Weaving the city

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

Research Portfolio

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Architectural Design Crossovers
Msc Graduation Studio 2021/2022
Heterogeneous City - London

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Part 1 of the Research Portfolio

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Problem statement and research questions

Manufacturing manages to capture one's imagination, like any other sector of the industry. Whether it is an image of smoky chimneys, sentimental black-and-white photograph of a crowded in-line production, or the precision of a well-working mechanism, there is a certain allure about the making of tangible objects that is hard to resist (Hill et al. 2018, 15). The term manufacturing can be defined as a transformation of physical material through labour, tools, and/or machines resulting in a product and produced at scale. It is not an isolated process, but rather a broad activity supported by a vast network of other actions, including i.a. education and training, logistics, material supplies, research, design and engineering, marketing and communications, finance, retail, and distribution (Croxford et al. 2020, 23).

Most European cities developed rapidly during the 19th and 20th centuries due to technological advances in the manufacturing industry. Mass production factories, extraction and processing sites, railway systems for transporting materials, storage spaces, and other supporting infrastructure highly influenced the evolution of urban areas. Like other UK cities, London underwent deindustrialization in the second half of the 20th century, but unlike many others, it thrived in this new environment and managed to establish the position as a leading global service and financial centre (Hill et al. 2018, 83).

Previously a leader in production, the United Kingdom is currently dependent on imported goods and resources. Due to the consequences of environmental pollution and social exploitation, manufacturing has lost some of its appeal and disappeared in the urban context. The question arises on understanding whether manufacturing is still a vital thread in the pattern of the city. The abundance of physical objects, negative connotations to materialistic culture and excessive waste are some of the problems facing the production industry today. Is it possible for the making process to adapt to current conditions to restore regional production, focus on craftsmanship and increase the appreciation of local resources?

The research focuses on textile manufacturing, resulting in goods such as clothing, household items, upholstery and various industrial products. In recent decades, the value of textile products was reduced to an easily available and dispensable item. Because of the low rate of recycling, textile waste is becoming a problematic issue, with most goods discarded on a landfill, burned in an incineration plant, or exported abroad. Can there be a different, improved future envisioned for a textile manufacturing industry?

This research aims to develop an architectural position, following the main question:

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

The sub-questions are means to explore the theme of manufacturing, acquire a deeper understanding of ongoing processes and firmly position the succeeding design in the discussion on material culture:

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

Definition of the theoretical framework

To get a better understanding of material culture and to clarify my position in the discourse, I established primary literature for my research. Tim Ingold's texts provide an understanding of materiality from materials - centred perspective and prioritize processes of production over those of consumption (Ingold 2012, 435). This view corresponds with Richard Sennet's argument that making is thinking and his notions on craftsmanship (Sennet 2008). In the research, I am weaving it with a cradle-to-cradle design framework developed by William McDonough and Michael Braungart (McDonough and Braungart 2002) and matching it with a discussion on a networked territory by Lola Sheppard. This theoretical framework creates a base for a discourse on the relationship between the architecture of manufacturing, materiality, and site conditions.

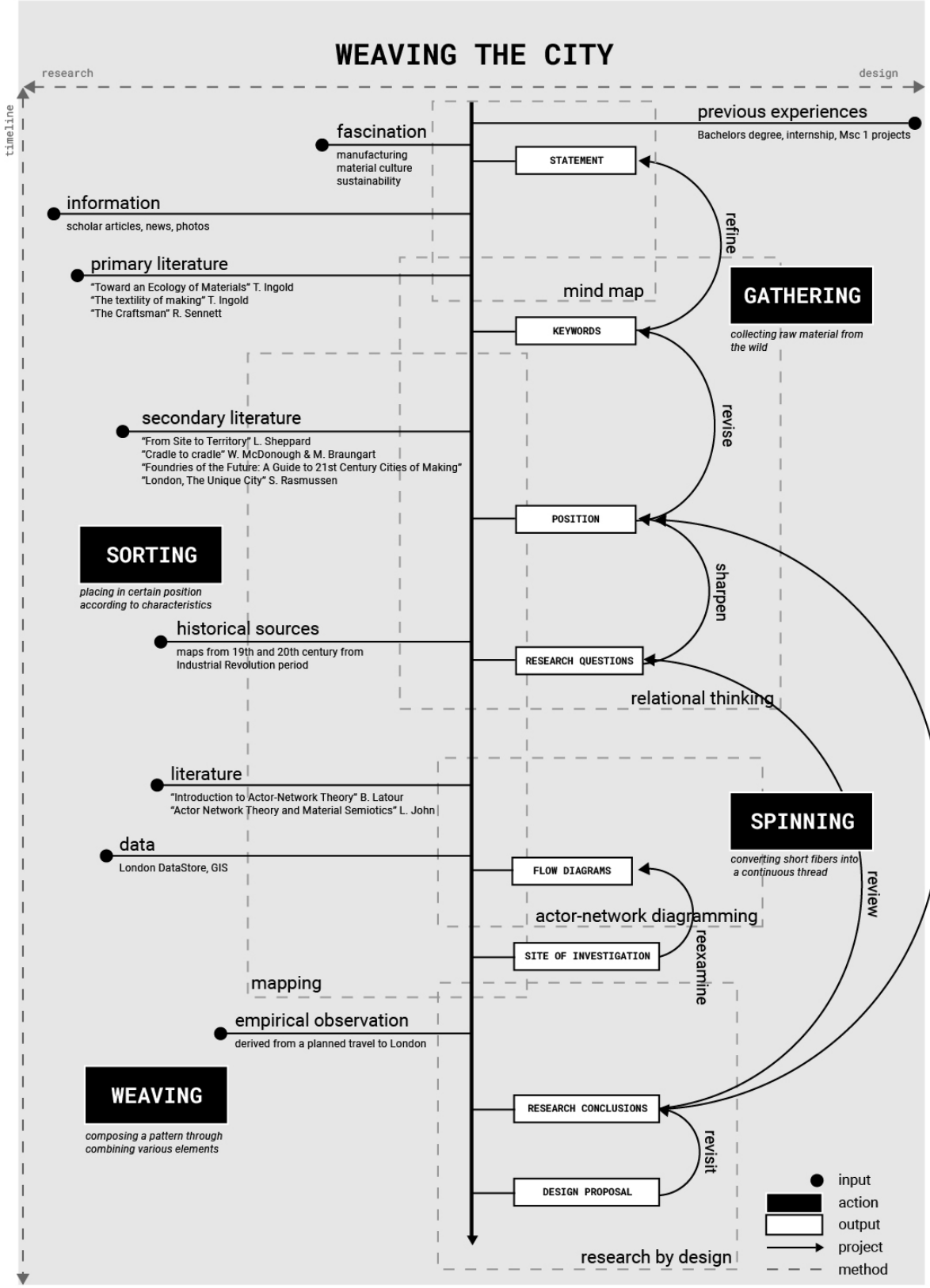
My study in material culture revolves around Tim Ingold's texts. Following his analysis on materiality, it is possible to make a distinction between perceiving good as an object, which is a complete and final form, and a sample of material, which is a temporary state with potential for further making, growth and transformation (Ingold, 2010, 93). To develop an ecology of materials, he calls for a change of focus, from the 'objectness' of things to the material flows and formative processes where they come into being. It means to think of making as a process of growth (Ingold, 2012, 431). "Everything may be something but being something is always on the way to becoming something else" (Ingold 2011, 3).

The corresponding view is presented by Richard Sennett. He acknowledges the negative

connotations of the words materialism or materialistic thinking and encourages to take a different viewpoint and answer what does the process of making concrete things reveal to people about themselves. He states that people can achieve a more humane material life, only if they better understand the making of things (Sennett 2008, 8). The craft of making physical things provides insight into the techniques of experience that can shape our dealings with others. (Sennett 2008, 289).

To complement these anthropological notions, I am also exploring William McDonough and Michael Braungart's cradle-to-cradle design framework, with their statement that everything is a resource for something else. In nature, the waste of one system becomes food for another (McDonough and Braungart 2002). Other writings of William McDonough's address the ethical implications of design, not only with respect to buildings but in every aspect of human endeavour, with a focus on who or what, has the rights (McDonough 1993, 406). He claims that human society needs to aspire to an integration of its material, spiritual and ecological elements. The challenge for humanity is to develop human design processes that enable us to remain in the natural context (McDonough 1992, 5).

One more theoretical discussion I would like to include in the research is the concept of a site, or rather a networked territory- its definition, borders, and limits in questions of ecologies. Networked territories, in counterpoint to layered territories, conceive of context as the subject and product of multiple intersecting networks and natural ecologies (Sheppard 2013, 182). It is important to look at large-scale flows of materials and energies to understand the ongoing processes in the city and propose a fitting local vision.


WEAVING THE CITY
research
design
timeline
previous experiences
Bachelors degree, internship, Msc 1 projects
fascination
manufacturing
material culture
sustainability
STATEMENT
information
scholar articles, news, photos
refine
primary literature
"Toward an Ecology of Materials" T. Ingold
"The textility of making" T. Ingold
"The Craftsman" R. Sennett
mind map
GATHERING
collecting raw material from the wild
KEYWORDS
revise
secondary literature
"From Site to Territory" L. Sheppard
"Cradle to cradle" W. McDonough & M. Braungart
"Foundries of the Future: A Guide to 21st Century Cities of Making"
"London, The Unique City" S. Rasmussen
POSITION
SORTING
placing in certain position according to characteristics
sharpen
historical sources
maps from 19th and 20th century from Industrial Revolution period
RESEARCH QUESTIONS
relational thinking
literature
"Introduction to Actor-Network Theory" B. Latour
"Actor Network Theory and Material Semiotics" L. John
SPINNING
converting short fibers into a continuous thread
reconsider
review
data
London DataStore, GIS
FLOW DIAGRAMS
actor-network diagramming
reexamine
SITE OF INVESTIGATION
mapping
empirical observation
derived from a planned travel to London
WEAVING
composing a pattern through combining various elements
RESEARCH CONCLUSIONS
revisit
DESIGN PROPOSAL
research by design
input
action
output
project
method

Methodological positioning and description of research methods

The starting point of my research is defining the fascination with urban manufacturing, material culture and sustainability. I plan to create a research method for my project, called weaving the city, that will guide me through London, and architectural theories. I divided the research into four steps, each referring to the textile making process: gathering, sorting, spinning, and weaving. This plan will help me to structure the work. On the other hand, I will also leave space free exploration of unexpected threads. For clarity, I visualised the research plan in a diagram (p.5).

The first step in my research plan is gathering- a process of collecting raw materials from the wild. In this phase, I am collecting general information on London, assembling texts for methodological positioning and working with a mind map, as a tool to keep my thoughts organized together. London is a complex heterogeneous space, therefore I am starting to analyse it with a focus on wool- a tangible material with a strong presence in history, as the Industrial Revolution has its roots in textile manufacturing in England. Within a few decades, this cottage industry, dependent on the craft of individual labourers for the production of small quantities of woollen cloth, was transformed into a mechanized factory system that churned out fabric, mostly cotton, by the mile (McDonough and Braungart, 2002, 19). This narrow lens will allow me to firstly scan the metropolis of London in an understanding of material flow in the textile industry.

The next step is sorting- an act of placing in a certain position according to characteristics. This requires relational thinking to find connections, filter the information and assemble all data in a categorized manner. Creating multiple lists will help me to keep an overview of information. Another useful method is diagramming to simplify the knowledge. To understand the complexities of connections between processes and parties involved in textile manufacturing I will use the Actor-Network Theory (ANT). Following John Law, the actor-network approach describes the enactment of materially and discursively heterogeneous relations that produce and reshuffle all kinds of actors including objects, subjects, human beings, machines, animals, "nature", ideas, organizations, inequalities, scale and sizes, and geographical arrangements (Law 2009). This act will result in a diagram of connections and a deeper understanding of material flows and processes.

The step that follows is spinning- a process of converting short fibres into a continuous thread. At this stage, I should be able to connect pieces of information into a coherent story. I will use mapping to identify a site of investigation in London. Cartographic representation becomes a primary method for apprehending the complexity and mutability of forces at work, but equally, in projecting potential futures. The cartographic act becomes both the synthesis of information and the initial registration of a potential (territorial) site (Sheppard 2013, 180). I will look for a disrupted territory with overlapping systems to test

a hypothesis that weaving in urban manufacturing into existing flows of the city improves local conditions.

Another source of information in this step will be a physical visit to sites of interest in London, through which I want to understand scale and context.
The last step of my research plan is weaving- an action of composing a connected whole through combining various elements, threads. It will be a focus on architectural design and draw clear conclusions from preceding research steps. During the process, I also rely on guidance and experience from mentors and students in my group. I will revise and compare each output from the research steps to finally result in a clear and sharp design positioning.

Argument about relevance

Complex tasks that modern cities are facing require attention from different perspectives and at different scales. The change demands a smart connection of challenges and systems in a way that does not compromise the quality of life or the landscape (Berkers 2019, 8). That statement applies to Greater London, a constantly growing metropolis with more than 9 million inhabitants and an area of over 1,500 km2. It needs to provide a space to accommodate different activities for inhabitants with diverse backgrounds, skillsets, and ambitions. Throughout history, manufacturing proved to fix urban disparities and encourage development. It brings a practice in material technology, which combined with the knowledge of skilled and educated people can result in innovative solutions for problems of the city. Due to the wide range of processes, the production industry involves multiple actors and creates an intricate network between communities, businesses, resources, and the natural environment.

Over the last decades, our understanding of nature has dramatically changed, but modern industries still operate according to paradigms that developed when early innovators had a very different sense of the world (McDonough and Braungart, 2002, 26). The current, mostly linear, rotation of objects with disruptions between steps in production, processing, distribution, and disposal is a flawed operation mechanism that contributes to unnecessary waste of resources. The industrial design agenda should now accommodate the health, interconnections, and fragility of natural systems. It is relevant to focus on the full life cycle of materials and propose sustainable solutions that would treat waste as a productive resource to close the loop of circularity in the city.

The discussion on material culture is also important to endorse alternative views on the consumption habits of people. The argument that making is a process of growth gives an appreciation and importance to craftsmanship and manual skills. Raising awareness of the source of everyday materials and explaining the processes behind it is an important direction of development and leads to the growth of people, communities, and the city overall. By

being closer and interacting, consumers and producers can make a conscious choice about the source of everyday objects. The visible presence of craft and manufacturing can result in appreciation of the material culture with its link to the history and heritage of London.

Steen Eiler Rasmussen, an architect, and a town planner from Copenhagen, who devoted many years of his life to the study of London, found that there was information available on every detail in the history of the city, however not even one complete picture of the development of the town. He concluded that the English cannot, as a rule, see the peculiarities of their own town in the same way as foreigners see them (Rasmussen 1982, 24). While I am not considering myself as an expert in untangling the complexities of the urban fabric, it gives me hope that my locally impartial research on the city, will yield a fresh and relevant view on the topic.

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Personal glossary

Throughout my research plan I provided definitions of weaving (p.1), manufacturing (p.2), object and sample of material (p.3), gathering, sorting (p.5), and spinning (p.6). Other terms that I find vital for the research are:

making

a process of weaving, in which skilled practitioners bind their pathways or lines of becoming into the texture of material flows compromising the world, syn. form-giving (Ingold 2010).

sustainability

meeting the needs of the present without compromising the ability of future generations to meet their own needs; to be valid, legal, and true (Hubert and Theocharopoulou 2013).

urban manufacturing

city-oriented transformation of physical material to a product, based on the concentration of knowledge, technical skills, ambition, finances, and technology (Croxford et al. 2020).

Research Essay

Part 2 of the Research Portfolio

Weaving the city - Brownfield regeneration through urban manufacturing

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Weaving is a method of textile production in which two sets of yarns or threads are interlaced at right angles to form a fabric. This act of making by combining various elements in a skilled way is a recurring theme in my research.

Keywords

brownfield, craftsmanship, manufacturing, textile, weaving

Abstract

Material culture is a vital part of everyday life. Unfortunately, the appreciation for the physical objects, transformation processes and manual work has deteriorated due to upscaling infrastructure, standardisation, and mass production. Now, more often than ever, we use items that we do not understand, do not appreciate, and do not even need. The knowledge of material transformation methods is obscure and not influential anymore. Finally, discarding worn objects leads to waste production. However, to move from the linear economy into more resilient circular processes in the future, we need to localise production networks, create synergies in industries and efficiently use available resources. I, therefore, evaluate manufacturing and craftsmanship in an urban environment to understand whether they are still vital threads in the fabric of London. My research starts with a medieval city, goes through an era of industrialisation and consecutive offshoring of production and development of the service sector. Being aware of the problems facing the production industry, such as the abundance of physical objects, negative connotations to materialistic culture and excessive waste, I search for an answer, if the making process can adapt to current urban conditions, restore regional production, focus on craftsmanship and increase the appreciation of local resources. Subsequently, what kinds of building typologies, programs and spatial qualities emerge from these material practices?

To bring back craftsmanship in the urban area, we should carefully extract successful strategies by analysing existing typologies of making in the city of London. I take examples of a mixed-use development of the Oxo Tower, the goods exchange point at Camden Market and a craft jeans maker- the Blackhorse Lane Ateliers, to understand the urban ecosystem of craftsmanship. The research essay aims to develop a design position by getting an overview of the complexities regarding materiality in architecture. Through looking at different theoretical movements, literary reviews, and precedents in the built environment, I want to find an answer to the question of how material practices in architecture contribute to sustainable urban manufacturing.

Personal glossary

Actions: gathering, knitting, making, sorting, spinning, threading, tying, weaving.
Properties: interconnected, flexible, porous, tactile, tangible, transparent, woven.
Terms: artisanal practises, brownfield, circularity, community, craft, disruption, energy flow, fabric (vs tissue), localize, material culture, material ecology, material flow, material practices, materiality, patchwork (vs pattern), process, sustainability, thread.

Introduction

In 2011 the first micro-mill opened in London, after a hundred years of shutting down weaving factories and offshoring textile production. Based in East London, the London Cloth Company is a local manufactory specialising in the high-quality woven cloth, produced on the restored shuttle looms from the 19th century. For their limited edition of the 'London Tweed' textile collection, sheep's' fleece was collected from as many city farms as possible. Yet, there were no wool processing, spinning, or finishing facilities within or around London, so the initially innovative idea of the locally-sourced, locally-made fabric did not fully come to reality. And I started wondering why, in a city of nine million citizens, with a rich textile industrial heritage, famous for its creative industry, there was no thriving craftsmanship network for its various production activities?

As consumers, we are becoming increasingly aware of our consumption habits and their negative influence on the natural environment. Yet, the growing world population causes the increased pressure on the resources. As 60% of people are predicted to live in urban areas by 2030, the problem becomes magnified there. Therefore, a change in planning and developing existing urban conditions is needed. "Complex tasks that modern cities are facing, require attention from different perspectives and at different scales. The change demands a smart connection of challenges and systems in a way that does not compromise the quality of life or the landscape" (Berkers et al. 2019, 8). I structured my research around the relevance of the material culture in everyday life and a question of what values the creative processes bring to humans and their surroundings. With a particular focus on textiles, I explore material qualities and their application in architecture. And finally, I weave my design proposal using different threads of the heterogeneous city.

This research essay is divided into three chapters titled materiality, making and tangibility. In the first part, I give a personal motivation to the research topic and place it in the theoretical framework. The issue of materiality and the discussion around it encompasses my interest in material culture and our relationship with it. In the second chapter, I elaborate on the research theme, emphasising my design position. I explore spatial examples of different ways of making in London and debate the possibilities of bringing back craftsmanship by extracting successful strategies. In the final part, I argue my standpoint and expand on the main research question. I explore the tangibility of architecture on tangible precedents and construct a design strategy for my further work.

Chapter 1. Materiality

"Everything may be something but being something is always on the way to becoming something else."

Tim Ingold, The Ecology of Making

Materiality and making physical objects are fascinating topics. Often overlooked daily, but always being an essential part of human life. From the use of primitive tools, which allowed early humans to influence the surrounding world, to elaborated highly technical machinery replacing human labour, the making of the physical object has always been a vital part of human existence. The question arises of what the meaning of materiality is. Is it the shape, feel and look of the object? Or literally, are these the actual materials that made the object? Are we even aware of what those materials are? Or how were they assembled, creating the object? Subsequently, do we even care?

To explain the intricate world of materiality, Tim Ingold (2012) refers to a hylomorphic model of creation- the central doctrine of Aristotle's philosophy of nature. In this view, the formation of every object requires connecting two intrinsic principles- matter (hyle) and form (morphe). In the following history of Western civilisation, this model has become deeply embedded but also increasingly unbalanced. The form became the main focus of attention, while the matter was just a necessary means for creation, a passive substance upon which the form is forced. "What we could call textility of making has been progressively devaluated, while the hylomorphic model has gained in strength" (92). Contrary to the prevailing model of creation, Ingold (2010) argues that the forms of things arise within fields of force and material flow. His view urges us to focus on the movement and processes of actions between material and human action, instead of the final, dead-end, form. "However, neither brick, nor mortar, nor soil, nor the ingredients in the kitchen, nor paints and oils, ale objects. They are materials. And what people do with materials, as we have seen, is to follow them, weaving their own lines of becoming into the texture of material flows compromising the lifeworld" (96).

Following Ingold's (2012) analysis of materiality, it is possible to distinguish between perceiving good as an object, which is a complete and final form, and a sample of material, which is a temporary state with potential for further making, growth and transformation (435). To develop an ecology of materials, he calls for a change of focus, from the 'objectness' of things to the material flows and formative processes where they come into being. It means to think of making as a process of growth. The important aspect, that Ingold (2012) is also touching upon is the material-centred perspective, which considers the full life cycle of the material. "Focusing on the materials means prioritizing the processes of production over those of consumption" (431). Taking as an example a weaving process, we can observe the change in the methods of making. Even though the basics of the technique are the same as ever- creating a shed, inserting the filling, and beating up the pick, the change in quantities, machines, places of production and the quality are visible. Today's weaving machines are highly technical instruments featuring numerous innovations to speed up production, save time and labour costs. They have also been hidden away from the consumer gaze, thus

increasingly disconnected and abstract.

Textile production is a significant part of British heritage. Since the domestication of sheep, wool as raw material has been widely used. In medieval England, the majority of picked up wool was exported to Flanders to the best cloth-making weavers. The traditional craft of wool weaving fully developed in the 16th century, following imposing heavy taxes on wool export and the surge of Flemish weavers to Britain. The woollen products have been created locally in lesser amounts, which resulted in high customization and labour intensity. The first industrial revolution started in Britain in the seventeenth century. Mogul India was formerly the biggest producer of cotton textiles, rich in skilled, cheap labour. "However, by the early nineteenth century, Britain has surpassed India, as the world's most substantial cotton textile producer, despite not having any cotton plantation on its own shores, dominating the world export market, and even exporting back to India" (Hosoya, Schaefer 2021, 31). The technical innovations allowed for massive infrastructural expansion and the development of a new economy, based on imported raw materials, mass production and manufacturing in large-scale factories connected by a developing railway system.

"Like other UK cities, London underwent deindustrialization in the second half of the 20th century, but unlike many others, it thrived in this new environment and managed to establish its position as a leading global service and financial centre" (Hill et al. 2018, 83). Previously a leader in production, the United Kingdom is currently dependent on imported goods and resources. We can also observe the interruptions in the flow of material. Both on the logistic level, with global changes influencing the transportation of goods but also on the level of knowledge, which became highly specialized and available only to a narrow group of experts in their field. The unknown origin of matter and the low quality of products factor into the generation of post-consumer waste. Following Sennett (2009), the abundance of material goods led to negative connotations of the materialistic approach. "The word materialism should raise a warning flag; it has become debased, stained in recent political history by Marxism and in everyday life by consumer fantasy and greed. "Materialistic" thinking is also obscure because most of us use things like computers or automobiles that we do not make for ourselves and that we do not understand" (7).

