Fortællingernes Hus //

A house of stories

P5 // Graduation report // Sophie Hengeveld // 4210395

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Delft University of Technology
Public Building Graduation Studio

‘Public Condenser: The Hague-Copenhagen’
P5 // 9 July 2020

Mentors
Paul Kuitenbrouwer, Architecture
Gilbert Koskamp, Building Technology

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Content //

007 Graduation plan

015 Design assignment & context

035 Literature research

047 Design manifesto

051 Design brief

055 Multiplicity of functions

073 Project site

103 Design journal

141 Design

225 Model

237 Reflection

Graduation plan //

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Argumentation of choice of the studio

I am most interested in the interaction between people and the built environment, especially on the intersection of urbanism and architecture. I think the city and its buildings are inseparable and their interplay has a major influence on people and their feelings. Especially public buildings can therefore have a big societal impact. In the public building studio I hope to investigate the role of architecture for the public and to find the proper condition of the public in architecture.

Graduation project

Fortællingernes Hus – A House of Stories
Vesterbro, Copenhagen

Problem statement // Gentrification is often stimulated because, among other reasons, it mixes people of different socio-economic strata. However, social mix policies fail to demonstrate how 'social mixing' between diverse neighbourhood groups is actually going to be achieved. The assumption is that middle and working-class people that are placed side-by-side will make the decision to start mixing. Yet, the spatial proximity of these groups does not automatically generate neighbourhood-level social mixing. In Vesterbro, this resulted in the juxtaposition of polarised socio-economic groups rather than in a socially cohesive community.

Research question // How to foster togetherness among the different social groups of Vesterbro by means of a public building?

Design assignment // With my project I will introduce a 'house of stories' as public condenser. The challenge is to design a building that supports this cause; a building that attracts all socio-economic groups of Vesterbro and evokes a feeling of togetherness amongst its users.

Method description

To answer my research question; 'how to foster togetherness among the different social groups of Vesterbro by means of a public building?' a number of sub-questions need to be answered.

By site analysis:

- How did Vesterbro develop and what is the future perspective of the neighbourhood?
- What are the current demographics of Vesterbro and which social groups need to be addressed?
- What is the current status of the neighbourhood in terms of social cohesion/ segregation?
- How is social segregation addressed by society (top-down/bottom-up)?
- How does the built environment of Vesterbro currently foster togetherness and inter-group contact?

By research and design:

- What programme attracts all social groups of Vesterbro?
- What programme makes people come together?
- What architectural qualities evoke a feeling of togetherness?
- What architectural characteristics/elements create these qualities?

My hypothesis is that opening up to other people's stories can reduce social segregation in gentrified areas, and a platform for storytelling (in its many forms) can therefore be an incredibly powerful tool to 'condense' the public. To support this cause, I think the architecture of a 'house of stories' should be about discovery, to trigger curiosity, openness and togetherness in its users.

In my site analysis I used Jan Gehl's theory combined with a praxeologic and a phenomenologic approach. I studied the way Vesterbro's users interact with the

built environment and used my own experience to analyse the atmosphere in the urban spaces. By research and design I will explore the possible resources of an architect to create certain atmospheres in architecture. Thereby I aim to find spatial characteristics that influence the perceivable properties of a building in such a way, that social mixing is likely to be promoted.

Literature and practical preference

My general practical preference tends towards architectural phenomenology; focusing on multi-sensory encounters rather than visual impressions. I like to understand architecture as a spatial experience; being aware of its atmospheric dimension. In my projects, I consider the perceptive dimension of a building to have a fundamental function. Herein I am inspired by built and/or written works by Peter Zumthor, Alvaro Siza, Alvar Aalto, Gunnar Asplund, Barozzi/Veiga, Jan Gehl, Christopher Alexander, Juhani Pallasmaa and Klaske Havik. This comes forward in the following literature:

On space and atmosphere

Gehl, J. (2010). ***Cities for people.*** Washington: Island Press.

Gehl, J. (2011). ***Life between buildings*** (6th ed.). Washington, DC: Island Press.

Havik, K., Tielens, C., & Teerds, H. (eds.) ***OASE #91; Building Atmosphere.*** Rotterdam: NAi010.

Havik, K. (2019). ***Writing atmospheres.*** In J. Charley (ed.) The Routledge Companion on Architecture, Literature and The City. (pp. 270 -282). New York: Routledge.

Van Duijn, W. (2014). ***Sfeer bouwen.*** Retrieved on 22 September 2019 from https://www.archined.nl/2014/05/sfeer-bouwen/

Zumthor, P. (2006). ***Atmospheres.*** Basel: Birkhäuser.

On gentrification and social mixing

Lees, L. (2008). Gentrification and Social Mixing: Towards an Inclusive Urban Renaissance? ***Urban Studies, 45***(12), 2449 - 2470.

Manley, D., Van Ham, M., & Doherty, J. (2011). Social Mixing as a Cure for Negative Neighbourhood Effects: Evidence Based Policy or Urban Myth? In G. Bridge, T. Butler, & L. Lees (eds.), ***Mixed Communities: Gentrification by Stealth.*** Bristol: Policy Press.

Remmerswaal, J. (2017). ***Handboek groepsdynamica, een inleiding op theorie en praktijk*** (11th ed.). Amsterdam: Boom uitgevers.

On multiplicity

Bergson, H. (1992). ***The Creative Mind.*** New York: The Citadel Press.

Reflection

Gentrification increases the economic value of a neighbourhood. This is a controversial topic in politics and in urban planning. On one side, the increase of value can force out low-income residents. On the other side, the process of gentrification can mix people of different socioeconomic strata. This is considered a positive effect, since it is assumed that introducing a social mix in neighbourhoods creates more opportunities in life for the original residents. However, despite neighbourhoods becoming increasingly diverse, gentrification tends to result in juxtapositions of polarised socio-economic groups rather than in socially cohesive communities.

In cities all over the world, social mix policies fail to demonstrate how 'social mixing' between diverse neighbourhood groups is actually going to be achieved. This is unfortunate, because the 'contact hypothesis' suggests that intergroup contact can effectively reduce prejudice, stereotyping and discrimination between majority and minority group members, leading to better intergroup interactions and higher quality city life.

Existing research on social mixing mostly studies existing urban situations and is mainly policy-directed. With my graduation project, I will show how a public building can reduce social segregation in gentrified areas, and how architecture could play a role in this.

This closely relates to the studio topic of a public condenser; a building where the public comes together. The studio's theme of 'multiplicity' plays a big role in this. Firstly, because multiple functions need to be integrated to attract different social groups. Secondly because the relationship between people and space is not limited to visual connection. As Juhani Pallasmaa states, all senses are collectively acting to experience a space. "Our perception and understanding [of a space] does not process from details to entity, but the other way around: from entity to details" (Havik, 2013). Based on sight, hearing, smell, touch, taste, movement and bodily awareness, we perceive space as a whole (Holl, Pallasmaa and Pérez Gómez, 2006). The experience of space is therefore by definition multiplicit in its original (philosophical) meaning, as described by Henri Bergson in his book The Creative Mind (Bergson, 1992).

