In Between Territories

**the re-assembling of the Spoorzone in Delft
by introducing a living room for the city**

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In
Between
Territories

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foreword

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summary

The Spoorzone in Delft is an area that was once occupied by the railway. The historic city grew organically, and later expanded around this transportation hub. Nowadays, the railway is situated in a tunnel underground. Leaving behind a substantial vacant plot in the middle of the city waiting to be reterritorialized. On one side is the historic city centre and on the other many neighbourhoods with their own identities. The Spoorzone finds itself in between territories; in between old and new, west and east, city and neighbourhoods.

Given the fact that we live in a rapid changing society, the question arises how to develop a substantial plot in the city in a durable way. How to approach a design project on a site that once was a border in between territories ànd is able to keep up with rapid changes that characterize our time. This project proposes a shift in thinking to approach the design as a dynamic process rather than a final image. This research and corresponding design project is about thinking in territories.

The goal of the project is to see architecture as dynamic. The main question therefore reads as follows: 'How can an architect change its view on architecture from static to dynamic, and become able to trigger a perpetual re-assembling of space, by using territoriality as a working concept?' The answer to this question will be explored by two ways of working. A theoretical and practical one. The practical part will be examined in the design project.

The research paper is the theoretical part and consist of a literature review in the field of philosophy (focussing on Deleuze and Guattari) and design studies. Concepts as territory and in-between are examined in detail to gain a basic understanding and help the reader to approach architecture from a different angle.

The main finding is that a building can be approached as subject producing. Encounters between the subject and the building are affective and determine what a body can do and what it can undergo. By thinking in territories, it is possible to discover affects and to open up multiple possible outcomes of encounters between subject and physical environment. By being able to see architecture as dynamic, a building can be seen as durable, because of being able to trigger a perpetual re-assembling of use of a space.

The design project proposes a living room for the city that is able to keep up with the rapid changing desires of our time and, additionally bridges the gap two between the different sides of Delft, inviting people to overcome this border. The design is based on a simple structure with set of frames. Variation of this structure are make up the whole building. The frames will affect its users, giving it limits to move in between. However can be can also be affected upon, keeping it open to future activities.

The project is organized along a structure that moves from explaining the tiniest ingredients of a territory to the reassembling in new circumstances. This is done by breaking down, including and excluding, and finally re-assembling the components of a territory. The transition from research to the design will be made by constantly following these steps and evaluating them.
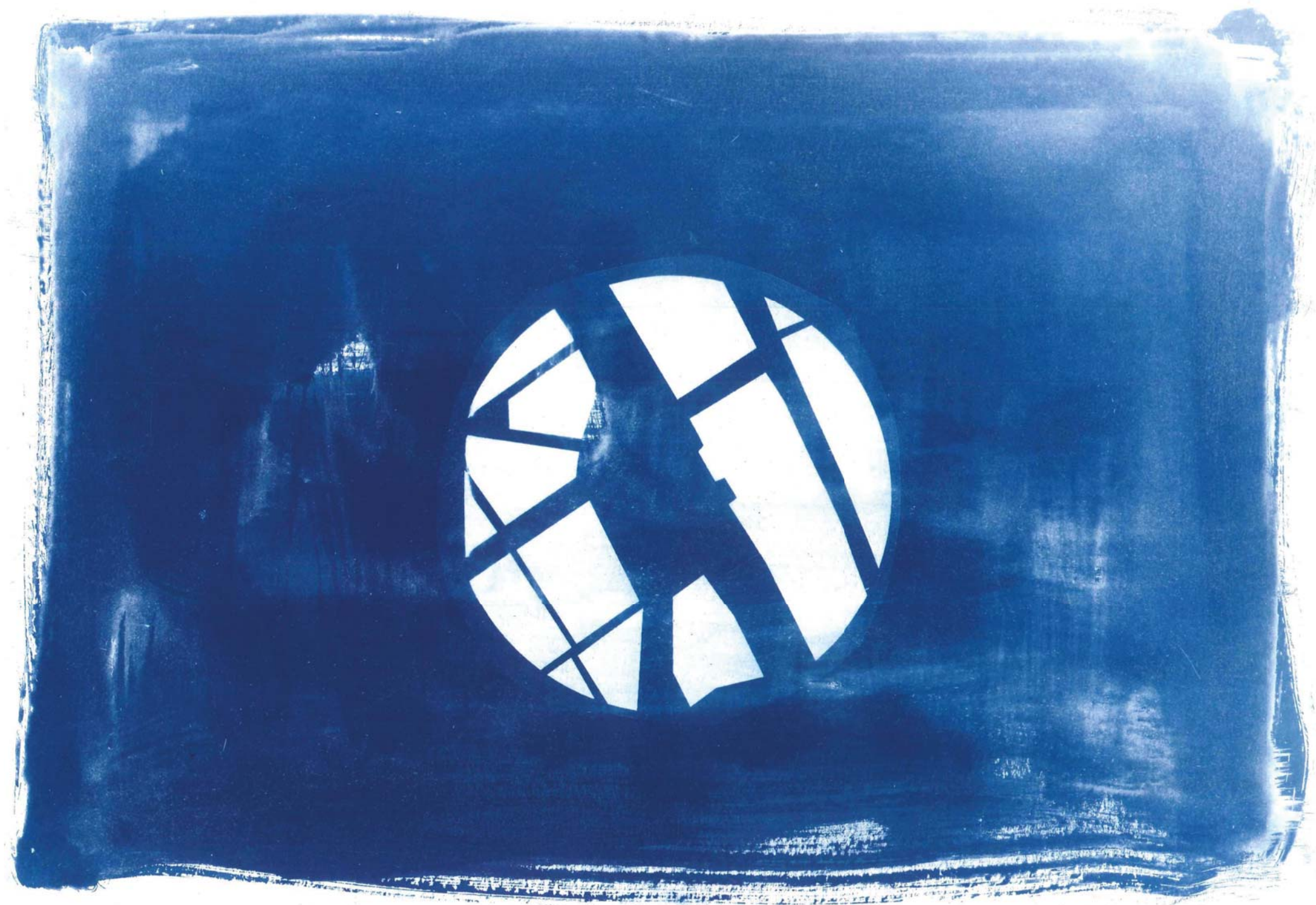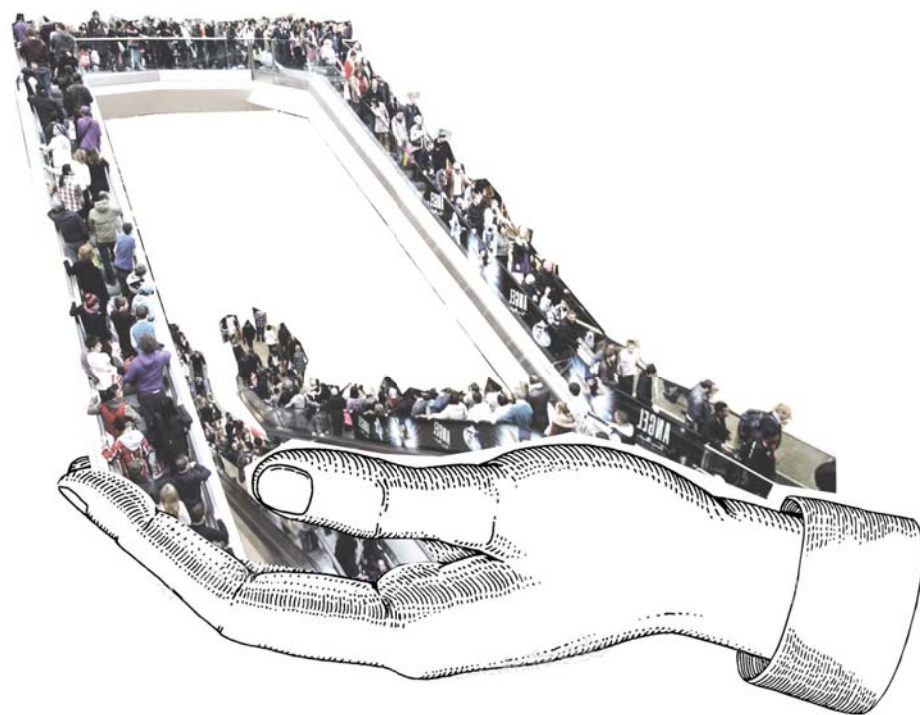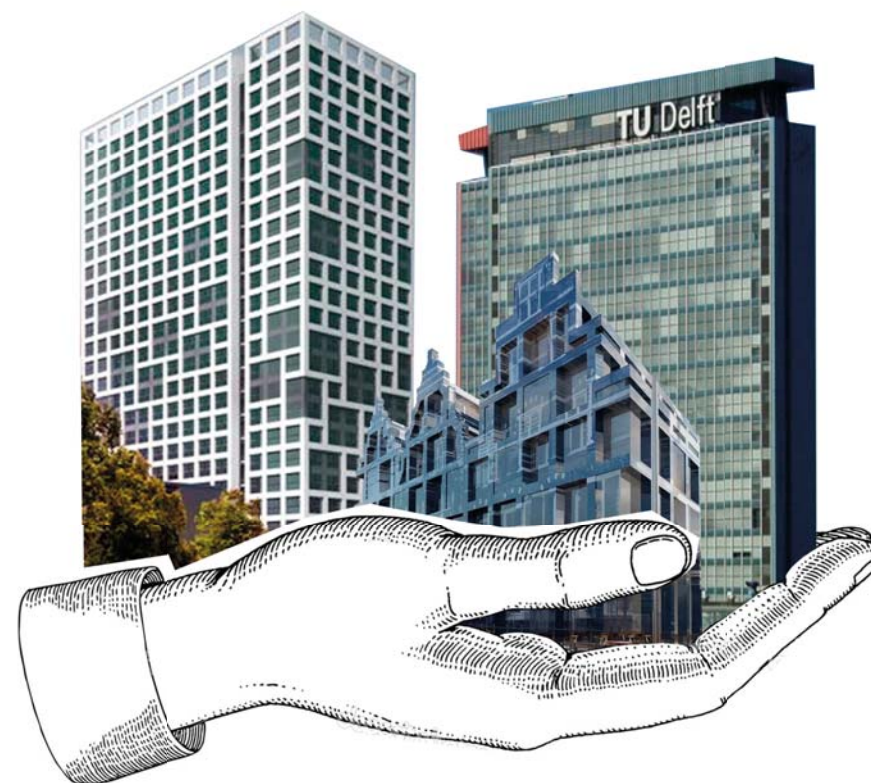
introduction.

A location

in between

territories

on one hand,
I see architecture operating in a society that is
consuming in ever increasing amounts

on the other,
I see architecture as a medium that is not likely to change
and adapt very fast and frequent to our desires and needs

introduction

We live in a time which is characterized with rapid changes in our society. Throwaway economy, fast fashion, globalization and digitalization characterize our time. We are used to adapt quickly to new technologies and to the increasing speed in communication.

Yet, architecture feels so static. It is made out of bricks and concrete and it often takes many years to create and it will last even more. Architecture and urban planning are in a phase in which a place can be imagined from scratch. Buildings and urban plans can be induced from above as a fixed image that proposes the ideal situation. The problem that arises, is that such fabricated landscapes, urban plans or buildings tend to have lifetimes that are relatively short (Raffestin, 2012). Once a space does not longer satisfy our needs, the whole area will be transformed. Large scale transformations or demolitions as a result of expired lifetimes produces a lot of waste and consumes energy and materials. Of course, waste and energy consumption do not contribute to the circular economy and the climate goals the Government (The Ministry of Infrastructure and the Environment and the Ministry of Economic Affairs, 2016) is now aiming for.

In the past decades, we have seen that architects have tried to find solutions in adaptability and transformations of buildings, for example:

(Brand, 1994; Price, 2003). Also in the Dutch architecture tradition it was very common to address this problem, for example: Habraken (1961) in his book 'Supports an Alternative to Mass Housing', Leupen (2002: 2005) in his dissertation 'Frame and Generic Space' and book 'Time-based Architecture', and Kronenburg (2007) with 'Architecture that Responds to Change' (see chapter 'Notes' of the research booklet). These studies are still relevant and some design principles are still applied today. However, most of the time these studies and designs focus on a physical transformation of the building, because the building does not fit to the users' needs anymore. It is more interesting is to go a step further than proposing physical adaptability, namely to explore why a building can't keep up with our needs in the first place. How do we perceive a space and why are we willing to use it and keep using it in the future. Is it really necessary to physically transform a space, or could another way of seeing architecture help us to create new opportunities to use a space?

What would it mean to go beyond representation and explore what a building does and keep doing to its users every time the user is introduced into new circumstances. How to change one's view on architecture from seeing it as static to seeing it as dynamic.
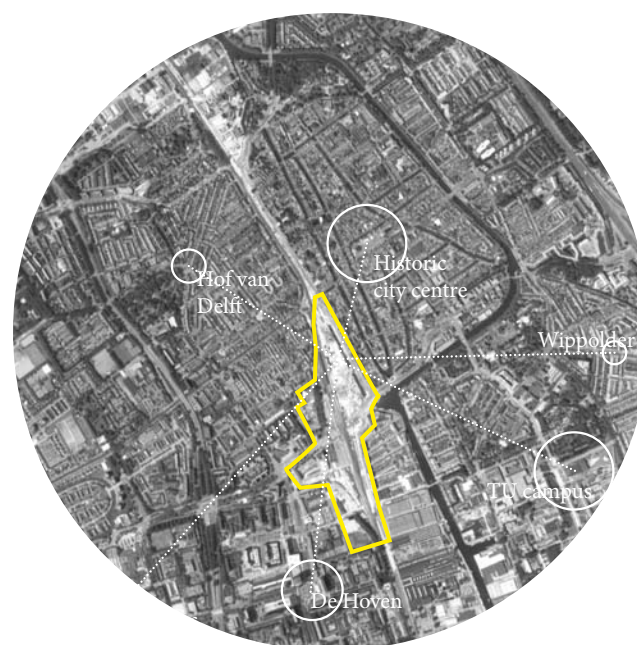
In between east and west, in between what it was
and what it can become, in between neighbourhoods
and city centre, in between comings and goings,
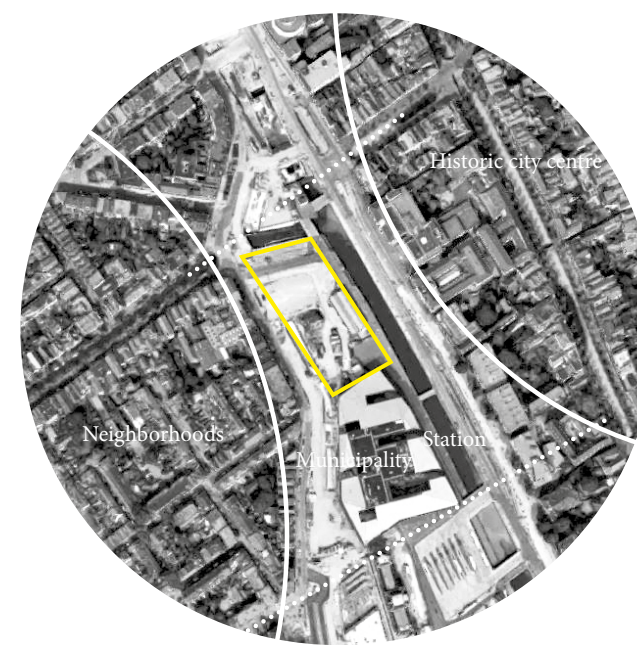in between inside and outside; the Spoorzone is in
transition.
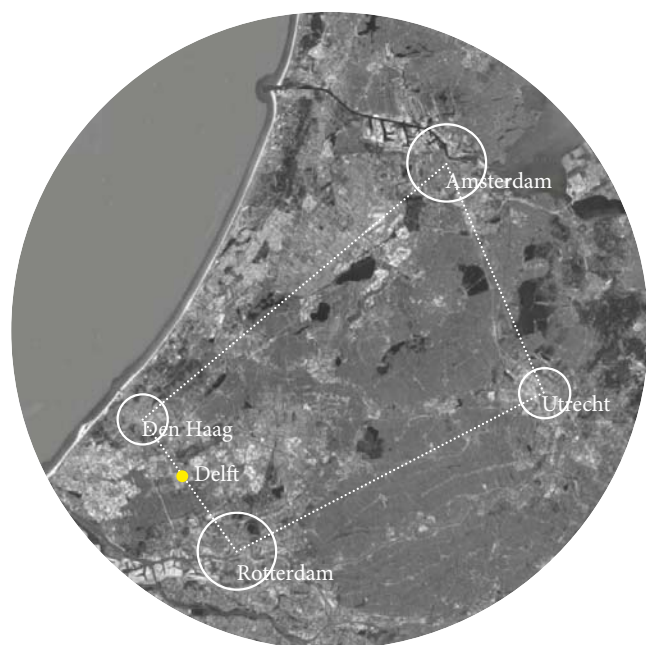
Location as part of the Randstad

*Location in the middle of multiple centers of Delft*

Location in between the neighborhoods of Delft

The Spoorzone in Delft is an area under construction for more than a decade. Since 1840, Delft has been marked by the railway crossing the city from North to South. The railway was seen as a border, dividing the city in East and West. What was once seen as innovative and a fast way of traveling, became a grievance for the city. The city decided to replace the railway viaduct by a railway tunnel and to redesign the whole area. Since 2015 the train has vanished from the urban landscape, and instead runs underground in a tunnel. Today, a long period of planning and urban designing is finally followed up by a transformation of the area that was once occupied by the railway.
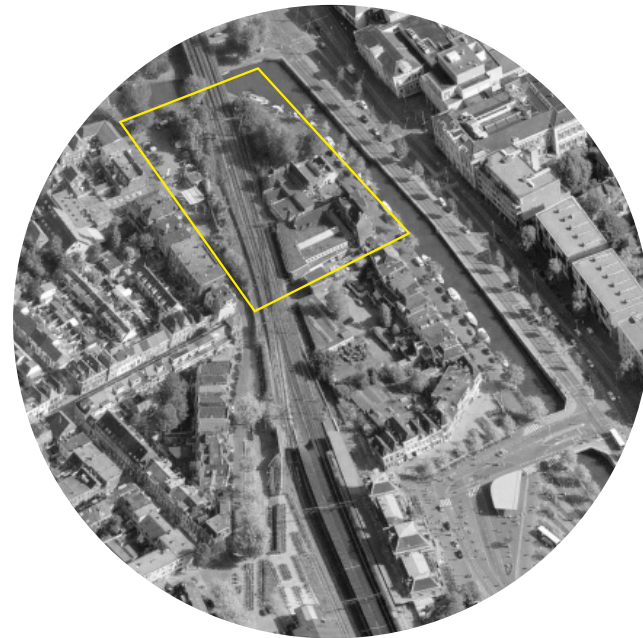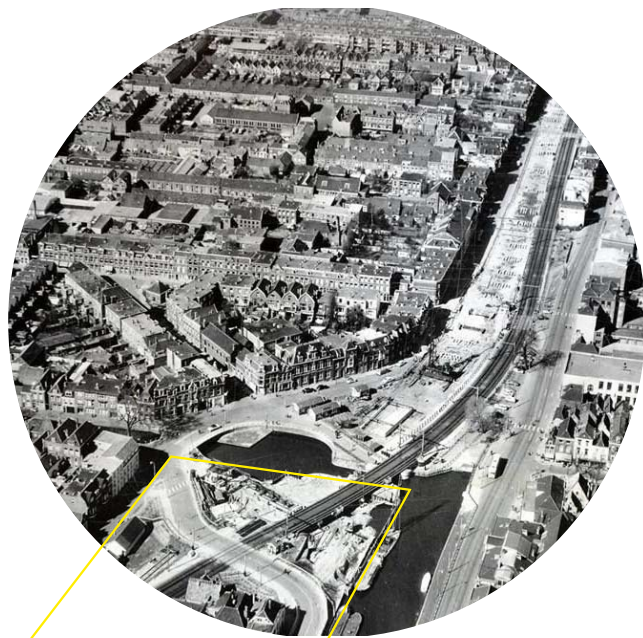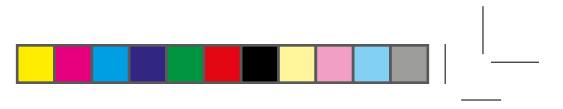
1847 - 1961

1961 - 2015

2015 >

The taking away of the railway has created substantial vacant lot in the urban structure of Delft. In in the previous decade a new design for the Spoorzone was made. Urban designer Joan Busquets (1998) proposed a new urban texture that approached the area as a white canvas. Unfortunately, the new urban plan for the Spoorzone in Delft was already outdated before the tunnel was even made. The proposed plan was not able to coop with changes in time and didn't contain enough freedom for future developments. The newest urban plan by Palmbout tries to avoid this problem by designing a structure that can be filled in over time. Delft chose for organic way of urban design. That means that the Spoorzone will always be in development, but also will always be finished. There is no final image. The area to be developed will go under the name of Nieuw Delft, which main goal is to reunify West and East of Delft and create highly urban atmosphere that is part of the Randstad. Herewith, Delft hopes to attract knowledge workers and creatives to stay in the city (Bothof, Pijpers, & Burgers, 2015; Gemeente Delft & Ontwikkelingsbedrijf Spoorzone Delft B.V., 2013).
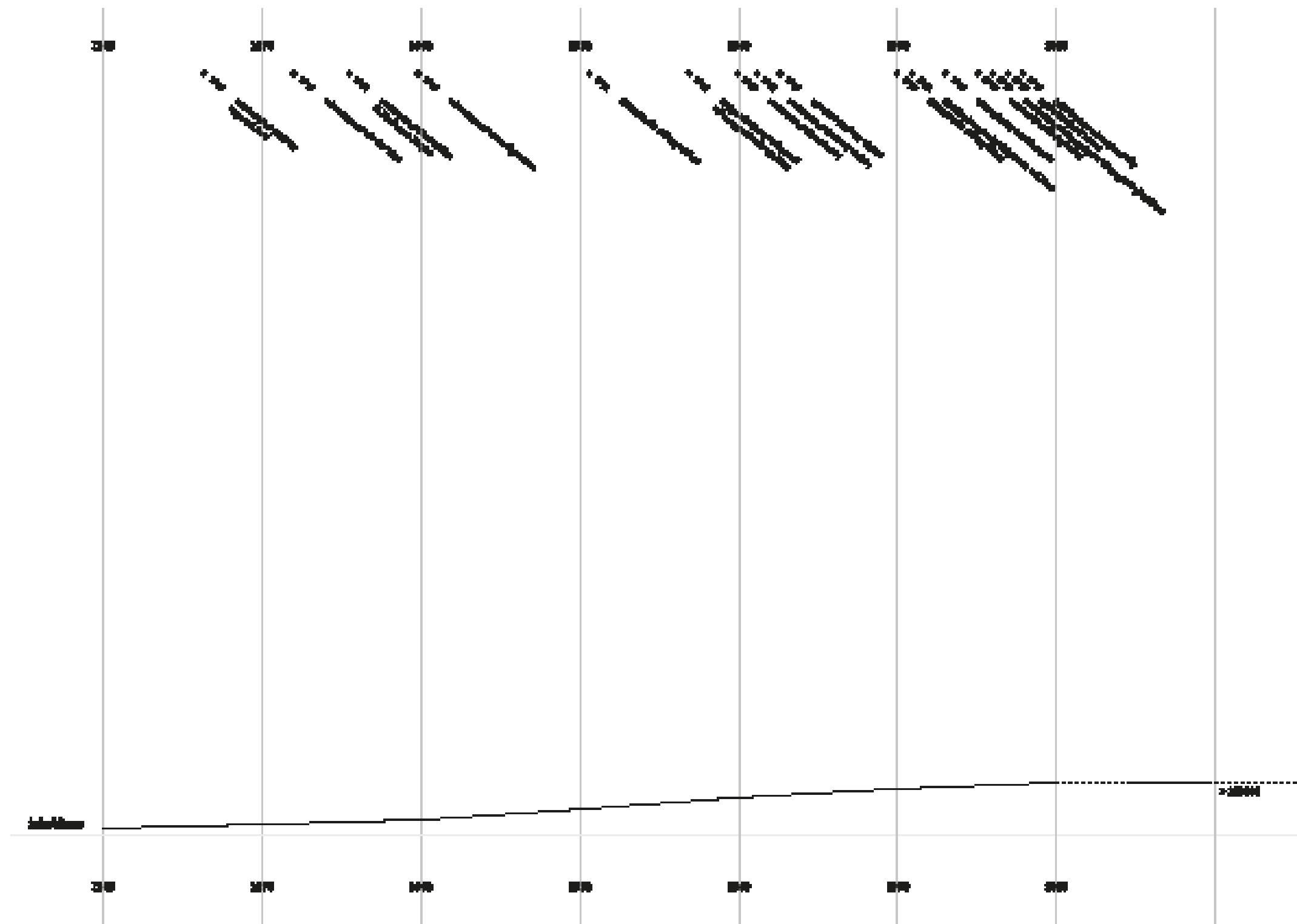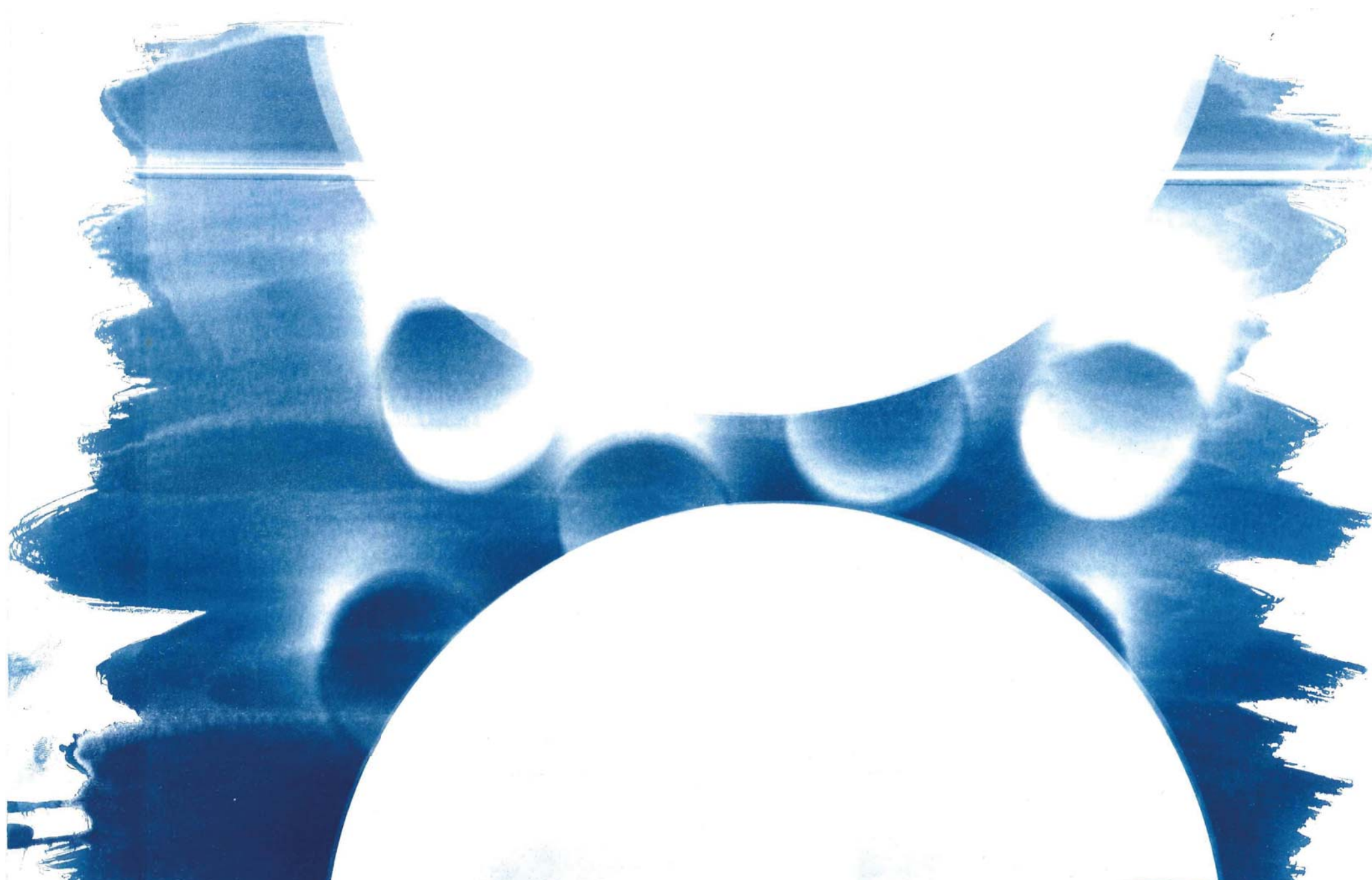
research.

Thinking

in

territories

thinking in territories

A transformation of a substantial area in the city does not only influence the plot itself. A much wider area than a piece of land with determined borders is affected, i.e. the influence of a building does not stop at the aesthetics of the façade. By the radical taking away of the railway, a whole set of daily routines of the citizens are affected. The change in relations between the physical and social environment goes hand in hand with a supply of territory that has lost its function and a demand for territory to take part in new activities (Raffestin, 2012). Pre-existent functions are reorganized into new functions and a new territory appears (Brighenti, 2006). The processes that are at stake are deterritorialization and reterritorialization. Sometimes a reassembly of a territory is partial, sometimes total. The developments in the Spoorzone could best be described as a large scale de-territorialization, waiting to be reassembled. Territory is a concept that is used in different disciplines. The mainstream view, as used in the political and legal sciences, defines territory as a piece of land under the authority of an agency, for example a government or home owner. The concept of territory as examined in this paper considers territory as "a series of relational phenomena" (Brighenti, 2006, p. 66). In this context the physical-spatial dimension,

land, is at most its container or support. Territory is used by Deleuze and Guattari to describe "how living beings create a space for themselves to maintain their existence" (Kleinherenbrink, 2015, p. 210). Deleuze and Guattari elaborated on Spinoza's philosophy, that things can never be seen separate from their relations, by connecting it to an ecological thinking applied to human beings (Thrift, 2008). The theory of ethologist Jakob von Uexküll was an important source of influence for the duo. Uexkülls work focused on animals and their perception of the world, which he called an Umwelt. Deleuze and Guattari applied this thought to human beings.

Rather than a piece of land, territory is considered as virtual and imagined; as a mode of organization; as an order that comes in different scales and visibilities and mixes human and non-human relations; as an act, as action and reaction between human beings and their environment; as a way of marking ownership and occupation; as a processes of including and excluding. Territory is therefore utterly relational and social. The most important aspect of a territory is territorial openness. A territory is always incomplete. A territory is bounded but cannot be delimited. Sometimes boundaries are implicit or invisible, but a territory can never exist without.
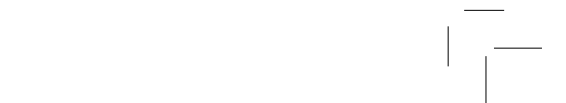
The 'becoming' or 'emergence' of the interaction of functions and expressive markers producing the feeling of being at home. (Bonta & Proveti, 2004, p. 158)

A territory is never a territory on its own. Territorial assemblages can be seen as complex networks of relations, which are always in a state of flux and reassembling in different ways. Deleuze and Guattari developed the concept of assemblage (primarily in A Thousand Plateaus, 1980) to urge us to think of reality as a patchwork of assemblages, in which each territorial assemblage is always already passing into other assemblages. Territorial assemblages are formed by flows and relations between "bodies (material systems that are themselves assemblages of organs at a lower level of analysis) and signs (triggers of change in those systems) to form 'territories' or systems of habit" (Bonta & Proveti, 2004, p. 54). The territorial assemblage is organised along two axes. The horizontal axis contains content and expression, the vertical one deterritorialization and reterritorialization (Deleuze & Guattari, 1987). The flows of affective relations territorialise individuals. In fact, they territorialise a bodies capacity to desire, which determines what a body can do and what it can undergo. To understand this, one has to approach desire not as a lack of an object or person, but as a bodies potential to affect or be affected upon (act, create, experiment). According to Deleuze and Guattari "assemblages are passional, they are compositions of desire" (Deleuze & Guattari, 1987, p. 399). Desire does not come spontaneously, but is assembled, ready to territorialize our bodies.

We will call an assemblage every constellation of singularities and traits deducted from the flow – selected, organized, stratified – in such a way as to converge (consistency) artificially and naturally; an assemblage in this sense, is a veritable invention. (Deleuze & Guattari, 1987, p. 406)

Thinking in territorial assemblages is not common day practice in architecture. Raffestin even states in his article Space, Territory, and Territoriality: "In the past we made territory first and landscape came afterwards. Today, landscape is drawn first and transformed into territory afterwards. The situation is inverted" (2012, p. 132). This came extremely visible in short life-time projects in the last decades (examples are Vinex neighbourhoods or Plan Busquets). Although there are plenty examples of demolitions and transformation projects, we have also seen some steps in the right direction. The "traditional blueprint planning that pushes an ideal final situation to the fore" is losing ground, and "current practice tends to search for strategies for the initiation of self-organisation and self-development processes" (Avermaete, Havik, Meijsmans, & Teerds, 2009, p. 1). Thinking in territories is maybe easier on the scale of urbanism (plan Palmbout for example) and landscape architecture, than on the scale of the building. In these professions it is more evident to think in natural, political and cultural processes and future changes. However, on the scale of the building the focus still lies too much on aesthetics and name of the architect.

Theorists like Grosz, Raffestin and Thrift, suggest that the cause for these short life-times of buildings and the focus on aesthetics has to do with division between nature and culture. Which should, according to them, not be seen as opposites. Architecture should unify the natural and cultural and use territorialization, deterritorialization and reterritorialization as a theoretical insight to explore openness to possibilities. Projects that affect the city, like in the Spoorzone, should pay more attention to relation between the physical and social environment. Which means that architects should not only look aesthetics, sight lines, and program of requirements, but not forget about the relations and processes in the city.

research questions

Territorial assemblage theory provides an framework to move architecture away from a focus on fixed form, and instead think of architecture as dynamic and that architecture is a medium operating in a constant state of flux. This research must give an insight in how an architect can contribute to the composition of territories in which we feel at home and can keep feeling at home.

Research questions

How can an architect change its view on architecture from static to dynamic, and become able to trigger a perpetual re-assembling of space, by using territoriality as a working concept?

The concept used in the research question are explained below:

- Architecture: Guattari in his essay Architectural Enunciation (1989) advocates for a new under-standing of architecture and the architect which servers as source of inspiration for this research. The 'reinvention of architecture' under today's condition as he describes, will not be a new style, school, but the recomposing of architectural enunciation:

Once it is no longer the goal of the architect to be the artist of built forms but to offer his services in revealing the virtual desires of space, places, trajectories and territories, he will have to undertake the analysis of the relations of individual and collective corporeality by constantly singularizing his approach. Moreover, he will have to become an intercessor between these desires, brought to light, and the interest that they thwart. In other words, he will have to become an artist and an artisan of sensible and relational lived experience. (Guattari, 1989, p. 232)

- Trigger: trigger in this context refers to Guattari and his essay Architectural Enunciation, in which he describes his vision on the architectural profession as: *"a catalytic operator triggering chain reactions at the heart of modes of semiotization that make us escape from ourselves and open us up to original fields of possibility"* (Guattari, 1989, p. 238). 'Open us up to original fields of possibility', means that the very nature of architecture is to provide new opportunities to use a space. Architects should trigger those different uses of a single space by composing components

from which users glean meaning (i.e. that work as a sign). Depending on changing circumstances with time, meanings of components change and new possibilities arise.

• Perpetual re-assembling: seeing space not as an finished image, but rather as a continuous reproduction of encounters, acts and occupations and should be able to sustain possibilities.

• Territoriality: the process of gaining the feeling of being at home through territorialization. Territorialization is followed up by deterritorialization and reterritorialization. De- and reterritorialization mean: *"the always complex process by which bodies leave a territorial assemblage following the lines of flight that are constitutive of that assemblage and 'reterritorialize', that is form new assemblages (there is never an simple escape or simple return to the old territory"* (Bonta & Protevi, 2004, p. 78).

• Working concept: using a concept, in this case a philosophical one, and turning it into a methodology or a productive tool. *"A tool is something we use to achieve a desired end; it mediates a process of production. What is at stake is not truth but usefulness"* (Dovey, 2013, p. 132).

Sub-questions

The research question actually consisted of two parts, a theoretical and practical one. The last part of the question, the practical one, gives away that I assume the answer is to be found in territoriality. To test this hypothesis, the first part consist of a theoretical research in the field of territory. The first part of the research question reads as follow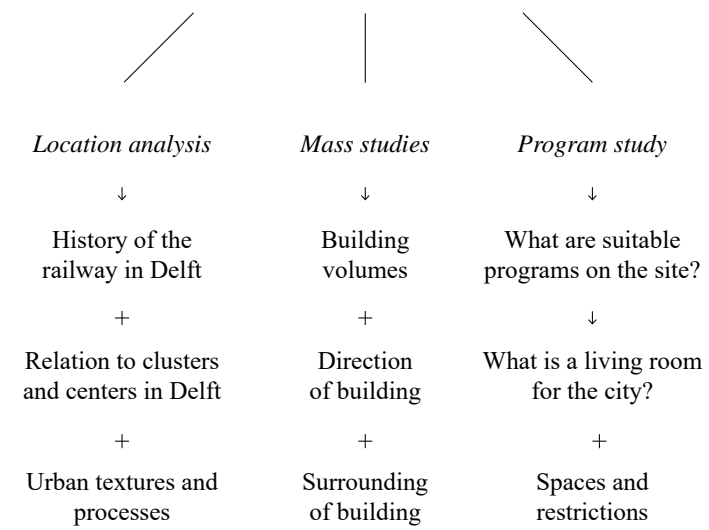s: 'How can an architect change its view on architecture from static to dynamic, and become able to trigger a perpetual re-assembling of space?'. In order to examine the first part of the research question in depth, the question is divided into sub-questions each represented in a chapter.

