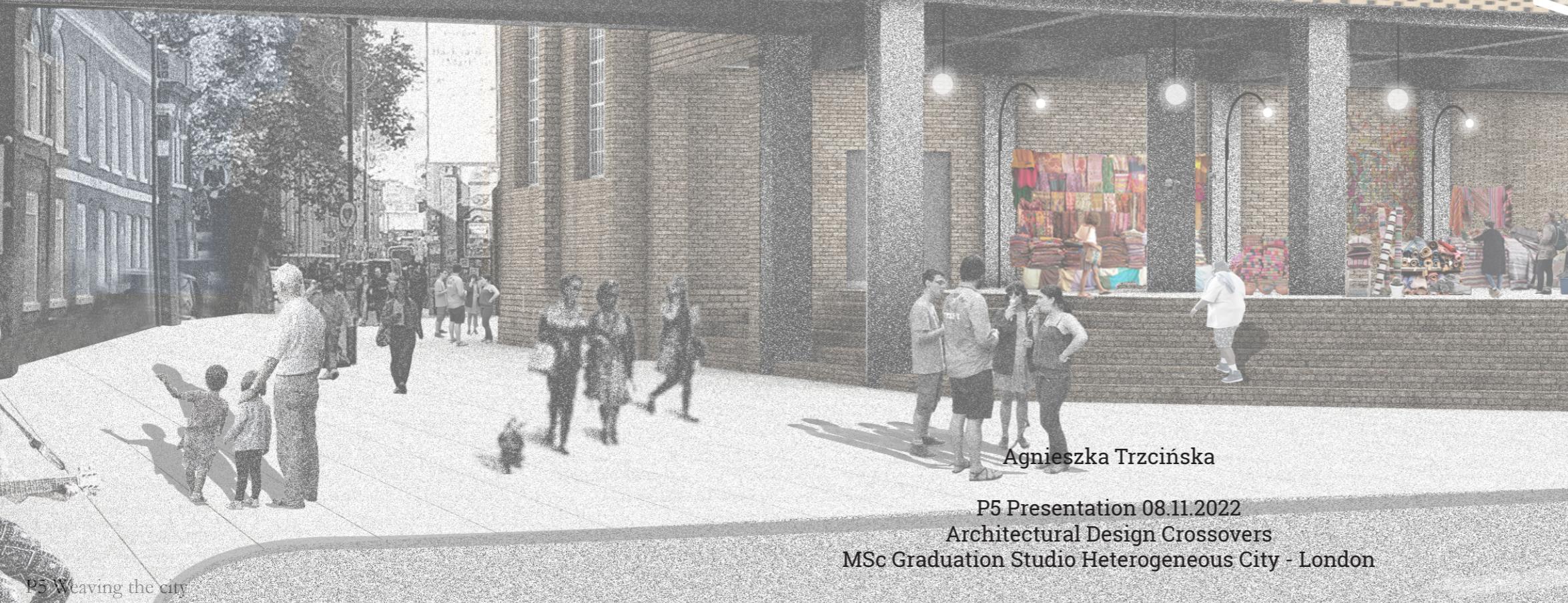




Weaving the city

Brownfield regeneration through urban manufacturing
at the Truman's Brewery in London



Agnieszka Trzcińska

P5 Presentation 08.11.2022
Architectural Design Crossovers
MSc Graduation Studio Heterogeneous City - London



Heterogeneous City - London 1/84

Manufacturing manages to capture one's **imagination**, like any other sector of the **industry**.
There is a certain **allure about the making** of **tangible objects** that is hard to resist.

Adrian Vickery Hill, "Cities of Making"



MATERIAL CULTURE

personal fascination

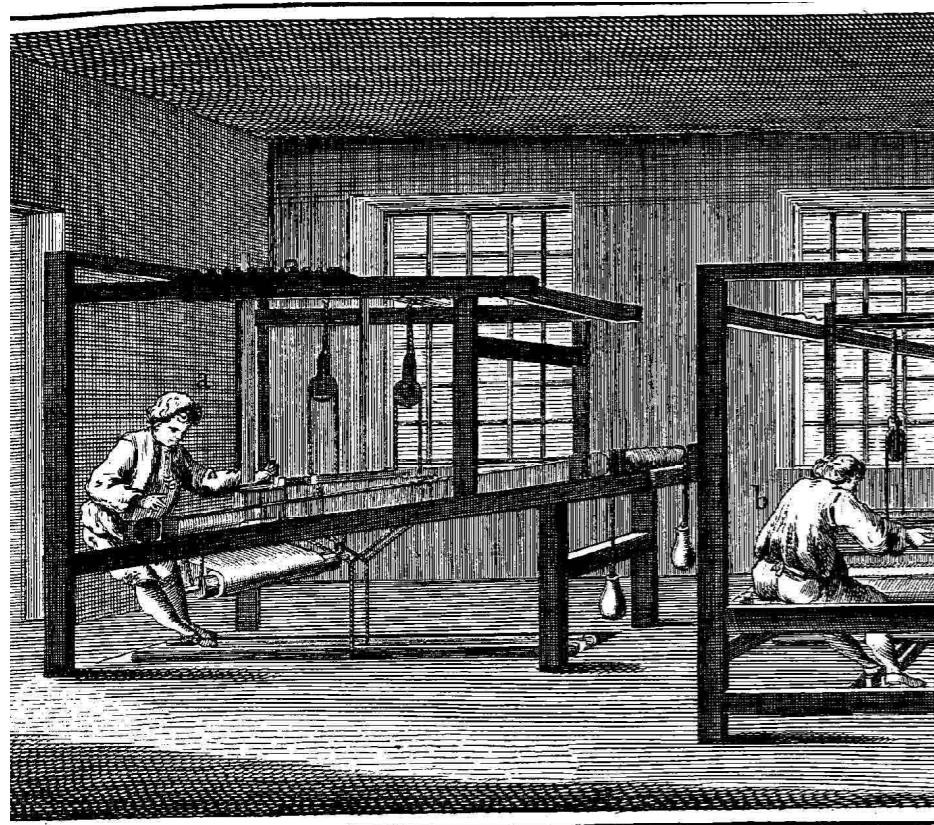


Fig. 1.

pre industrial



industrial revolution



current

TEXTILE PRODUCTION DEVELOPMENT

problem statement

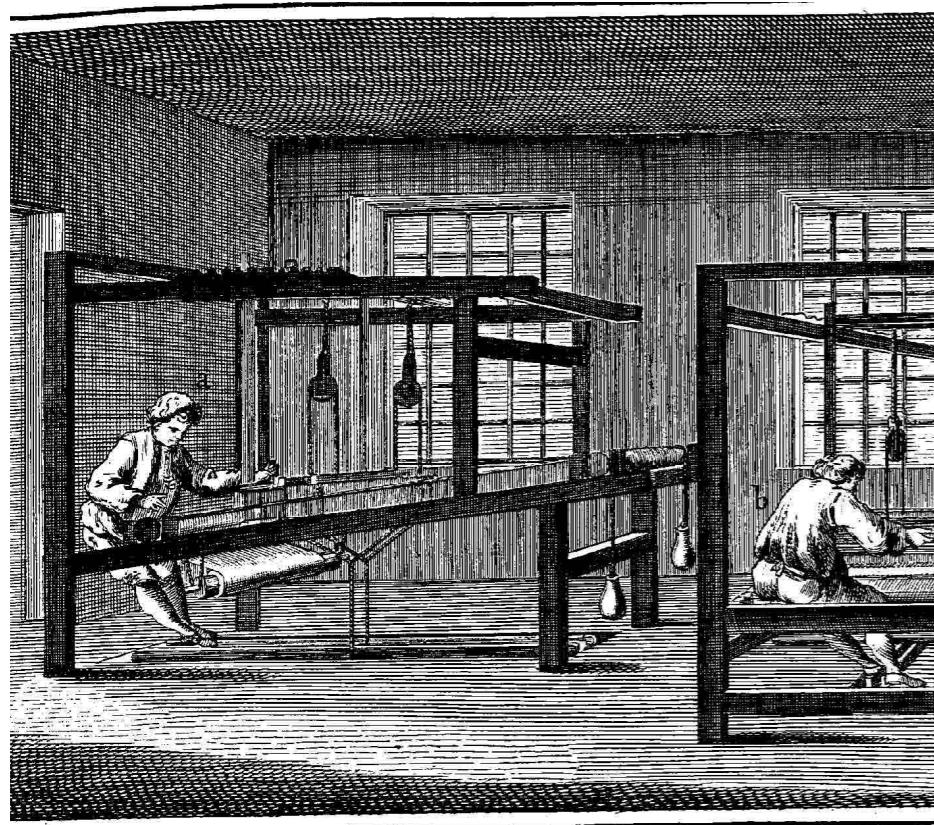


Fig. 1.



pre industrial



industrial revolution



current



TEXTILE PRODUCTION DEVELOPMENT

problem statement



62% of all fibres used in the fashion industry are made from a synthetic material



environmental cost of cotton processing - ca 2,000 liters of water per piece



on average 'fast fashion' garments are worn just seven times before they are thrown away



recycling of natural fibres results in lower quality of textile, while most synthetic garments can't be recycled into clothes



most of householders in Britain bin old clothing along with their household waste



300,000 tonnes of textile waste going to landfill in the UK each year

UNSUSTAINABLE FLOWS

problem statement

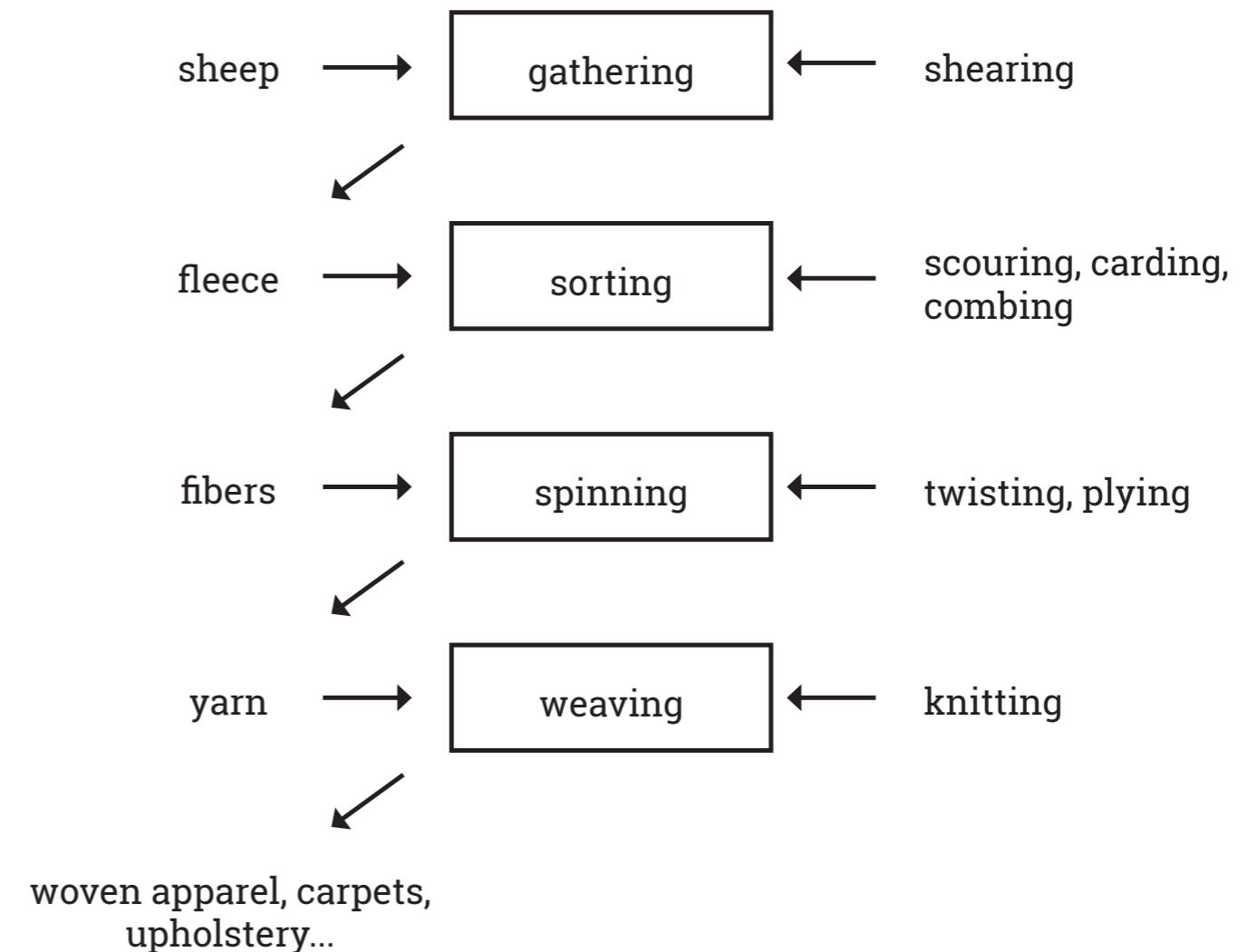


How to **weave** manufacturing into an **urban fabric**, to enhance **social and spatial connections**, improve **material flows** and contribute to a **healthy** environment?

1. What possibilities does an **urban area** give to manufacturing, in terms of resources, locations and purpose?
2. How does **urban manufacturing** influence citizens?
3. How do **flows** of the city interweave, where are **disruptions** (if any) and potential for improvement?
4. How to enhance a shift from linear to the **circular flow** of material?
5. Where does an appeal of making, **craftsmanship** and material culture come from and how can this **knowledge** be applied in a city?

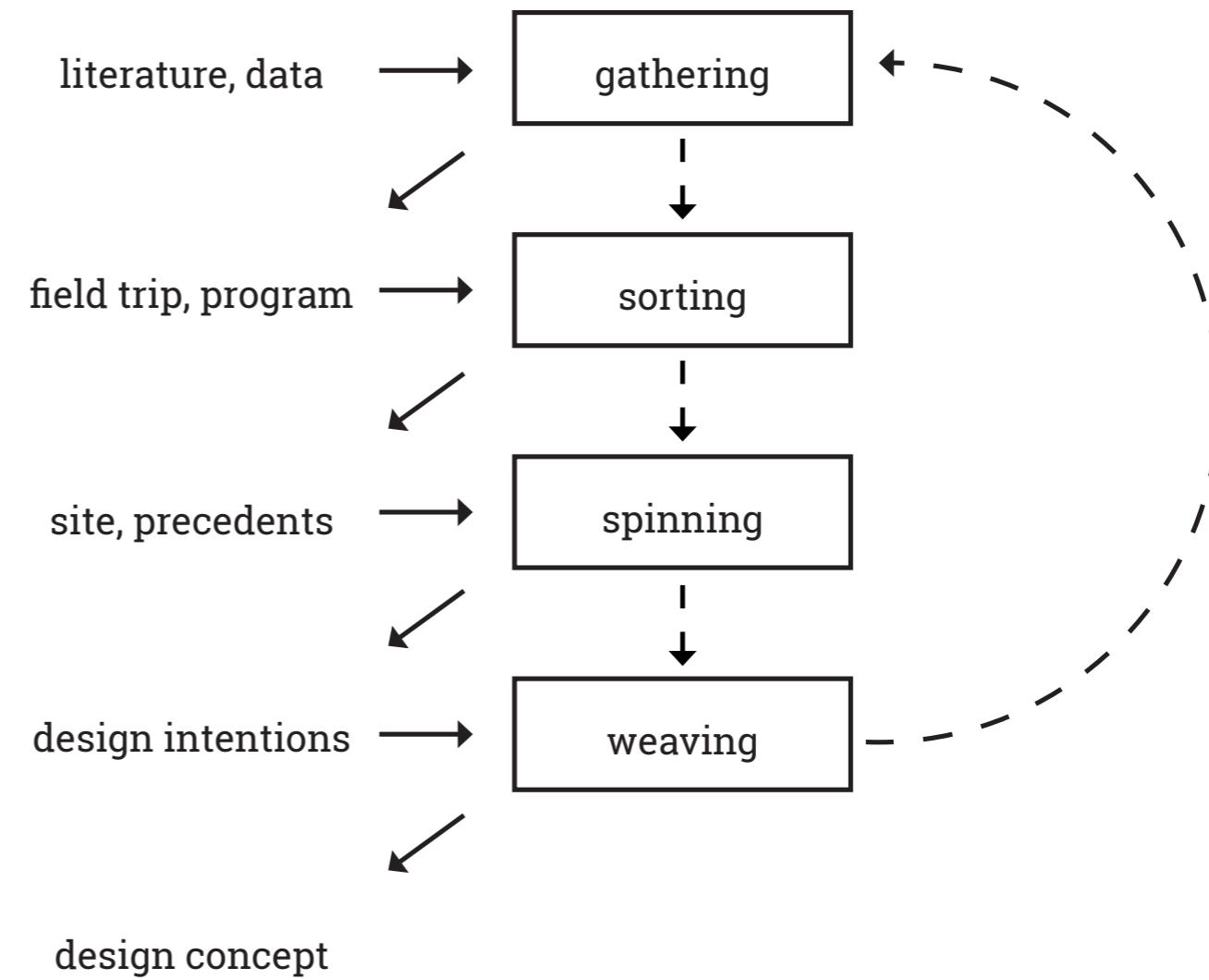
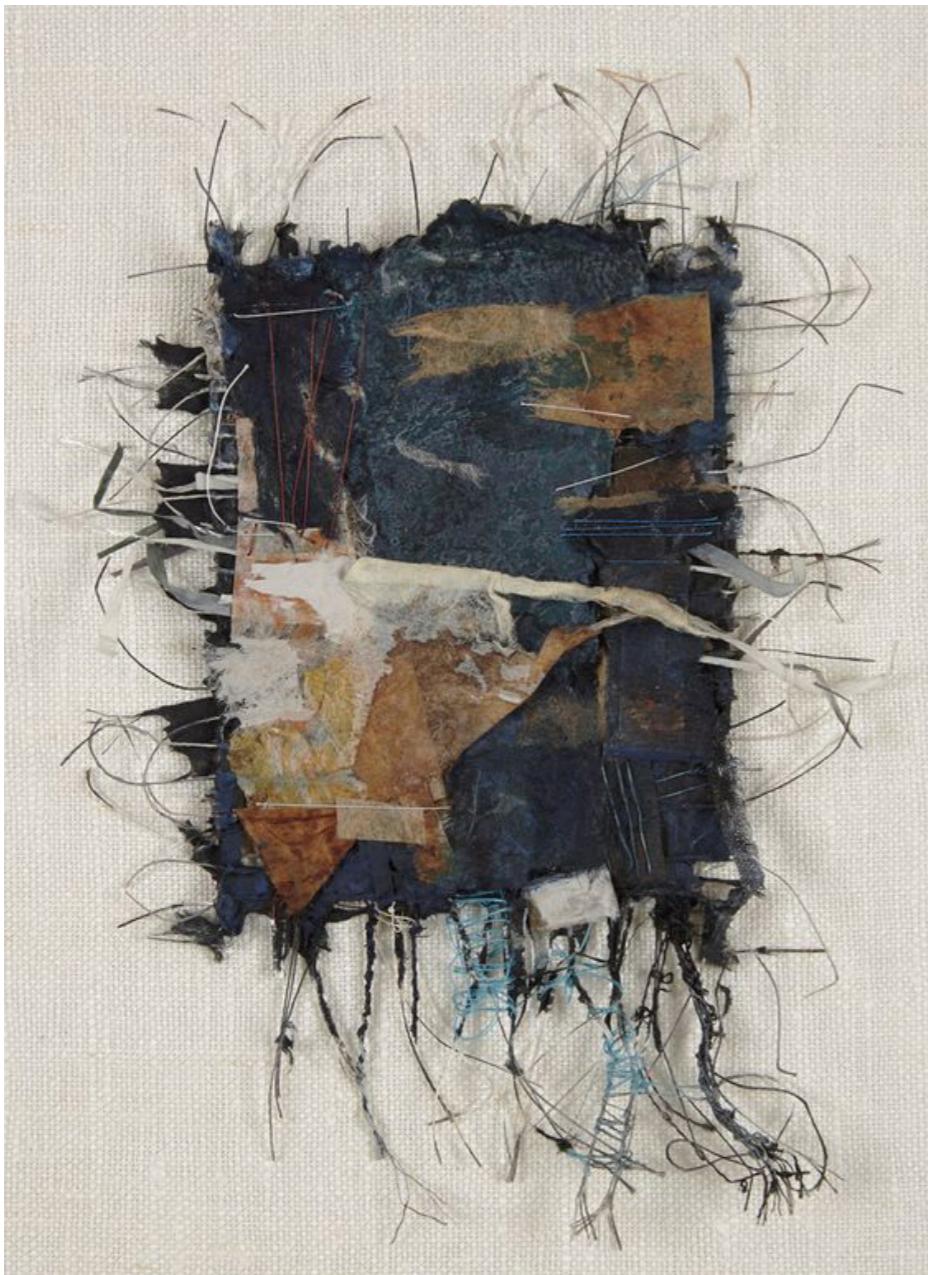
RESEARCH QUESTIONS

framework



RESEARCH METHOD

framework



RESEARCH METHOD

framework



■ Greater London border

LONDON

cartographic mapping



WATERWAYS

cartographic mapping

1800s - 1960s

Thames and its tributaries are critical ways of moving goods to and within the city

50x

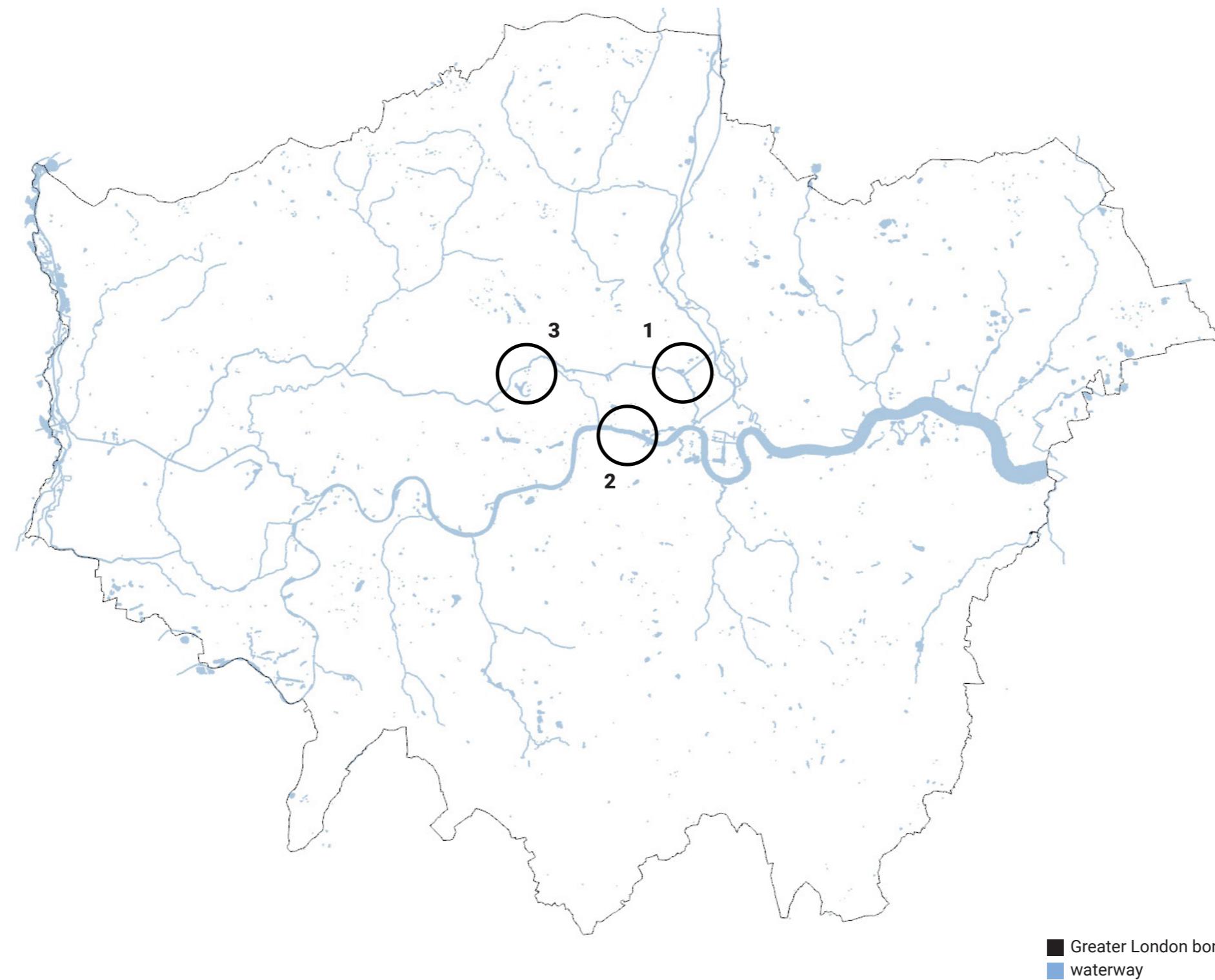
London's canals were built largely in the first half of the 19th century to accommodate demand for moving goods by water, as horse-drawn canal boats could shift around 50 times more cargo than carts.

107 km

Commercial canal use decreased from the mid-19th century with the spread of railways and, later, road-based transport. Today, 100km of canals stretch across north London and 7 km in south.

5 minutes

Estimated time of walking to the nearest water body for half of Londoners



WATERWAYS

cartographic mapping



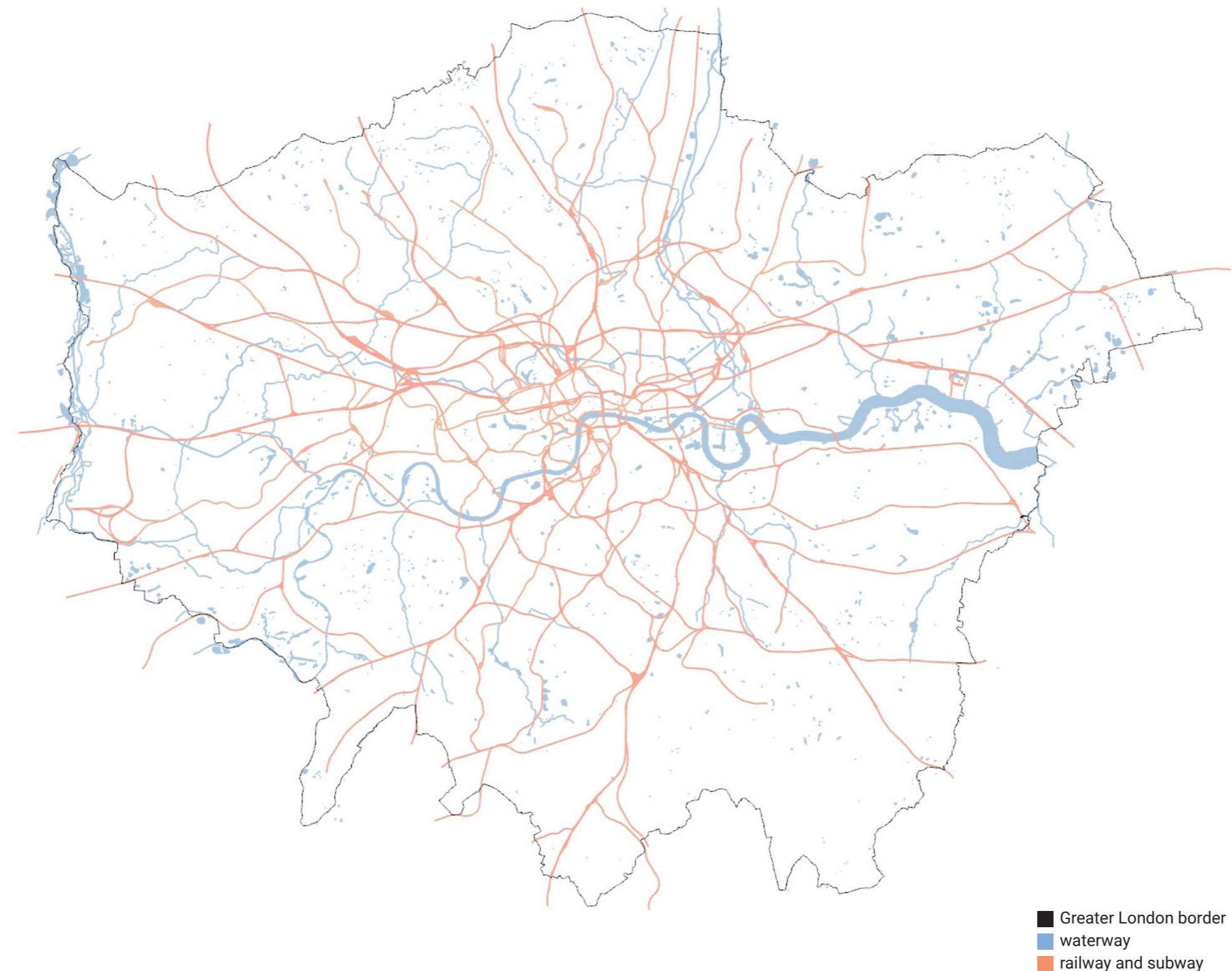
1 Regent's canal and industrial development



2 Water trams on Thames as a passenger transportation



3 Transporting plastic waste by barges at the Camden's market



RAILWAYS

cartographic mapping

1863

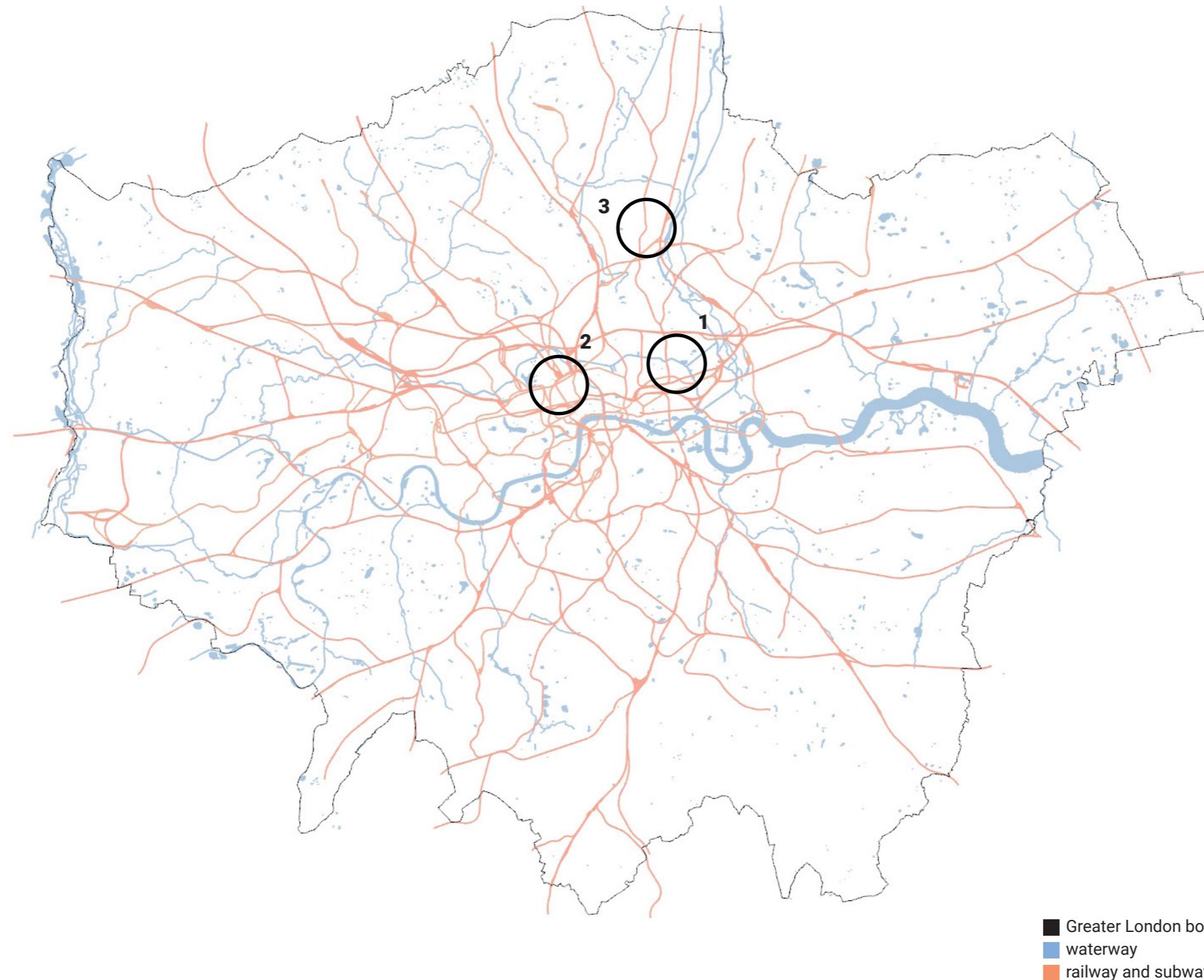
The London Underground is the oldest underground railway network in the world, it was built in 1863.