Time planning

1.1 Site analysis Copenhagen
1.2 Site analysis Copenhagen
1.3 Copenhagen excursion
1.4 Research presentations Copenhagen
1.5 The Hague excursion
1.6 Site analysis The Hague
1.7 Research presentations The Hague
1.8 Finalising site analyses and preparation of P1
1.9 P1 presentation

1.10 Project site selection + urban model making
2.1 Additional site research
2.2 Programme development
2.3 Analysis of existing types and references
2.4 Concept development
2.5 Formulation of design principles
2.6 Sketch design and building layout (1:500)
Holidays // Christmas + Finalising design manifesto and multimodal object
Holidays // Finalsing concept design + Preparation P2
2.7 Printing and preparation P2
2.8 P2 presentation

2.9 Finalising research paper
2.10 Hand-in research paper (AR3AP010) and design manifesto
Holidays // Potential site visit Copenhagen
3.1 Specific research on the influence of the design on the site
3.2 Further development of programmatic placement and interior routing
3.3 Formulation of construction/sustainability/materialisation principles
3.4 Construction, sustainability and materialisation sketch design
3.5 Printing and preparation P3
3.6 P3 presentation

3.7 Further development of floorplans, sections and landscaping (1:100)
3.8 Further development of floorplans, sections and landscaping (1:100)
3.9 Design details and materialization (1:20 / 1:5)
3.10 Design details and materialization (1:20 / 1:5)

4.1 Design visualization + design adjustments
4.2 Finalising storyline and explanatory diagrams
4.3 Printing and preparation P4
4.4 P4 presentation
4.5 P4 presentation
4.6 P4 presentation

4.7 Finalising design visualisations and graphic design
4.8 Architectural and urban model(s)
4.9 Printing and preparation P5
4.10 P5 presentation

Design assignment & context //

“In the Public Building graduation studio, multiplicity is investigated as a property of a public condenser in Vesterbro, Copenhagen.”

“A public condenser is a shared facility, encouraging the encounter of various populations living close to one another, but rarely meeting.”

mul·ti·plic·i·ty *noun*

[muhl-tuh-plis-i-tee]

1. a large number or variety
2. the quality or state of being multiplex or manifold; manifold variety

Pub·lic *noun/adjective*

[puhb-lik]

noun

1. ordinary people in general; the community

adjective

1. generally known
2. open to all persons
3. of, relating to, or affecting a population or a community as a whole
4. pertaining or devoted to the welfare or well-being of the community
5. maintained at the public expense and under public control

con·dens·er *noun*

[kuh n-den-ser]

1. a person or thing that makes (something) more dense or compact
2. an apparatus for making (something) more dense or compact

The development of Copenhagen (Image by Mohamad Abu Ezzat).

The Development of Vesterbro

Its location close to the sea has always had a great influence on the development of Copenhagen. The late medieval city was protected by a city wall. Building outside this wall was restricted to maintain clear ground in case of an attack. The city was very densely built and had its problems with liveability and health.

This came to a crisis point in 1853 when there was an outbreak of cholera and 5,000 citizens died over 4 months. It was clear that a substantial number of people had to move out of the tightlypacked city walls. Building work progressed rapidly and by the end of the 19th century new neighbourhoods Vesterbro, Fredriksberg, Nørrebro and Østerbro were built.

Skydebane, a shooting range that now suddenly was surrounded by the new urban developments of Vesterbro, was partly expropriated to make place for Istedgage. A tall wall was constructed to shield newly established street from stray bullets.

Copenhagens' expansion coincided with early industrialisation in Denmark. Rural-to-urban migration exacerbated the already existing housing shortage. Norrebro and Vesterbro were filled up with building blocks to house the working class. The ongoing shortage of working-class housing made that Vesterbro had to be densified. Five-story buildings were built to replace the original two stories buildings. Even the inner courtyards had to be filled with housing. Fire danger, rats, overpopulation, moisture and bedbugs ruined the lives of its inhabitants.

In 1947 parts of Vesterbro were declared as slum and most courtyards were cleared from all now illegal buildings in order to enhance the quality and the hygiene in Vesterbro. The urban form was stable in this period but the buildings were upgraded and renovated.

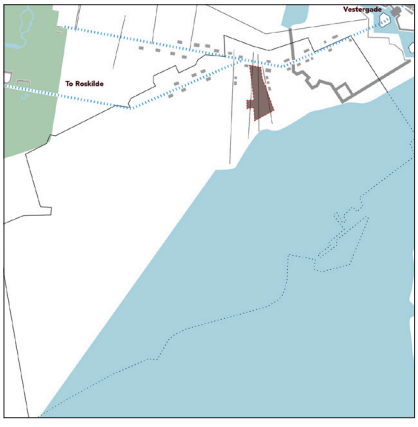
Saxopark before (left) and after (right) clearance of the buildings that filled up the courtyard.

