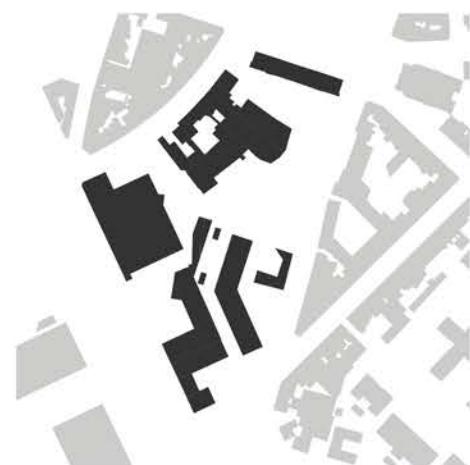
Berlin Ritterstrasse-Nord Block
Reconstructed in 1980s

Berlin Schlesisches Tor Block
Renovated in 1980s

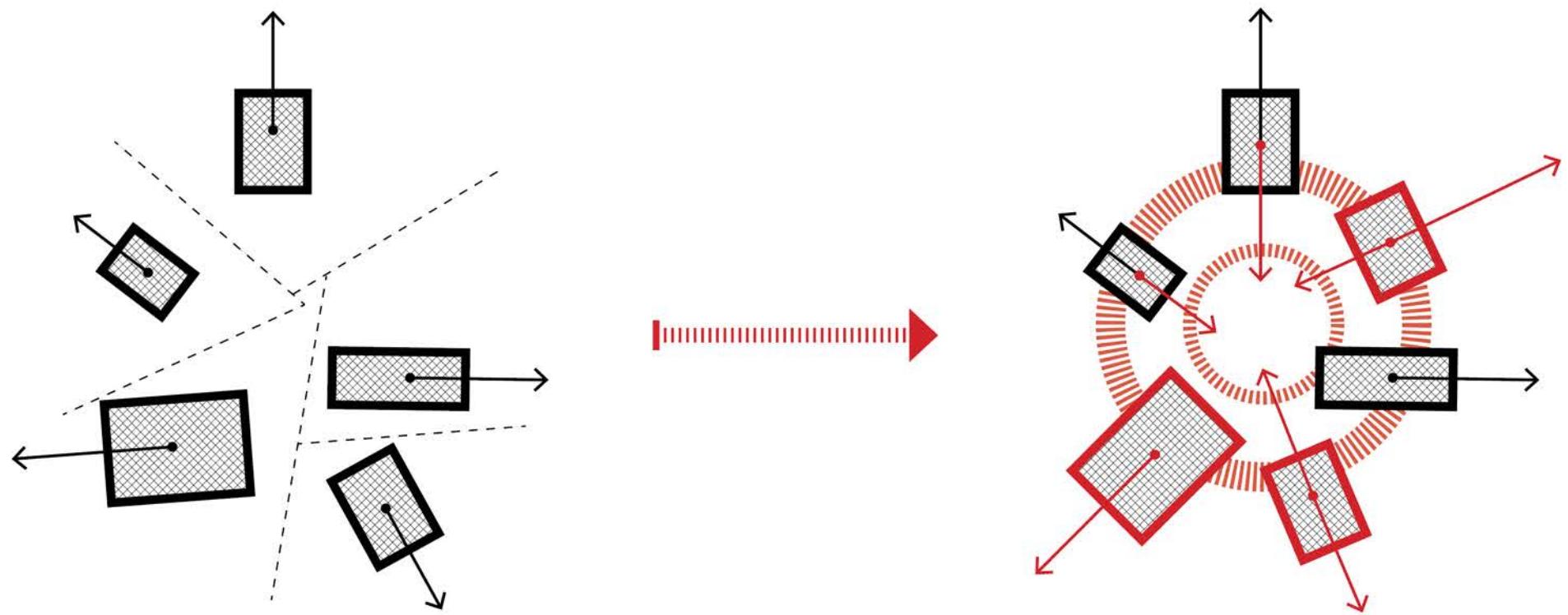
Barcelona Càndida Pérez Garden
Renovated in 2000s

CONCLUSION:LIVELY PERIMETER-COURTYARD STRUCTURE

A complete and well-articulated perimeter-courtyard structure plays an intermediate role in transition from urban space to more private realm. It's able to contribute to vibrant urban life by diverse programmes accomodated in the perimeter. It is where public life is fostered and where the interaction between people happens.

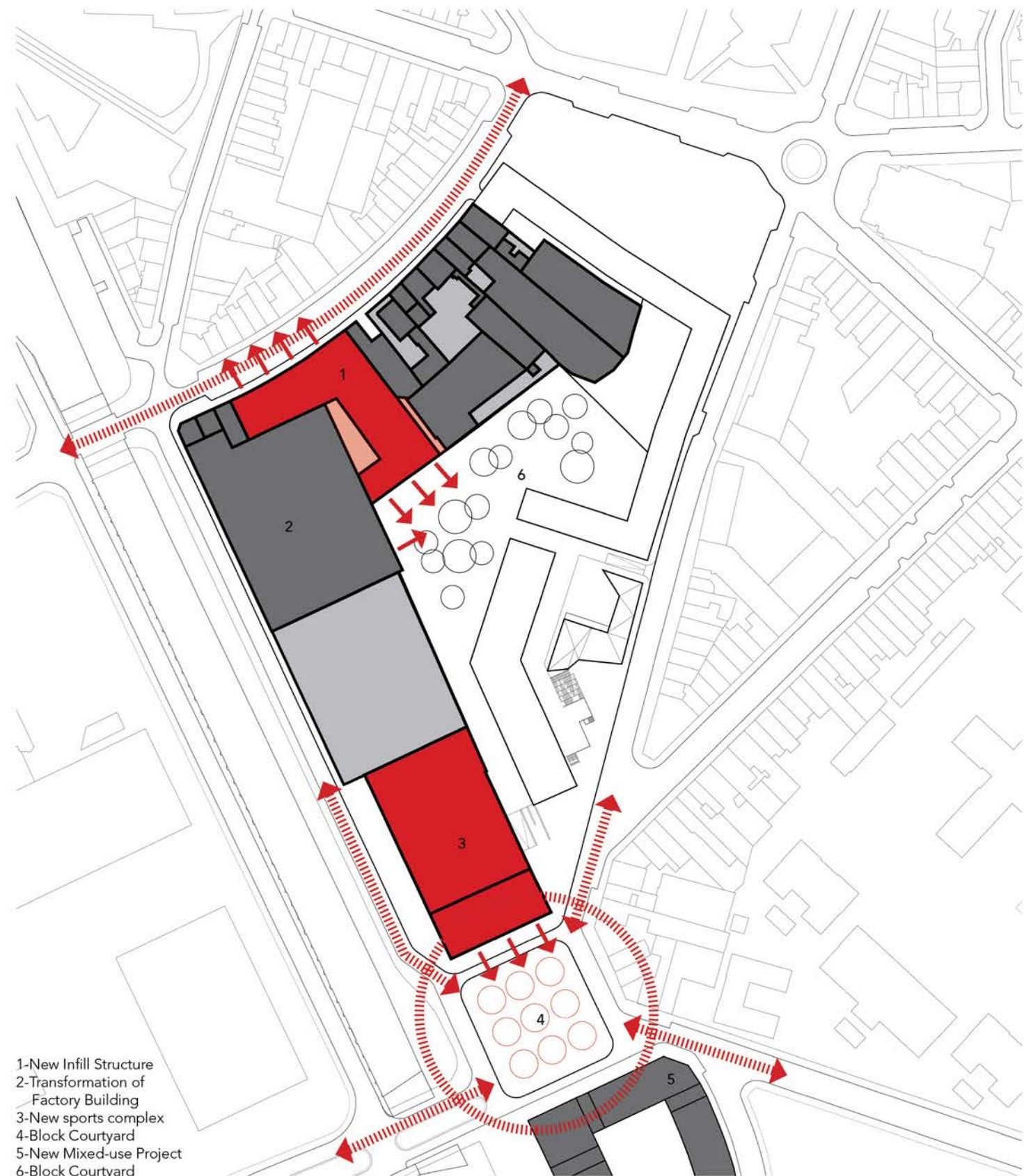


Site Block in Brussels
Proposal in 2020s



URBAN STRATEGY-REINSTATEMENT OF URBAN BLOCK

On the one hand, the fragement will be integrated into the restored block periphery and respond to surrounding conditions towards different directions. On the other hand, a central courtyard will be created and shared as much as possible by the fragments involved. Besides, the existing functions will be identified, analyzed. Some of them will be removed or relocated, others will be enhanced by adding something new. All of this is intended to bring fragments closer to each other as well as the block-defined urbanized area and reshape an intermediate urban element.



WEST-REORGANIZED PRODUCTIVE COMPLEX

1-NEW INFILL STRUCTURE.

The street facade and spatial experience on Rue des Bassins will be repaired.

2-TRANSFORMATION OF FACTORY BUILDING.

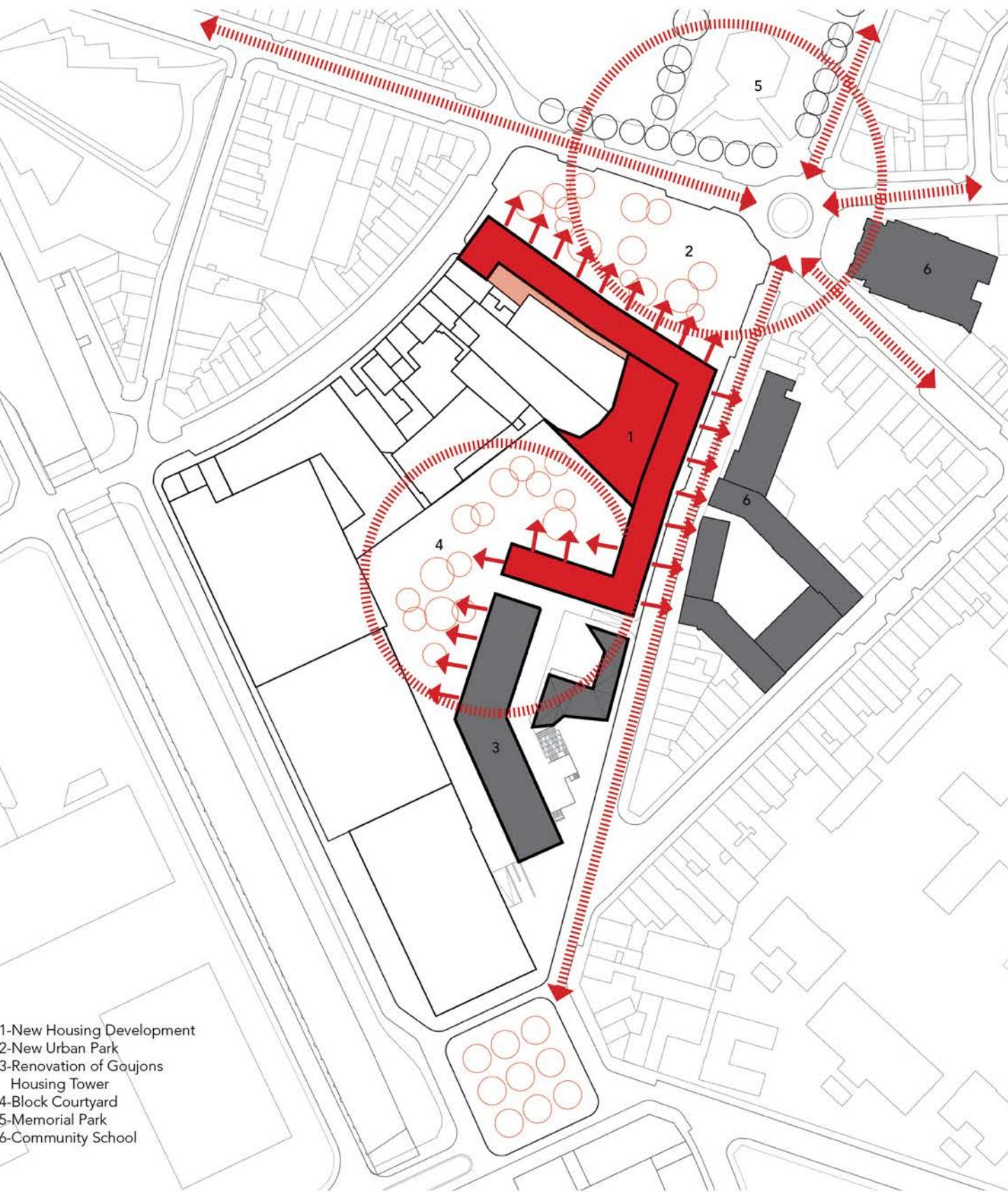
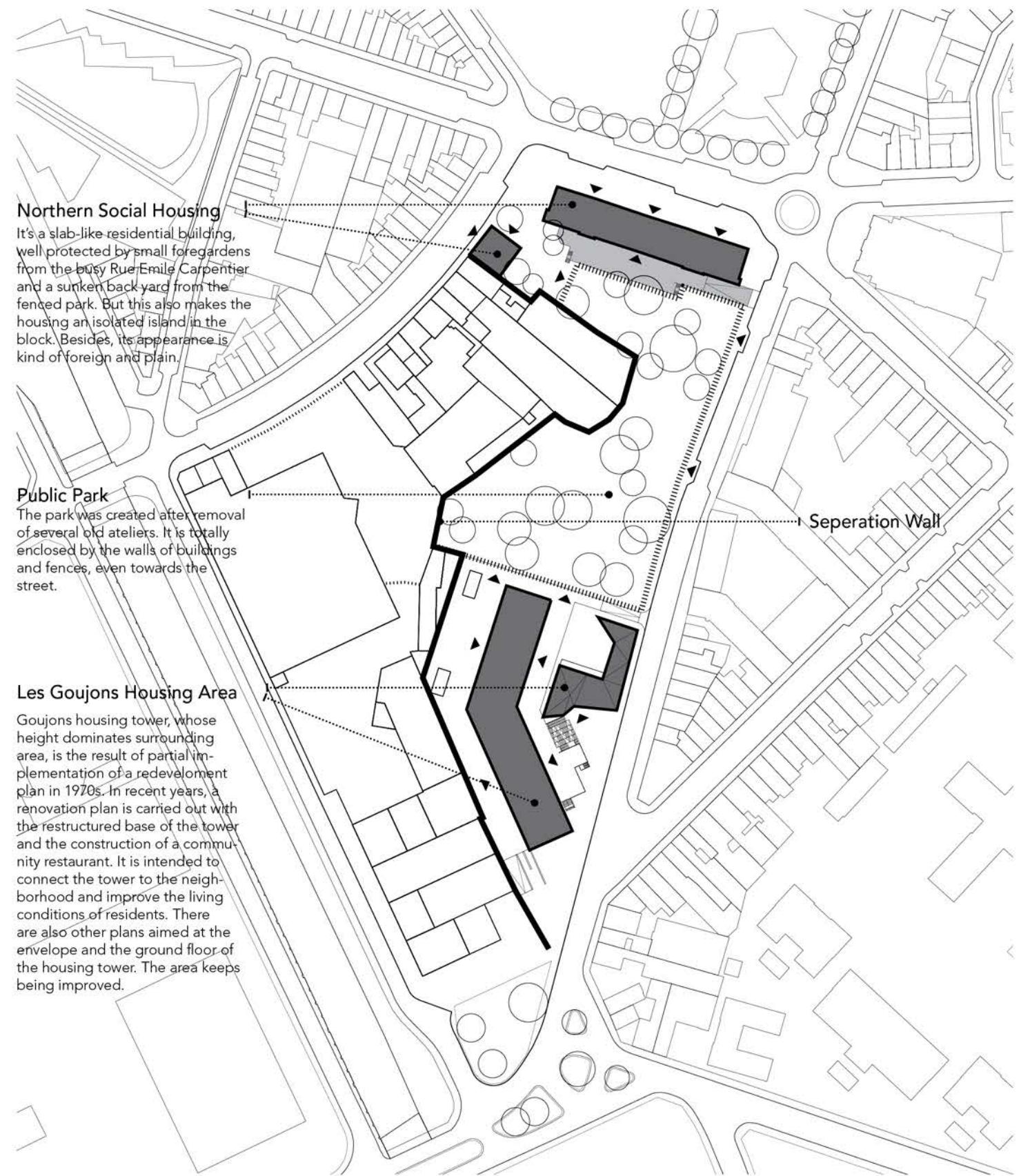
The existing factory building will be integrated with the new infill structure to form a productive complex, providing workshop spaces in various sizes, reorganized Rotor business and education programs as response to the social problem of high unemployment and demands of skilled workers

3-NEW SPORTS COMPLEX.