55%

55% of the London Underground, is not underground.

GOODS

Beside passenger transportation, the freight rail provides also movements of containerised goods, materials for construction sector, removal of city's waste and aviation fuel for Heathrow airport.



RAILWAYS

cartographic mapping



1 Overground railway arches are dividing neighbourhoods

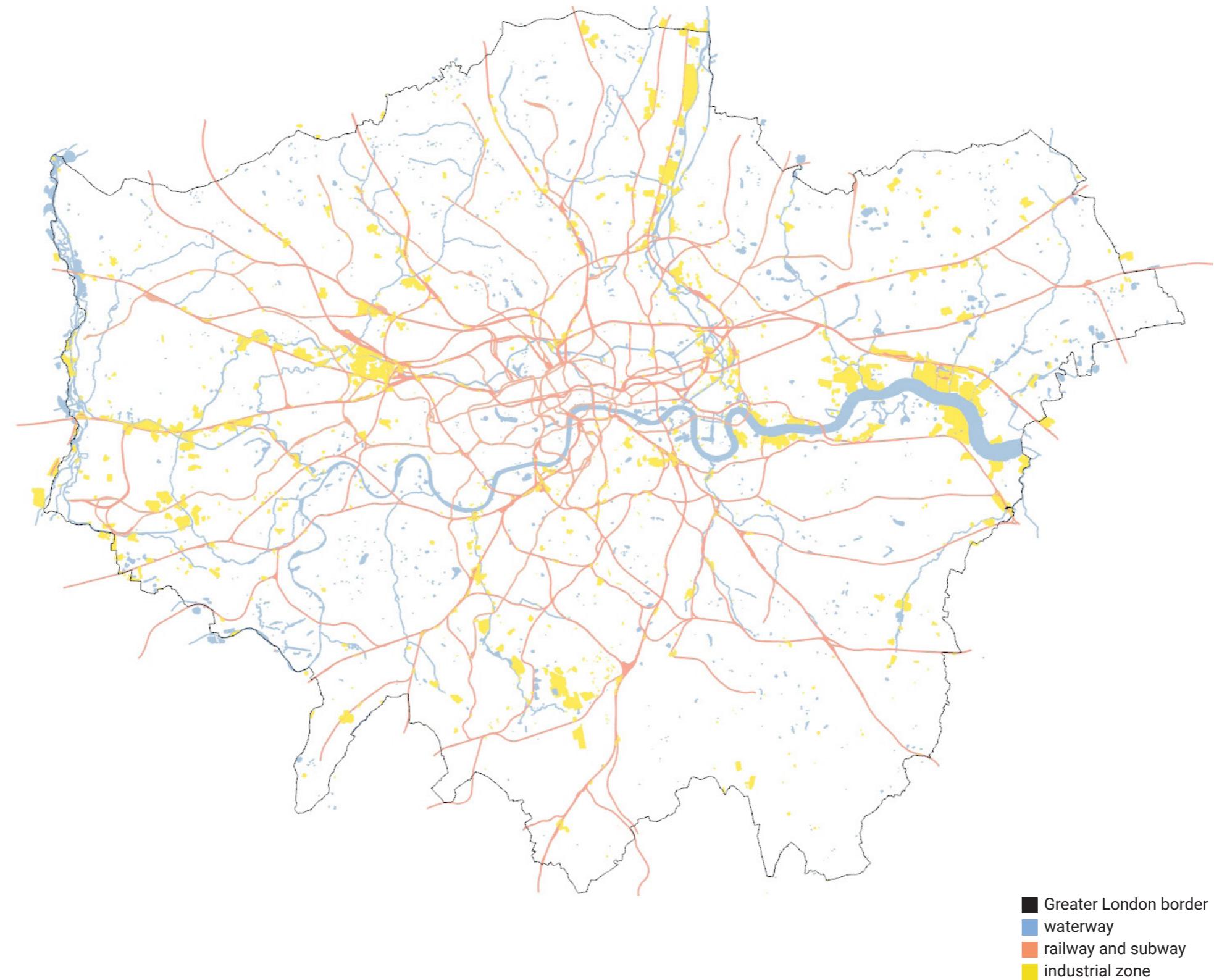


2 Underground stations as public spaces



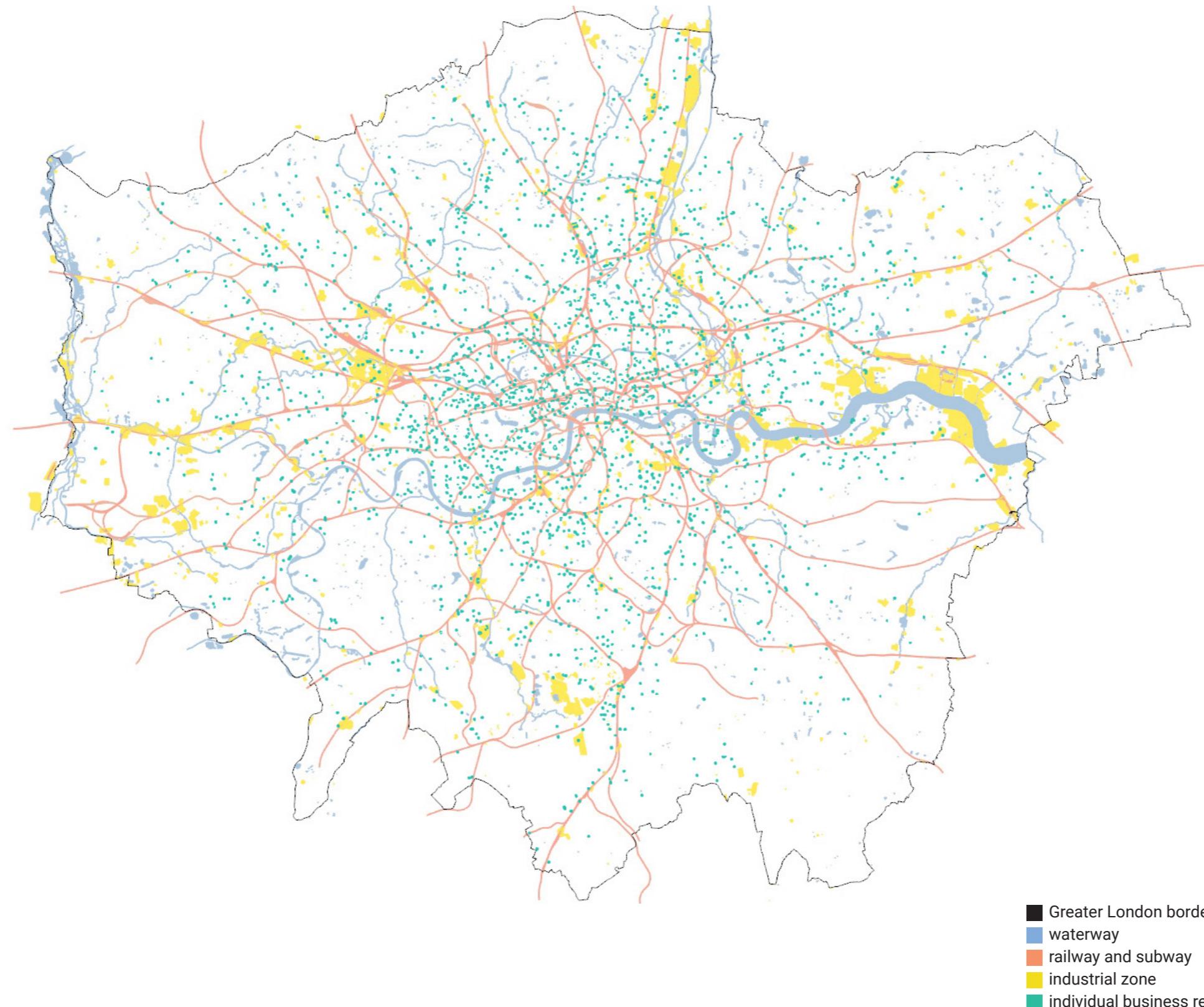
3 Continuous railway lines are conductors of additional infrastructure

Cartographic mapping



INDUSTRIAL ZONES

cartographic mapping



INDIVIDUAL BUSINESSES RELATED TO APPAREL

cartographic mapping

1 in 6

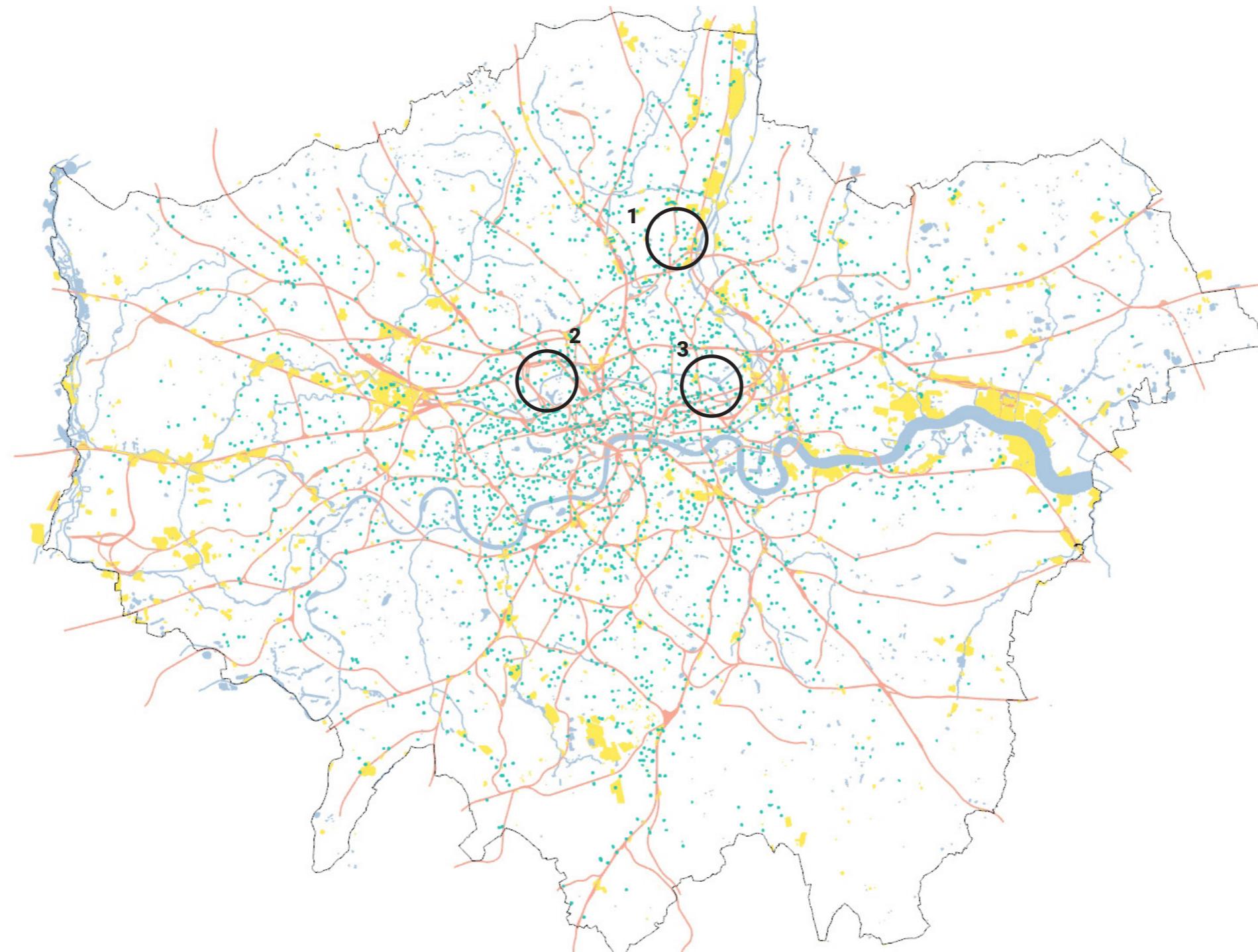
In 1861 around one sixth of the country manufacturing workers were employed in the capital.

50 years

London's manufacturing base has declined significantly over the last 50 years. The shift to higher skilled, higher productivity employment.

2.2%

In London today the manufacturing sector accounts for 2.2 percent of total employment. More people are employed in manufacturing in London (114 000) than in other UK city regions.



- Greater London border
- waterway
- railway and subway
- industrial zone
- individual business related to apparel

MANUFACTURING

cartographic mapping



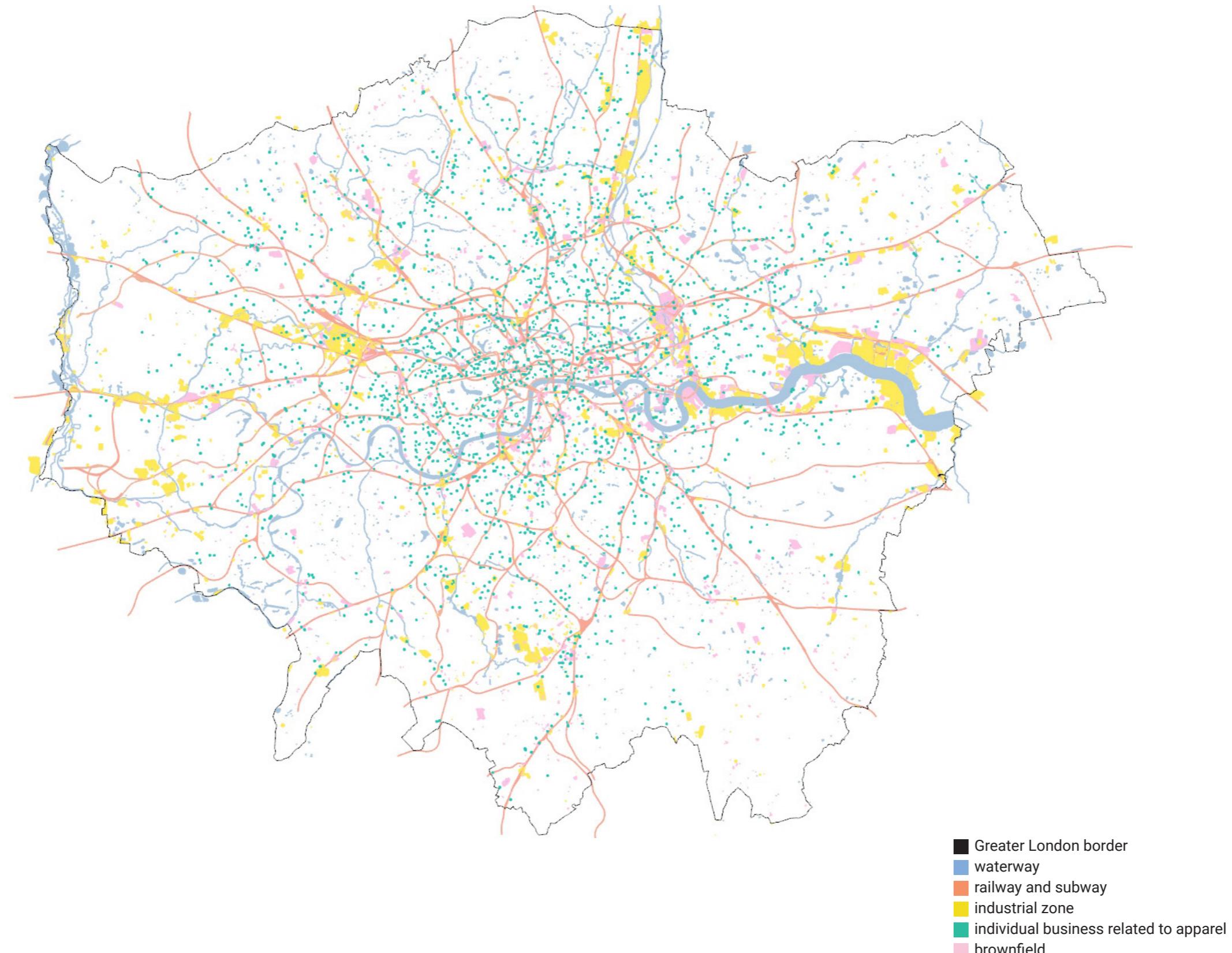
1 Overground railway arches are dividing neighbourhoods



2 Underground stations as public spaces

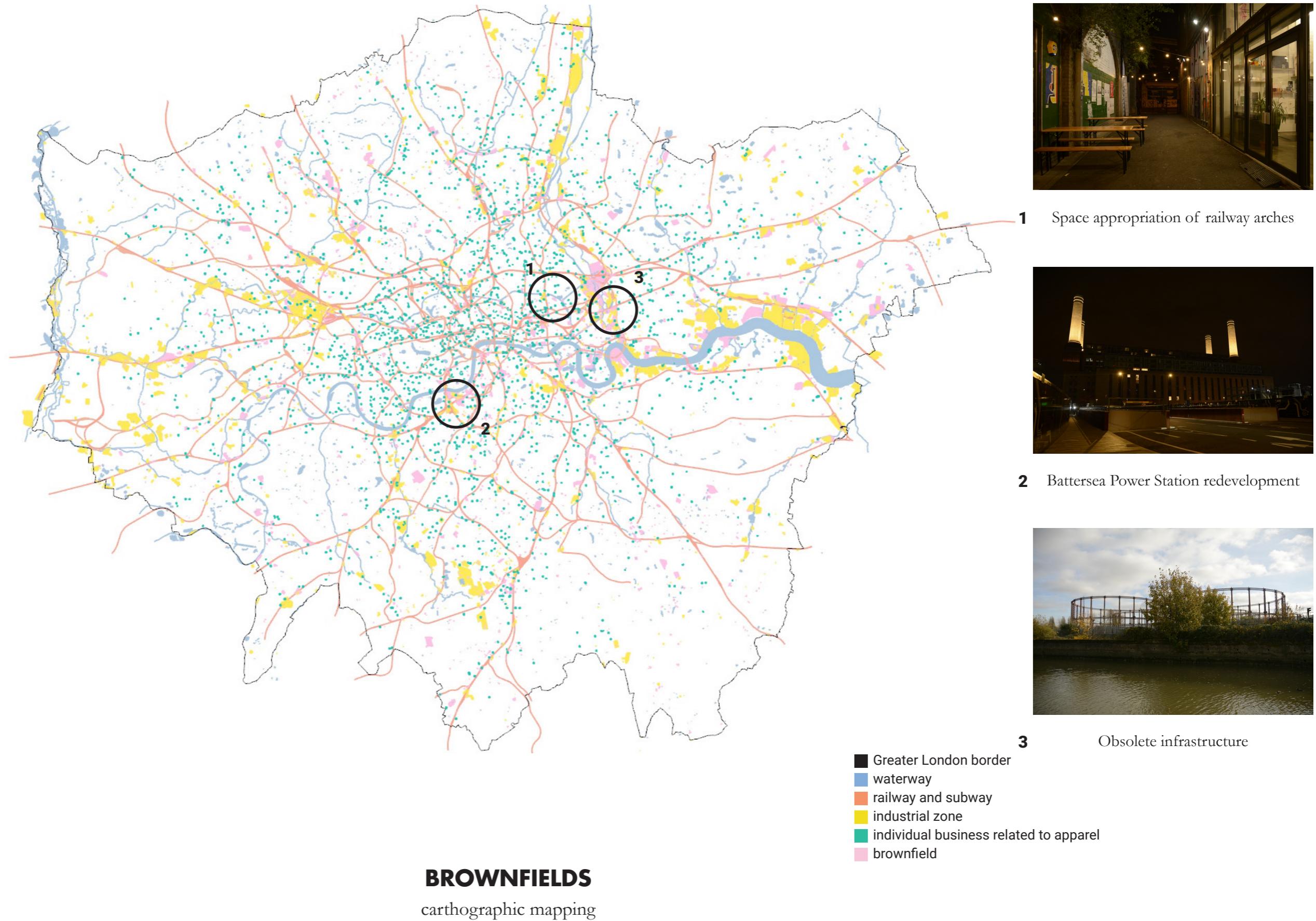


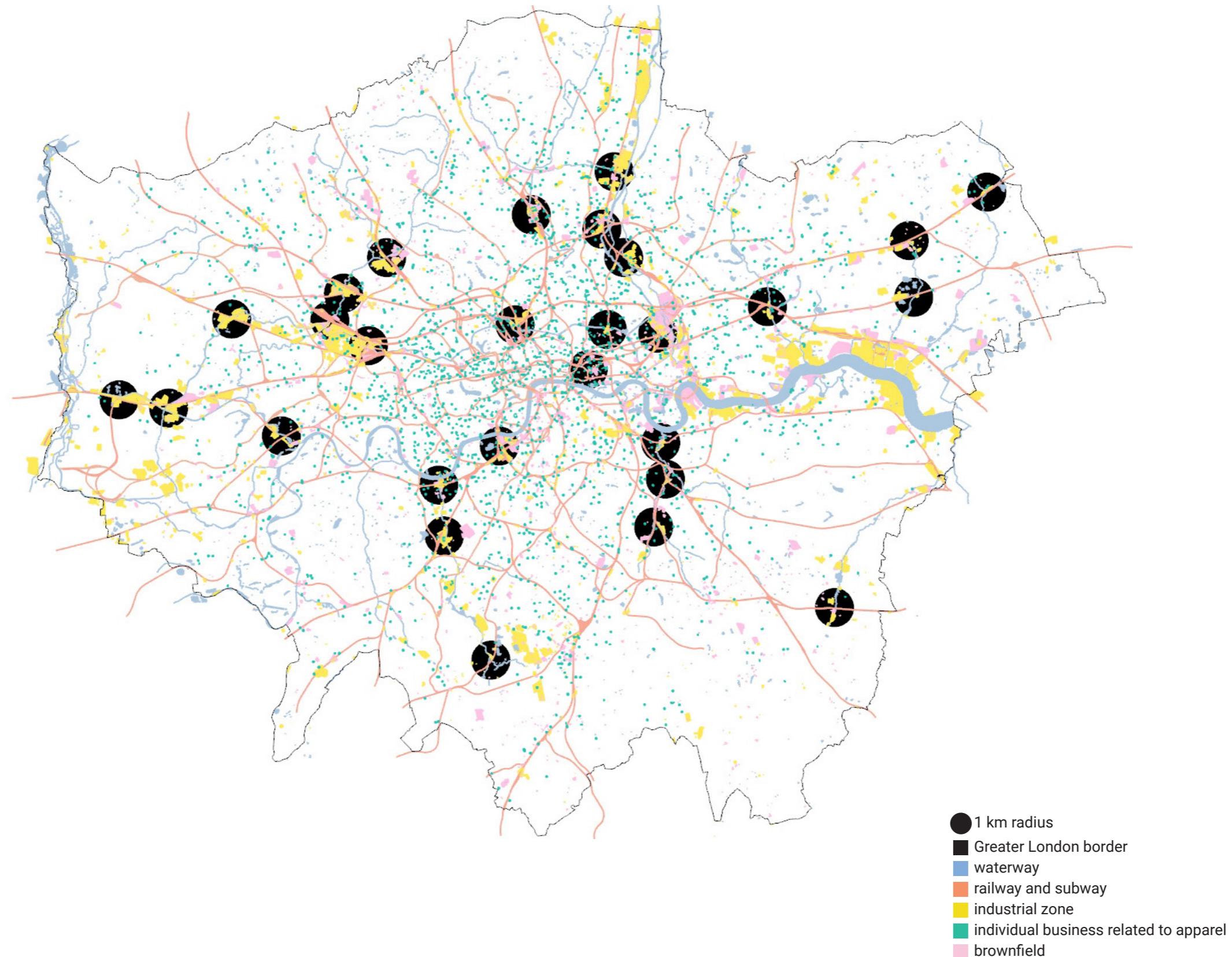
3 Continuous railway lines are conductors of additional infrastructure



36,700

London Borough councils own approximately 36,700 brownfield sites across the capital, according to an analysis of data from the London Land Commission (LLC).

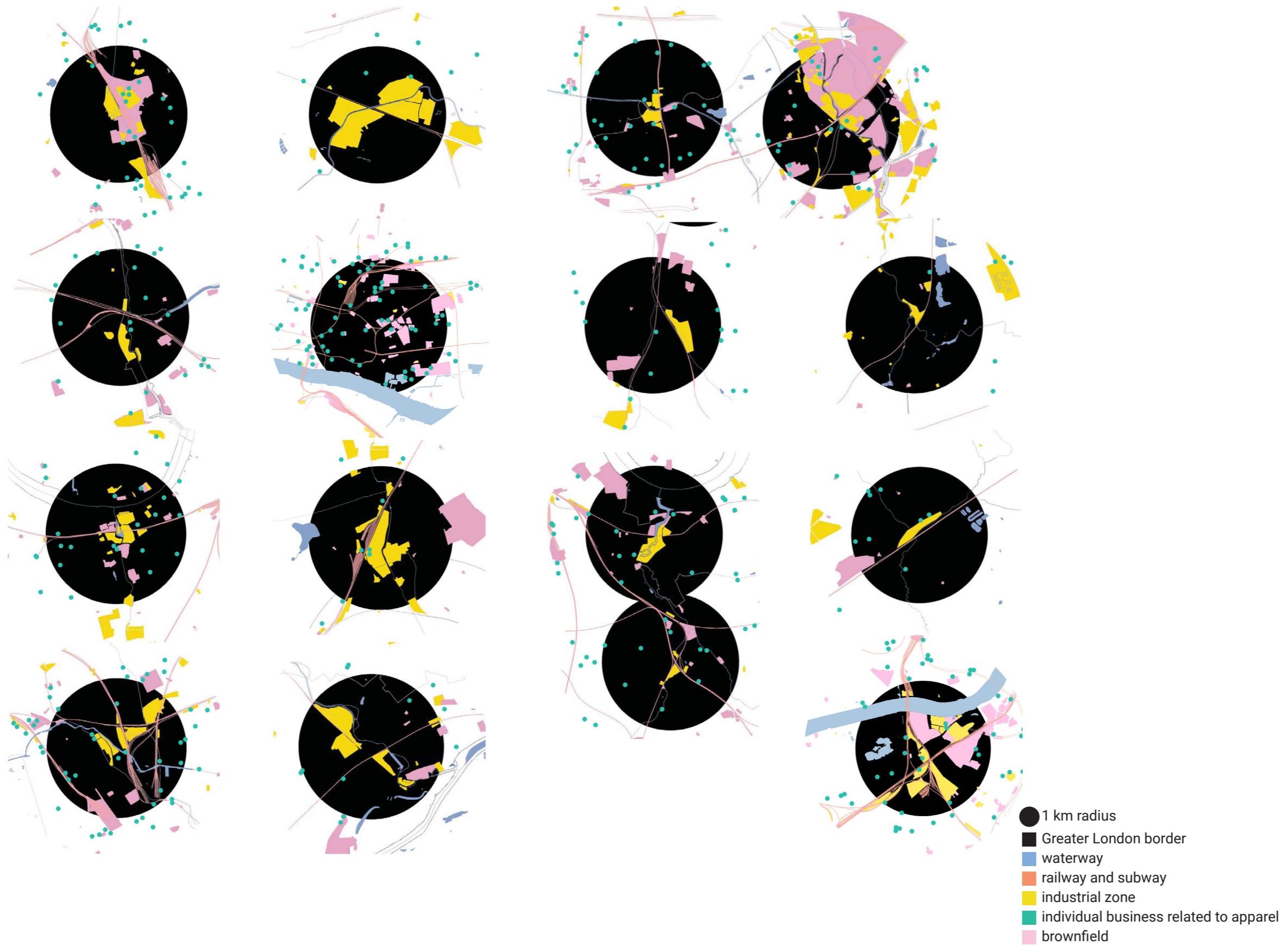




INTERSECTIONS

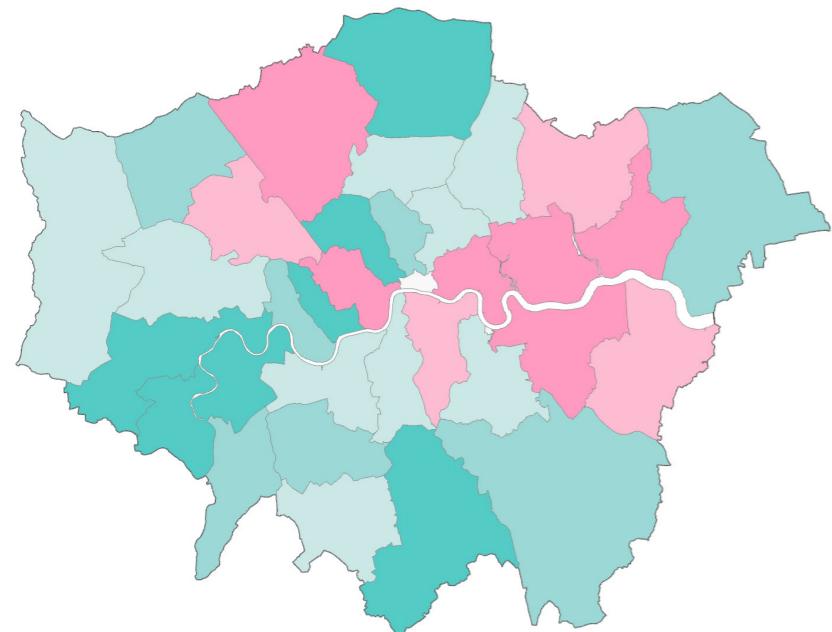
cartographic mapping

- 1 km radius
- Greater London border
- waterway
- railway and subway
- industrial zone
- individual business related to apparel
- brownfield