1700 - 1799

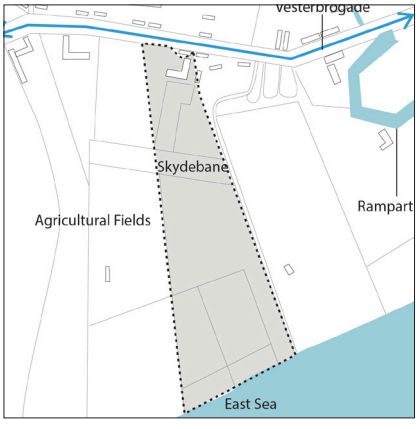
1800 - 1879

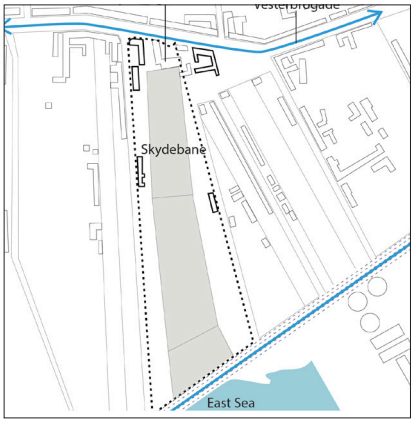
1880 - 1889

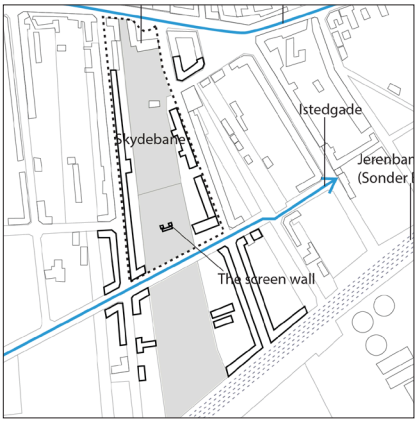
Copenhagen



Vesterbro





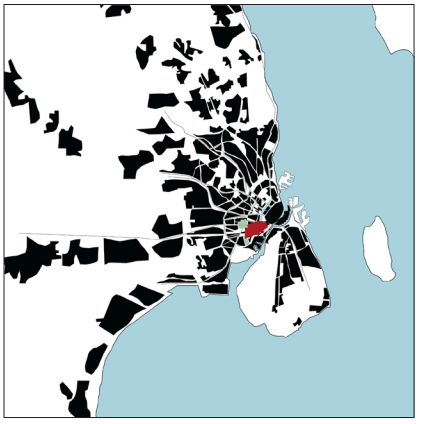


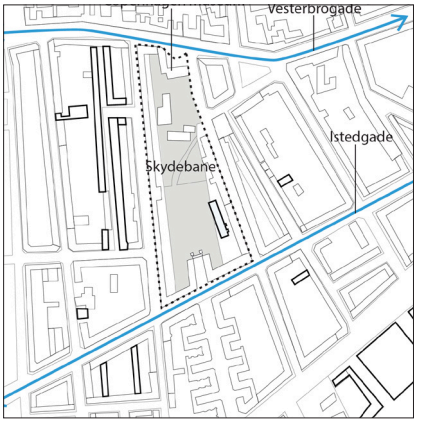
Skydebanehaven

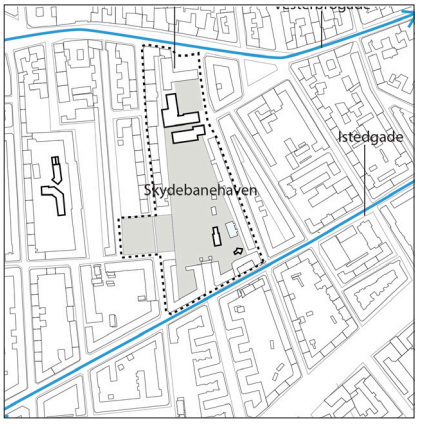
1890 - 1929

1930 - 1949

1950 - 2019







The start of gentrification

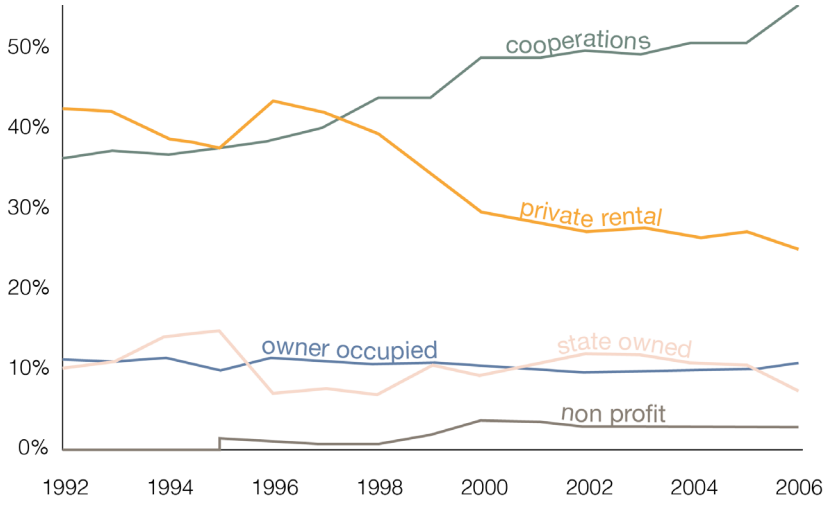
In 1950, Copenhagen's population peaks with 975,000 inhabitants. Development stagnated in the urban core, but the surrounding areas experience rapid growth. The 'finger plan' is presented to direct the expansion of the city. It proposes semi-independent districts along lines radiating from the urban core.

This new spatial expansion led to significant demographic restructuring. Those who could, left the overcrowded neighbourhoods for the suburbs. This left Vesterbro partly vacant and run down by the 1960's. Vesterbro became a tough neighbourhood, known for its high rates of unemployment and social insecurity. It had a reputation as a center for prostitution and drug trafficking, where only the poorest would live.

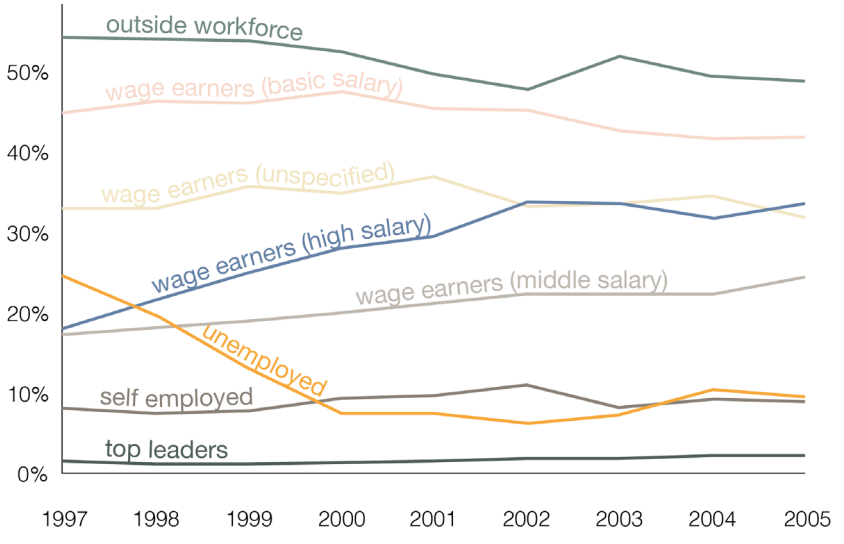
At that point the government started projects to enhance the quality of the neighbourhood. Today, the slow but steady renovation process and its central location make Vesterbro a favoured place to live. The neighbourhood is becoming more and more popular among the middle class; family living with hip nightlife coffee bars and fashion boutiques pop up throughout the neighbourhood. Strip-bars, cheap serving houses and shops, are replaced by fancy wine-bars, organic bakeries, fashion boutiques and sushi restaurants.

The demolished 'inner block-buildings' have made room for lawns, swings and sand-pits. There used to be very few children in Vesterbro, and almost no schools. Today it is the opposite; mothers pushing their strollers or dads with a kid in the bicycle seat are seen everywhere. There used to be lots of small apartments for rent; a 35m^2 apartment would cost 550 Kroner a month. Now, the few remaining rental appartments cost a lot more than they used to. The working-class people are gradually driven out of the neighbourhood.

Gritty (left) versus hipster (right) atmosphere in Vesterbro.



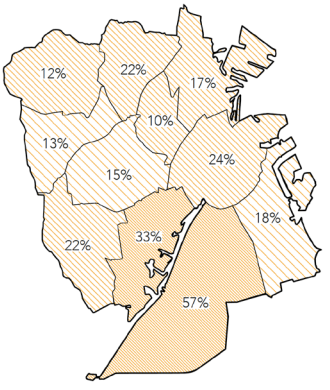
Property ownership // The percentage of housing units that is rented out by private parties lowered over the years, while housing coorperations took over the rental market in Vesterbro (Larsen and Hansen, 2008).