The existing indoor football club will be relocated to the south end of the block, where a sports complex with commerce on the ground floor and apartments on upper floors is proposed.

4-NEW URBAN SQUARE.

A new urban square will be defined by the new sports complex and the on-going mixed-use project in the south. It marks one of the main urban gates leading to the city center of Cureghem and provides a meeting and leisure place for residents.



EAST-NEW HOUSING & COMMUNITY COMPLEX

1-NEW HOUSING DEVELOPMENT.

The new housing development will define the urban park in the north and reshape Rue des Goujons in the east. It will provide several new community facilities and together with the existing ones, Rue des Goujons will be shaped as a lively community street.

2-NEW URBAN PARK

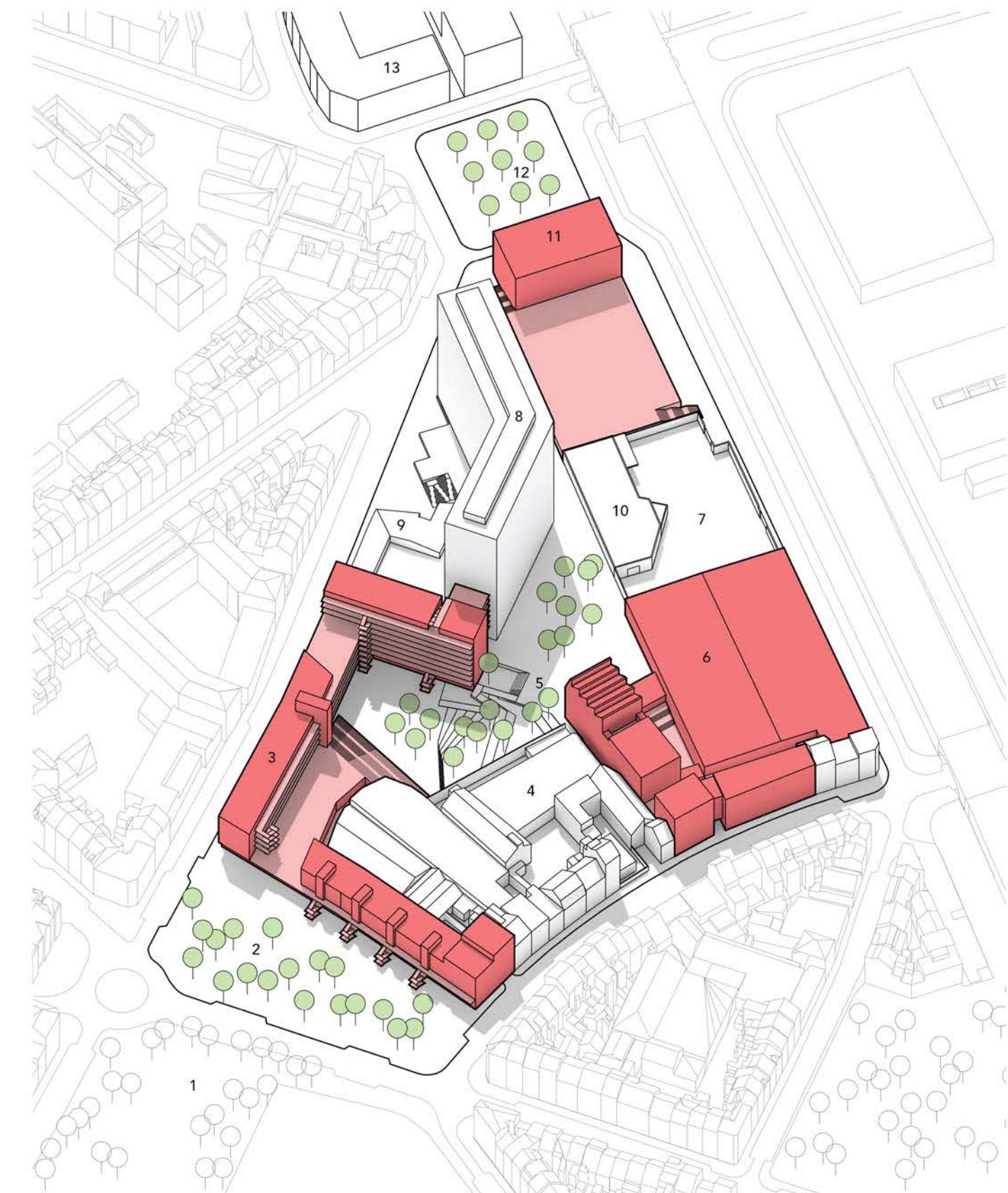
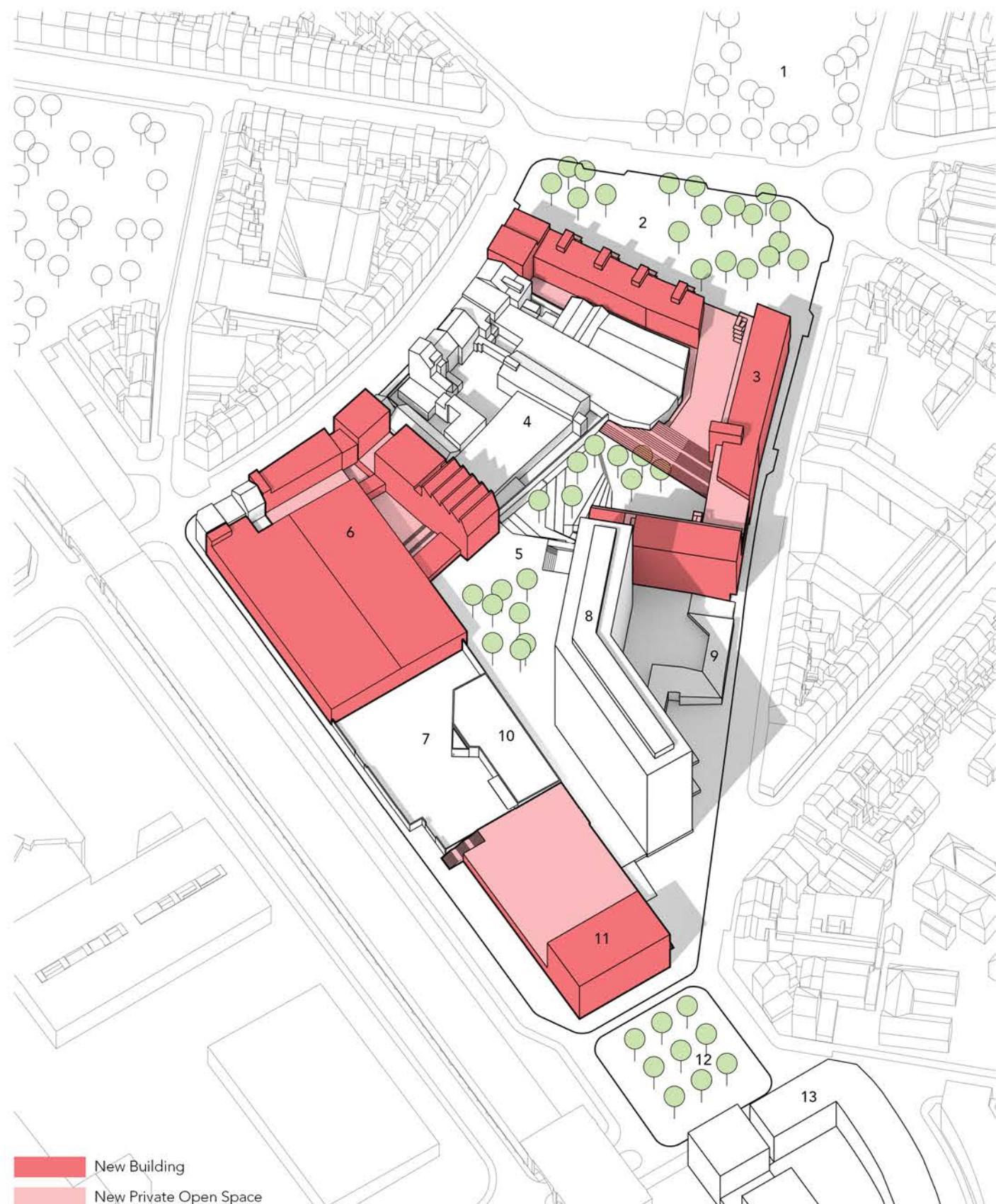
An open urban park will replace the northern social housing as compensation for the occupation of the former park by the new housing development. And together with the memory park across the street, a green background on one of the major routes to the city center is formed.

3-RENOVATION OF GOJONS HOUSING TOWER.

Goujons housing tower will be renovated to improve housing conditions and add more ground-floor common facilities. Also, it will incorporate the new housing development. And by the transitional building mass and consistent facade language, they will form a single gesture and connect the isolated tower back to the lower urban fabric.

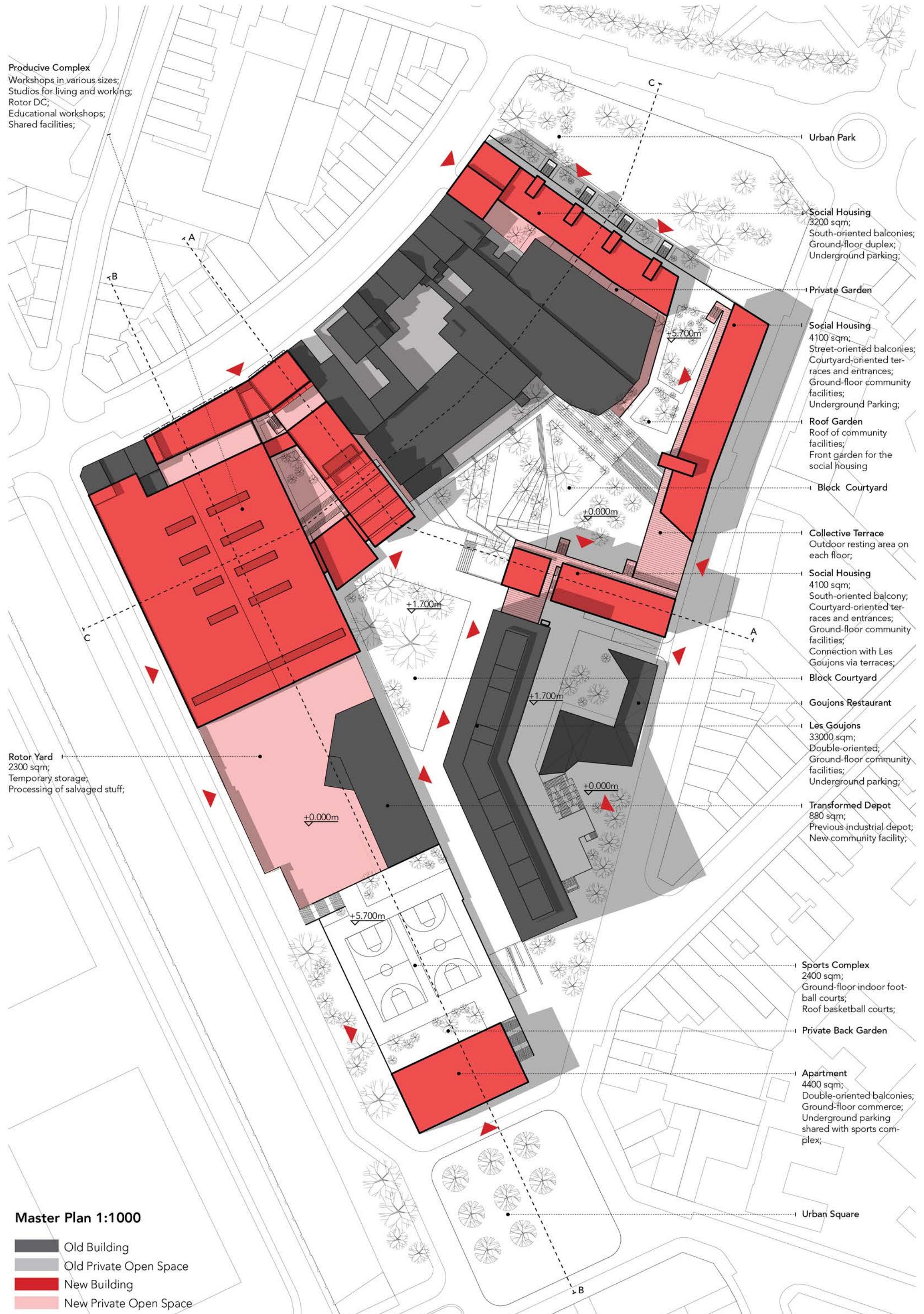
4-NEW BLOCK COURTYARD

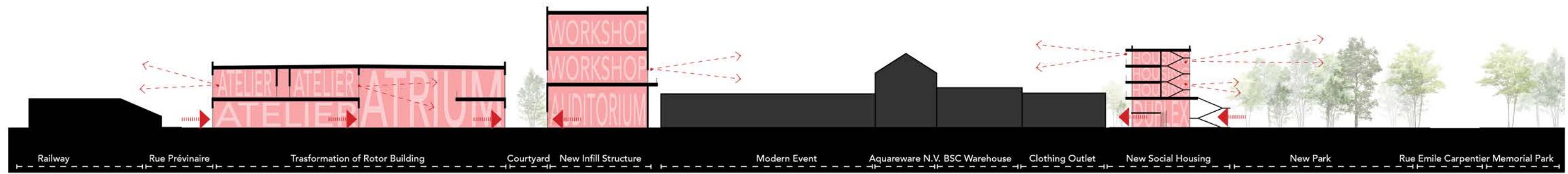
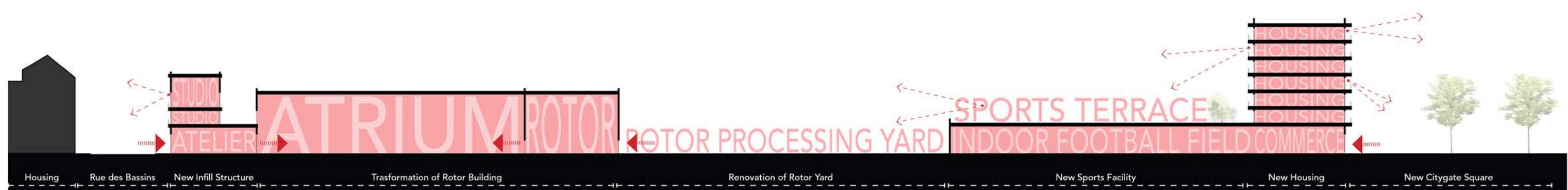
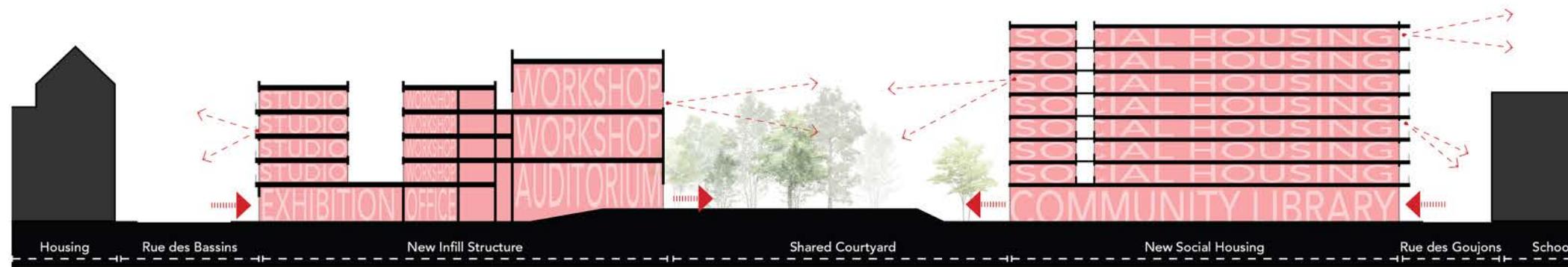
A courtyard is created in the center of the block, shared by both the living half and the working half.