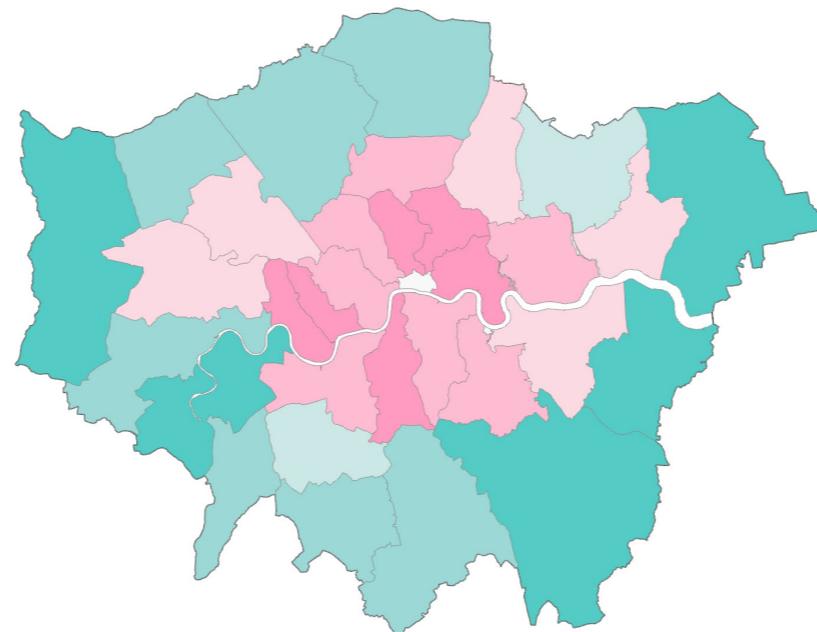


INTERSECTIONS

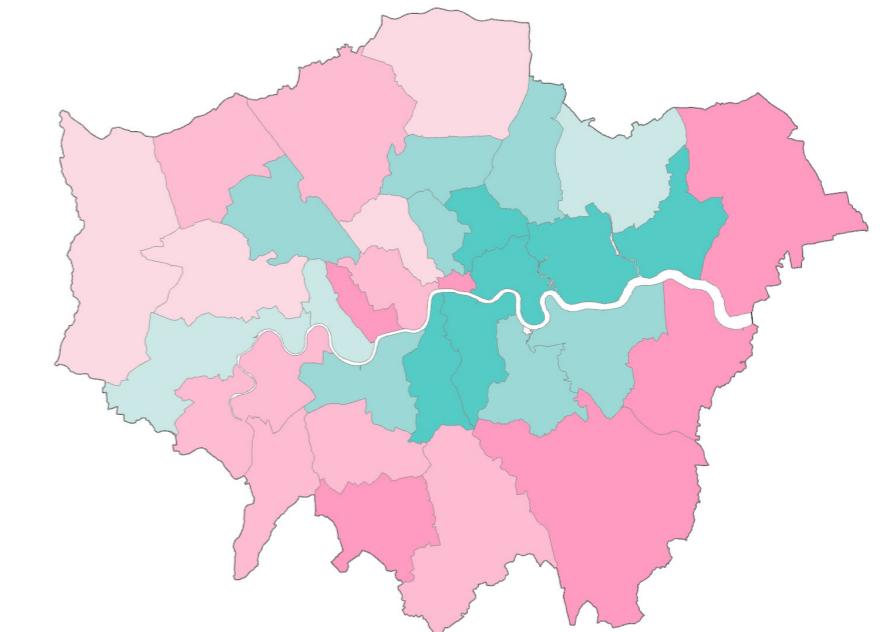
cartographic mapping



Unemployment rate (6.1)



Population density (56 people per hectare)



Average age (36.0)

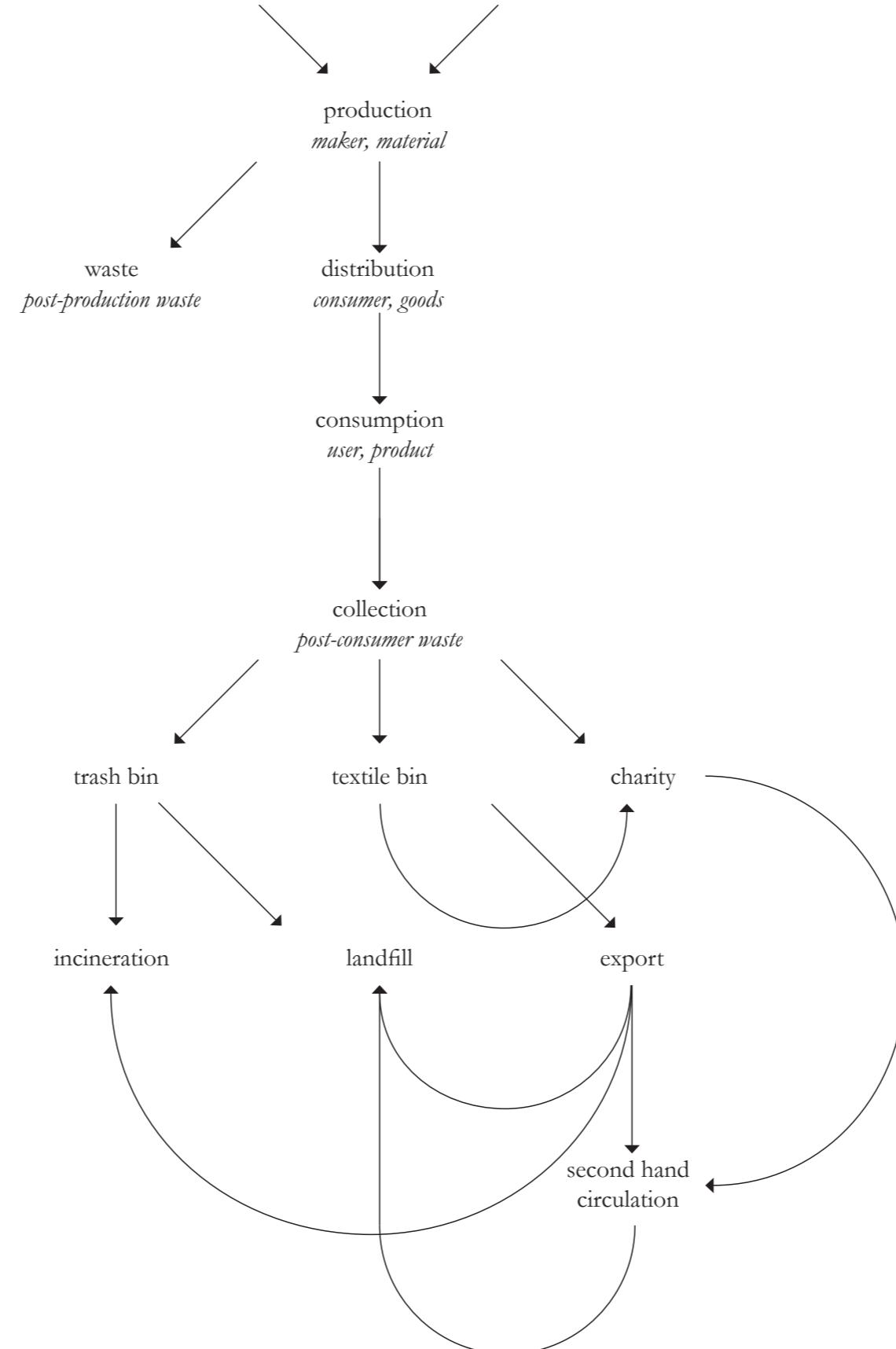
lower than average
higher than average

SOCIAL LAYER

thematic mapping

natural fibres: cotton, linen, silk, wool
cotton-plant seed pods, flax, silkworms, animal coats

synthetic fibres: acrylic, lycra, nylon, rayon, polyester
man-made polymers derived from petroleum

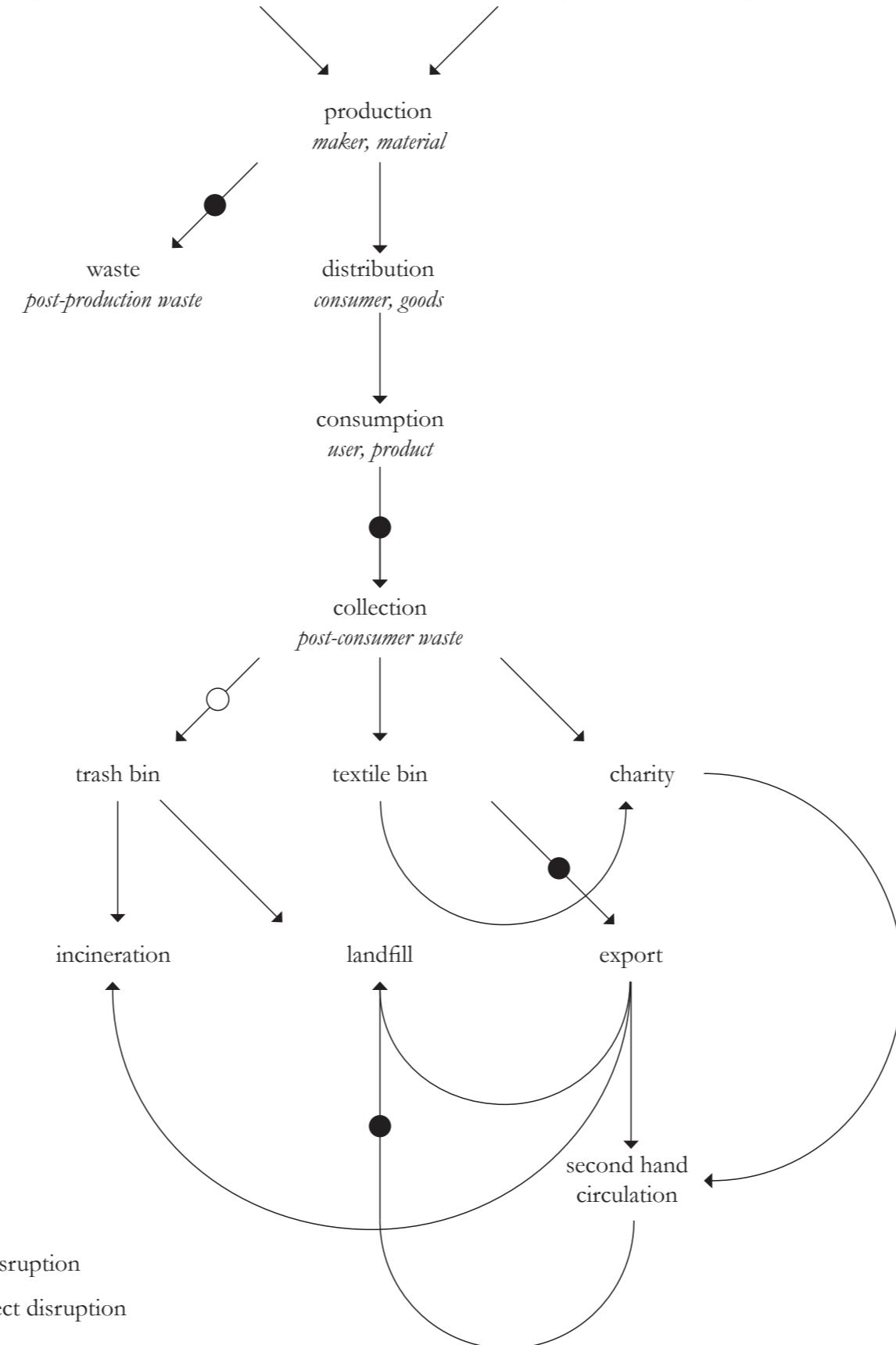


TEXTILE FLOW LAYER

thematic mapping

natural fibres: cotton, linen, silk, wool
cotton-plant seed pods, flax, silkworms, animal coats

synthetic fibres: acrylic, lycra, nylon, rayon, polyester
man-made polymers derived from petroleum

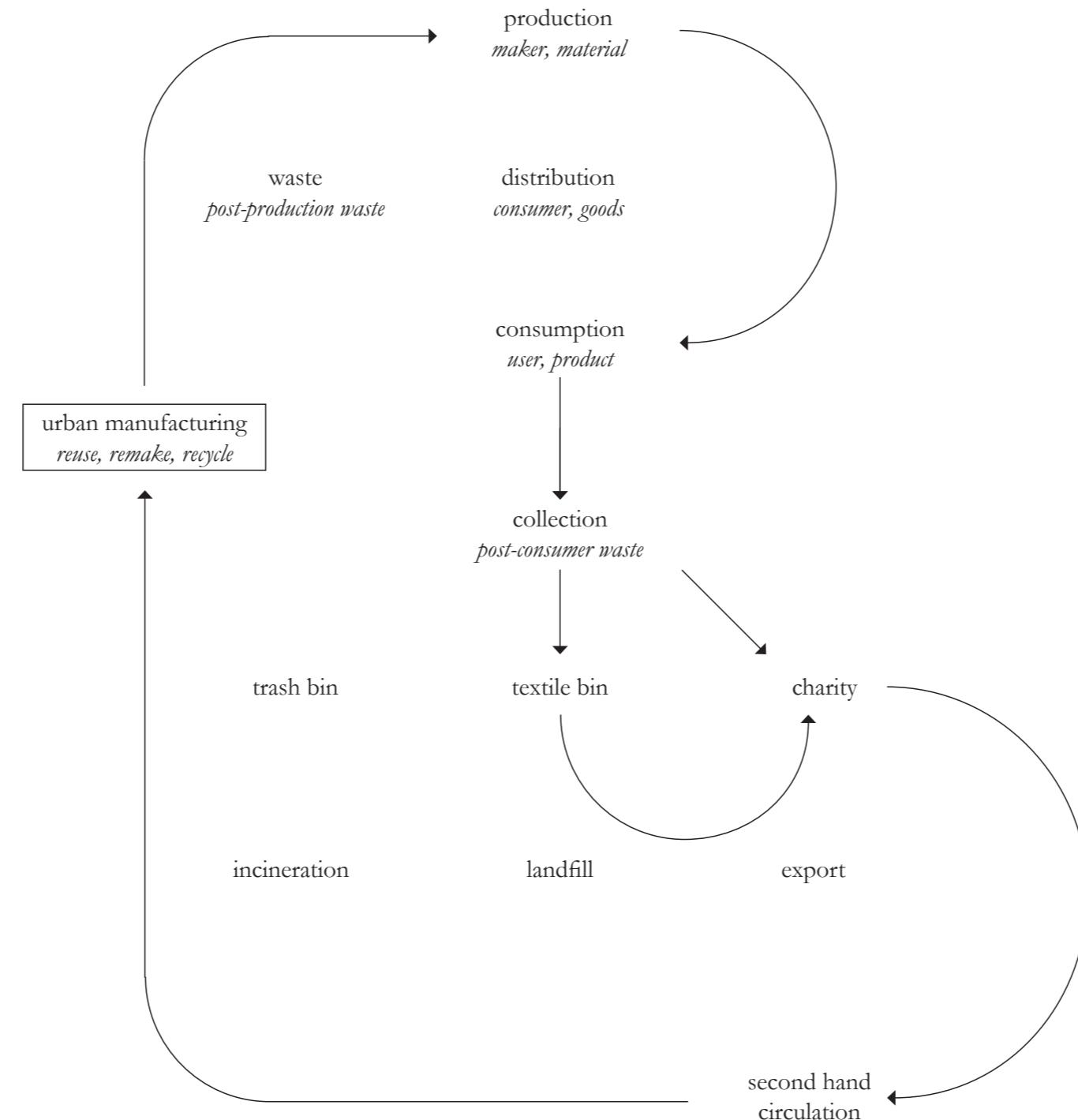


TEXTILE FLOW LAYER

thematic mapping

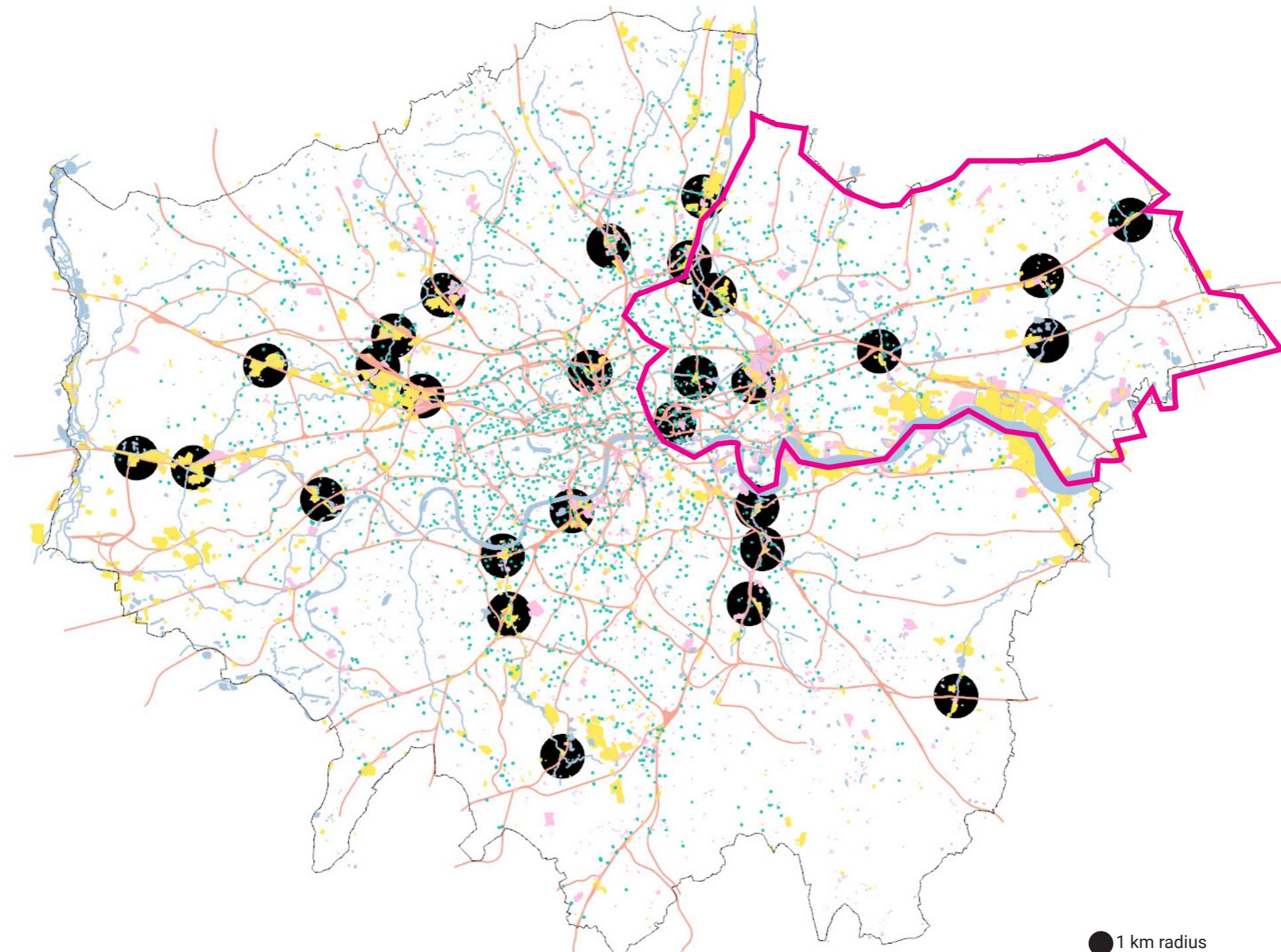
natural fibres: cotton, linen, silk, wool
cotton-plant seed pods, flax, silkworms, animal coats

synthetic fibres: acrylic, lycra, nylon, rayon, polyester
man-made polymers derived from petroleum



TEXTILE FLOW LAYER

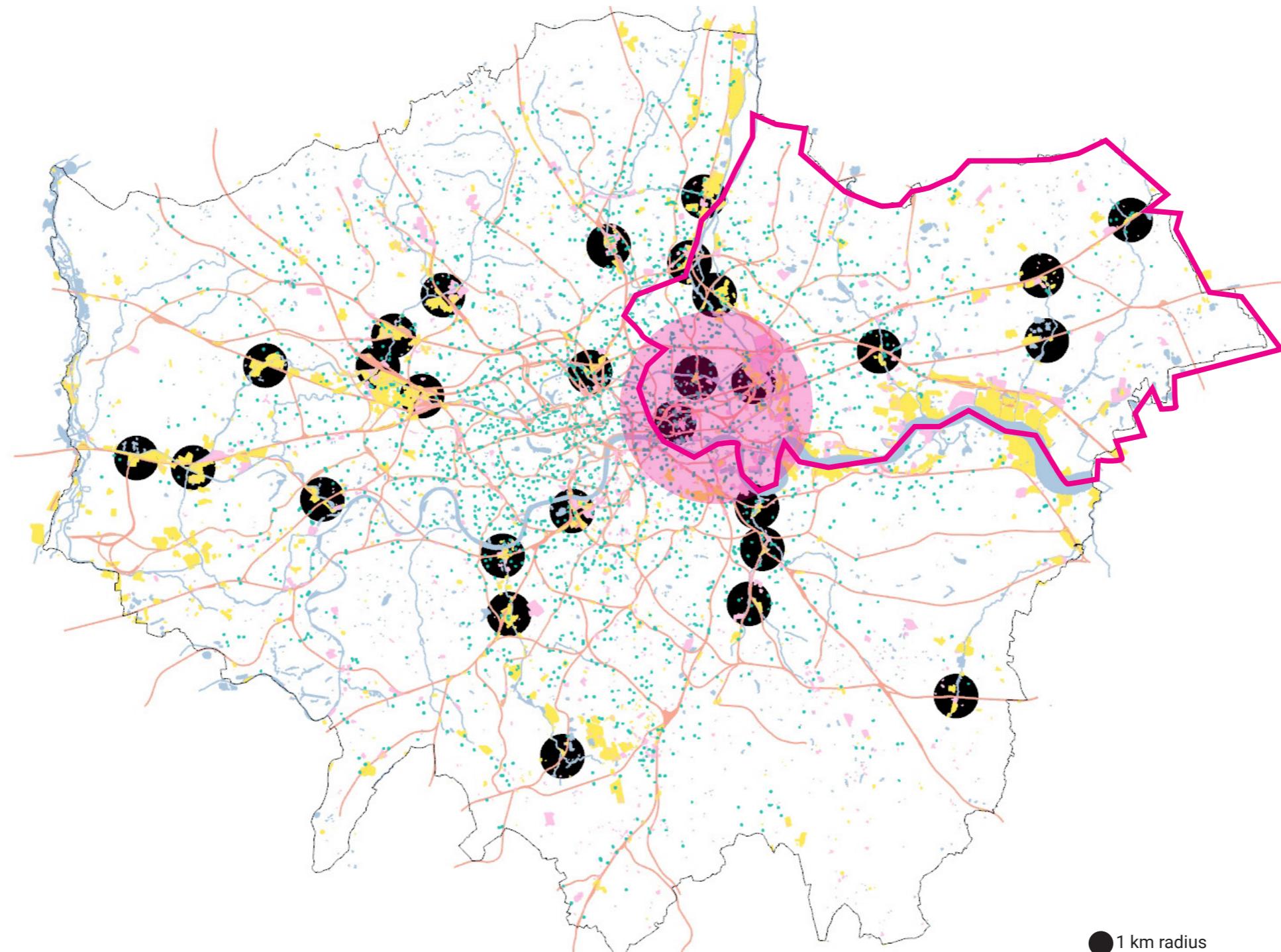
thematic mapping



EAST LONDON WITH FASHION PAST

thematic mapping

- 1 km radius
- Greater London border
- waterway
- railway and subway
- industrial zone
- individual business related to apparel
- brownfield



INNER LONDON DISTRICTS

thematic mapping

- 1 km radius
- Greater London border
- waterway
- railway and subway
- industrial zone
- individual business related to apparel
- brownfield



Spitalfields, Tower Hamlets



Maker Mile, Hackney

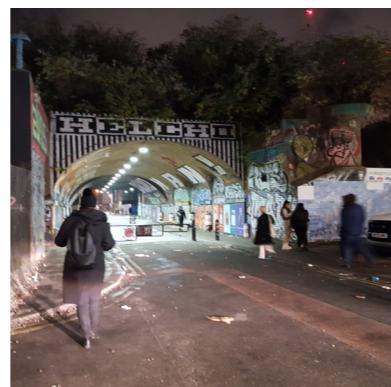
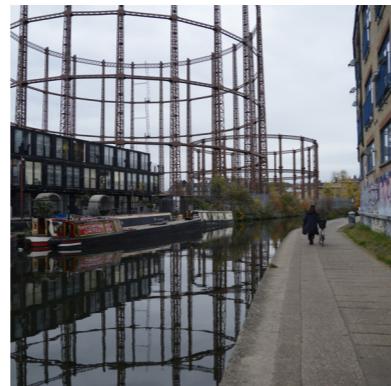
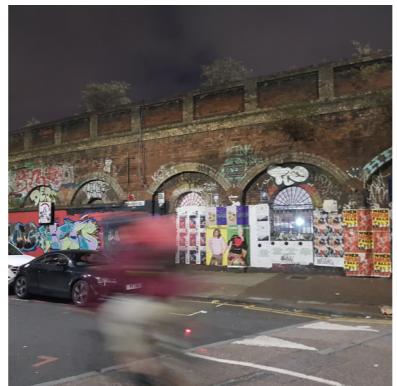
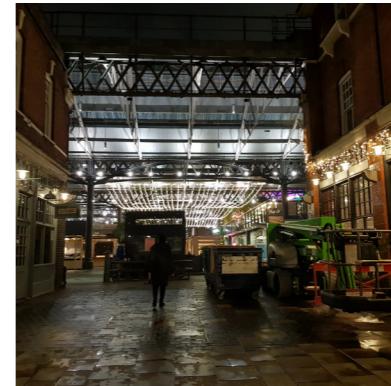
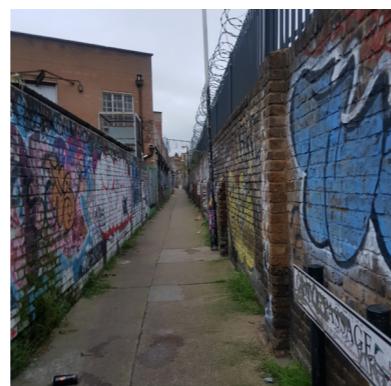
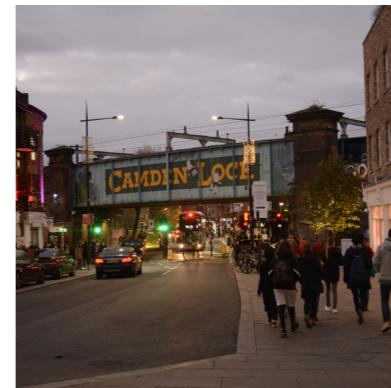
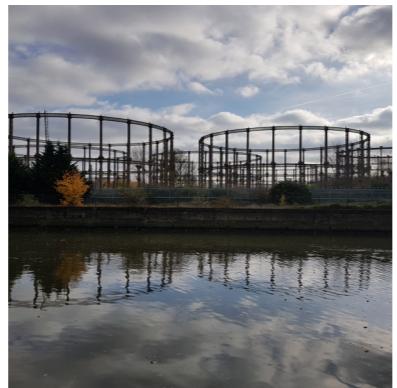
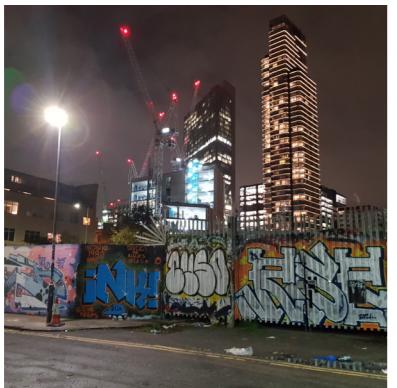


Lea Valley, Tower Hamlets

- 1 km radius
- Greater London border
- waterway
- railway and subway
- industrial zone
- individual business related to apparel
- brownfield