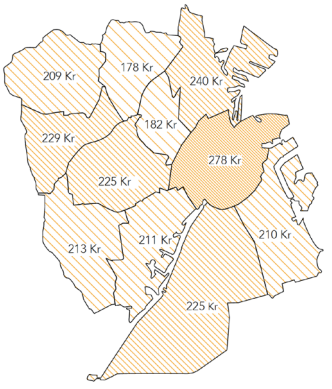
Socio-economic groups // The percentage (of the total population ages 16-66) of unemployed inhabitants and wage earners with basic salary in Vesterbro dropped, while the percentage of wage earners with a high and middle salary increased (Larsen and Hansen, 2008).

Demographics of Vesterbro

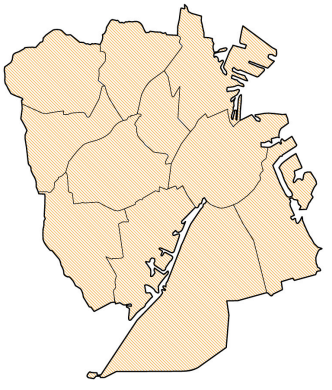
By gentrification, the government planned to change the social composition. Most of the original residents had to make place for students and artists. With the rising attractivety of the central district, families, higher educated, younger and richer people settled here. Vesterbro became the centre of hipster culture (Larsen and Hansen, 2008). ***Images by Robert Kupzik.***



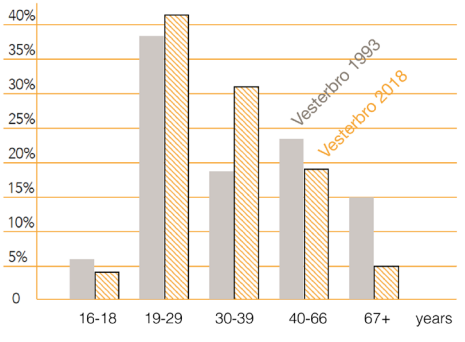
Population // Since 1995, the population of Vesterbro increased by 33%.



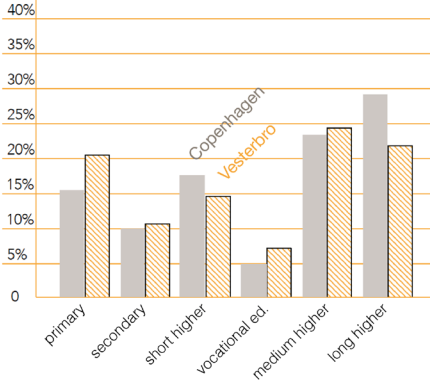
Income // In Vesterbro, the average disposable income is 211.000 Kroner.



Ethnicity // Like in all of Cph, 75% of the inhabitants of Vesterbro are of Danish origin.



Age // Between 1993 and 2018, the age group of 19-39 years old increased, while the percentage of elderly dropped.



Education // In 2018, the percentage of high education in Vesterbro is still slightly lower than in the rest of Copenhagen.

Social segregation as described by residents

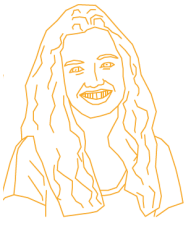
Mother (age 34) living in Vesterbro for 20 years: “Vesterbro changed a lot. It is safer and more clean.” Being a mom, she sees the advantages, but everyone around her looks the same. It would be good if different groups are mixed up again, like eating together or rules for private schools that they have to take kids from low income families. *She wants her son to not only grow up with the privileged but to see that there is another reality in this country as well: “It is easy to forget that not everyone is so privileged as we are here.”*

Woman (age 63) living in Vesterbro for around 40 years. She saw Vesterbro change but is still finds it one of the most diverse districts of Copenhagen. The diversity that is still left is possible because of housing associations enabling it for a few poorer people to stay in Vesterbro. She also noticed that even students and creatives have to move out of the district, because of the high prices. *She also notices that people don’t speak so much to each other any more: “People have friends that look like them, eat like them. They are like Facebook algorythms”.* More communal functions that will bring together (elderly) people and more parking could improve the neighbourhood.

Friends (age 38 and 42) living in Frederiksberg. They experienced the change of the area mostly positive. Although it is maybe getting too correct now. Sport facilities, a music center or a place for the youth that prevents them from hanging around in the park could maybe improve the area even more.

Teacher (age 29) at Vesterbro Ungdomsgård. Has seen the area change a lot and ***the school gets less diverse***, but the conditions are very good in the area. A lot of playgrounds and skateparks opened. More green and indoor activities for kids could improve the area even more.

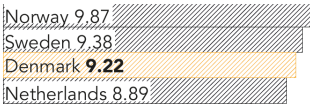
Student (age 24) living in Vesterbro since 6 months. She still doesn’t know Vesterbro that good and only heard that it changed a lot during the last years. She has no complaints about the are and feels like it is safe. If she misses something she is just taking the bike somewhere else in Copenhagen.



Danish cultural values

Law of Jante // The general happy acceptance of being average, of not having to be anything. This is relieving social pressure and the foundation for flat hierarchies and equality in Danish society.

Democracy // Danish society has a fully developed democracy (score of 9.22). The trust in this institution enables its extensive welfare program.

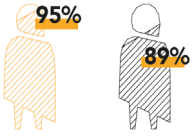


No corruption // Denmark is one of the less corruptive countries in the world. It ranked first place on the Corruption Perception Index 2018.

Freedom // Respect, tolerance and a strong sense of mutual trust form the values that allow a wide freedom of the individual. The law prohibits any sort of discrimination on gender, race, religious belief or sexual orientation. Freedom of speech and the freedom of press is guaranteed.

Safefy // In Denmark, 84% of people say they feel safe walking alone at night, much more than the OECD average of 68%. Denmark's homicide rate is 0.6, one of the lowest rates in the OECD, where the average homicide rate is 3.7.

Gender equality // Denmark ranks second in the UN development report in the gender inequality index. The income inequality is lower than the OECD average with a Gini coefficient of 0.249 (OECD average 0.315) (Smidova and Klein, 2019). About 72 % of Danish women have paid jobs outside the home, far above the OECD average of 59%.

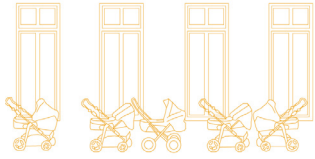


Equal opportunities // The Danish health system is tax-funded and free for the patient. Danish schools and universities are also funded by taxes and free for students. The idea is that everyone must contribute to the community and in return, the community will help care for all.

Community feeling // 95% of Danish inhabitants think they know someone they could rely on in a time of need. The average of OECD countries is 89%.

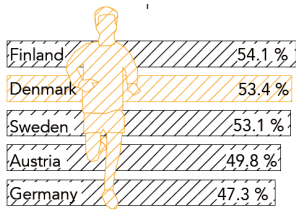
Danish lifestyle

Work-life balance // The Danish devote more time than the OECD average socializing with friends, family, sports, hobbies and games. The official working hours are 37 hours per week. Overtime is usually financially compensated. By law there are 5 weeks of vacation each year and the employee gets fully paid on the first day that their child is sick.