The material world calls for a change and development of an approach, which follows closely the material flow and its full life cycle. Nina Rappaport (2015), an urbanist and founder of a Vertical Urban Factory think tank, reckons that "upcycling is one way to hack things with positive results and interfere with a system of goods production, as, instead of accepting the built-in obsolesce. Products are reused for their parts or in their entirety in hackerspaces (…) that make products from products" (456). Some techniques that are already existing could be broadly implemented and encouraged. Kintsugi, the Japanese centuries-old method of repairing broken pottery, celebrates each artefact's unique history by emphasizing its fractures and imperfections instead of disguising them. The technique often improves the repaired piece, resulting in more beautiful than the original, giving it a fresh look and a second life. Another Japanese movement- wabi-sabi, encourages to search for beauty in imperfection and accepting the natural cycle of life. According to it, everything is by nature impermanent, incomplete,

and imperfect; thus, we can celebrate it, not ignore, or even negate it. The necessity to reconnect to nature is also highlighted by William McDonough and Michael Braungart (2008) in their cradle to cradle concept. They believe that "our present systems of design have created a world that grows far beyond the capacity of the environment to sustain life into the future. The industrial idiom of design, failing to honour the principles of nature, can only violate them, producing waste and harm, regardless of purported intention" (8). The development of biobased materials, circular flows and thoughtful materiality need to be further explored and enhanced in its growth.

Chapter 2. Making

"The craft of making physical things provides insight into the techniques of experience that can shape our dealings with others."

Richard Sennett, The Craftsman

After highlighting the importance and impact of material choices in our life, I would like to focus on spaces of production, where material flows intersect, creating new connections. Hiroshi Hosoya and Markus Schaefer (2021) suggest that "cities are quite literally ecosystems of connectedness, of ideas and infrastructures, of stories and spaces that bring us together. They are social reactors fuelled by interactions and transactions between people- the exchange of information and goods- that produce social differentiation and division of work in return" (29). And indeed, London has a rich history of making and trading that still today influences its growth.

Envision a medieval City of London, with narrow streets bustling with production and exchange activities. Imagine locals buying products straight from makers' workshops and farmers selling crops cultivated right outside the city wall. Now picture the loud chaos on the market square, the smell of a nearby tannery mixing with the scent of fresh bread from the bakery on the corner. The social life happened right on the street of houses where people lived and worked. Most of this London was destroyed in the Great Fire in 1666 and replaced with a city with more careful distribution of functions. Certain production activities moved further away to hide their disturbing qualities and improve overall hygienic conditions. Infrastructure development and industrialization generated large monofunctional production areas, such as harbours or gated factories, which later turned into industrial zones, the spatial model solidified by urban planning of the 20th century. Indeed, industries are more successful close together when synergies develop in between (Hill et al. 2019). London's planning policy designated Strategic Industrial Locations. "These sites are necessary because their homogenous nature means they offer space for activities that may be incompatible with other use classes (…) These manufacturing clusters also have a higher average number of employees per business, meaning they are places where larger manufacturing businesses can locate" (Hill et al. 2019).

The authors of the project Cities of Making, an over two years of research exploring the future of urban manufacturing in Europe, provide a consecutive definition of manufacturing: "The term manufacturing can be defined as a transformation of physical material through labour, tools, and/or machines resulting in a product produced at scale. It is not an isolated process but rather a broad activity supported by a vast network of other actions, including i.a. education and training, logistics, material supplies, research, design and engineering, marketing and communications, finance, retail, and distribution" (Croxford et al. 2020, 23). To localize the production activities, we need to acknowledge that the manufacturing industry nowadays is different from what it used to be. The polluting factories have been replaced by cleanroom facilities

and space-consuming processes have become more condensed and efficient. “After a century of systemic separation, zoning out and scaling up, globalization and offshoring, the pendulum is swinging again. Digitalization, new production technologies, the knowledge economy, start-up culture, new mobility, and the Internet of Things, but also a sense of global fragility and a new localism bring industry and cities back together” (Hosoya, Schaefer 2021, 27). The ongoing digital revolution is also an important driver of the change. The consumers' city developed in the eighties and the nineties based on retail and entertainment, but “nowadays, digital platforms provide a better alternative to this use. While much of the consumer drive moved to the digital sphere, there is an increasing appetite for authenticity, experiences of locality and community” (Hosoya, Schaefer 2021, 36).

This longing for rooting in heritage expressed in a trend of revitalising dilapidated industrial buildings for new purposes. Brownfields, often located in strategic points of the urban tissue, provide opportunities for densifying the city, which has led to a significant decrease in the industrial space in London over the last 20 years. Bastian Lange, in his essay titled New forms of working in networks, suggests that “the transition from an industrial to a knowledge society has been accompanied, not only by the transformation of forms of work but has also resulted in a fundamental reorganisation of urban spaces. New needs for space encounter major vacancy rates in the form of old industrial areas. This occasionally leads to new forms of working and production utilising intelligent alternative uses in such structures” (Ziehl et al. 2012, 352). Indeed, industrial buildings with generous dimensions of structural spans, open floorplans and undefined future character allow for the creative additions and redefinition of thresholds. Some of the projects include manufacturing and contributing to various maker spaces across the city. Some examples of different typologies that I mention are the Oxo Tower Wharf, Camden Market, and the Blackhorse Lane Ateliers. These places managed to develop their craftsmanship identity within the service and financial centre. The social interactions in those spaces base on material flows, which makes them unique experiences.

One of the ways that making integrates into city fabric is through mixed-use developments. A positive example of such a project is the Oxo Tower Wharf, a historical landmark on the South Bank of the River Thames (Fig. 1). At the beginning of the 19th century, the site was designated as a power station for the Royal Mail, later it served as a cold store for The Liebig Extract of Meat Company, until the 1970s when it was deserted. What distinguished the following story from many other cases, was the involvement of the public. At that time, the area of the South Bank saw an increase in office buildings and commuters. Local residents felt increasingly marginalised, so they came together and created a community plan which prioritised people, homes, and community facilities, opposing the expansion of office facilities. The Action Group campaigned for seven years for their alternative vision, and in 1984 they won and bought the entire post-industrial thirteen-acre site. The Coin Street scheme involved affordable cooperative housing, an open riverside park, shops, and cultural facilities for the area. All these activities create employment and provide services as well as generate vital income, spent on community purposes again. At Oxo Tower Wharf, thirty units give small craft and design businesses a prominent position in the heart of London.

The community's financial support makes it affordable for makers and start-ups to grow. The public has the opportunity to watch designers at work, to commission or purchase a wide variety of original products, including fine art, textiles, jewellery, and ceramics. Instead of a typical shopping experience, the location offers insight into the hand-woven fabric production, the neon repairs or jewellery ring welding. The Coin Street community gathers craftsmen within one location that generates public interest and revenue.

Another example of artisanal practices emerging as a driver function for development is Camden Market, located by the Regent's Canal (Fig 2). It has been a vital exchange knot for centuries- the location of stables for goods delivery, a stop for reloading water barges and an industrial site of distilleries producing world-exported gin. The site established as the interconnection of various productive activities, which led to the opening of the first Sunday market in the seventies, which consisted of sixteen traders selling antiques, jewellery, arts, and craft. Now Camden Market is one of London biggest attractions due to its authenticity and concentration of trading activity. It includes six diverse merchandise spaces devoted to distinct types of goods, food stalls and even a micro-distillery. Typologically the movable and non-movable stalls overtake old stable buildings, warehouses, courtyards, and railway arches, creating a patchwork of uses, spaces and people. Camden Market grew to be a distinctive home to hundreds of small businesses, bringing to the area workplaces for many craftsmen and merchants. The success came from embracing a heterogeneous area, with its non-uniformed spatial conditions, which allowed for freedom of use and multicultural diversity.

Besides small scales crafts activities, the city hosts larger factories as well, for example, the Blackhorse Lane Ateliers (Fig. 3). It is the only London jeans manufacturing company, located in Walthamstow. Their motto states that quality is one of the primary values, which shows connection between tailoring innovation and heritage techniques. The company is consciously building a community of makers in the area through the employment of local machinists and sharing the company ownership with employees. The factory building has been, until recently, partially rented out to other makers, creating direct cooperation. The business is growing and needed space for establishing an innovative denim dyeing processing line in collaboration with the London College of Fashion. Students will be able to visit the Ateliers regularly and work on projects. On-site is also a restaurant that opens after manufacturing working hours and uses the empty production hall. Although the formed chain of delivery includes importing raw material, the company minimises its environmental impact by using organic cotton woven in Europe and offering a lifetime repair policy to oppose fast fashion. The success of the establishment comes from the use of local labour and knowledge resources and from creating a thriving expertise network of craftsmen.

This way of localised low impact manufacturing touches upon critical aspects of production in the 21st century. Richard Sennett (2009) claims that "we can achieve a more humane material life if only we better understand the making of things" (8). Conscious material choices lead to outstanding quality, locally employed makers create a powerful sense of community, and a transparent approach to the production process grows consumer awareness. We should remember and fully embrace that "objects do

not inevitably decay from within like a human body. The histories of things follow a different course, in which metamorphosis and adaptation play a stronger role across human generations" (Sennett 2009, 15). The crafts themselves are not unidentified trades, but there are people and their narratives behind them.

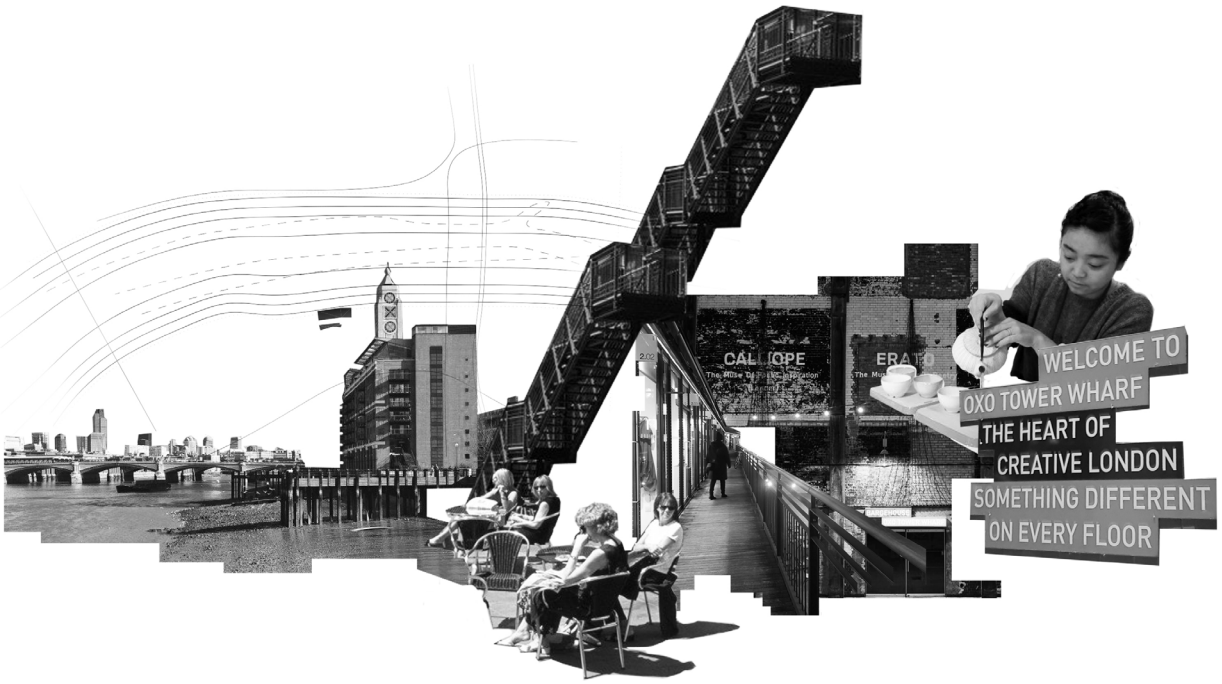

Fig 1. The Oxo Tower Wharf impressions

Fig. 2 The Camden Market impressions

Fig. 3. The Blackhorse Lane Ateliers impressions

Chapter 3. Tangibility

"Manufacturing is a one-of-a-kind sector. No other industry captures the public imagination quite like it. From cars to steel, pharmaceuticals to clothing, there is a certain allure about the making of tangible objects that is hard to resist."

Ben Dellot, Josie Warden, and Adrian Vickery Hill, Cities of Making

In the previous chapters of the essay, I have explored the materiality and production environment separately, highlighting their importance, connections, and outcomes. In this section, I would like to focus on the results of spinning those two threads. I consider tangibility as a physical manifestation of making, as tangible objects give the pleasure of using and a proudness of a work well done. Therefore, the question emerges of what kind of qualities in architecture arise from materiality-centred designs. How is the craftmanship experienced in cities? And how do material practices in architecture contribute to sustainable urban manufacturing?

My initial lens of research was textile. As an intermediatory stage between raw material and its concluding application, it provides a broad range of opportunities and questions about its essence. Various materials compromise the fabric. These could be natural fibres from locally scorned wool, imported cotton, biodegradable thread from a banana peel or man-made, produced entirely from chemicals. How was this textile made? Was it woven by hand by an artisanal practitioner? Was it knitted on a highly advanced machine in a factory? Or 3d printed, taking advantage of digitalization of production? And the mystery goes further in its future. Will it be cut into pieces to create garments? Will it become an upholstery for the furniture? Or it will be stitched carefully as a part of a more complex instrument?

Answering these questions becomes possible after asserting textile properties, as they determine their characteristics, transforming method and use. For that reason, I shifted my focus from textiles as objects to their material properties. Also, architecture has many qualities that resemble those of fabric. To illustrate my views on the architectural tangibility of making, I would like to refer to some precedents that influenced my research (Fig. 4). Firstly, the fabric can be discussed in terms of connectedness- determining how tightly the warps are set or what is the spacing of the structure. We can mention flexibility- is the material elastic, and does it allow for effortless forming? These questions also apply to the built environment. Starting with one of Peter Zumthor's designs- the Werkraum, located in the Austrian mountainous landscape. The building serves an exhibiting function of works of the crafts and trade association in the Bregenzwald region. But it is also an exhibit itself created by skilled construction craftsmen with a deep understanding of material properties. The minimal timber and concrete structure enclose clean, simple spaces by local wood building traditions. The connectedness demonstrates in the integration of users- craftsmen in the production process, in the use of locally sourced, high-quality materials and simplicity of structural grain. It is also a manifestation of flexibility in an open floor plan that allows for an adaptation as an exhibition space, a venue for concerts, balls, and other cultural events.

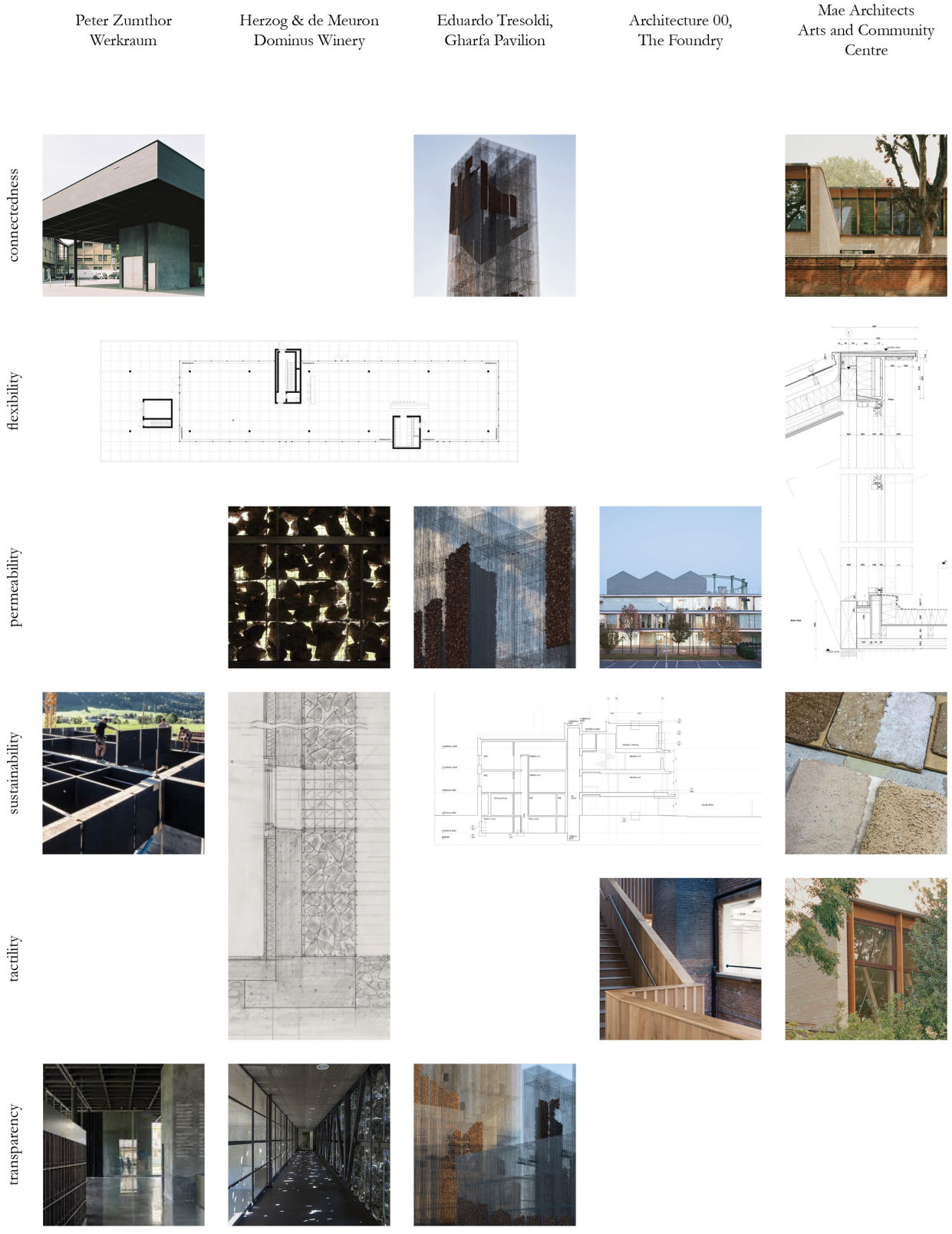

Fig. 4. Tangibility in tangible projects

The tactility of fabric also shows in its layering and permeability. Is one layer of material enough to withstand the requirements of durability? Does the weave allow for breathing and regulating thermal comfort for a user? Architecture creates desired climate conditions for the well-being of the users and processes its hosting at a given time. Permeability is the main feature in Herzog & de Meuron's Dominus Winery, set in Californian wine fields. Gabion walls, constructed from locally sourced stones, filter the natural light into the interior and provide a chilled climate inside, necessary for the wine-making process. The outer shell creates layering, which defines the performance and character of the building. A similar notion is introduced in Eduardo Tresoldi's art installations, for example, Gharfa Pavilion in Riyadh. The Italian artist is famous for working with mesh transparency. His artwork transcends the time-space dimension by blurring out physical limitations while reacting to traditionally built typologies. Layers of wire mesh create see-through volumes, which are contrasting visually with a mass of cork, partially filling them in. Layers of material in the pavilion create a porous façade, giving shadow and aesthetical pleasure with connection to the environment around. Akin to the textile, the building acts as a threshold between exterior conditions and the user.

When choosing a textile for the project, its tactility and durability are vital qualities. Is it smooth or porous when touching it? Does the surface stay cold or warm up while using it? Does the fabric degrade after a few uses, or on the contrary, is it durable enough to be fitted to different users? I will reference The Foundry, a social justice centre completed by Architecture 00 in Vauxhall, London. The project is an adaptation of a 20th-century shoe polish factory into a flexible workspace for non-profit organisations and community learning and event space. The sustainability aspect rests on the reuse of the existing brick structure and an adjacent unused courtyard. The tactility of the project is palpable in contrasting interior materials of old and new elements- raw and porous brick, sleek surface of exposed concrete, and robust wooden railing. The layers of history integrate with the tissue of the building extending its components' life cycle. To reduce the energy demand, the coolth from the existing solid walls brick building transfers to the new, glazed addition during summer and the solar gain from the new building is warming the existing one during winter. The synergy between new and old builds on the tactility of the project and seamless integration in the context. Correspondingly, another London based project- the Arts and Community Centre in Fulham, weaves into the existing situation. Located on the edge of a park, the new centre sits adjacent to the 20th century Lodge, which informs its greenhouse-like shapes. Mæ Architects designed a building that encloses various programmatic elements within a simple CLT structure. With sustainability in mind, the structural elements are bolted, for the possibility of disassembly. Moreover, the materials, in their construction method, are already integrating the low-impact principle, for example, low carbon clt or recycled blocks on the facade. The brick skin has been produced from a potential construction landfill material, creating a highly porous and tactile threshold.

To conclude my views on tangibility, I would like to refer to Richard Sennett's notion of shaping the physical world. "Craftsmanship may suggest a way of life that waned with the advent of the industrial society- but this is misleading. Craftsmanship names

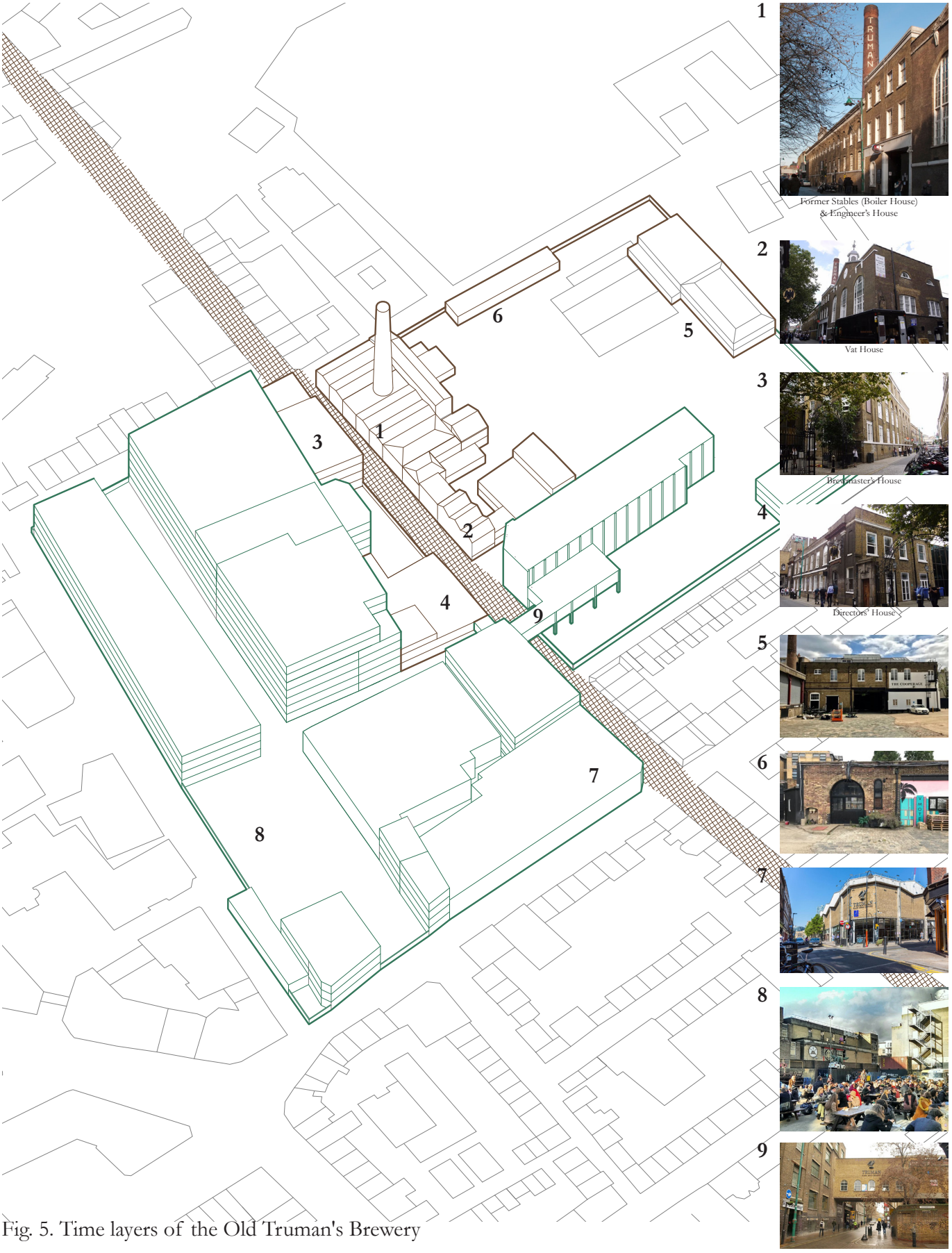

Fig. 5. Time layers of the Old Truman's Brewery

an enduring, basic human impulse, the desire to do a job well for its own sake" (Sennett 2009, 9). This aspiration expresses in the mindful choice of constructing materials, taking advantage of the natural qualities of materials, and responding to the natural environment and existing conditions. Analysing the given examples, we can see that the tangibility manifests in how it corresponds to other threads in the twine. Architecture is not an isolated entity but works within a network of connections, a patchwork of the existing fabrics. Like in the example of The Foundry, where weaving in new functions allowed for a reinterpretation of the site and redefining the borders. Michael Ziehl and Sarah Oßwald introduce a concept of a second-hand space. It refers to thrift shopping and consumers who consciously decide to use already existing resources. The trace of wear is not a flaw but an expression of an alternative notion of life that is critical of consumption. It can be also applied to urban conditions. "Their users recycle the material and immaterial values of vacant sites for economic, ecological, social, and cultural reasons, redefine them, and create something new out of them. However, many people have not yet gotten used to second-hand spaces in urban spaces. They are sometimes perceived as disruptive in what is otherwise a functional and clearly defined city" (Ziehl et al. 2012, 298). There is a role for an architect, to envision a new meaning for those spaces. "At vacant sites, second-hand spaces draw on the atmosphere, the traces, the remains, and the history of their previous uses. These spaces allow for experimentation, for a ground where innovative ideas could be tested and moments of surprise created in the city" (Ziehl et al. 2012, 298).