• From what is a territory built up and how does a territory work?

• What is the role of the in-between?

• How can a territory be re-assembled?

The second part of the research question: '… by using territoriality as a working concept?' is examined in the design studies and in the last chapter with next steps for the design project.

project structure

The methodology used to answer the first part of the research question is a literature study on concepts relating to territoriality, such as: territorialization, deterritorialization, assemblages, in-between, affects and, relations. The literature study mainly focussed on the work of Deleuze and Guattari. But also included the work of theorists that inspired them, such as: Spinoza and Uexküll, and one's who were inspired by them, such as: Elizabeth Grosz, Claude Raffestin, Andrea Brighenti, Anne Sauvagnargues and Nigel Thrift. After gaining a basic understanding of territory, I will try to relate it to architecture. I will do this partly in the literature study, but also by doing practical studies related to the chosen site, the Spoorzone in Delft. The analysis and design studies relate to the structure of the research, which is explained below and in the research scheme.

Structure of the research

The way I approach this project, both research and design, could best be described according to these steps: break down, frame, re-assemble.

The way of working and structuring the research according to these steps are described below: The first step is to break everything down into small bits, the ingredients, in order to reintroduce them into new problems later in the process. The step framing, focusses on the in-between, the 'space' where transformations happen. The place where the bits are introduced to new problems. After we've seen where transformations happen, the last step explains how these transformations happen. In other words, how are the bits put back together in a new way?

Research

How can an architect change its view on architecture from static to dynamic, and become able to trigger a perpetual re-assembling of space, by using territoriality as a working concept?
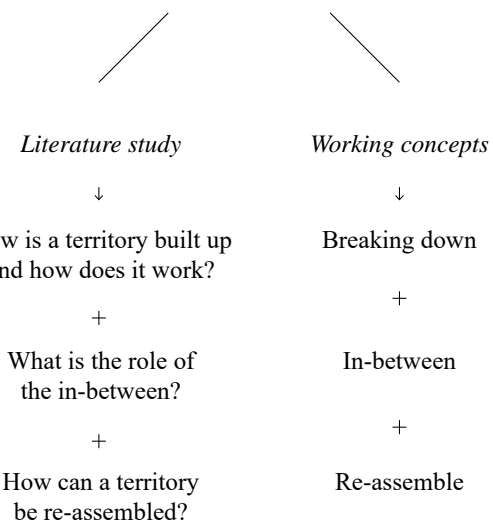
Design

How to approach a design project that triggers a perpetual re-assembling of space, by using territoriality as a working concept?

Literature study

↓

How is a territory built up and how does it work?

+

What is the role of the in-between?

+

How can a territory be re-assembled?

Working concepts

↓

Breaking down

+

In-between

+

Re-assemble

Location analysis

↓

History of the railway in Delft

+

Relation to clusters and centers in Delft

+

Urban textures and processes

Mass studies

↓

Building volumes

+

Direction of building

+

Surrounding of building

Program study

↓

What are suitable programs on the site?

↓

What is a living room for the city?

+

Spaces and restrictions

Research

Design statement

St. IORIS ofte WATER SLOOTSE POORT
Zijnde 't Hof ofte hoge Vierfchaer van Delflandts.
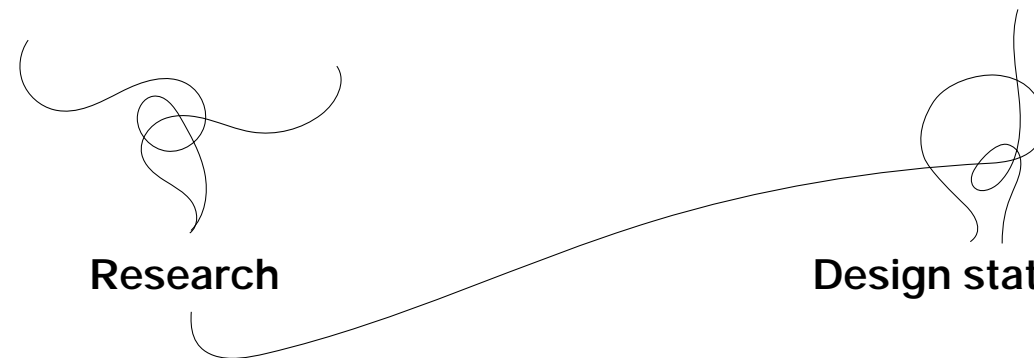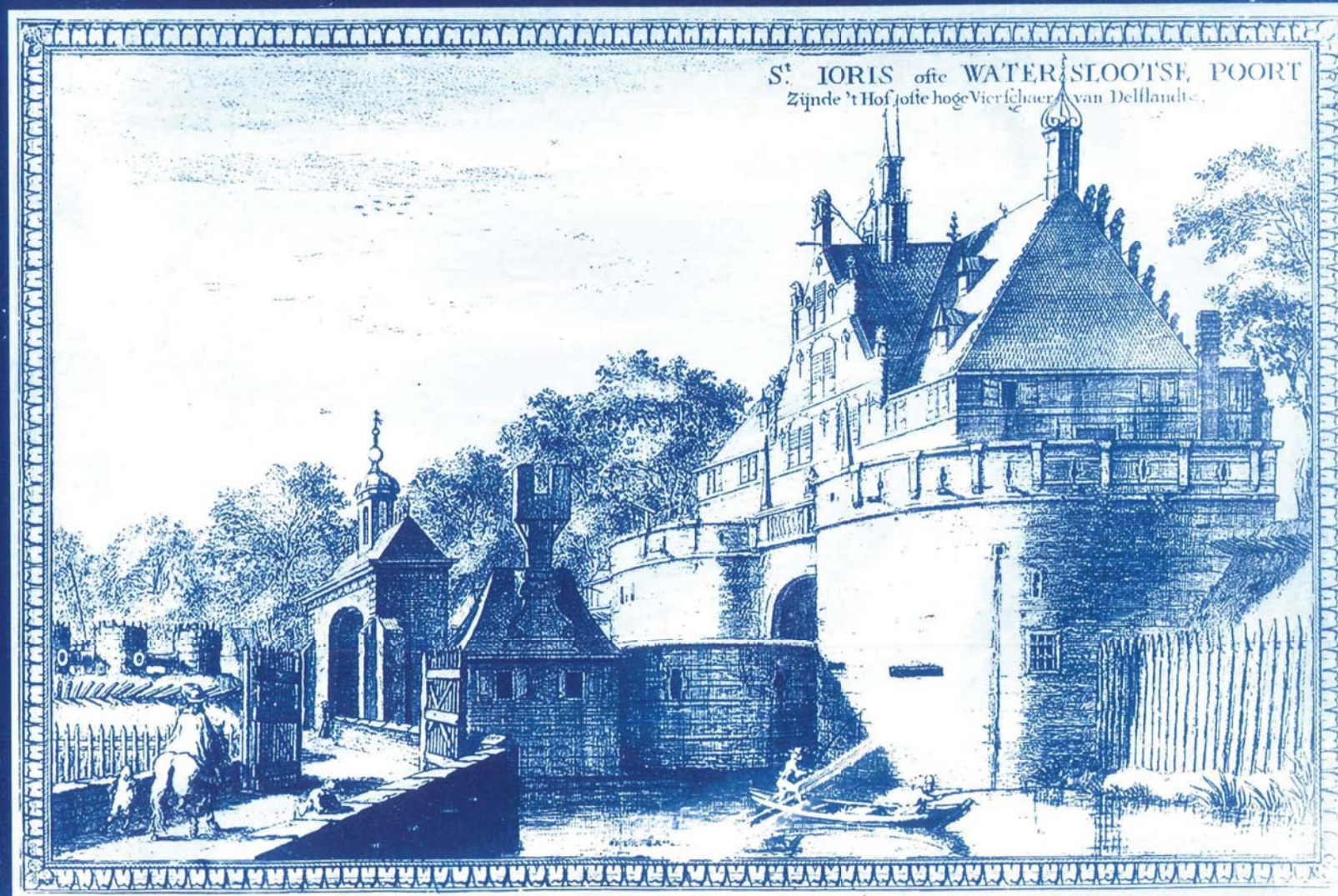
ingredients.

Discover

relational

ingredients

discover relational
ingredients

To change an architects view on the build environment, one should revise the way the analysis of the site is done. This analysis study is done next to the traditional site analysis of tracing traffic routes, surrounding functions, water, and green structures. The goal of this design study is to gain an idea of the processes that are at work in the Spoorzone in Delft and which ones will dominate the site in the future. With processes, I mean for example habits of inhabitants, ecological structures, and other relations between the build environment and people or animals using it. This study includes processes that are visible and obvious, as well as processes that are invisible and rare.

The following two diagrams break down components that are present on the site now, and in the future into tiny bits. The first diagram is called

rhythm, and analyses the processes that are already present at the site. The inner ring represents the categories that I examined. The middle ring, shows the coming and going on the site in the specific categories. The outer ring gives a impression on how that affects people and how it can be affected.

Affect: "the ('active') capacities of a body to act and the ('passive') capacities of a body to be affected or to be acted upon; in other words, what a body can do and what it can undergo" (Bonta & Proveti, 2004, p. 49).

rhythms

affects

comings/
goings

people
- pass-by
- visit
- perform
- knowledge

content
- expressive objects
- bodily expressions
- knowledge
- supply; storing

sound
- music
- alarm/shout
- traffic noise
- chatter
- weather
- applause

smell
- food
- weather
- sweat
- gist
- flora & fauna

weather
- temperature
- sunshine
- wind
- clouds
- precitation

light
- daylight
- artificial
- configuration
- movement
- colours

flora
- trees
- plants
- soil
- air

fauna
- pets
- insects
- birds
- fish
- vermin

decay
- collapse
- rot
- wear
- fade

context
- buildings
- functions
- infrastructure
- transport

power
- social media
- program
- governments
- stakeholders

movement
- habits
- speeds
- interval

Urban textures

Lines and landmarks play an important role in the urban design
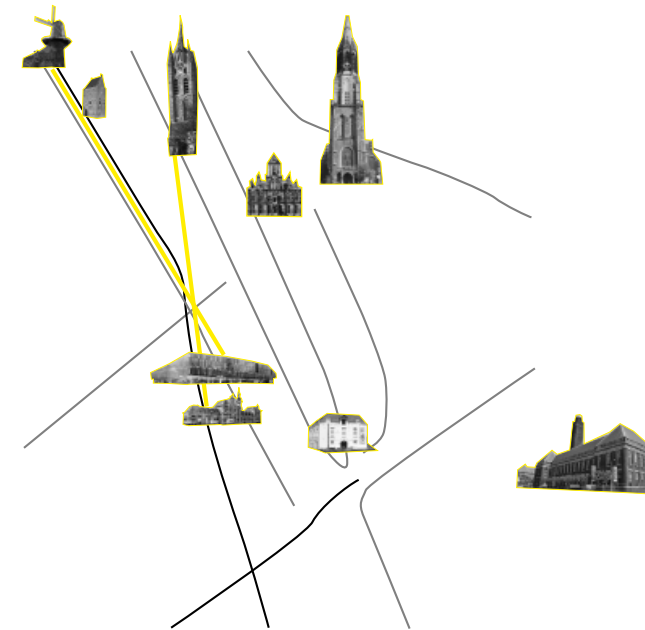
Sight lines and Landmarks relevant for building location

Gebieden met verschillende functies

'Nieuwe werken en transit'.
Ondersteunende detailhandel en horeca
rondom werken, reizen en ontmoeten

'Cultuur en ontspannen'.
Ontmoetingsplekken aan het park, al niet
in combinatie met publieke functies en
kantoor

Publieke functie

Onderwijs

Plintfunctie
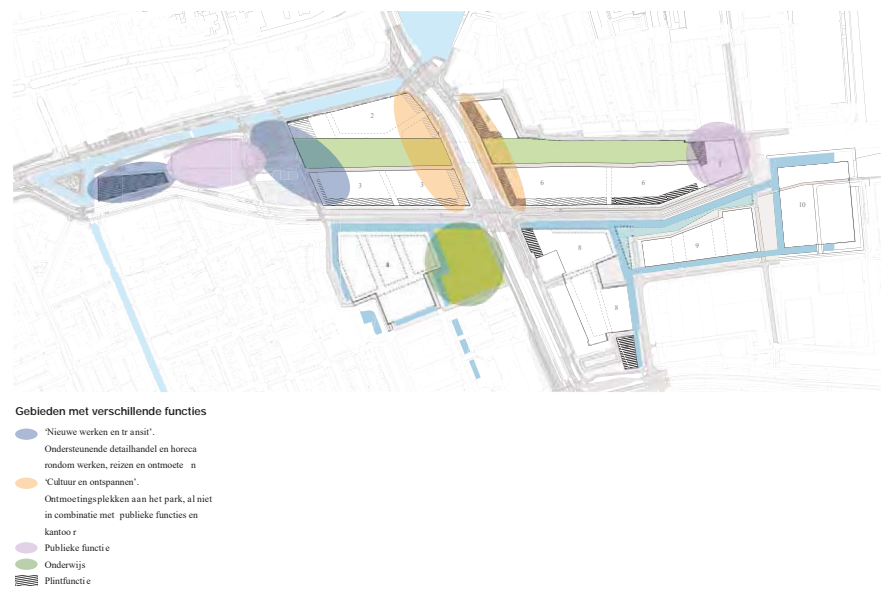
Intergraal ontwikkelingsplan: 'Nieuwe werken en transit'
(Gemeente Delft & Ontwikkelingsbedrijf Spoorzone Delft
B.V., 2013)

- City Lounge
- Seats to Meet, for a pleasant work-meeting in a cultur-
  al/social atmosphere
- Conference facilities
- Trendy locations for flex workers
- Showcase of technical knowledge institutions
- Supporting retail
- Supporting catering/food

ontmoeten:
nieuwe werken
congresfaciliteiten
horeca
cultuur

kantoren
shared services

werkplaatsen voor starters:
electrisch rijden
3D-printen
duurzaam wonen
etc

doorgroei

fietsroute

Delft smart city: a place to meet each other (Bothof et al.,
2015)

- Knowledge intensive companies, that need connection
  to public transport and vibrant inner city.
- Companies in the creative and sustainability industry
- New way of working
- Conference facilities
- Catering/food
- Culture

plan Busquets, 1998

typology urban spaces, Palmbout urban landscapes, 2014

nollimap, Palmbout urban landscapes, 2014

bolwerk

city lobby

transfer square

city garden

highly urban park

court

urban park

court

public

private

main activities

processes
city
daily routine
habits
design
living room
consuming
urban tissue
routes
social
food
entertainment
growth

1990 first plans for railway tunnel

1992 sketch urban plan by Palmboom and Bout

1998 urban plan by Joan Busquets

2009 construction railway tunnel

2010 demolition of houses near station

2013 construction station and new urban plan by Palmbout

2015 opening railway tunnel

2017 infrastructure urban plan ready

planning
design

municipality
government
NS
prorail
Palmbout
combinatie CrommeLijn

development plan
image quality plan
intergrated development plan
buildings ready

travelling

tourists
commute
students

dwelling

inhabitants
students

working

1990   1995   2000   2005   2010   2015   2020

mobility

Timeline markers (top):
- 1990 first plans for railway tunnel
- 1992 sketch urban plan by Palmboom and Bout
- 1998 urban plan by Joan Busquets
- 2009 construction railway tunnel
- 2010 demolition of houses near station
- 2013 construction station
- 2015 opening railway tunnel and new urban plan by Palmbout
- 2017 infrastructure urban plan ready

Timeline years: 1990, 1995, 2000, 2005, 2010, 2015, 2020

Left-side row labels:
- passing through
- passing by
- biking / parking bike
- driving / parking car
- taking train

Right-side annotations:
- railway barriere is removed
- 32 000 travellers per day in 2015
- 10000 places needed / bike lanes partly under ground
- all cars go around Spoorzone
- 6 sprinters and 8 intercity's per hour

Large background words:
speed
timetable
peaks
downs
noise
rails
asphalt
destinations
9292ov
emissions
flows
google maps
stop

ecology

1990 first plans for railway tunnel
1992 sketch urban plan by Palmboom and Bout
1998 urban plan by Joan Busquets
2009 construction railway tunnel
2010 demolition of houses near station
2013 construction station
2015 opening railway tunnel and new urban plan by Palmbout
2017 infrastructure urban plan ready

1990   1995   2000   2005   2010   2015   2020

sun/moon
wind
weather
seasons
rain
clouds
tempera-
ture

soil

archaeology

sand

animals

birds

dogs

insects

worms

trees

seasonal changes
in trees and plants

Magnolia Grandiflora
Tilia Cordata

Tilia Tomentosa

700 new trees

plants

greenery

garden

weed

park

water

movement

ground water

pumping ground water DSM stops

connection with polder

1990   1995   2000   2005   2010   2015   2020

proposal.

A living room

for

the city

a Living room
for the city

The design project takes the components which are already there as a 'starting point' and adds a new structure to re-assemble the site as a new whole. The main goal of the design is to offer new perspectives in different scales and visibilities. To do this the site should not be approached as an empty white canvas, but as a canvas full of potential.

Living room for the city

The Spoorzone in Delft is an area that was once occupied by the railway. The historic city grew organically, and later expanded around this transportation hub. Nowadays, the railway is situated in a tunnel underground. Leaving behind a substantial vacant plot in the middle of the city waiting to be reterritorialized. On one side is the historic city centre and on the other many neighbourhoods with their own identities. The Spoorzone finds itself in between territories; in between old and new, west and east, city and neighbourhoods.

The biggest task is to design to reintegrate this part of the city in the daily processes of the inhabitants and other users of the city. The

redevelopment of the should intertwine with the existing territories, but also makes room for new possibilities. The task for an architect is to create a space in which people can feel at home and can mark the space with their activities, now and in the future. The program for the site will be a living room for the city, in which people can feel at home. The building has to frame new perspectives, offer a place for encounters, and show views that we haven't seen before.

The design will be a building that functions as a living room for Delft. The building should offers new perspectives in different ways:

- Program: It will be a place where knowledge can be exchanged and where people can get inspired.
- Location: It will be a place that provides orientation in the city, affects daily routes and frames delft
- Research: The building should support different types of act in between certain limits, but remain open for new possibilities

location

range train station

railway connection

city center

university

location: Gate to the city

The location lies next to the transportation hub of Delft, which connects Delft with the Randstad
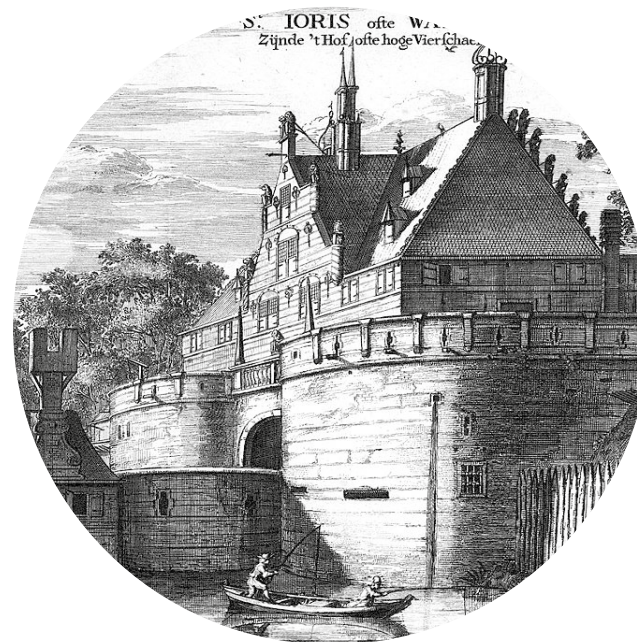
The location functions as gate and connects the historic city center and neighborhoods of Delft with each other and adds an own identity in the existing structure of the city

The location functions as a stage for knowledge economy and cultural institutions

railway tunnel
building line
main slow traffic routes
urban square
view
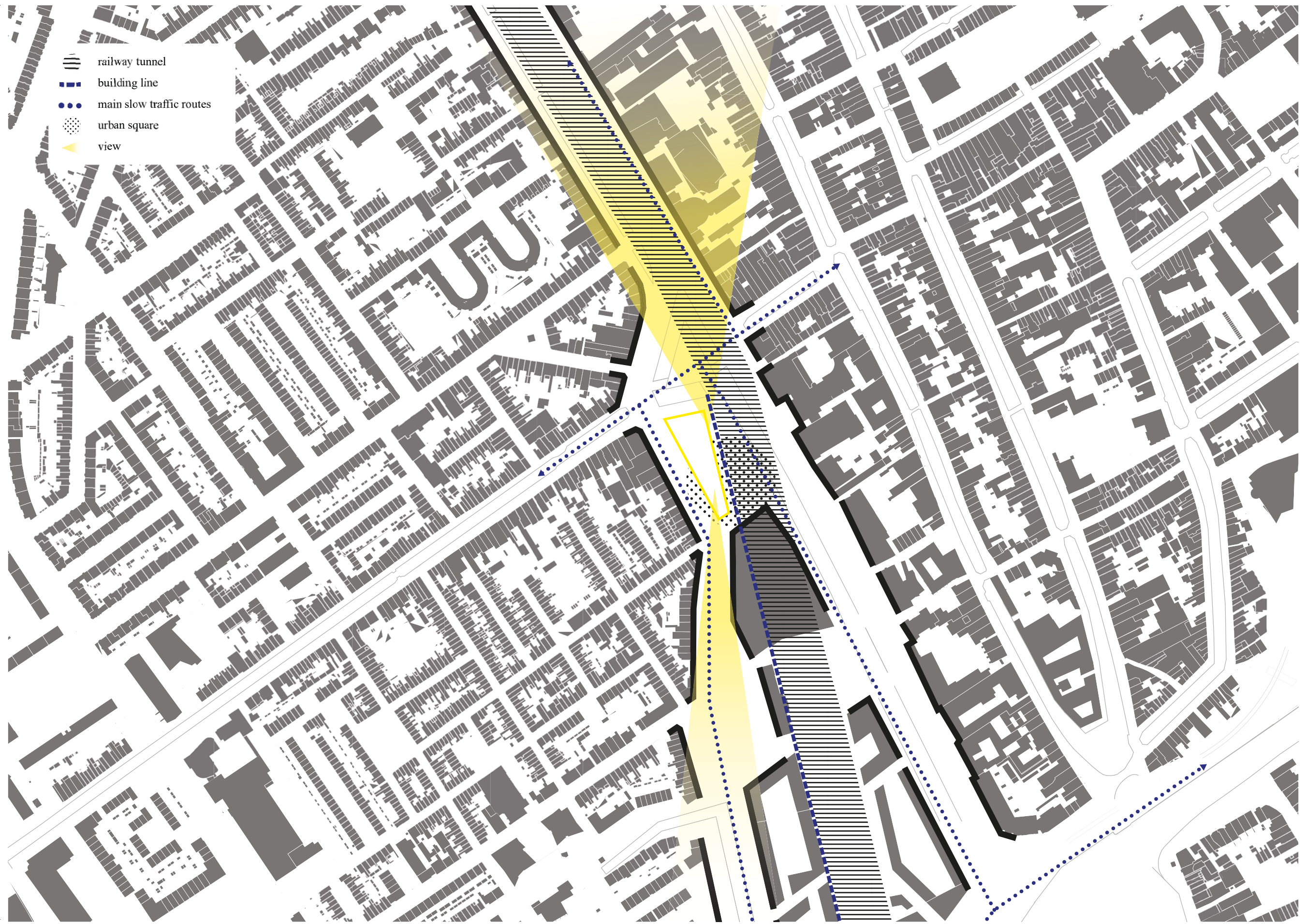
shape: Part of the Spoorzone and 'New Delft'

Relate to building sizes and urban texture of the new Spoorzone

Continue ground above tunnel as border, and continue public function with station square and vestibule

Frame views on Delft

The diagram, called desires, has the same structure as the diagram 'rhythm' , but represents the desired 'program' for the site. The scheme has an extra middle ring to give more examples of what the components could be. The lines that are drawn between the components in both diagrams show which components have a (strong) impact on each other.

desired affects   'components'/   components   **Desire**
                   requirements

threshold

enclosed

inviting

comfortable

occupiable

knowledge
expressions

artistic
expressions

bodily
expressions

integrating

barrier
in-between
come in

inside
surrounded
settle

open
curious
enter

rest
warmth
satisfied

space
distance
mark
perceived

exchange
expose
perceive
affect

expose
mark
perceive
affect

expose
mark
perceive
affect

urban structure
typical Delft
habits

point, pattern, line
surface, shape
reflect, stage
far away
act/movement
material, form
colour
direct
indirect

talks/discussions
lecture
video/docu
prototype
writings
see
listen
inspire
learn

objects
sounds, music
video, light installation
colours, form
shape, form
seat
inspire
participate

movements
china shout, talk
movement
pouring
gestures
inspire
imagine

program: Living room for the city

Learn

Entertain

Participate
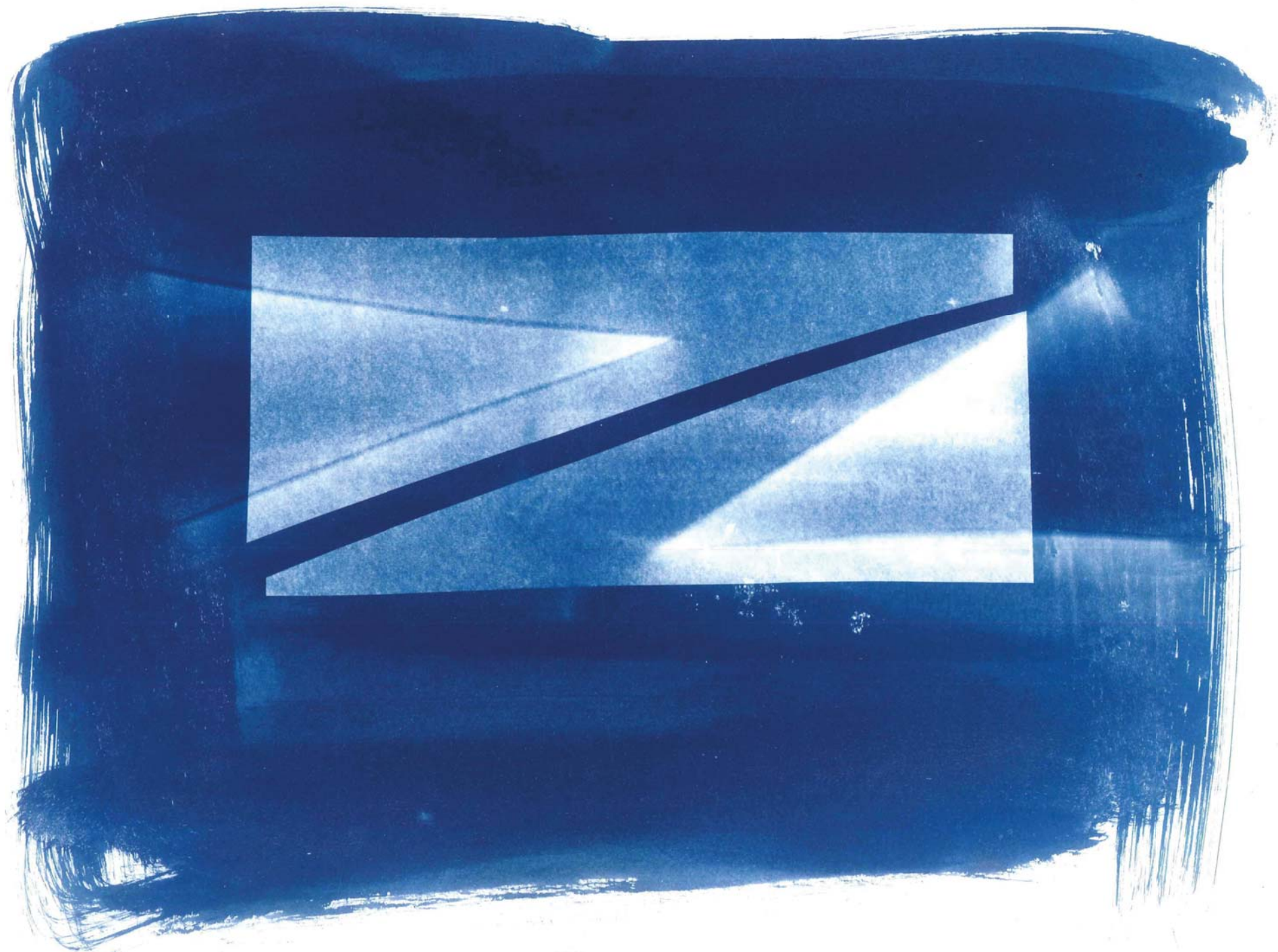
framing.

What may

pass

through
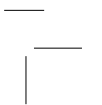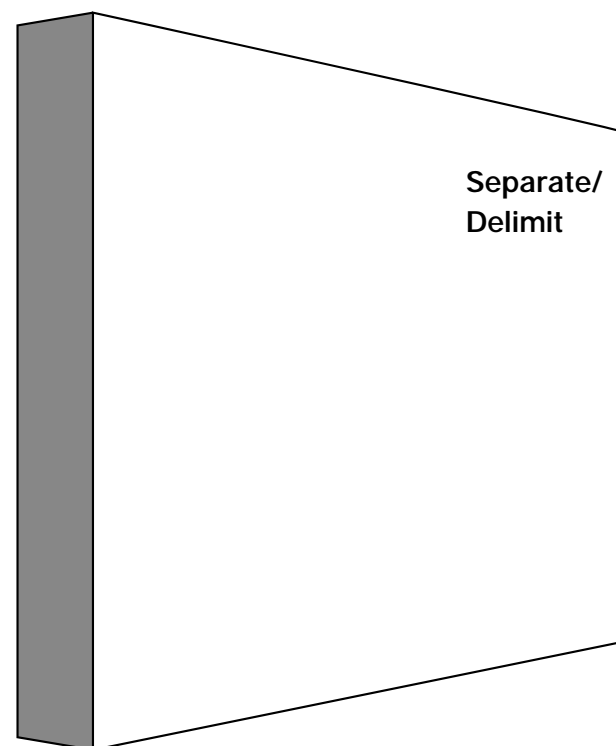
**Separate/
Delimit**
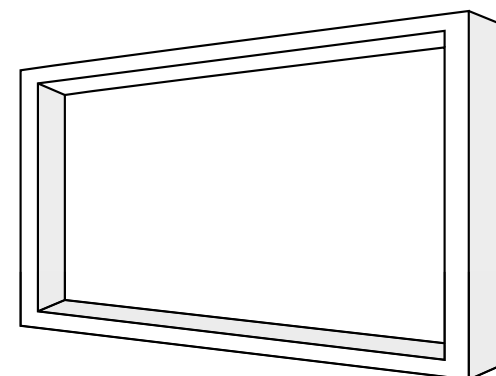
Select

**Support/
Rarefy**
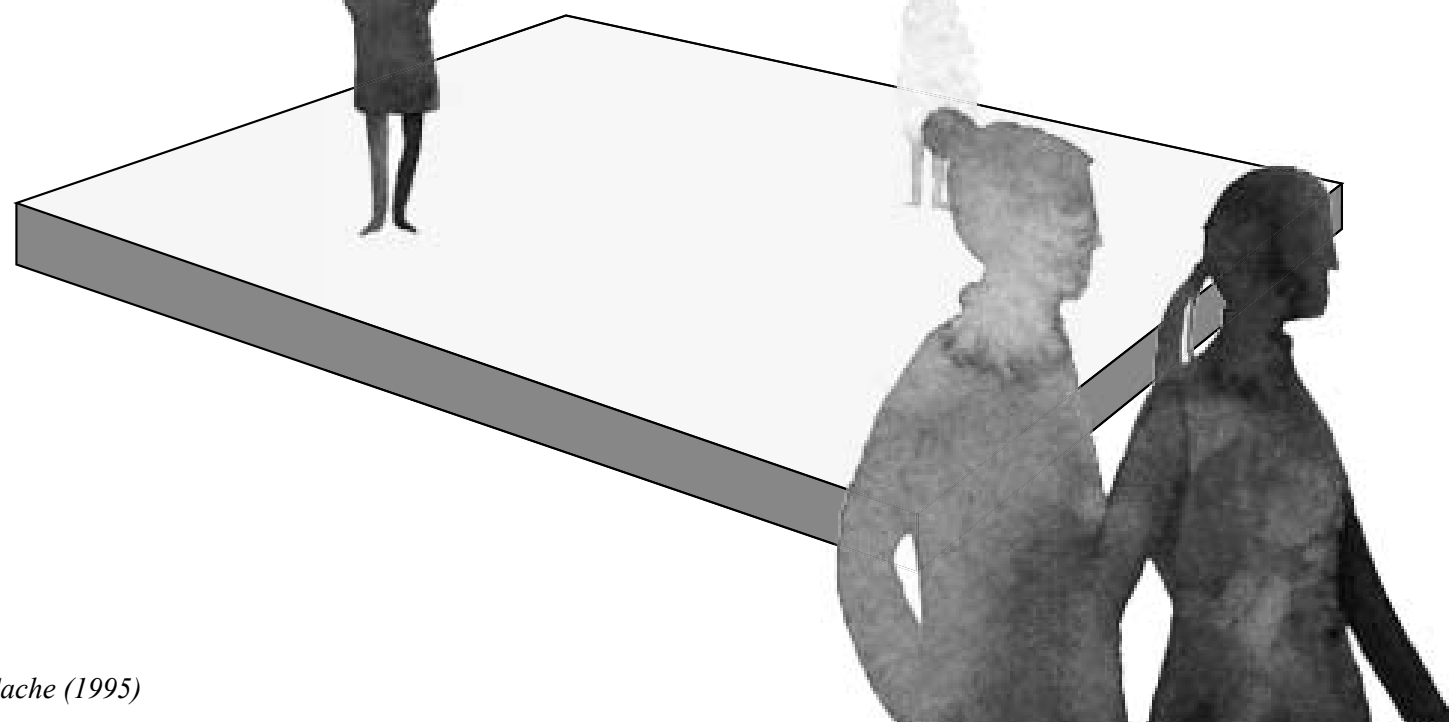
frames according to Cache (1995)
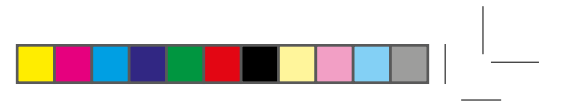
including and excluding

For me, the in-between, or frame, is not just about one of the three building components Cache describes, but more about a space of including and excluding components. The characteristics of the membrane decide what can happen in a space, its works as a certain limit for future possibilities.

