

Part 1: Spaces of Labour



Almost no other profession than the work of an architect allows insights into the living habits and working environment of such a variety of people. This studio is centered around the familiarization and the investigation of different work and life conditions, not as a social or political study, but as the basis for developing and connecting architectural spaces. Only a thorough, basic and descriptive understanding of the backgrounds and conditions of a program, only a critical questioning of concrete tasks as so often brought forward to architects by investors and politicians in a filtered way, opens up possibilities for redefining architectural design conventions. Design as we understand it is neither the expression of an autonomous artistic practice nor is it a sheer service. The architectural design is a mean of criticism, a mean to understand the world around us and using this understanding in order to reshape it.

This semester we will explore all spatial variations for contemporary concepts of labor. Each student will start with a specific type of work - ranging from office work to manufacturing - and a scale - ranging from one employee to 10'000 employees.

The first phase of the semester is reserved for finding actual working fields within every combination of scale and type and investigating what role they play in our contemporary society and what impact they have on our territory. A thorough research on state of the art work flows within each field will provide the basis for a well informed and critical design for architectural spaces that are able to challenge current images of a working space. The analysis of typical locations for each working field in question should reveal the mechanisms behind „Wirtschaftsstandort Schweiz“ in order to criticize it through an architectural design project.

The investigation will last throughout the whole semester and will help to produce detailed designs that architecturally engage with the question of how we work today as well as speculate on how and where we want to work in the future. The main working tool of this semester will be digital multimedia presentations that should build a narrative around the investigation as well as bridge the gap between research and architectural design.

SPACES OF LABOUR

ETH ZÜRICH
DEPARTMENT OF ARCHITECTURE AND DESIGN
PROFESSOR CHRISTIAN KEREZ
AUTUMN SEMESTER 2020

STUDENTS

Felix Affolter
Chiara Bosshard
Louis Charrat
Nuria Estevez
Valentina Frei
Xingyu He
Janine Henz
Frano Karlovic
Xingjian Andrew Li
Khalil Mdimagh
Gabriel Mösch
Amanda Pellizzari
Olin Petzold
Selin Risi
Juan David Rojas Rico
Michelle Schenk
Chaoyi Yu

ASSISTANTS

Nadia Dias
Joni Kaçani
Michelle Nägeli

SEMESTER TASK

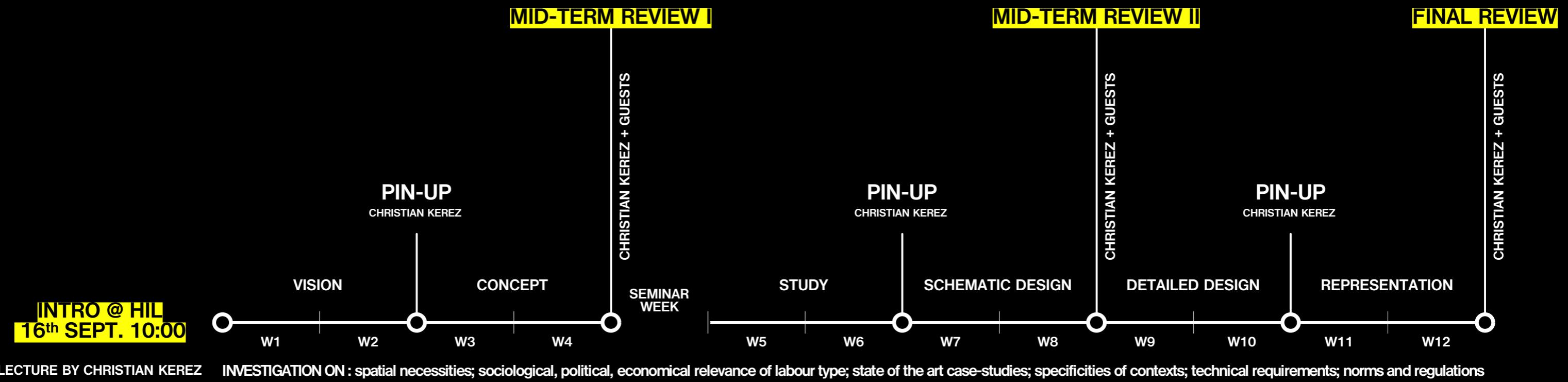
Almost no other profession than the work of an architect allows insights into the living habits and working environment of such a variety of people. This studio is centered around the familiarization and the investigation of different work and life conditions, not as a social or political study, but as the basis for developing and connecting architectural spaces. Only a thorough, basic and descriptive understanding of the backgrounds and conditions of a program, only a critical questioning of concrete tasks as so often brought forward to architects by investors and politicians in a filtered way, opens up possibilities for redefining architectural design conventions. Design as we understand it is neither the expression of an autonomous artistic practice nor is it a sheer service. The architectural design is a mean of criticism, a mean to understand the world around us and using this understanding in order to reshape it.

This semester we will explore all spatial variations for contemporary concepts of labor. Each student will start with a specific type of work - ranging from office work to manufacturing - and a scale - ranging from one employee to 10'000 employees.

The first phase of the semester is reserved for finding actual working fields within every combination of scale and type and investigating what role they play in our contemporary society and what impact they have on our territory. A thorough research on state of the art work flows within each field will provide the basis for a well informed and critical design for architectural spaces that are able to challenge current images of a working space. The analysis of typical locations for each working field in question should reveal the mechanisms behind „Wirtschaftsstandort Schweiz“ in order to criticize it through an architectural design project.

The investigation will last throughout the whole semester and will help to produce detailed designs that architecturally engage with the question of how we work today as well as speculate on how and where we want to work in the future. The main working tool of this semester will be digital multimedia presentations that should build a narrative around the investigation as well as bridge the gap between research and architectural design.

SEMESTER OVERVIEW



ARCHITECT,
PHOTOGRAPHER,
TAX CONSULTANT,
...

1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P



PRODUCING + CONSUMING

MANUFACTURING

HEADQUARTERS

1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

CREATIVE AGENCY,
FOUNDATION,
LAW FIRM,
...



HEADQUARTERS

PRODUCING + CONSUMING

MANUFACTURING

1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

EMBASSY,
PRIVATE BANKING,
PUBLISHING HOUSE,
...

HEADQUARTERS

PRODUCING + CONSUMING

MANUFACTURING



1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

ROBOTICS,
INSURANCE COMPANY,
PHARMACEUTICAL RESEARCH,
...

HEADQUARTERS

PRODUCING + CONSUMING

MANUFACTURING

16

2-9 P

10-99 P

100-999 P

1'000-9'999 P

BROADCASTING,
NATIONAL SECURITY,
PUBLIC INSTITUTIONS,
...



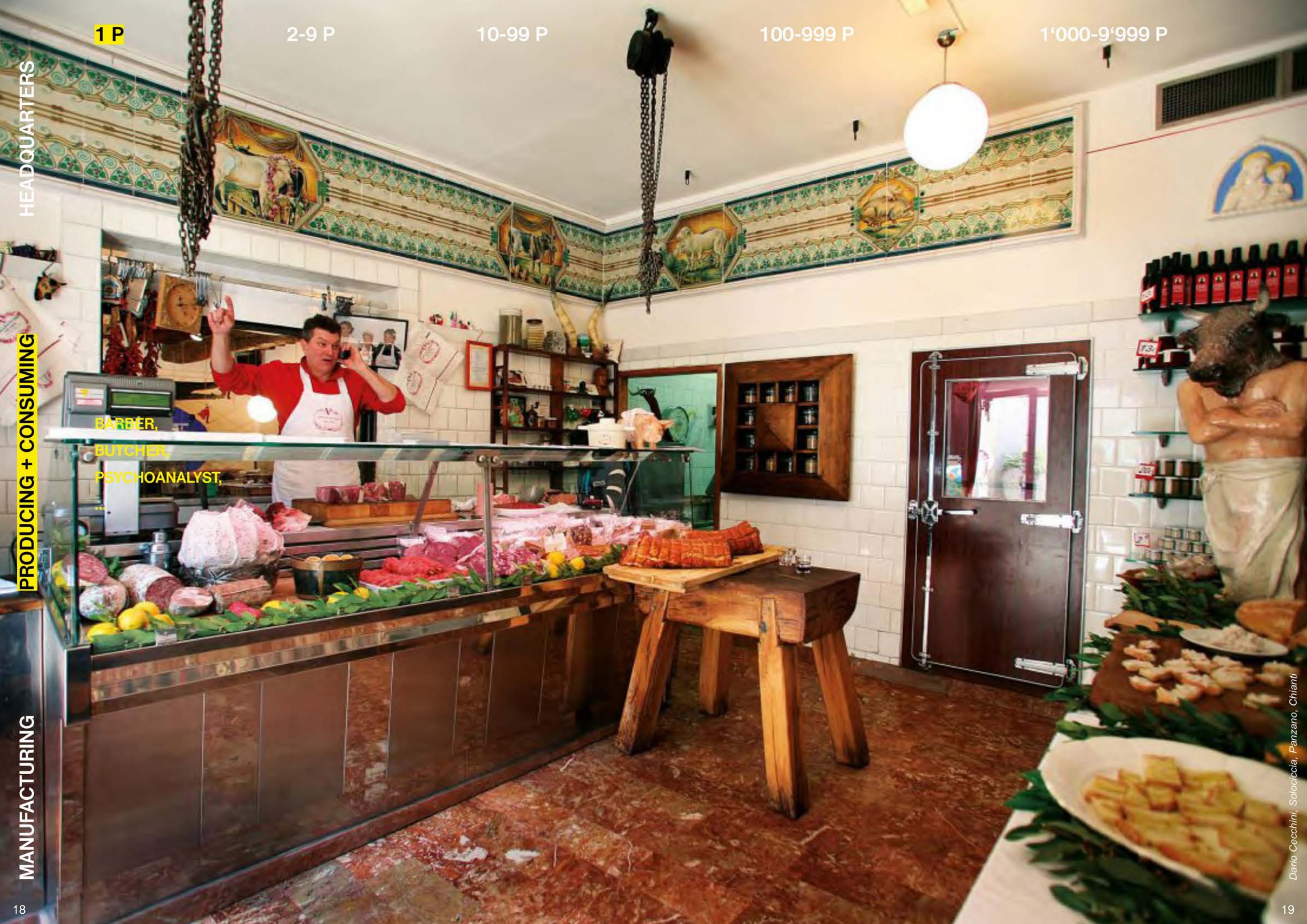
1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P



MANUFACTURING

PRODUCING + CONSUMING

HEADQUARTERS

1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

WINERY,
PRIVATE BANKING,
STREETFOOD,

HEADQUARTERS

PRODUCING + CONSUMING

MANUFACTURING

1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

BANK BUILDING,
CONGRESS CENTER,
UNIVERSITY,
...



MANUFACTURING
PRODUCING + CONSUMING
HEADQUARTERS



1 P
2-9 P
10-99 P
100-999 P
1'000-9'999 P

SHOPPING MALL,
STOCK MARKET,
POST BUILDING,
...

HEADQUARTERS

PRODUCING + CONSUMING

MANUFACTURING

SHOEMAKER,
GOLDSMITH,
BOOK BINDER,

...

1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P





1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

CARPENTER,
CHEESERY,
MECHANIC,
...

MANUFACTURING

PRODUCING + CONSUMING

HEADQUARTERS

1 P

2-9 P

10-99 P

100-999 P

1000+ P

**FOUNDRY,
TEXTILE PRODUCTION,
STONE MASON,**

...

MANUFACTURING
PRODUCING + CONSUMING
HEADQUARTERS



HEADQUARTERS

PRODUCING + CONSUMING

MANUFACTURING

1 P

2-9 P

10-99 P

100-999 P

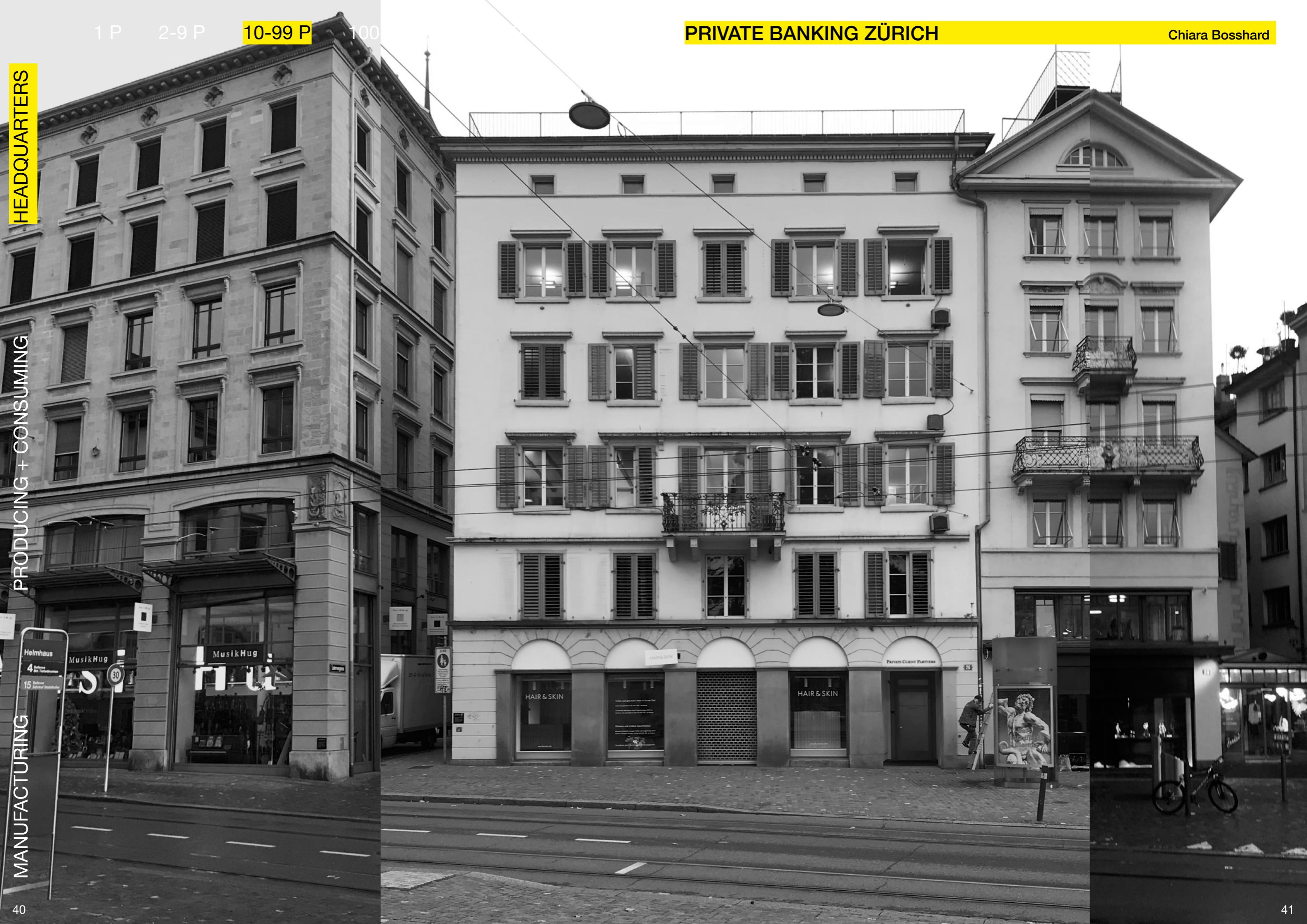
1'000-9'999 P

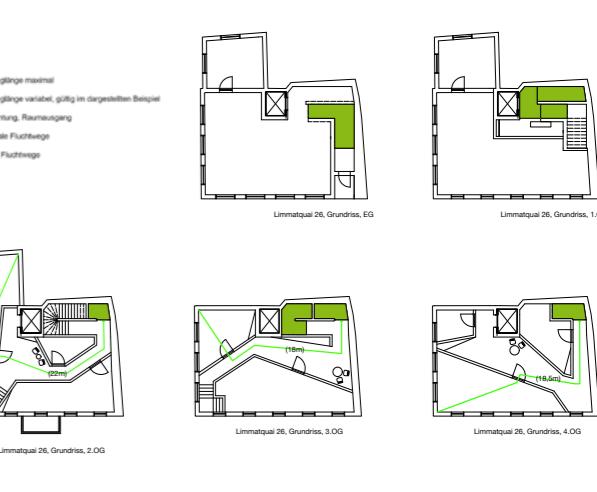
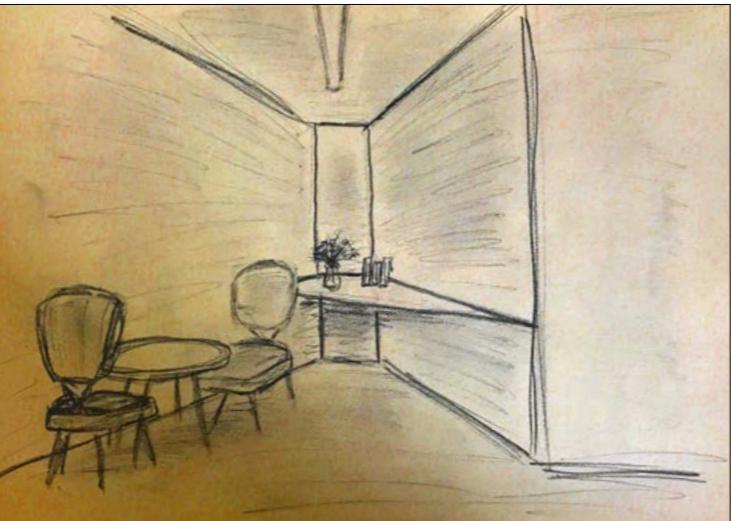
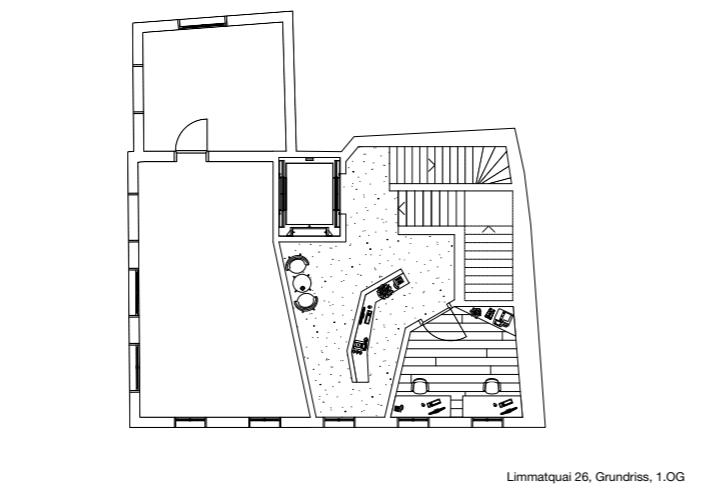
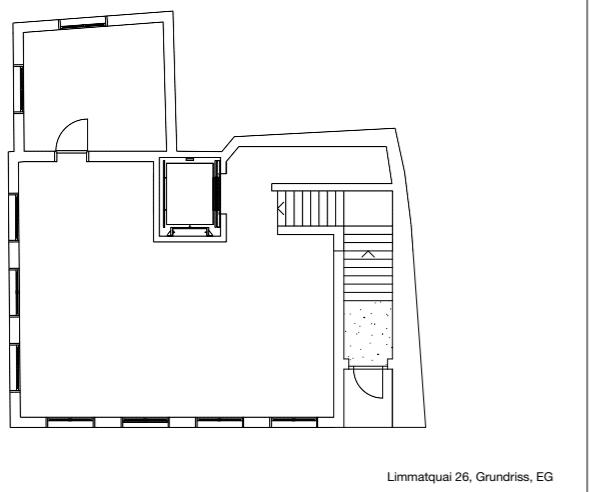
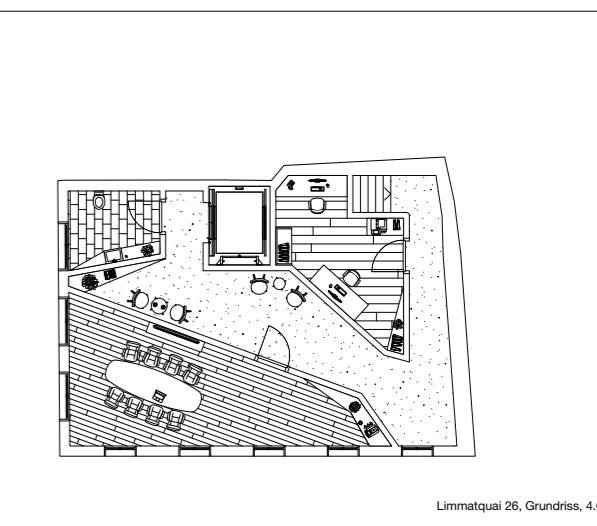
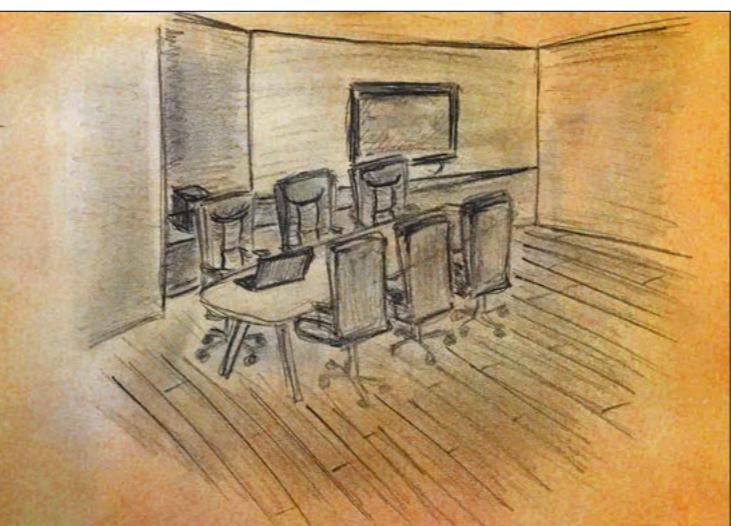
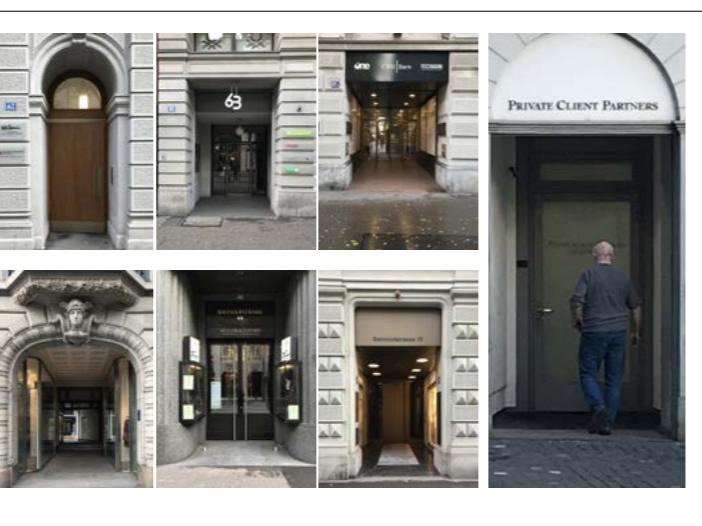
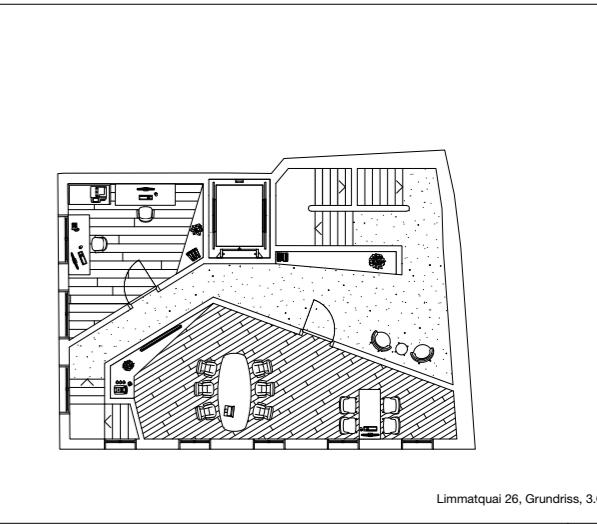
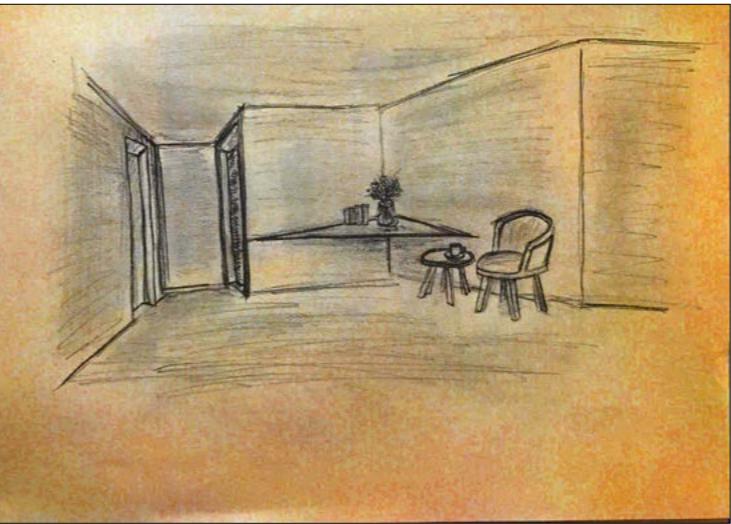
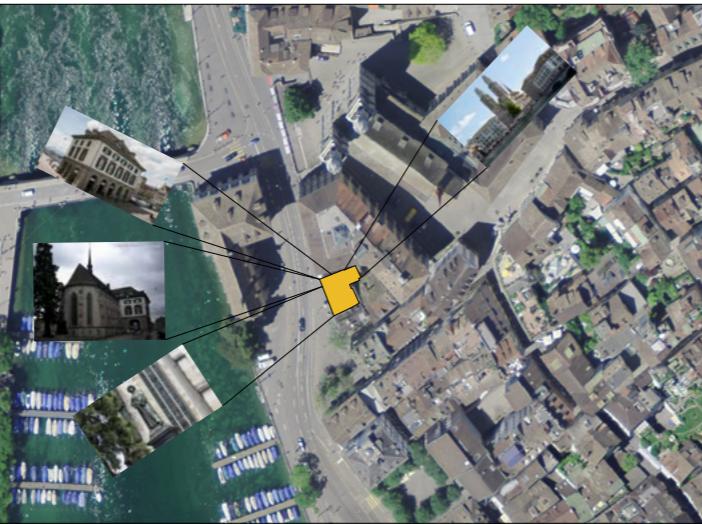
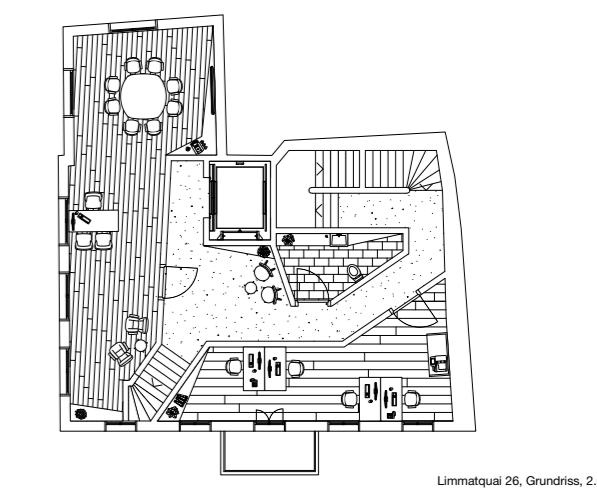
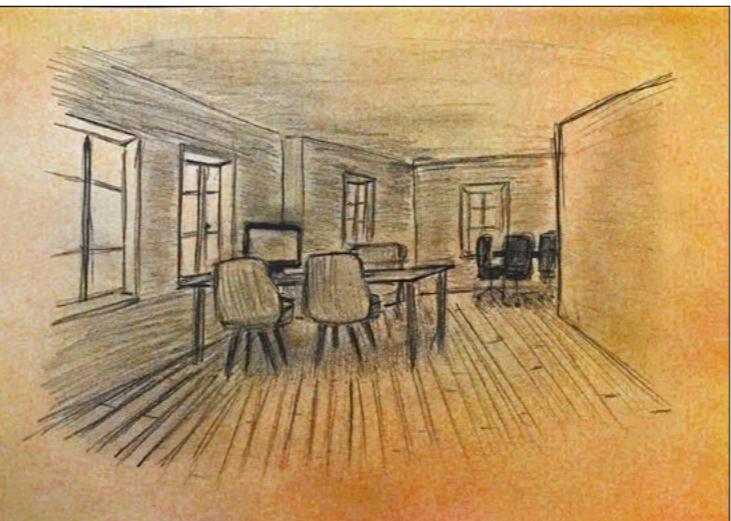
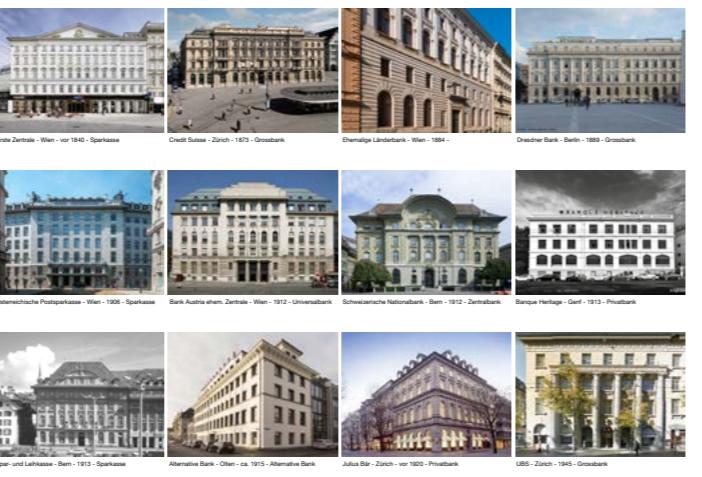
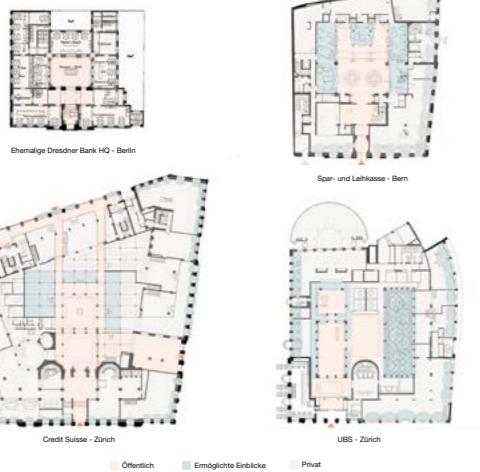


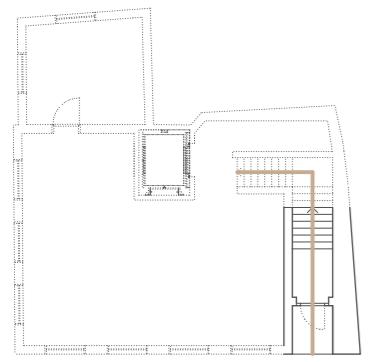
AIRPLANE INDUSTRY,
FOOD INDUSTRY,
PHARMACEUTICAL INDUSTRY,

PROJECTS

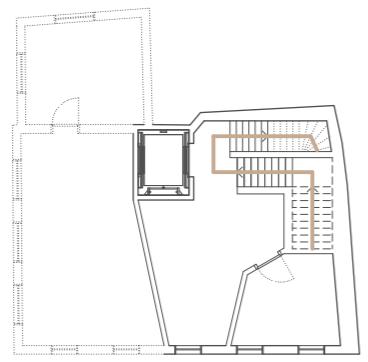
HEADQUARTERS	<i>10-99 P:</i> Chiara Bosshard <i>100-999 P:</i> Felix Affolter <i>100-999 P:</i> Olin Petzold <i>100-999 P:</i> Frano Karlovic	p. 40 p. 46 p. 54 p. 64
PRODUCING + CONSUMING	<i>2-9 P:</i> Louis Charrat <i>10-99 P:</i> Xingyu He <i>10-99 P:</i> Gabriel Mösch <i>10-99 P:</i> Michelle Schenk <i>100-999 P:</i> Amanda Pellizzari <i>100-999 P:</i> Chaoyi Yu	p. 74 p. 84 p. 96 p. 102 p. 116 p. 126
MANUFACTURING	<i>2-9 P:</i> Nuria Estevez <i>10-99 P:</i> Khalil Mdimagh <i>100-999 P:</i> Valentina Frei <i>100-999 P:</i> Janine Henz <i>100-999 P:</i> Juan David Rojas Rico <i>100-999 P:</i> Selin Risi <i>1000-10000 P:</i> Xingjian Andrew Li	p. 134 p. 142 p. 152 p. 160 p. 170 p. 180 p. 190



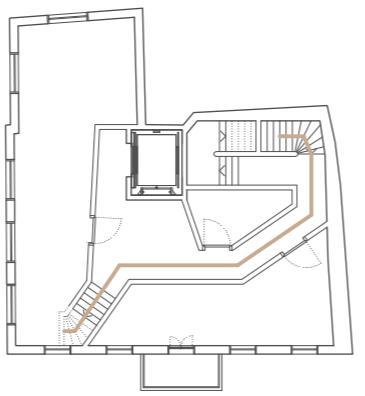




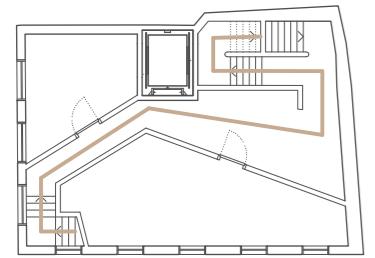
Limmatquai 26, Grundriss, EG



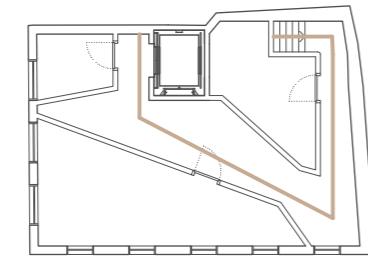
Limmatquai 26, Grundriss, 1.OG



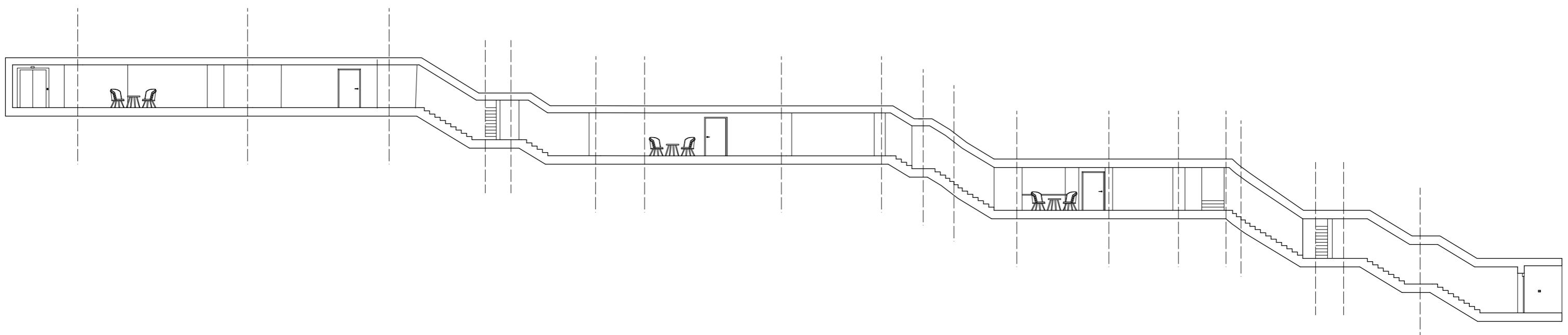
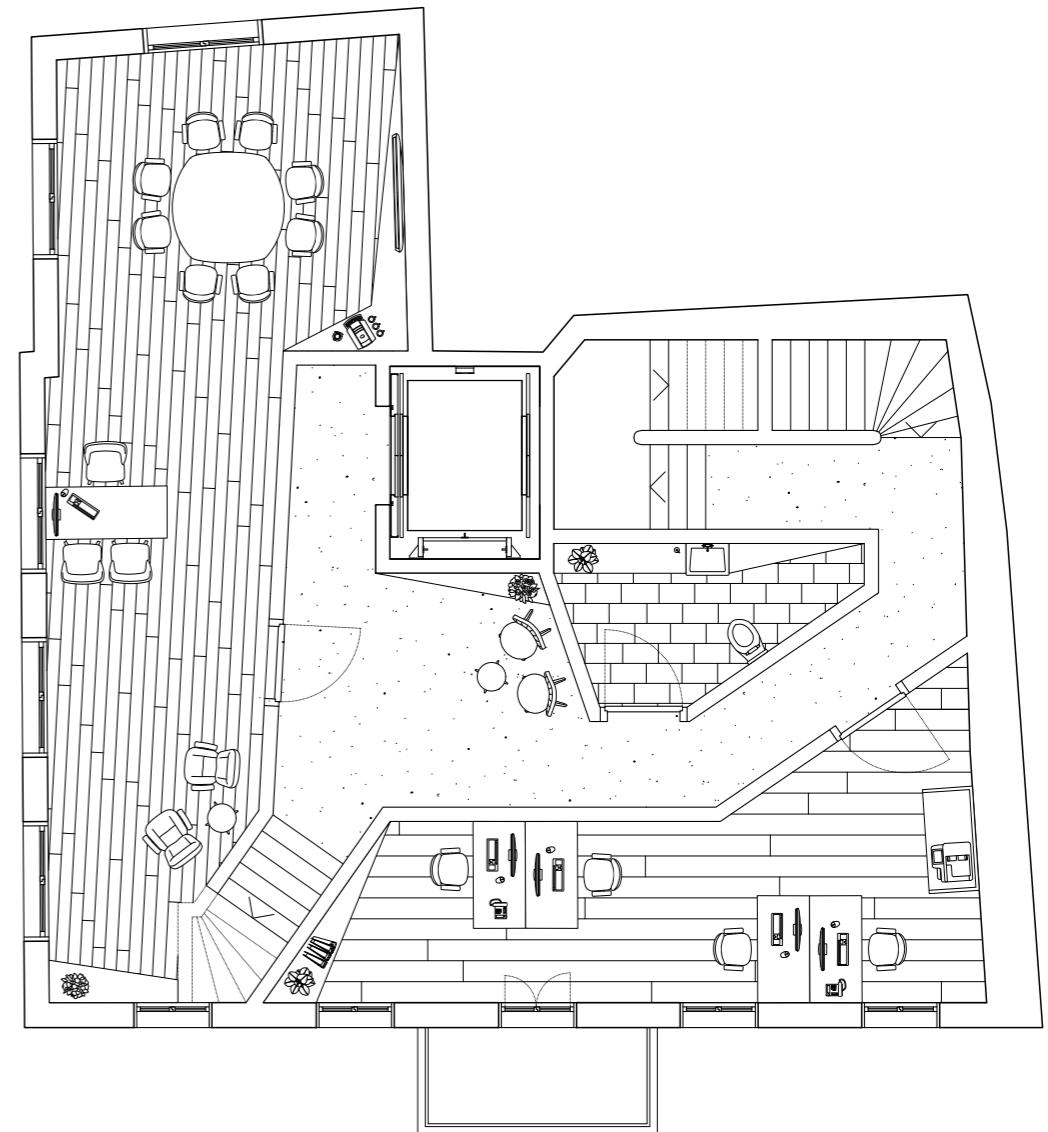
Limmatquai 26, Grundriss, 2.OG



Limmatquai 26, Grundriss, 3.OG



Limmatquai 26, Grundriss, 4.OG



1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

THE INDEPENDENT NEWSPAPER OFFICE IN BERN

Felix Affolter

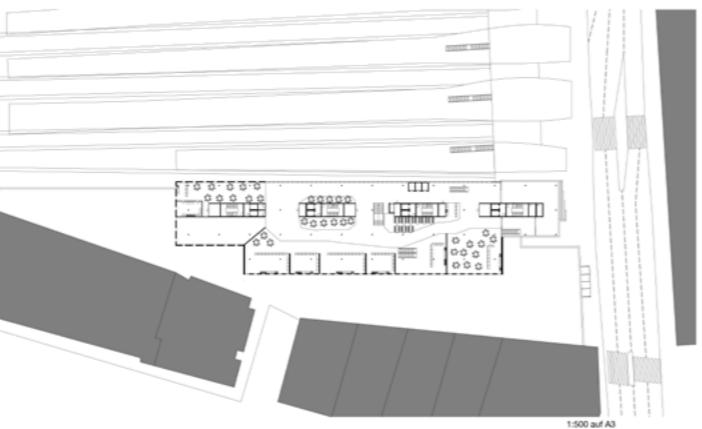


Existing building: Facade



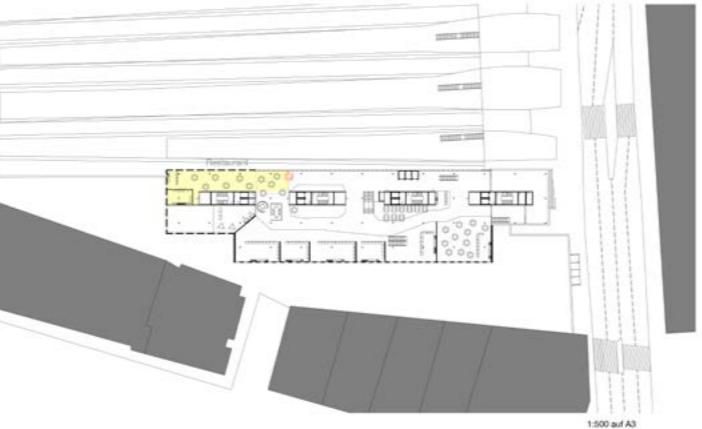
1:200 auf A1

Existing building: Groundfloor



1:500 auf A3

Groundfloor



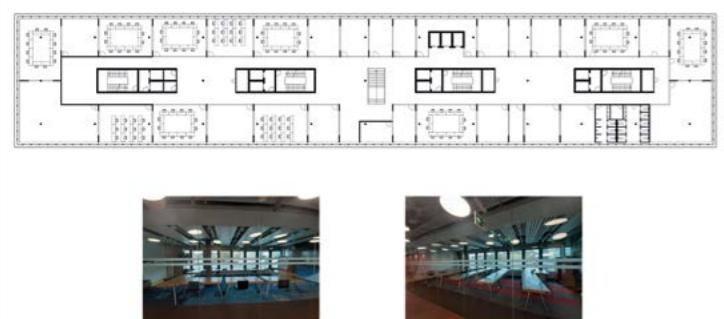
1:500 auf A3

Longitudinal section



1:200 auf A1

Existing building: General floorpan



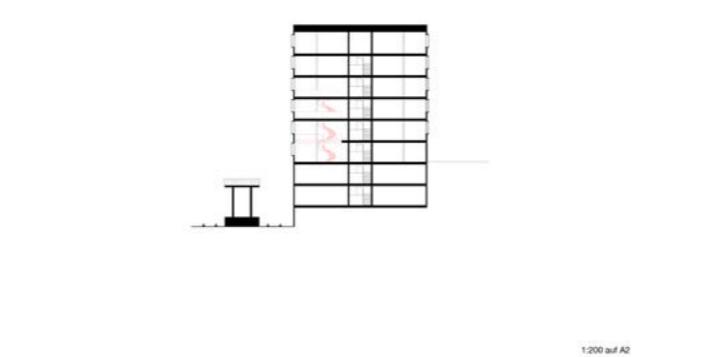
1:200 auf A2

Existing building: Section



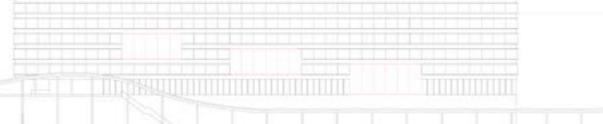
1:200 auf A1

Cross-section



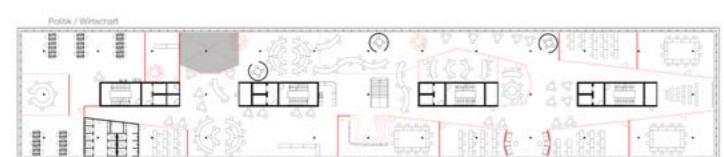
1:200 auf A2

Facade



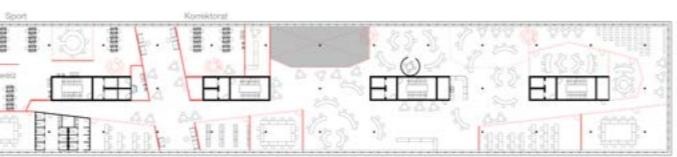
1:200 auf A1

1. Floor



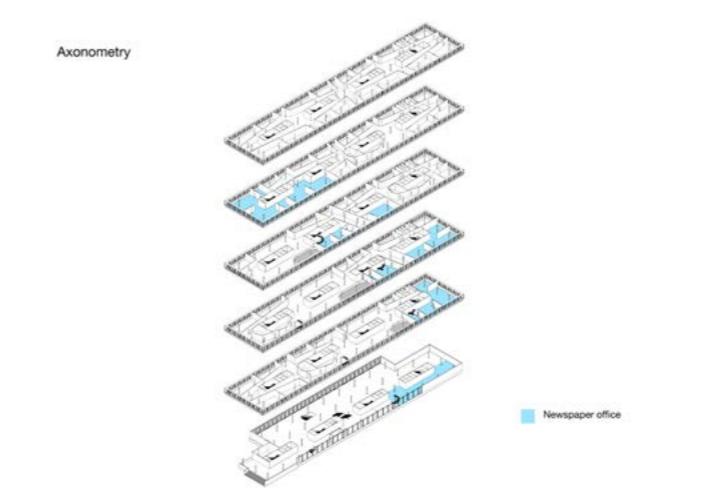
1:200 auf A2

2. Floor



1:200 auf A2

Axonometry



Newspaper office

Interior image



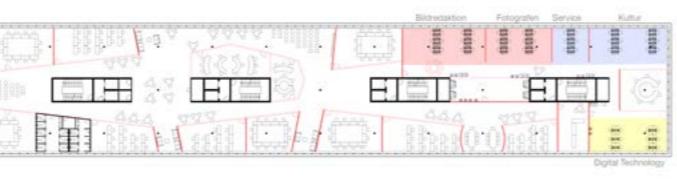
1:200 auf A1

3. Floor



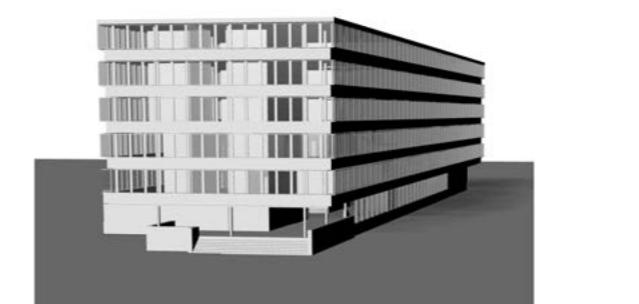
1:200 auf A2

4. Floor



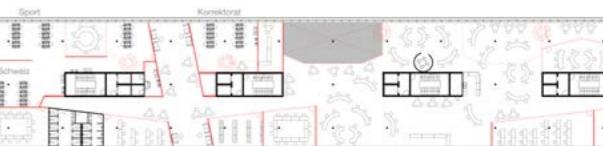
1:200 auf A2

Model picture

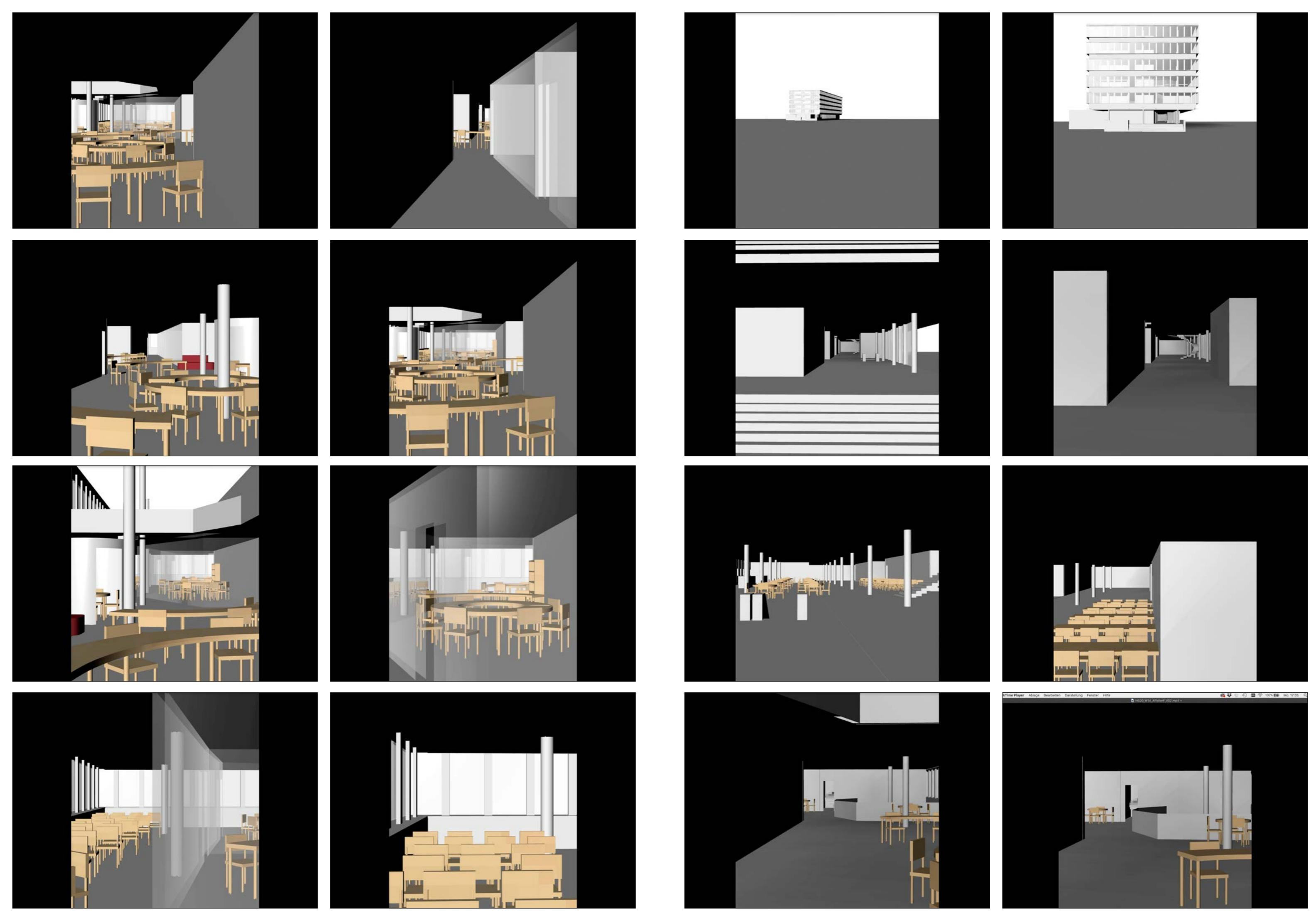


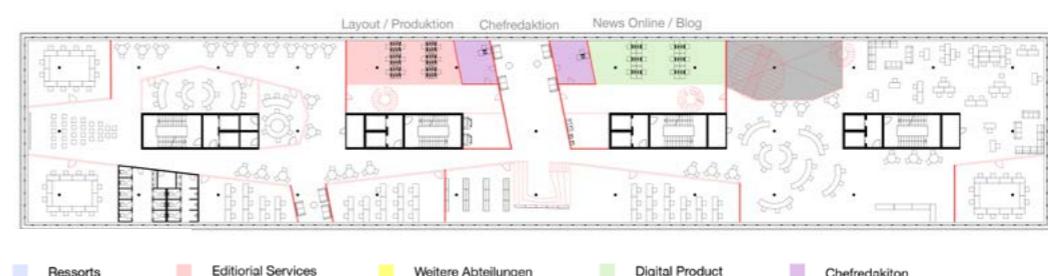
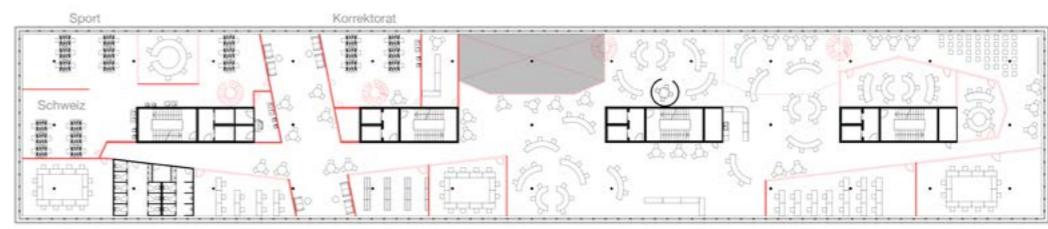
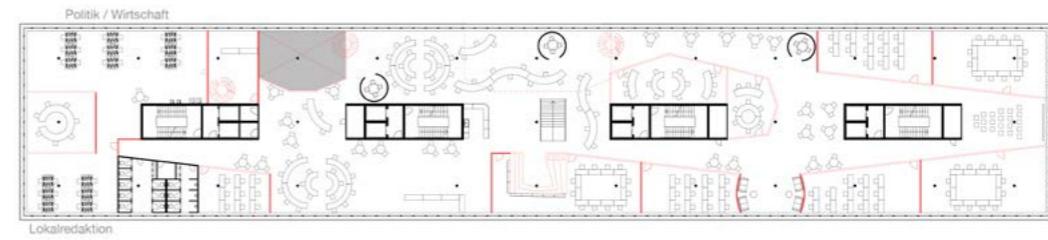
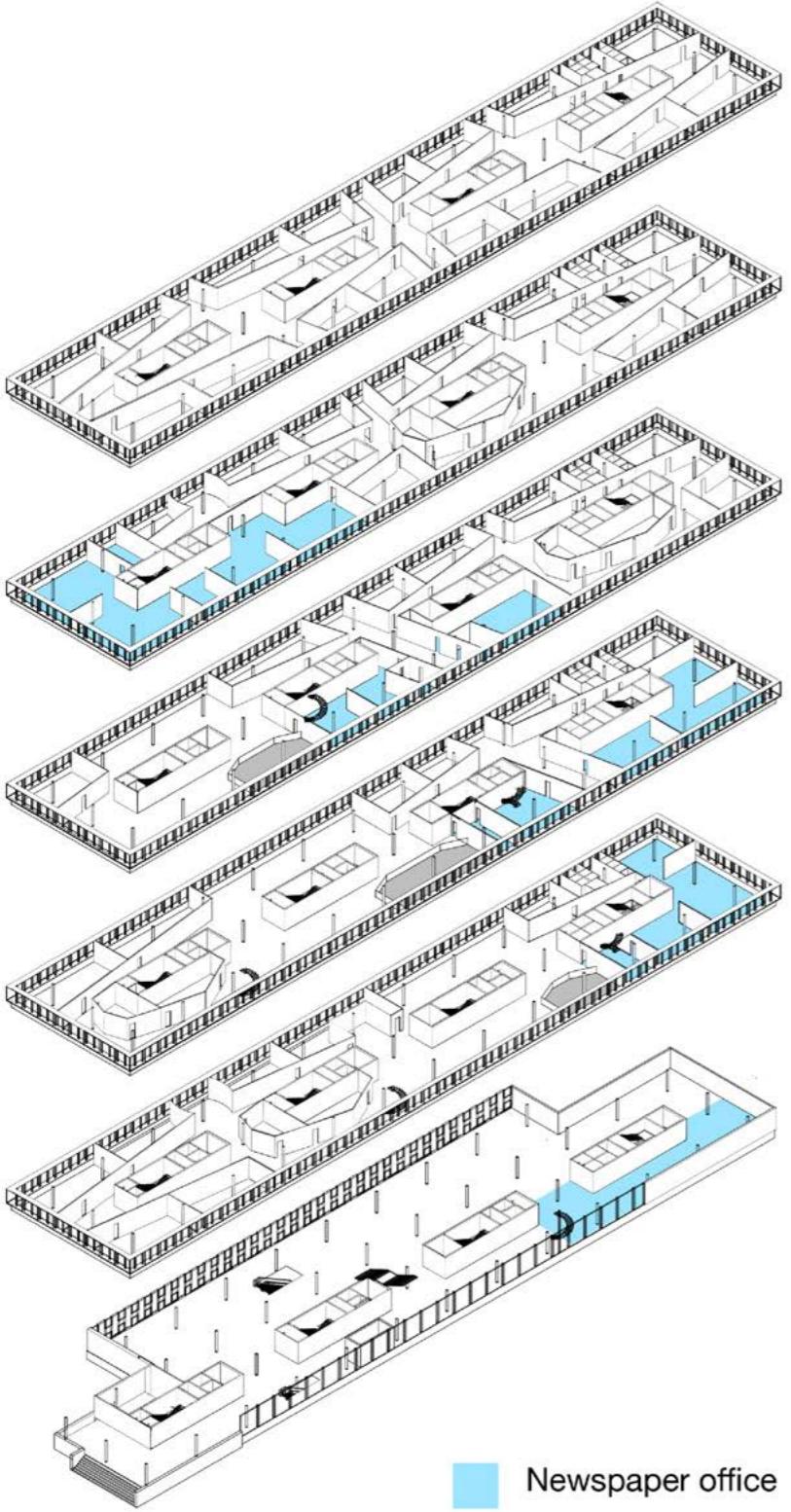
1:200 auf A2

2. Floor



1:200 auf A2





1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

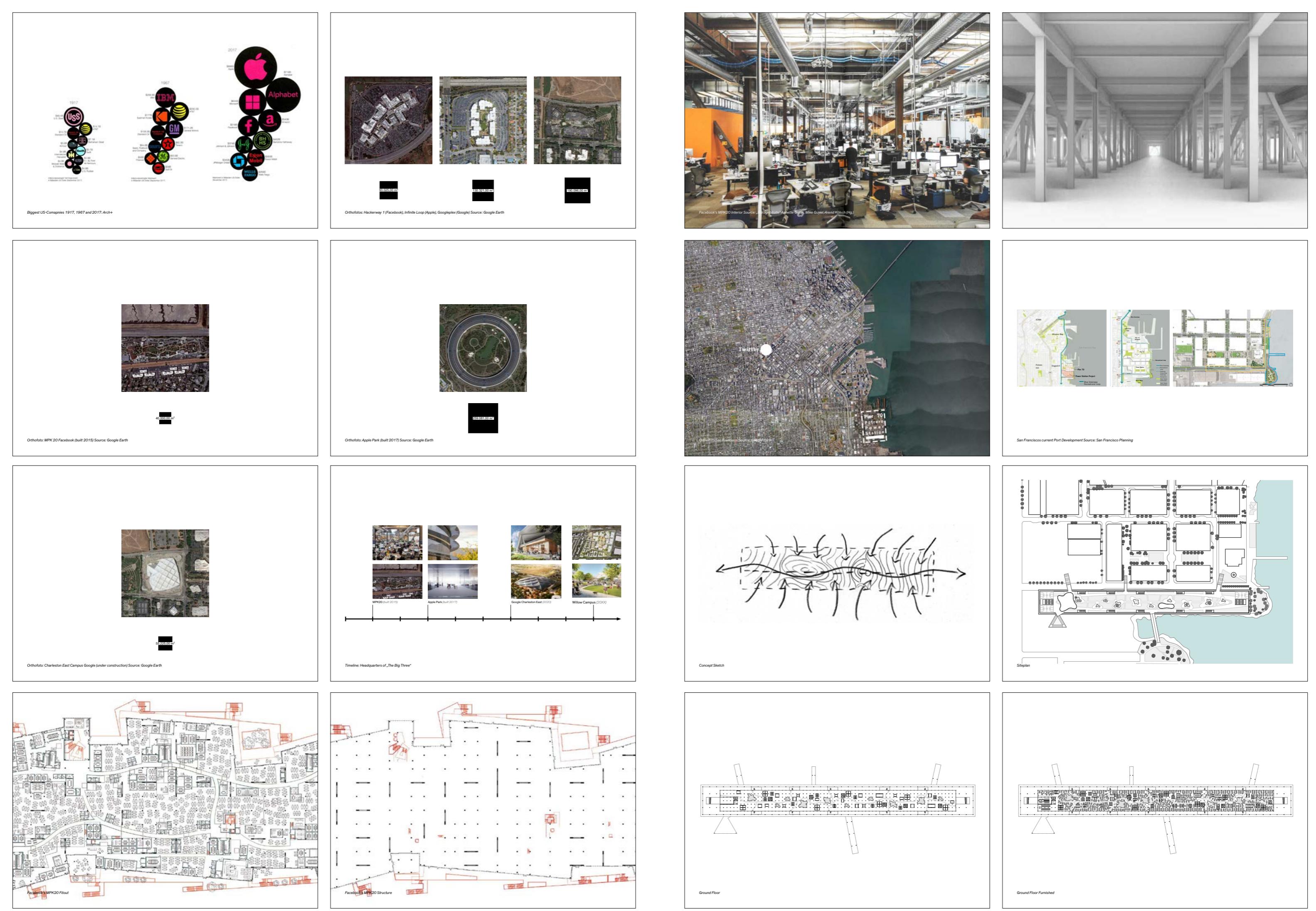
HEADQUARTERS FOR A SOCIAL MEDIA COMPANY

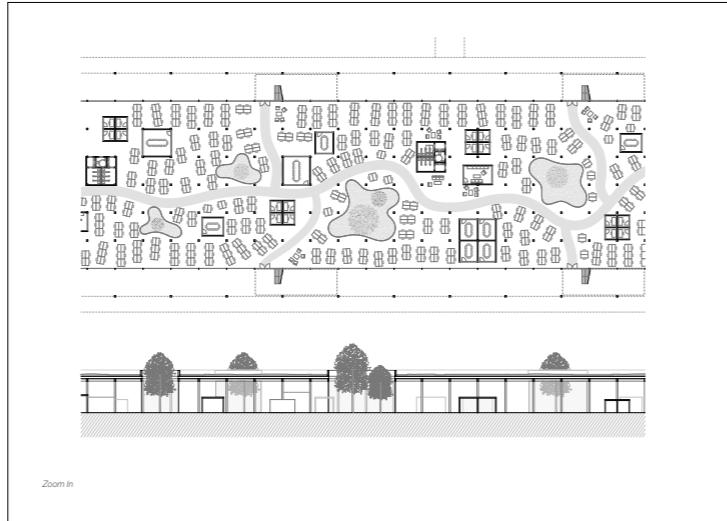
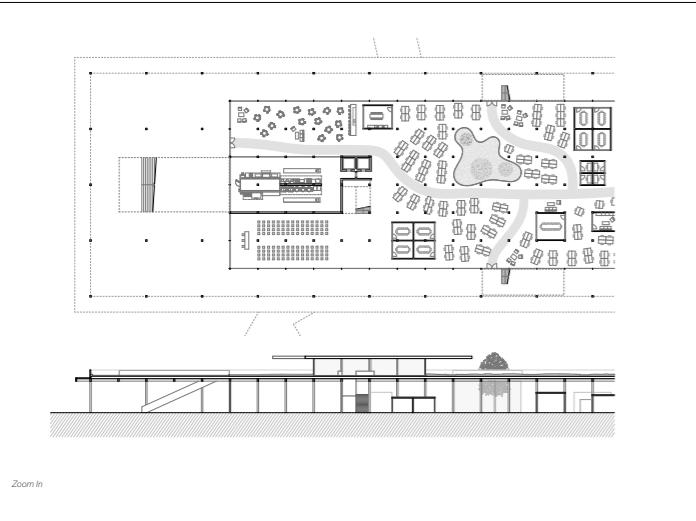
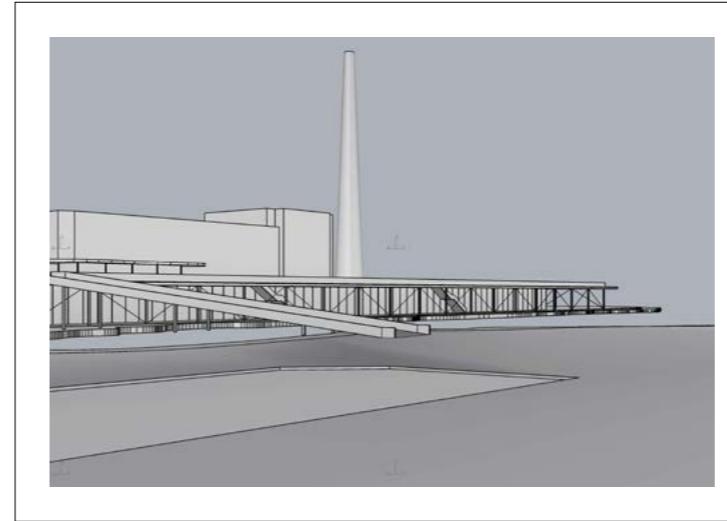
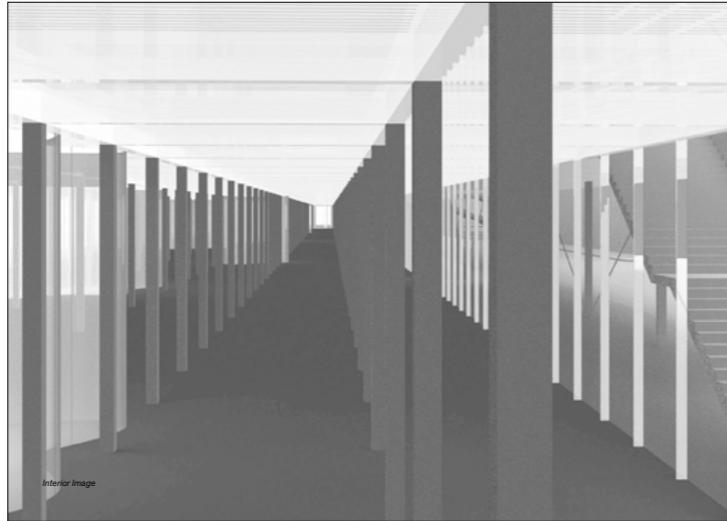
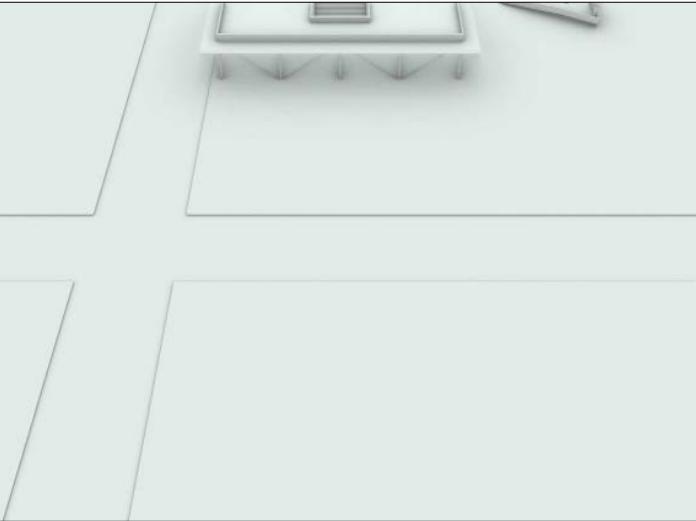
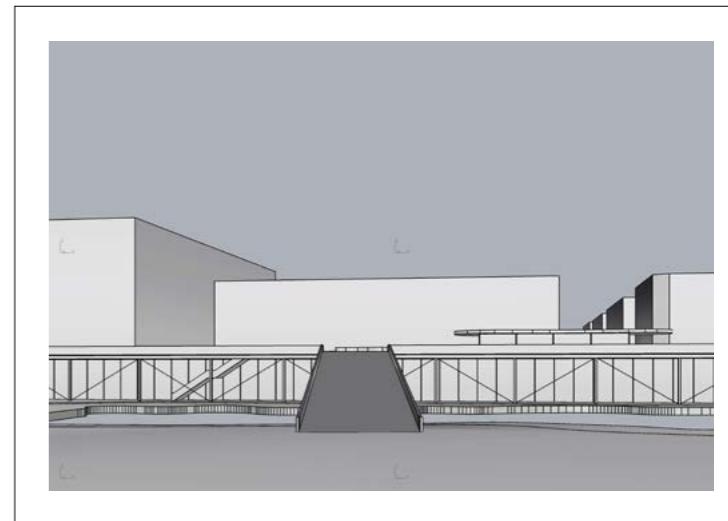
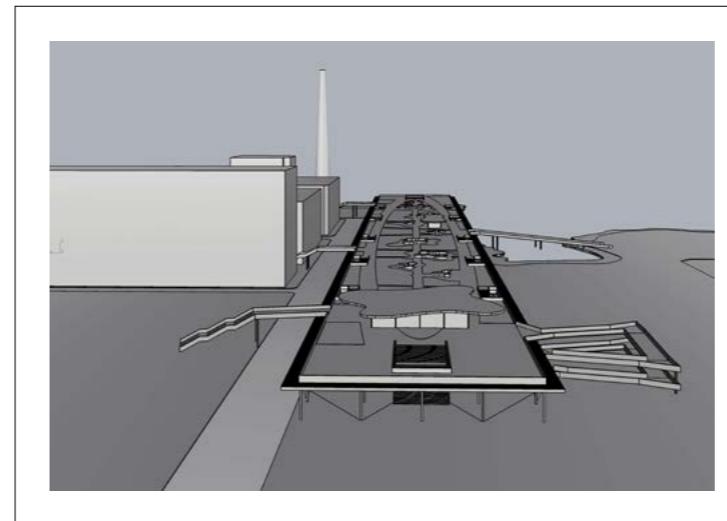
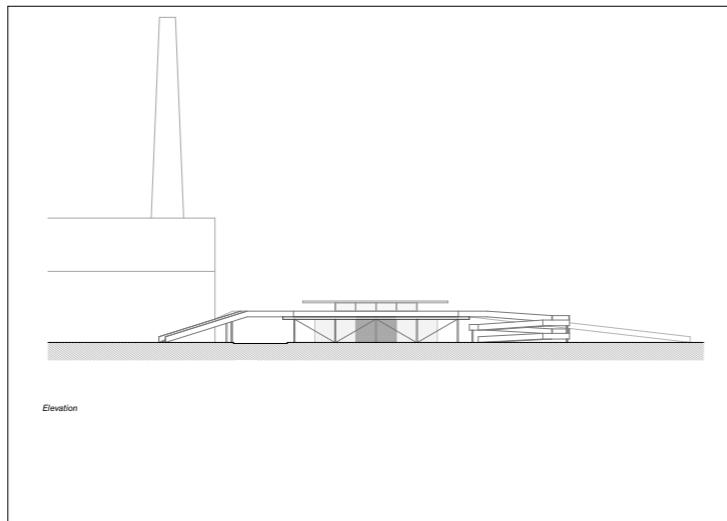
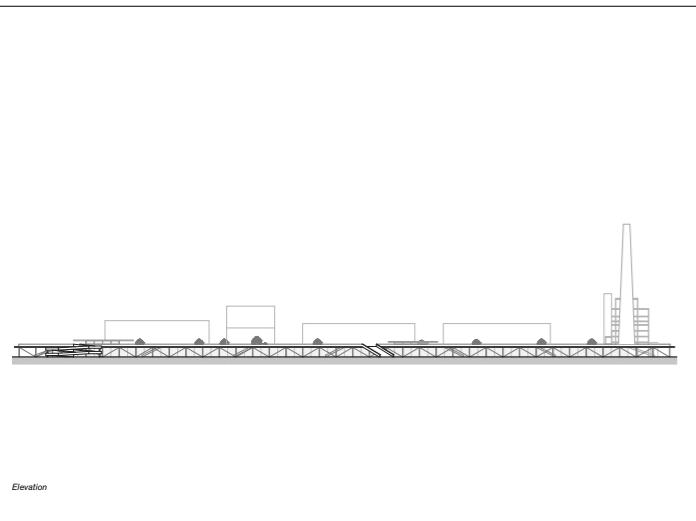
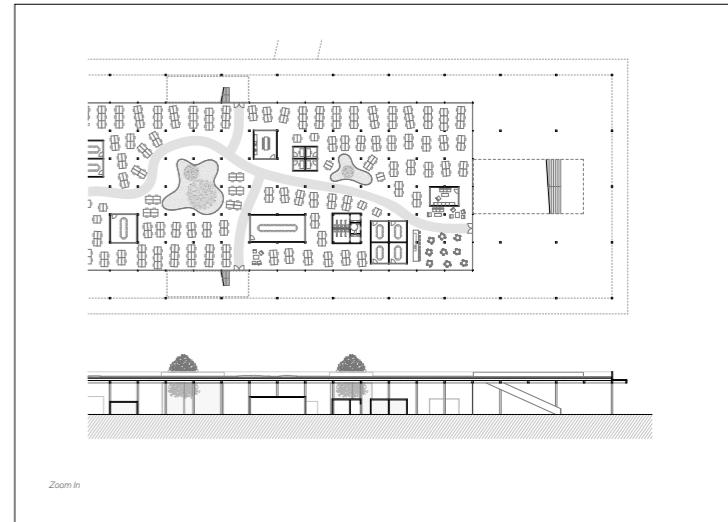
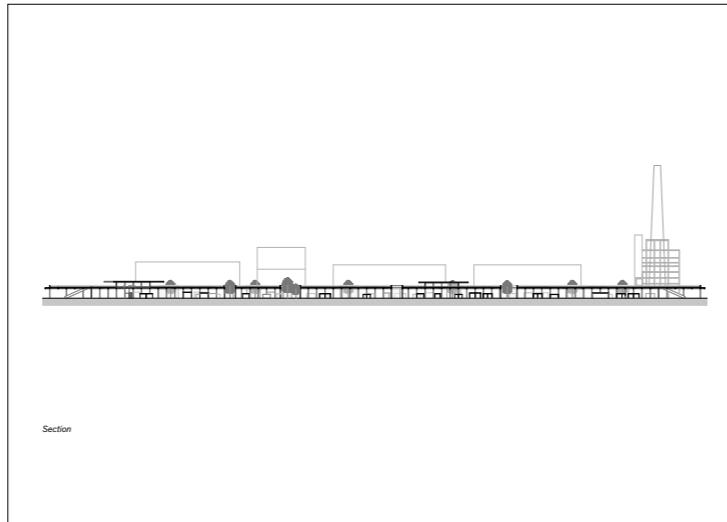
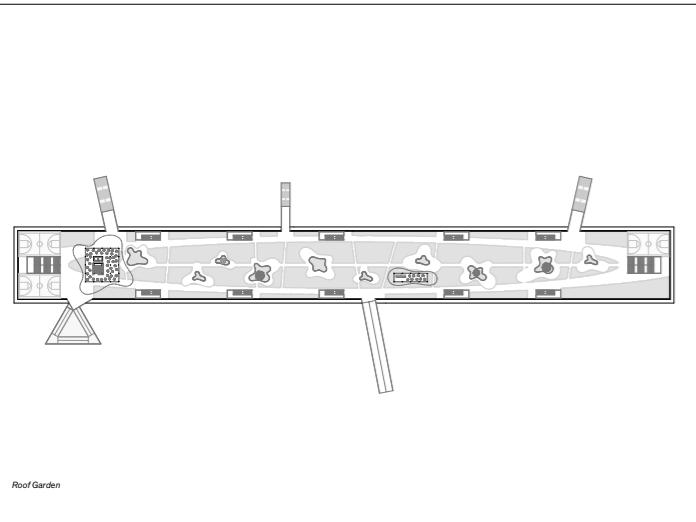
Olin Petzold