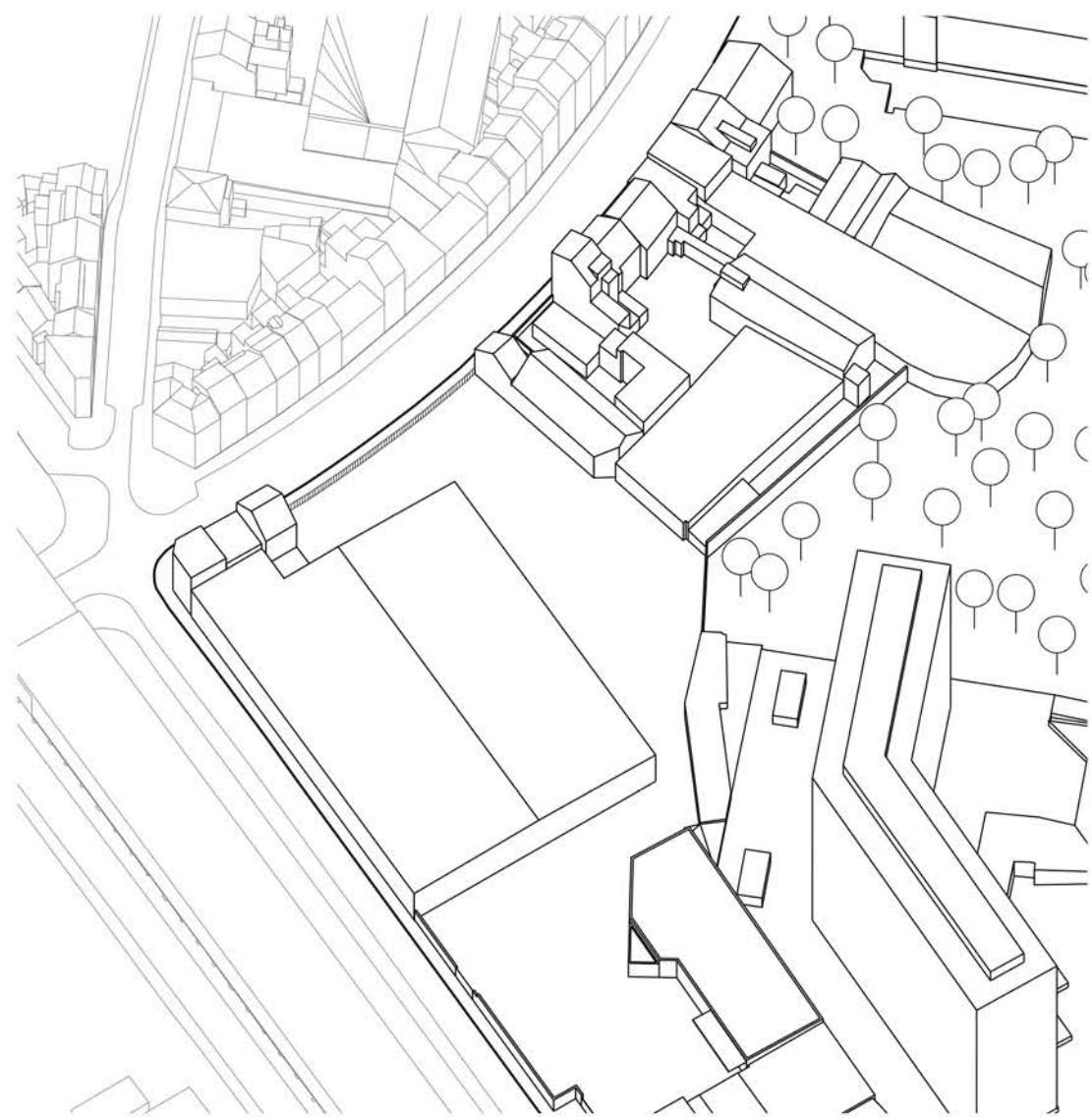


1-Existing Memorial Park; 2-New Urban Park; 3-New Social Housing with Community Service; 4-Existing Historical Urban Tissue; 5-New Block Courtyard; 6-New Productive Complex; 7-Existing Rotor DC's Courtyard; 8-Existing Goujons Social Housing Tower; 9-Existing Community Restaurant; 10-New Community Service in a Transformed Existing Factory Building; 11-New Sports Complex; 12-New Urban Park; 13-New Mix-use Development;

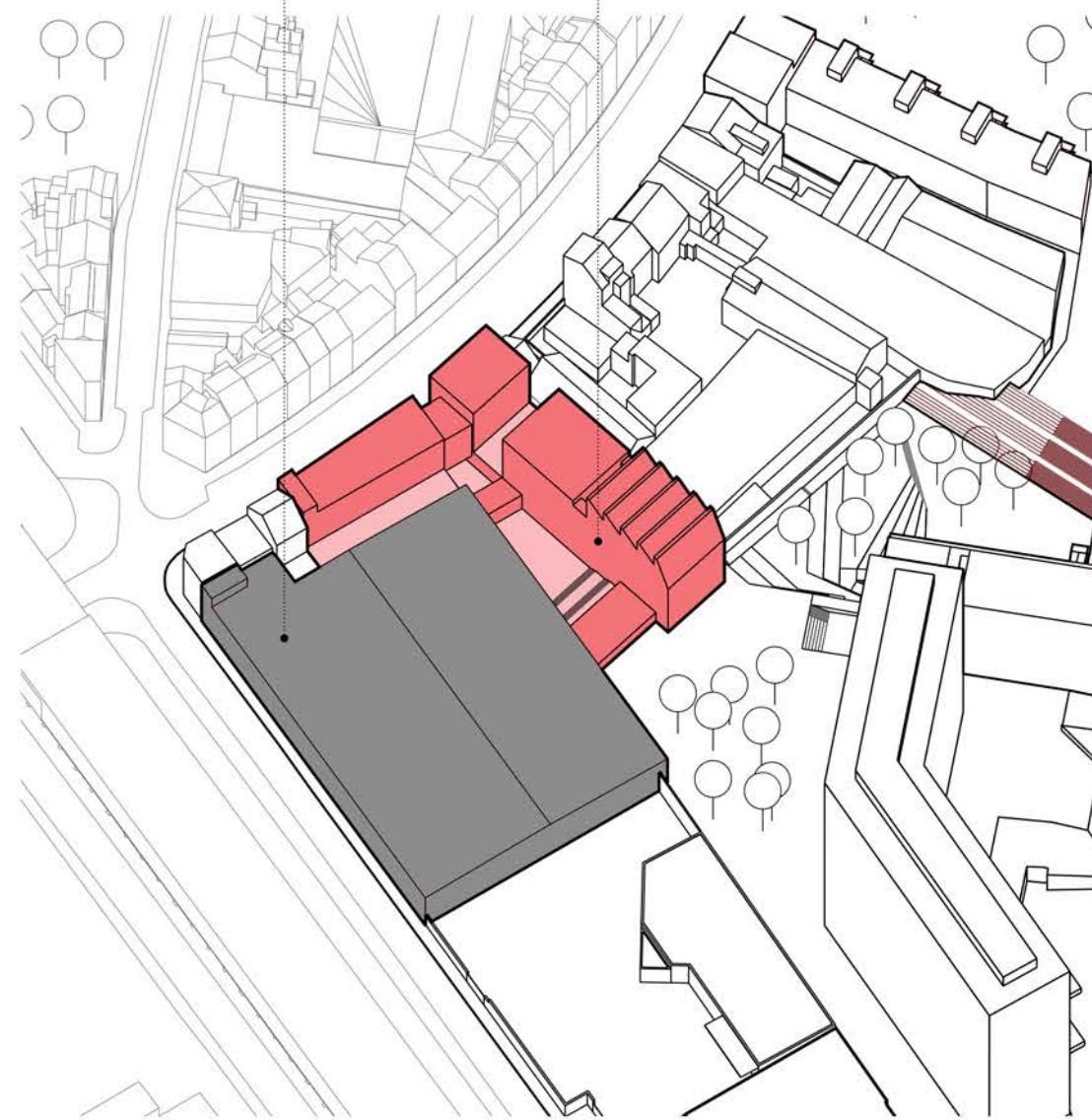
URBAN PROPOSAL-A REINSTATED URBAN BLOCK



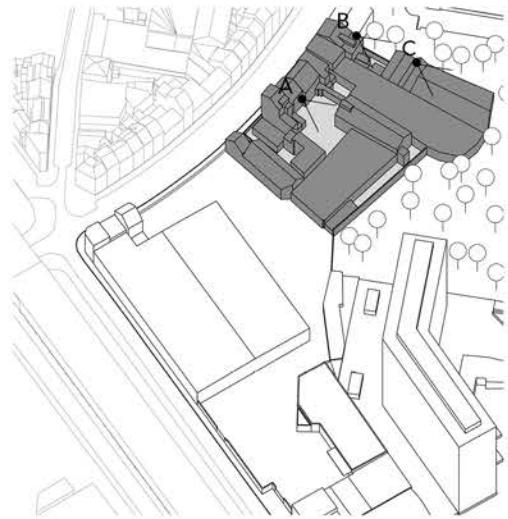




Transformed Factory Building New Infill Structure



PRODUCTIVE COMPLEX



VIEW A-Small open spaces scattered in the traditional urban tissue.
(photo taken by Xuanyu Liu)



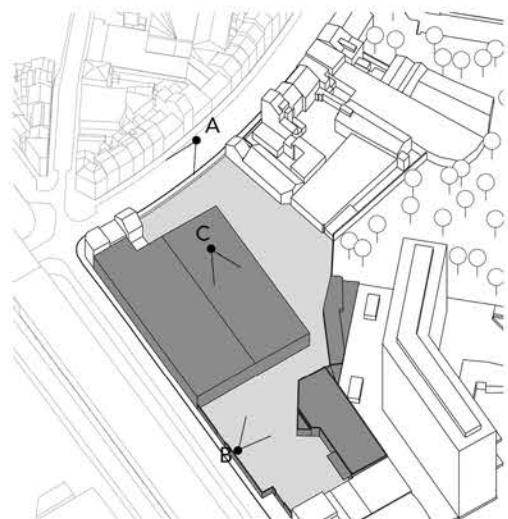
VIEW B-The entrance gate to the industrial structure in the depth of the block. (photo taken by Xuanyu Liu)



VIEW C-The deep space of the warehouse. (photo taken by Xuanyu Liu)

EXISTING PIECE OF TRADITIONAL URBAN TISSUE

Generally, the naturally developed urban tissue in Anderlecht is characterized by houses or narrow industrial facades along the street, various industrial structures in the depth of the block and courtyards interspersed for light, logistic, etc. Nowadays, with the removal of industry, the industrial structures are demolished, left vacant or transformed. In our site, the left urban tissue is now occupied by offices, warehouses, an artist studio and an event place. Though there is no more production activities, the area is still mixed and the industrial structures are fully reused.



VIEW A-The recessed factory building from Rue des Bassins. (photo taken by Xuanyu Liu)



VIEW B-The courtyard for processing and temporary storage. (photo taken by Xuanyu Liu)



VIEW B-The interior space with large-span steel skeleton. (photo taken by Xuanyu Liu)

EXISTING FACTORY BUILDING

The existing factory building was built in 2000s. After Leonidas company left, new tenants including Rotor DC, several workshops and an indoor football club moved in. They seem to form a working community, sharing some facilities like kitchen and even having collaboration sometimes. The problem is that the building and its yard are not fully reused or well-organized. However, the flexible and wide-span structure system as well as the vacant area offer potentials for transformation and optimization.

EXISTING CONTEXT FOR THE PRODUCTIVE COMPLEX



The courtyard and canteen open to the public. (photo taken by Xuanyu Liu)



The solid and modest mass with framed openings. (photo taken by Xuanyu Liu)



The lifted office courtyard. (photo taken by Xuanyu Liu)



The rough concrete mass with stepped overhangs. (photo taken by Xuanyu Liu)



The cosy back garden with stairs leading to terraces. (photo taken by Xuanyu Liu)



The display window showing production activities inside. (photo taken by Xuanyu Liu)



The secret and cosy back garden. (photo taken by Xuanyu Liu)



The back yard for logistic and parking. (photo taken by Xuanyu Liu)



The stepped south-oriented terraces. (photo taken by Xuanyu Liu)



Light interior with full-height glazing. (photo taken by Xuanyu Liu)

EXROPRINT

Exrotaprint is a self-organized working community transformed from the former Rotaprint printing press manufacturing plant. It serves a heterogeneous mix of uses for work, art and community and affordable rents for all. The openness is one of the most fundamental principle, so that it is a working community connected to the neighborhood rather than just a isolated working plant. Also, spatial openness allows for more direct display of ateliers' working to potential customers.

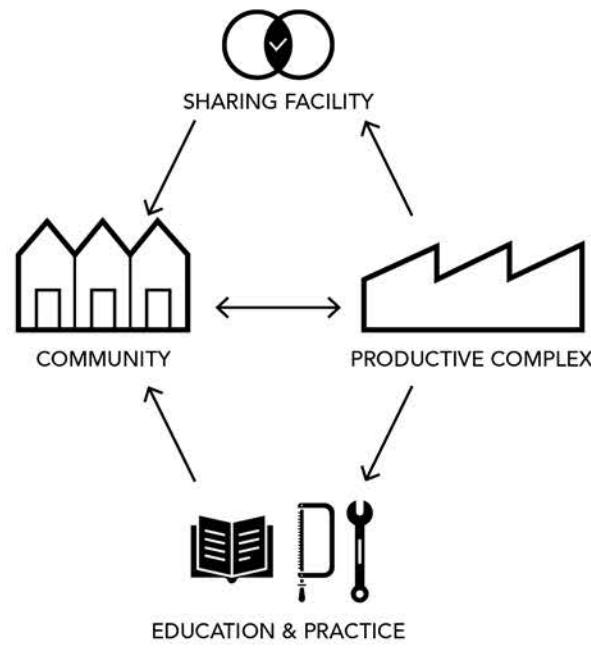
AUFBAU HAUS

The two-phase construction of Aufbau Haus incorporates a former piano factory and restores the structure of an urban block. It is now a complex combining cultural institutions, creative business and housing. Three courtyards assigned to different purposes features in the complex.

TERRASSENHAUS

Terrassenhaus is a robust concrete structure offering space for commercial use, workshops and dwellings. The staggered levels creates a deep terrace on each level and a semi-public space on the ground floor. Two external stairs connect the private terraces and the common back garden as well as the shared roof space. The depth of each unit is various due to the stepped gesture, and the programmes are aligned with the depth and the subsequent amount of light.

