P5 PRESENTATION

MSC4 AR3UA100 URBAN ARCHITECTURE

CRAFT IN THE CITY

29.01.2021

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INTRODUCTION

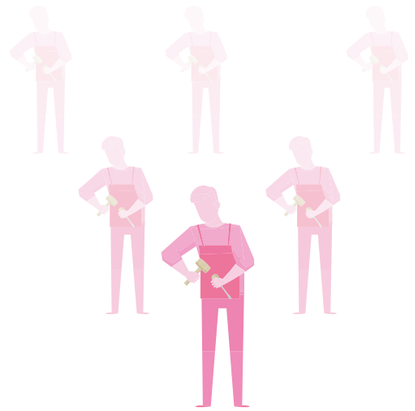
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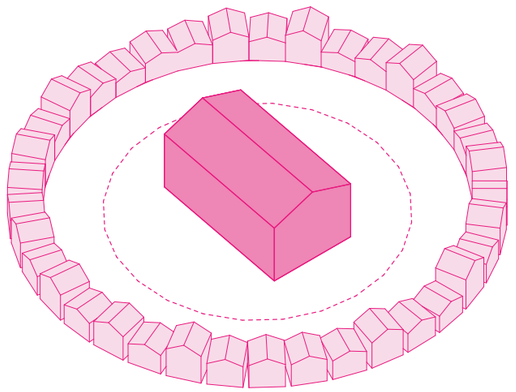
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INTRODUCTION

The new craft school







DIFFICULTIES VOCATIONAL SCHOOLS

In the last decades, vocational education is having difficulties due to automation and robotisation.

DISAPPEARING CRAFTMANSHIP

Which results in less vocational jobs and disappearing knowledge in most craftsmanship.

FENCED OF SCHOOL BUILDING

One of the problems is the positioning of the ROC (the current vocational schools) in the Netherlands, fenced off buildings which are not connecting to their communities or their students.

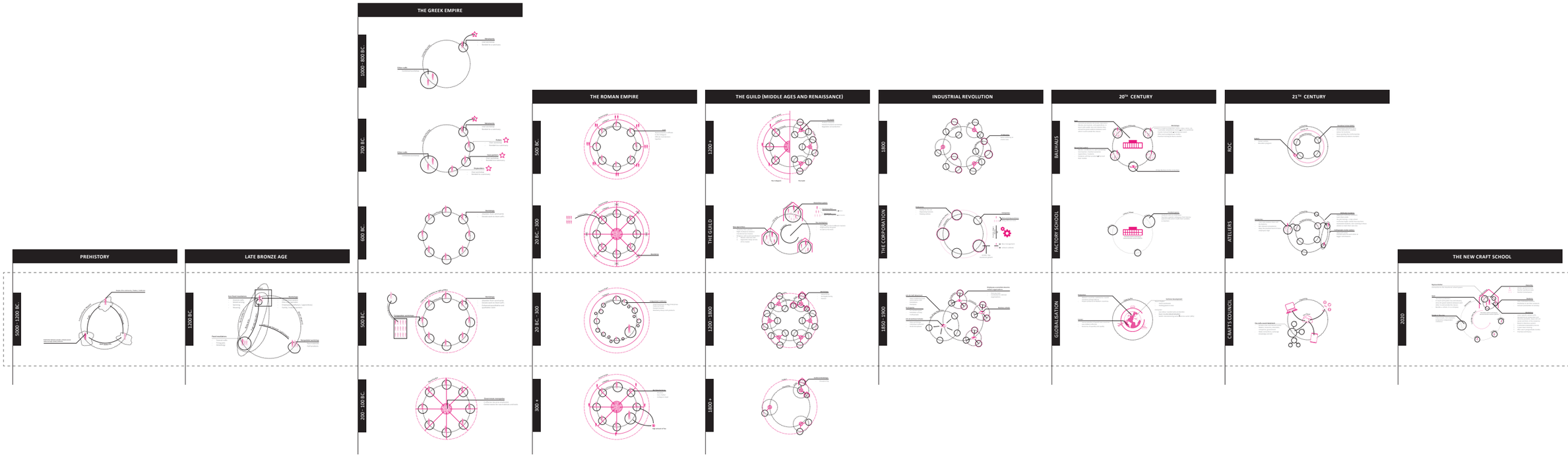
RESEARCH

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- Location
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- Concept



DEVELOPMENT OF THE WORKSHOP

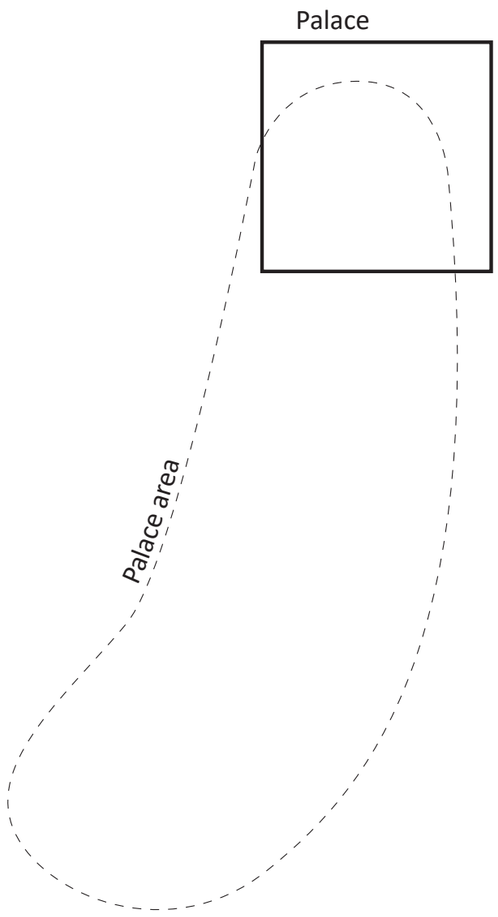
community and social networks



In this time line the different structures (communities and networks) of workshops (ateliers, workplaces, small factories, vocational schools, etc.) through our history are represented. Of the eras; Prehistory (5000 BC), Late Bronze Age (1200 BC), The Greek Empire (1000 BC), The Roman Empire (500 BC), The Middle Ages (1200), Industrial Revolution (1800), 20th Century, and the 21st Century. From this, a structure/diagram is composed which should represent the new craft school.

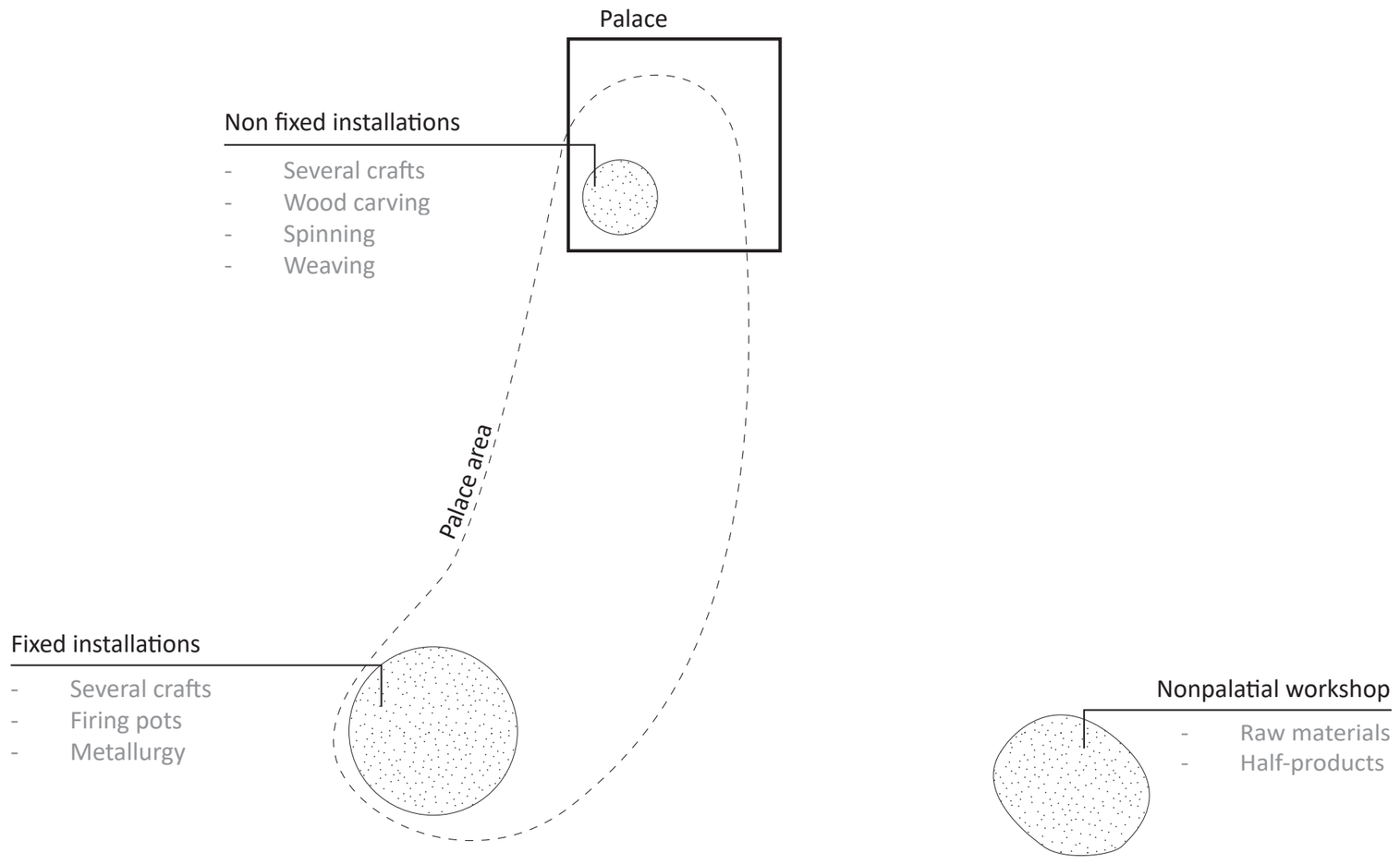
DEVELOPMENT OF THE WORKSHOP

The Late Bronze Age, Tiryns Community
1200 BC.



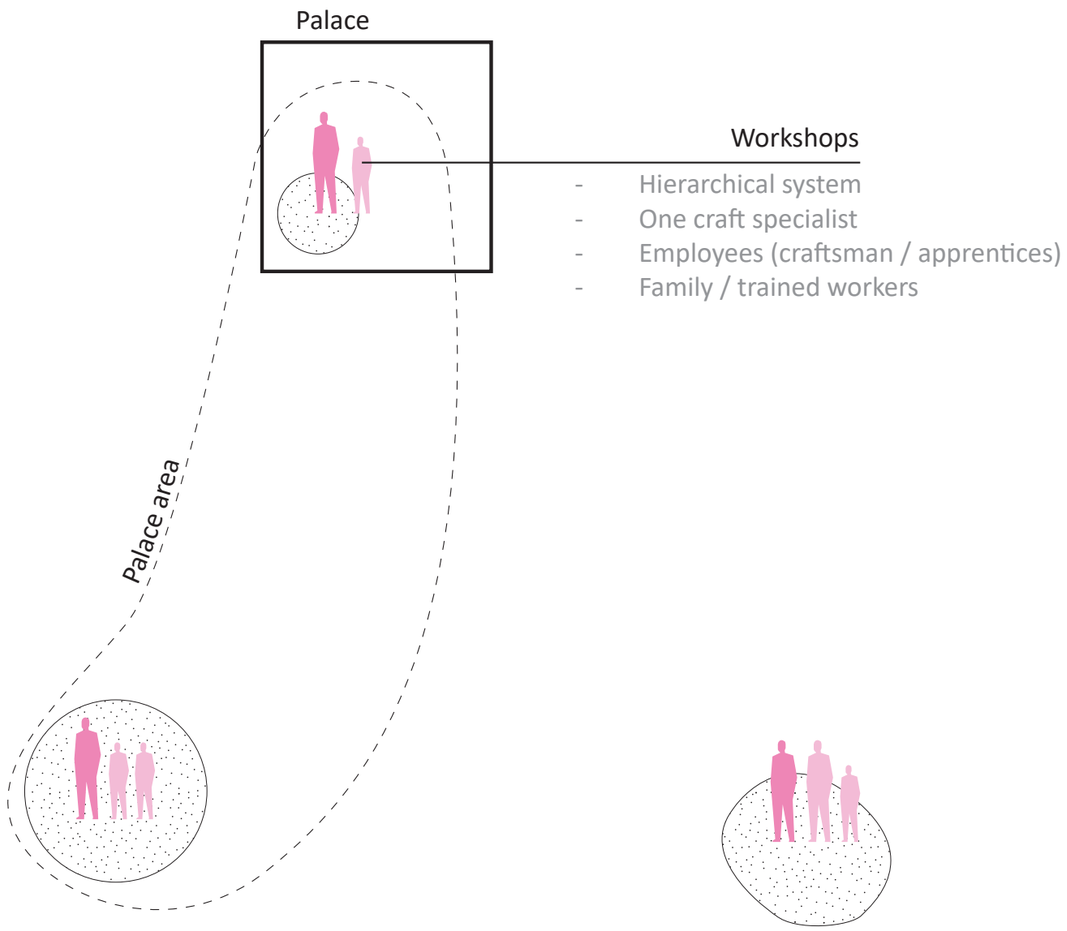
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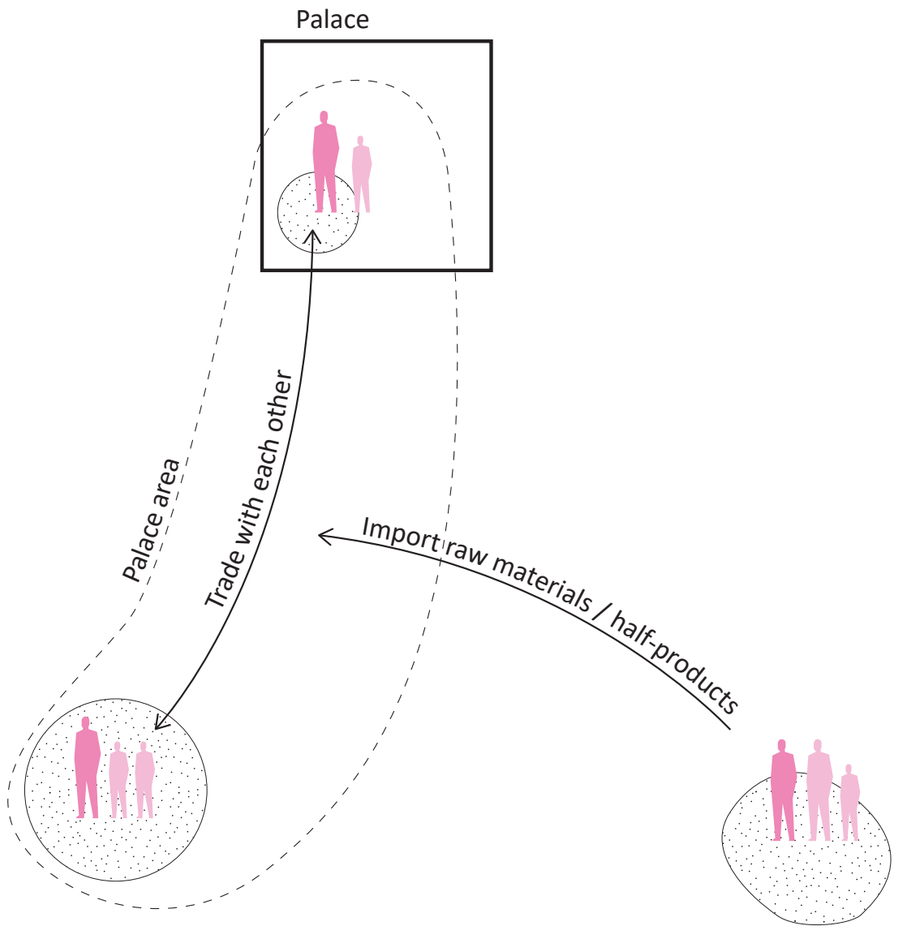
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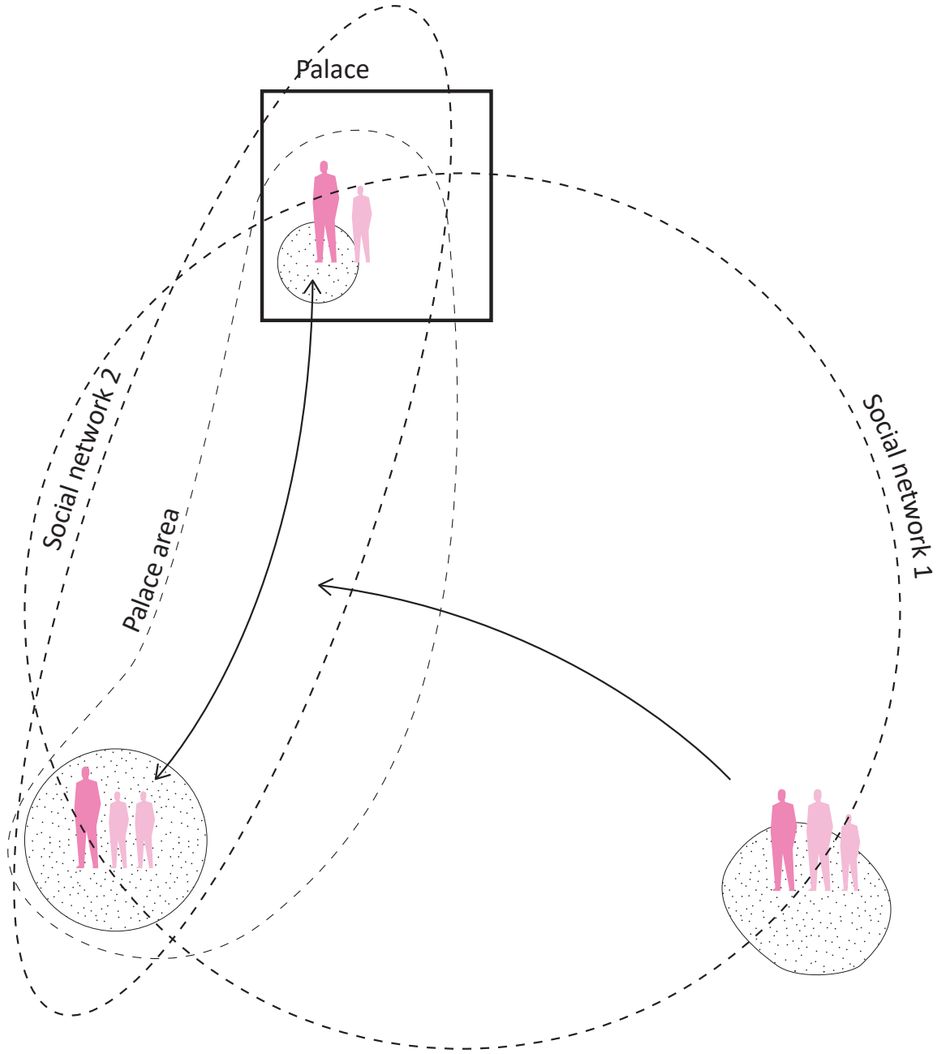
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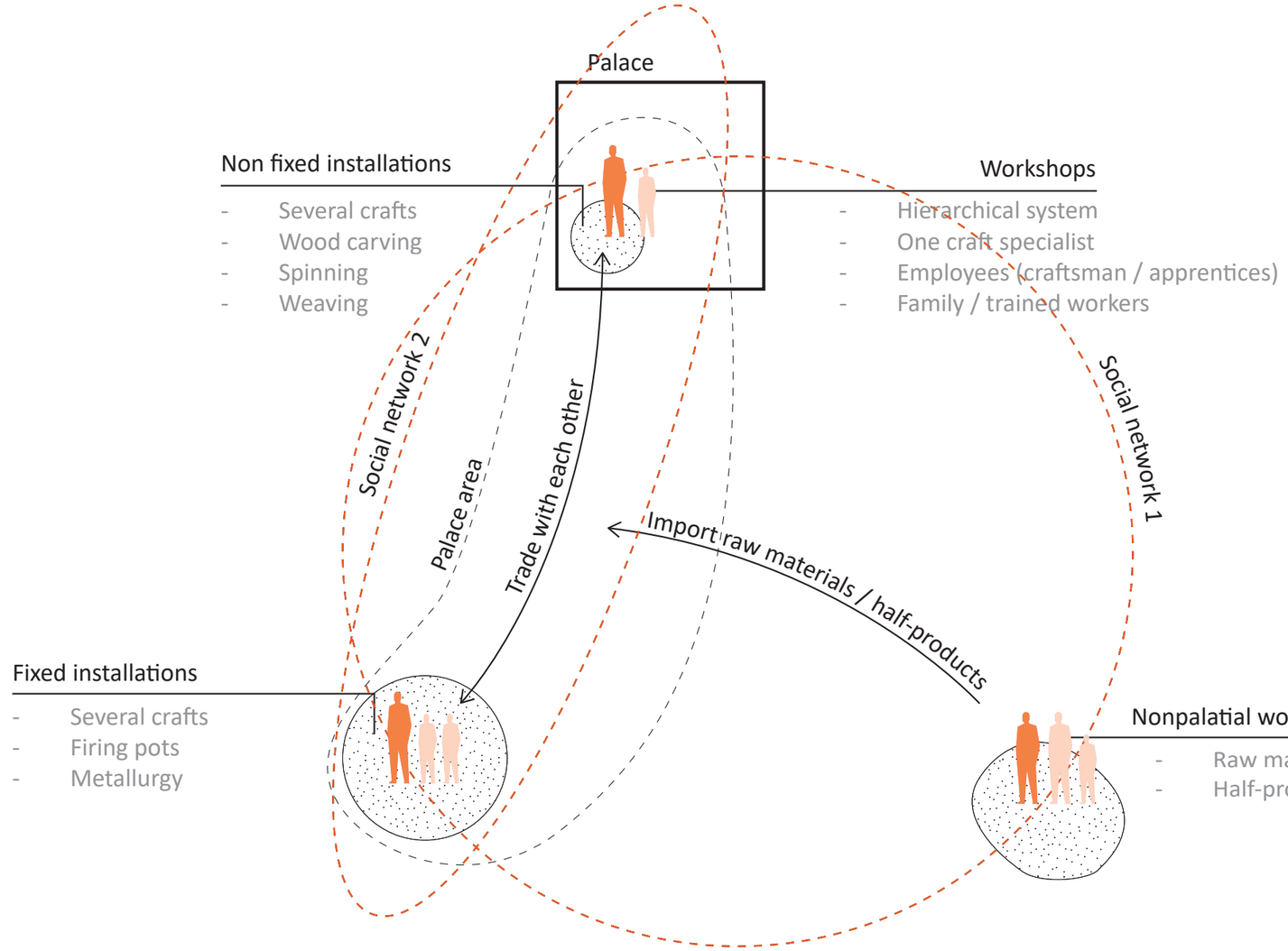
DEVELOPMENT OF THE WORKSHOP

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DEVELOPMENT OF THE WORKSHOP

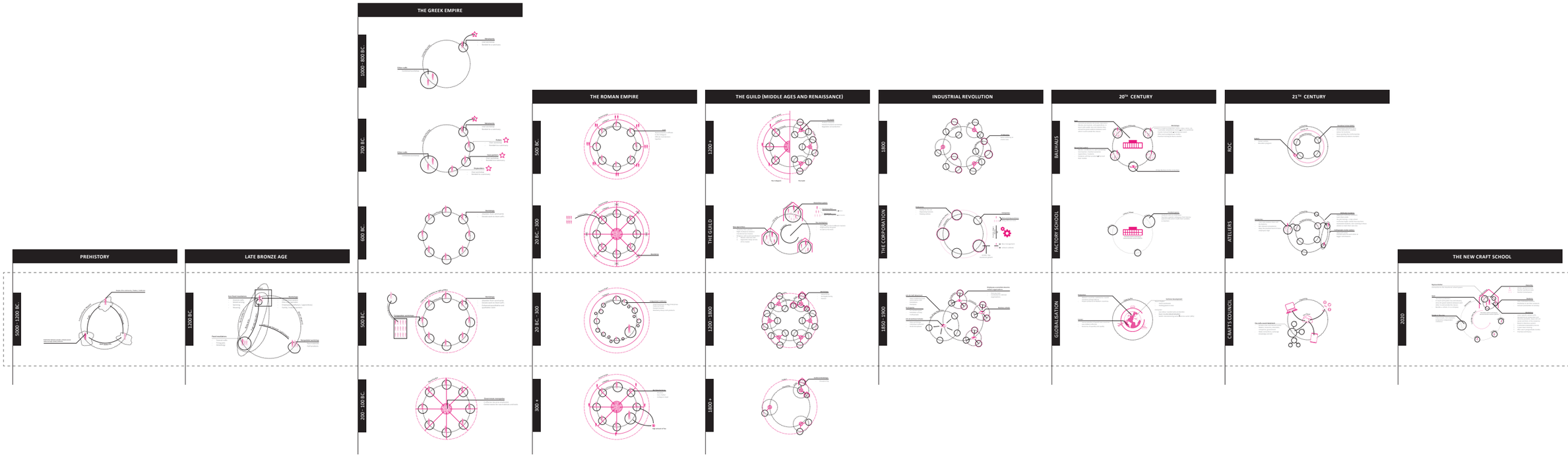
The Late Bronze Age, Tiryns Community
1200 BC.



Conclusion: The connection between the two social networks is interesting if you related this to a new school system. For the new craft school it is important that the social network of the craft school is connected to the social network of the city of Delft, to the different workshops for instance.

DEVELOPMENT OF THE WORKSHOP

Communities and Social Networks



In this time line the different structures (communities and networks) of workshops (ateliers, workplaces, small factories, vocational schools, etc.) through our history are represented. Of the eras; Prehistory (5000 BC), Late Bronze Age (1200 BC), The Greek Empire (1000 BC), The Roman Empire (500 BC), The Middle Ages (1200), Industrial Revolution (1800), 20th Century, and the 21st Century. From this, a structure/diagram is composed which should represent the new craft school.

DEVELOPMENT OF THE WORKSHOP

Communities and Social Networks

Representative:

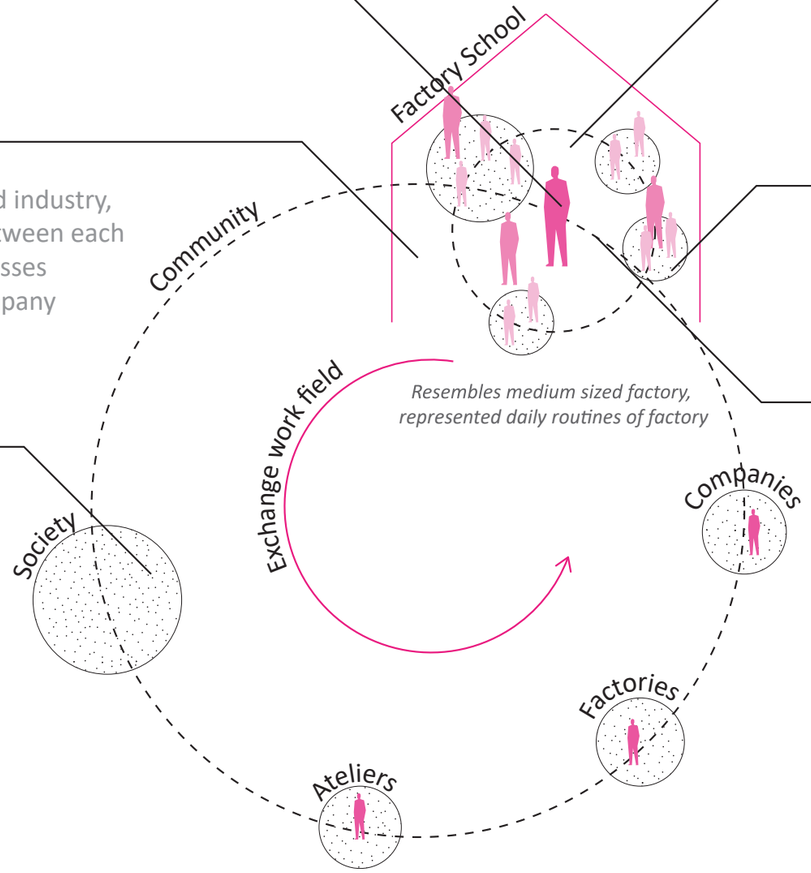
Connection to the Vocational school System

Goal:

- Technical production
- In touch with public live and industry, strive for good relations between each other in and outside the classes
- Besides a school, it is a company

People in the area:

- Free consult, train students to become independent craftsman



Hierarchy:

- Master (professionals)
- Teacher (professionals)
- Student (employees)

Students:

- Only motivated students
- Possibility to sell their products
- Consult (connection to society)

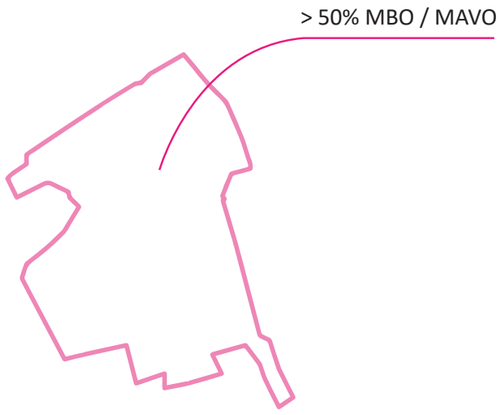
Workshop:

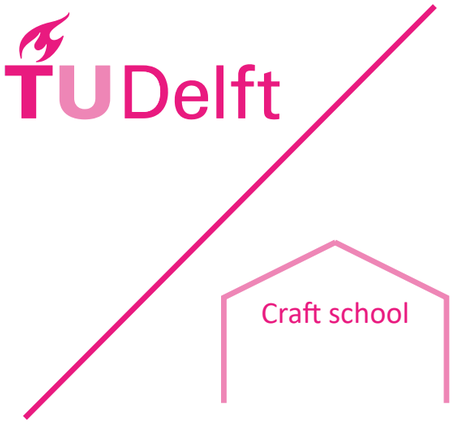
- Leans specific skilled crafts
- Standard brick production and masonry products, bases skill set (wider portfolio of the students)
- Based on Bauhaus system:
  - 1 semester preparatory course
  - 3 years basic training
  - After exam postgraduate studies
  - Practical and theory

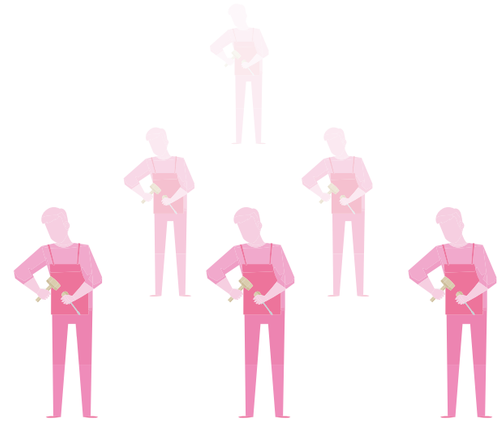
Conclusion: The system for the new craft school, is mainly based on the guild, factory school and the Bauhaus systems. Where to school is also functions as a company where the students are seen as employees, in which the teacher are professionals and the head master is the boss of the factory. At this school students learn the craft of ceramics from A to Z, while they have the possibility to further develop them self in a specific craft like vormstenen or glazing. This school system is again connected to the social network in Delft; to the workshops, ateliers, companies.

LOCATION

Why Delft







POPULATION (MBO / MAVO)

Most of the children in Delft, between 12 and 19 years old is not going to university but to a vocational school.

PRACTICAL EDUCATION

The municipality of Delft want to bring back these type of vocational schools because, next to the outstanding quality of the technical university of Delft, they want to become outstanding in more practical education.

ENHANCE MANUAL LABOUR

In the coming years the municipality want to create thousands of jobs in the manufacturing industry, but this is only possible with practical educated employees.