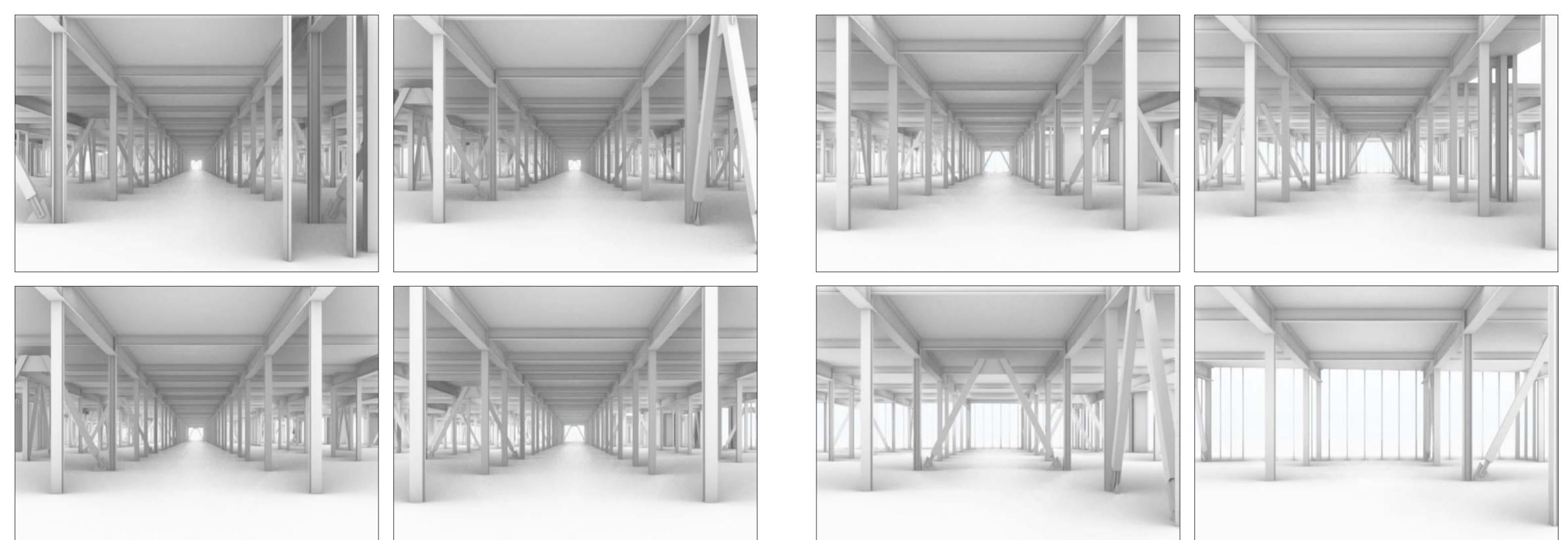
HEADQUARTERS

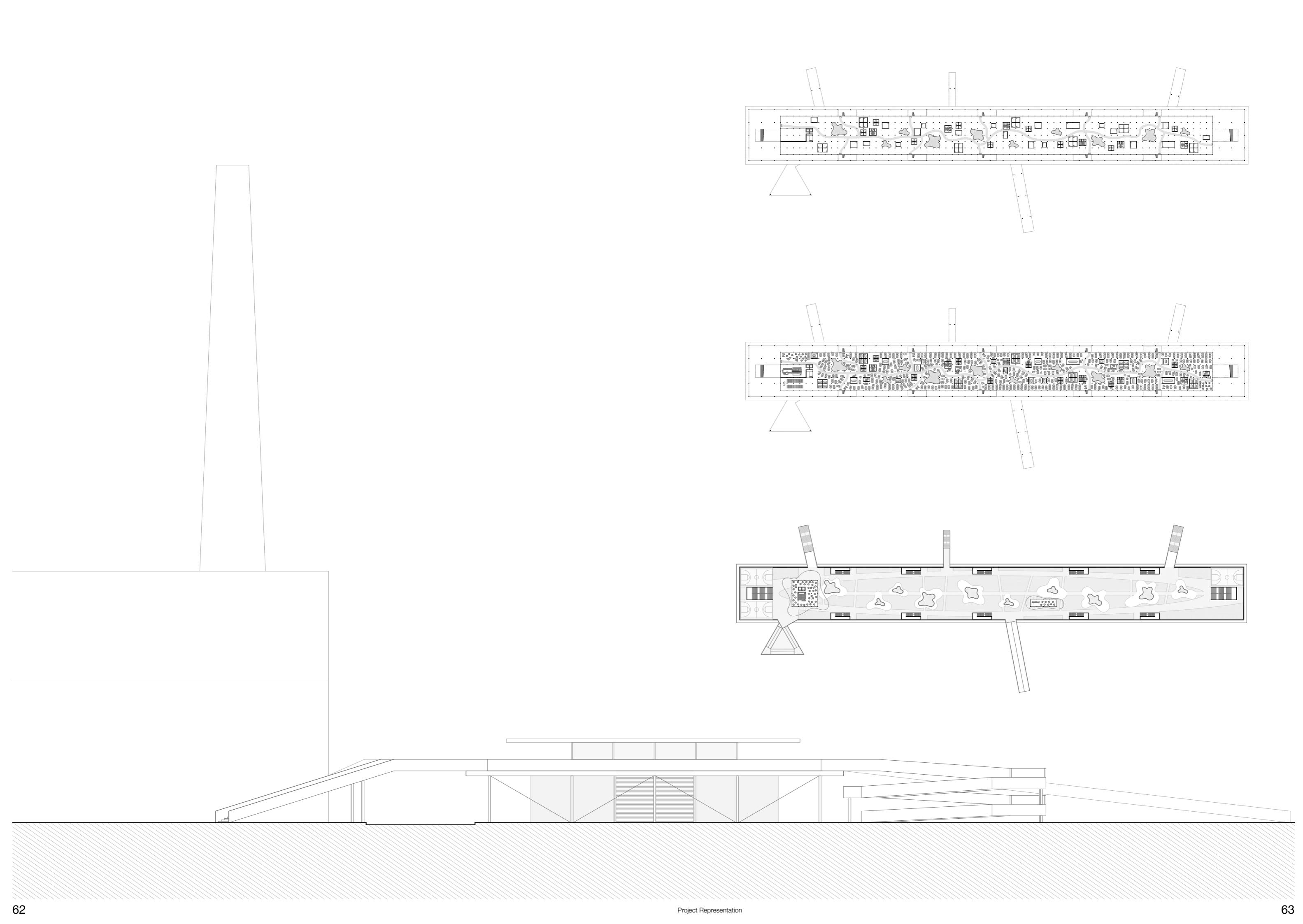
PRODUCING + CONSUMING

MANUFACTURING









HEADQUARTERS

PRODUCING + CONSUMING

MANUFACTURING

1 P

2-9 P

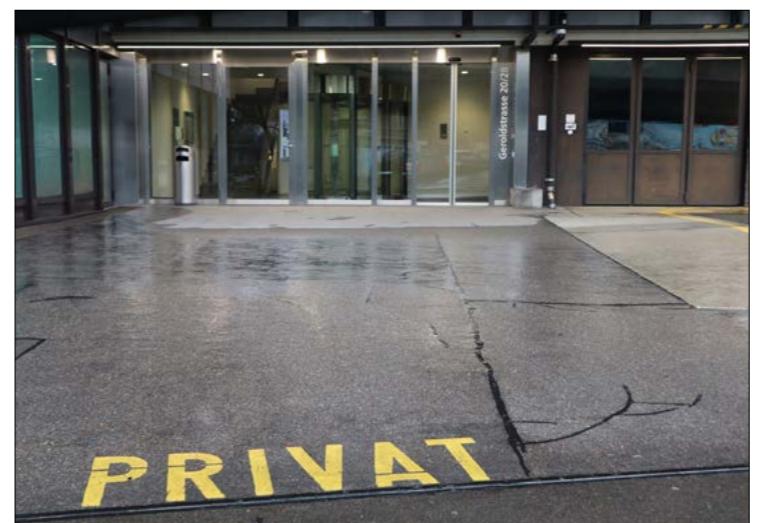
10-99 P

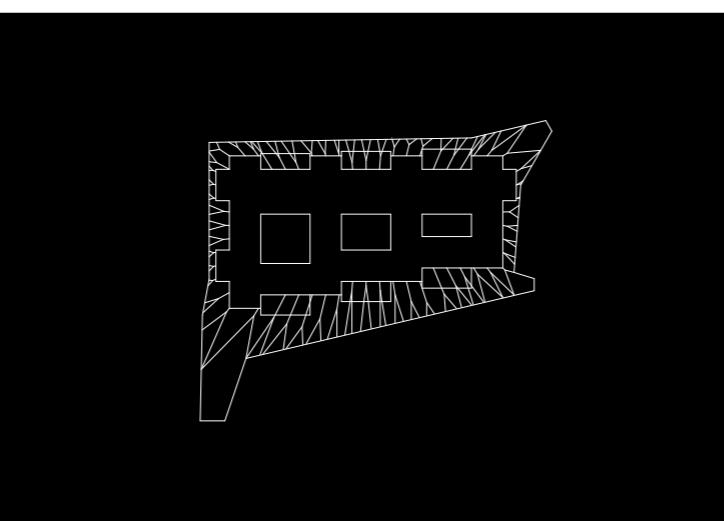
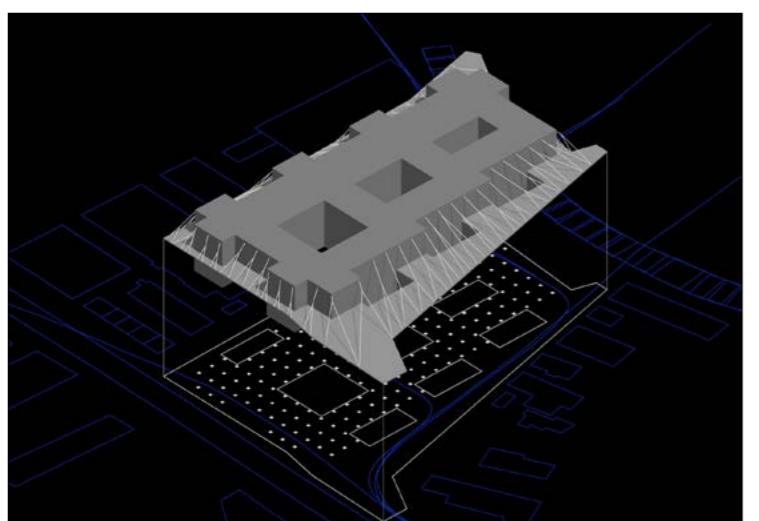
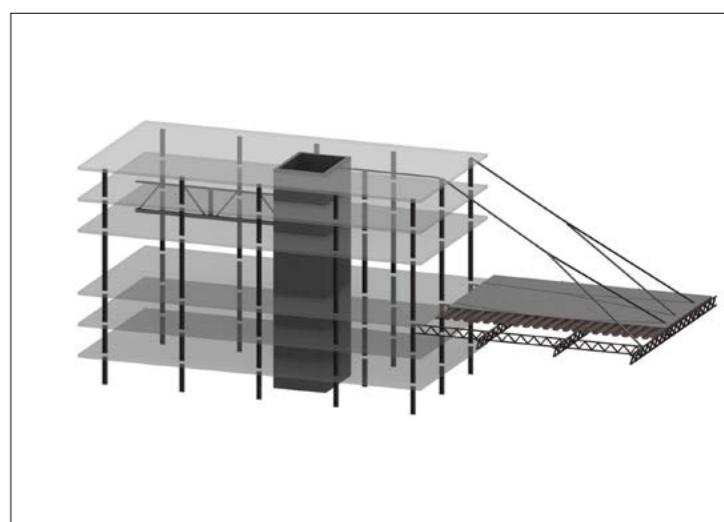
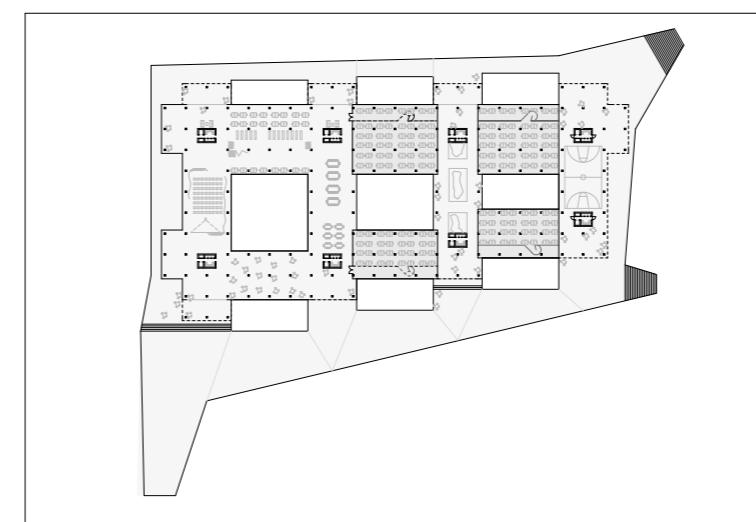
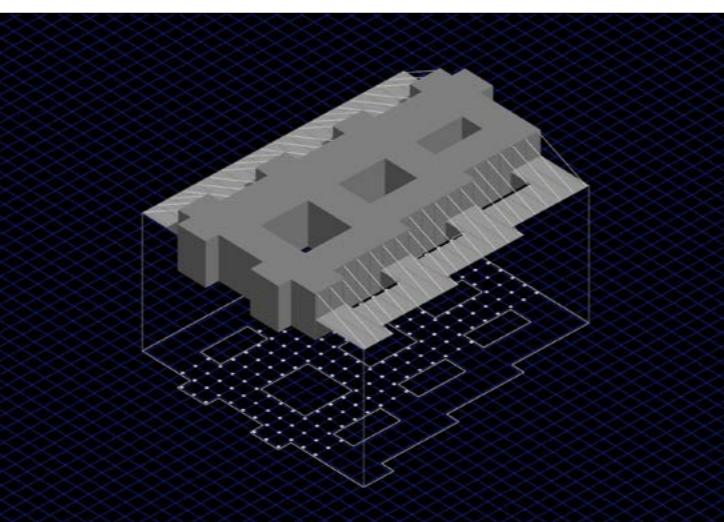
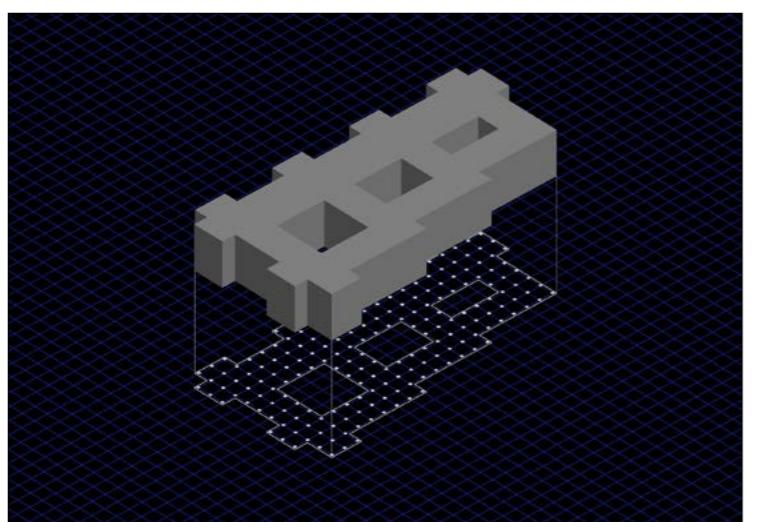
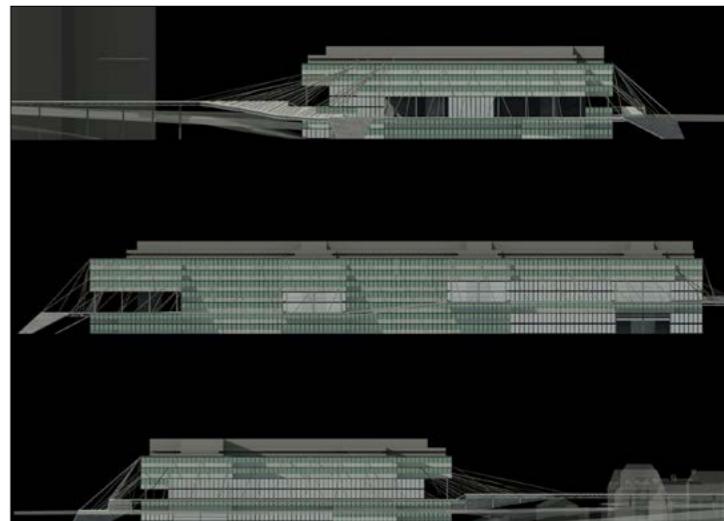
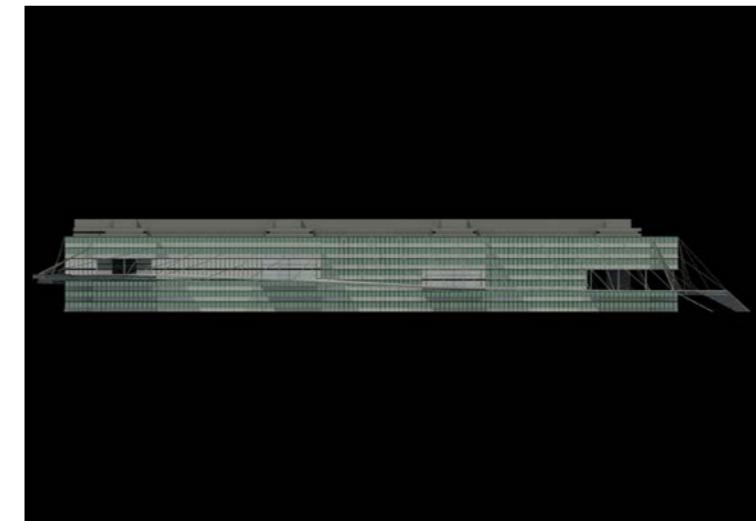
100-999 P

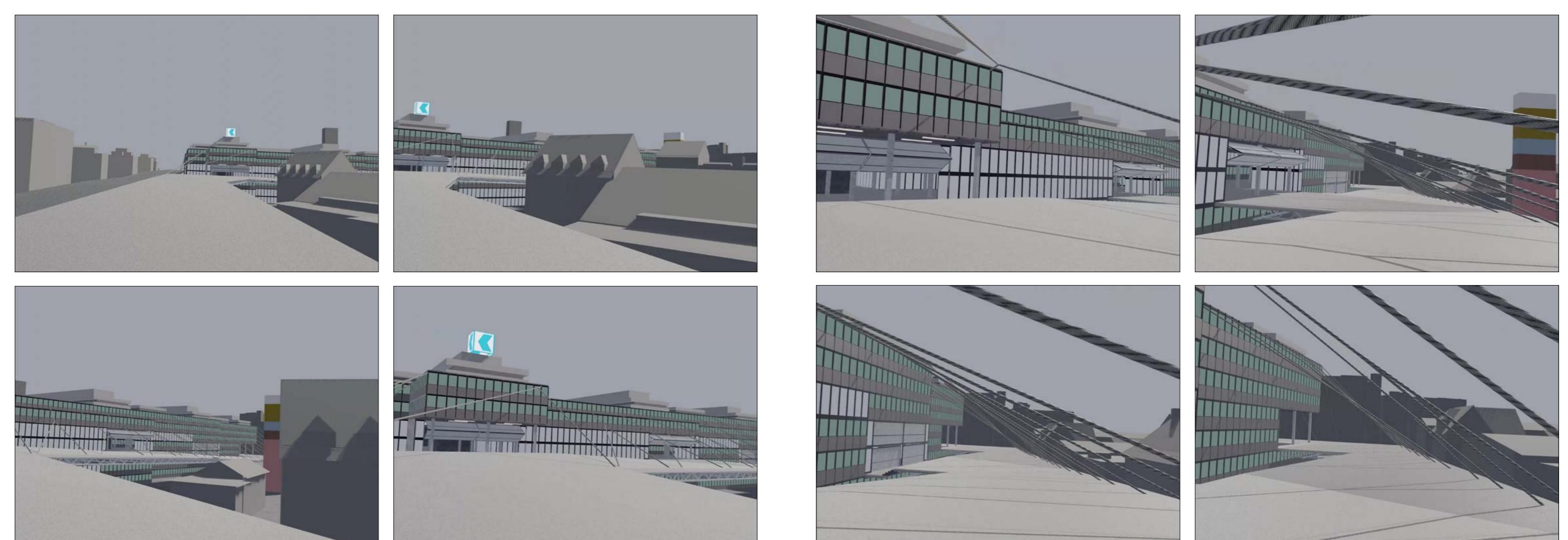
1'000-9'999 P

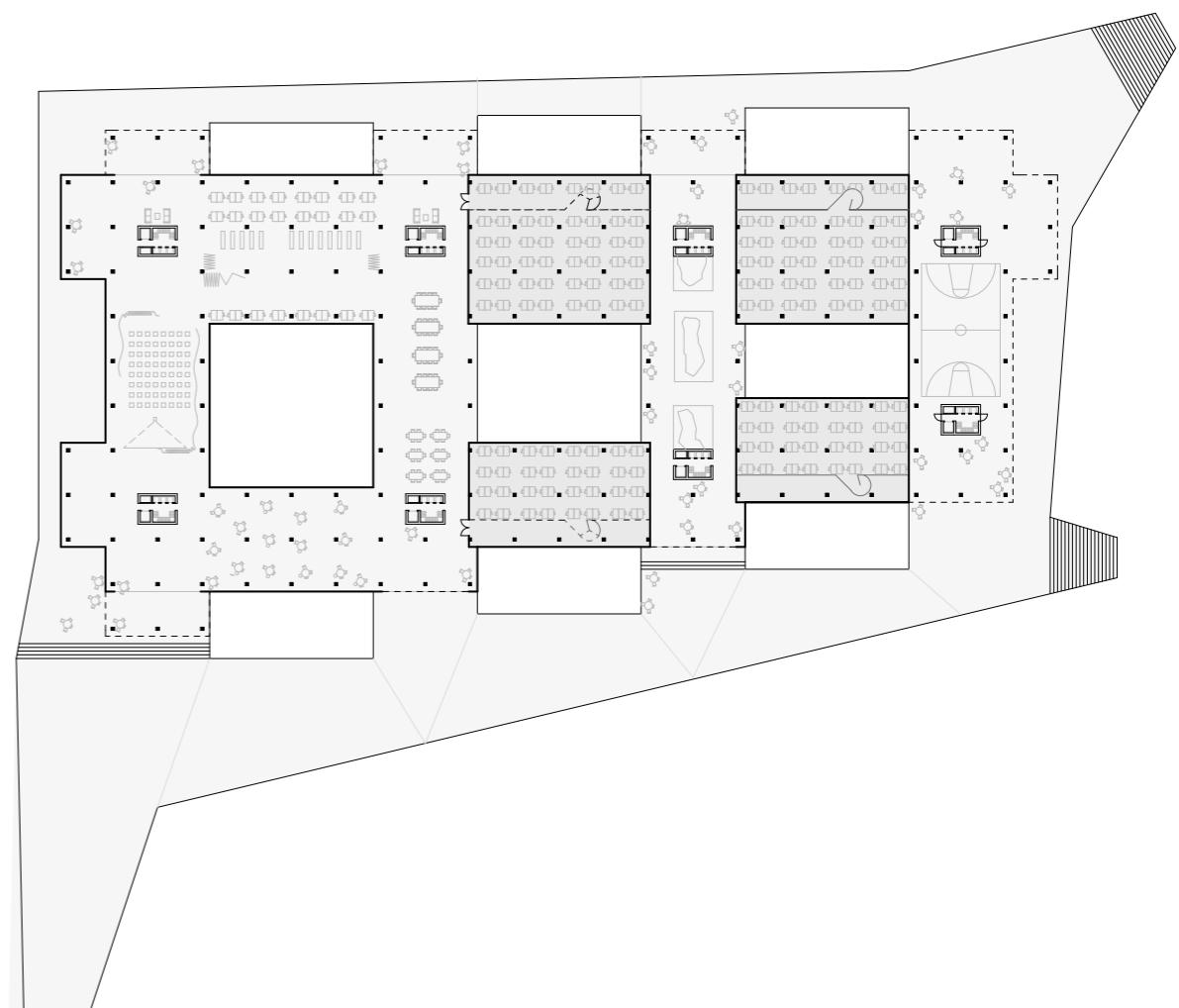
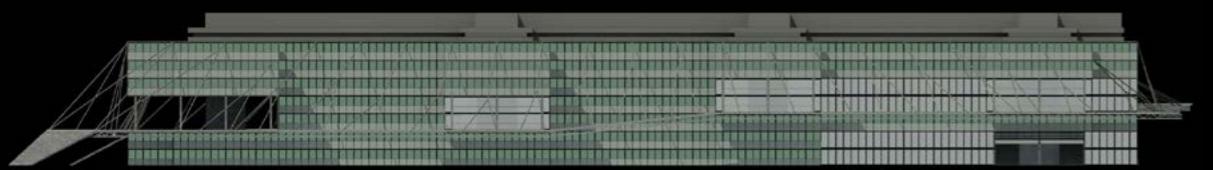
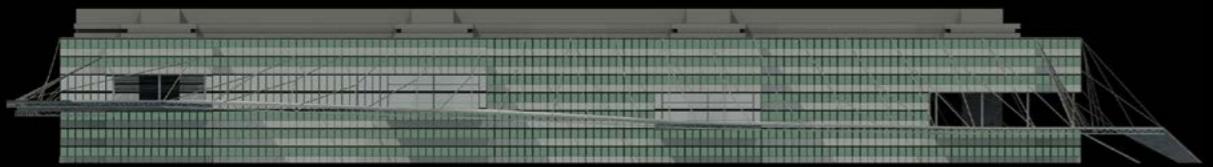
ZKB HEADQUARTER HARD

Frano Karlovic









1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

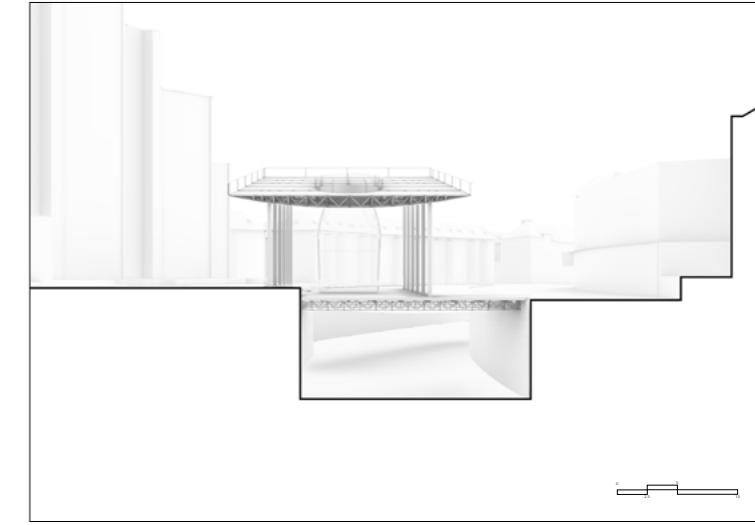
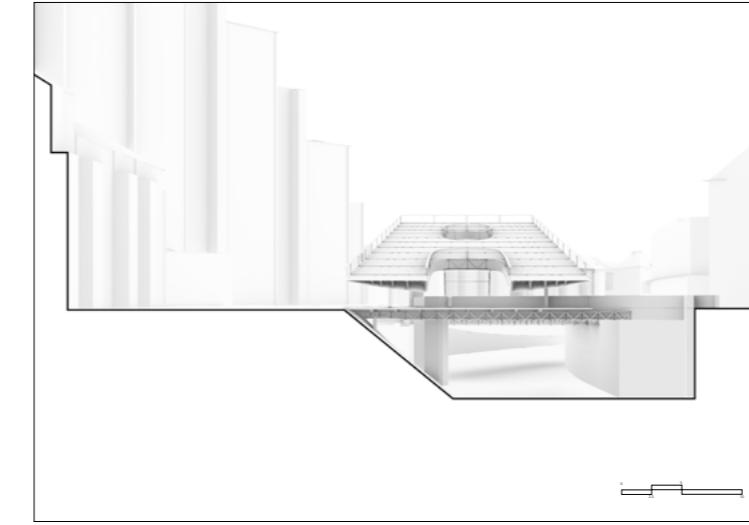
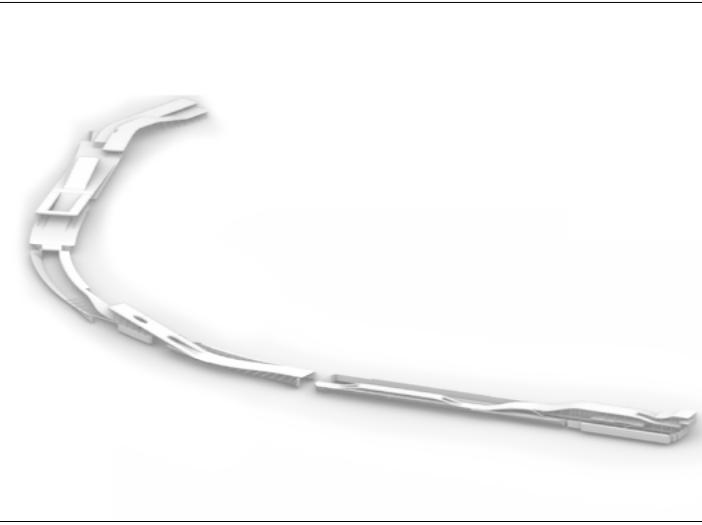
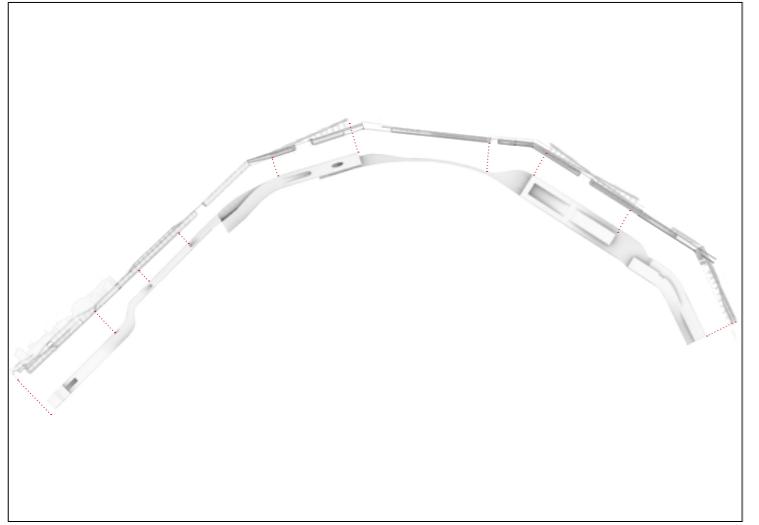
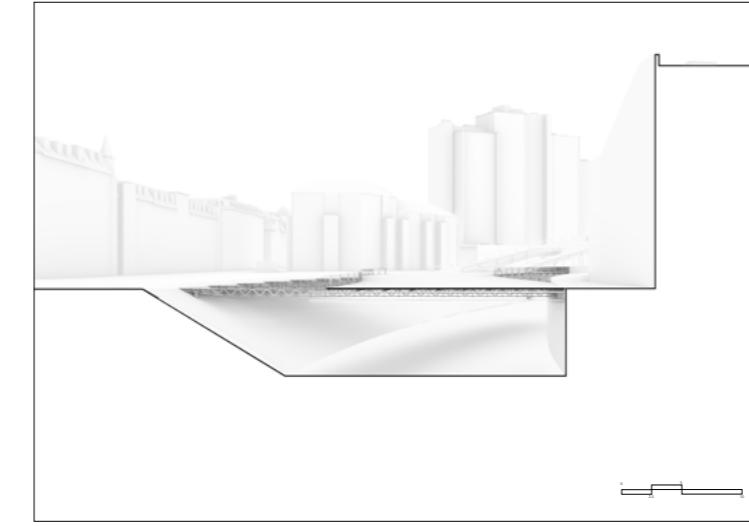
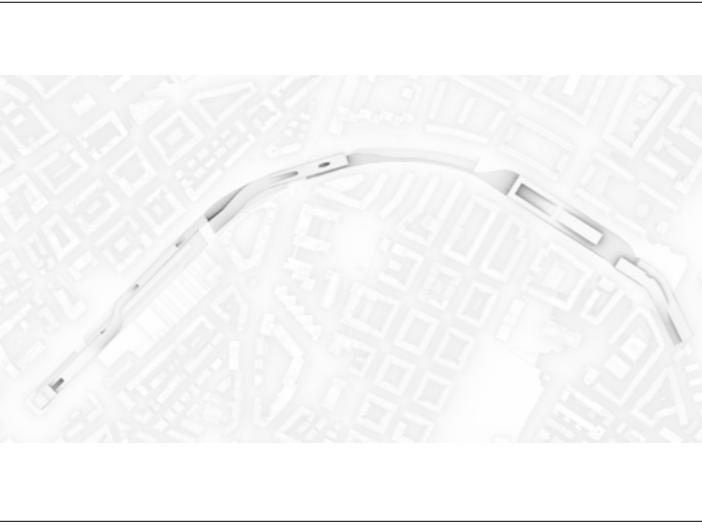
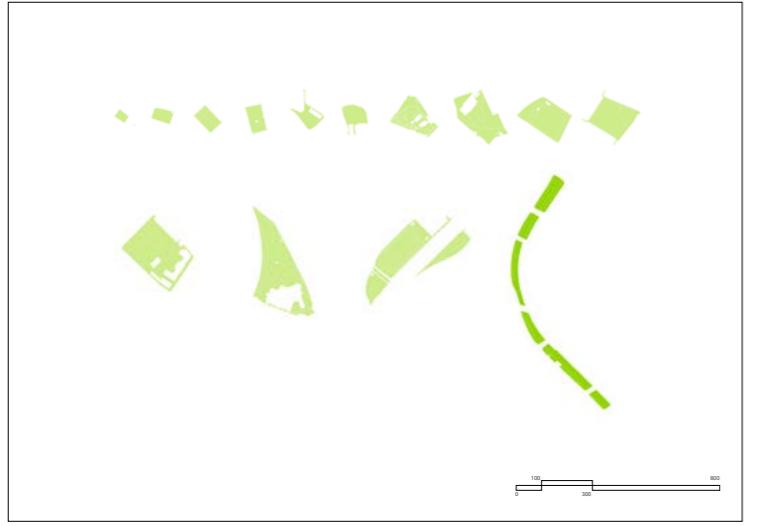
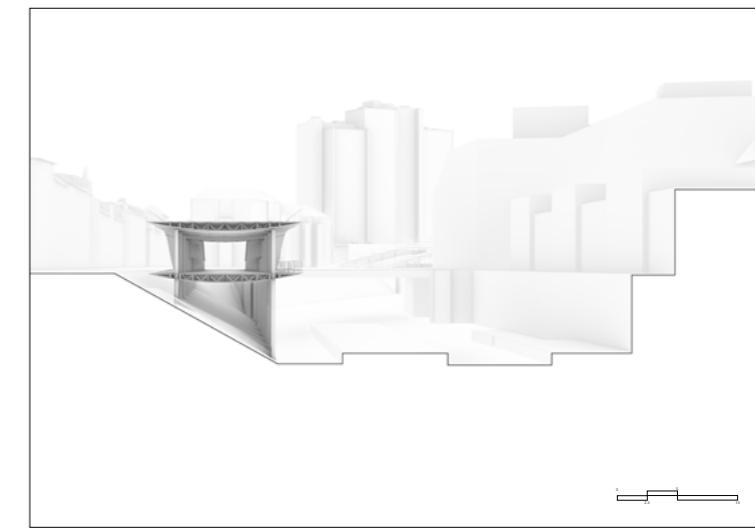
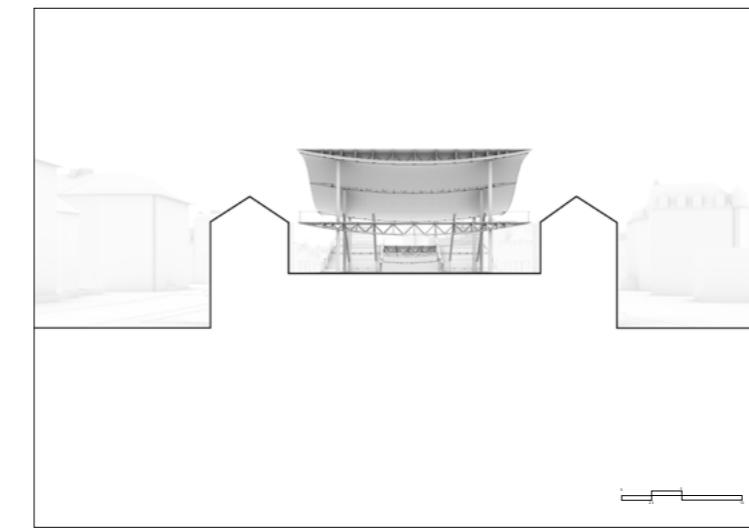
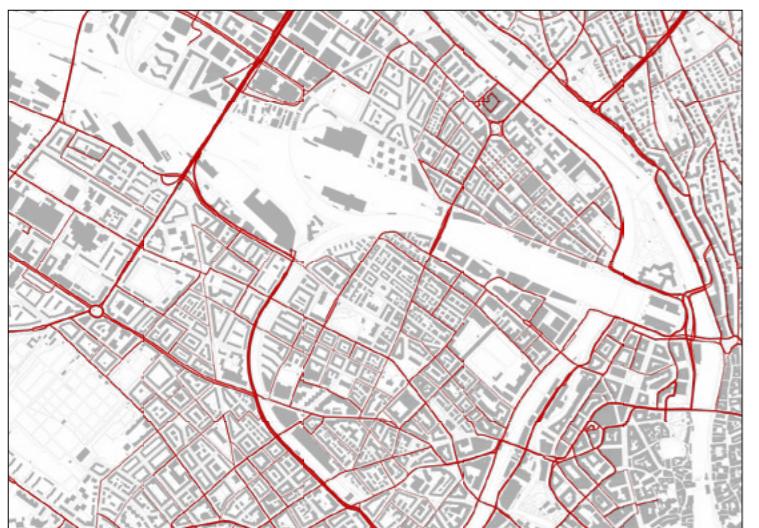
BRIDGING SEEBAHNSTRASSE

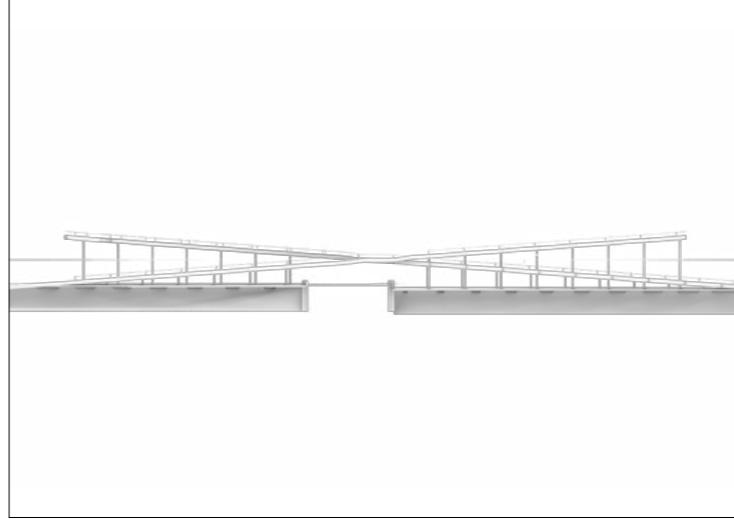
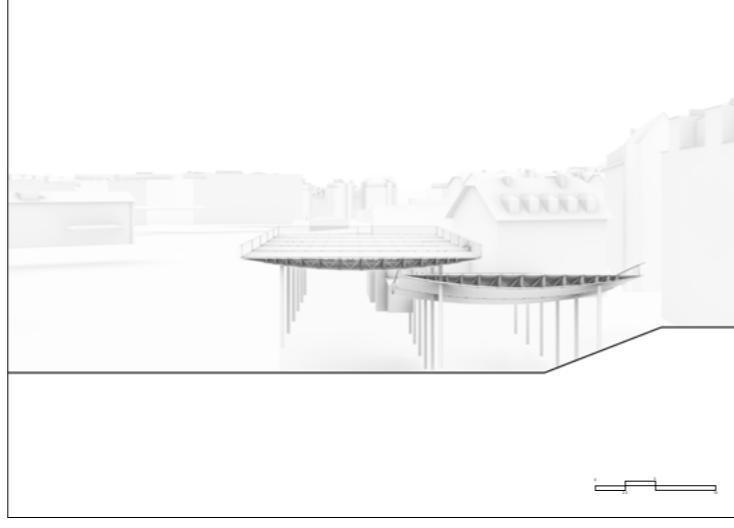
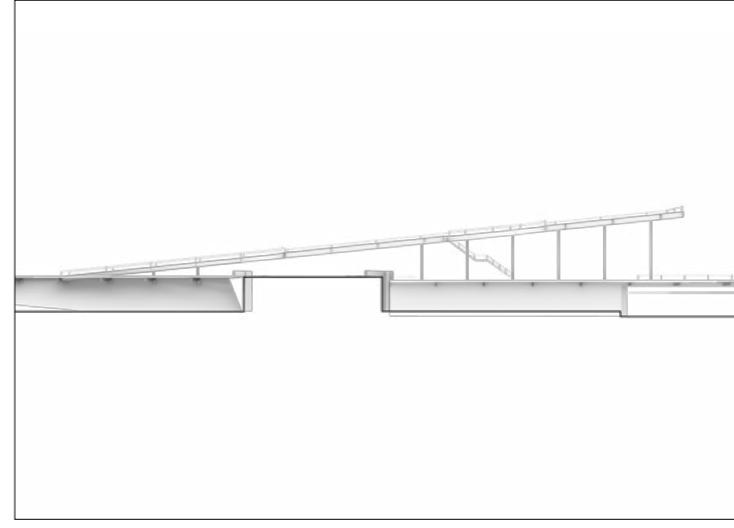
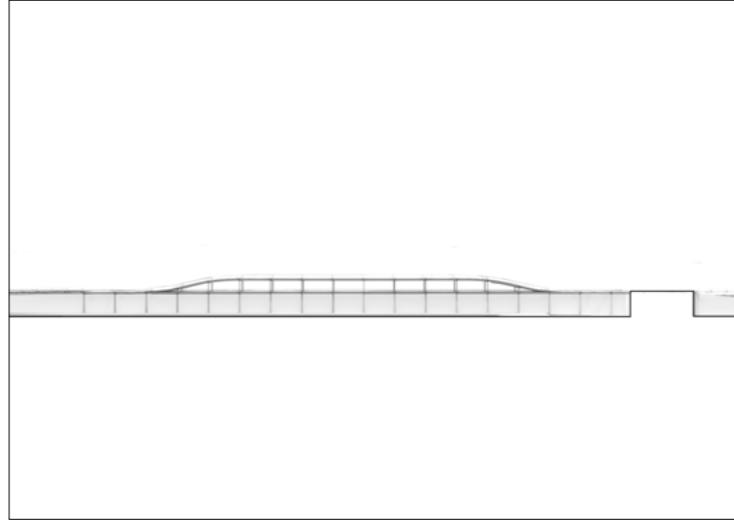
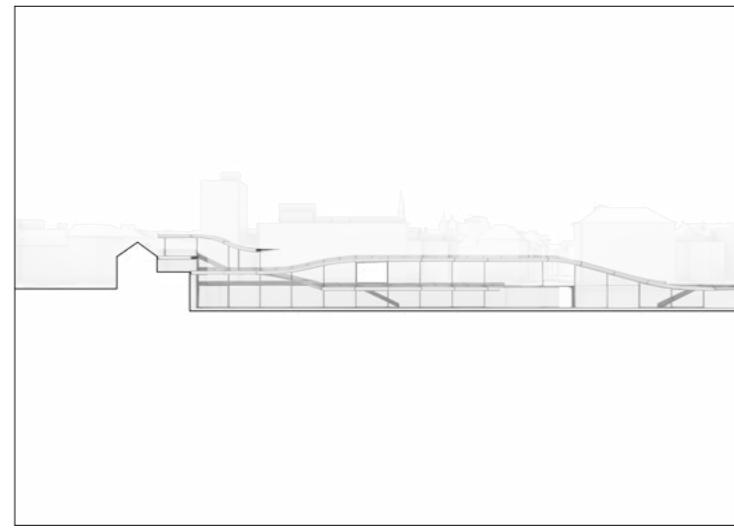
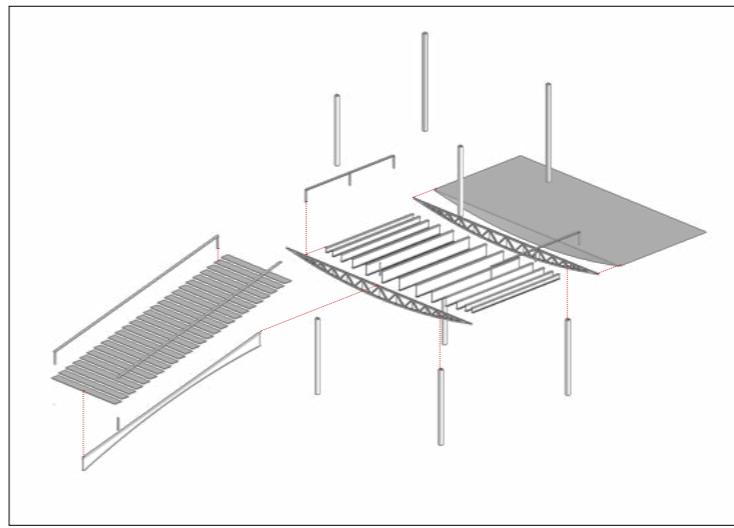
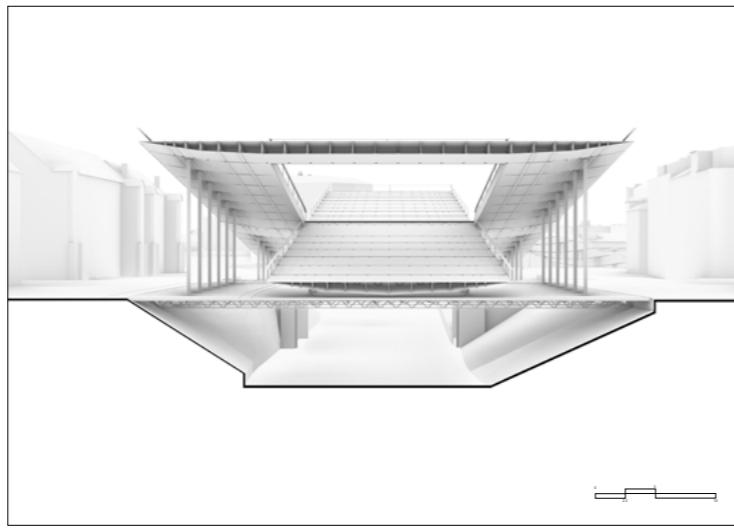
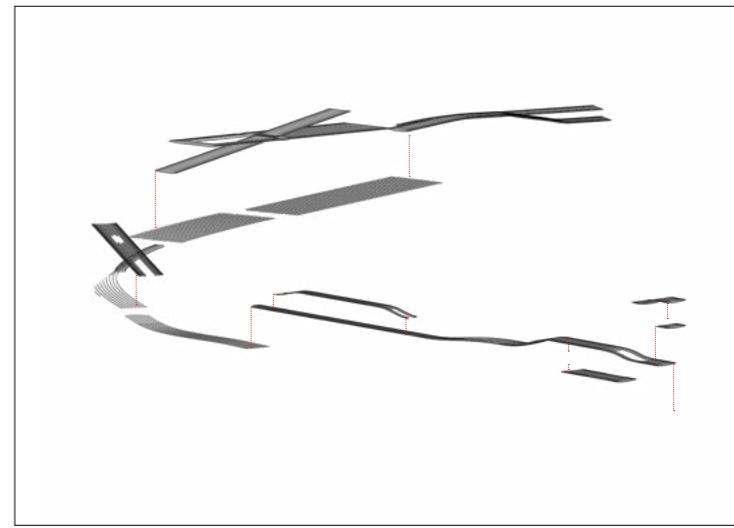
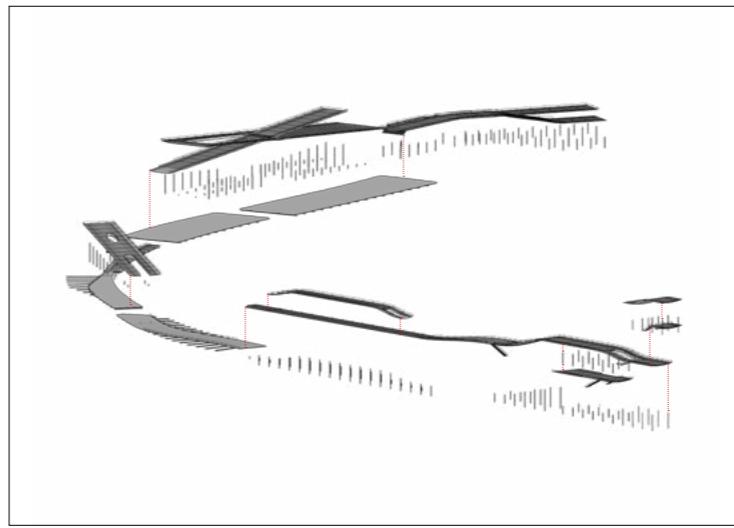
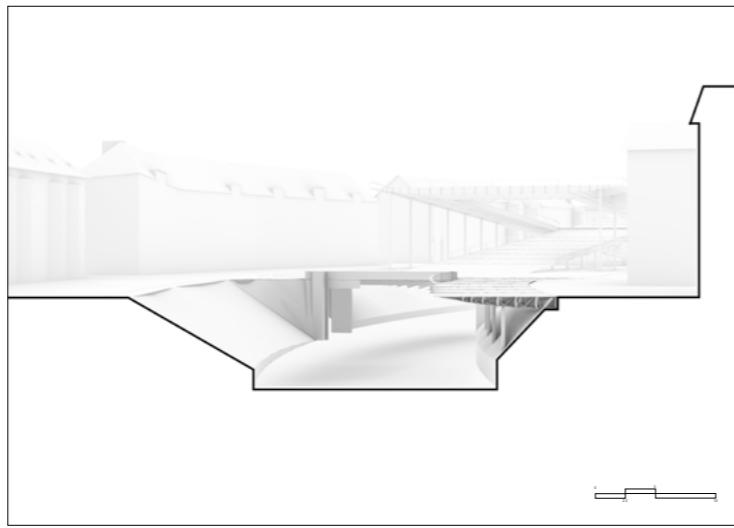
Louis Charrat

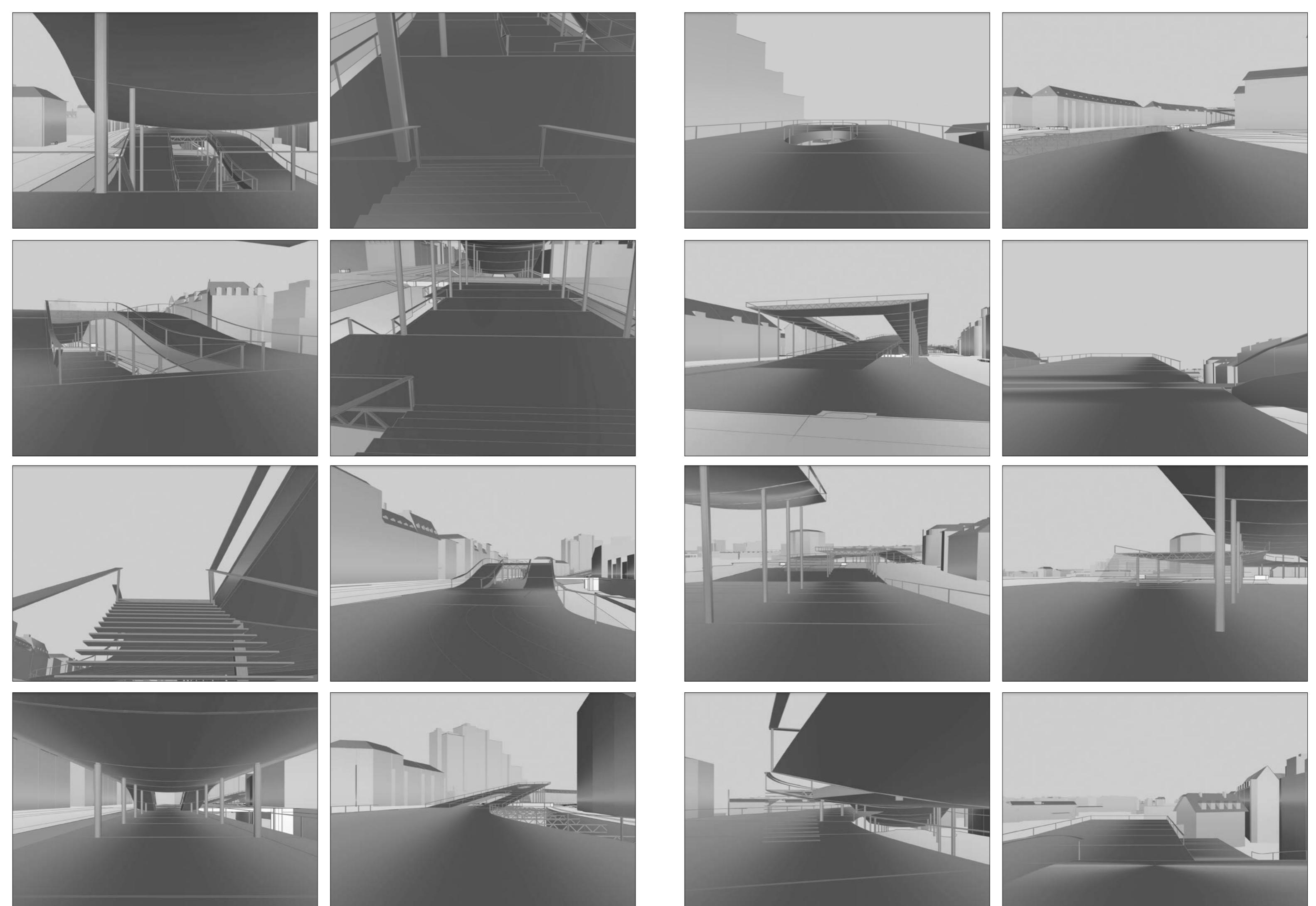
HEADQUARTERS

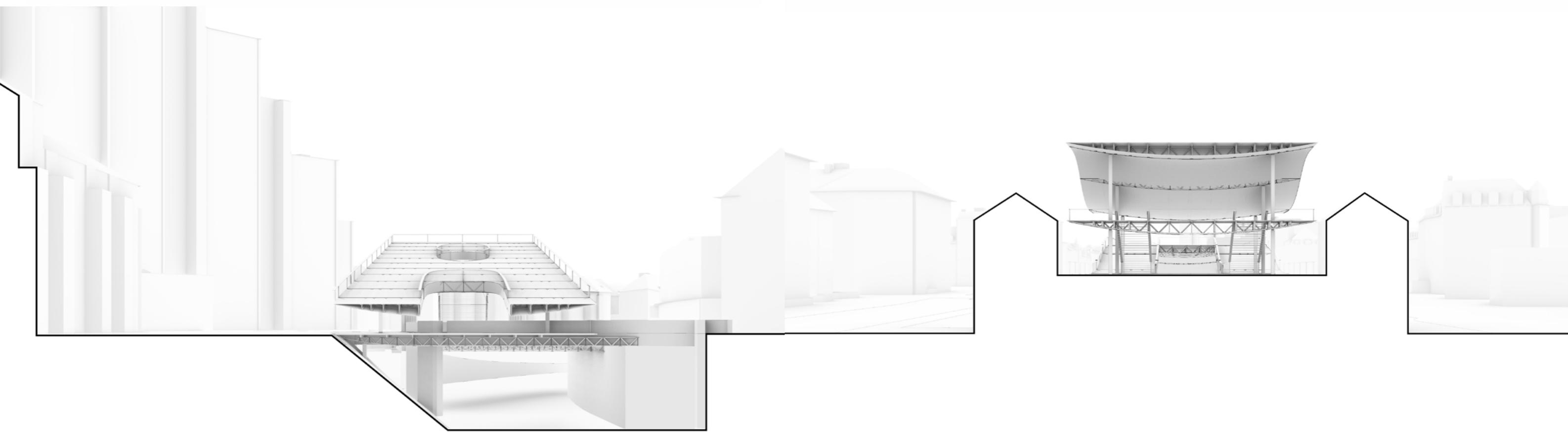
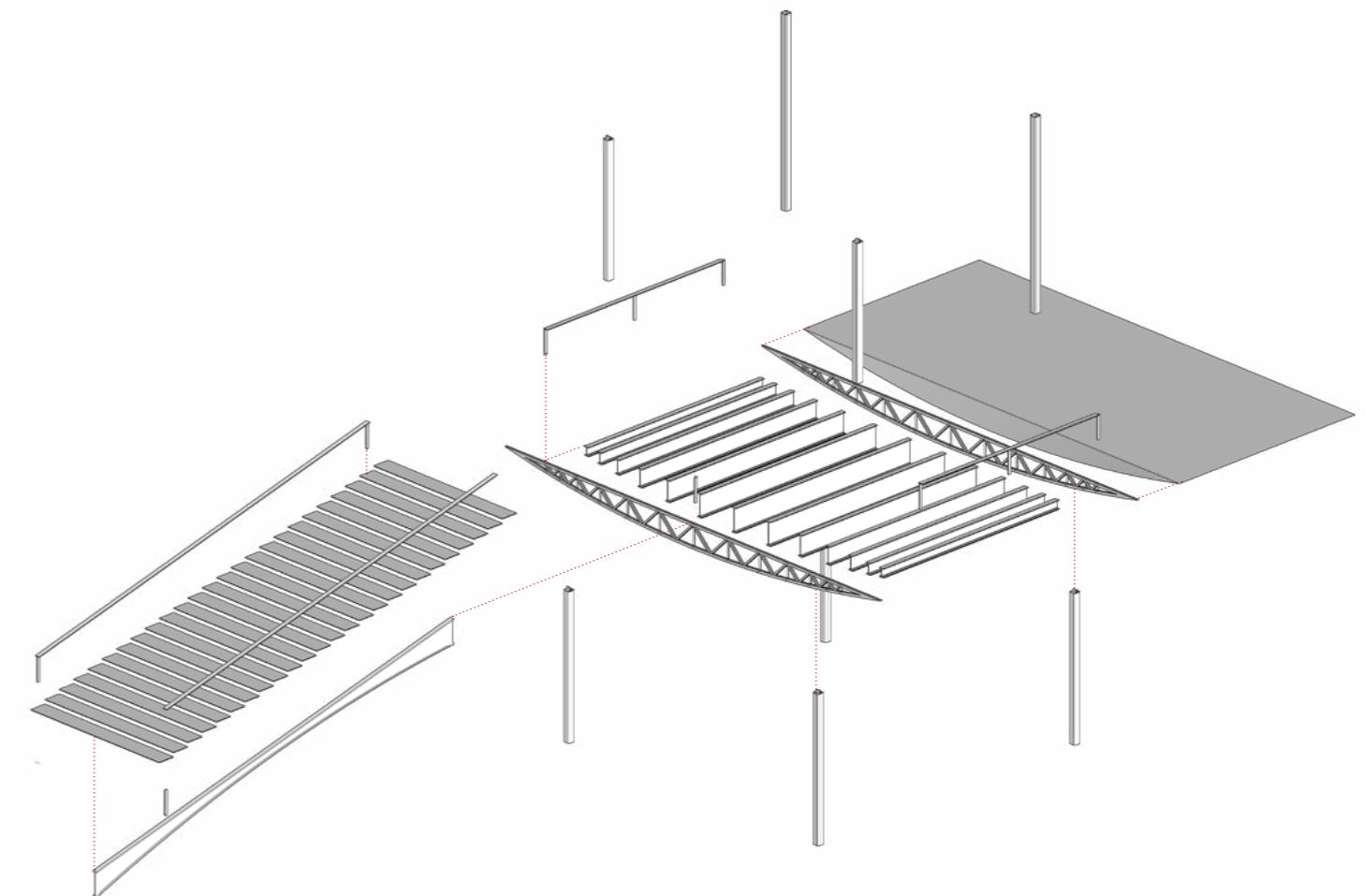
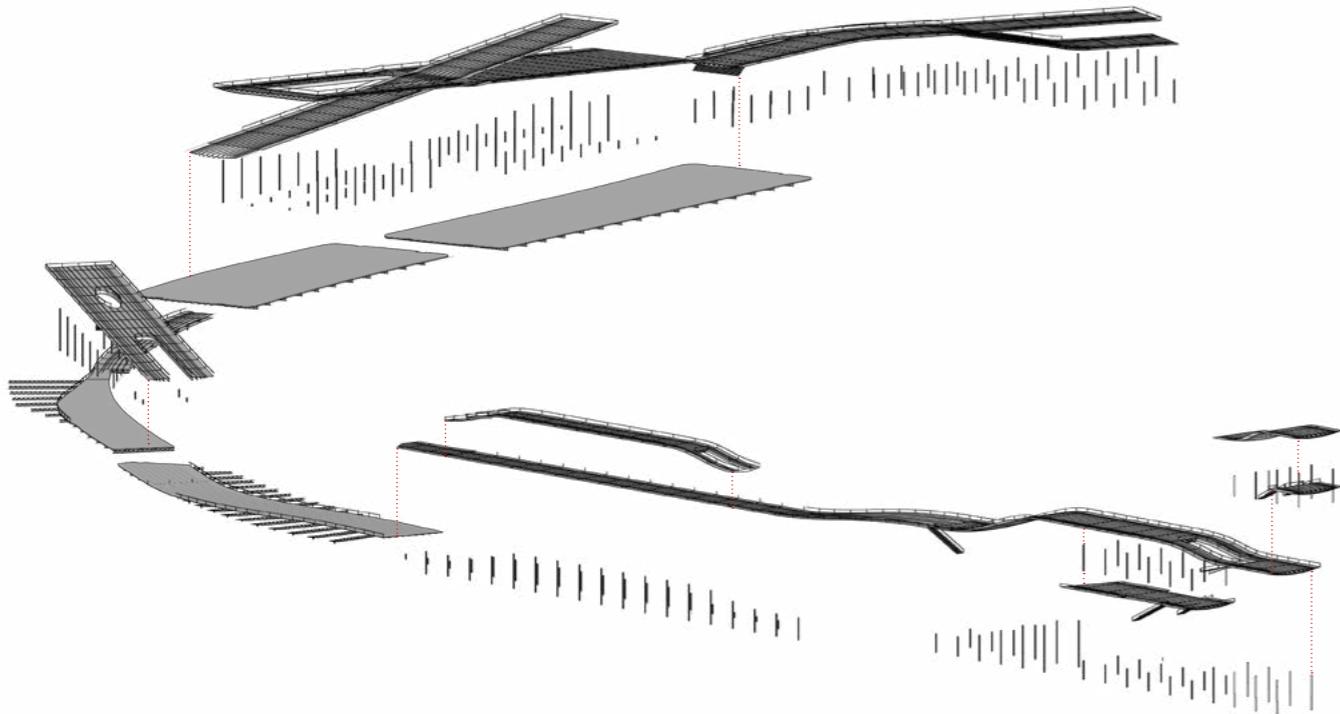
PRODUCING + CONSUMING