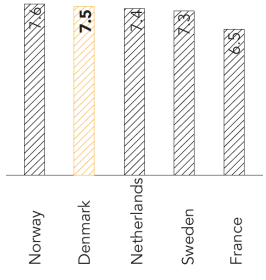
Family first // Family-friendly lifestyle is an important aspect of Danish society. Both parents are legally allowed to leave work to pick up their children. There is a great flexibility for employees when it comes to appointments for their children.

Sport // The Danish are active in sports and outdoor activity. Being surrounded by sea on three sides Danes are strongly connected to water and with this swimming and sailing. Handball is the Danish passion when it comes to sports. And of course it is a nation of biking. Percentage of people doing physical activities at least 2,5 hours/week in Denmark is 53.4%.



Volunteering // 41 % of Danes volunteer in their free time especially in associations. There are more than 100.000 active associations in Denmark with only 5.7 million inhabitants. This work contributes to a sense of community, active citizenship, enlightement and equality.

Life satisfaction // Denmark is always under the top performers when it comes to life satisfaction and happiness. This contributes a lot to a mental well-being and a good social climate. At the OECD survey about life satisfaction Danes gave it a 7.6 in average in comparison to 6.5 in OECD average.



Social mixing

Although different socio-economic groups are present in Vesterbro, individuals indicate that they only interact with similar people (their in-group). This may inhibit the new ideas and innovations that arise when people who are unalike interact with each other. Social mixing, on the other hand, can create tolerant and inclusive communities where opportunity for human flourishing is shared by everyone. Social mixing occurs on a spectrum form aloneness to togetherness (Gehl Institute, 2016):

Passive contact // Whenever someone is in the presence of others. This can be measured in amounts of people, combined with certain demographic characteristics of age and income.

Chance contact // Whenever someone asks you for the time or any other non-personal interaction. This can be measured by asking if people interacted with anyone they didn't know.

Familiar stranger // Someone you recognise, but who you not necessarily know by name. Place-based affiliations; when different groups become the same group for a certain bubble in space and time.

Increasing tolerance // Research shows that athletes playing in racially integrated teams were less racially prejudiced than other athletes (Brown, 2013). Contact with homosexual individuals is associated with more favourable attitudes by heterosexual individuals (Herek, 1996), and contact with Muslim peers reduced anti-muslim attitudes (Savelkoul, Scheepers, Movotny, 2011).

Creating opportunity // Under the right circumstances, the weak ties that exist between familiar strangers have been shown to increase job opportunities, higher wages and employment. These weak ties even show to be more important than strong ties in finding employment and experiencing occupational mobility (Granovetter, 1973; Montgomery, 1994).

Theory of change

Challenge //
Unequal and polarised area

Goal //
Empathetic and inclusive community where opportunity is shared by everyone

Activities //
Design and programming that invite diverse people to interact

Objectives //
To foster opportunity, talent and engagement in the public realm

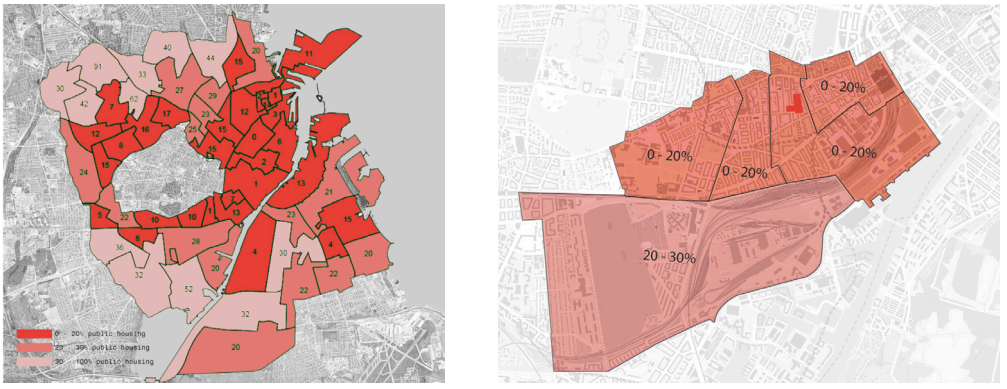
Outcomes //
Tolerance, economic mobility, equal access to public resources

Outputs //
Socio-economic mixing

Impact //
Empathetic and inclusive communities where opportunity is shared by everyone

Current projects on social mixing

Municipal plan // The Municipality acknowledges the importance of a diverse city and is trying to force more social housing into the districts with less than 20% social housing; Vesterbro will likely see an increase in social housing.



Current social housing in school districts in Copenhagen (left) and in Vesterbro (right). Image by Igor de Kuijer.

Top-down initiatives // Some initiatives support the lower income groups living in Vesterbro, but none of them is focused on mixing groups:

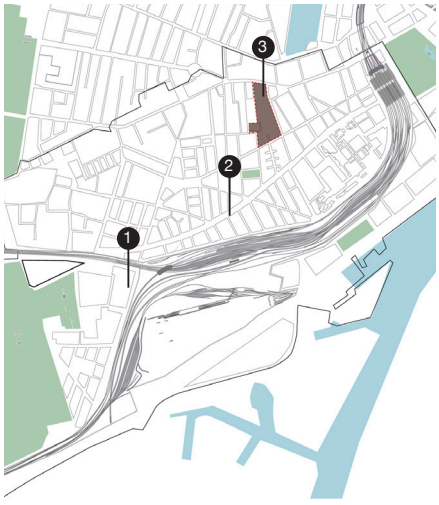
1. Nursery and kindergarten providing food.
2. Borgercenter Voksne provides financial aid and has an open citizen reception.
3. Krisecentret Garvergården is a self-owned institution that offers shelters for people with and without children, as well as whole families.
4. Settlementet Saxogaard runs social economy shops for vulnerable adults who have fallen through the welfare safety net. They actively involve the citizens in a diverse community.
5. Vesterbro Ungdomsgård supports young people focusing on wellbeing, learning, community and democratic education.

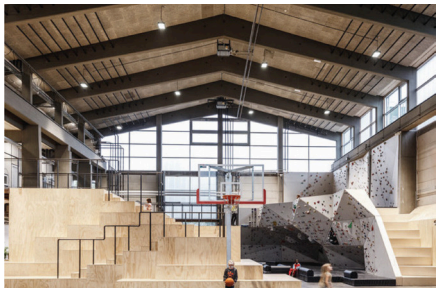
Bottom-up initiatives // Vesterbro knows three important social bottom-up initiatives.

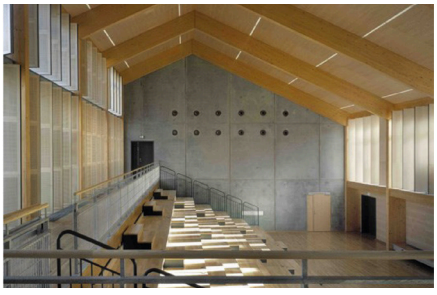
1. GAME Streetmekka. When the three founders recognised a disturbing development of social exclusion and lack of sport facilities in 'poor' neighbourhoods in Copenhagen, they established a sports network based on voluntary activity. Bridging cultural differences and creating lasting social change. In 2008 the municipality took part of the organisation and provided funding for an actual building so youth could play sport despite poor weather conditions.