LOCATION

Area of the old Royal Dutch Yeast and Spiritus Factory Delft



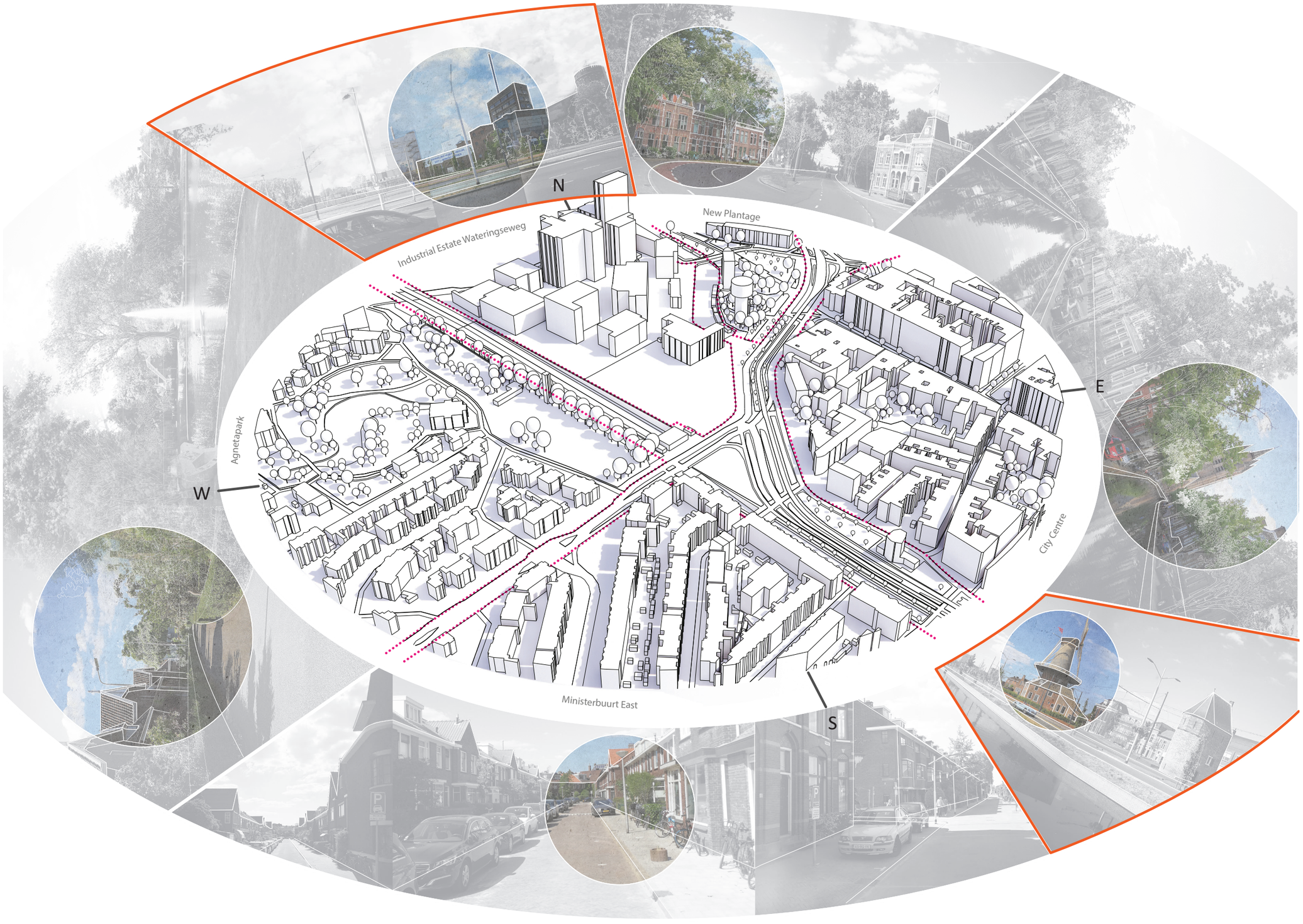
MAPPING OF THE AREA

Aesthetics



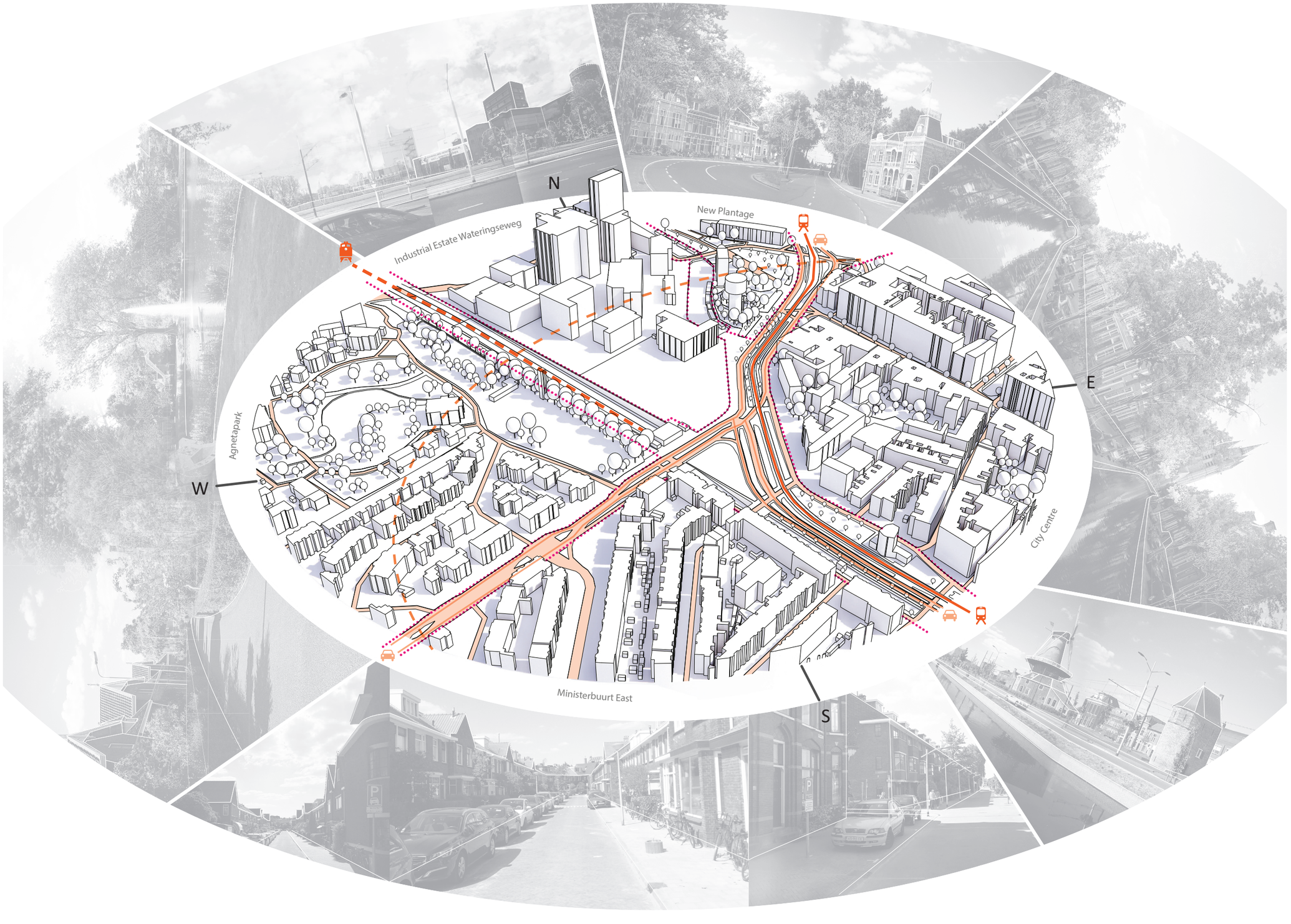
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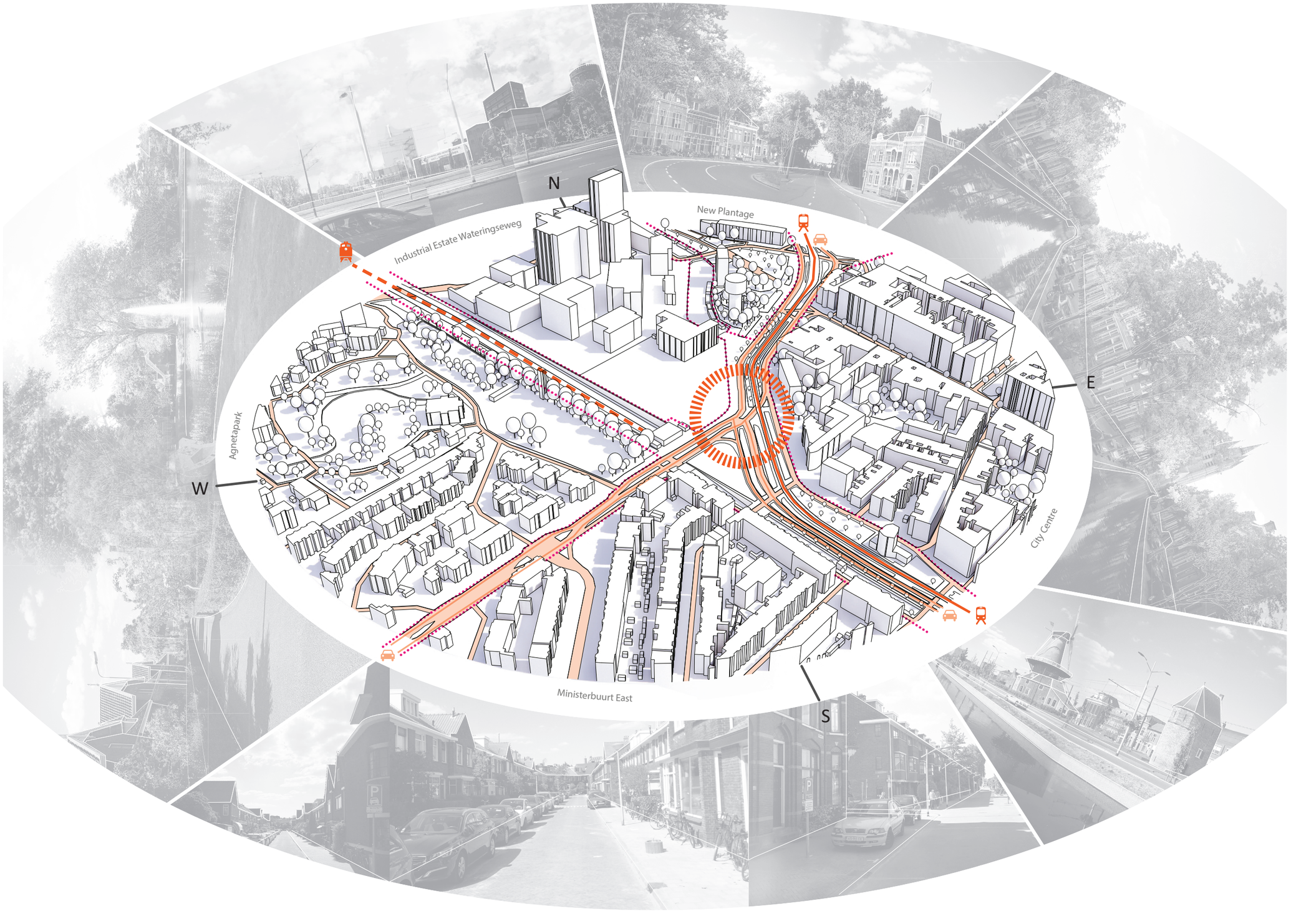
MAPPING OF THE AREA

Infra Structure



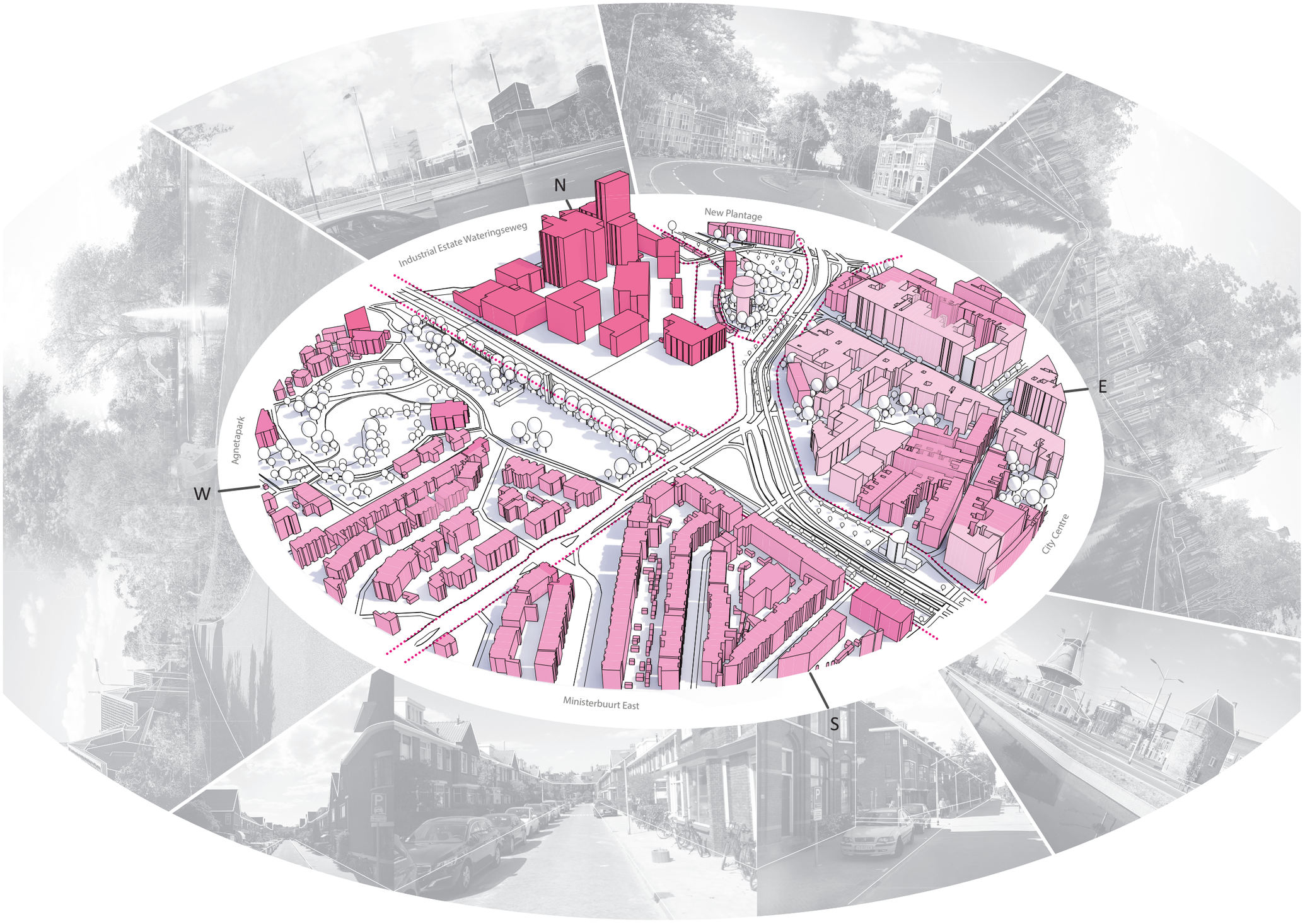
MAPPING OF THE AREA

Infra Structure



MAPPING OF THE AREA

Area Destination



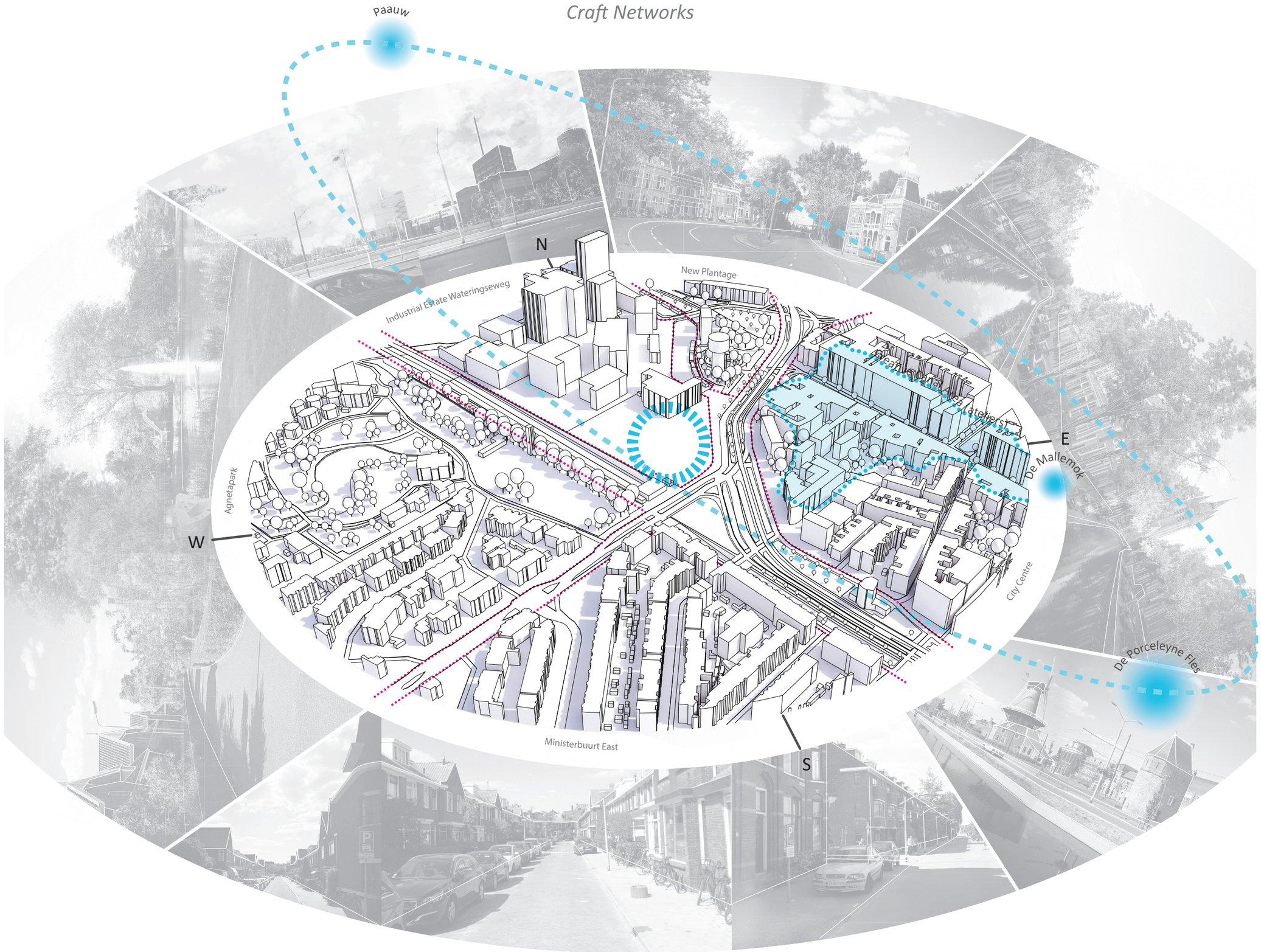
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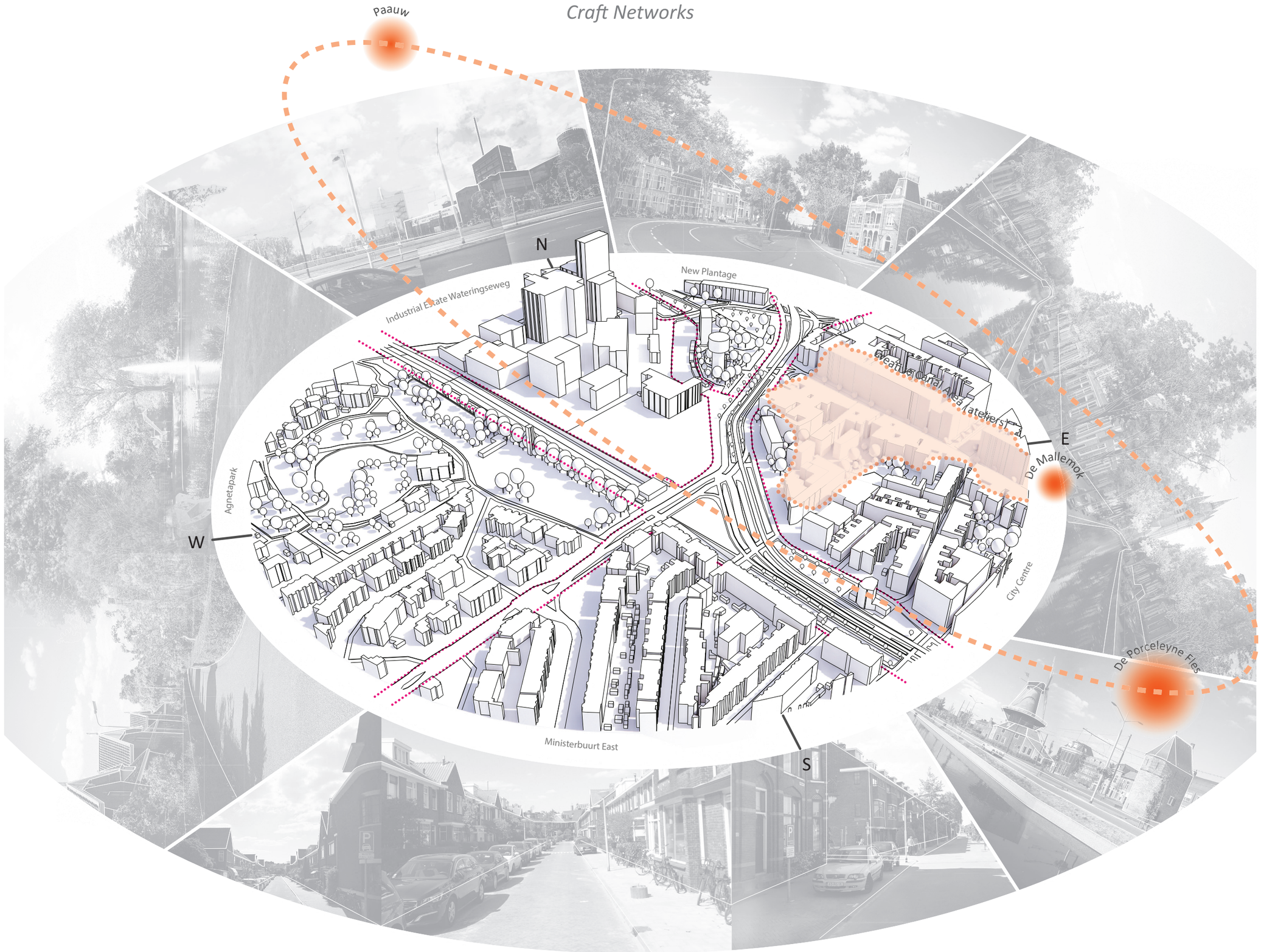
MAPPING OF THE AREA

Craft Networks



MAPPING OF THE AREA

Craft Networks



MAPPING OF THE AREA

Concluding

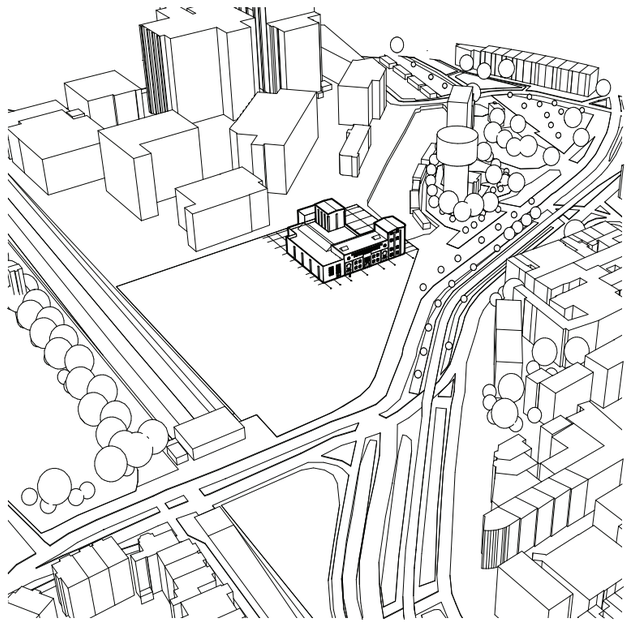


LOCATION

The Royal Yeast and Spiritus Factory



Image from the archive of Delft





FACTORY

Was part of the Royal Dutch Yeast and Spirit factory, nowadays owned by the DSM

EXISTING BUILDING

Built in 1900 at the edge of the factory plant. Used to produce Jenever which can be created from the rest products.

MONUMENT

Abandoned monument

LOCATION

Current state existing building



RUINED MONUMENT

Plants are growing on the roof



STRUCTURE

Structure falls apart, the back side of the building is hold-up by external sub structures

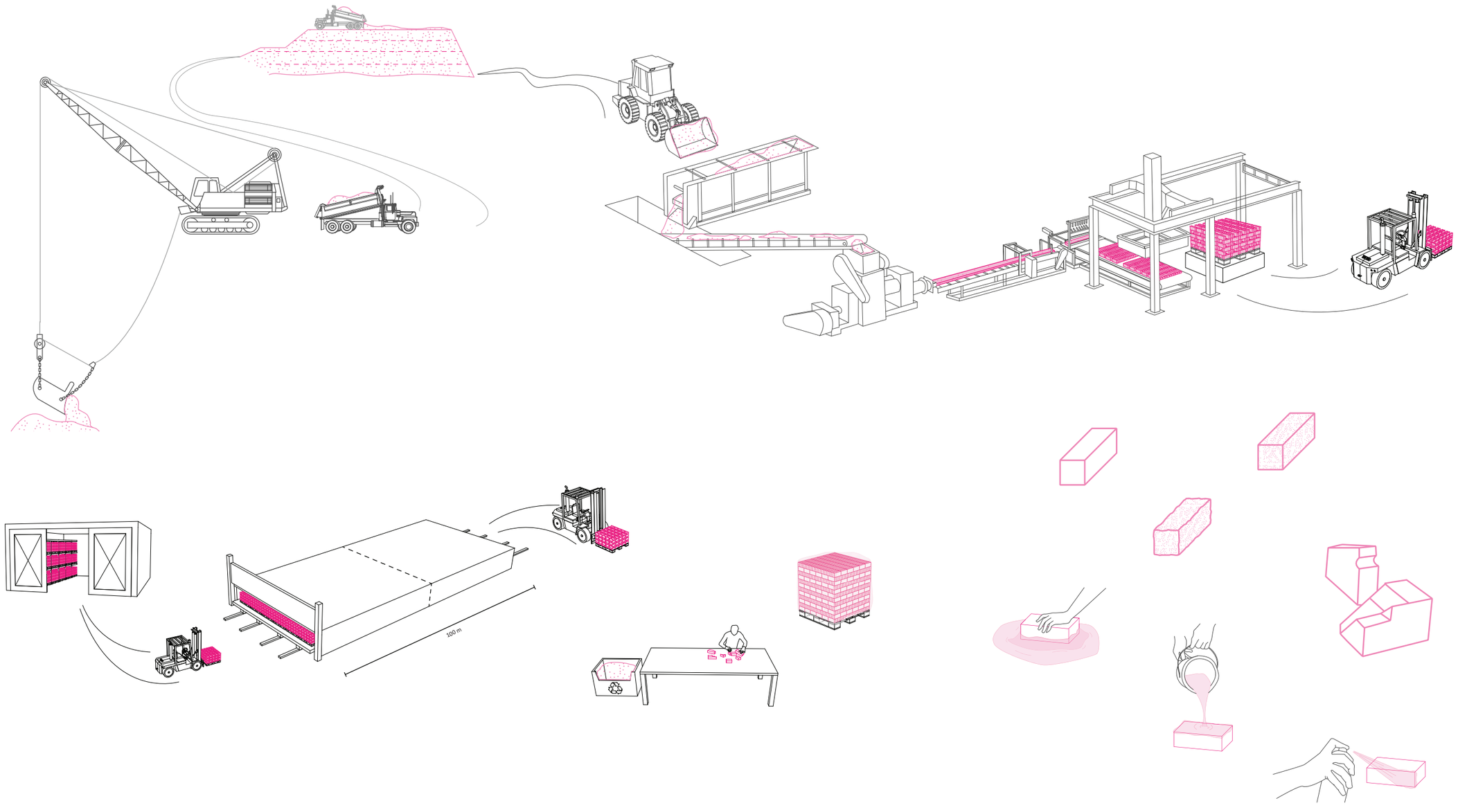


EXPRESSION

Two main facades in the front and at the side, got a rich character and are still intact

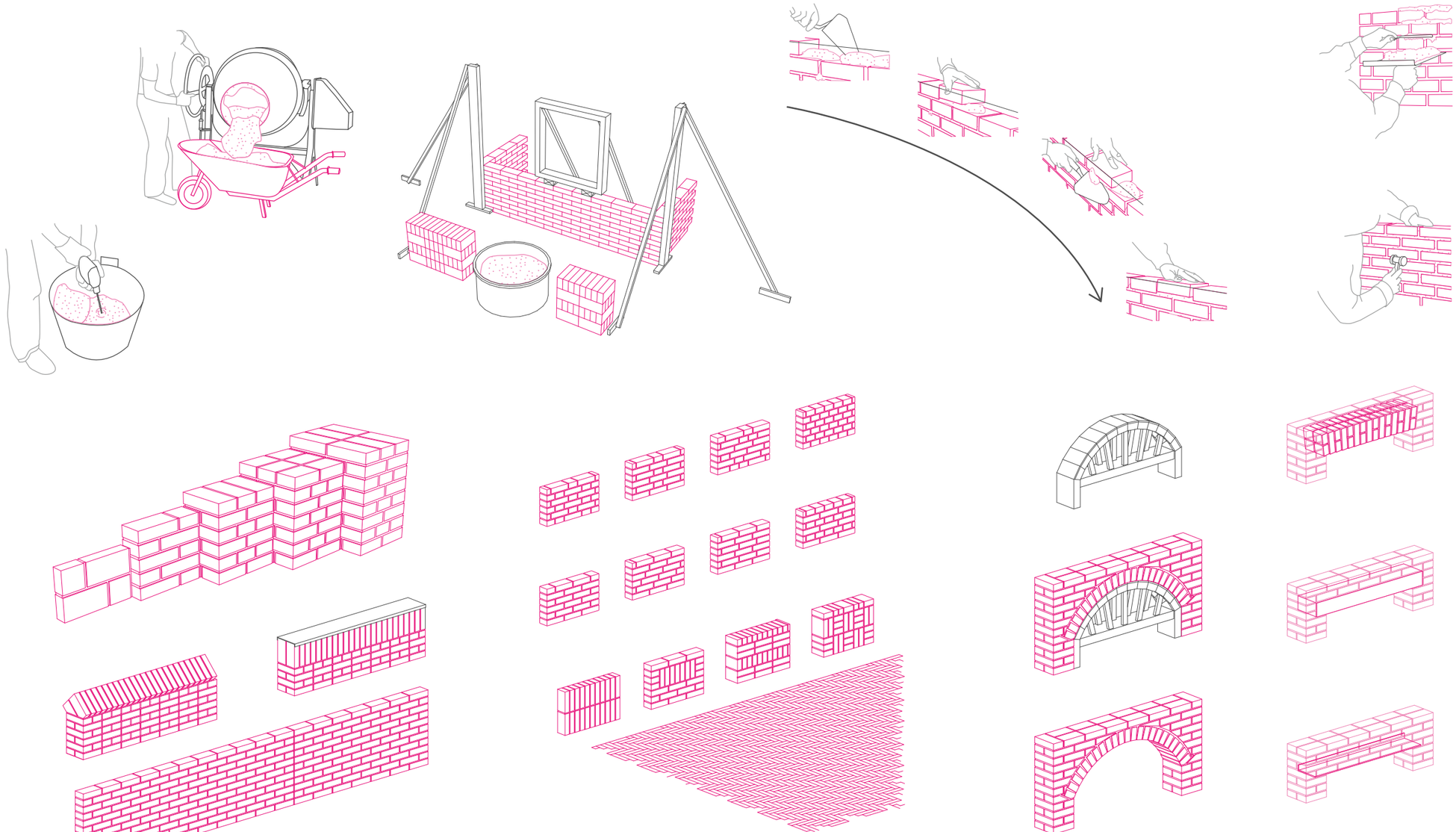
MATERIAL BIOGRAPHY

Production Process



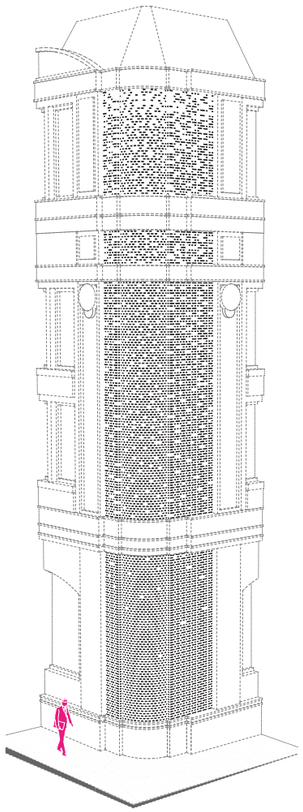
MATERIAL BIOGRAPHY

Masonry Techniques



MATERIAL BIOGRAPHY

Why the craft of ceramics?



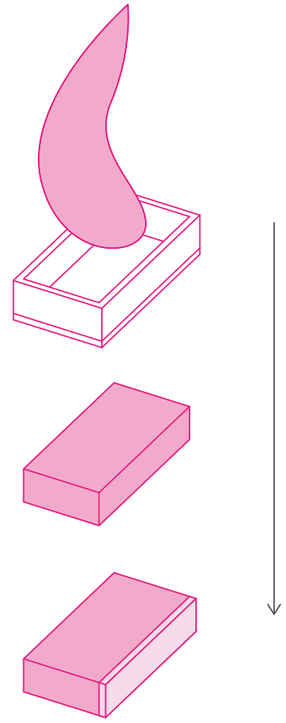
QUALITY

The quality of brick appeals to me because, it can be used in both a sculptural and compositional way, in which the dedication and personal commitment of the architect and bricklayer stands out.