MANUFACTURING









1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

A DATA CENTER IN AN URBAN CONTEXT

Xingyu He

HEADQUARTERS

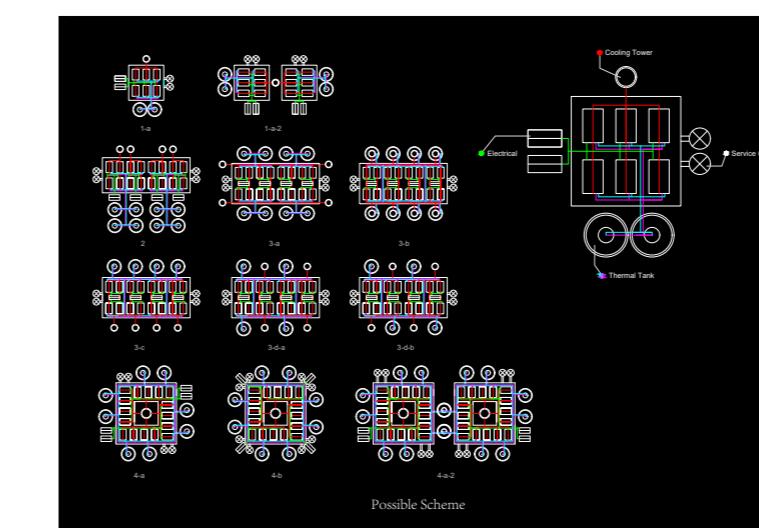
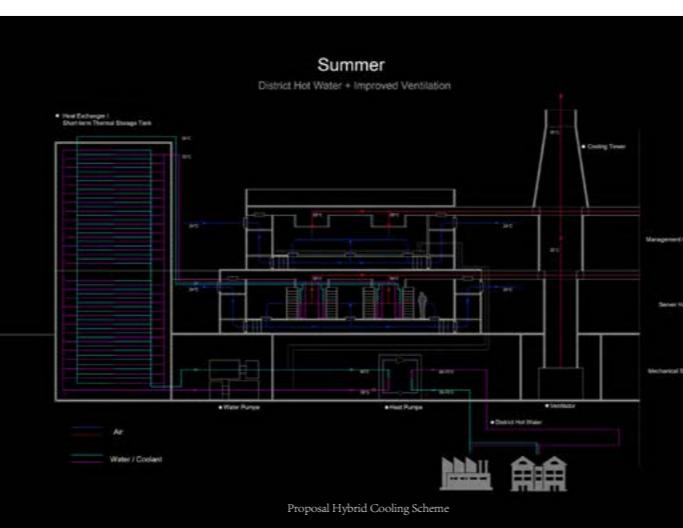
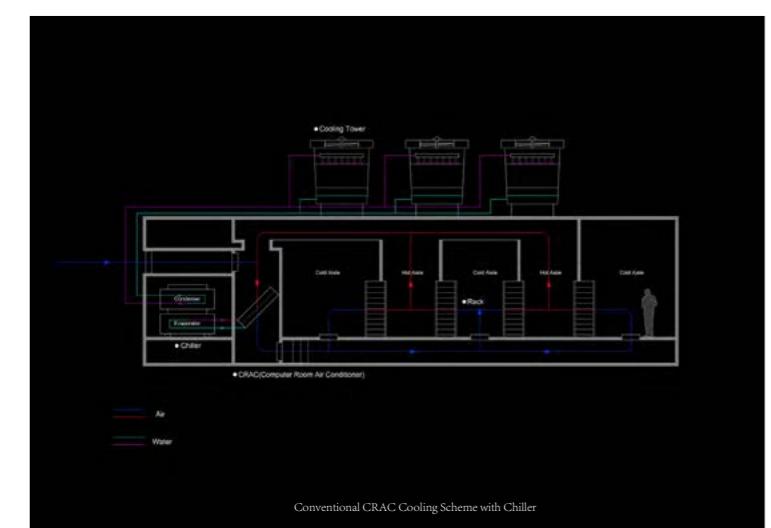
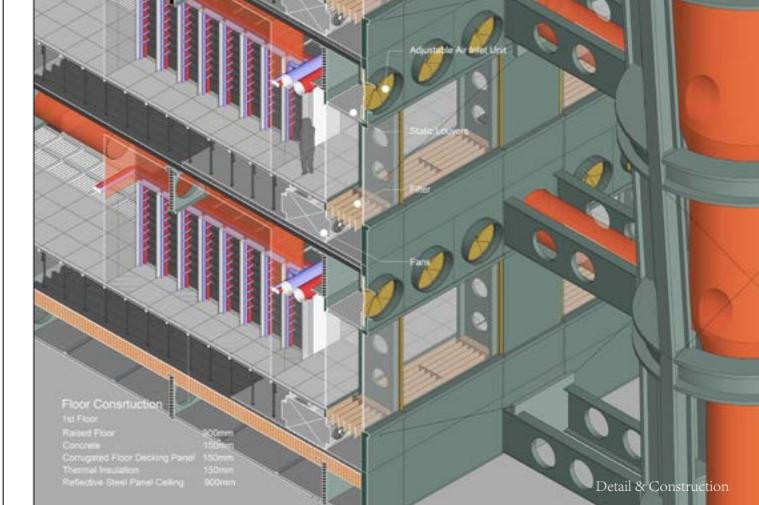
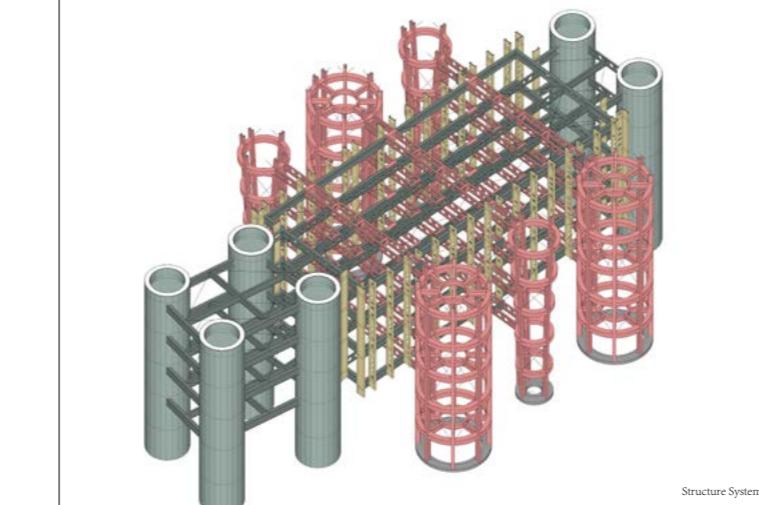
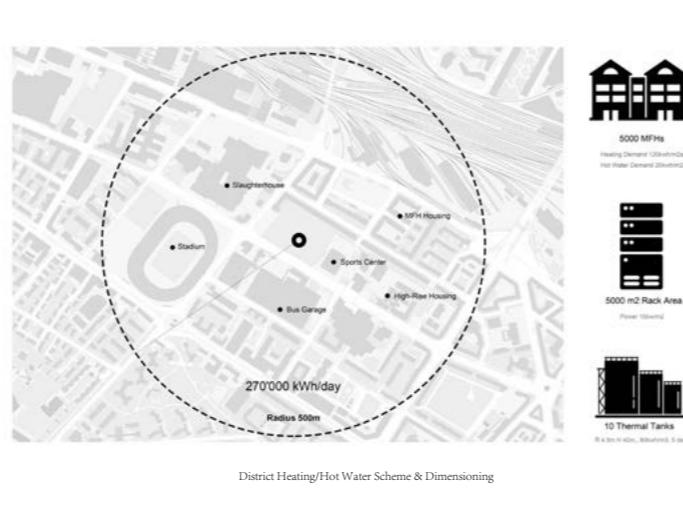
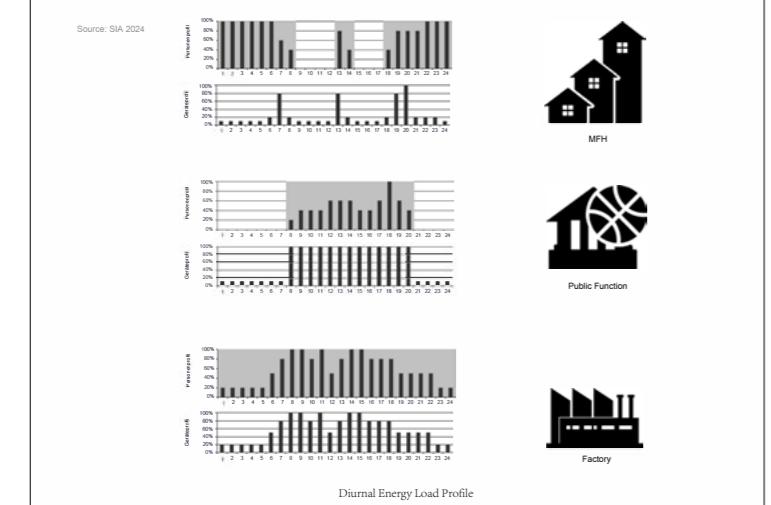
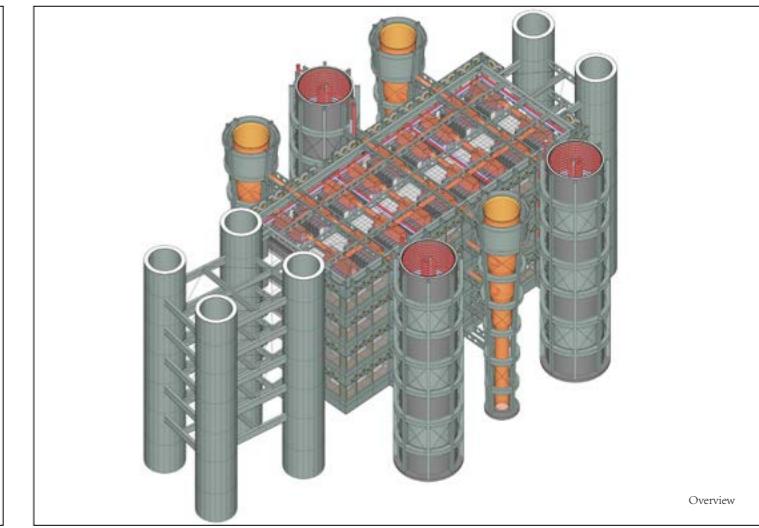
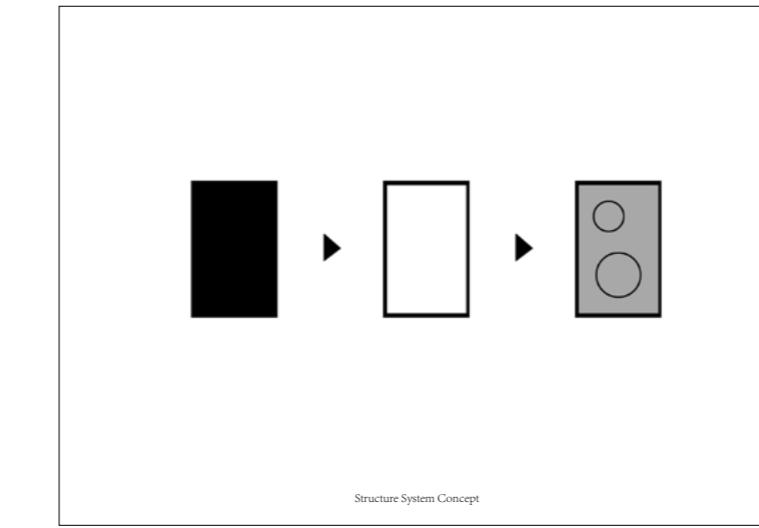
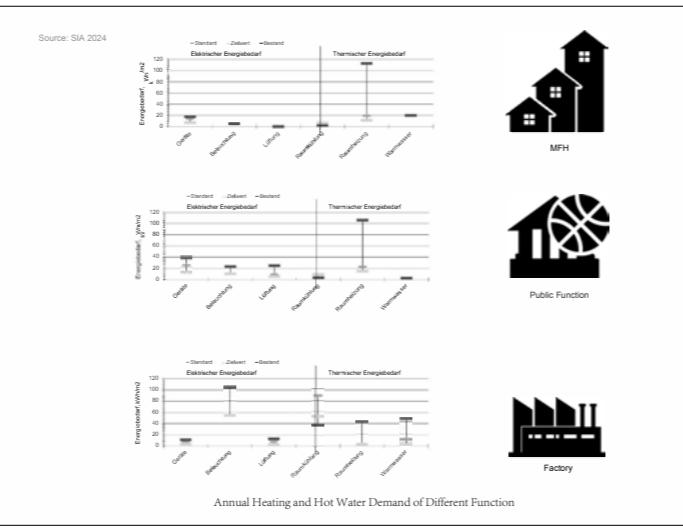
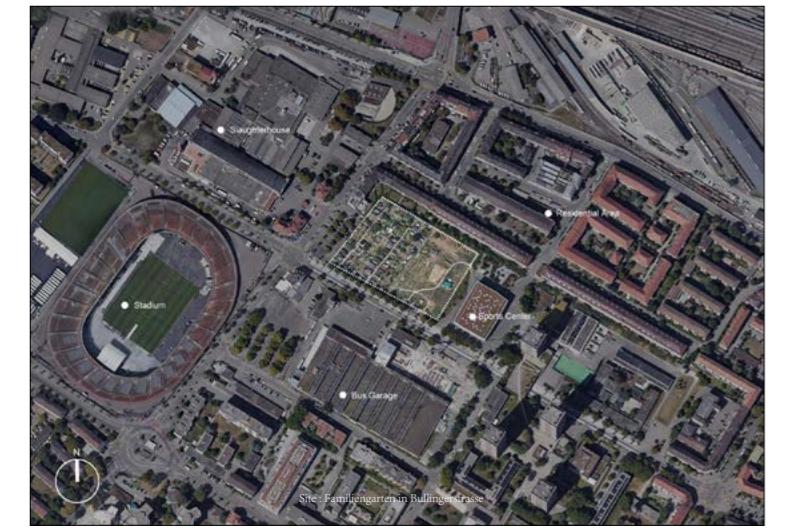
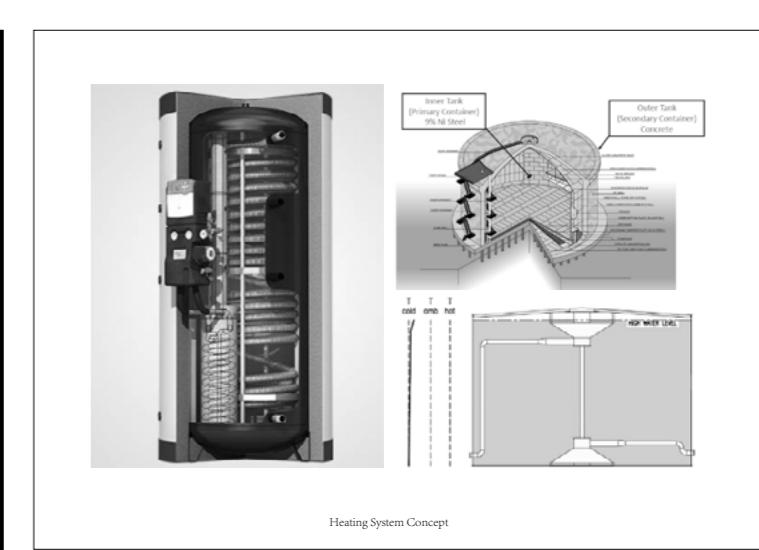
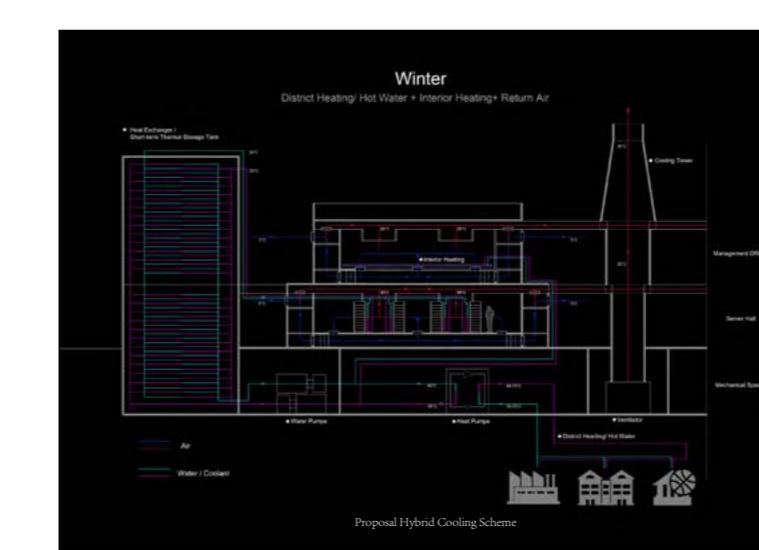
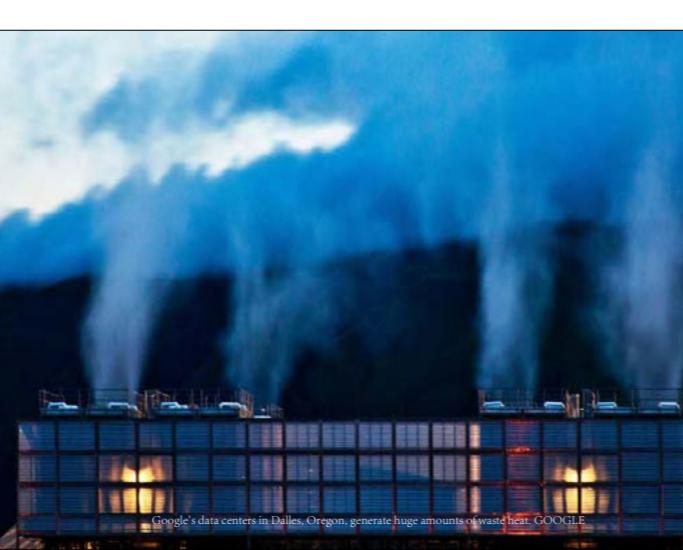
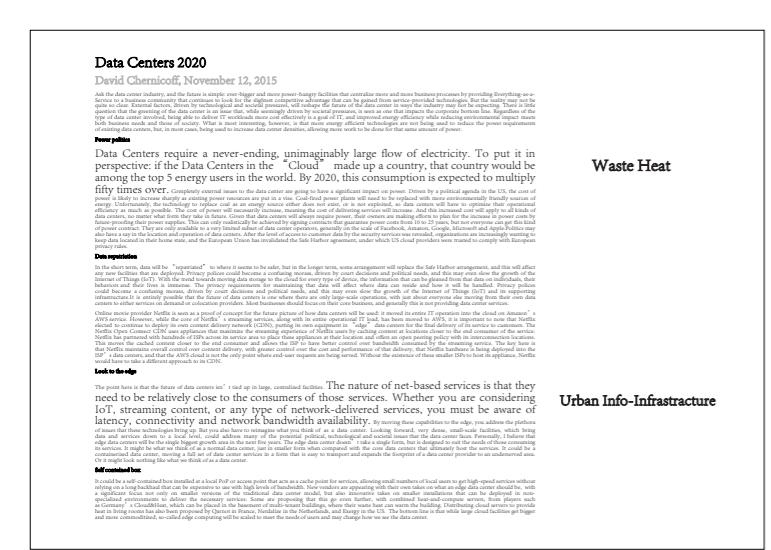
PRODUCING + CONSUMING

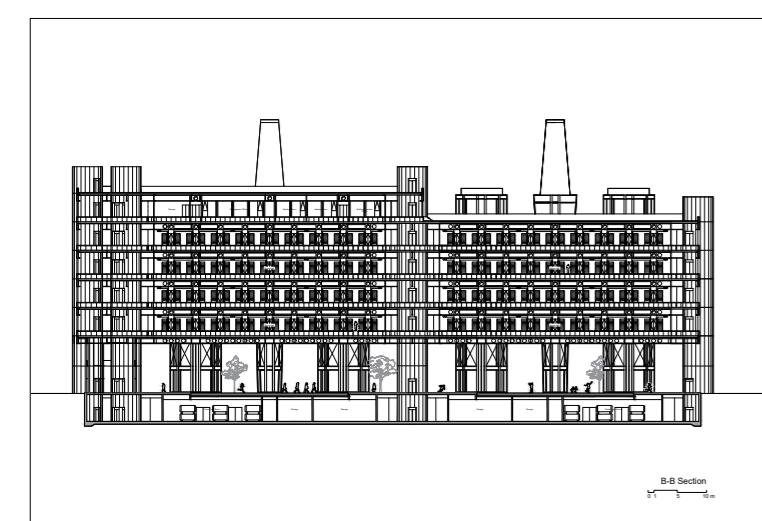
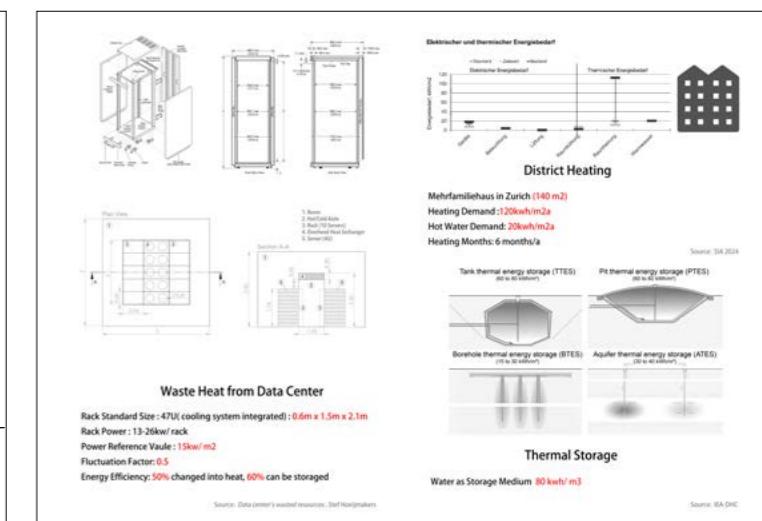
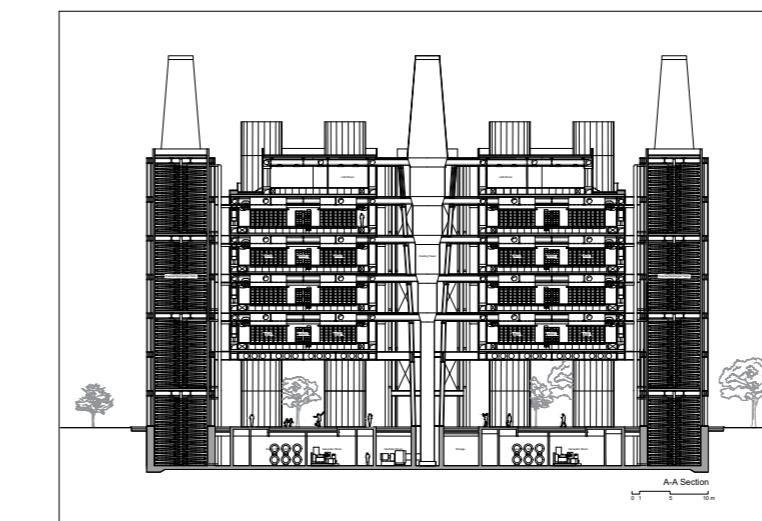
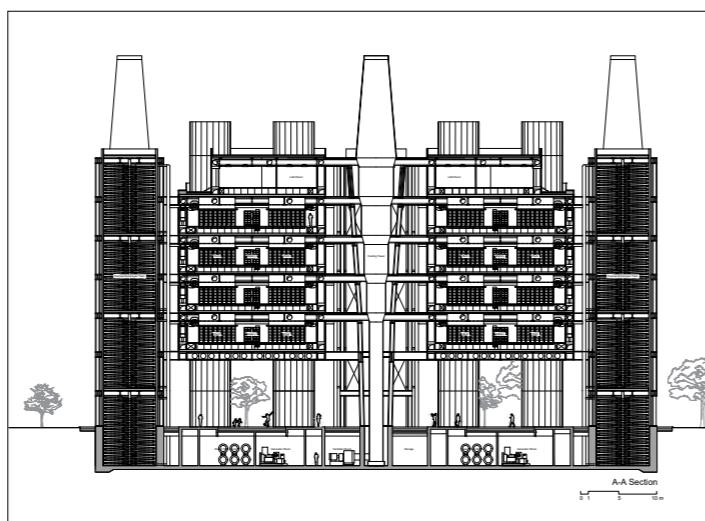
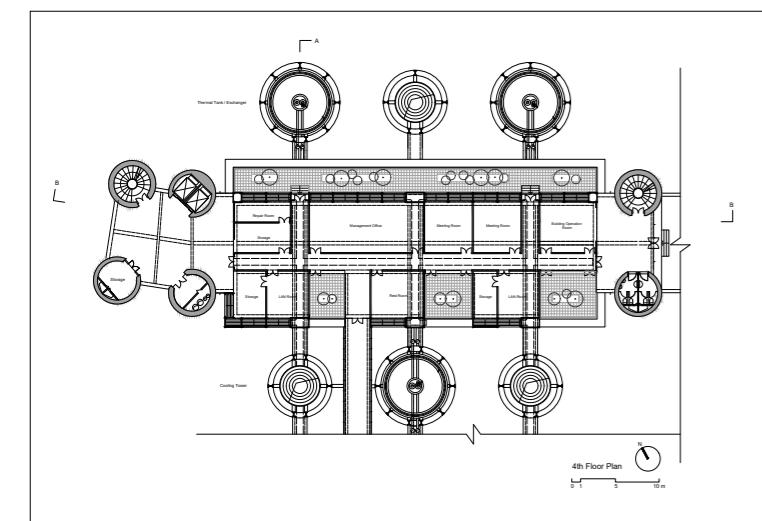
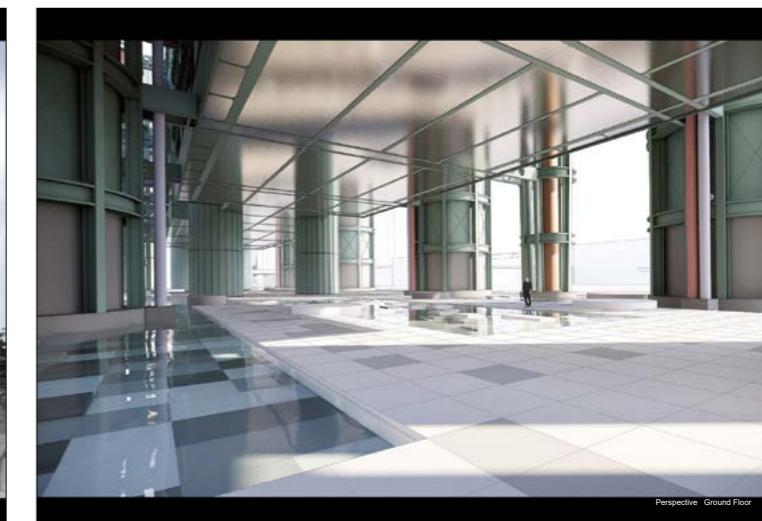
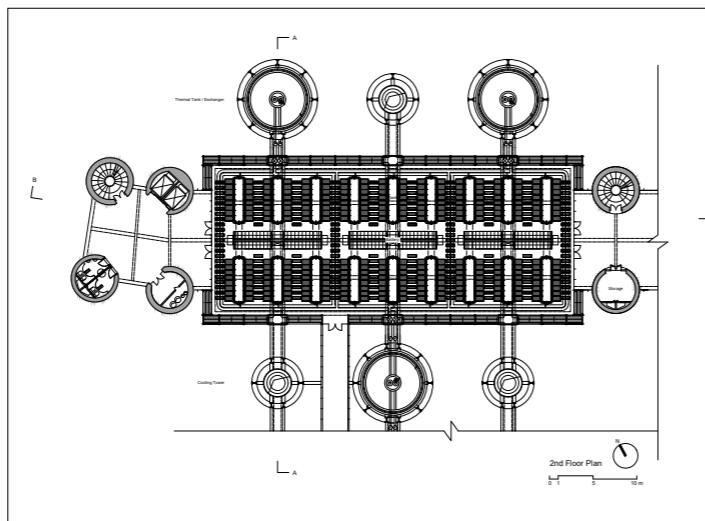
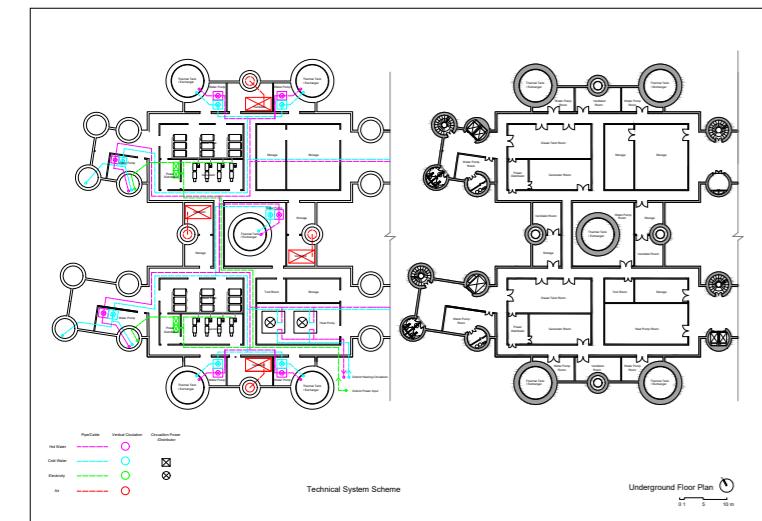
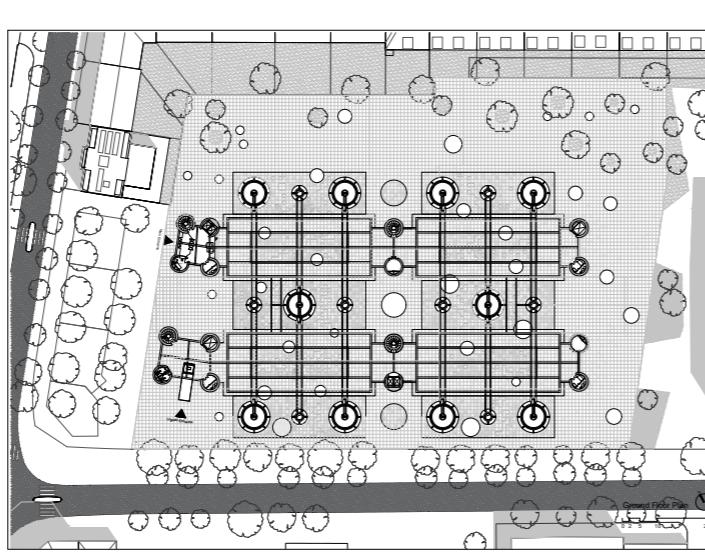
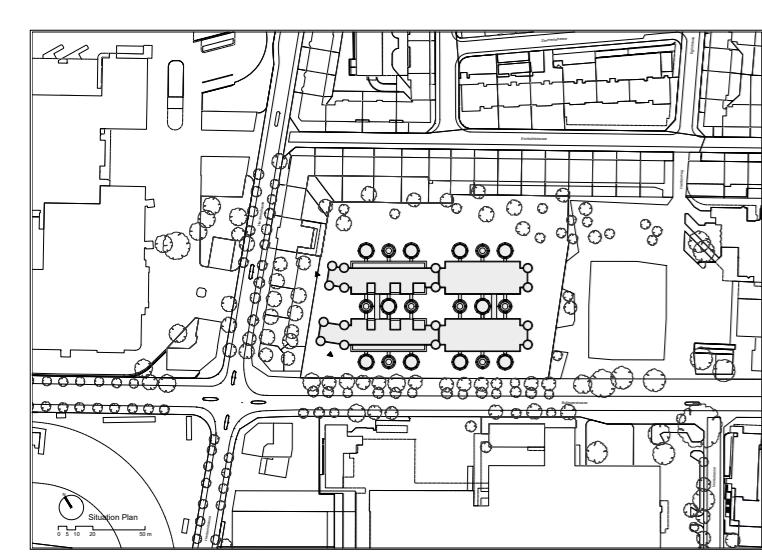
MANUFACTURING

84

85







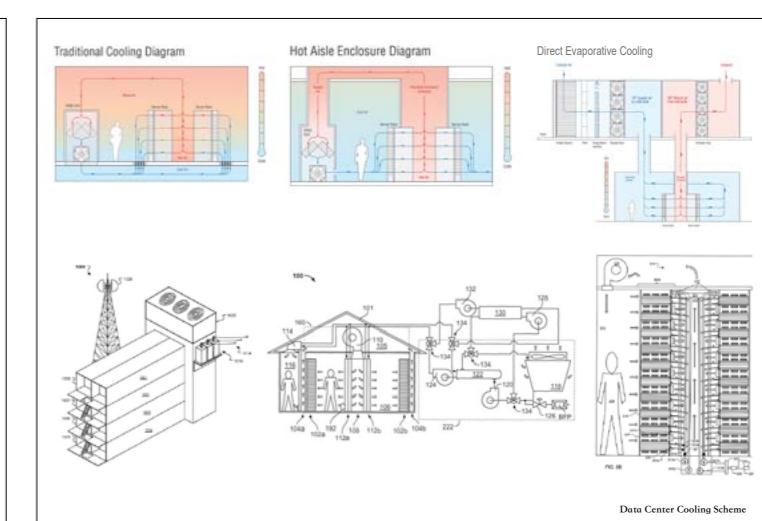
Quantified Analysis: For a Data Center with 5000 m² Server Area

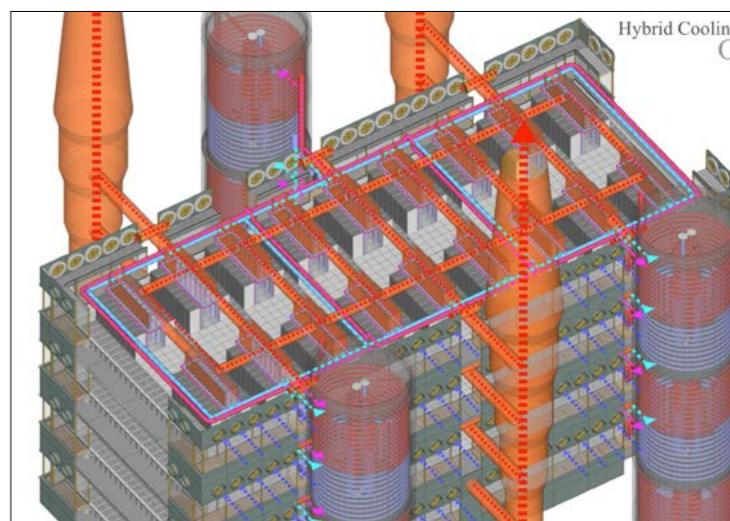
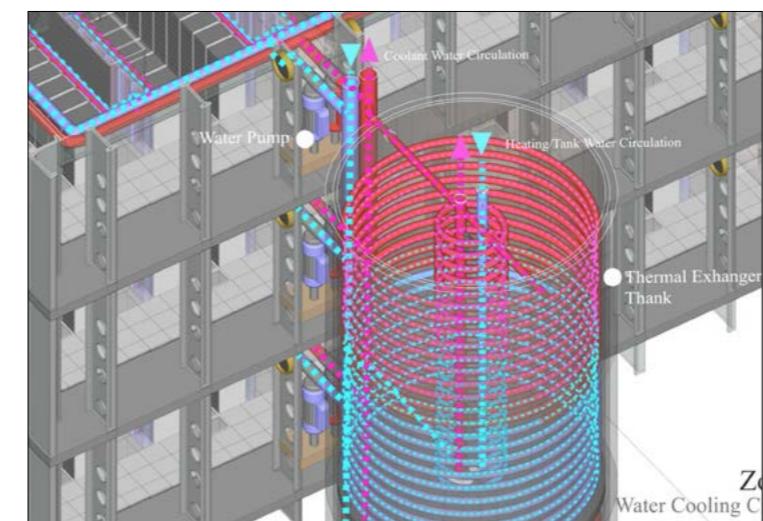
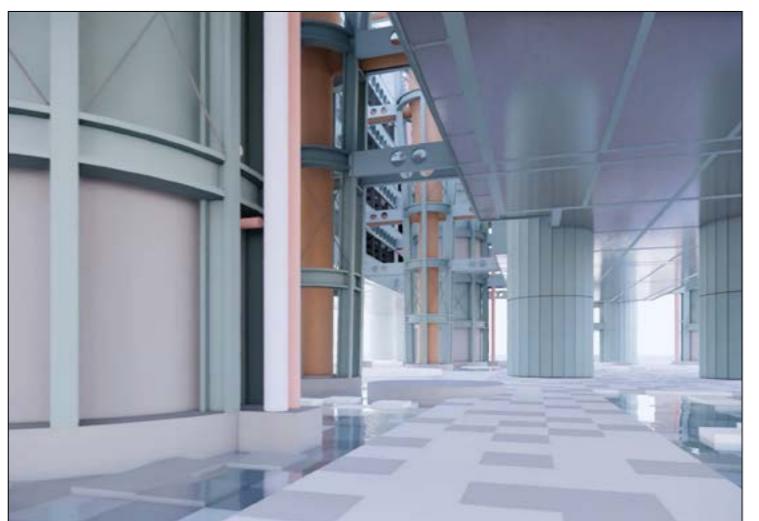
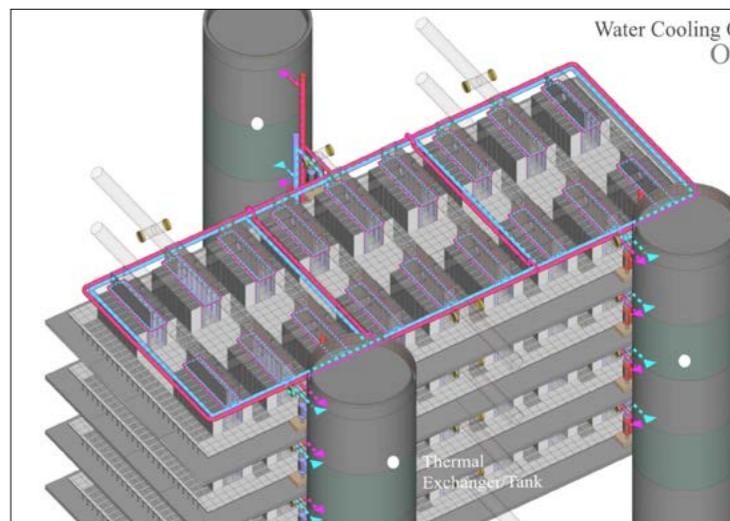
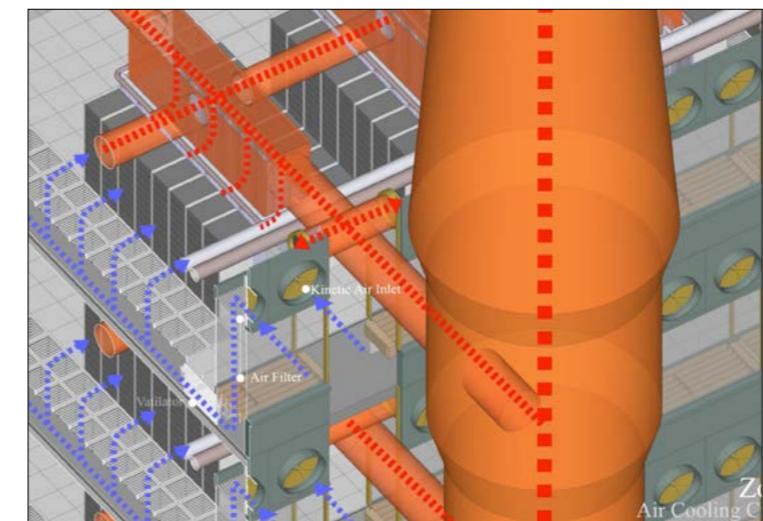
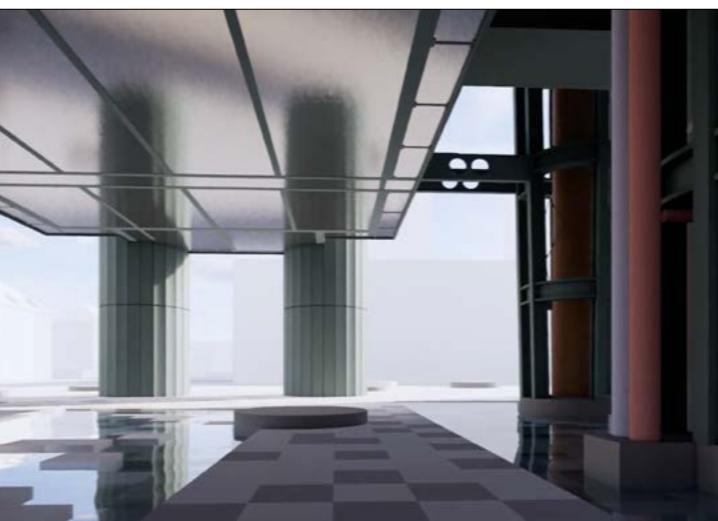
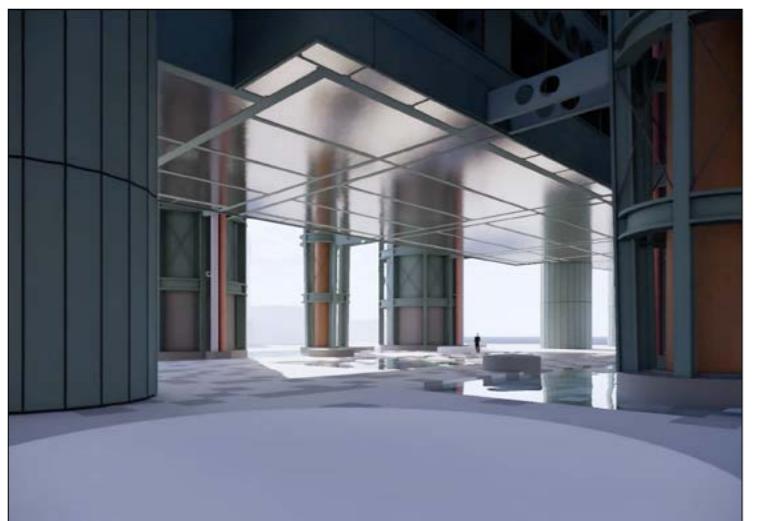
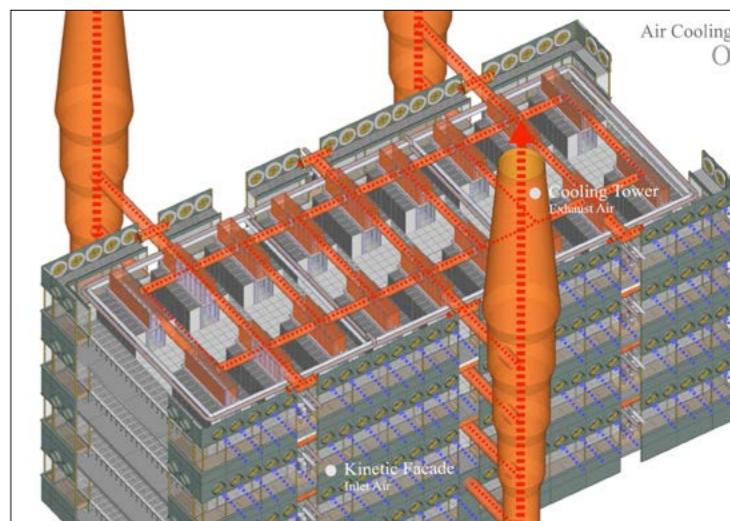
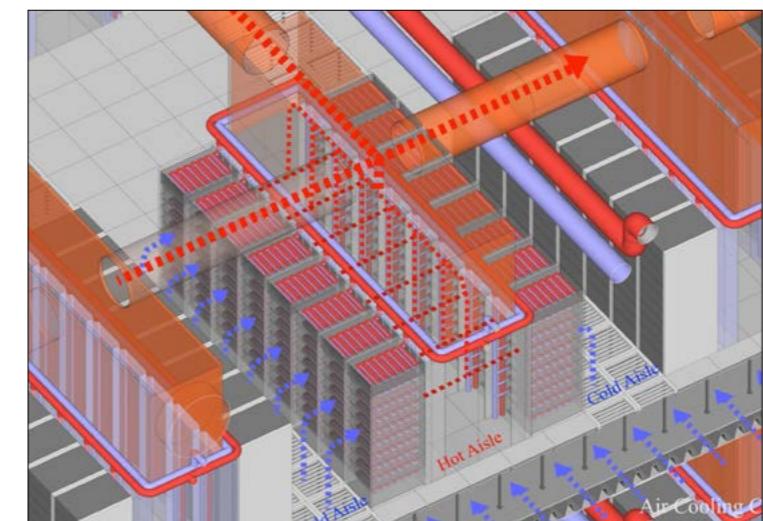
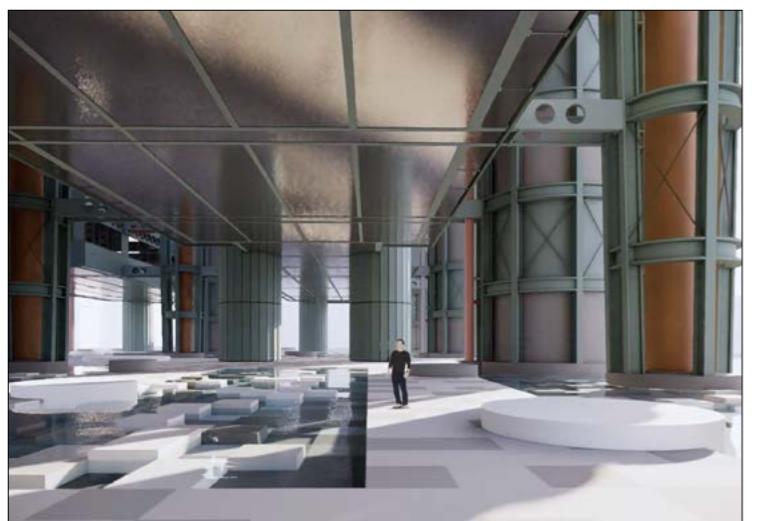
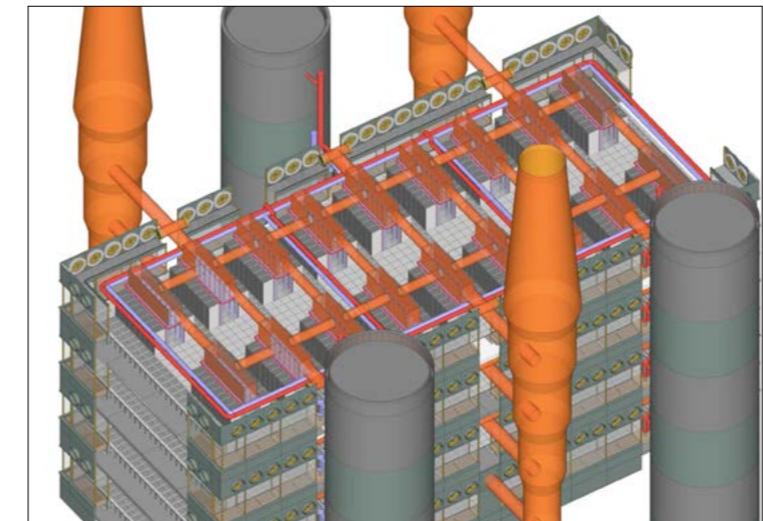
District Heating and Dimension of Thermal Storage Tank

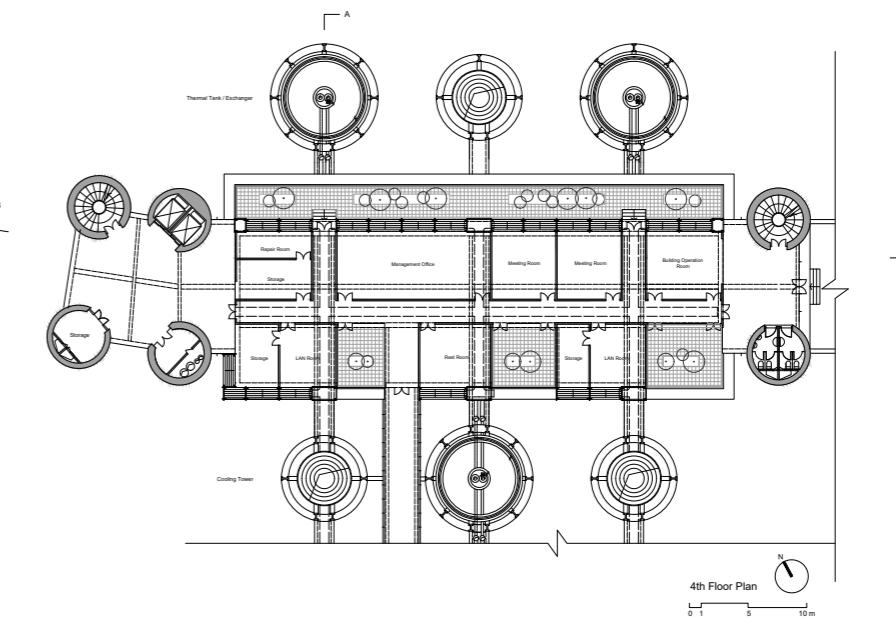
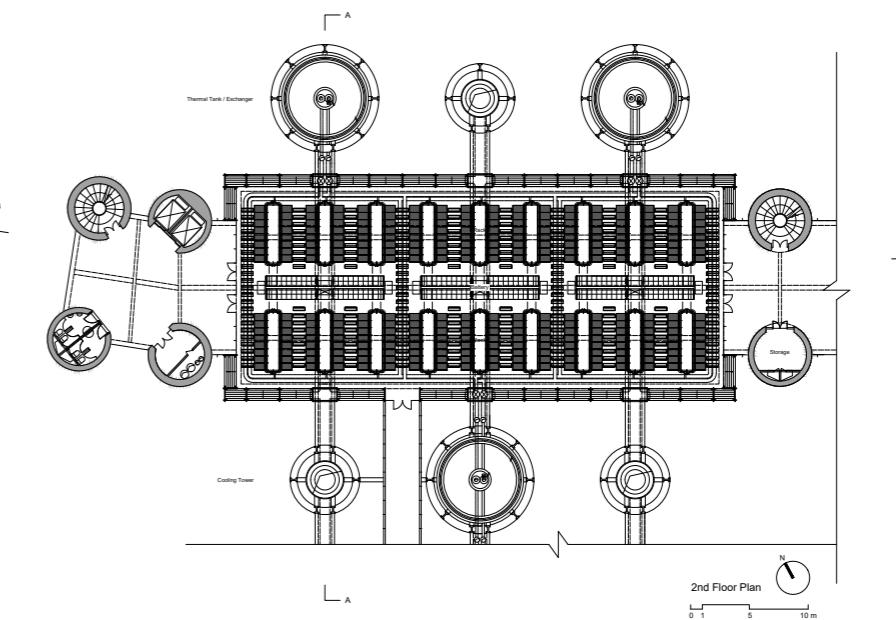
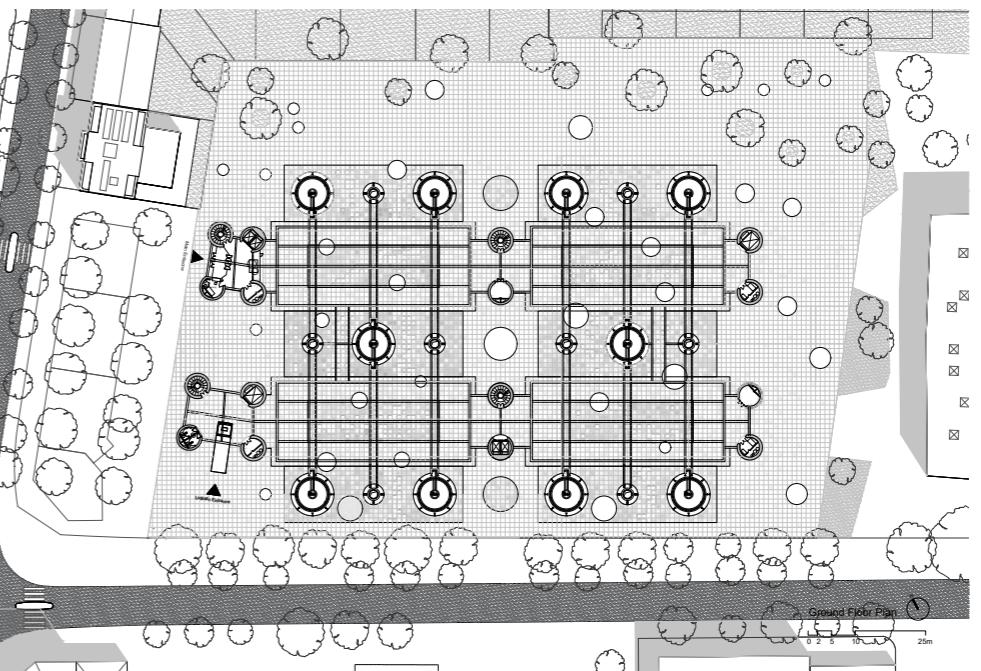
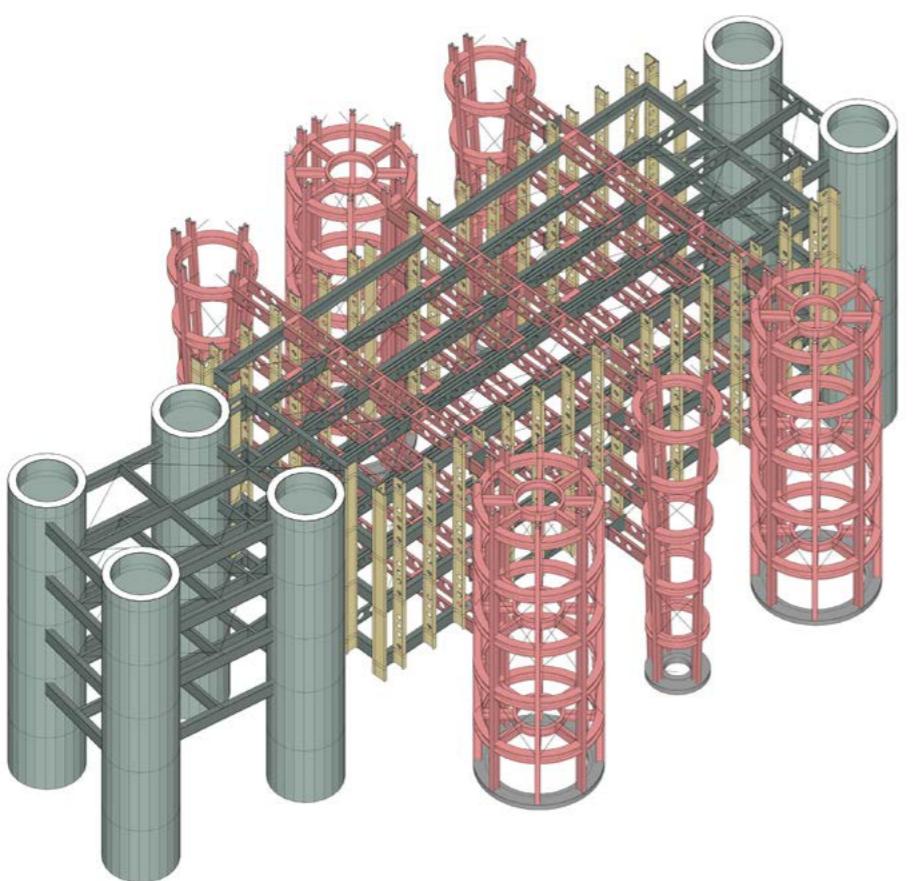
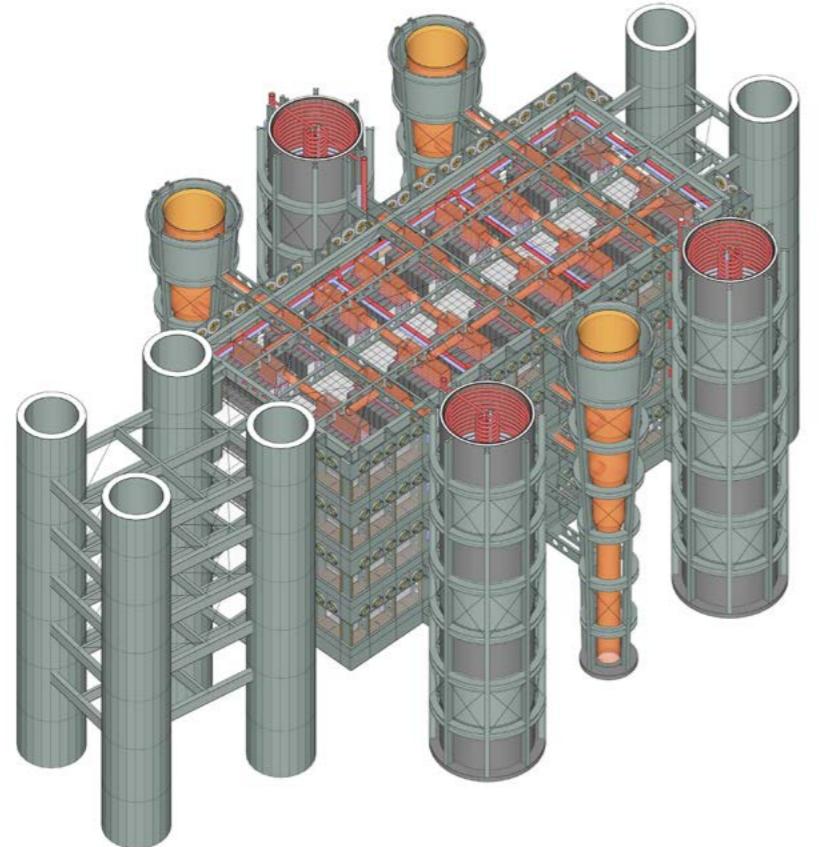
Heating + Hot Water Demand for each MFH:
 $(120\text{ kWh/m}^2 + 20\text{ kWh/m}^2) \times 0.5 \times 140\text{ m}^2 = 9800\text{ kWh}$
 $9800\text{ kWh} / 180 = 54\text{ kWh}$

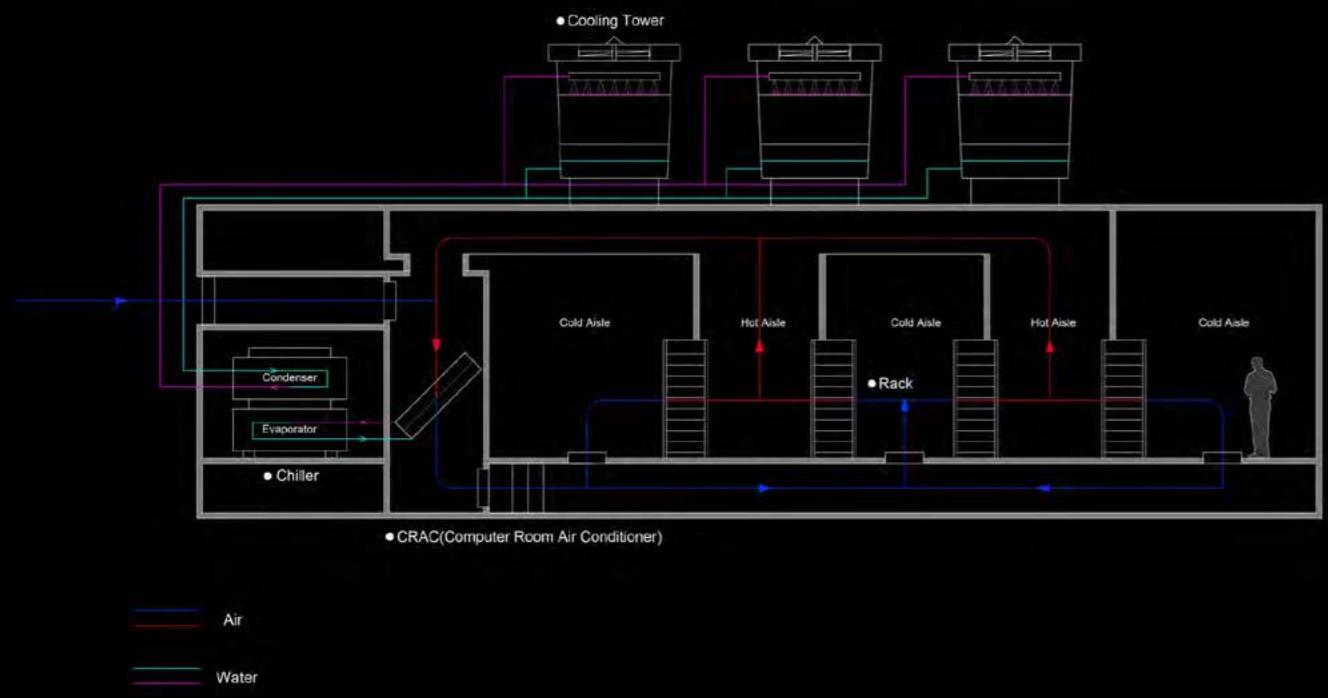
Waste Heat can be utilized from Data Center every day
 $5000\text{ m}^2 \times 15\text{ kWh/m}^2 \times 0.5 \times 0.5 \times 0.6 \times 24\text{ h/d} = 270000\text{ kWh} \sim 5000\text{ MFH}$

For each Thermal Storage Tank (cylinder, radius 4.5m, height 40m, water as thermal storage medium - 80 kWh/m³, 70% efficiency because exchanger integrated)
 135000 kWh
 $5\text{ days as a period for hot water storage}$
 $5 \times 270000 / 135000 = 10\text{ Thermal Storage Tanks}$