2. Absalon. A businessman bought an abandoned church to transform it into a new community house. Aiming to create a more social focused society, that is now taken over by technology. It functions as a public living room. On a daily basis communal dinners are organised. The space is filled with tables, games, workspaces, books and films. The events are focused on youth, elderly and grown-ups.

3. Ungdomgard is a youth centre that focuses on after-school activities. It offers sports, games, design activities, music lessons, gaming and food workshops. It stimulates local communities being formed in an early phase in children's youth. Thereby, is it important to forge connection with other people besides the ones in the classroom. The club is established in 1958, when Vesterbro was still a working class district. The youth club acted asa safe space where the youth could temporally forget their daily circumstances.







“Introducing a public condenser in Vesterbro means trying to prevent polarisation and to encourage social mixing on a familiar stranger level.

With my project I aim to foster togetherness among the different social groups of Vesterbro, that goes beyond placing different people in the same space.

Thereby I hope to ensure that the benefits of economic growth will be shared by both the original and the new inhabitants of Vesterbro.”

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Literature research //

A House of Stories - Fostering Togetherness in Gentrified Neighbourhoods

Abstract

In the past years, the Vesterbro neighbourhood in Copenhagen has been in the process of gentrification; its character has changed by big scale renovation projects and the influx of more wealthy inhabitants in what used to be an economically homogenous neighbourhood. Gentrification has its strengths and weaknesses; the new distribution of people can either be an opportunity for social mixing, or a threat for social cohesion. So how to foster togetherness among different social groups in a diverse neighbourhood like Vesterbro?

This paper introduces a 'house of stories' as public condenser in areas that are slowly gentrifying. It will explain how opening up to other people's stories can improve social mixing in gentrified areas, and how the architecture of such a building could play a role in this. Thereby spatial qualities are sought that influence the perceivable properties of a building in such a way, that social mixing is likely to be promoted. In this way, this paper will shed light on how to exploit the positive potential of gentrification to make sure the benefits of the process are shared by both its new and its original inhabitants.

Keywords

Vesterbro, gentrification, social mixing, familiar-stranger, storytelling, oxytocin, architecture, affordances, curiosity, exploration

Introduction

Gentrification is a controversial topic in politics and urban planning. Unfortunately the focus on its threats is dominating the discussion on gentrification, slowing down the dialogue and hampering honest attempts to distribute the benefits of progressive urban development (Morisson & Bevilacqua, 2018).

In this paper, Copenhagen's slowly gentrifying neighbourhood Vesterbro will be used as a case study. The strengths, weaknesses, opportunities and threats of the gentrification process will be explained; diving deeper into the opportunity of social mixing. The different levels of social mixing will be discussed, and a public condenser will be explained as a tool to stimulate social mixing amongst the residents of the neighbourhood. Then, a house of stories is introduced as a powerful way to condense the public and the possible resources of an architect and their affordances will be discussed. Thereby spatial qualities are sought that influence the perceivable properties of a building in such a way, that social mixing is likely to be promoted. In this way, this paper will shed light on how to exploit the positive potential of gentrification to create a healthy city.

The (re)development of Vesterbro

Copenhagen's location close to the sea has always had a great influence on its development. The late medieval city was protected by a city wall, and building outside this wall was restricted to maintain clear ground in case of an attack. Because of the limited space, the city was very densely built and had many problems concerning liveability and health. This came to a crisis point in 1853 and it became clear that a substantial number of people had to move out of the tightly packed city walls. Building work progressed rapidly and by the end of the 19th century new neighbourhoods Vesterbro, Fredriksberg, Nørrebro and Østerbro were built (Simpson, Gimmel, Linka, Jay, & Grootens, 2018).

This urban expansion coincided with early industrialisation in Denmark. Rural-to-urban migration exacerbated the already existing housing shortage. Vesterbro was filled up with building blocks to house the working class. The ongoing shortage of working-class housing made that Vesterbro had to be densified. Even the inner courtyards had to be filled with housing. Fire danger, rats, overpopulation, moisture and bedbugs ruined the lives of the tenants in many parts of the neighbourhood. In 1947, parts of Vesterbro were declared as slum and most courtyards were cleared in order to enhance the quality and the hygiene in Vesterbro (Simpson et al., 2018).

A few years later, Copenhagen's population peaked with 975,000 inhabitants.

While development stagnated in the urban core, the surrounding areas experienced rapid growth and the 'finger plan' was presented to direct the expansion of the city (Simpson et al., 2018). This new spatial expansion led to a significant demographic restructuring. Those who could, would leave the overcrowded neighbourhoods for the suburbs. This left Vesterbro partly vacant and run down by the 1960s. Vesterbro had always been one of the poorest neighbourhoods of Copenhagen, but from this point it became a tough area, determined by high rates of unemployment, immigrants and social insecurity. It had a reputation as a centre for prostitution and drug trafficking, where only the poorest would live (Larsen & Hansen, 2008).

From the early 1990s, the government started their renovation projects to gradually enhance the quality of the neighbourhood. The aim was to include the original residents in the developments (Copenhagen Municipality, 1989). The municipality set the ambitious goal that all original residents should be able to stay (Copenhagen Municipality, 1990). At the same time, the renovations had to give the district a social boost (København and SBS, 1991). However, the nature of this social boost remained undefined (Larsen and Hansen, 2008).

Today, the slow but steady renovation process and its central location make Vesterbro a favoured place to live. The neighbourhood is becoming more and more popular among the middle class; family living with coffee bars and fashion boutiques popping up throughout the whole neighbourhood. Strip-clubs, cheap diners and shops have been replaced by fancy cocktail-bars, luxury cafés, organic bakeries and sushi restaurants. Most of the demolished inner block-buildings have made room for swings and sand-pits. There used to be many small and cheap apartments for rent; a 35 square meter apartment would cost 550 kroner a month. Now, there are few rental apartments available and they cost a lot more than they used to. Gentrification is in full swing; from fixing its drug problem, Vesterbro is now even declared one of the worlds coolest neighbourhoods (Lonely Planet, 2017).

The power of gentrification

Gentrification is a controversial topic in politics and urban planning. On one side, it is seen as a positive effect on deprived areas: as government money flows into a neighbourhood, many aspects change for the better (Atkinson & Bridge, 2005). As can be seen in Vesterbro, buildings and public spaces are renovated and improved in quality. New businesses are attracted and jobs arrive with the increased construction activity. Crime rates are shown to drop and as the property tax rate increases, so does funding for local public schools

(MacDonald & Stokes, 2019). In general, gentrification increases the economic value of a neighbourhood.

On the other side, the increase of value inevitably forces out low-income residents, leading to population migration and displacement (Quastel, 2009; Maloutas, 2011; Hackworth, 2002). The displaced are therefore excluded from receiving the benefits of the urban renewal (Atkinson, 2009). Also in Vesterbro, the percentage of unemployed inhabitants and wage earners with basic salary in Vesterbro dropped significantly between 1997 and 2005 (Larsen & Hansen, 2008).