The following diagrams therefore show the relations between the spaces in my design for the site in the Spoorzone. The question that I asked myself was: what may pass through the membrane? On the horizontal and vertical axes are the spaces that are part of the building program. The content of the first diagram, 'm', show which rhythms and/or affects may pass from a space on the horizontal axis to a space on the vertical axis. The second diagram, 'M', shows the function of the space and what the membrane could look like.
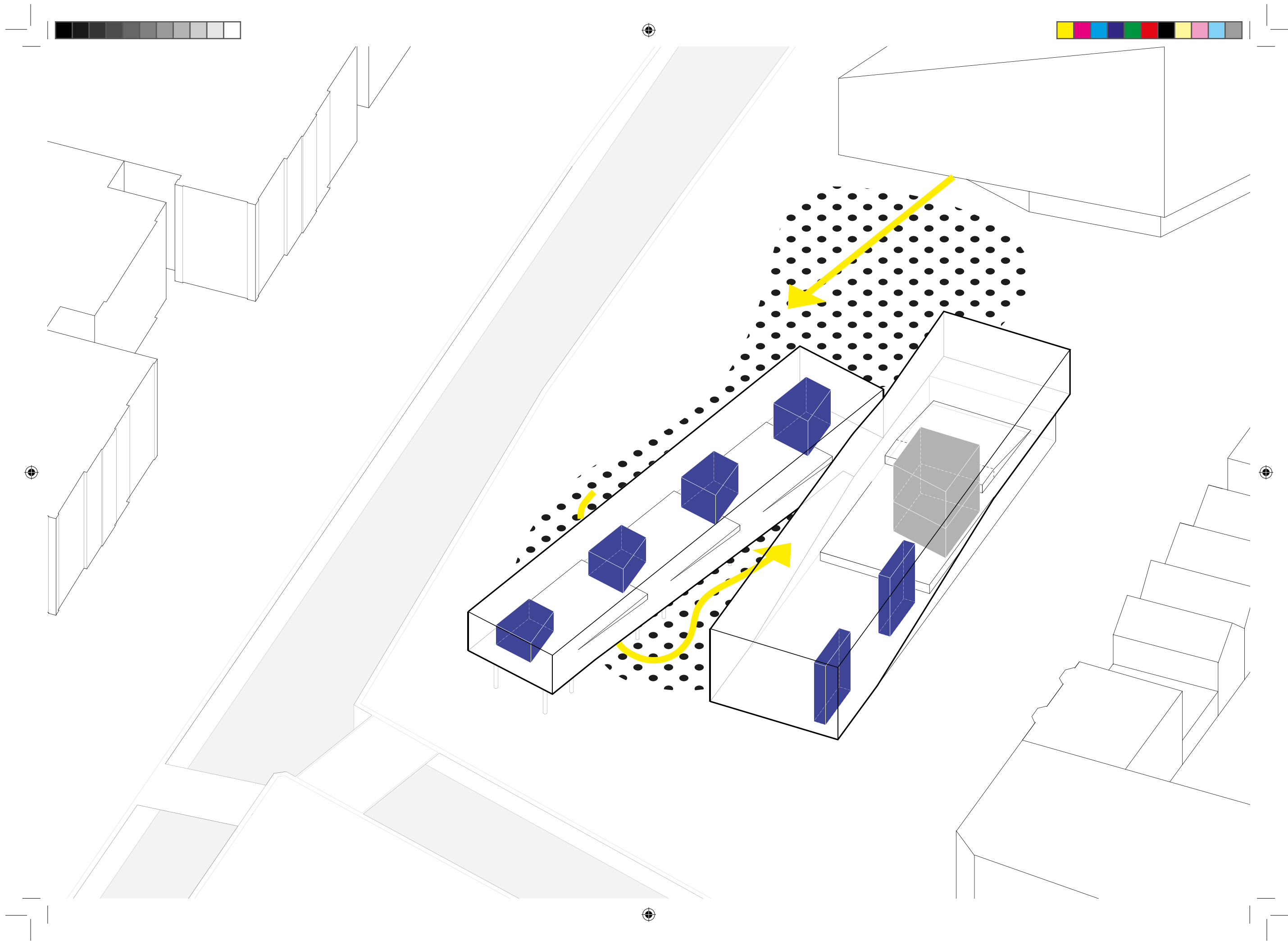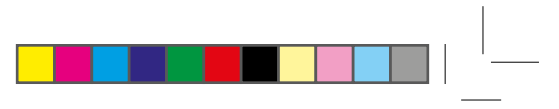
framing
urban scale

The subsequently 3D scheme's of the building show how the framing of activities are translated to building components. It is not about the building components itself, but more about what they do: including and excluding.
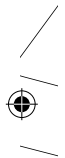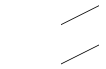
rhythms m

rhythms M

	OUTSIDE	ADMIN	ROUTE	LEARNING SPACE	ENTERTAINING SPACE	PARTICIPATING SPACE	SERVICE SPACE
MOVEMENT	**MOVEMENT**			closed ←———————————→ open			
		MECHANISM		sounds	perforated	light	
			MOVEMENT	sounds	perforated	light	
LEARNING SPACE	sounds	sounds		**LEARN**			
ENTERTAINING SPACE	perforated	perforated			**ENTERTAINMENT**		
PARTICIPATING SPACE	light	light				**PARTICIPATE**	
SERVICE SPACE							**SUPPORT**

55

urban context
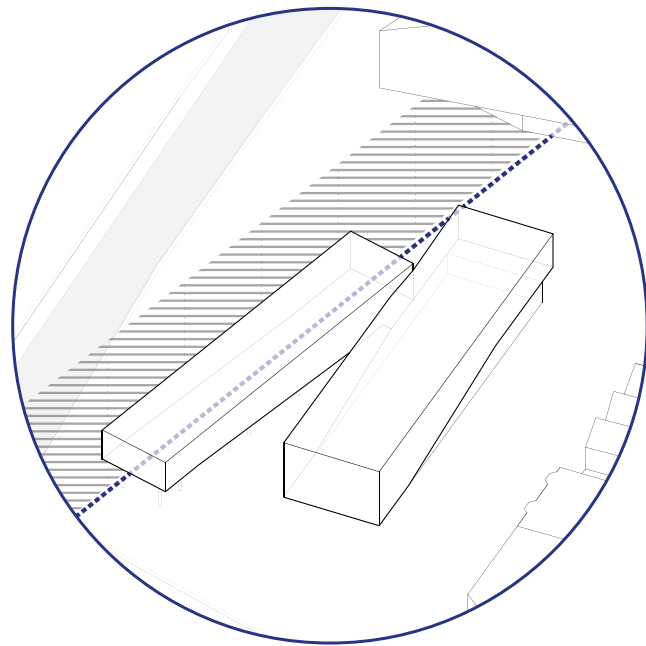
Leave tunnel unbuilt.
Railway still territorializes the site.
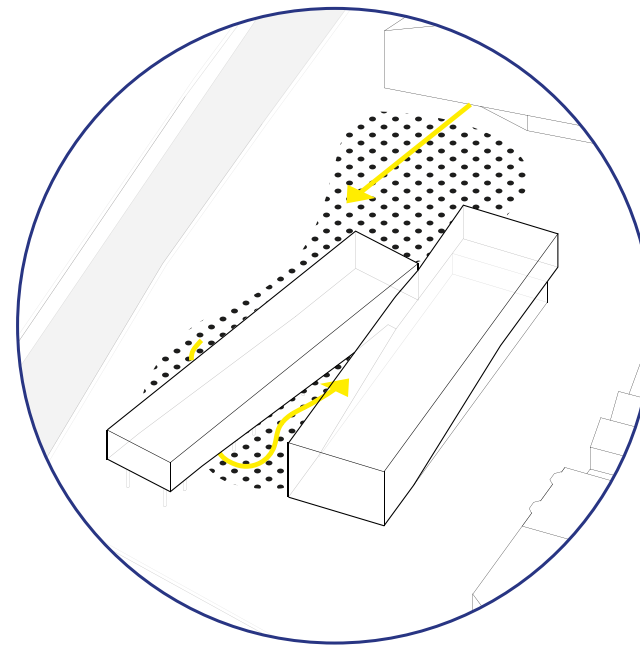
The vestibule directs to the city center, but invites to cross the border and enter the building
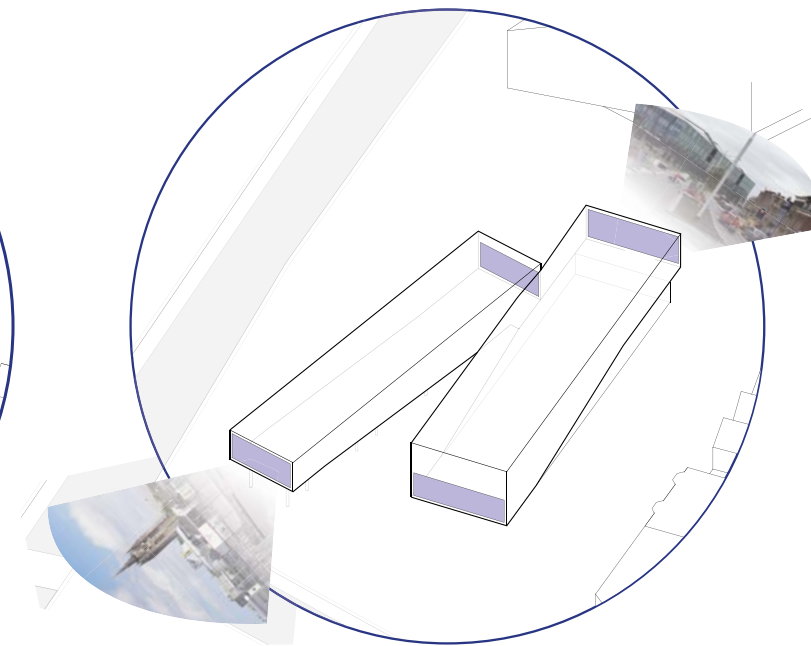
The shape frames the views on the old city center and on the new Coenderstraat with new canal.

building frames
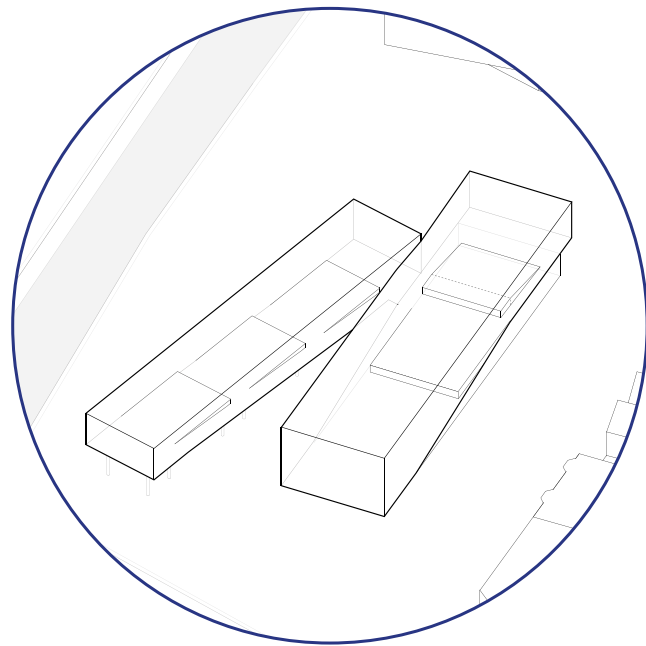
Via the height differences, the user is put on a stage that frames the users acts.
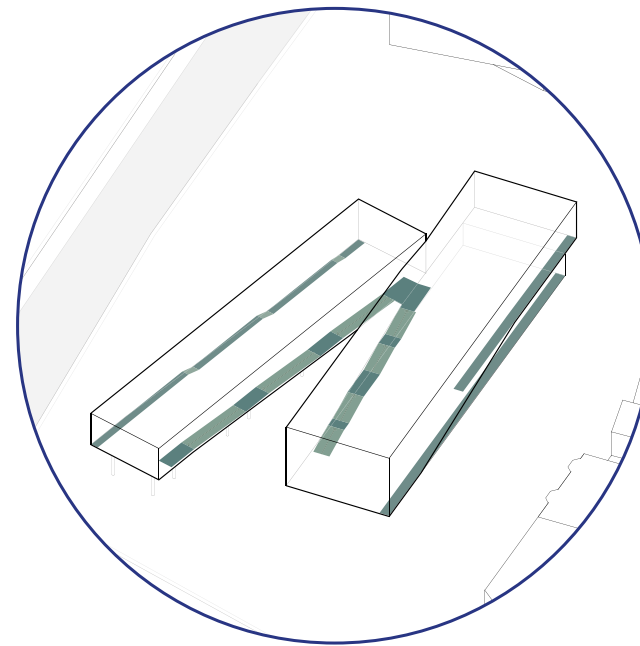
Via the route the user can reach the different activities and is also able to escape. The route creates interaction between the different spaces. Not only physical but also visual.
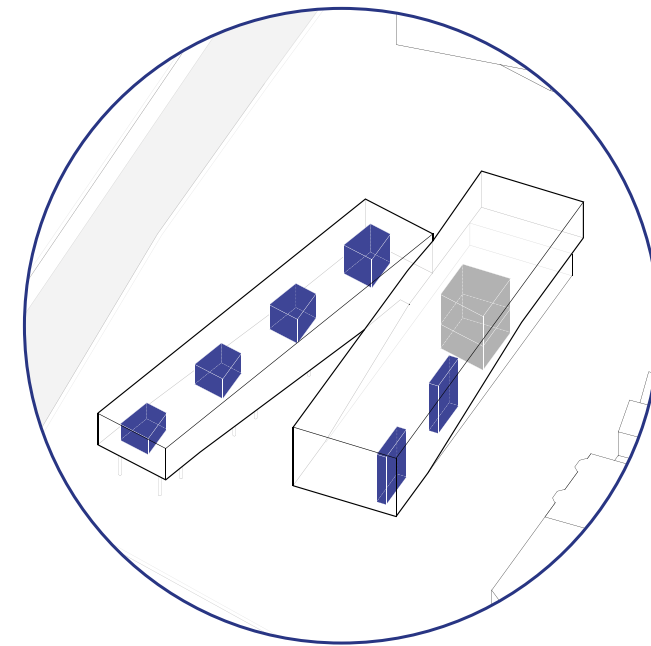
The service boxes territorialize the user by its expressive color and light from about. Furthermore, the boxes support expressive acts by offering the basic needs of its users.
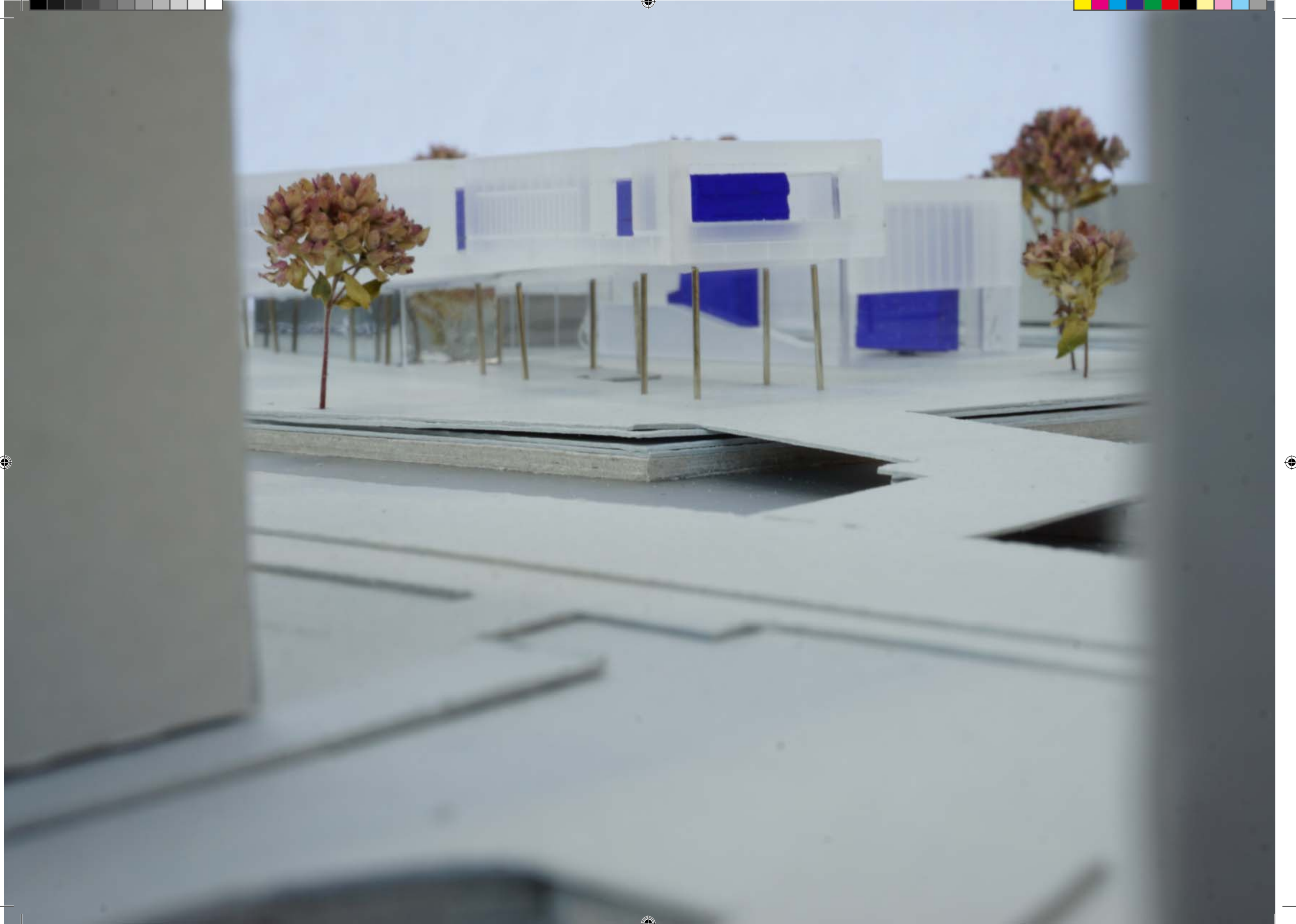
program
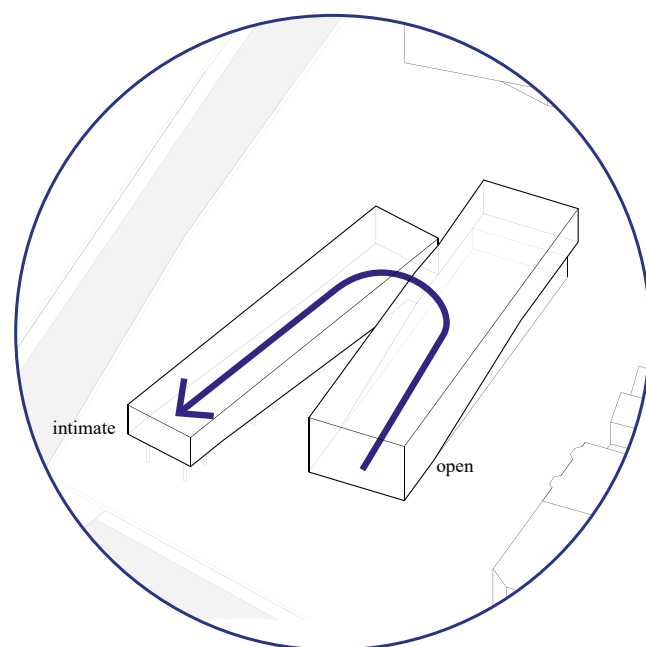
intimate

open

The program is organized along the route and has a
gradient from open to more intimate.

cafe

entrance zone

public square
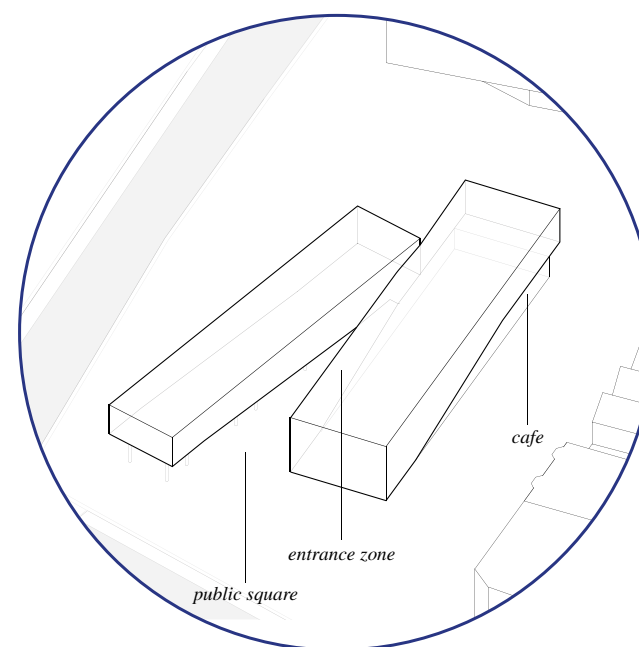
On the ground floor supporting functions are situated,
such as entrance, info desk, toilets, cloakroom, cafe
and technical spaces.

auditorium

exhibition hall

ateliers

viewpoint
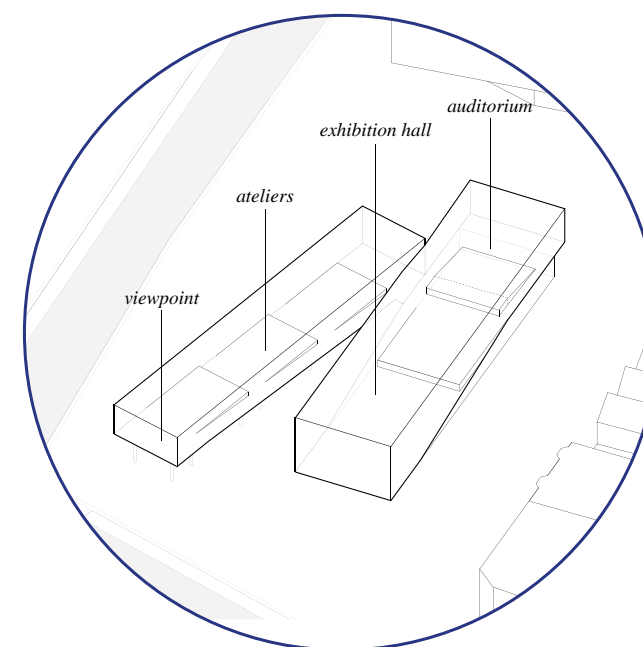
On the first level, the main activities take place.
Because the activities take place on a sloped plane
with terrases, this floor is also called: Living
landscape.

service

activity

facade
route

activity

route

facade
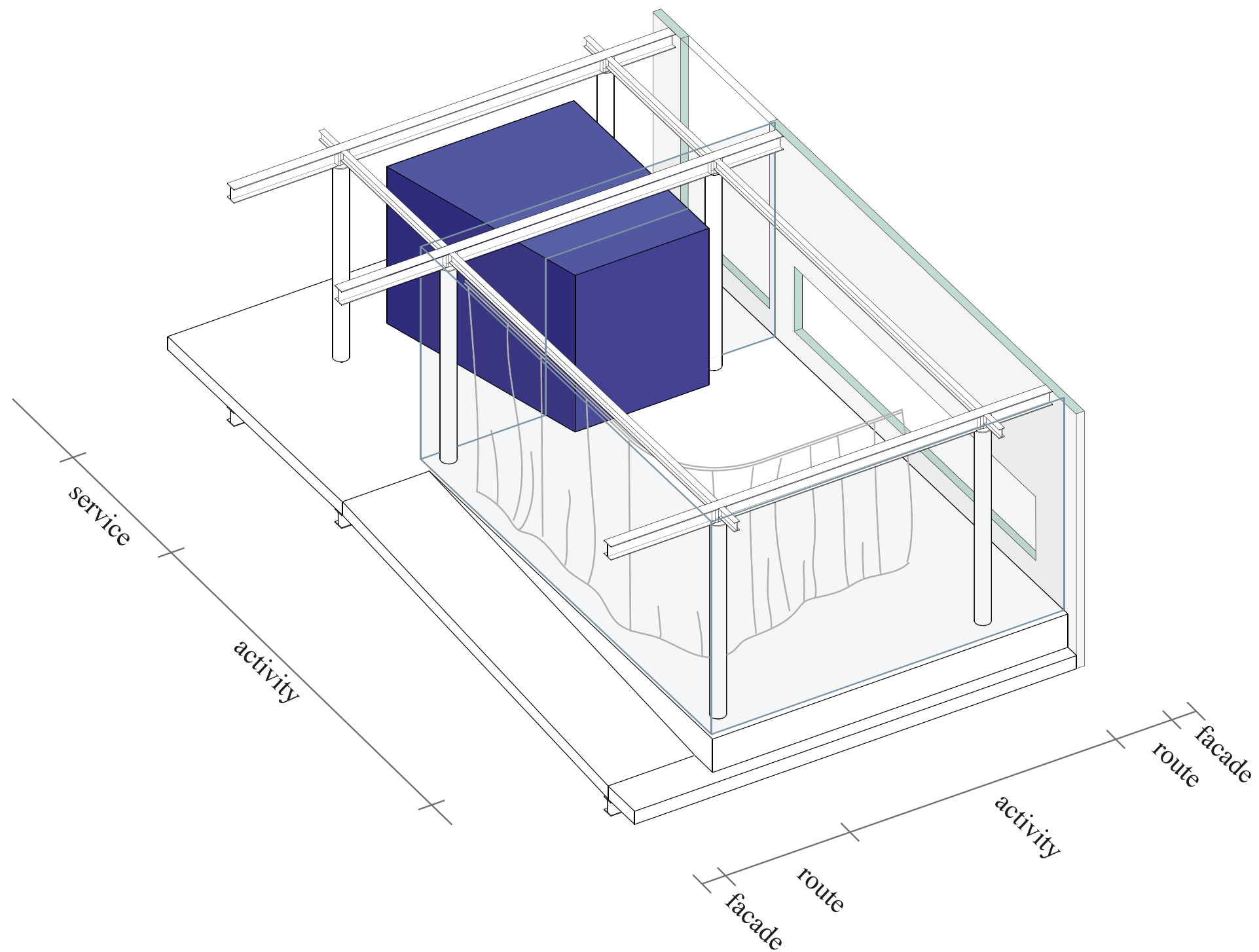
framing
building structure

The subsequently 3D scheme's of the building show how the framing of activities are translated to building components. It is not about the building components itself, but more about what they do: including and excluding.

zones
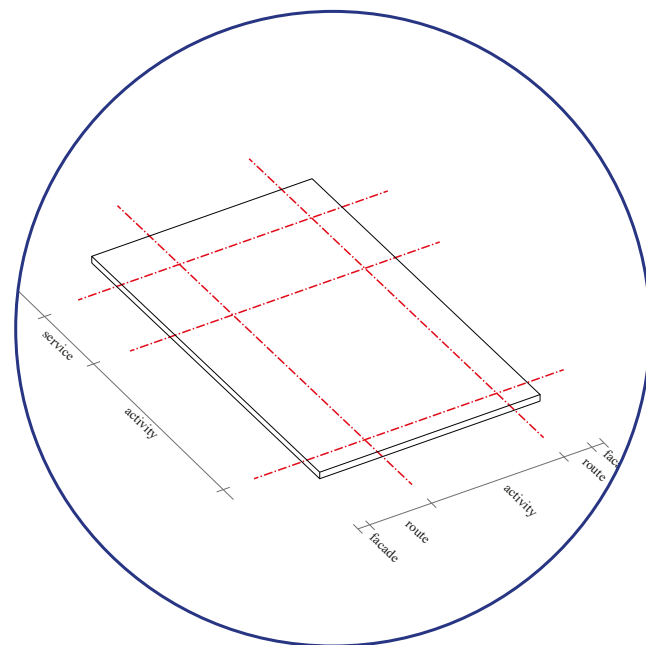
The grid divides the activities into zones
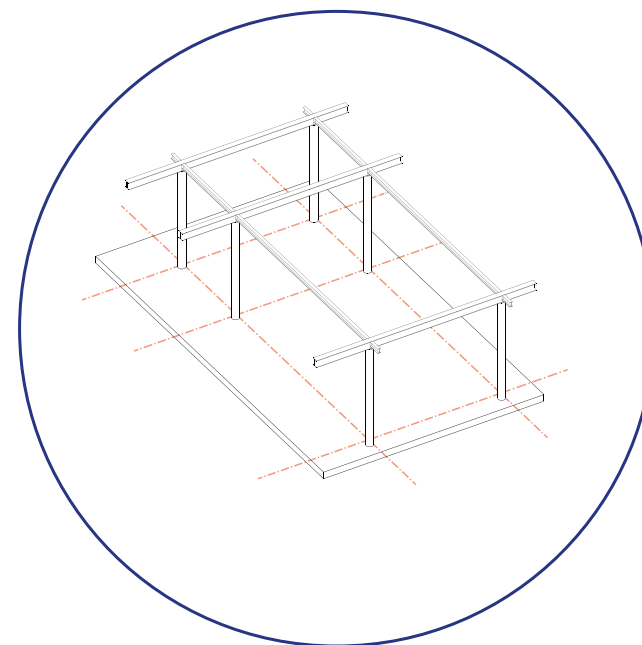
Columns and beams create an open space for the activities to take place
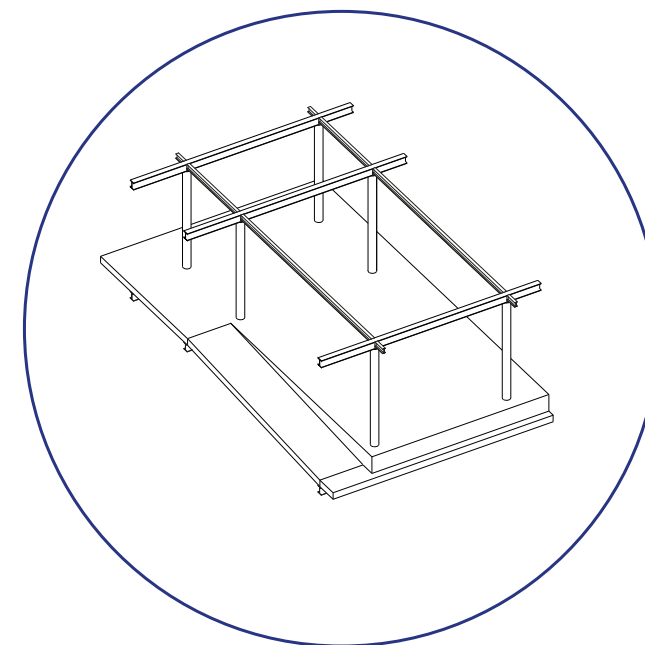
The height difference in the floor separates the activities from each other

service
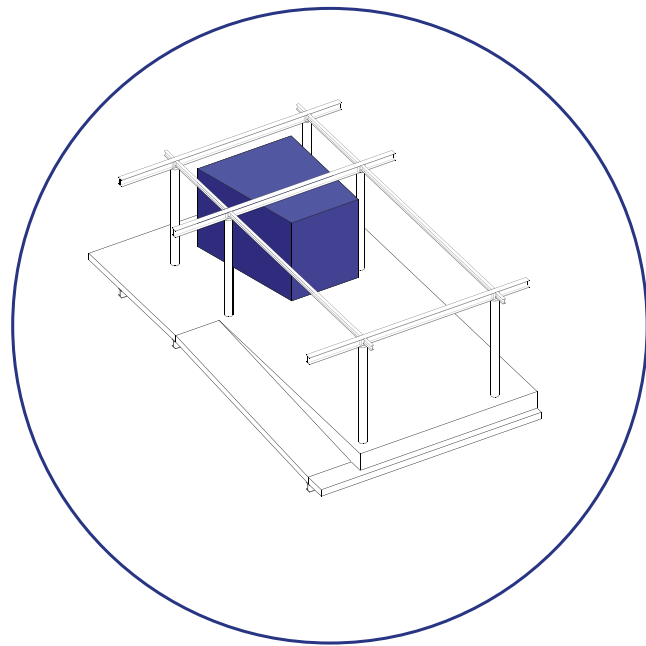
The service box territorialize the user of the building by its expressive color and light from about.
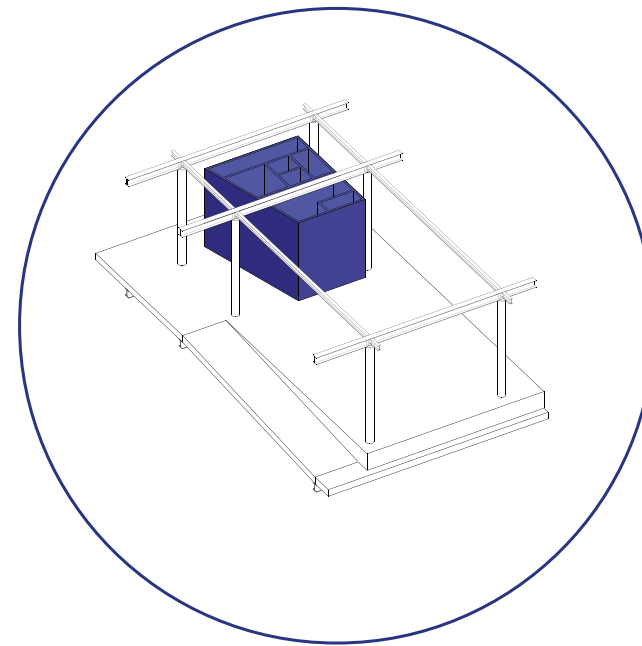
The box support expressive acts by offering the basic needs of its users, like: toilets, pantry, storage.
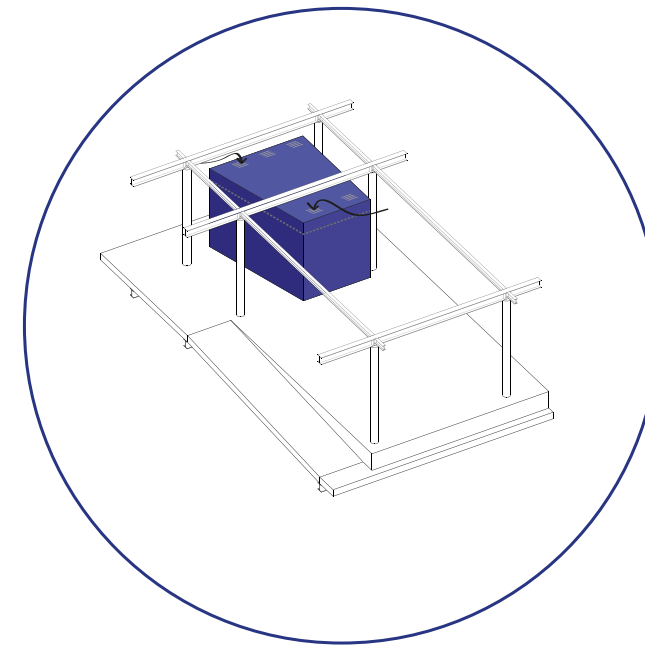
The box support expressive acts by offering fresh air.