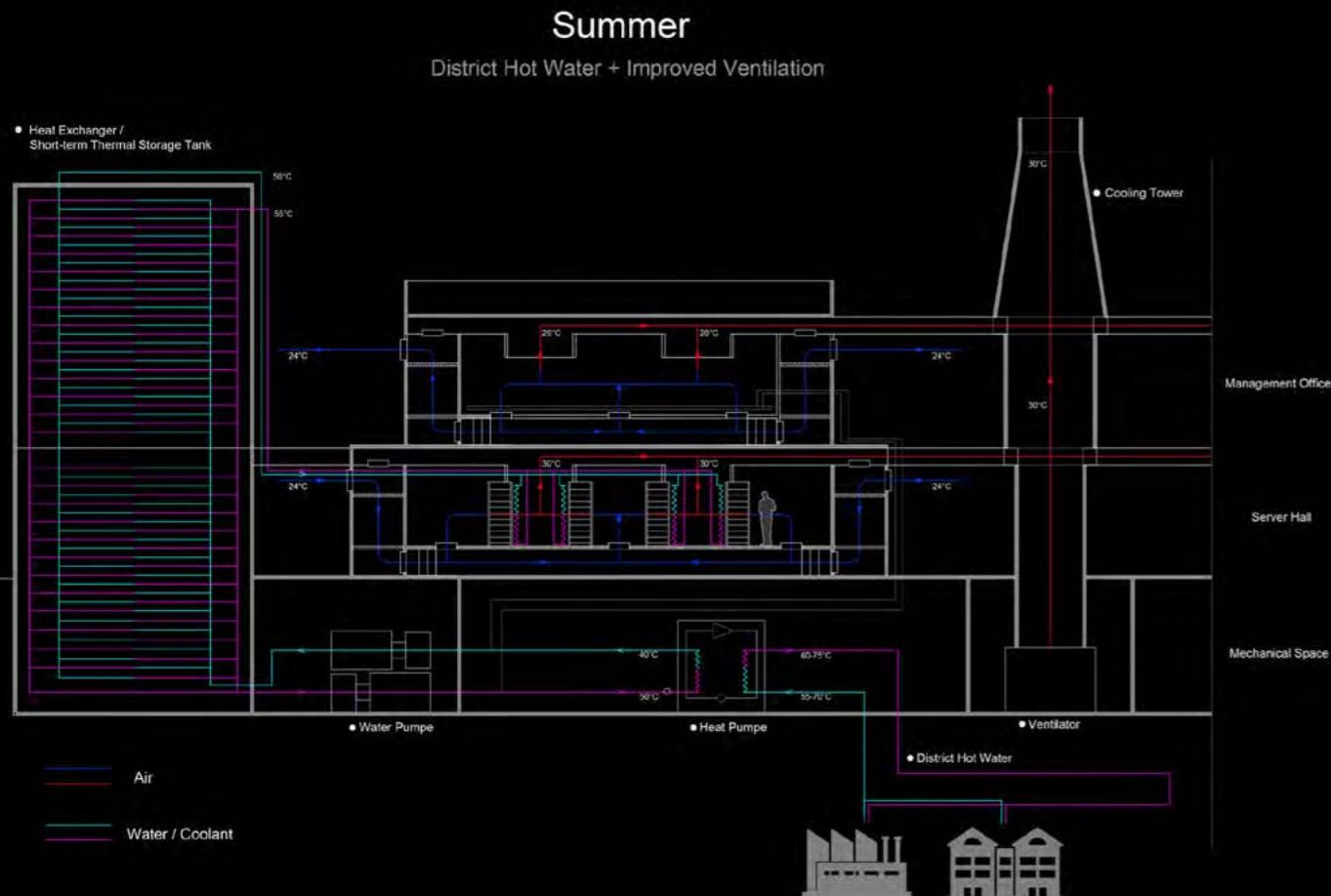




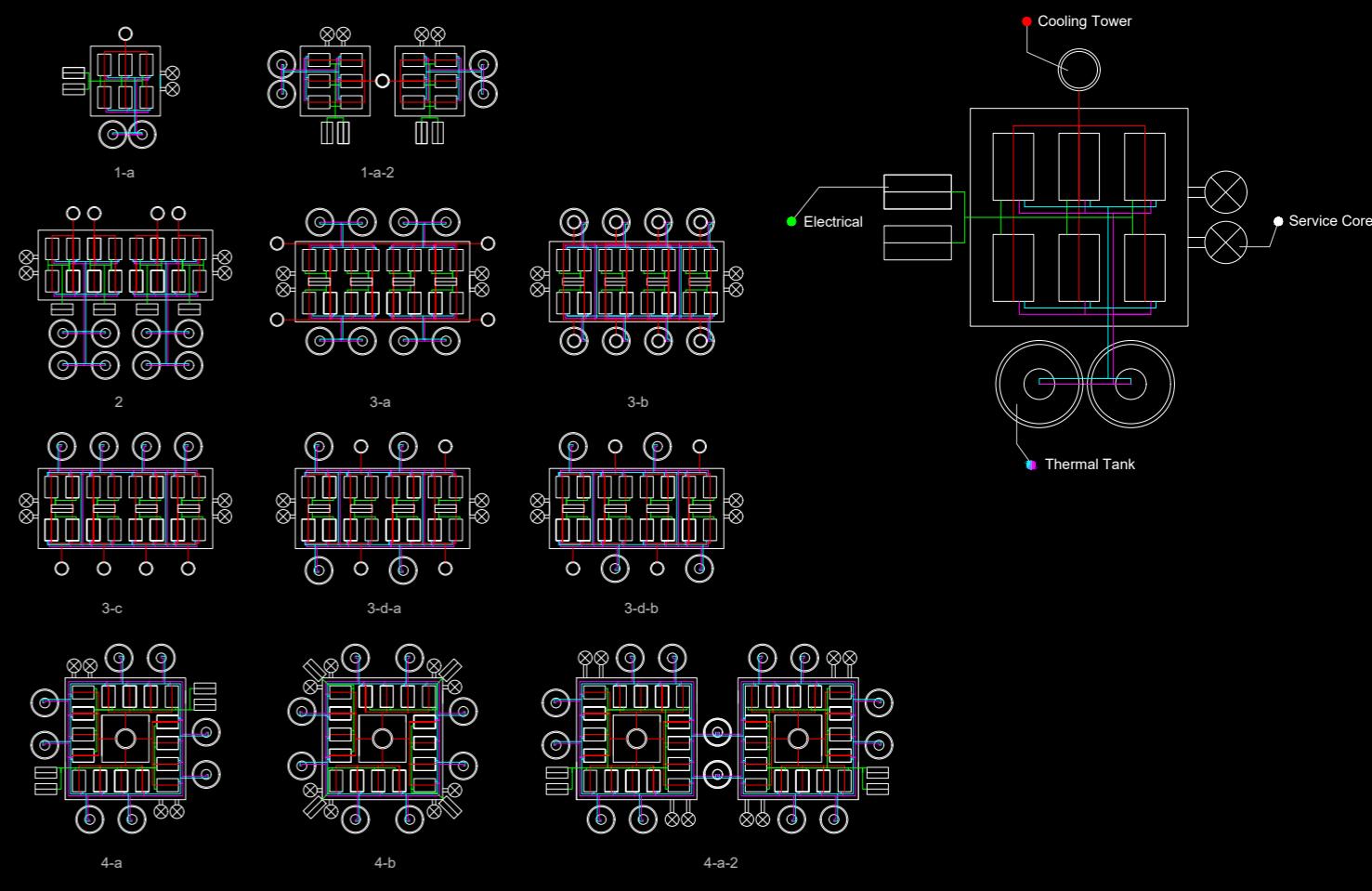
Conventional CRAC Cooling Scheme with Chiller



Proposal Hybrid Cooling Scheme



Proposal Hybrid Cooling Scheme



Possible Scheme

1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

PAVILION FOR TESLA

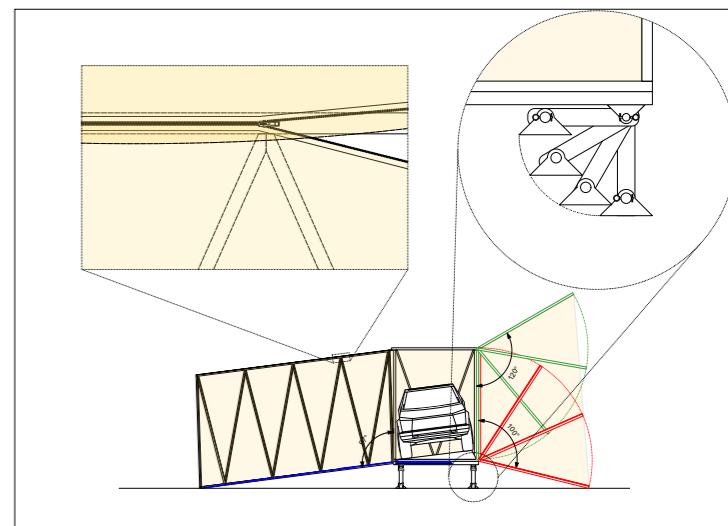
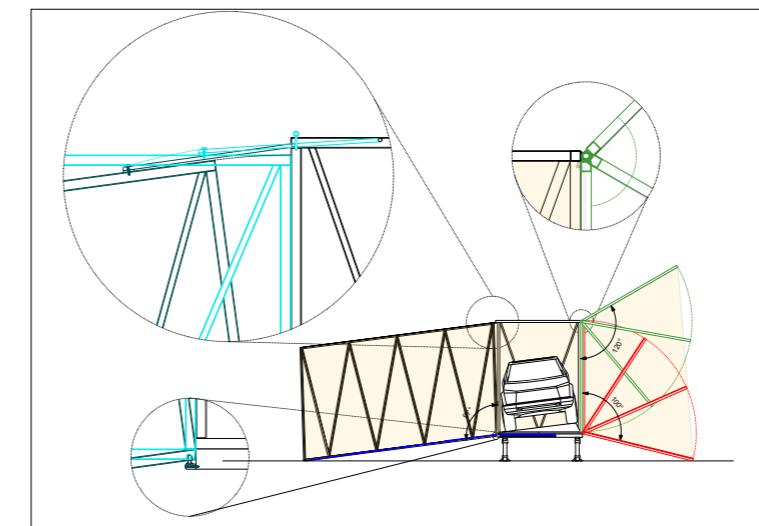
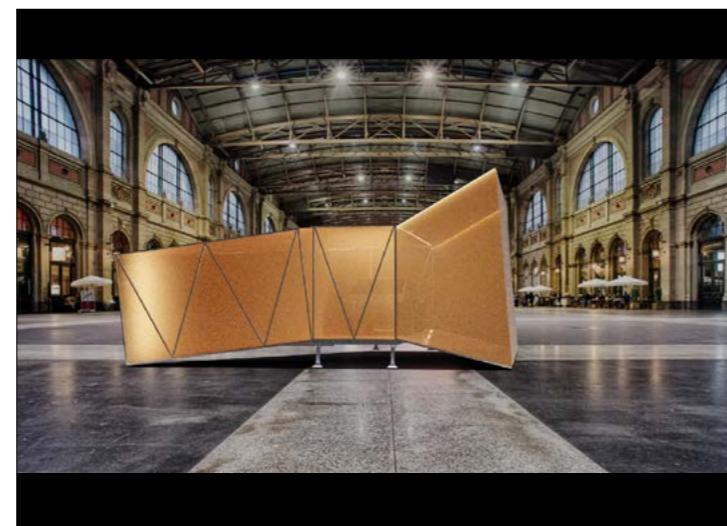
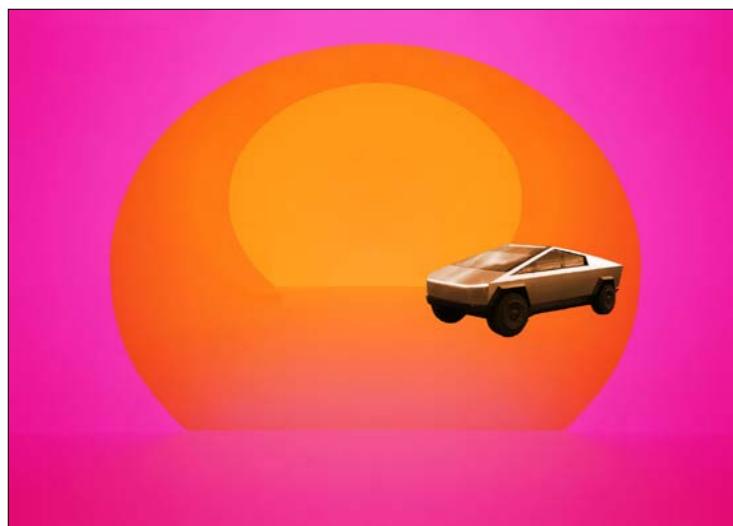
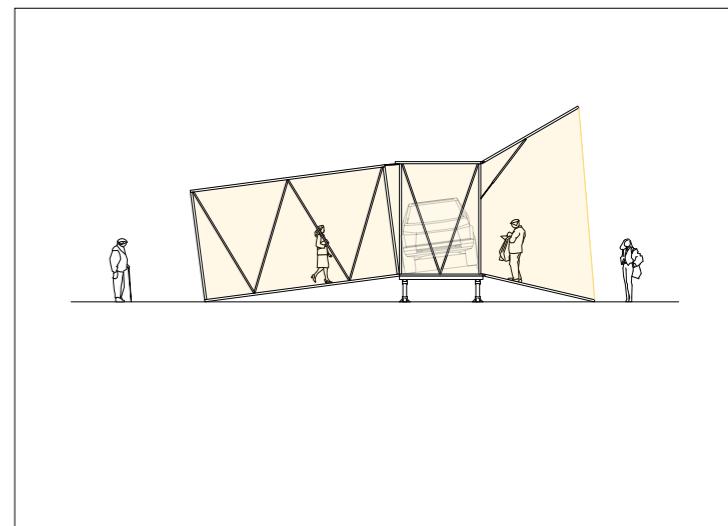
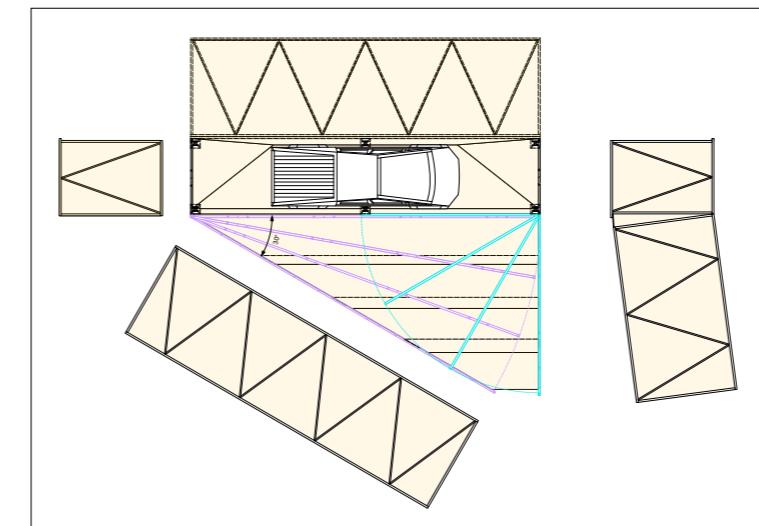
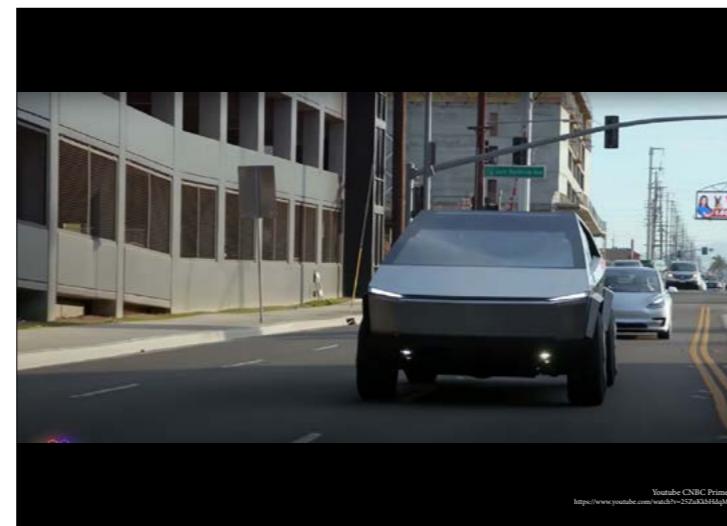
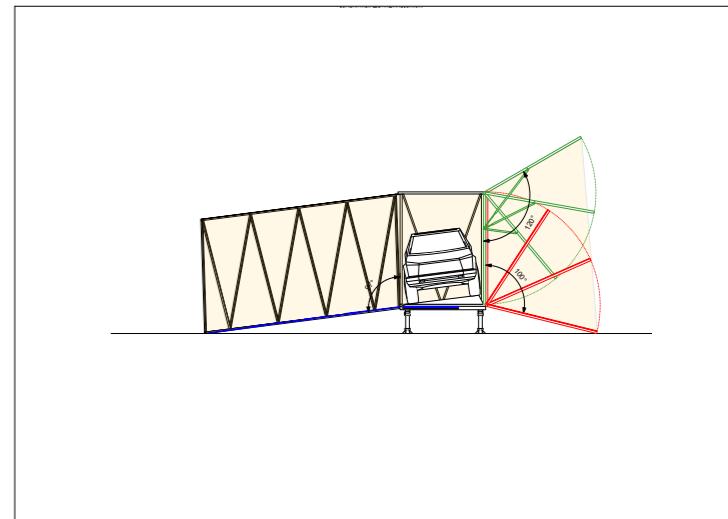
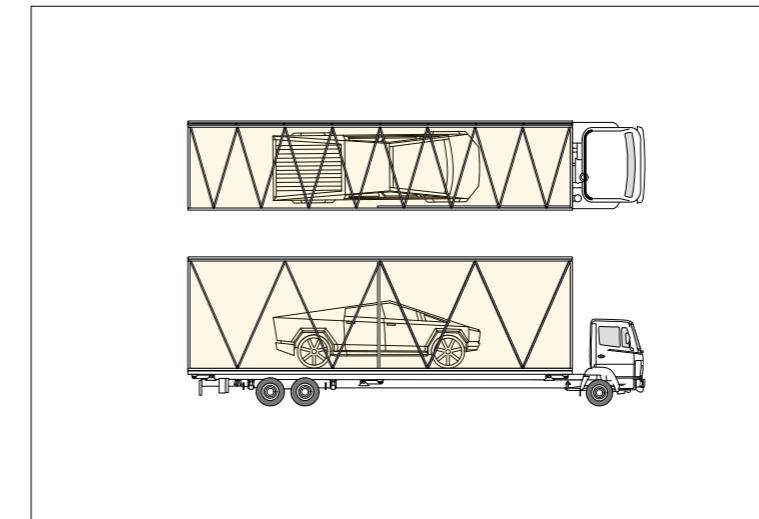
Gabriel Mösch

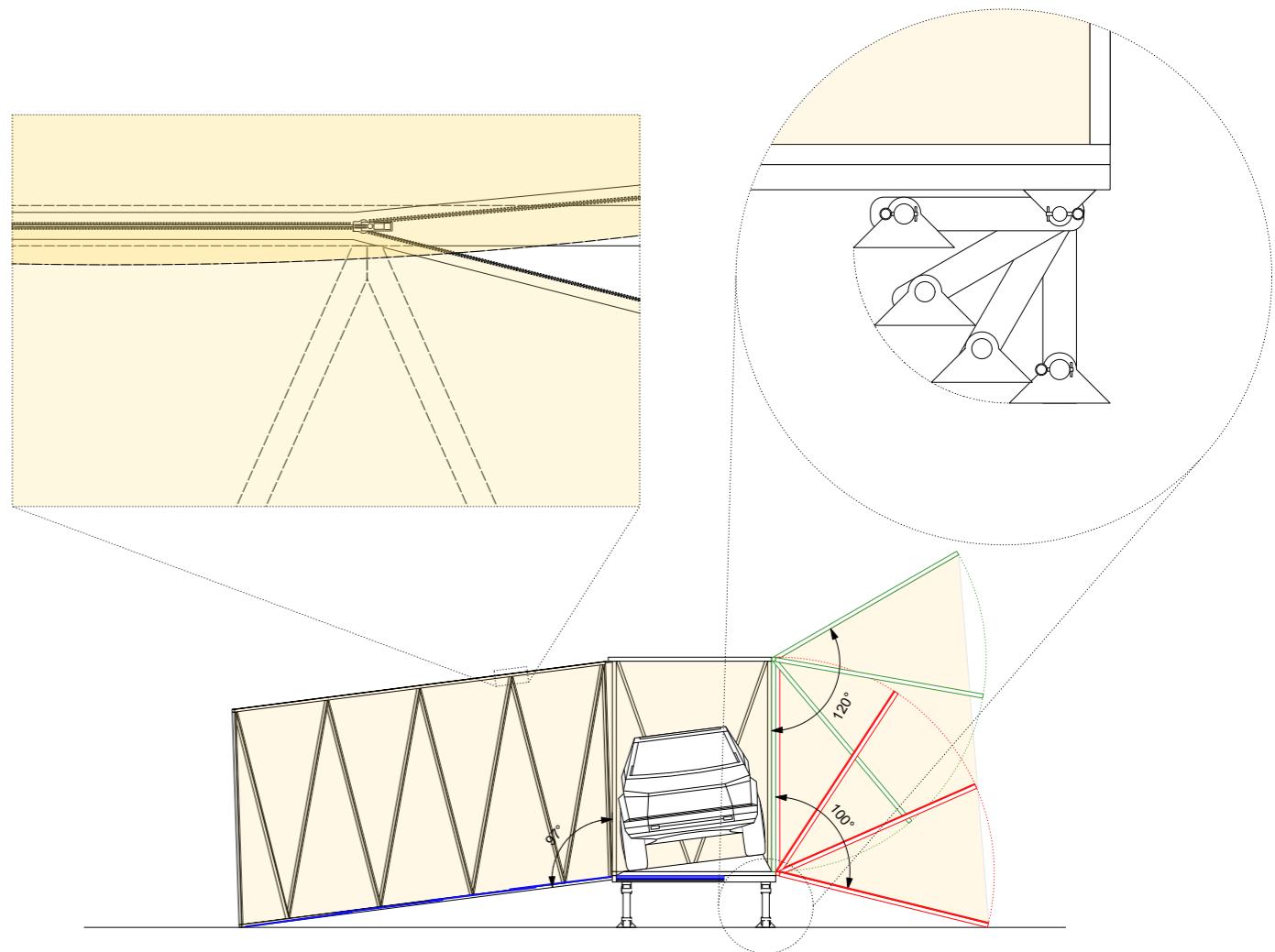
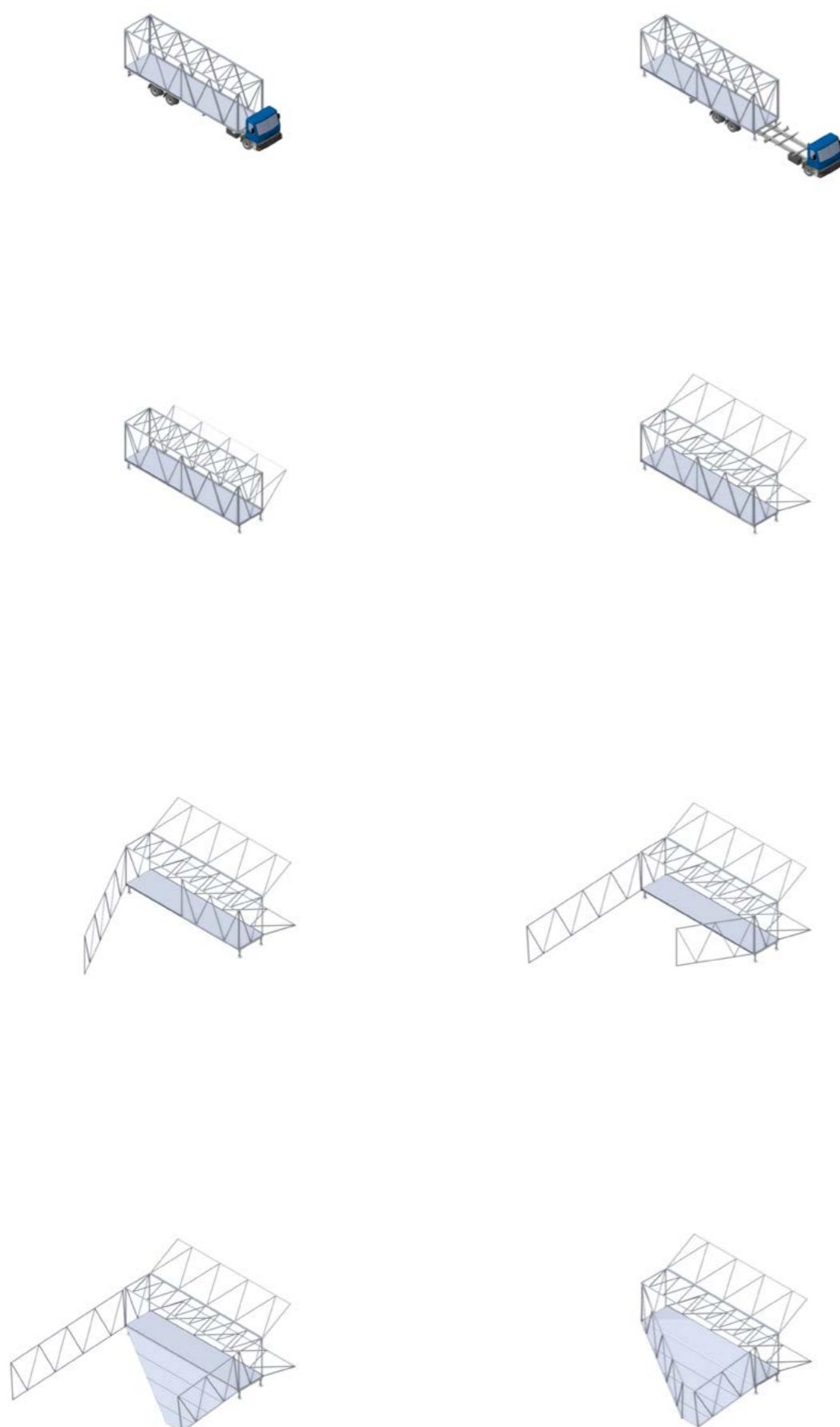
HEADQUARTERS

PRODUCING + CONSUMING

MANUFACTURING







1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

BRINGING PRODUCTION BACK TO THE CITY

Michelle Schenk

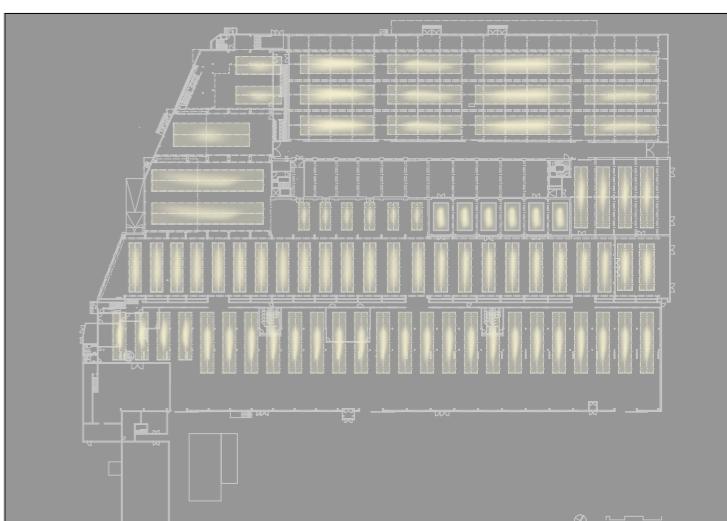
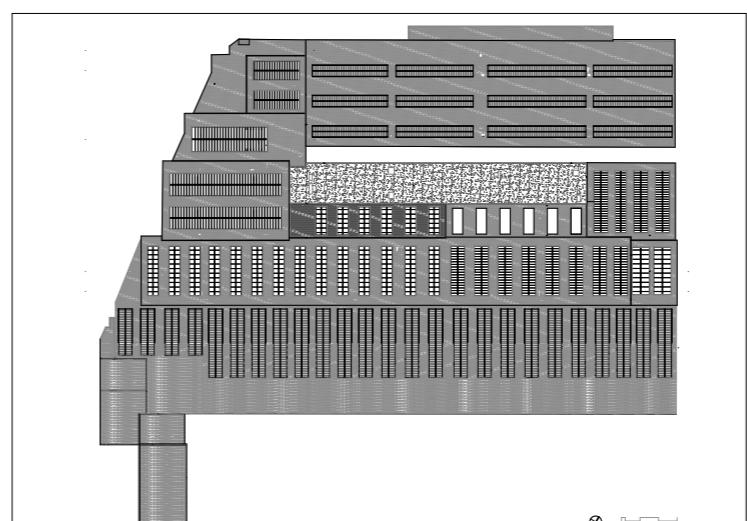
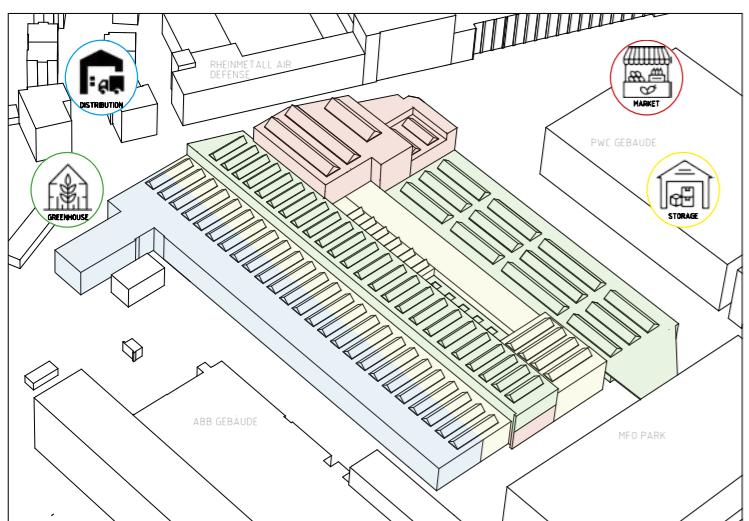
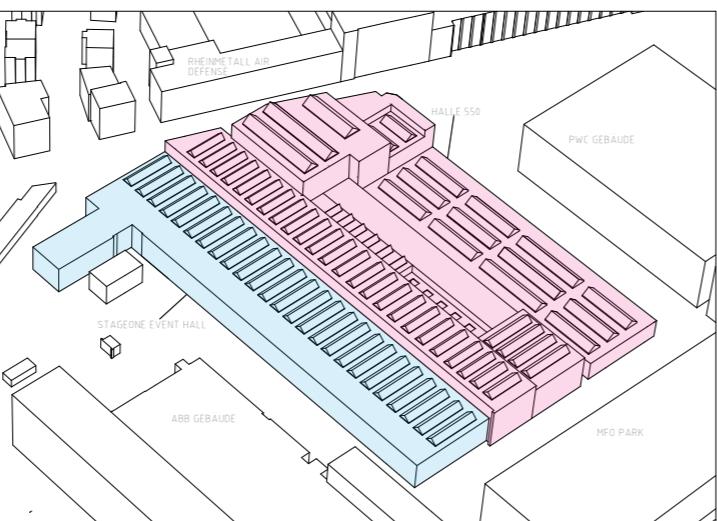
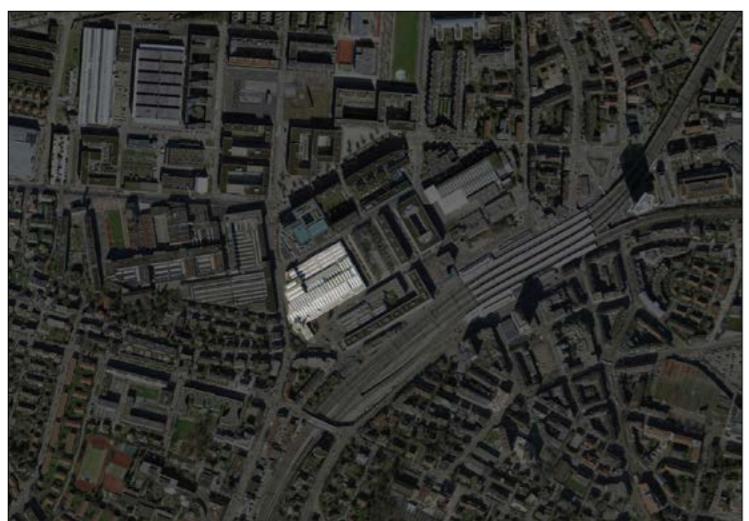
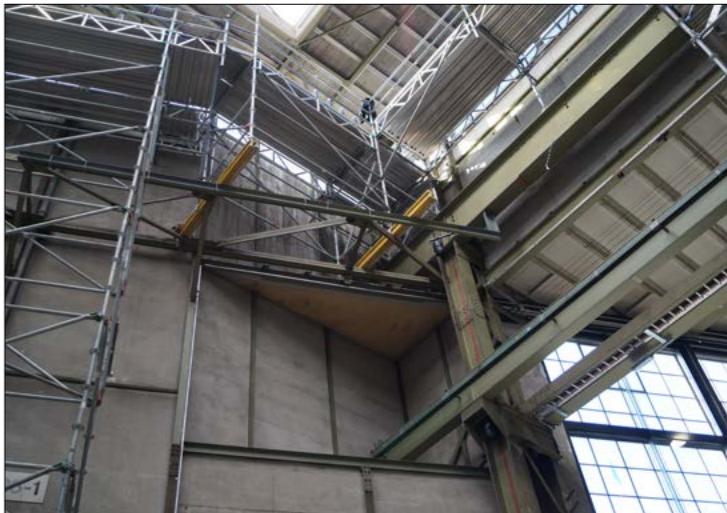
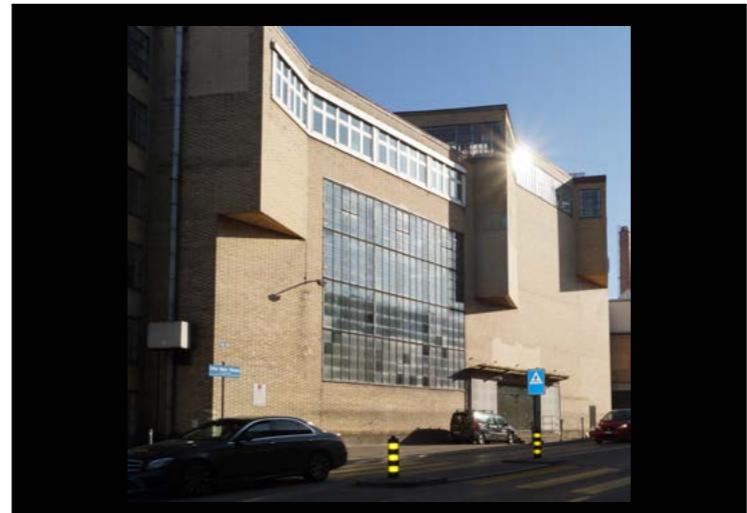
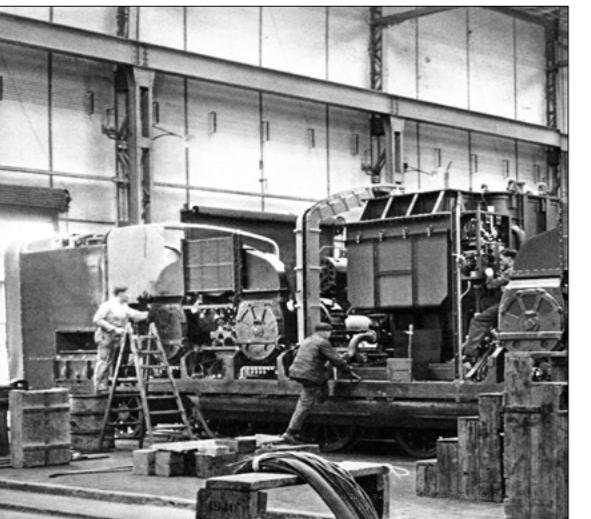
HEADQUARTERS

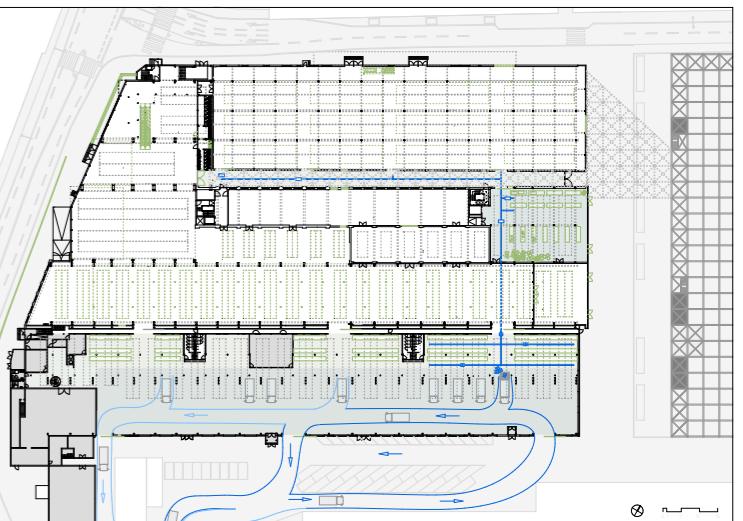
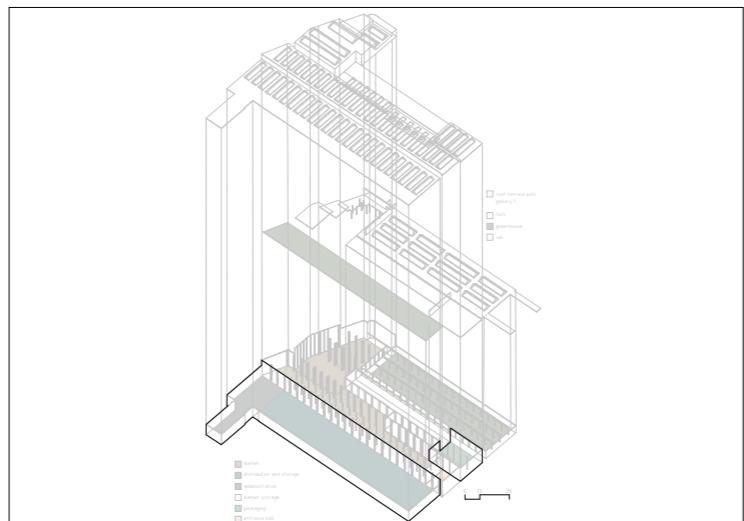
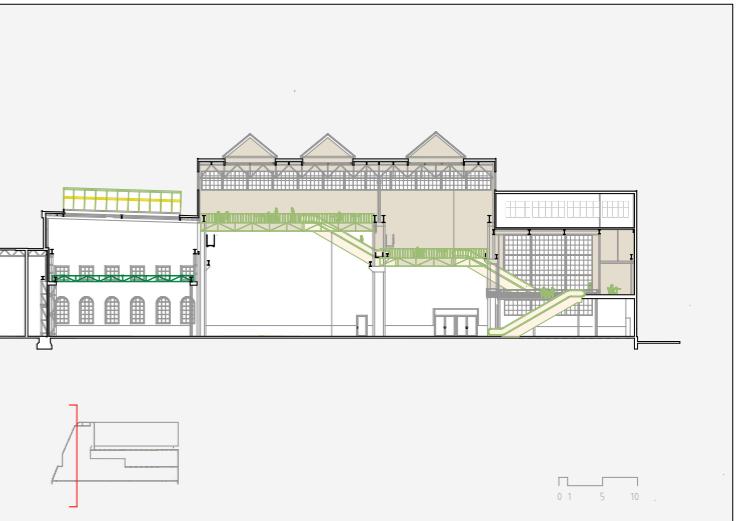
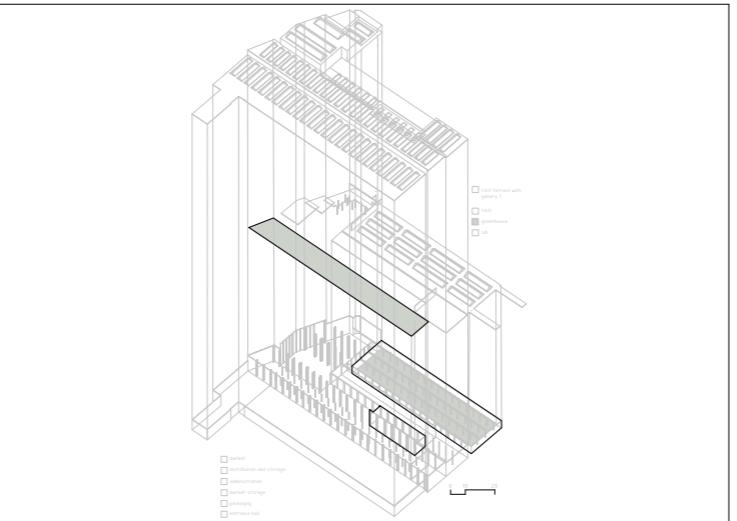
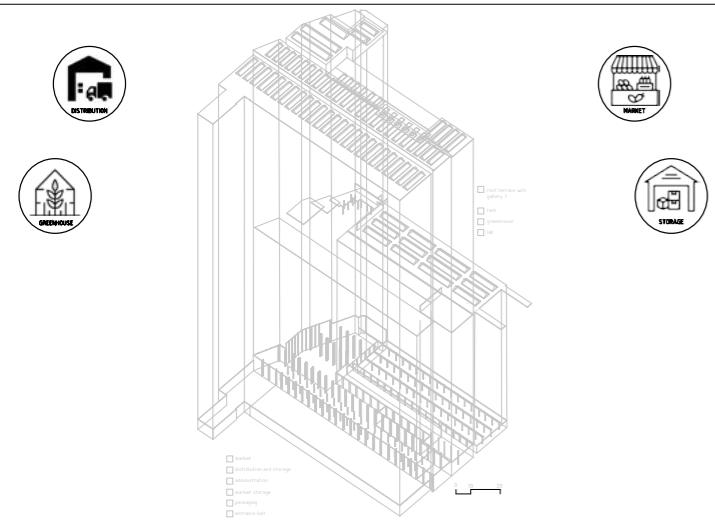
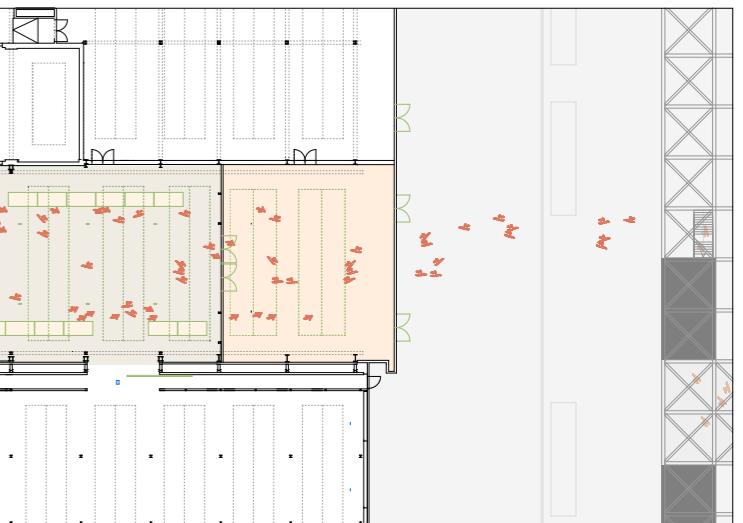
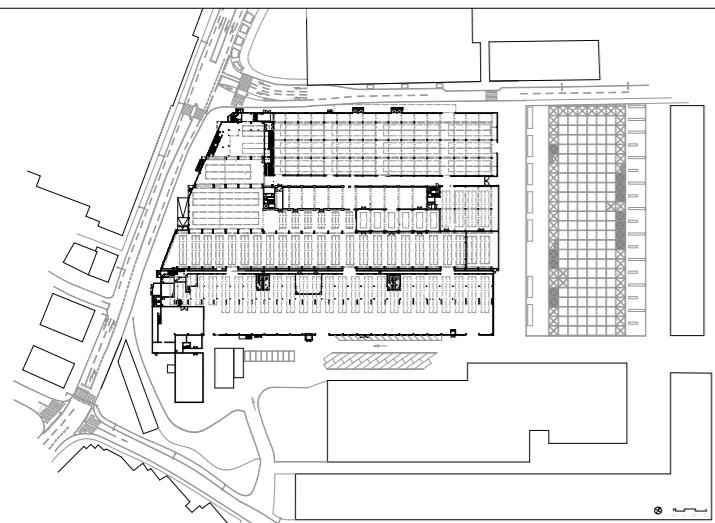
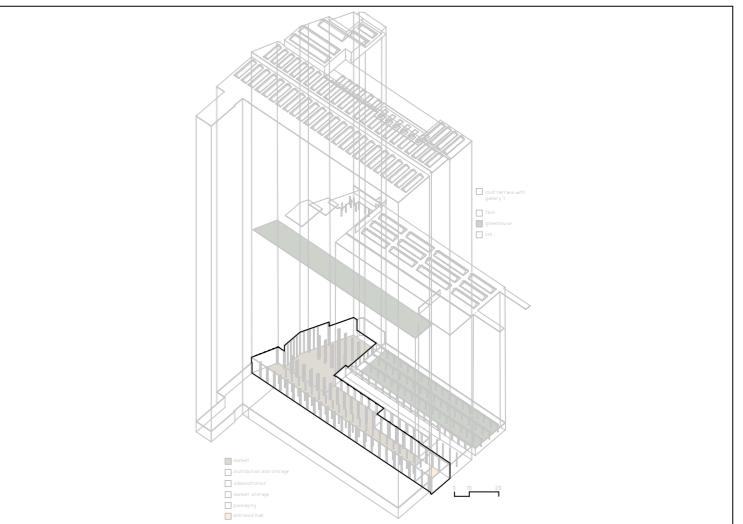
PRODUCING + CONSUMING

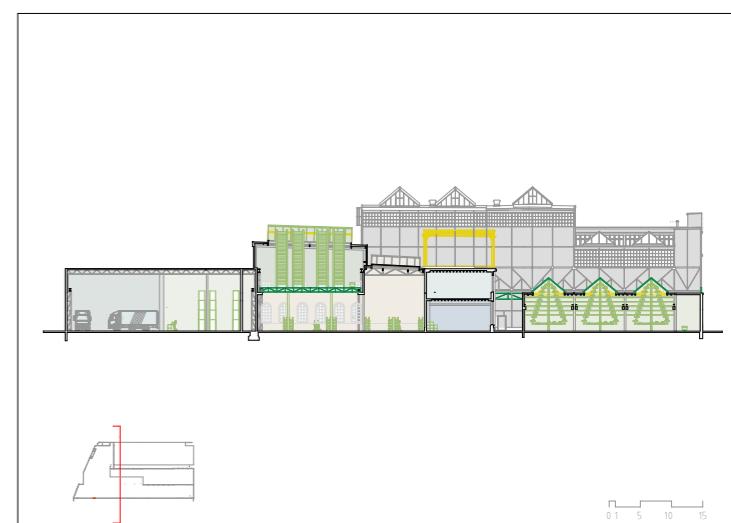
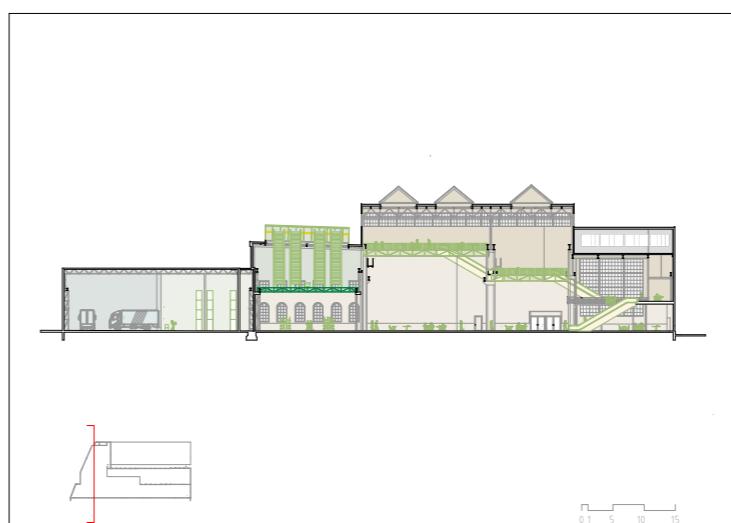
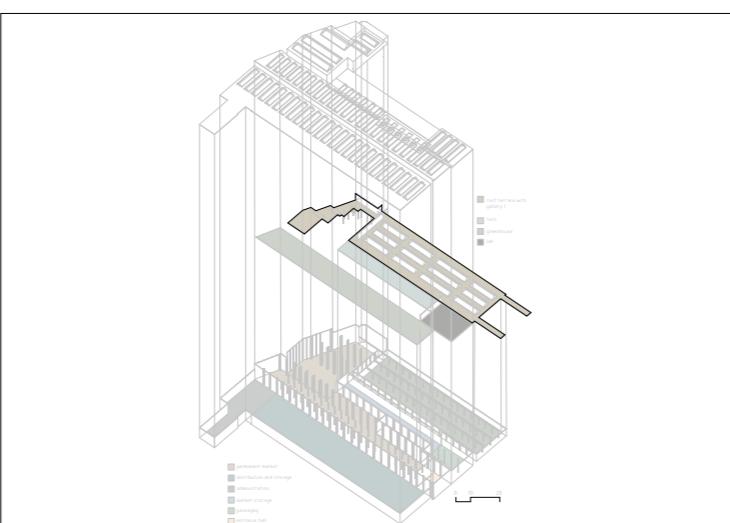
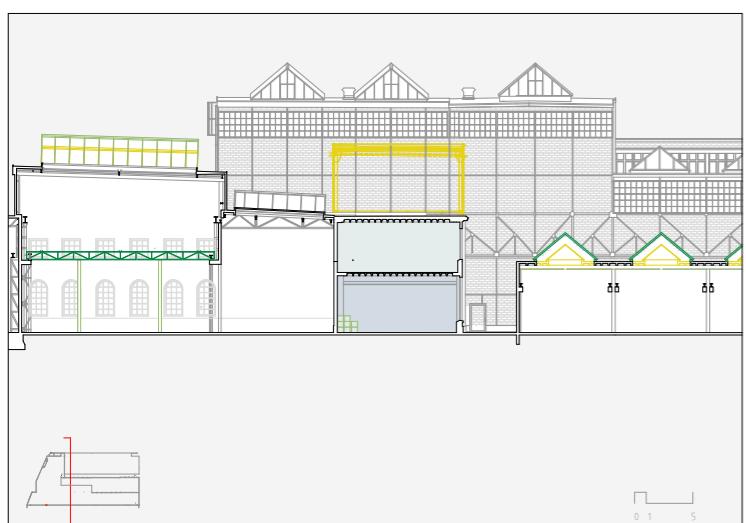
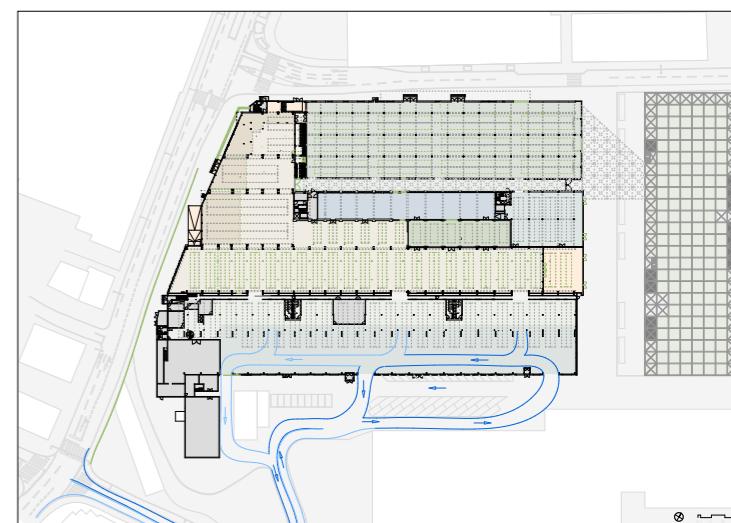
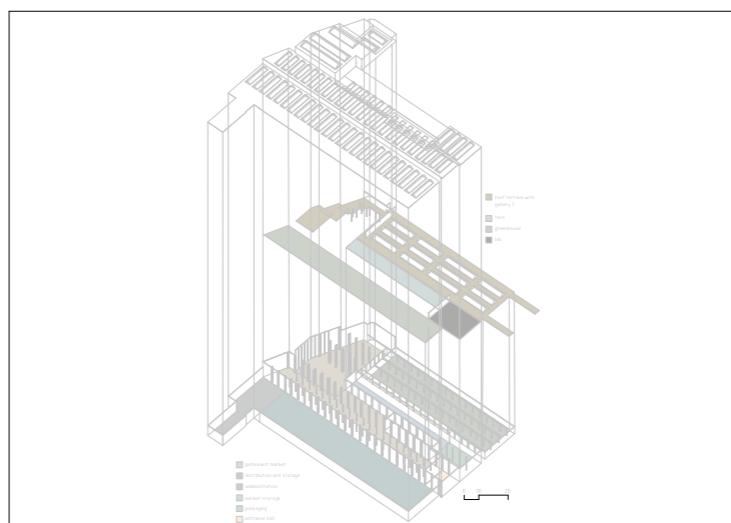
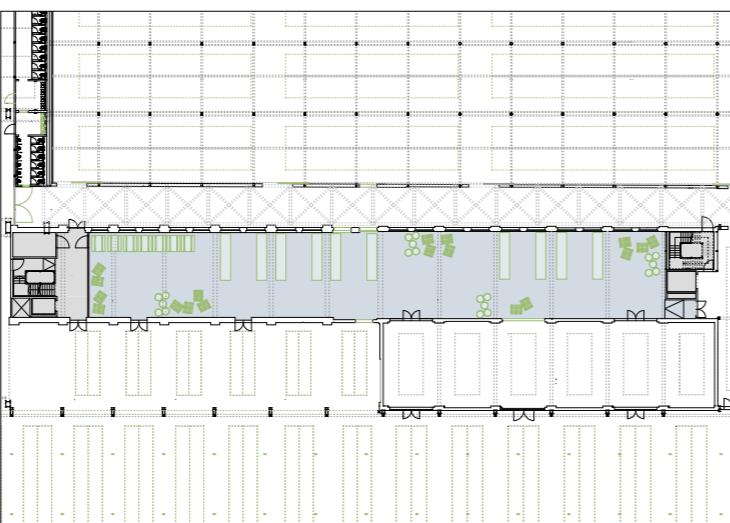
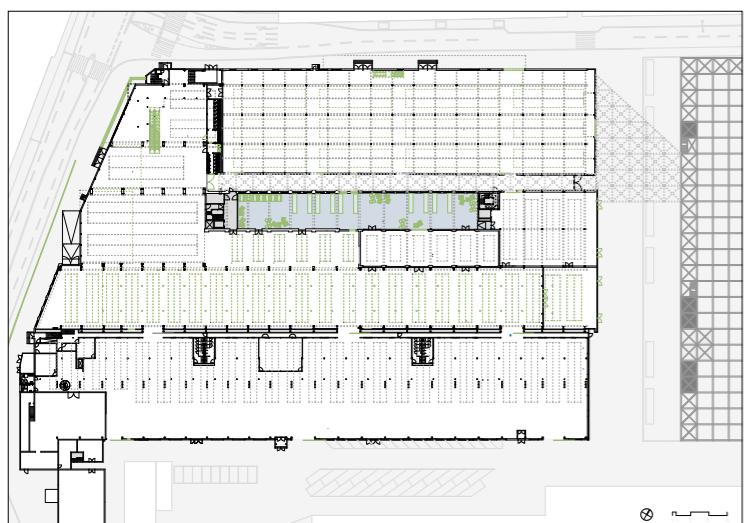
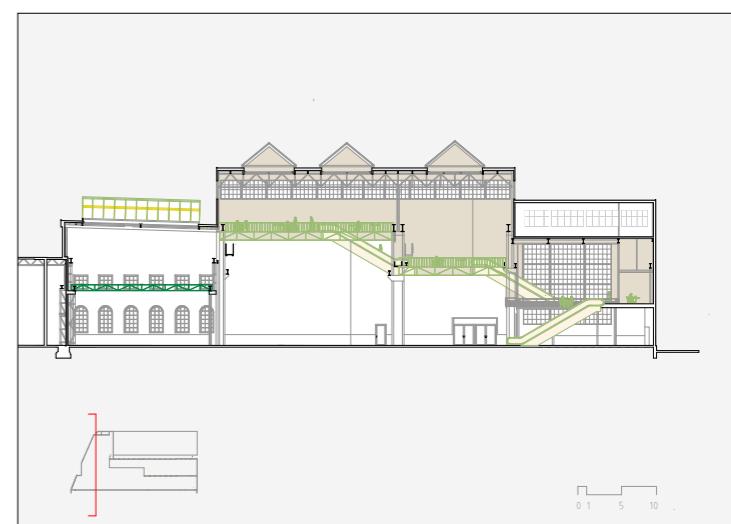
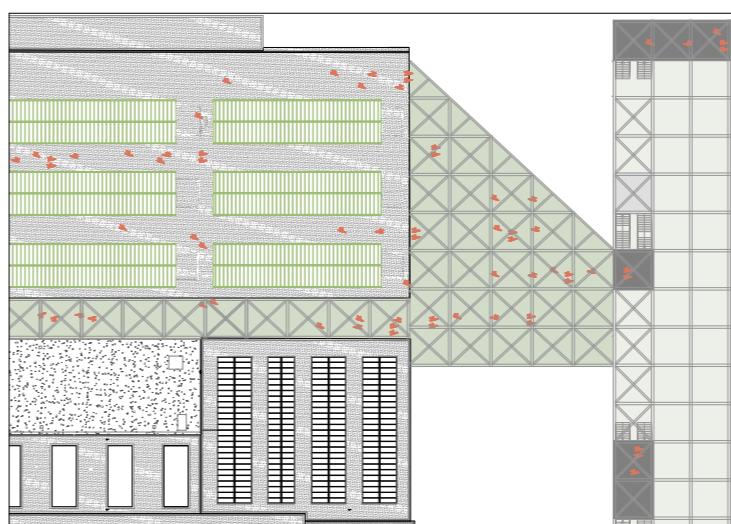
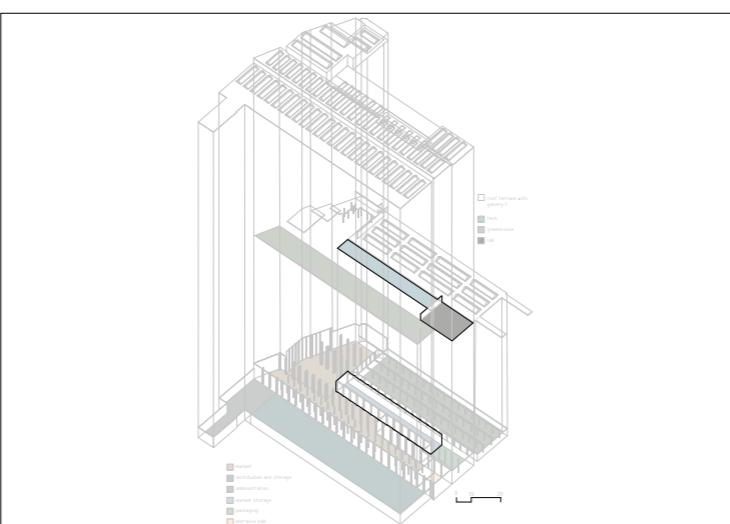
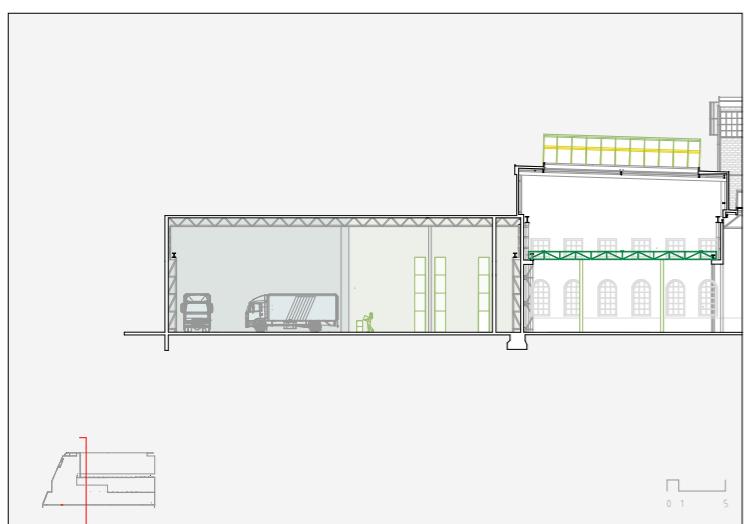
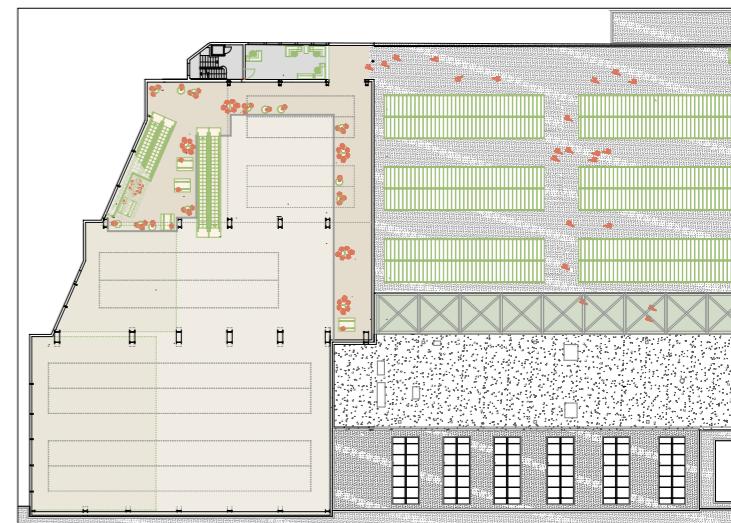
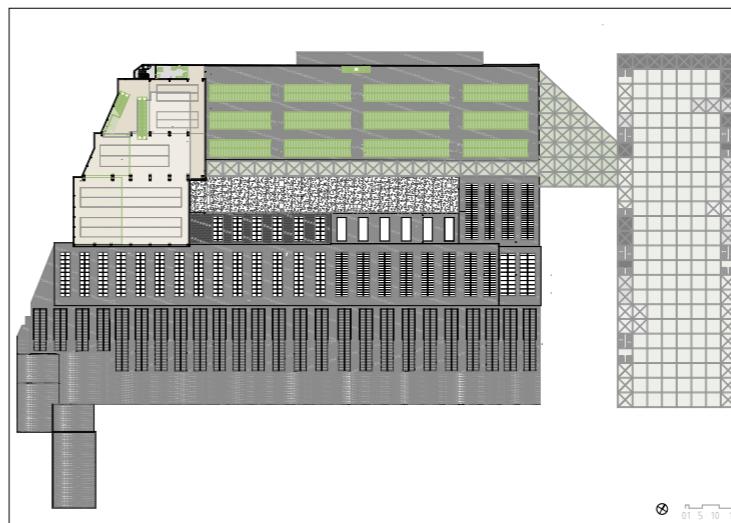
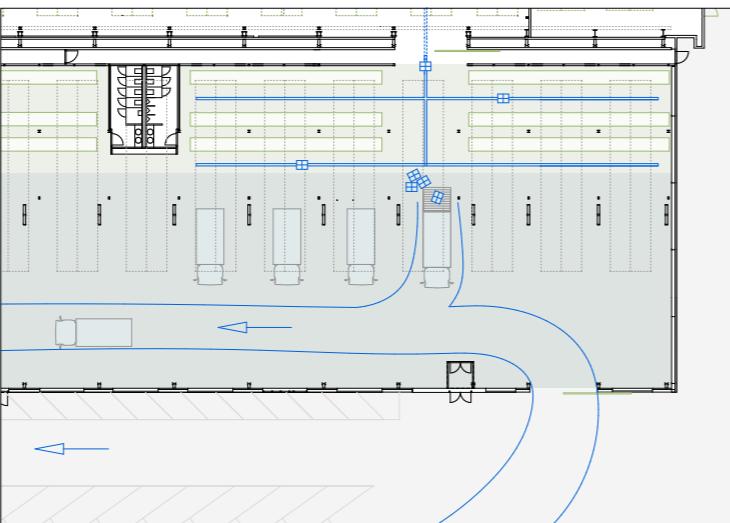
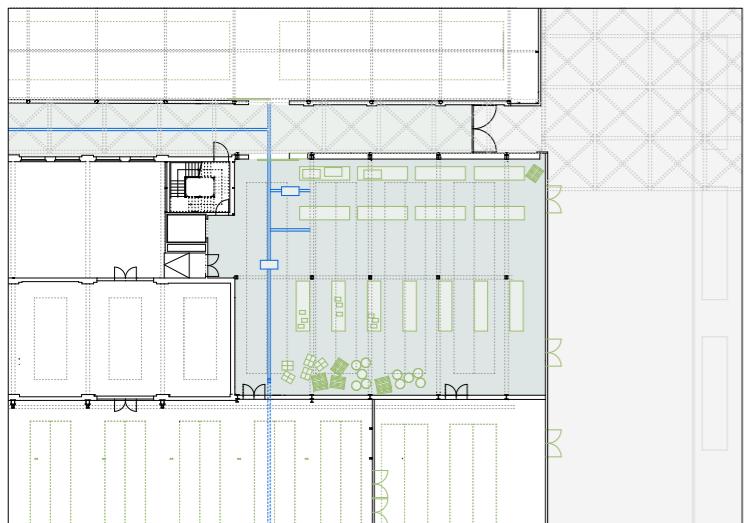
MANUFACTURING