INSPIRATION FROM BERLIN CASES



- The productive complex offers flexible and various working spaces
- The community provides living space for people working in the productive complex; the productive complex in turn offers working space for people living around.
- The productive complex accommodates facilities and spaces shared with the community.
- The productive complex provides craft education programs and practice opportunities for the young people and unemployed people.

INTEGRATION INTO THE RESIDENTIAL COMMUNITY



Nick McDonald's Furniture Workshop (source: <https://www.homestolove.com.au/made-by-morgen-home-and-studio-5359>)



WeWork 1775 Tysons Blvd in Washington, D.C. (source: <https://www.wework.com/ideas/office-design-space/10-best-coworking-spaces-in-washington-d-c>)



New Aarhus School of Architecture. (source: <https://www.archdaily.com/867402/emerging-architects-vargo-nielsen-palle-beat-out-big-sanaa-in-new-aarhus-school-of-architecture-competition>)

INDIVIDUAL ATELIERS/WORKSHOPS

- provide individual living and working spaces in various sizes for design studios, craftsmen and individual artists;
- provide skill training and practice in the productive workshops or the specialized education space;

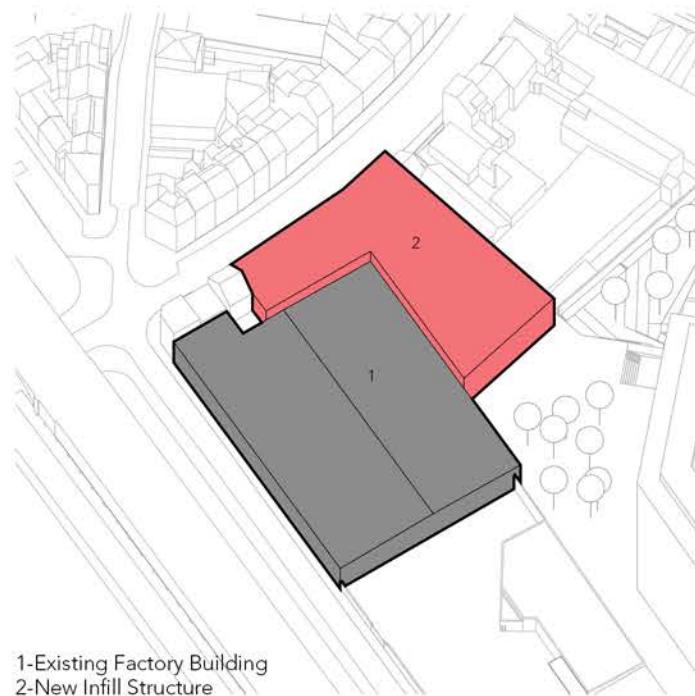
COWORKING OFFICE

- provide shared working spaces for start-ups, individual designers, etc;

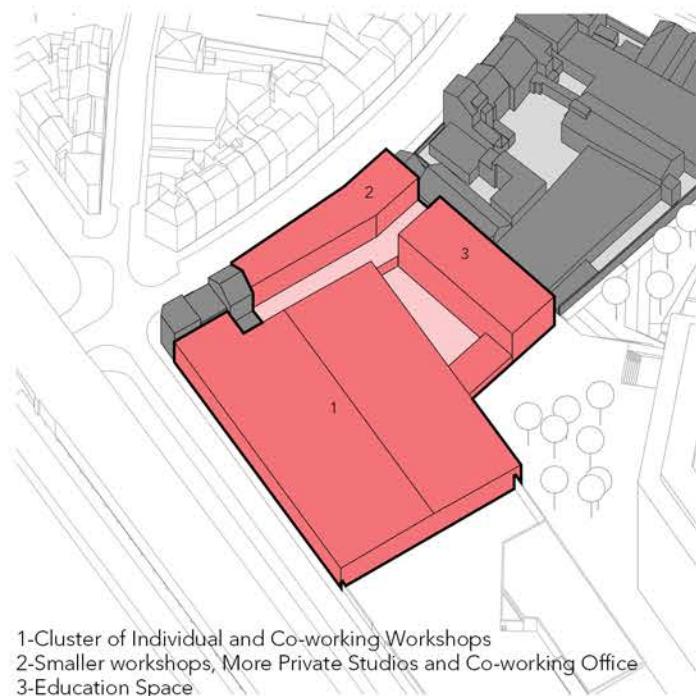
COWORKING ATRIUM

- allow for temporary occupation as extended working space of individual workshops;
- provide shared working space and facilities for trainees and individual designers to achieve their ideas;

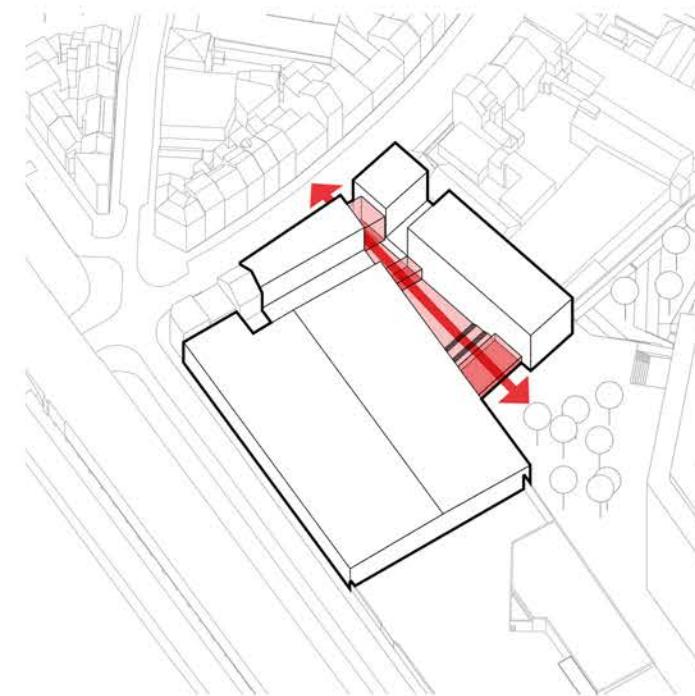
VARIETY OF WORKING SPACES



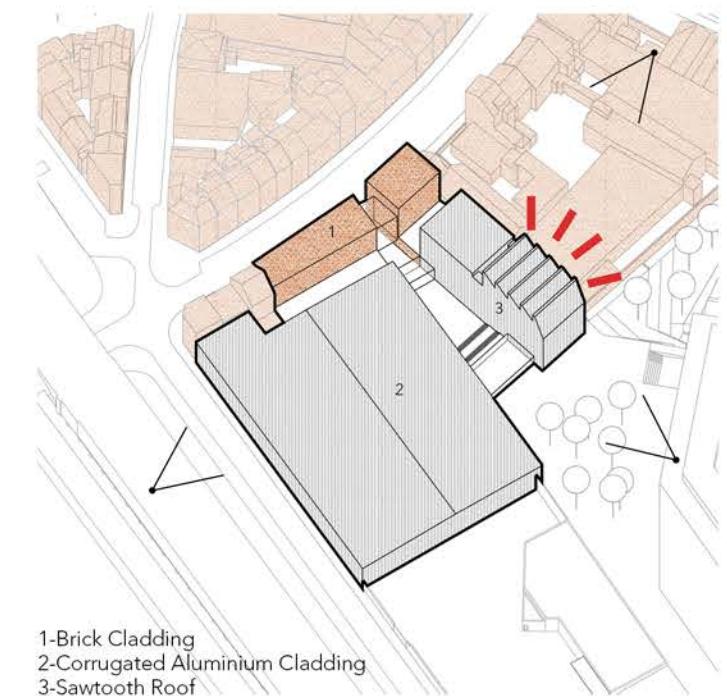
OLD AND NEW
The proposed productive complex will integrate a new infill structure and the existing factory building



MASS AND COURTYARD
Courtyards are created to separate the complex into three main volumes according to programme arrangement, and the programmes are organized responding to existing conditions.
1- The existing factory building accommodates larger workshops and shared working spaces, making the best of its flexible and large-span steel skeleton;
2- Smaller workshops and more private studios are organized along the residential street, allowing for an exterior presentation in a residential scale;
3- Education space are put in the rear and well-connected to the working area;

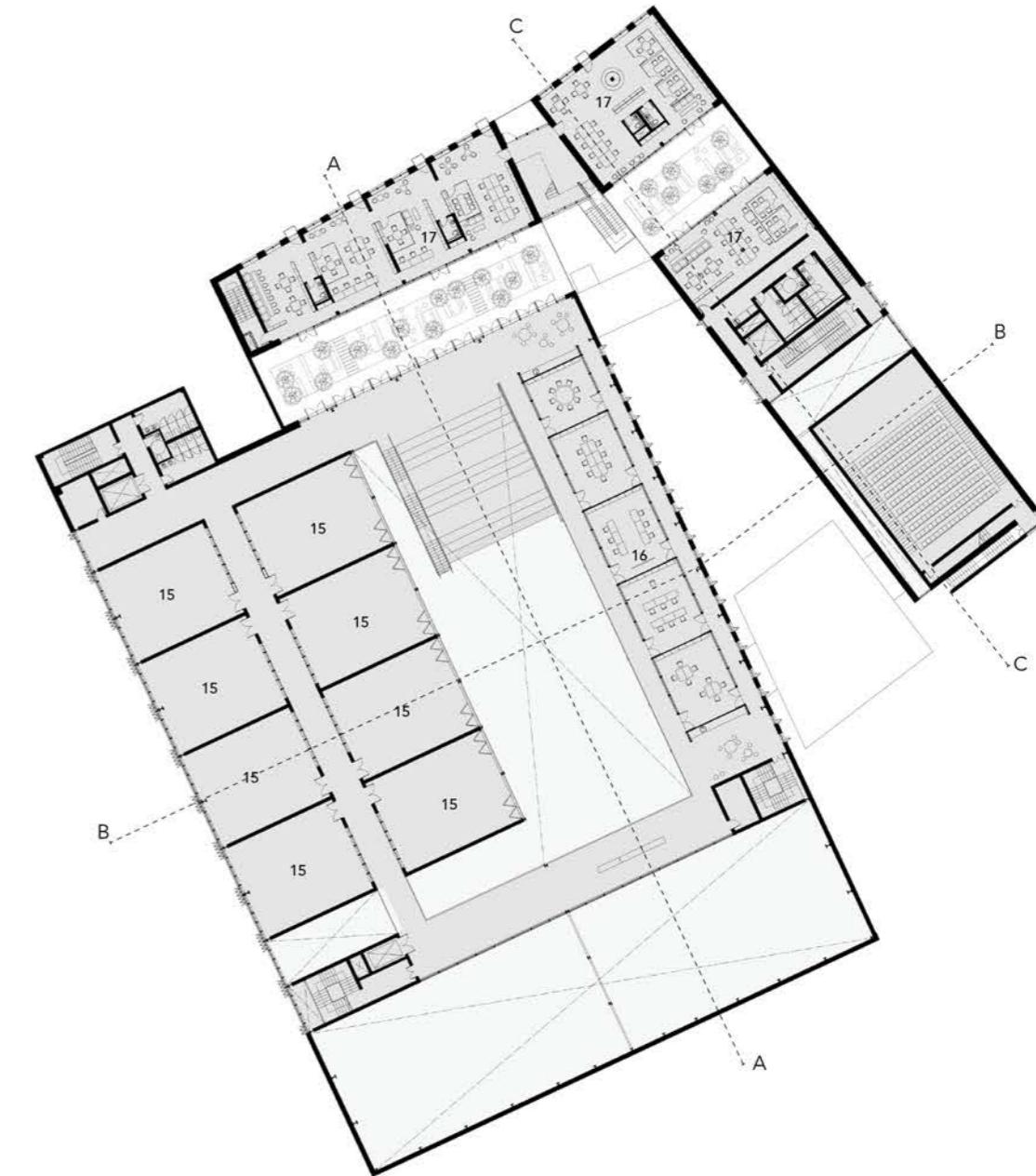
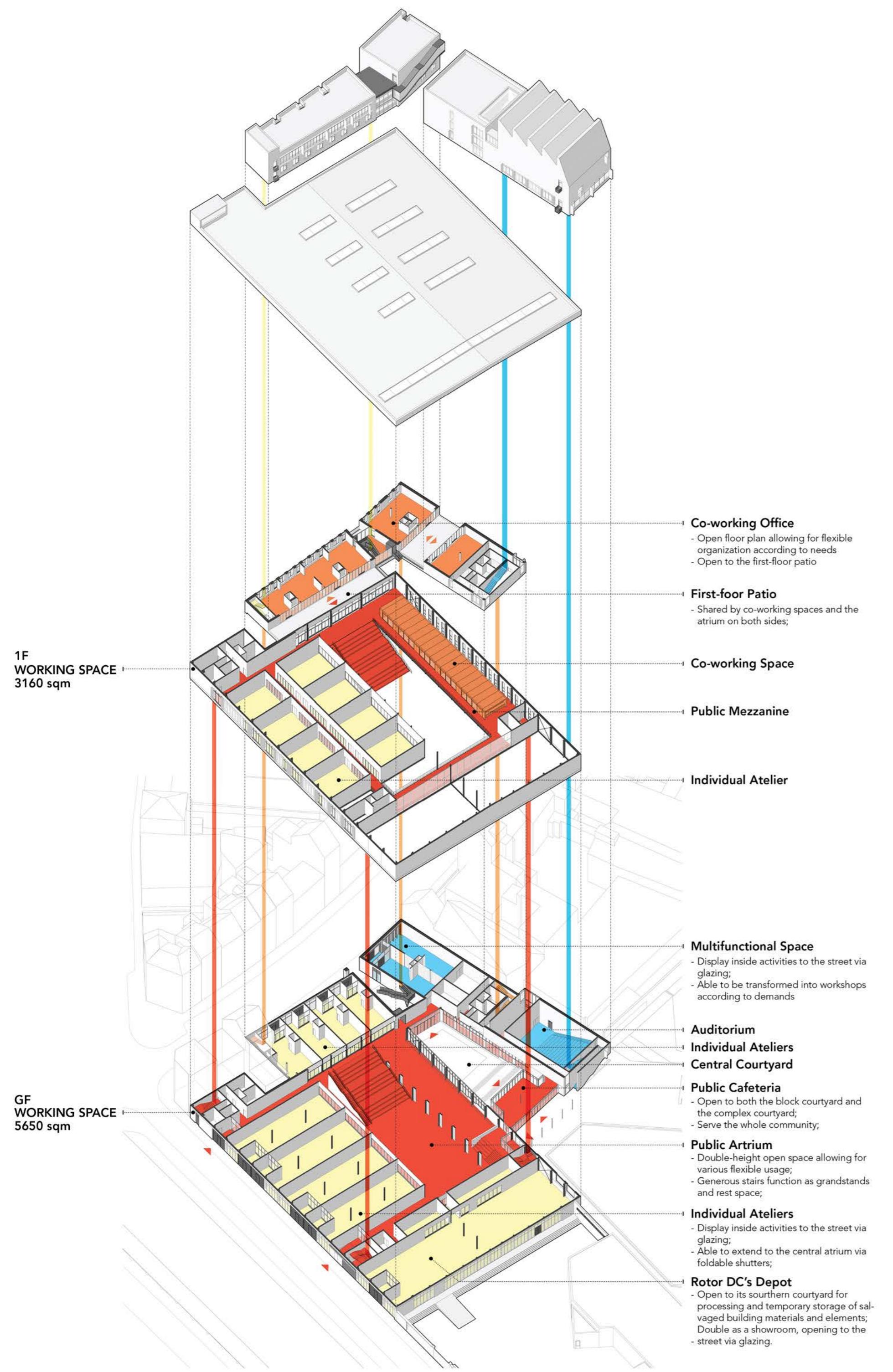


PUBLIC AXIS
A public axis is strengthened and leads all the way from the street to the block courtyard with main entrances to the three volumes and public spaces arranged along it.