CONSTRUCTING SITE

thematic mapping



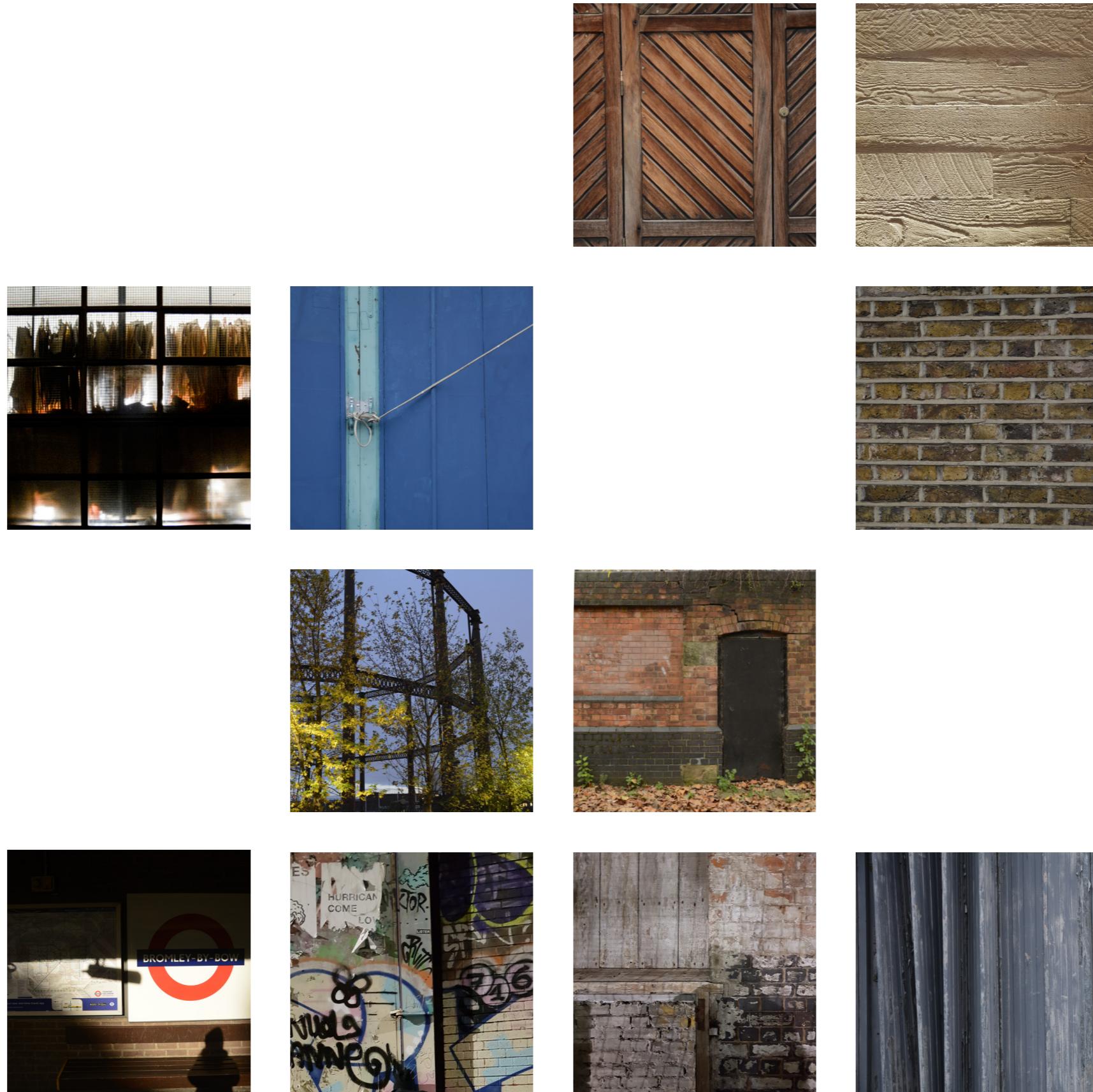
SPACE

field research



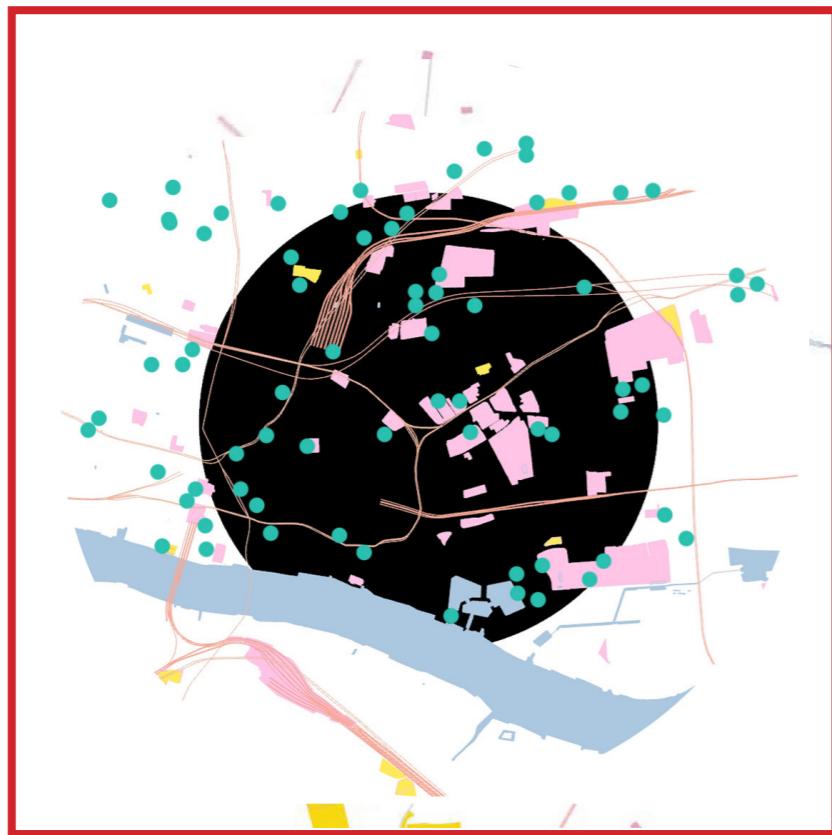
PEOPLE

field research



MATERIALS

field research



Spitalfields, Tower Hamlets



Maker Mile, Hackney



Lea Valley, Tower Hamlets

- 1 km radius
- Greater London border
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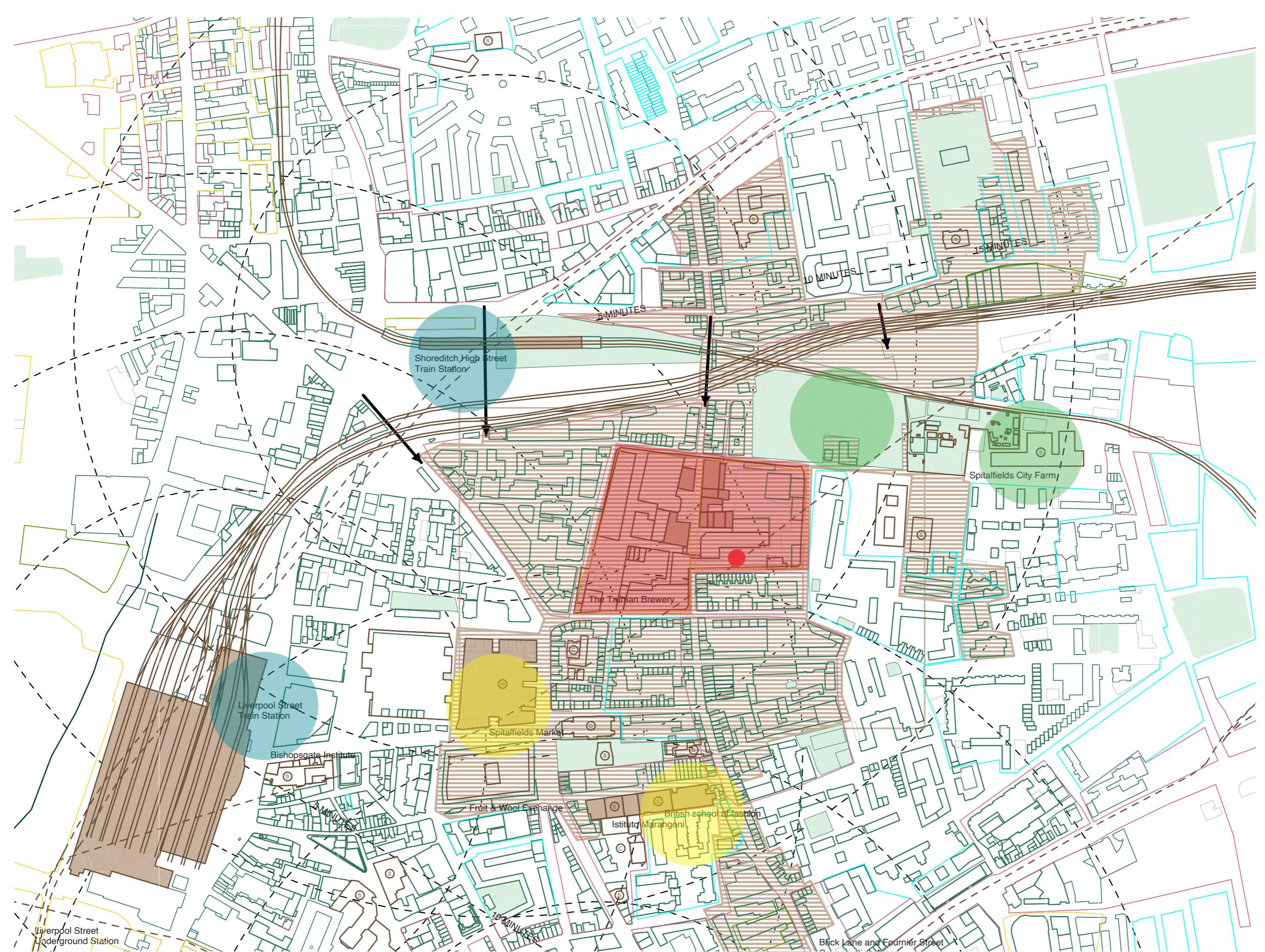
CONSTRUCTING SITE

field research



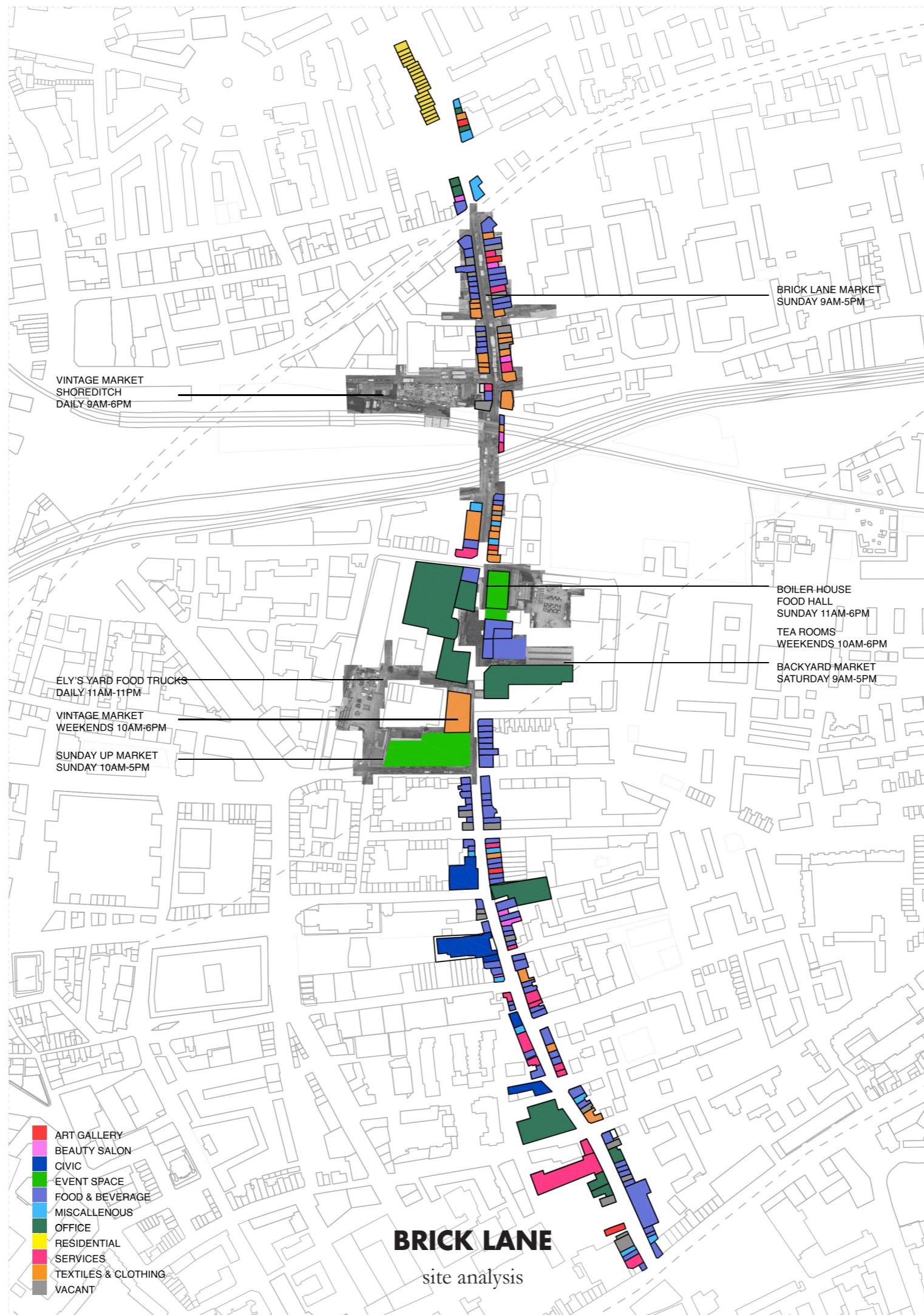
THE TRUMAN'S BREWERY

site analysis



SPITALFIELDS

site analysis





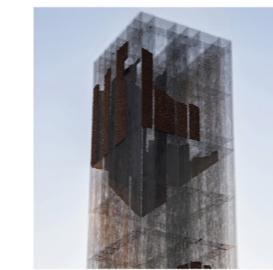
BRICK LANE COMMUNITY

site analysis

Peter Zumthor
Werkraum



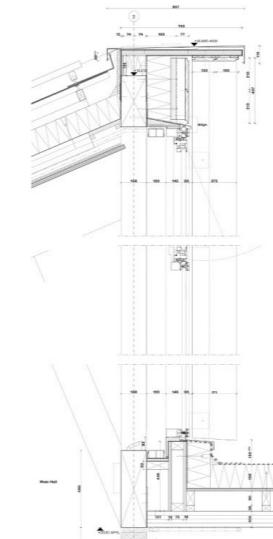
Herzog & de Meuron
Dominus Winery



Eduardo Tresoldi,
Gharfa Pavilion



Architecture 00,
The Foundry



Mae Architects
Arts and Community
Centre



connectedness

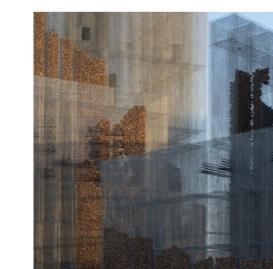
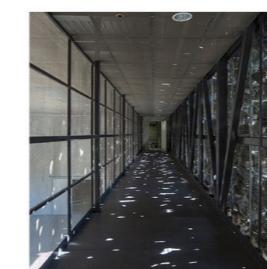
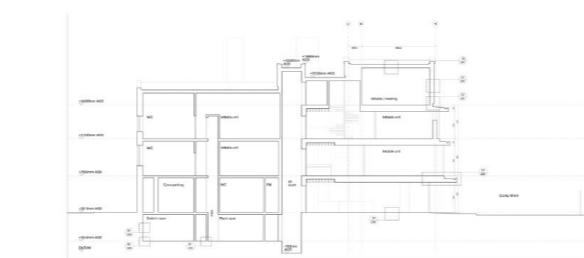
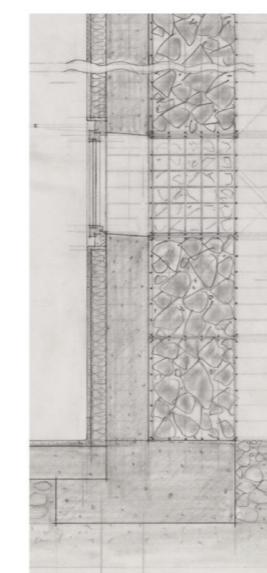
flexibility

permeability

sustainability

tactility

transparency



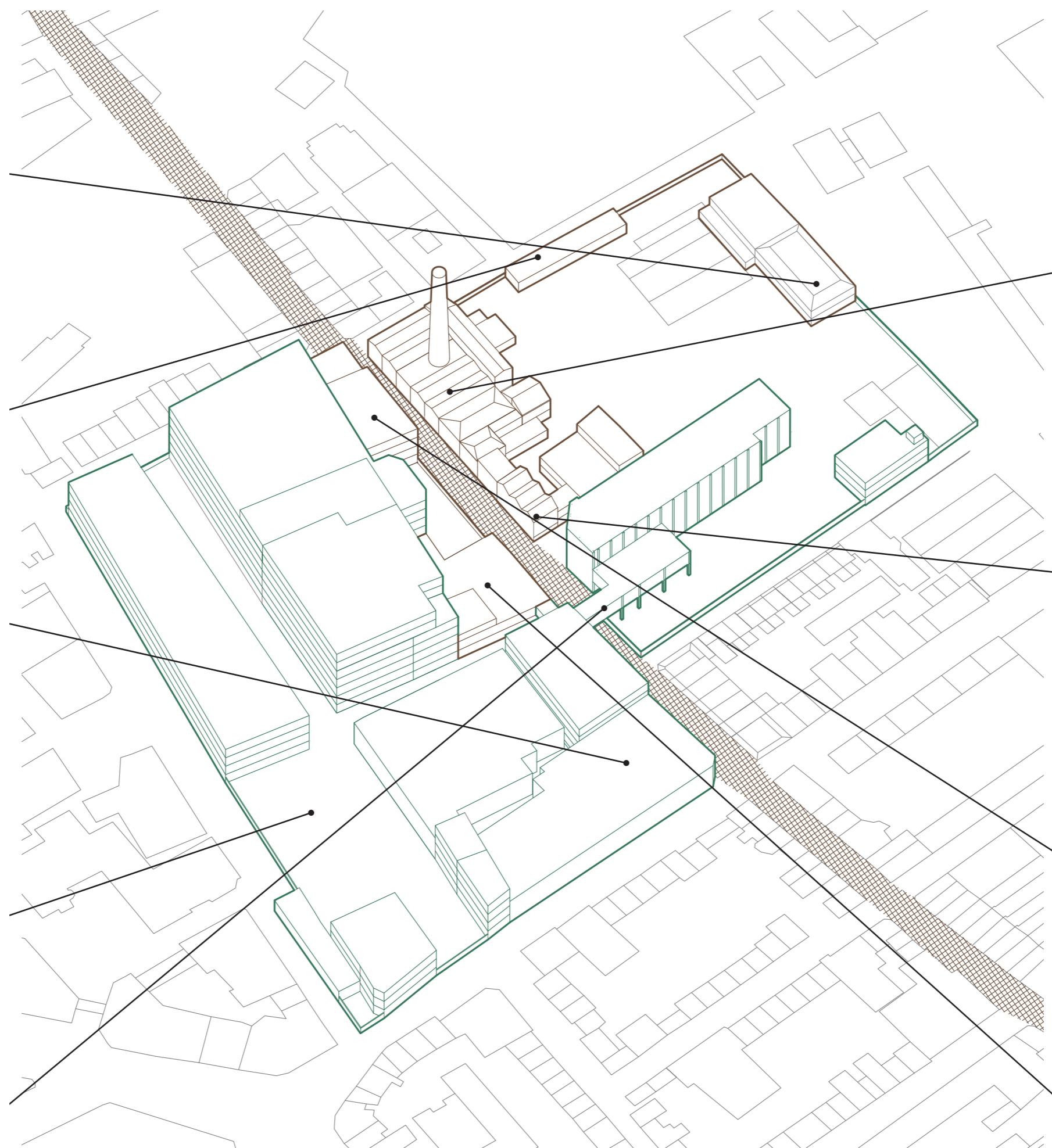
MATERIALITY IN REFERENCES

site analysis



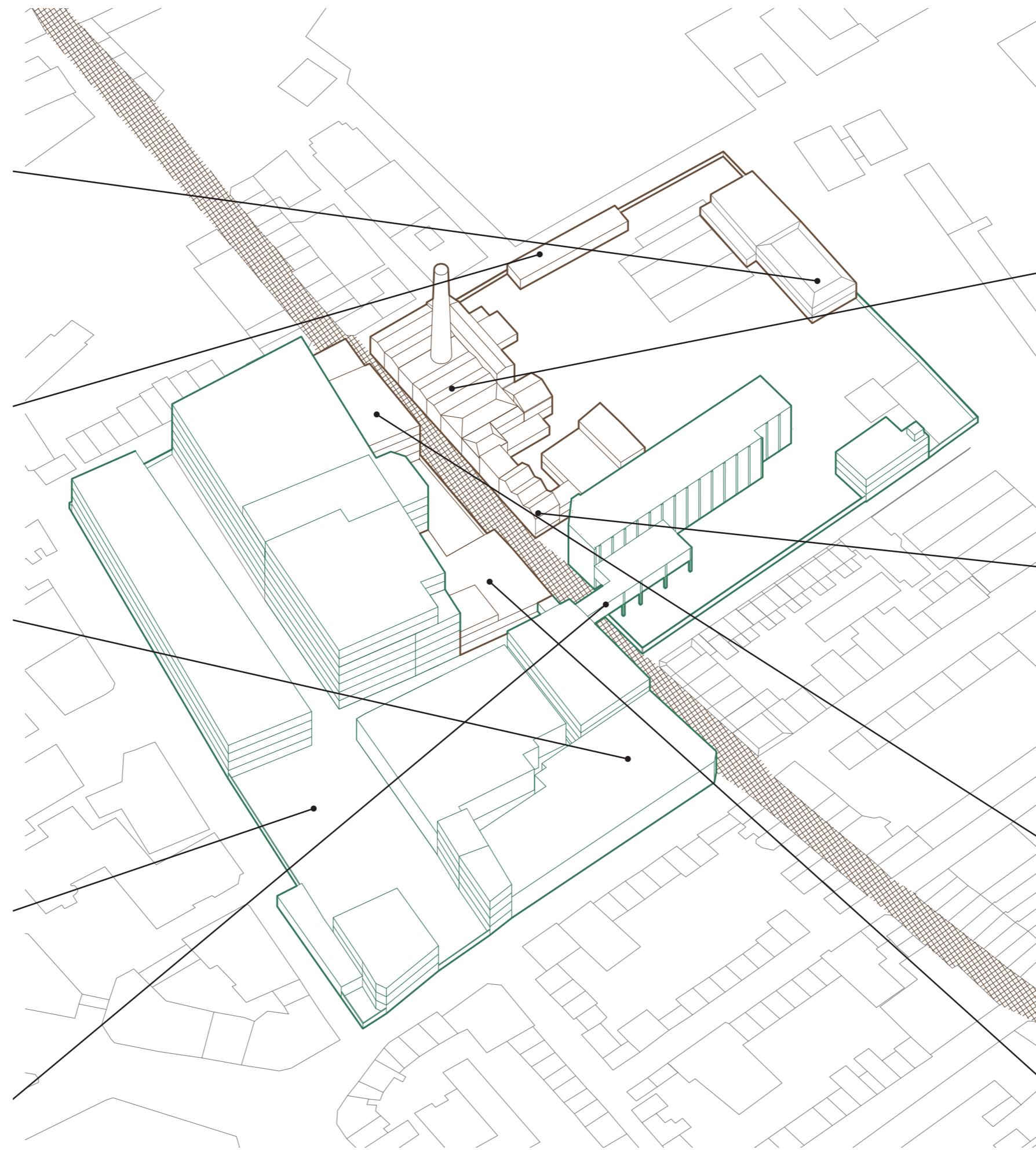
MATERIALITY ON SITE

site analysis



MATERIALITY ON SITE

site analysis



Former Stables (Boiler House)
& Engineer's House

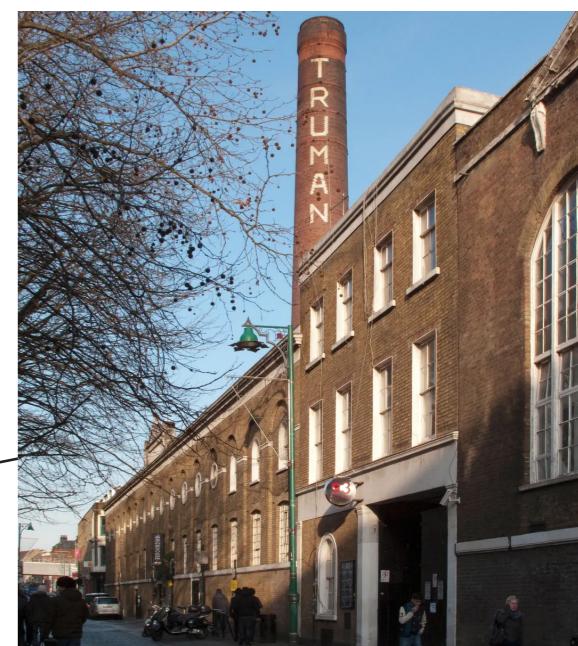
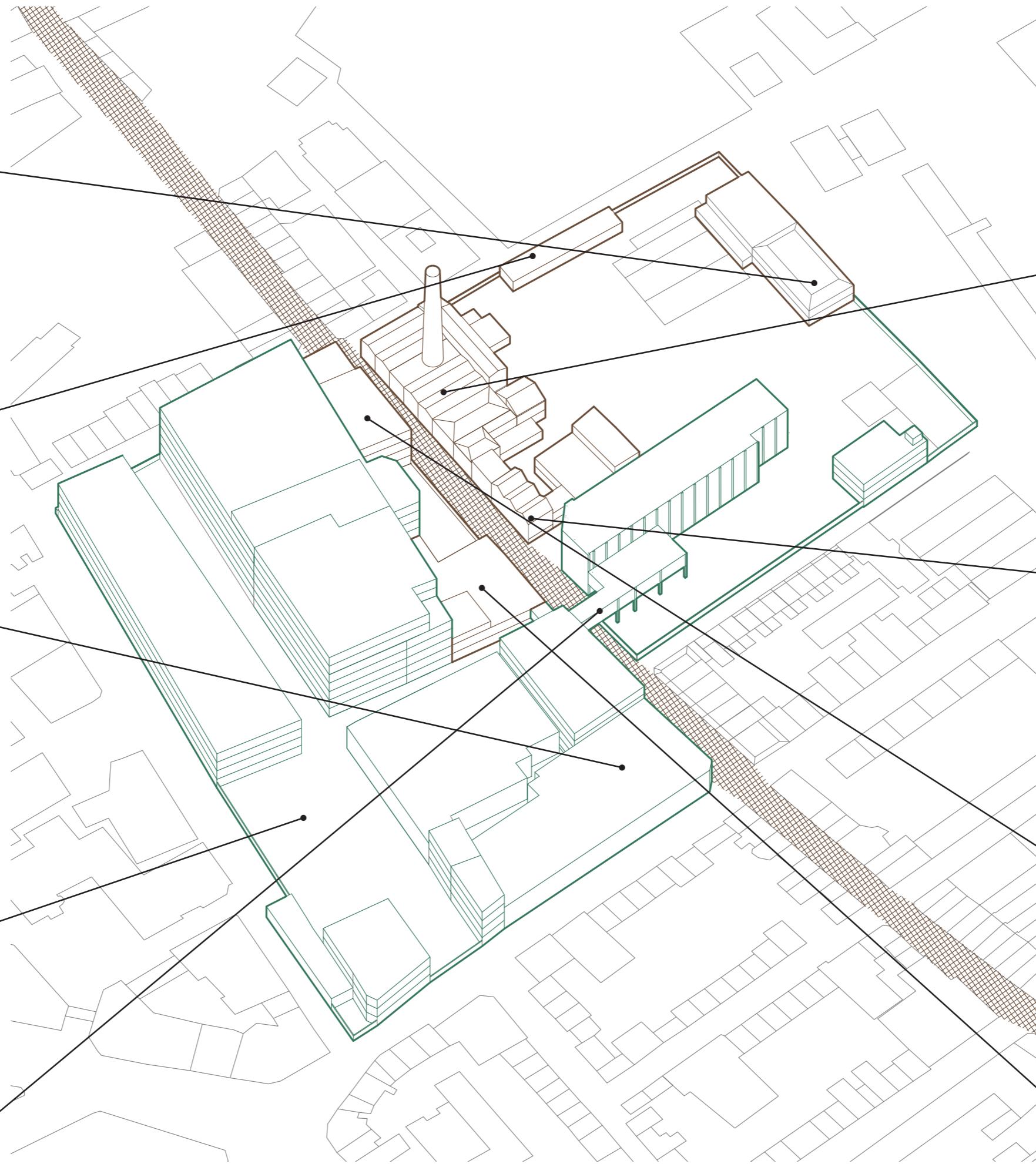
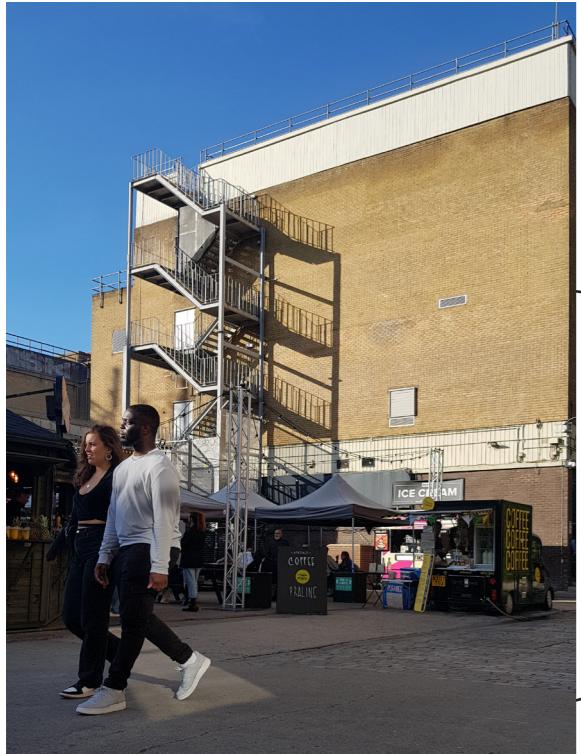