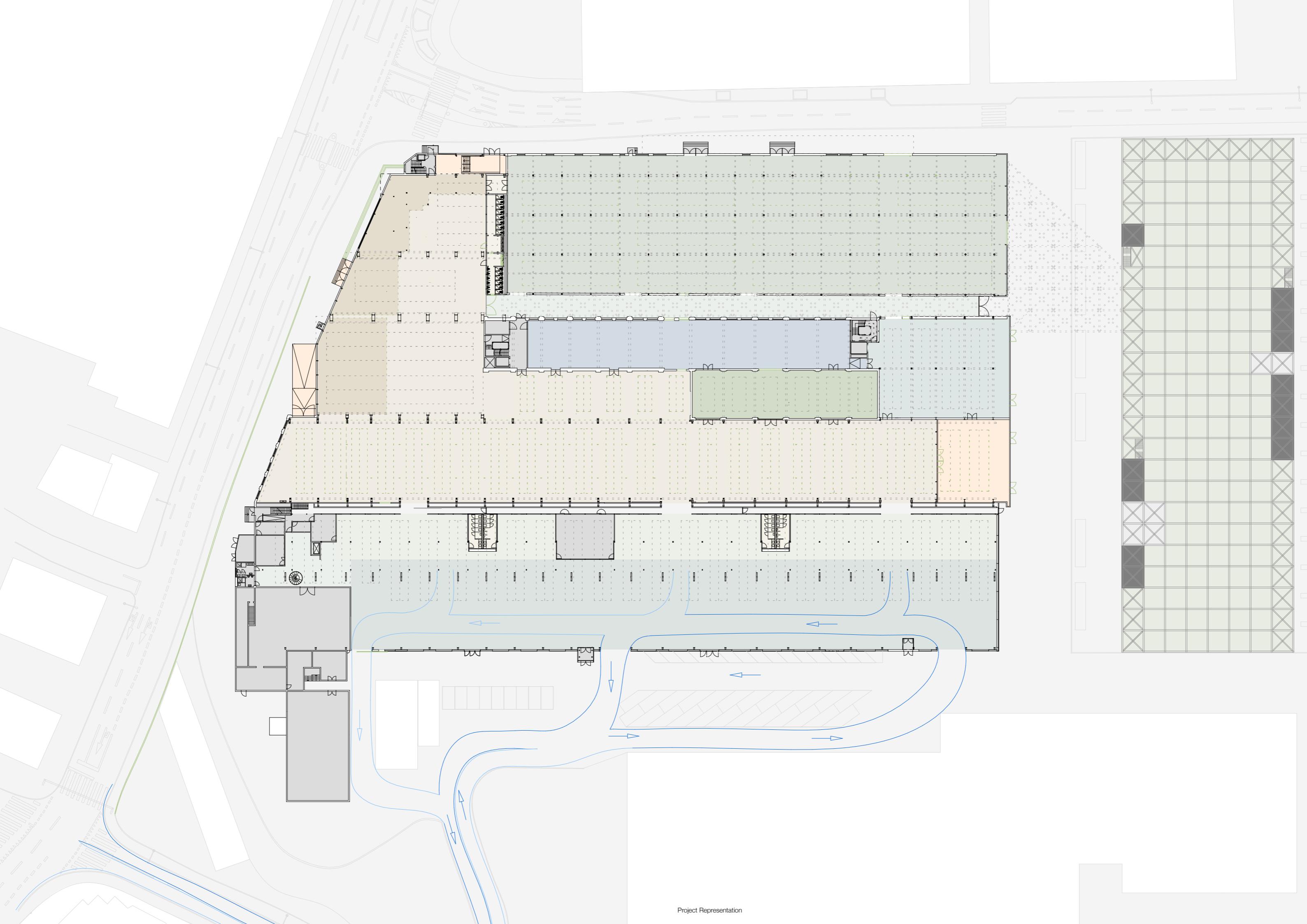


BRINGING
PRODUCTION
BACK TO
THE CITY

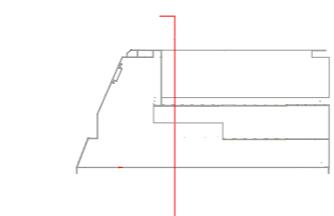
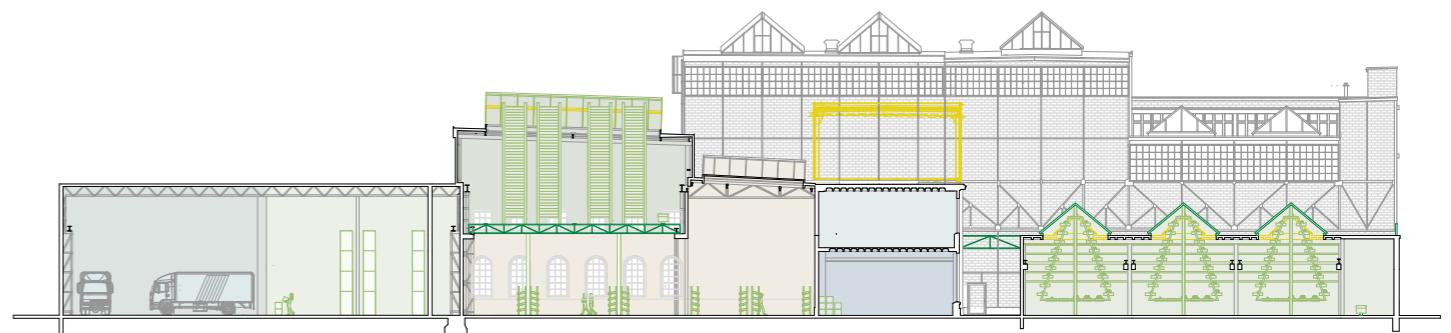
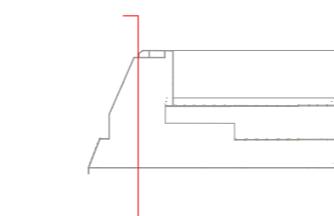
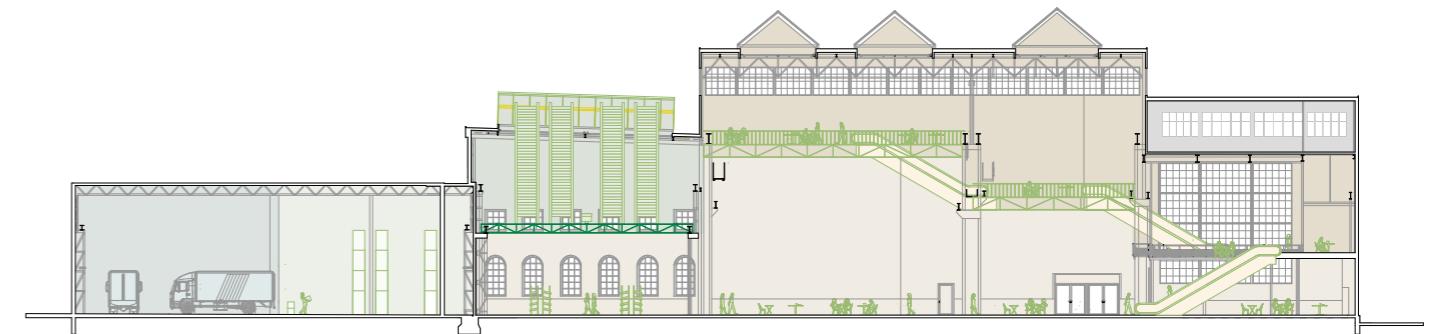
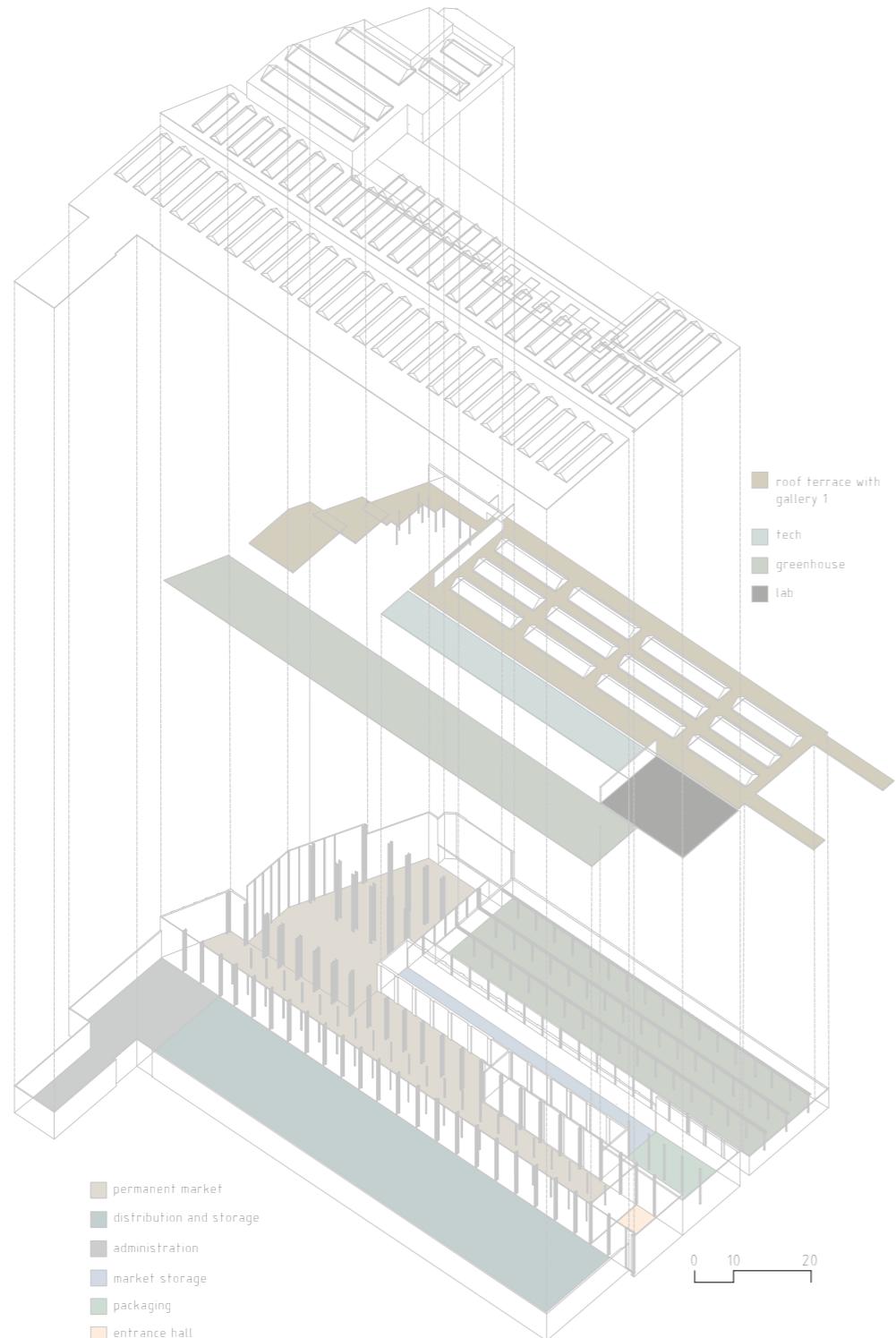


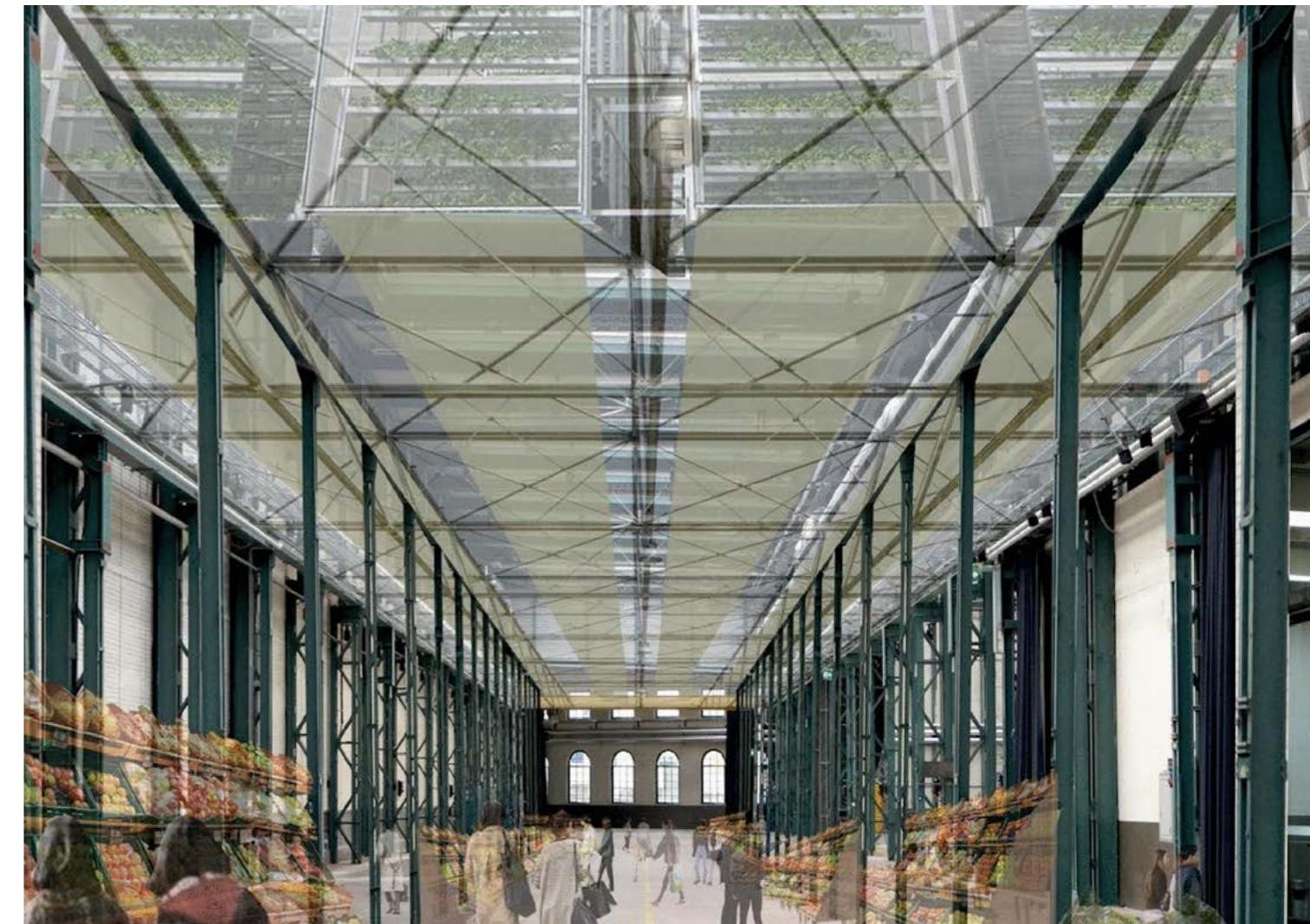






Project Representation





1 P

2-9 P

10-99 P

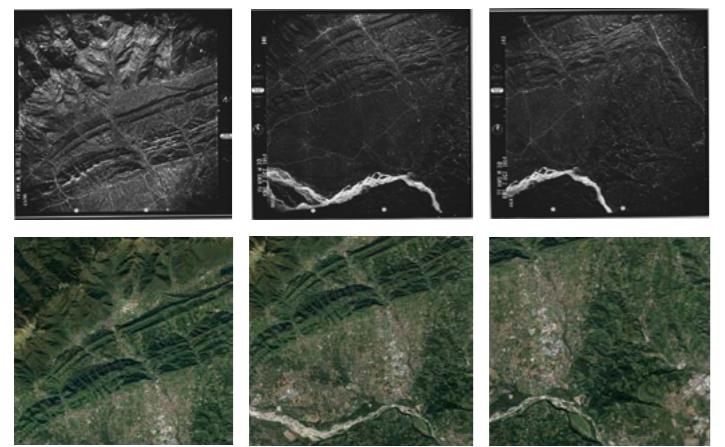
100-999 P

1'000-9'999 P

EXPANSION IN THE PARCO DELLA FILANDETTA

Amanda Pellizzari

HEADQUARTERS
MANUFACTURING
PRODUCING + CONSUMING



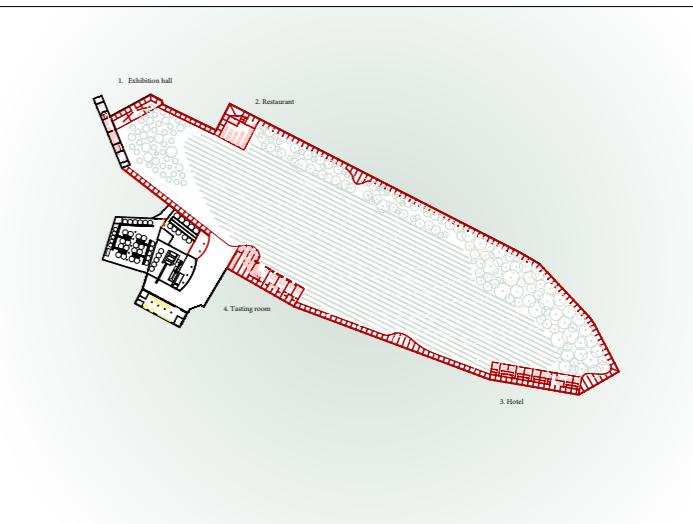
Development in Conegliano Valdobbiadene area (1954-2020)
Source: <https://www.igmne.it/descrizione-prodotti/aerial-photography/aerial-photography>; <https://www.google.ch/maps>



Aerial view over Valdobbiadene (TV), Italy
Source: <https://www.trevisodays.it/cronaca/reality-sky-valdobbiadene-29-settembre-2017.html>



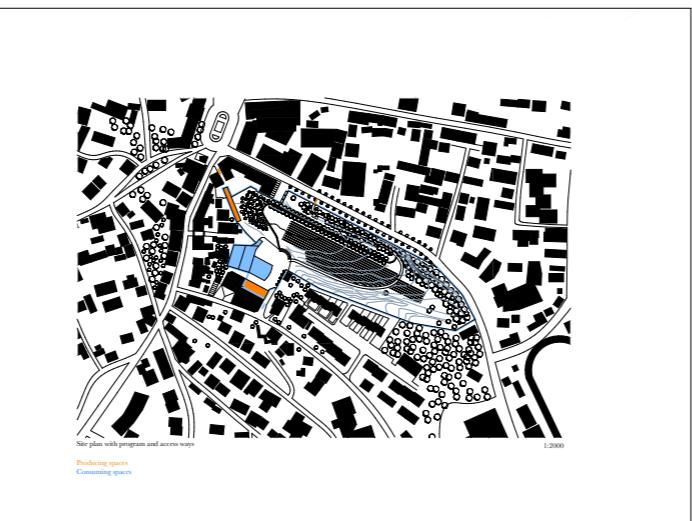
Axonometric representation of the intervention steps
Nature
Perimeter wall
Buildings



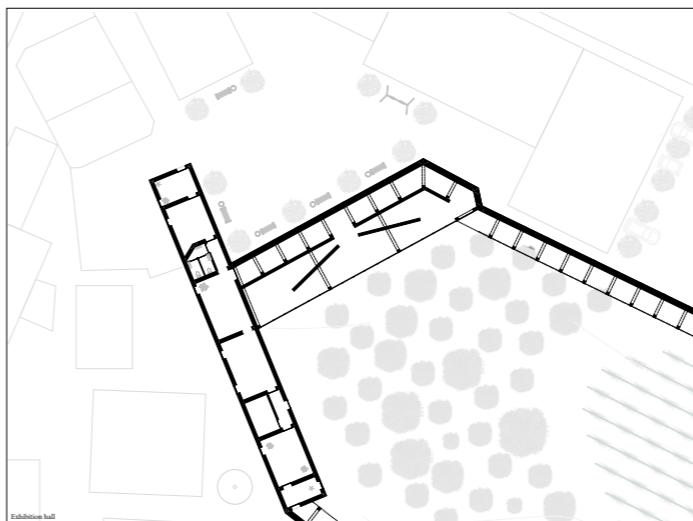
1:1000



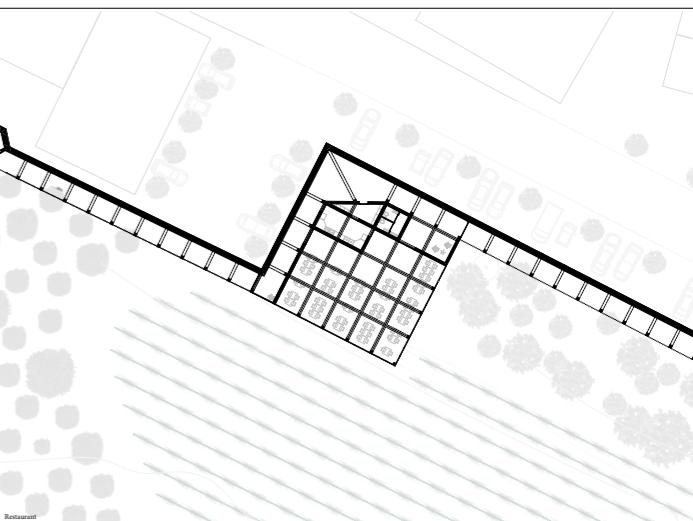
Parco del Fiume Brenta - Vittorio Veneto
Scheda Progetto: Parco del Fiume Brenta



Site plan with program and access ways
Producing spaces
Consuming spaces

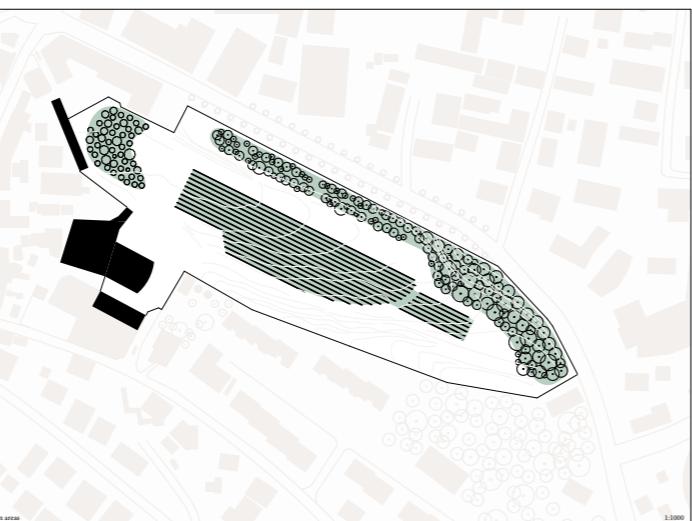


Exhibition hall

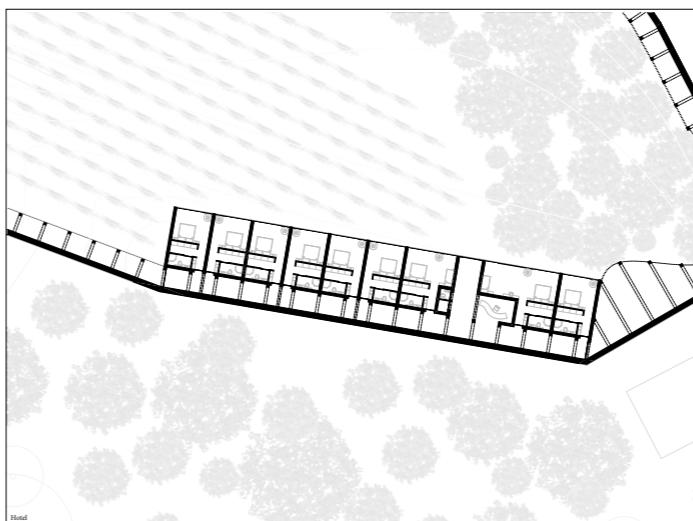


Restaurant

1:200



Current green areas



Hotel

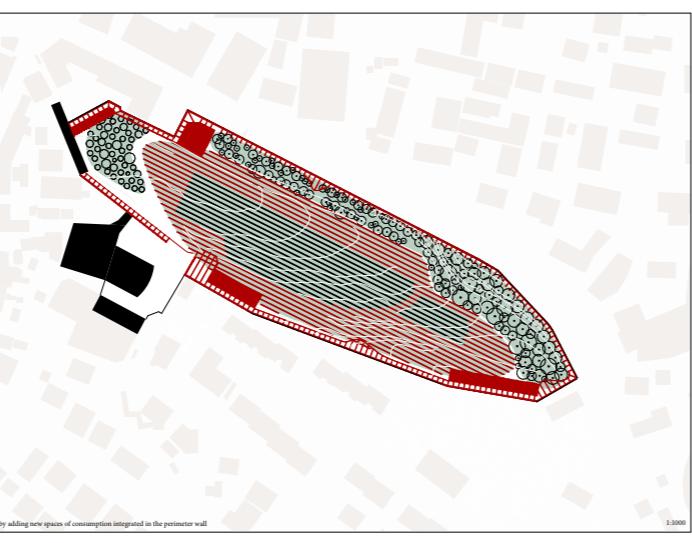


Tasting room

1:200



Intervention on the expansion of green areas



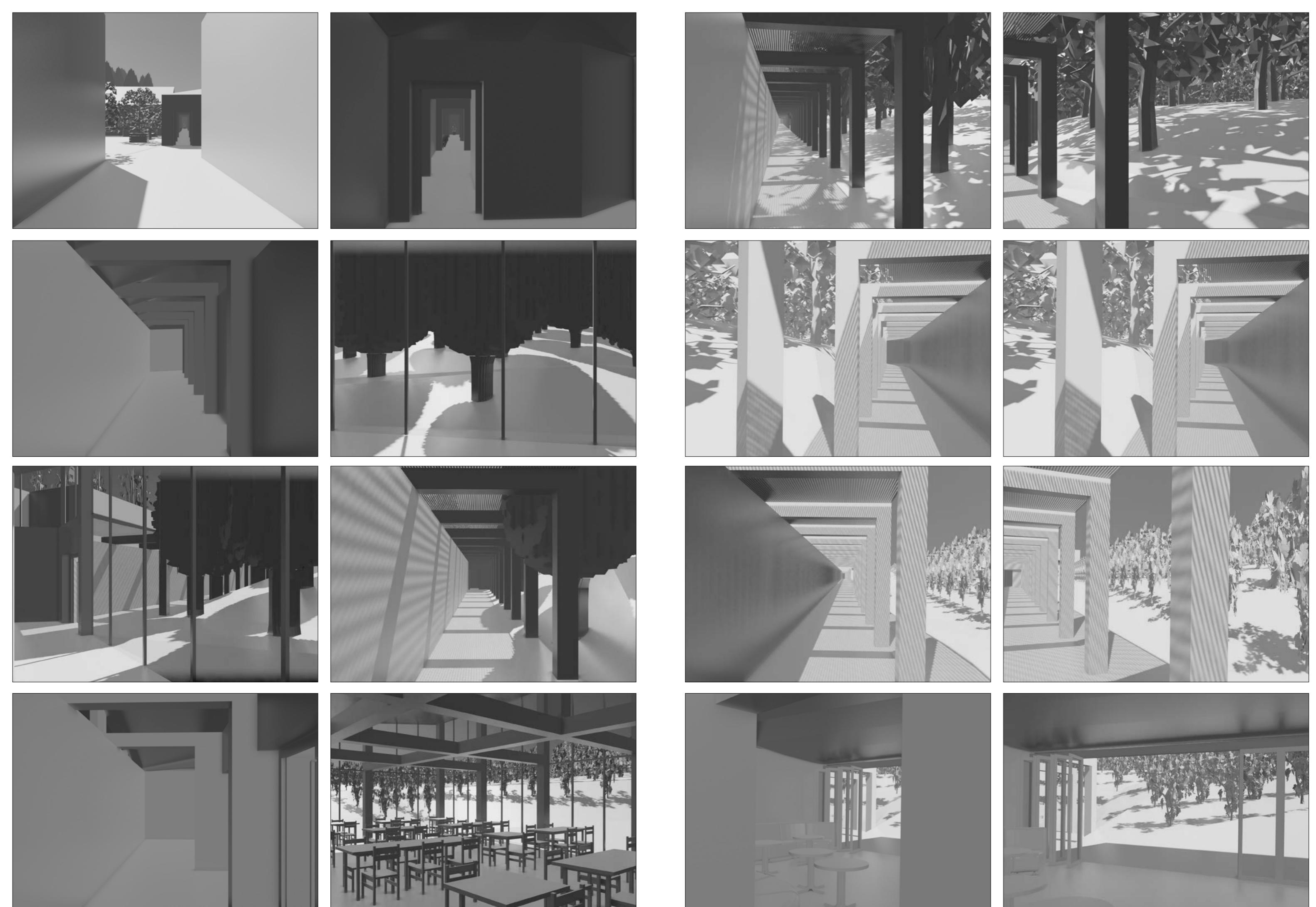
Intervention by adding new spaces of consumption integrated in the perimeter wall

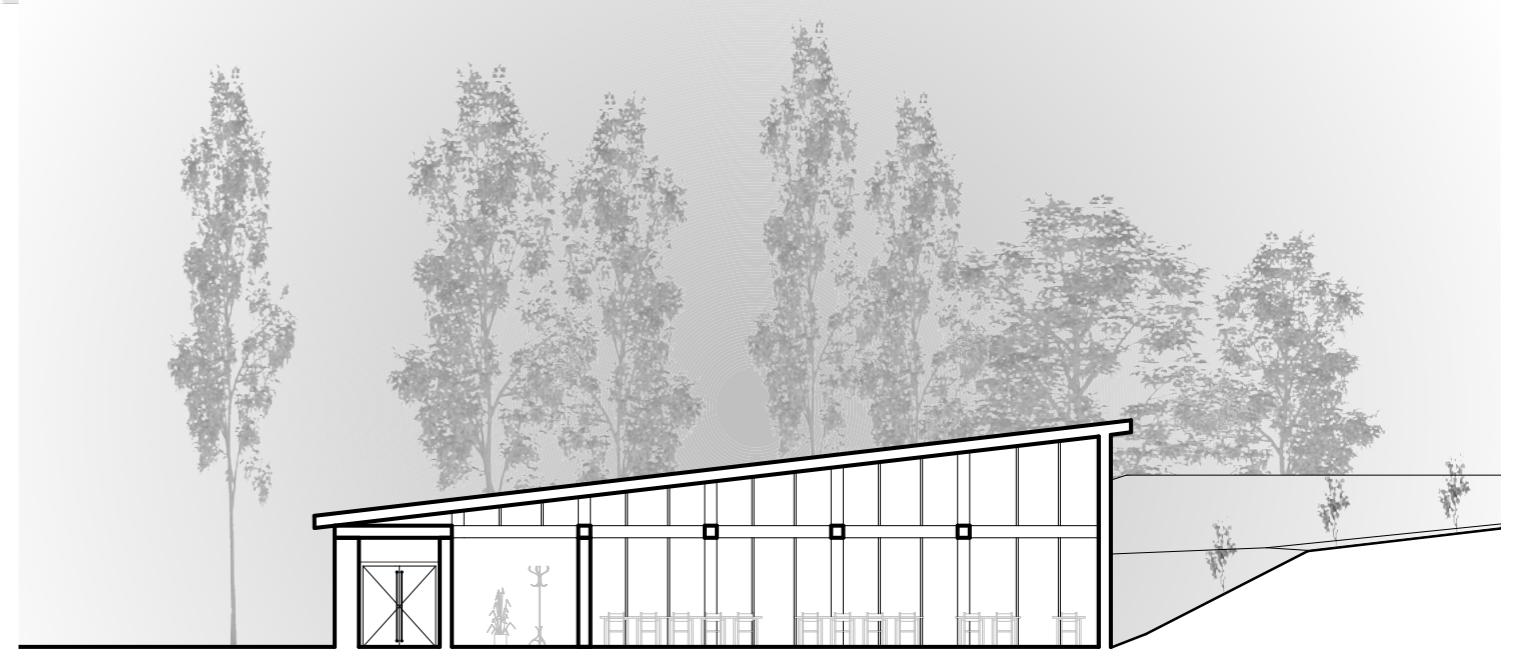
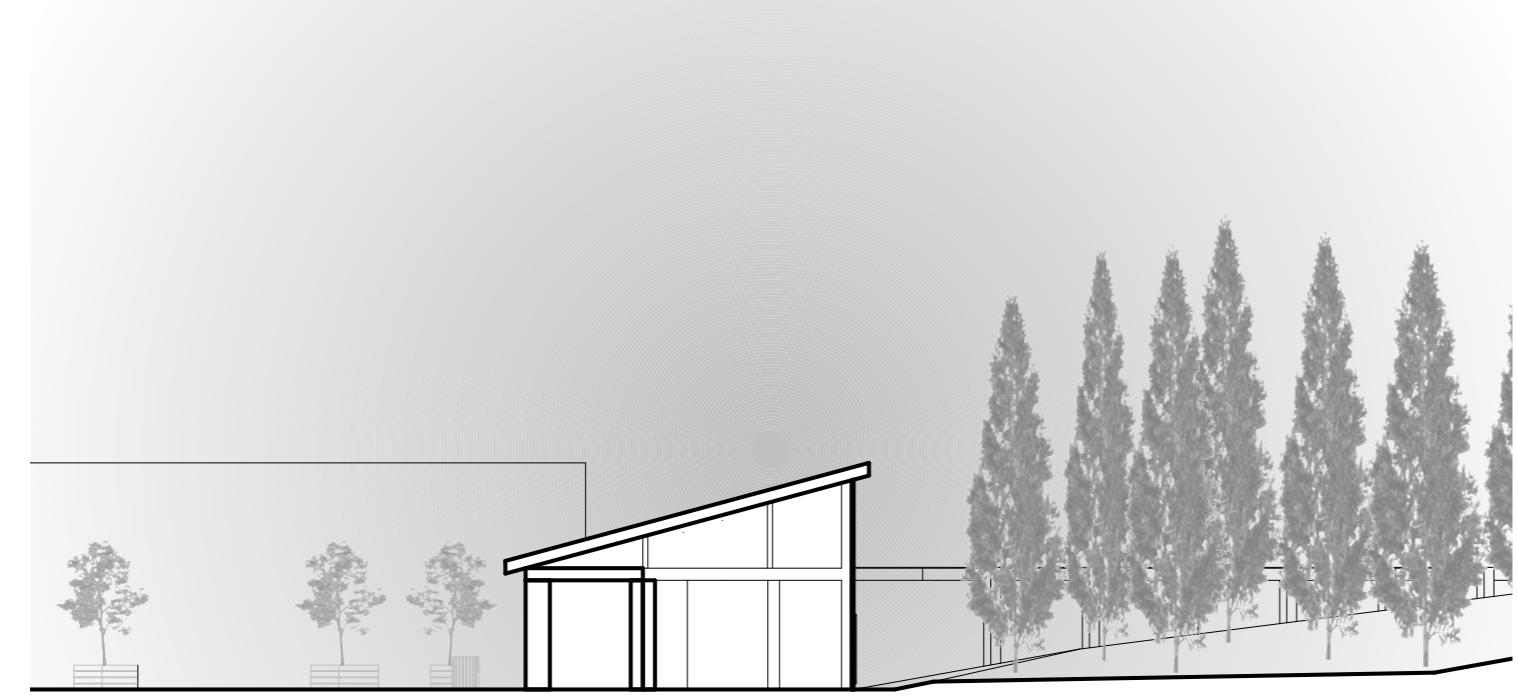
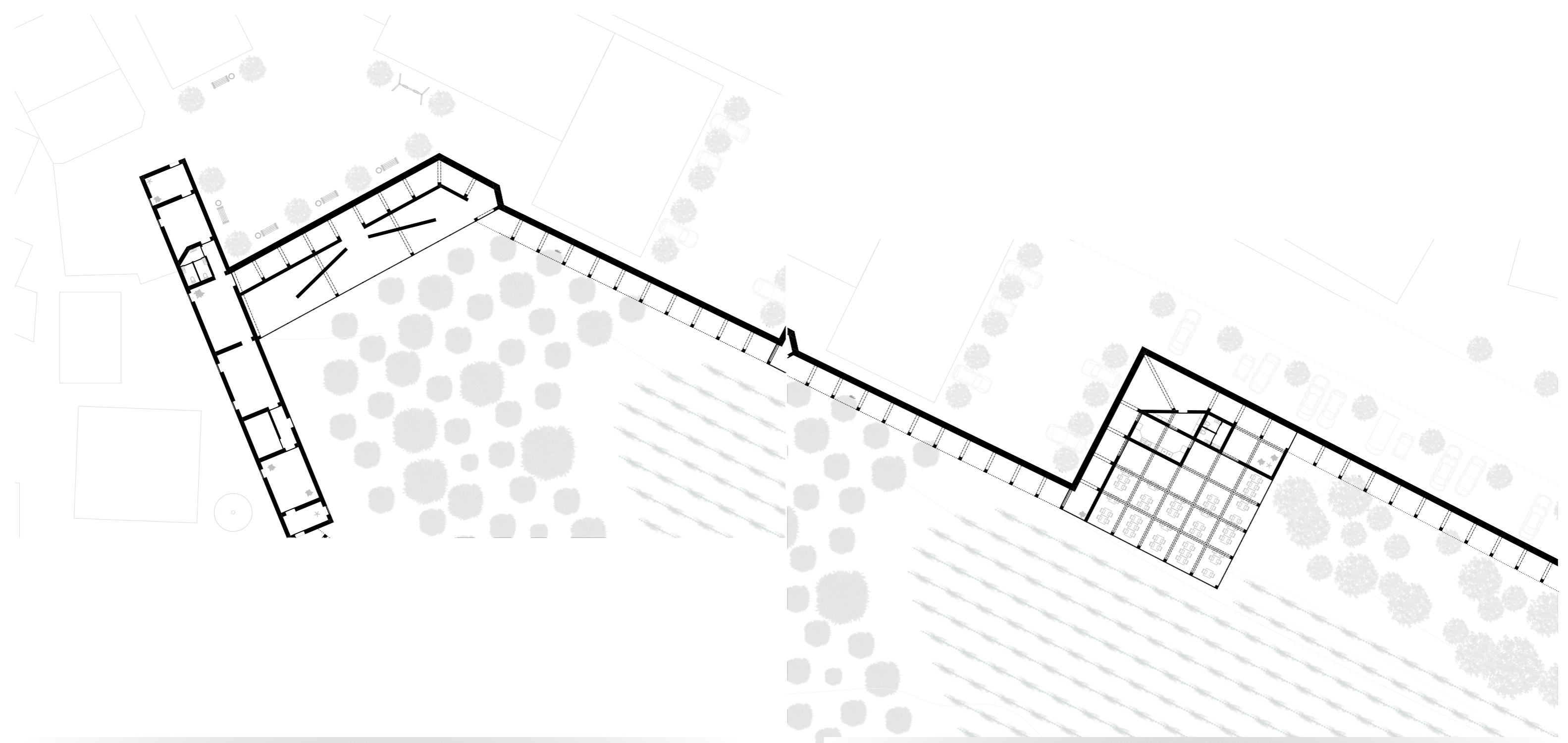


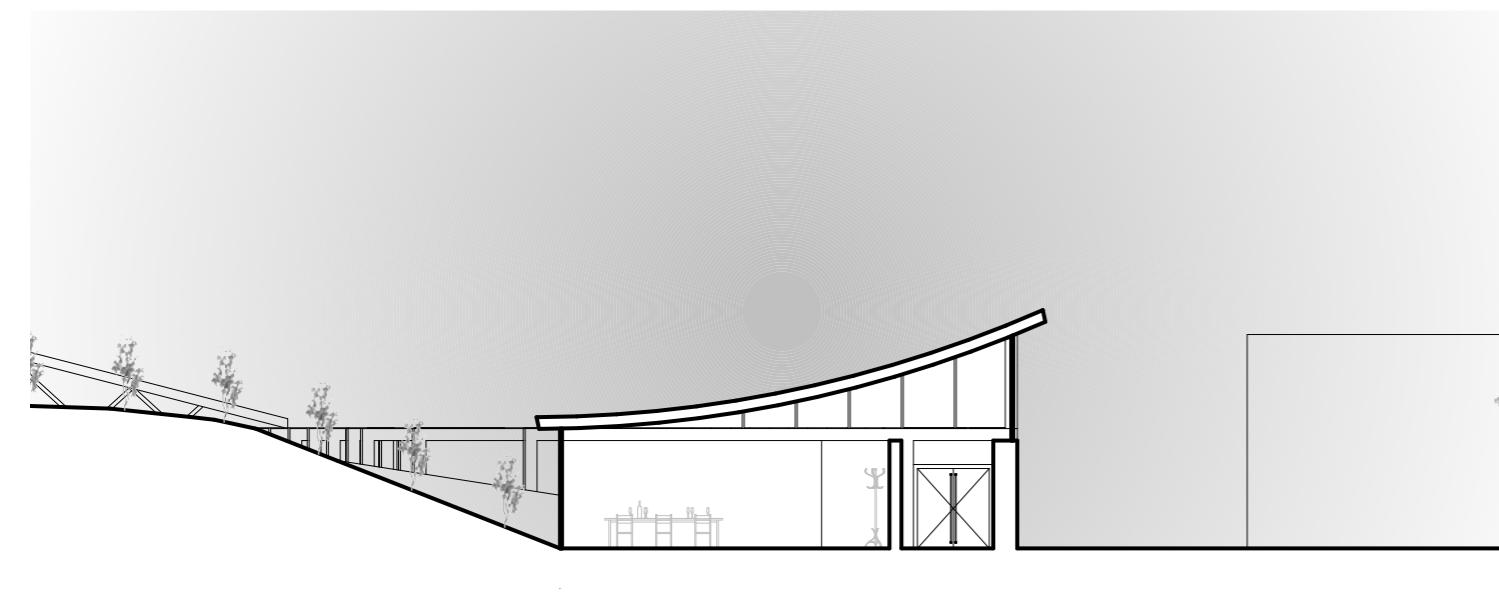
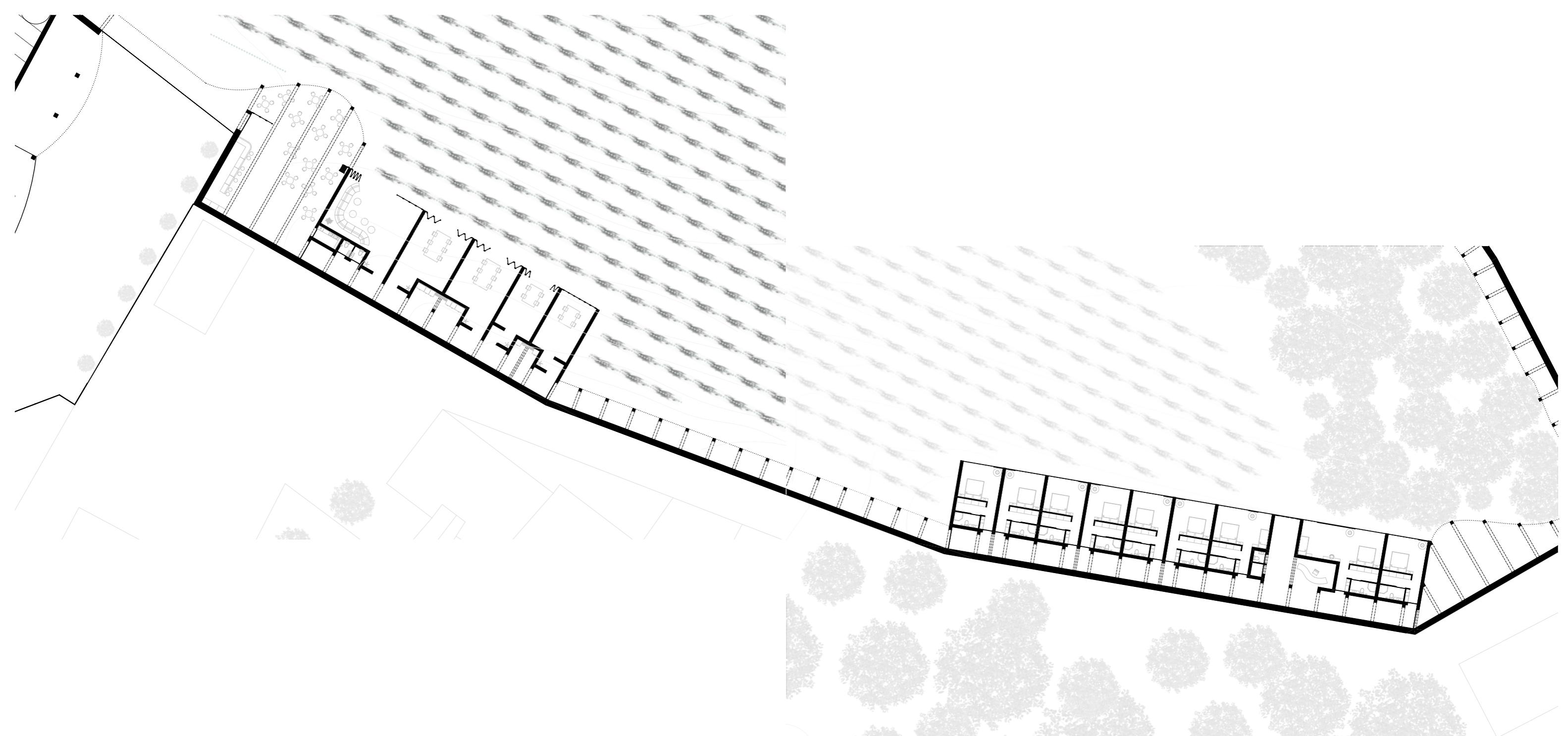
PDF Presentation



119







1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

STATE ARCHIVES IN THE HAFENCITY

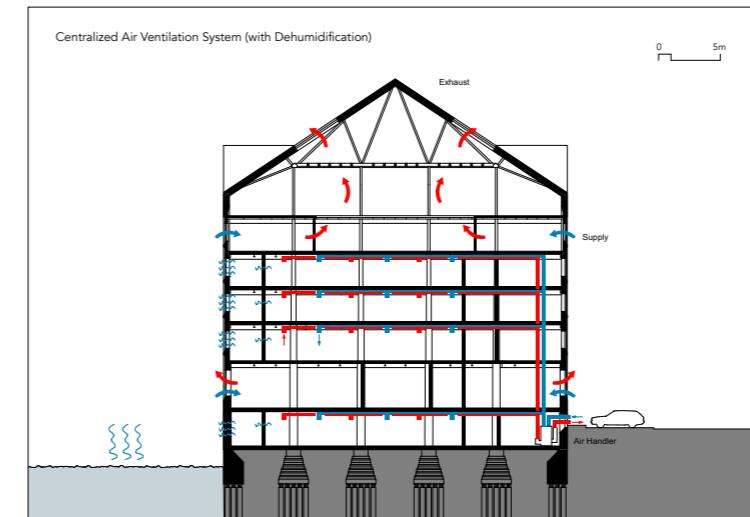
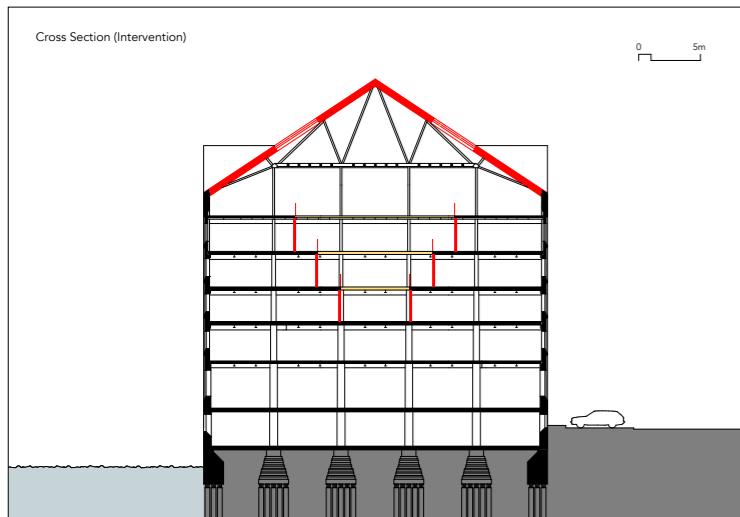
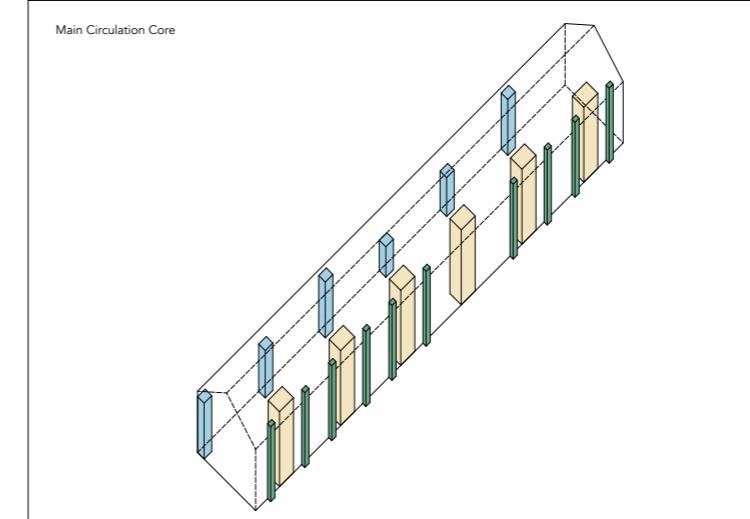
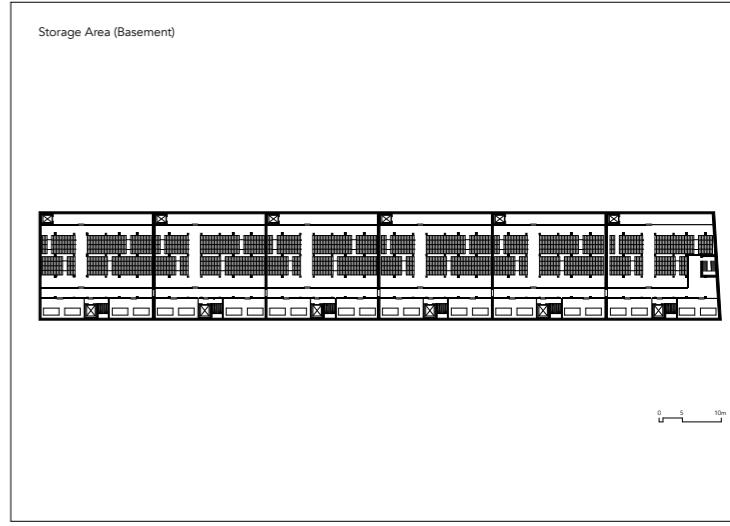
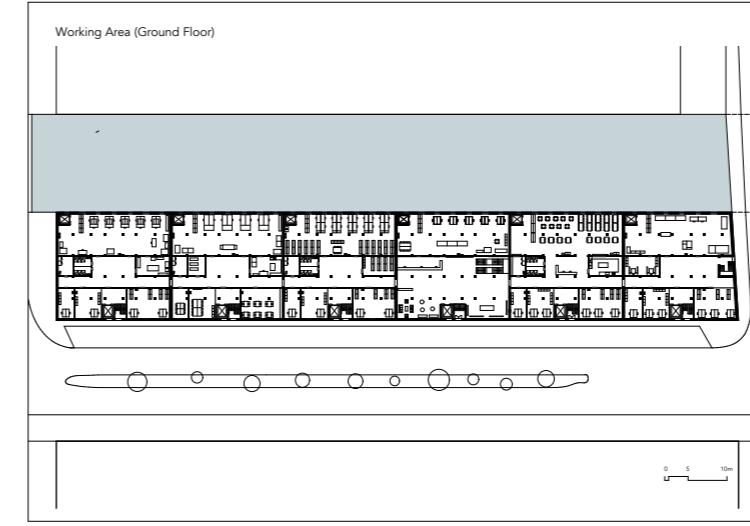
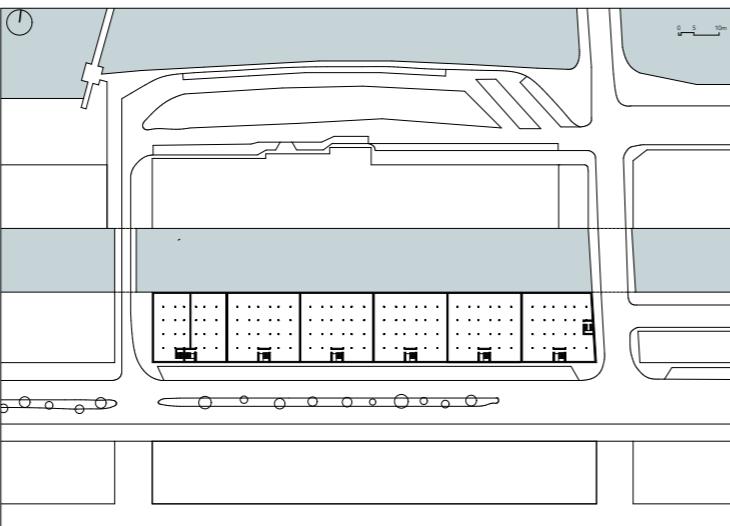
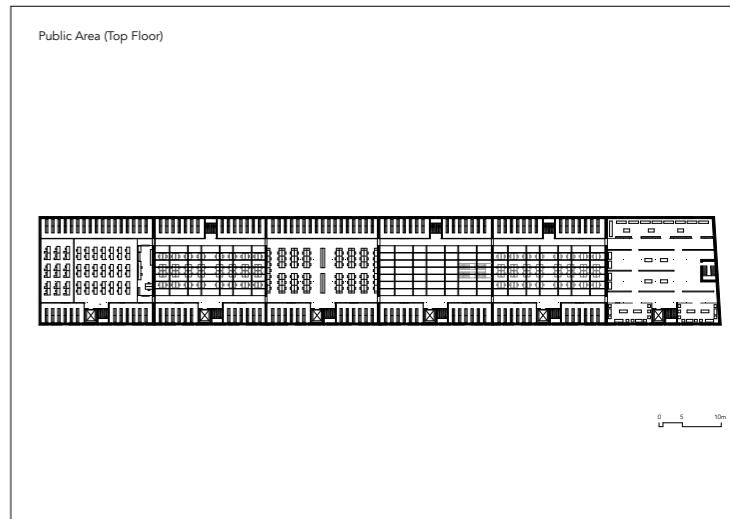
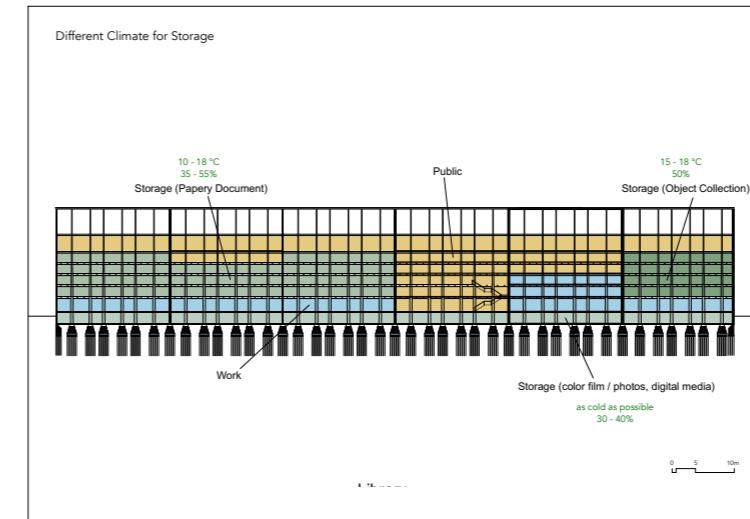
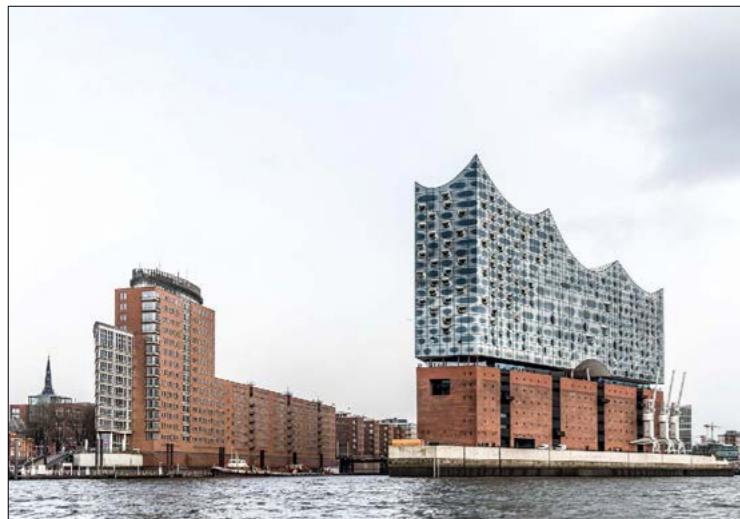
Chaoyi Yu

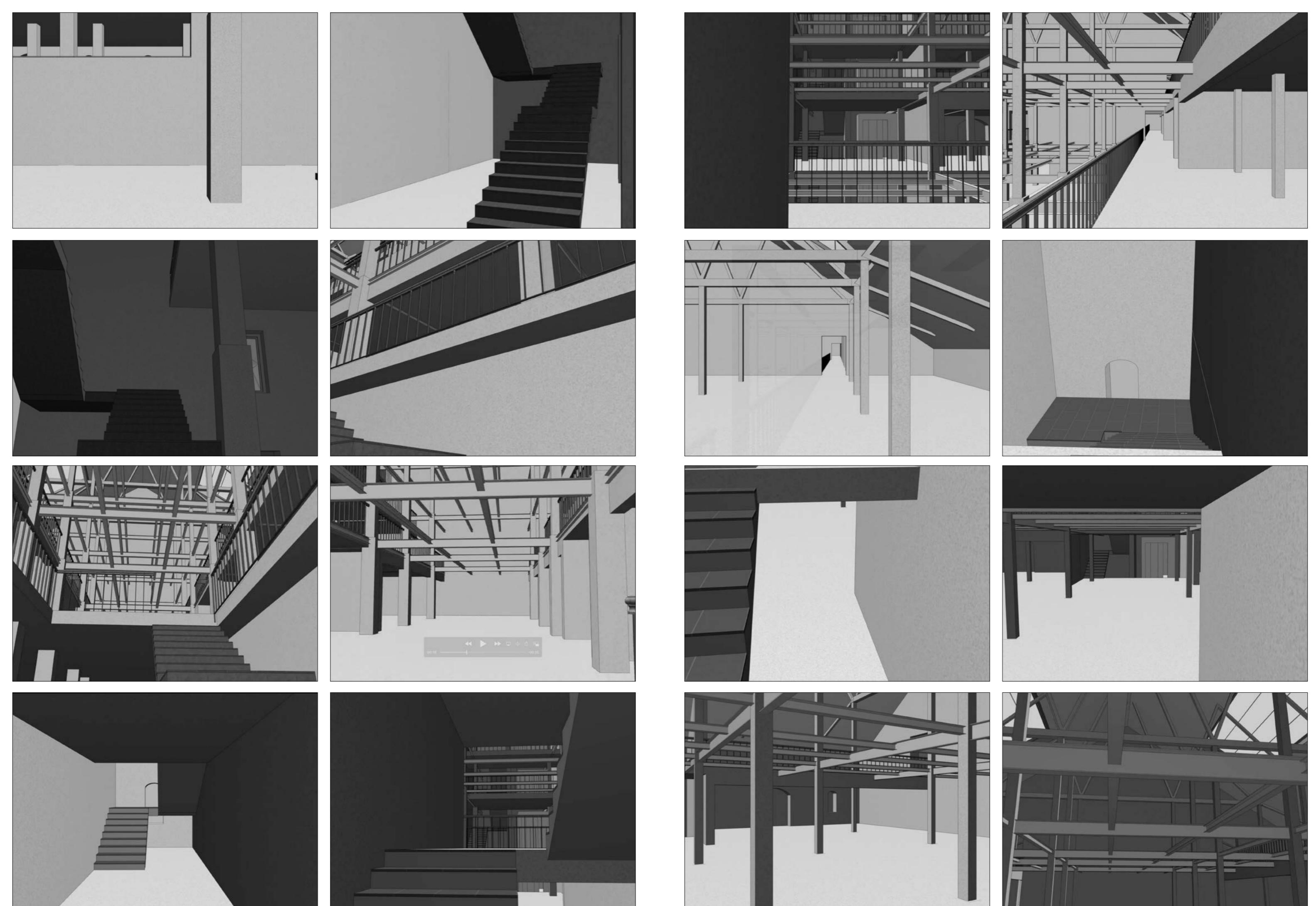
HEADQUARTERS

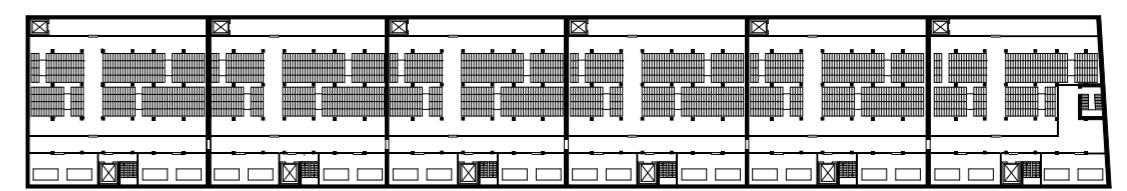
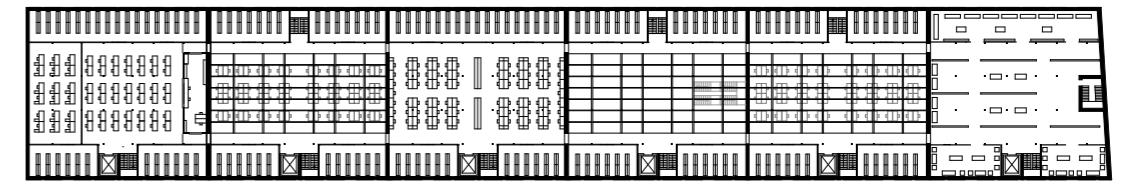
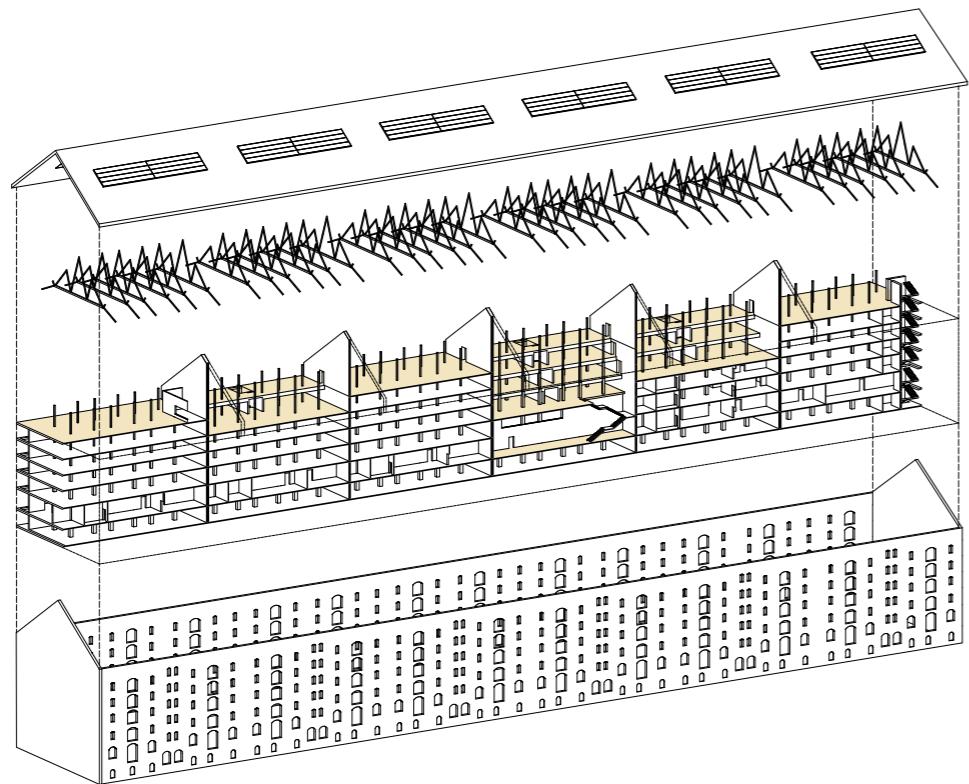
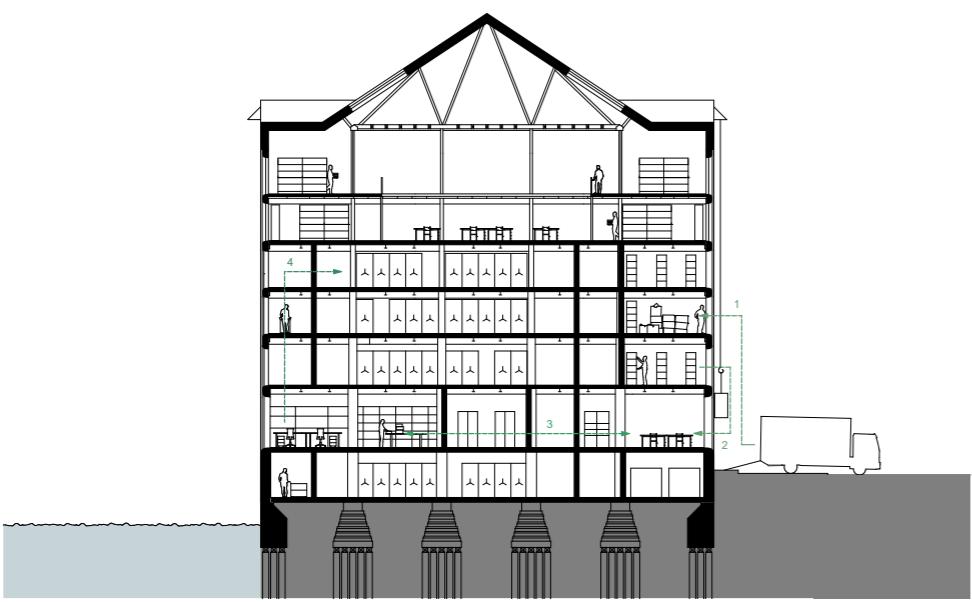
PRODUCING + CONSUMING