At the same time, gentrification causes the influx of more wealthy residents in a formerly economically homogenous neighbourhood like Vesterbro, and therefore mixes people of different socioeconomic strata (Larsen and Hansen, 2008). This is considered an positive effect, since it is assumed that introducing a social mix in neighbourhoods can create more opportunities in life for the original residents (Lees, 2003a; Lees, 2003b). This assumption is based on extensive theories on how the socioeconomic composition of a neighbourhood can influence an inhabitant's life course.

However, gentrification does not necessarily correlate with social mixing (Rose, 2004). Introducing a new group of people brings about an array of different norms and values. When the gentrifiers impose their way of life on the neighbourhood, the original inhabitants can become economically and socially suppressed. This can lead to irritation and conflict that feeds polarisation (Smith and Williams, 1986).

In short, gentrification has its strengths and weaknesses, and the new distribution of people can both weaken as well as strengthen social relations in the neighbourhood. Unfortunately the focus on its threats is dominating the discussion on gentrification, slowing down the dialogue and hampering honest attempts to distribute the benefits of progressive urban developments (Morisson & Bevilacqua, 2018). So how to make sure the benefits of economic growth are shared by both original and new inhabitants? Or put differently, how to exploit the opportunities of gentrification?

Social mixing

As explained, gentrification introduces more wealthy residents in a formerly economically homogenous neighbourhood, and therefore mixes people of different socioeconomic strata. This could either be an opportunity for social

mixing, or a threat for social cohesion. So how to prevent polarisation and promote social mixing?

Jan Gehl (2016) distinguishes tree types of social mixing on a scale from no contact to friends. The first one, passive contact, is experienced whenever someone is in the presence of others. This is can be measured in amounts of people, combined with certain demographic characteristics. Chance contact is the second type, including any non-personal interaction that occurs whenever someone picks up a dropped item, for example, or asks a stranger for the time. The third stage is the familiar-stranger; when a person recognises someone, but does not necessarily know their name (Gehl Institute, 2016).

Research shows that the weak ties that exist between familiar-strangers increase tolerance between different groups, create job opportunities, higher wages and employment (Gehl Institute, 2016). Athletes playing in racially mixed teams were shown to be less racially prejudiced than individual athletes (Brown, Brown, Jackson, & Sellers, 2006), contact with homosexual people is linked to more accepting behaviour by heterosexual people (Herek, 1986), and contact with Muslims diminished anti-Muslimism attitudes (Savelkoul, Scheepers, Tolsma, & Hagendoorn, 2011). Under the right circumstances, the weak ties that exist between familiar-strangers are shown to create job opportunities, increase wages and employment rates. These weak ties even show to be more important in finding employment and occupational mobility than the strong ties that exist between friends (Granovetter, 1973; Montgomery, 1984).

When policy makers talk about social mixing, however, they usually talk about passive contact; measurable in amounts of people. Their policies often fail to demonstrate how social mixing on a familiar-stranger level between diverse neighbourhood groups is actually going to be achieved. The assumption is that middle and working-class people that are placed side-by-side will make the decision to start mixing. Yet, the spatial proximity of these groups does not automatically generate social mixing on a familiar-stranger level. So despite neighbourhoods becoming increasingly diverse, gentrification usually tends to result in juxtapositions of polarised socio-economic groups rather than in socially cohesive communities (Quastel, 2009; Maloutas, 2011; Hackworth, 2002).

A house of stories as a public condenser

A public condenser could be a government's tool to prevent polarisation and to stimulate social mixing on familiar-stranger level. Polarisation can arise from mild preferences: when one does not necessarily avoid another group, for

example, but does prefer to be closer to their own social group (Meyers & Lamm, 1976). However, just as segregation can arise from mild in-group preferences, it can be reduced by mildly opening up to people from a different group. Allport (1954) claimed that prejudice, as a precursor for polarisation, is a direct result of the generalisation of a group of people based on incomplete or incorrect information. He argued that acquiring information about this group therefore leads to prejudice reduction (Allport, 1954). Outgroup information is assumed to ease the discomfort that people feel when they are interacting with the outgroup and to improve the ability to take their perspective and empathise with them. This in turn makes them re-evaluate the negative attitude towards the outgroup, resulting in reconceptualization of group categories (O'Donnel, Neumann, Duffy, & Paolini, 2019). So to foster togetherness among different social groups, people need to open up and acquire information about each other, letting go of detachment and disinterest.

A house of stories can therefore be an incredibly strong tool to condense the public in diverse neighbourhoods. Firstly because for storytelling, in its many forms, it is considered a quality to have a diverse group of people involved. Secondly, because listening to stories provides people with information, and thirdly because it allows people to understand, or even feel how someone else feels and helps them to gain new perspectives and create shared understanding. Research showed that the attitude of children with different skin colours towards each other improved significantly as a result of hearing a story in which the protagonist had a different skin colour than their own (Katz & Zald, 1978). Another study showed that white children who heard a multi-racial story had more positive attitudes toward African-Americans, tended to identify with them and see them as their own group, than did children who heard a story in which all the central figures were white (Litcher, Johnson, 1969). Listening to stories has even shown to release oxytocin, the neurochemical that is responsible to make people more trustworthy, generous, charitable and compassionate. By taking blood samples before and after listening to a story, a study found that stories consistently cause oxytocin levels to rise. Oxytocin makes people more sensitive to social cues around them, and more motivated to engage with other people (Zak, 2015).

In short, stories break the patterns of daily life and make room for imagination, wonder and curiosity. Listening to stories provides information and stimulates an open view to the world and to each other. Therefore a house of stories can be a tool to condense the public, and increase the chance that people become familiar-strangers, or even friends.

Architectural experience

The architecture of a house of stories could support its function by making use of one the core traits of the human species; to be able to quickly adapt to novelties and even being able to create them. The main way people master novelty is exploratory behaviour, which is to a large extent guided by curiosity (Dajung, & Sung-il, 2019). Being curious is a state of wonder, in which answers are sought about the unknown. A neurological study has shown that people are more open for new information when they are curious about the topic, but it turns out that curiosity also eases learning information that people do not consider important. Also another study found that, once a subjects curiosity had been triggered, they were also better at remembering totally unrelated information (Gruber, Gelman, & Ranganath, 2014). It explains that curiosity makes the brain more open and receptive, and that it facilitates learning any kind of information. So if the architecture of a house of stories triggers curiosity in its users, they are also likely to be more receptive to other people and the stories that are told.

An architect is not an all-powerful creator of people's experience. He or she does not determine it, but can guide the way a space is perceived by manipulating the affordances of the designed space. This term was coined by James Gibson (1979), when he introduced the notion that any object displays information on what it can do or what can be done with it. He called these characteristics the affordances of the object, and stated that they can be manipulated by people (Gibson, 1979). In the same way, an architect can manipulate the affordances of a building to steer the way it is perceived without people having to explicitly, rationally understand it in a semiotic way (Osiurak et al., 2017; Overhill, 2012; Sloman, 2011).