The research on materiality led me to construct the site of my architectural proposal. I was looking for disruptions in the city fabric, for anomalies in the urban tissue. I found many spaces that have the qualities to be woven again, usually around infrastructure that became obsolete- underutilised arches of the railway tracks, overground parking lots, empty offices and retail spaces along the high streets, and closed factories. The place that particularly drew my attention was the Truman Brewery (Fig. 5). Once a site of one of the biggest and most modern beer manufacturers, now an urban playground, functionally underdefined and spatially enclosed by a brick perimeter wall. Socially, there are already multiple layers to the area. Spitalfields is famous as a place where various immigrant communities found their home: French Huguenots in the late 17th century, who brought silk weaving industry, Irish in the 18th century, Eastern European Jews in the late 19th century, Bangladeshis from the mid-20th century, who introduced their traditional cuisine along the Brick Lane.

Dan Cruickshank (2021), the historian involved in protecting the Brick Lane heritage, claims that there is an opportunity to strengthe Spitalfields better than it is or certainly to maintain what is distinctive about it. "The communities that have thrived there, lived in a creative, mutually supportive, and self-sustaining manner. Spitalfields is an emblematic area of tolerance and diversity, arts, crafts, and industry. A place where people live and work within a fantastic rich theatre of history and memories." The fact that the old brewery is in a central location and provides a lot of seemingly empty spaces might work to its disadvantage and bring development in the wrong direction and contribute to draining the life and carrying it out of its business. I, therefore, see an opportunity in my thesis to offer a counterproposal. There are already strong foundations of craftsmanship and community network in the area. I want to contribute

to this urban tissue by developing sustainable urban manufacturing by focusing on materiality. Learning from the material properties, I want to weave a flexible design, transparent to the users, spatially permeable and tactile.

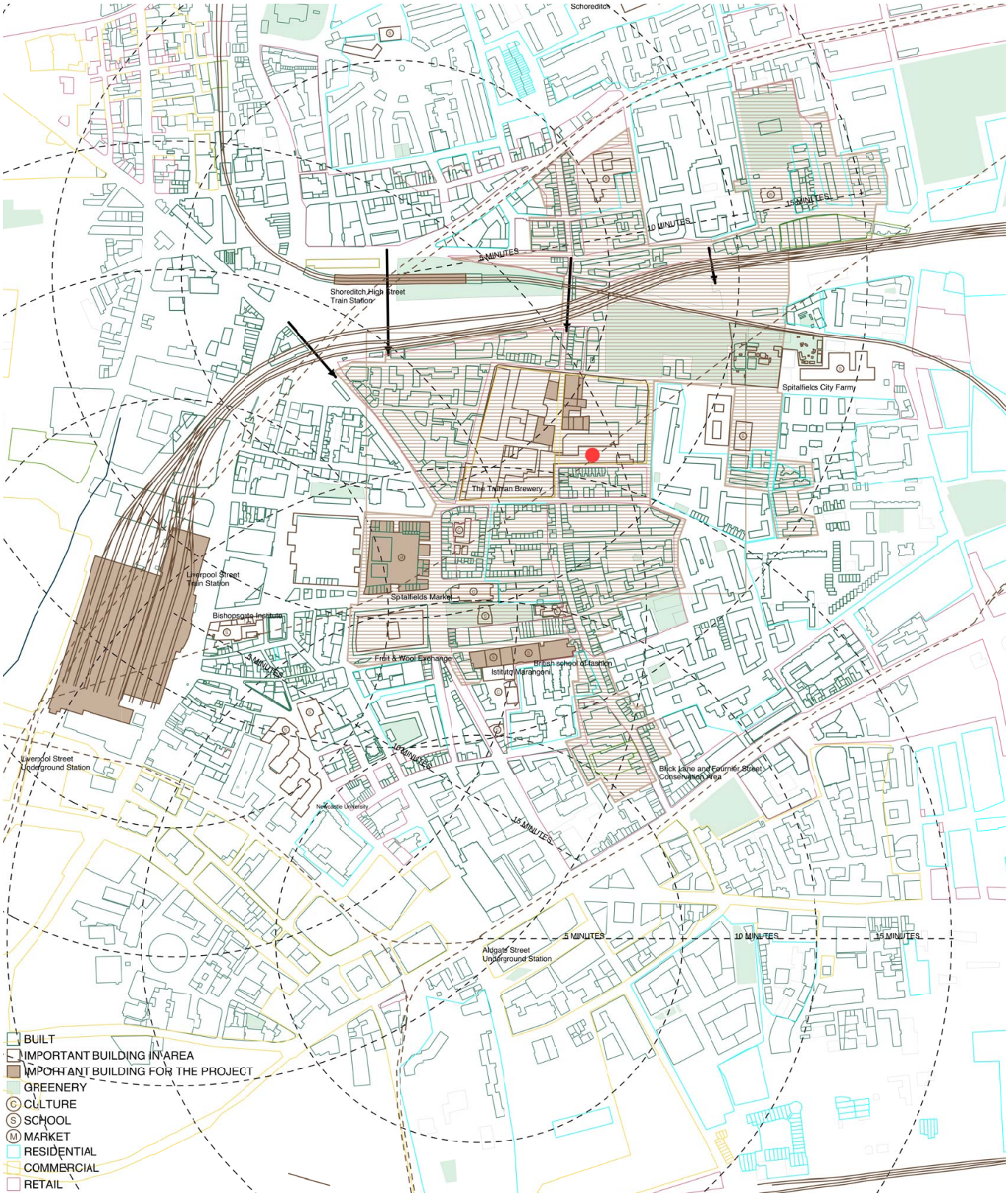

Fig. 6. Urban fabric

Conclusions

The fabric of London (Fig. 6) consists of various knots, fibres and patchworked materials. The heterogeneous character allows to weave in new threads and complements its diversity and uniqueness. Richard Sennett (2009) claims that "in both natural resources and climate change, we are facing a physical crisis largely of our own human making. To deal with this physical crisis we are obliged to change both the things we make and how we use them. We will need to learn different ways of making buildings and transport and to contrive rituals that accustom us to saving. We will need to become good craftsmen of the environment" (12). There is a prevailing stigma in western culture that making is not valuable and that it is a detrimental factor in the urban area. On the contrary, manufacturing establishes workplaces and contributes to diversity and resilience. Neighbourhoods that include maker spaces gain an immaterial advantage in developing creativity, sharing knowledge and livelihood in the community. "If corporations, industrialists, inventors, designers, and urban planners reconsider the possibilities offered by urban factories, this would reinforce the cycles of making, consuming, and recycling that is essential for sustainable cities, and would catalyse new forms of urban symbiosis, which are only beginning to be imagined today" (Rappaport 2015, 457).

I want to take a standpoint that it is time again to celebrate the renewed way of urban production. Creating spaces that are exactly fit for the purpose, allowing for interweaving ideas and localising material transformations. We should manifest the craft, show the process, and be transparent about the workload and material use. As a society, we could stop focusing on ideal but instead highlight the imperfect, the in-between transformations. To prevent the approach from failure we should weave the city by combining the poetic vision with practical aspects of mixed program, community involvement, respect to the existing tissue and use of locally available resources. Through using a toolbox and a glossary of the traditional weaving craft, weaving the city becomes a viable approach to reshaping the existing fabric of the city.

Design Epilogue

Thanks to the involvement of the Spitalfields community, the redevelopment of a warehouse on 146 Brick Lane into a retail and office complex, was stopped. The local needs were prioritized by the Boroughs officials and the Brewery site was designated as the 'Urban Factory'. Craftsmen's workshops and small manufacturing companies located within the perimeter wall are producing local goods from the urban waste. The most prominent of them all, a textile factory attracts students and artisans to cooperate in a product design. The complex attracts visitors to participate in the making process, by upcycling their possesions and learning traditional crafts and innovative production methods. New lightweight structures are emerging, creating pedestrian connections between existing buildings. The Brewery doesn't need to be closed off at night by walls and gates anymore. Its history has begun anew.

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Research Booklet

Part 3 of the Research Portfolio

Weaving the city - Brownfield regeneration through urban manufacturing

Architectural Design Crossovers
MSc Graduation Studio Heterogeneous City - London

Agnieszka Trzcińska 5164206

16.05.2022

Selective mapping

To gain understanding of spatial qualities of manufacturing activity I am applying a method of cartographical mapping. Through a process of sorting information I create a topological map- a diagram showing selected information.

Developing border conditions
City of London, with area over 1,500 km^2 is a vast heterogeneous space buzzling with activity. In order to thematize my research i developed lenses of scanning the spatial layer to discover vital city fabric layers.

'Most European cities are a mix of all these modes of transport and the resulting urban typologies: dense historic cores, Grunderzeit quarters often extending over former city fortifications, green sprawling suburbs and pearl chains of regional nodes around mass transit stations. Form follows infrastructure.'

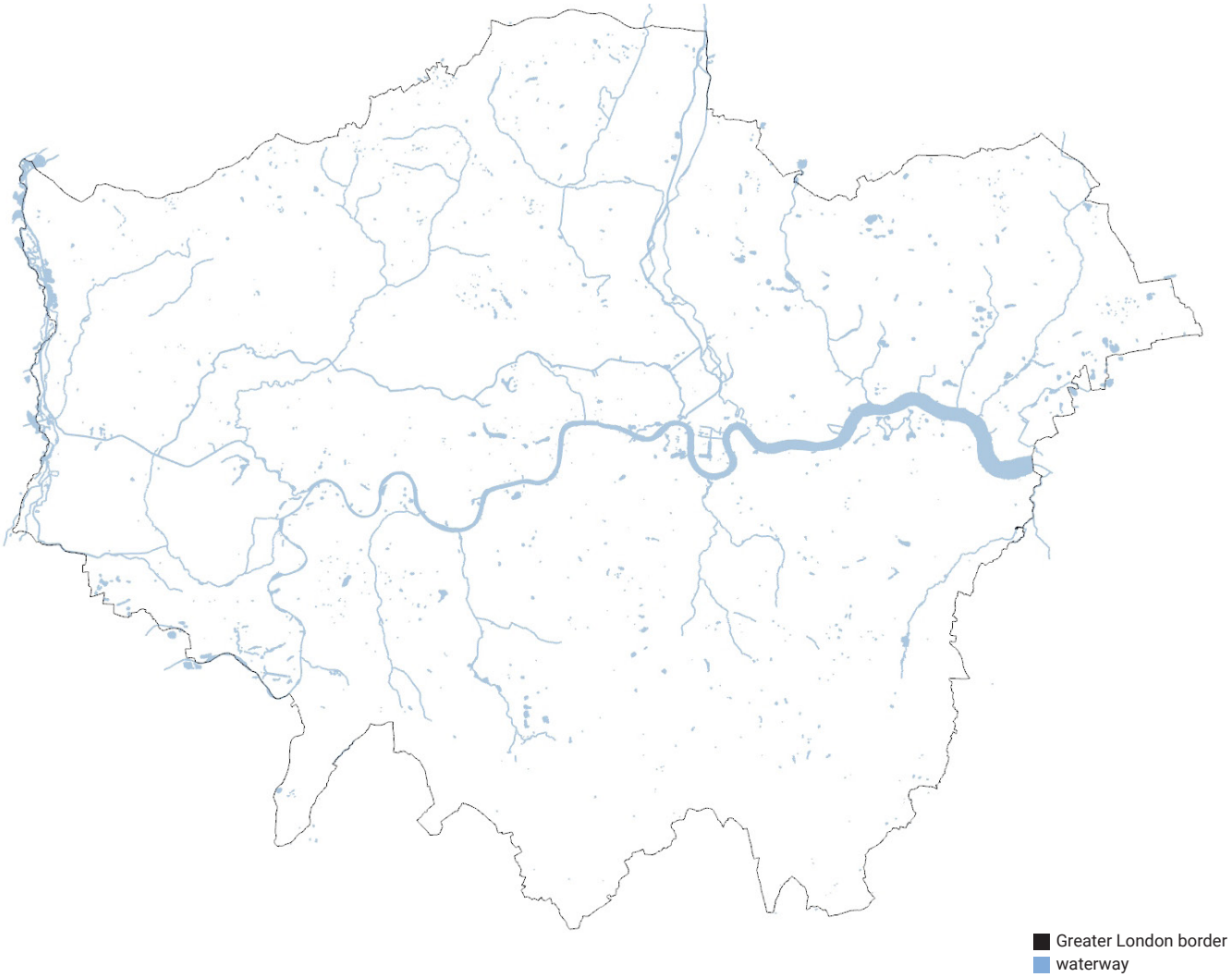
Hosoya, Hiroshi, and Markus Schaefer, eds. 2021. The Industrious City : Urban Industry in the Digital Age. Zurich, Switzerland: Lars Müller.

Based on historical development of manufacturing in the city I chose *railway* and *water* systems, as important transportation flows, *industrial zones* as nodes of manufacturing activity and *brownfields*, as spatial opportunities of development.

Hypothesis
Through cartographical mapping of spatial crossover of railway system, water, industrial land and brownfield, I can construct a site where urban manufacturing can be succesfully applied as a regeneration factor.

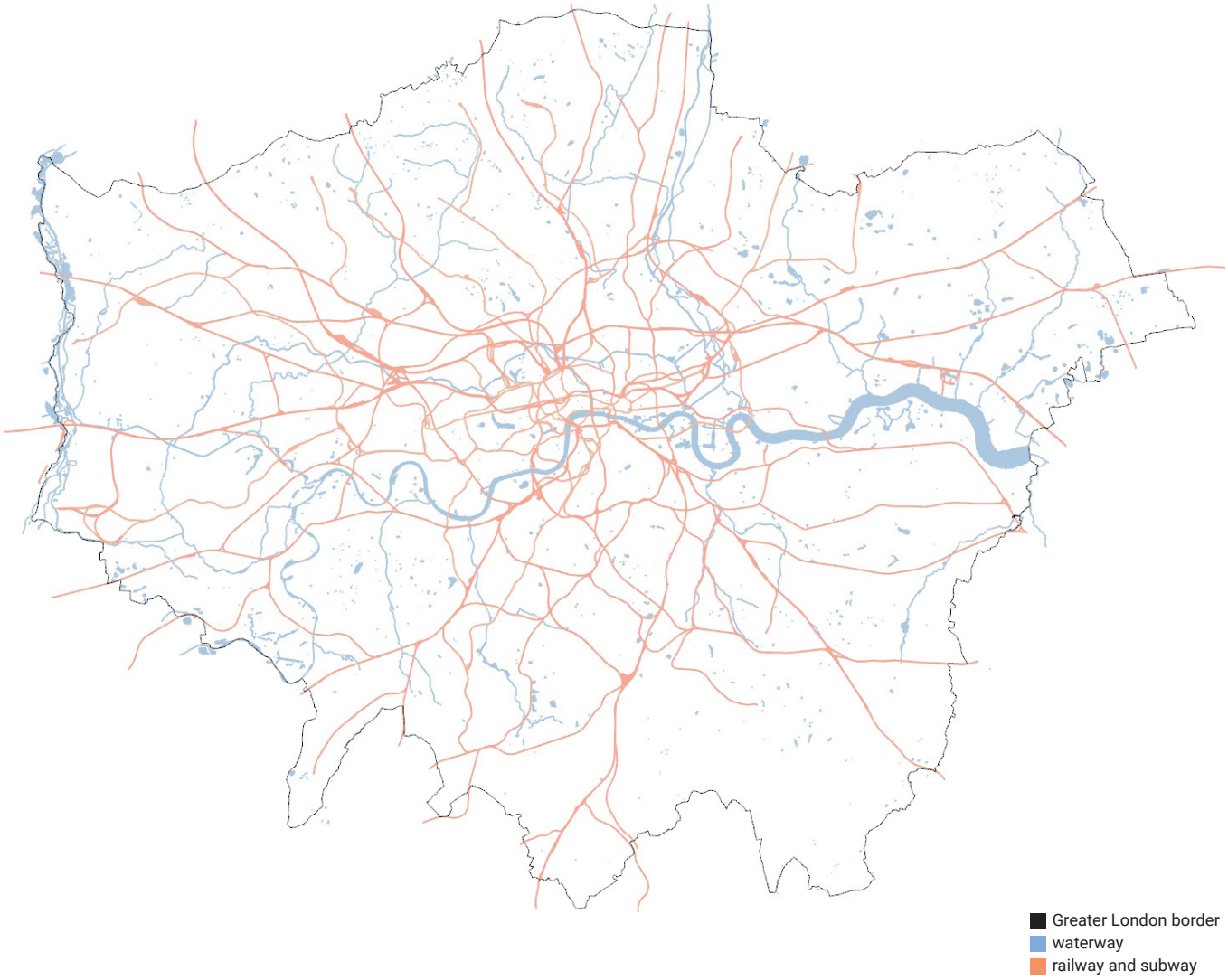
Discoveries
Topological diagrams of crossovers of flows shows uneven urban fabric. Top-down designated industrial zones allow for manufacturing, processing, distributing activities to take place, resulting however in homogenous areas. While being beneficial for large-scale production activity, the local manufacturing and craftsmen require mixed- use sites, allowing for involvement with local communities. Water system creates opportunity for establishing freight barge connections on Thames. The system is rather scarce and continuous only along main canals. The inner boroughs surface waters provides opportunity for recreational function. While initially railway system provided necessary transport of goods and resources, nowadays the importance lies on passenger commute. For that reason for local urban manufacturing a local underground or overground nodes should be prioritized, instead of long distance railway connection.

Conclusions
The mapping excercise gave me an overview on London's geography. With above mentioned discoveries, I am going to follow the tread of brownfields- disruptions in the city fabric, appearing in well-connected, through public transport (underground or overground), areas of the city. Historically established small-scale manufacturing is beneficial.



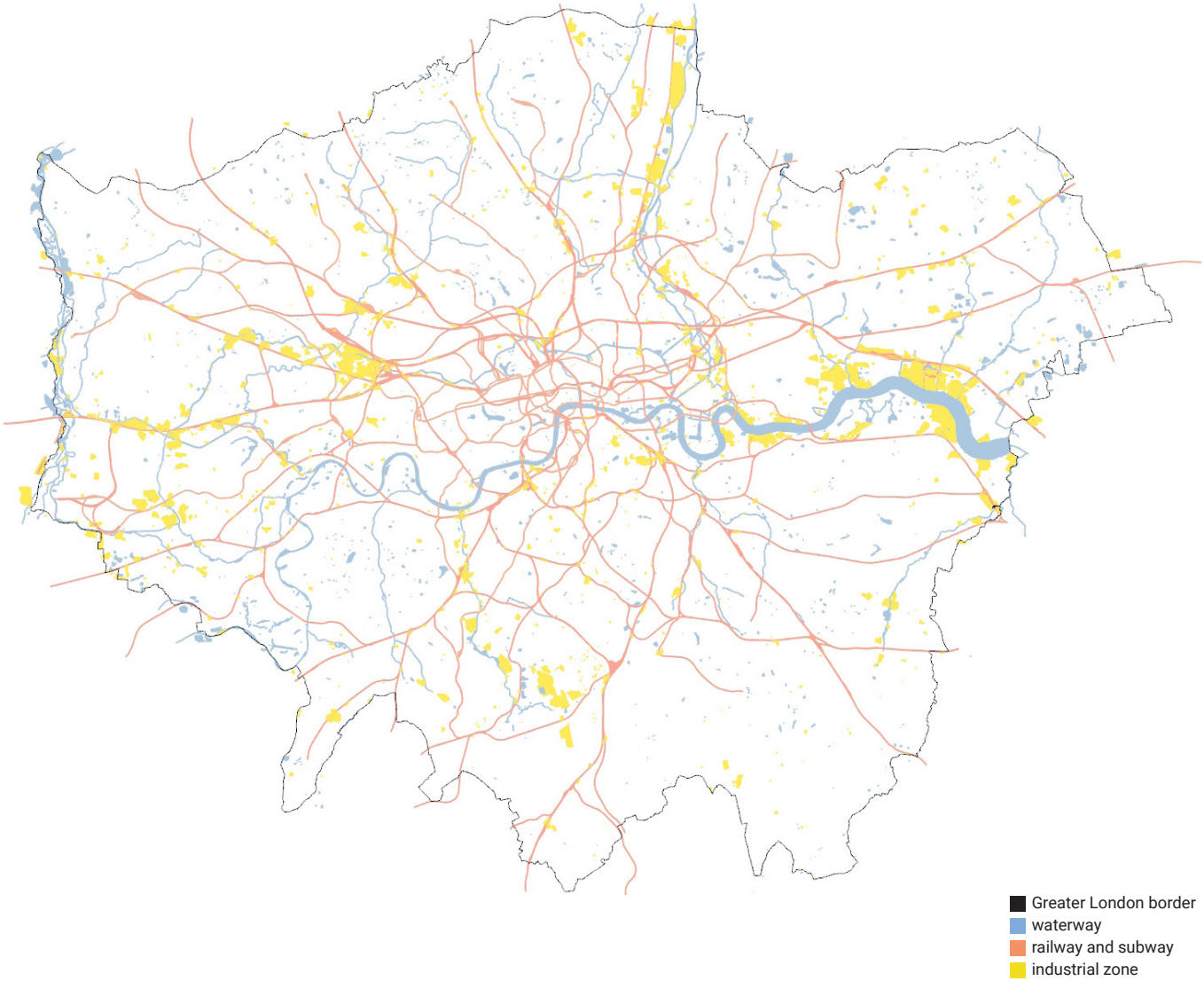
Water

This map shows existing surface water. Historically manufacturing and processing sites were located along water flows, to provide access to this valuable resource and early source of power.