MANUFACTURING









0 5 10m

1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

GARAGE AT LIMMATPLATZ ZÜRICH

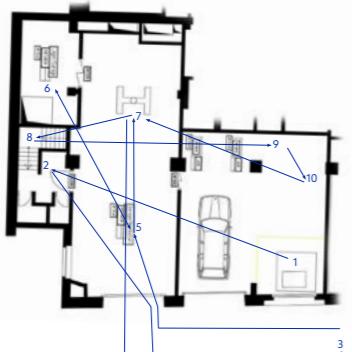
Nuria Estevez

HEADQUARTERS

PRODUCING + CONSUMING

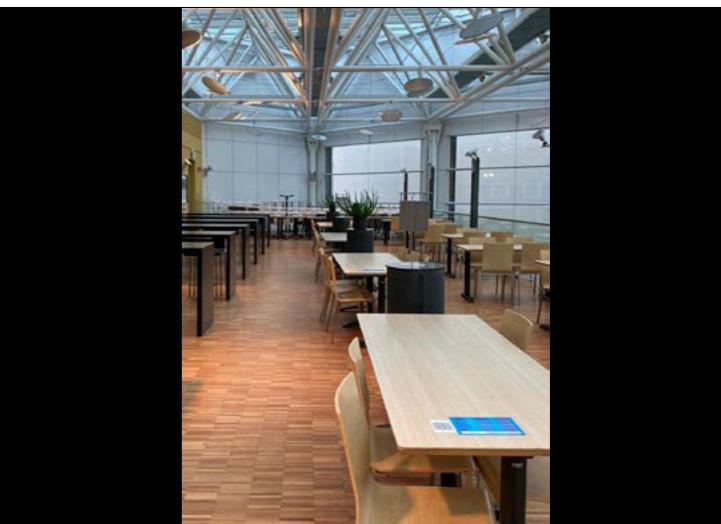
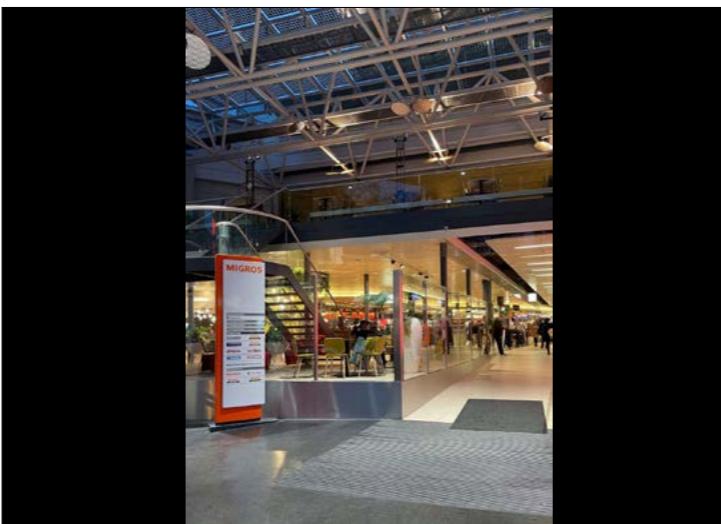
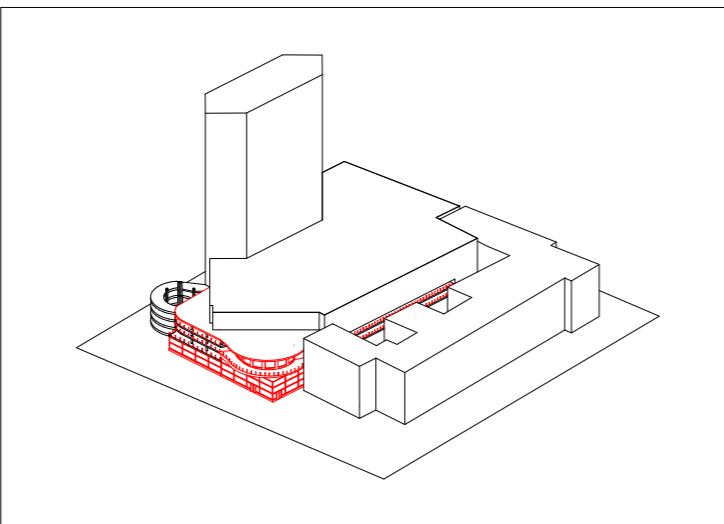
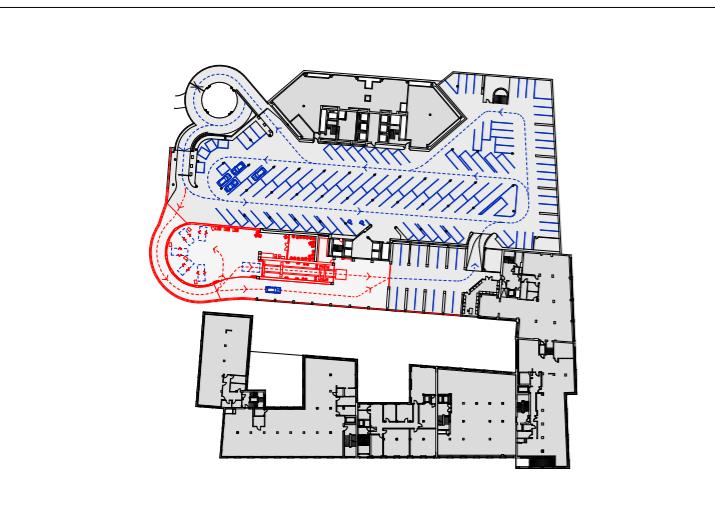
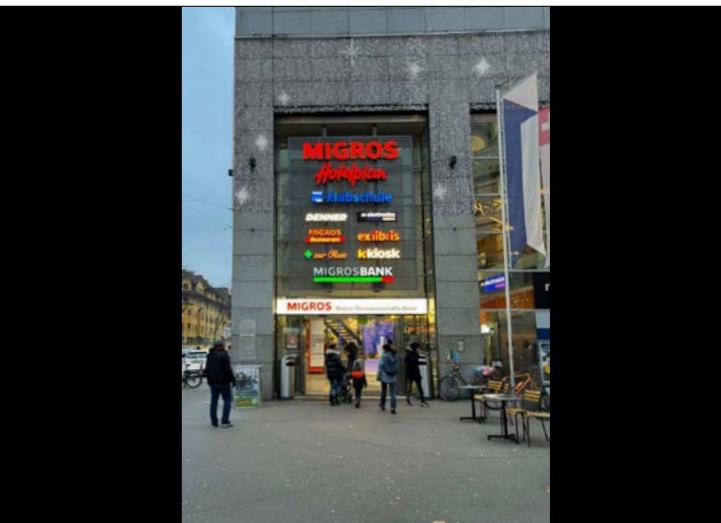
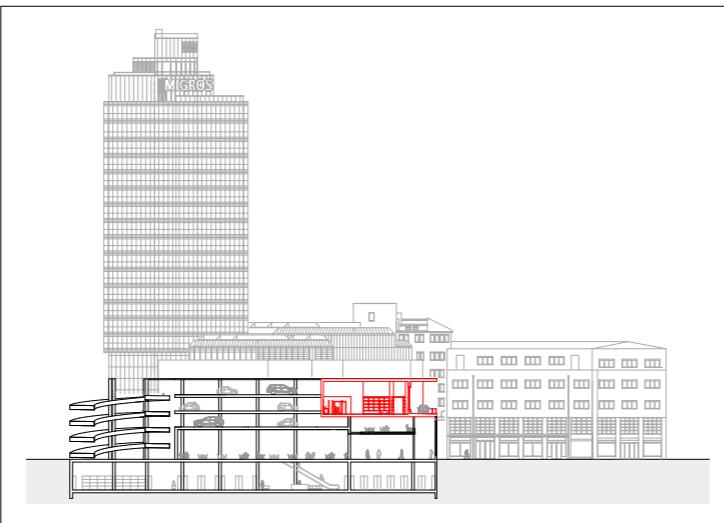
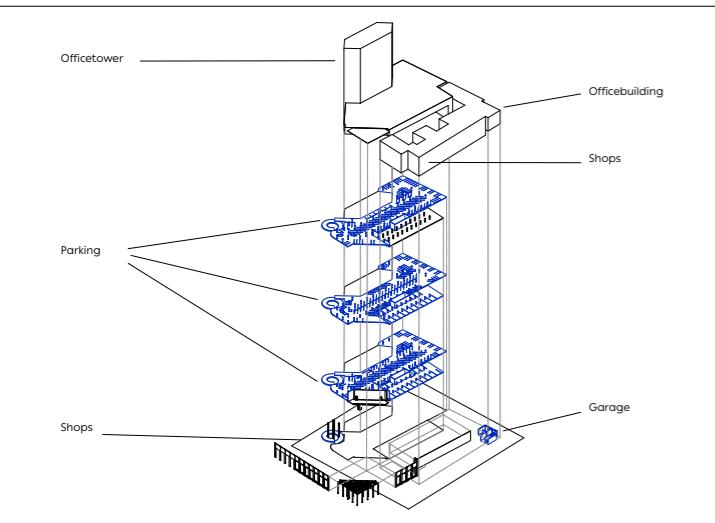
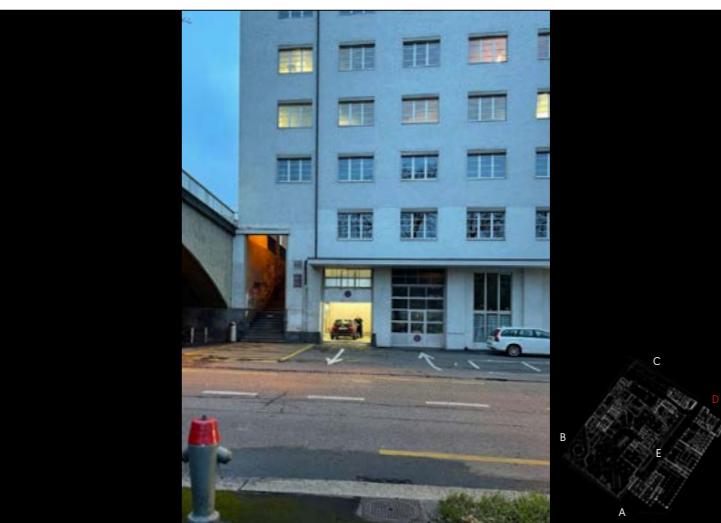
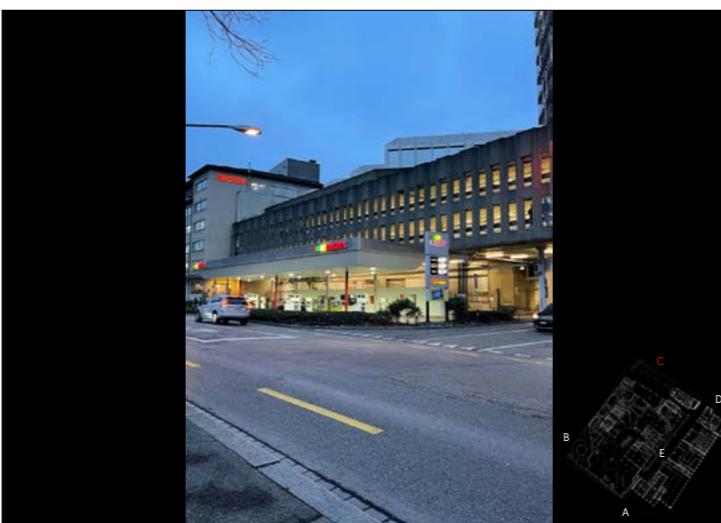
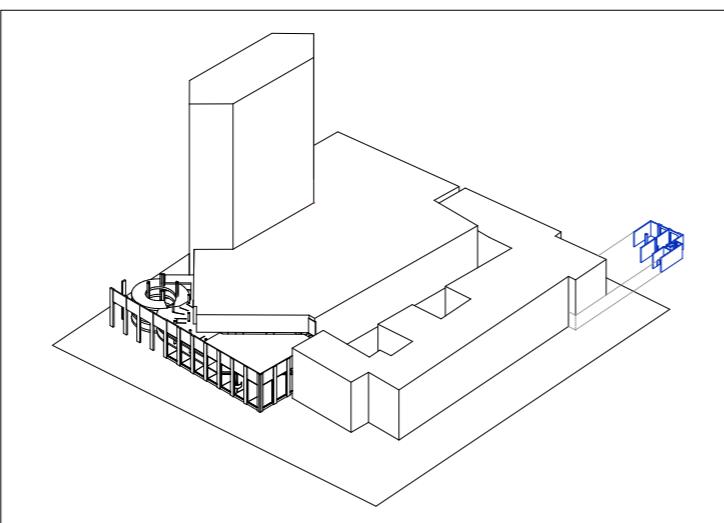
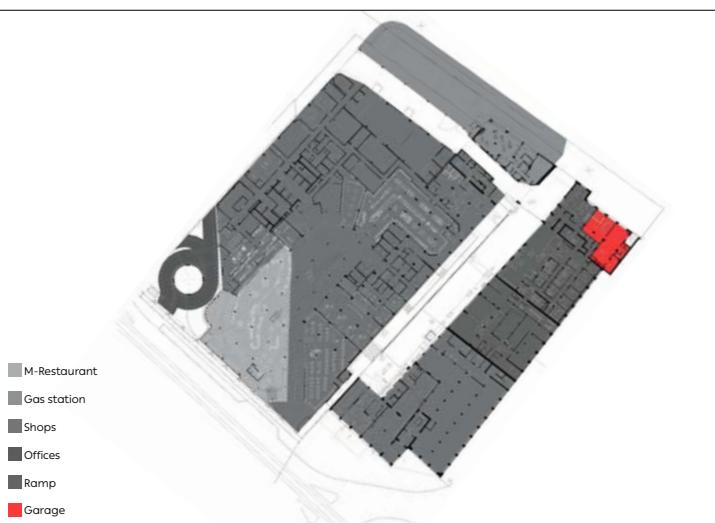
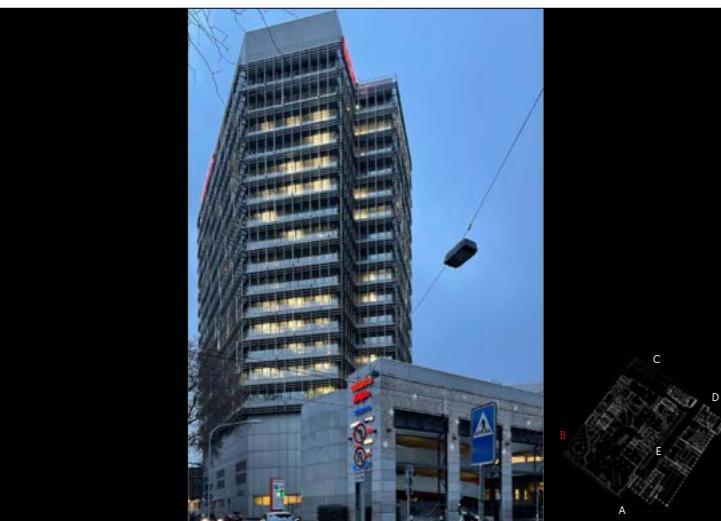
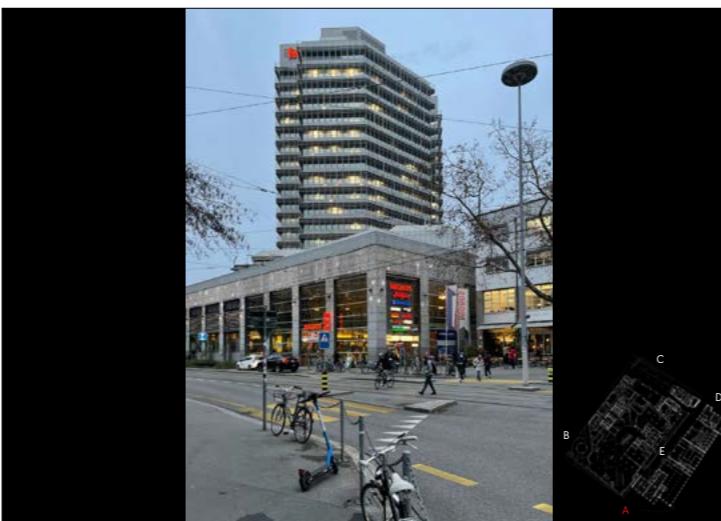
MANUFACTURING

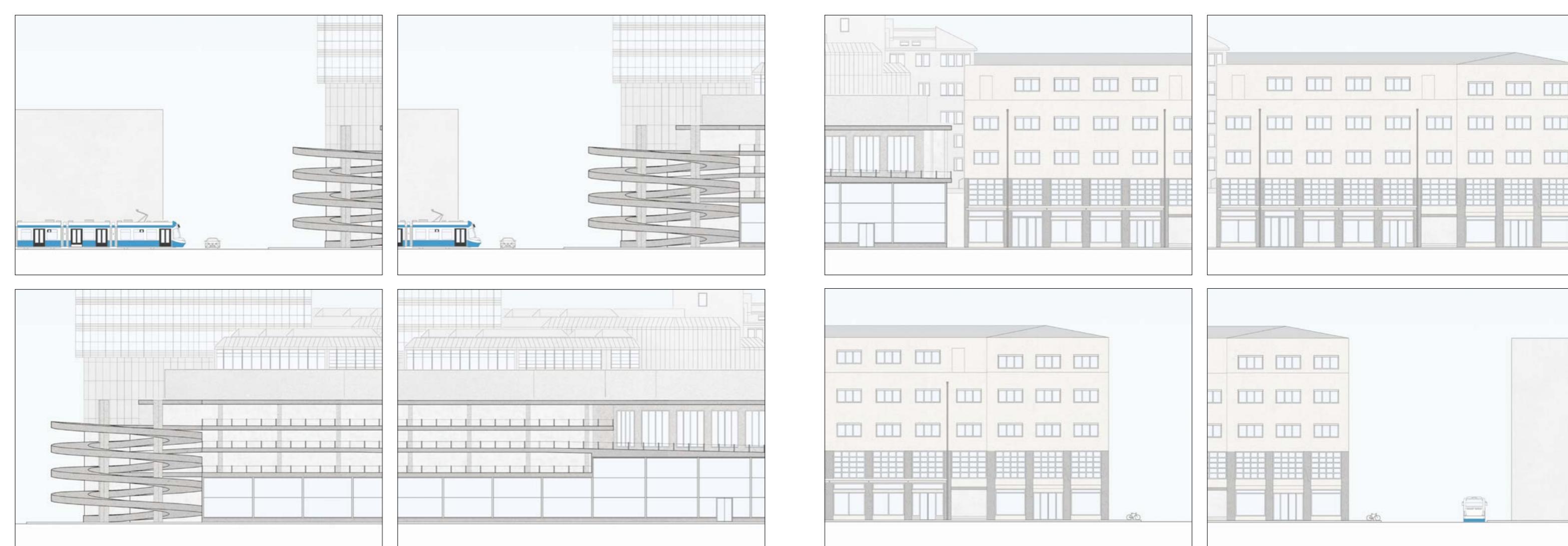


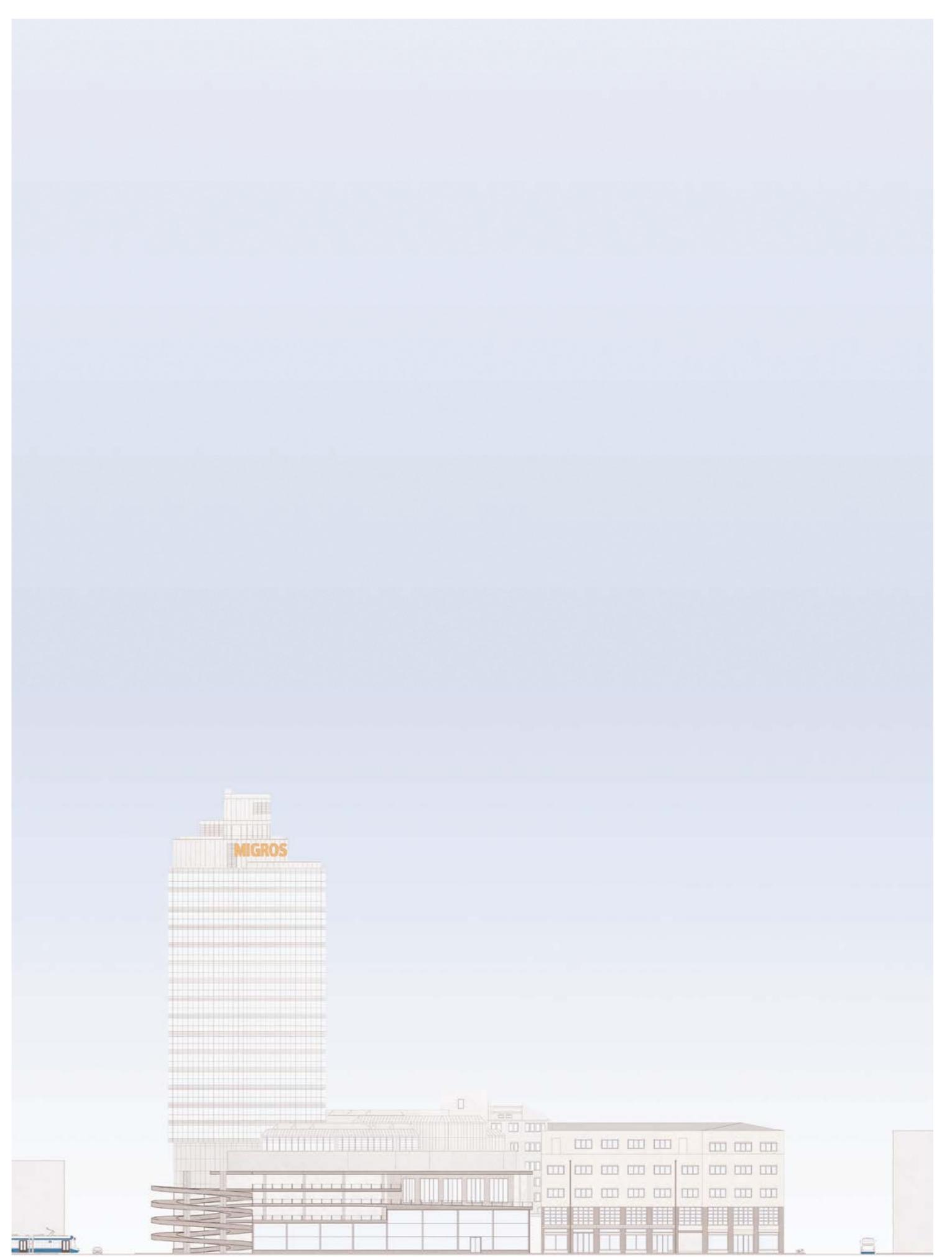
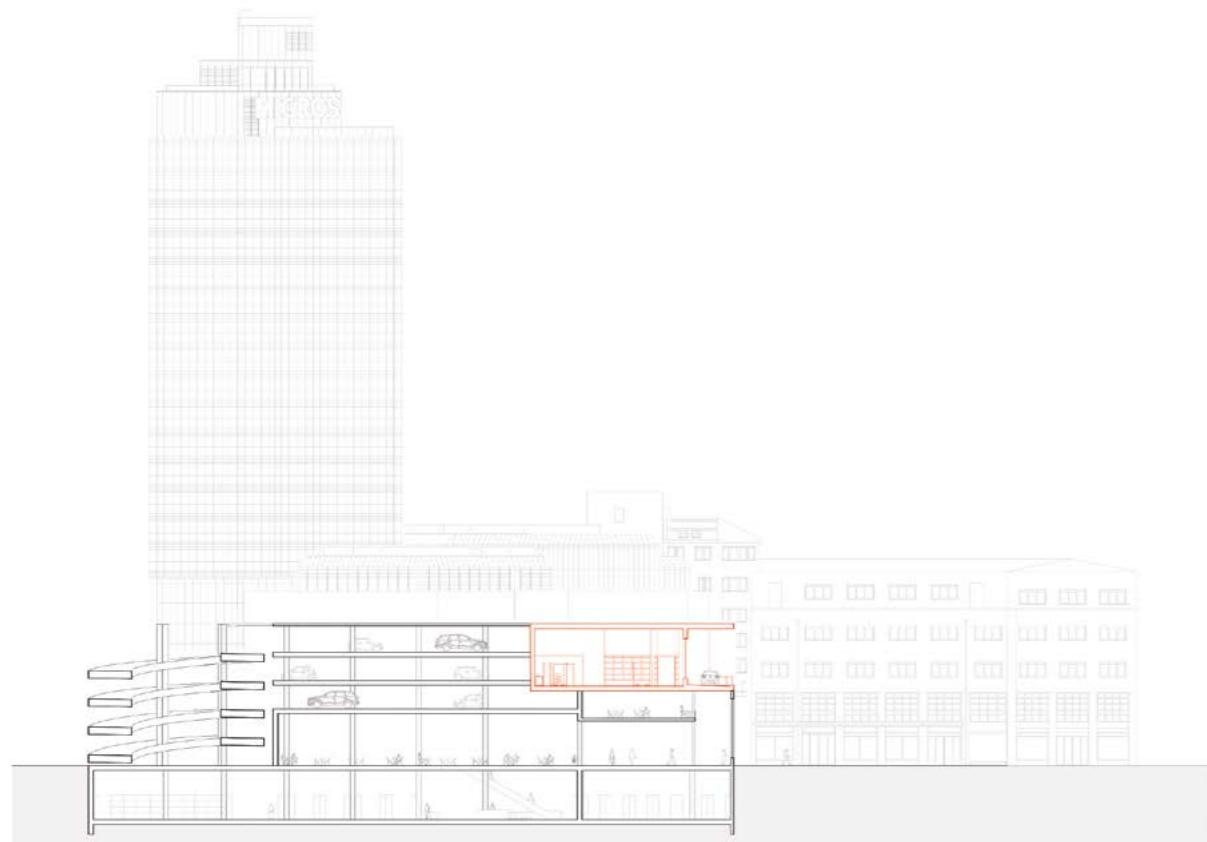
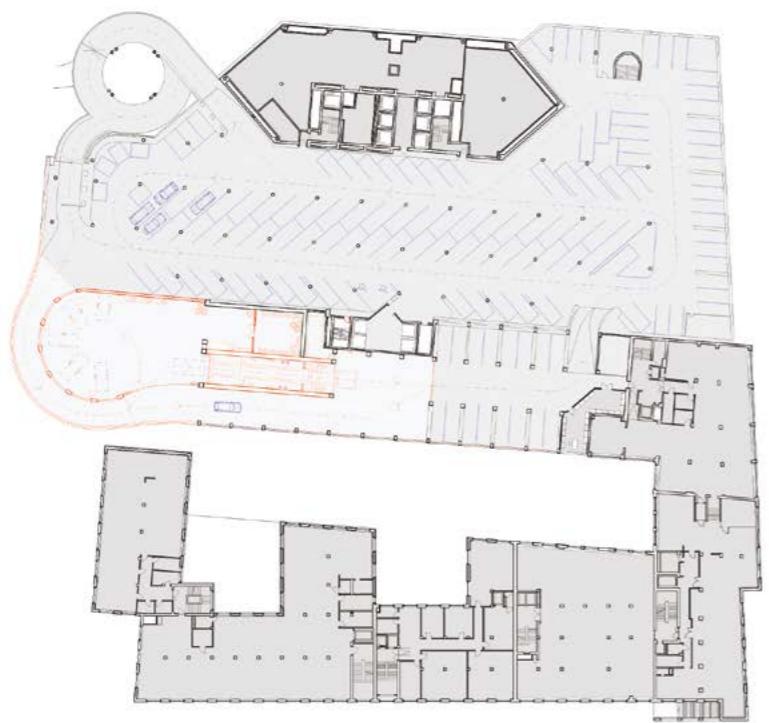


Legend:

- 1 Office
- 2 Wardrobe
- 3 Parking
- 4 Gas station
- 5 Washing point
- 6 Oil warehouse
- 7 Train platform
- 8 Wheel warehouse
- 9 Wheel lift
- 10 Balancing machine
- 11 Washing line







1 P

2-9 P

10-99 P

100-999 P

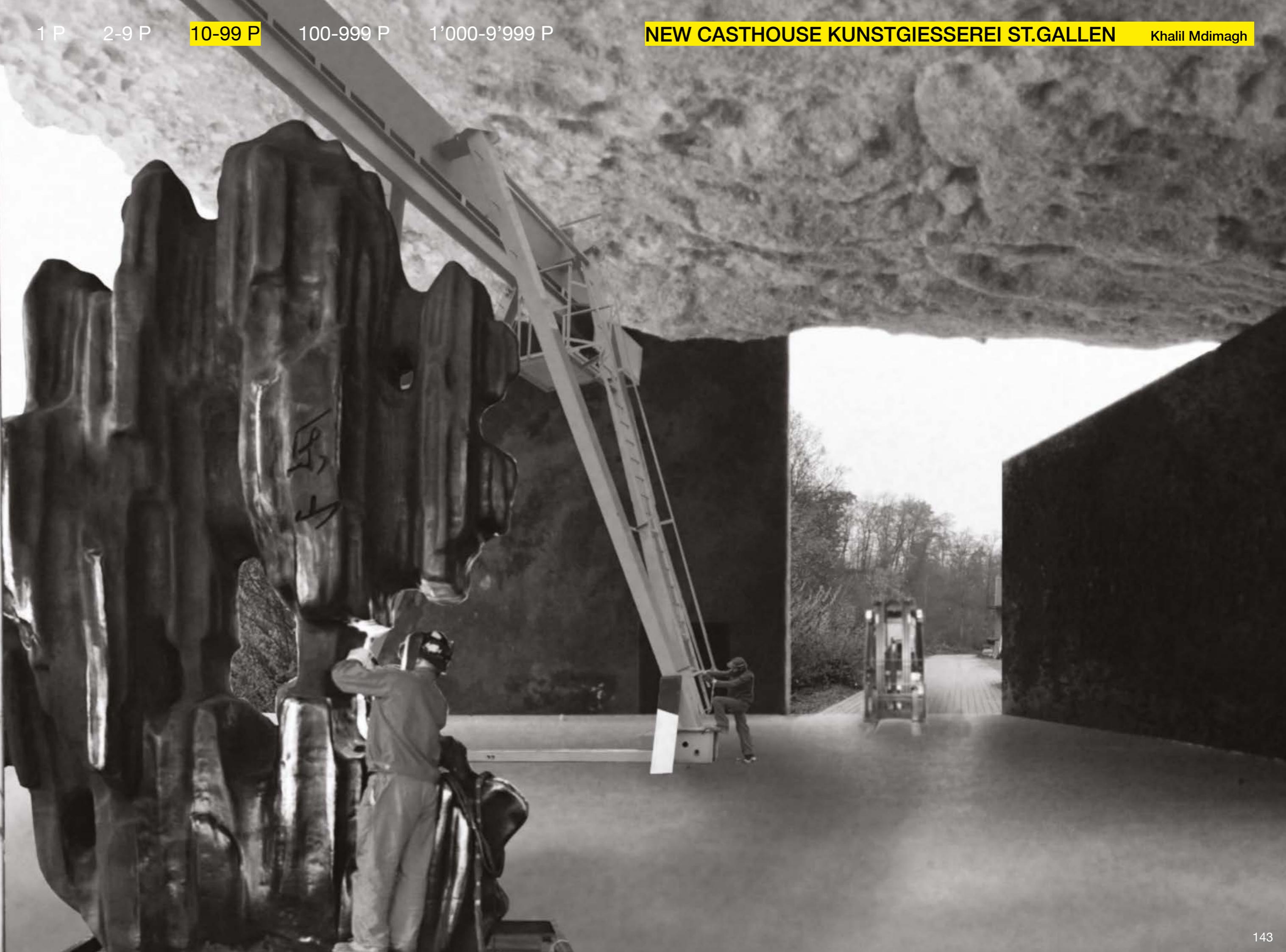
1'000-9'999 P

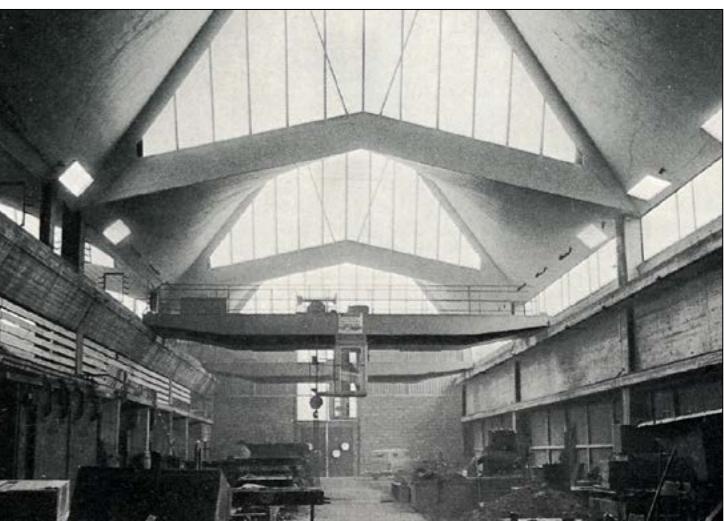
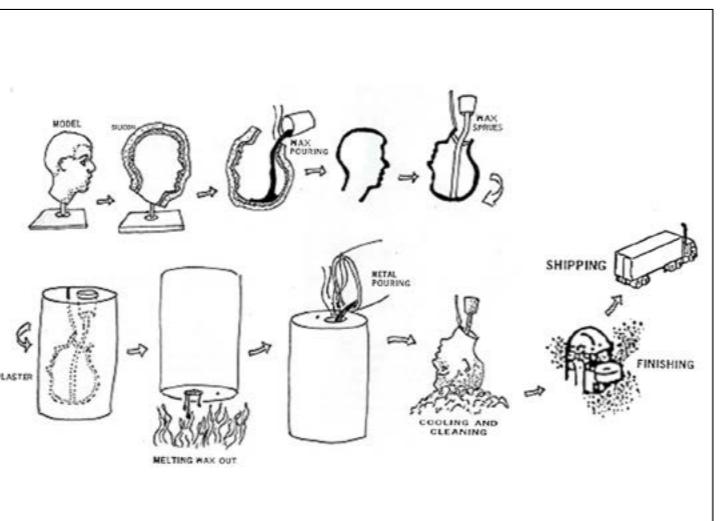
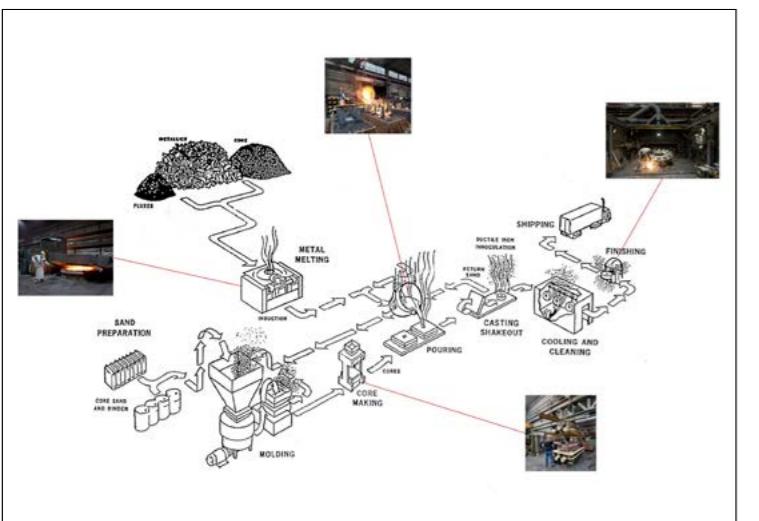
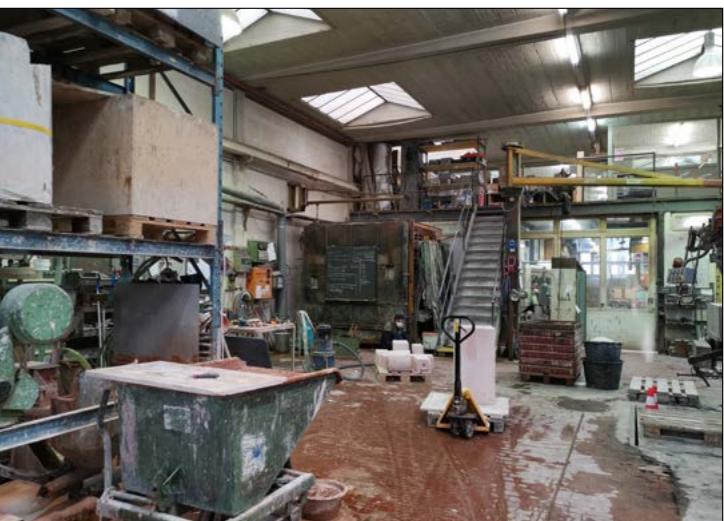
NEW CASTHOUSE KUNSTGIESEREI ST.GALLEN

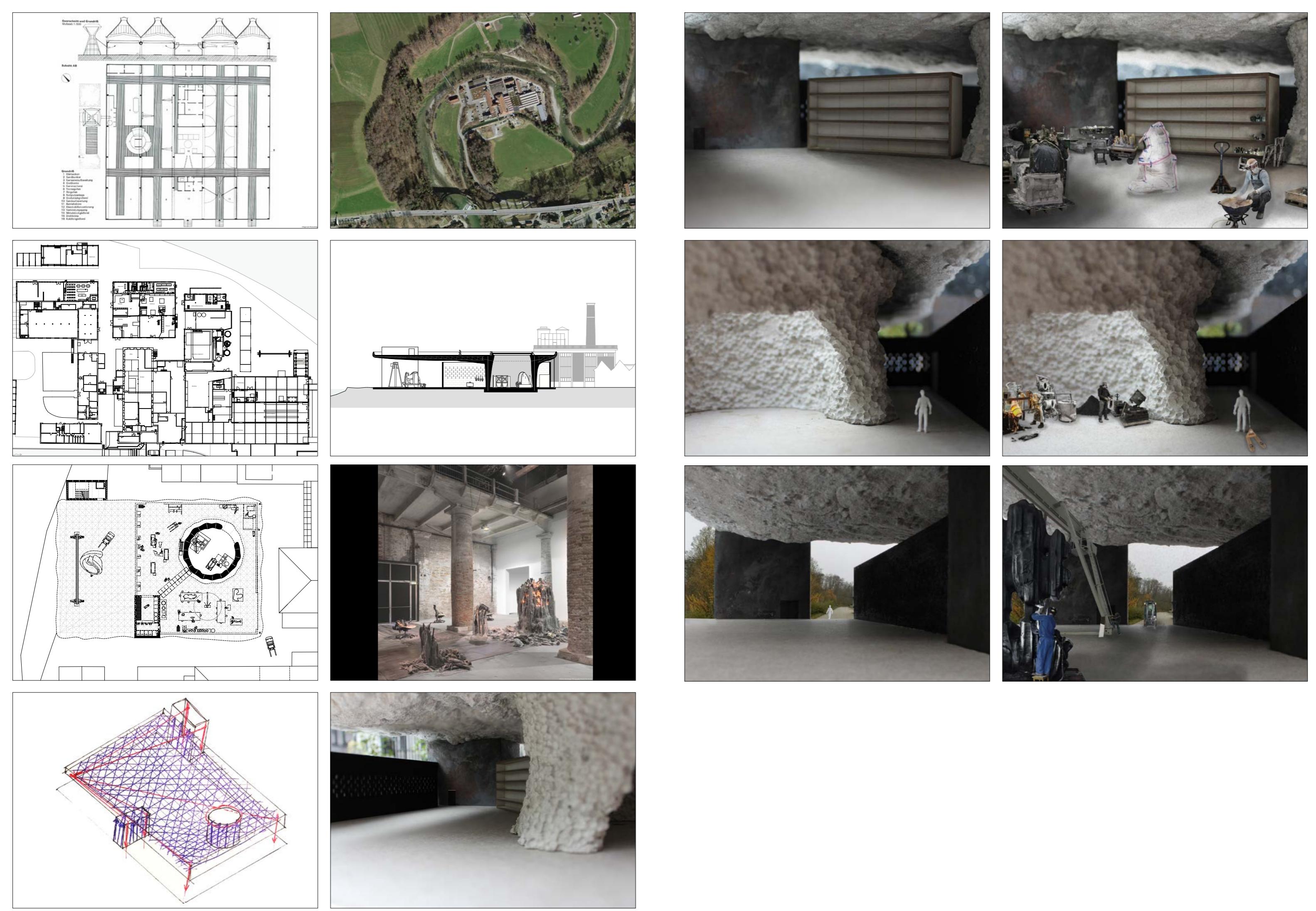
Khalil Mdimagh

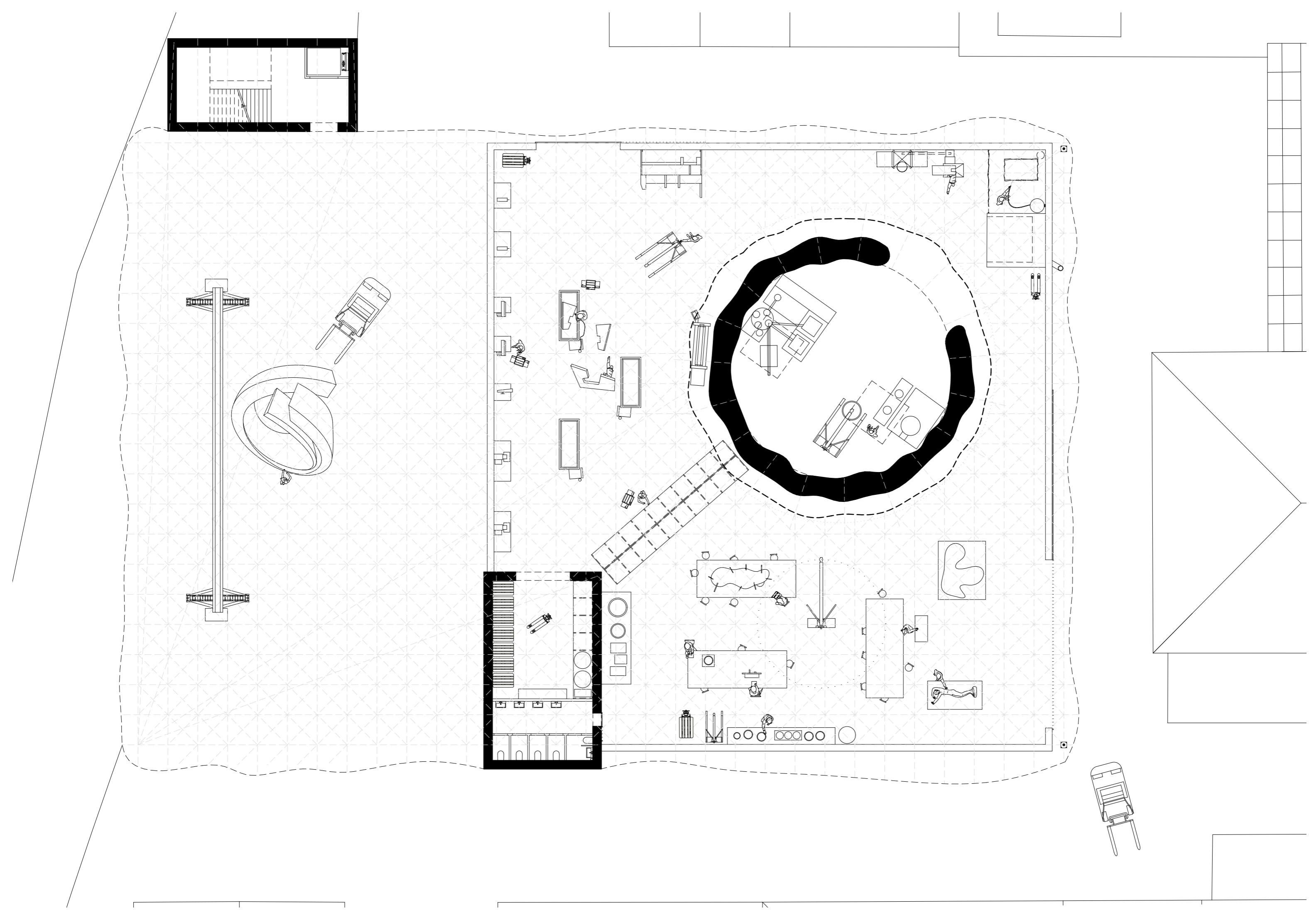
PRODUCING + JOUVILLE

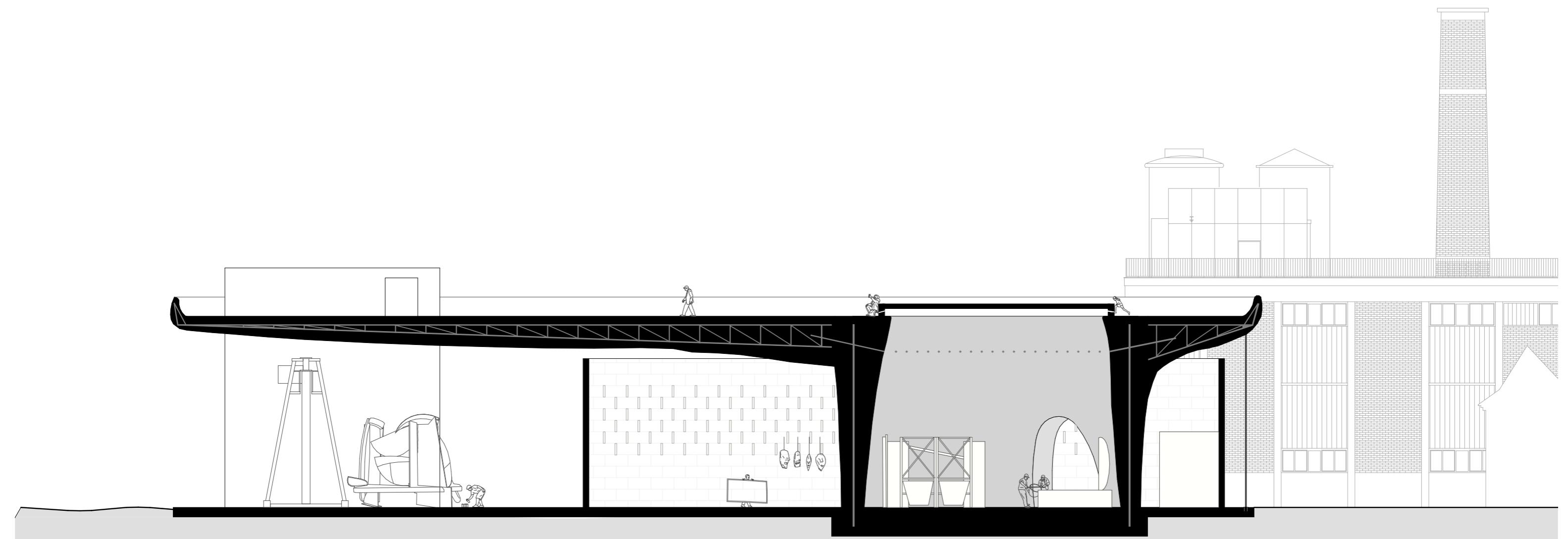
MANUFACTURING











HEADJARTERS

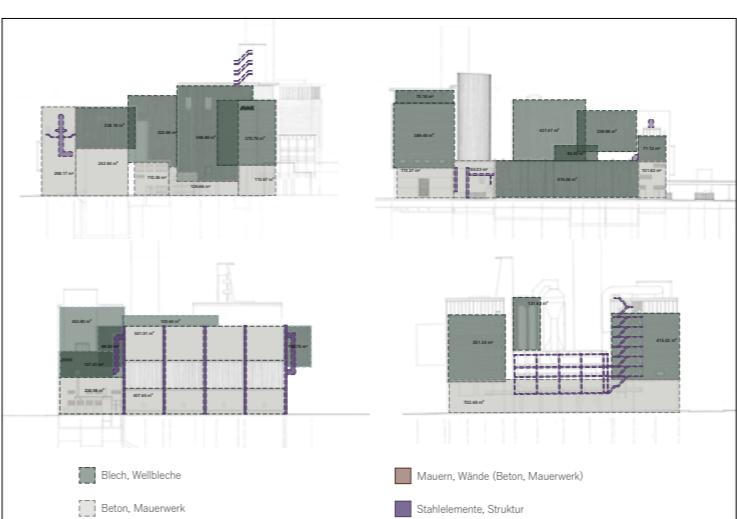
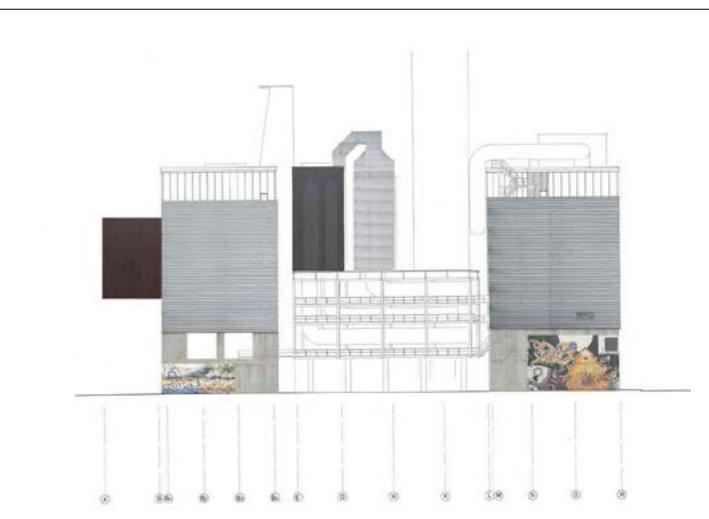
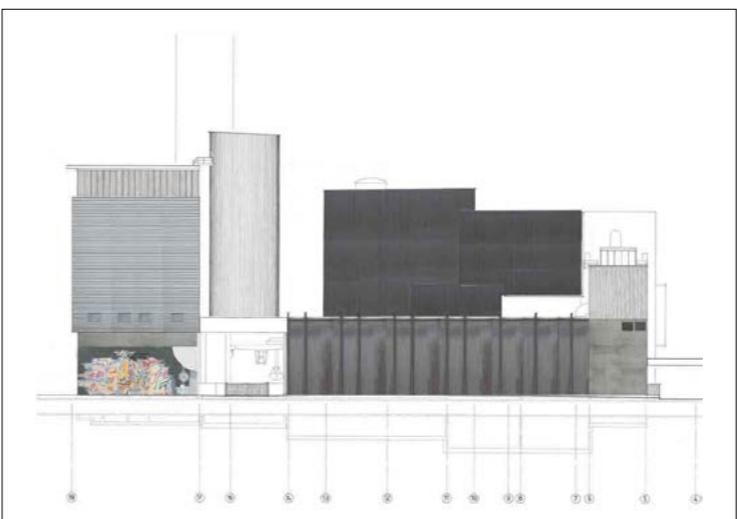
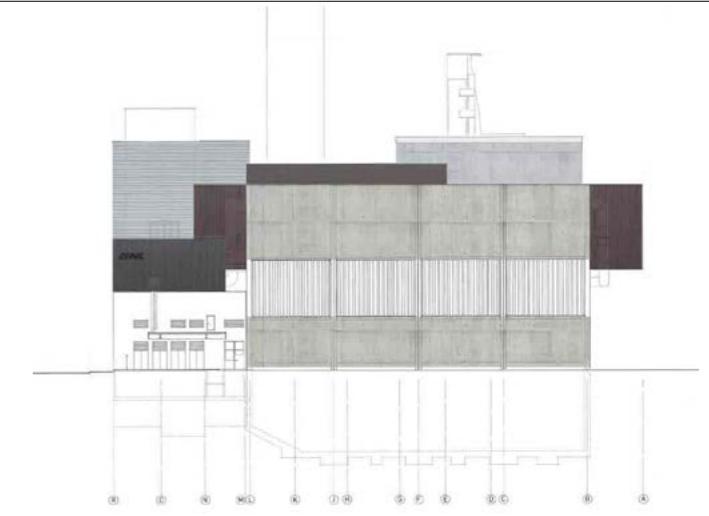
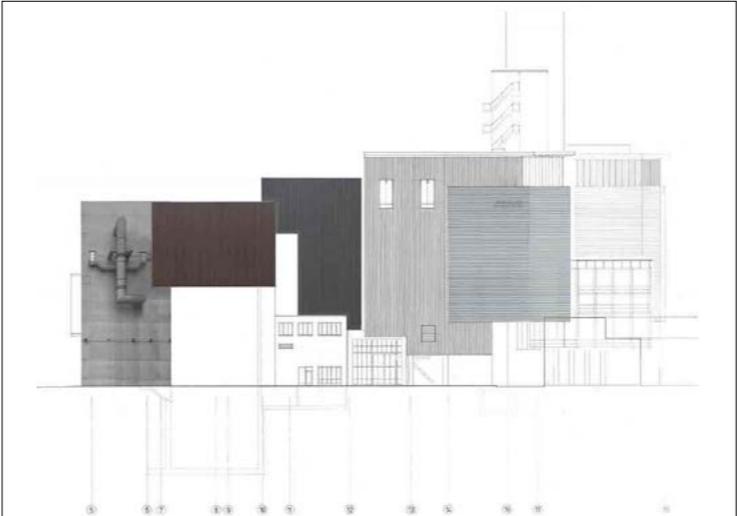
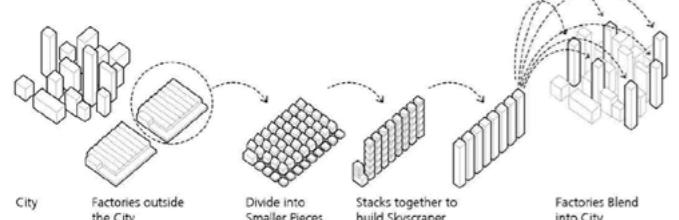
6

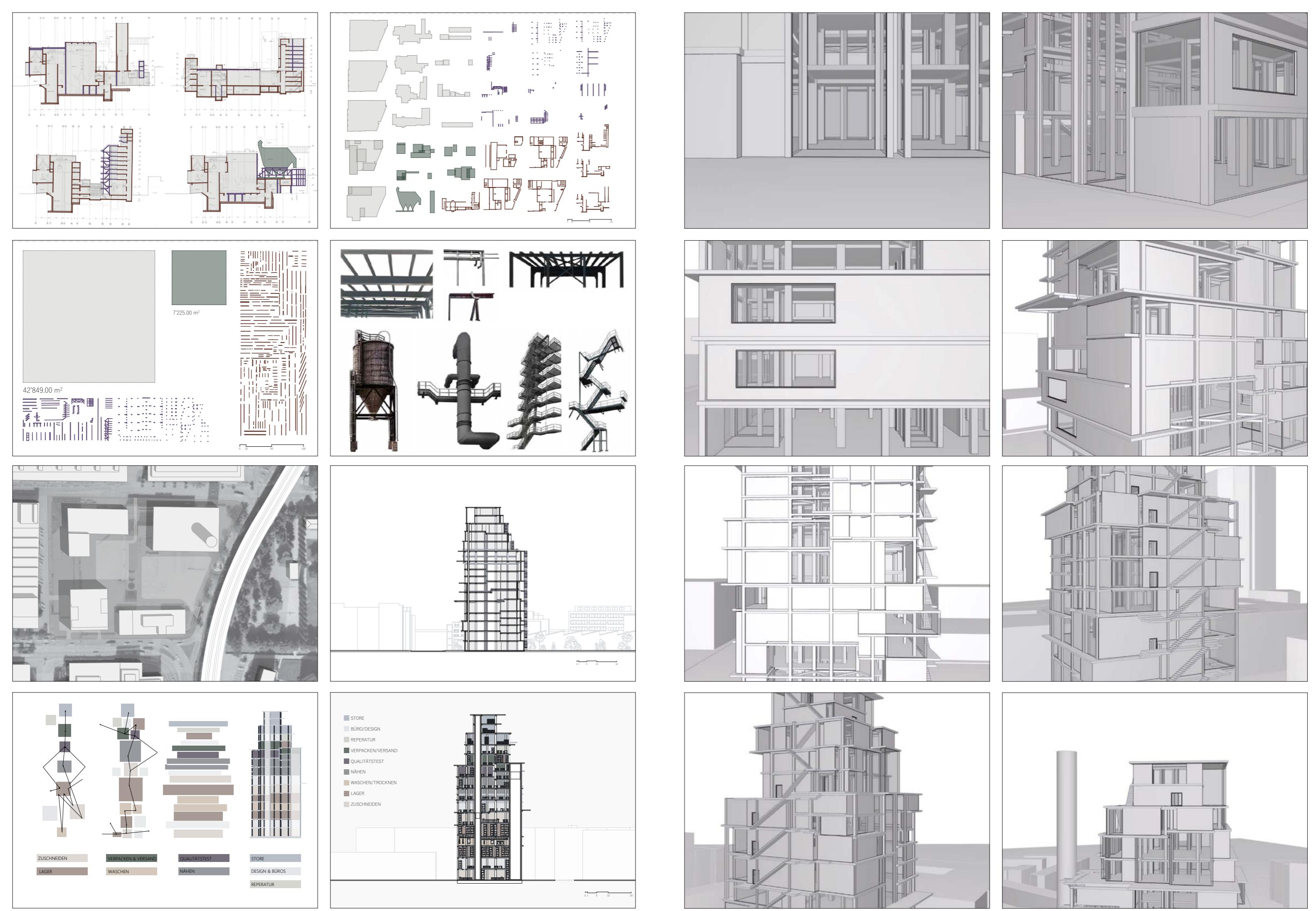
PRC DUCING + CO

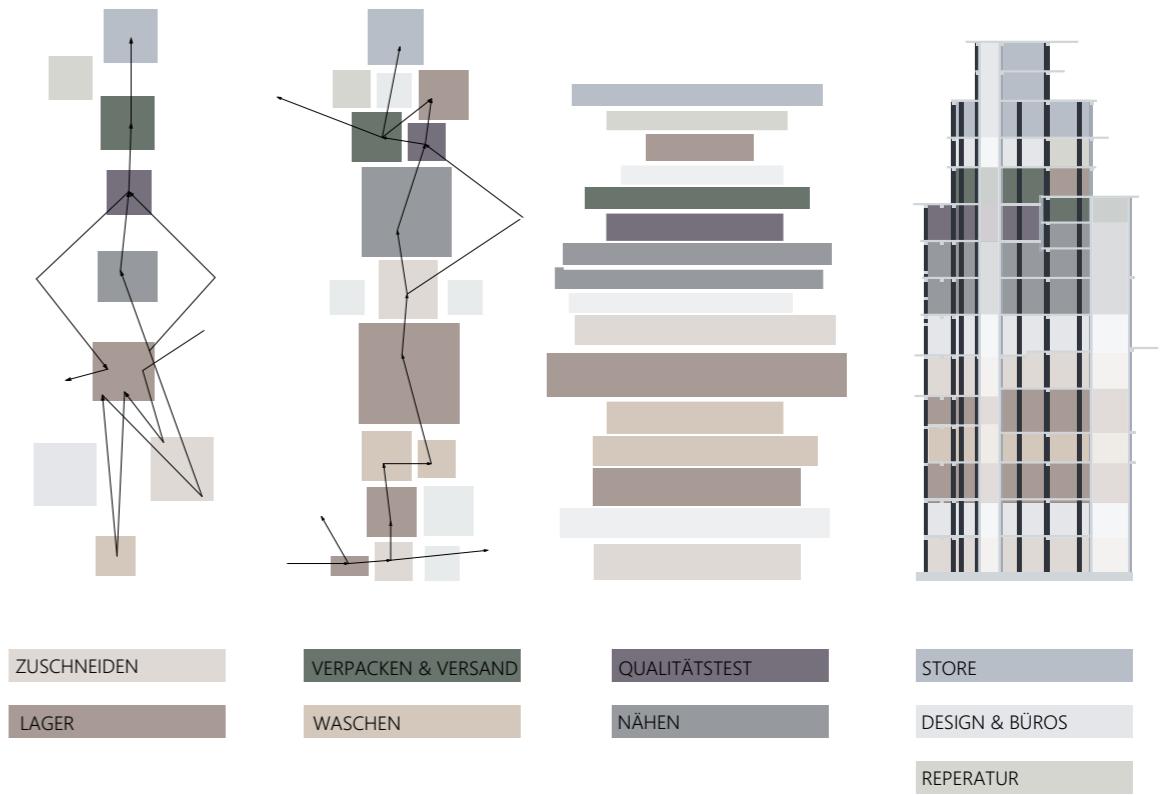
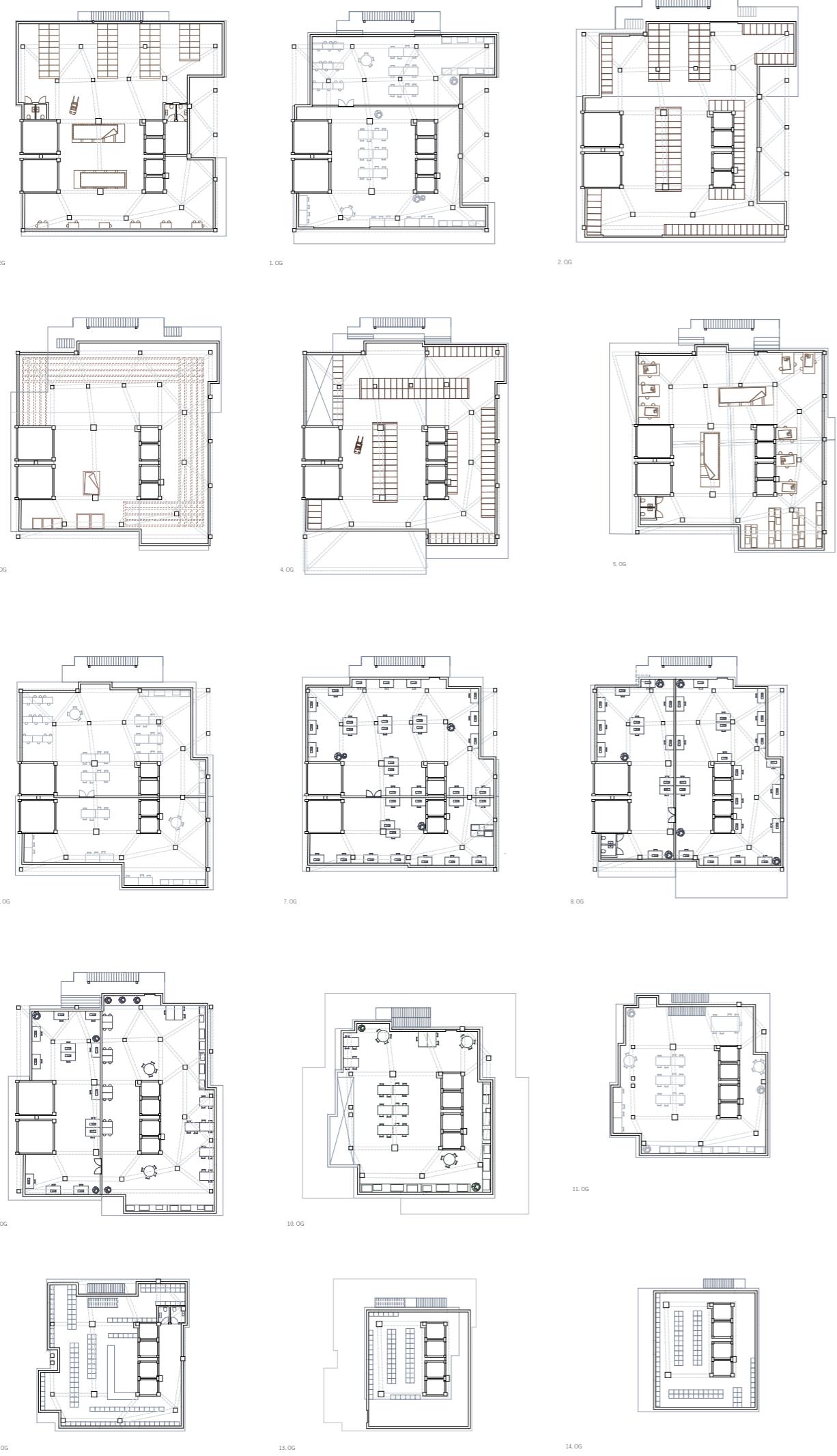
MANUFACTURING



VERTICAL FACTORY







1 P

2-9 P

10-99 P

100-999 P

1'000-9'999 P

KV-TERMINAL 35

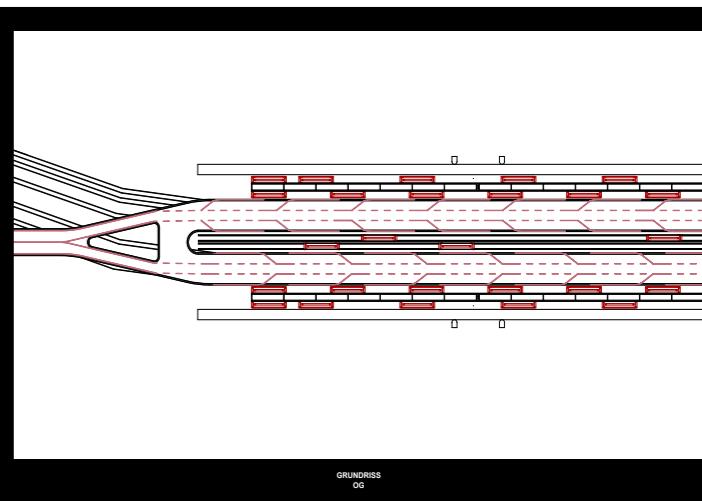
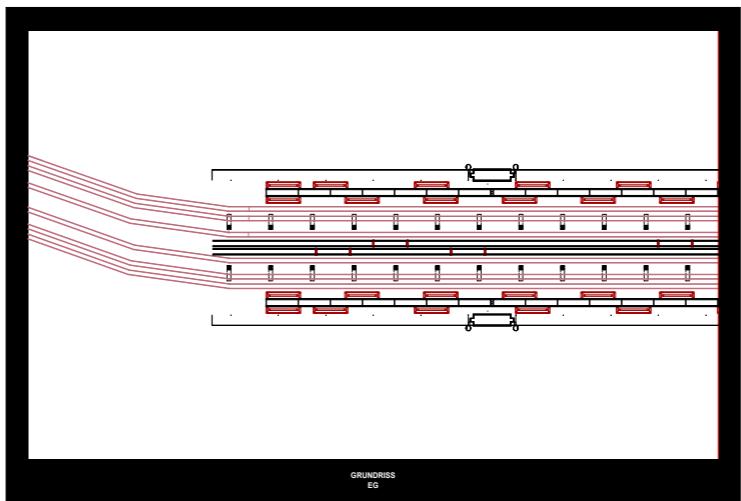
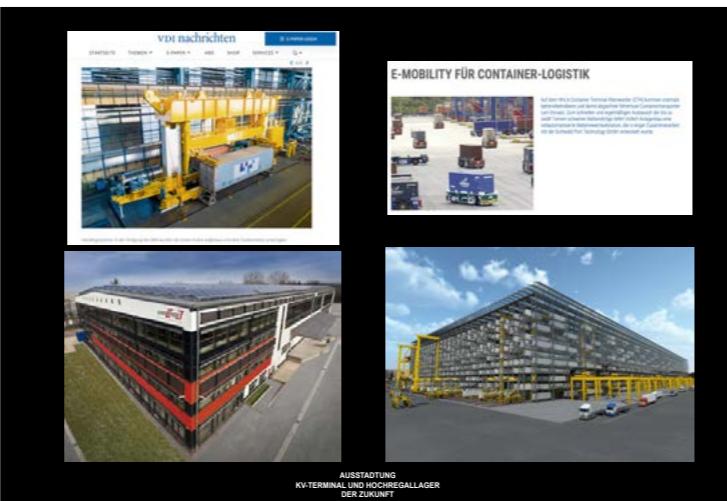
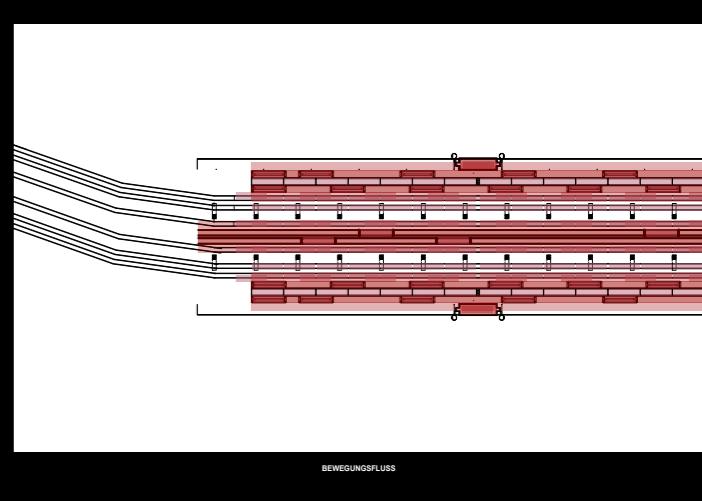
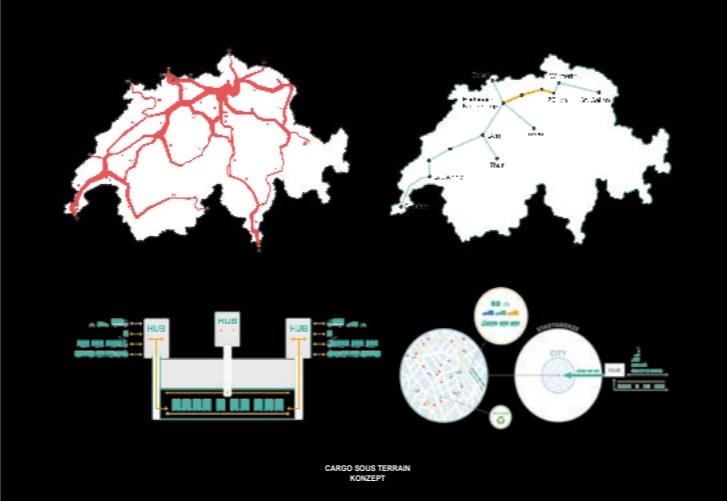
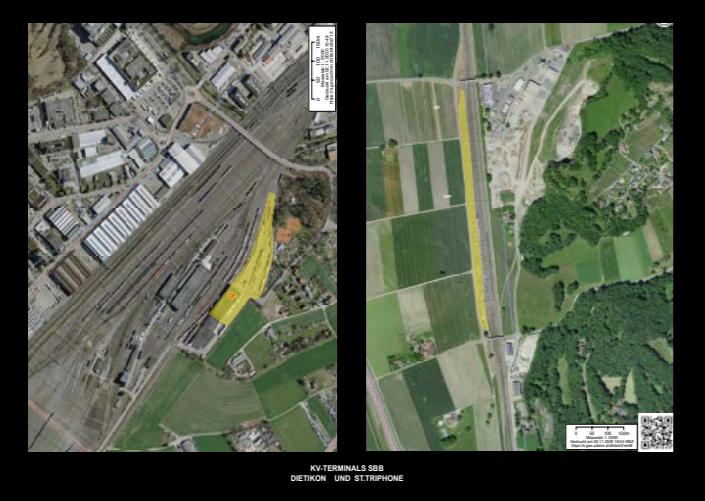
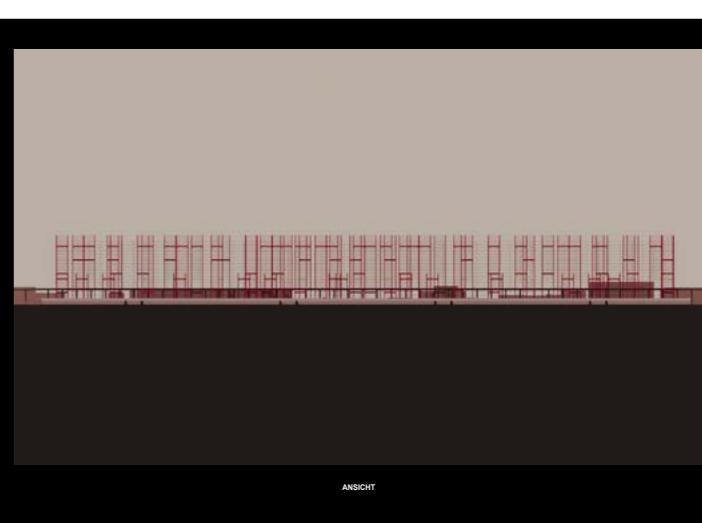
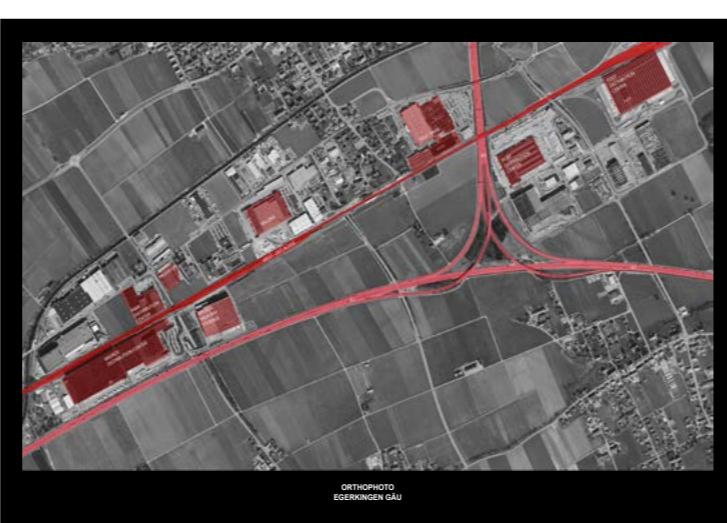
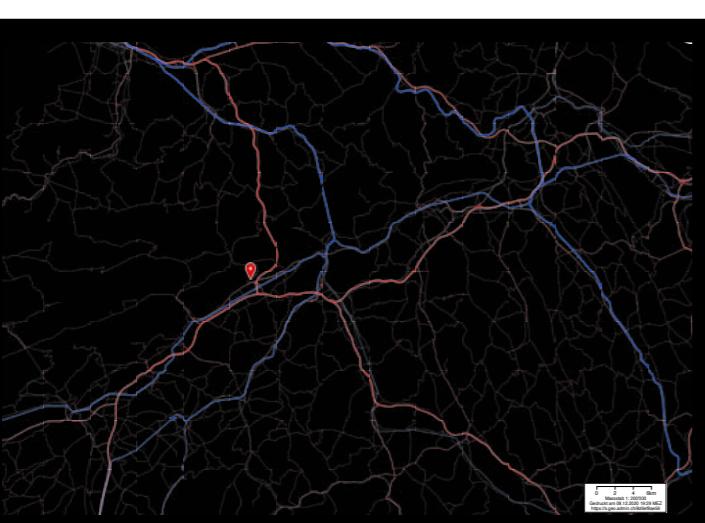
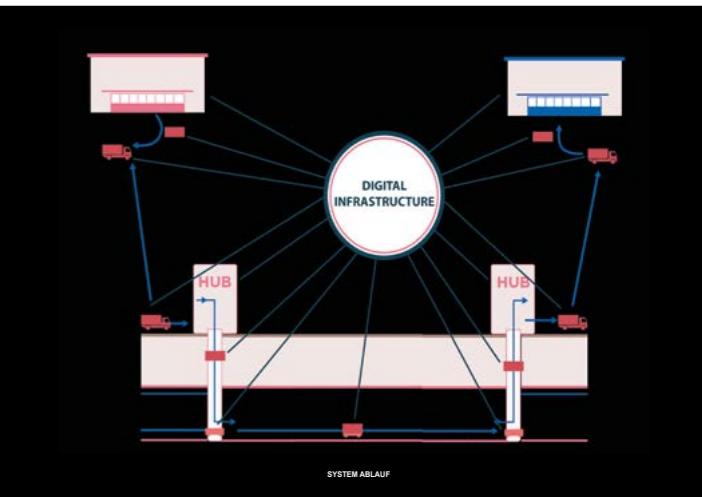
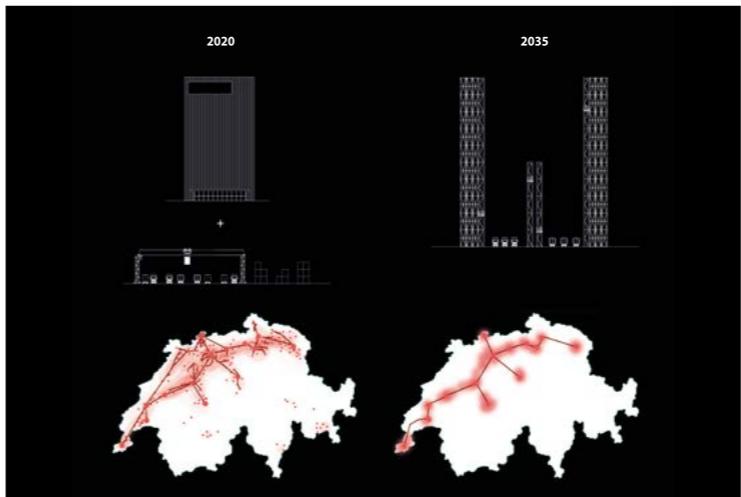
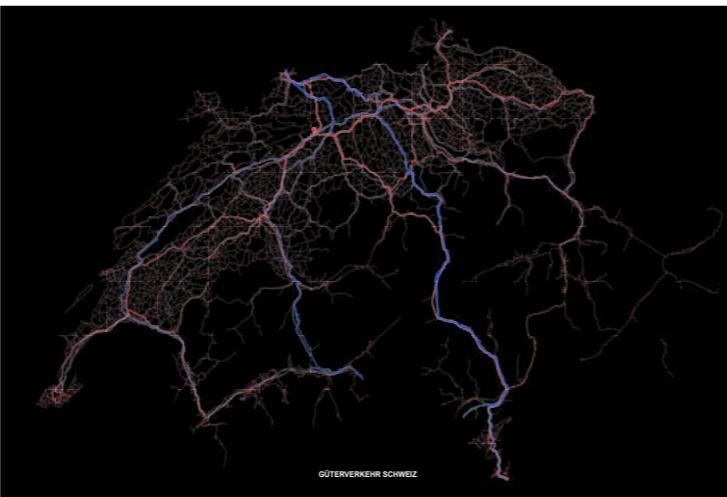
Janine Henz