membranes inside
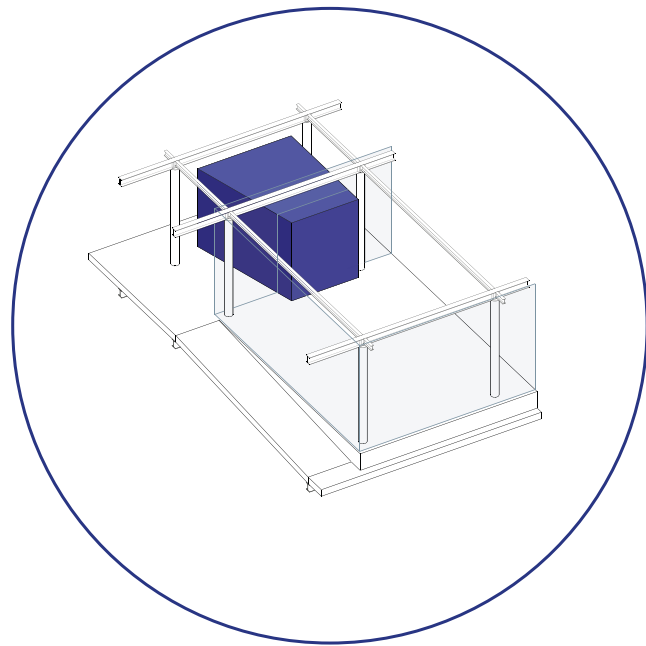
Glass membrane inside exclude noise from the hall
and route, but includes sight to other spaces.
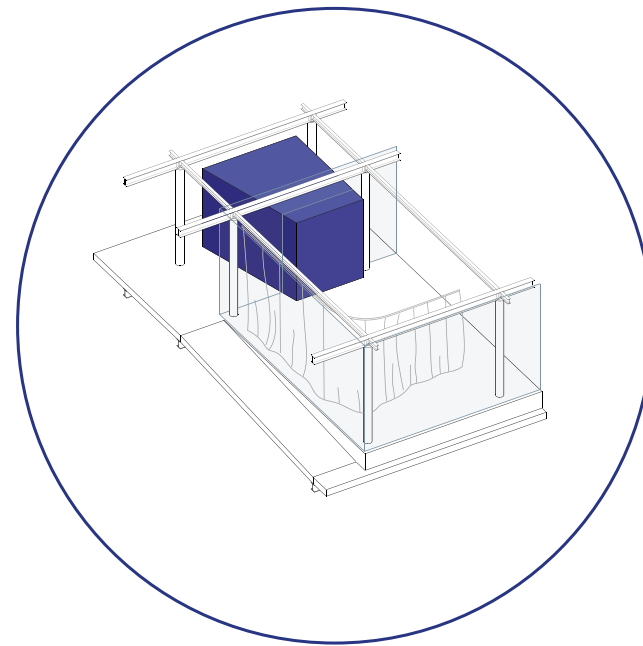
The curtain exclude noise from inside, but excludes
sight and light from other spaces to the inside.
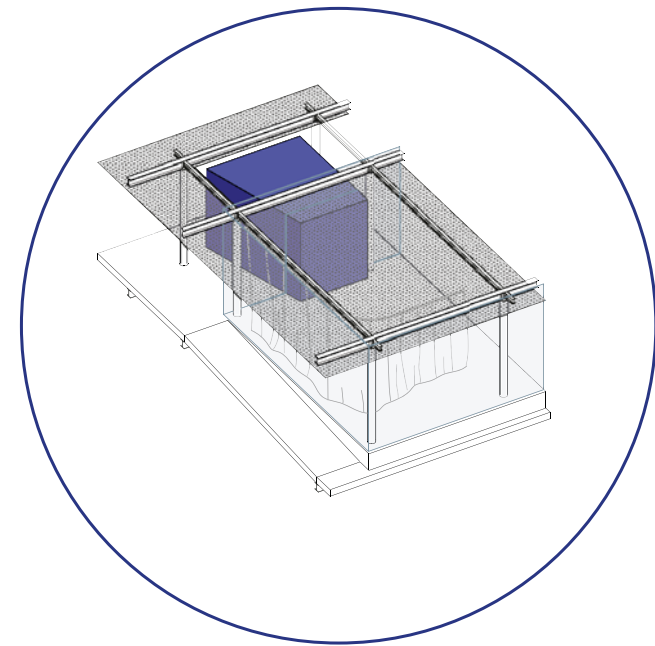
The lowered ceiling excludes noise from the inside.
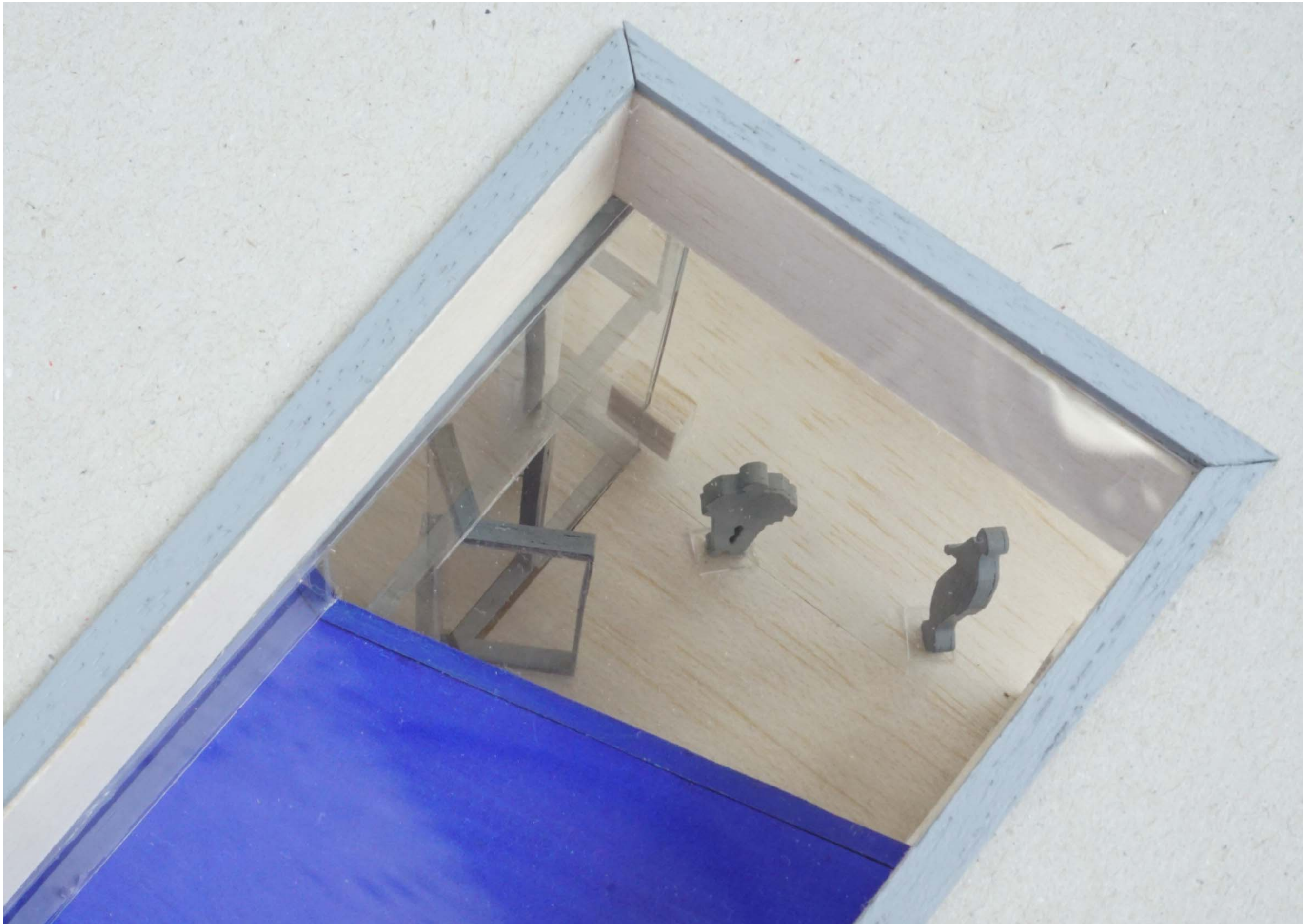
membranes outside
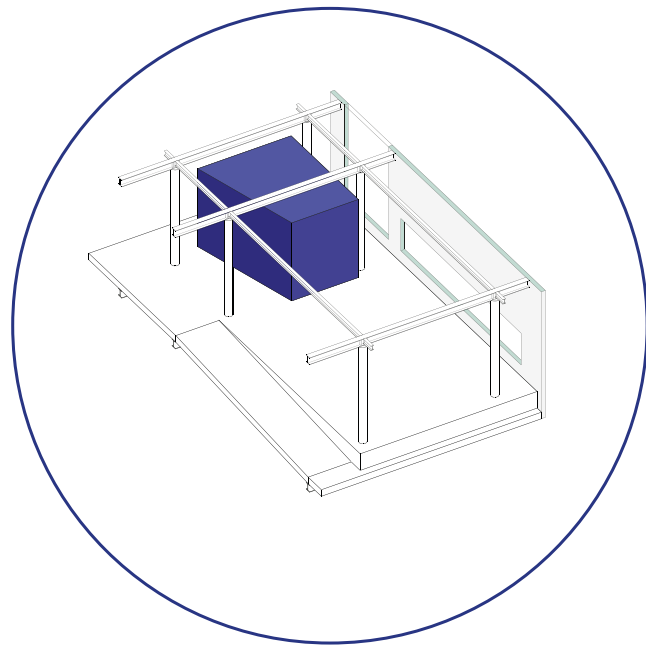
The facade excludes the weather from outside and let the user control daylight inside.
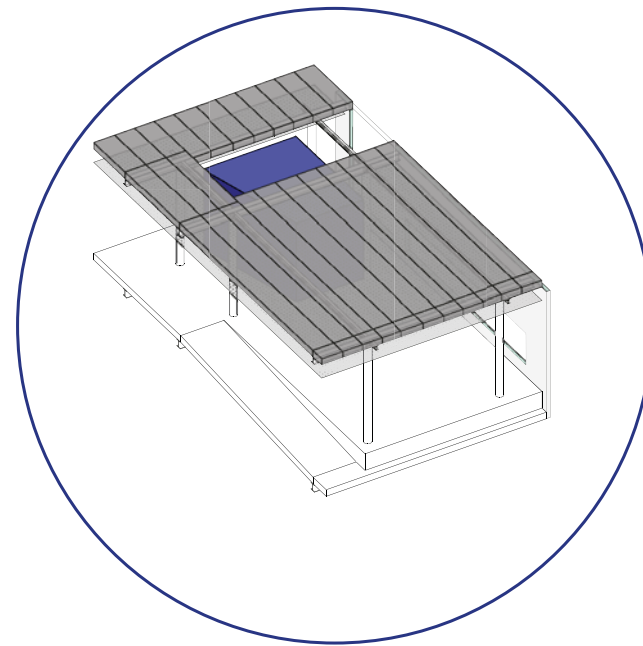
The floors and roof makes occupying the space possible.
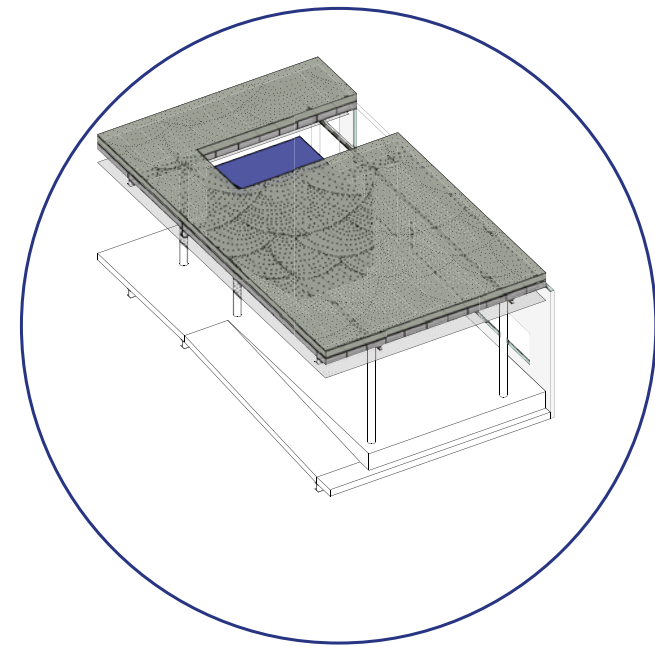
The sedum roof slows down rainwater and excludes heath from the sun.
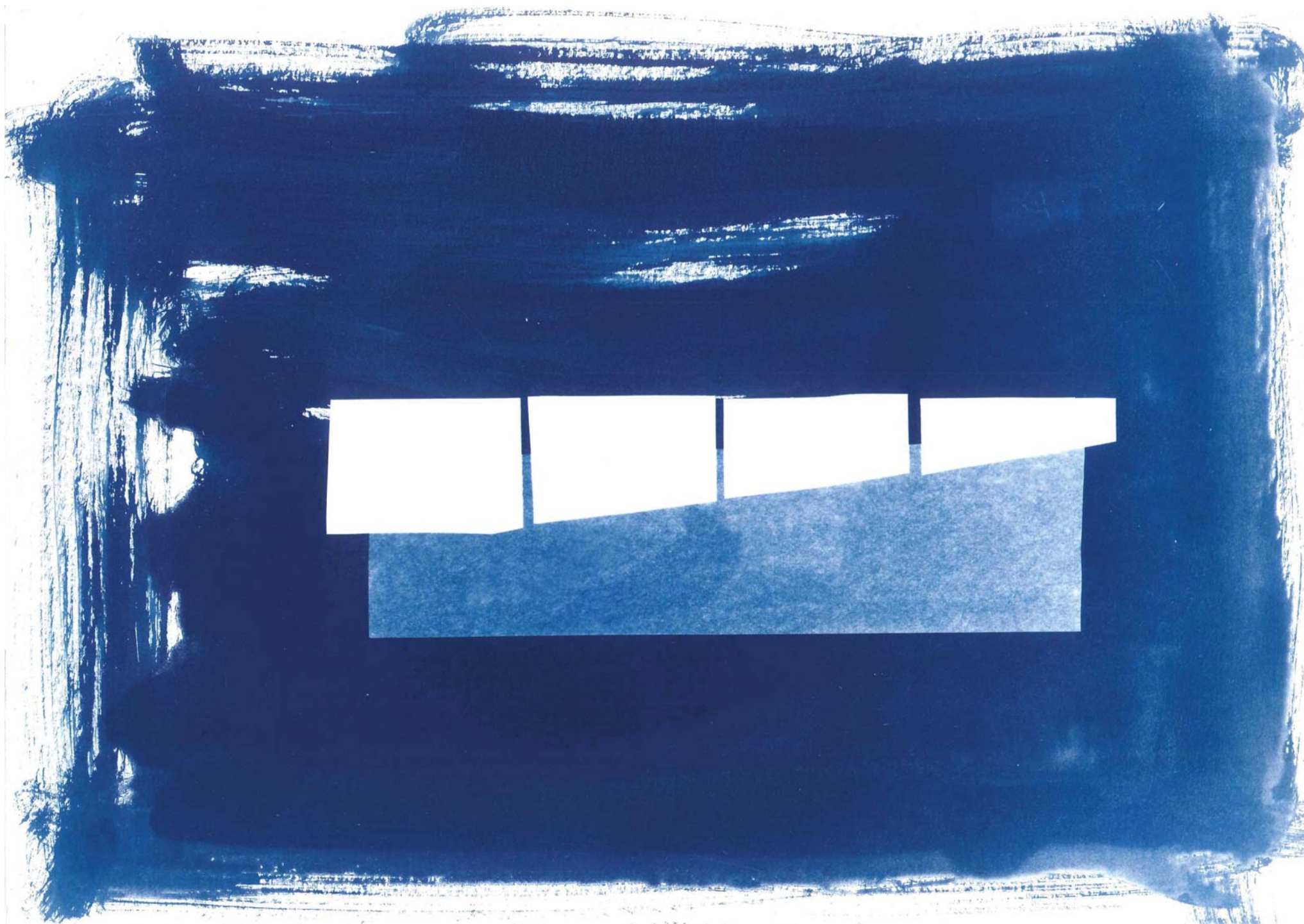
re-assemble.

offering

new

perspectives
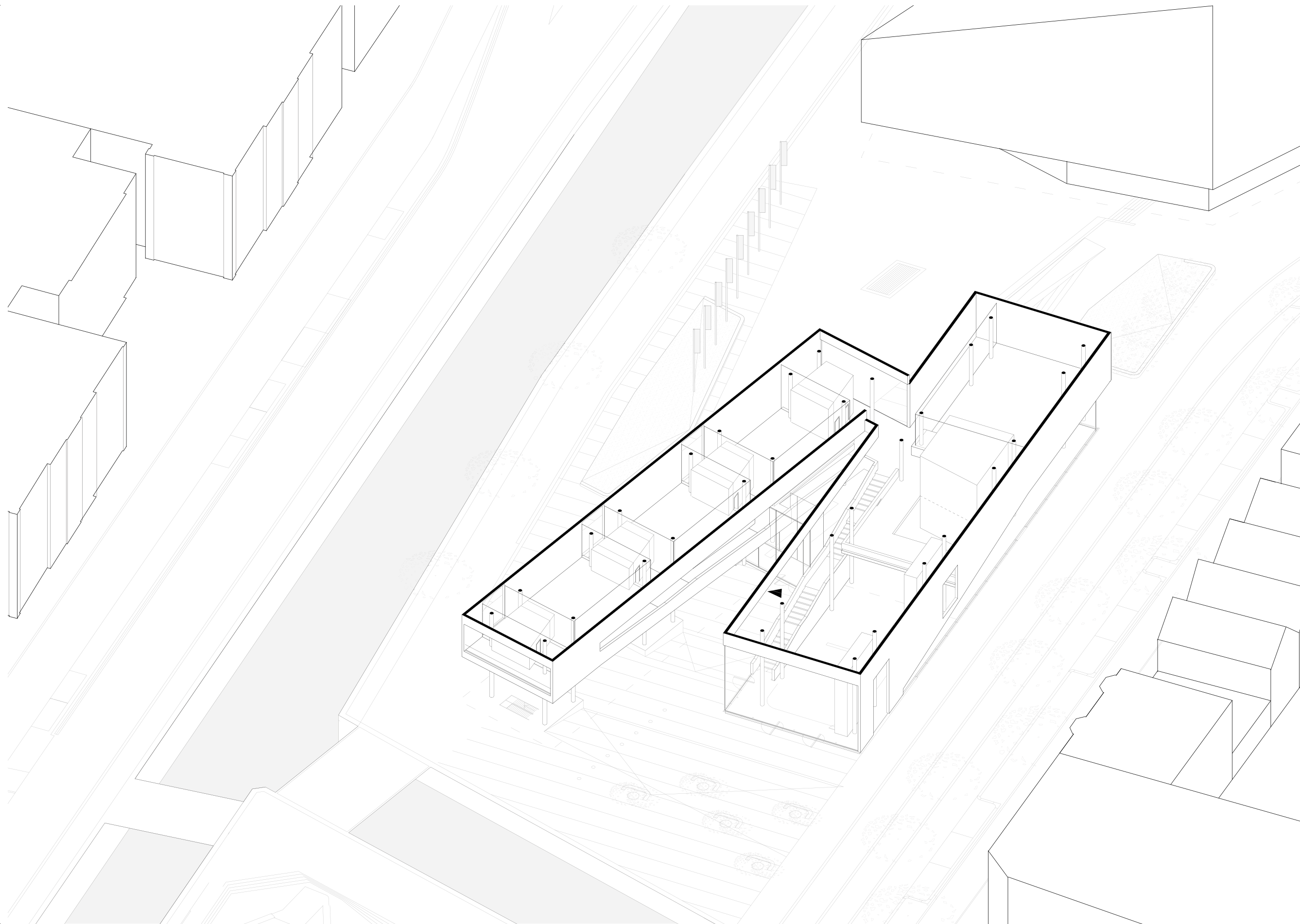
offering new perspectives

The next step for this graduation project will be applying territorial thinking in the design process. The structure of the research (breaking down, include and exclude, and re-assemble) forms a basis to apply territorial thinking in the design. By means of breaking down the ingredients and setting up frames, a start was made. But to take the theory a step further in the design, the concept of the research, program and total structure should be in strong cohesion.

To achieve the posed design aims, the design project should meet the following criteria:

- The design should offer new perspectives in different scales and visibilities, such as usage, persons, building, Spoorzone and Delft.
- The design should be a phase in the total process of territorialization, deterritorialization and reterritorialization. It can be seen as the mark that functions as a starting point for new possibilities,

new usages of the space, to happen. In this way the project tries to be open for change in a city that should be seen as a continued open ended process.

- The design should intertwine with the processes in the city that are already happening, as well as with potential activities and usages that can be activated via a spatial intervention.
- The design should be a sustainable intervention in the way that it sustains possibilities.
- Although the design is placed within the border of the site, it should affect people outside its borders.
- The architect should create a space that functions as a stage where others can mark their presence in the city.
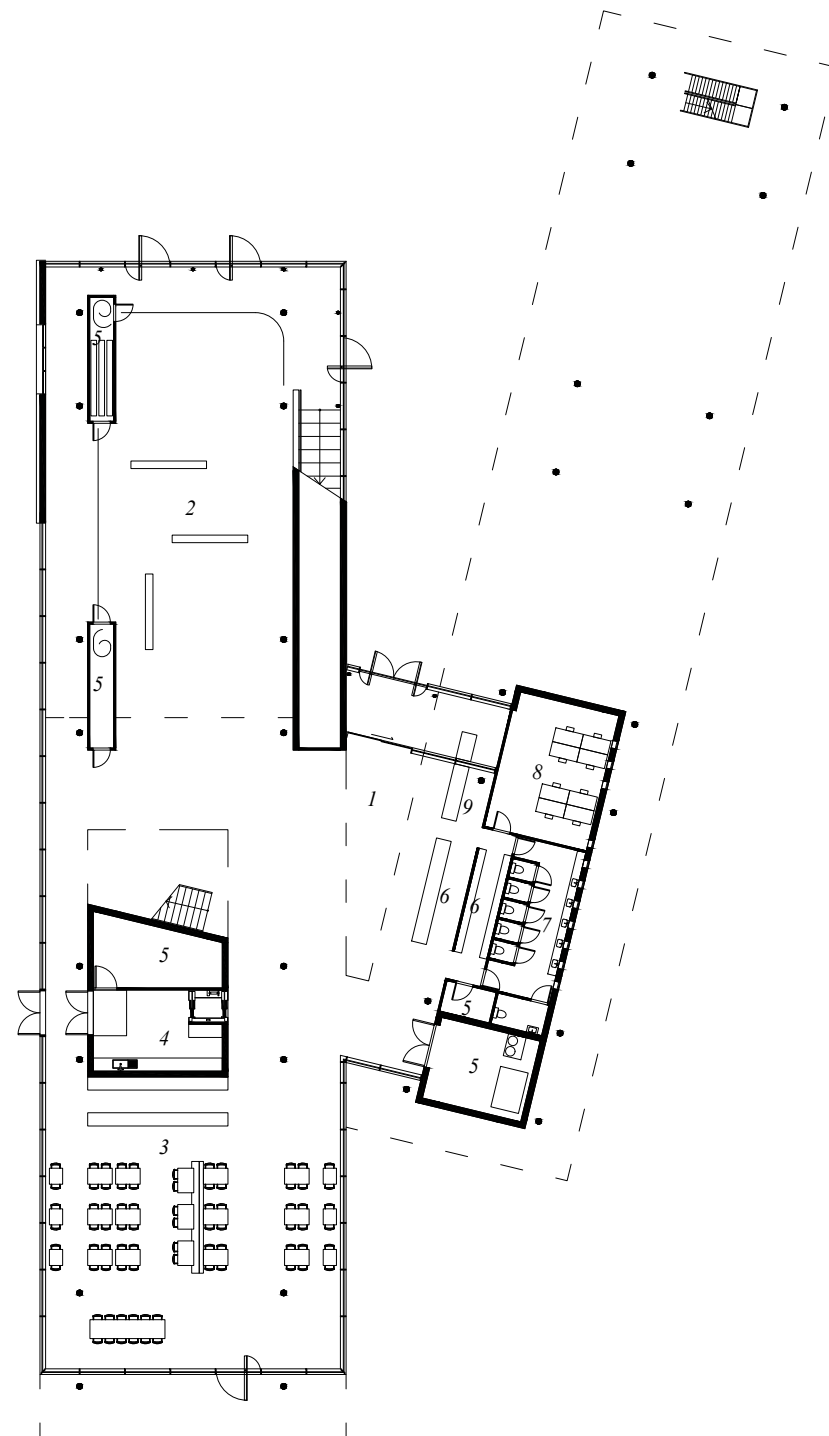
**floor plan
ground floor
1:100 (plotted 25%)**

1. entrance zone
2. event hall
3. cafe
4. kitchen
5. technical room/storage
6. cloakroom
7. toilets
8. office
9. information desk
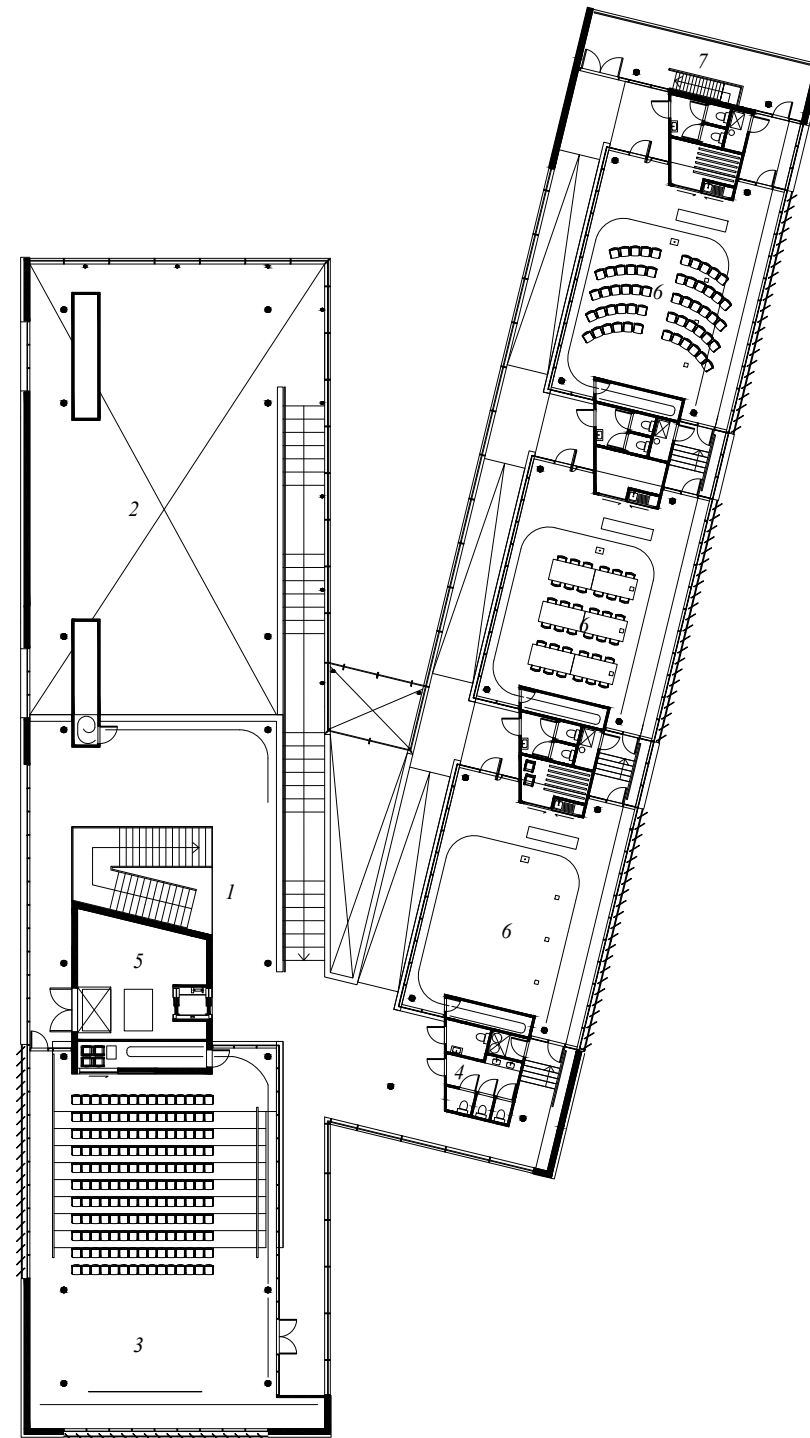
**floor plan
first floor
1:100 (plotted 25%)**

1. entrance zone
2. event hall (vide)
3. auditorium
4. toilets
5. technical room/storage
6. ateliers
7. viewpoint
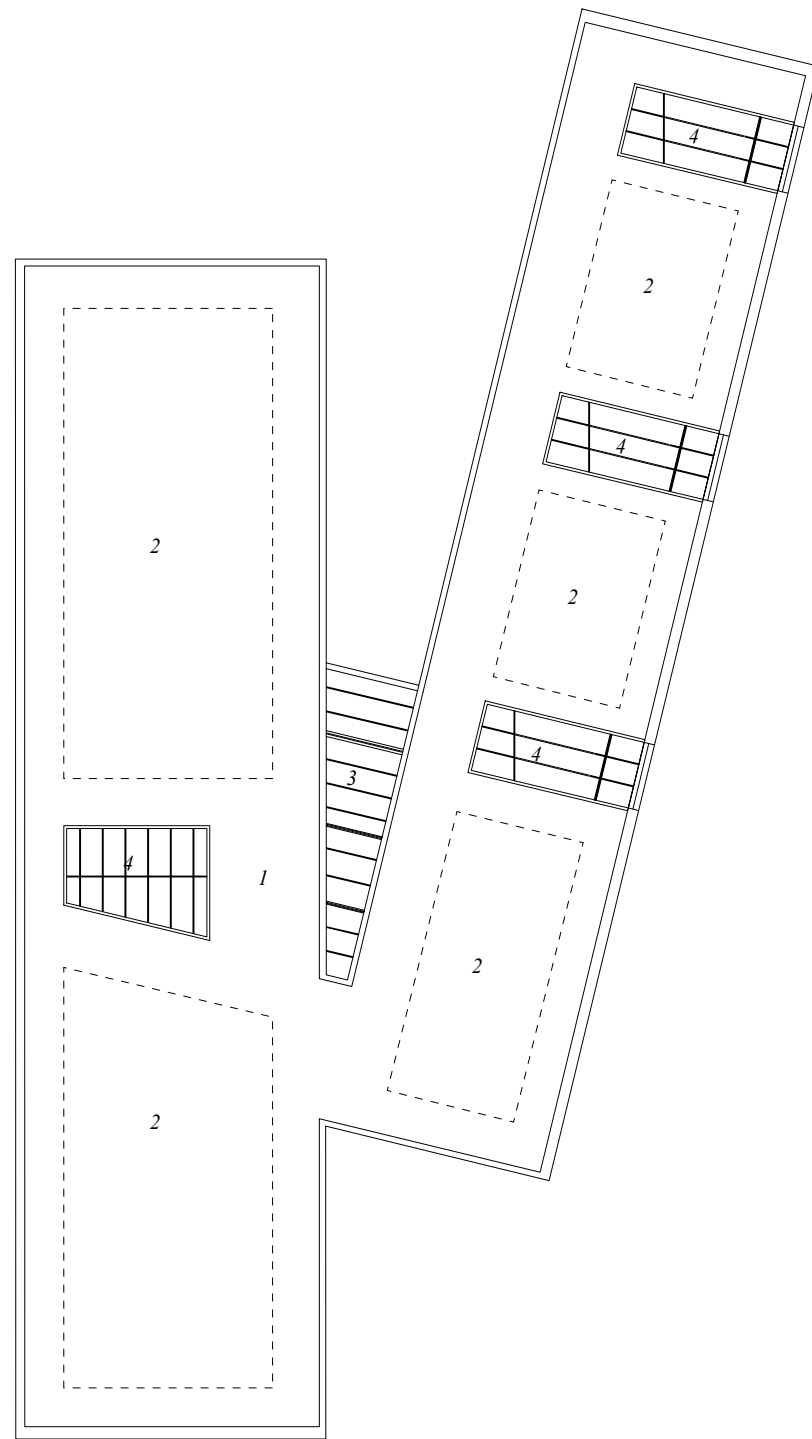
**roof plan
1:100 (plotted 25%)**

1. sedum roof
2. zone for solar panels
3. atrium
4. skylights

longitudinal-sections
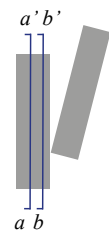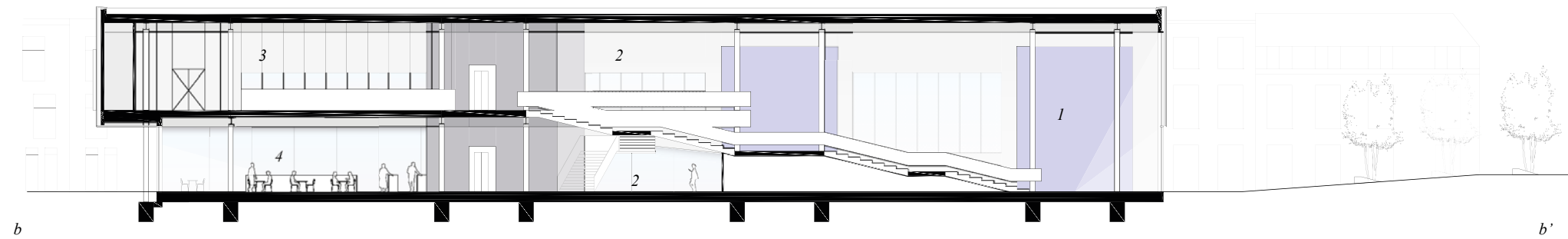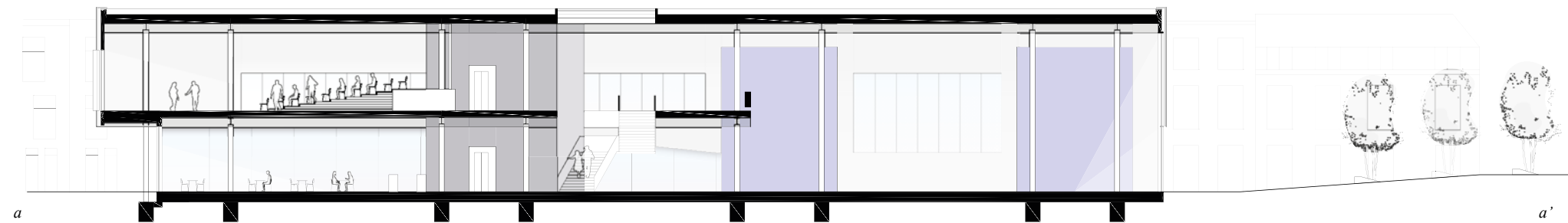
hall and
auditorium

1. event hall
2. entrance zone
3. auditorium
4. cafe

cross-sections
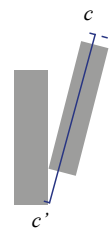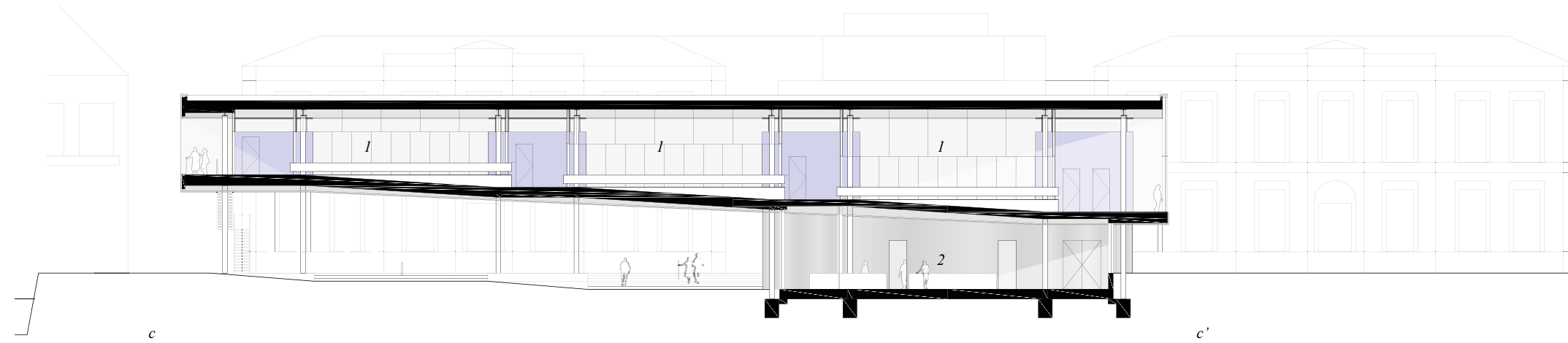
ateliers

1. ateliers
2. entrance zone

facades East
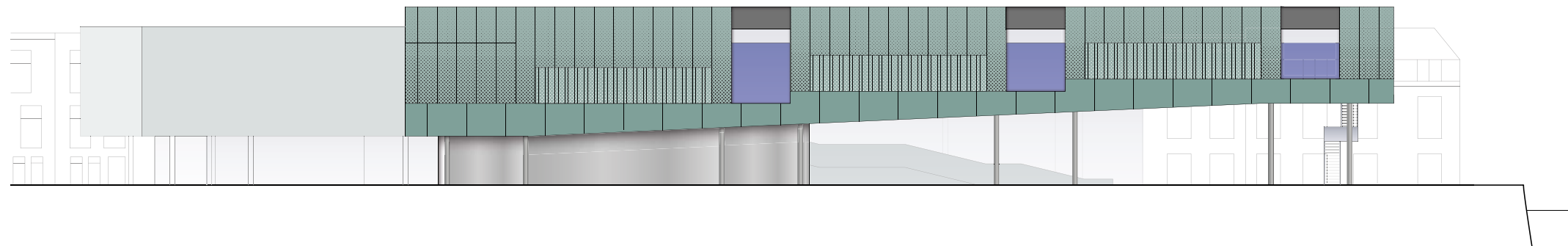
East facade
exterior ateliers
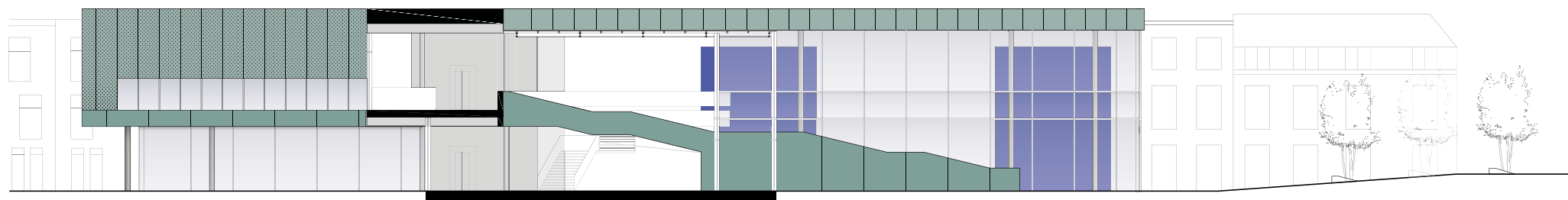
East facade
exterior hall and auditorium

facades West
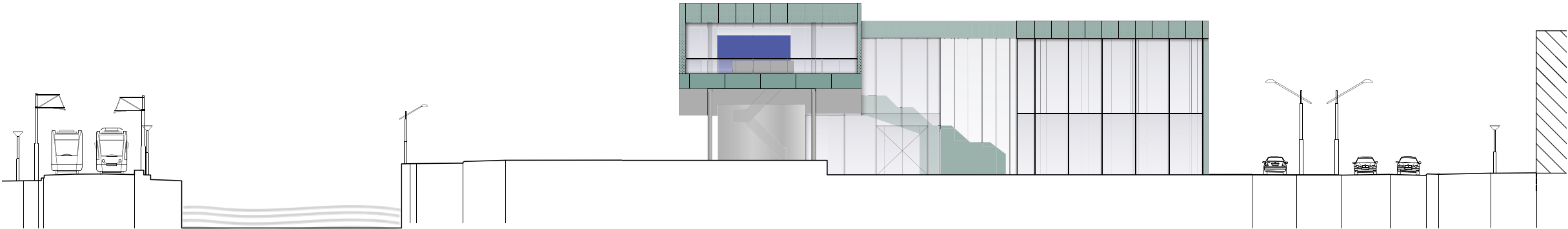
facade North

North facade
exterior viewpoint and hall

facade South
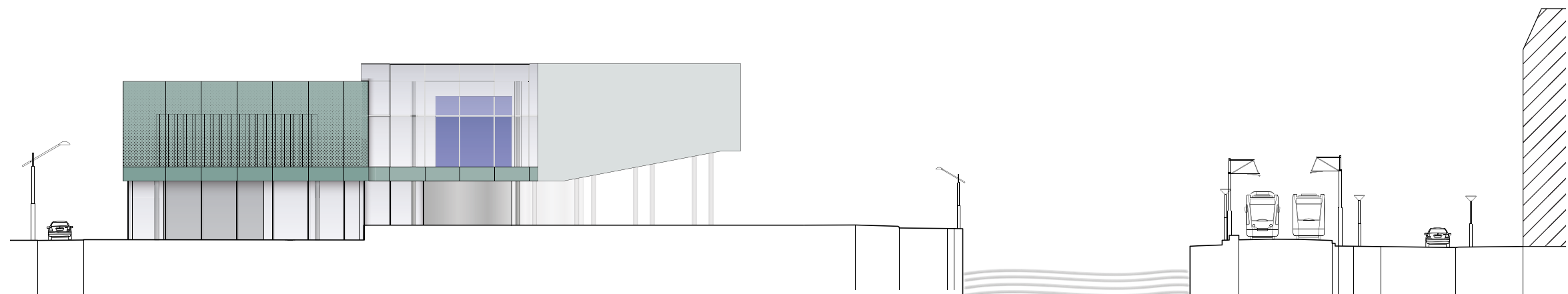
South facade
exterior viewpoint and hall
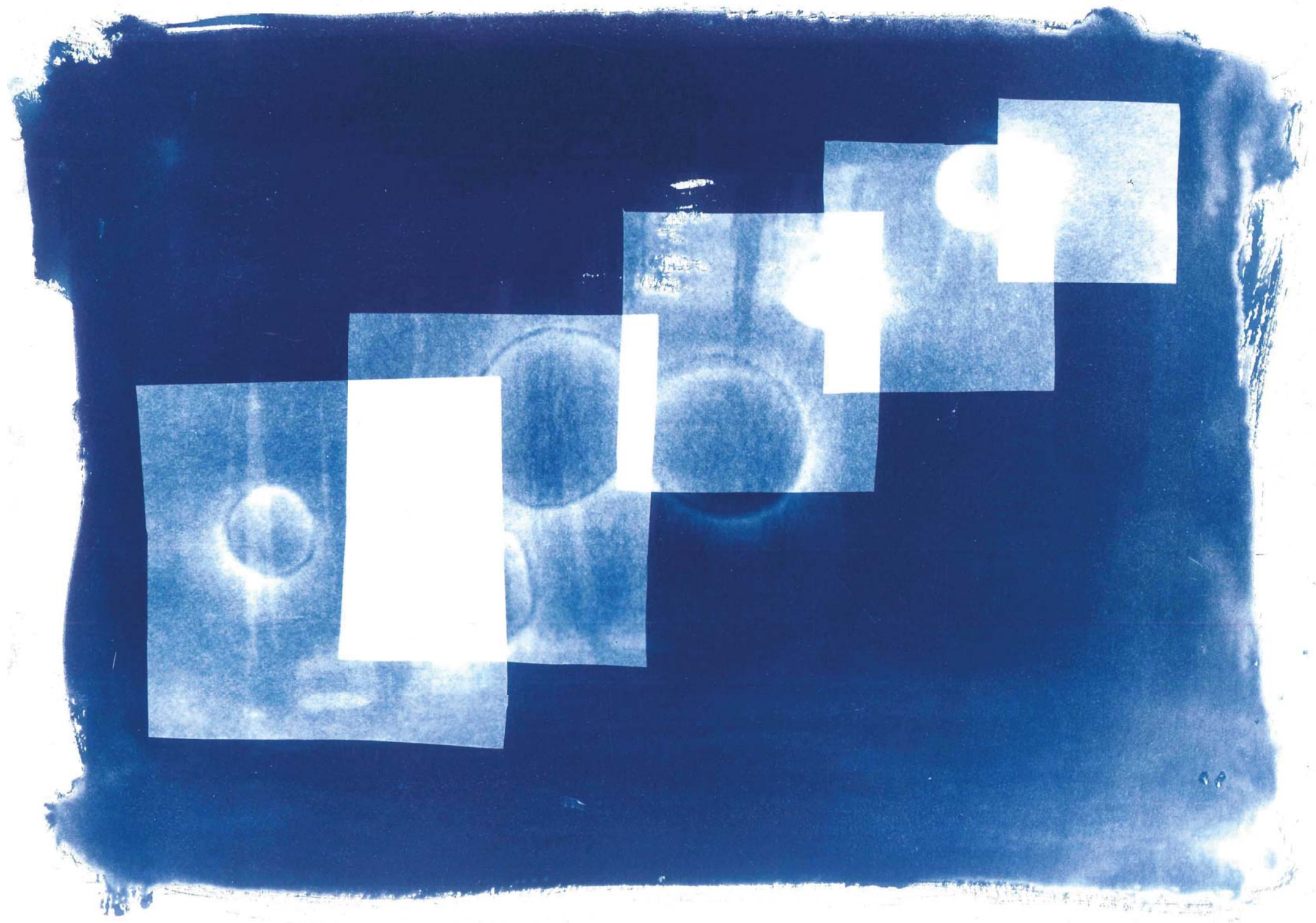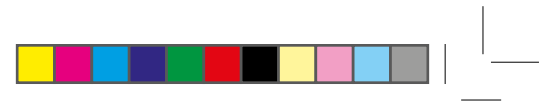
spaces.

creating

new

encounters

area   activities   **spaces**

entrance
- information
- lounge
- cloakroom
- toilets
- café

route
- main route
- escape route
- viewing point

auditorium
- lecture
- discussion
- music
- film

200

hall
- exhibition
- music
- festival

300

ateliers
- participate
- meet
- make

100
100
100

service
- storage
- logistics
- technique
- office
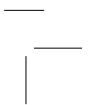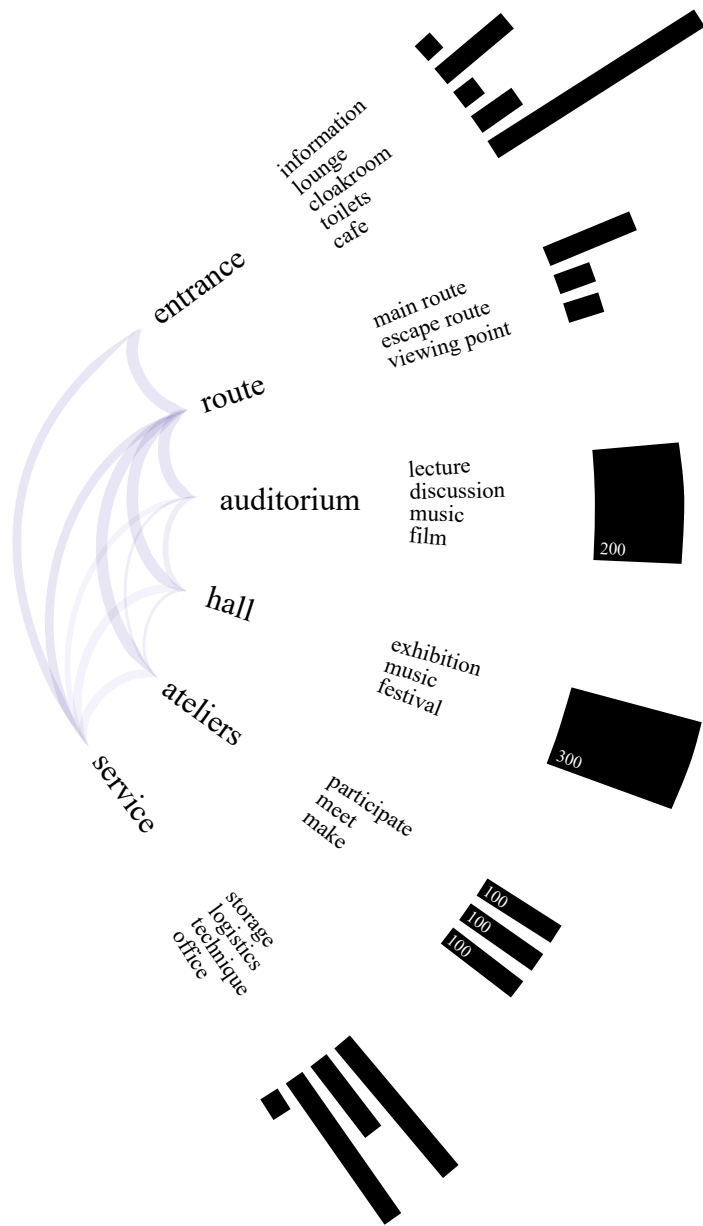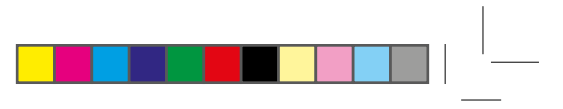
living landscape

The living landscape is a space with a route that connects a sequence of smaller spaces. Via the main route and escape route, people are triggered to climb all the way up to the viewpoint, coming across all kinds of activities and views.