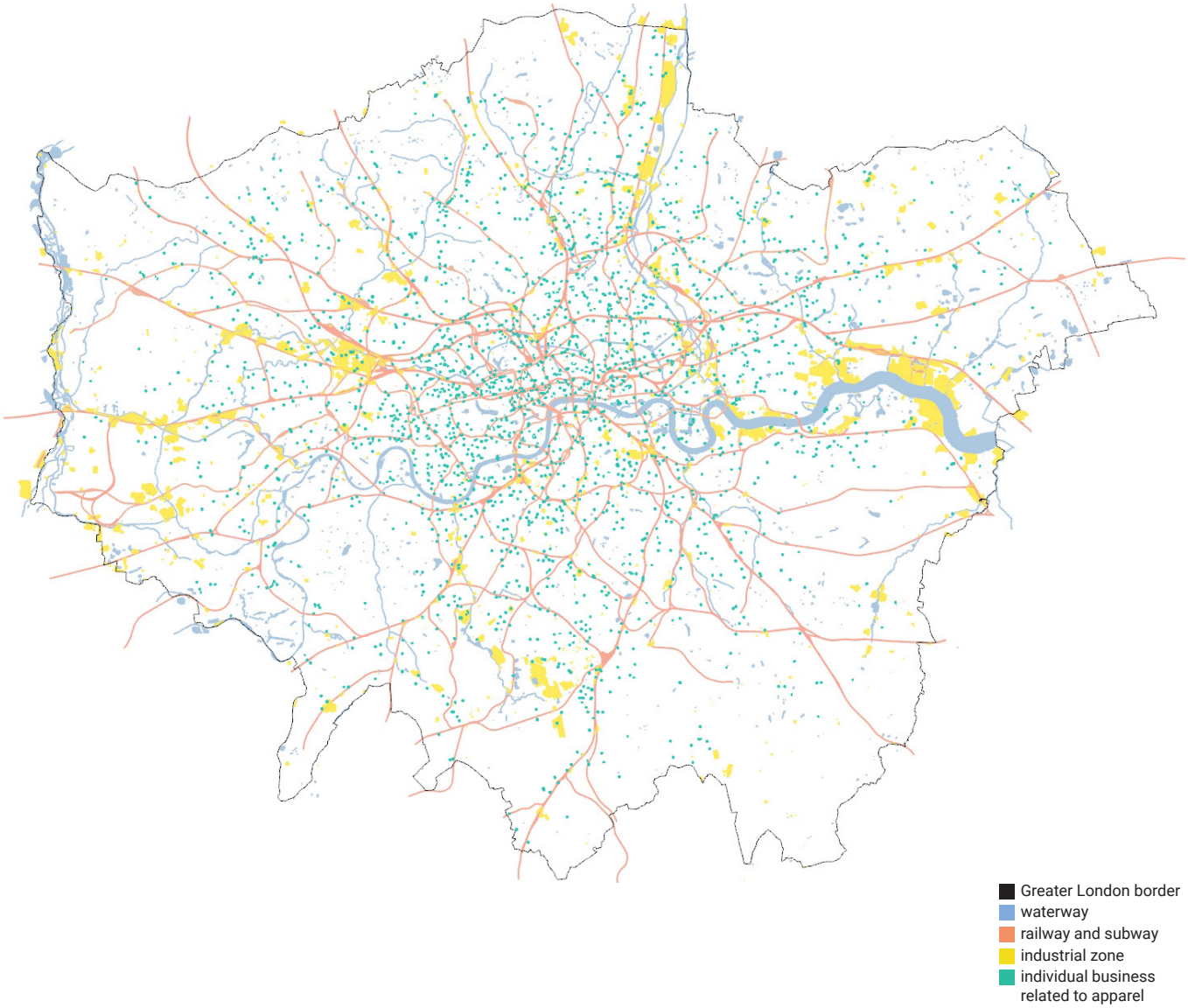
Railways

This map shows London Overground and National Rail system. 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.



Industrial zone

This map shows land zones designated for industrial use. It gives an indication of conventional location of manufacturing. The map, however, doesn't show the full extent of manufacturing activity as many are located within land zoned for mixed or other uses.



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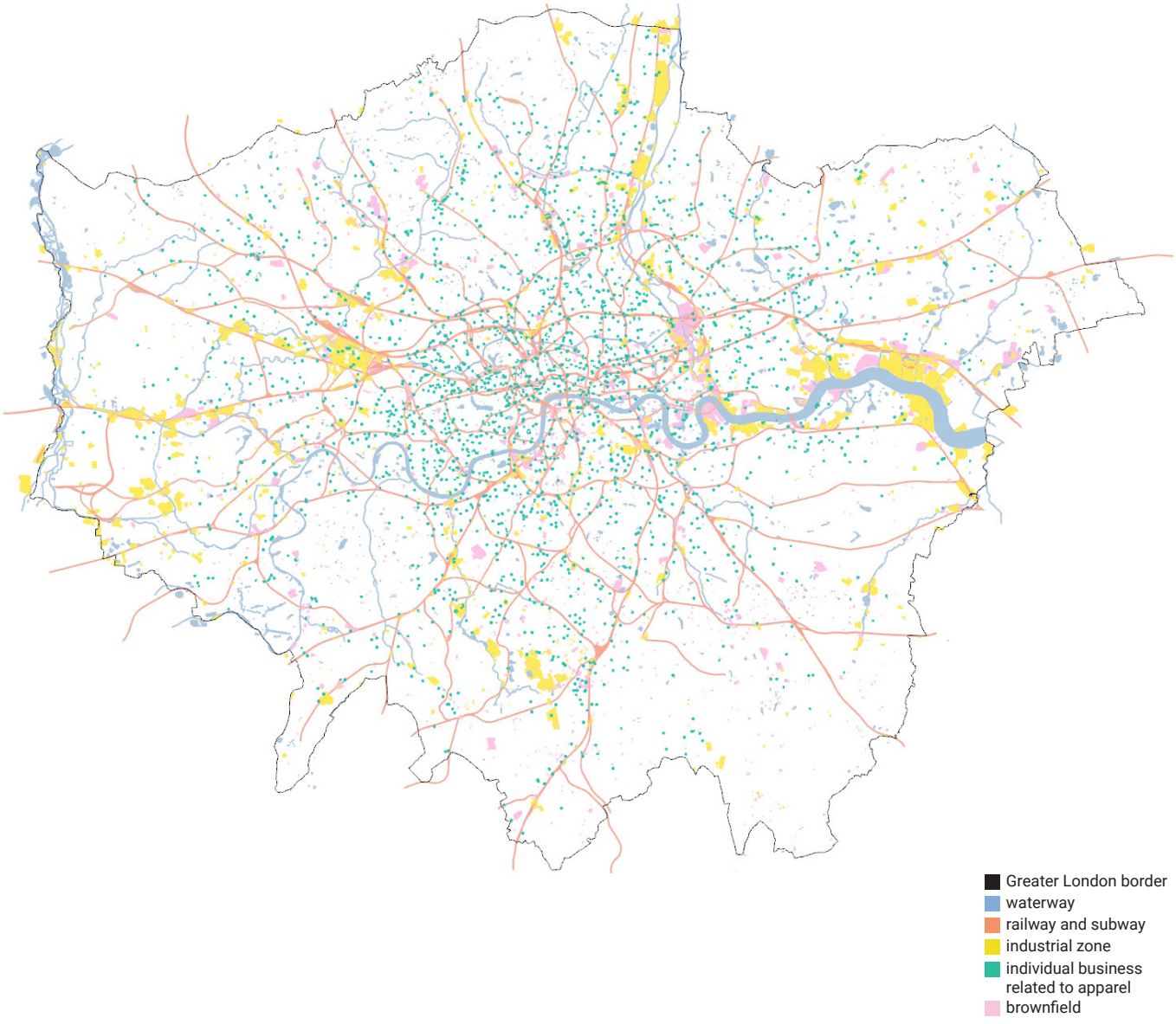
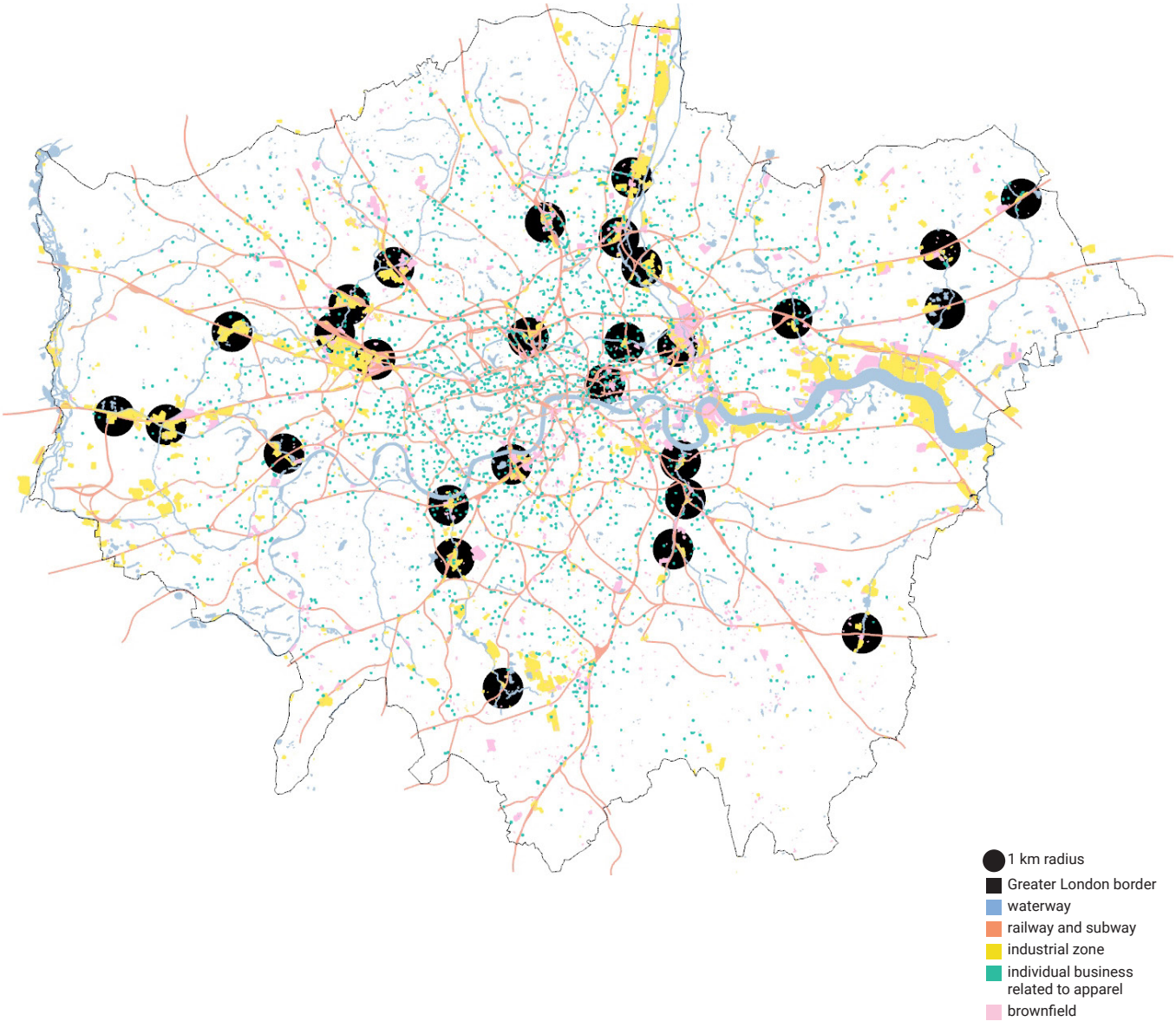


Brownfield

This web map displays brownfield land identified by the London Planning Authorities. Brownfield land is defined, as *previously developed land that's no longer being used*. Building on brownfield land gives opportunity for densification and completing holes in city fabric.



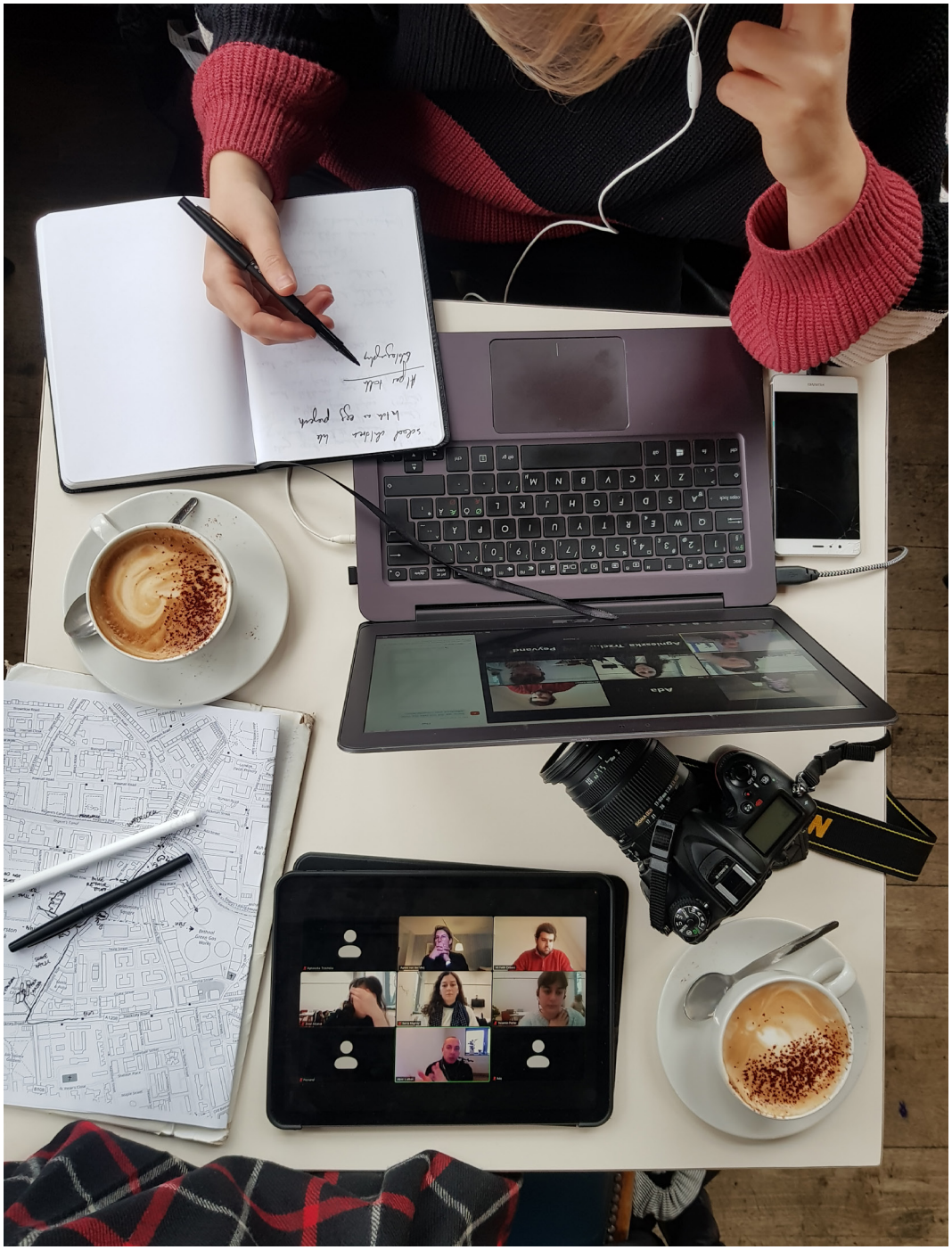
Intersections

The map highlights intersections of flows and isolates the nodes. With defined lenses of focus as water, railways, industrial zones, brownfields those isolated areas become the first layer of the spatial thematic research.

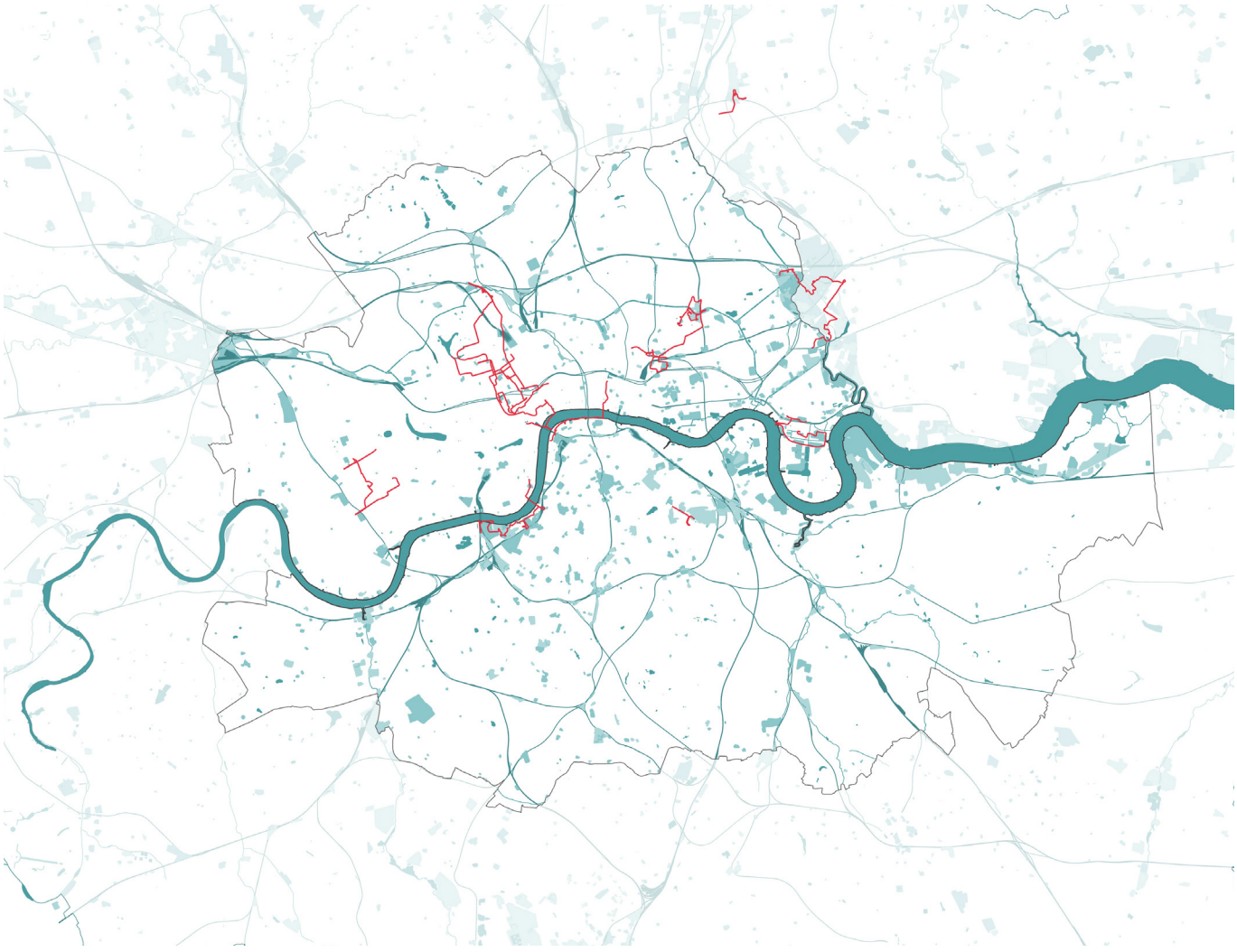
Sorting

Isolated areas create spatially uneven patterns. Through sorting I came to a conclusion that currently there is little spatial connection between water and industrial land. Brownfields are not only along railways, but often in disconnected areas. Industrial land creates large-scale homogeneous areas.

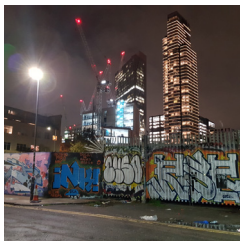
Field research



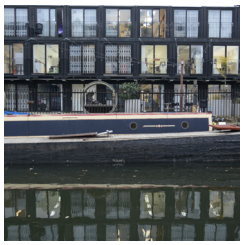
Physical and digital tools of excursion

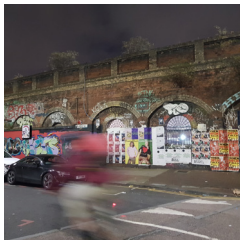


Mapping of walks

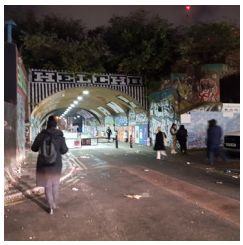






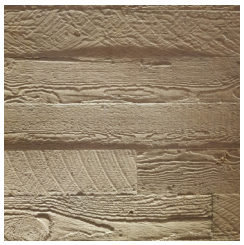






activity

Context







tactility

Materiality

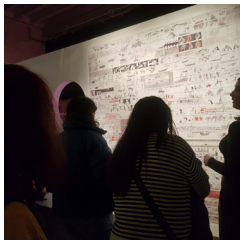






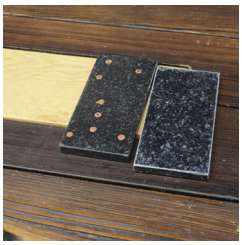




involvement

Actors











stage

Materials

Users and program

Users

Residents
- walk
- shopping
- visit neighbours
- visit church/mosque

Business people
- office workers
- employees

Creatives
- artists
- craftsmen
- freelancers

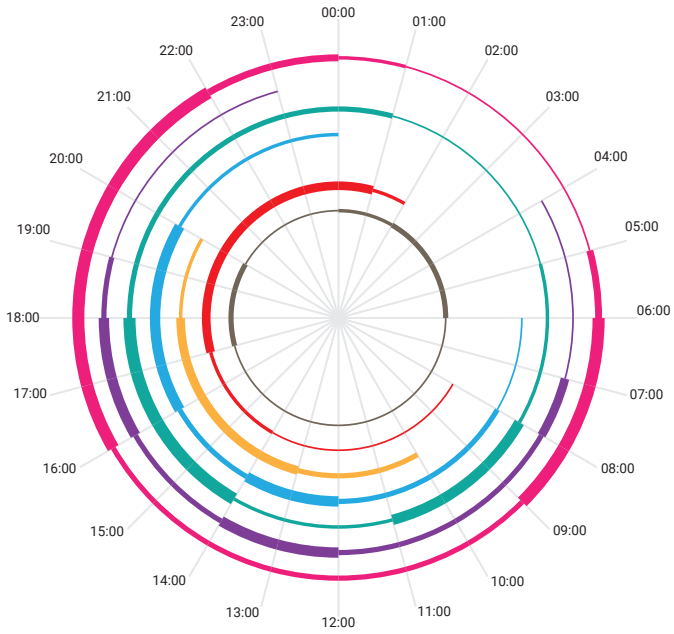
Students
- university students
- school pupils
- extra curriculum activities

Commercial visitors
- shopping
- outdoor markets

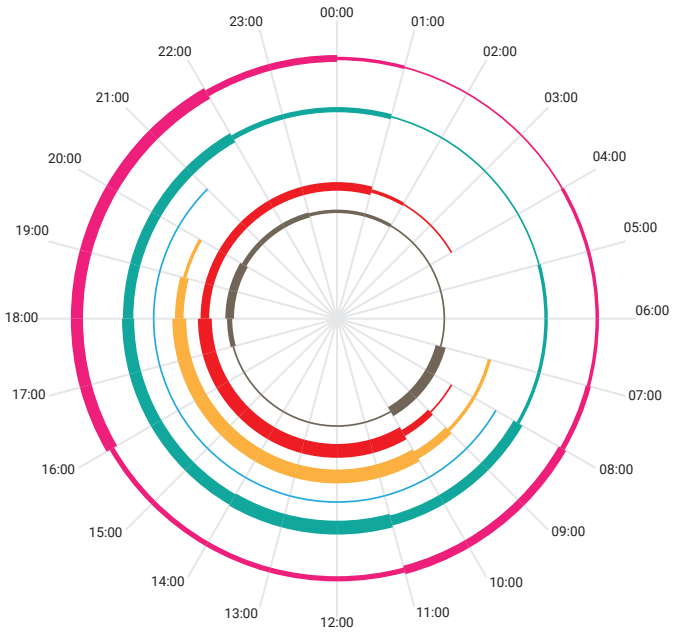
Cultural visitors
- concerts
- museums
- restaurant guests
- night life
- tourists

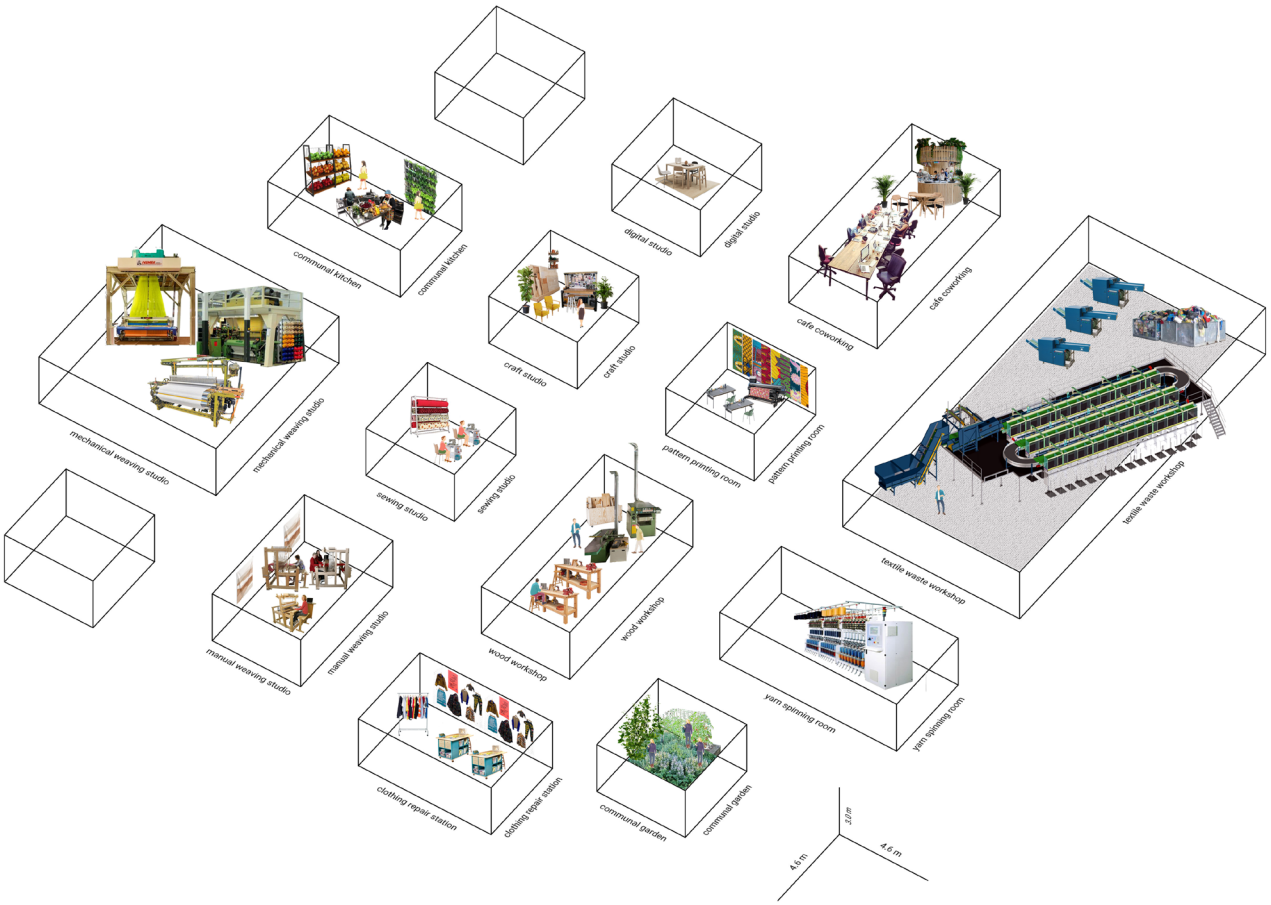
Logistics
- deliveries
- setting up
- cleaning
- secutity