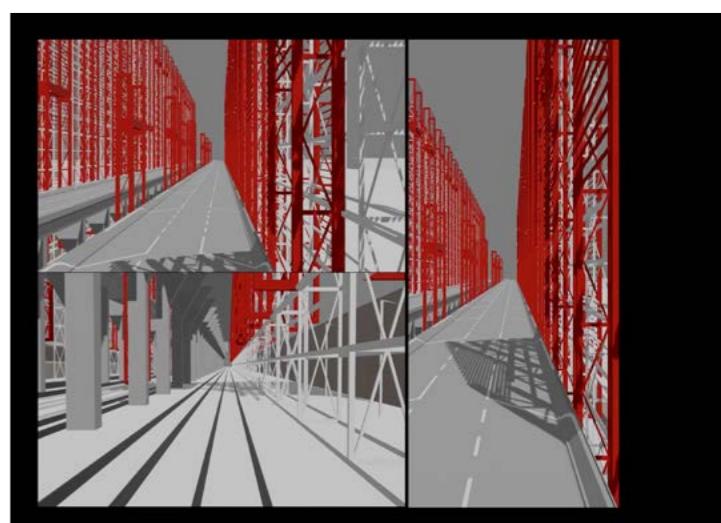
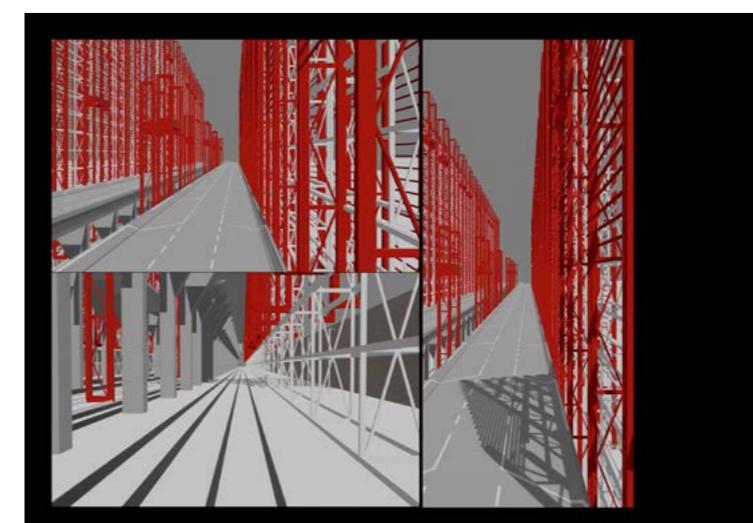
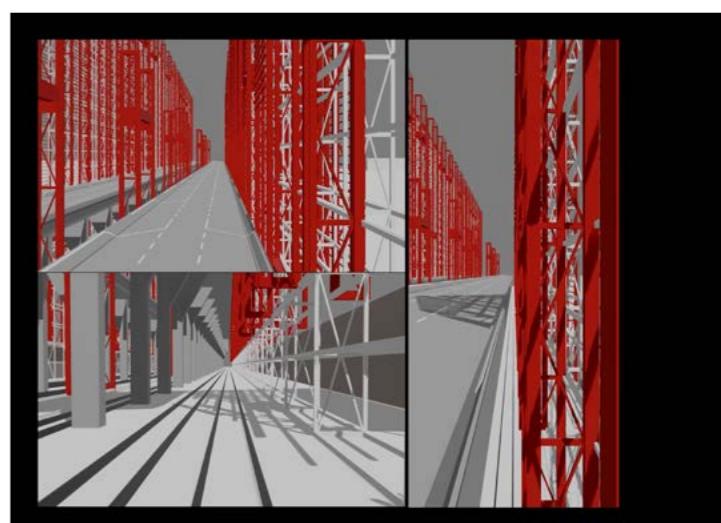
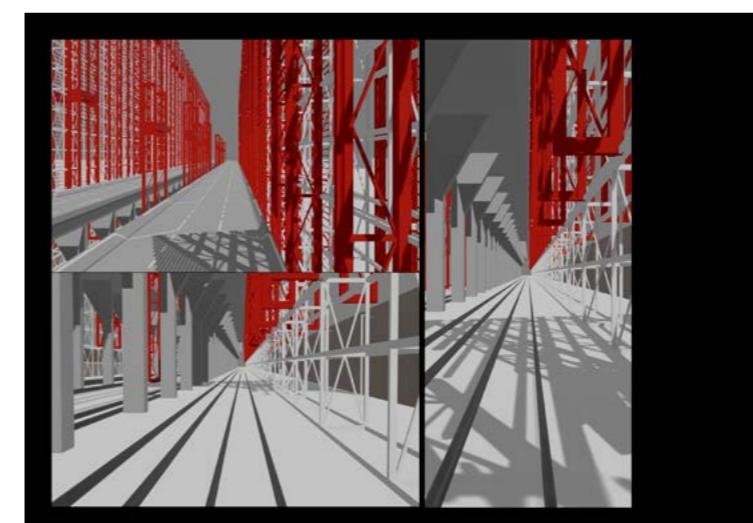
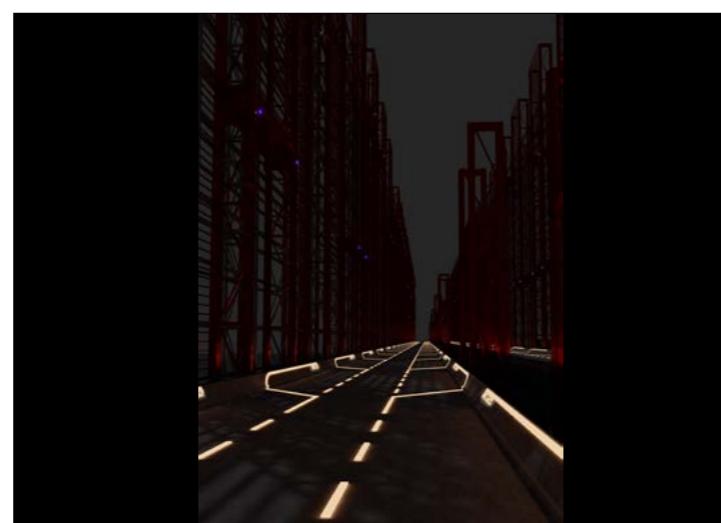
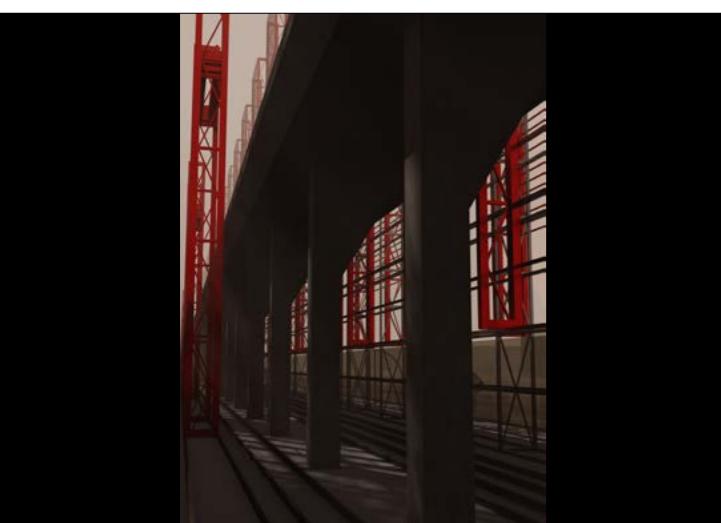
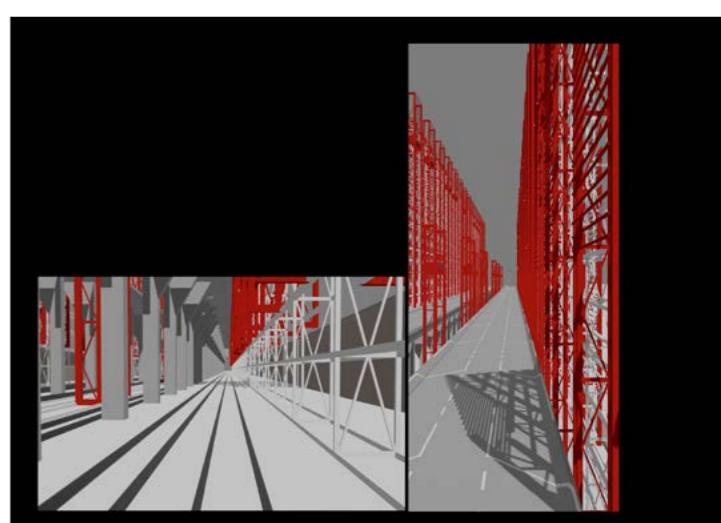
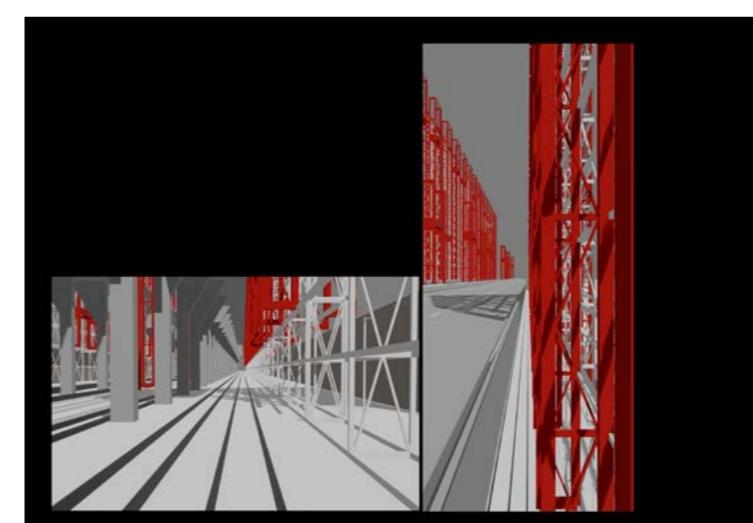
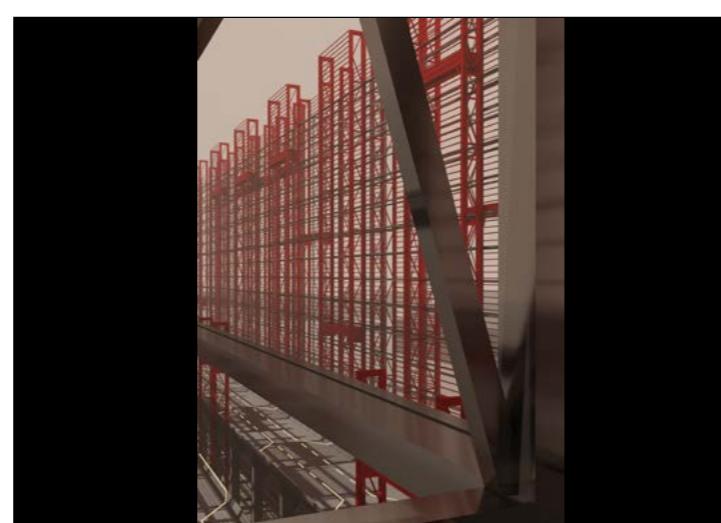
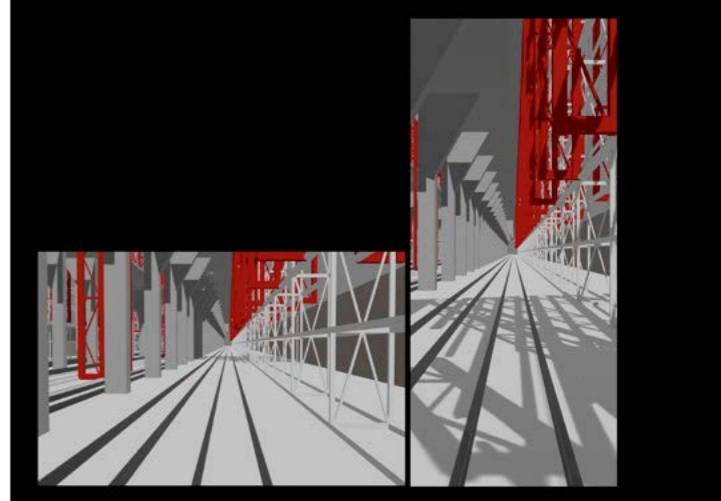
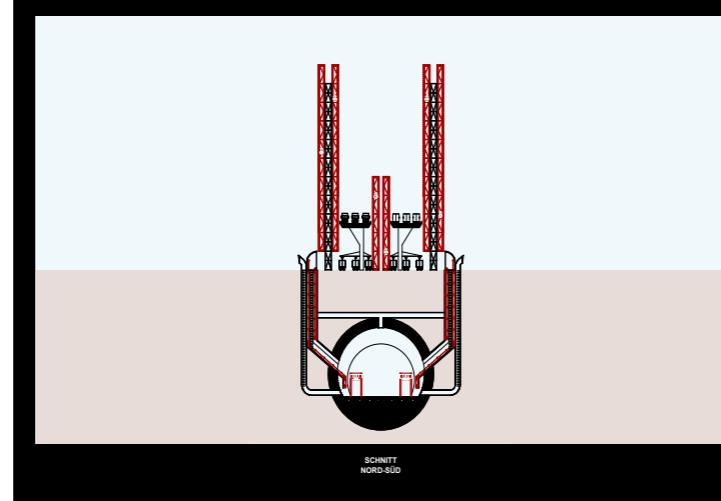
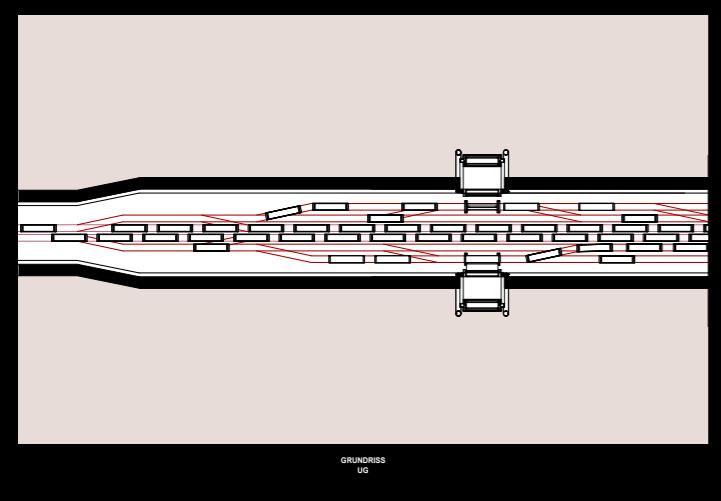
HEADQUARTERS

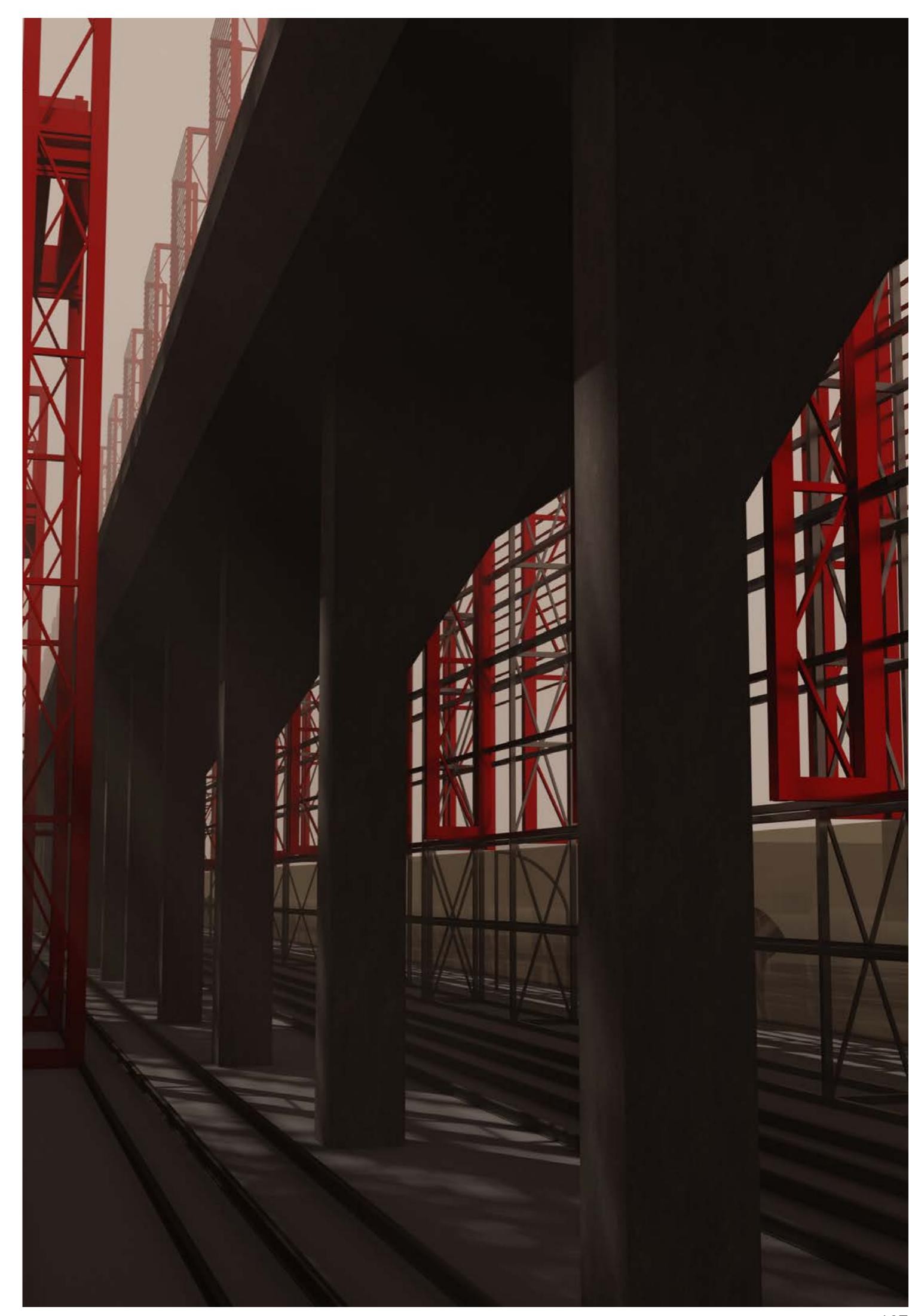
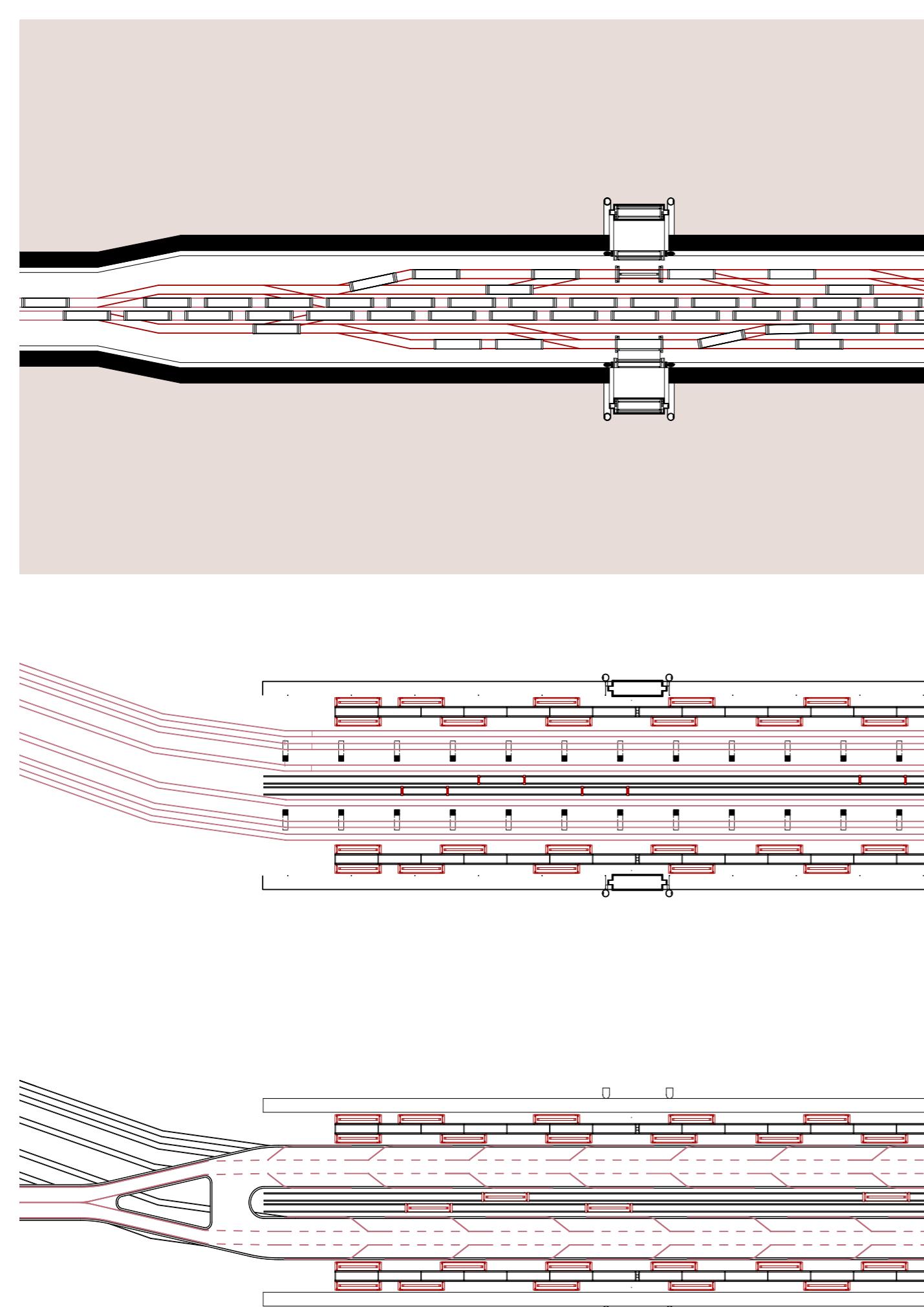
PRODUCING + CONSUMING

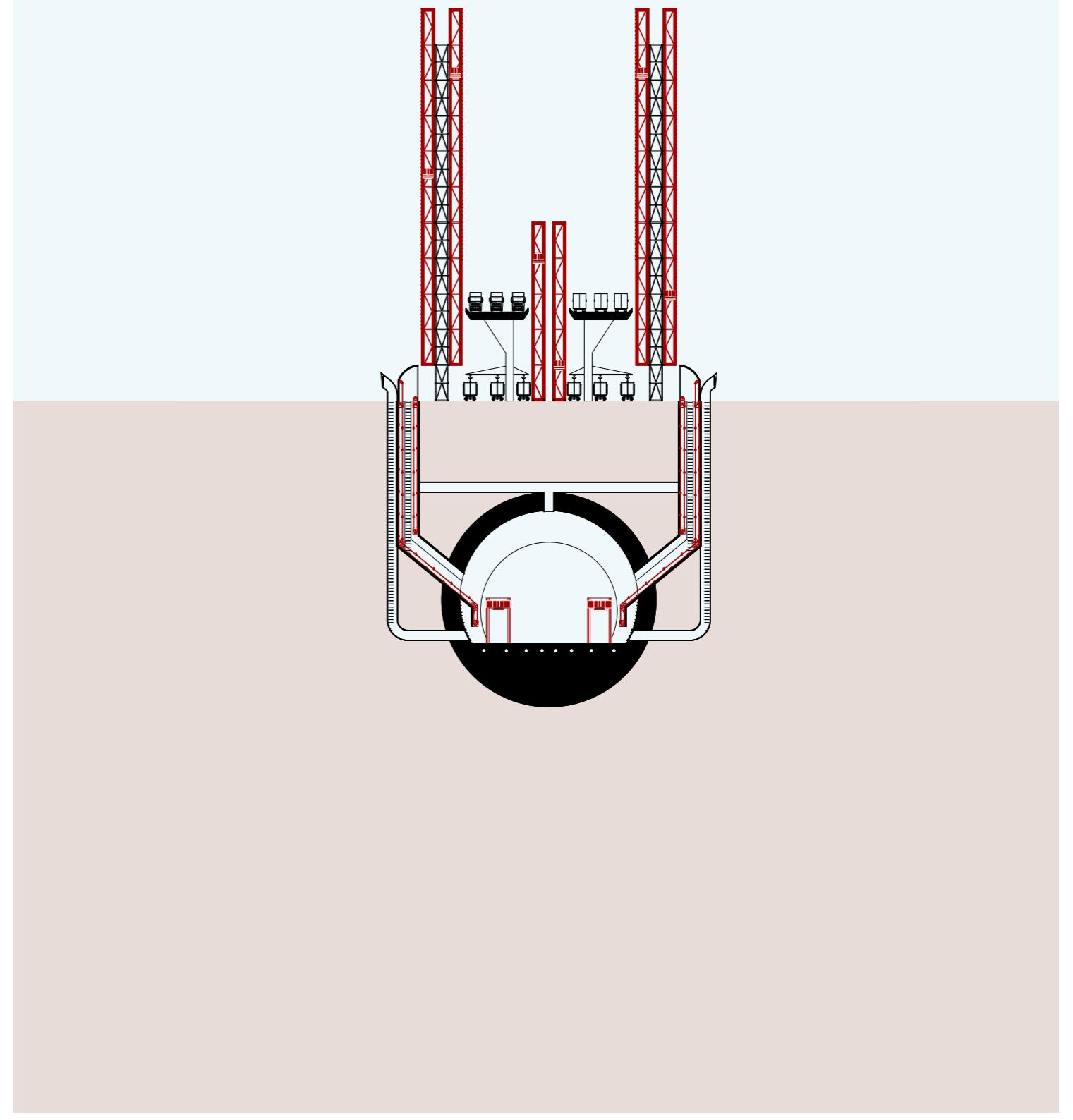
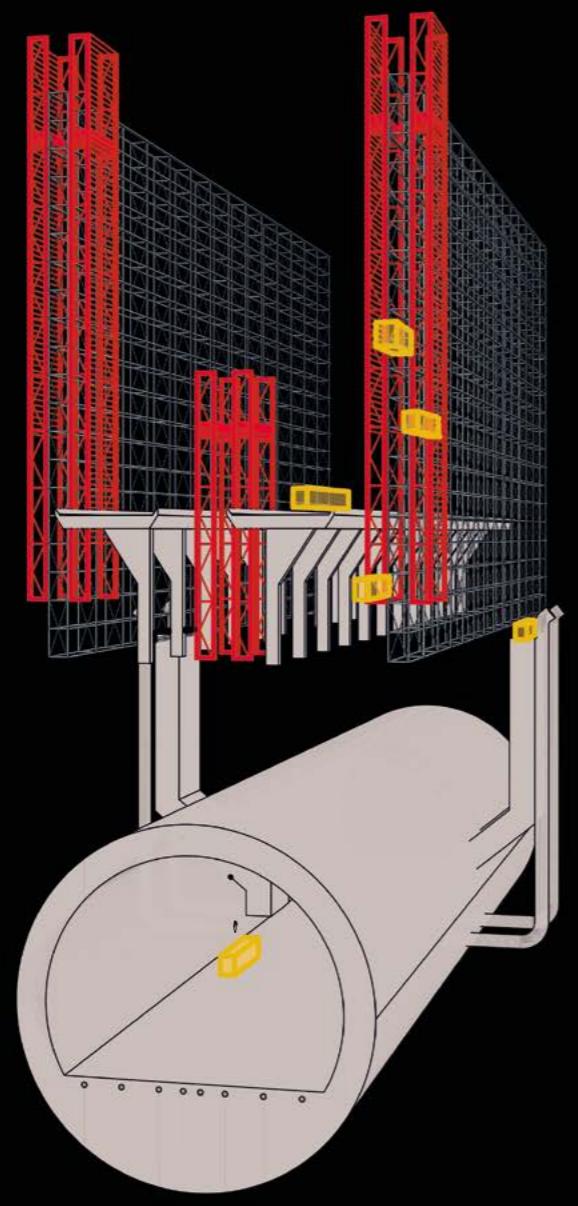
MANUFACTURING





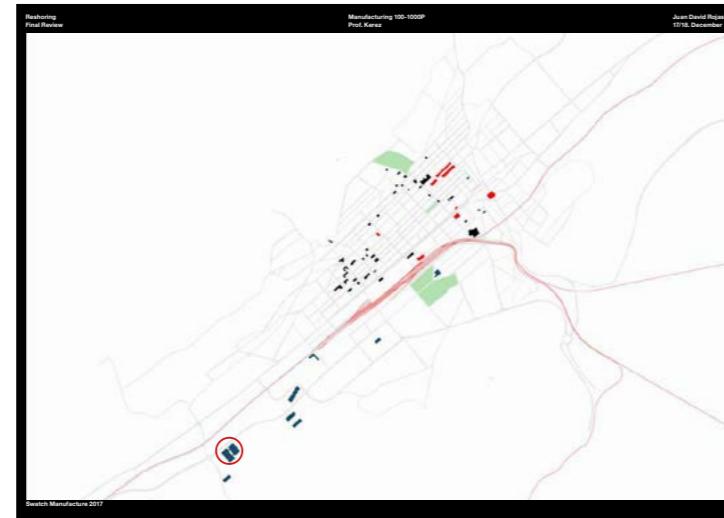
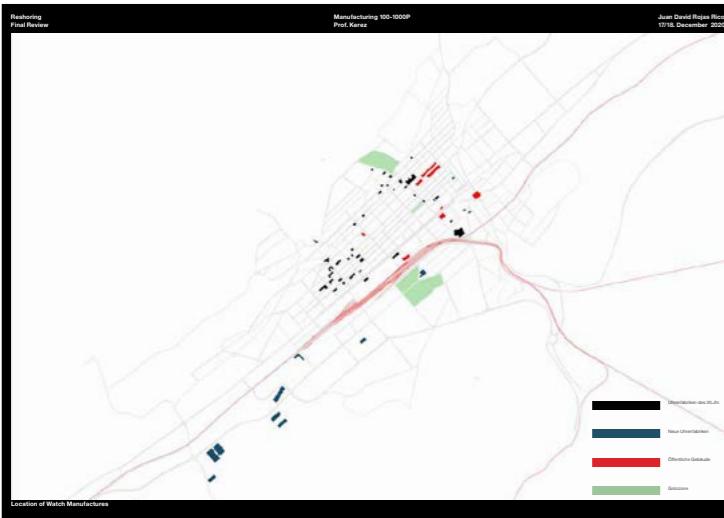
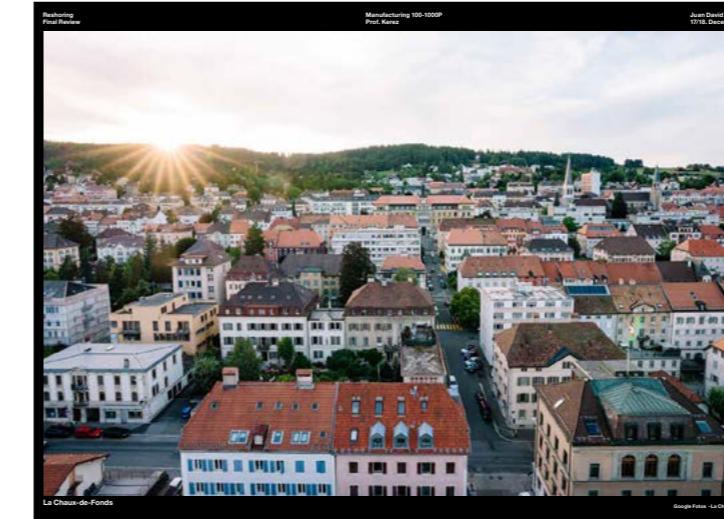
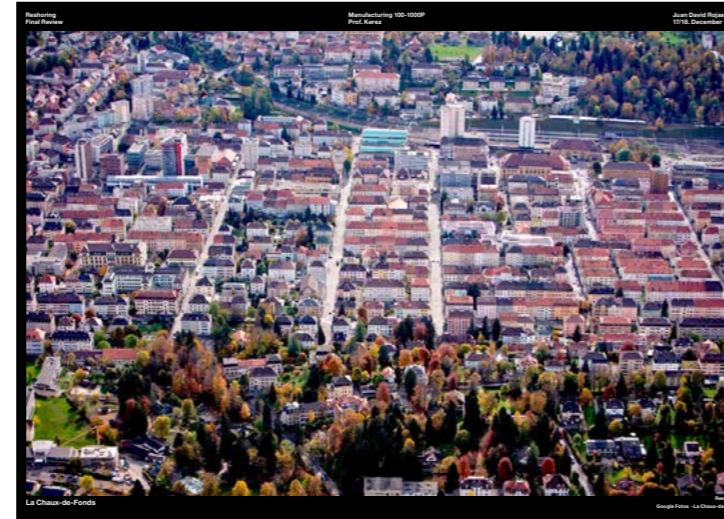
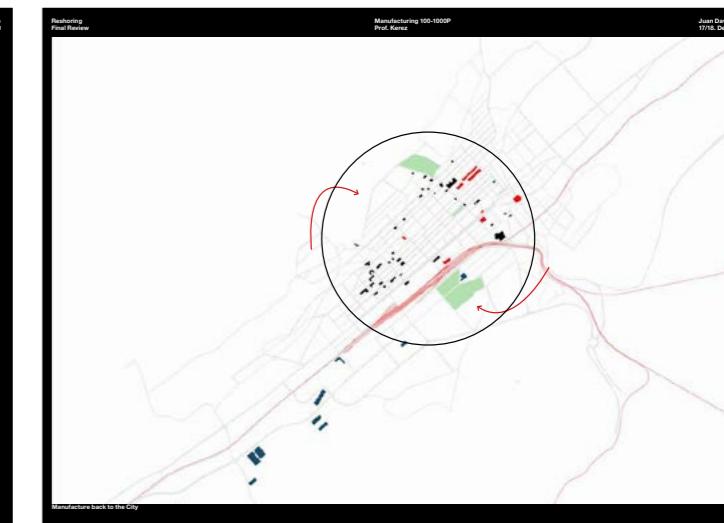
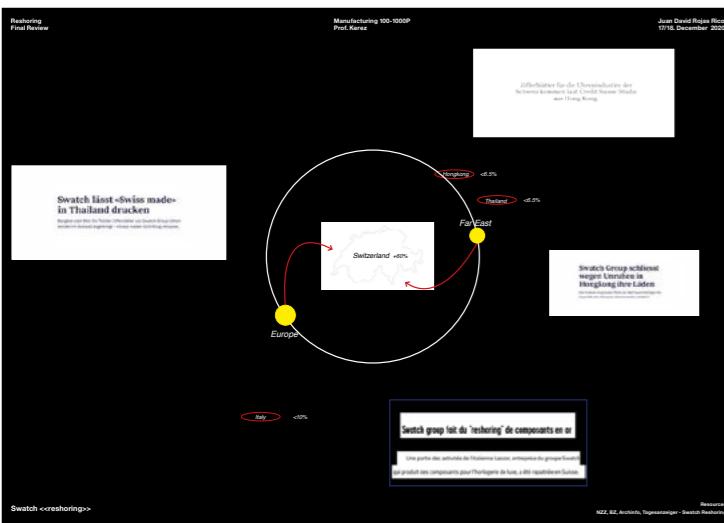
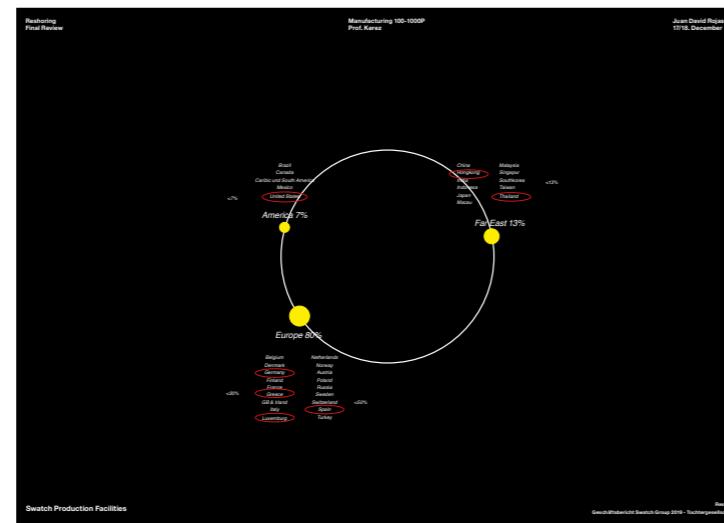


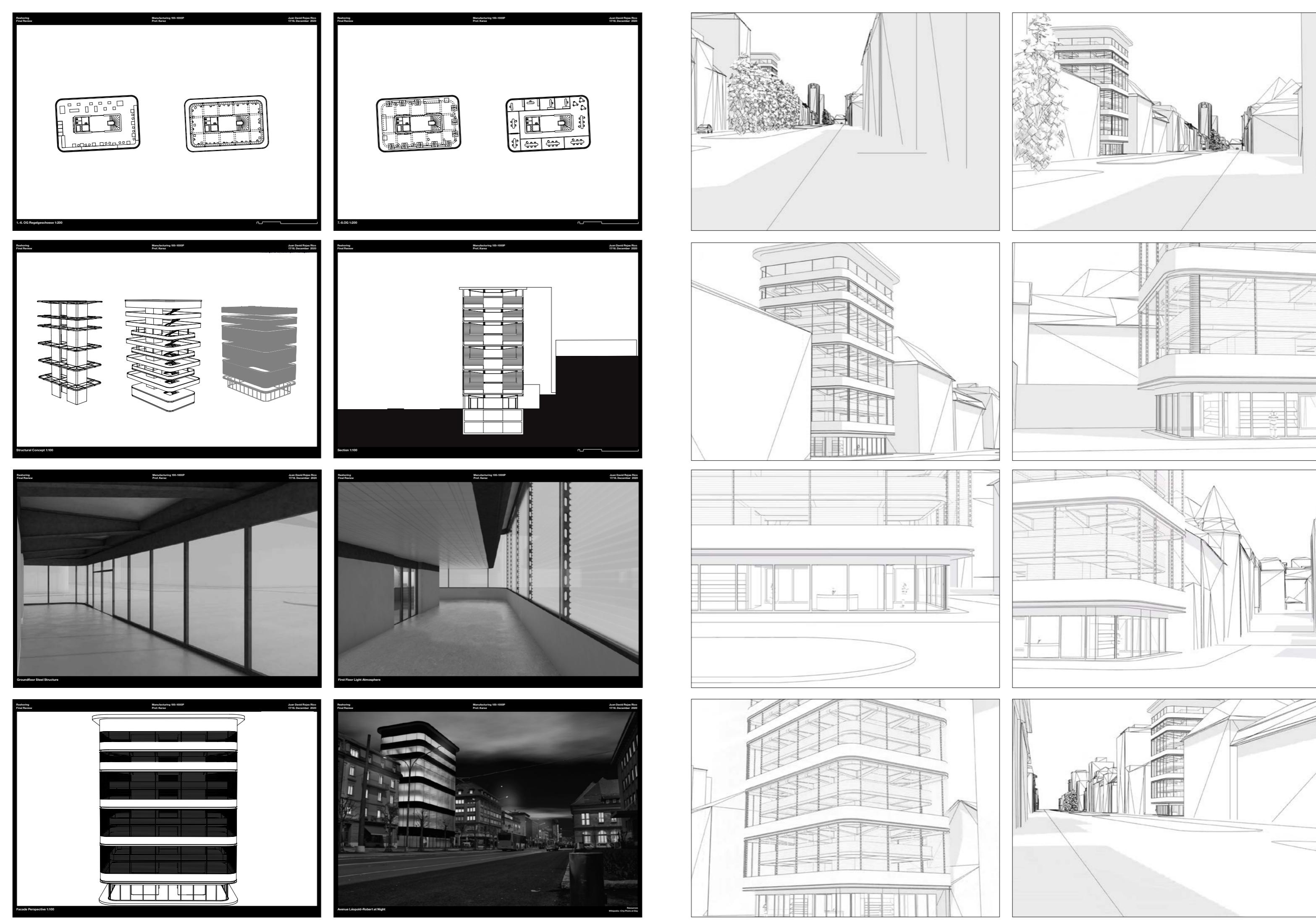


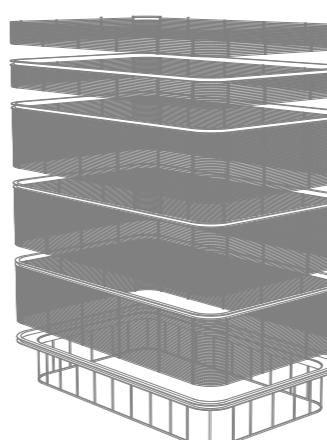
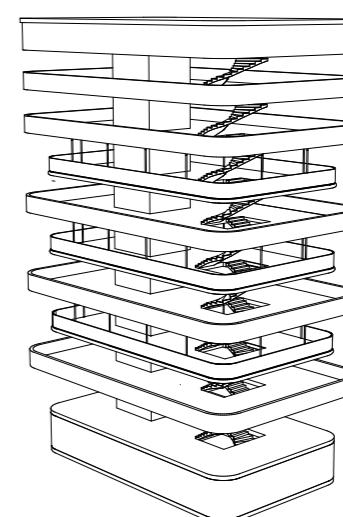
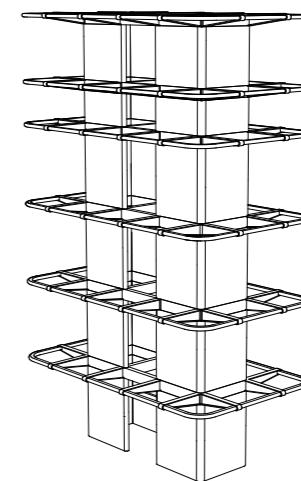
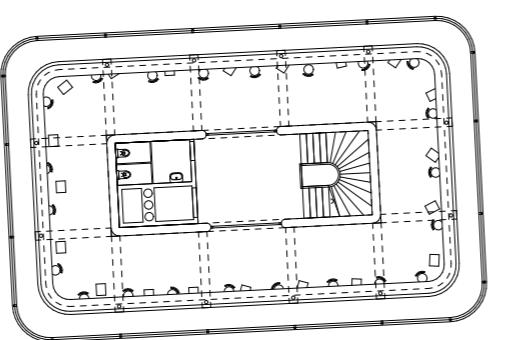
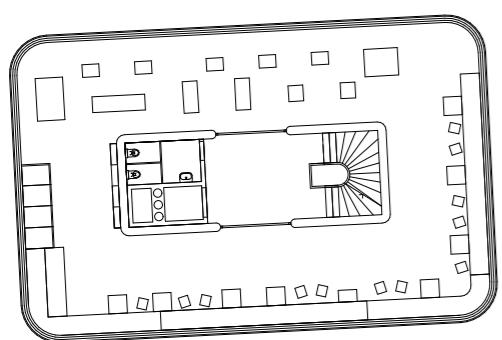
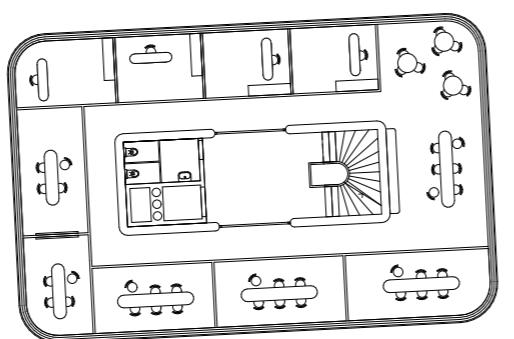
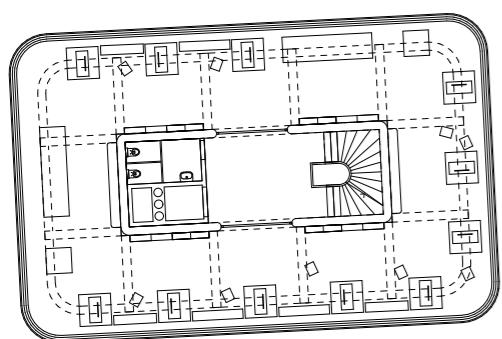
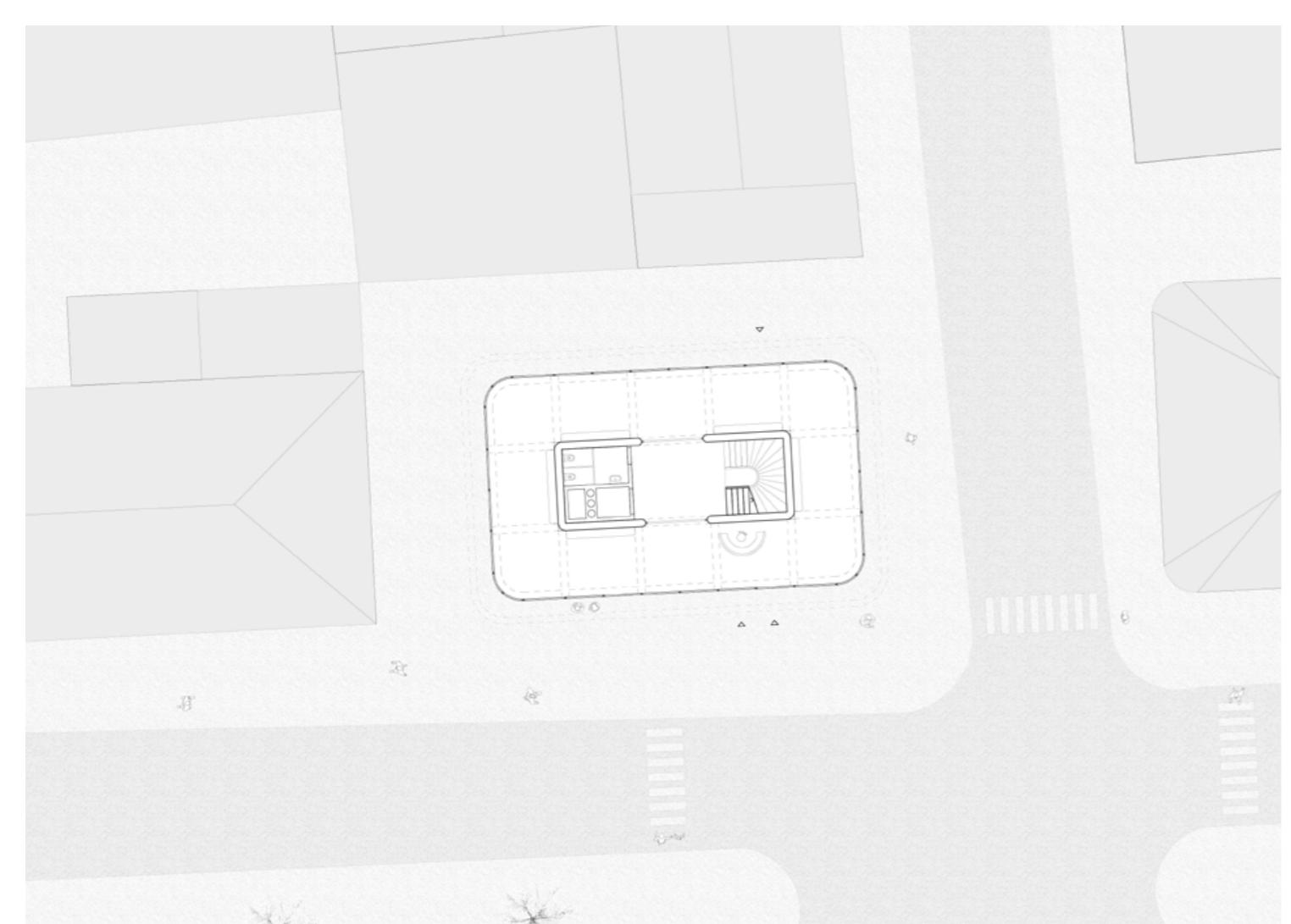


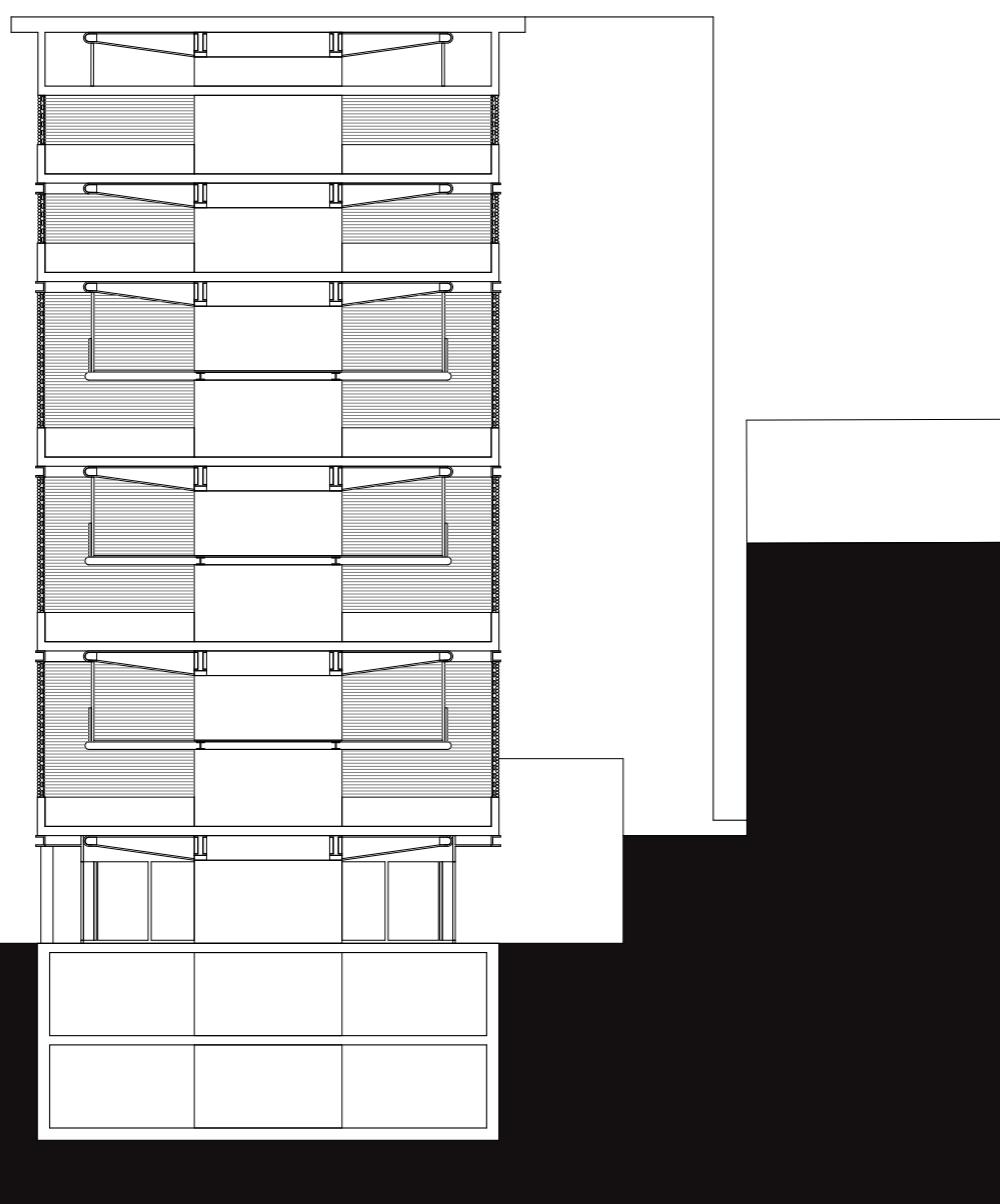
Project Representation











Project Representation

1 P

2-9 P

10-99 P

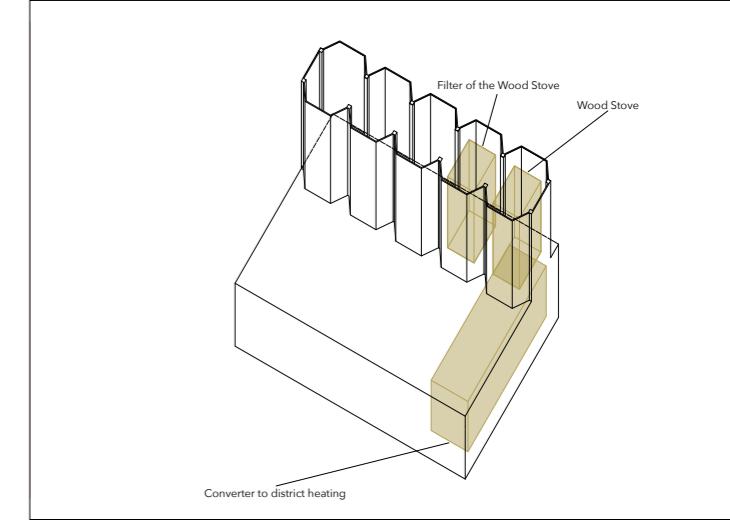
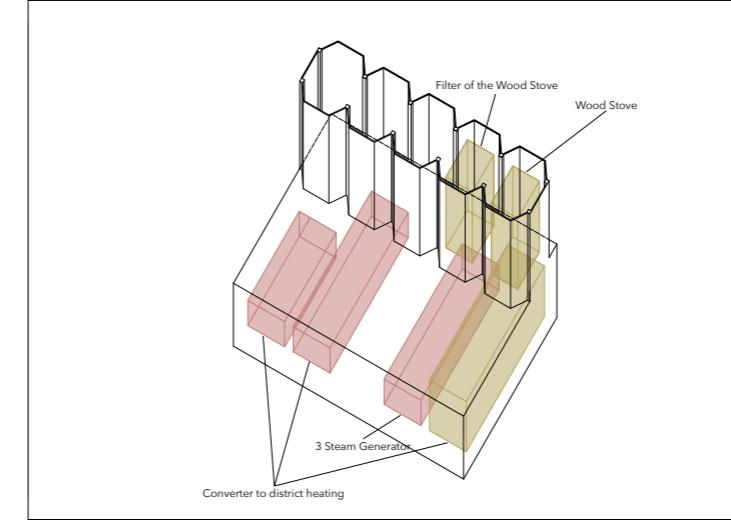
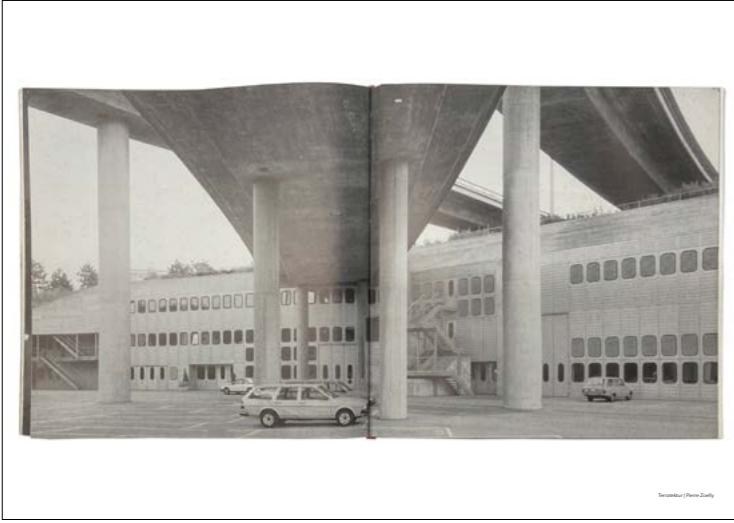
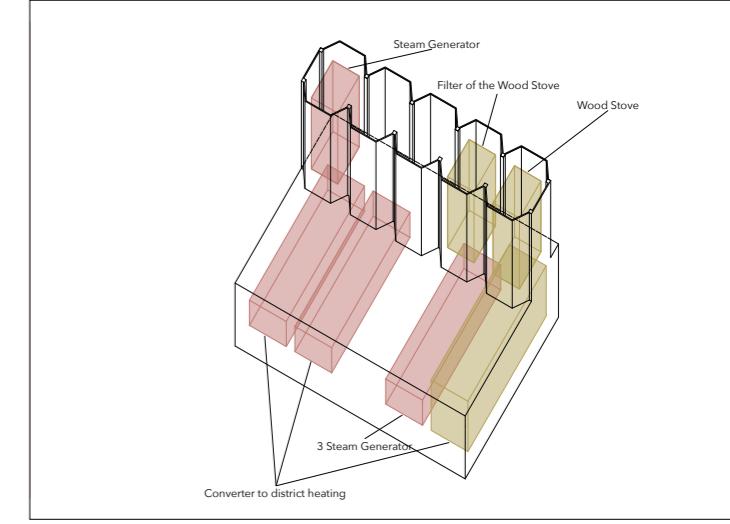
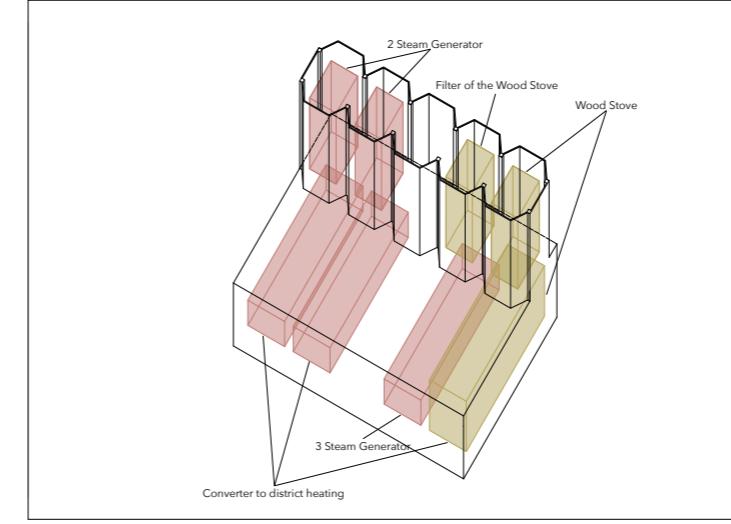
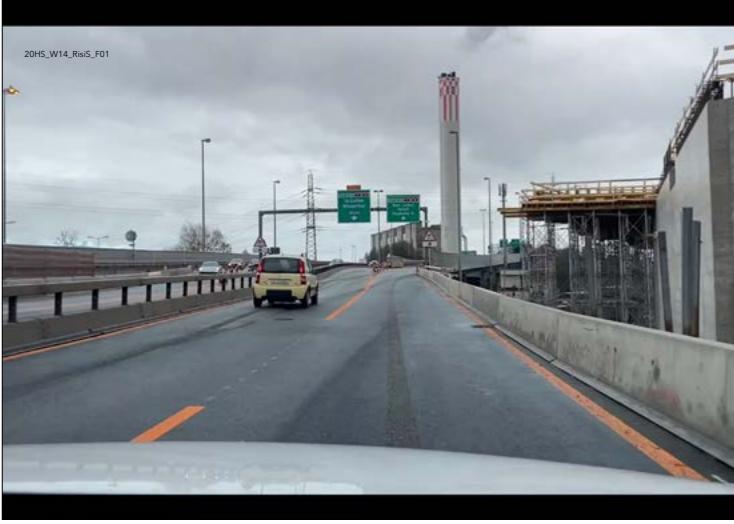
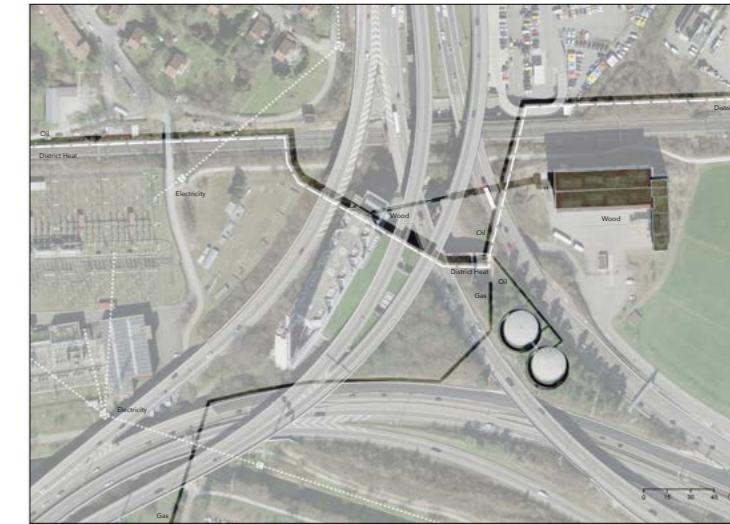
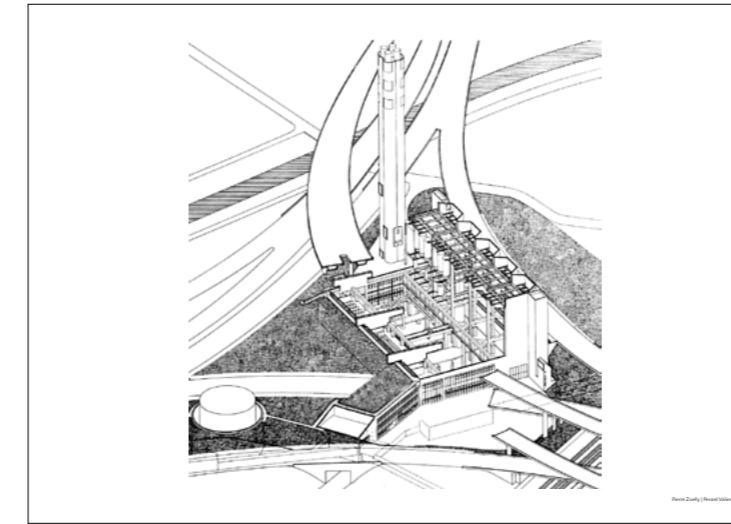
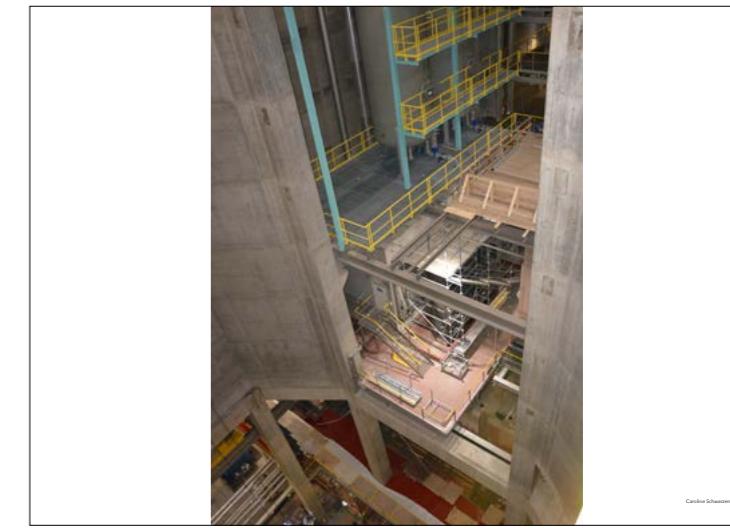
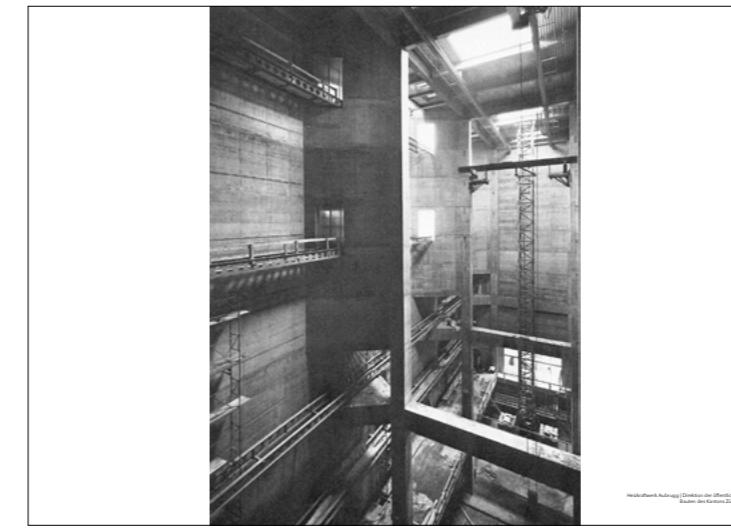
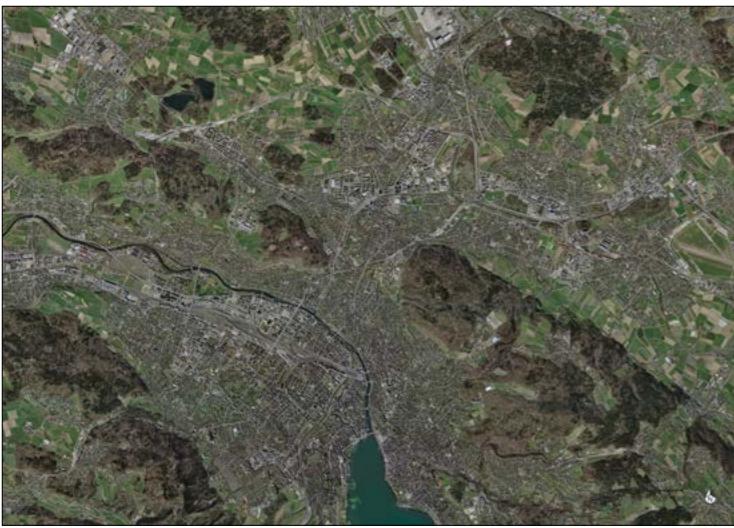
100-999 P