The desired activities that come forth from the scheme's do not fit in a specific functional lay-out of the spaces. There is no specific program which I want to happen, and you can not predict what will happen. Therefore I made a distinction between space and layout. The space determines the size and location and amount of openness. The layout brings in nuances and overlap between those spaces.

vestibule.
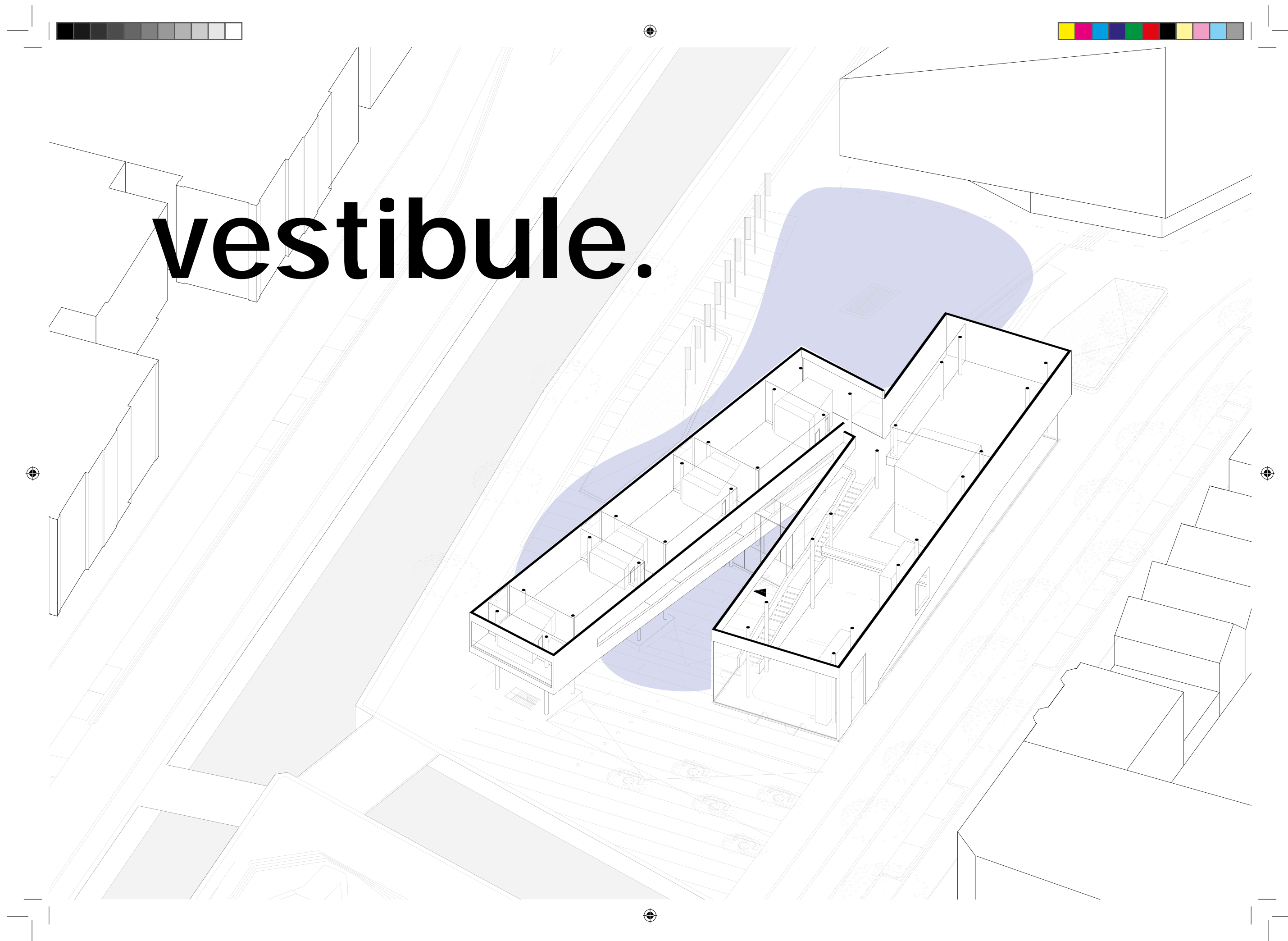
activities vestibule

specifications vestibule

basic form   triangle shaped public square
square meters   3500 m^2
lay-out   two types of stone, flags, green beds, bike lane
supporting functions   storage for walls, curtain storage, ventialtion
possible activities   move
                           arrive
                           orientate
                           get invited

passer by

inside

occupies space/square
moves to other side of square
slows down
participate program

passer by

outside

get glimpse/brief look
interested/curious
passes-by/speeds up
aware of program inside

vistitor/user

outside

move to own destination through building
sees that there is an other side
get invited, but not enter
pass-by

vistitor/user

inside

moves to other side of Delft
pushed inside
participate/occupy
pass-through
leaves

floor plan vestibule

trees with seating around trunk

stage

sloped paving from nature stone

height difference to regulate bikers

green bed with seating

flags

emergency exit tunnel

terras cafe

ramp and stairs to overcome
height difference of one meter

entrance station
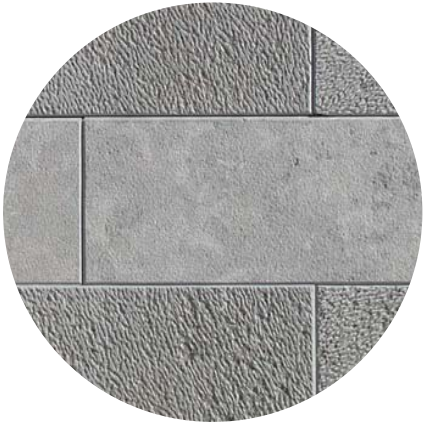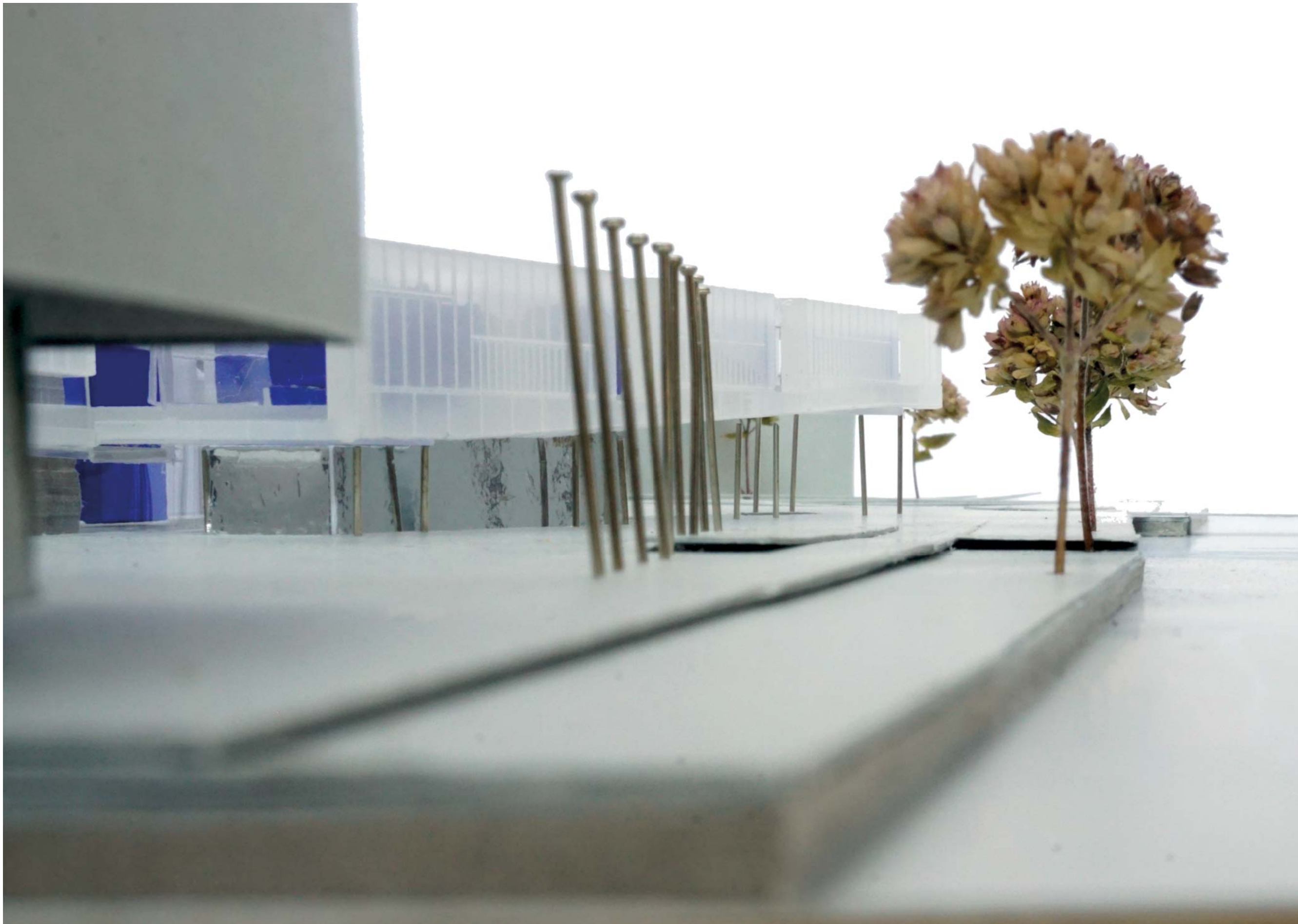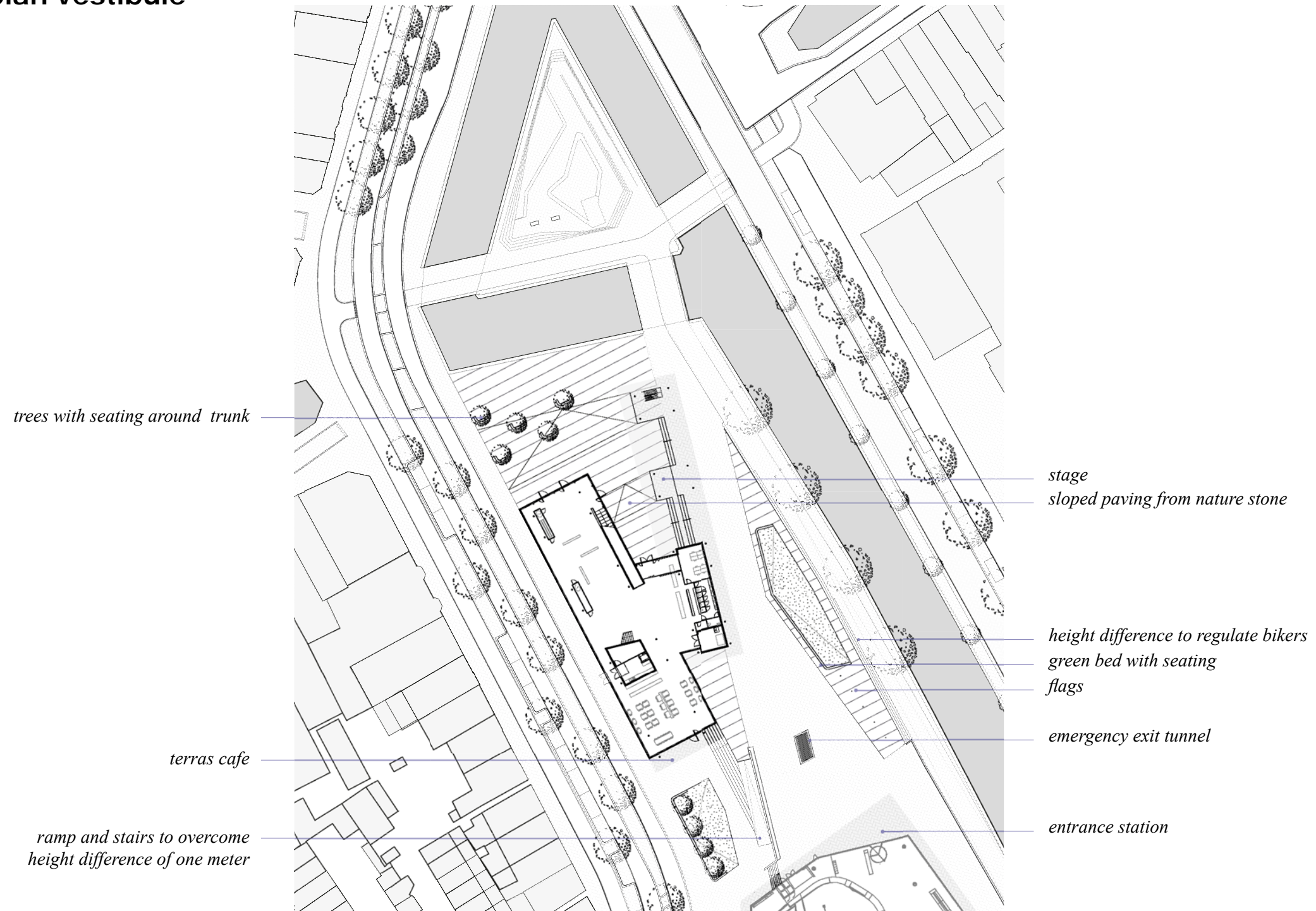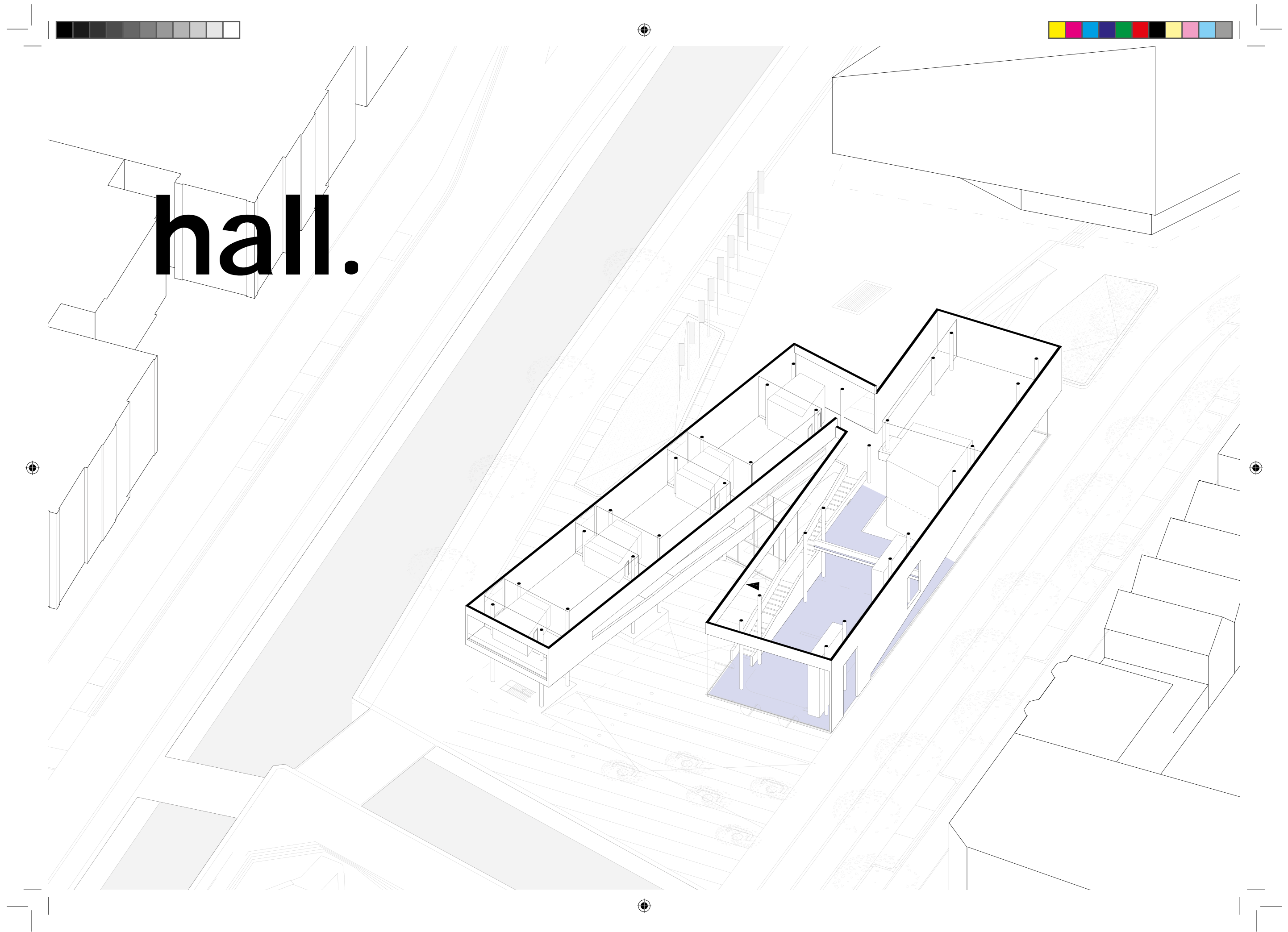
hall.

activities hall

specifications hall

basic exhibition form   rectangle floor and vide
square meters   300 m^2 (exhibiton only)
lay-out   flexible interior walls, flexible curtains for sound absorption
supporting functions   storage for walls, curtain storage, ventialtion
possible activities   exhibitions
   prototypes of technical objects
   performances
   festivals

properties

light room
visible from station
no direct sunlight

<u>visitor</u>

hall inside
move to 'other' side of location
gain knowledge
inspired
see/look/view
judge

<u>passer by</u>

hall outside
get glimpse/brief look
get invited
interested/curious
pass-by
move on

floor plan hall

acoustic,
light filtering curtain

primary route

movable exhibition walls

storage of 3 movable walls
300 x 4000 x 3000 mm

secondary route
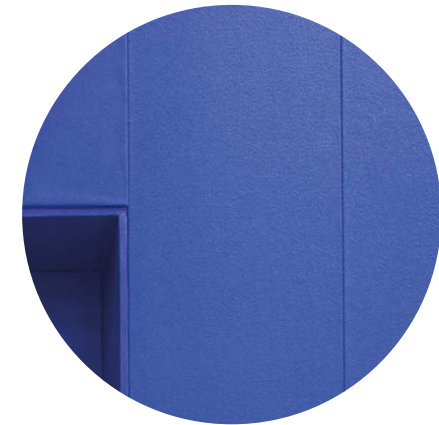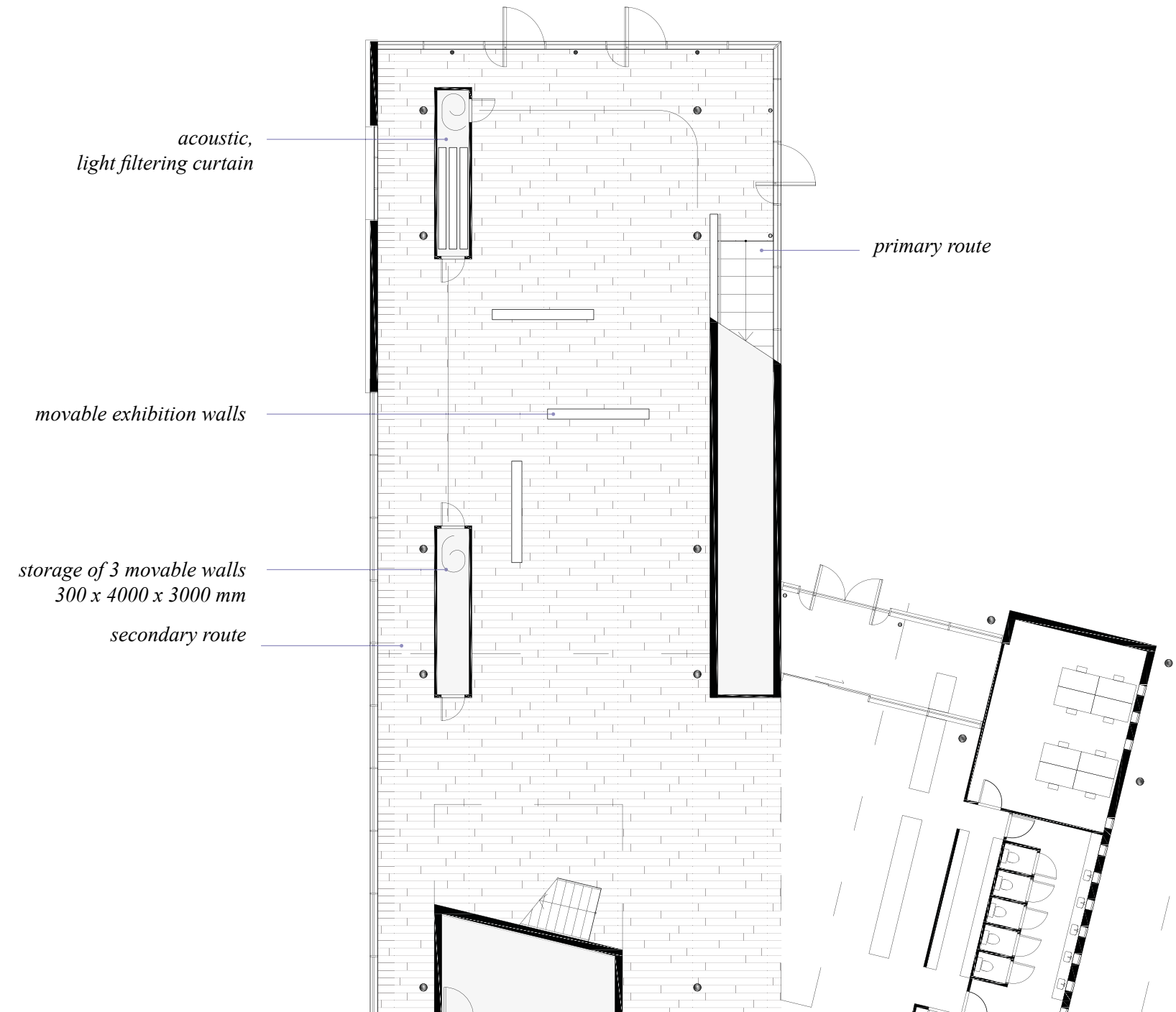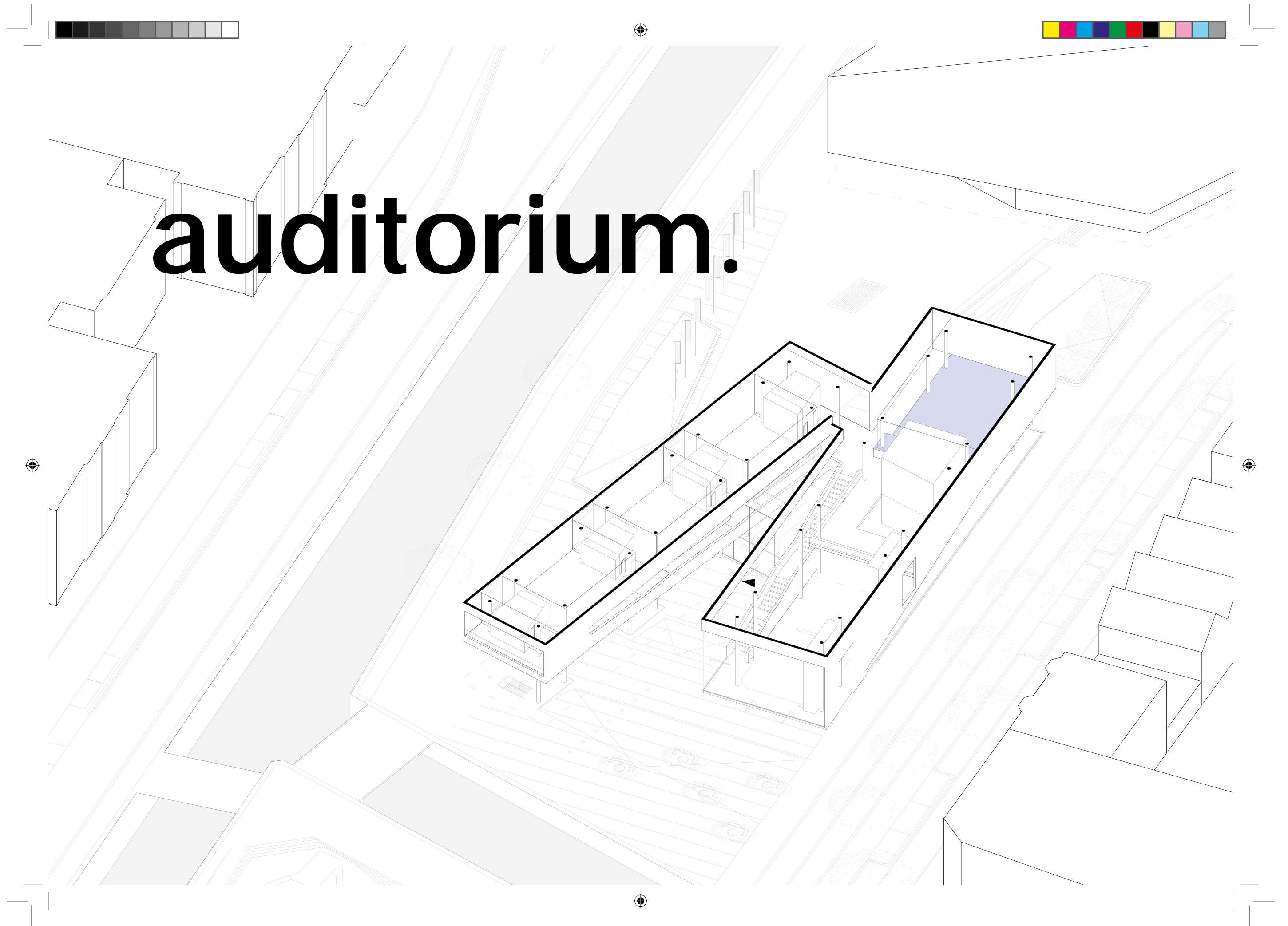
auditorium.

activities auditorium

specifications auditorium

basic theatre form   end stage with expandable tribune
square meters   240 m^2
lay-out   165 seats (15x11)
supporting functions   toilets, foyer, technical space,
  back stage, storage, curtain storage

possible activities   discussion
  lectures
  music, listening
  performances
  light installations
  video, media art

properties

(adjustable) dark room
shutters control daylight
acoustically closed off
adjustable room lay-out

<u>performer/performance</u>

back stage-outside	**stage-inside**
get ready/dress	flourish/shine
nervous	make contact
exited	middle point of attention

<u>audience</u>

inside	**outside**
be inspired	curious
concentrated on performance	flourish, focussed on each other
listen/absorb information	talk/chat
see only what is exposed/in spotlight	see context
get affected	exited

floor plan auditorium

technical room

chair and curtain storage

escape route

stage with beamer

shutters

expandable tribune

space for wheelchairs

main entrance

curtain and
technical equipment
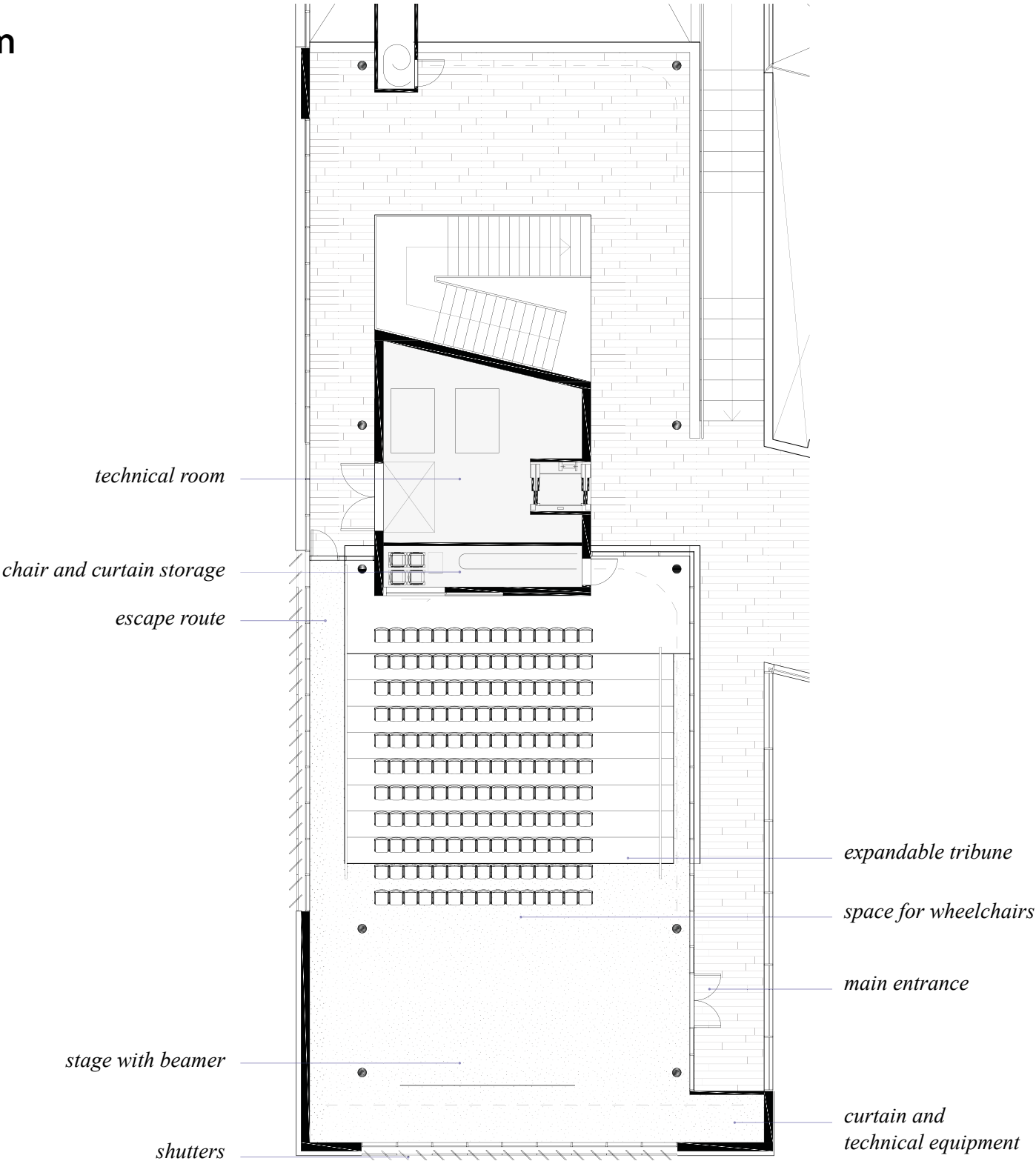
ateliers.