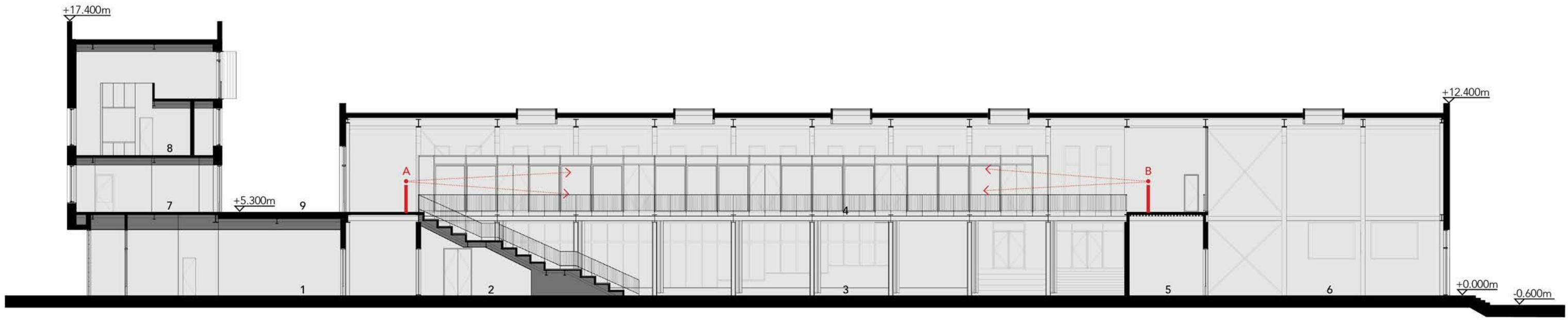


CHARACTERISTIC OF PRODUCTION
1- The front building is clad in brick to blend in the traditional residential context;
2- The other two volumes are wrapped up with corrugated aluminium sheets, unveiling their characteristic of production;
3- The sawtooth roof at the highest point is visible to the surrounding community and strengthens the production characteristic;





1-Atelier (each 270sqm); 2-Atelier (each 120sqm); 3-Fab Lab (90sqm); 4-Common Workshop Area (350sqm); 5-Public Atrium; 6-Rotor DC's Staff Area (60sqm); 7-Rotor DC's Repairing Atelier (90sqm); 8-Rotor DC's Depot (810sqm); 9-Multifunctional Space (260sqm); 10-Storage (50sqm); 11-Staff Area (30sqm); 12-Auditorium (210sqm); 13-Kitchen (90sqm); 14-Public Cafeteria (140sqm); 15-Atelier (each 120sqm); 16-Common Working Room (260sqm); 17-Coworking office (540sqm)



SECTION A-A

1- Atelier; 2-Fab Lab; 3-Atrium; 4-Mezzanine; 5- Rotor DC's Repair Workshop; 6-Rotor DC's Depot; 7-Coworking Office; 8-Duplex Studio; 9-Patio;

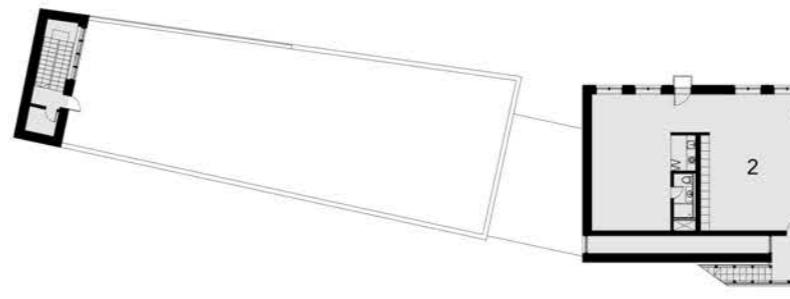
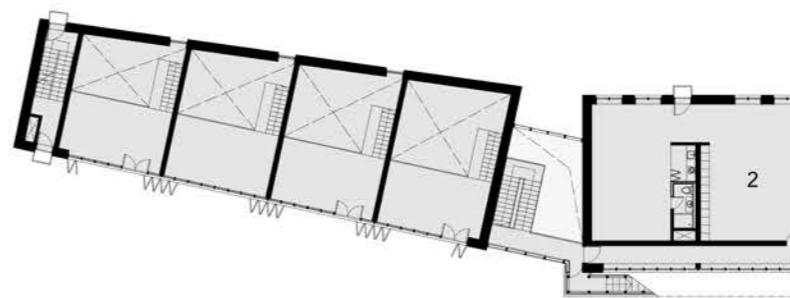
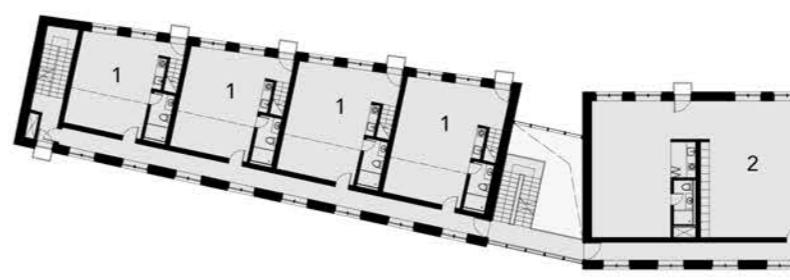
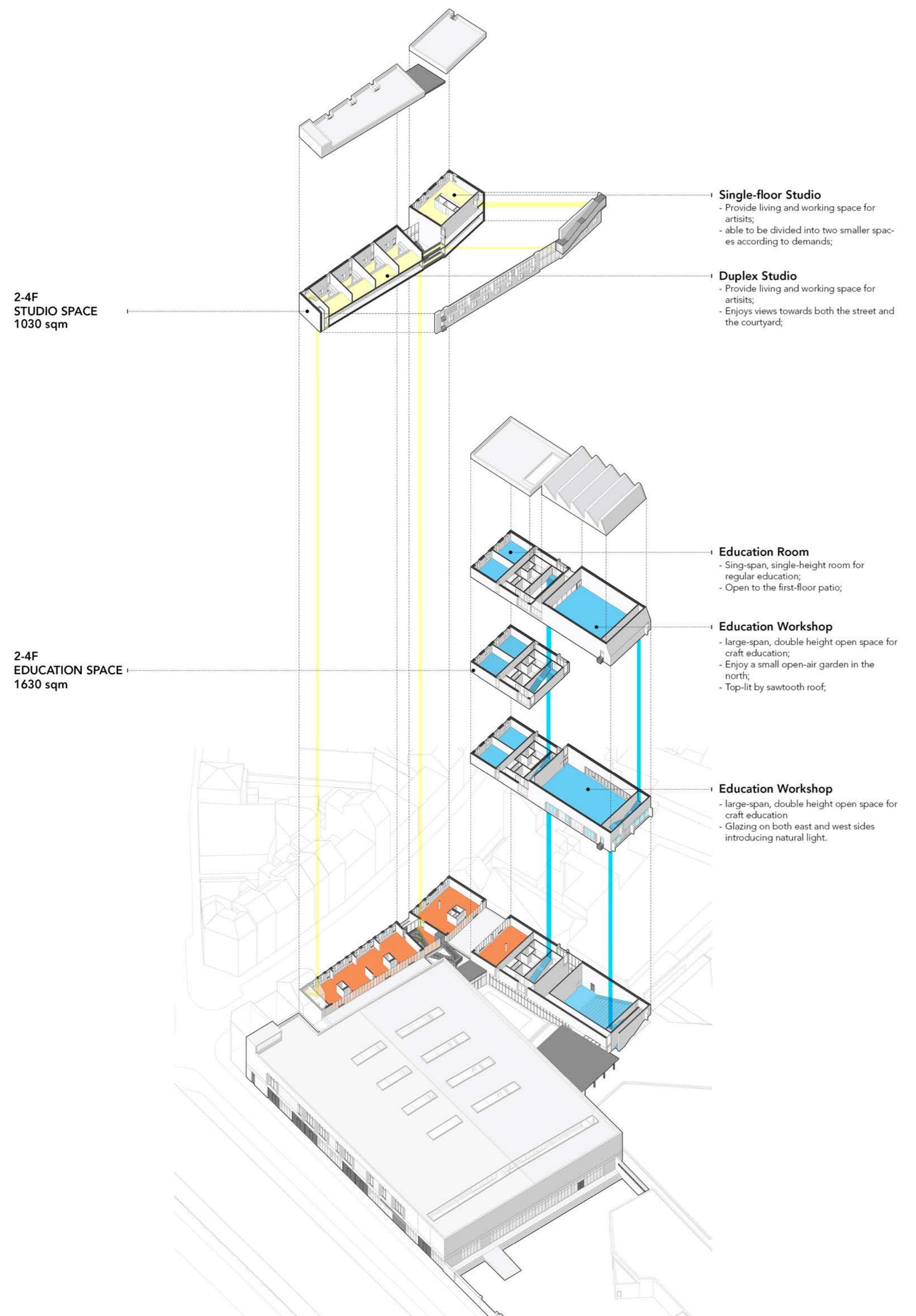