Weekdays

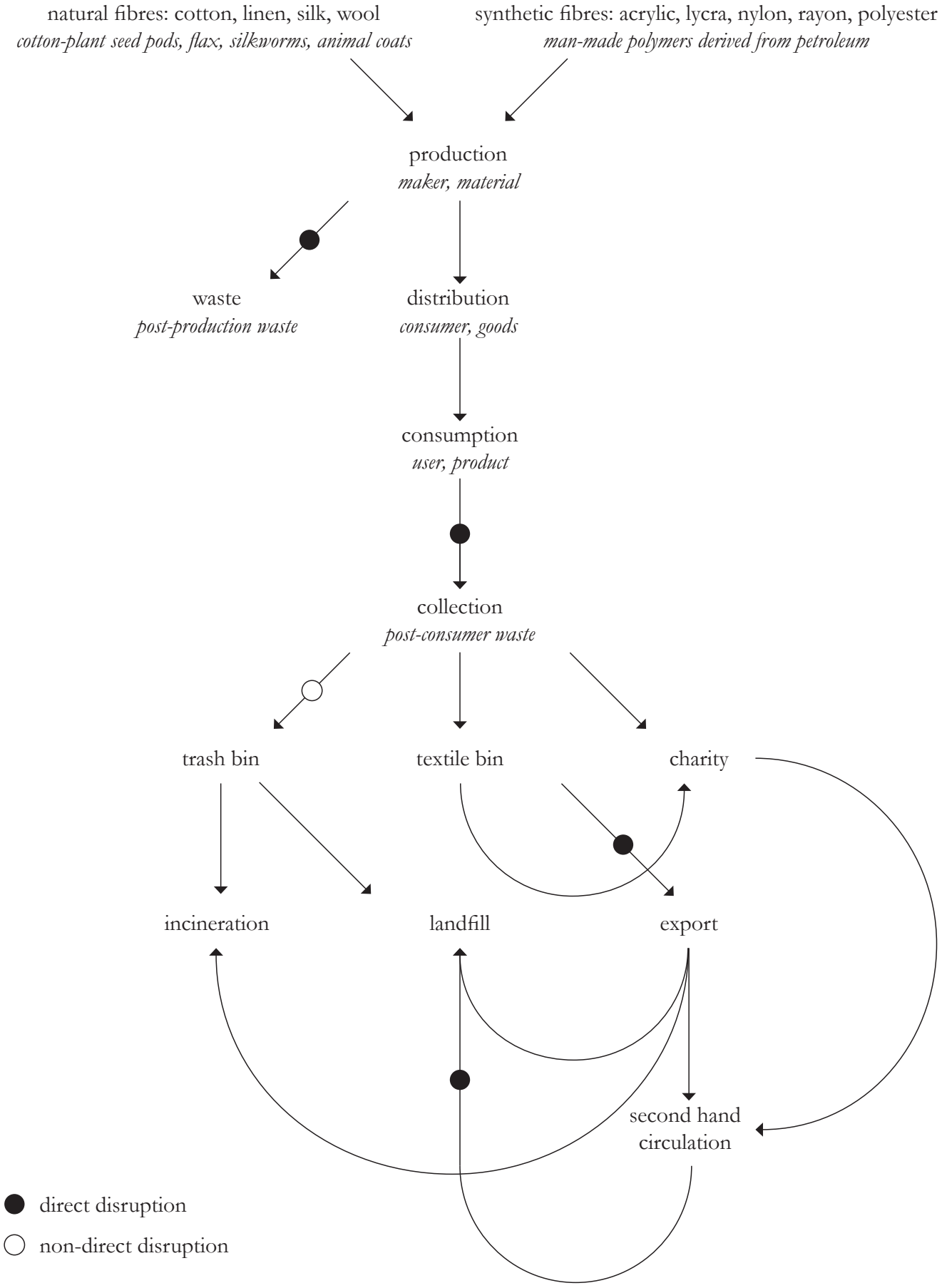


Weekends



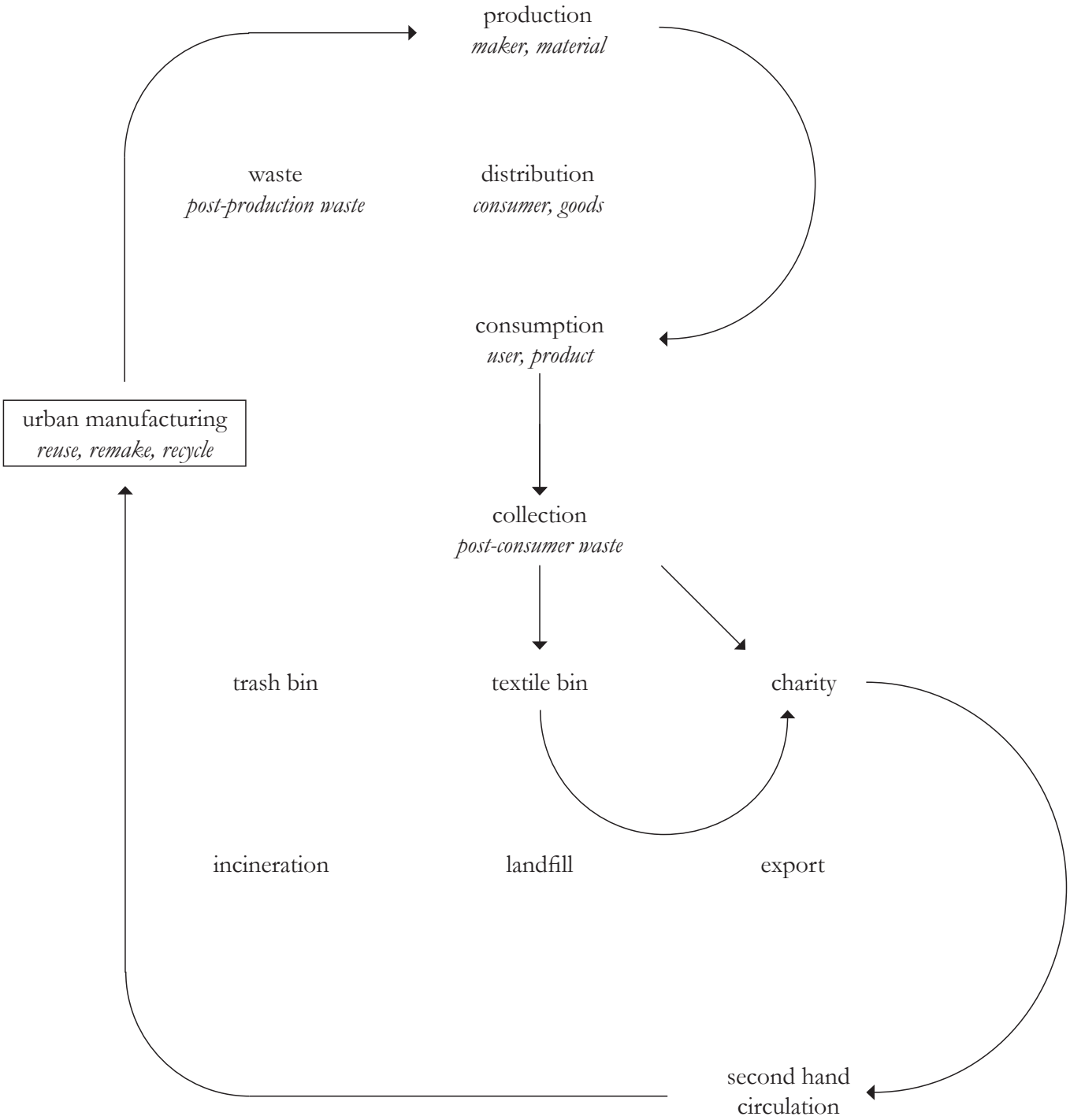


Program matrix


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
production
maker, material
waste
post-production waste
distribution
consumer, goods
consumption
user, product
collection
post-consumer waste
trash bin
textile bin
charity
incineration
landfill
export
second hand
circulation
direct disruption
non-direct disruption

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



Design Proposal

Part 4 of the Research Portfolio

Weaving the city - Brownfield regeneration through urban manufacturing

Architectural Design Crossovers
MSc Graduation Studio Heterogeneous City - London

Agnieszka Trzcińska 5164206

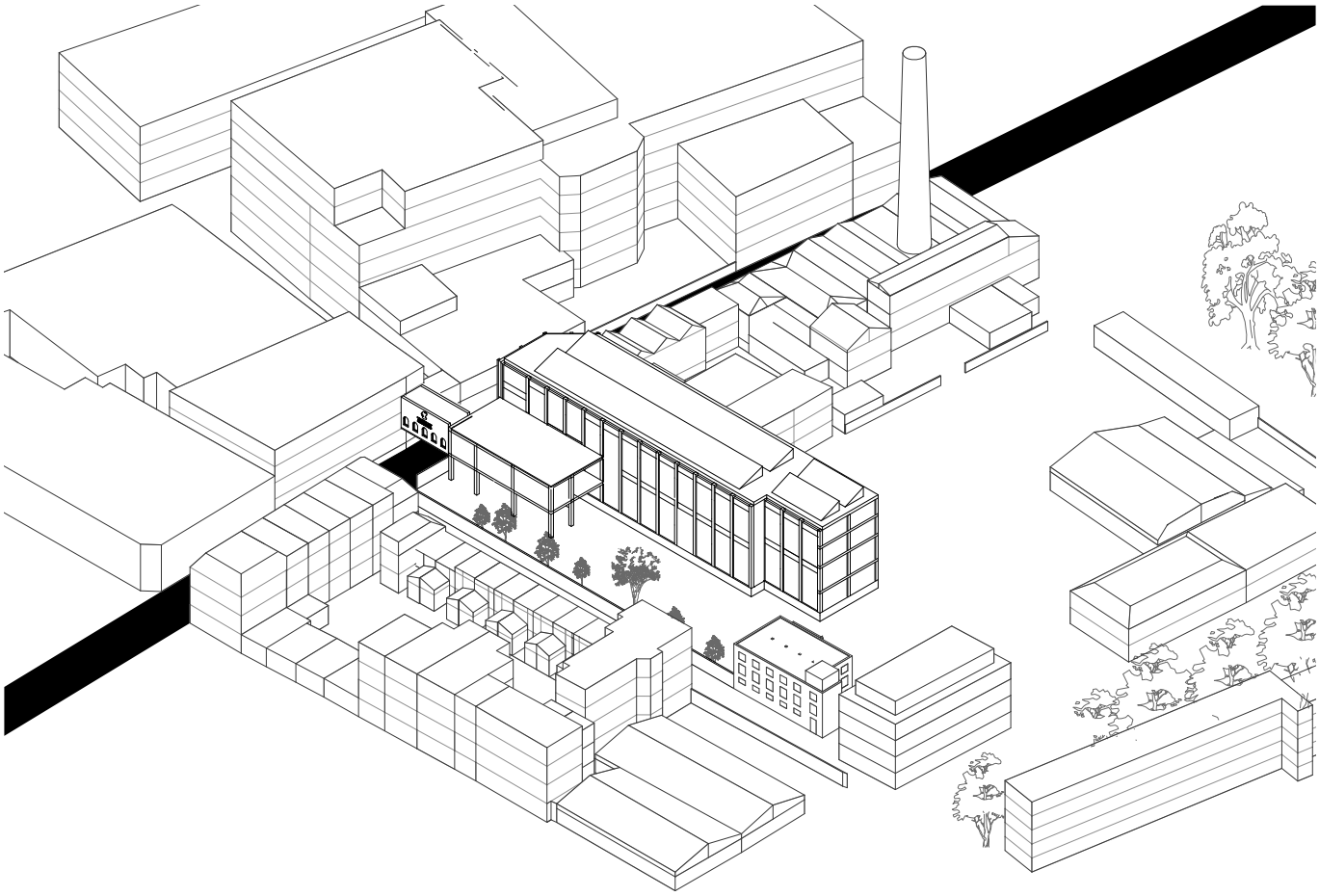
08.11.2022

Manifest

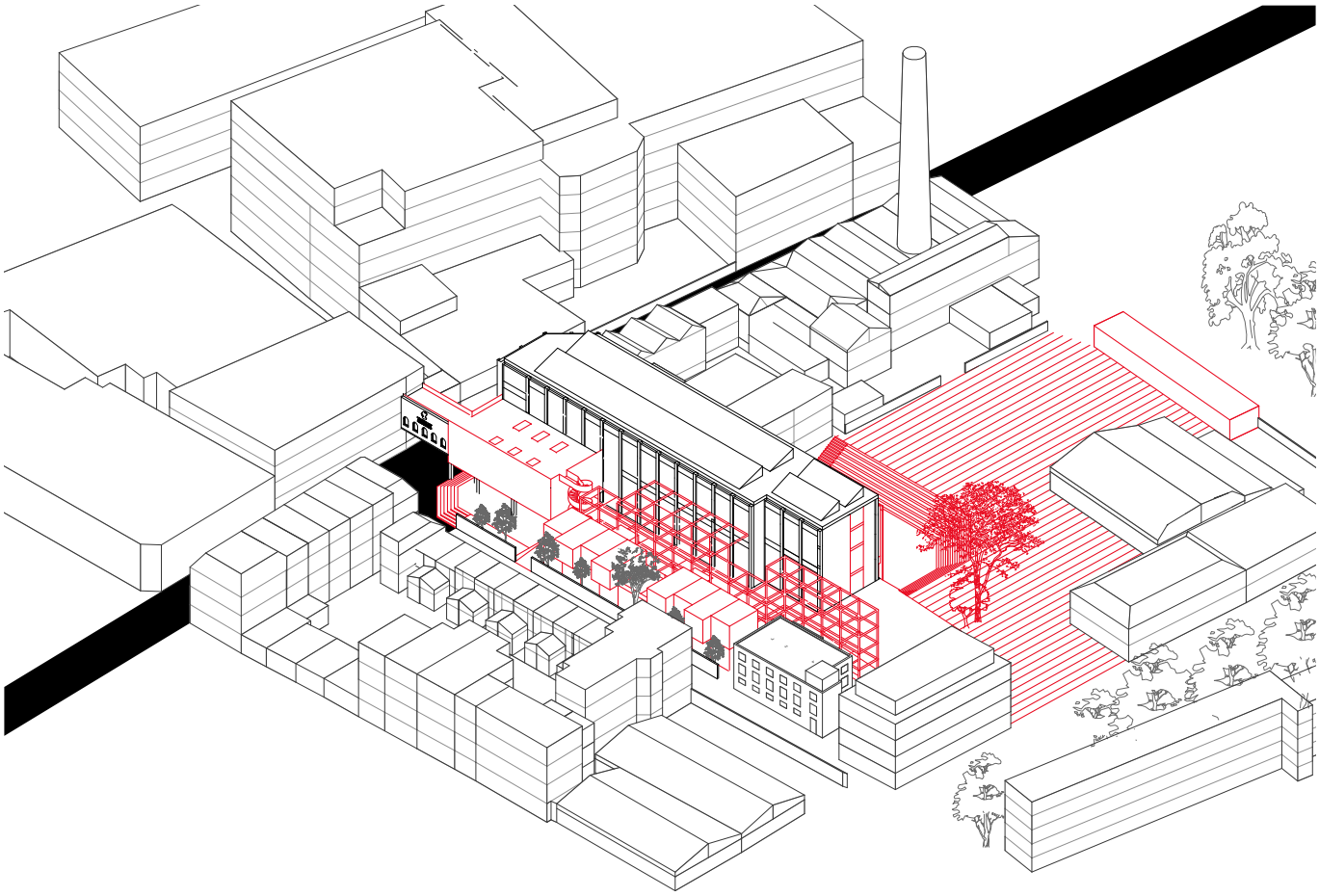
For over twenty years the, previously shut down, Truman Brewery has been regenerating its ten acres of vacant and derelict buildings into an intricate patchwork of retail, leisure, office and event spaces. The heterogeneous fabric of social layer and spatial programs created a unique design, making the Truman Brewery a destination with its own identity. Through a method of weaving the city, I want to strengthen the existing patterns and implement new threads to stitch the disruptions in the fabric.

Being located in one of inner districts, the available land for redevelopments is scarce and requires careful movements to preserve existing atmosphere while adding new functional program. Therefore design goals:

1. Preserve existing fabric to create a backbone for an intertwined design
2. Weave in a new thread of productive activities
3. Strengthen connections, in-betweens and informal

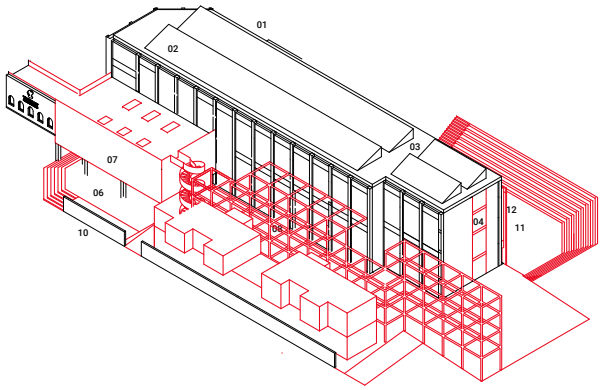


Existing situation

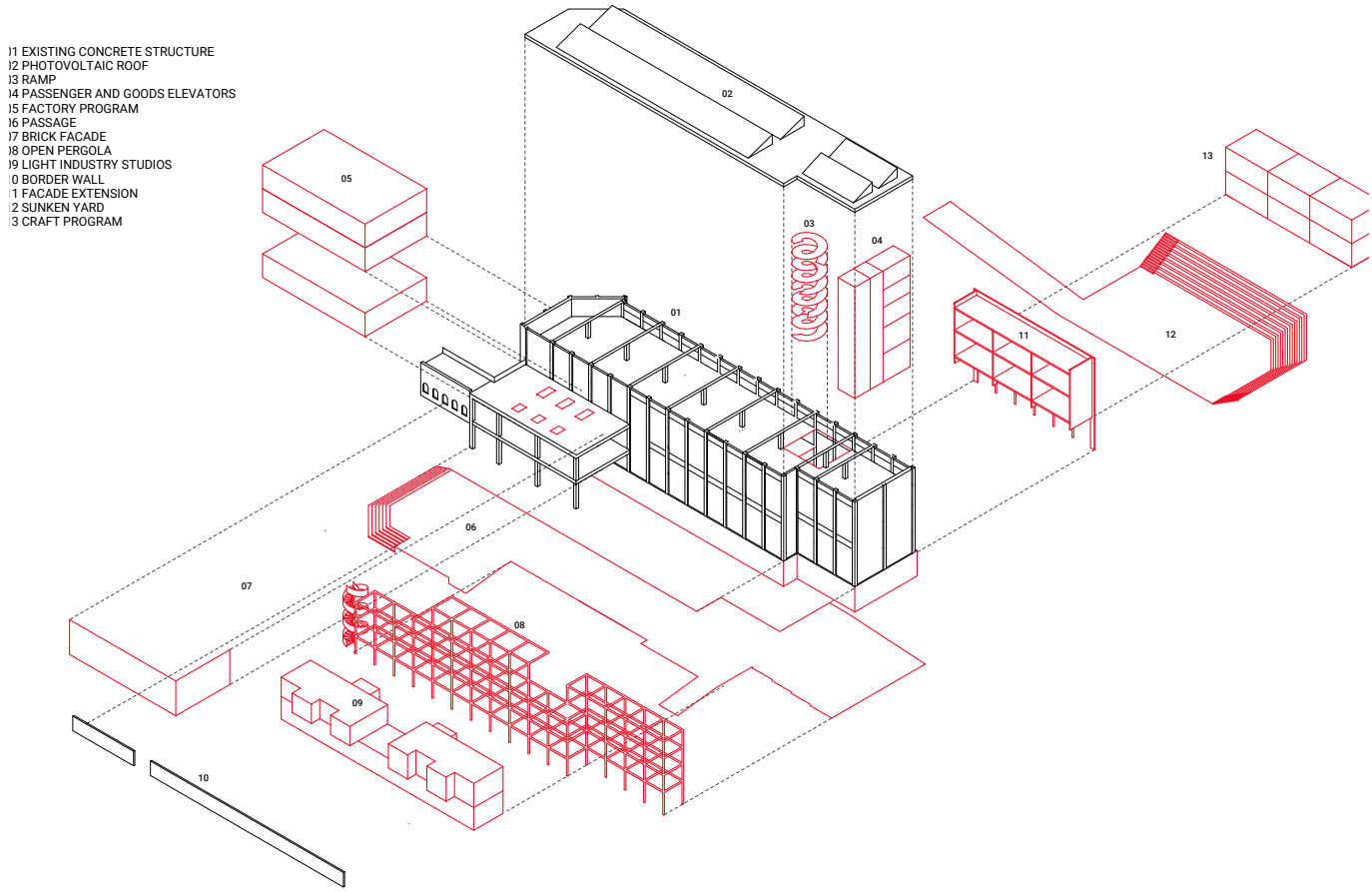


Design proposal

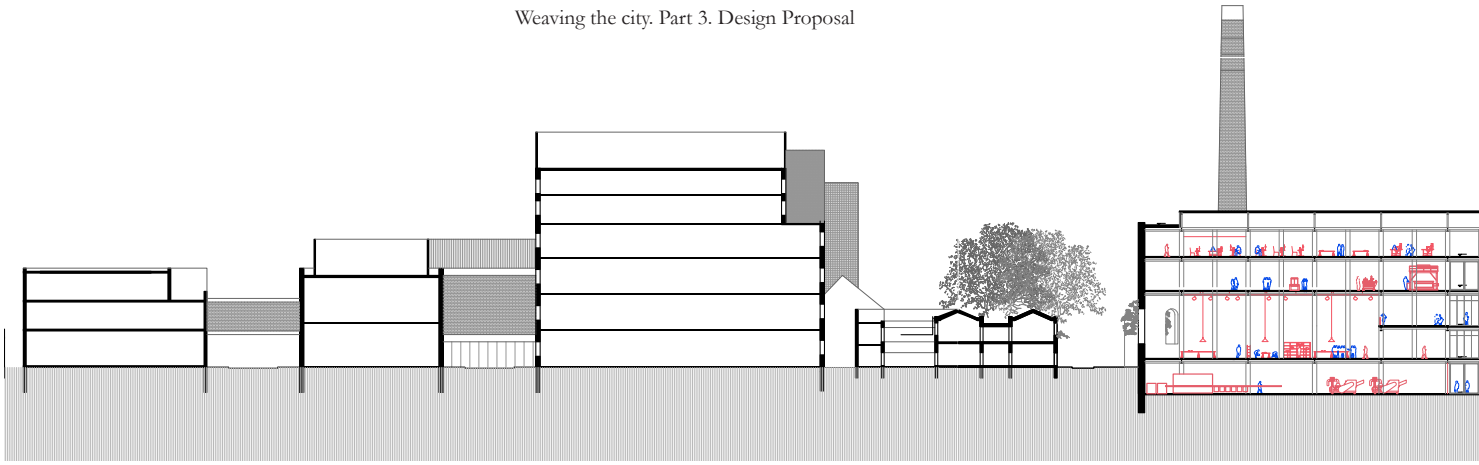
01 EXISTING CONCRETE STRUCTURE
02 PHOTOVOLTAIC ROOF
03 RAMP
04 PASSENGER AND GOODS ELEVATORS
05 FACTORY PROGRAM
06 PASSAGE
07 BRICK FACADE
08 OPEN PERGOLA
09 LIGHT INDUSTRY STUDIOS
10 BORDER WALL
11 FACADE EXTENSION
12 SUNKEN YARD
13 CRAFT PROGRAM