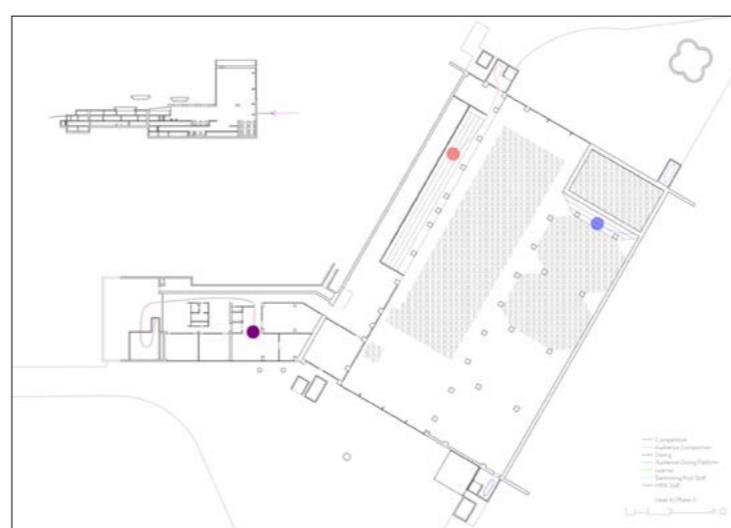
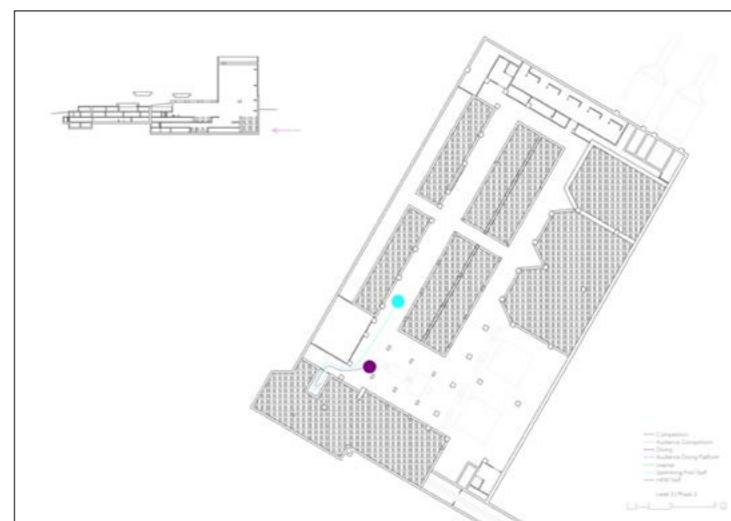
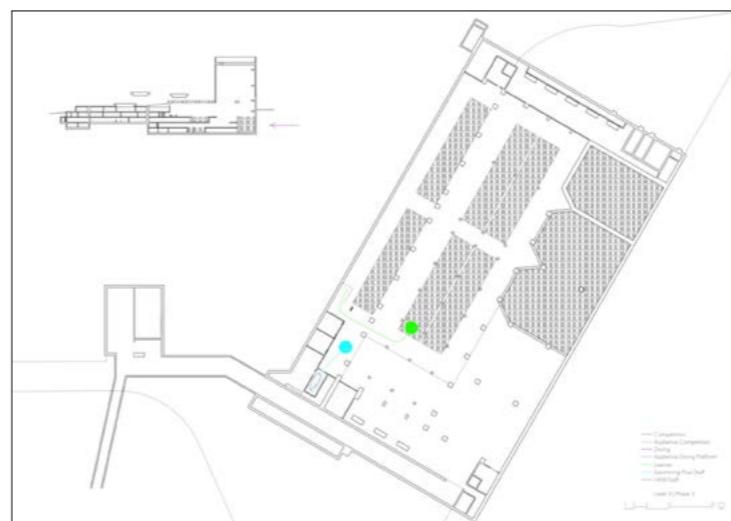
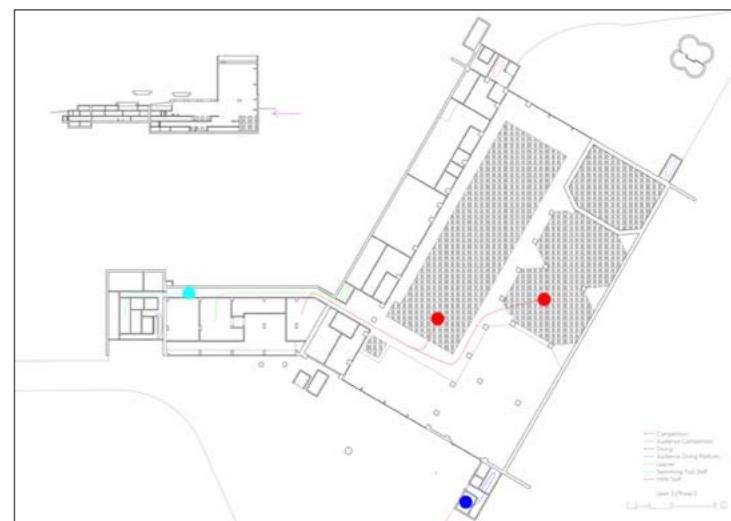
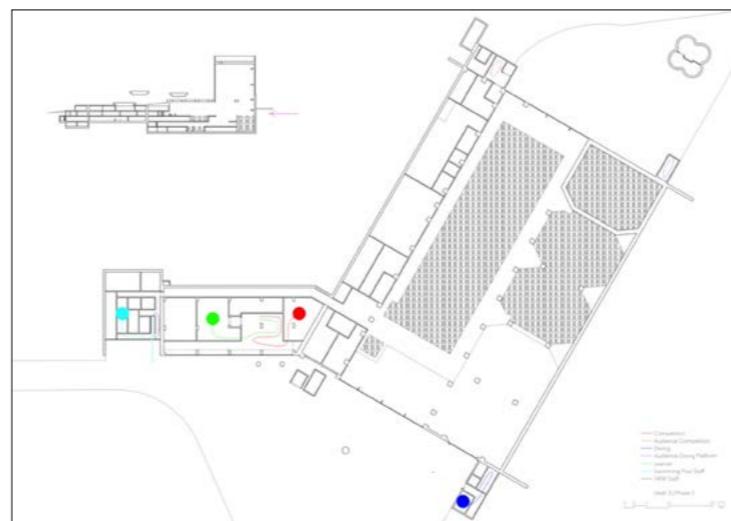
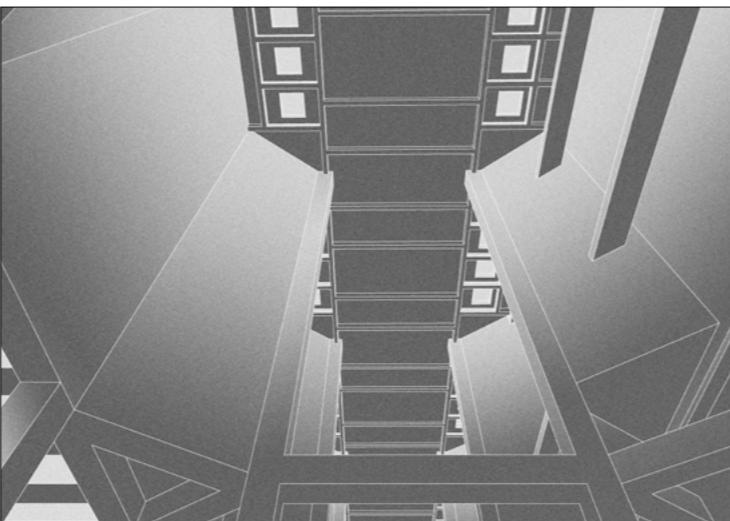
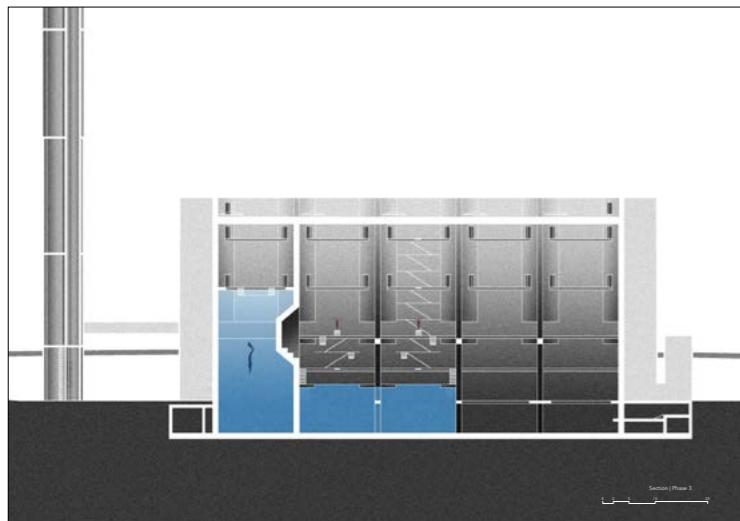
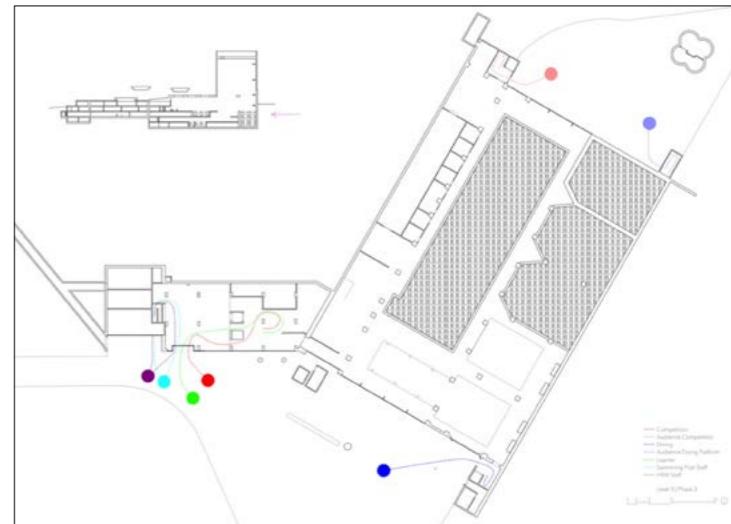
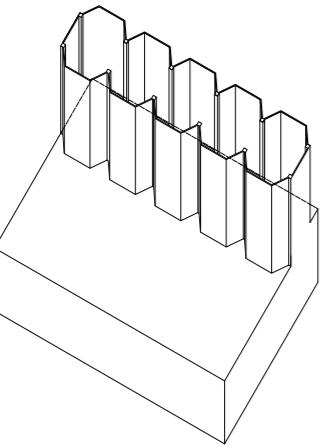
1'000-9'999 P

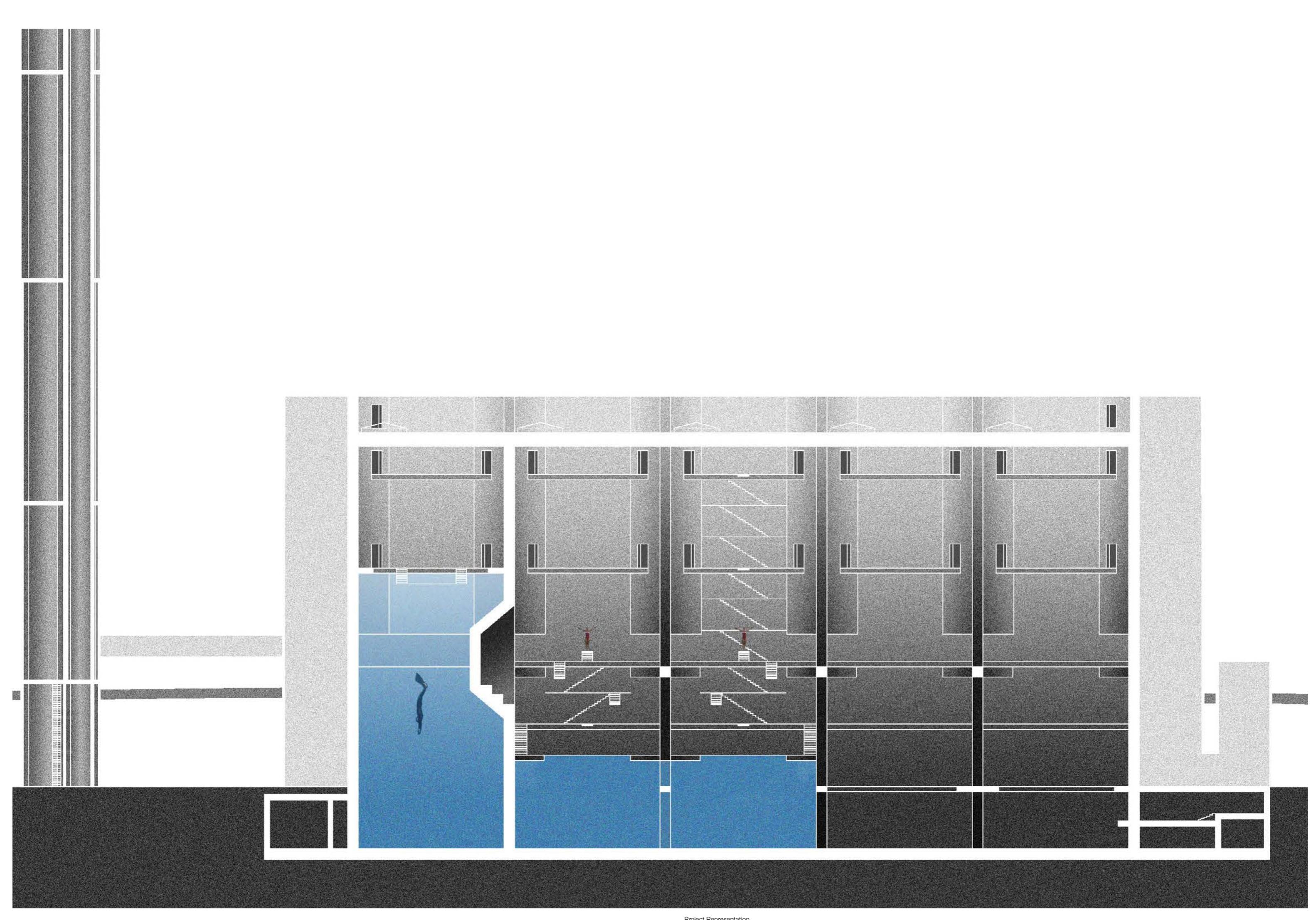
FROM HEATING PLANT TO SWIMMING POOL

Selin Risi

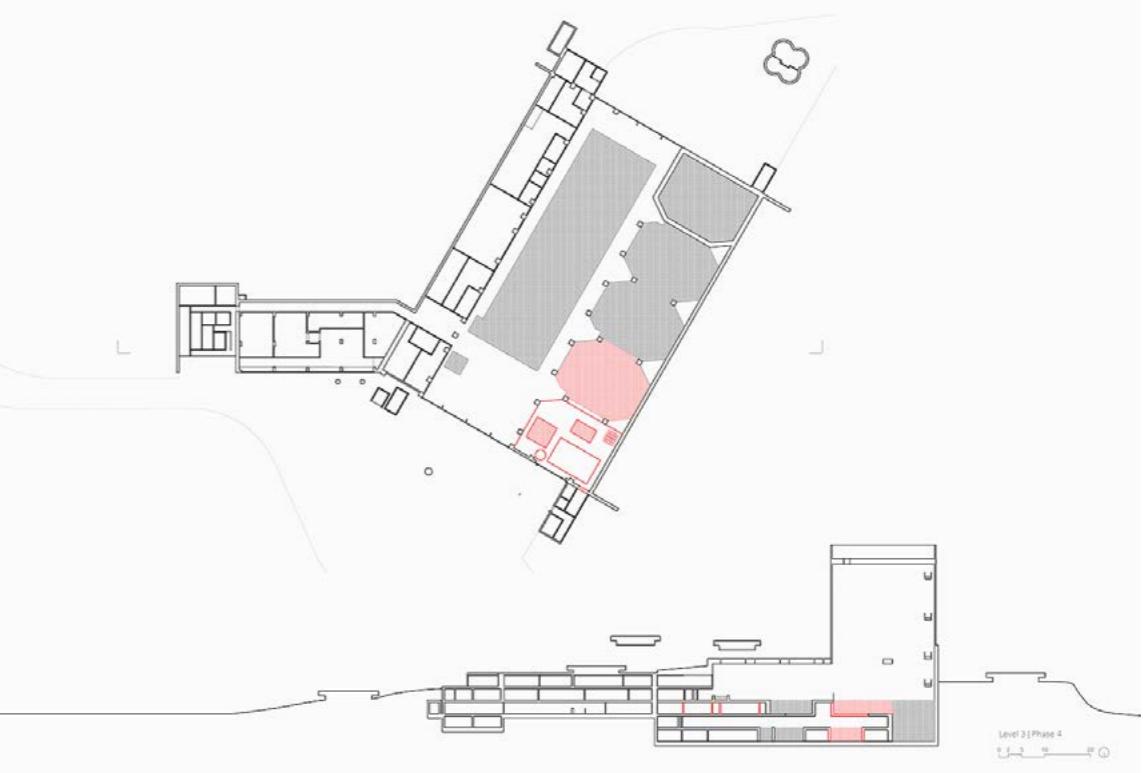
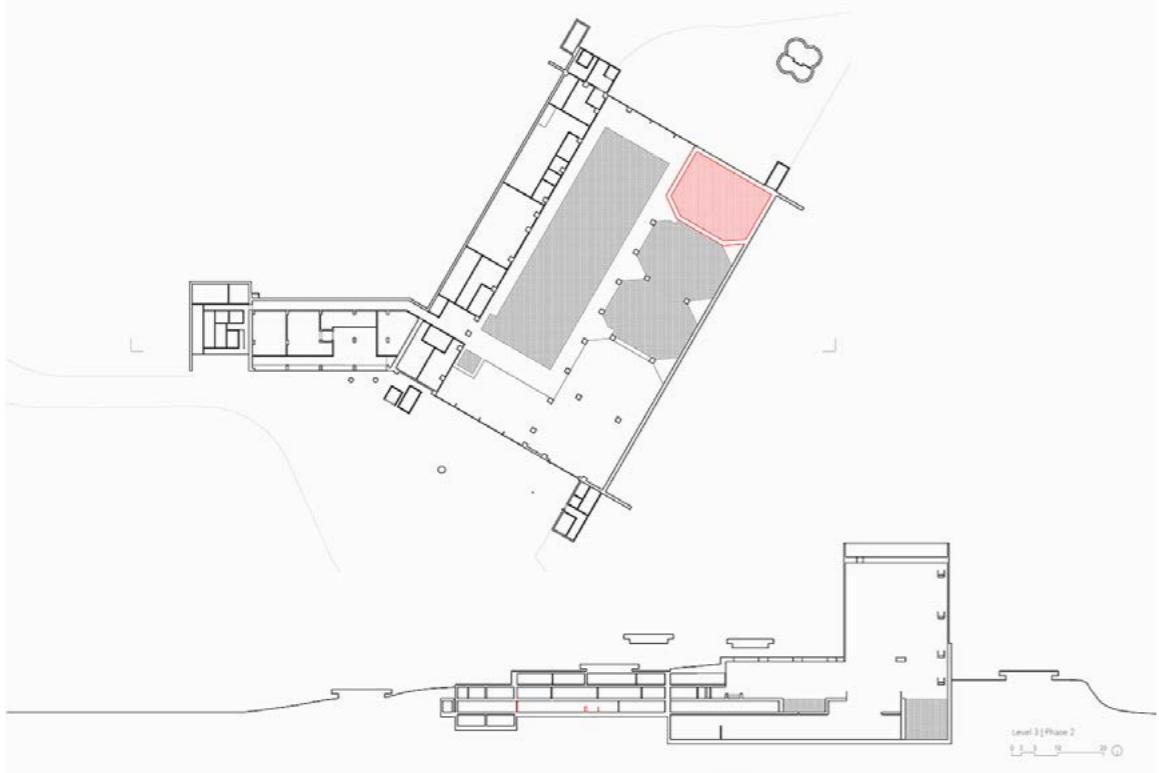
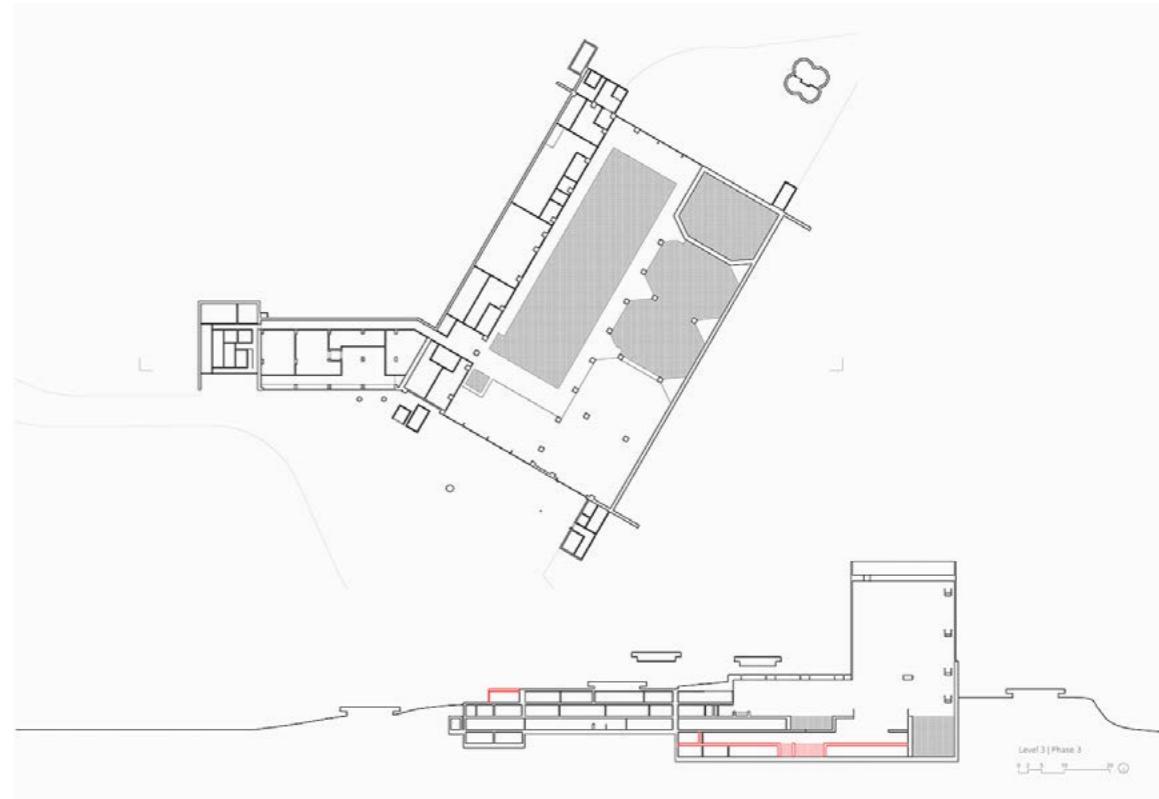
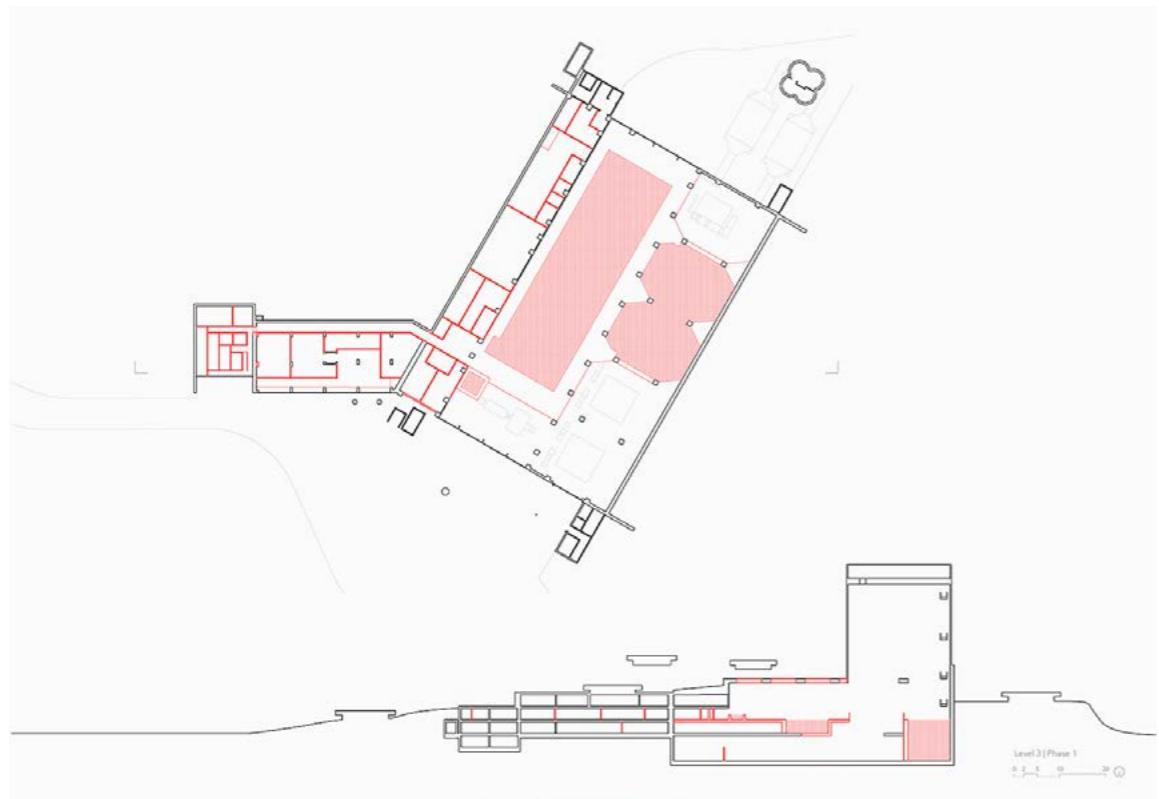
HEADQUARTERS
PRODUCTION
MANUFACTURING

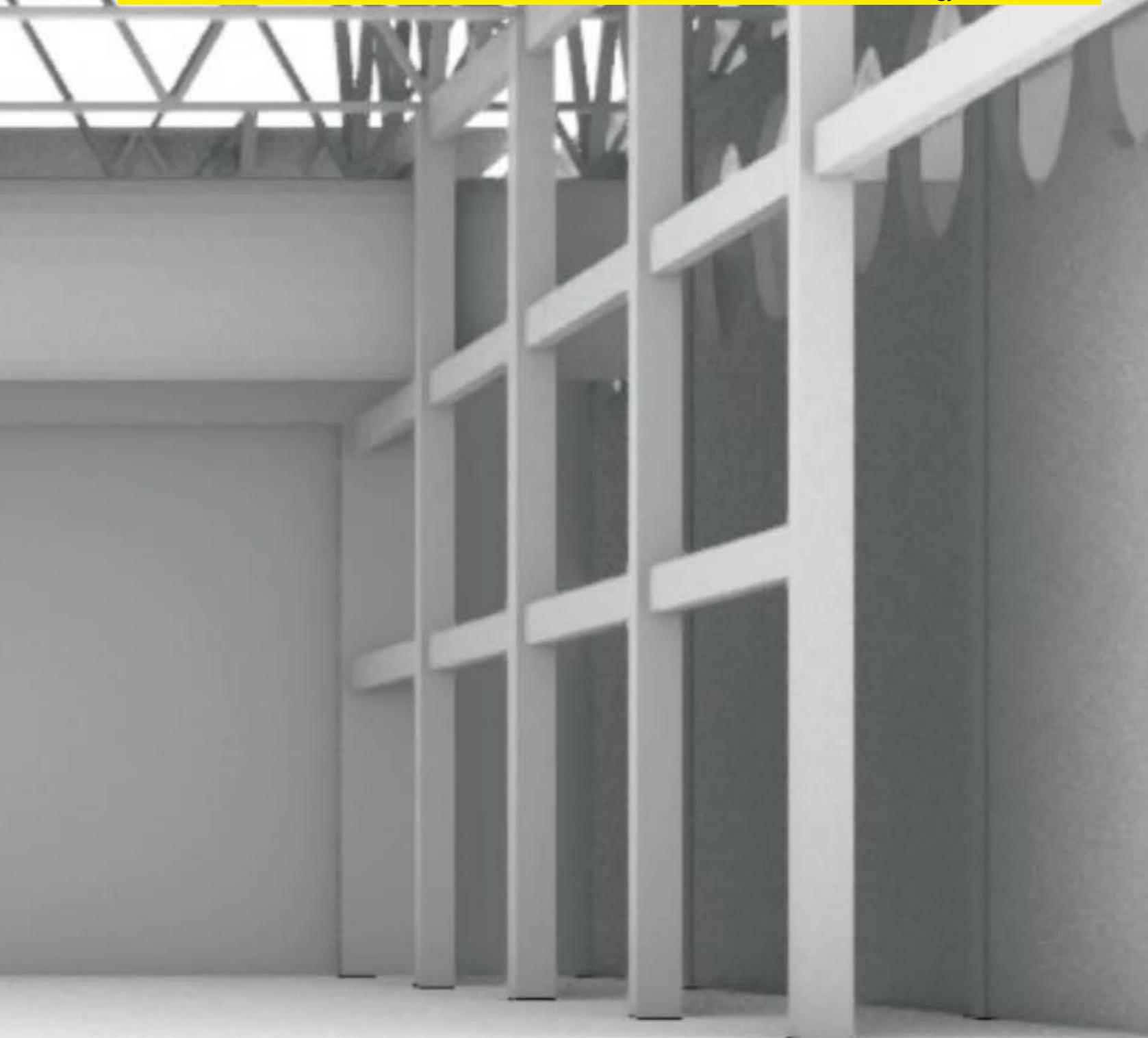
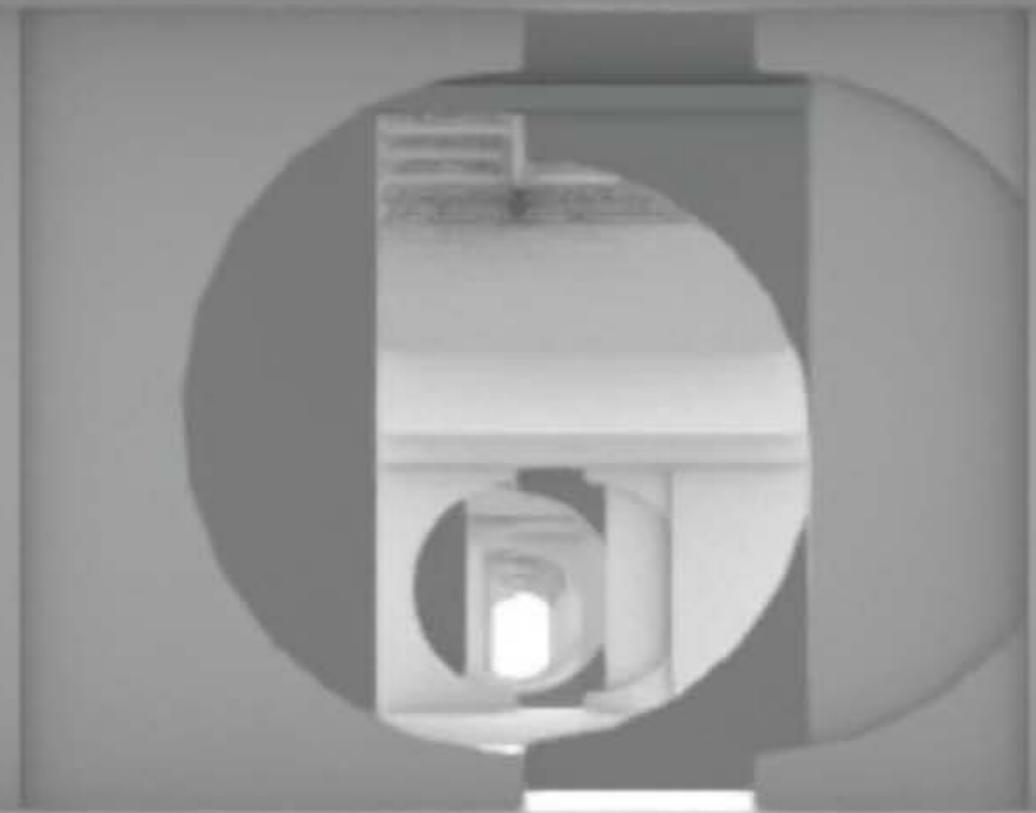


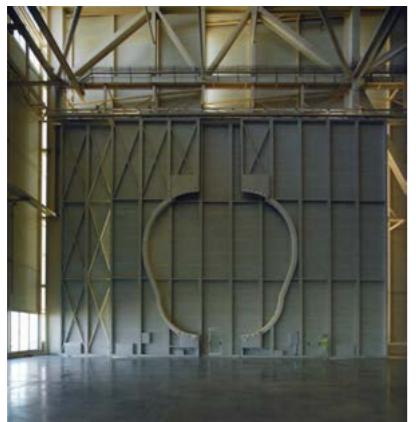




Project Representation







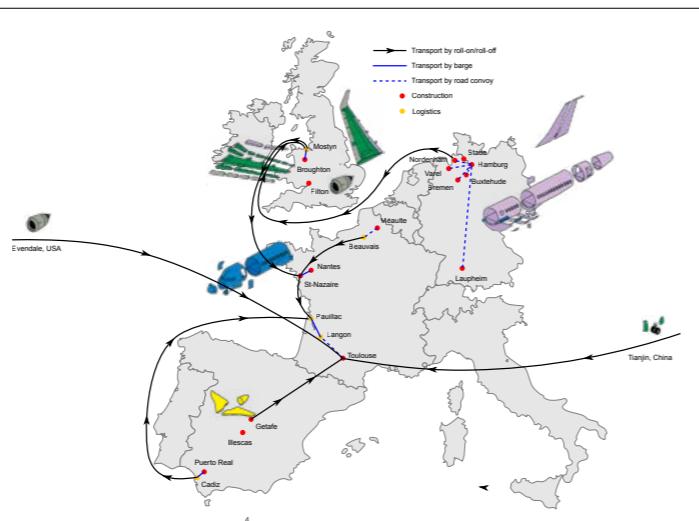
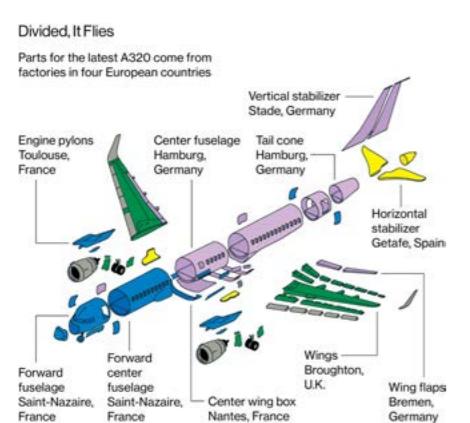
Sevilla, SP

© Usines d'avions Aircraft Factory Toulouse - Dubai - Sevilla P204



Everett, US

© Getty Image



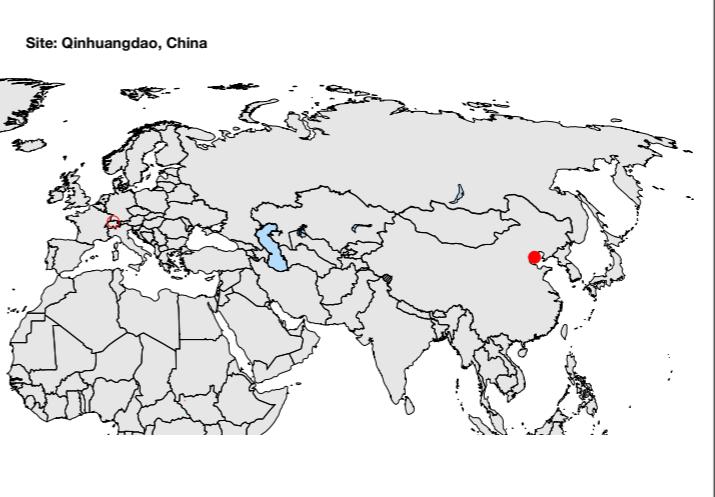
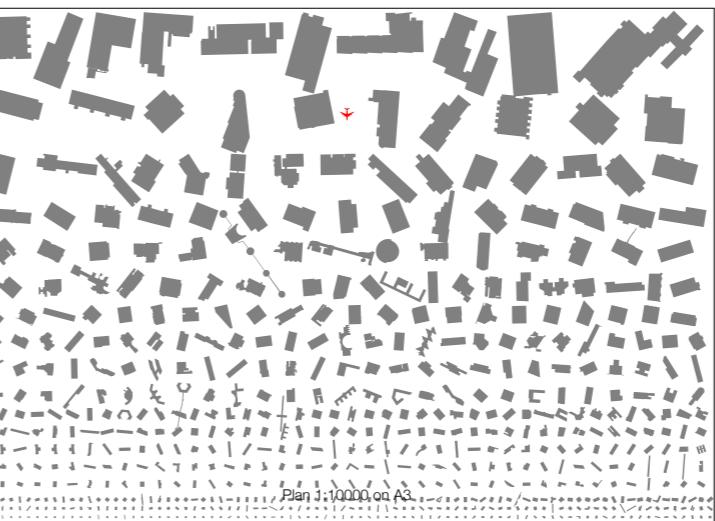
Toulouse, FR

© <https://www.airbus.com/acoth/how-is-an-aircraft-bulk-transport-of-major-aircraft-sectors.html>



Toulouse, FR

© <https://www.airbus.com/acoth/how-is-an-aircraft-bulk-transport-of-major-aircraft-sectors.html>

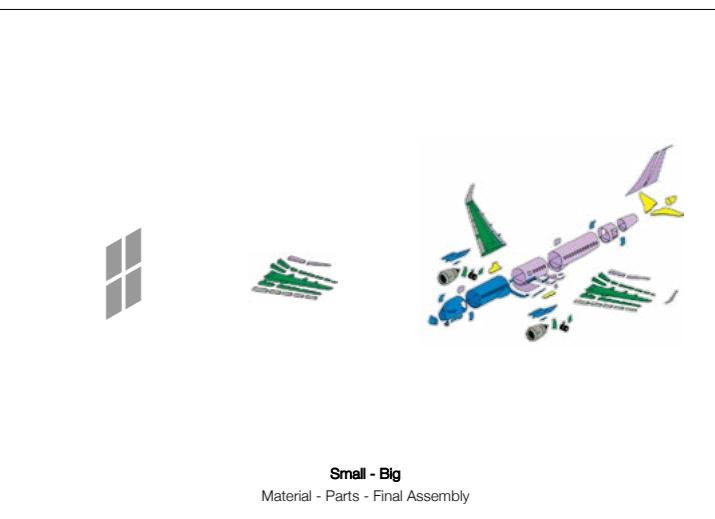


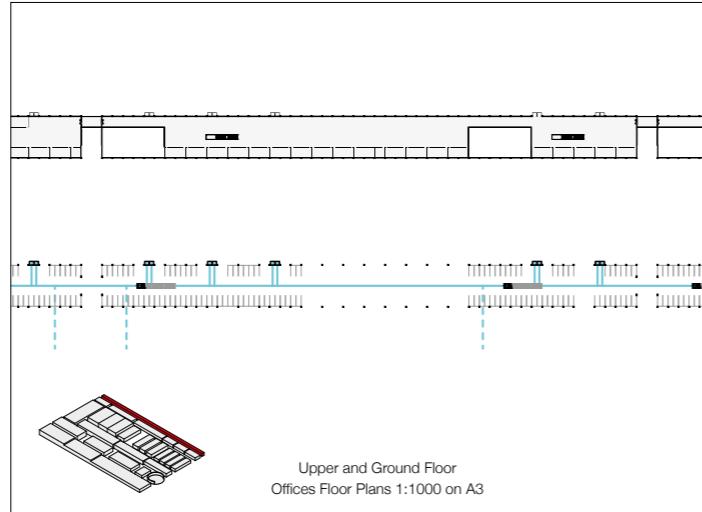
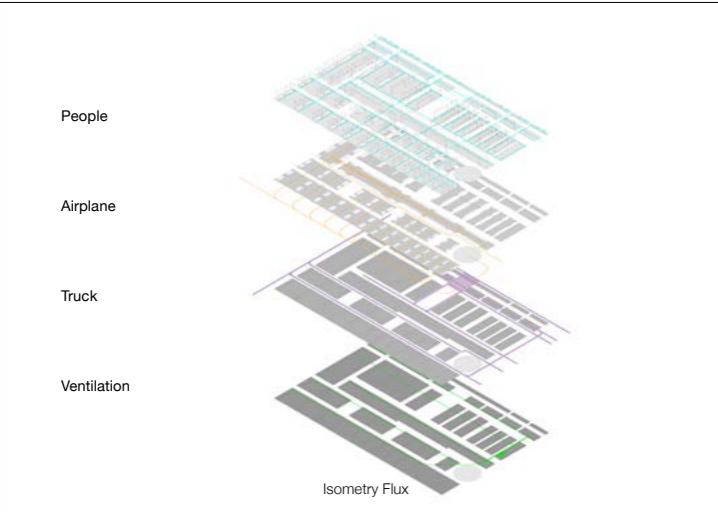
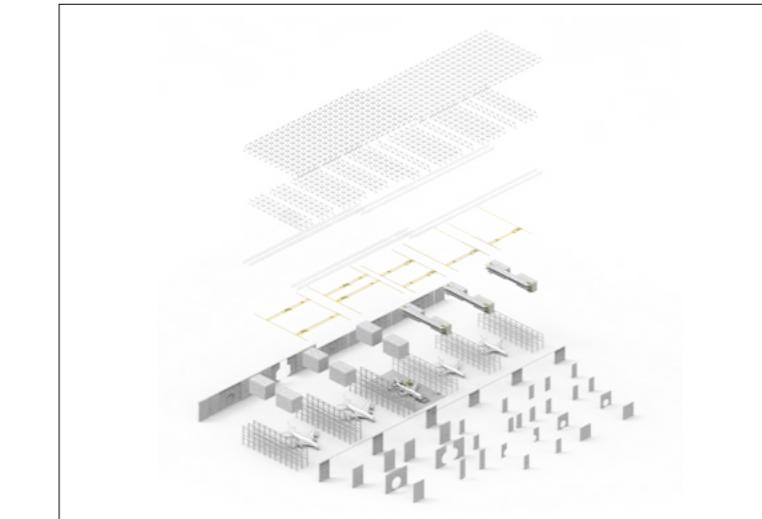
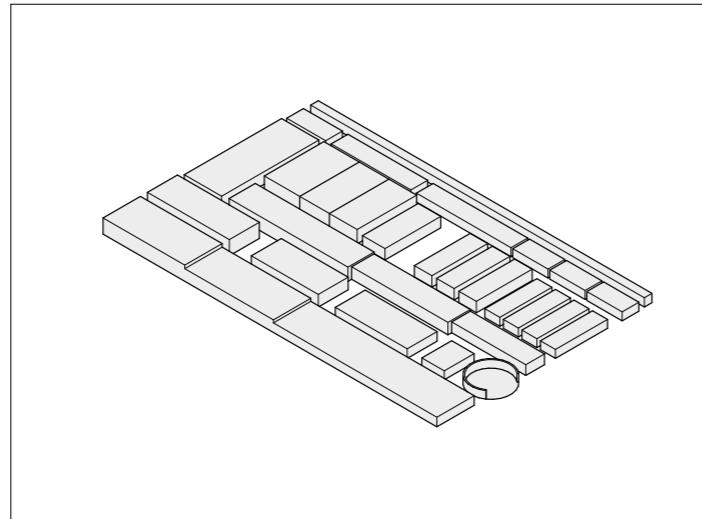
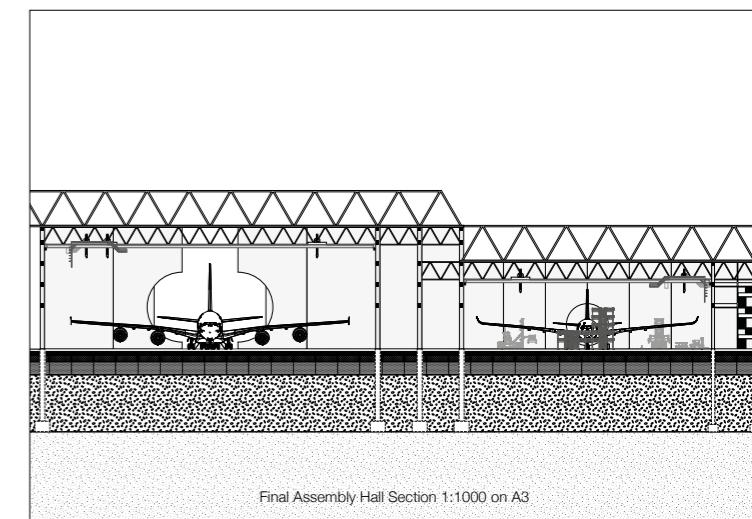
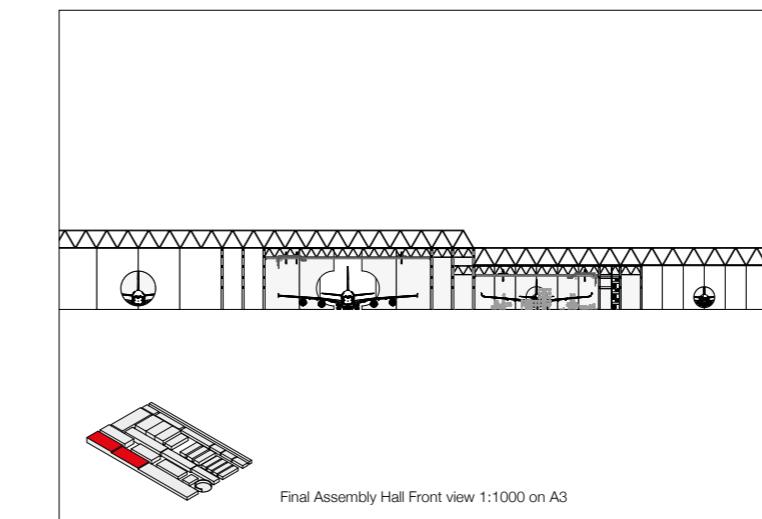
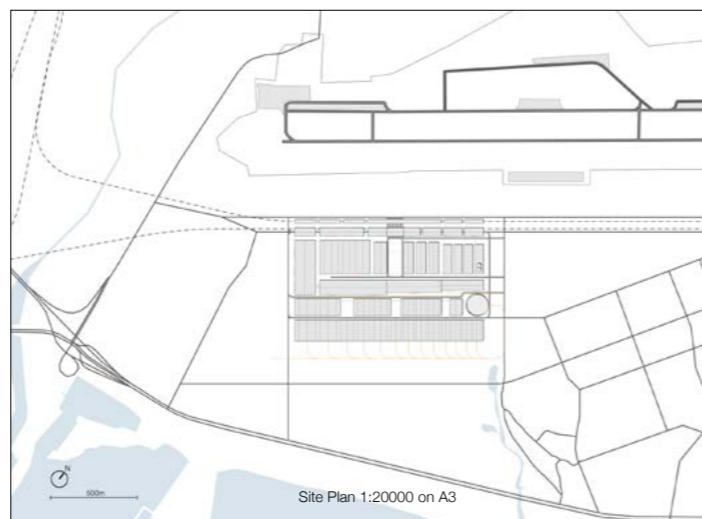
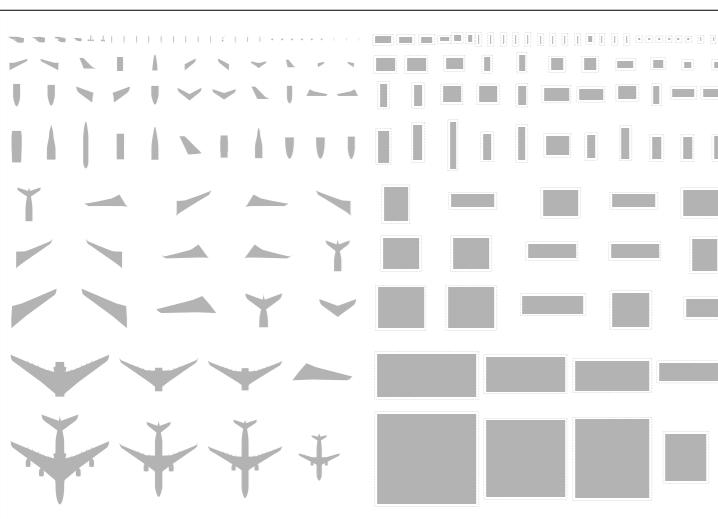
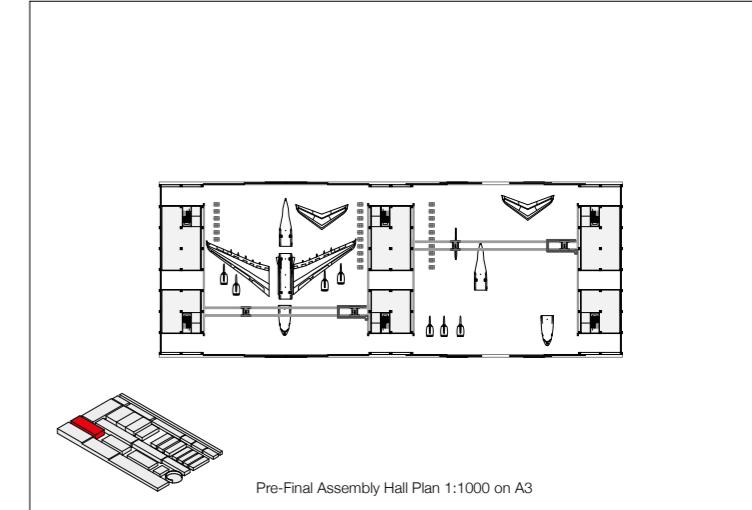
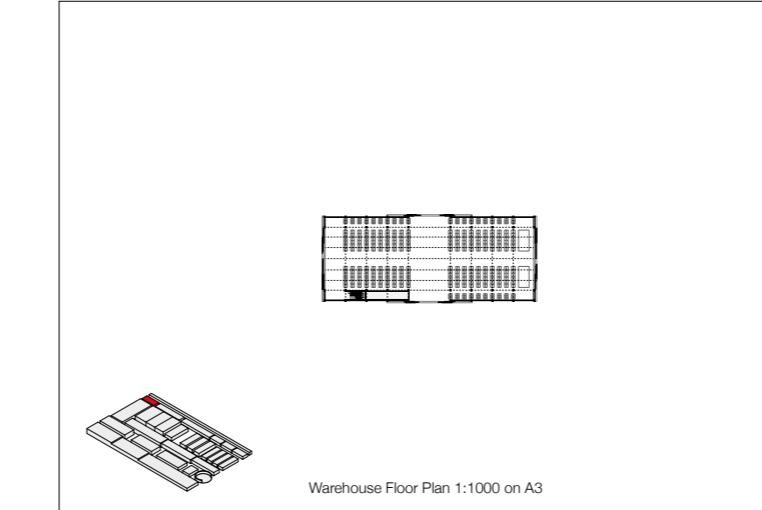
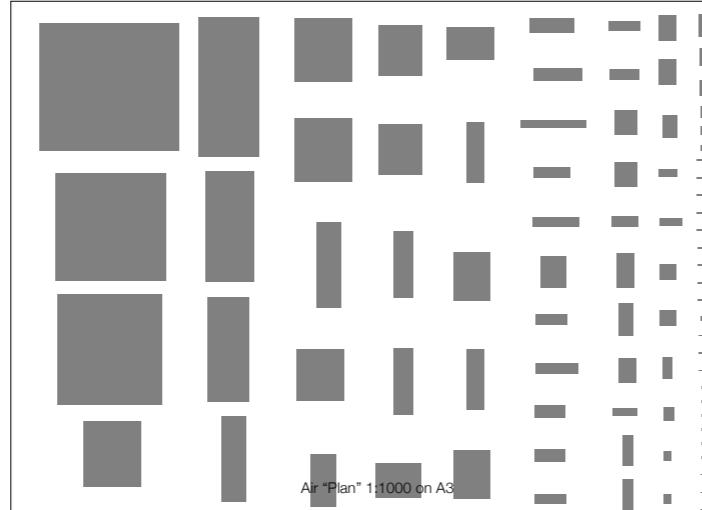
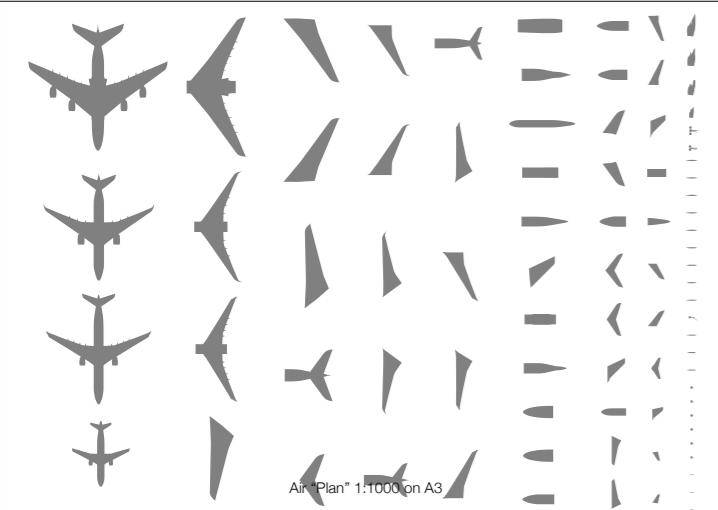
Garment Workers, Indonesia

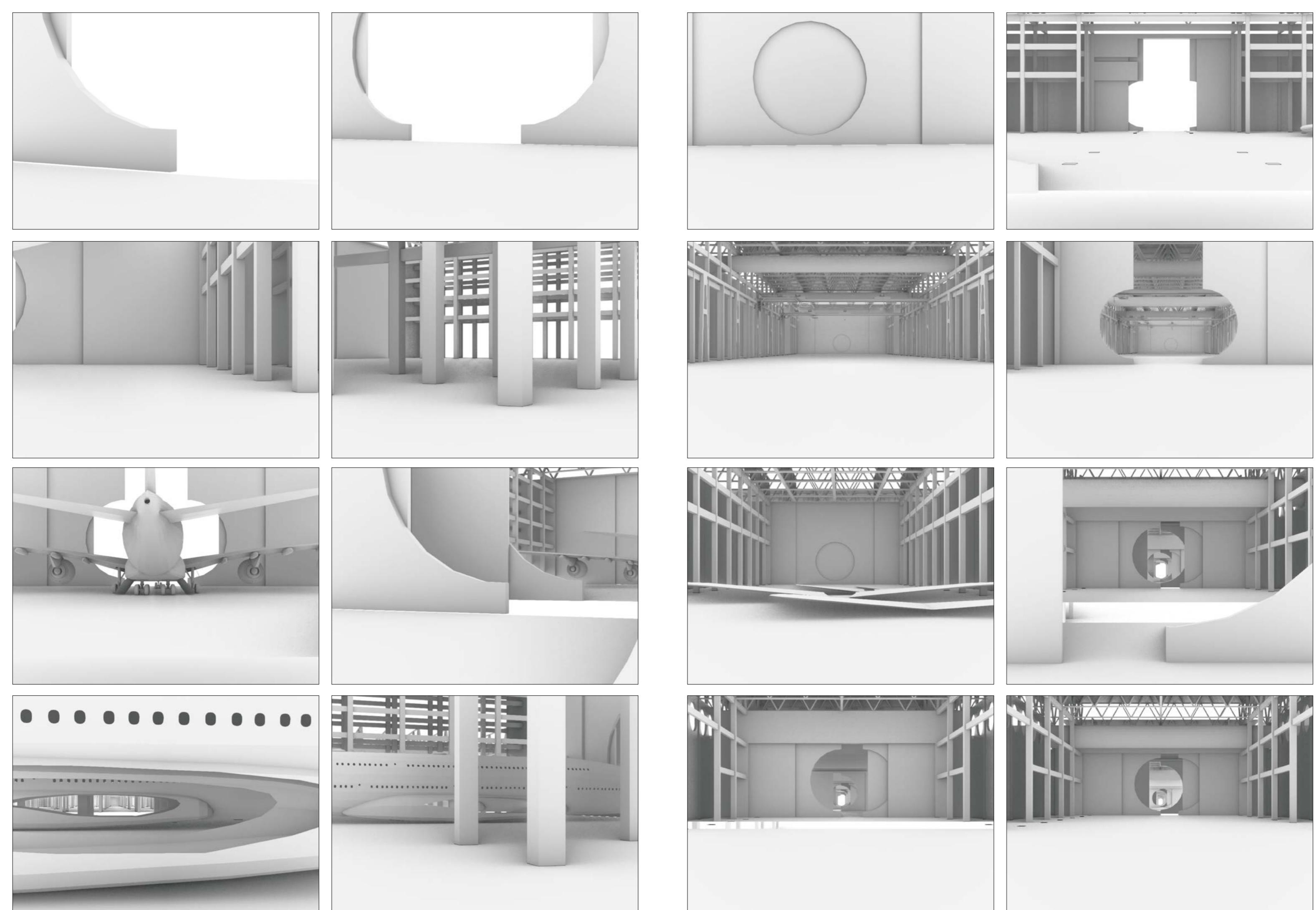
© Muhammad Fadli/Bloomberg/Getty Images

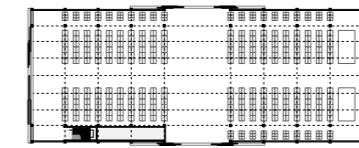
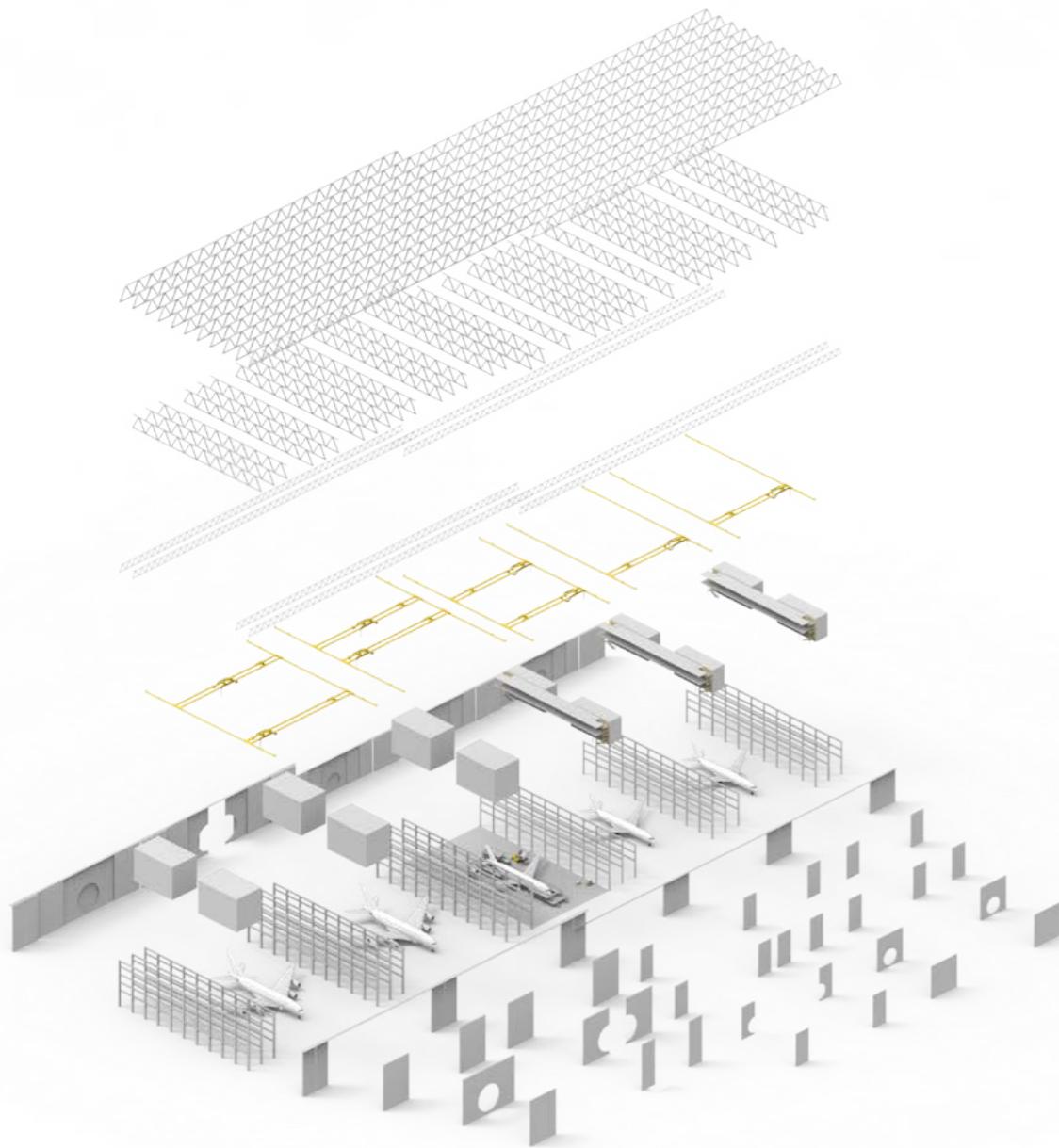


Qinhuangdao, CN

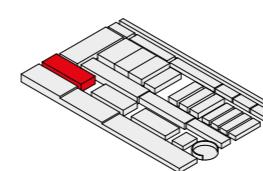




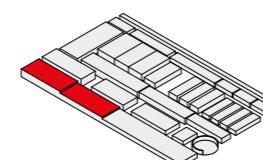
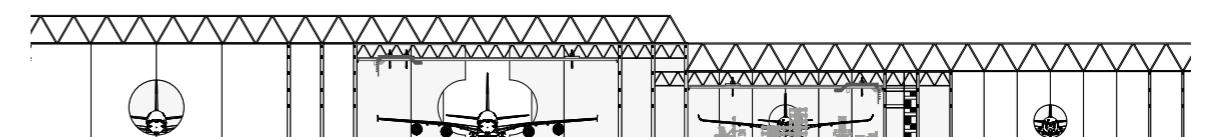
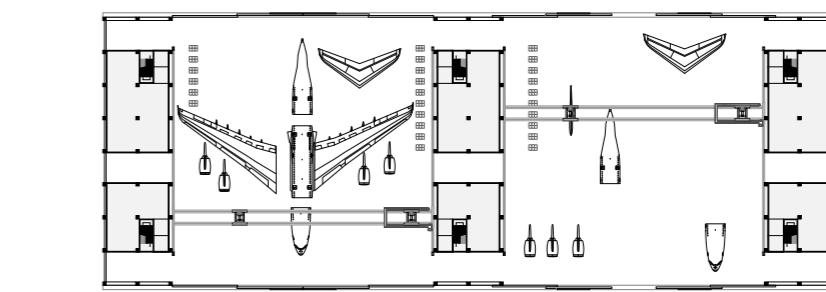




Warehouse Floor Plan 1:1000 on A3



Pre-Final Assembly Hall Plan 1:1000 on A3



Final Assembly Hall Front view 1:1000 on A3