Vat House



Brewmaster's House





Former Stables (Boiler House)
& Engineer's House



Vat House



Brewmaster's House



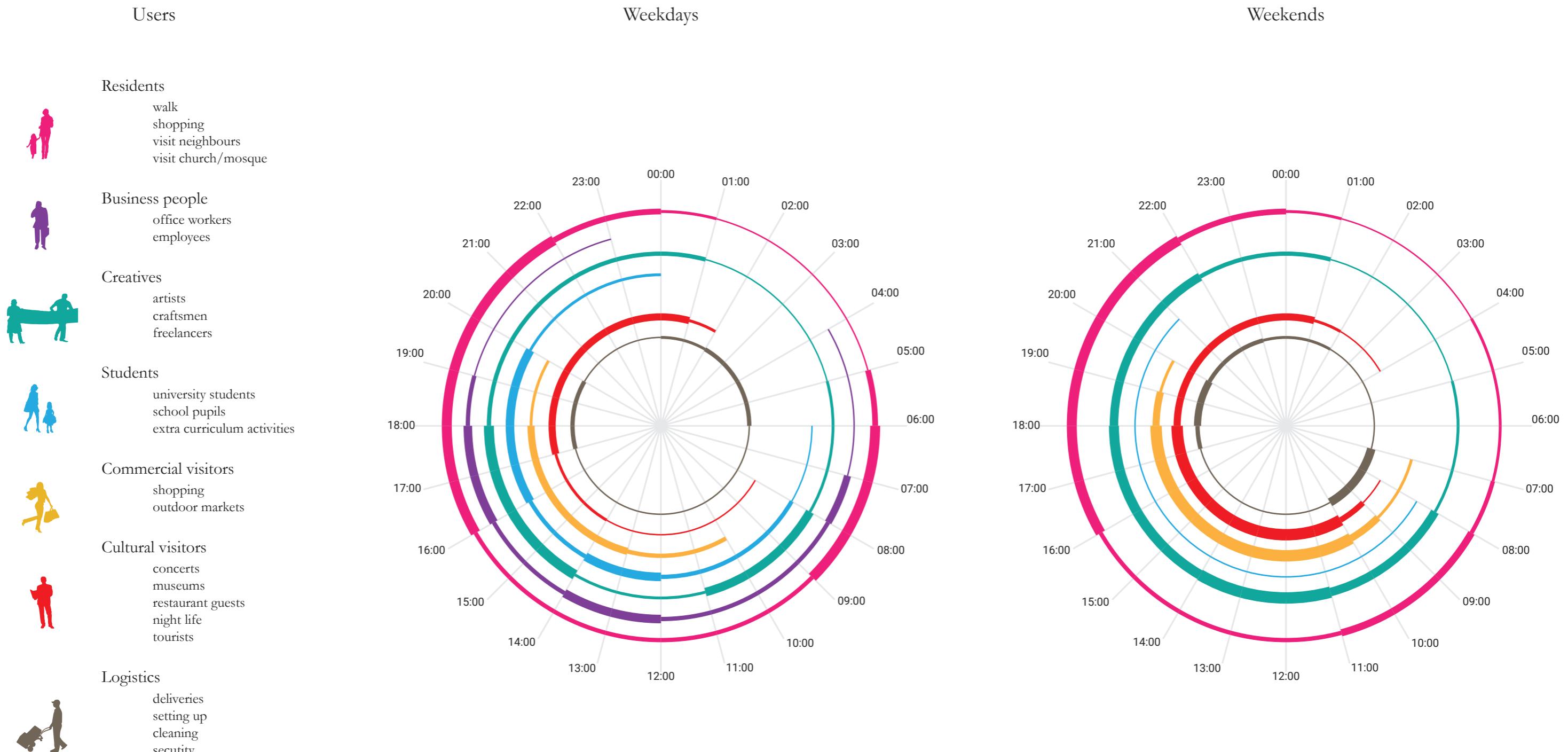
MATERIALITY 20TH CENTURY LAYERS

site analysis



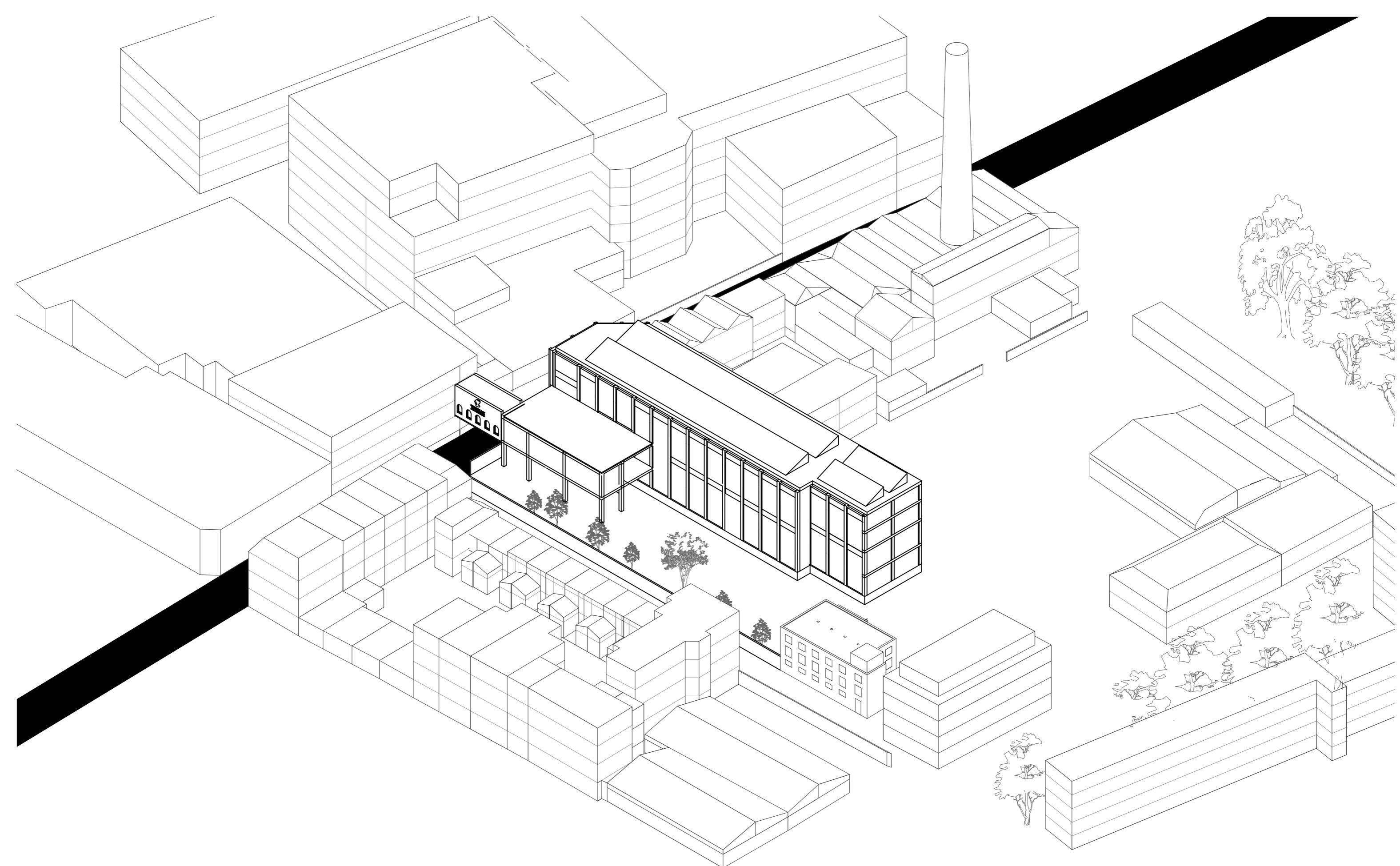
USERS

site analysis



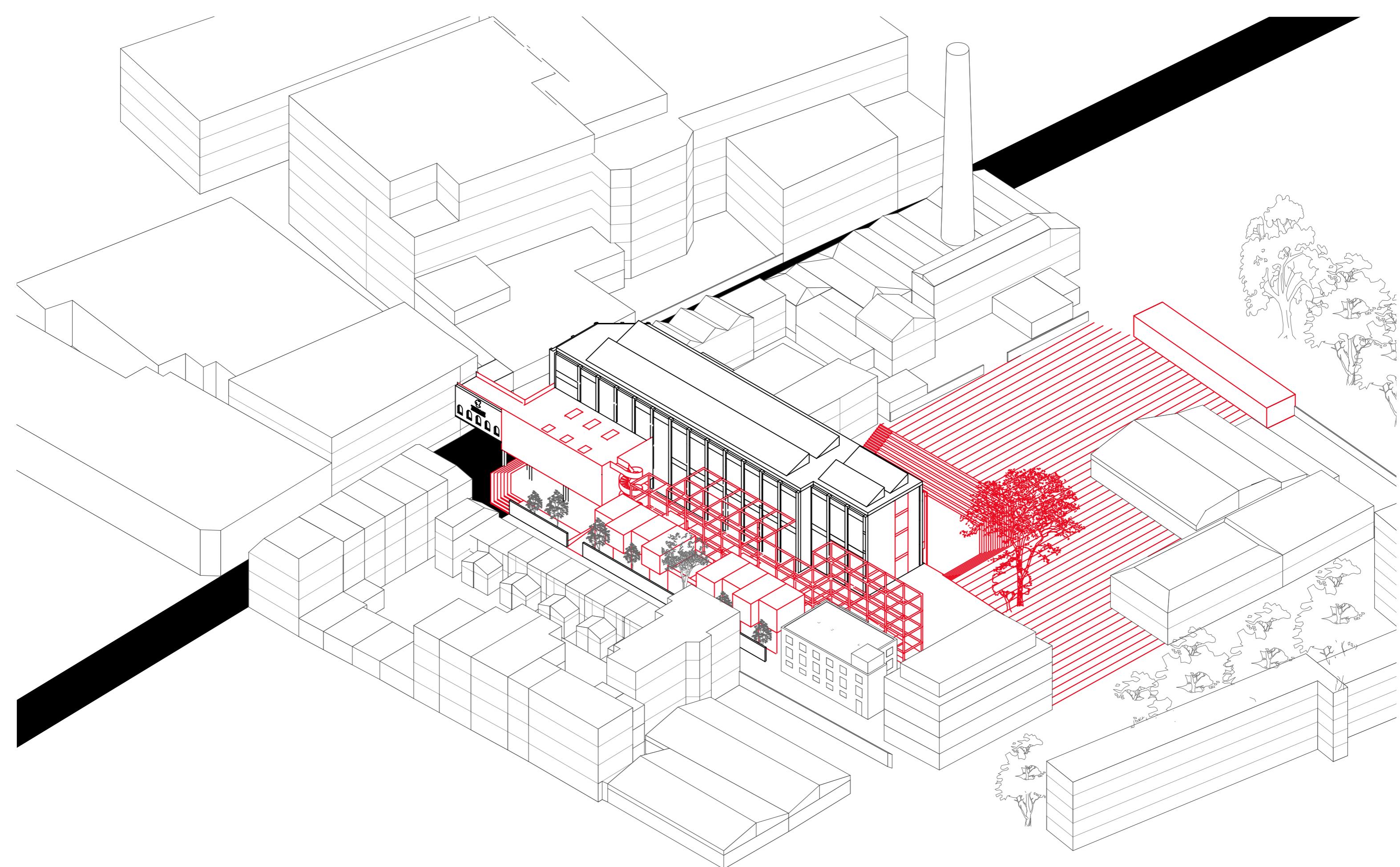
USERS IN TIME

site analysis



EXISTING SITUATION

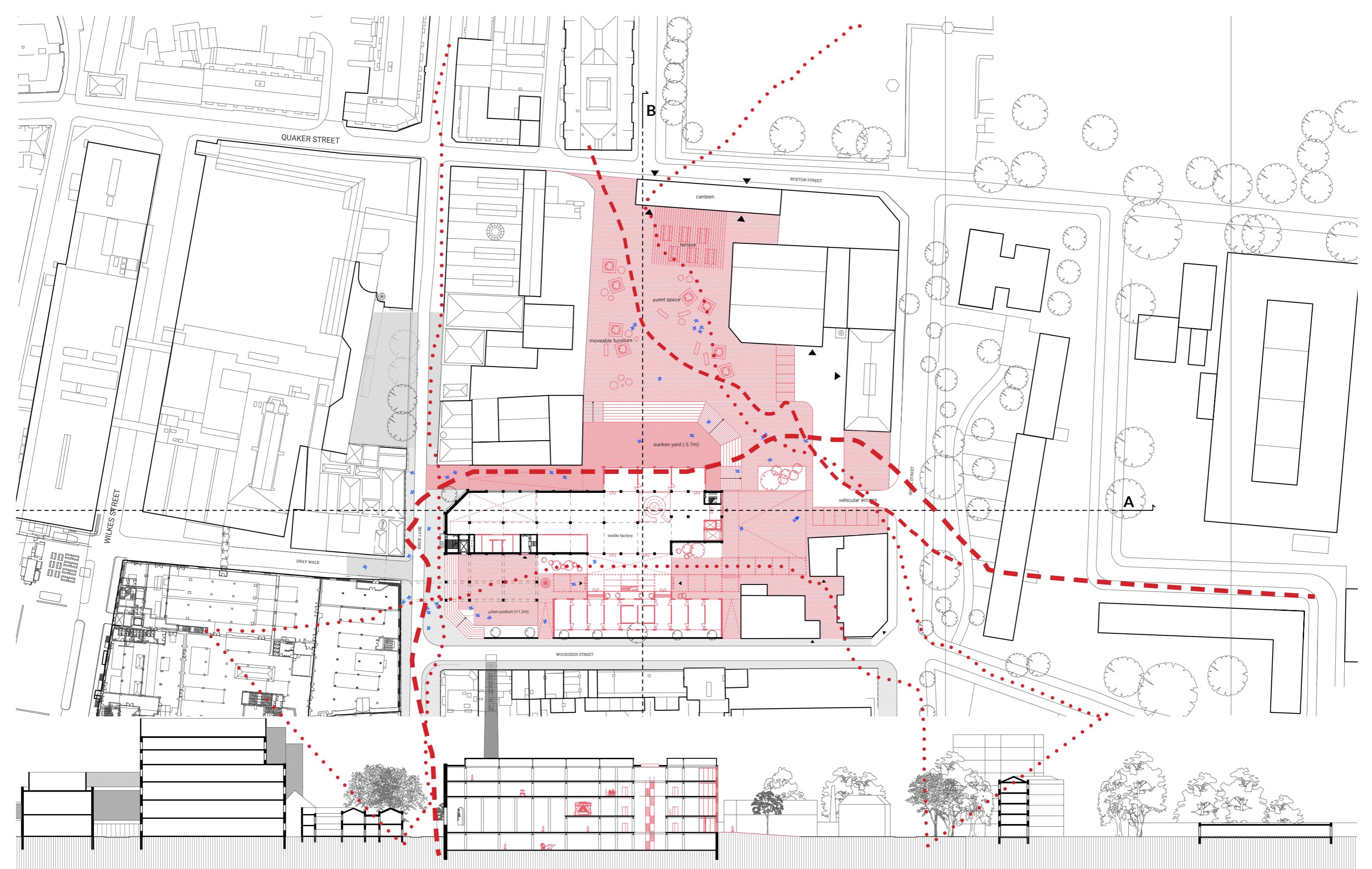
brownfield redevelopment



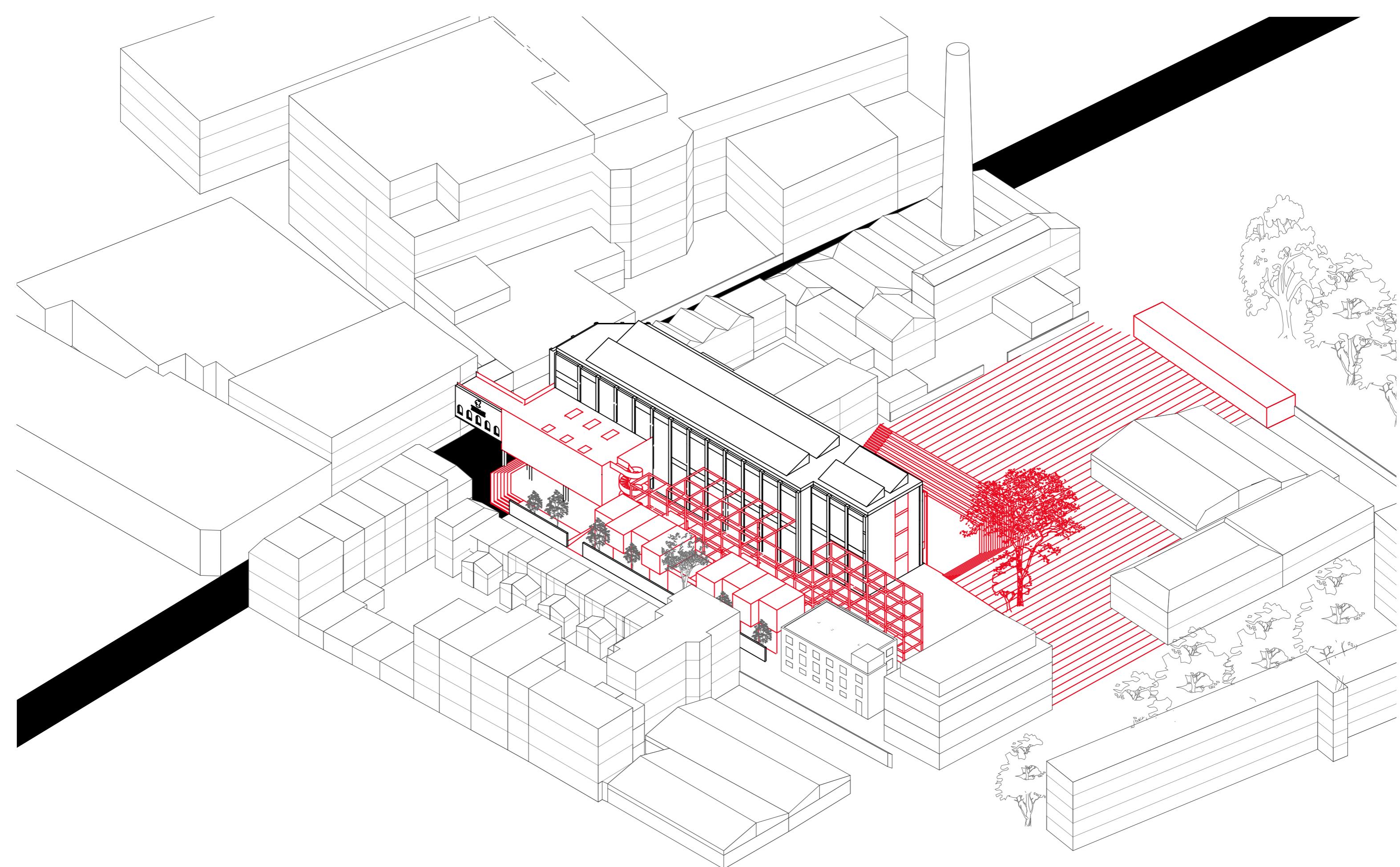
DESIGN PROPOSAL

brownfield redevelopment



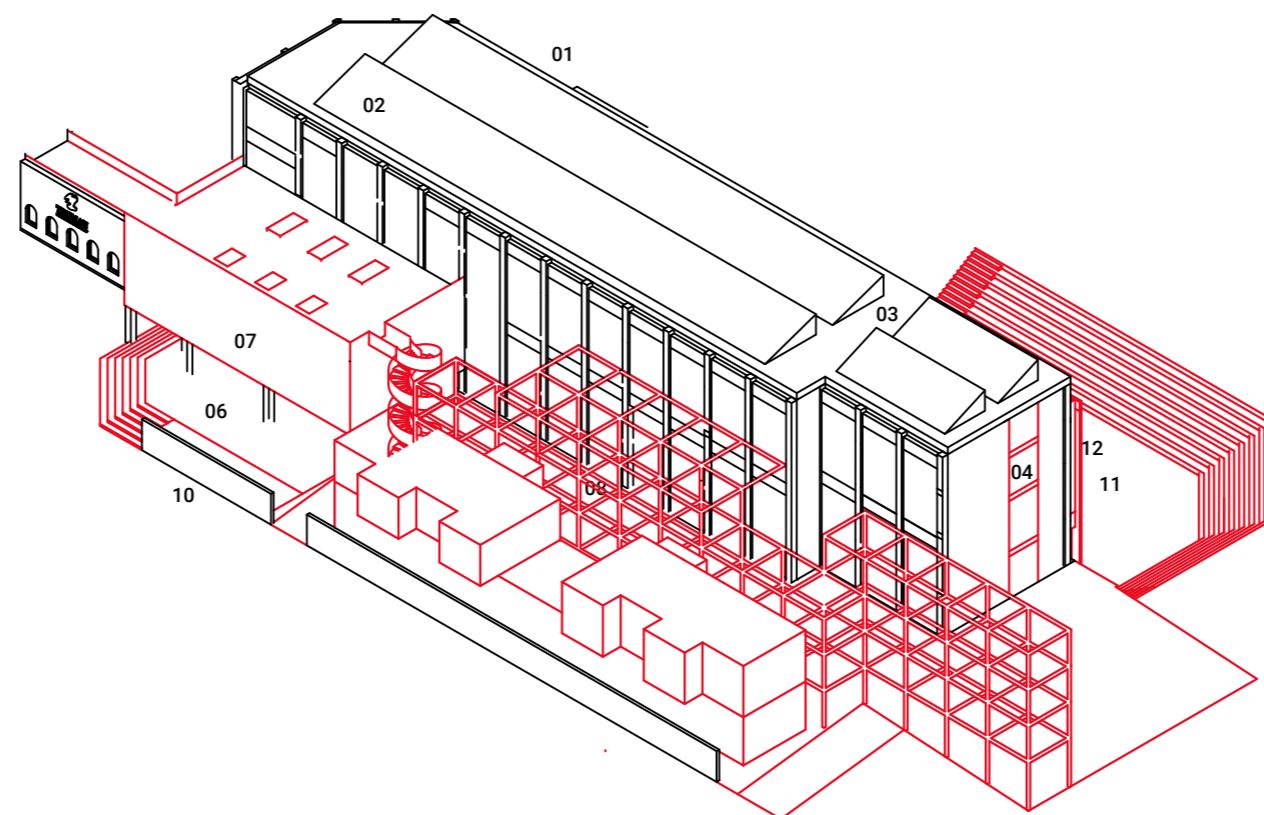


SITEPLAN



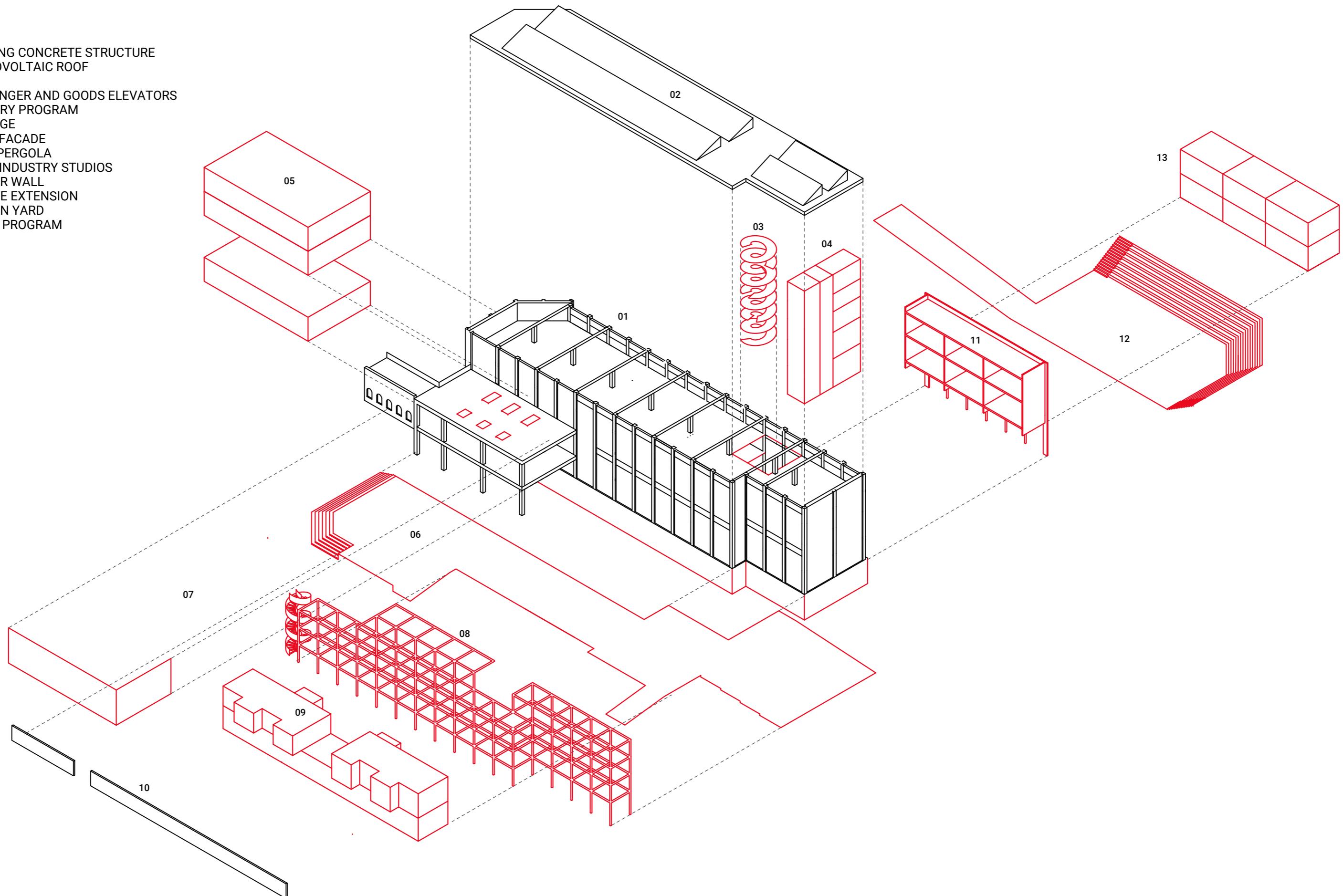
DESIGN PROPOSAL

- 01 EXISTING CONCRETE STRUCTURE
- 02 PHOTOVOLTAIC ROOF
- 03 RAMP
- 04 PASSENGER AND GOODS ELEVATORS
- 05 FACTORY PROGRAM
- 06 PASSAGE
- 07 BRICK FACADE
- 08 OPEN PERGOLA
- 09 LIGHT INDUSTRY STUDIOS
- 10 BORDER WALL
- 11 FACADE EXTENSION
- 12 SUNKEN YARD
- 13 CRAFT PROGRAM