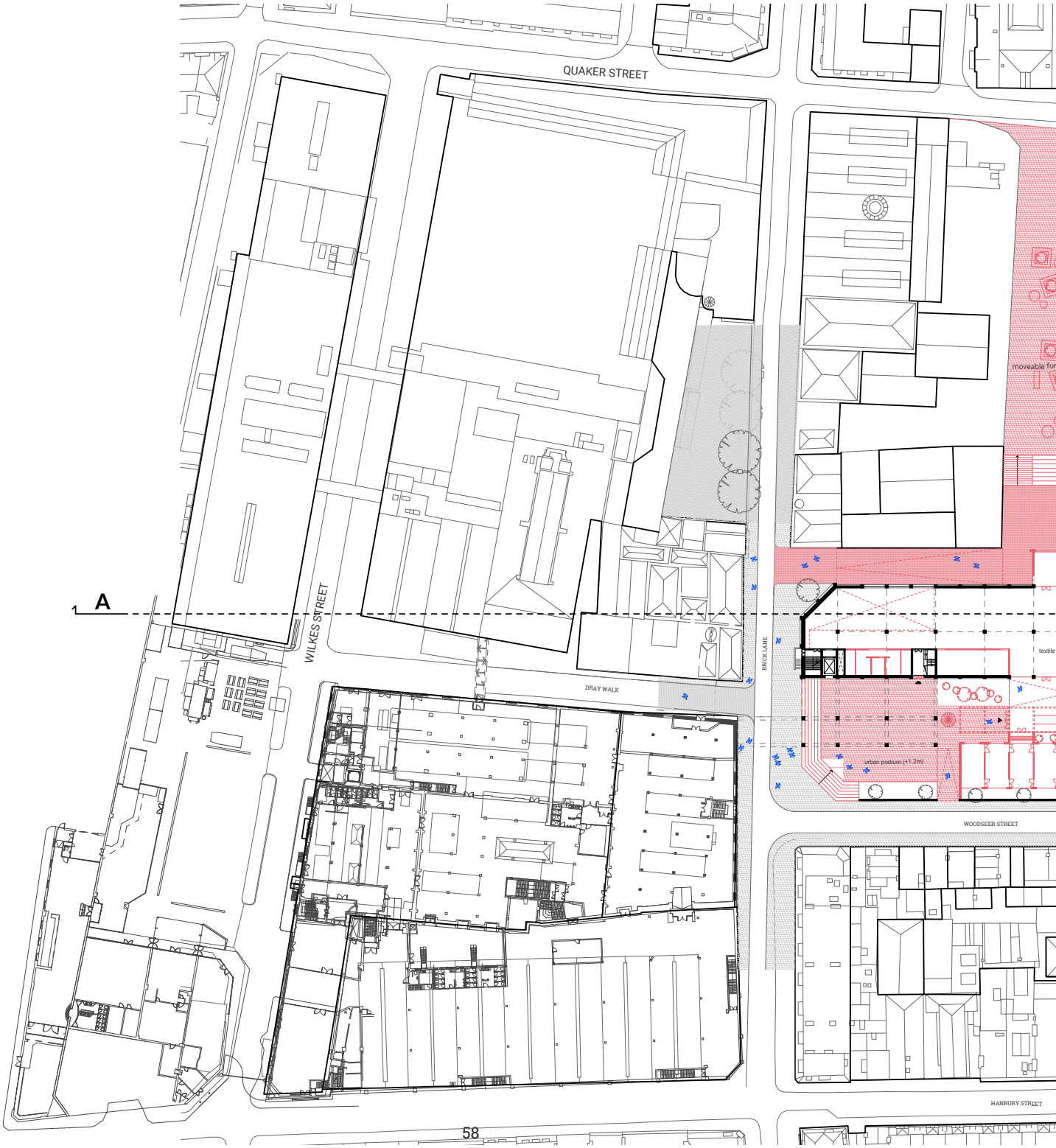


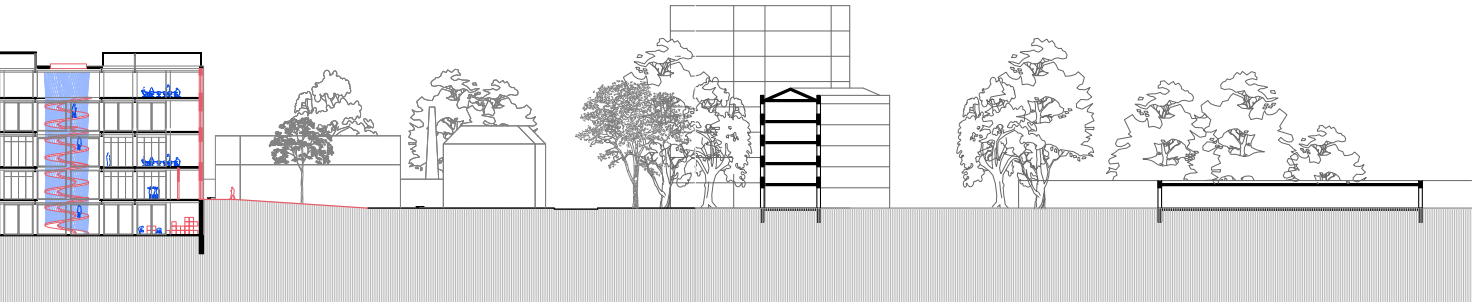
Design fragments



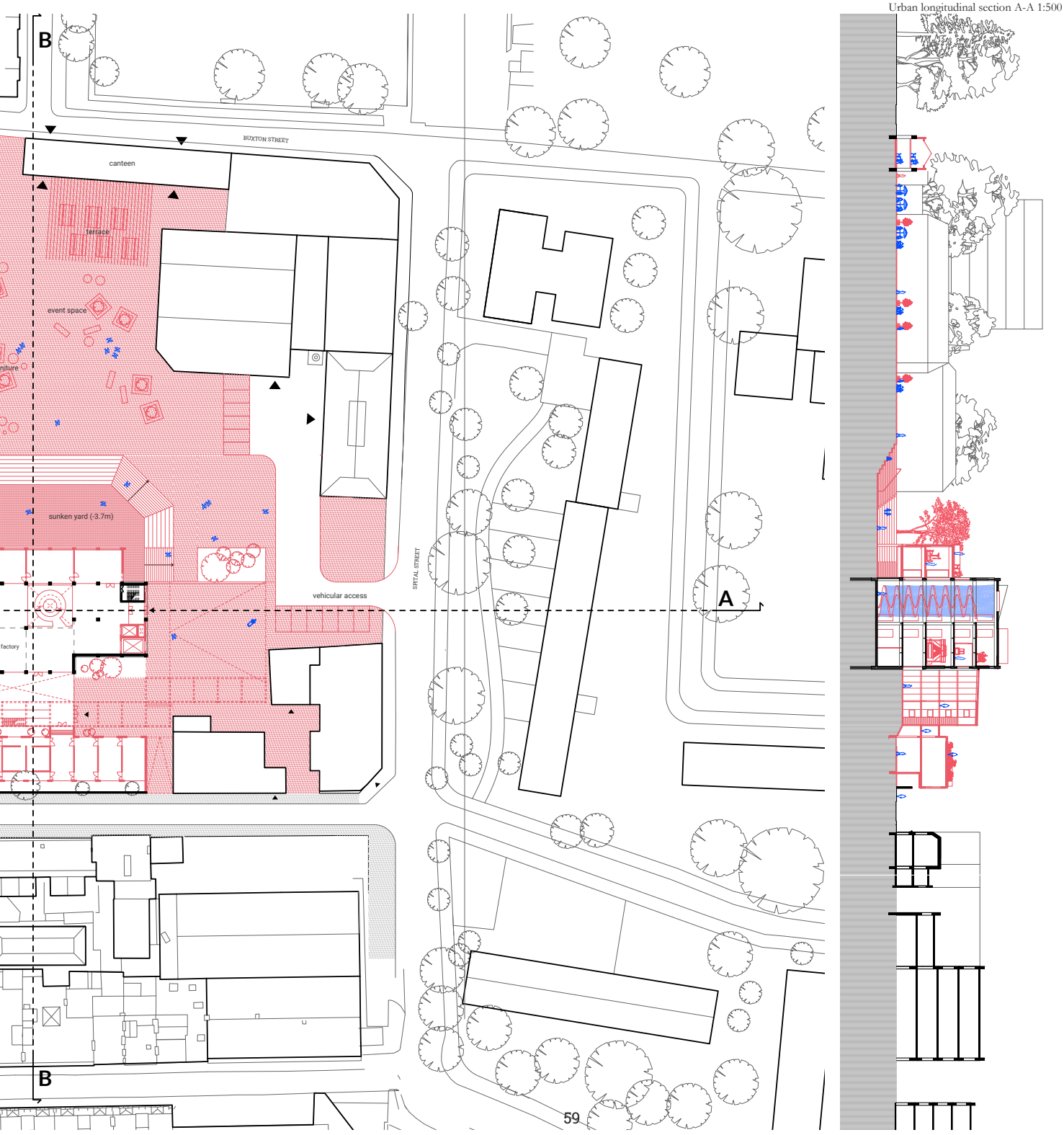
Design fragments exploded

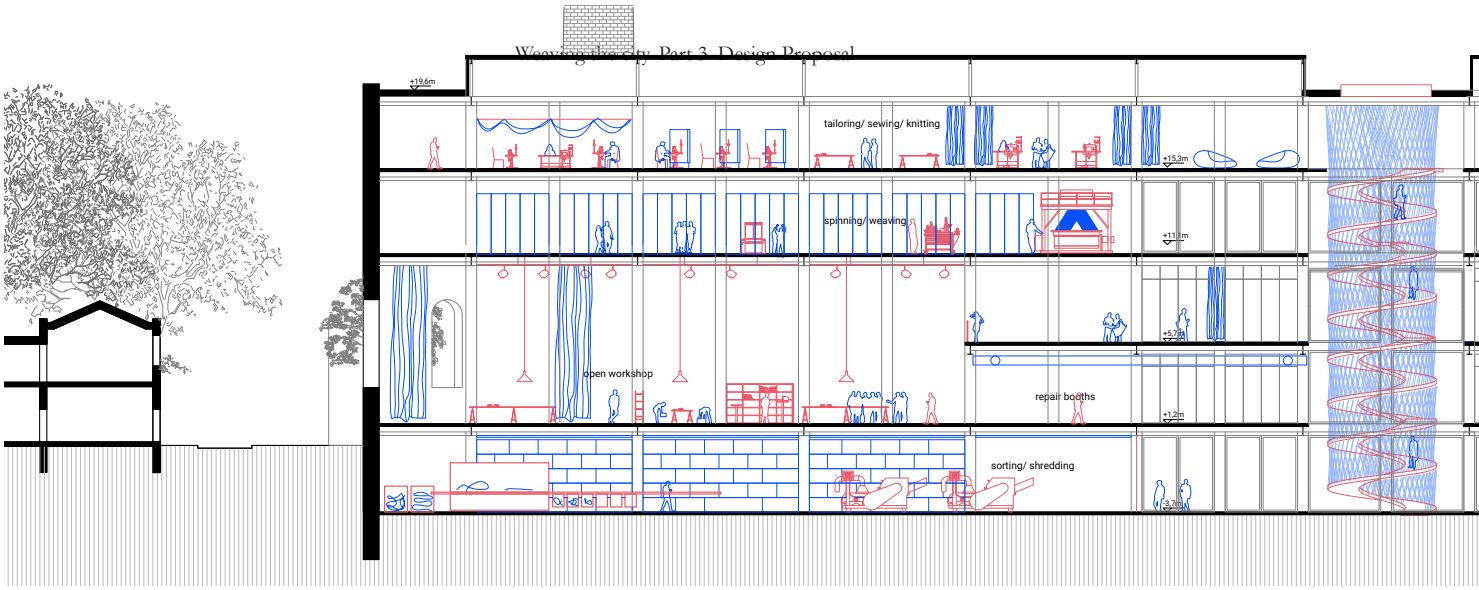


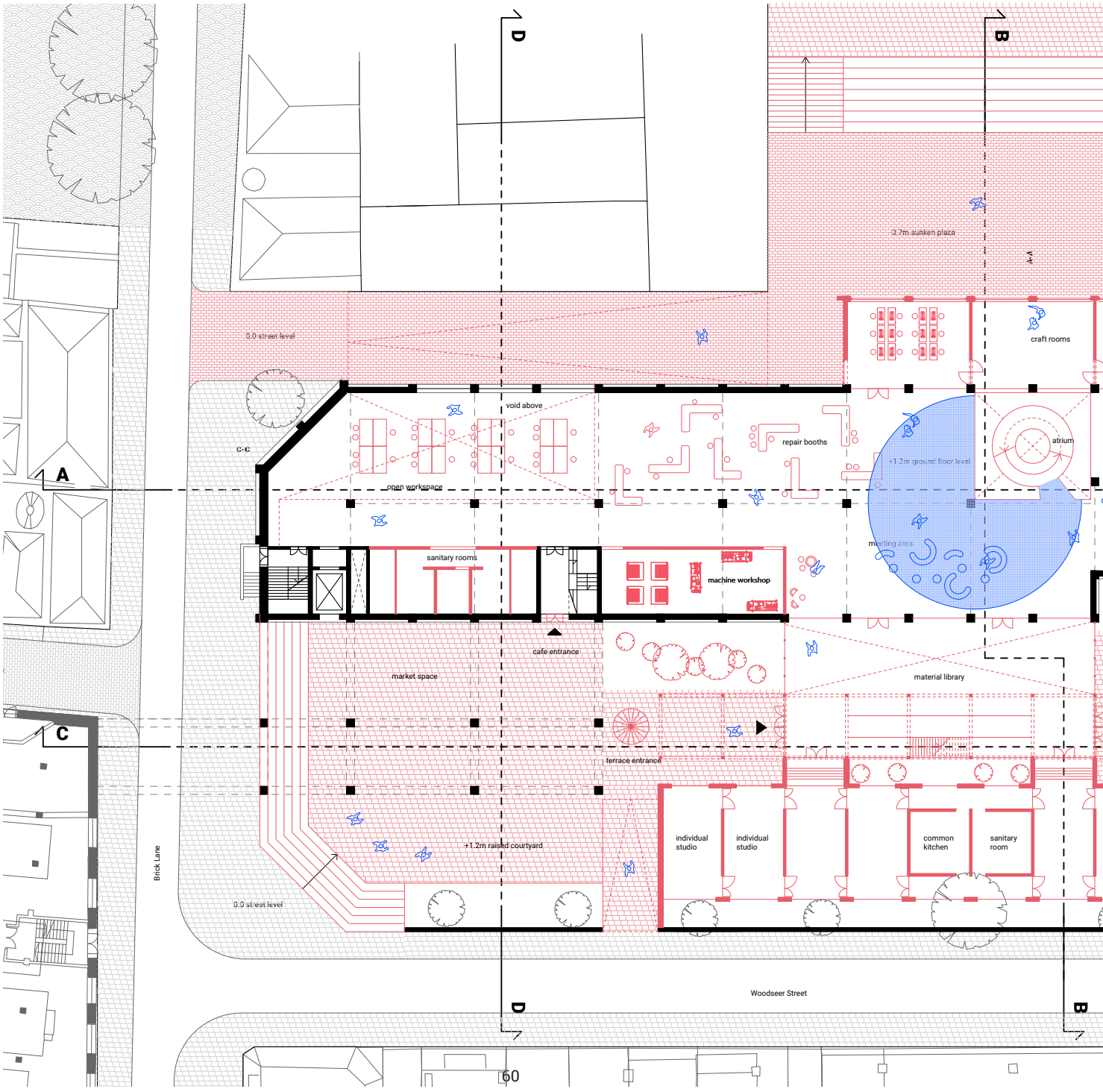

QUAKER STREET
WILKES STREET
DRAY WALK
BRICK LANE
A
moveable fur
textile
urban podium (+1.2m)
WOODSEER STREET
HANBURY STREET

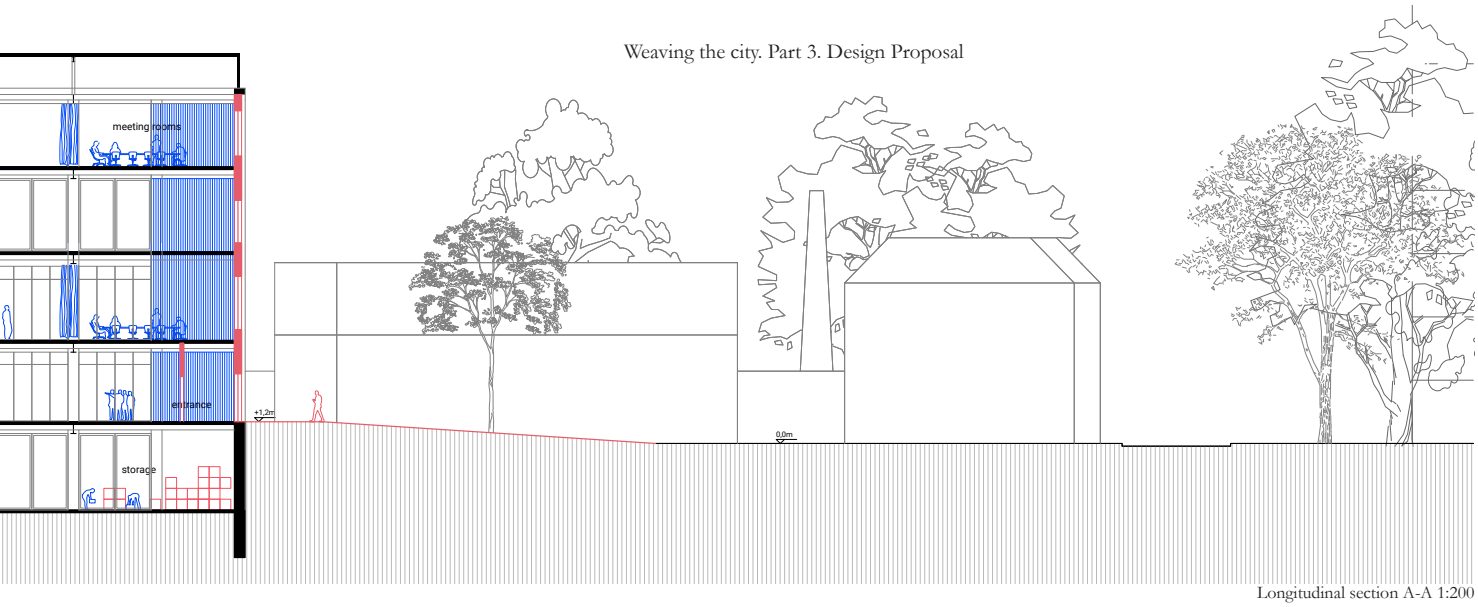


Urban longitudinal section A-A 1:500

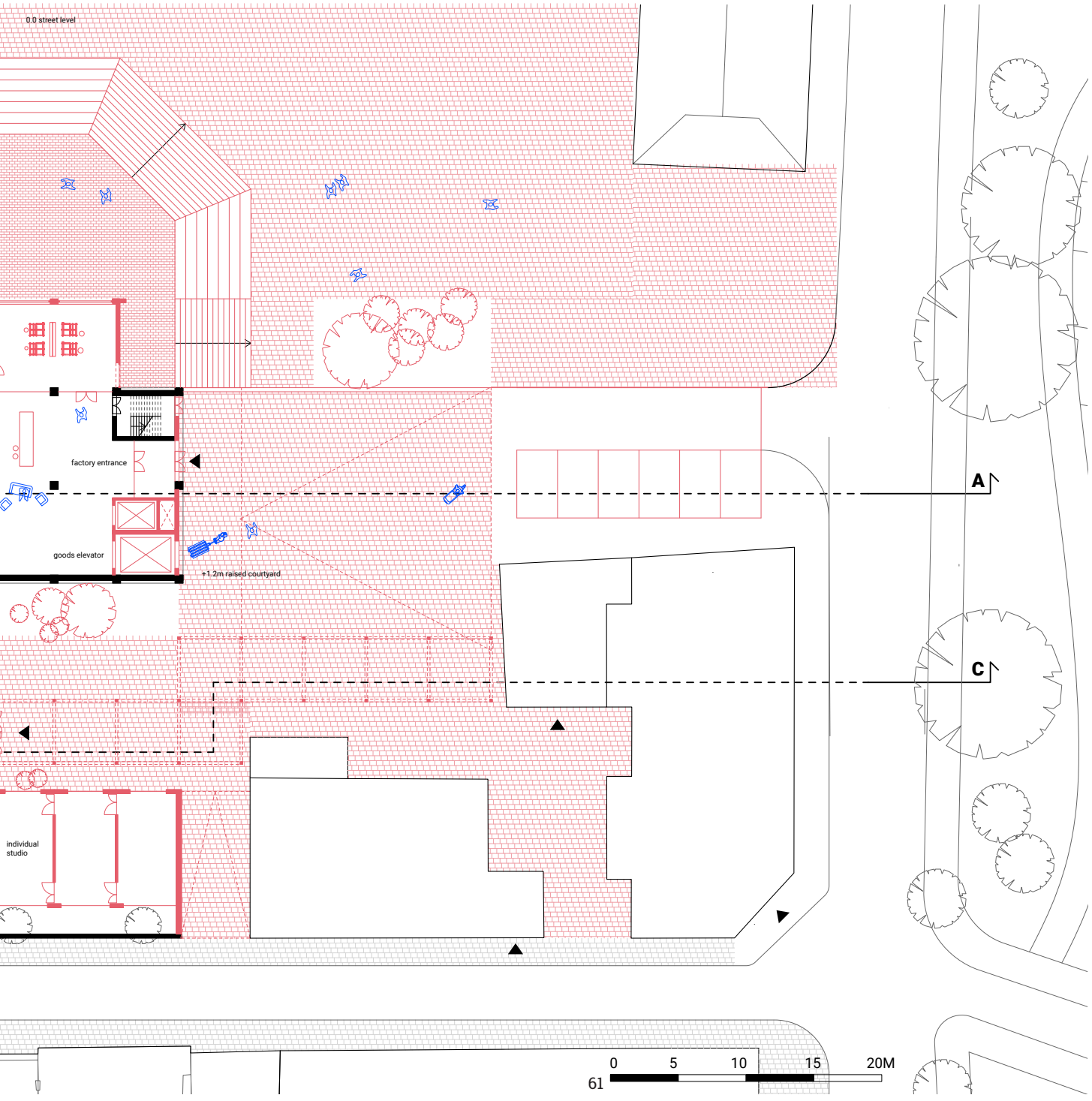


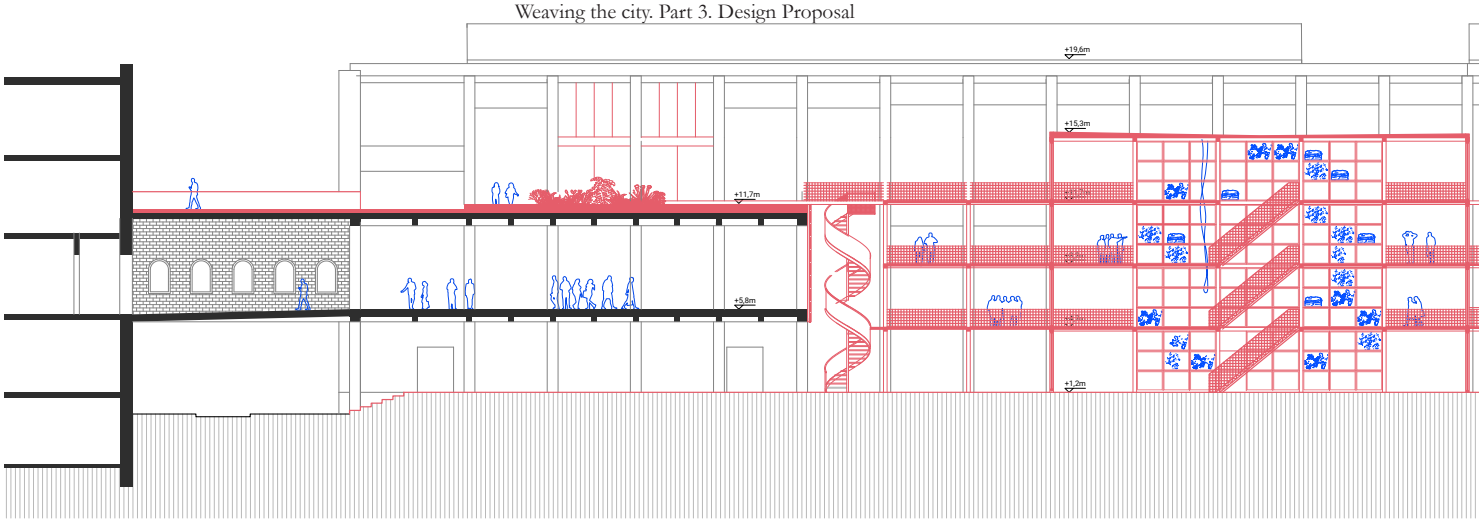

+19.6m
tailoring/ sewing/ knitting
+15.3m
spinning/ weaving
+11.1m
+5.7m
open workshop
repair booths
+1.2m
sorting/ shredding
-3.7m