HISTORICALLY

Historically seen the craft of ceramics is also the source of the most famous craft technique of Delft the glazing techniques.



EDUCATION

But as explained with the Form brick I didn´t chose to create a school for a specialization within a craft, because students should learn the production process of a product from A to Z to become valuable craftsman.

INTERVIEW

Zilverschoon Randwijk



PRODUCE VORMBRICKS

Vormbricks are specific casted bricks, for instance used for renovation projects



CAST

The clay from the treadmill is thrown in the cast, in order to form, in this case, Kloostermoppen

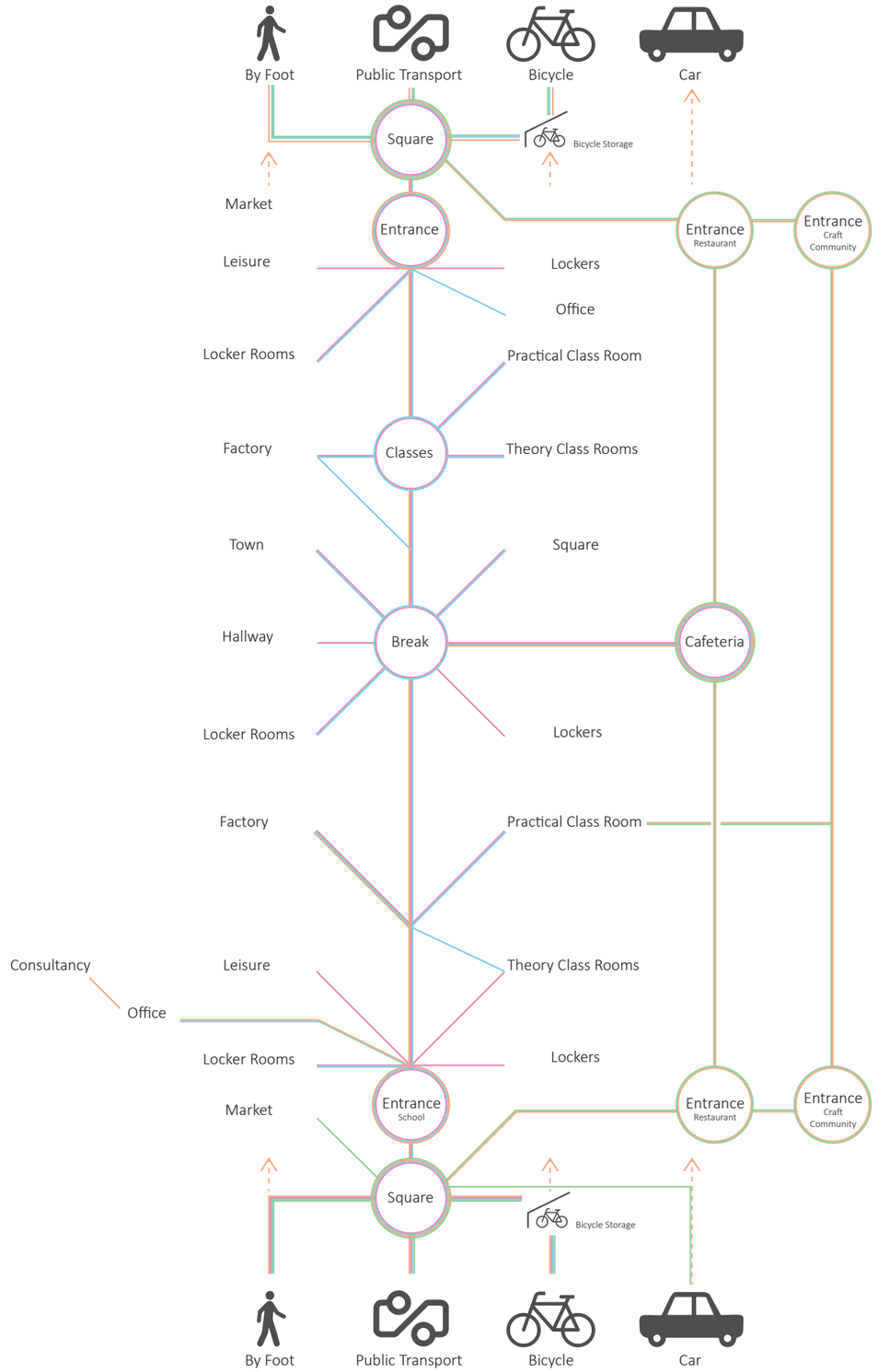


CUTTING

The Kloostermoppen, which are huge bricks are cut in specific forms

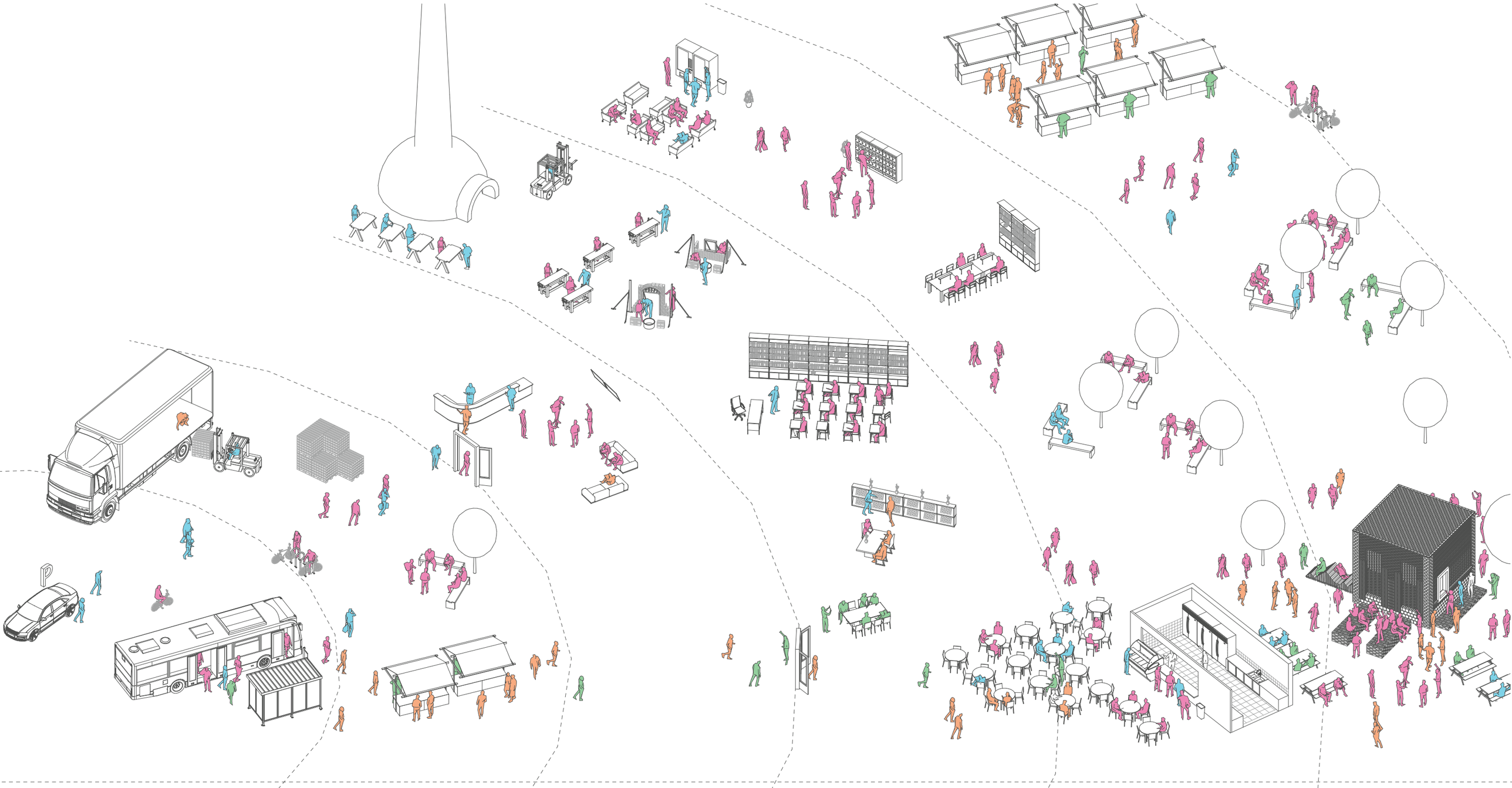
PEOPLE

Target group



PEOPLE

Movement spactial organisation



Arrival
Transport
By car
By foot
By bicycle
By public transport

Square
Material storage
Bicycle storage
Leisure
Crafts market

Entrance
School
Restaurant

Spaces
Factory
Practical classroom
Theory classroom
Office / Showroom
Space craft community

Break
Leisure indoor
Lockers
Study spaces
Leisure outdoor
Restaurant

Square
Crafts market
Bicycle storage
Leisure
Restaurant / Bar

PEOPLE

Movement spactial organisation

In between spaces inside the building, for leisure and coffee break

Square an restaurant spaces where people meet during the breaks and after school hours.

Square and entrance spaces where people come together at arrival



Arrival
Transport
By car
By foot
By bicycle
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Bicycle storage
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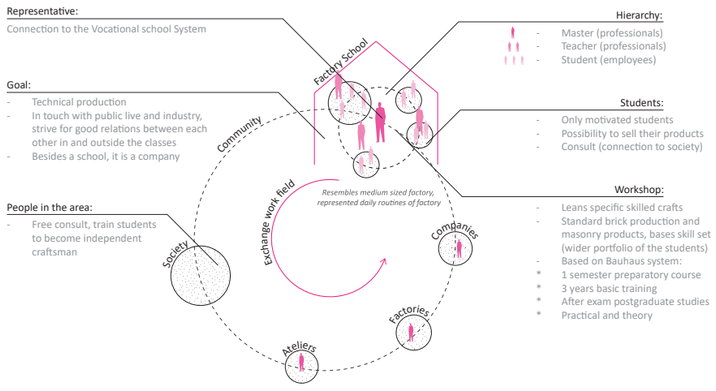
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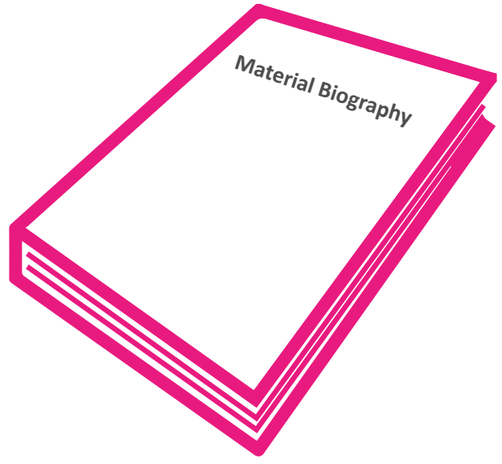
Square
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Bicycle storage
Leisure
Restaurant / Bar

CONCEPT

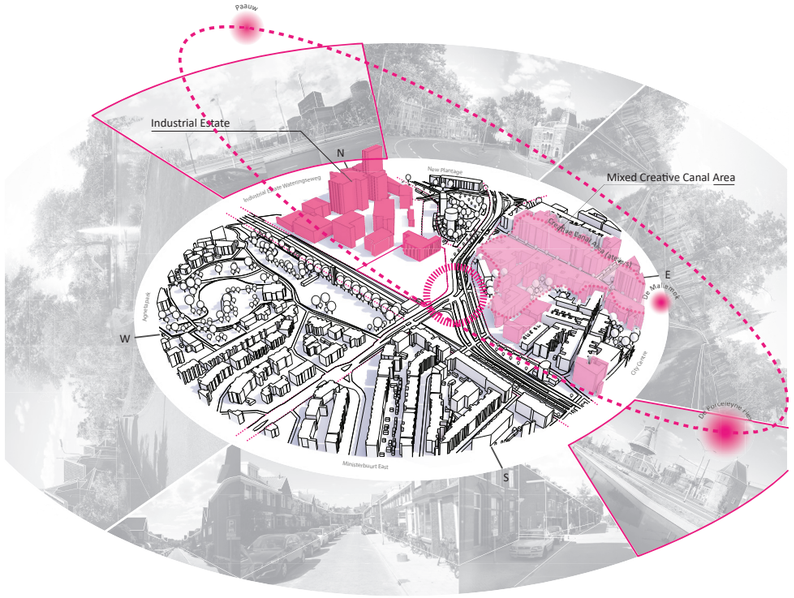
Design Input



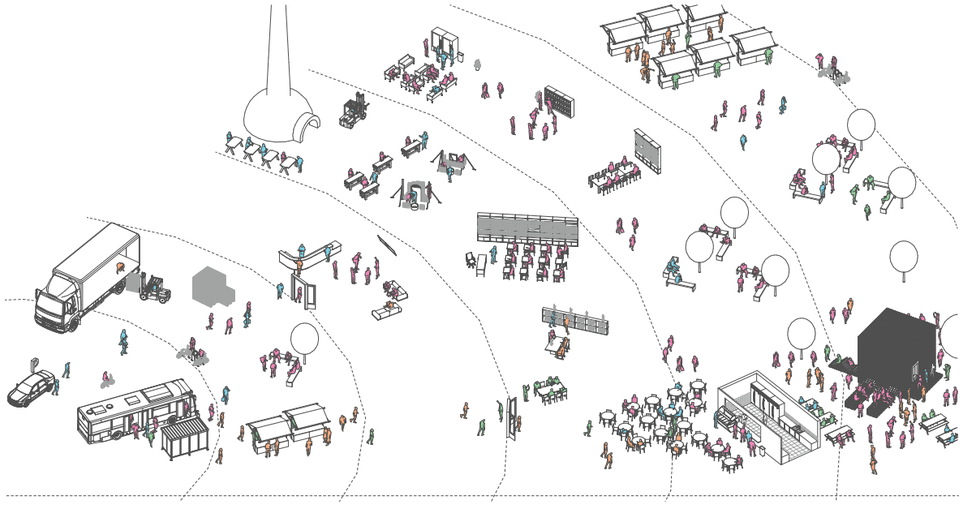
SYSTEM



INPUT



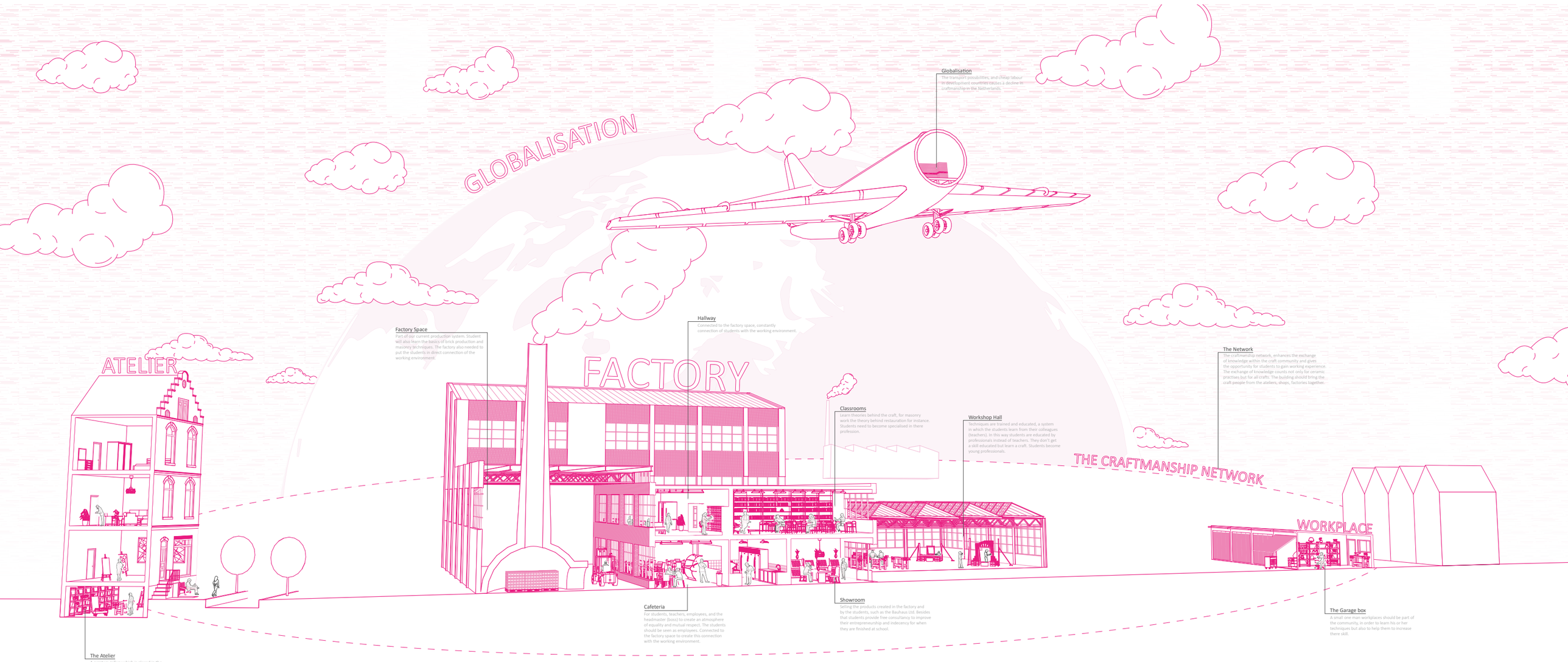
CONTEXT



USERS

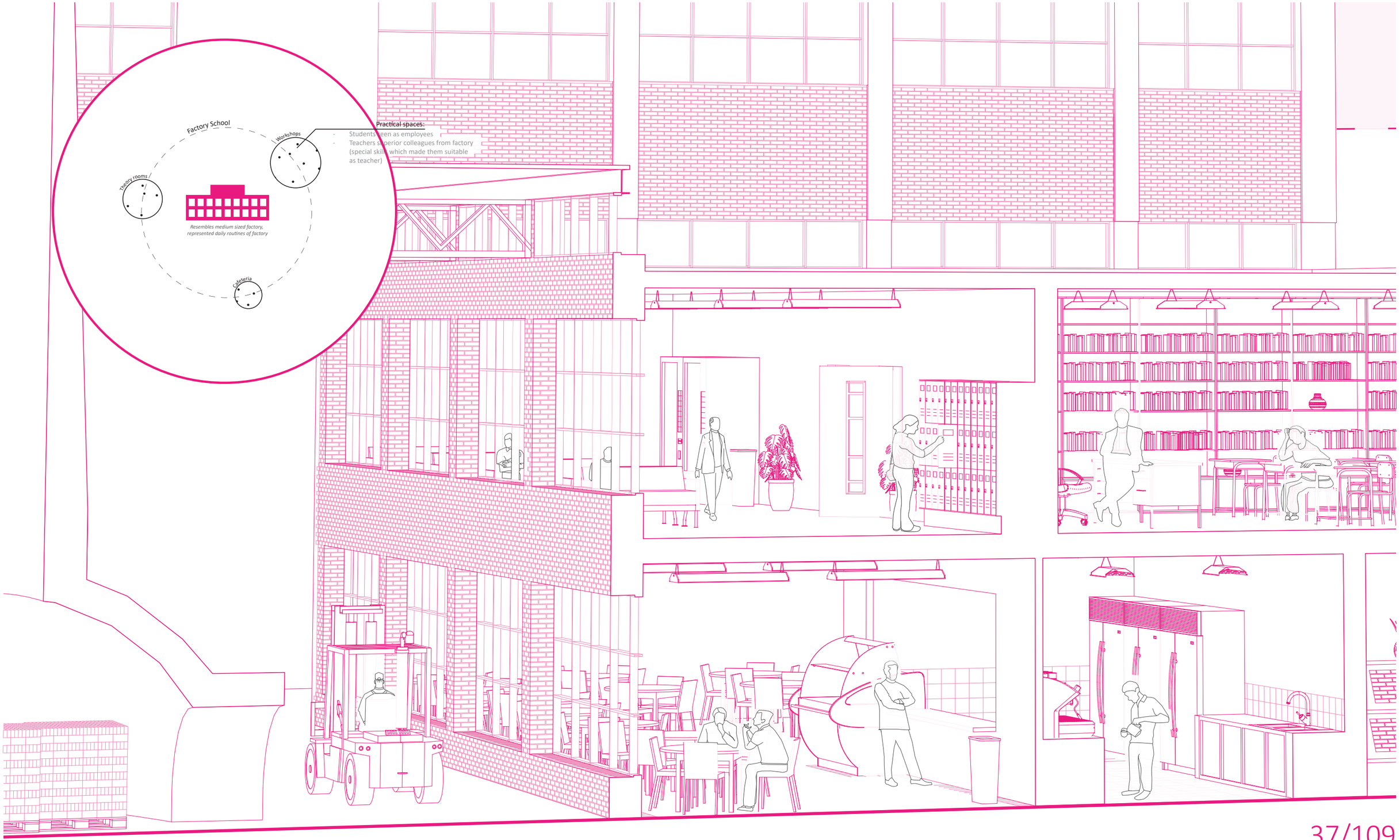
CONCEPT

Conceptual Section



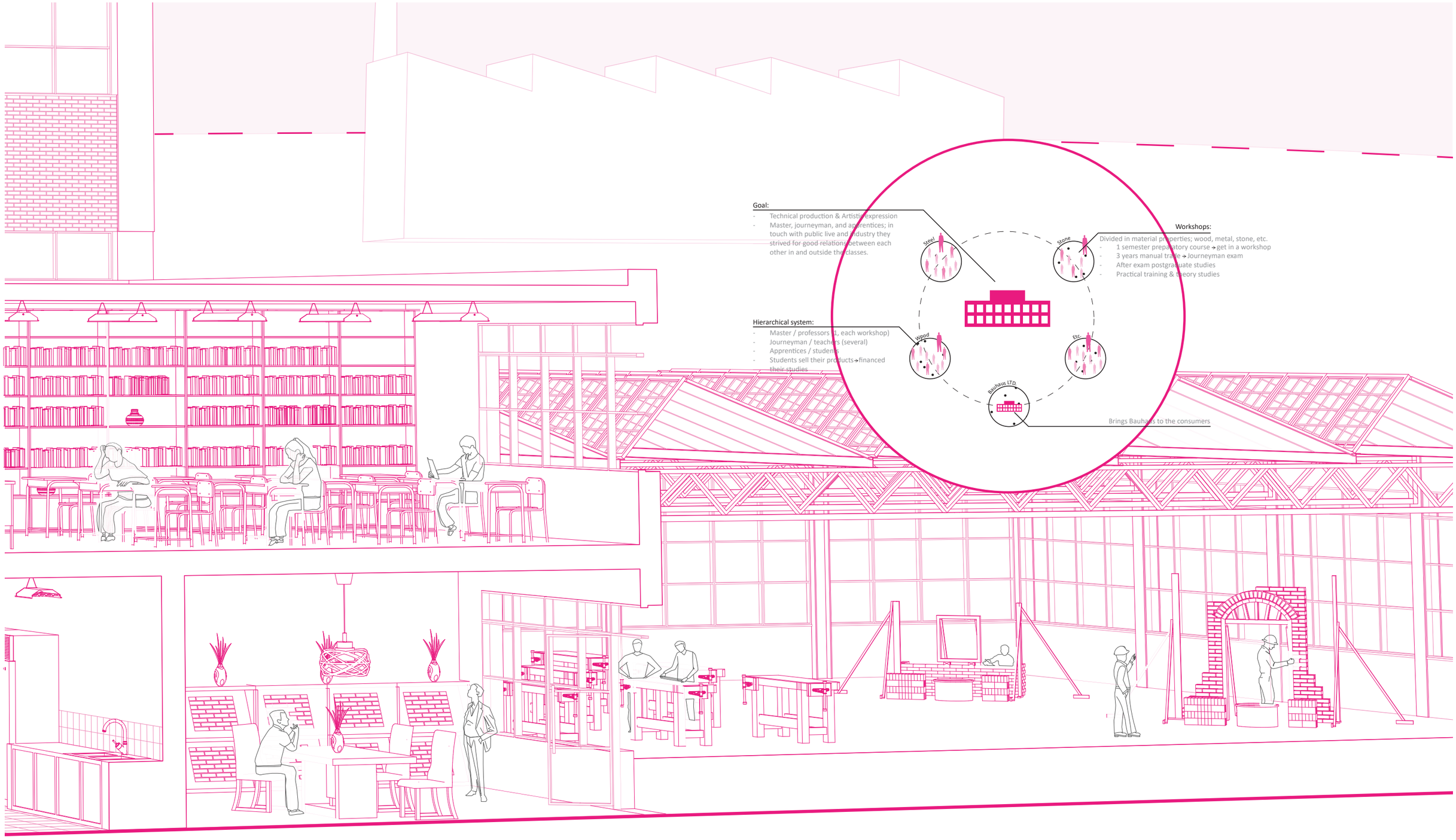
CONCEPT

Connections



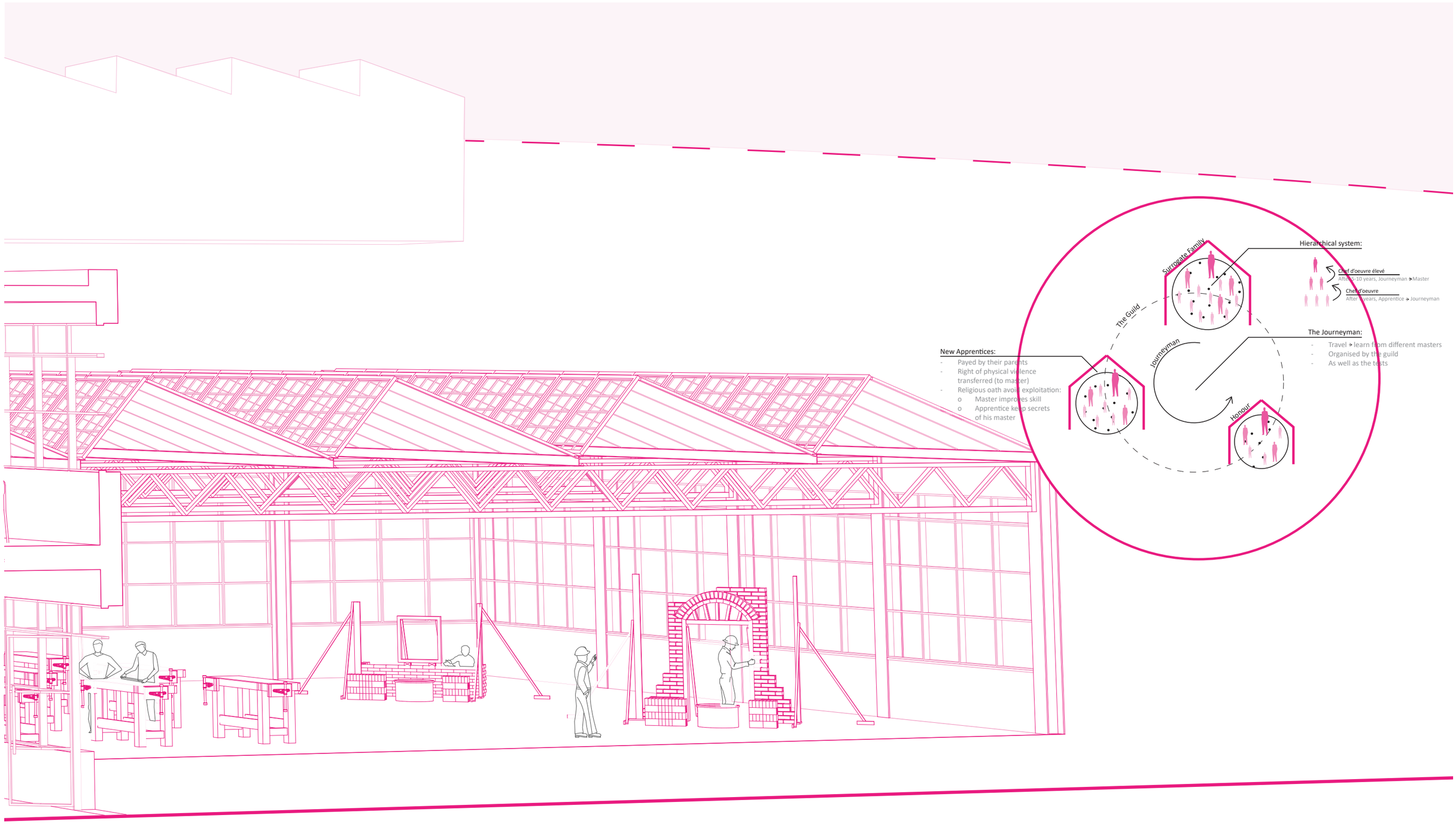
CONCEPT

Enhance Professionality



CONCEPT

Learn from Professionals



CONCEPT

Craftsmanship network

GLOBALISATION

Globalisation
The transport possibilities, and cheap labour in development countries causes a decline in craftmanship in the Netherlands.

ATELIER

FACTORY

THE CRAFTMANSHIP NETWORK

WORKPLACE

Factory Space
Part of our current production system. Student will also learn the basics of brick production and masonry techniques. The factory also needed to put the students in direct connection of the working environment.

Hallway
Connected to the factory space, constantly connection of students with the working environment.

Classrooms
Learn theories behind the craft, for masonry work the theory behind restauration for instance. Students need to become specialised in there profession.

Workshop Hall
Techniques are trained and educated, a system in which the students learn from their colleagues (teachers). In this way students are educated by professionals instead of teachers. They don't get a skill educated but learn a craft. Students become young professionals.

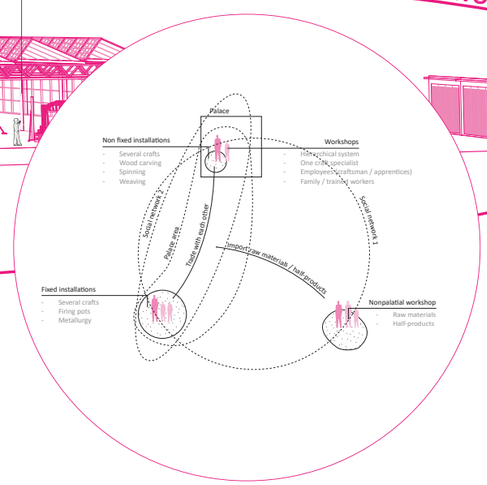
The Network
The craftmanship network, enhances the exchange of knowledge within the craft community and gives the opportunity for students to gain working experience. The exchange of knowledge counts not only for ceramic practises but for all crafts. The building should bring the craft people from the ateliers, shops, factories together.

Cafeteria
For students, teachers, employees, and the headmaster (boss) to create an atmosphere of equality and mutual respect. The students should be seen as employees. Connected to the factory space to create this connection with the working environment.

Showroom
Selling the products created in the factory and by the students, such as the Bauhaus Ltd. Besides that students provide free consultancy to improve their entrepreneurship and indecency for when they are finished at school.

The Atelier
A painters gallery which is placed in the creative canal district in the city centre, has his value in the craft community and should be connected to this network.

The Garage box
A small one man workplaces should be part of the community, in order to learn his or her techniques but also to help them to increase there skill.