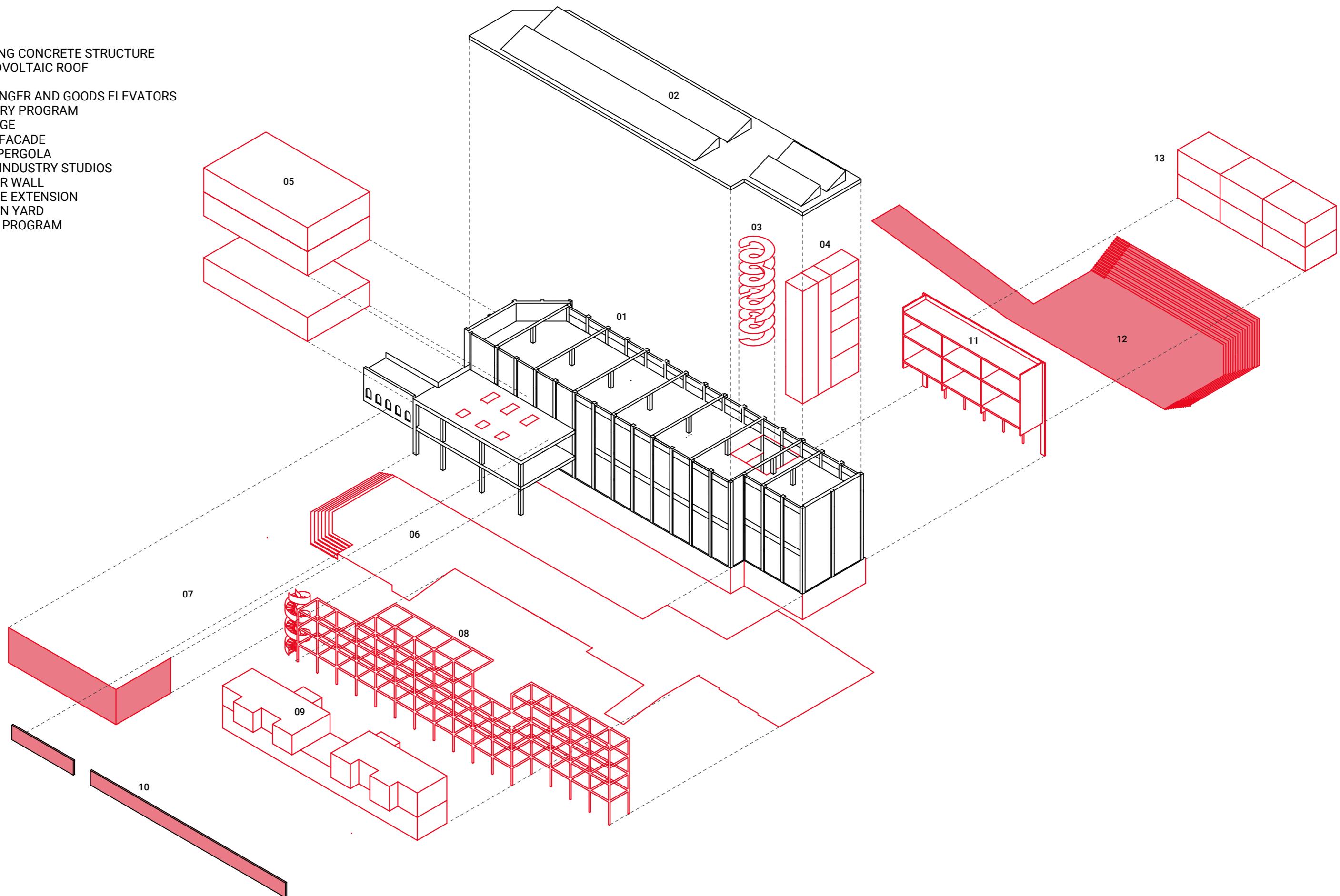
FRAGMENTS

- 01 EXISTING CONCRETE STRUCTURE
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BRICK FRAGMENTS

brick

concrete

steel

wood

textile



BRICK LANE ENTRANCE

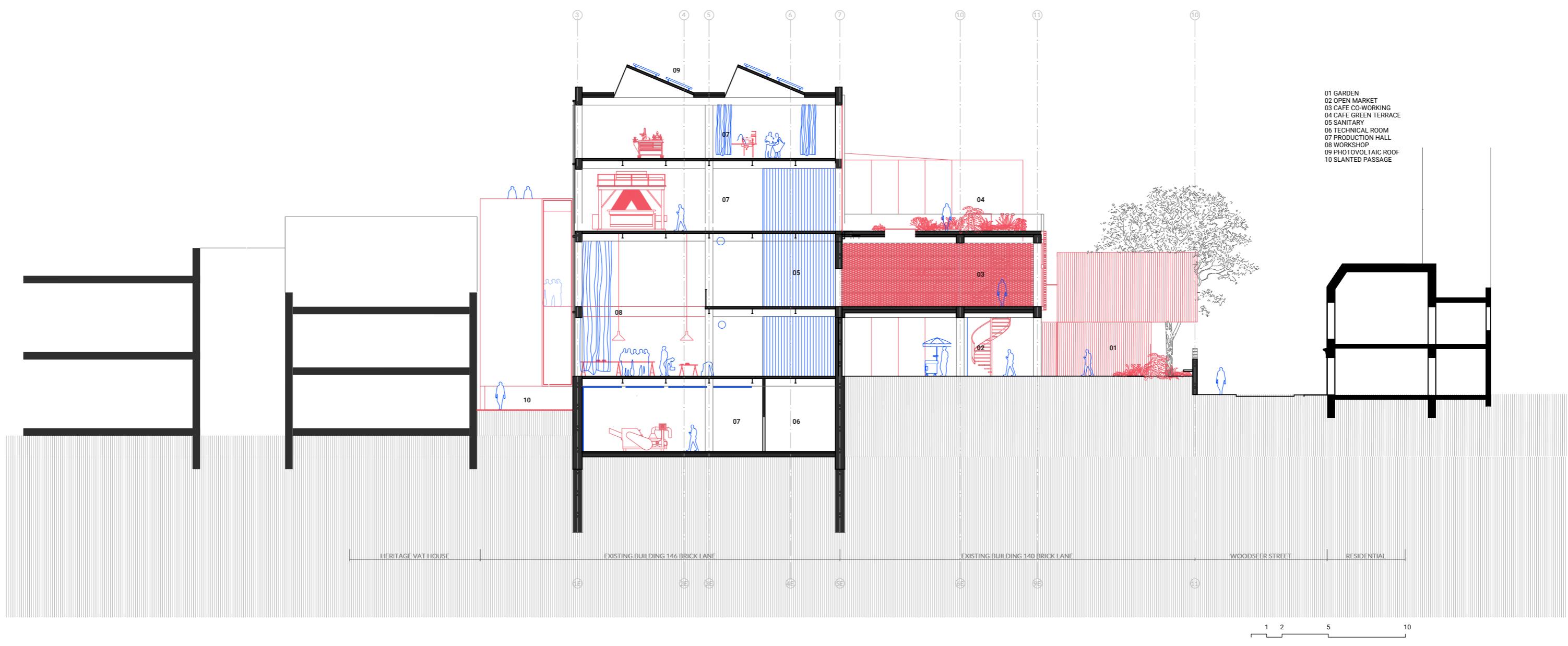
brick

concrete

steel

wood

textile



CROSS-SECTION BRICK LANE ENTRANCES

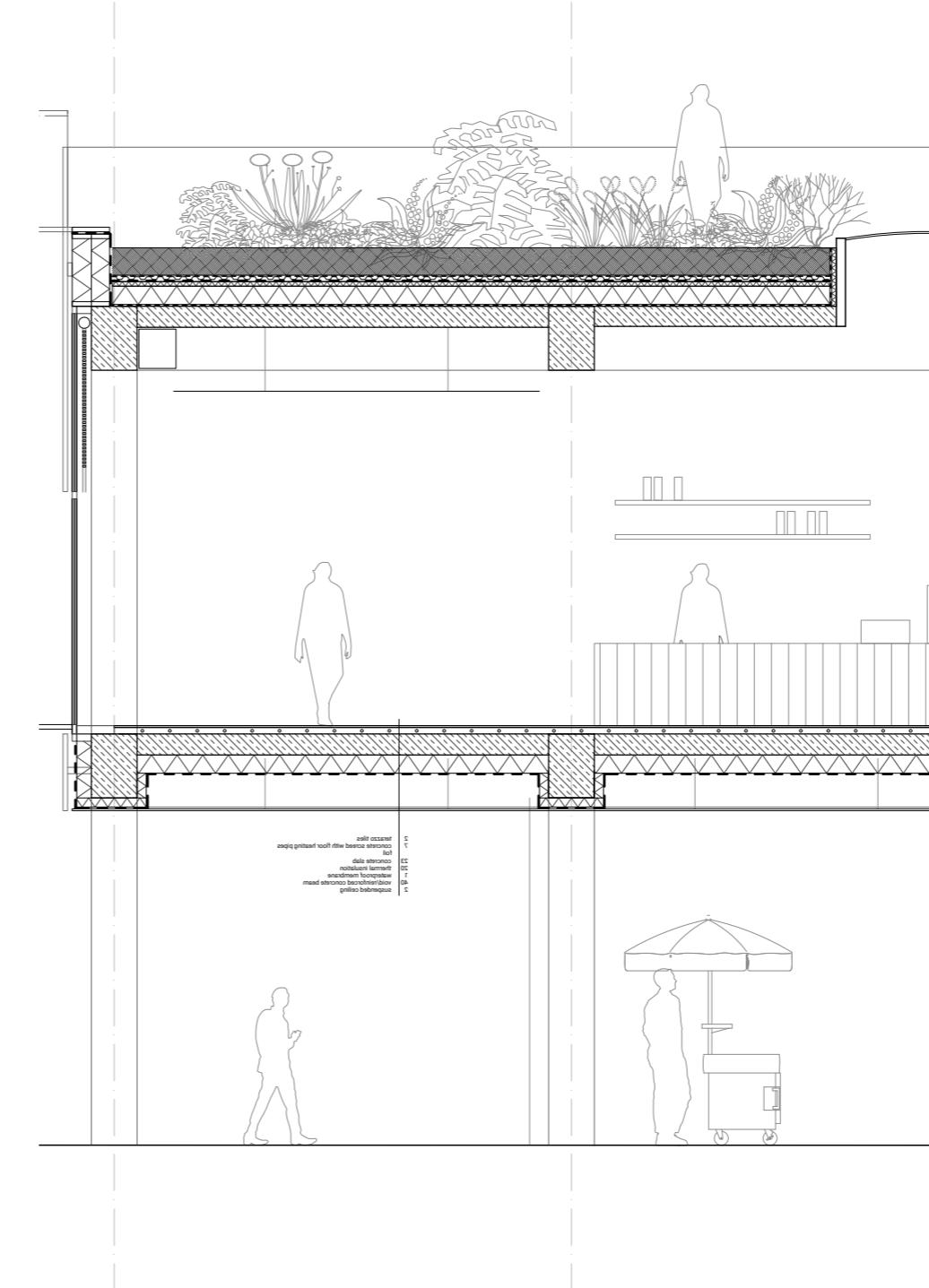
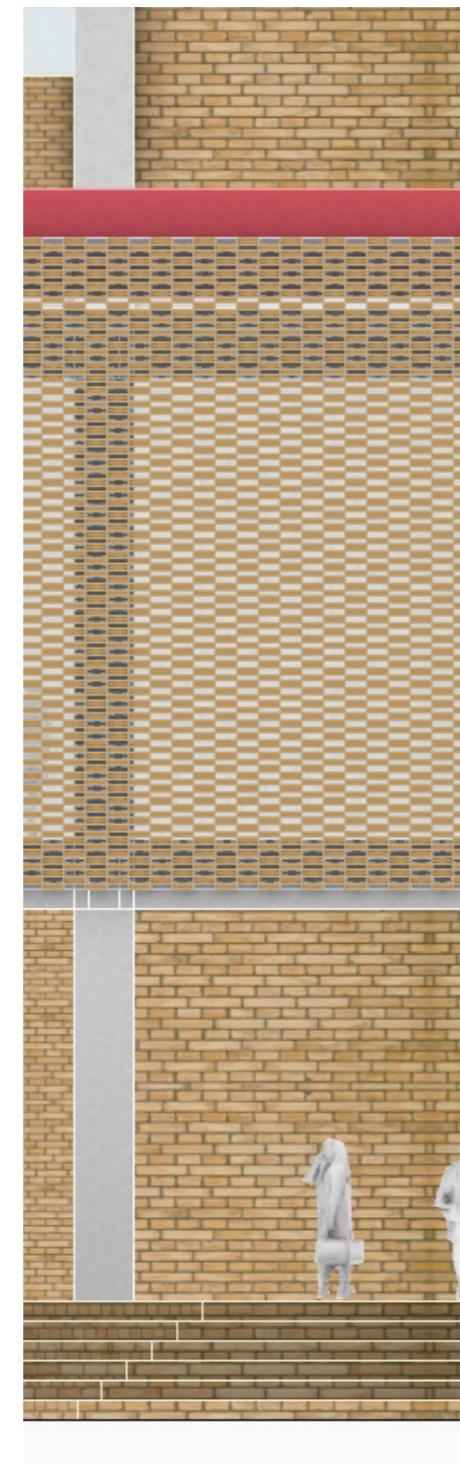
brick

concrete

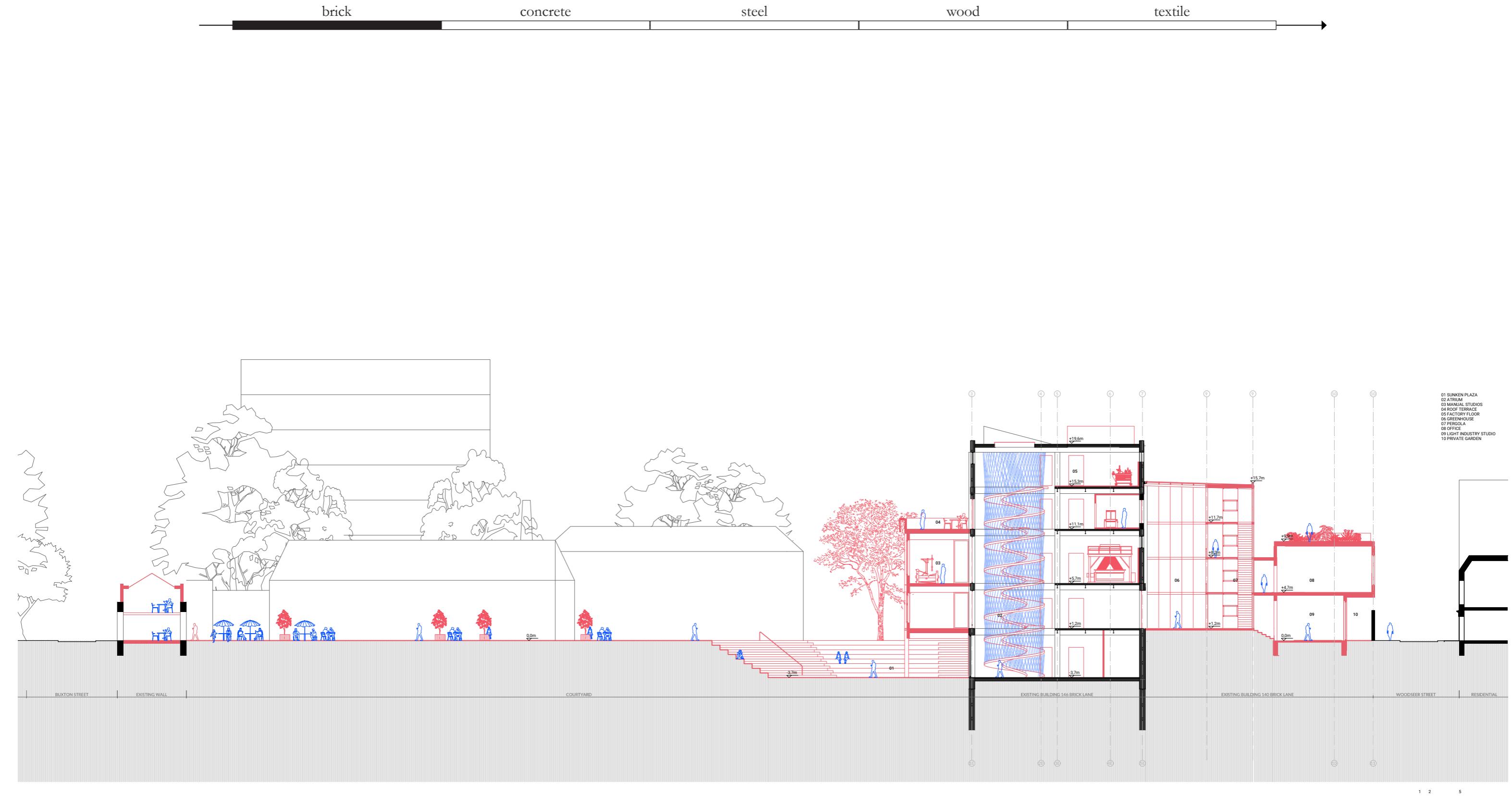
steel

wood

textile



BRICK SCREEN FAÇADE OF COWORKING CAFE



COURTYARD CROSS-SECTION

brick

concrete

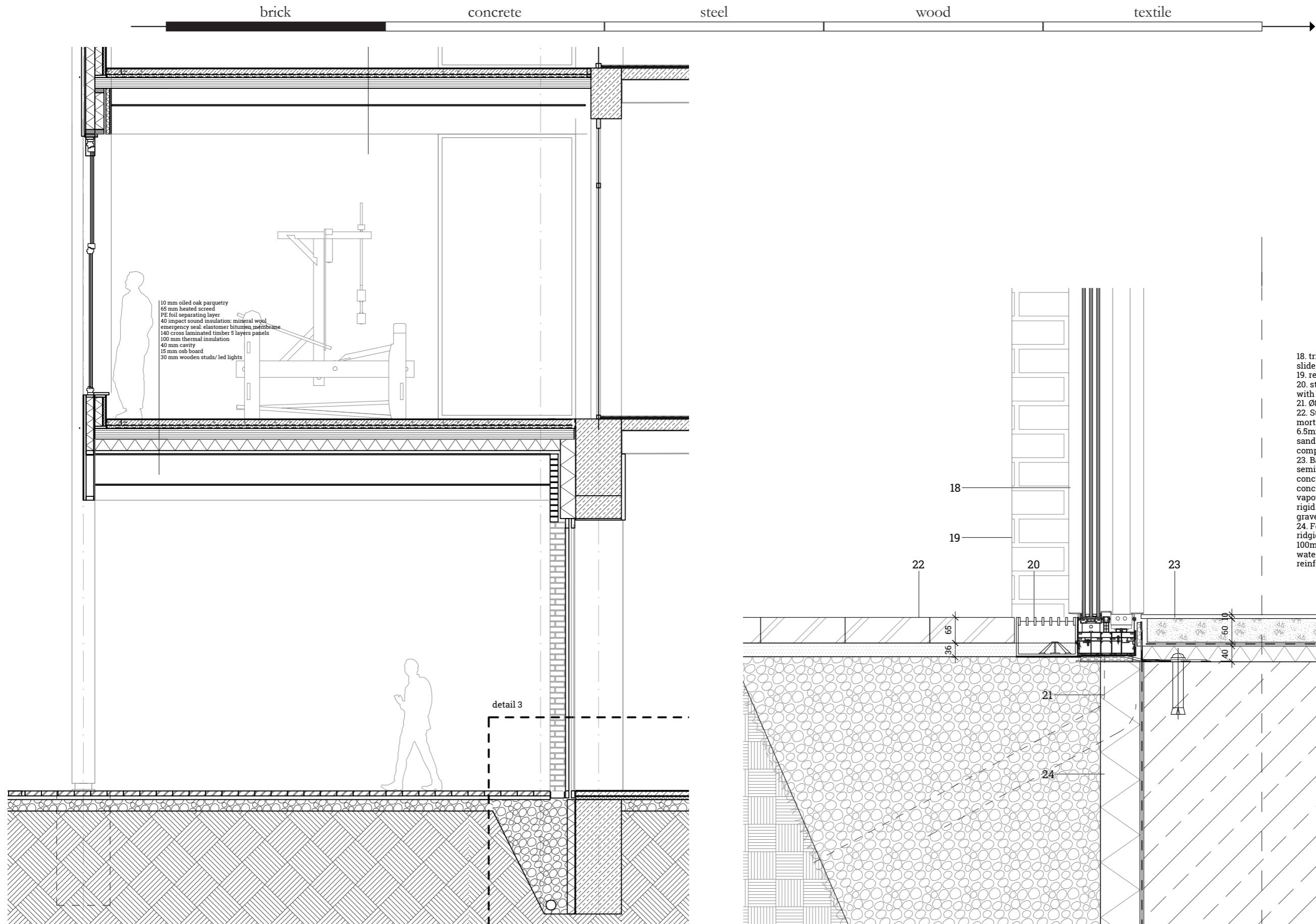
steel

wood

textile

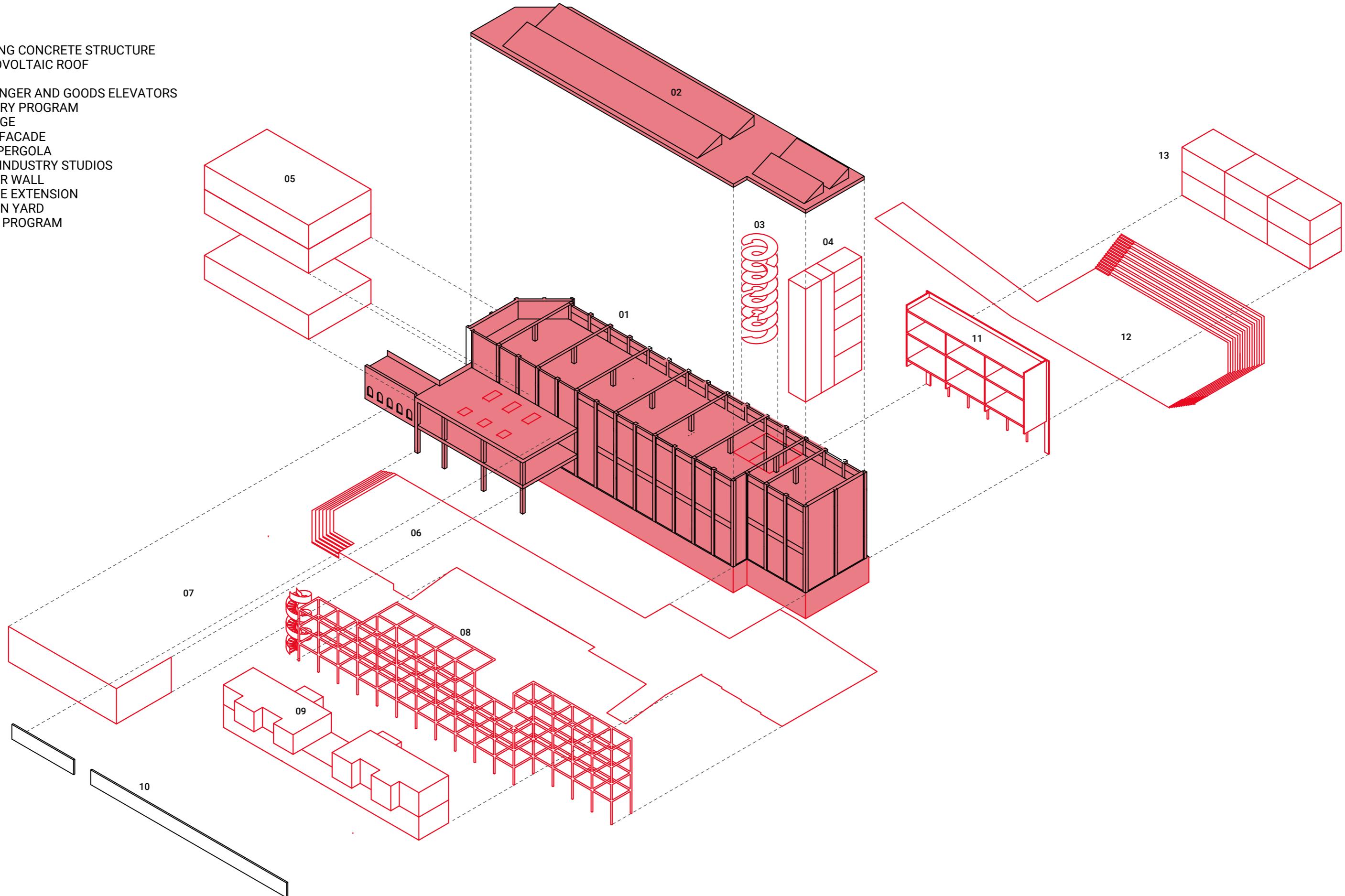


COURTYARD ENTRANCE

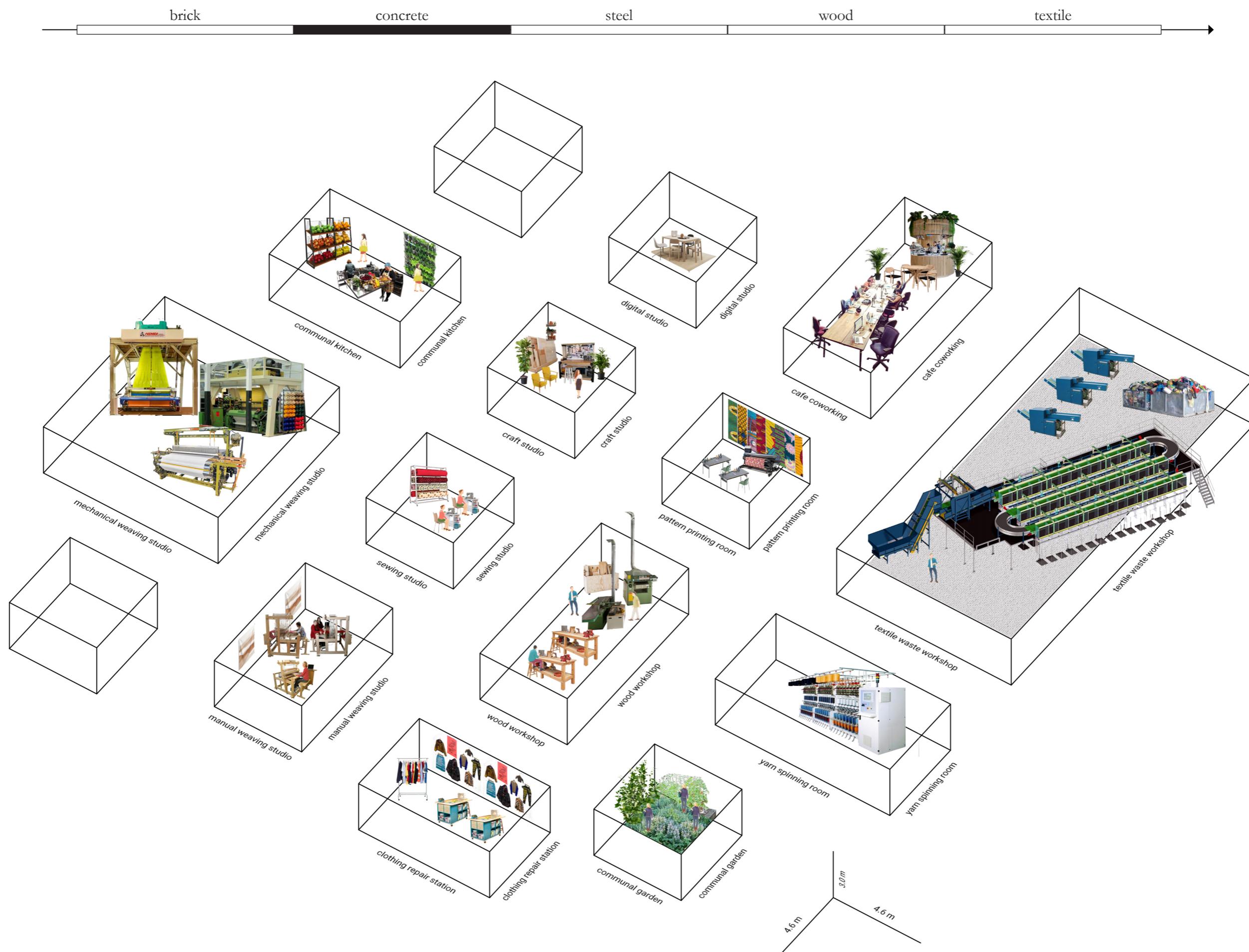


COURTYARD ENTRANCE DETAIL

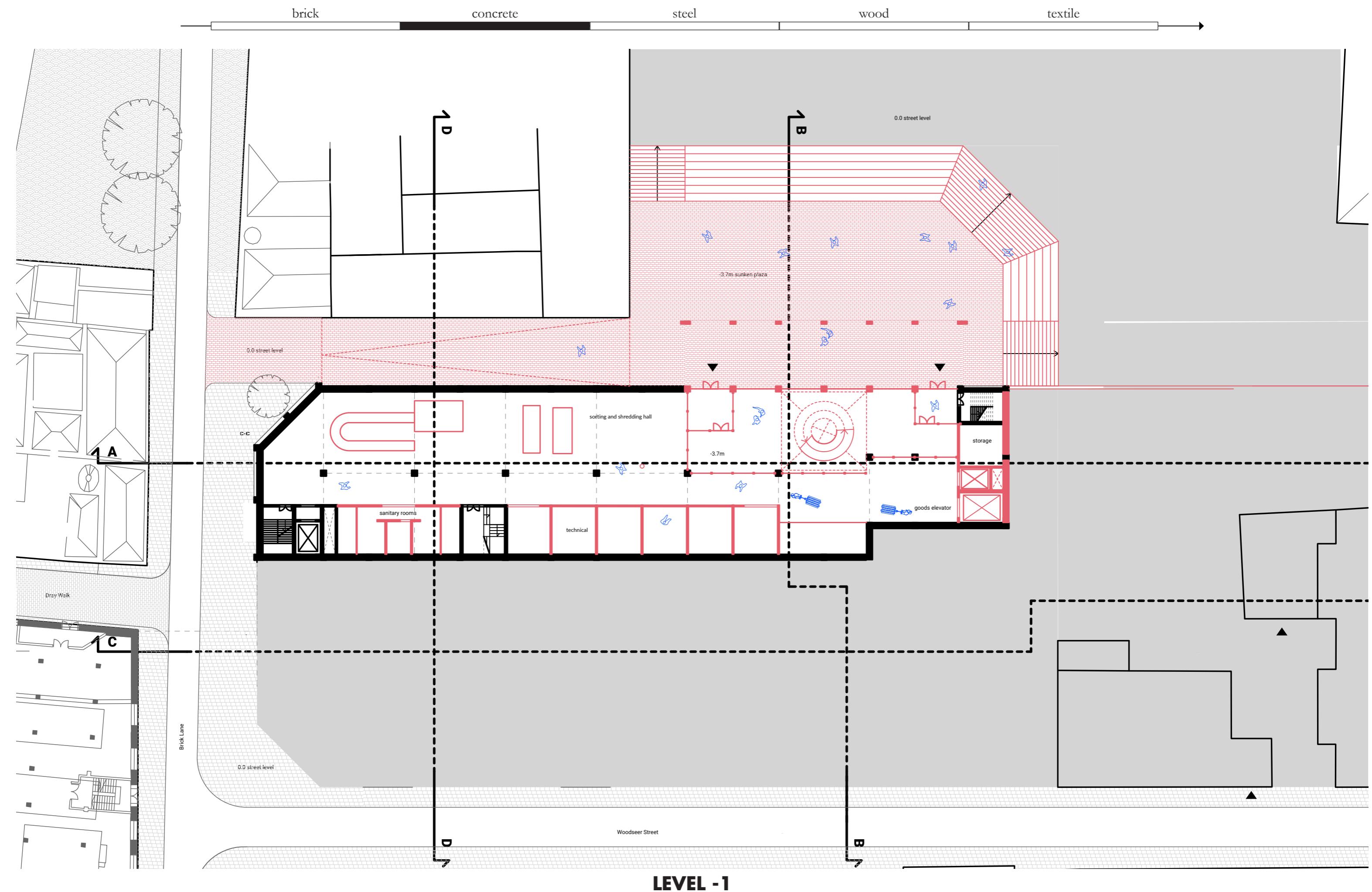
- 01 EXISTING CONCRETE STRUCTURE
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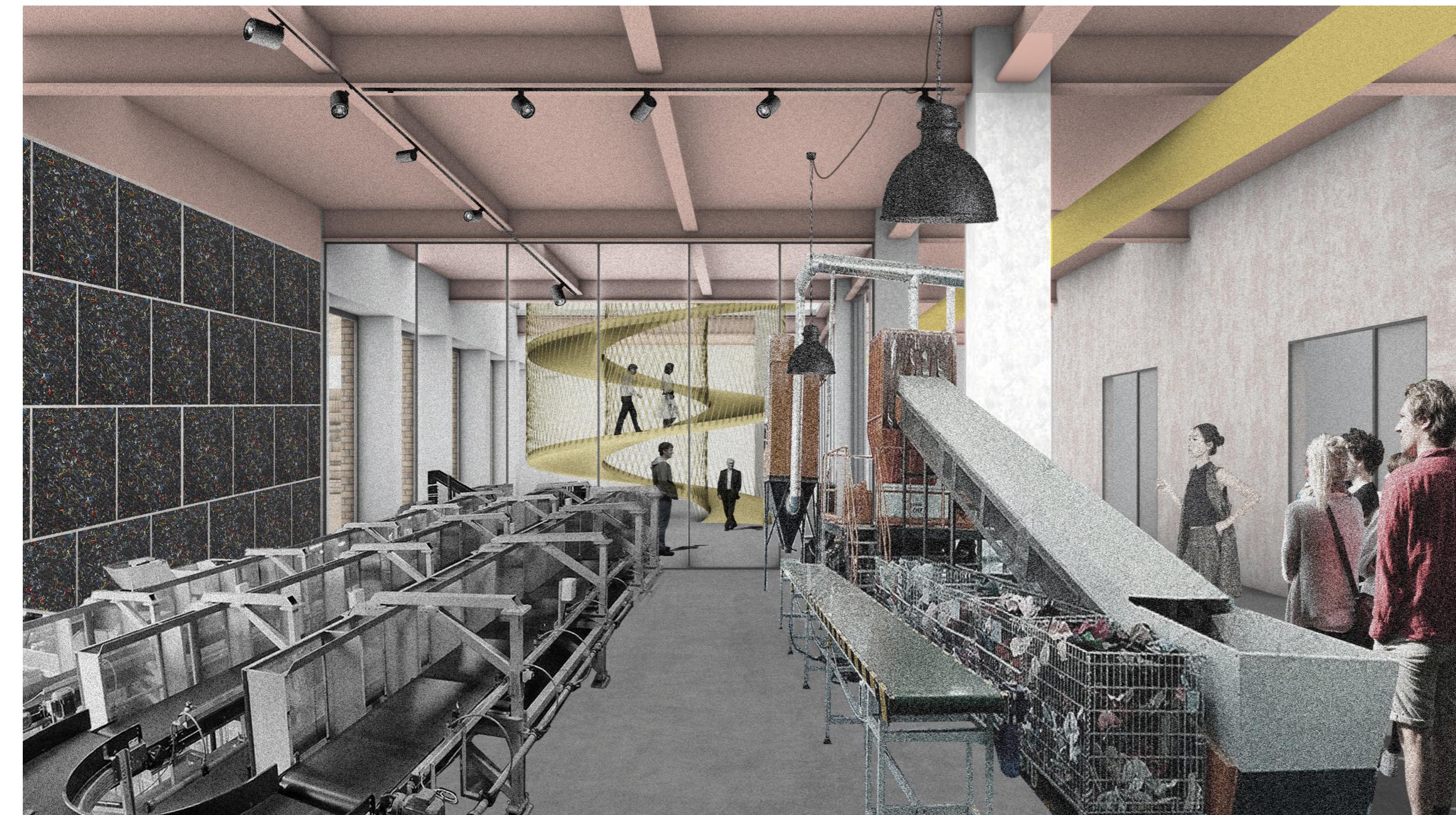