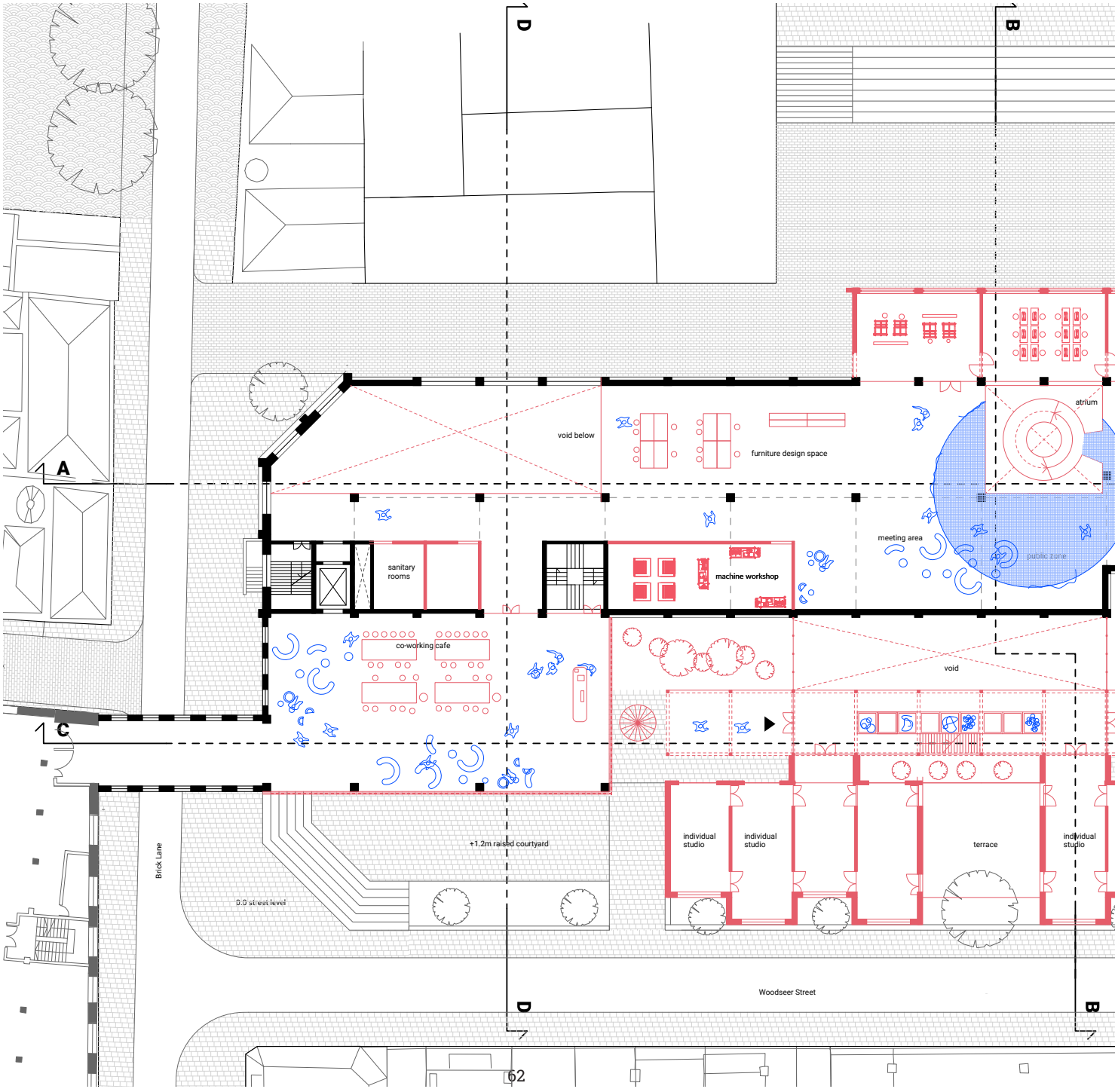

D
B
3.7m sunken plaza
craft rooms
0.0 street level
void above
C-C
repair booths
atrium
+1.2m ground floor level
A
open workspace
meeting area
sanitary rooms
machine workshop
cafe entrance
market space
material library
C
terrace entrance
individual studio
individual studio
common kitchen
sanitary room
+1.2m raised courtyard
Brick Lane
0.0 street level
Woodseer Street
D
B

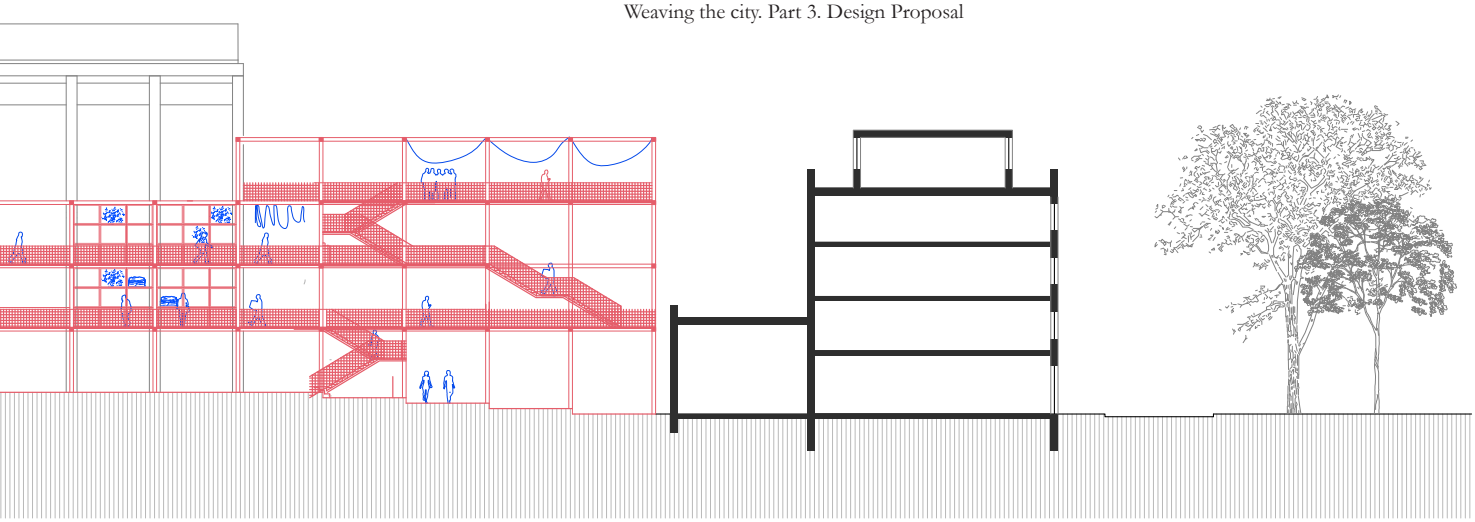


Longitudinal section A-A 1:200

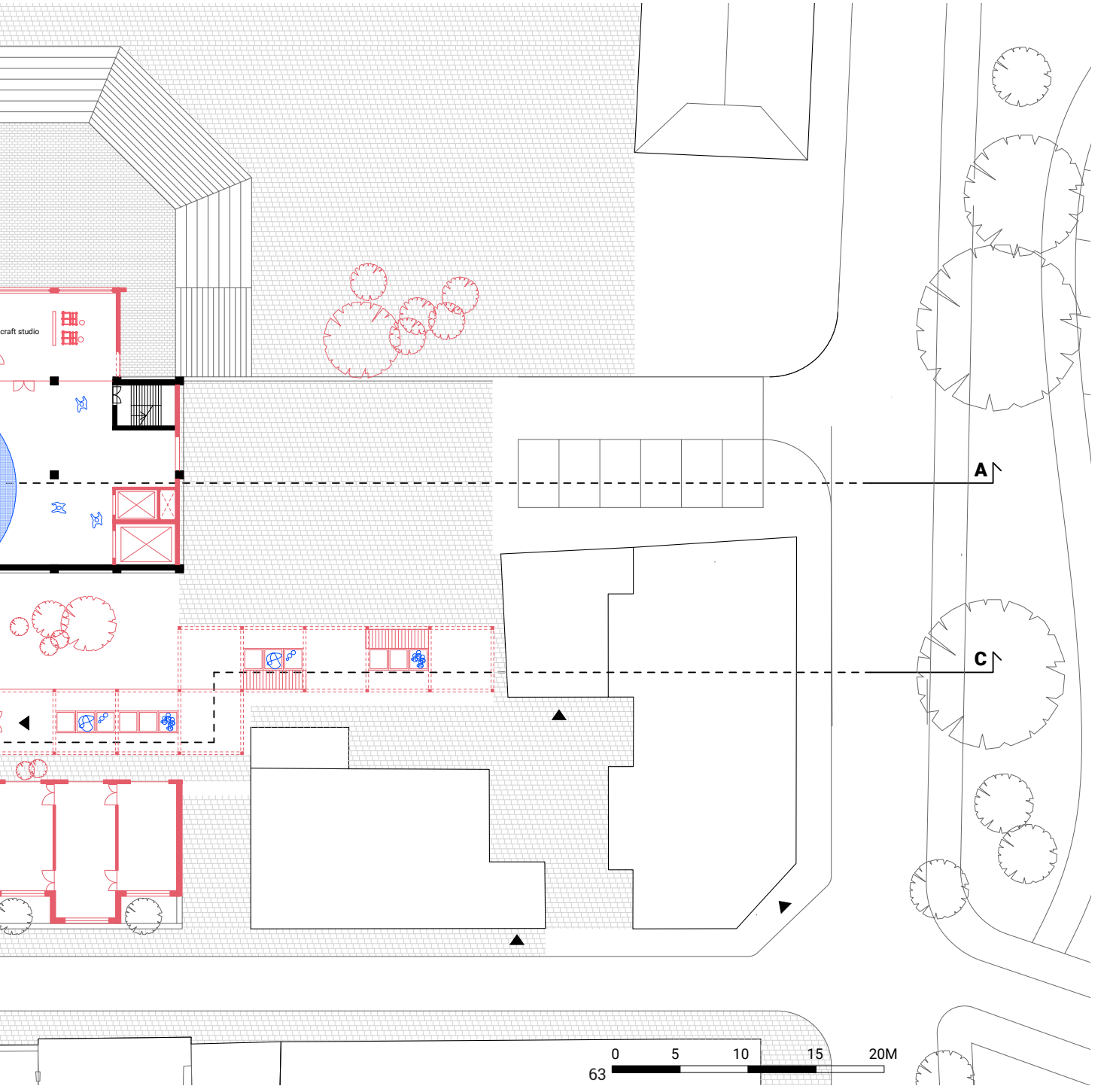



+19,6m
+15,3m
+11,7m
+5,8m
+1,2m

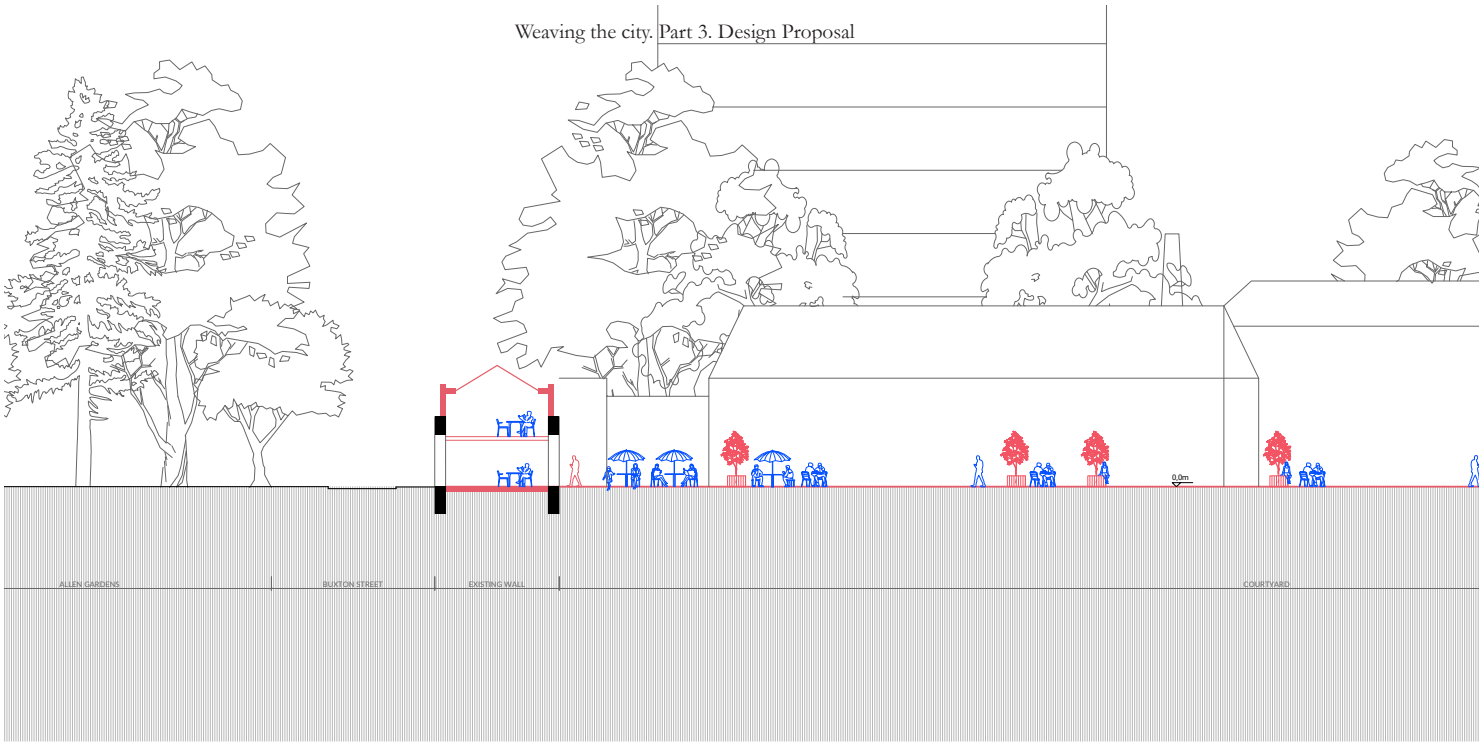

A
B
C
D
void below
furniture design space
atrium
meeting area
public zone
sanitary rooms
machine workshop
co-working cafe
void
individual studio
individual studio
terrace
individual studio
+1.2m raised courtyard
0.0 street level
Brick Lane
Woodseer Street