DESIGN BRIEF

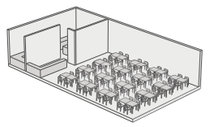
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- Design Principles

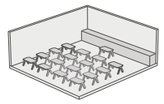


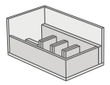
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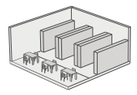
Dimensions

PUBLIC

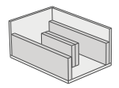

Restaurant [180 m²]


Pottery Workshop [130 m²]


Shop [45 m²]


Showroom / Consultancy [80 m²]


Toilets [30 m²]

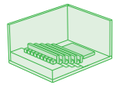

Exhibition Space [55 m²]

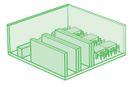

Office [15 m²]

EDUCATIONAL


Classrooms [55 m²] (4x)


Computer Room [55 m²]

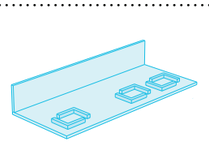

Auditorium [50 m²]


Library [70 m²]


Printer Room [10 m²]


Toilets [30 m²]

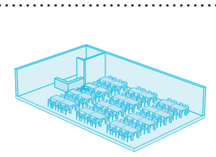
COMMUNAL

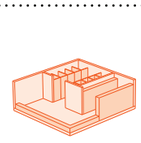

Entrance [160 m²]


Reception [15 m²]

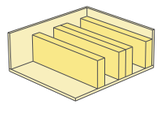

Wardrobe [20 m²]

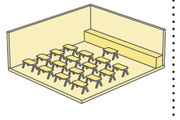

Toilets [15 m²]


Cafeteria [160 m²]

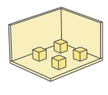

Locker Room [80 m²] (2x)

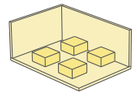
WORKSHOP

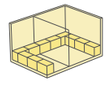

Storage (products to use) [110 m²]

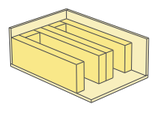

Workshop Space [130 m²] (3x)


Ovens [25 m²]

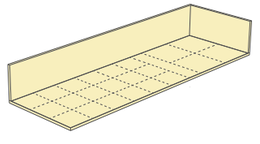

Small Machinery [40 m²]


Big Machinery [70 m²]

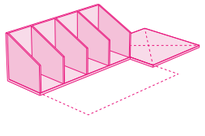

Glazing Room [40 m²]

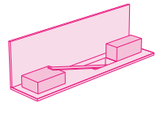

Storage Student Products [95 m²]

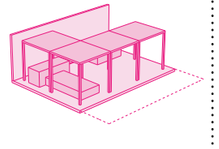

Scrap Dump [25 m²]

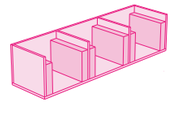

Masonry Workshop [260 m²]

FACTORY

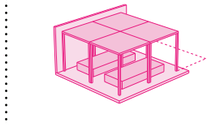

Material Storage [100 m²]

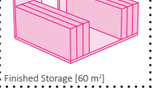

Pre-Processing [40 m²]

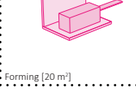

Forming / Collecting [100 m²]

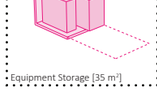

Drying Chambers [135 m²]


Oven [900 m²]


Distribution [100 m²]

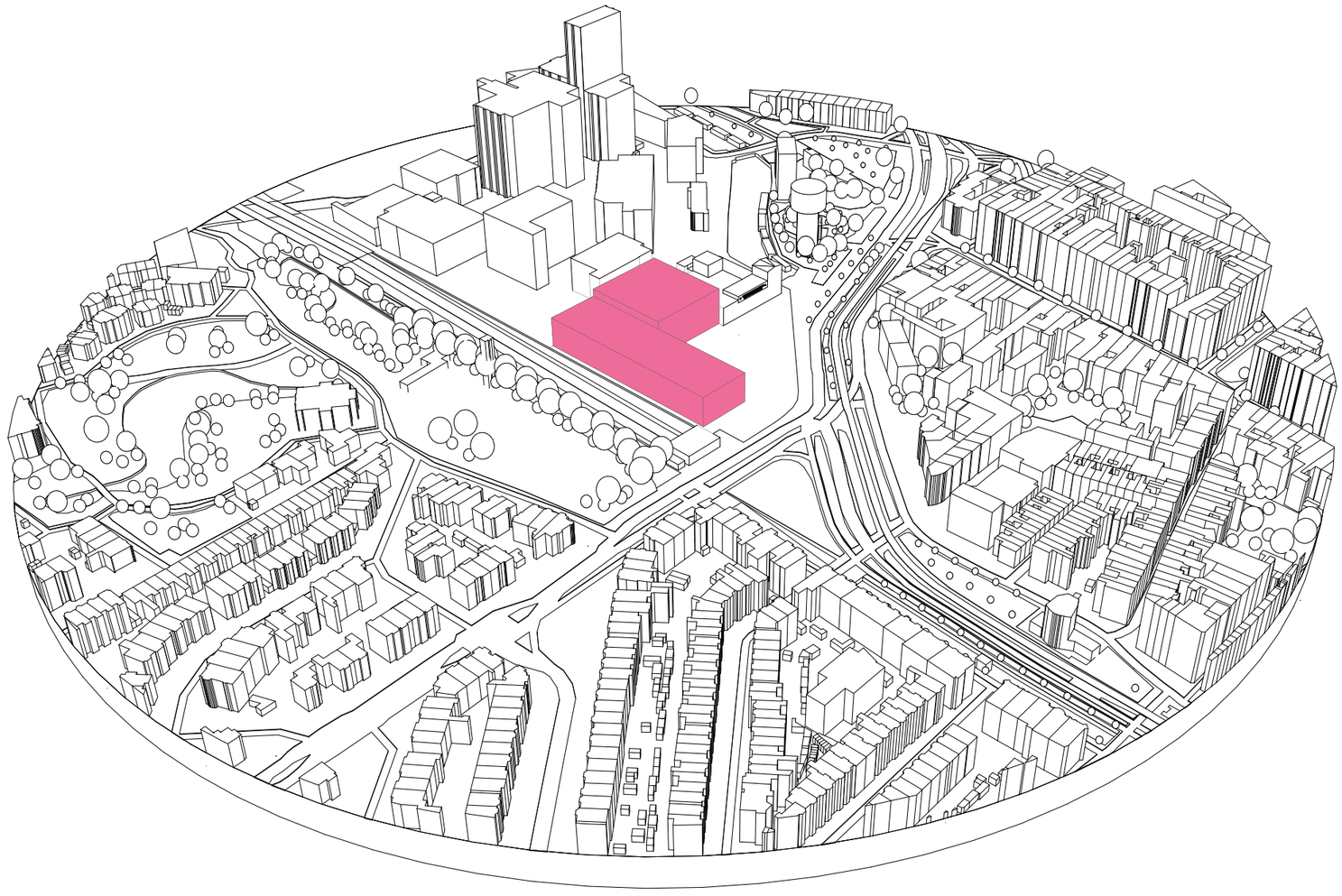

Finished Storage [60 m²]


Forming [20 m²]


Equipment Storage [35 m²]

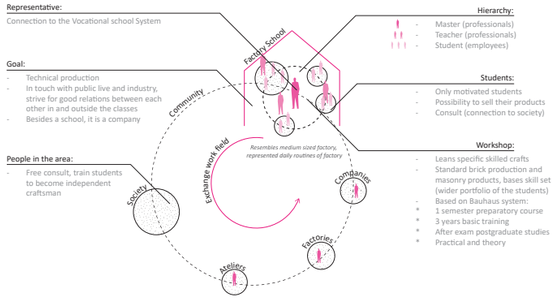
VOLUME

Factory

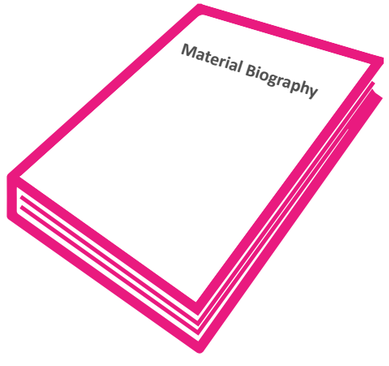


DESIGN PRINCIPLES

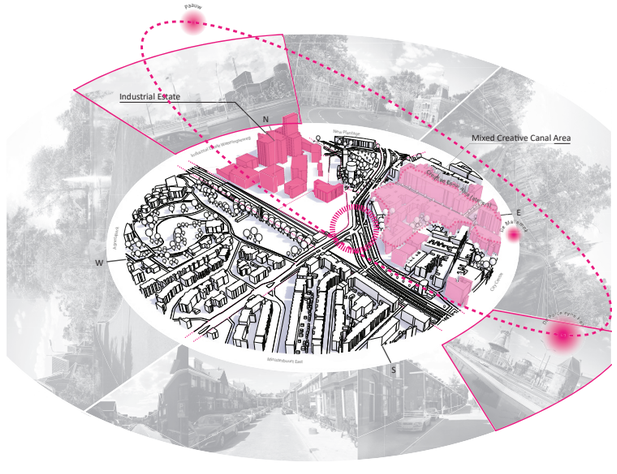
Input



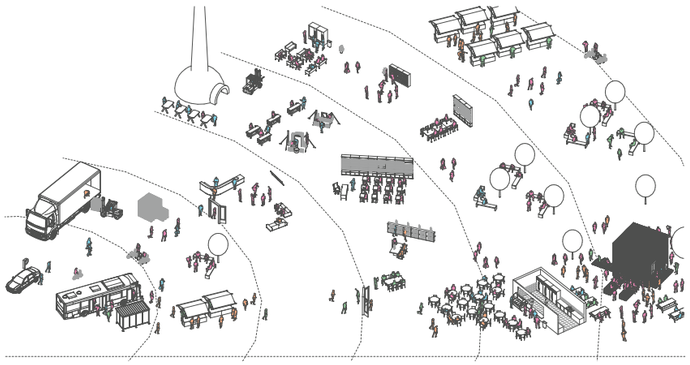
SYSTEM



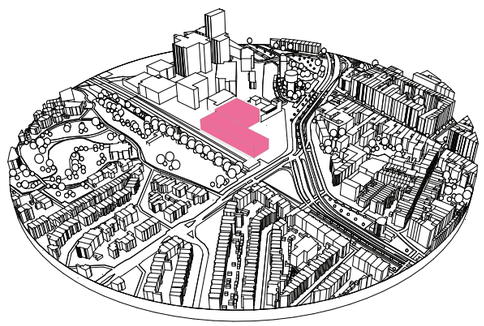
MATERIAL



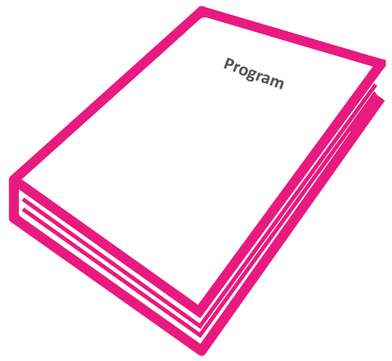
CONTEXT



USER



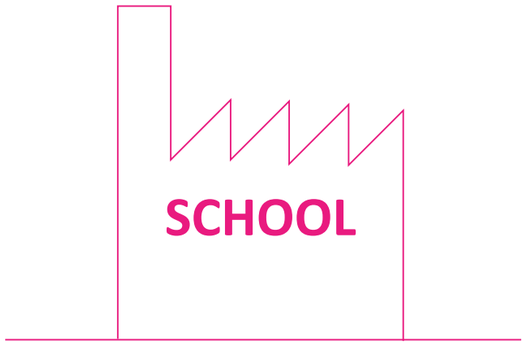
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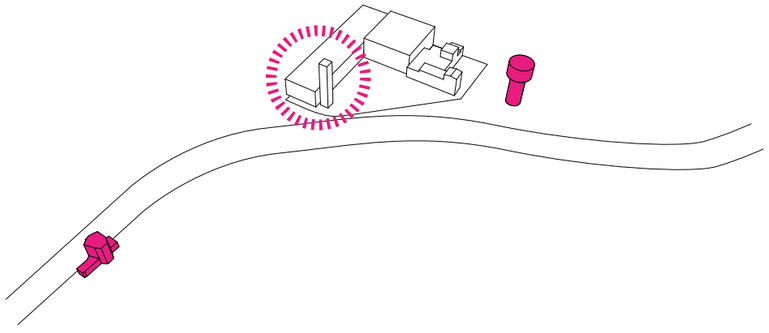
DIMENSION

DESIGN PRINCIPLES

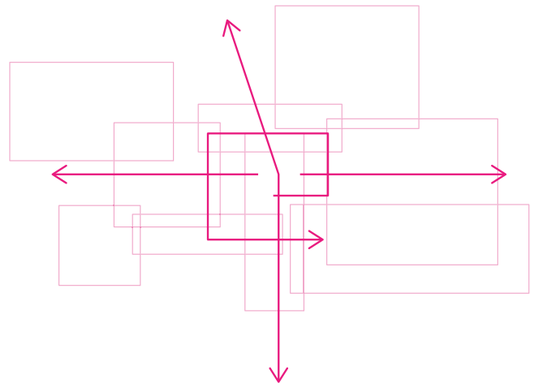
Architectural Expression



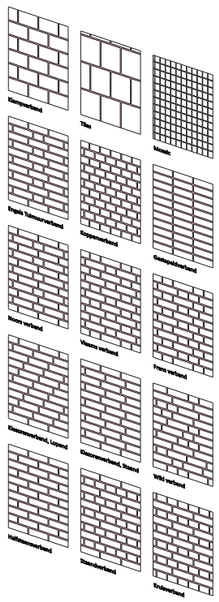
FACOTRY SCHOOL



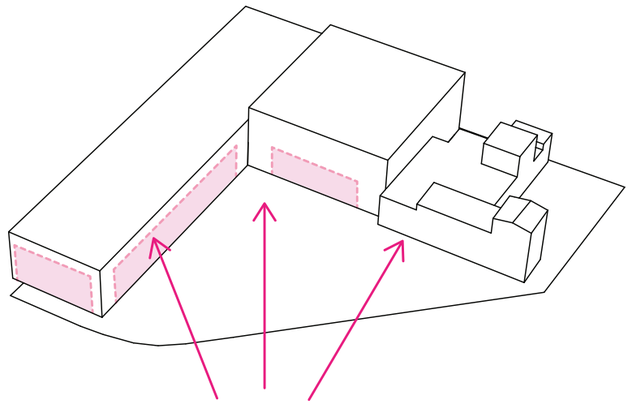
LANDMARK



CONNECTION



DIDACTIC



OPEN

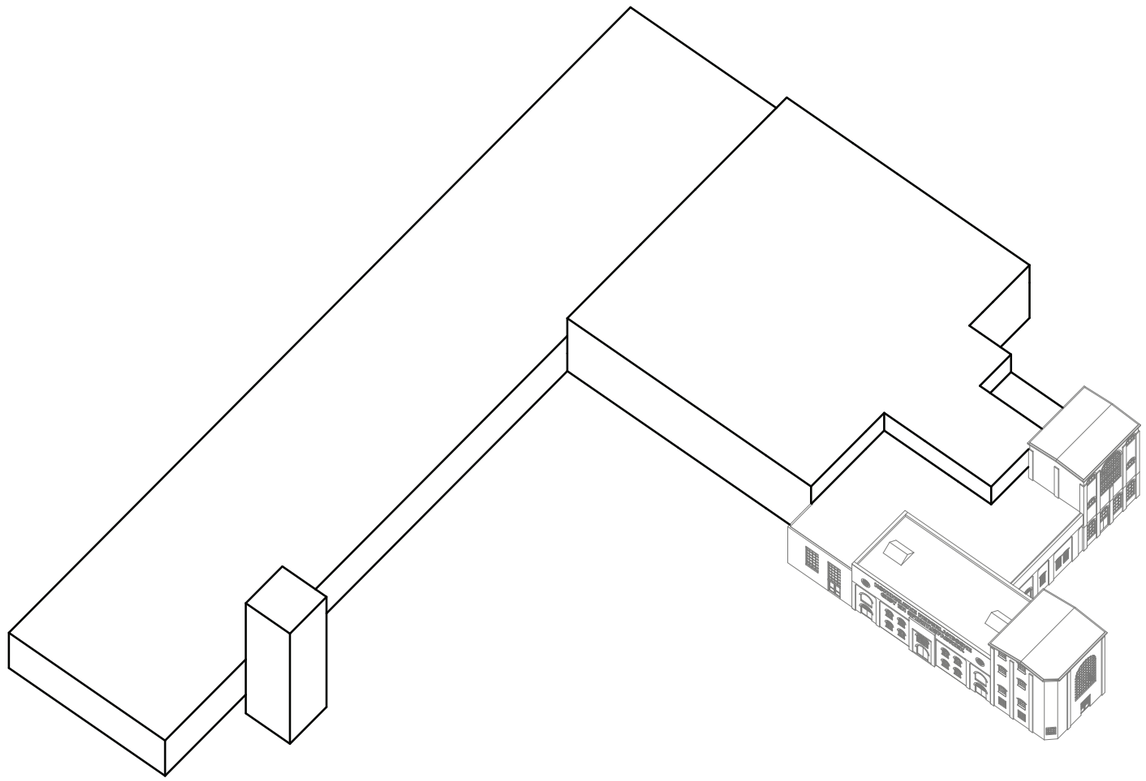
DESIGN

- Spatial Planning
- Structure
- Floorplans
- Elevations
- Section
- Fragment
- Climate system

4

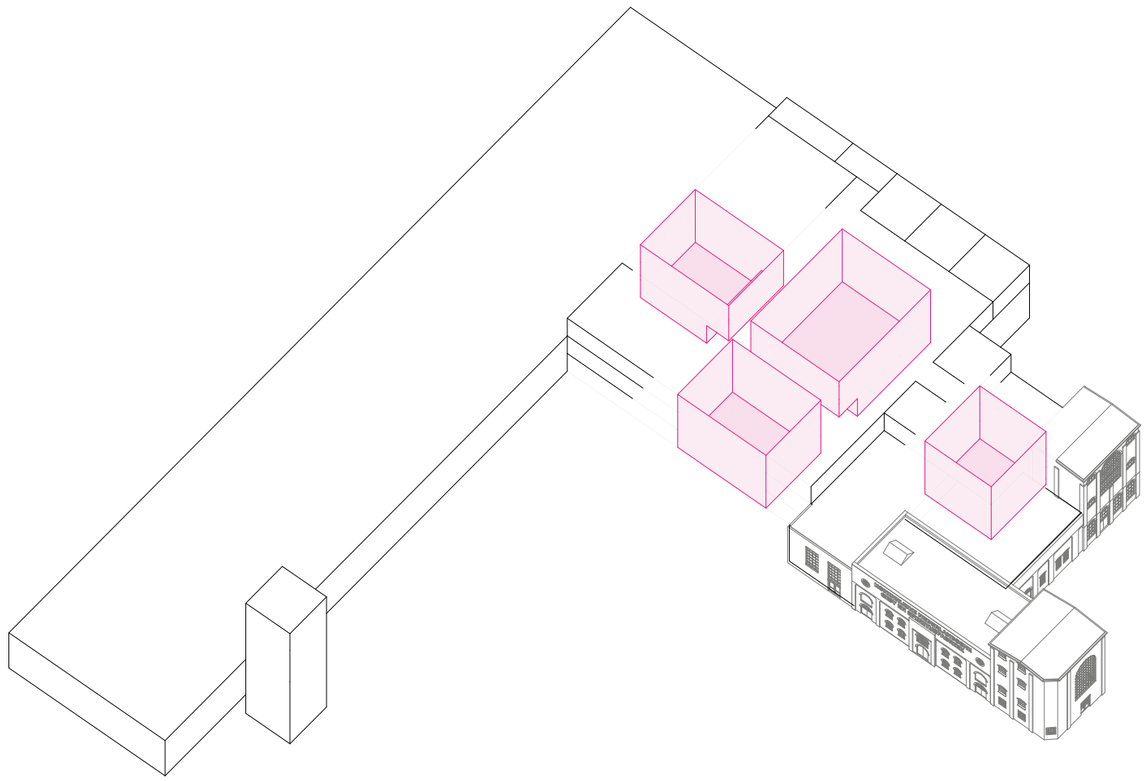
SPATIAL PLANNING

Volume



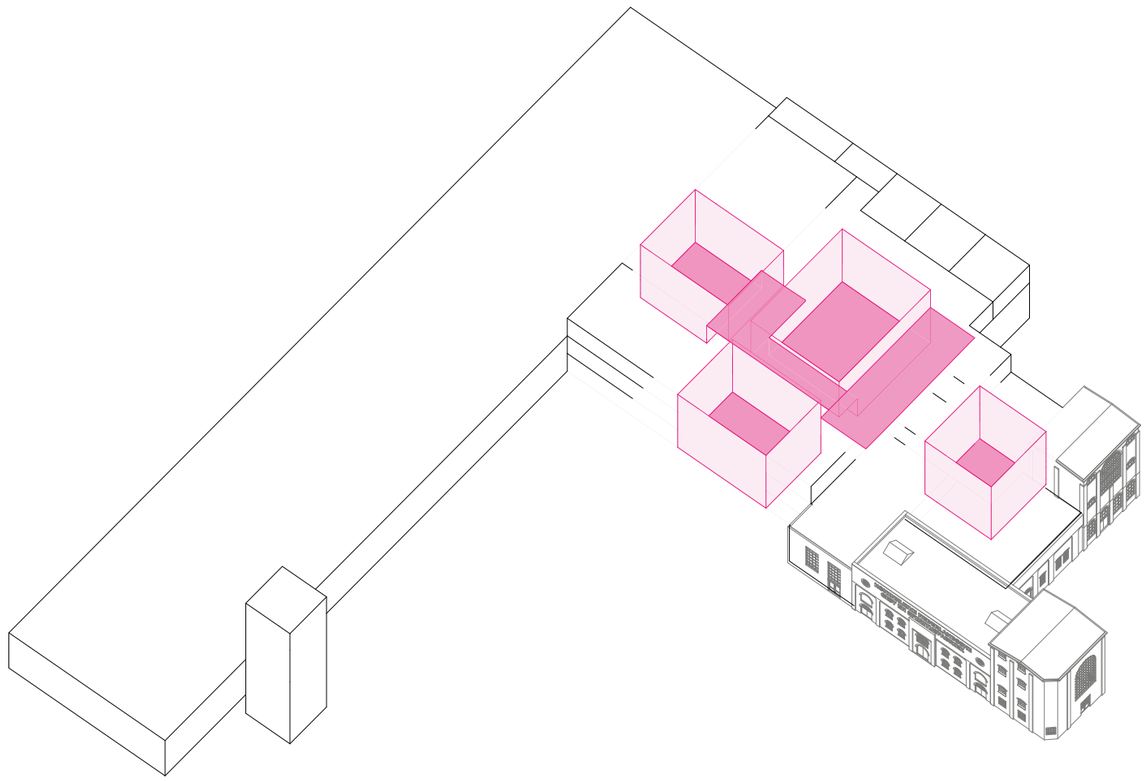
SPATIAL PLANNING

Atria



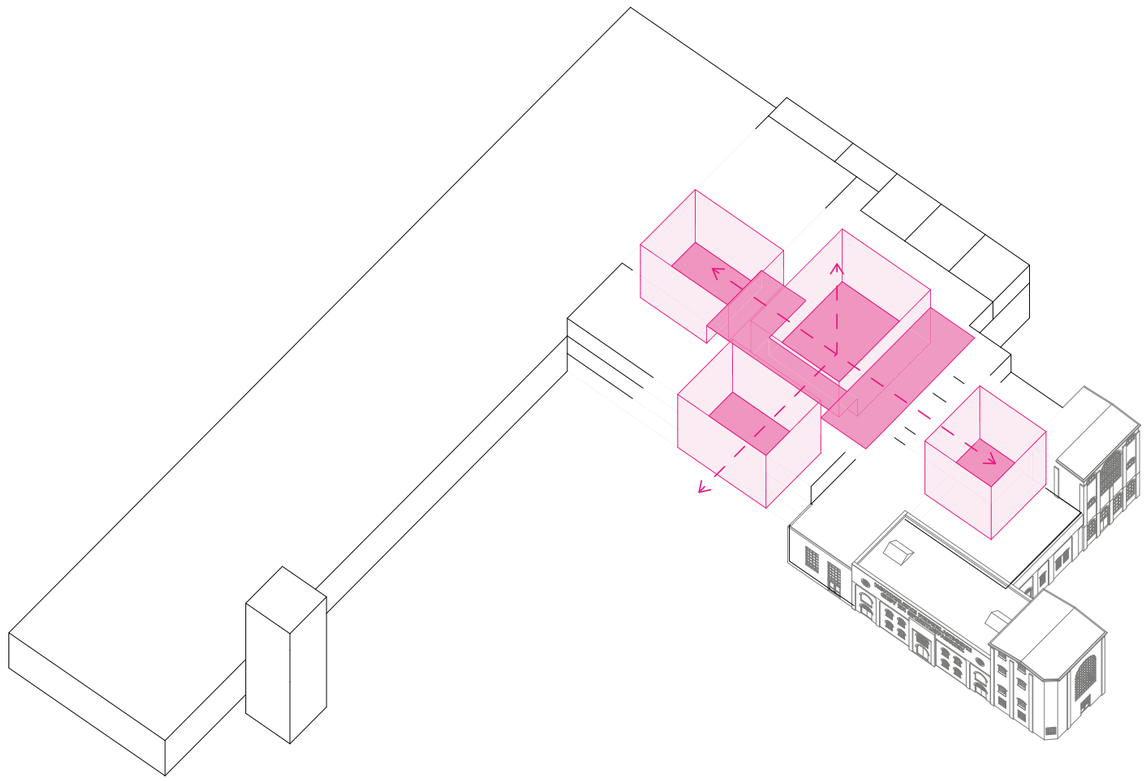
SPATIAL PLANNING

Social spaces



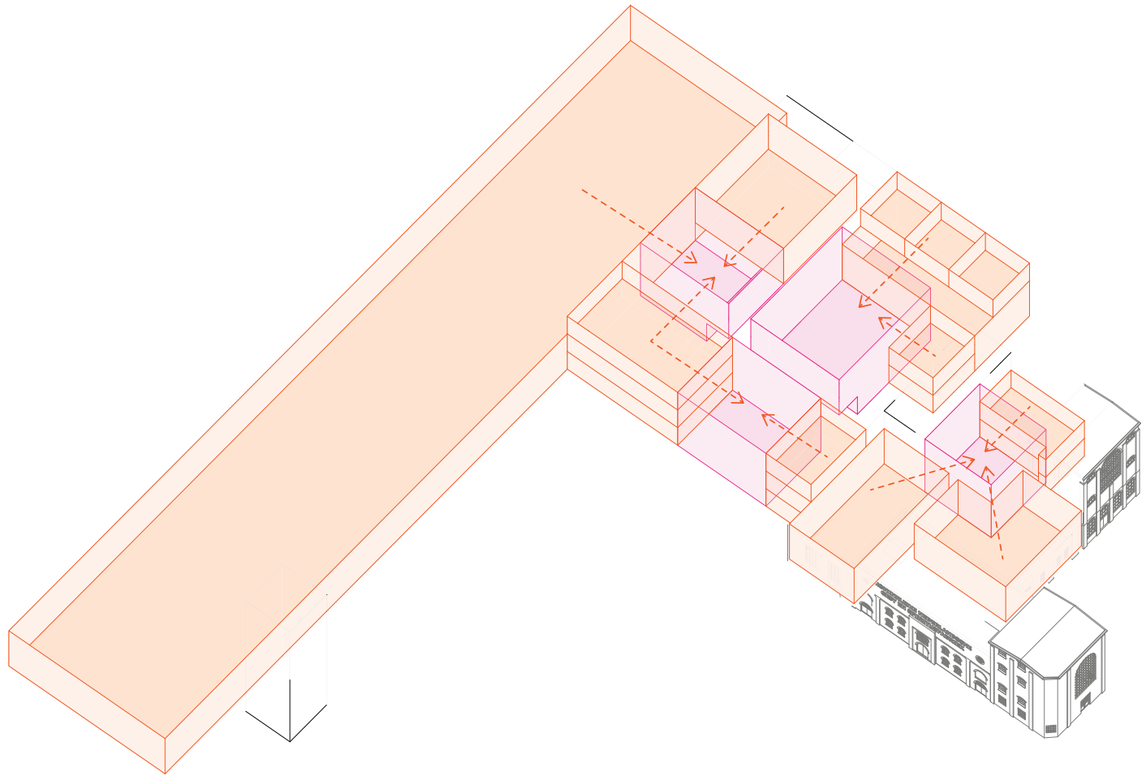
SPATIAL PLANNING

Connection



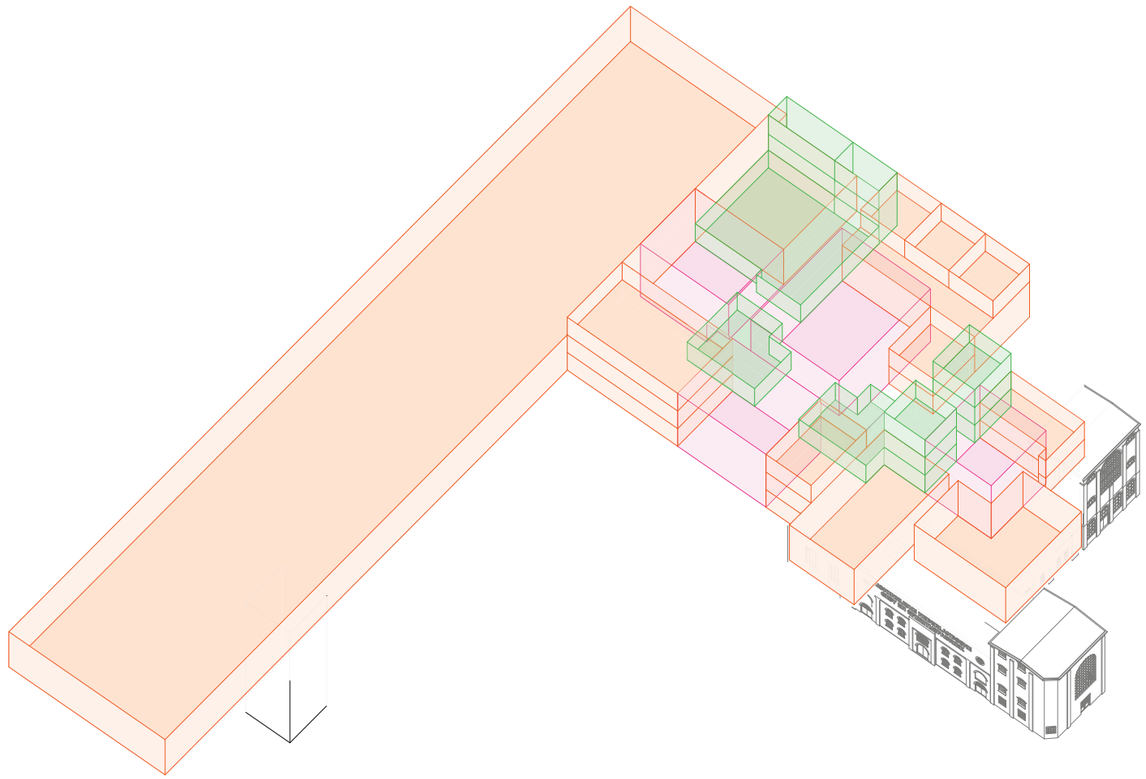
SPATIAL PLANNING

Connected rooms



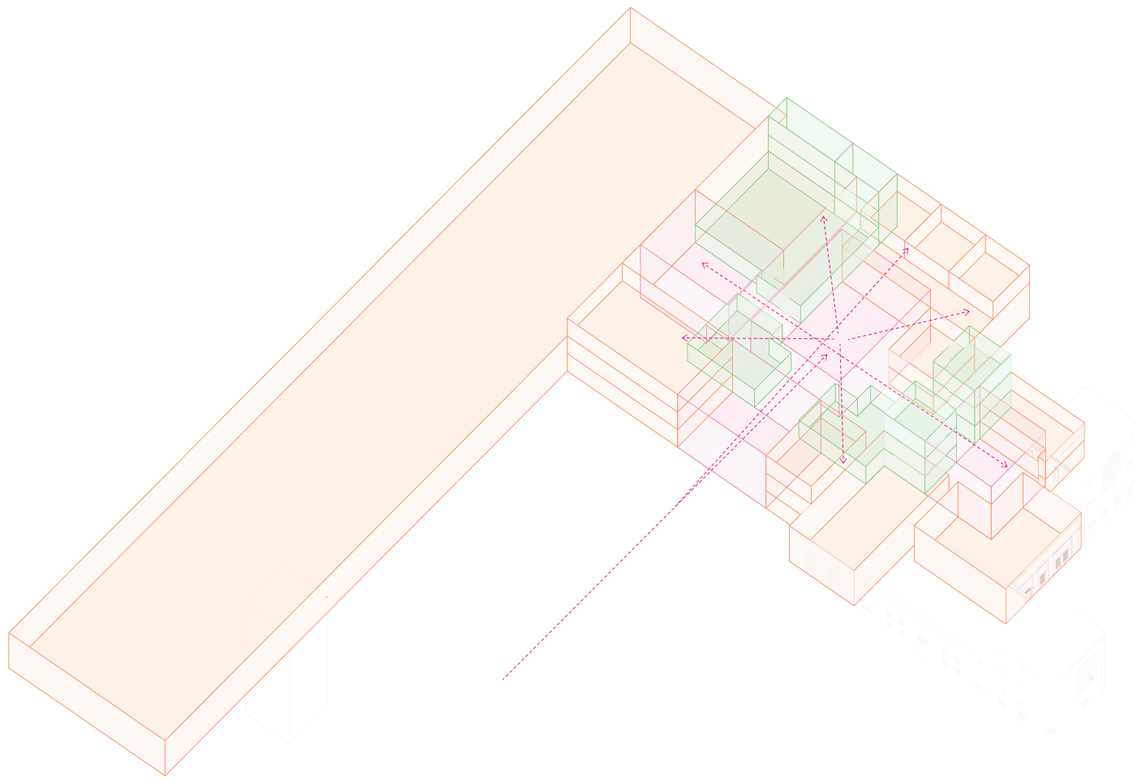
SPATIAL PLANNING

Practical spaces



SPATIAL PLANNING

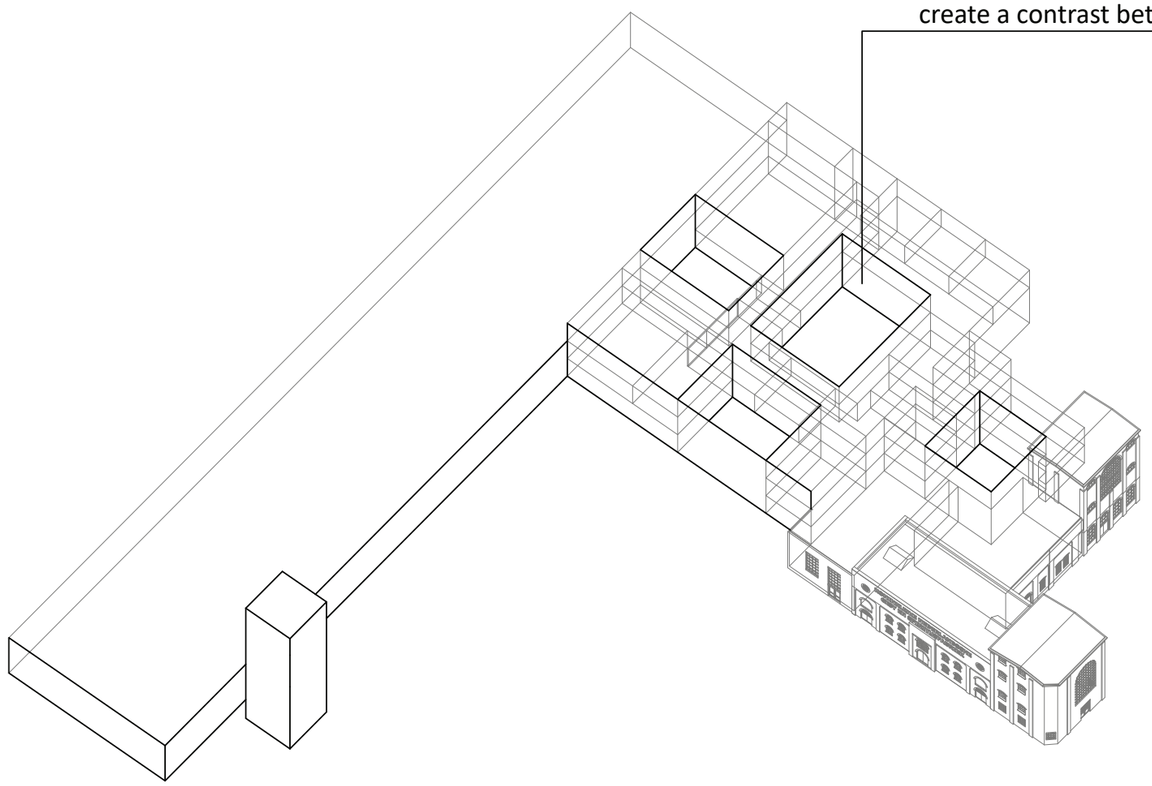
Views



SPATIAL PLANNING

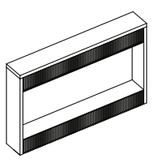
Materialisation

Brick for the external façade and inside the atria, outside of the atria will be plastered, in order to lighter up the hallways and to create a contrast between inside and outside the atria.