CONCRETE FRAGMENTS

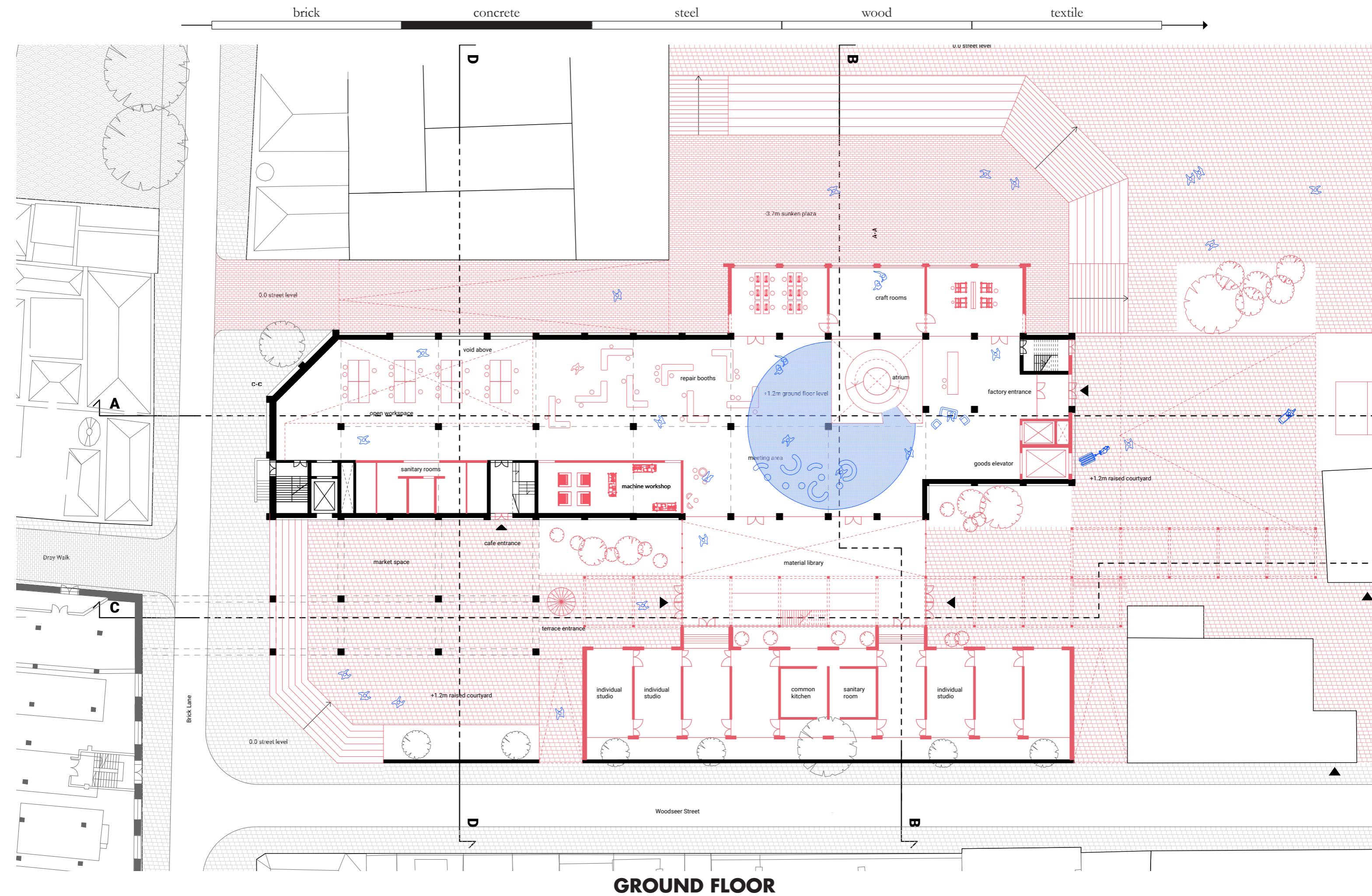


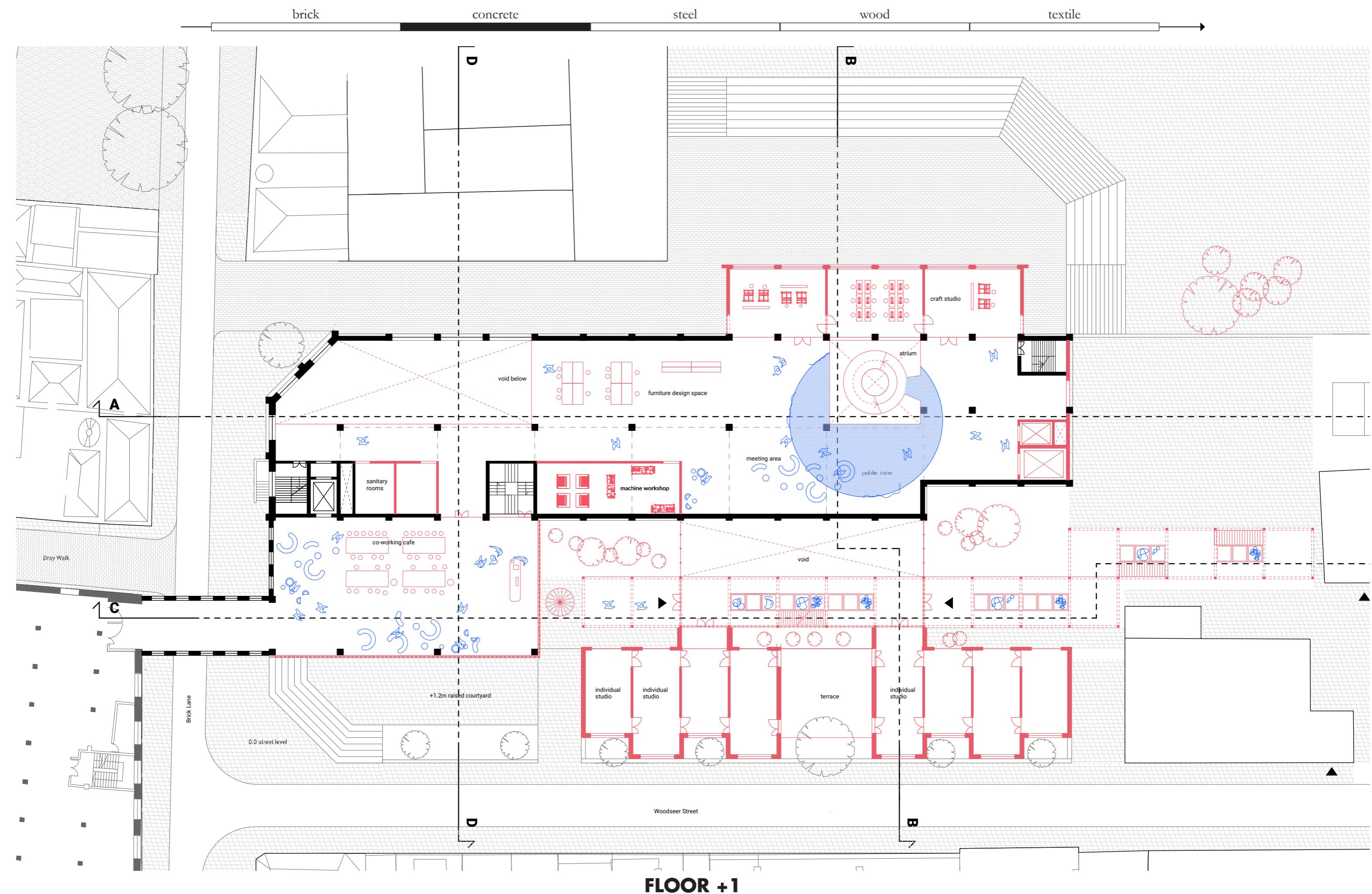
PROGRAM DIVISION





LEVEL -1 FACTORY HALL





brick

concrete

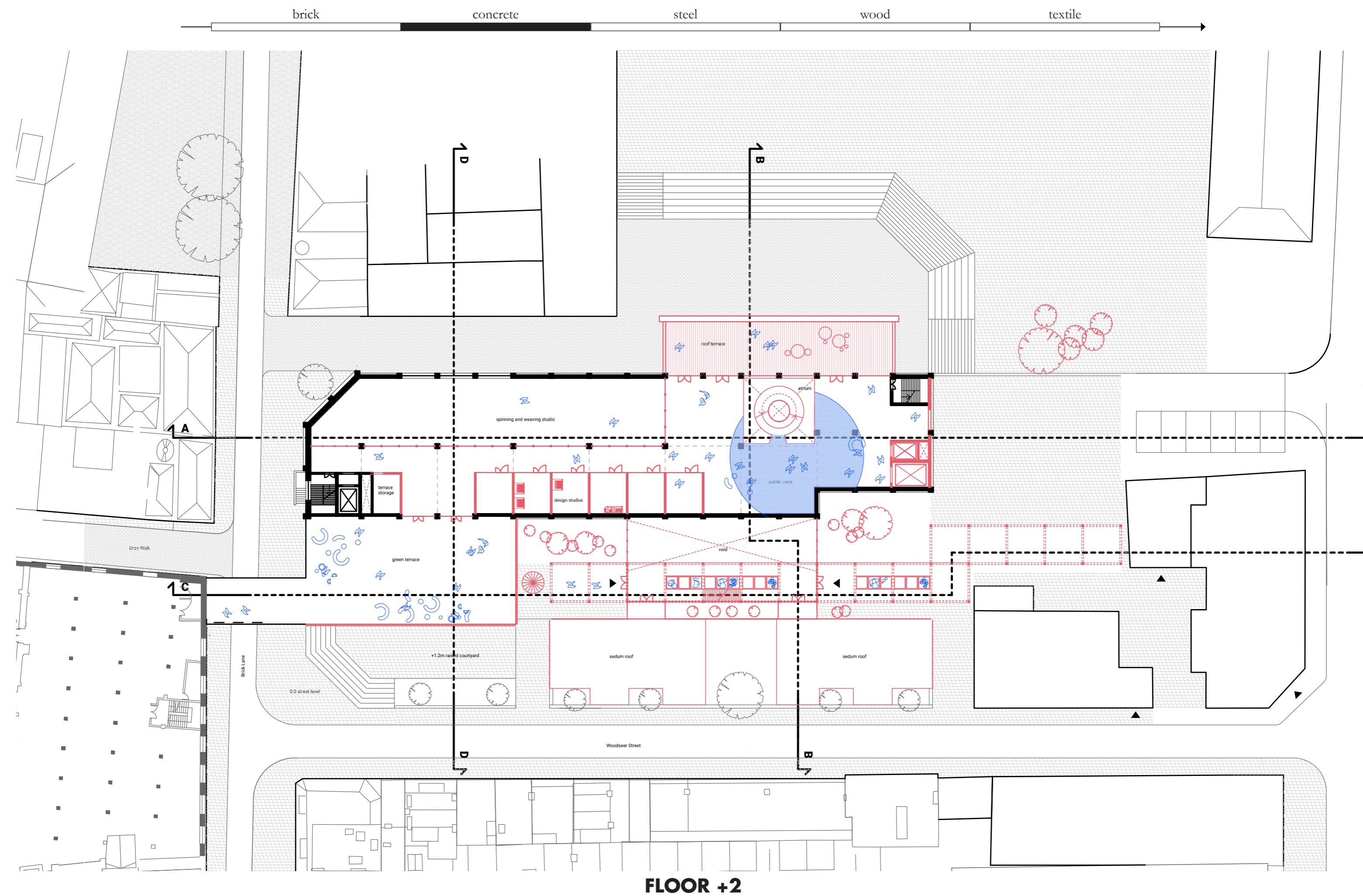
steel

wood

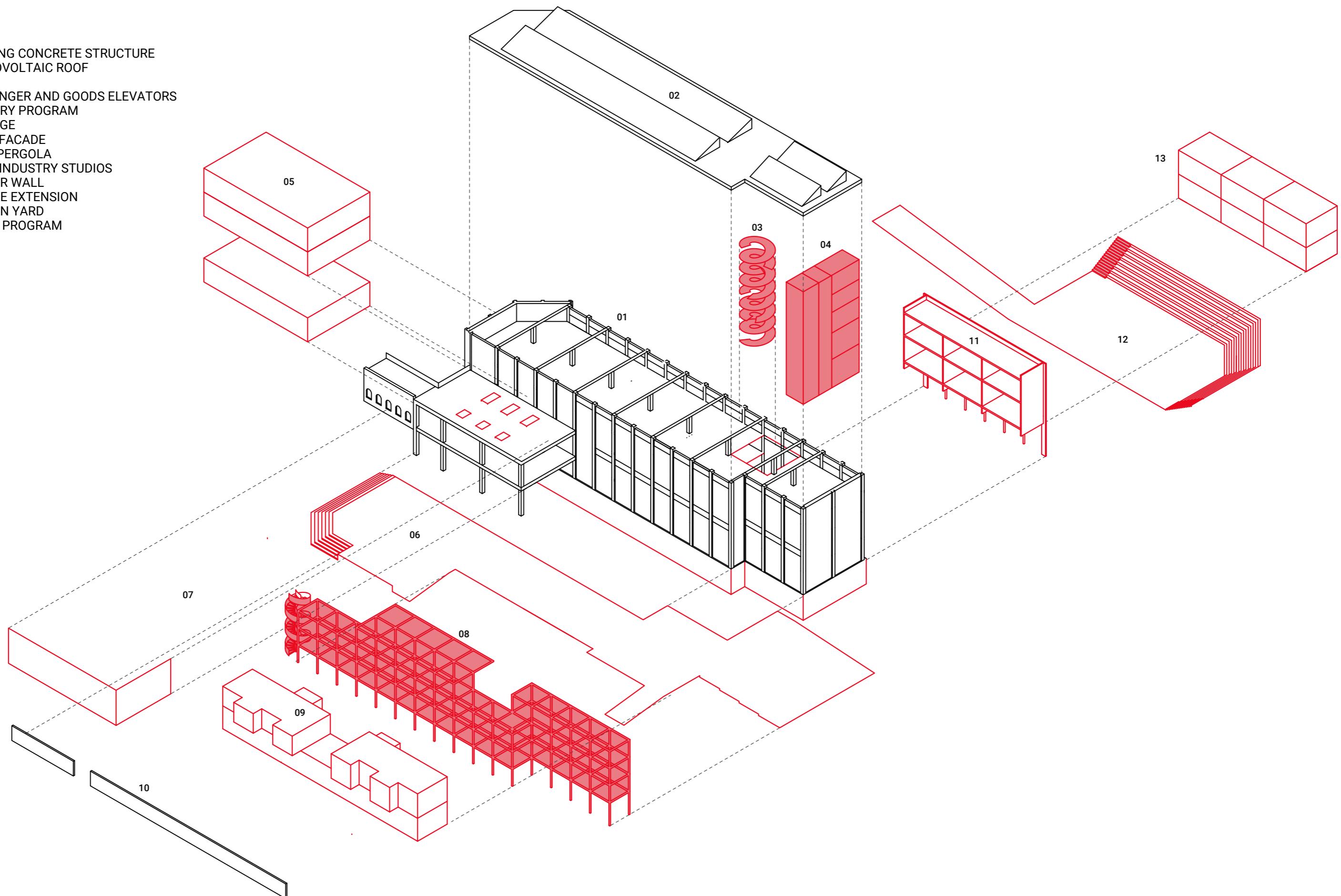
textile



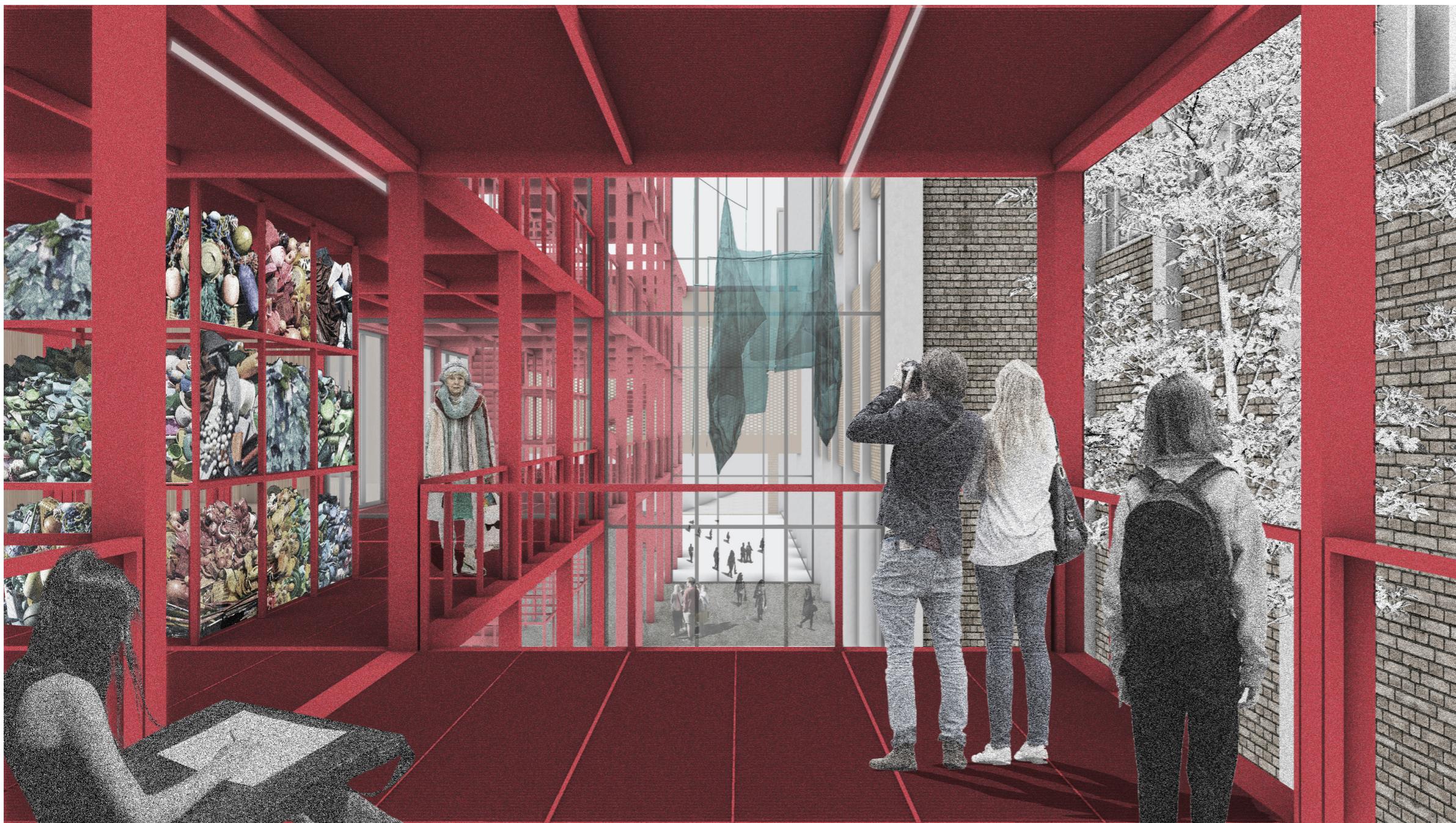
FLOOR +1 VIEW TO WORKSHOP BELOW



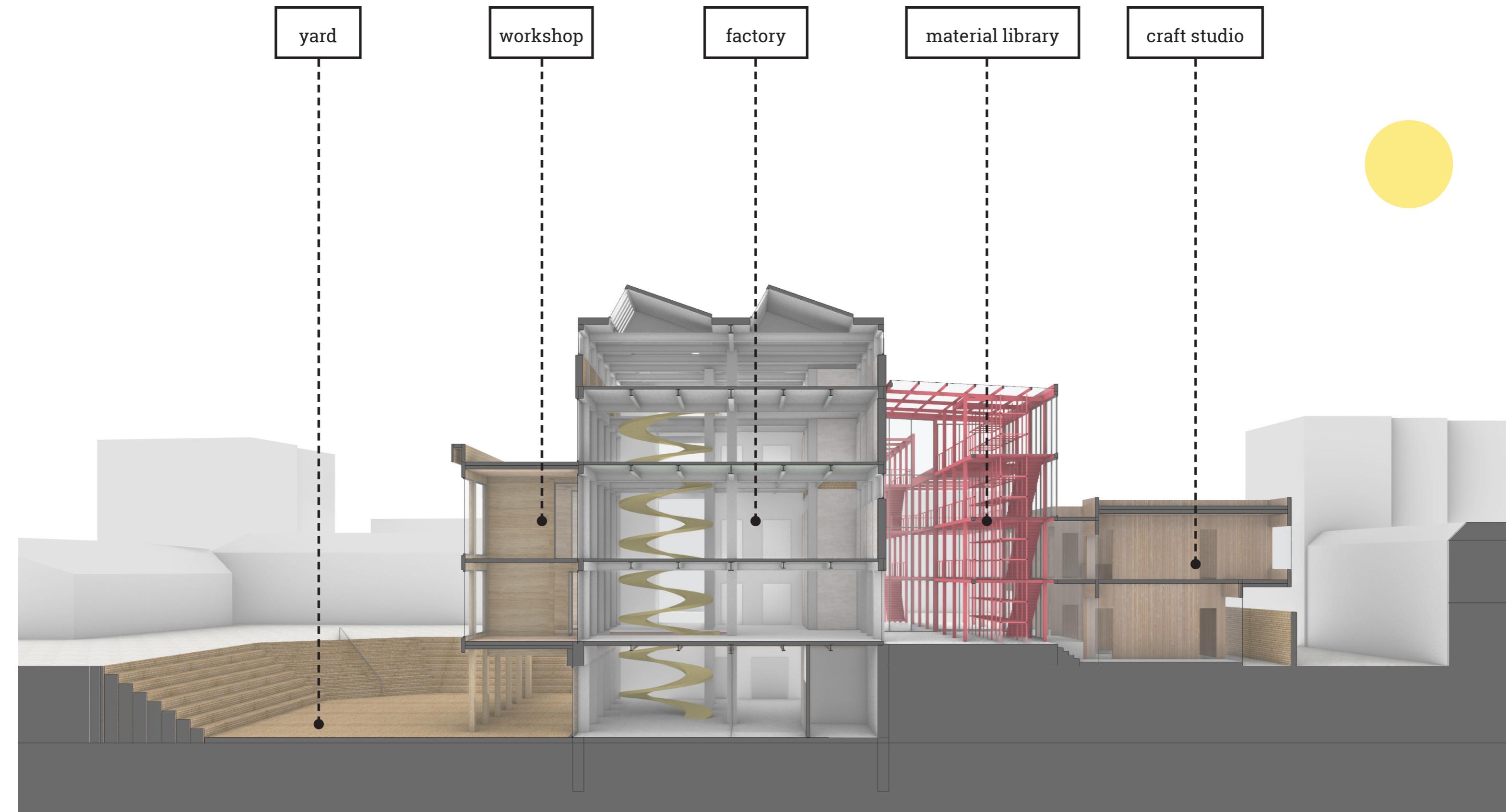
- 01 EXISTING CONCRETE STRUCTURE
- 02 PHOTOVOLTAIC ROOF
- 03 RAMP
- 04 PASSENGER AND GOODS ELEVATORS
- 05 FACTORY PROGRAM
- 06 PASSAGE
- 07 BRICK FACADE
- 08 OPEN PERGOLA
- 09 LIGHT INDUSTRY STUDIOS
- 10 BORDER WALL
- 11 FACADE EXTENSION
- 12 SUNKEN YARD
- 13 CRAFT PROGRAM



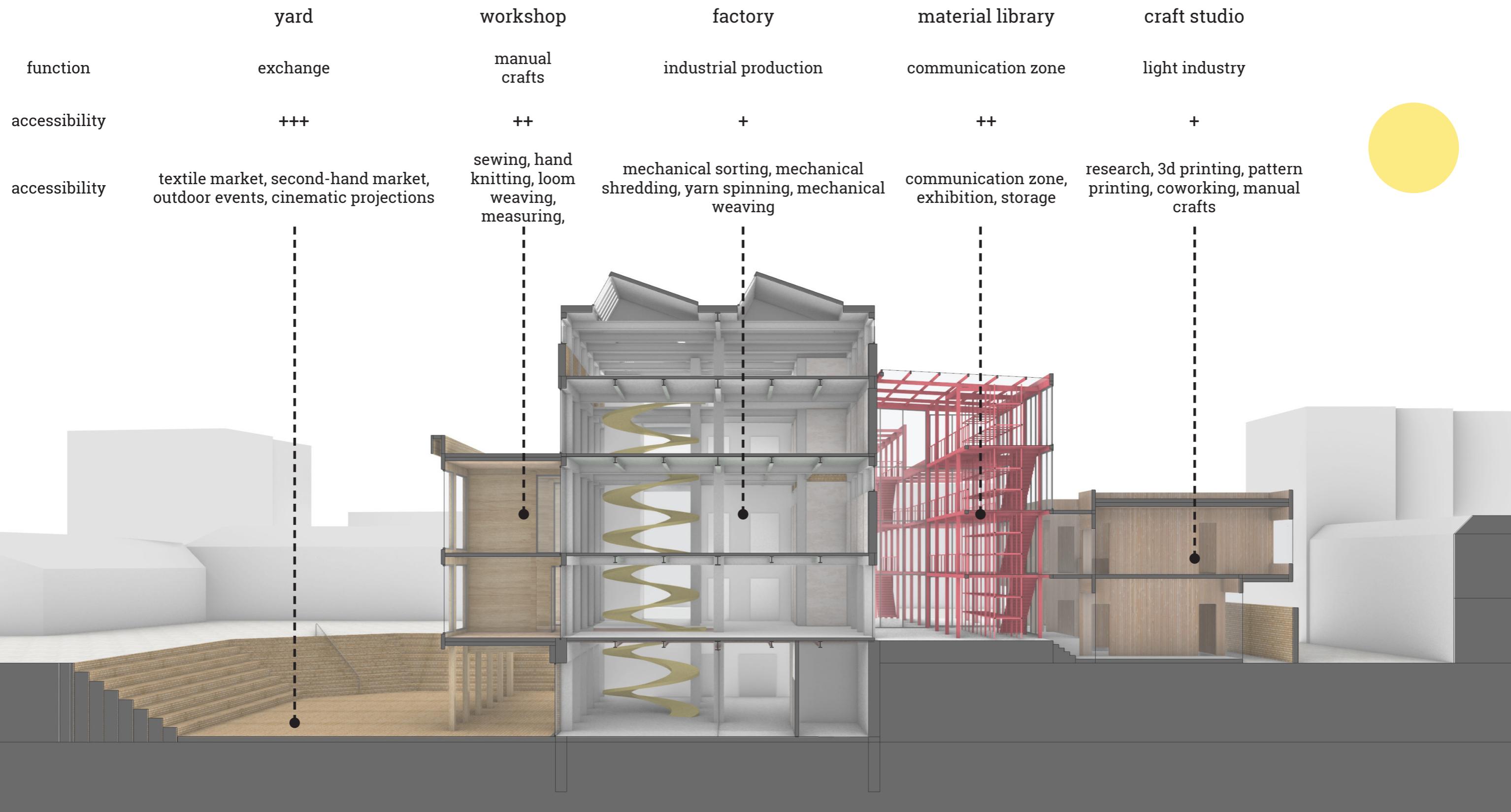
STEEL FRAGMENTS



OUTDOOR CONNECTOR LEVEL +1



FUNCTIONAL DIVISION



FUNCTIONAL DIVISION

A sporadic human presence

industrial production
16 - 21°C
source of noise and vibration

B light physical effort

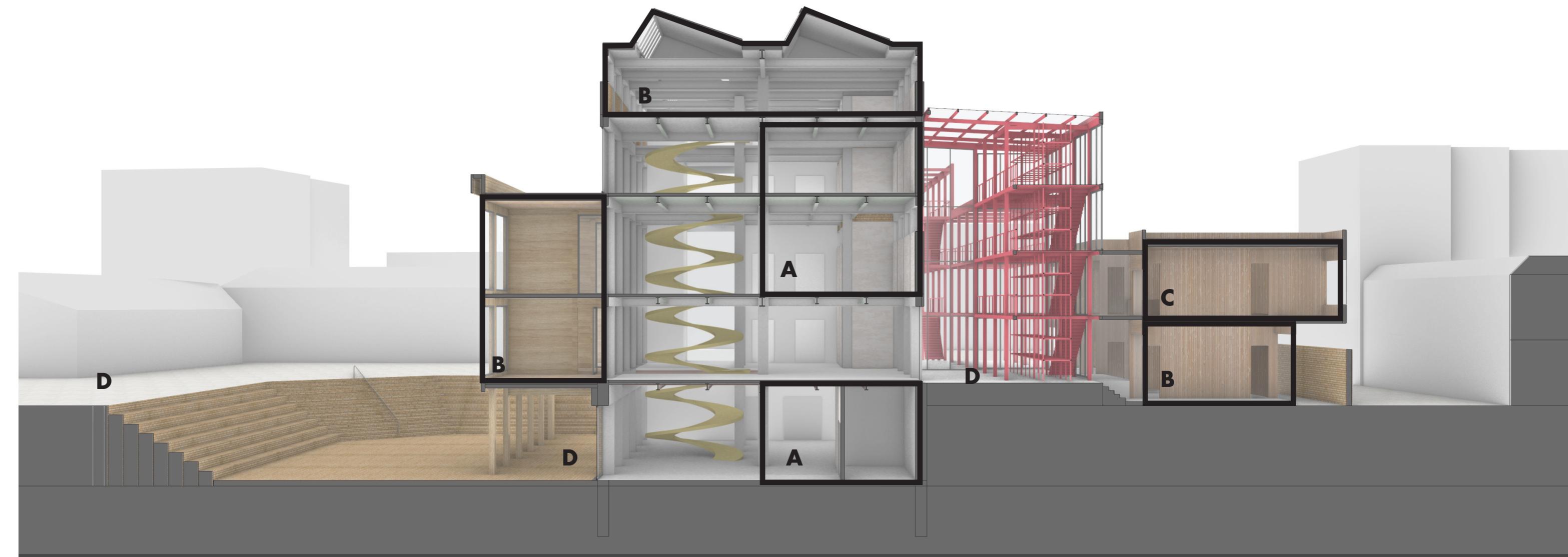
manual crafts
18 - 21°C
source of noise and body heat

C static

digital design
summer 20-24°C, winter 19-22°C
silent environment

D active

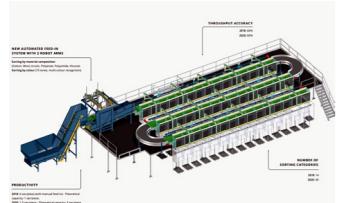
half climate
source of noise, vibration, body heat