VIEW A

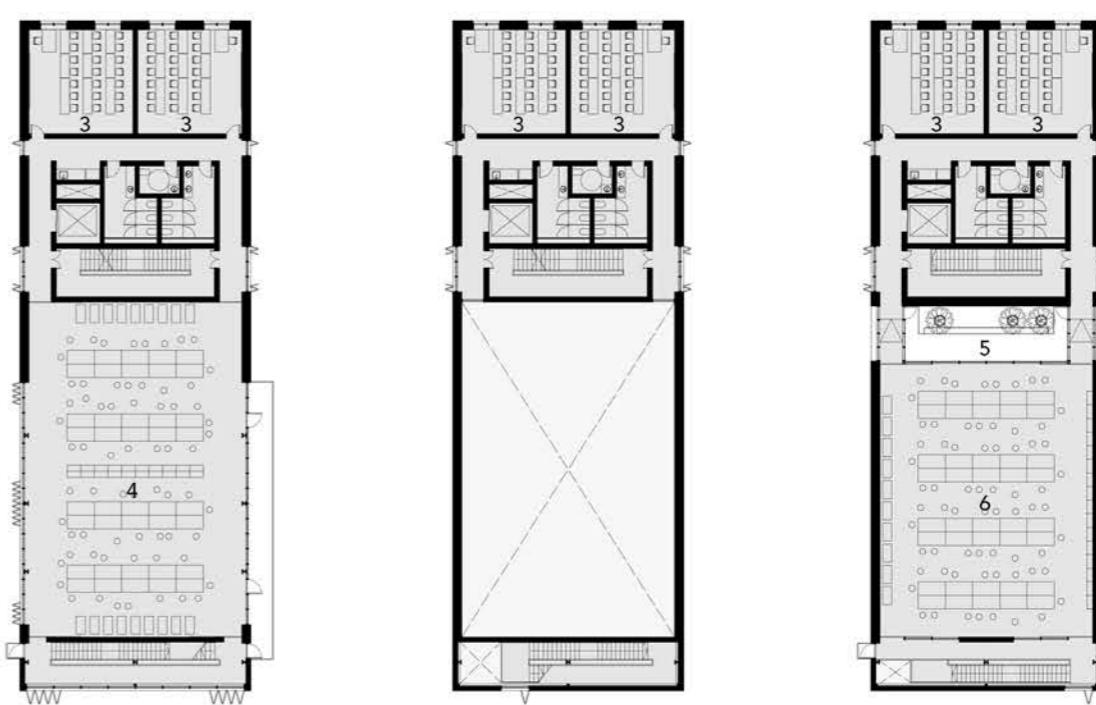


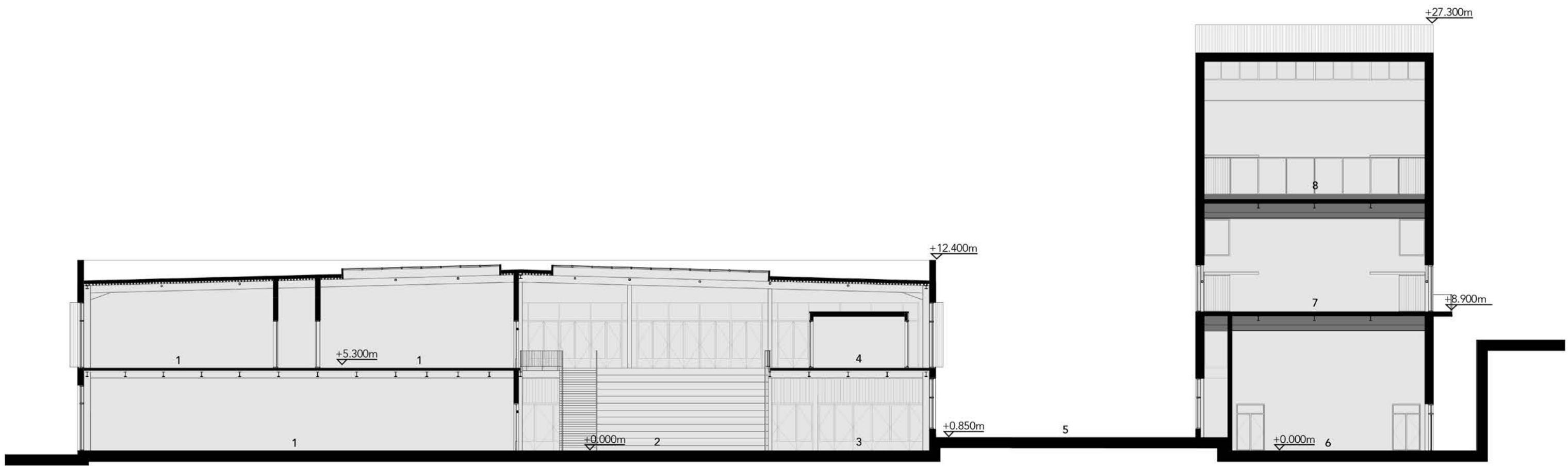
VIEW B

COMBINATION OF OLD AND NEW IN THE ATRIUM



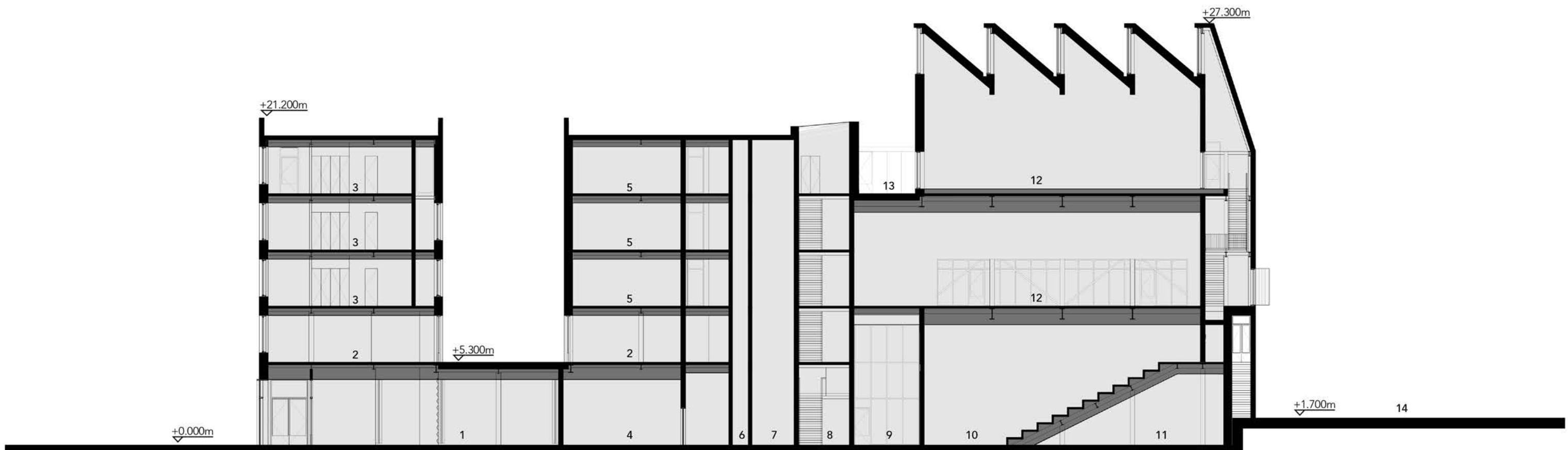
STUDIO SPACE 2F-4F PLAN





SECTION B-B

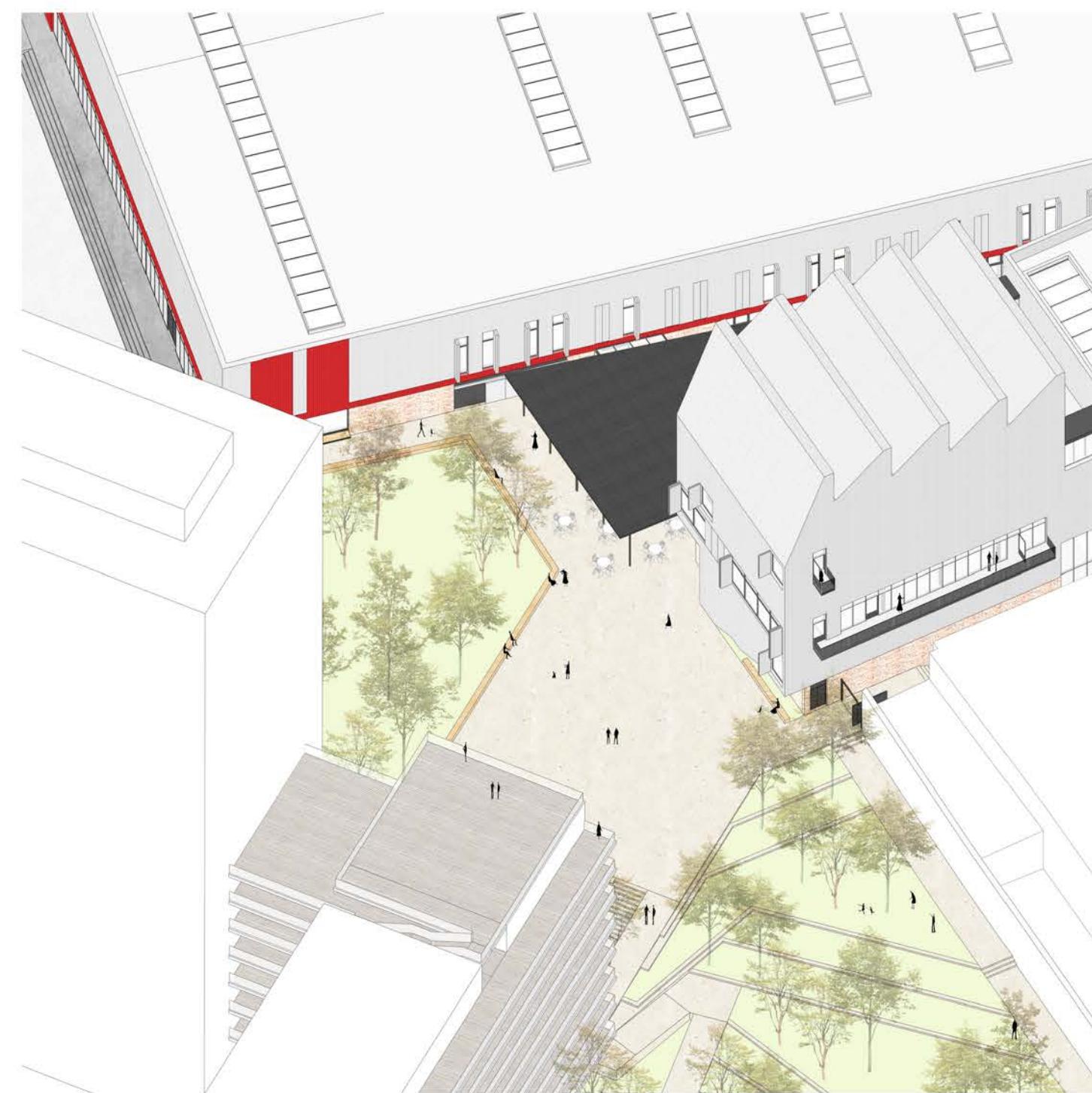
1- Atelier; 2-Atrium; 3-Common Workshop Space; 4-Coworking Office; 5-Courtyard; 6-Auditium; 7-Education Workshop;



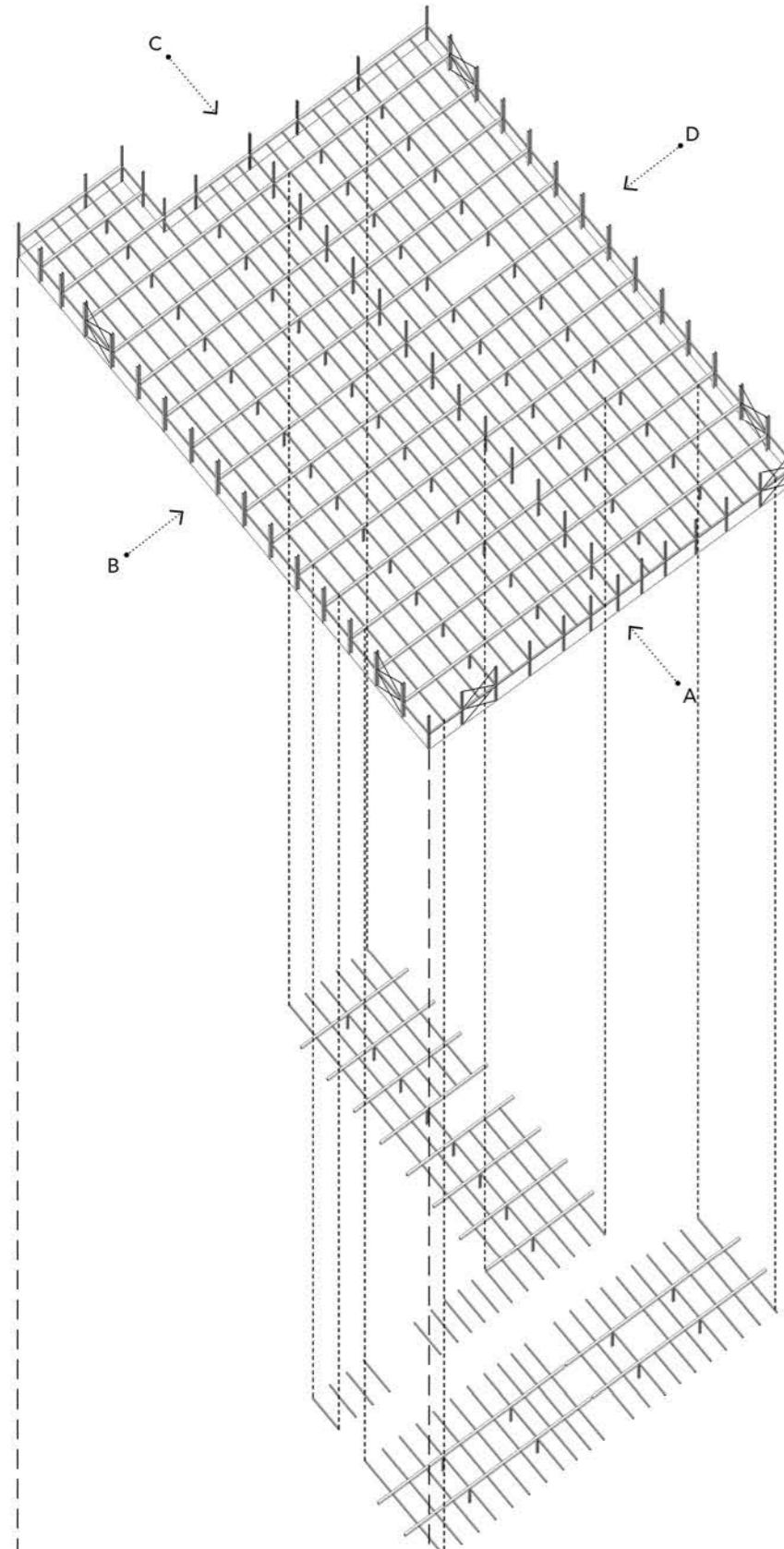
SECTION C-C

1- Multifunctional Space; 2-Coworking Office; 3-Studio; 4-Staff Area; 5-Classroom; 6-Ventilation Shaft; 7-Elevator Shaft; 8-Stairs; 9-Hall; 10-Auditorium; 11-Kitchen; 12-Education Workshop; 13-Roof Garden; 14-Block Courtyard

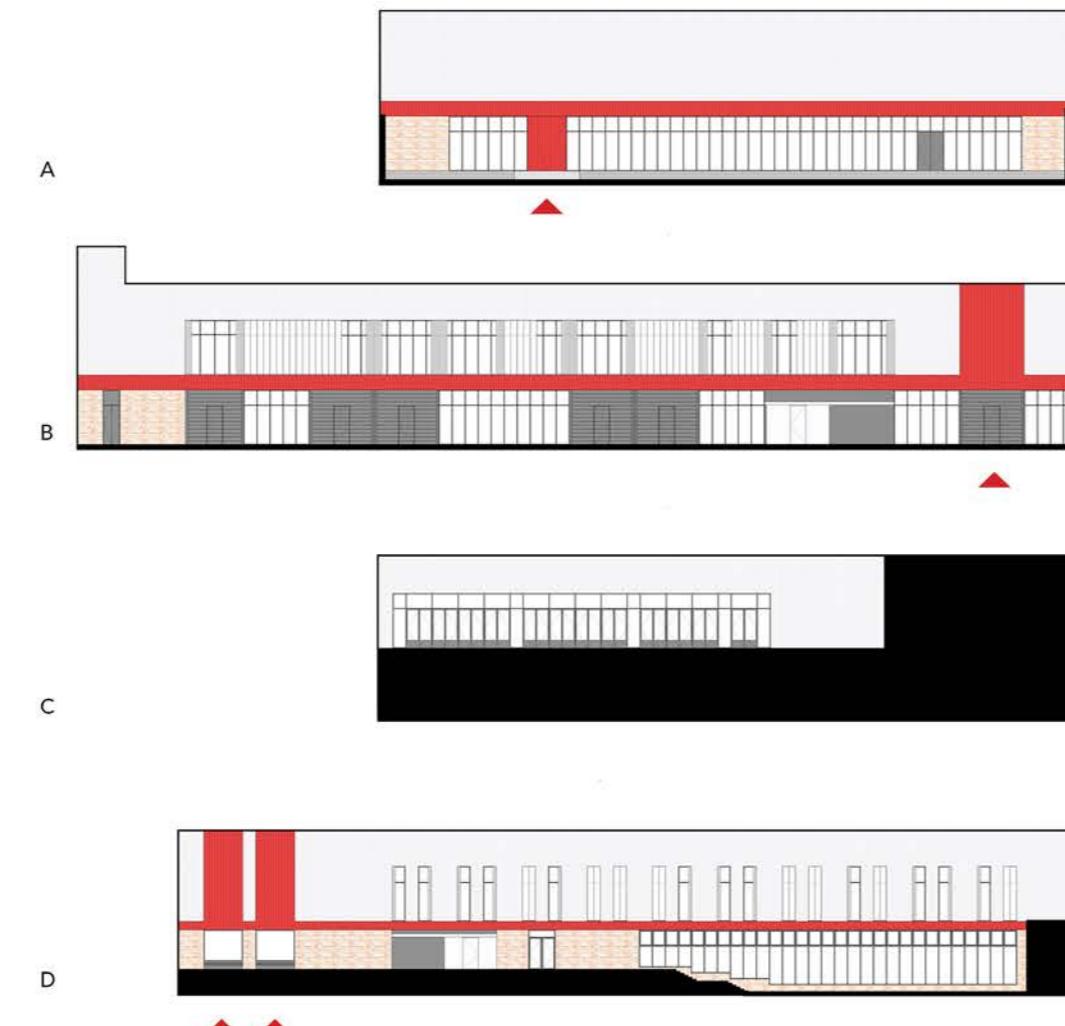




EXISTING EXTERIOR FACADES



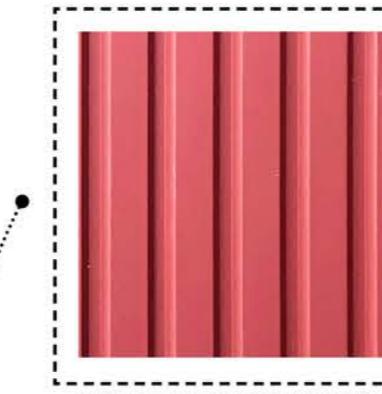
RECONSTRUCTED EXTERIOR FACADES



Some of the beams and columns are removed to create double-height space for the atrium and Rotor DC's depot

The reclaimed corrugated sheets contrasts with new ones on the facade. They extend the full length of the facades and highlighted the openings, both main entrances and viewing windows, to Rotor DC's Depot.

EXISTING FACADE MATERIALS



CORRUGATED ALUMINUM
The existing corrugated aluminum in red color implies the interior production space and blends with the surrounding brick houses to some extent.

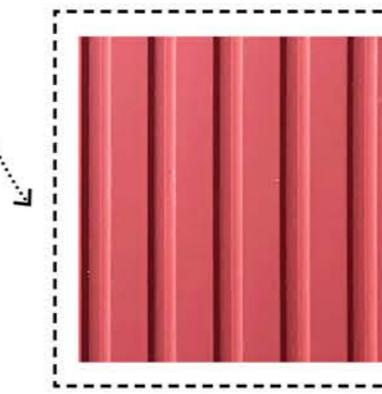


BRICK
The existing brick facade was laid with cement-based mortar, which makes it inefficient and uneconomical to recycle the bricks.



AERATED CONCRETE PANEL
The aerated concrete panels are a simple and cheap choice for facades of an industrial building, but not efficient in terms of thermal insulation.

NEW PALETTE OF FACADE MATERIALS



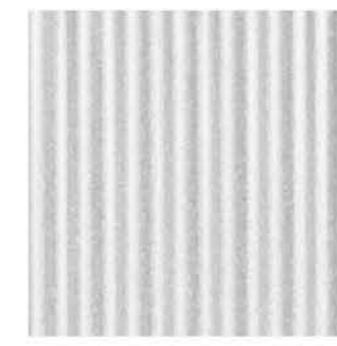
RECLAIMED CORRUGATED ALUMINUM



STRUCTURAL INSULATION PANEL
The sustainable and economical SIP provides high thermal insulation and attaches the facade materials to the load-bearing structure.