SPATIAL PLANNING

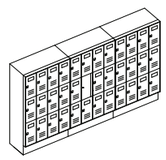
Materialisation



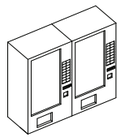
Benches



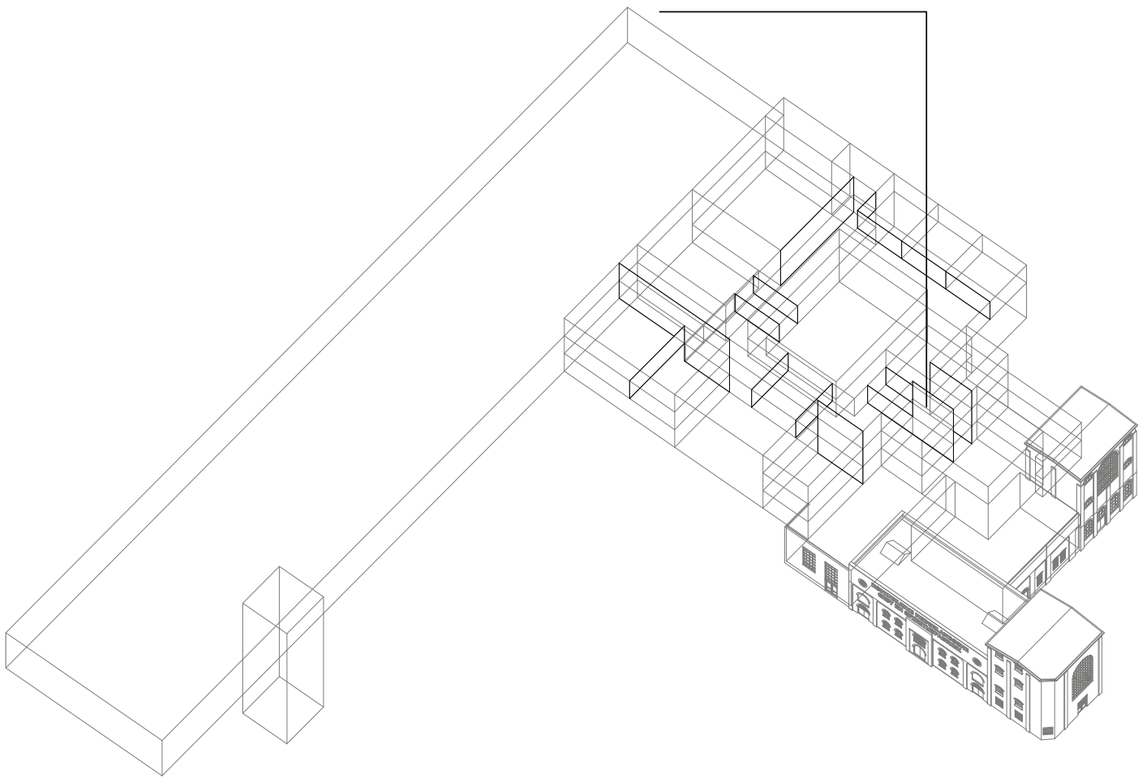
Cabinets



Lockers

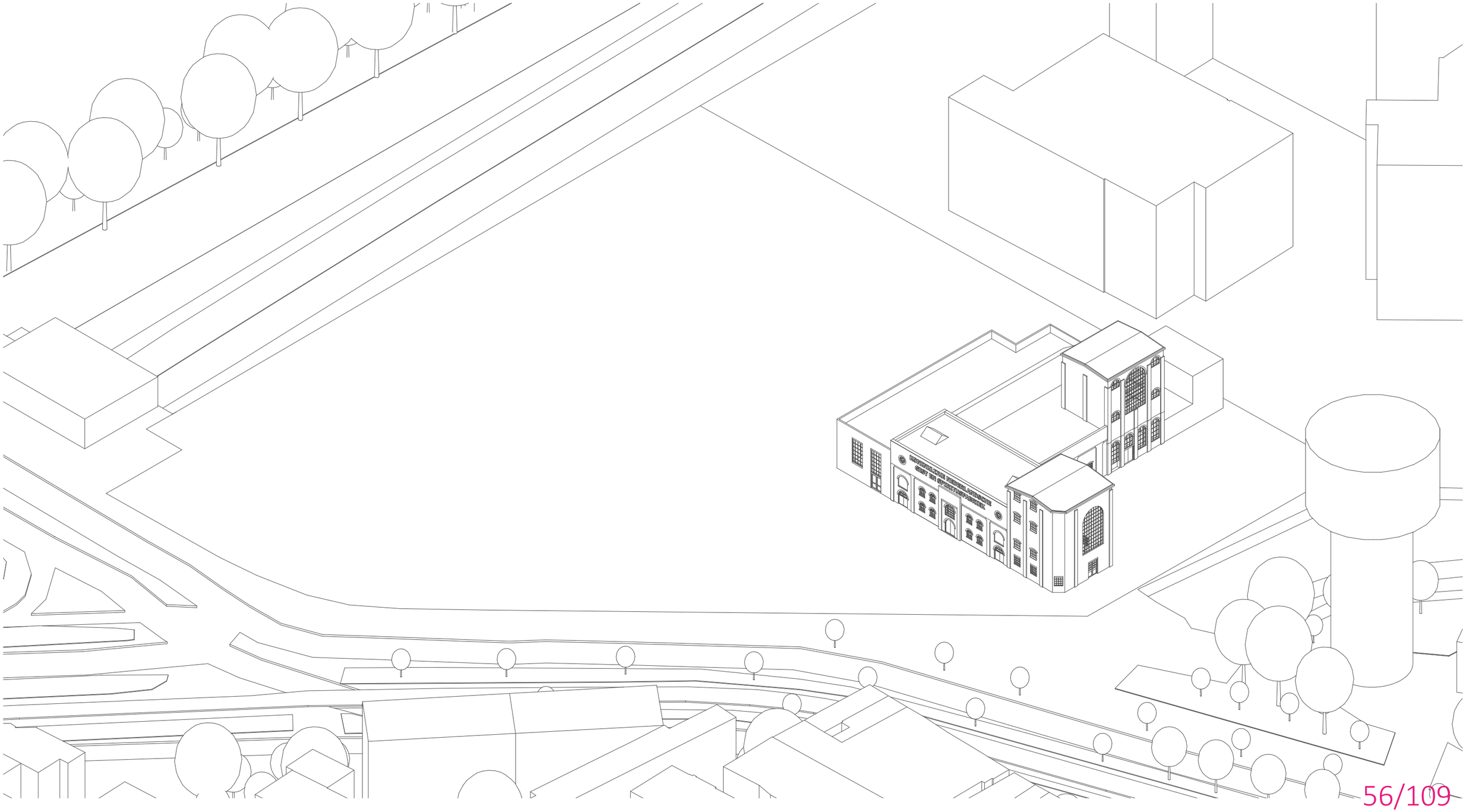


Vending machines



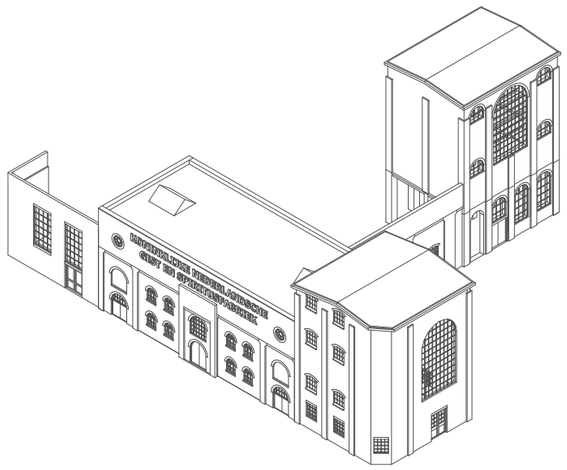
STRUCTURE

Current situation



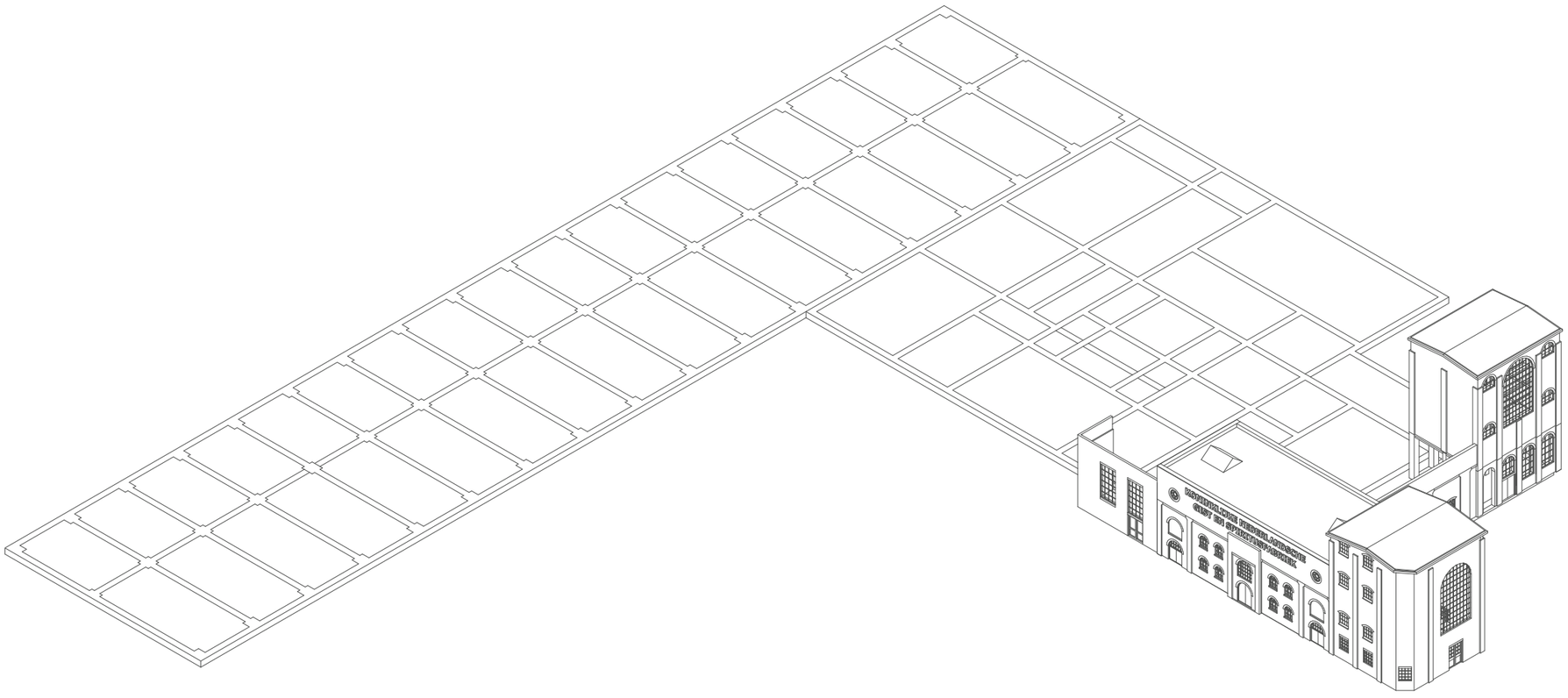
STRUCTURE

Remove old structure



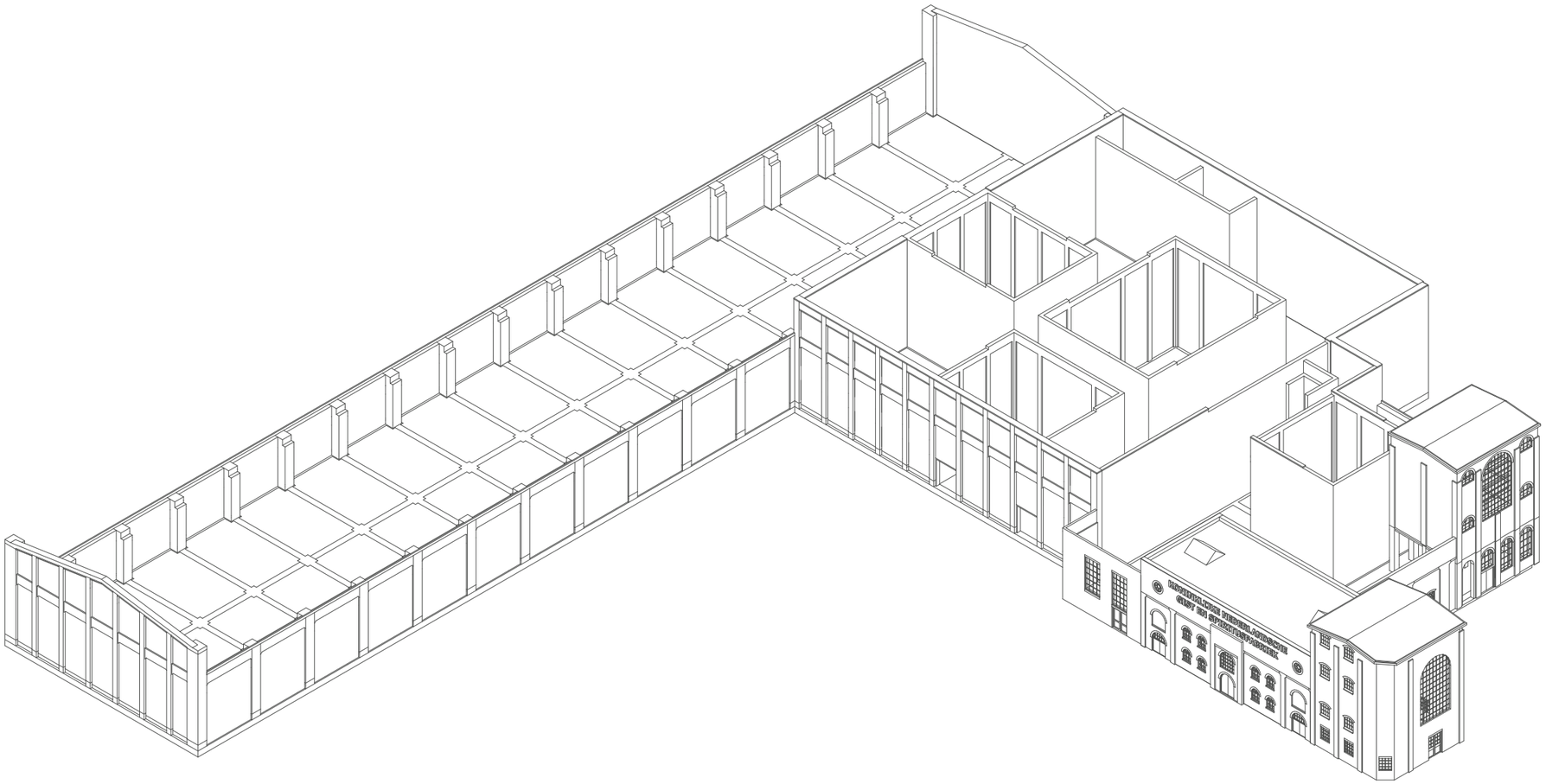
STRUCTURE

Pour foundation



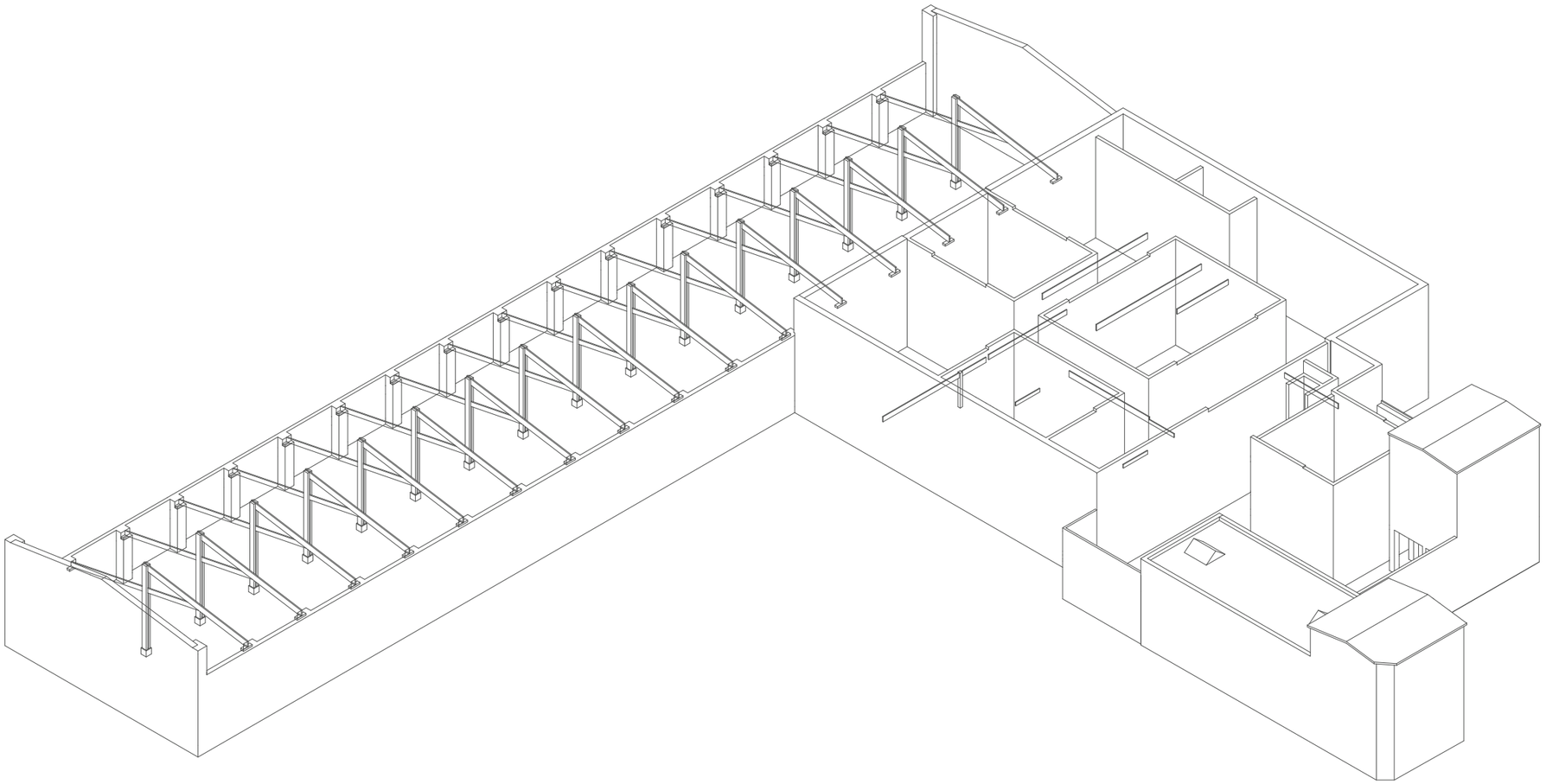
STRUCTURE

Place structural walls



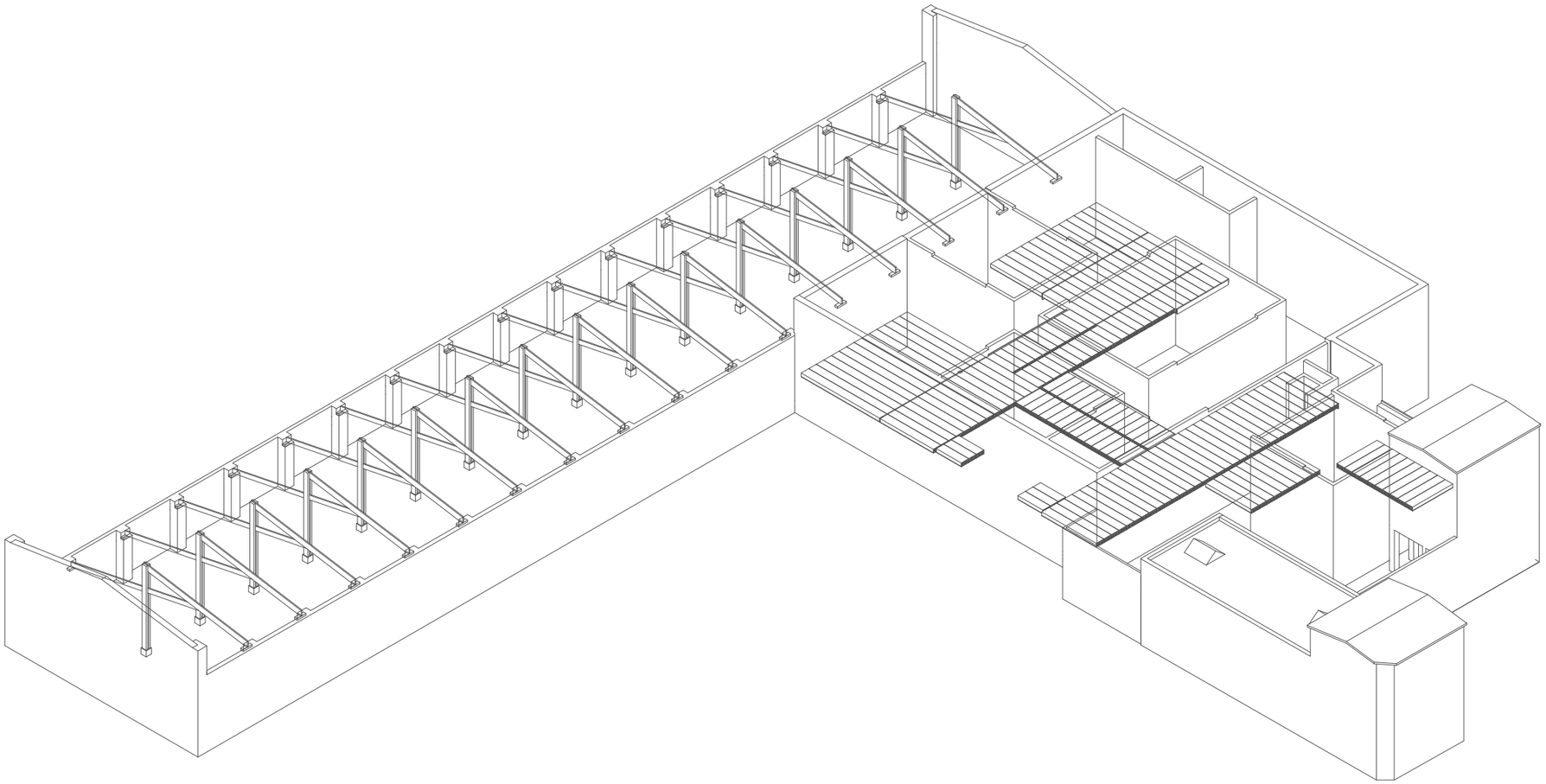
STRUCTURE

Pour screed, place beams and columns first floor



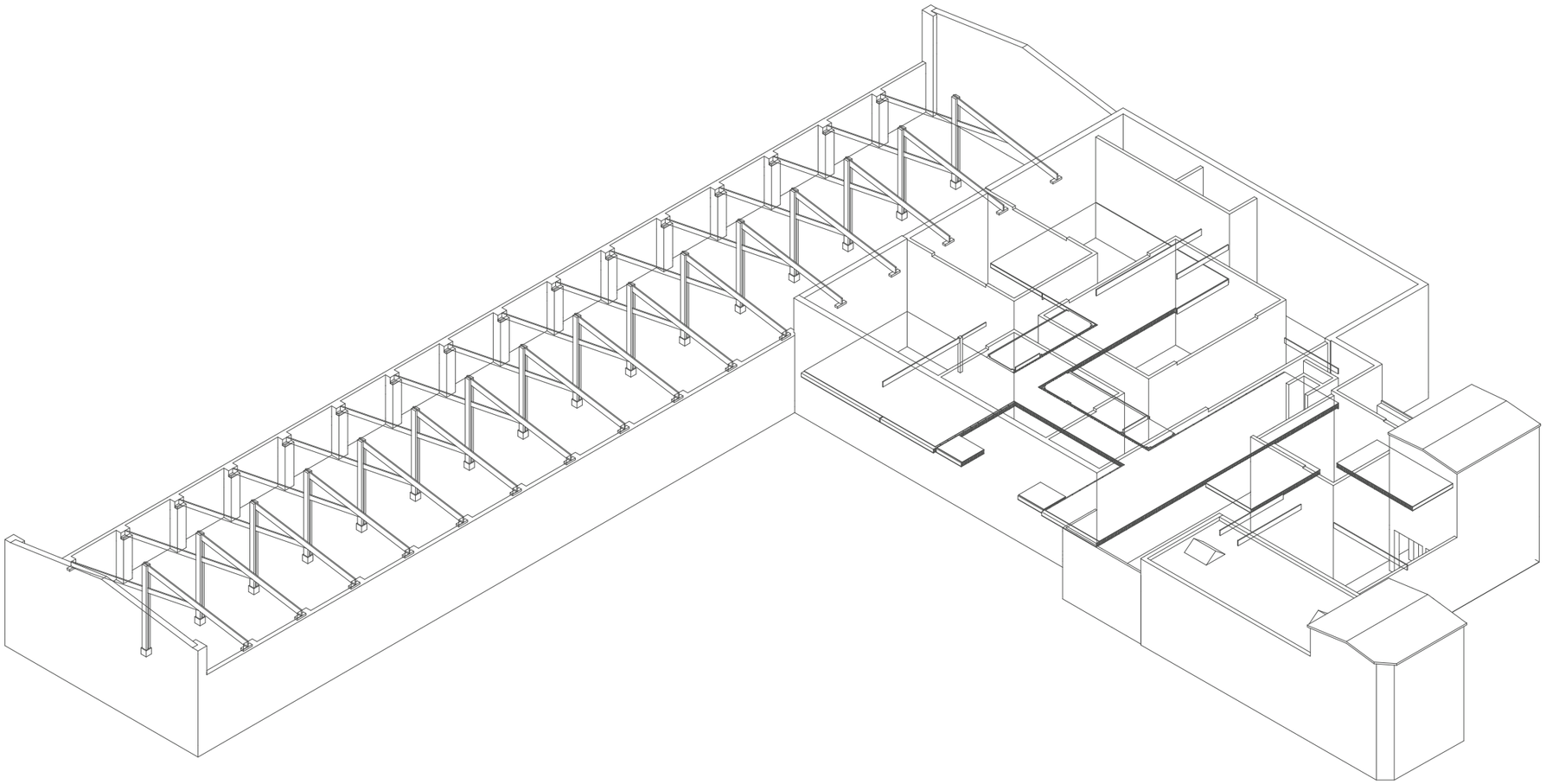
STRUCTURE

Place Lignatur floor first floor



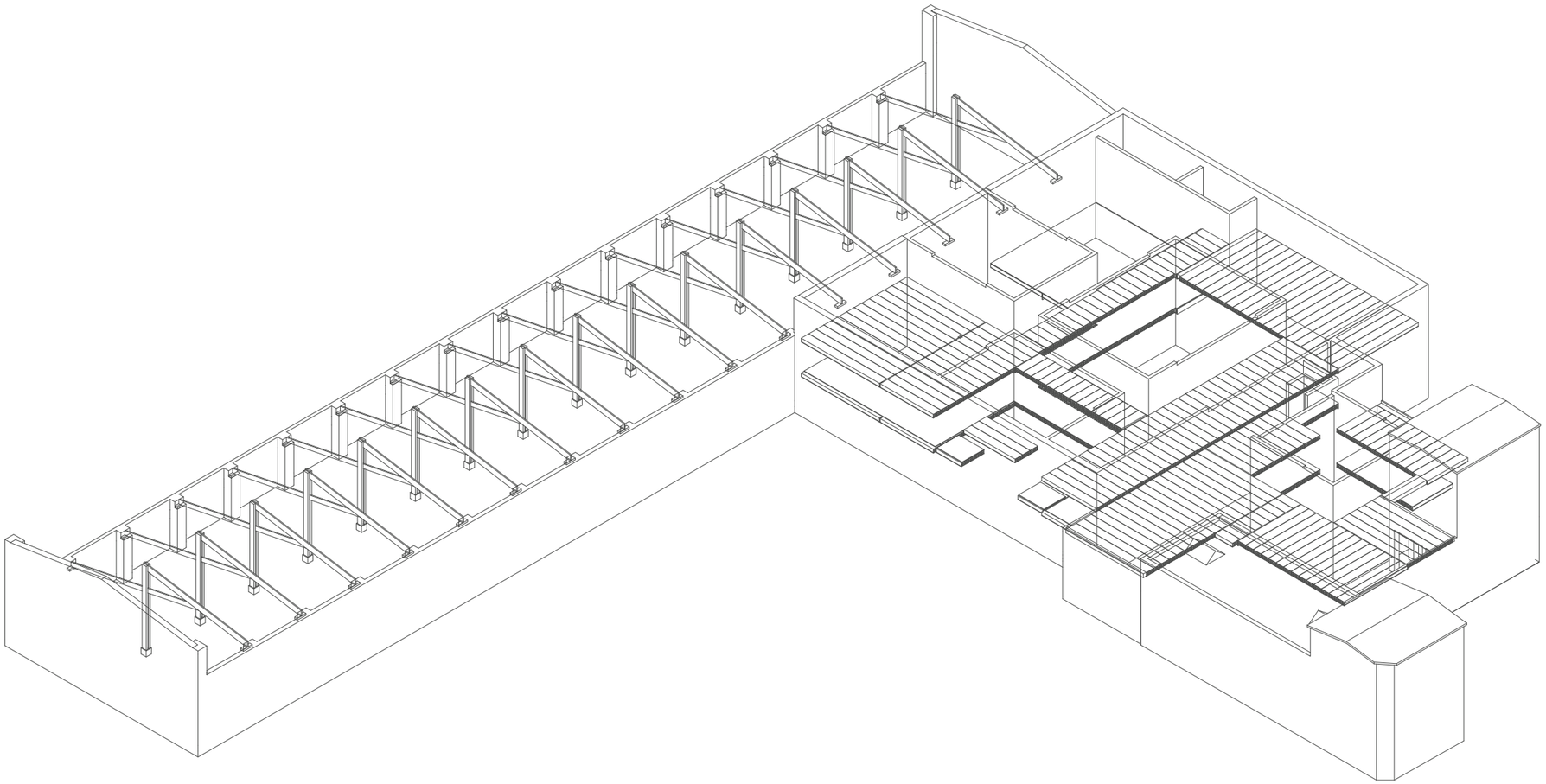
STRUCTURE

Pour screed, place beams and columns second floor



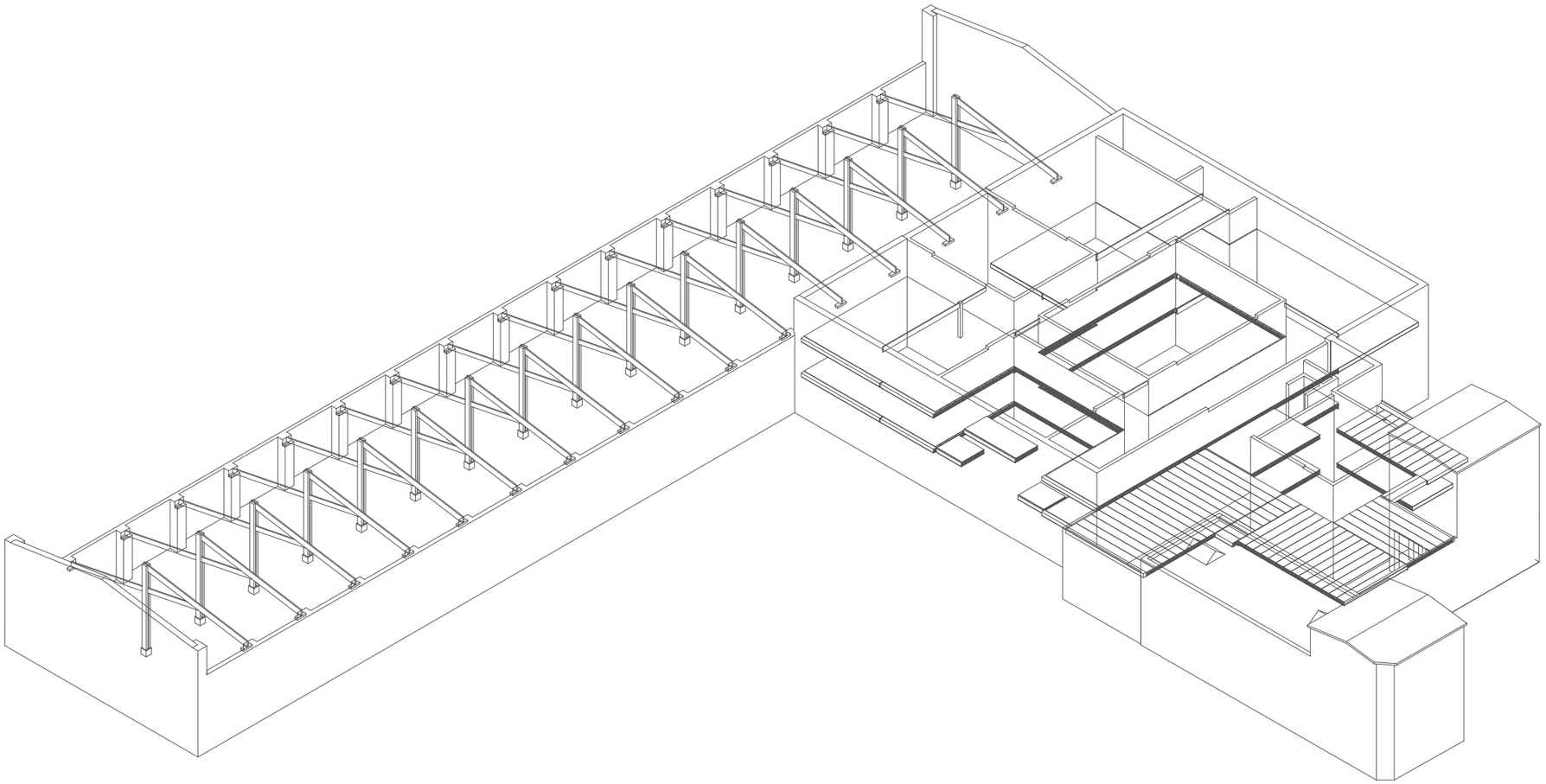
STRUCTURE

Place Lignatur floor second floor