CLIMATE ZONES

A sporadic human presence

industrial production
16 - 21°C
source of noise and vibration



textile sorter



cloth shredder



yarn spinning machine



power loom

B light physical effort

manual crafts
18 - 21°C
source of noise and body heat



sewing



hand weaving



repairing



drawing

C static

digital design
summer 20-24°C, winter 19-22°C
silent environment



digital design



coworking



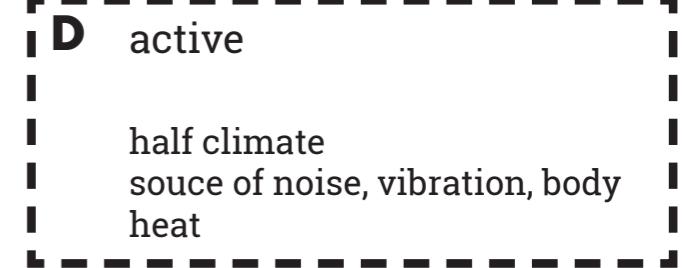
research



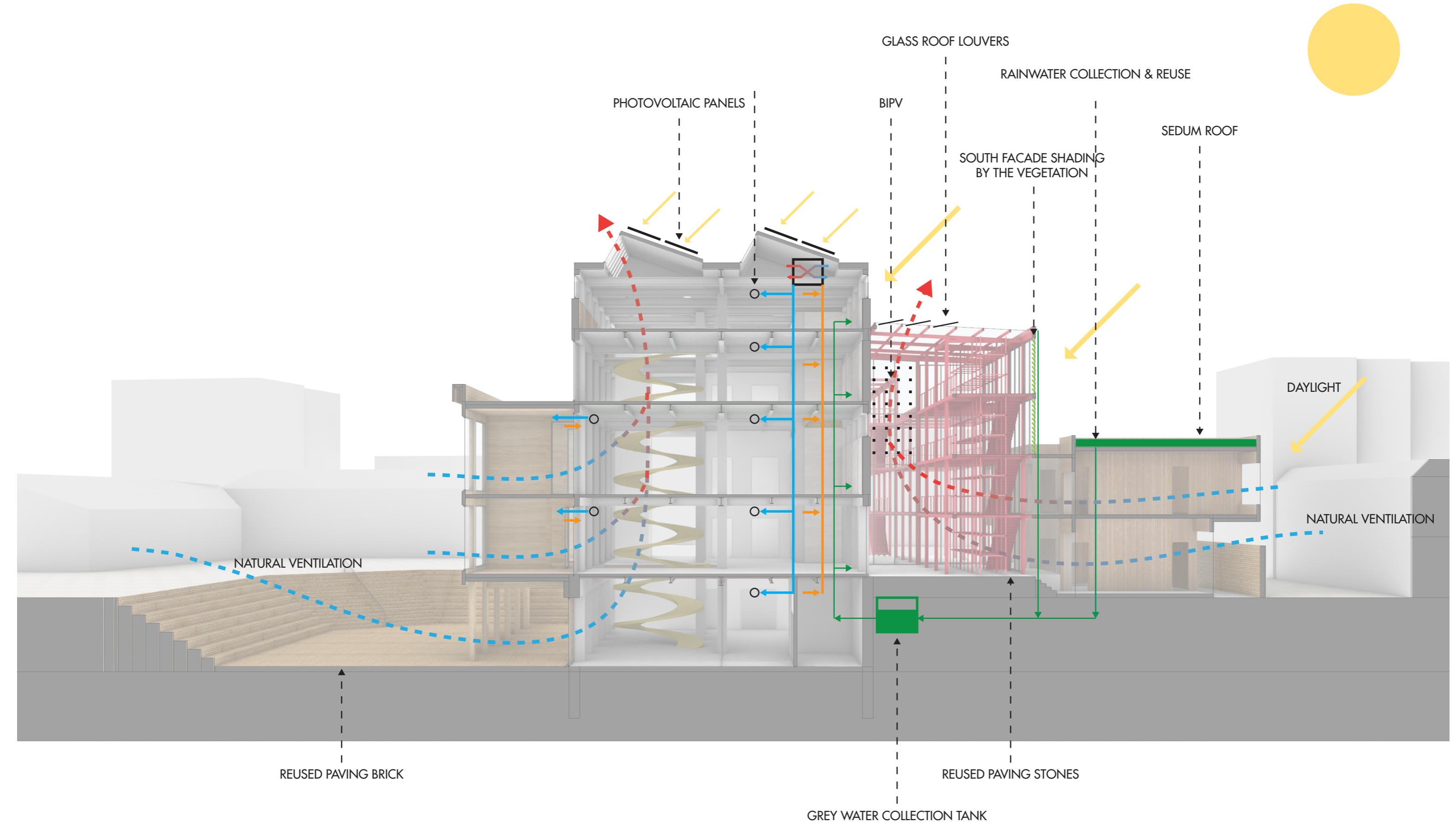
pattern printing

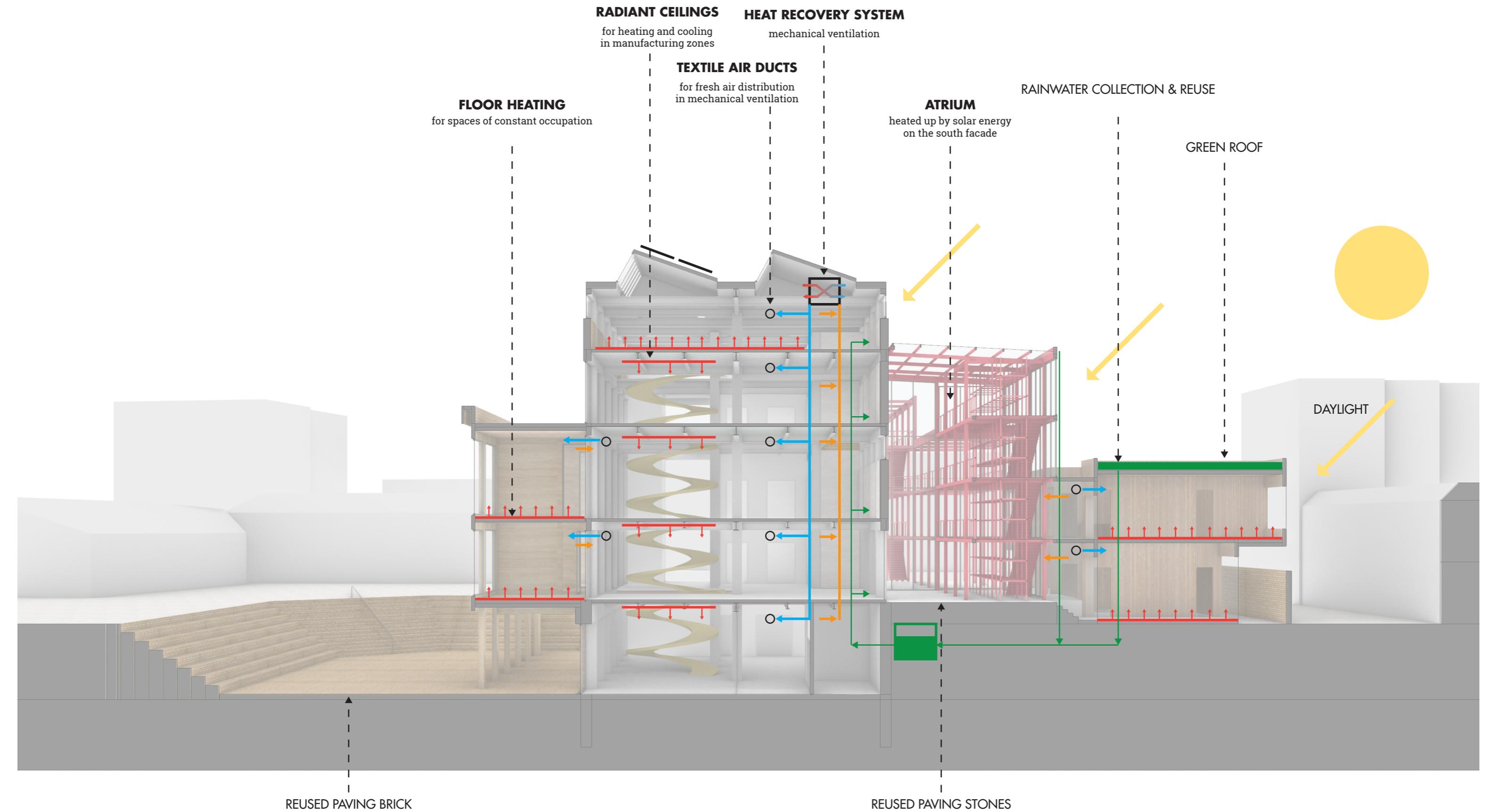
D active

half climate
source of noise, vibration, body heat



CLIMATE ZONES





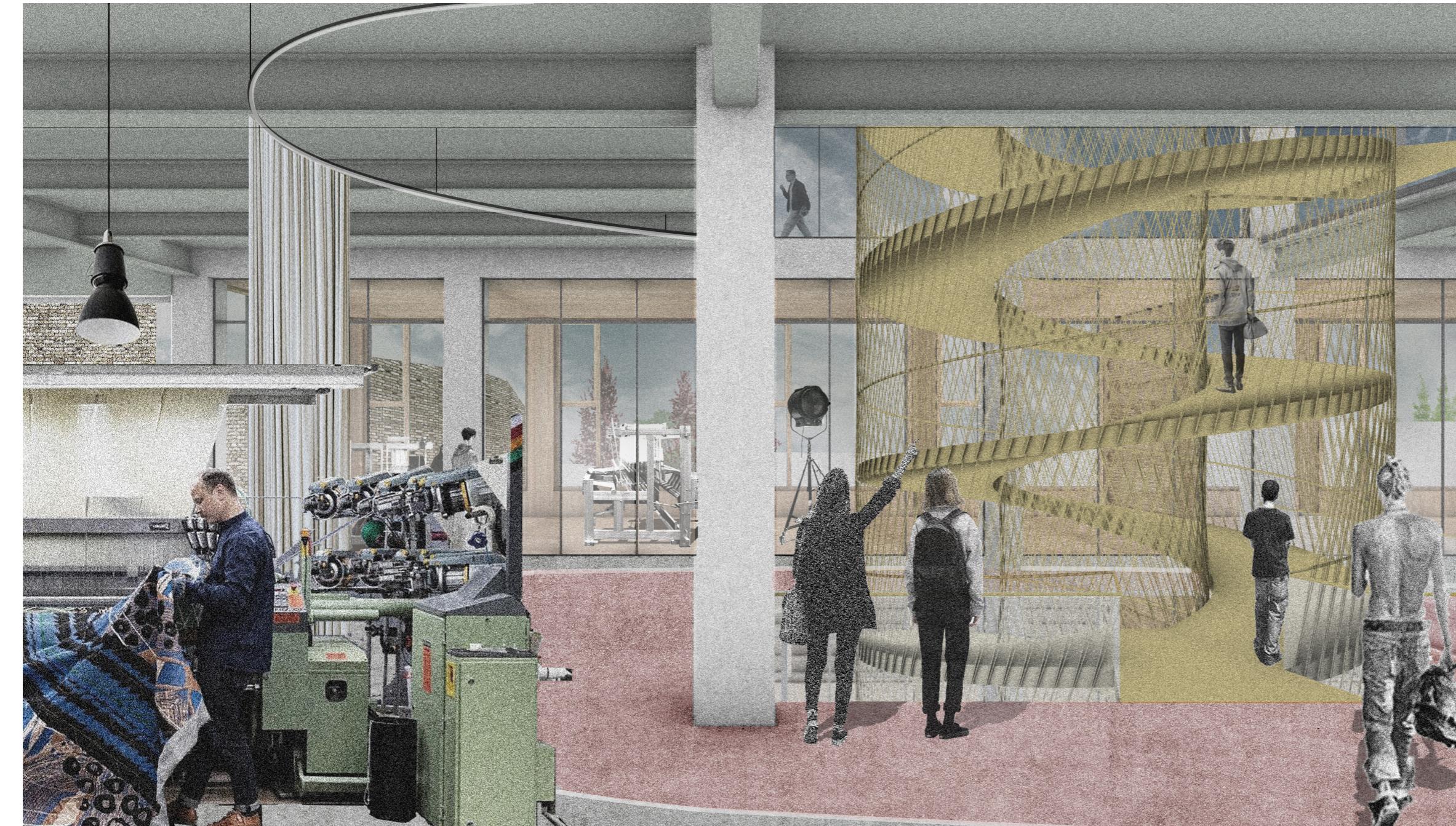
brick

concrete

steel

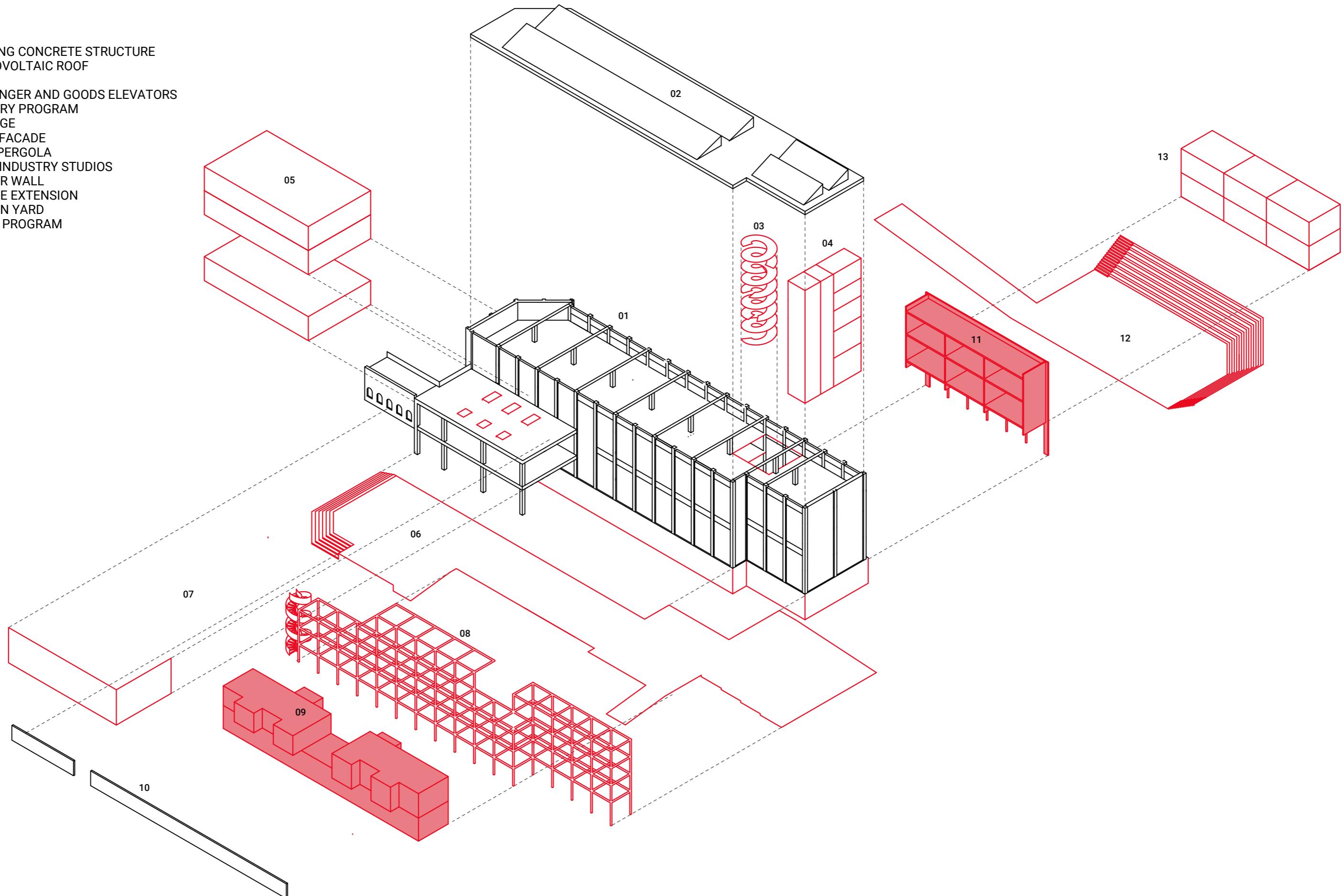
wood

textile



FACTORY LEVEL +1

- 01 EXISTING CONCRETE STRUCTURE
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WOOD FRAGMENTS

brick

concrete

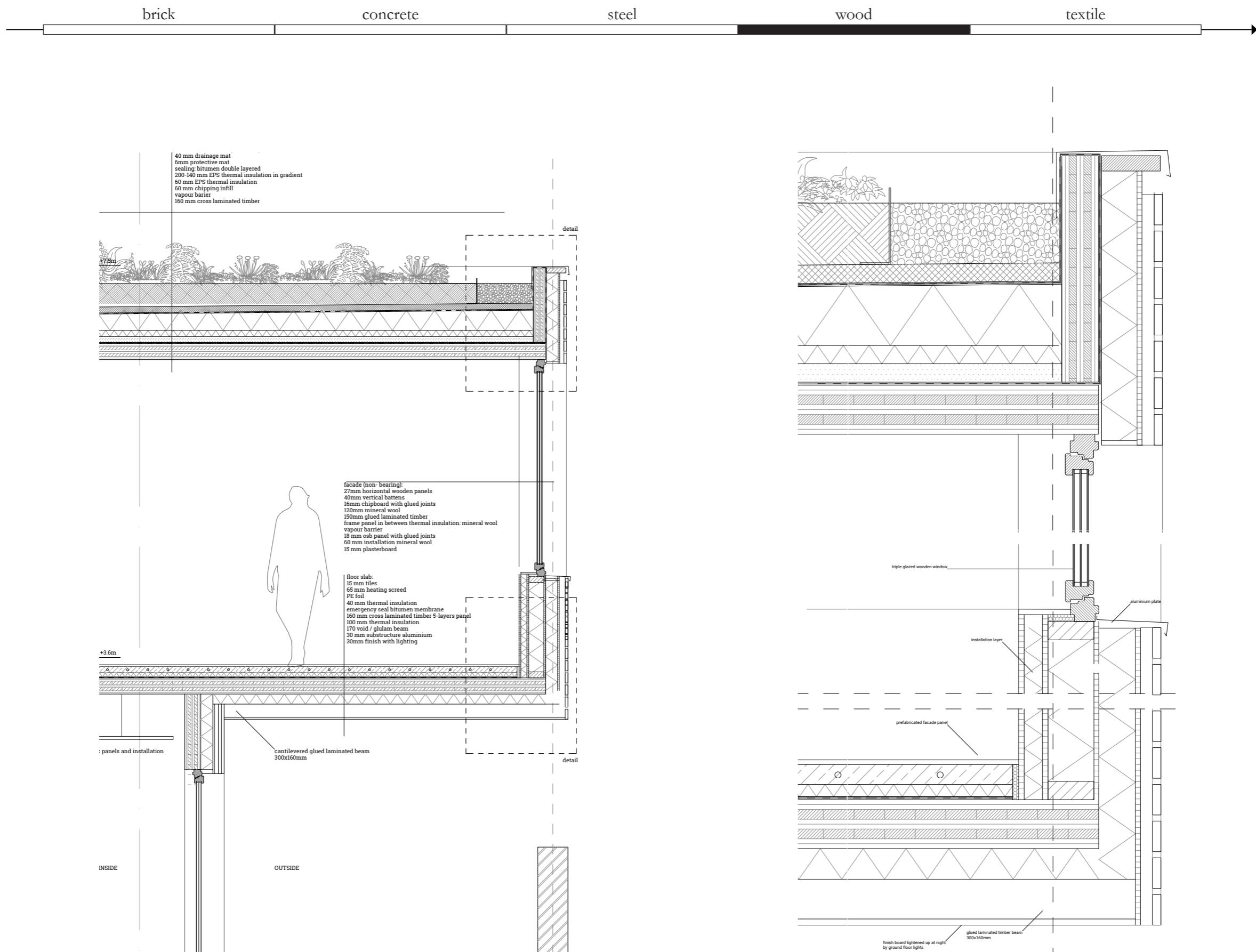
steel

wood

textile



SOUTH ELEVATION



CRAFTSMAN STUDIOS DETAILS

brick

concrete

steel

wood

textile



CRAFT STUDIOS COURTYARD VIEW DAY

brick

concrete

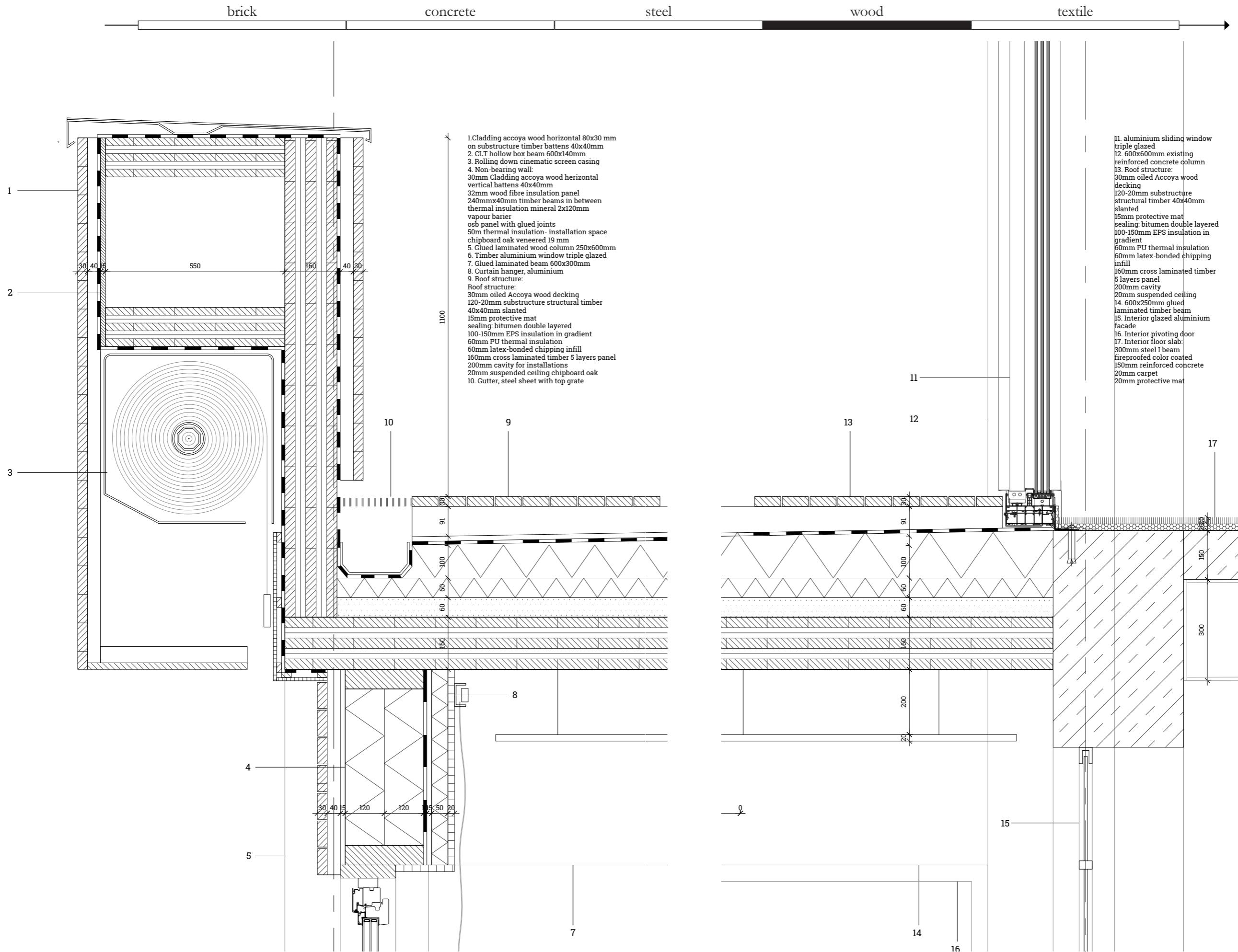
steel

wood

textile



CRAFT STUDIOS COURTYARD VIEW NIGHT



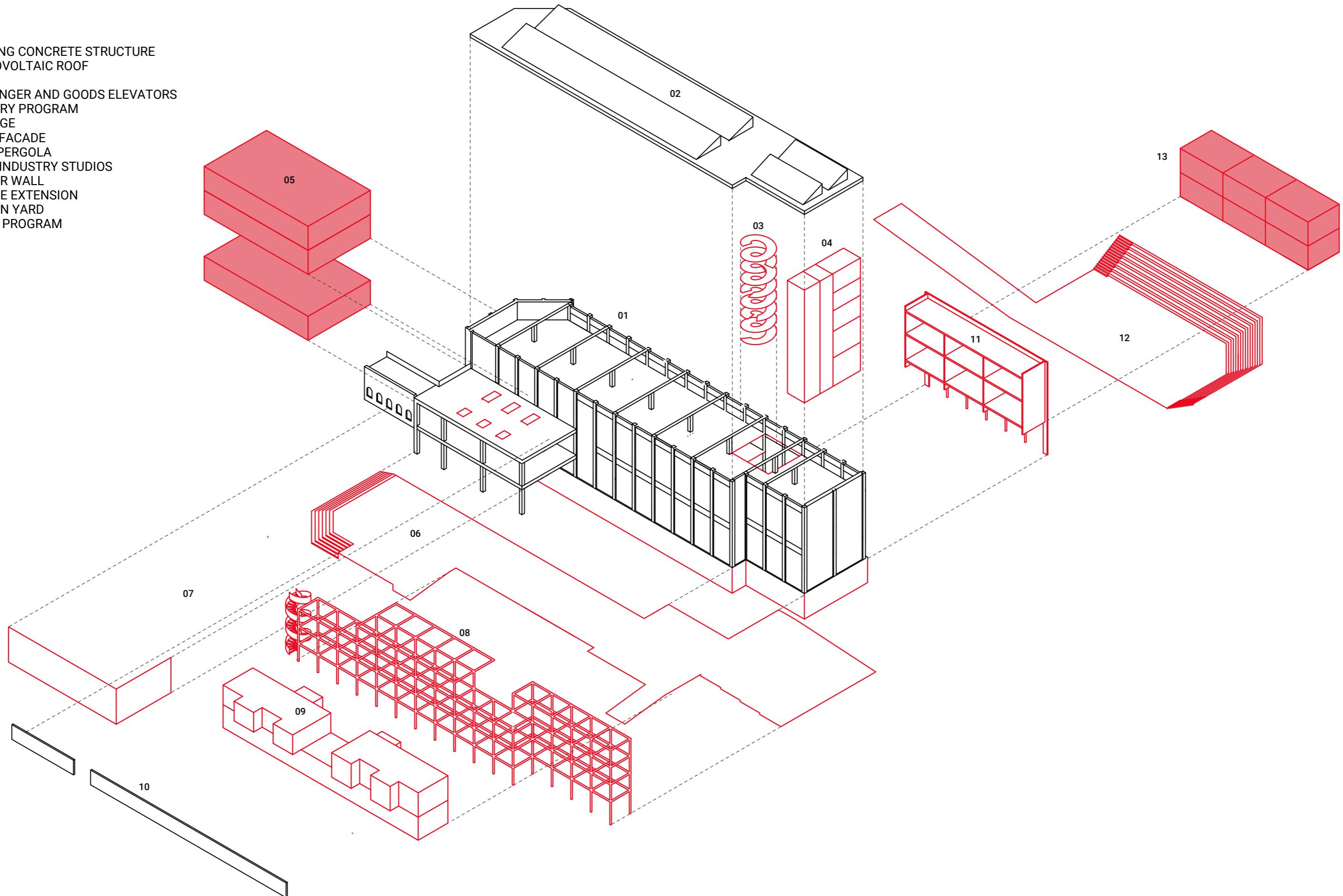
CRAFT STUDIOS DETAILS

brick concrete steel wood textile

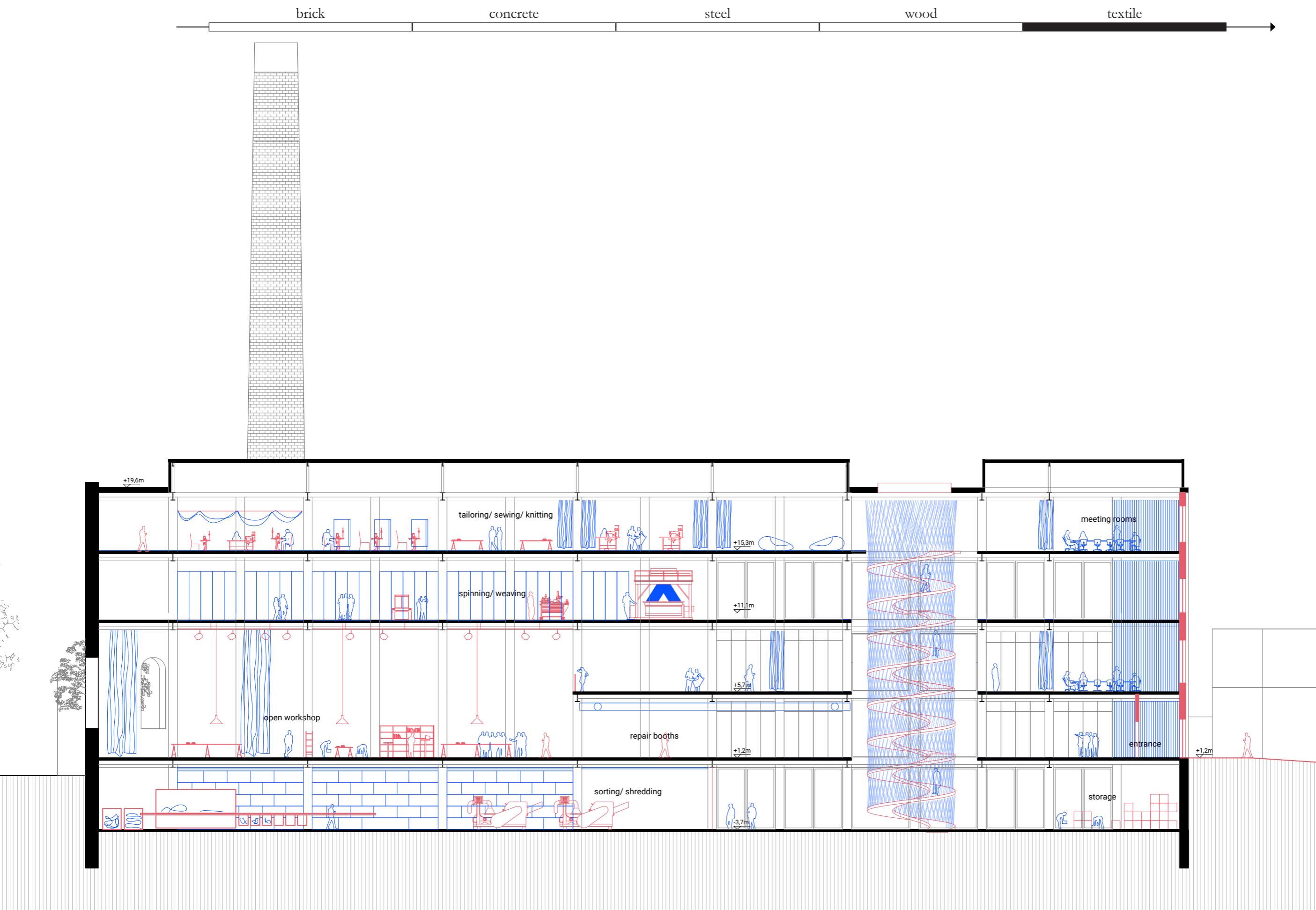


NORTH FACADE

- 01 EXISTING CONCRETE STRUCTURE
- 02 PHOTOVOLTAIC ROOF
- 03 RAMP
- 04 PASSENGER AND GOODS ELEVATORS
- 05 FACTORY PROGRAM
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- 07 BRICK FACADE
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- 13 CRAFT PROGRAM



TEXTILE FRAGMENTS





THANK YOU