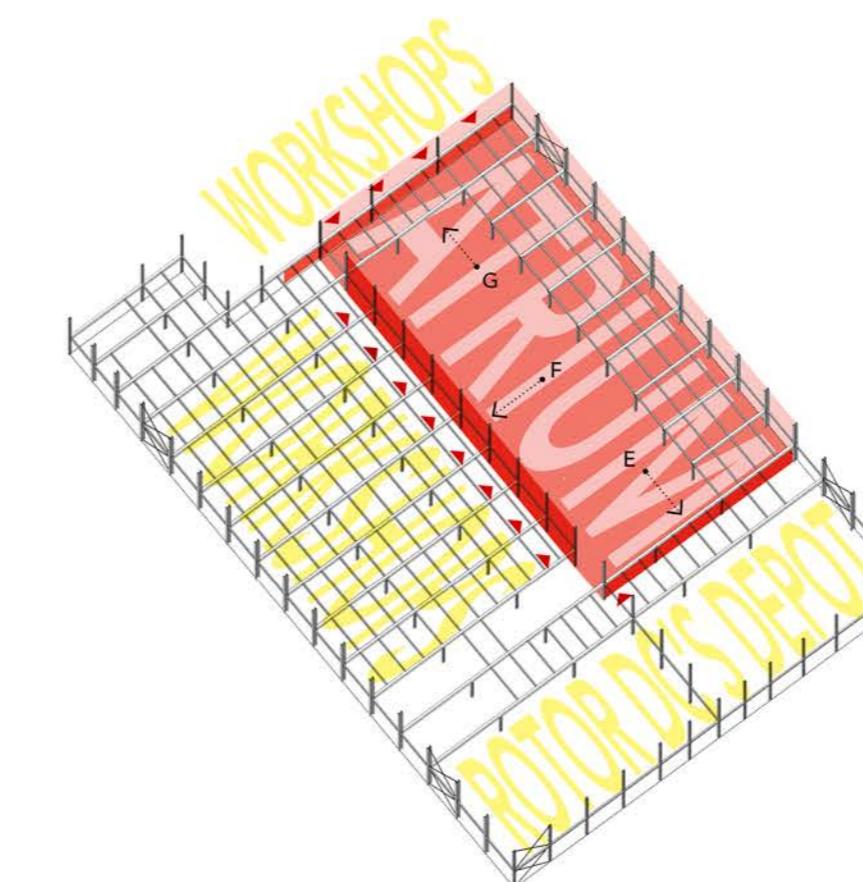


RECLAIMED BRICK
The reclaimed brick is more economical than new one and lends a sense of patina to the new building.



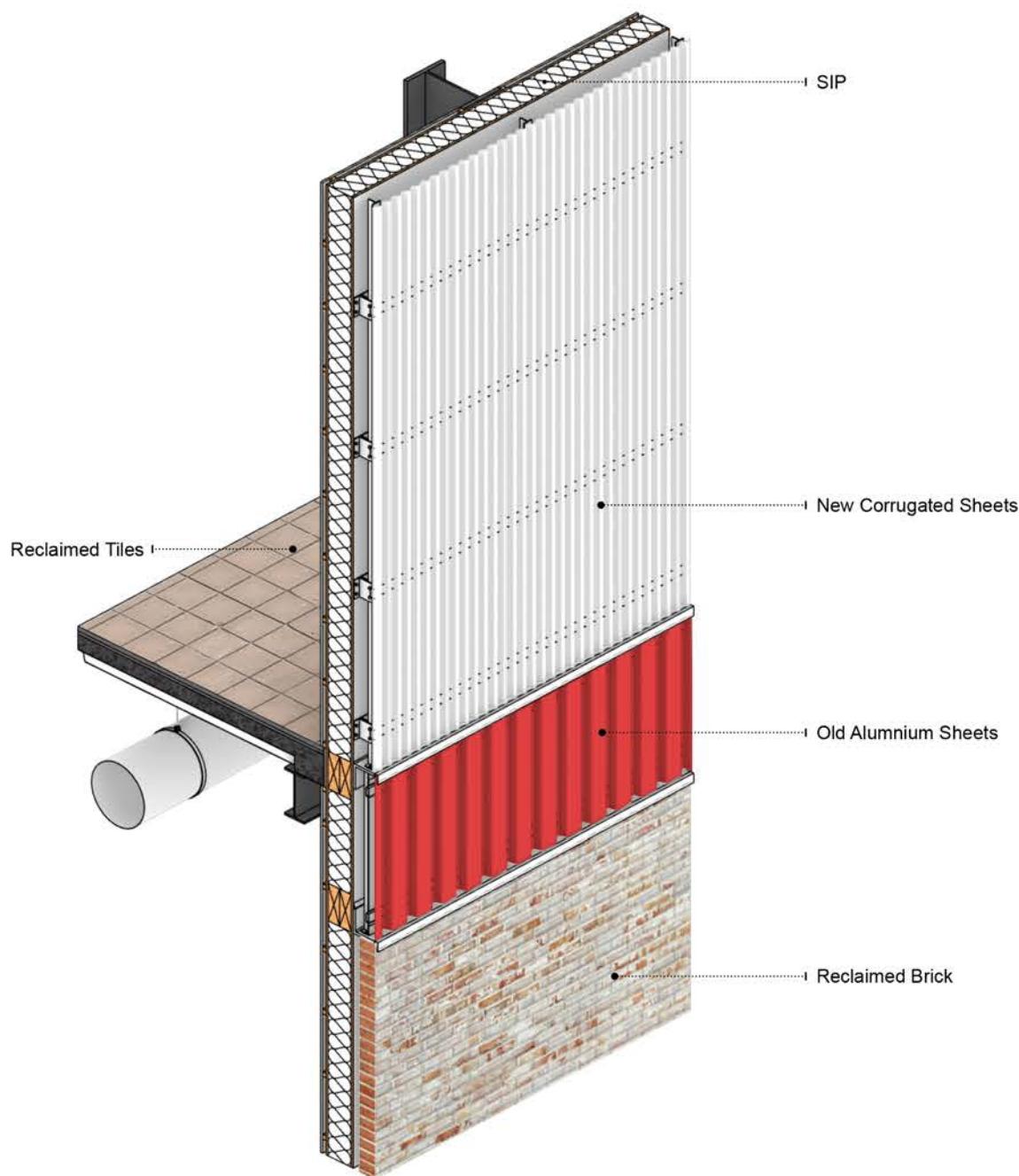
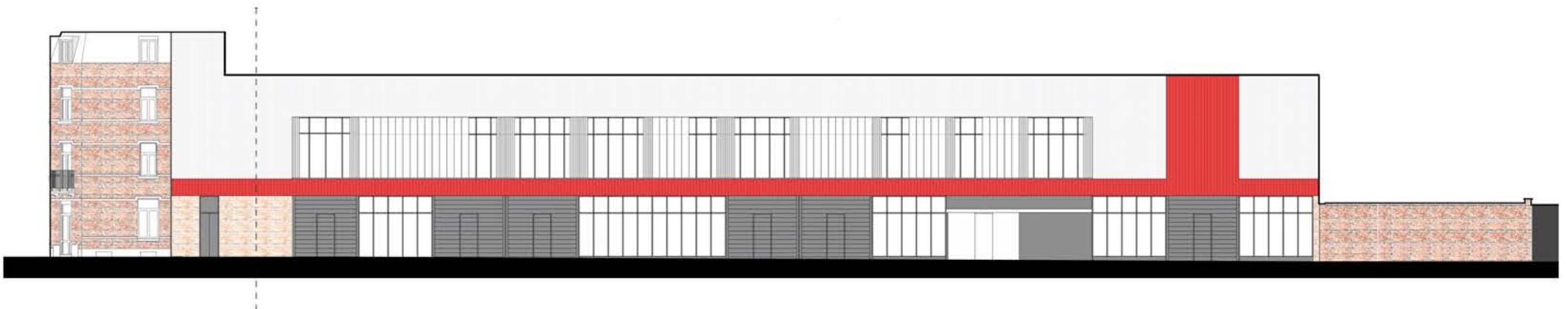
NEW CORRUGATED ALUMINUM
The new corrugate aluminum with gentle waves and white color contrasts and hightlights the reclaimed one and lightens the sense of mass of the whole building.

RECONSTRUCTED FACADES

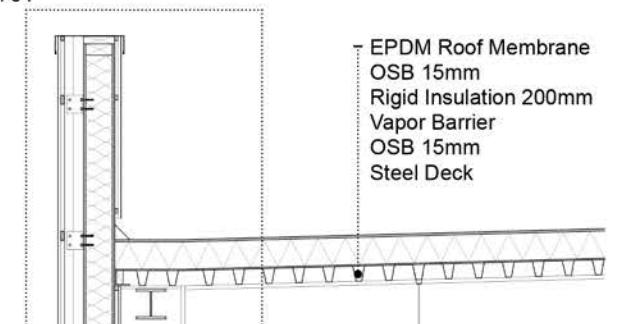


In the interior, the reclaimed corrugated sheets articulate the main entrances of the workshops and Rotor DC's Depot to the central atrium.

ADJUSTMENT OF THE STEEL STRUCTURE & RECONSTRUCTION OF THE ENVELOP

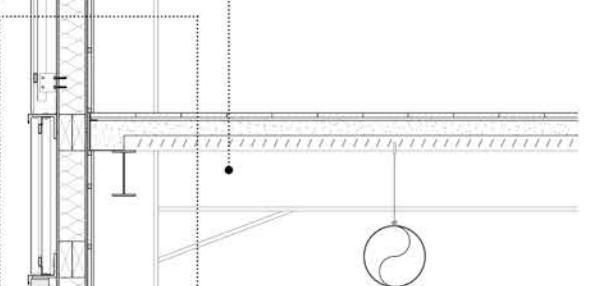


Vertical Detail 01



OSB15mm
SIP (OSB+EPS) 200mm
Vapor Barrier
Corrugated Aluminum Sheets.

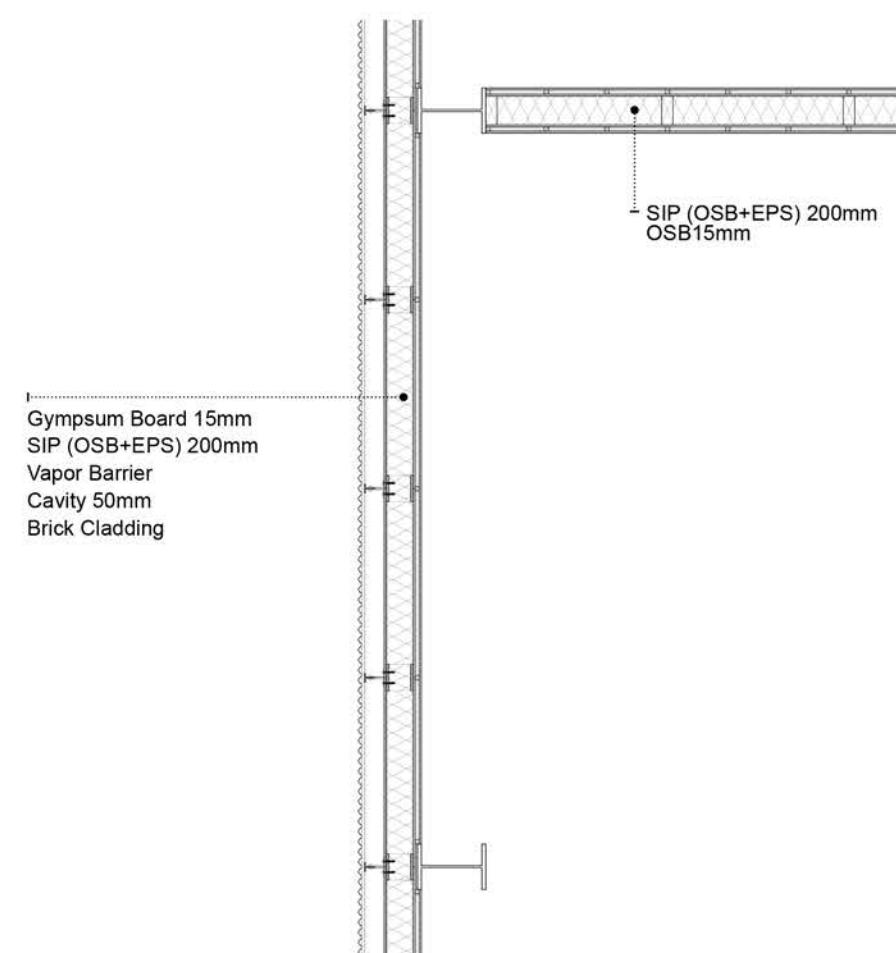
Vertical Detail 02

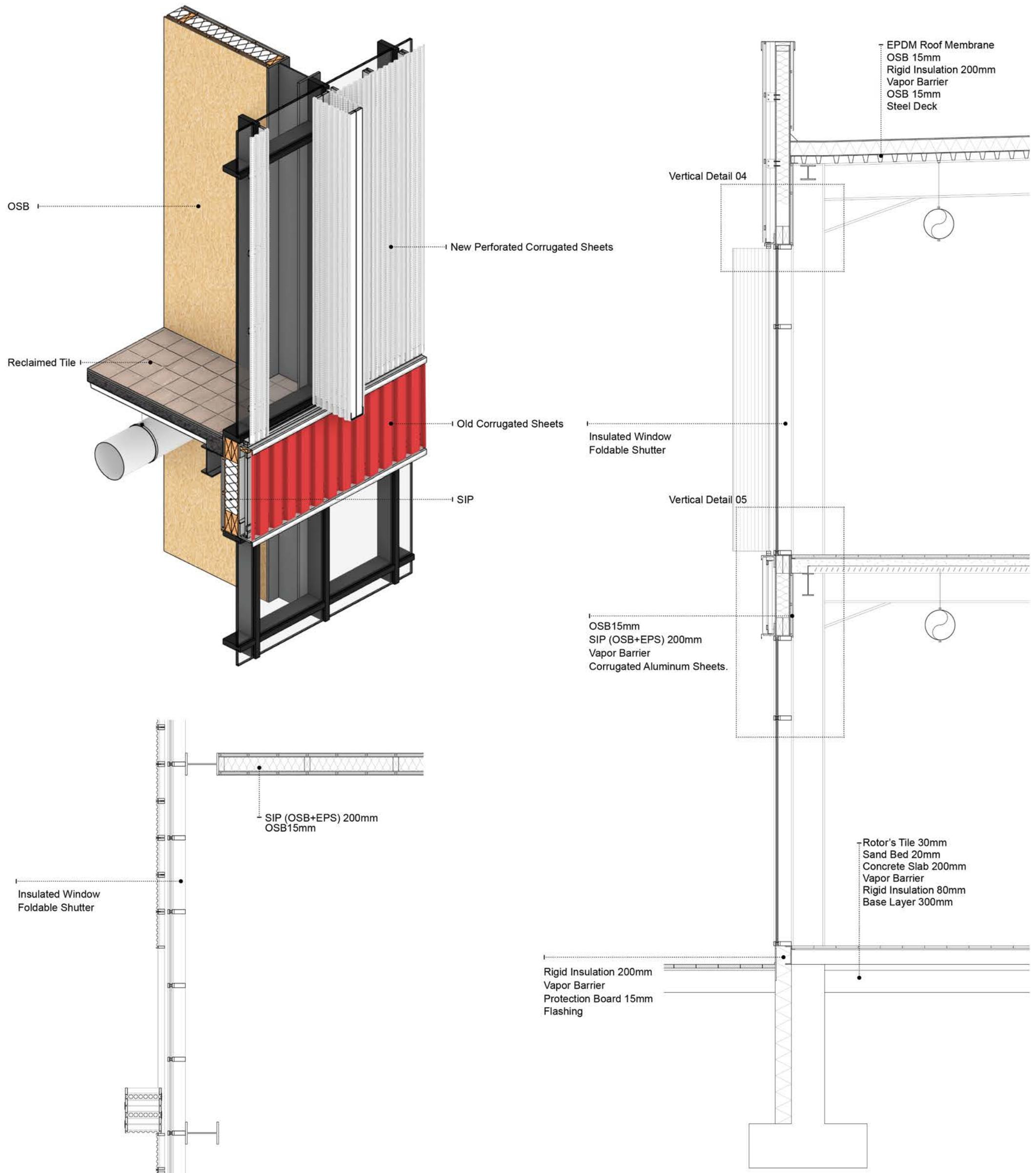
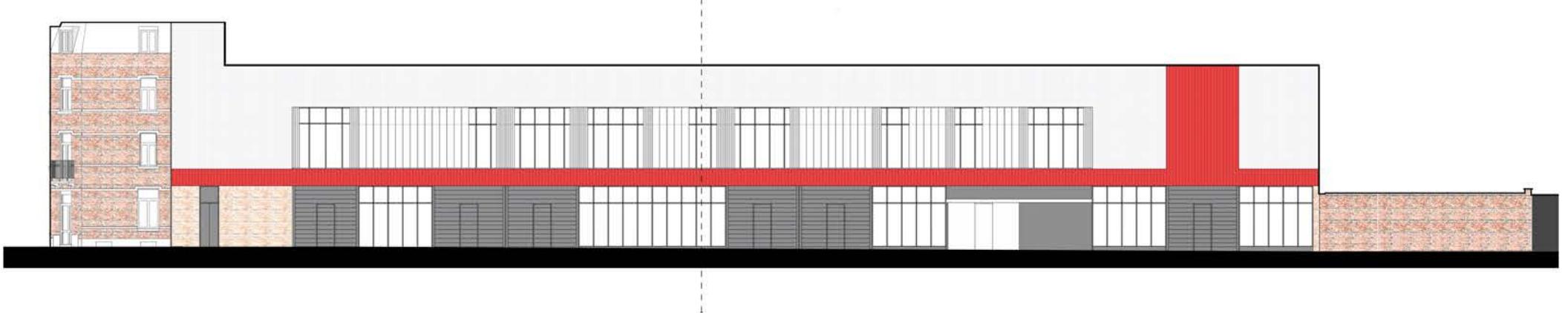