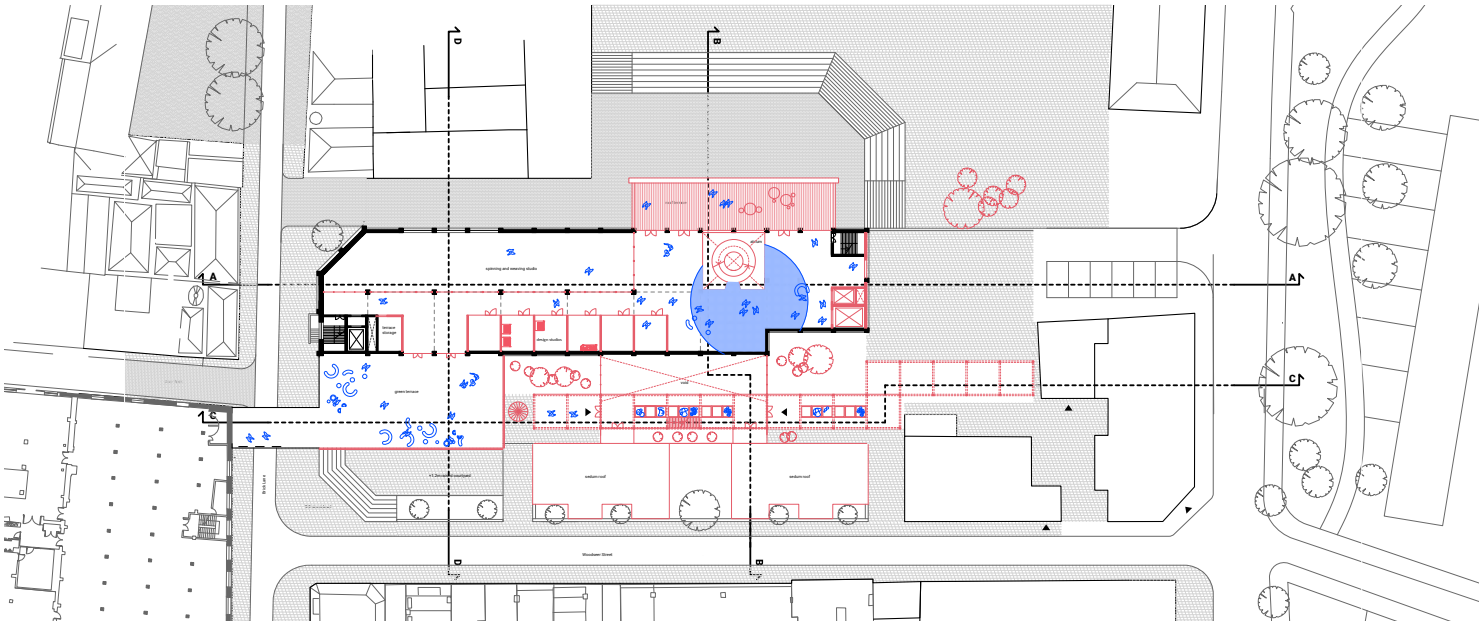


Longitudinal section C-C 1:200

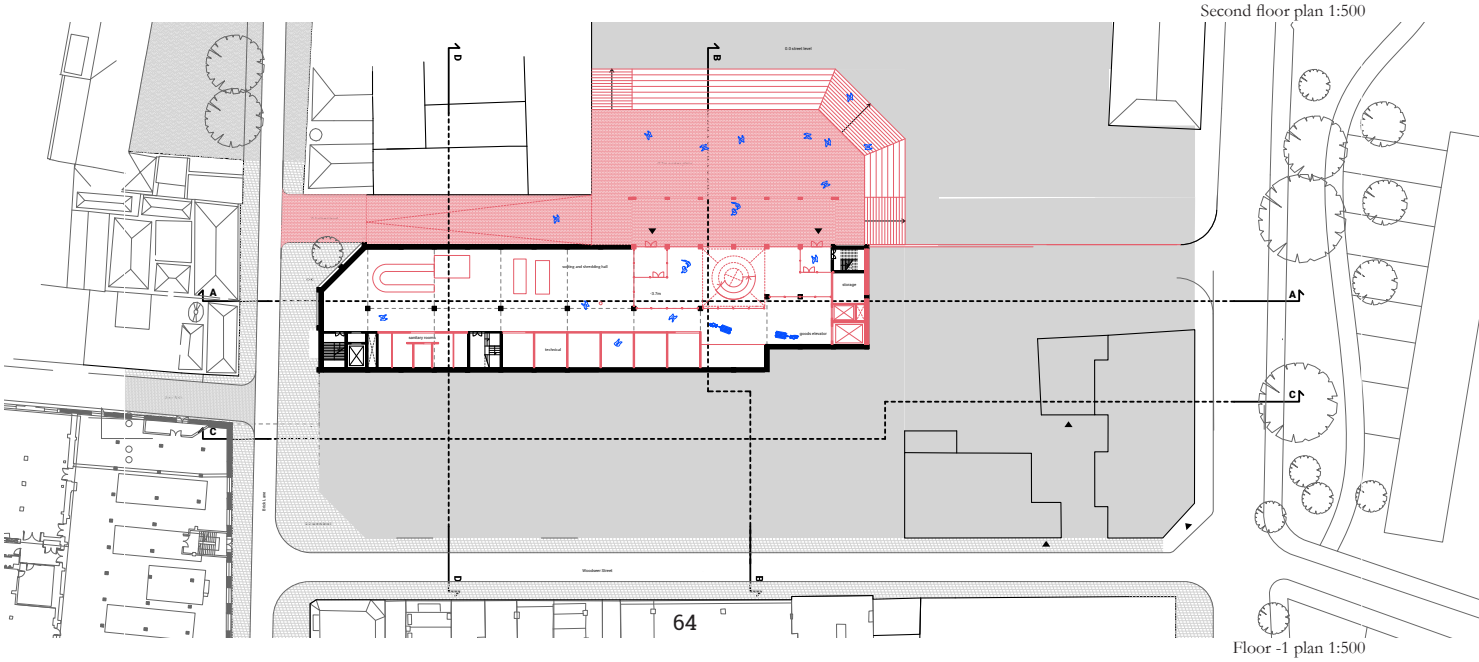


First floor plan 1:200

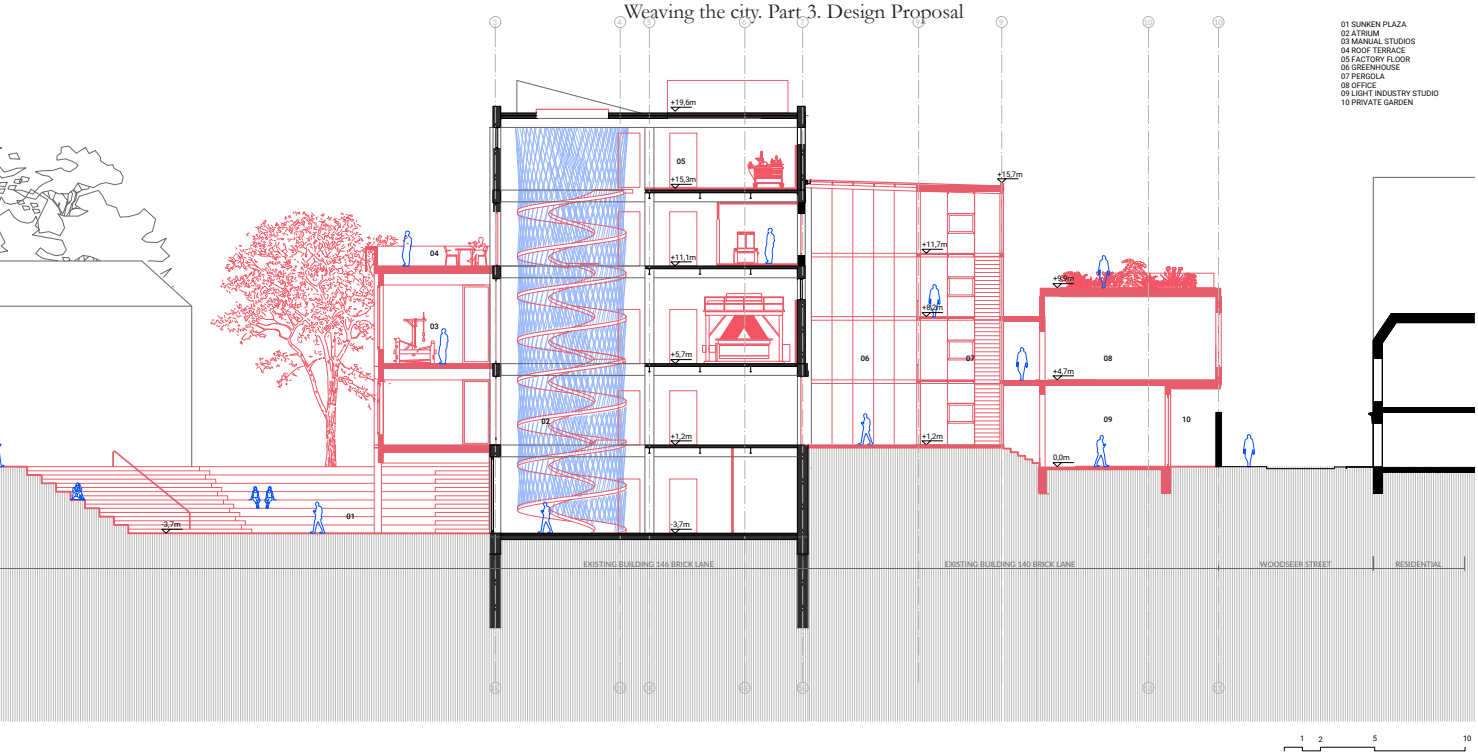




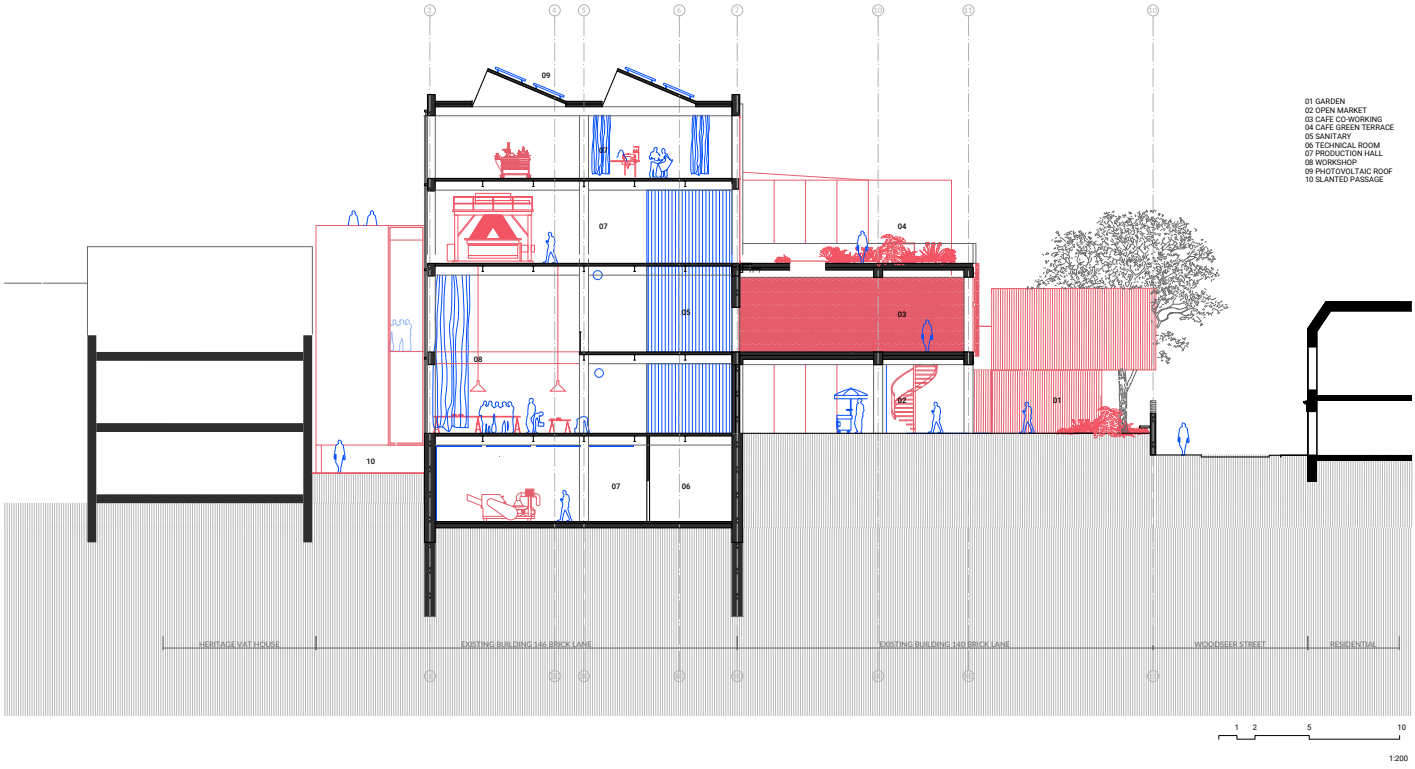
Second floor plan 1:500



Floor -1 plan 1:500



Cross section B-B 1:200

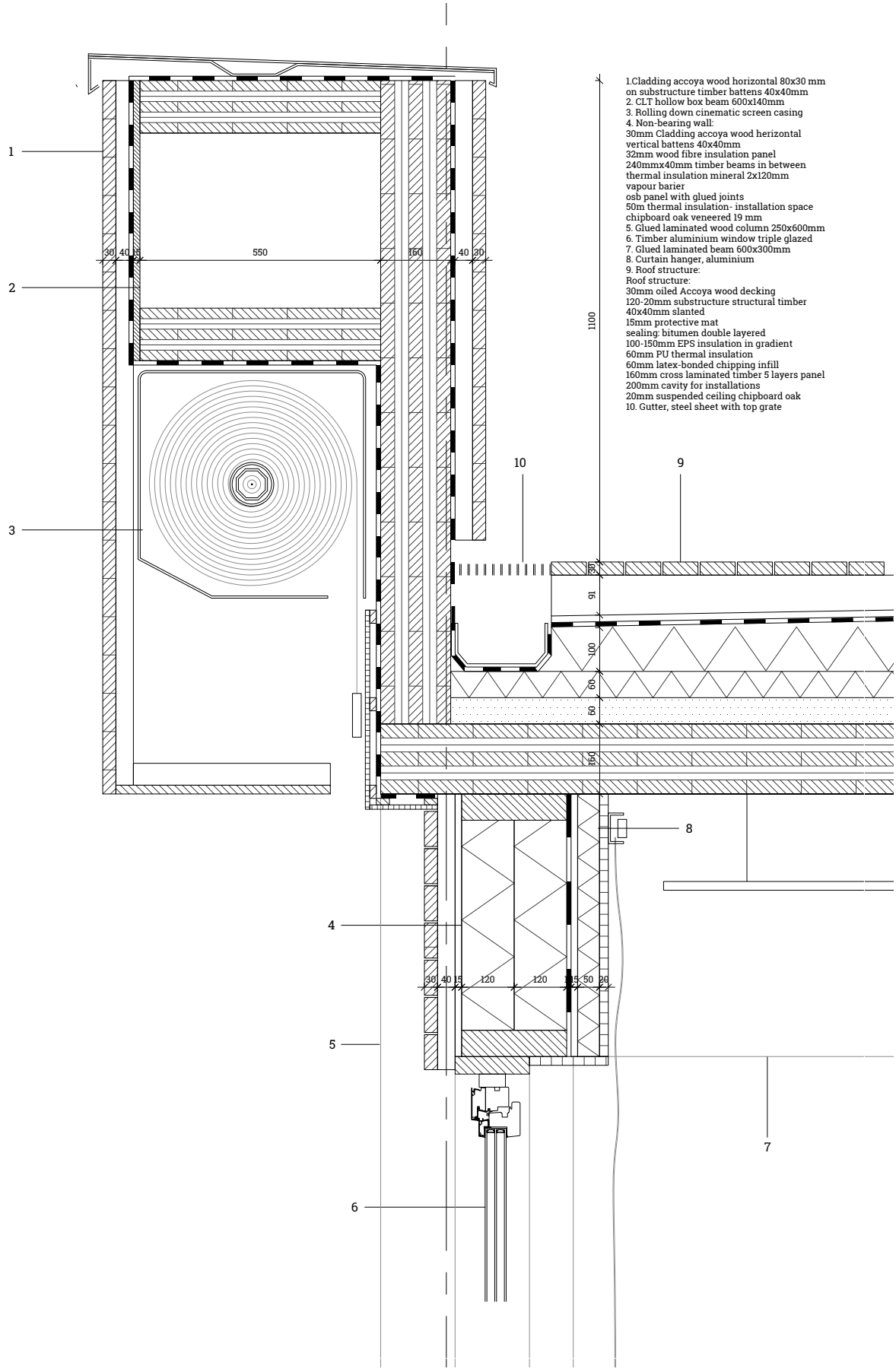


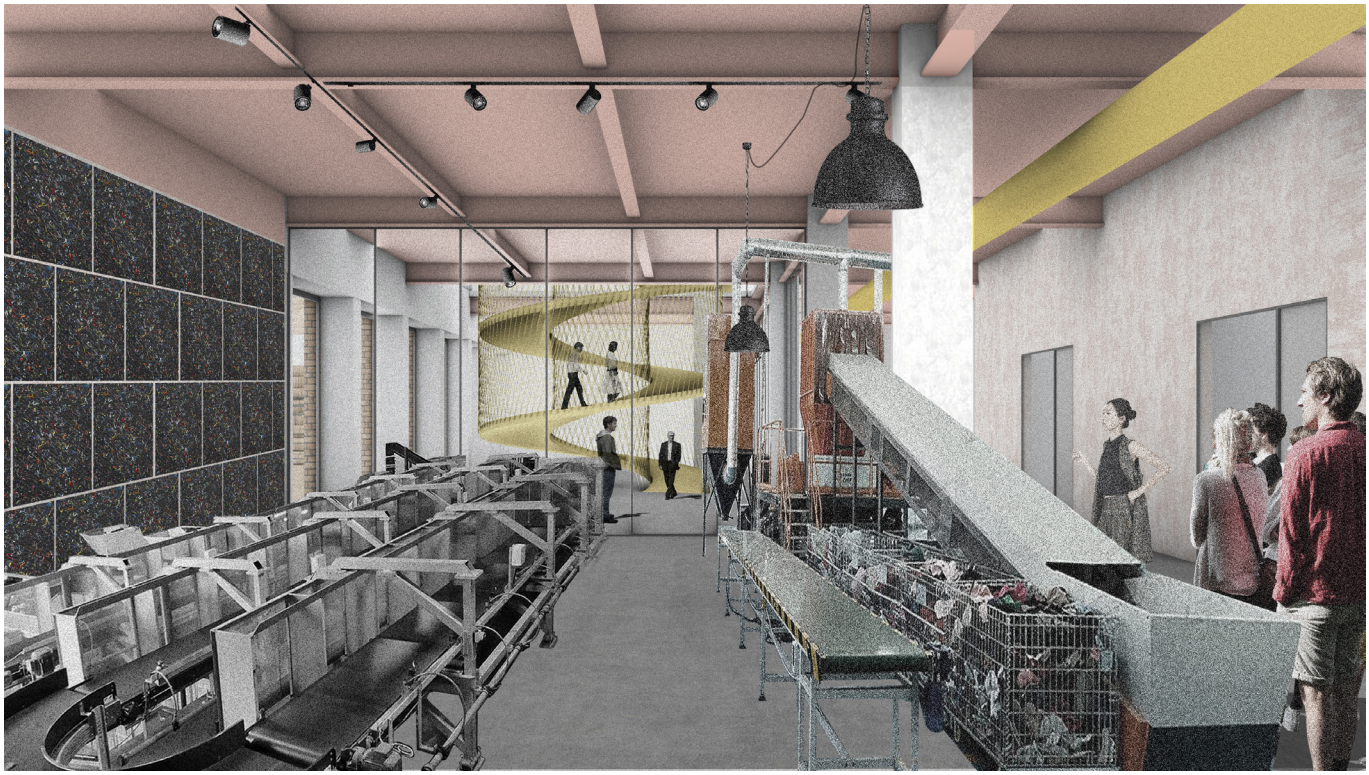
Cross section D-D 1:200

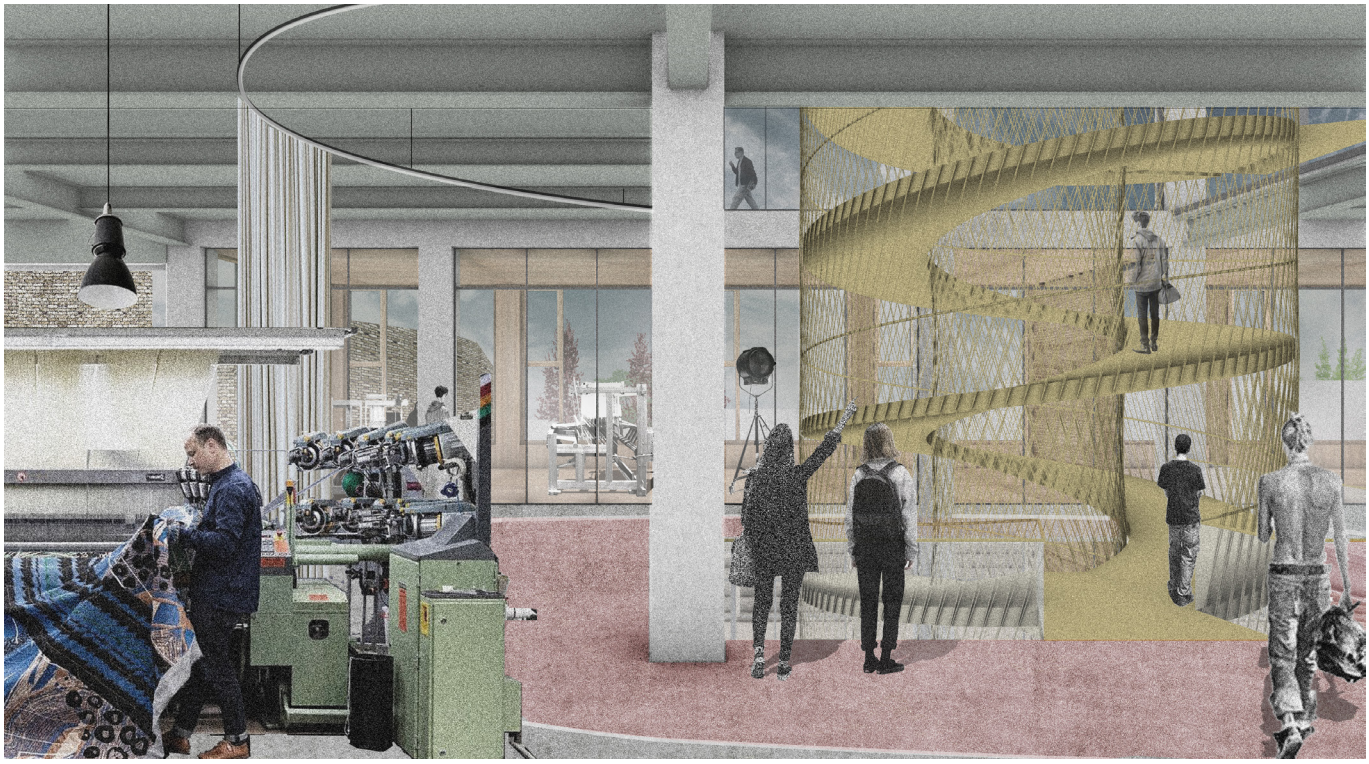

TRUMAN

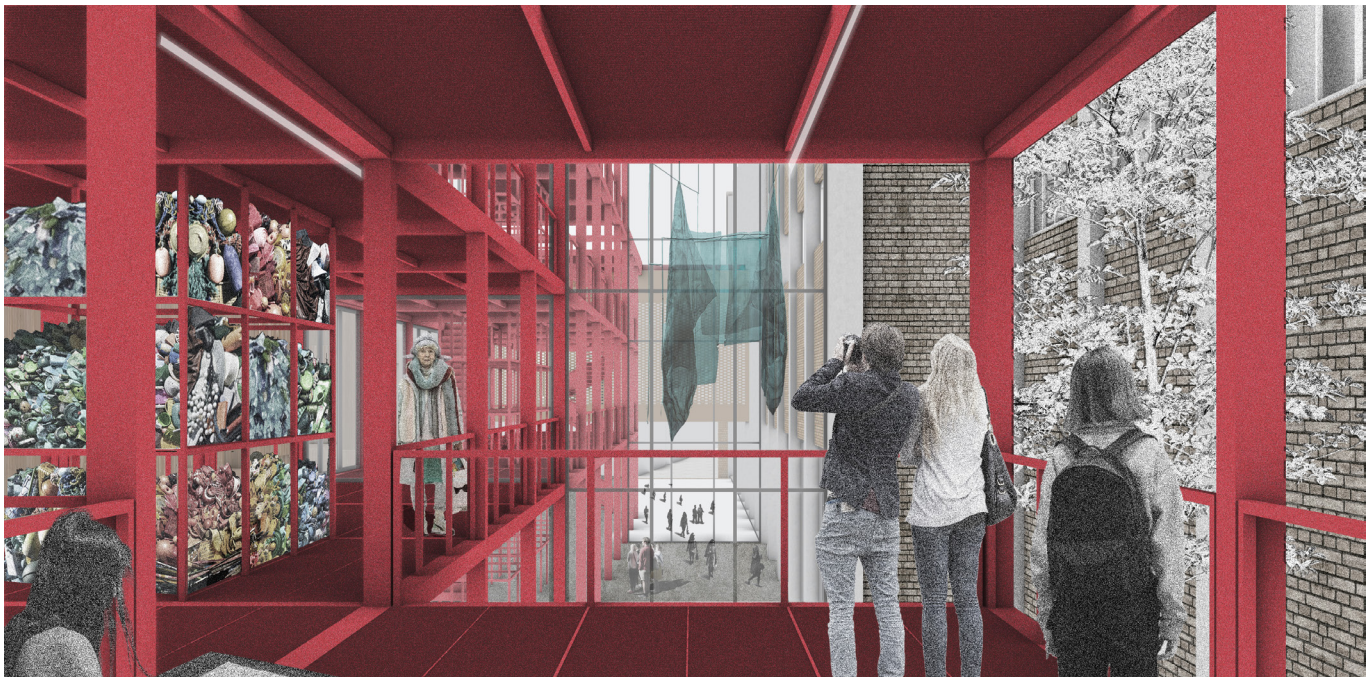
South facade 1:200

North facade 1:200


1.Cladding accoya wood horizontal 80x30 mm
on substructure timber battens 40x40mm
2. CLT hollow box beam 600x140mm
3. Rolling down cinematic screen casing
4. Non-bearing wall:
30mm Cladding accoya wood herizontal
vertical battens 40x40mm
32mm wood fibre insulation panel
240mmx40mm timber beams in between
thermal insulation mineral 2x120mm
vapour barier
osb panel with glued joints
50m thermal insulation- installation space
chipboard oak veneered 19 mm
5. Glued laminated wood column 250x600mm
6. Timber aluminium window triple glazed
7. Glued laminated beam 600x300mm
8. Curtain hanger, aluminium
9. Roof structure:
Roof structure:
30mm oiled Accoya wood decking
120-20mm substructure structural timber
40x40mm slanted
15mm protective mat
sealing: bitumen double layered
100-150mm EPS insulation in gradient
60mm PU thermal insulation
60mm latex-bonded chipping infill
160mm cross laminated timber 5 layers panel
200mm cavity for installations
20mm suspended ceiling chipboard oak
10. Gutter, steel sheet with top grate
1
2
3
4
5
6
7
8
9
10
30 40 15 550 160 40 30
1100
30
91
100
60
60
160
30 40 15 120 120 15 50 20








TRUMAN
BLACK EAGLE BREWERY


Thinking in fragments

Reflection Report

Part 3 of the Research Portfolio

Weaving the city - Brownfield regeneration through urban manufacturing

Architectural Design Crossovers
MSc Graduation Studio Heterogeneous City - London

Agnieszka Trzcińska 5164206

30.09.2022

This reflection, submitted a week before my P4 presentation aims to look back at my research method and review the current outcomes of my design approach. Throughout the paper, I am firstly introducing the graduation topic and its relevance to my study programme. Next, I am reflecting on process findings and feedback I have received. In the last part, I am touching upon the relevance of the graduation project to the broader scientific and social framework. Taking the time to reflect on an ongoing process helps me recognize the amount of work that I have done, verify the progress and hopefully improve the final results.

London, as a heterogeneous city, is a diverse setting where many spatial, social and economic conditions intersect, creating an exciting testing field for new urban typologies and crossovers. Uncovering the layers, stitching various programs together, and solving problems on a city scale- are a few actions that I have been interested in. The setting of MSc Graduation Studio Heterogeneous City – London in Architectural Design Crossovers left a lot of room for academic growth and decision making. The theme I have chosen came out of my interest in making- purposely shaping the physical environment, and evolved with the help of tutors into an explicit design proposal. The graduation topic Weaving the city- brownfield regeneration through urban manufacturing, revolves around the production environment and material flows in an urban setting. It is a crossover between technological industrial processes and architectural built forms through joining design expertise in spatial layers and materiality with efficiency and logic of innovations. The project was set to develop on various scales. From the urbanism perspective- searching for gaps in the city fabric, through architectural scale- proposing solutions to improve existing conditions, to building sciences, where all functional and technical aspects weave together in one coherent design, therefore I think it's a viable proposal for completing my MSc AUBS programme.

In the first quarter of the process, I developed a research method and argumentation and conducted it in a Research Plan. Setting up a methodological framework and clarifying the intentions was an important step in crafting my master thesis. During that time I planned a research and design method for this graduation project called 'weaving'. It accounted for a process of connecting separated elements into a coherent whole with the orderly method- similarly to the steps in a production process, where one stage cannot happen before the previous is completed. I was expecting that with the framework that I developed, I could move ahead in the process in a structured manner. However, my design and research turned out to be a less linear process and more looped together. I needed to add an 'untangling' action, with each of my manoeuvres. The outcomes keep intertwining, influencing each other or sometimes even disrupting the work. Keeping the technological metaphor, instead of creating a well-organized and transparent production line I developed a one-in-all production machine. I want to remark here that it is not necessarily a negative consequence, but rather an unplanned one. I think realizing this allowed me to incorporate more variations to the design and even more importantly, alleviated the pressure of having a finished phase result during an ongoing process.

One of the vital reflection points is the question whether my approach to the project worked. Looking back I still believe I had a strong starting point, a relevant issue of craftsmanship and material transformation in dense urban tissue, and developed an interesting method of research with its vocabulary. By having more confidence in it, I could have delved into it more to reveal the full potential of my research topic. With very open requirements, there was enough room for free exploration and creating my workflow and goals. I had to follow my fascination with the topic and decide how to translate the findings into architectural design. With that being said, I believe that my biggest hinder up to this point was the act of constructing the site. It took me a long time to decide on an actual location for implementation of the design and it tainted with doubt other aspects of the research method. To sum it up, I do think that my research approach worked, but I should have believed in it and myself more from the beginning. With the P4 date approaching, I am finally developing a connection between research and design in materiality, spatial organization and constructing principles of the project, moving past the original programmatic aspect. I think that this process taught me to have more confidence in my opinions and abilities in a new research field.

During the first formal assessment, the P2 presentation, I received feedback from my mentors to guide me further in the project. I was reassured that the topic is relevant in terms of the pressing environmental and urban issues, which was very important to me, as I was always concerned with the purpose of my research. The mentors expressed also concerns about the lack of in-depth analysis of the site and the vagueness of design principles, which mirrored my considerations at the time, as I was still doubting a lot of research aspects. I spent the time afterwards analysing other projects to guide my design approach and building a catalogue of references. I went through a lot of possibilities for project development, trying to establish my narrative. Through this process of exploration, I have been learning what I am interested in as a designer. I have generally noticed that the feedback from my mentors inspired me to explore less literal paths within my topic. What is more, I was encouraged to take a firm stand and draw design conclusions from that standpoint. Both are very challenging but important for my growth as an architect.

In conclusion, reflecting on the current process and previous feedback, I am pleased with my progress. I think that bringing back the importance of craftsmanship is a vital process in activating and diversifying urban neighbourhoods. For some time I was avoiding taking a determined position on my research question and providing clear answers to some of the raised issues because I felt very uncertain in my actions. However, getting closer to the end of the process I am more confident in consolidating my findings and making vital design decisions. In the upcoming graduation phase, I want to draw on my research outcomes and enjoy the designing part. I hope that this graduation project contributes to a better understanding of circular production processes in architecture and the possibilities of regeneration of the industrial heritage, by showing the importance of making, craftsmanship and sharing knowledge.