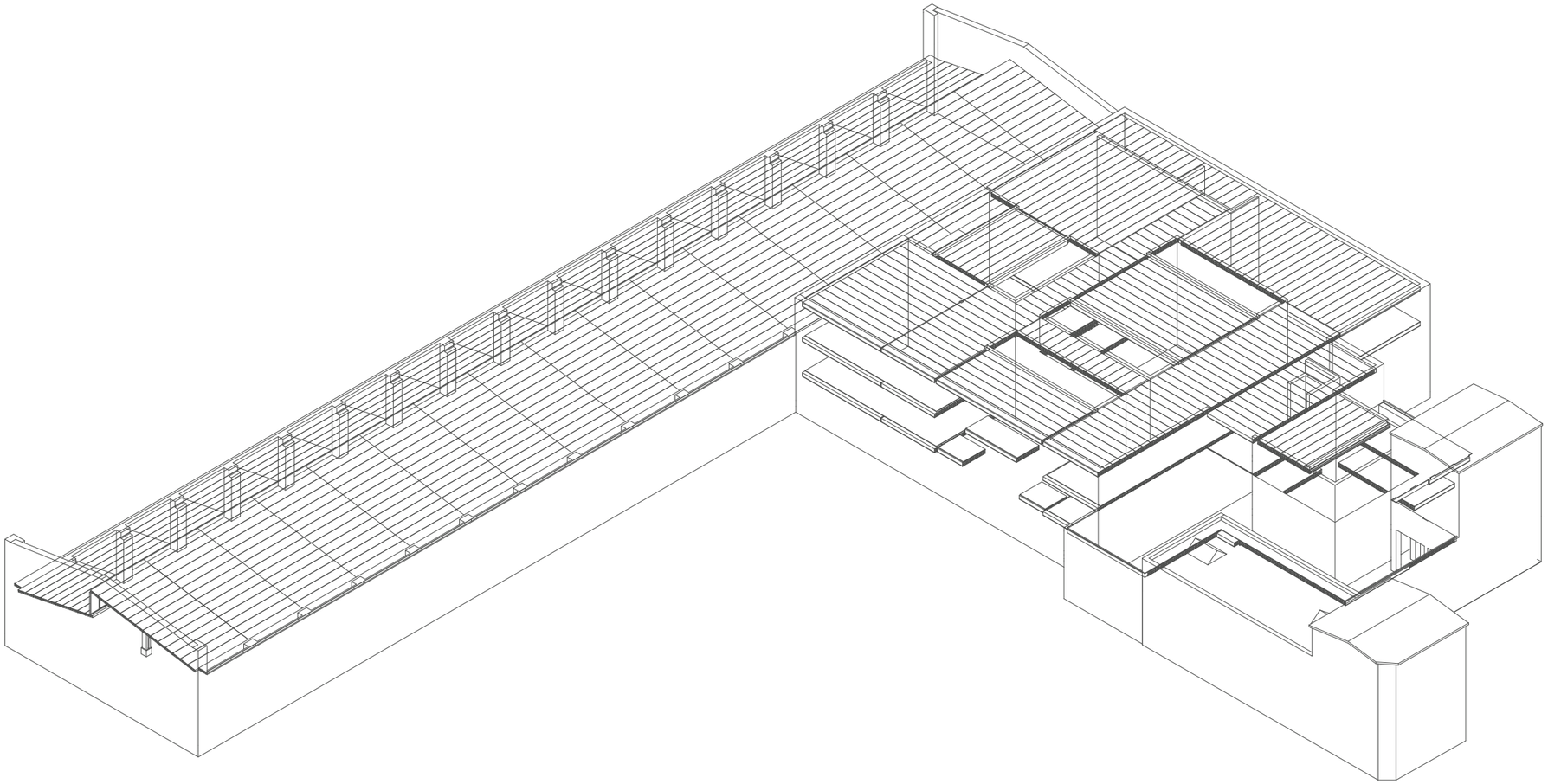
STRUCTURE

Pour screed, place beams and columns roof



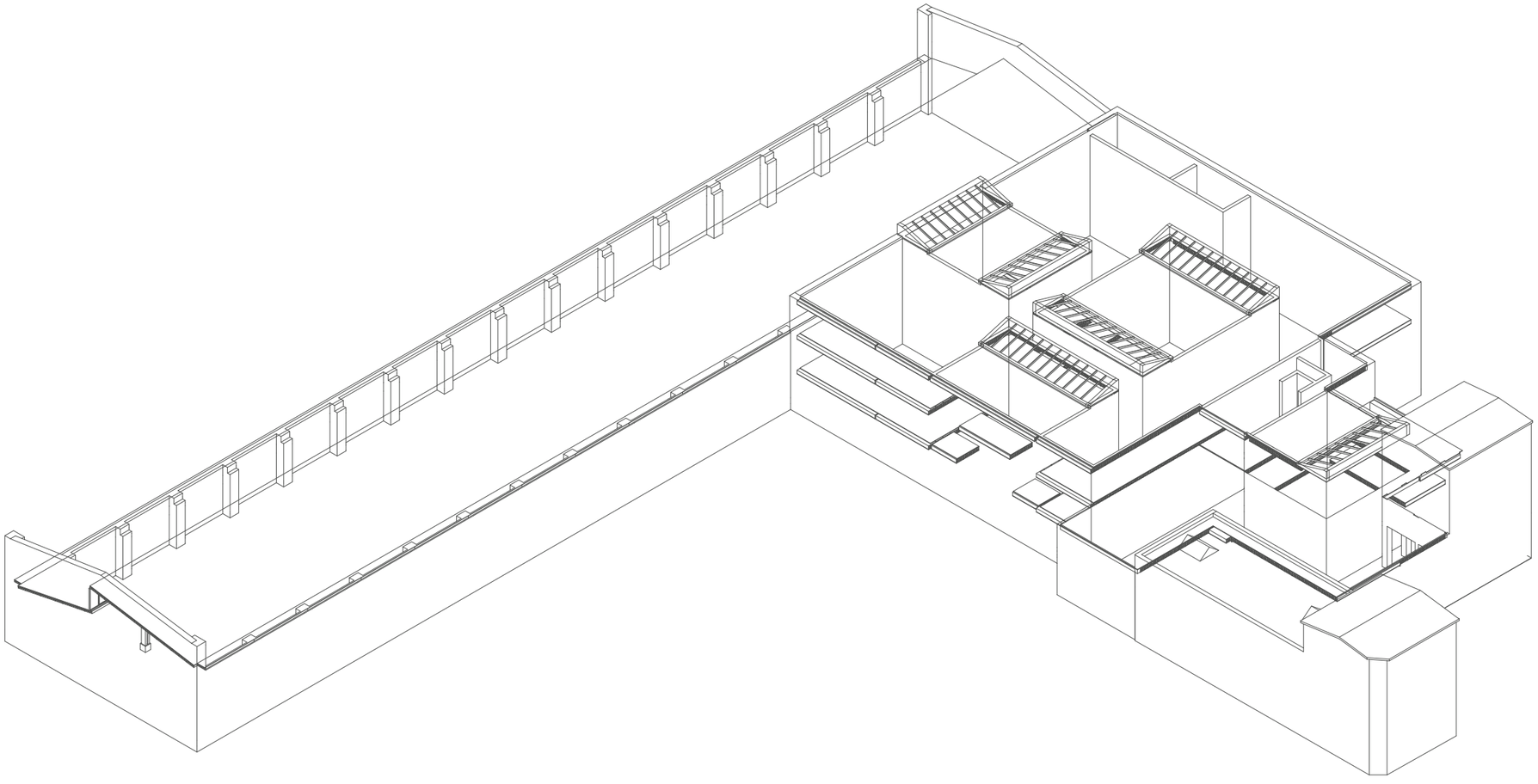
STRUCTURE

Place Lignatur roof



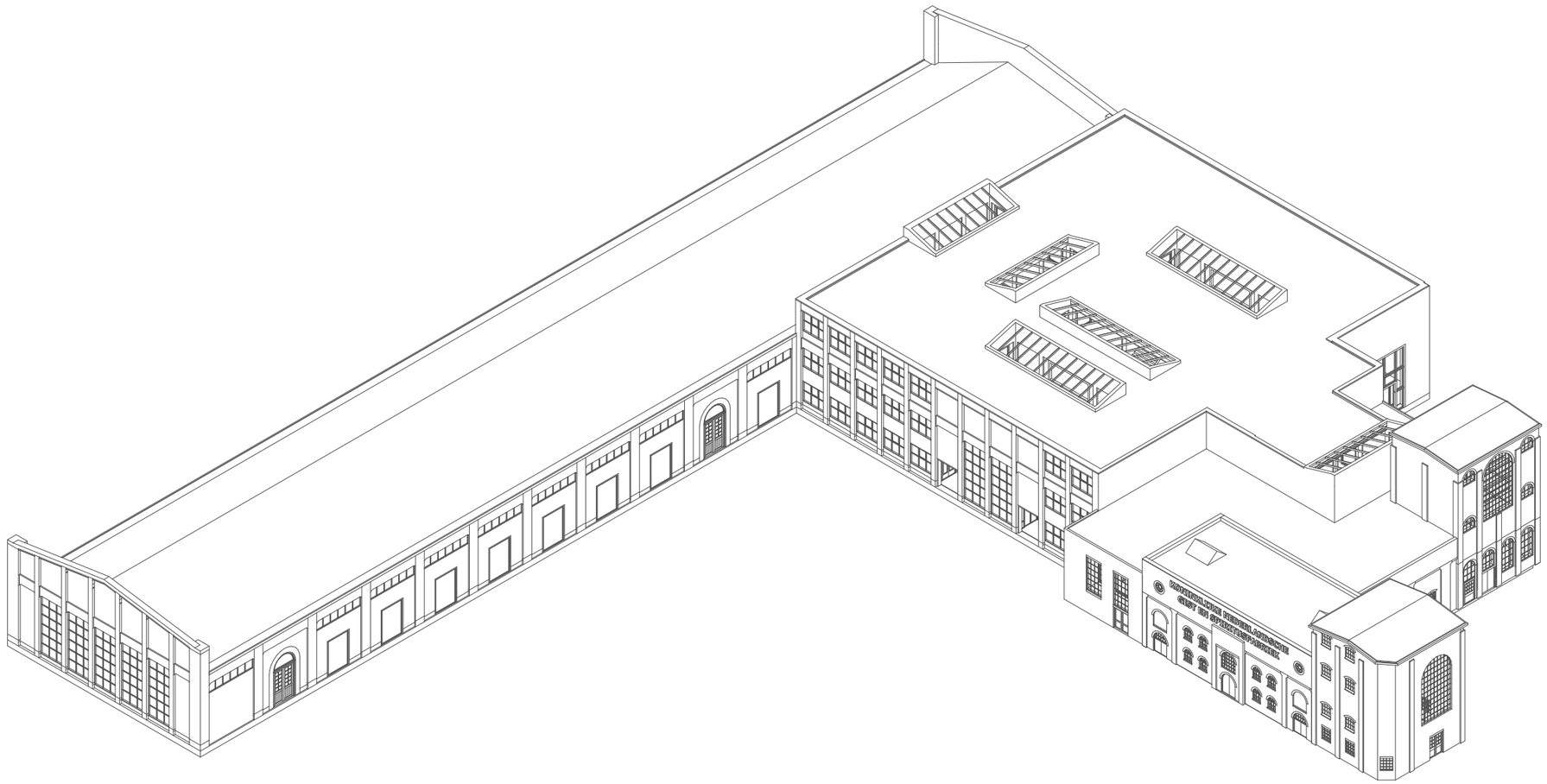
STRUCTURE

Place sedum roof and rooflights



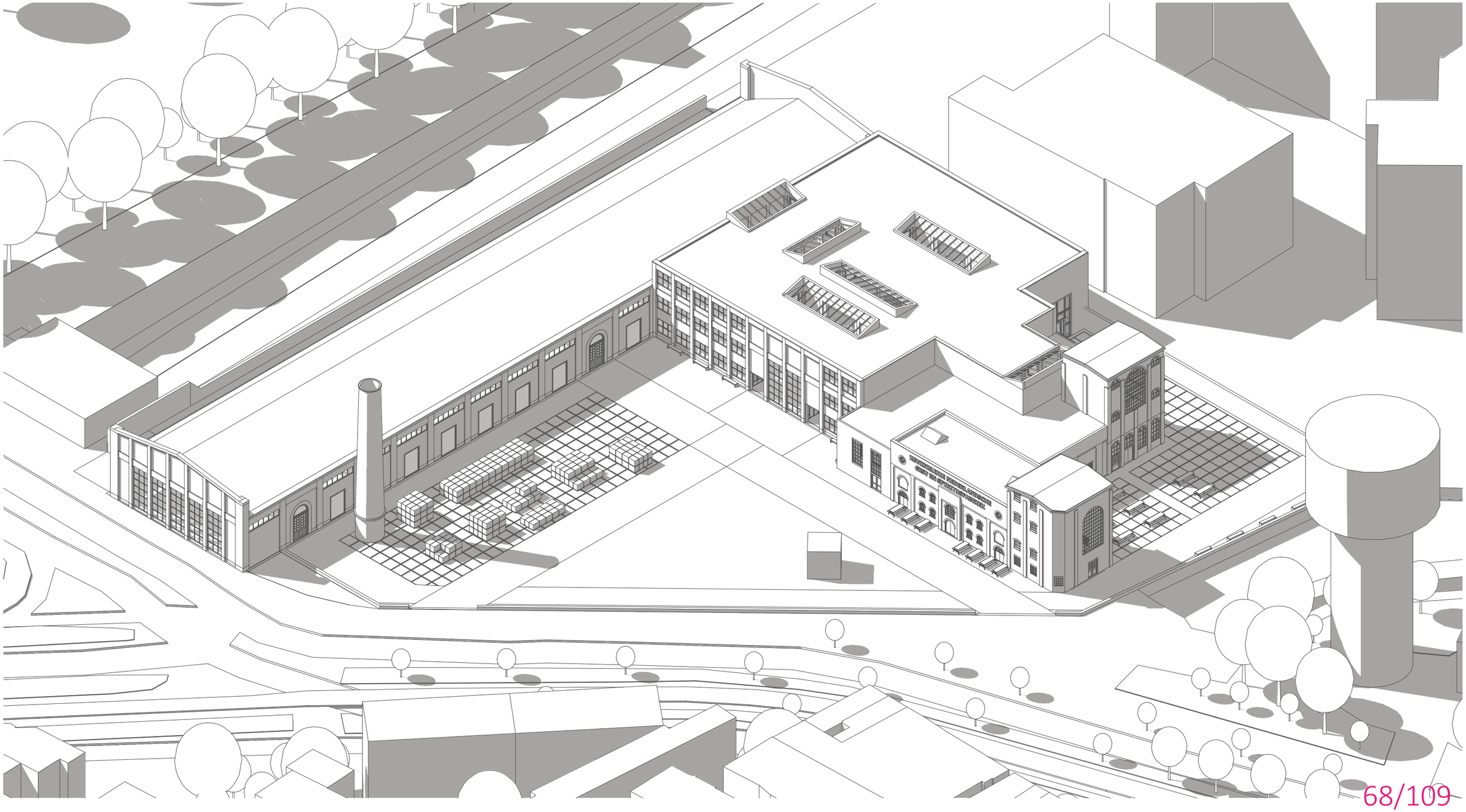
STRUCTURE

Total with windows



STRUCTURE

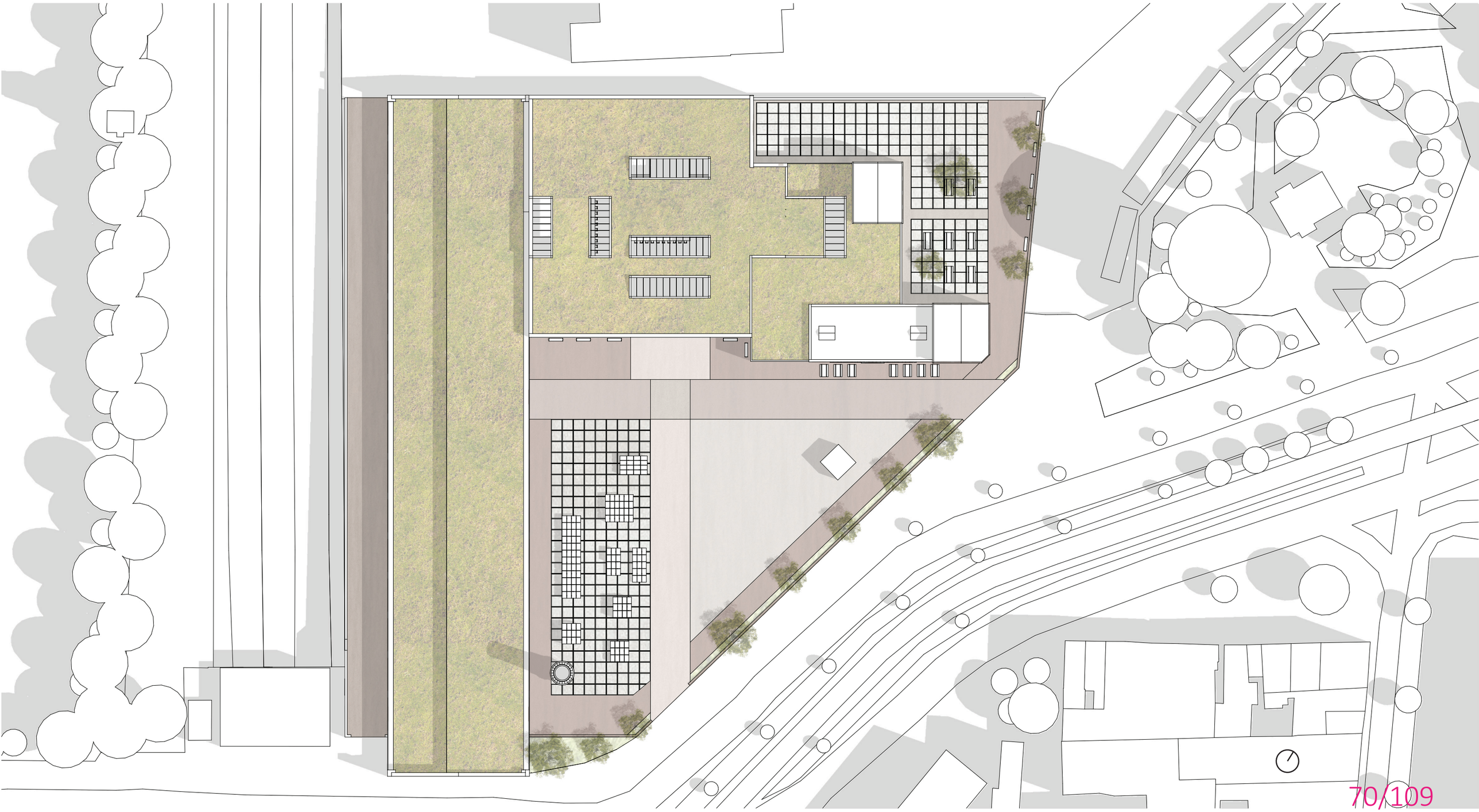
New situation




CERAMICS

FLOORPLANS

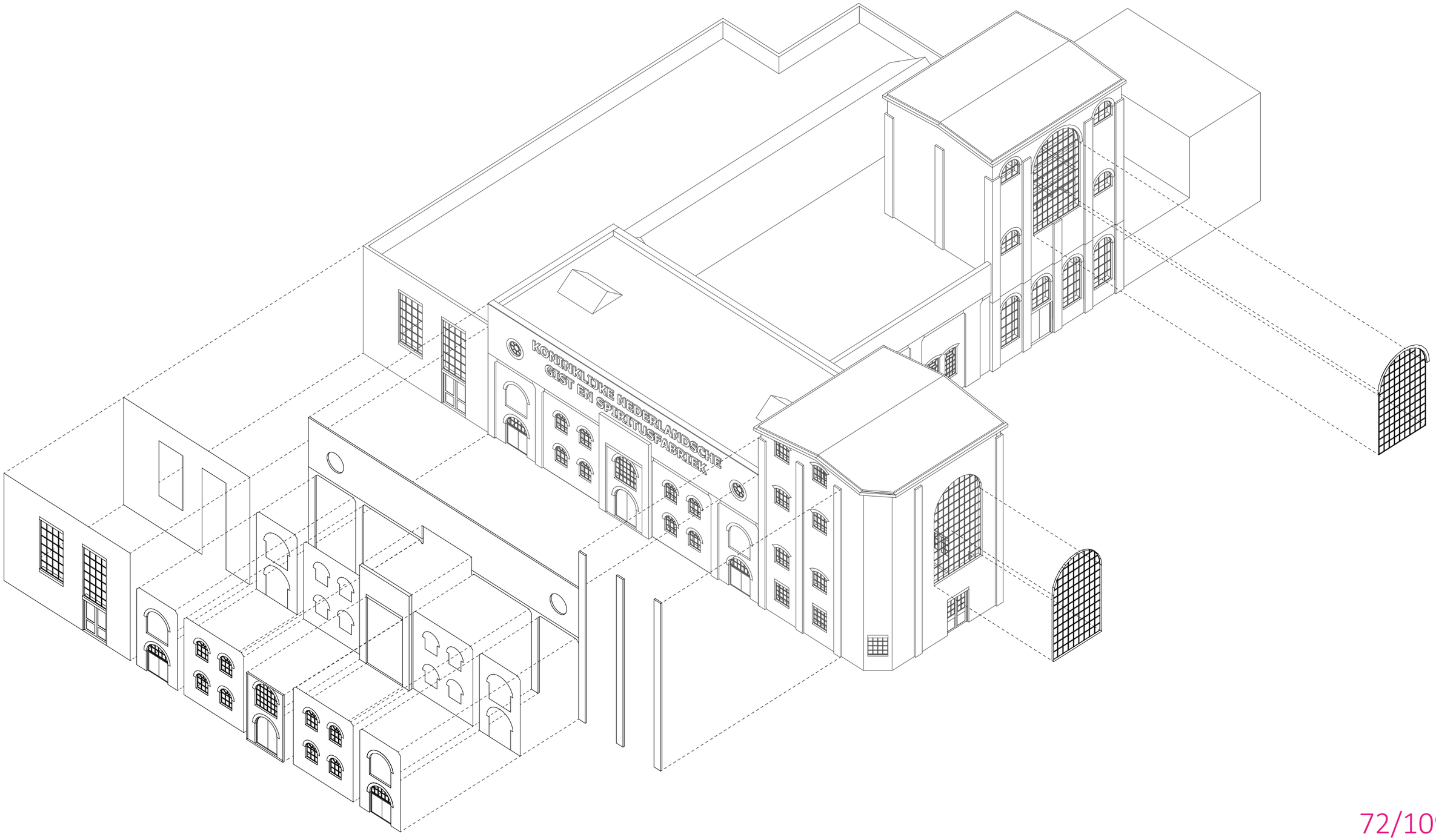
Roofplan





ELEVATIONS

Elements existing building



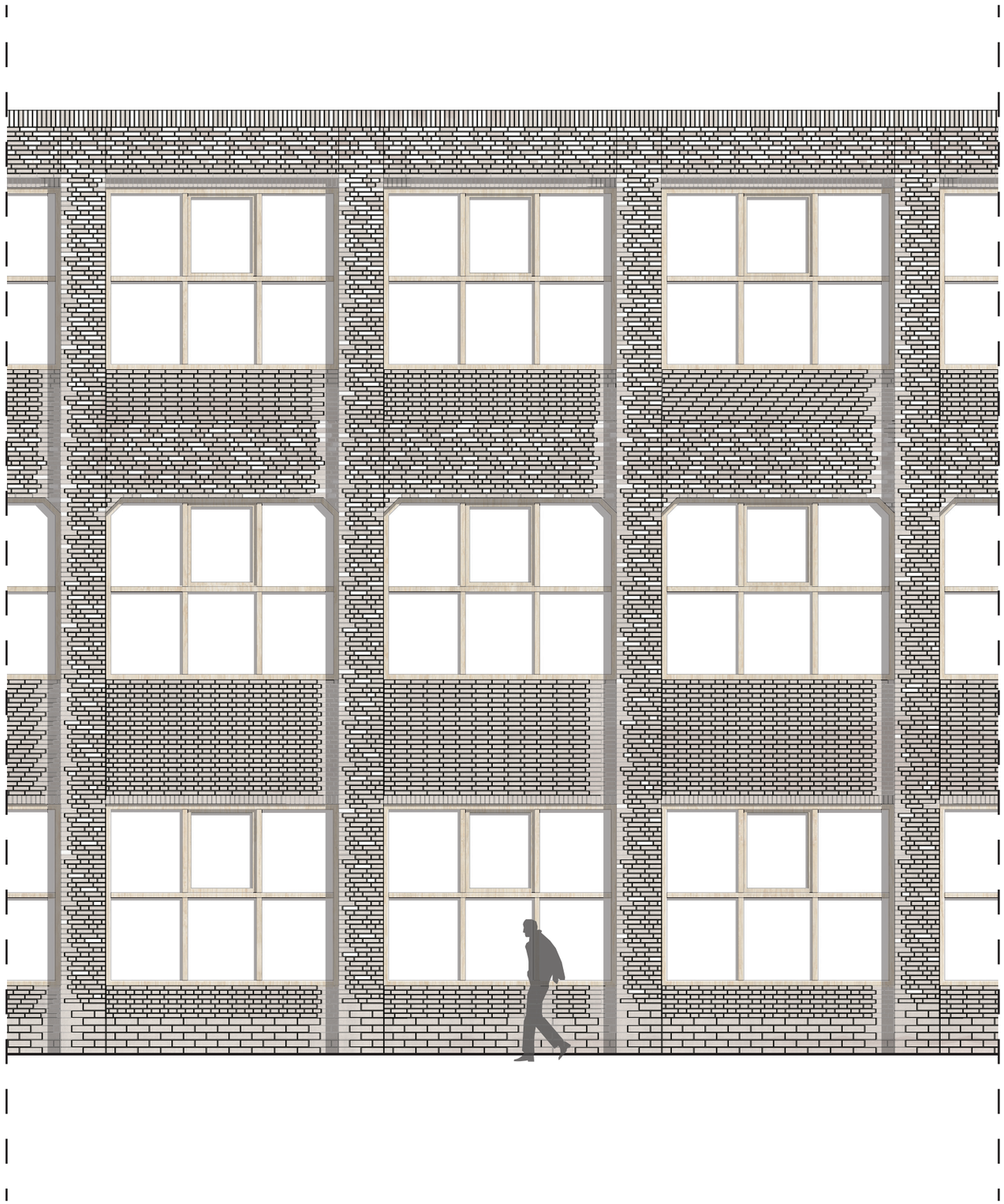
ELEVATIONS

Front



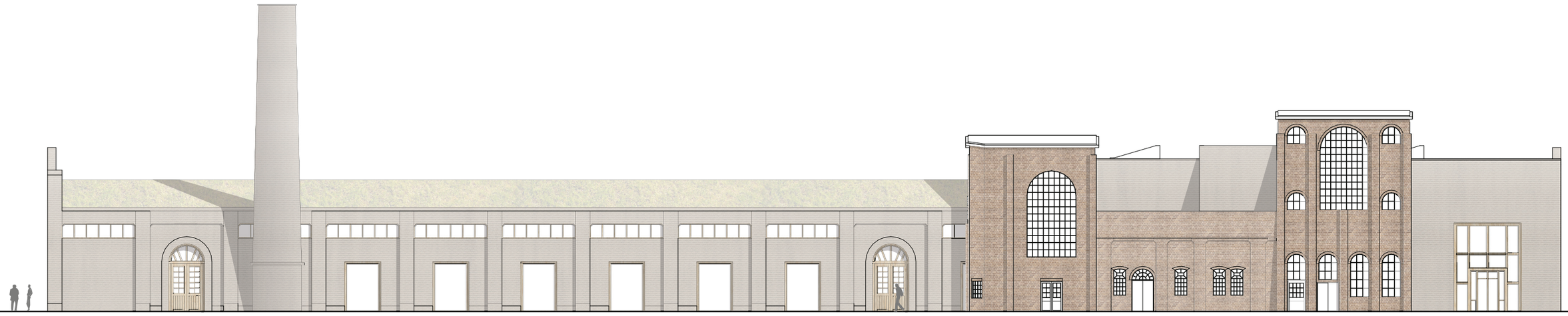
ELEVATIONS

Fragment



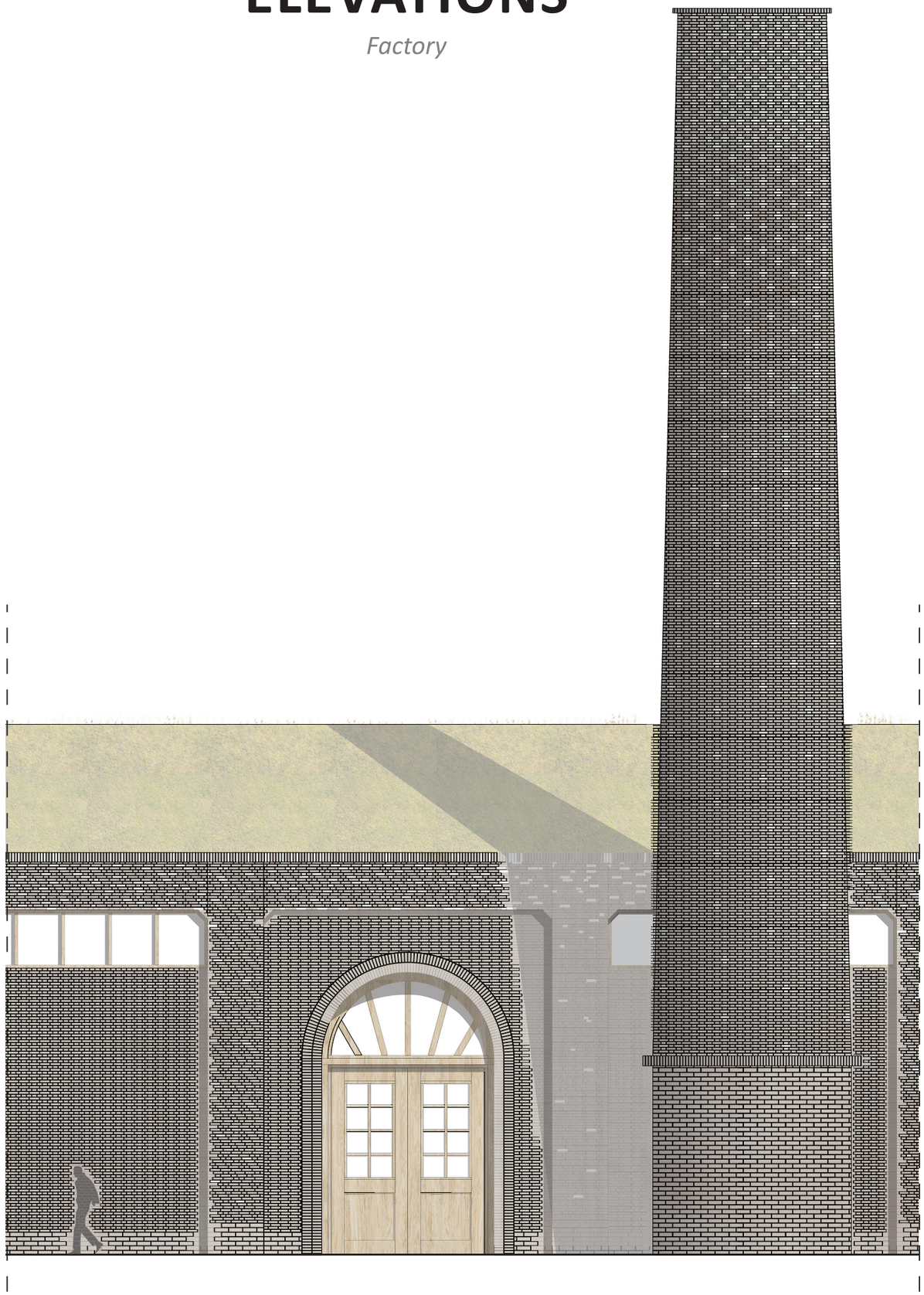
ELEVATIONS

Side



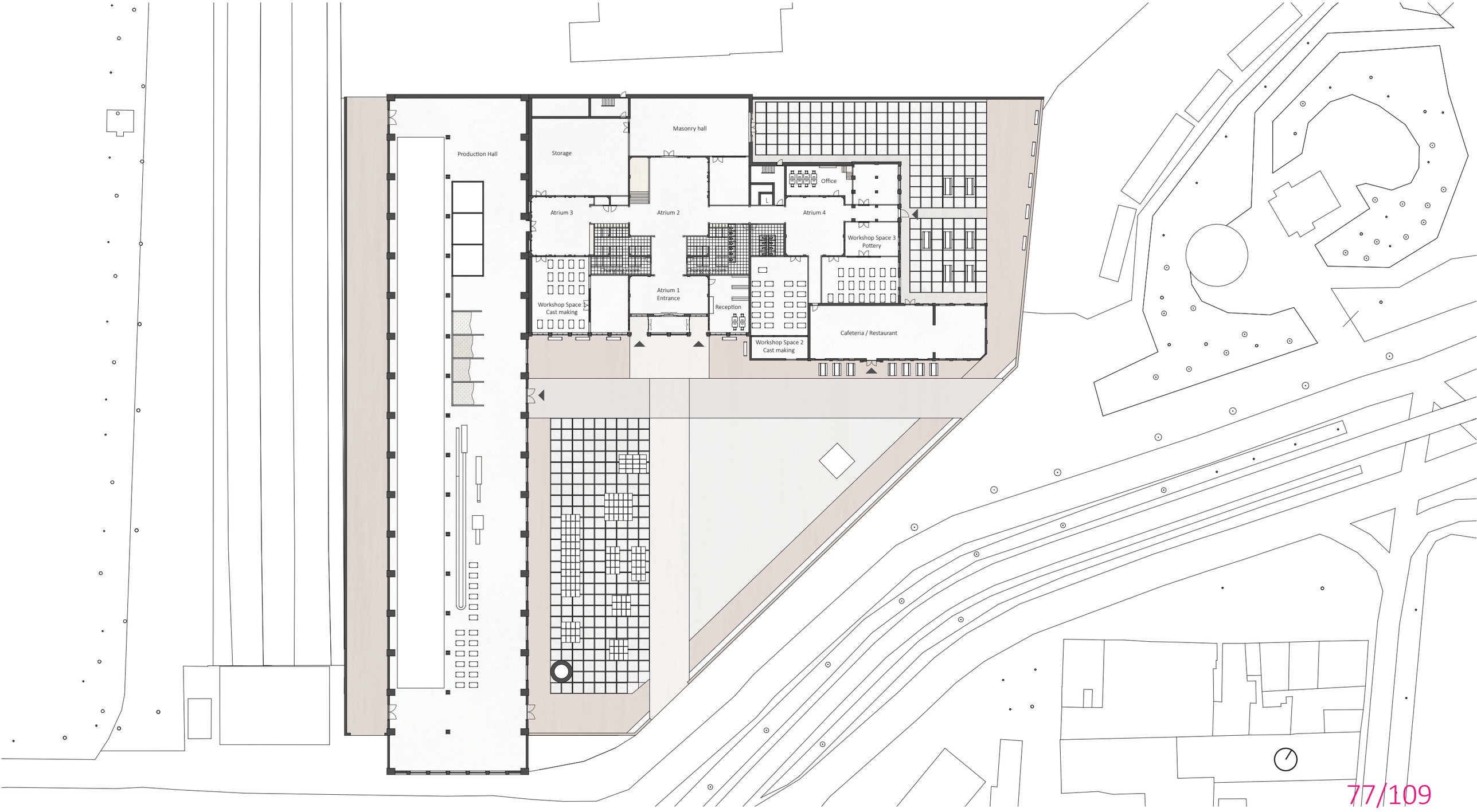
ELEVATIONS

Factory



FLOORPLANS

Groundfloor



ENTRANCE VIEW



FLOORPLANS

Groundfloor



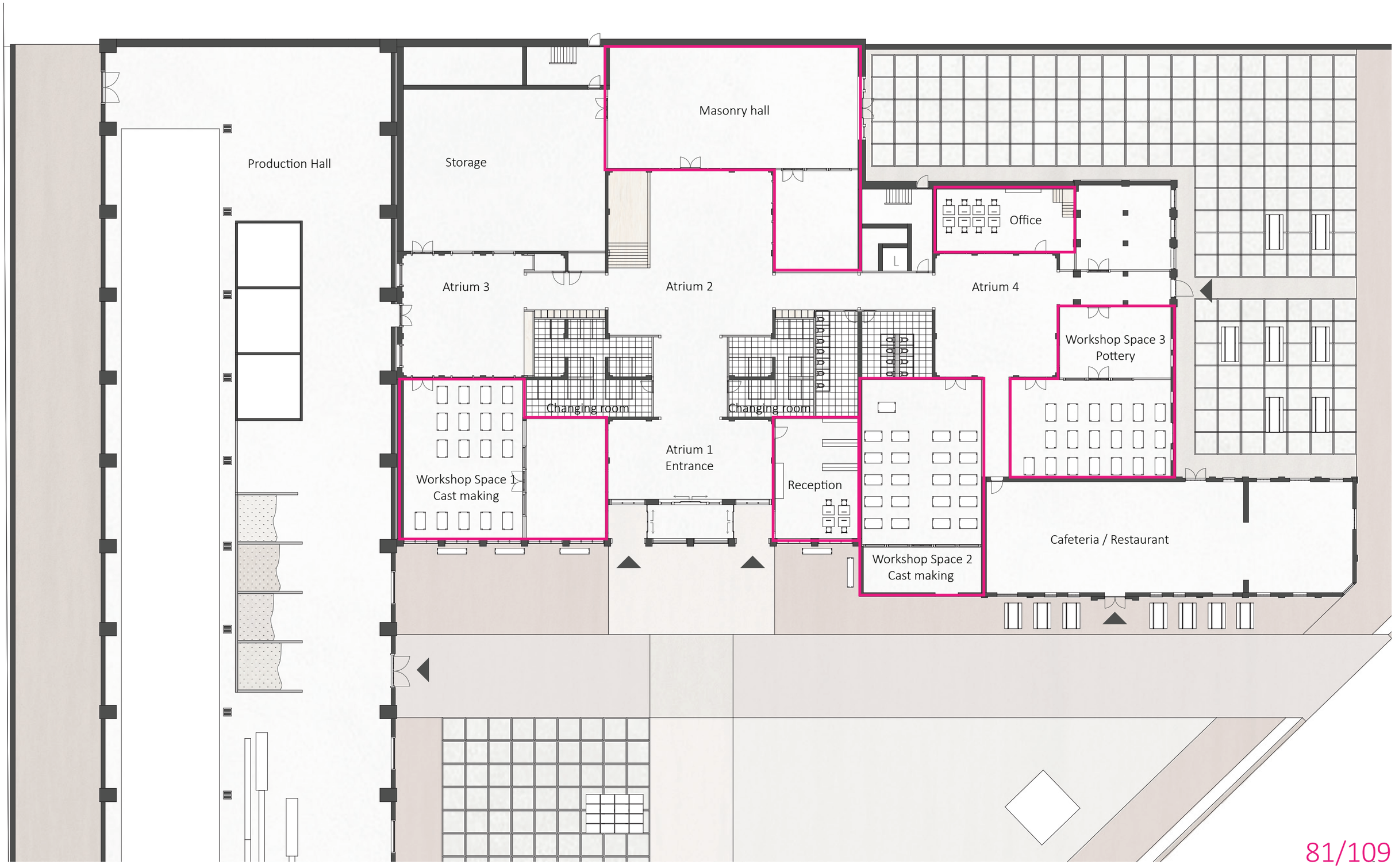
FLOORPLANS

Groundfloor



FLOORPLANS

Groundfloor