OSB15mm
SIP (OSB+EPS) 200mm
Vapor Barrier
Cavity 50mm
Brick Cladding

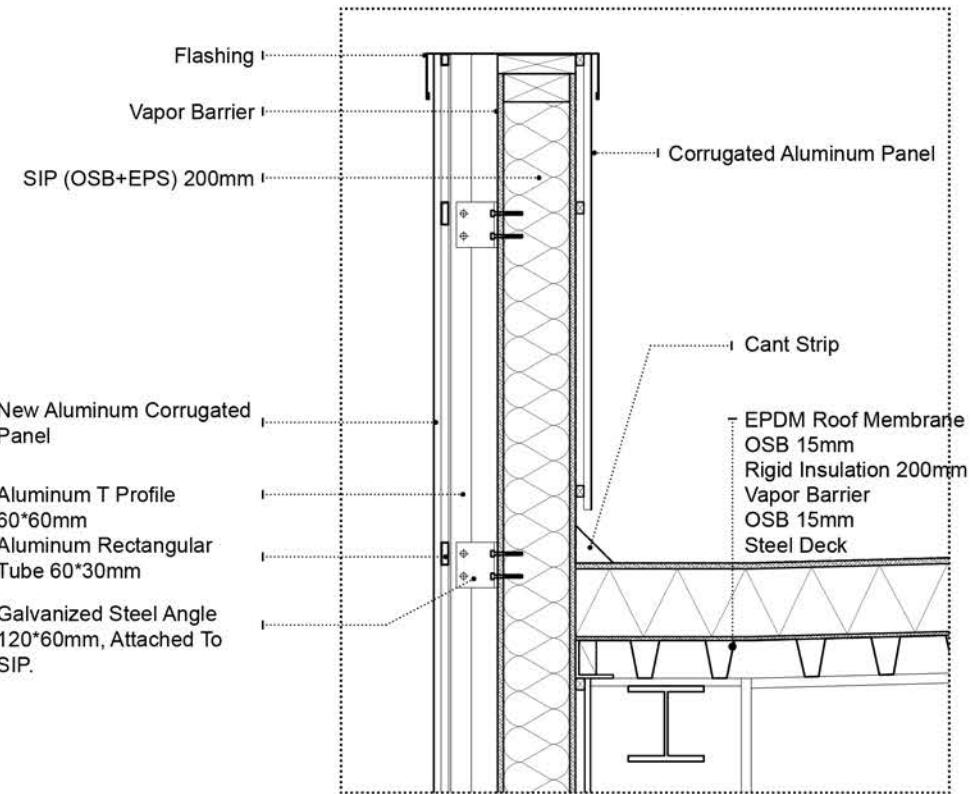
Vertical Detail 03

Rigid Insulation 240mm
Vapor Barrier
Cement Foundation Block

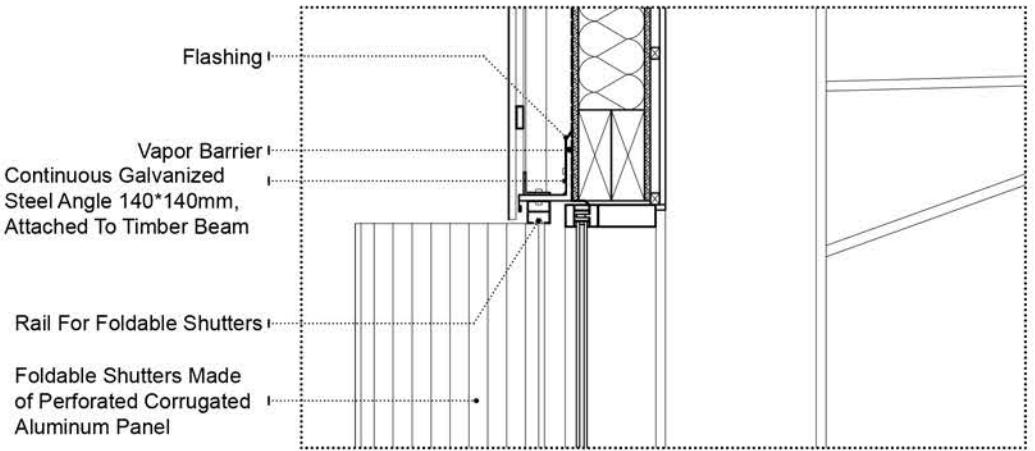




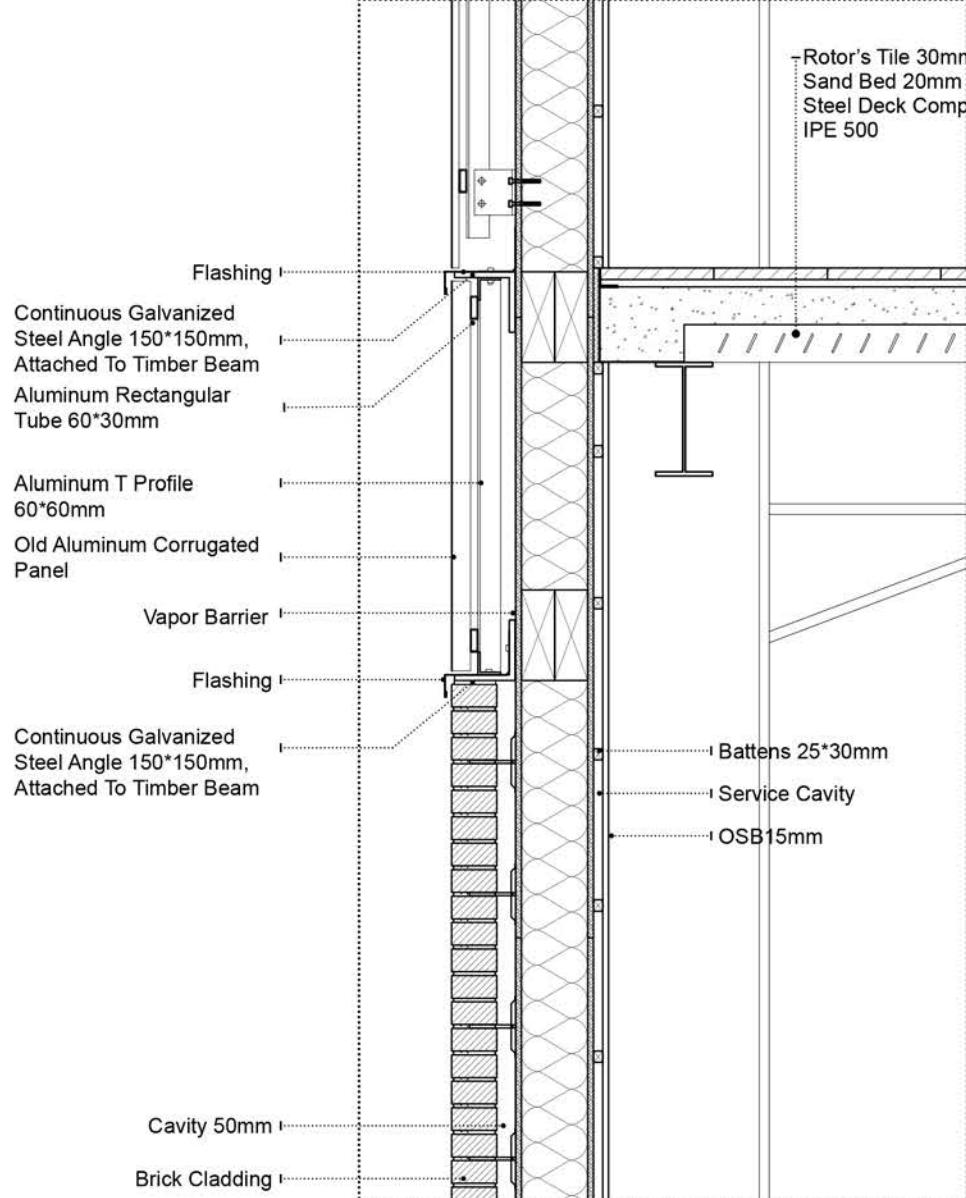
Vertical Detail 01 1:20



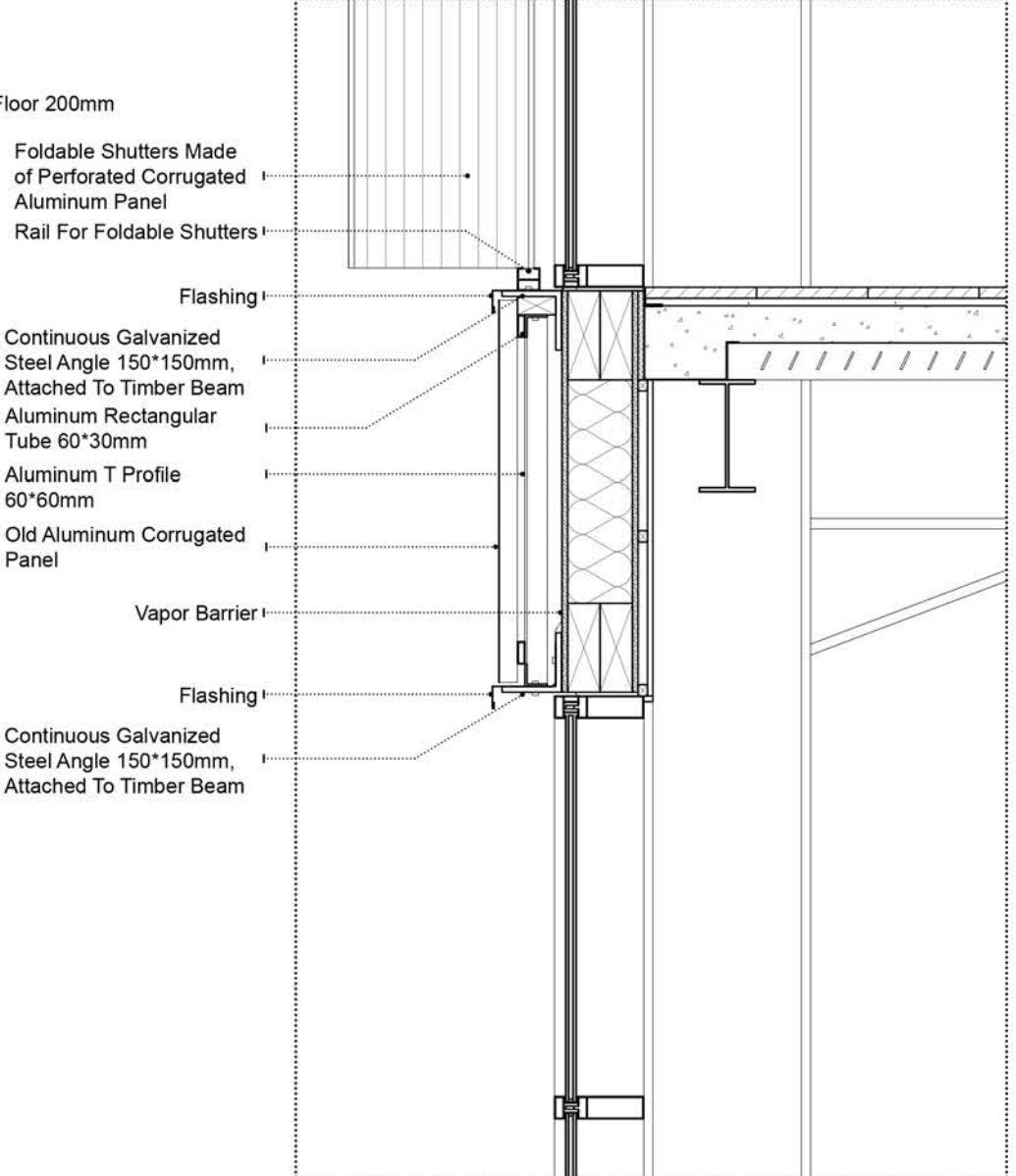
Vertical Detail 04 1:20



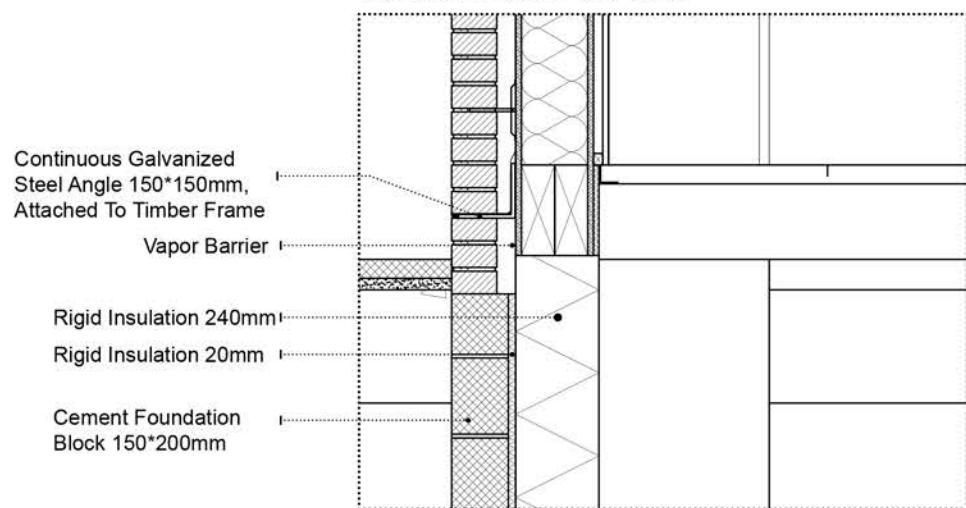
Vertical Detail 02 1:20



Vertical Detail 05 1:20



Vertical Detail 03 1:20





THANKS