activities ateliers

2
atelier

specifications ateliers

amount of people	max. 60 sitting and 30 sitting behind table
square meters	110 m^2
lay-out	flexible furniture,
	flexible curtains for sound and light absorption, pantry
supporting functions	storage for furniture, curtain storage, ventialtion
possible activities	workshops
	computer course
	first aid course
	mindfulness, yoga
	political gatherings
	meet-up about recent documentary
	lecture or courses with educational purpose
	speed date's
	information meeting from the municipality

properties

adjustable light in room
shutters control daylight
acoustically closed off
adjustable room lay-out

floor plan ateliers

curtain storage

technical room

secondary route

storage for 2x40 chairs and
6 foldable tables with sliding door

main route and entrance

pantry

beamer on ceiling

storage in railing

curtain rail under ceiling

cable tray and power outlet in floor

seats in window sill with ventilation
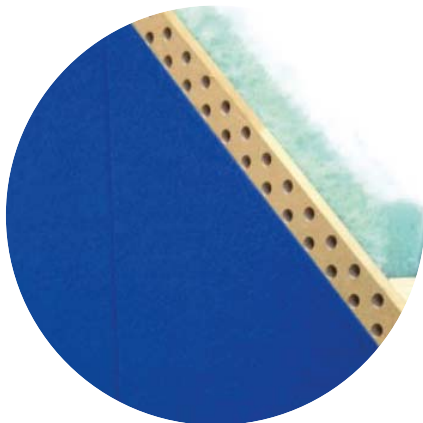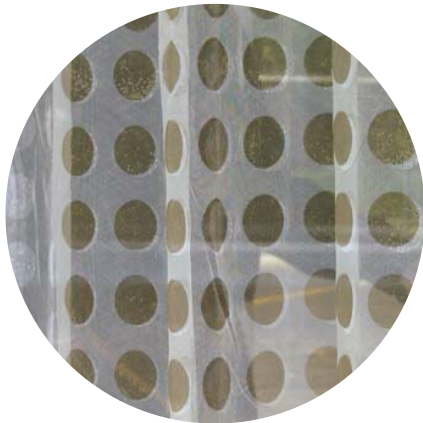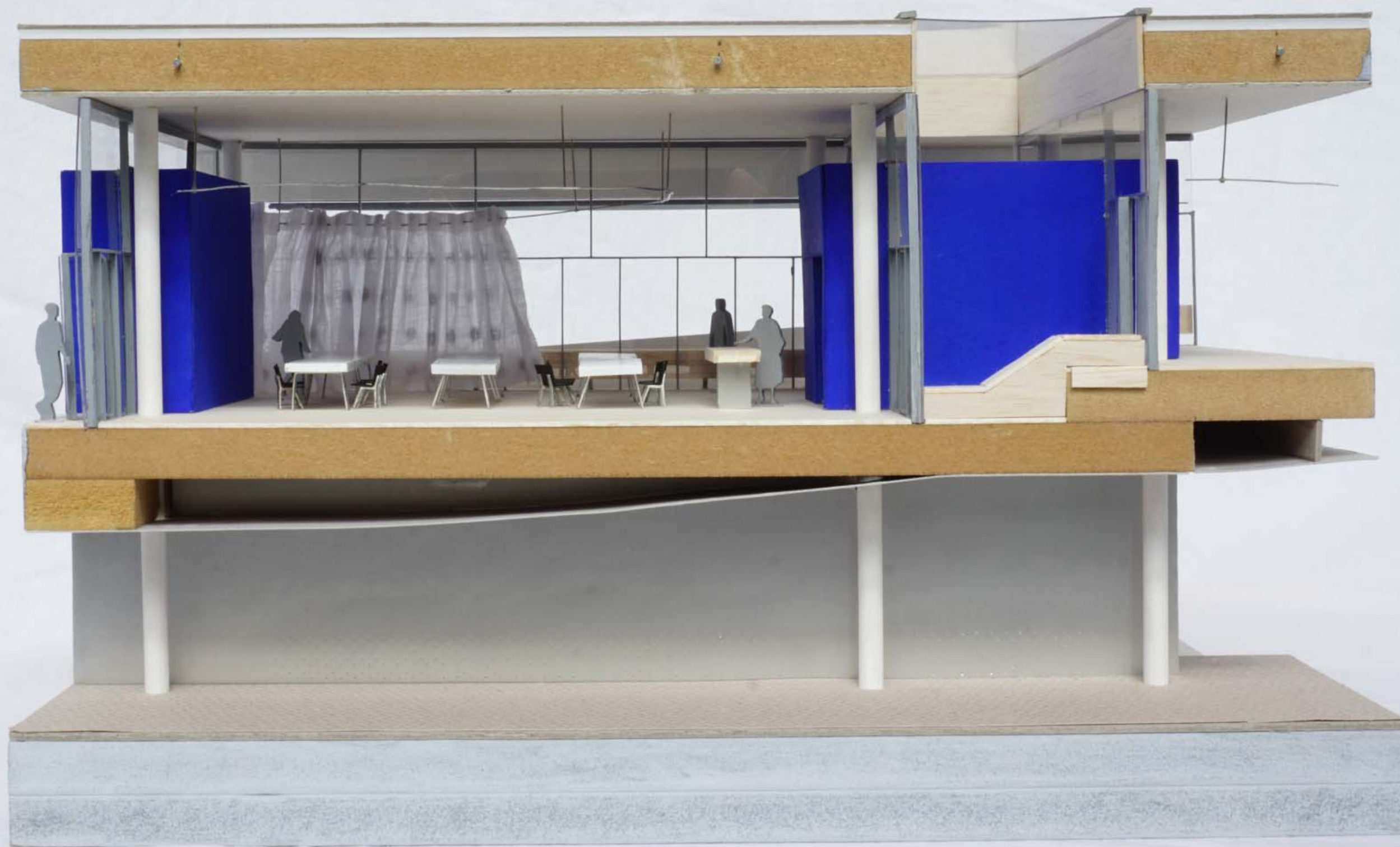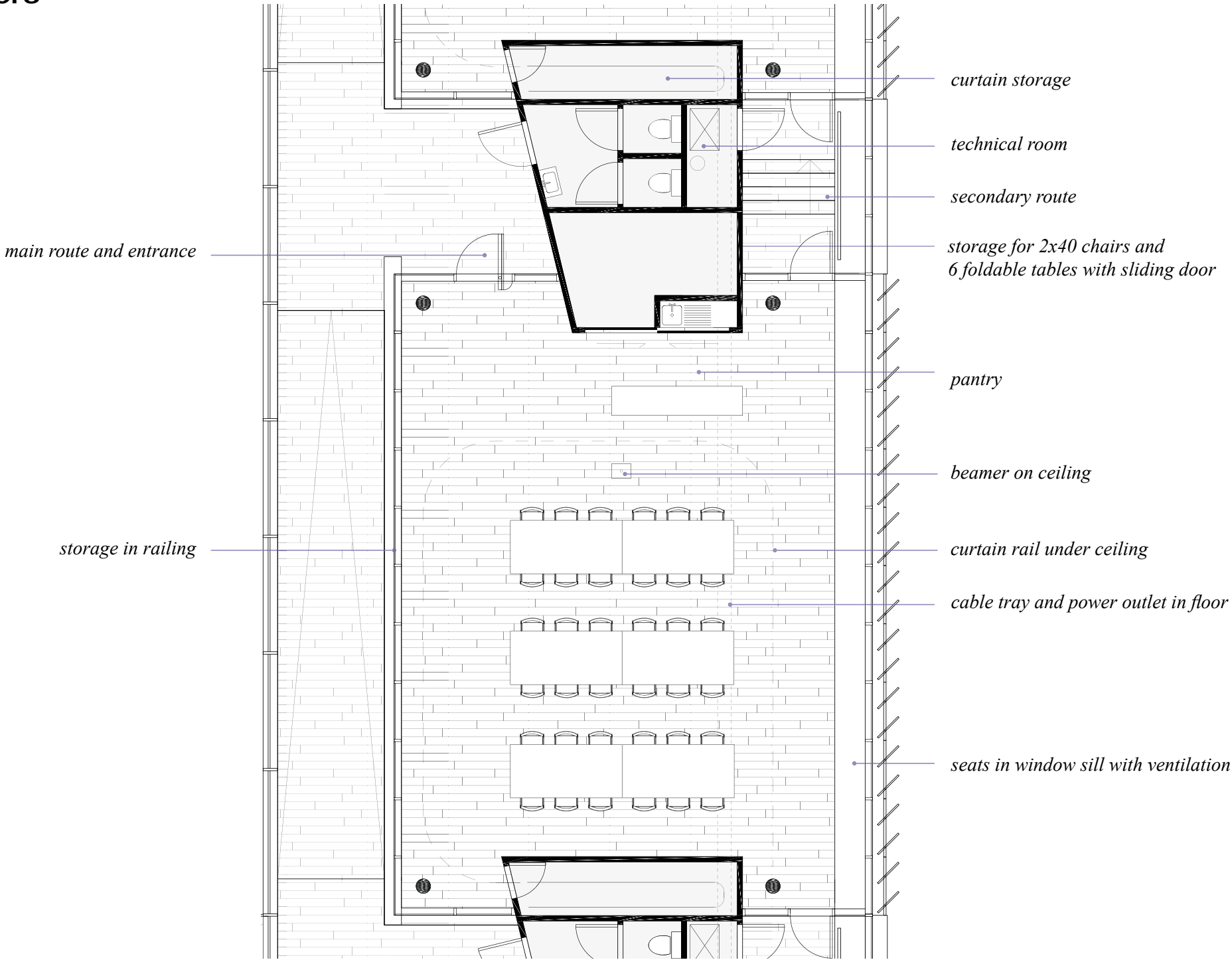
additional
functions.
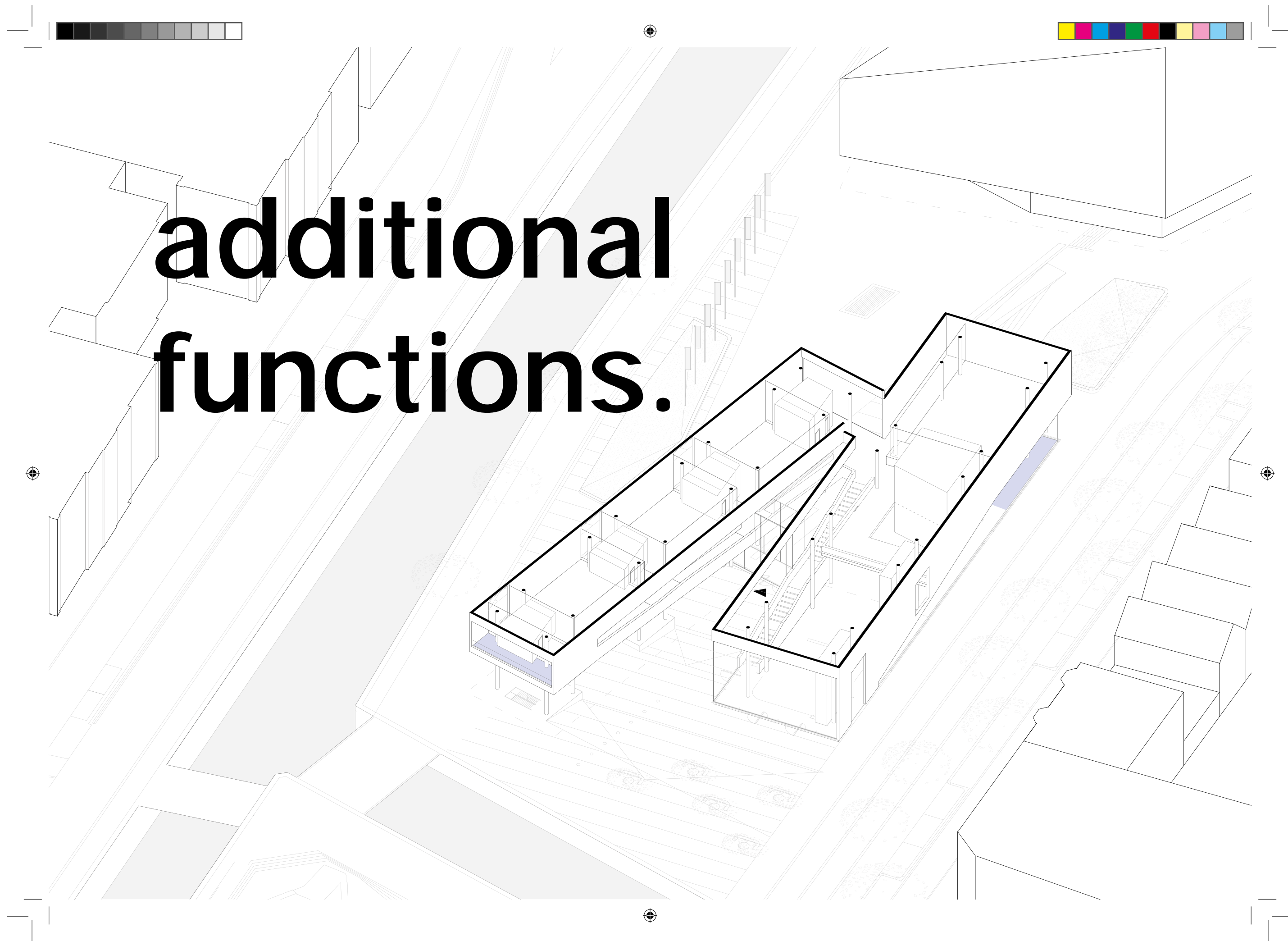
additional activities
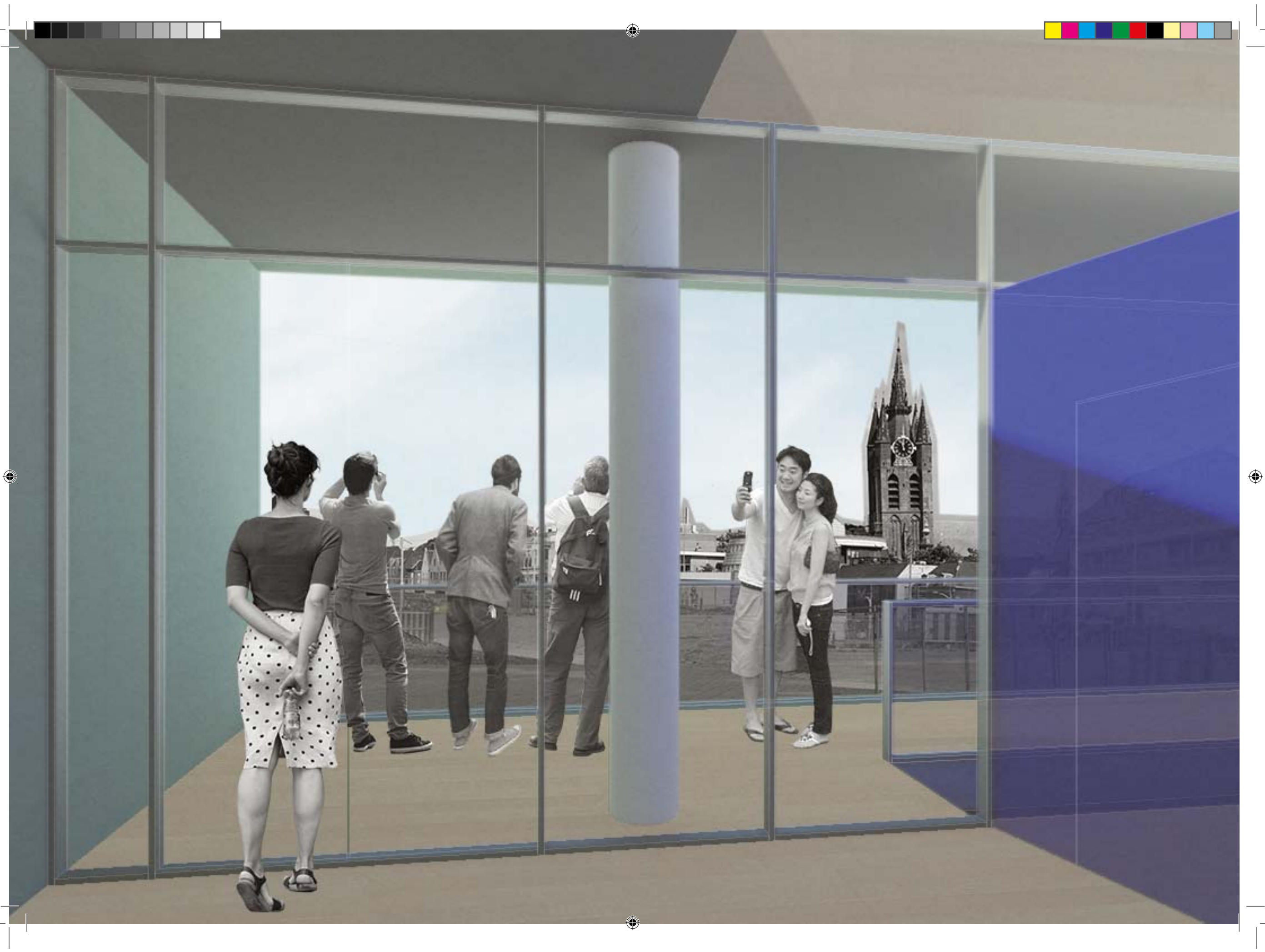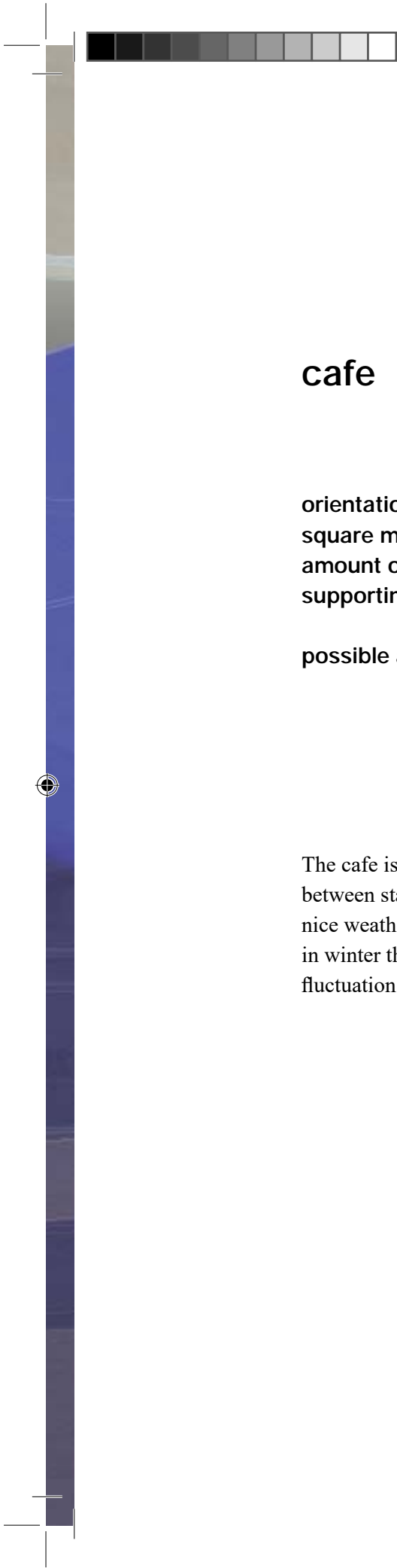
cafe

orientation	south
square meters	240 m^2
amount of seats	80-100
supporting functions	toilets, kitchen, storage
possible activities	eat
	drink
	party
	meet
	connect to wifi
	charge phone

The cafe is orientated on the sun and uses the space between station and living room as a terrace. With nice weather the cafe can be expanded to outside, in winter the foyer serves as an extra space for fluctuation crowd sizes.

viewpoint

orientation	north, Oude Jan
square meters	35 m^2
supporting functions	emergency exit
possible activities	gaze
	take selfie
	escape

The viewpoint is the highest point of the building. This is the place to make a selfie with the Oude Jan at the background.

supporting boxes

supporting functions	office
	toilets
	cloakroom
	storage
	technical room

The supporting functions are situated in the boxes. The blue felt ones for the hall and ateliers. The concrete one for the cafe and auditorium. And the aluminium one for the entrance zone.

future use.

classroom

office

cultural center
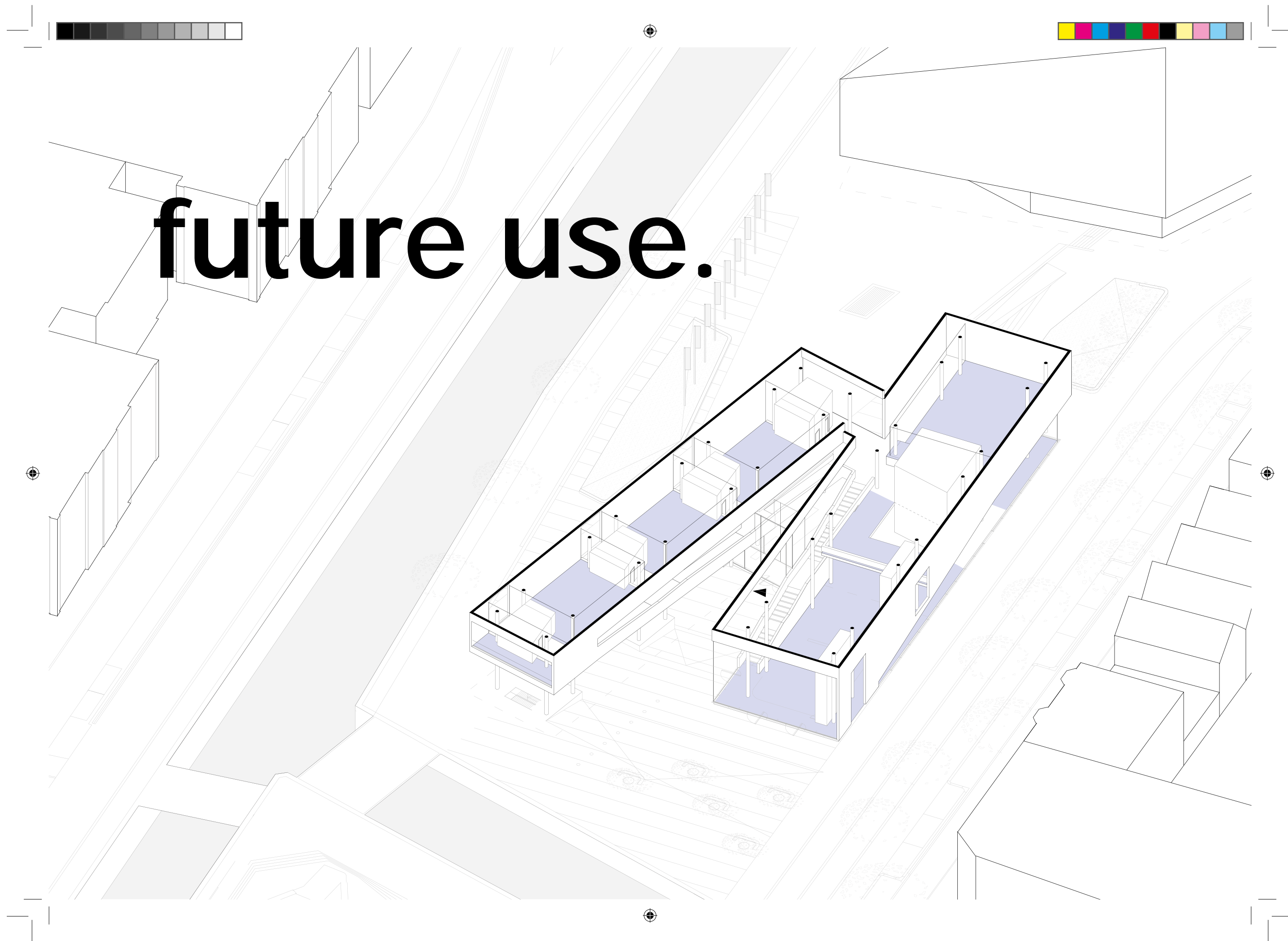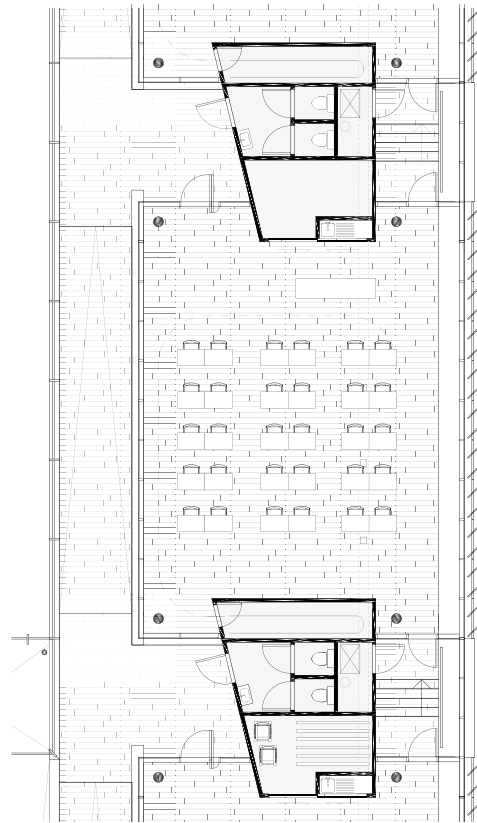
The ateliers as classrooms or exam rooms during peek periods in surrounding schools and universities. The auditorium could function as lecture room and hall as canteen or aula for special activities.
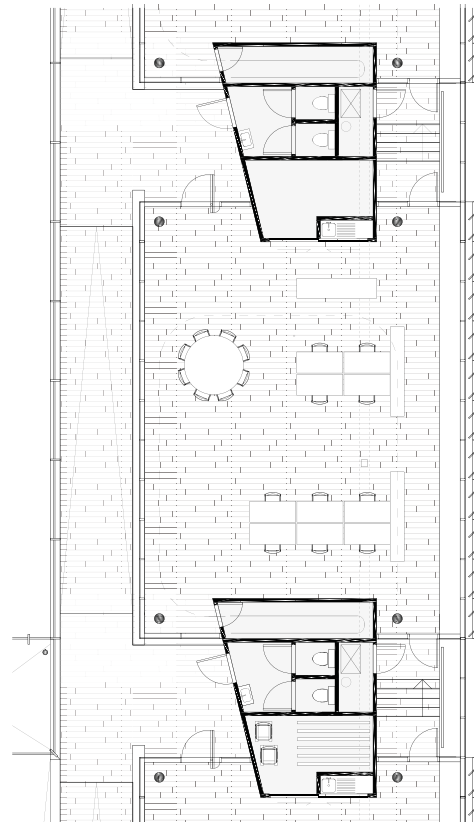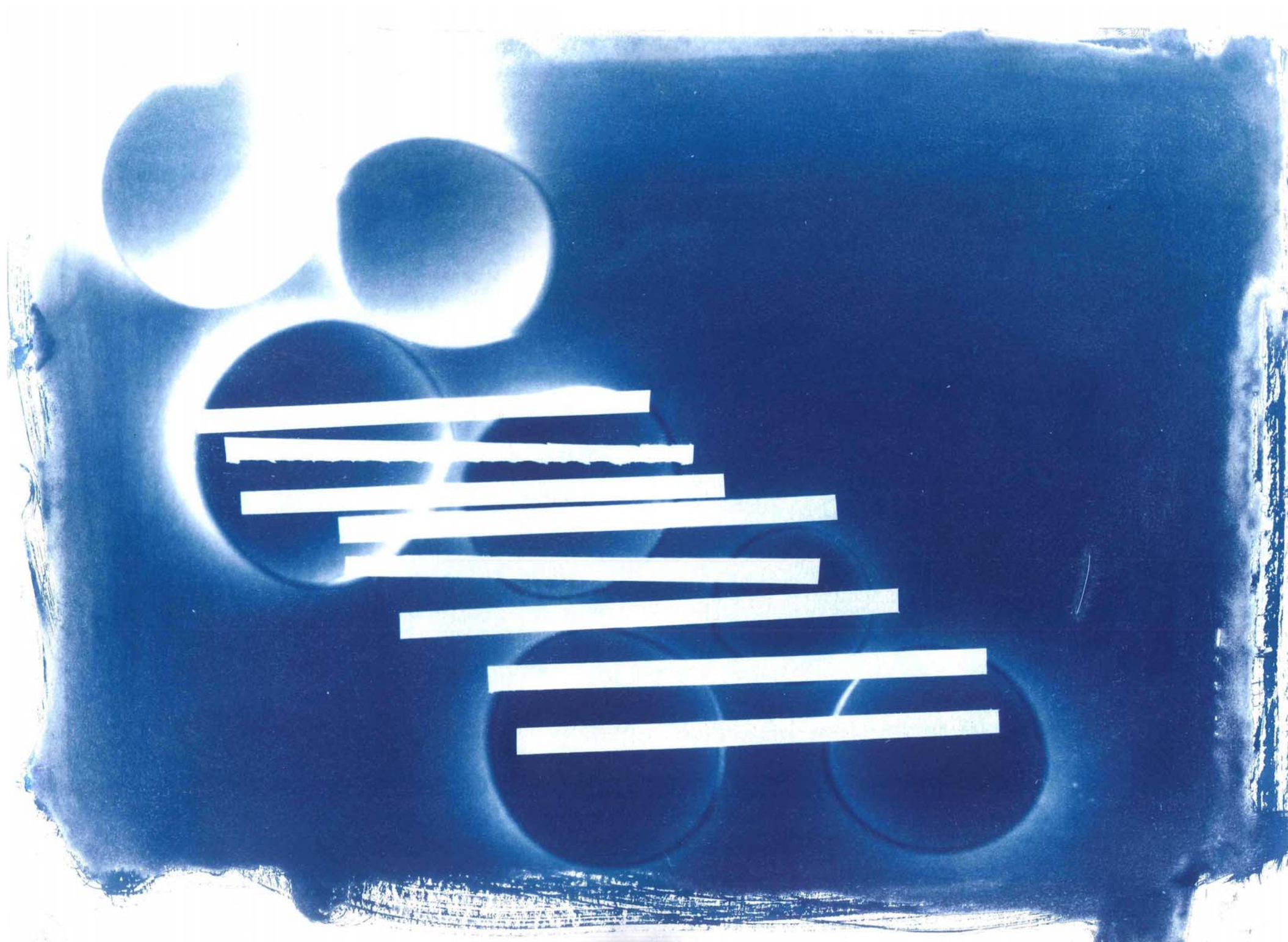
The ateliers rented out as office or meeting room. The auditorium could function as a large meeting room for companies or the municipality.
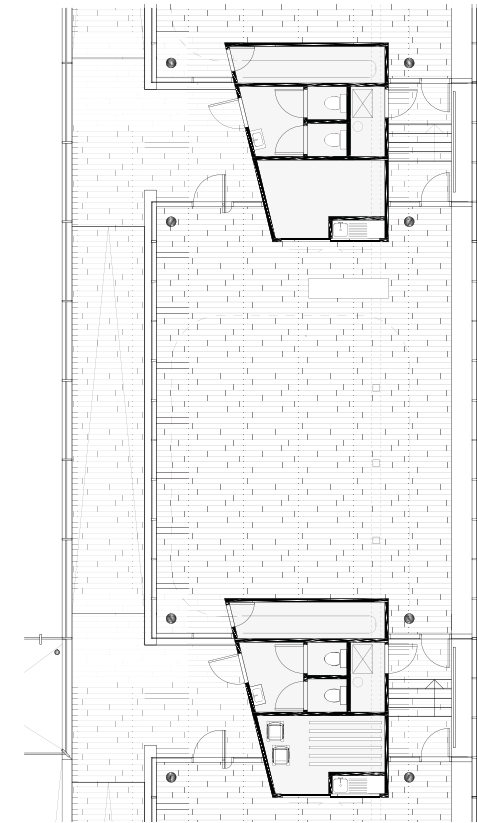
The ateliers and auditorium as dance studio's or music rooms. The hall could be used as stage or exhibition space.

technical design.

making

it

possible

service

activity

facade
route
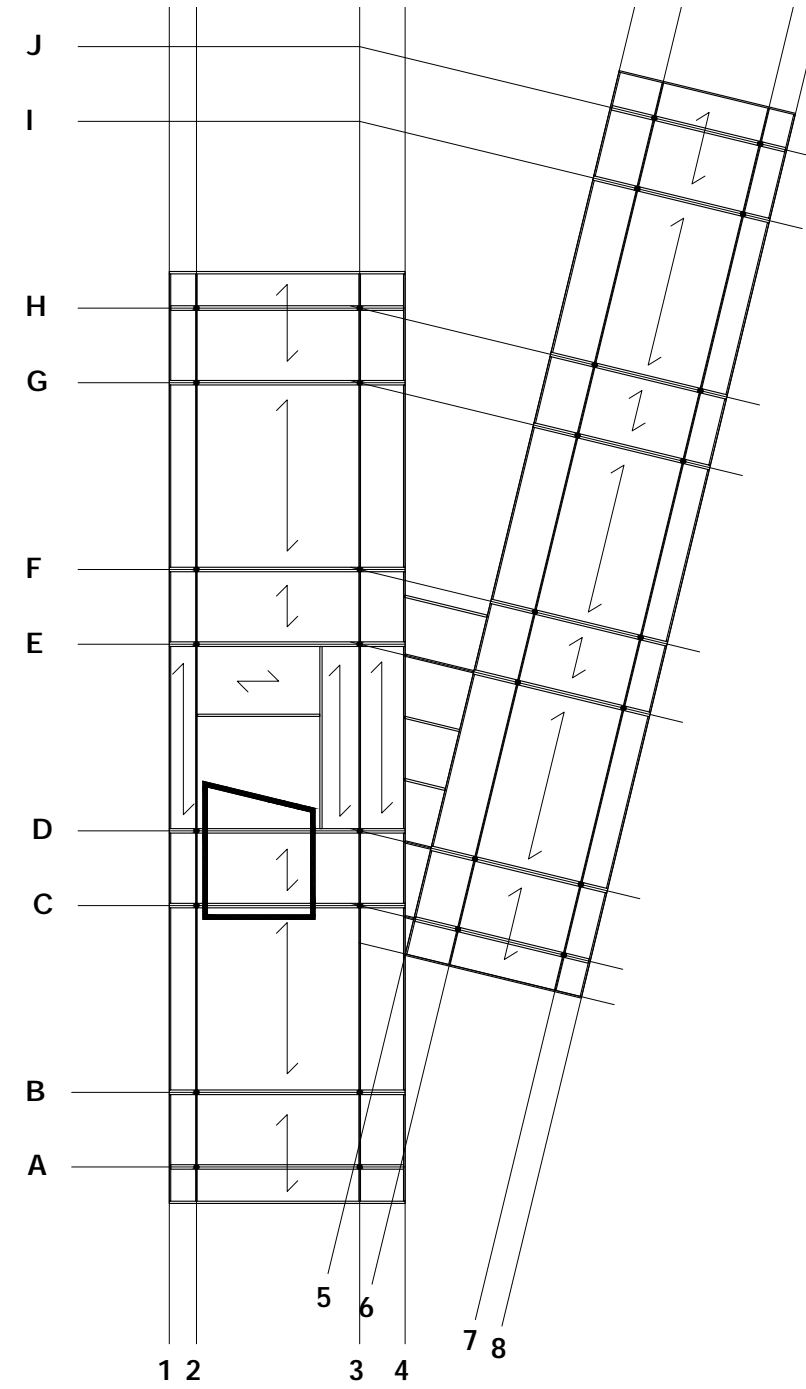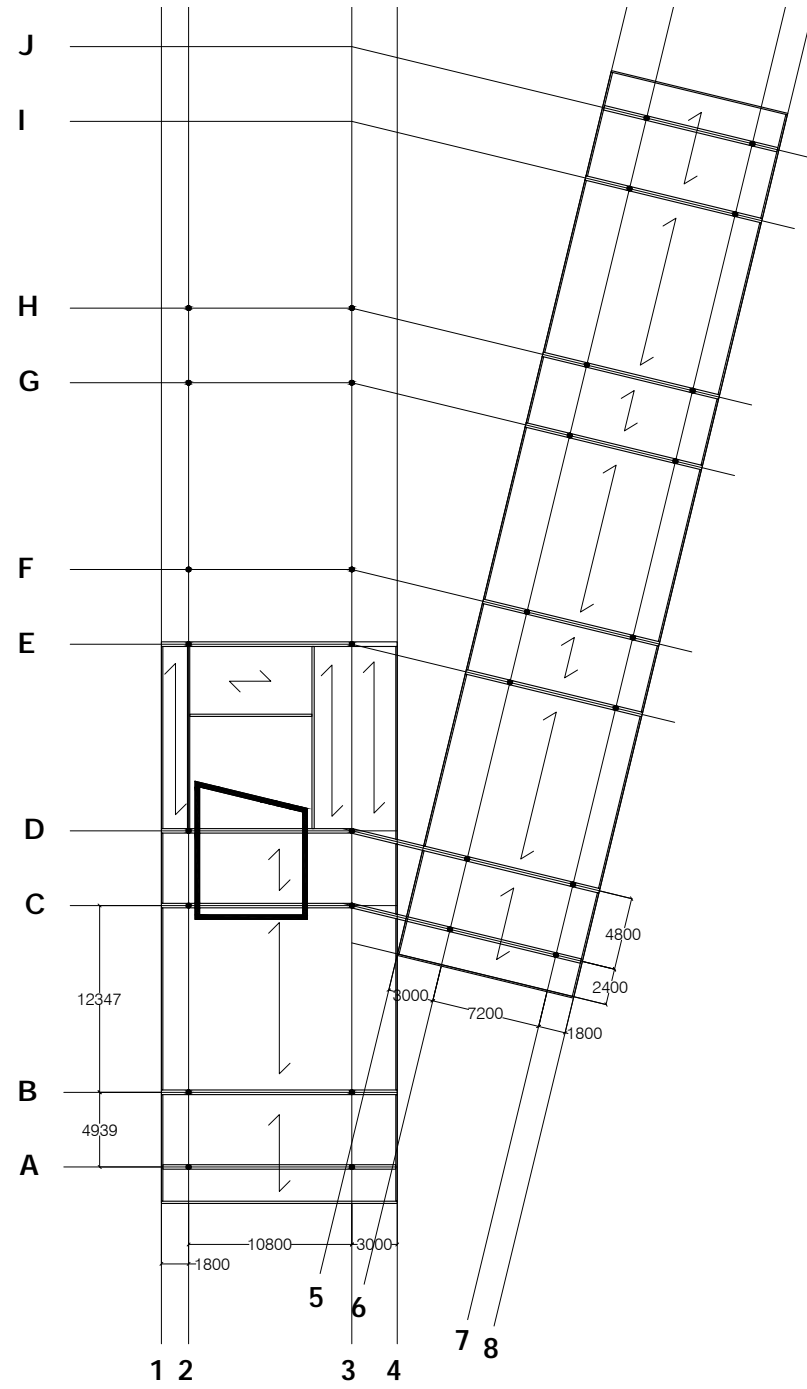activity
route
facade
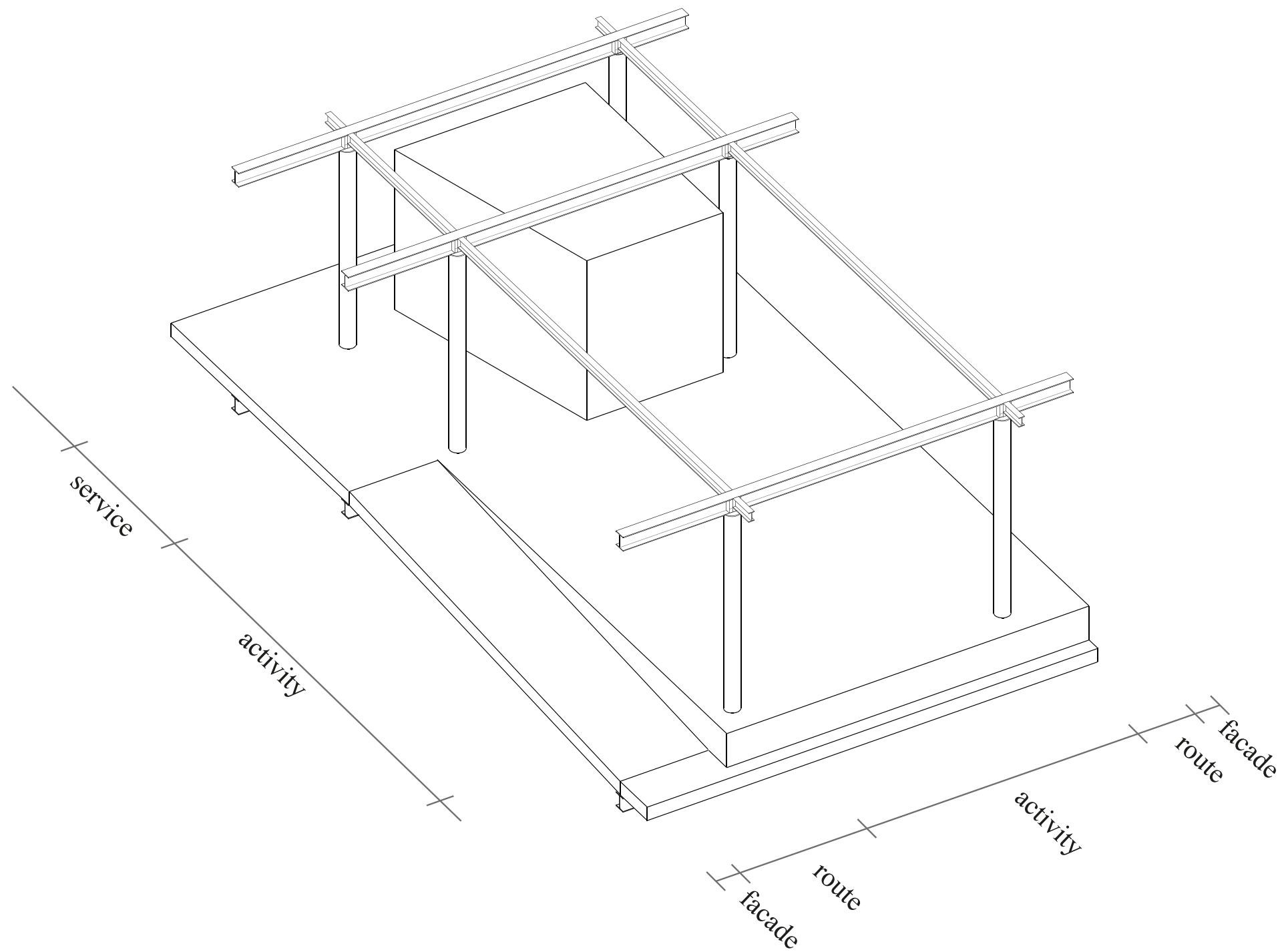
structural principles
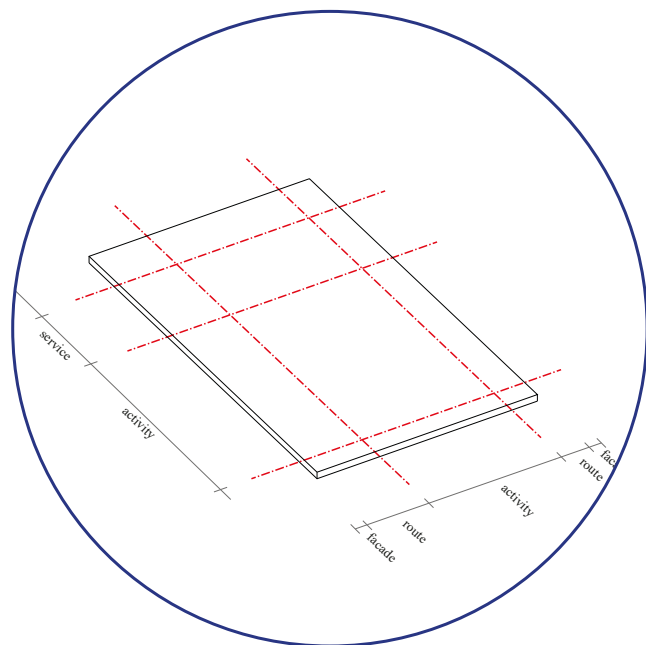
A simple structure of zoning: service core + acts, free floor space + routing
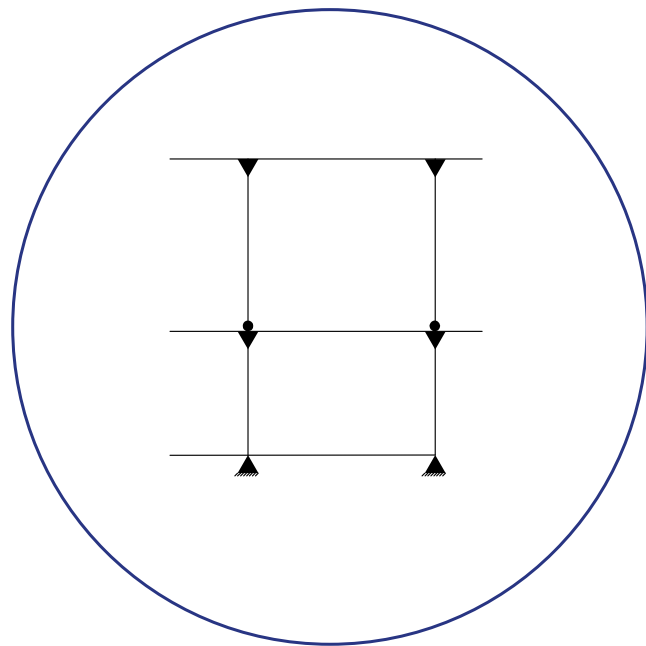