FLOORPLANS

Groundfloor

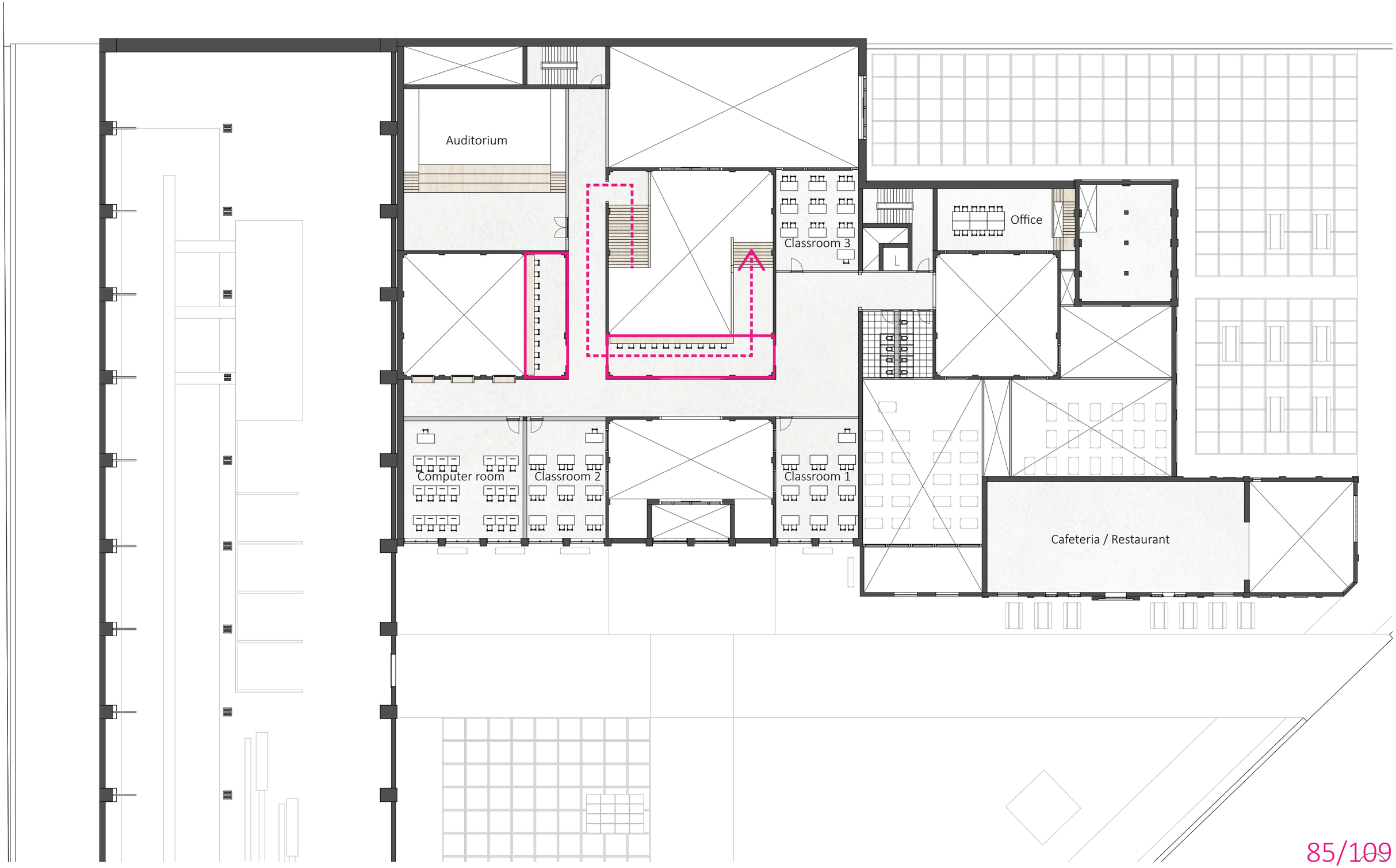



BRICK TO THE FUTURE



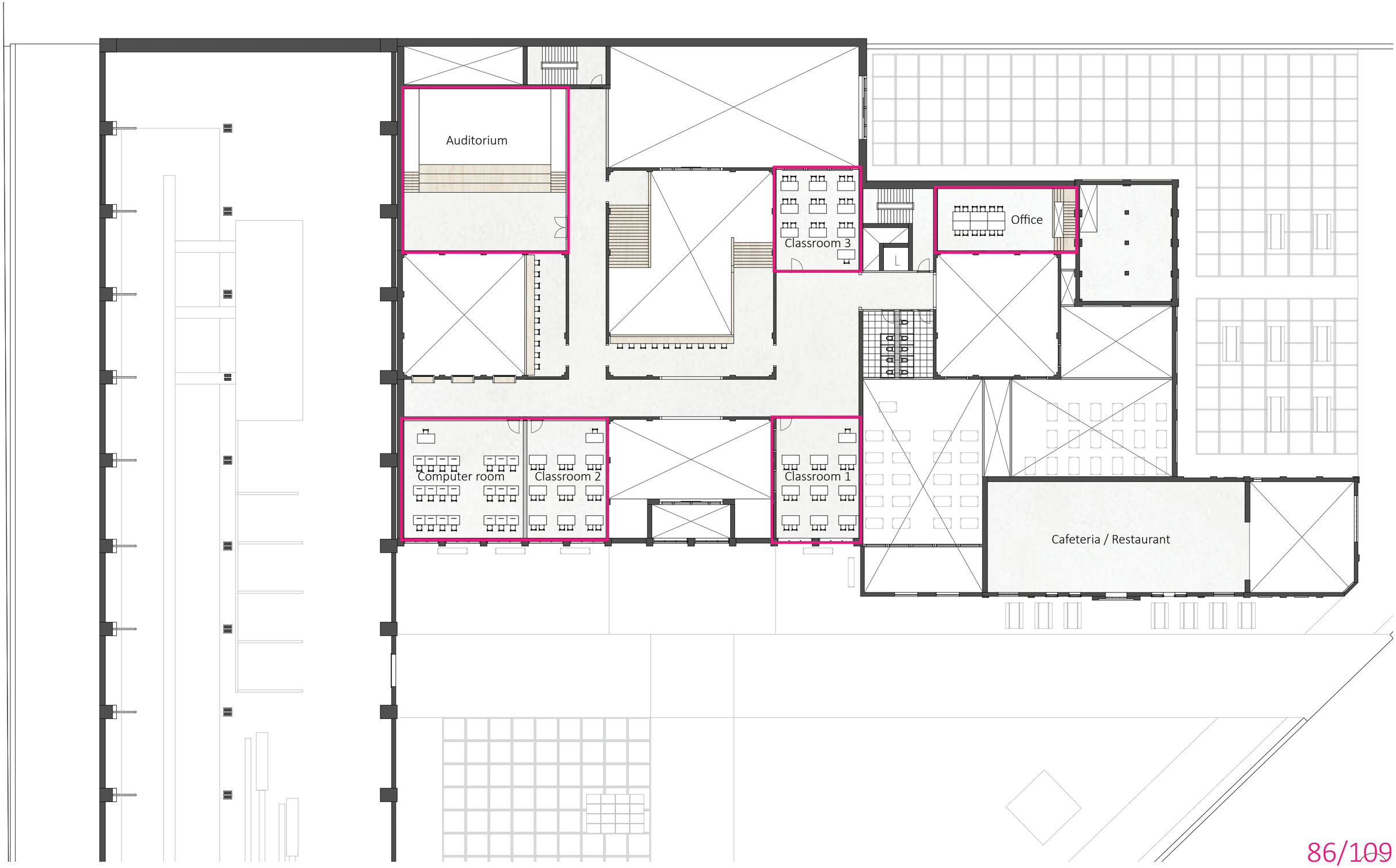
FLOORPLANS

First floor



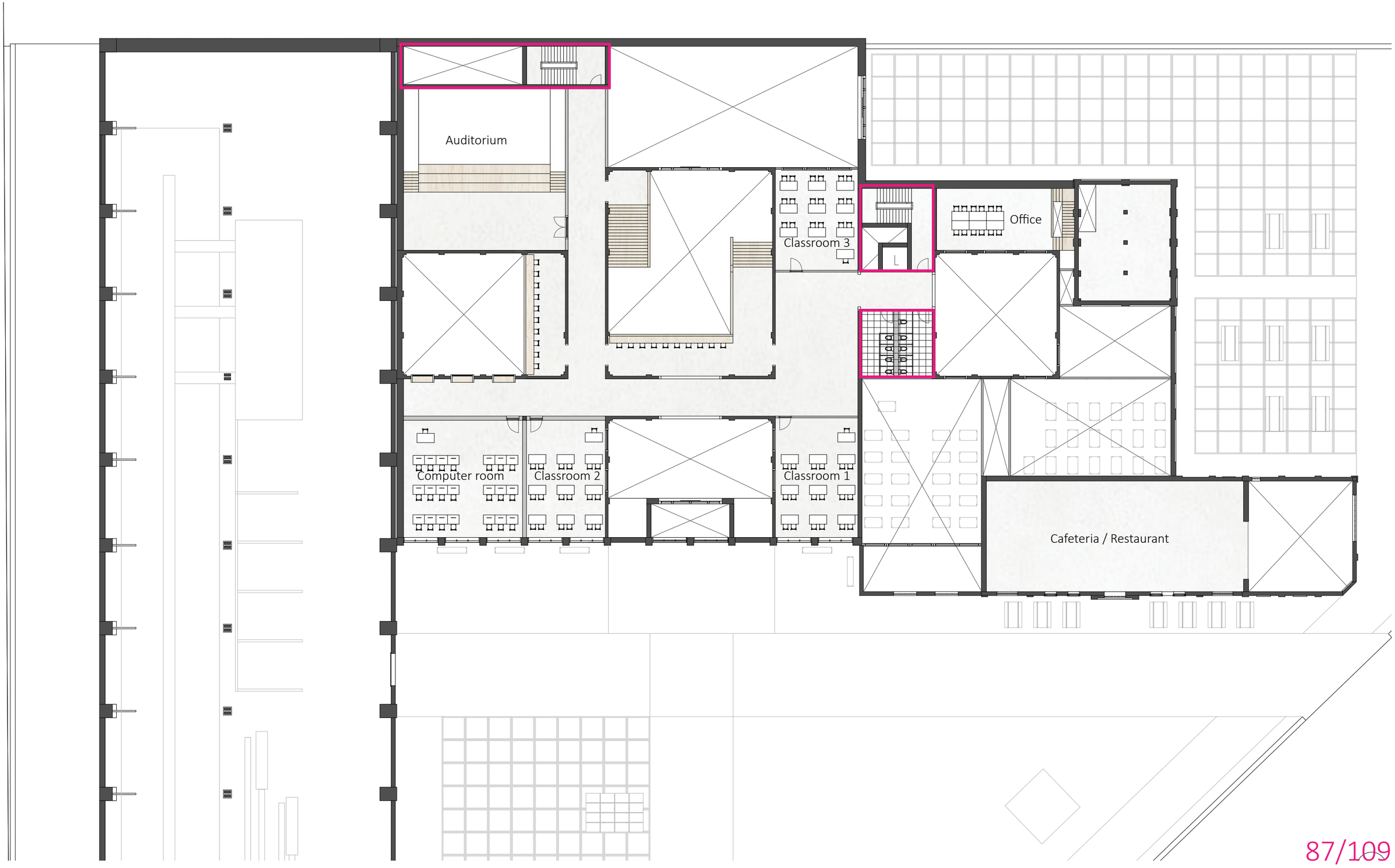
FLOORPLANS

First floor



FLOORPLANS

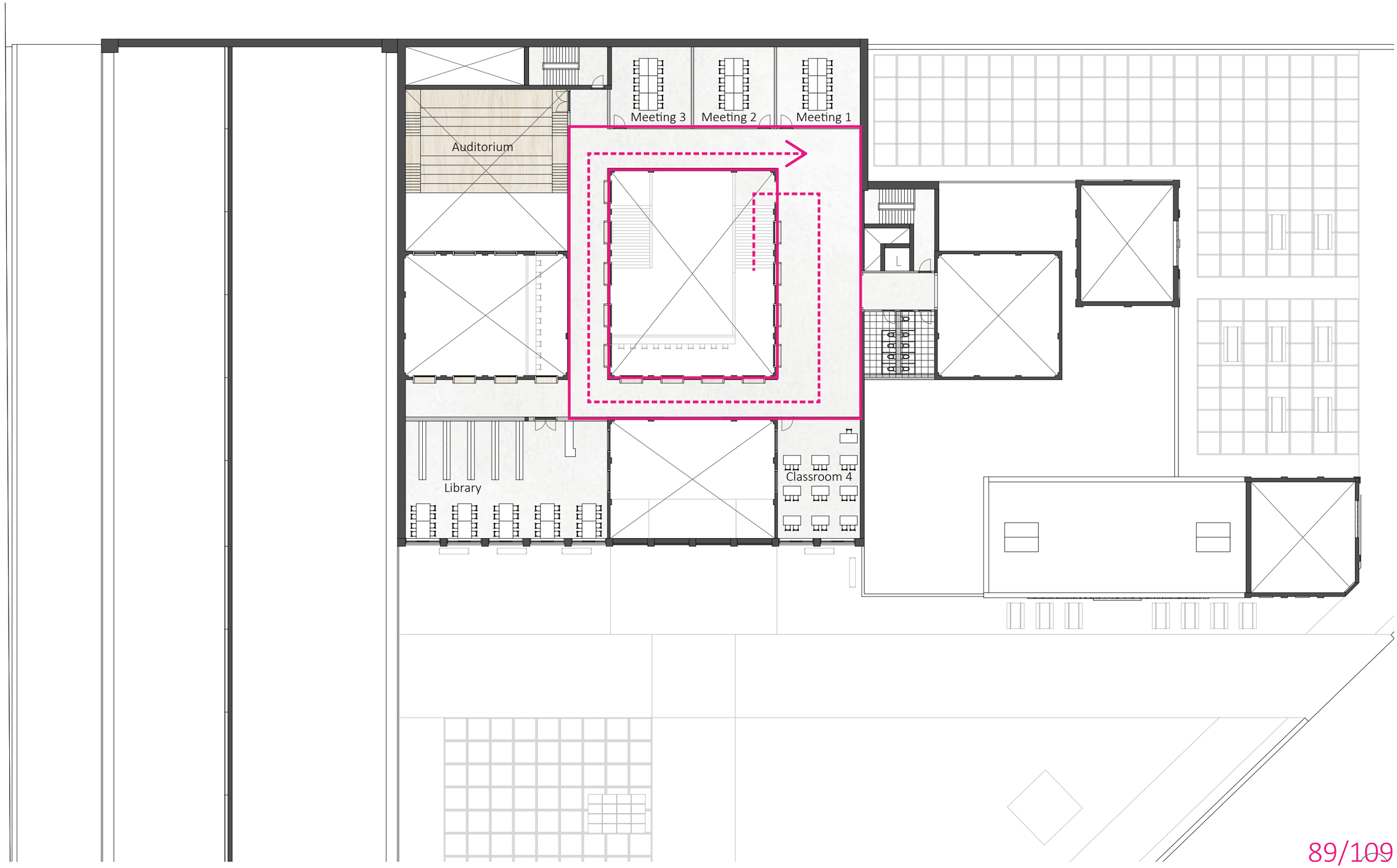
First floor




Lecture on
Delfts Blauw
BRICK
TO THE FUTURE
Durability

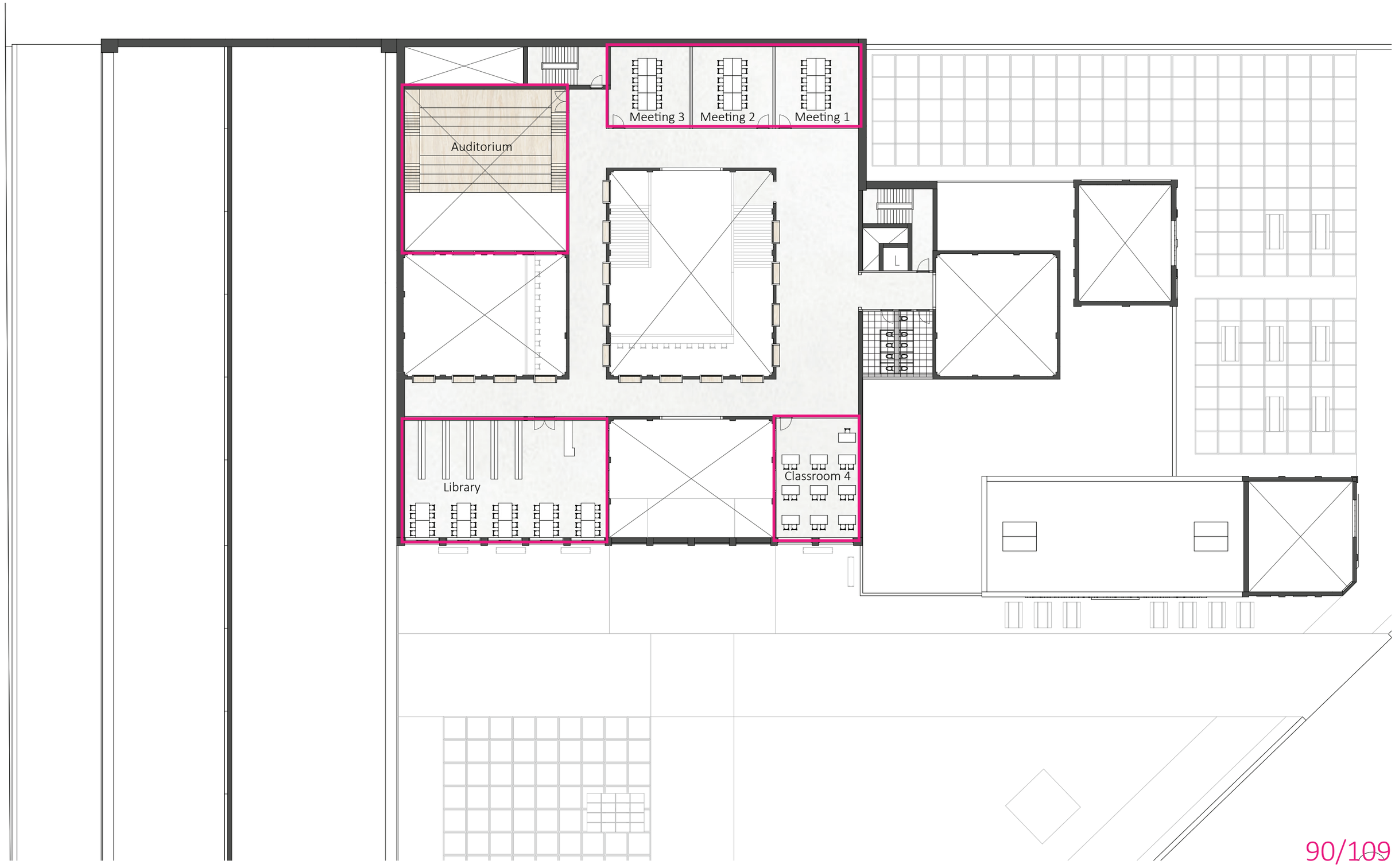
FLOORPLANS

Second Floor



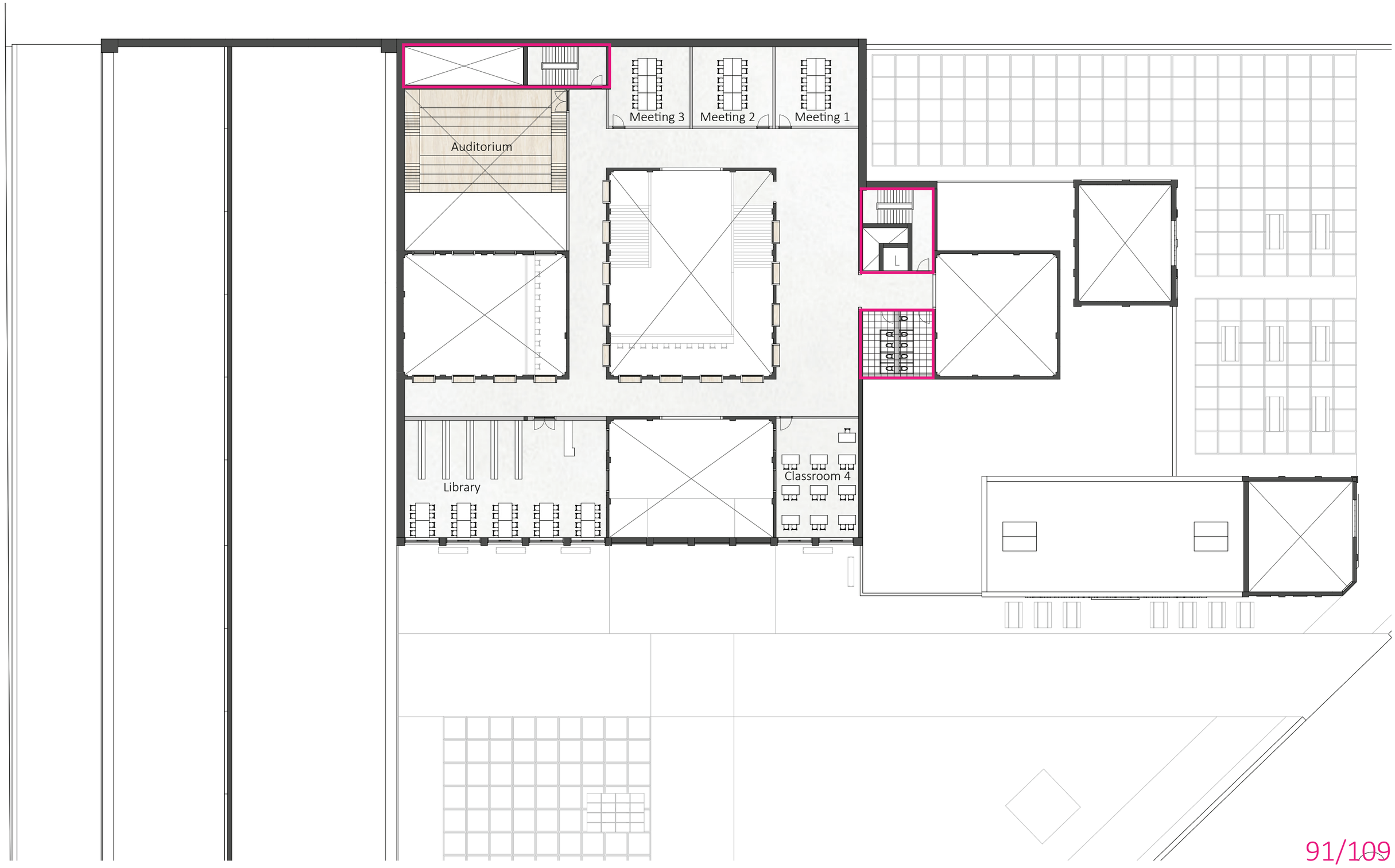
FLOORPLANS

Second Floor



FLOORPLANS

Second Floor



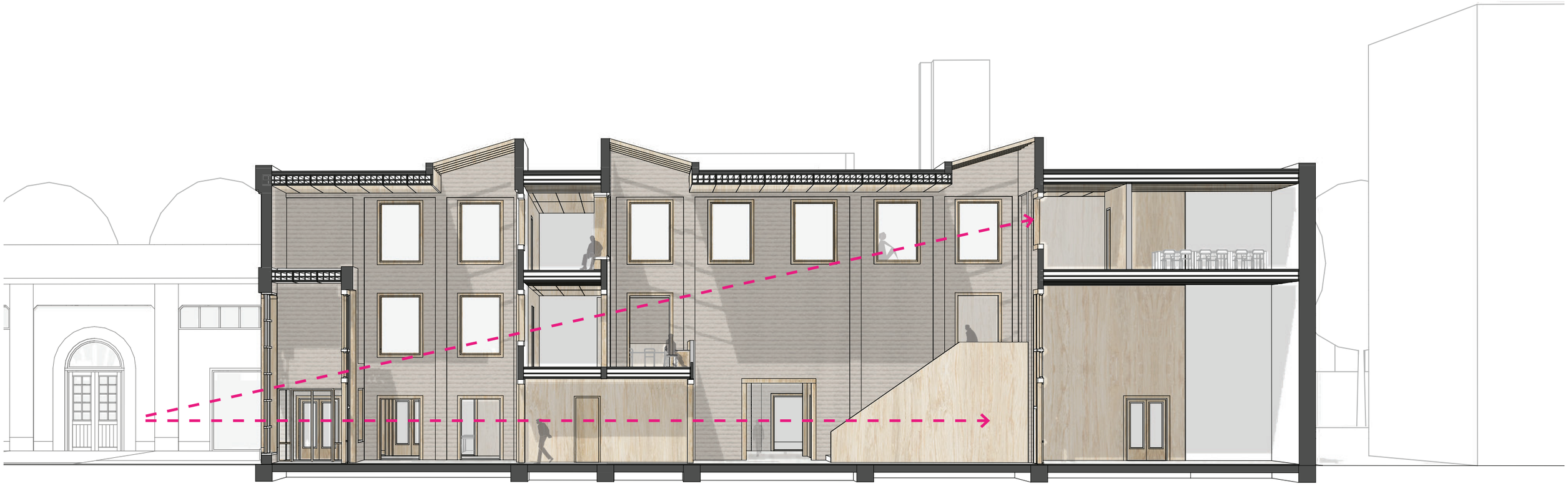
SECTIONS

Section 1



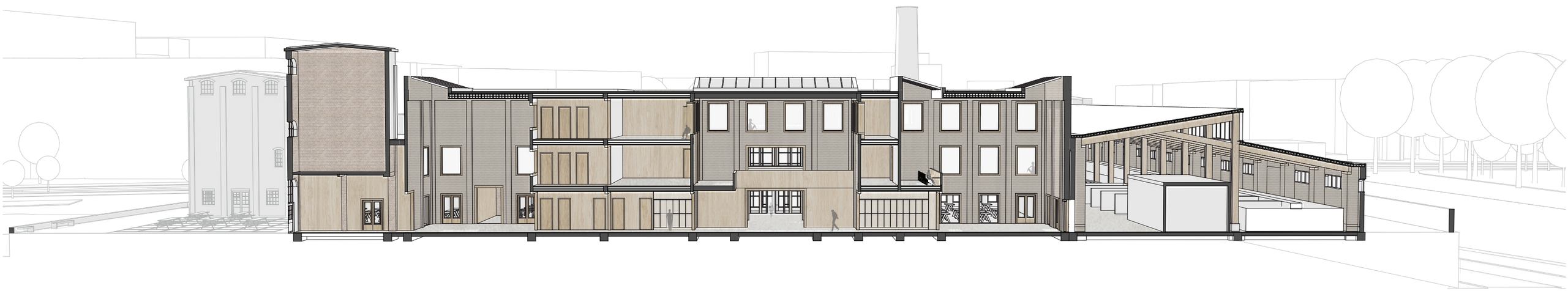
SECTIONS

Section 1 zoom-in



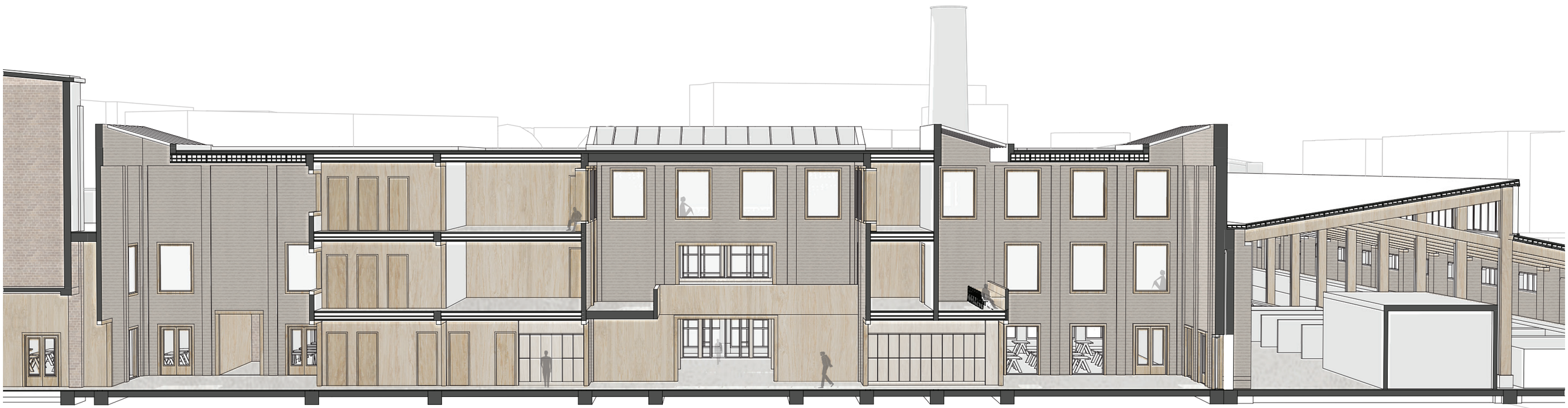
SECTIONS

Section 2



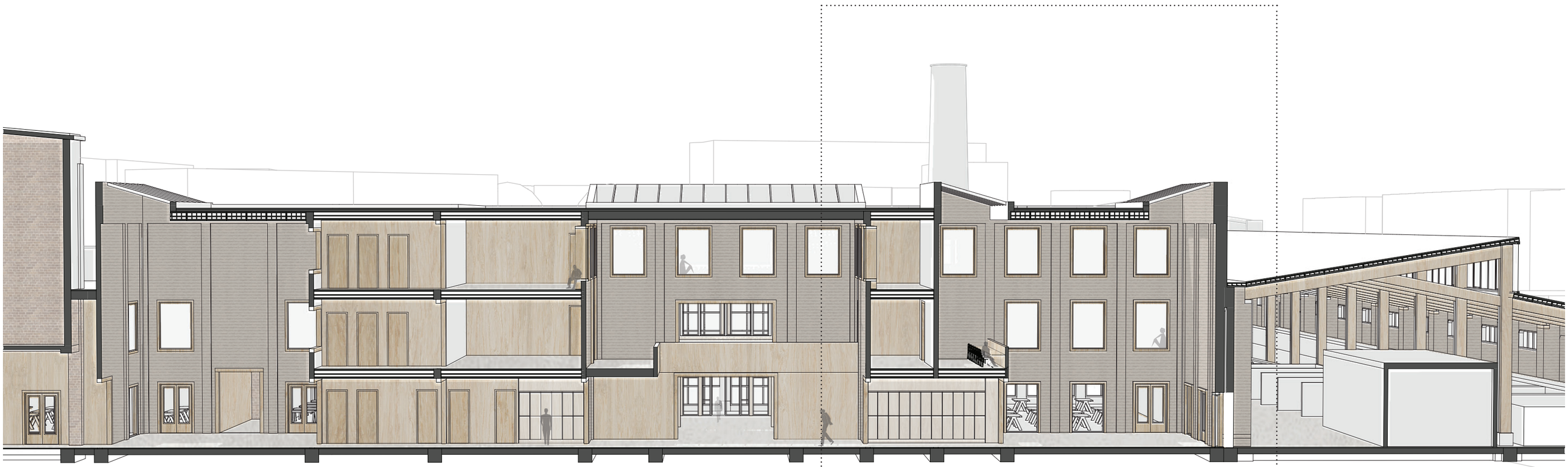
SECTIONS

Section 2 zoom-in



SECTIONS

Fragment



FRAGMENT

Overview



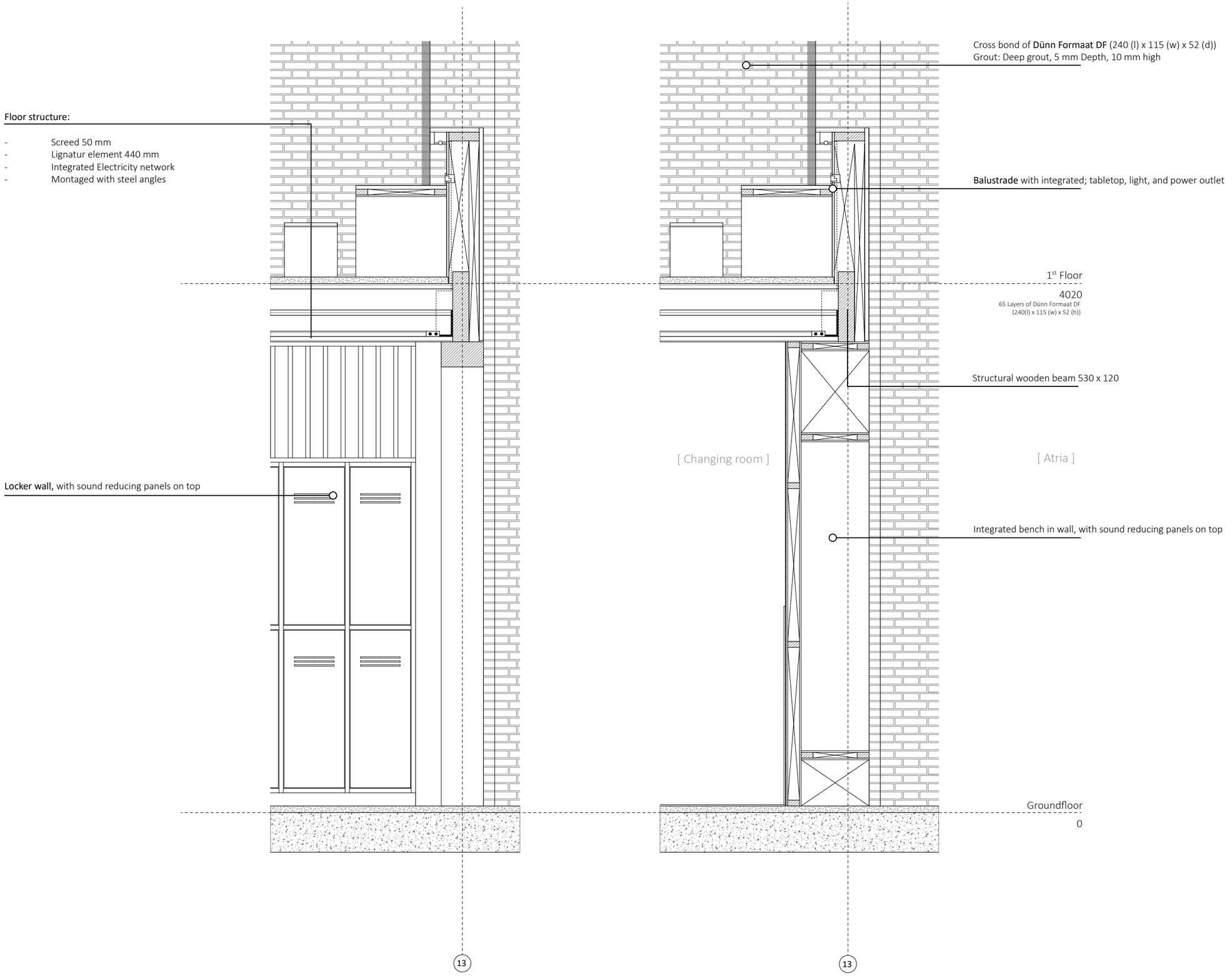
FRAGMENT

Overview



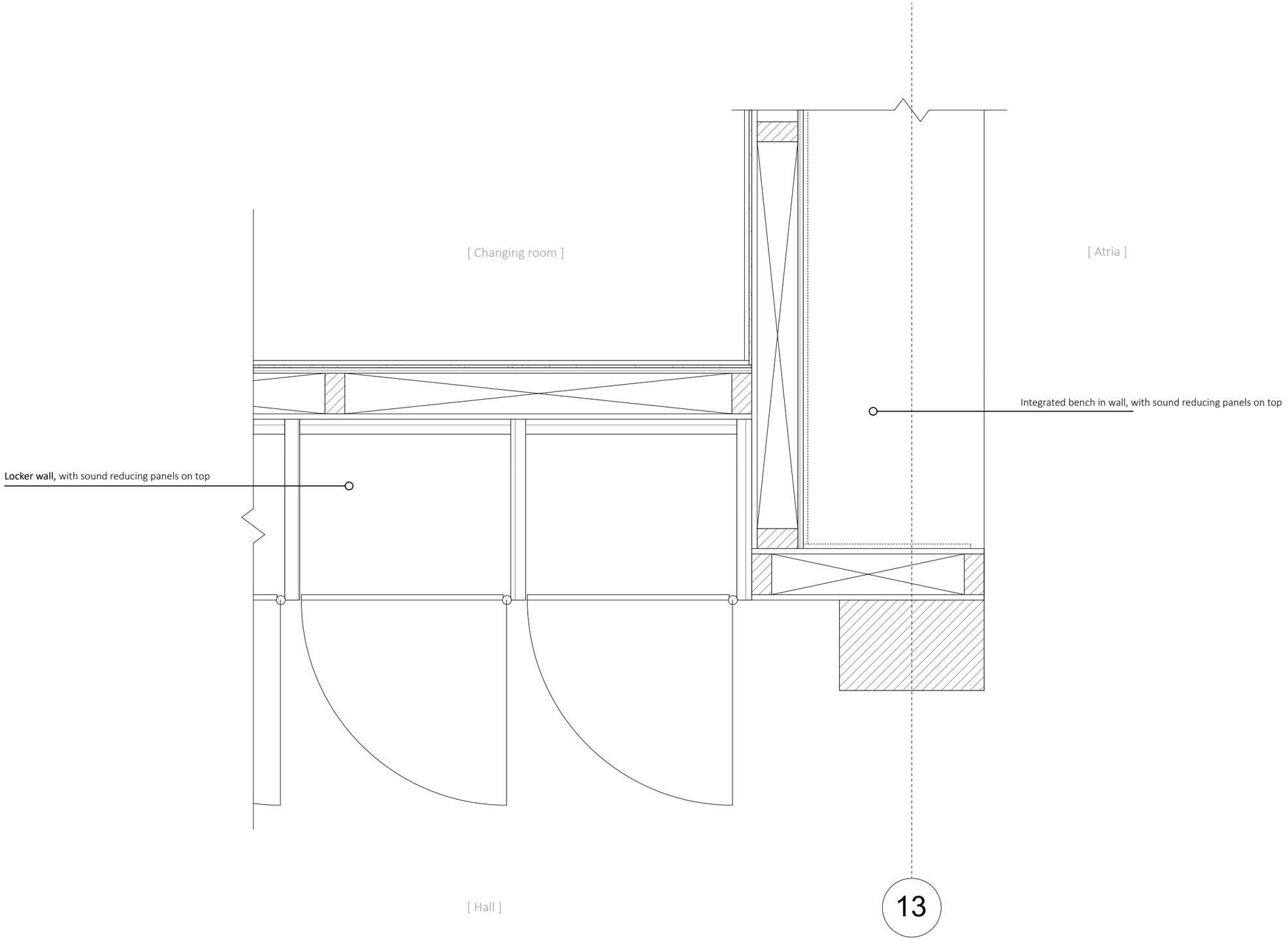
FRAGMENT

Detail 1 - 2



FRAGMENT

Detail 3



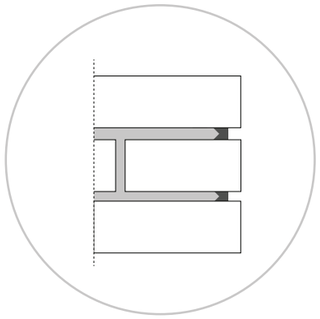
FRAGMENT

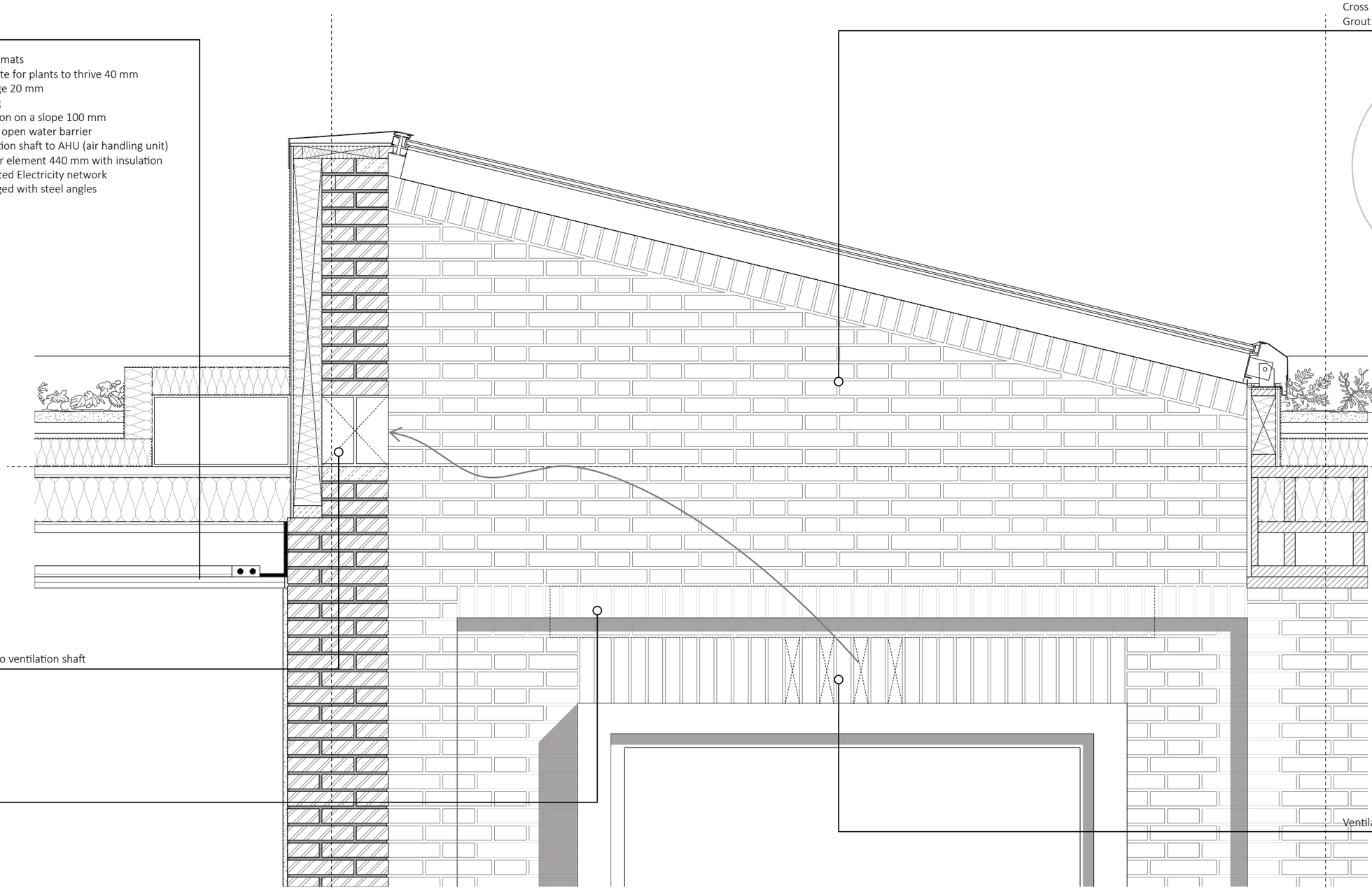
Detail 4

Roof structure:

- Sedum mats
- Substrate for plants to thrive 40 mm
- Drainage 20 mm
- Roofing
- Insulation on a slope 100 mm
- Vapour open water barrier
- Ventilation shaft to AHU (air handling unit)
- Lignatur element 440 mm with insulation
- Integrated Electricity network
- Montaged with steel angles

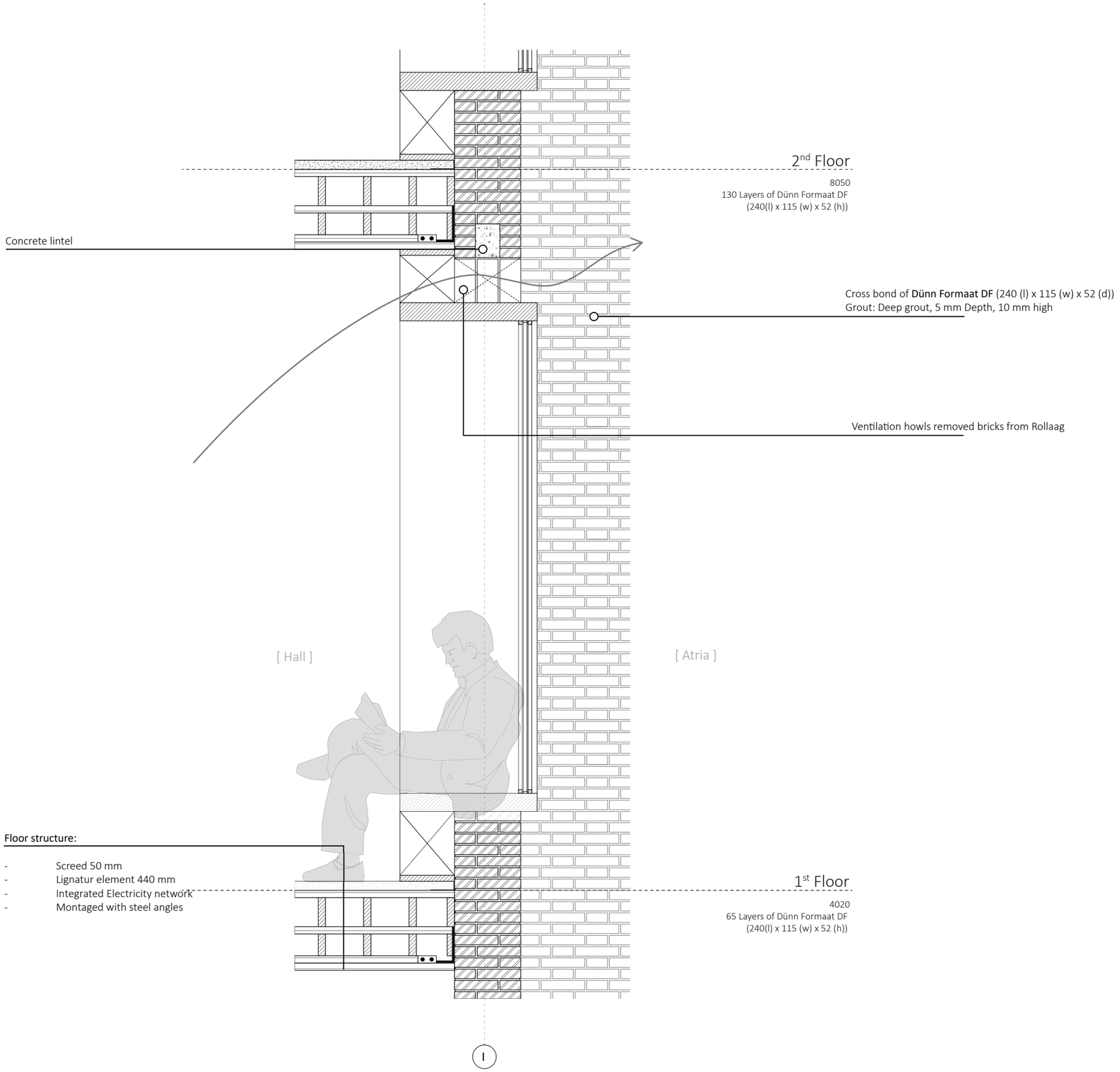
Cross bond of **Dünn Formaat DF** (240 (l) x 115 (w) x 52 (d))
Grout: Deep grout, 5 mm Depth, 10 mm high





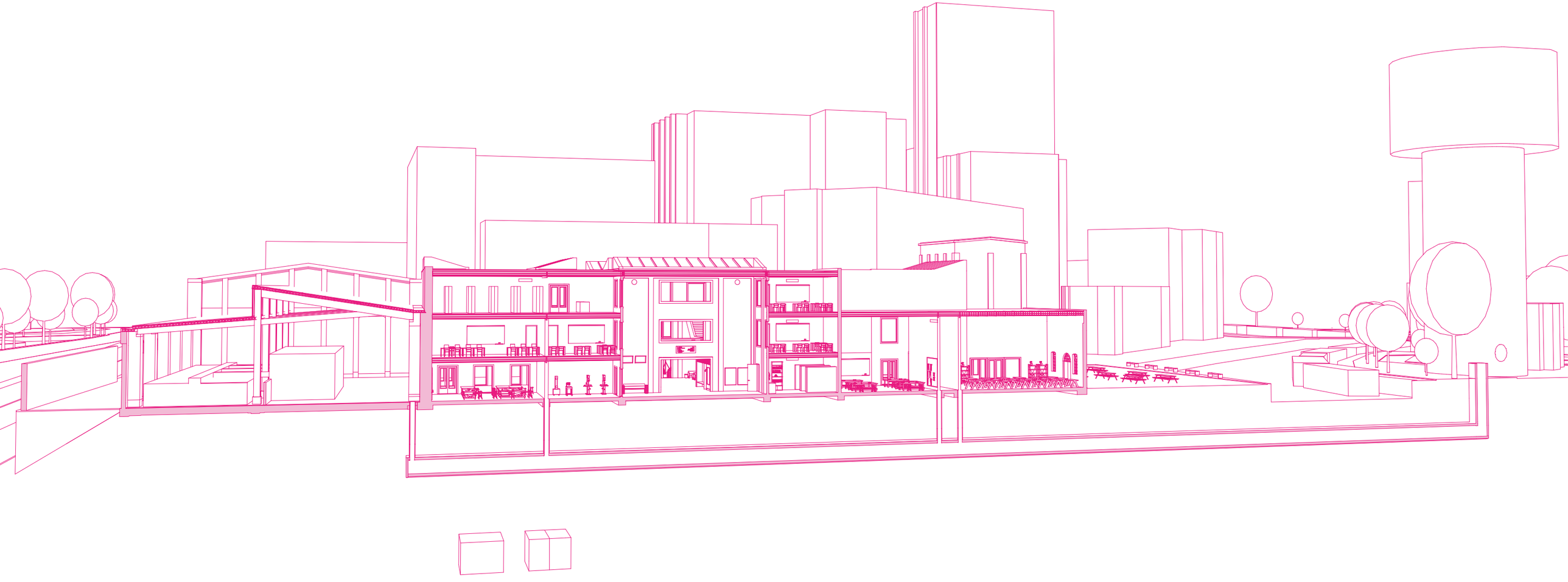
FRAGMENT

Detail 5



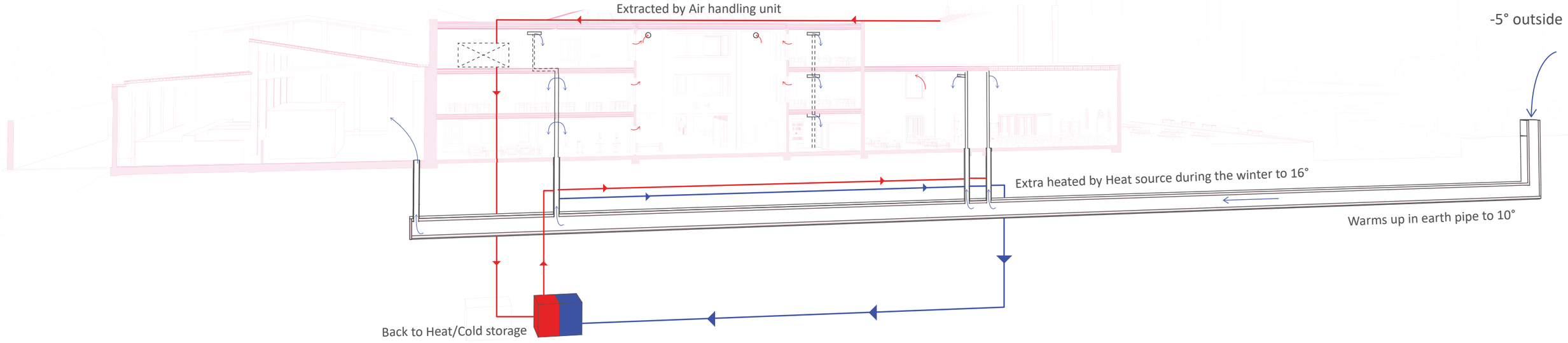
CLIMATE SYSTEM

Overview



CLIMATE SYSTEM

Ventilation system



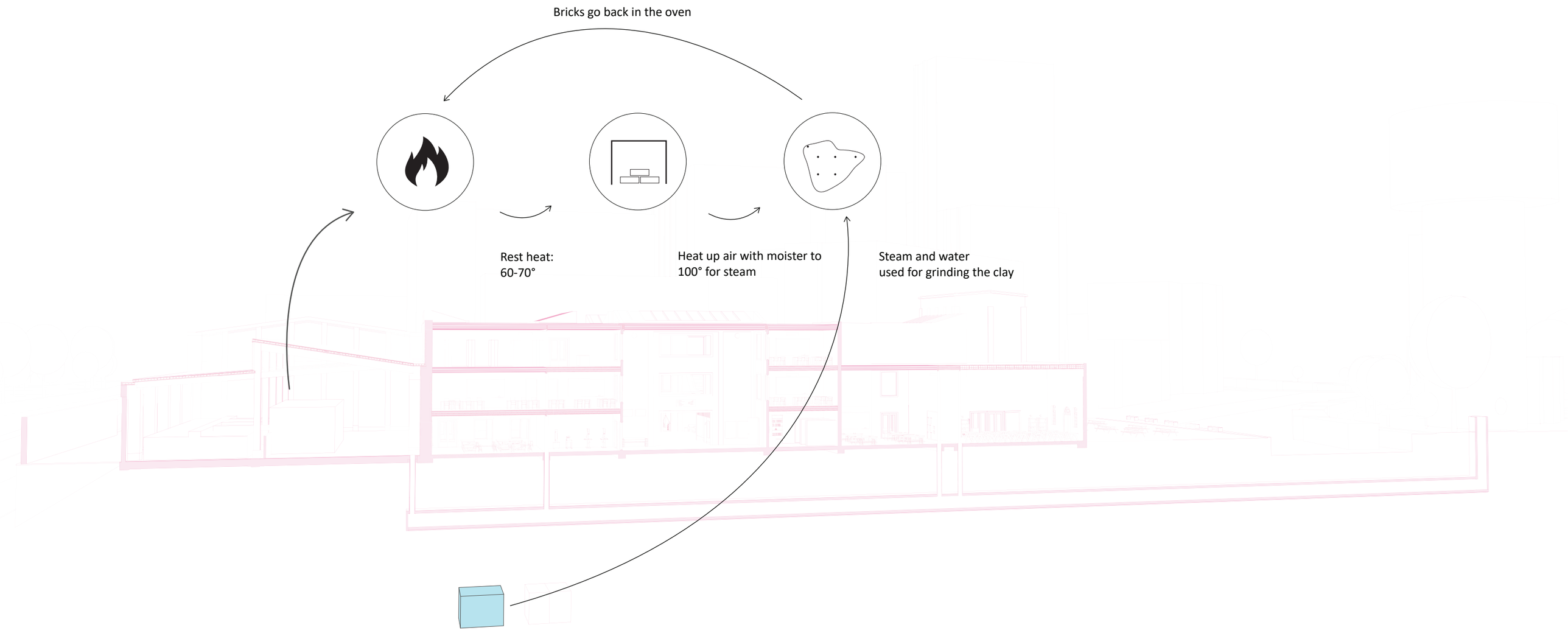
CLIMATE SYSTEM

Greenery and water re-use



CLIMATE SYSTEM

Factory part







THANK YOU FOR YOUR ATTENTION