Demountable building. Hollow core slabs imposed at biggest part of the building, a dry connection. Hollow core slabs, between beams at ateliers, a dry connection.
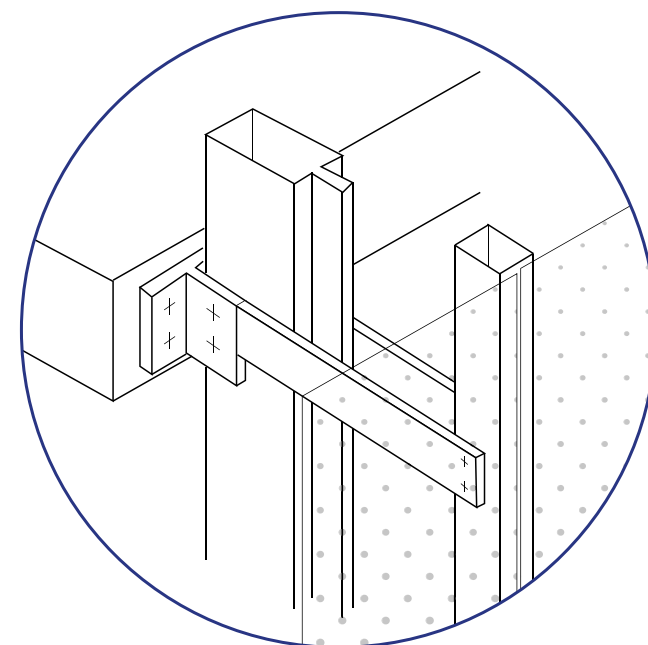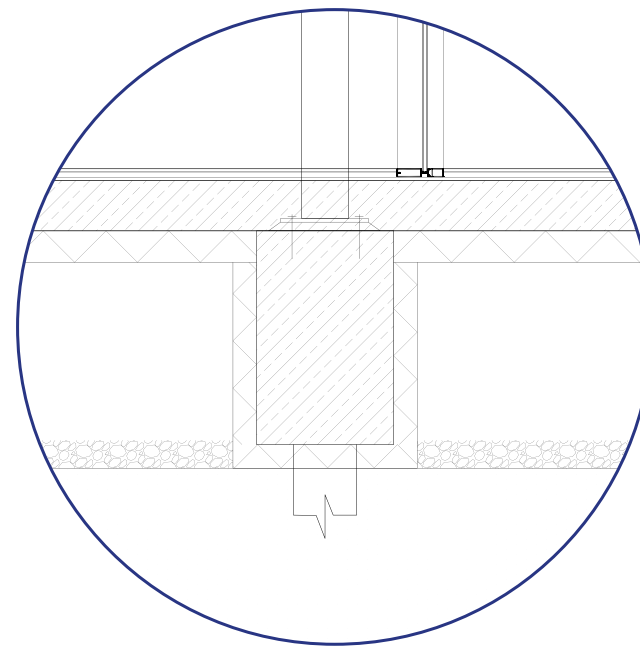

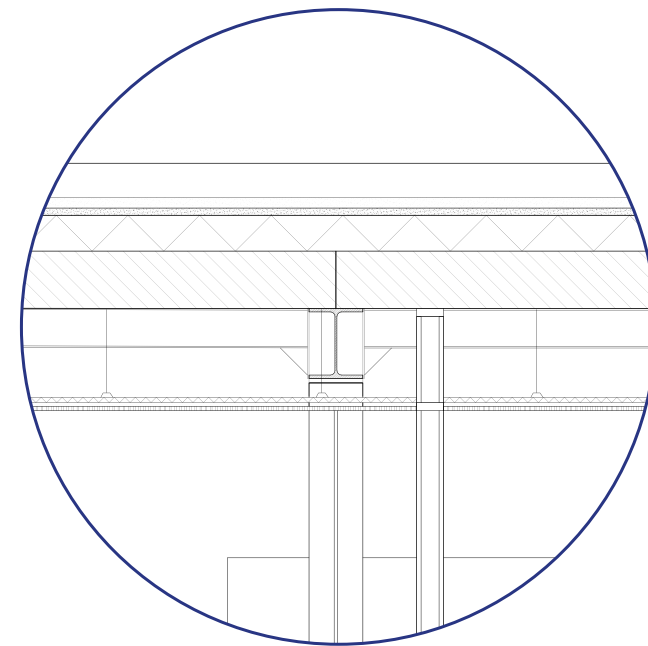*Separated structure and infill. Facade has its own secondary structure.*

structural design

System of trusses with longitudinal stability by concrete core and fixed-moment connections throughout the building.

Clamped columns

Fixed-moment connections.

**Detailed
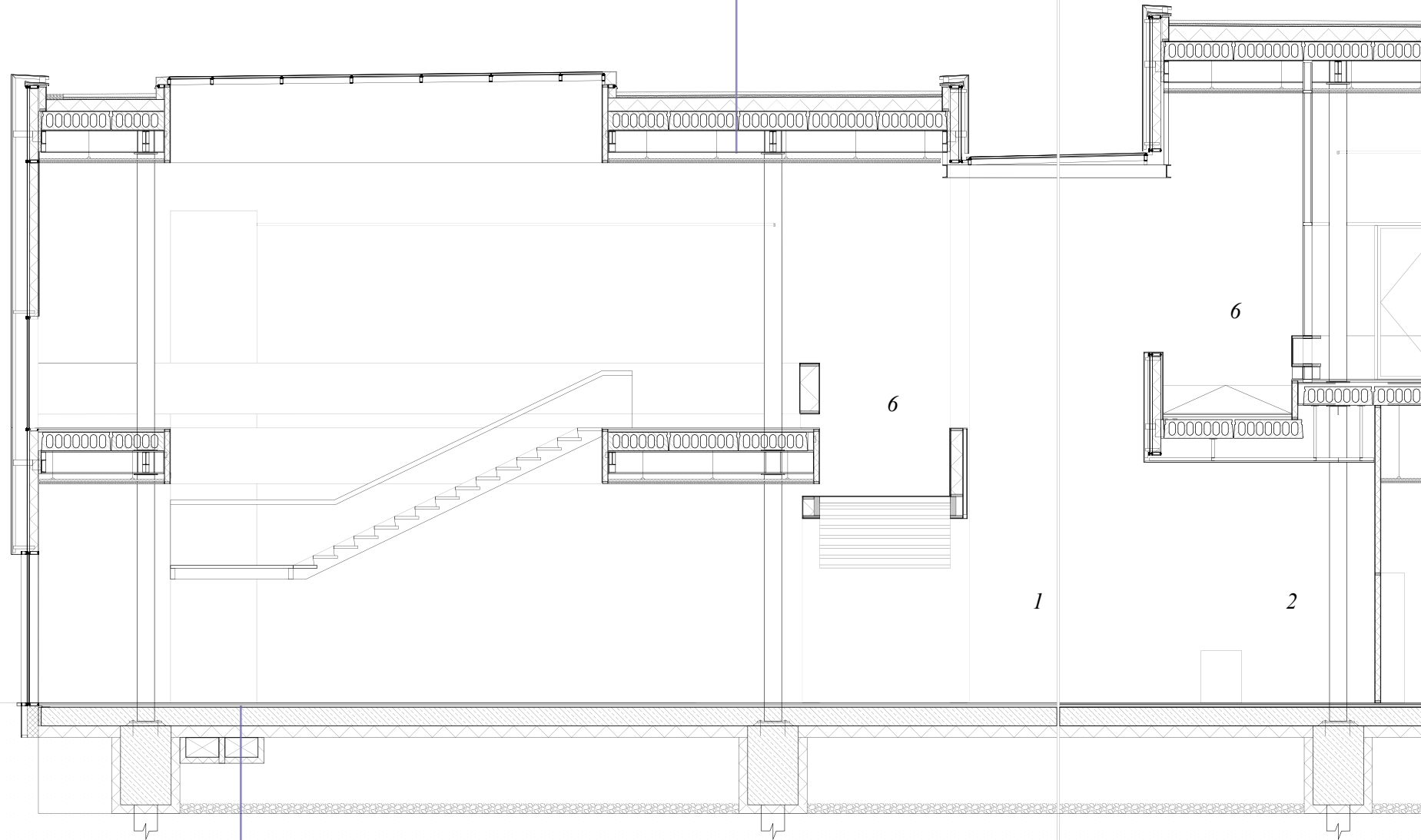cross-section
Atelier
1:20 (plotted**

1. entrance zone
2. information desk
3. cloakroom
4. toilets
5. atelier
6. route

sedum plants in substrate layer
drain substrate layer
root resistant layer
roof sheeting
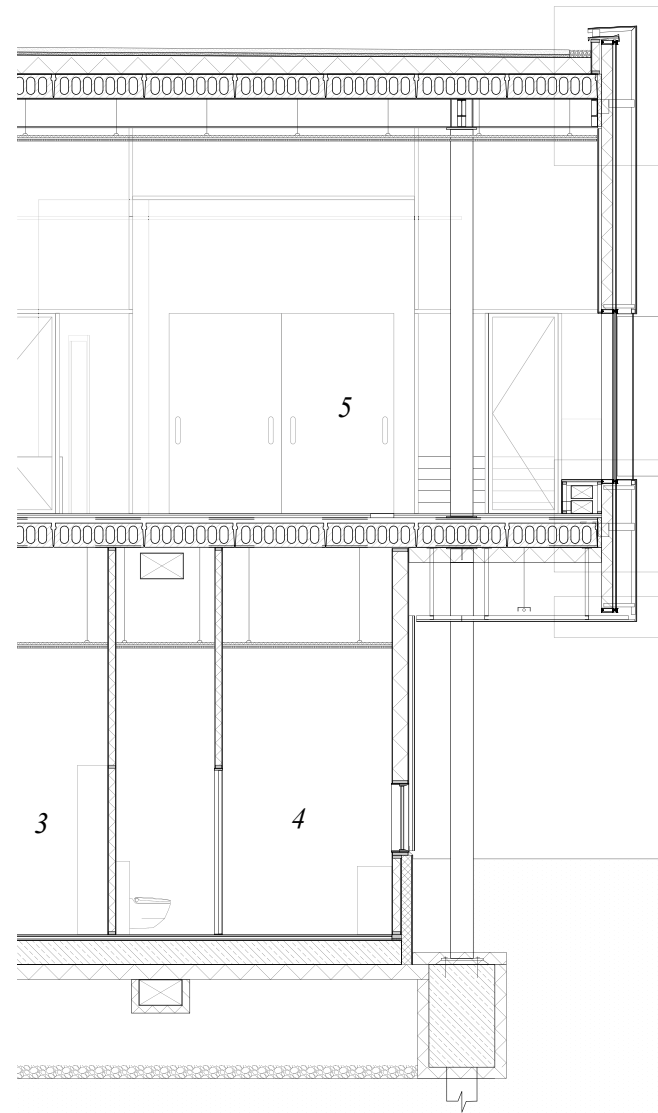*insulation*
hollow core slabs
steel beams
acoustic lowered ceiling

*10450 m
roof hall and
auditorium*

*4800 m
atelier 1*

*0 m
ground level*

6

6

1

2

*parquet
subfloor
floor heating and insulation
concrete floor
insulation
ventilation shaft
cavity*

**Detailed
longitudinal-section
Atelier
1:20 (plotted 20%)**

1. ateliers
2. service zone ateliers
3. enclosed porch
4. information desk
5. gate to toilets and cloakroom

sedum plants in substrate layer
drain substrate layer
root resistant layer
roof sheeting
insulation
hollow core slabs
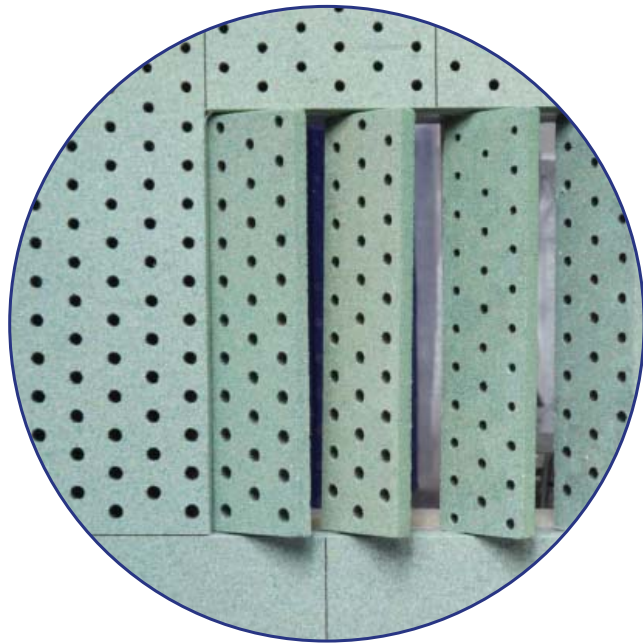*steel beams*
acoustic lowered ceiling

11700 m
roof ateliers

6300 m
atelier 2

5550 m
atelier 1
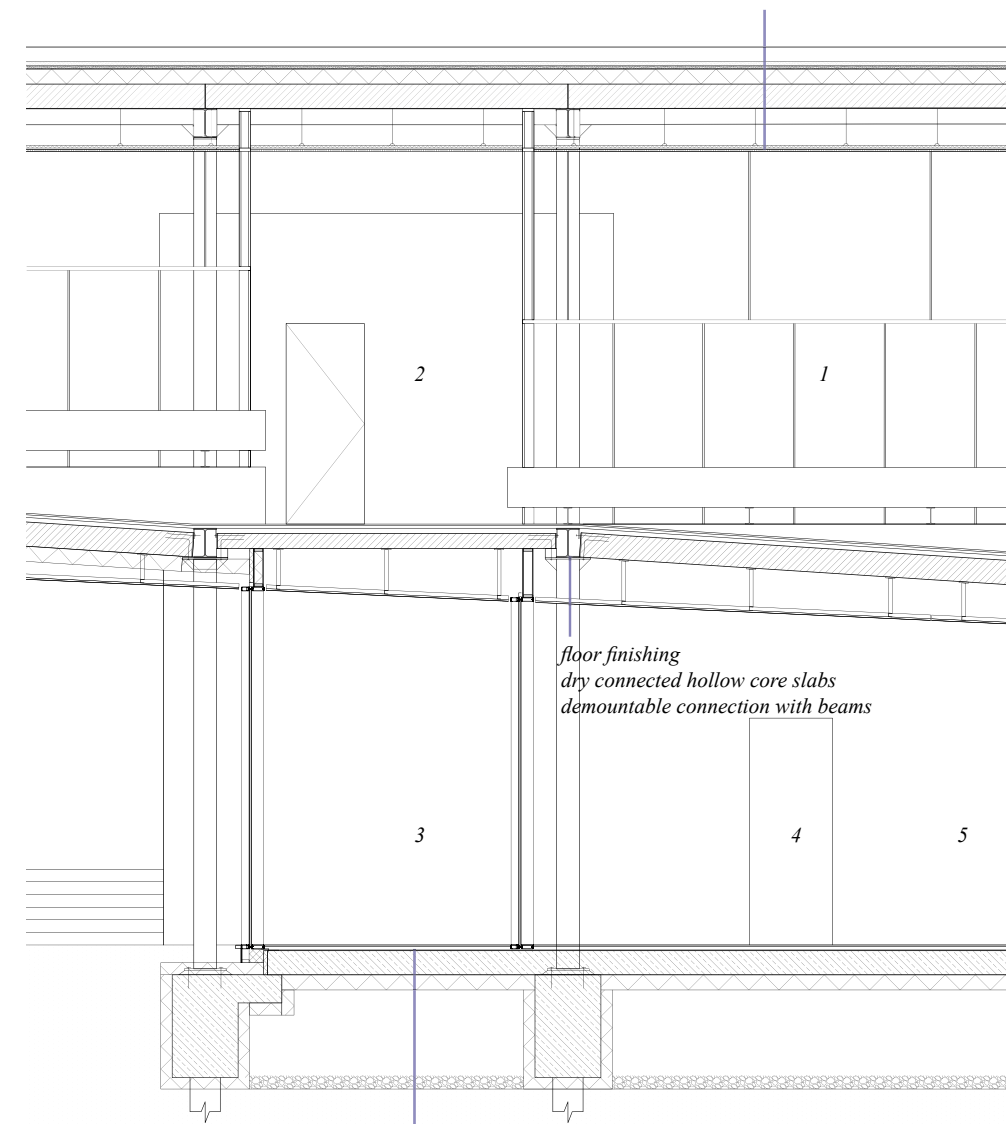
floor finishing
dry connected hollow core slabs
demountable connection with beams

1 m
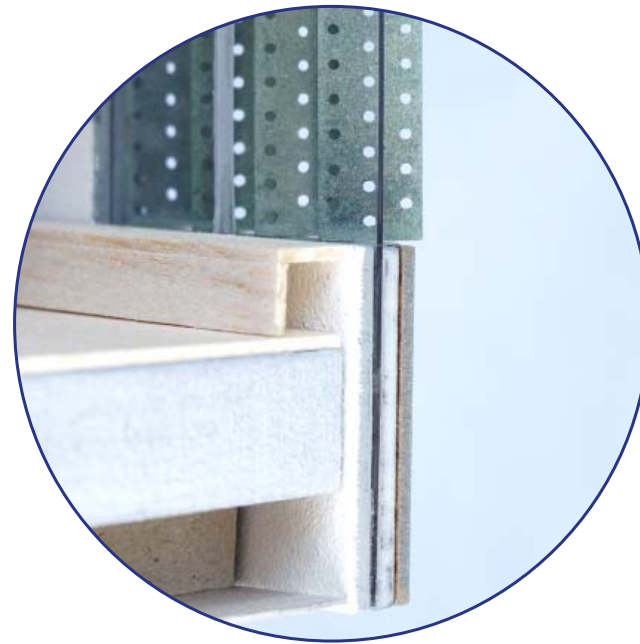*station square*

0 m
ground level

parquet
subfloor
floor heating and insulation
concrete floor
insulation
cavity

127
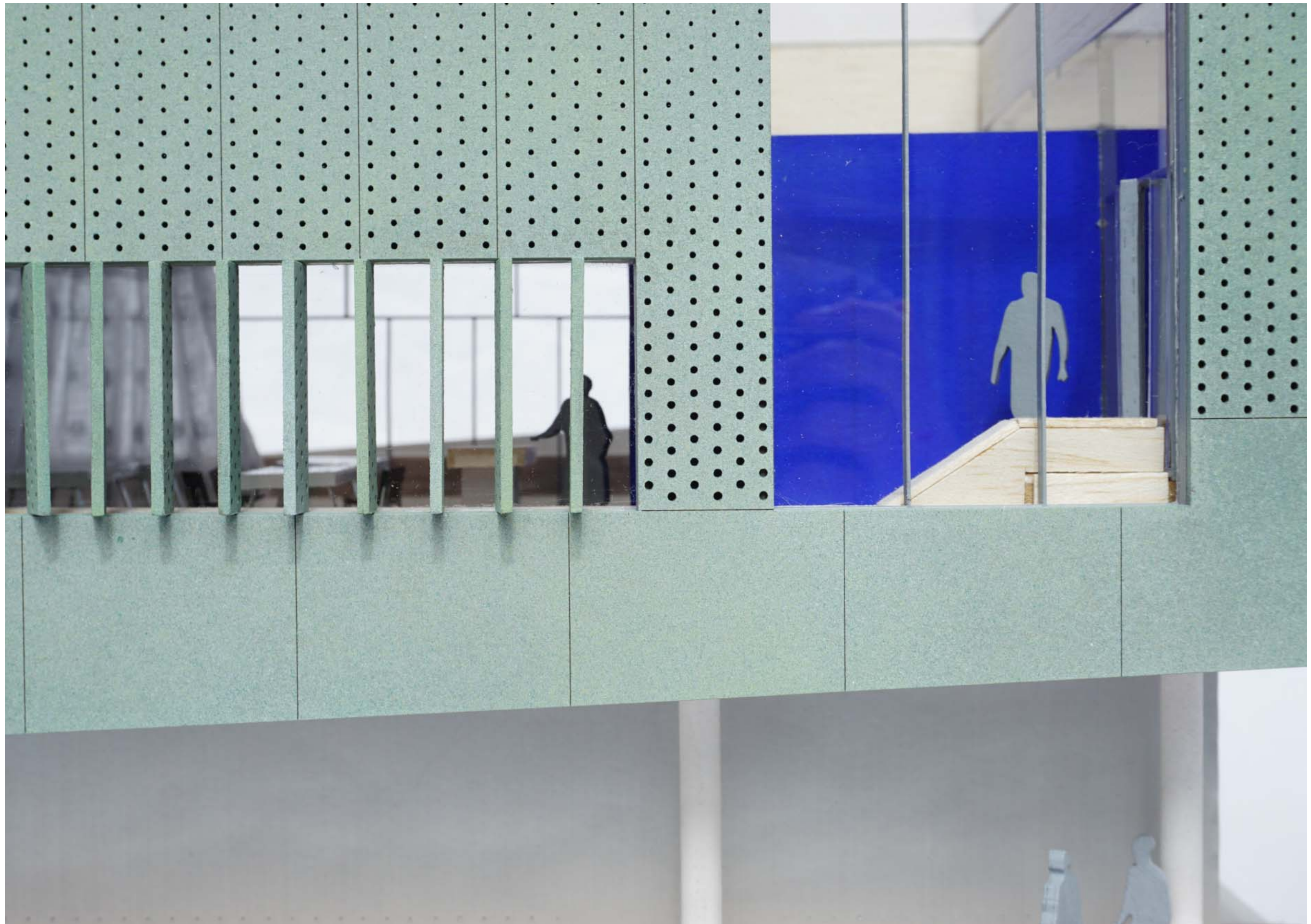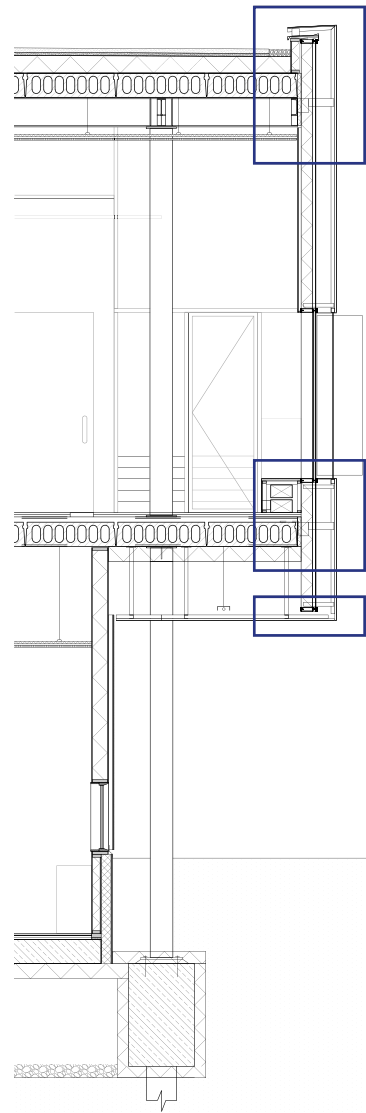
facade design

Shutters to control daylight in the ateliers and auditorium.
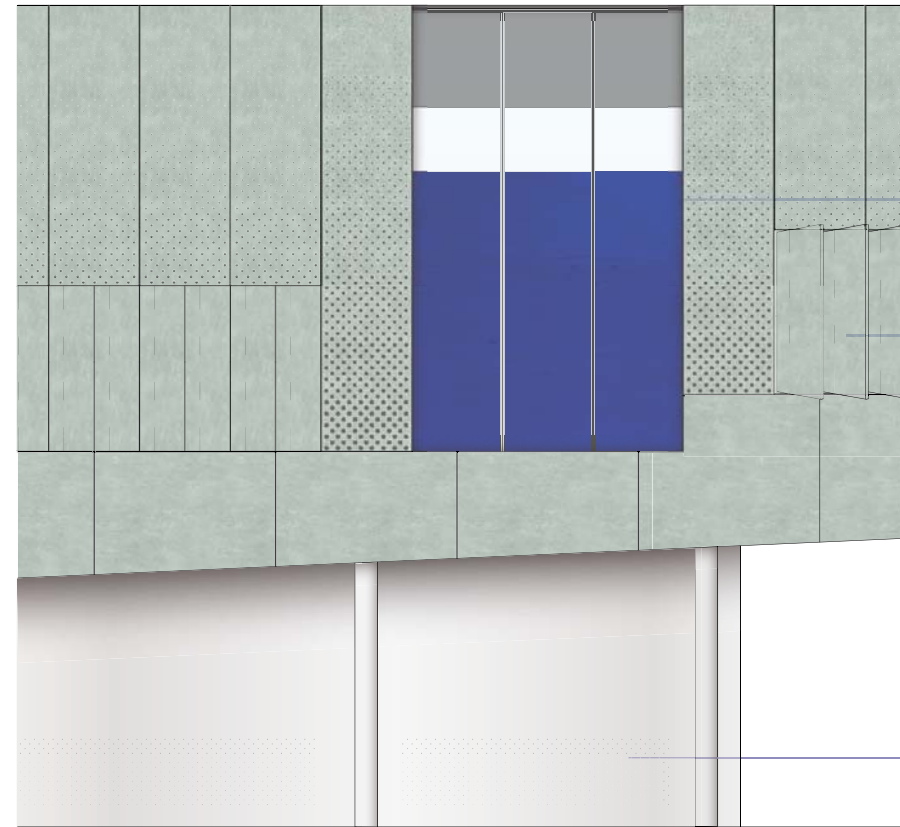

Ventilation in window sill provides fresh air in the ateliers.

Double facade creates reduces building to heat from the sun. Additionally, the facade can light up at night and creates diffuse daylight in the hall

window that frames
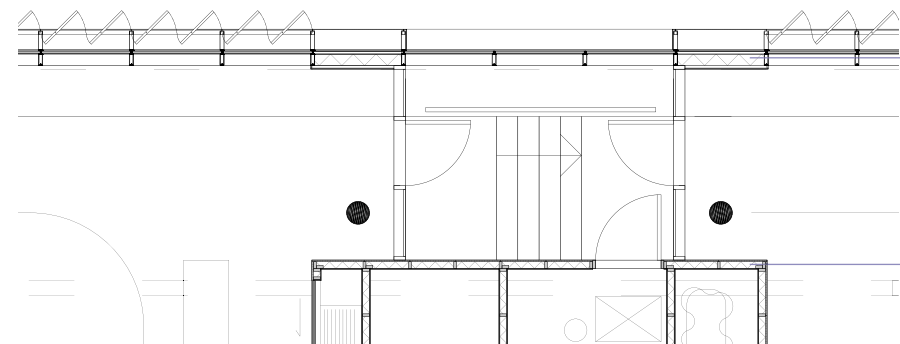secondary route
along facade

shutters to control
daylight in ateliers
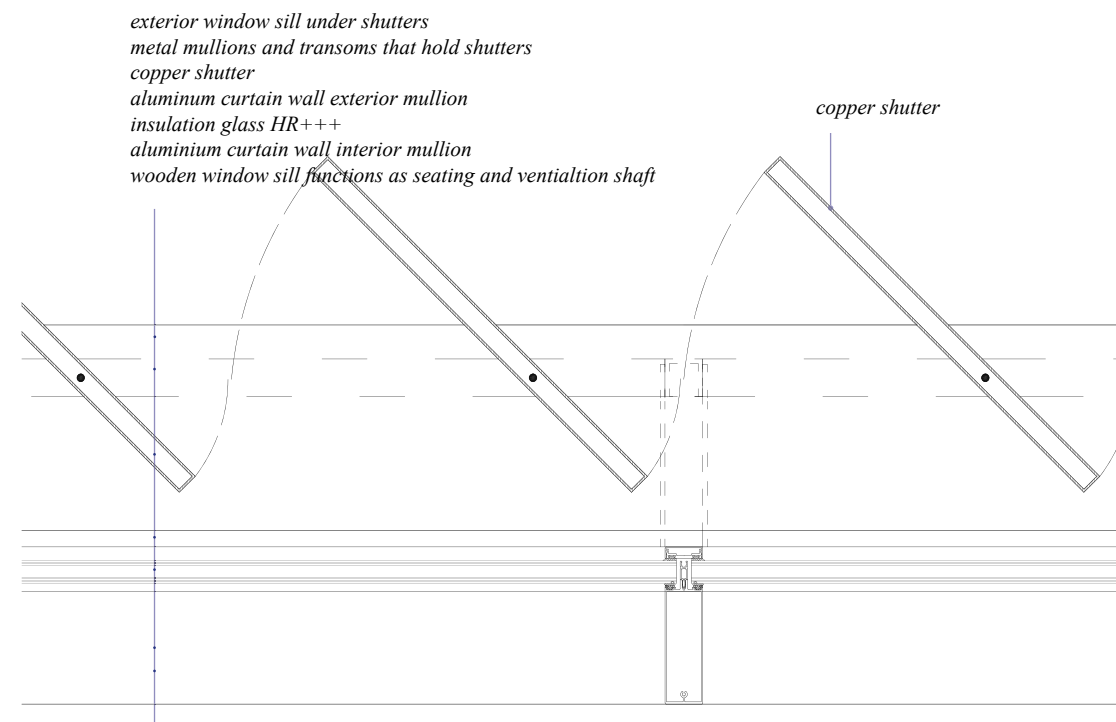
windows behind
perforations in
aluminium facade

**Facade details
1:20
(plotted 20%)**

sandwich panel in curtain wall

blue service box wooden structure
with sound insulating felt

exterior window sill under shutters
metal mullions and transoms that hold shutters
copper shutter
aluminum curtain wall exterior mullion
insulation glass HR+++
aluminium curtain wall interior mullion
wooden window sill functions as seating and ventialtion shaft

copper shutter

Horizontal detail
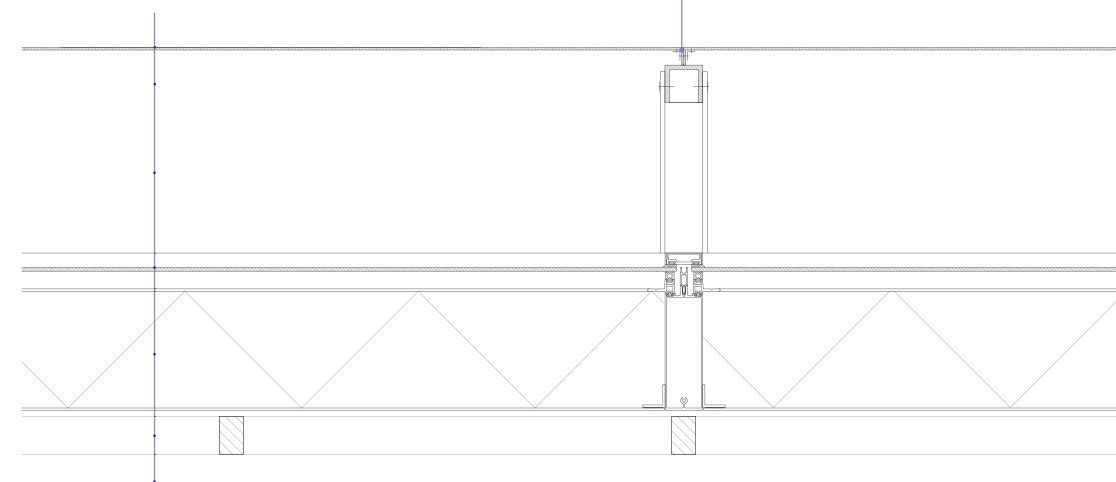**Facade windows**
1:5 (plotted 50%)

copper panels panels
metal mullions and transoms
ventilated cavity
aluminum finishing
insulated sandwich panel
wooden mullions and transoms for window sill
zone for ventilation canal
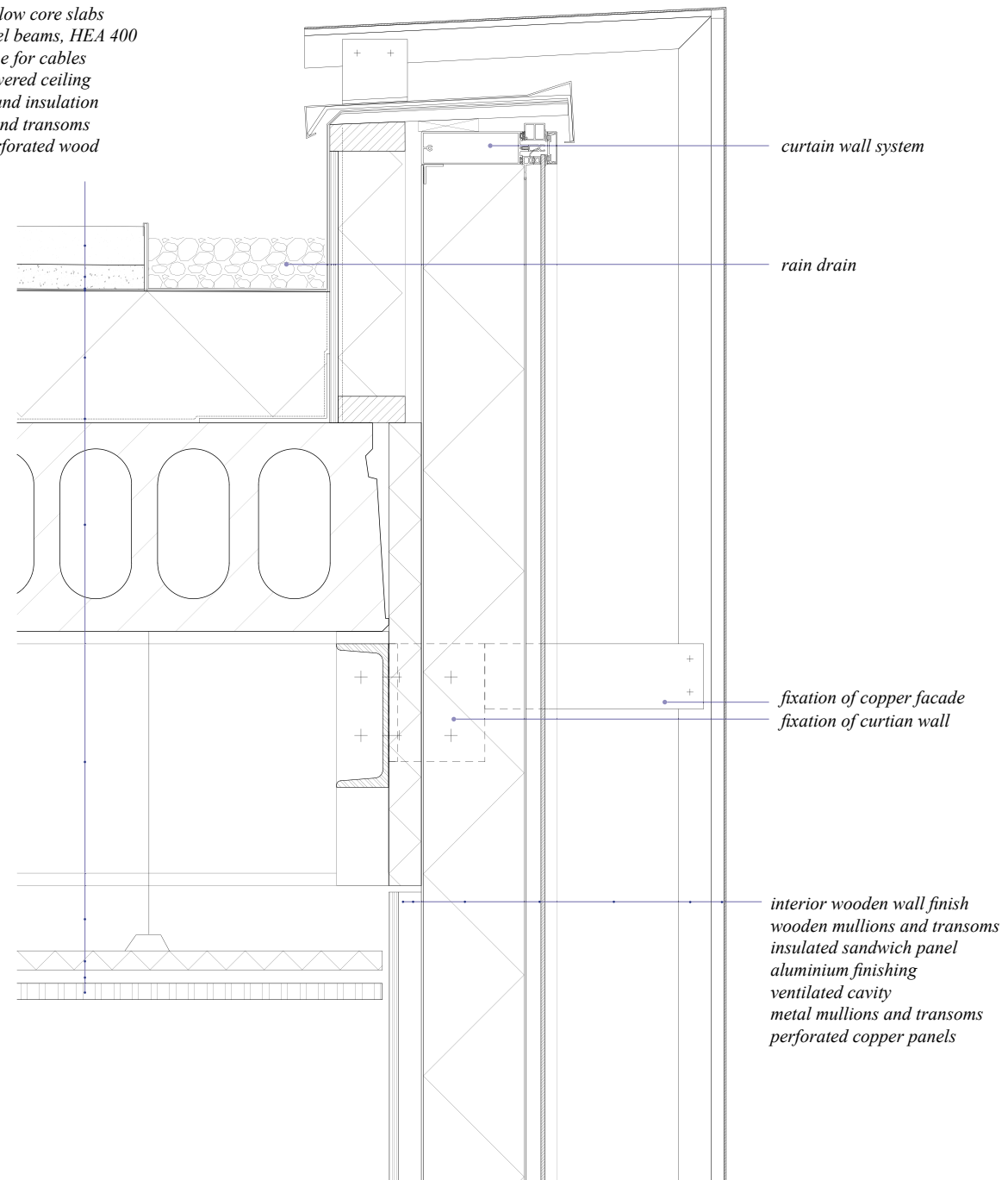
fixation of copper facade

Horizontal detail
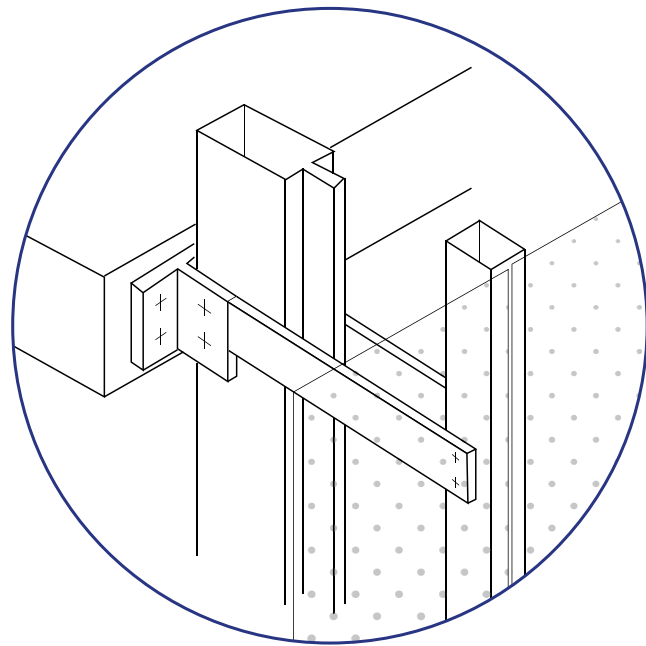**Facade closed**
1:5 (plotted 50%)

60 mm sedum plants in substrate layer
40 mm gravel drain substrate layer
root resistant layer
roof sheeting, waterproof
200 mm insulation
vapour barrier
320 mm hollow core slabs
390 mm steel beams, HEA 400
100 mm zone for cables
acoustic lowered ceiling
- 30 mm sound insulation
- mullions and transoms
- 25 mm perforated wood

curtain wall system

rain drain

fixation of copper facade
fixation of curtian wall

interior wooden wall finish
wooden mullions and transoms
insulated sandwich panel
aluminium finishing
ventilated cavity
metal mullions and transoms
perforated copper panels

Detail
Roof eave
1:5 (plotted 50%)

copper shutter

ventilation canals
wooden mullions and transoms
insulated sandwich panel
aluminium finishing
ventilated cavity
metal mullions and transoms
copper panels

fixation of metal facade
fixation of curtian wall

20 mm of parquet floor finishing
35 mm subfloor and heating
70 mm insulation
320 mm hollow core slabs
200 mm insulation
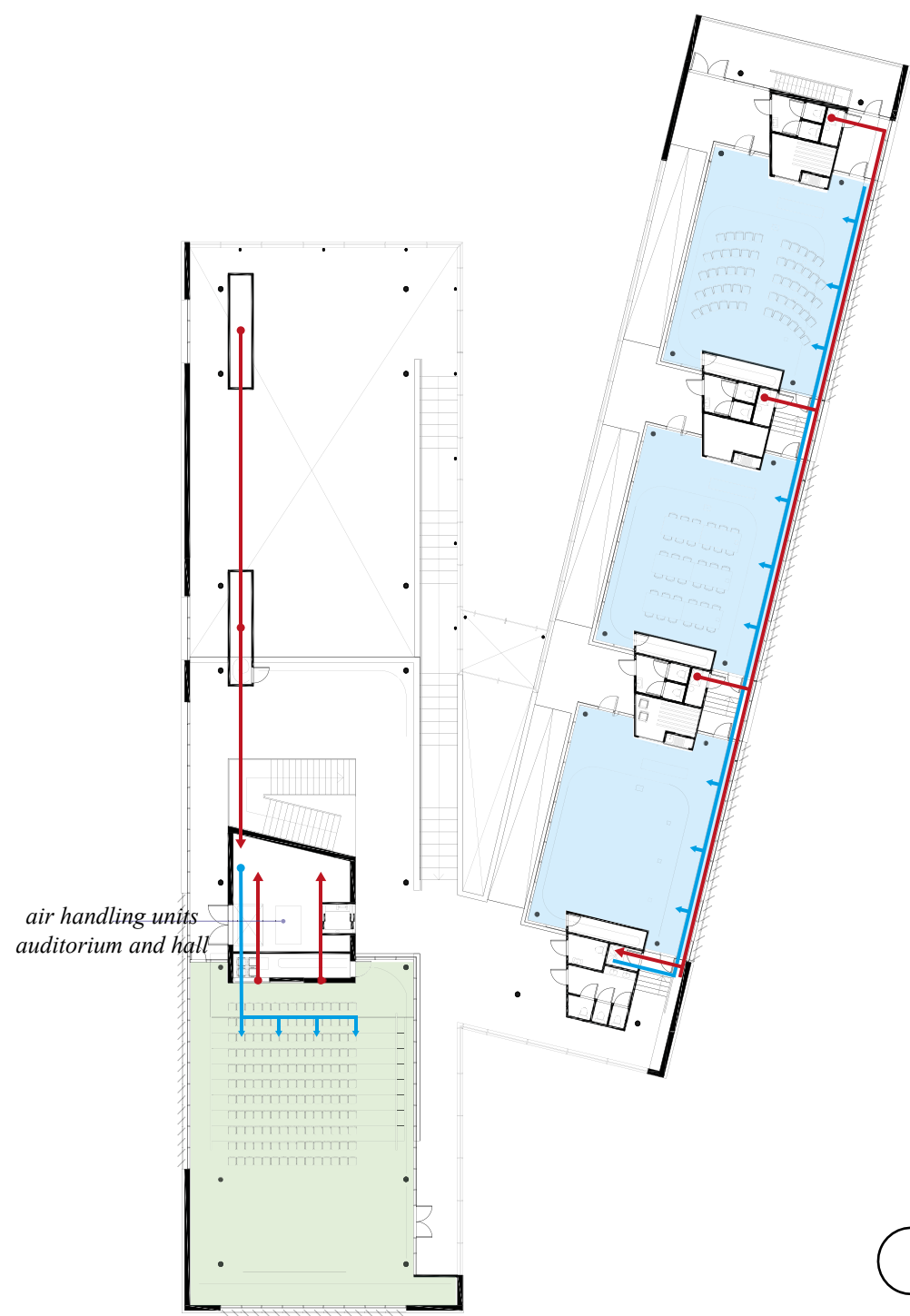
fixation of perforated copper ceiling

**Detail
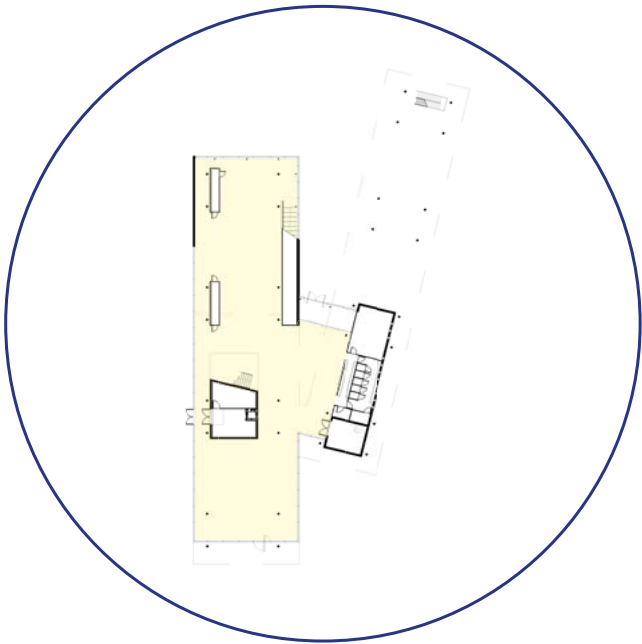Cantilever
1:5 (plotted 50%)**
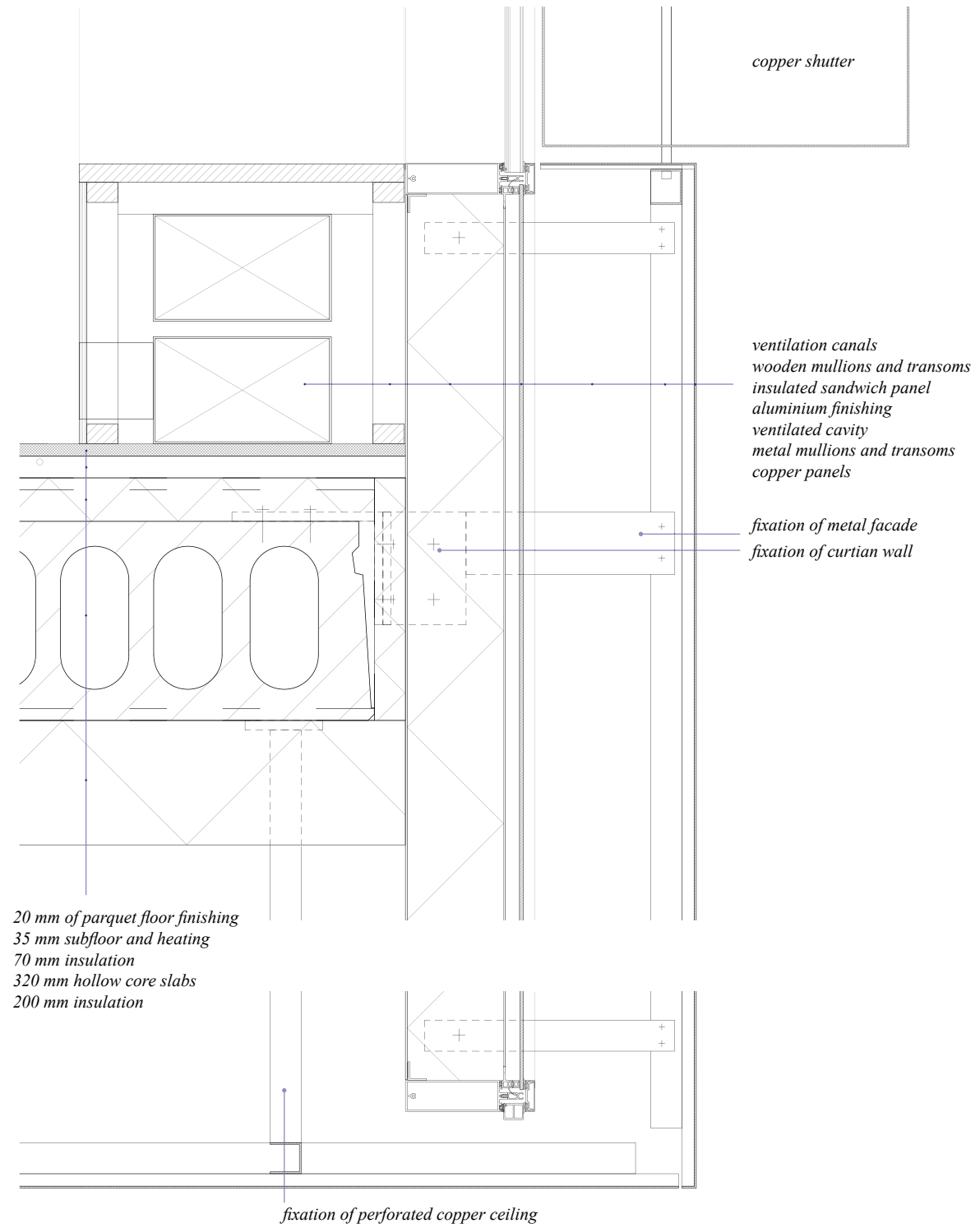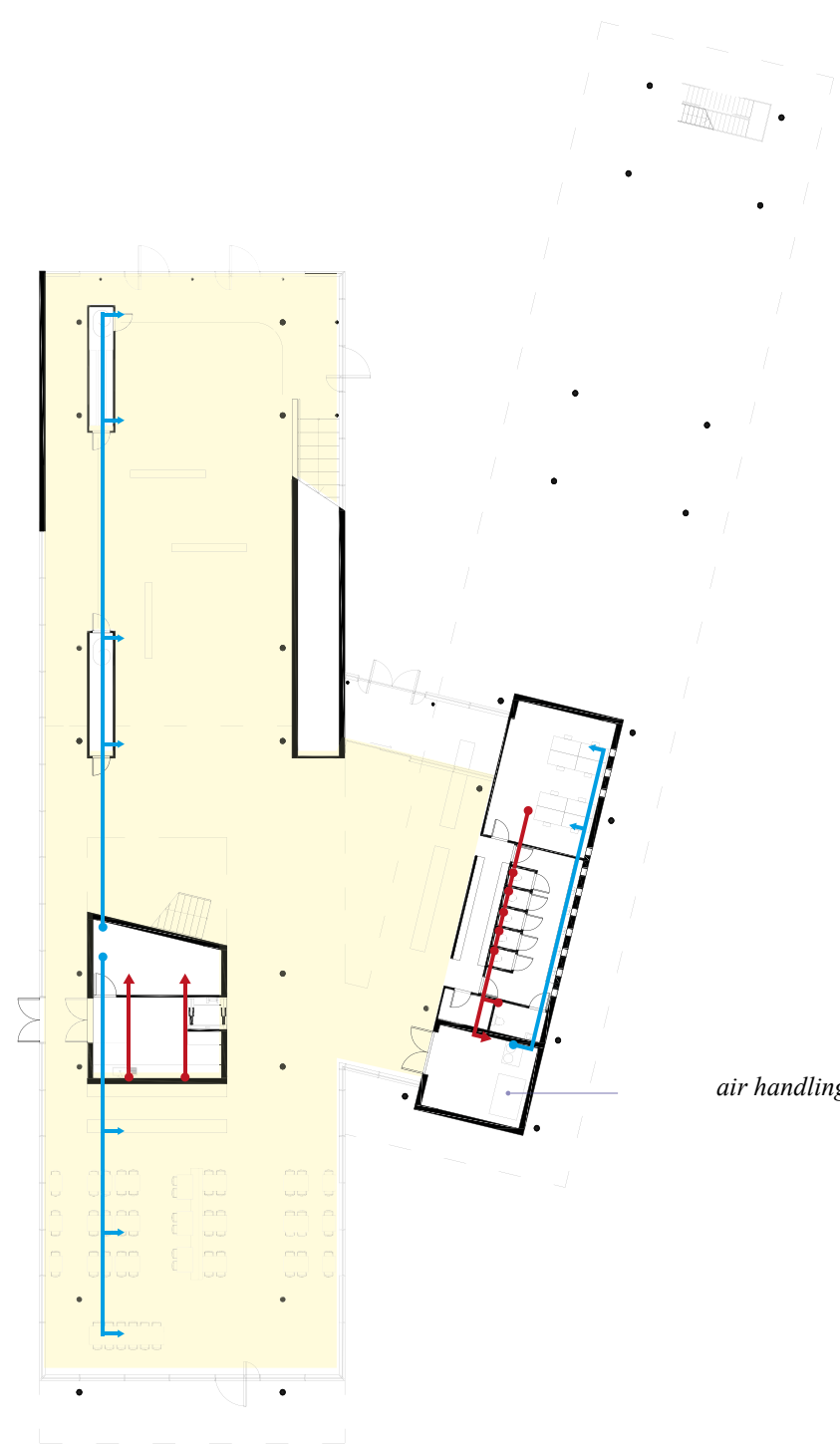
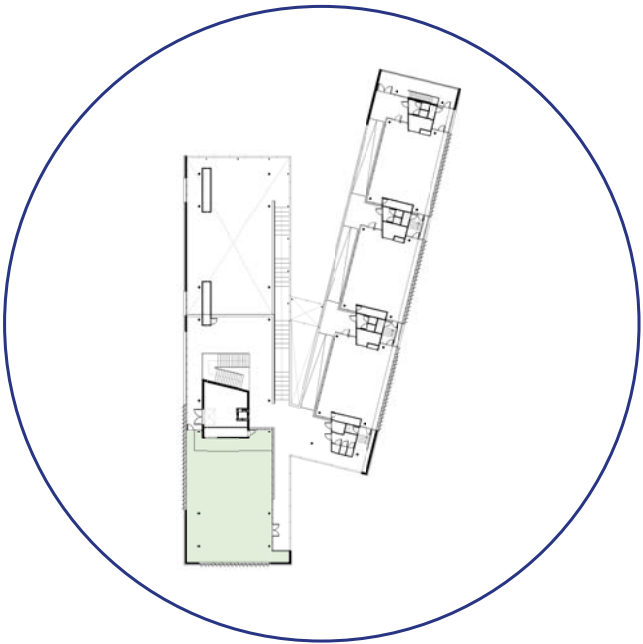*air handling unit ateliers*

*air handling units
auditorium and hall*

climate zones

Zone Halls and Cafe
temperature: *18 - 25 °C*
ventilation: *25 m³/h per person*
light: *indirect sunlight*
acoustics: *acoustic curtains to block noise*
heating: *sub floor heating*
cooling: *cold air via service box*
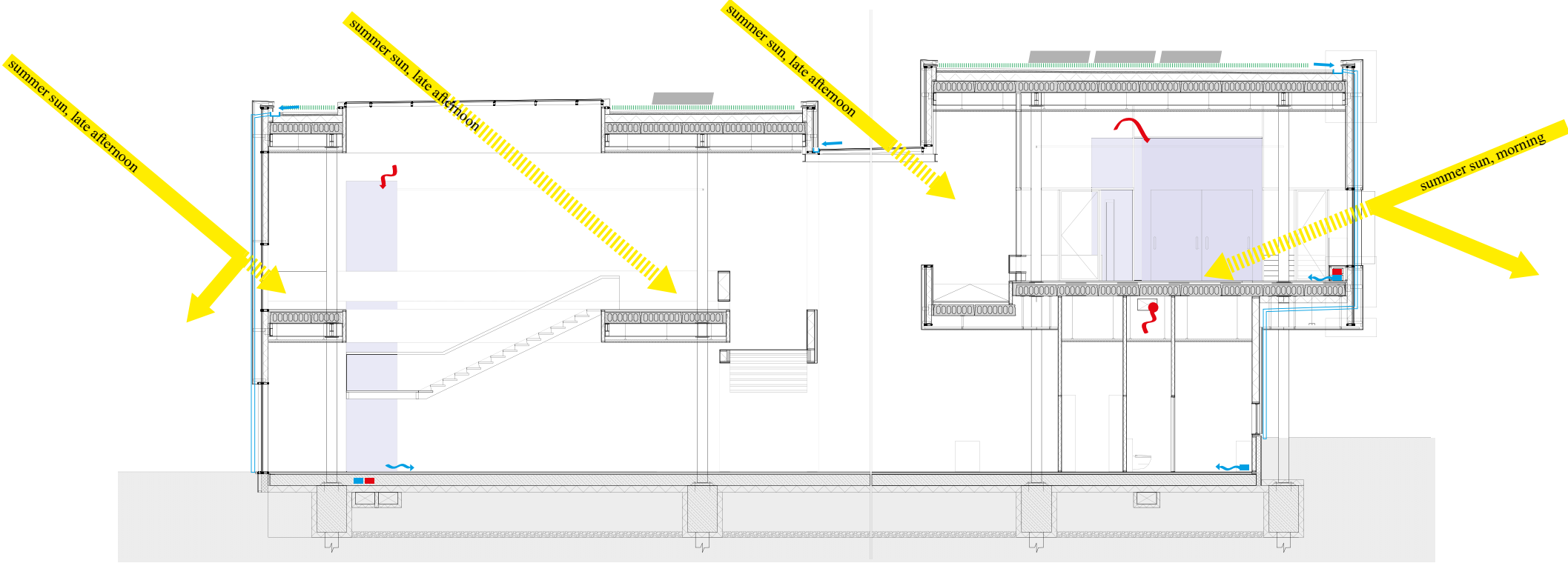*fire safety:*   *sprinklers, multiple doors on ground floor*

Zone Auditorium
people: 165
temperature: *20 - 28 °C*
ventilation: *25 m³/h per person*
light: *adjustable curtains and shutters*
acoustics: *closed off from building*
heating: *sub floor heating*
cooling: *cold air via steps*
fire safety: *sprinklers, escape route*
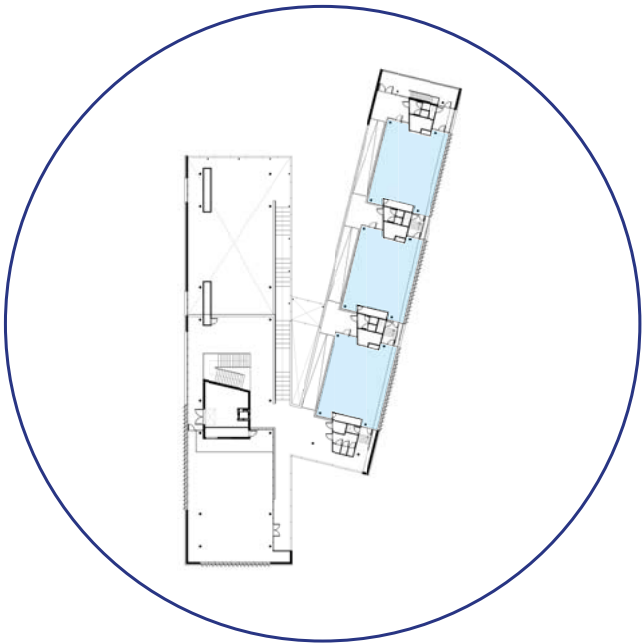
Zone Ateliers
people: 30 - 60
temperature: *20 - 28 °C*
ventilation: *25 m³/h per person*
light: *adjustable curtains and shutters*
acoustics: *closed off from building*
heating: *sub floor heating*
cooling: *cold air ventilation via window sill*
fire safety: *sprinklers, escape route and emergency stairs at viewpoint*

climate principles summer

summer sun, late afternoon

summer sun, late afternoon

summer sun, late afternoon

summer sun, morning

climate principles winter

winter sun, afternoon

winter sun, afternoon

winter sun, morning
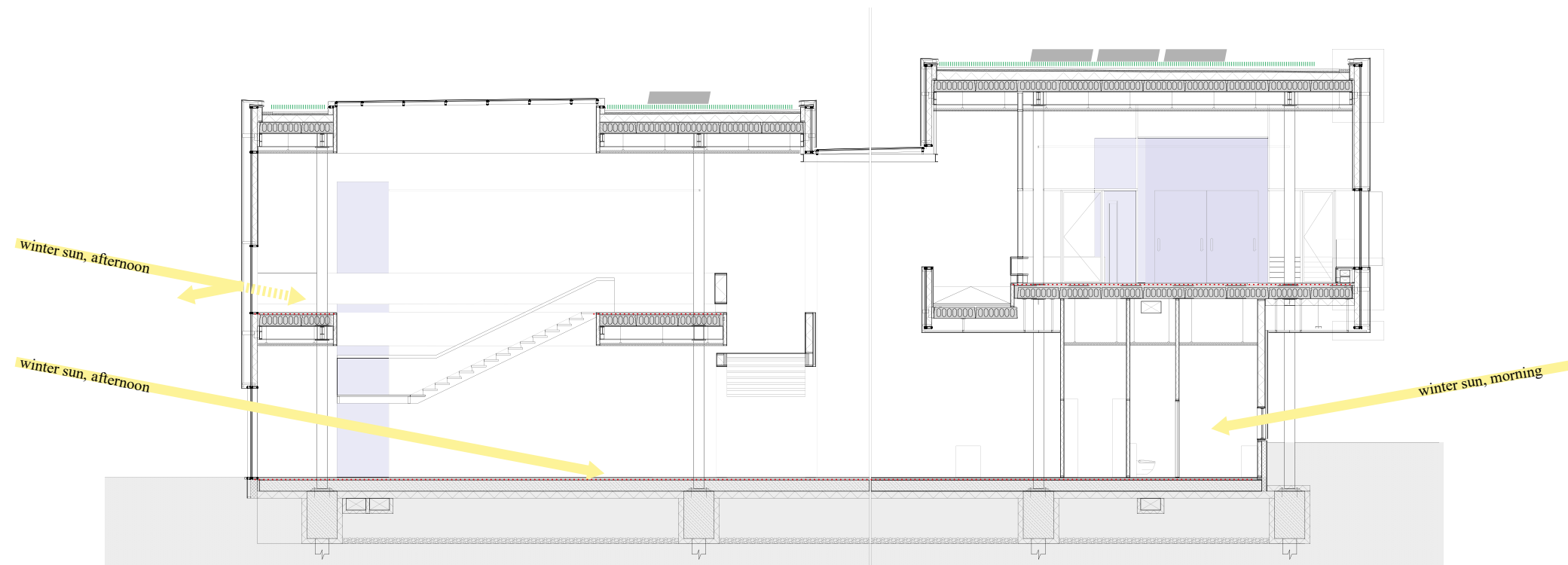
additional sustanability interventions

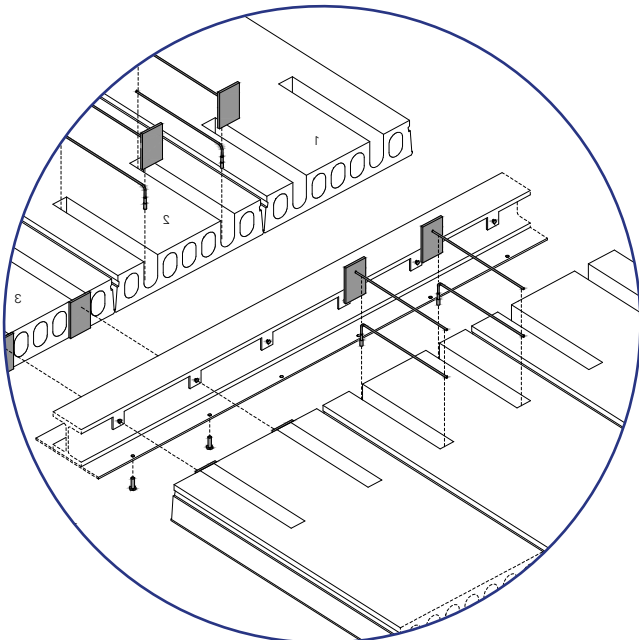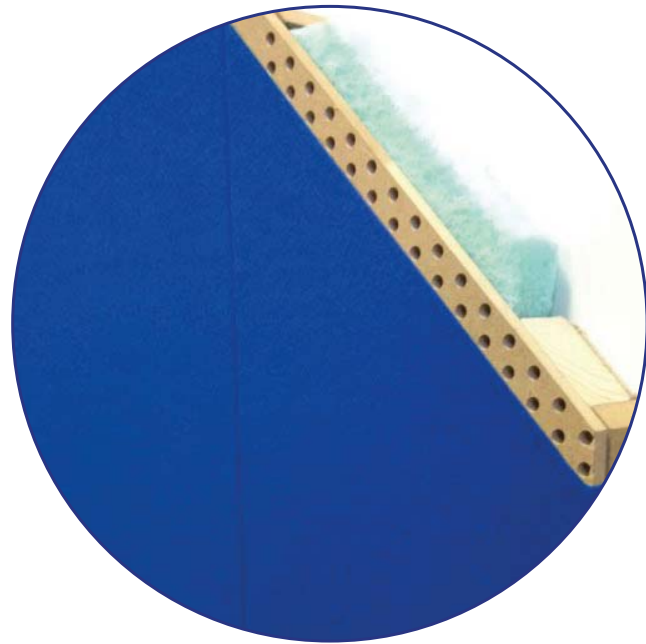*Sedum roof to hold and slow down rainwater*

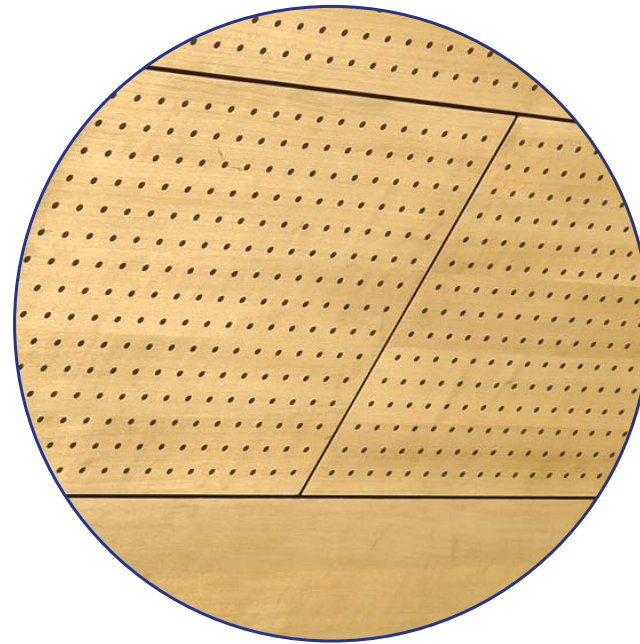*Pv panels on the roof in designated zone.*

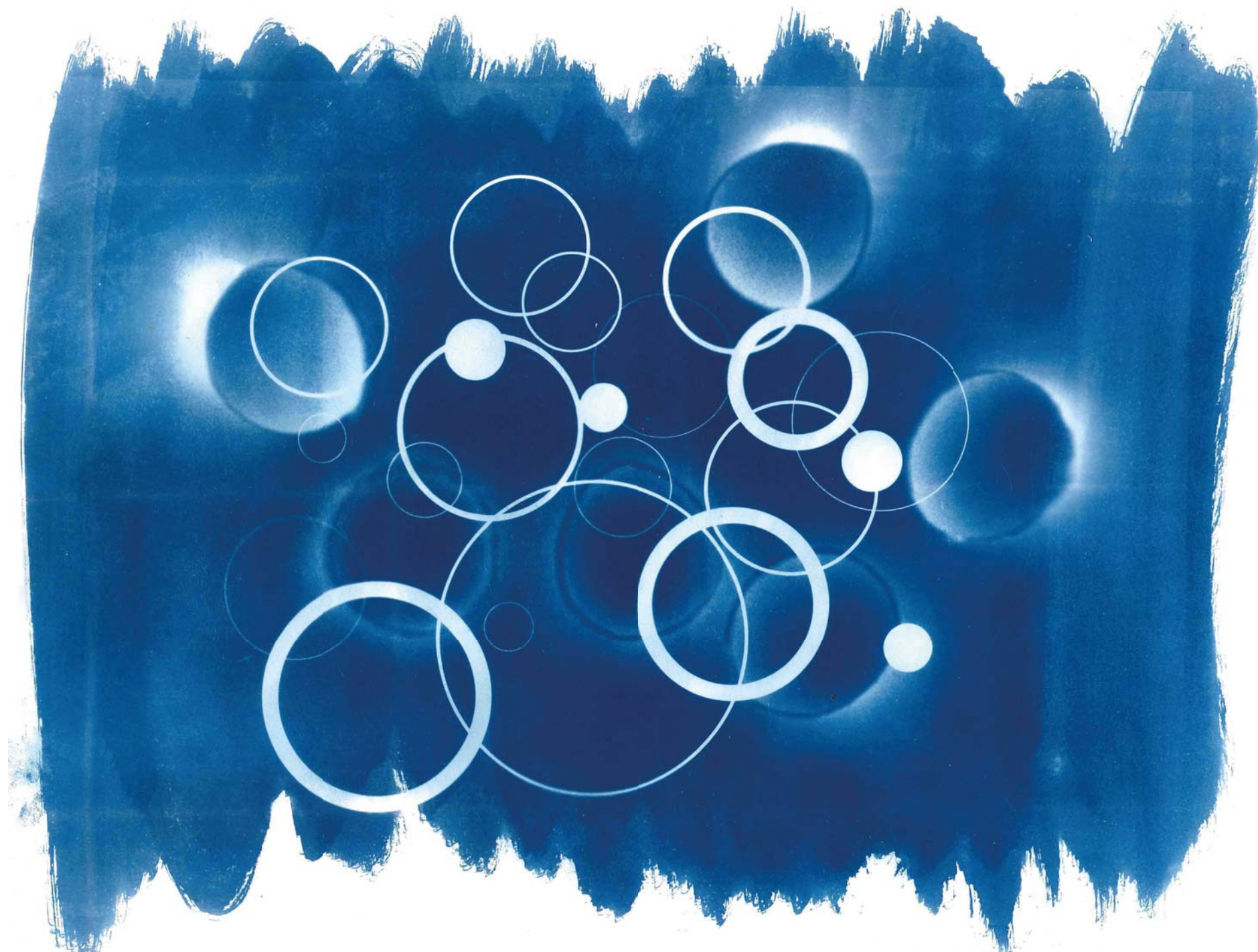*Re-usable contrete hollow slabs to reduce carbon footprint.*

acoustic regulations

Sound absorbing felt.

Sound absorbing wooden ceilings.

Sound absorbing curtains.

the end.

or a

new

start

Reflection

Research and design

As an ExploreLab student I developed my own research and design task. The cohesion between the research and design was not always present from the beginning of the studio. At the start of this graduation project I focussed mainly on the research and formulated the design project after biggest part of research was done. By the time I choose the location, I was able to explain the research with examples related to the location. The more I knew about the design project, the more the two became integrated.

Although the relation became more evident, the research did not give straightforward design answers how to deal with the location or the design task. Instead, the conclusions of the research offered me insights on the role of the architect and a method how to deal with a design task in general.

For me, it was not always entirely clear how the research was implemented in the design process. However, I always designed with my research in mind. Maybe it didn't come out every step of the design process, but this project as just the first try.

Topic

I chose ExploreLab because it has no topic which you have to follow. The topic was something that grew along the way. I started studio with a strong feeling, but uncapable of pinning it down. ExploreLab gave me the freedom to do a theoretical research and find the right mentor and right handles to formulate my questions and topic.

For me, it was/is more important to explore more broader questions about the future of our buildings and the role of the architect that choosing a specific topic. Therefore, a regular studio didn't fit my interests, I thought it would be too much focussed on a typology, topic or specific location. For me those aspects mattered less, I just wanted to know what my position as an architect would be.

Looking back, I am very happy I made this choice. I was not always the easiest way, but I do think it was the most challenging and interesting way.

Method

The students of Explorelab are free to choose and develop their own methods. In my project, a distinction can be made between the research and design method. The first was a very specific literature study, the second was more a combination of methods with trial and error.

I tried to find a clear distinction or way to order and structure the methods before doing it. But both the research and mentors learned me to just start and do it. In the chaos is always a starting point and the things I find important will come together anyway. Now that the research and design are done (for the biggest part), I can finally filter what my method was and what find

out what worked for me.

The way I structed the research (breaking down, and reassemble) became a method for my design project as well. The method I developed can still be improved over the years, and I see this as just a starting point.

Yanthe Boom
23/05/2018

In perspective

During this project I read texts about how the world can be seen in a more abstract way. In the Netherlands we are taught to think in boxes, but the world is a more complex system, with structures in every scale and not all things are visible. This project taught me that you can't always make a distinction between things and see things separate from each other.

I wrote my research with a target group in mind of young architects, like myself. I think this way of thinking about architecture, as dynamic, as something that moves us, is way undertaught at the faculty. What impact your design has and how users will be affected by your design should be way higher on the agenda, instead of slick final images

Research in general can be very worthful if one is allowed to test a design method again and again or ask more general questions which can be taken to the future career. I think the master is a phase in which a student get the chance to develop academic skills and I am happy I took this chance. I already learned a lot compared to a few years ago, but I am certainly not finished learning.