One important method of triggering curiosity is to inspire the visitor to experiment and learn about the building through exploration (Norman, 1990). An explorable building evokes the user's interest and offers multiple opportunities for uncovering what is hidden. As the user enters the building, it should reveal new opportunities, hidden properties and links. This is the principle of unfolding intrigue, as explained by Alexander Poddiakov (2017). He describes that an ideal experimental object offers the user a number of layers of hidden elements and properties: from readily discoverable, almost obvious elements to ones that are extremely difficult to discover and understand. It should invite the user to explore without setting any concrete goals or suggesting any modes of action (Poddiakov, 2017). In practice this could be achieved by making the building as a whole identifiable as belonging to a certain type, but

with few clues to the content. So the look of the building provides some hints and promises on what is going on inside, to indicate that there is something to discover. This can be done by playing with light, sightlines, accessibility and (ir)regularity.

Conclusion

From the early 1990s, the government started renovation projects to gradually enhance the quality of Vesterbro. Gentrification, however, is a controversial topic in politics and in urban planning. On one side, it increases the economic value of a neighbourhood. On the other side, the increase of value inevitably forces out low income residents. At the same time, gentrification causes the influx of more wealthy residents in the previously homogenous neighbourhood and therefore mixes people of different socioeconomic strata. This could either be an opportunity for social mixing, or a threat for social cohesion.

A house of stories could be a government's tool as public condenser, to prevent polarisation and to stimulate social mixing, since for storytelling, in its many forms, it is considered a quality to have a diverse group of people involved. Stories break the patterns of daily life and make room for imagination, wonder and curiosity. Listening to stories provides information on the out-group and stimulates an open view to the world and to each other. Therefore a house of stories increases the chance that people become familiar-strangers, or even friends.

The architecture of a house of stories could support its function by triggering curiosity in its users, because curiosity brings the mind into a more open and receptive state. One important method of triggering curiosity is to inspire the visitor to experiment and learn about the building through exploration. An explorable building evokes the user's interest and offers multiple opportunities for uncovering what is hidden. By playing with light, sightlines, accessibility and (ir)regularity, an architect can influence the perceivable properties of a building in such a way, that social mixing is likely to be promoted.

Introducing a house of stories as a public condenser in Vesterbro, will foster togetherness among its residents, regardless of their socio-economic status. It will help to prevent polarisation while promoting social mixing and thereby it will exploit the positive potential of the ongoing gentrification process and make sure the benefits of economic growth are shared by both its new and its original inhabitants.

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Design manifesto //

The architect as an author of space.

The author of space

The interaction between people and place is what I find most important in architecture. My parallel bachelor in psychology has strongly determined my position and has pre-conditioned the way I frame my design problems.

Most of the current architectural discourse, however, is focused on constructions that reflect today's technical and conceptual competence; or as Peter Buchanan (2015) describes it, a "current emphasis on exaggerated sculptural form". Although this appeals to the general public, it usually is a quite environmentally unfriendly and unsustainable design attitude. To me it seems like sociocracy is often disregarded to make way for the marketable.

Neverthless, a growing shift towards phenomenology is noticeable; from (iconic) form to experience and from visual impression to multi-sensory encounter. My personal position in architecture fits in this latter movement. I would propose to call it 'phenomenological functionalism'; where architecture is understood to be a spatial experience, in which the perceptive dimensions are considered to have a fundamental function.

In functionalism, form has to be based solely on the function of the building. Needless to say, the function of a building is based on human needs. Only back in the time of functionalism, the social sciences did not know a lot about human needs. Therefore, functionalism became associated with the most banal ways to cover space, and functionalism and aesthetics were often framed as a mutually exclusive choice.

Nowadays, there is much more knowledge about the ***function of aesthetics,*** but still, human perception is difficult to grasp. A space gets a meaning dependent on the relationship it has with the user; just like reading a book is a different experience for all readers. However, the author can to a large extent direct how people perceive the scenes. I like to think of architects as the authors of space. The users of a designed space are like readers of a book, in which the reader can capture a piece that he or she desires.

In both function and in architecture, a public condenser should trigger curiosity in its users, to stimulate an open view to the world and to each other. In my design I will be playing with light and darkness, visibility and hiddenness, repetition and variation, rithm and irregularity, to trigger curiosity in its users; for it will become a space for imagination, wonder and curiosity.

Design brief //

Fortællingernes Hus

The Fortællingernes Hus provides a framework for interesting meetings between people. It will be a place where people of different age, culture, race, religion, gender, sexuality, education, income and overall lifestyle meet each other and where ***diversity is considered a quality.***

There will be room to be with friends but also space to meet new people. The buiding does not only attract a diverse audience, but also trigger curiosity, openness and togetherness amongst its users.

Target audience

Many different people will meet in the Fortællingernes Hus and get it to buzz.

- Local citizens
- Visitors from all over the metropolitan area
- Tourists from the rest of the country or abroad

People will be given the opportunity to speak and be heard, but also to be entertained by others. It will be the perfect place to be updated on current topics, engage in debates or enjoy a low key cultural event. To all visitors, the building should be attractive by its spectacular atmosphere and specific events, but it should also be a place where you would go for a drink and see what the evening will bring. Tourists will visit the Fortællingernes Hus to include a pure and very local cultural experience to their visit, with a high probability to meet and exchange with local citizens.

In daytime the house invites adults and children from area schools and institutions and forms a framework for interaction for the elderly. In the evening, the Fortællingernes Hus is particularly attractive for adolescents and adults.

Organisation

The building provides space for all thinkable ways of conveying a story (perform, project, talk, interact, print, exhibit, record, walk). Different media will be used to offer stories around the clock, to all age groups, combined with a food/ drink concept. The building should be able to accommodate organised shows

or events. At the same time there must also be room for self-organised events that do not require membership or regular meeting times.

To make the building flexible in its use, the programme will not offer fixed spaces for every way of storytelling, but it will be organised according to the formality of the spaces. The informal functions will be merged into one space. There will be much focus on the measures concerning light and sound to make sure the functions work well side by side. In this way the building will offer space for all thinkable storytelling concepts.

Programme

Secluded spaces	**2000 m²**
* Big theatre	500 m²
* Small theatre	300 m²
* Exposition space	200 m²
* Rehearsal room	150 m²
* Cinema room	65 m²
* Broadcast studio	65 m²
* Meeting room	50 m²
* Ticket counter	10 m²
* Tour counter	10 m²
* Wardrobe	50 m²
* Toilets	100 m²
* Offices	100 m²
* Staff room	30 m²
* Technical spaces	100 m²
* Dressing rooms	200 m²
* Kitchen	45 m²
* Coffee	10 m²
* Bar	15 m²

Merged spaces	**2000 m²**
* Entrance zone	100 m²
* Reception zone	150 m²
* Tour meeting point	50 m²
* Foyer zone	200 m²
* Amfitheatre	700 m²
* Restaurant seating	200 m²
* Library zone	100 m²
* Reading zone	50 m²
* Play zone	50 m²
* Circulation space	400 m²

Included in the surfaces of the secluded spaces are: storage, side scenes, backstage area, (retractable) seating, etc.

Enclosed spaces (nett) + merged spaces (tarra) = 4000 m² (gross)

Multiplicity of functions //

A house of stories

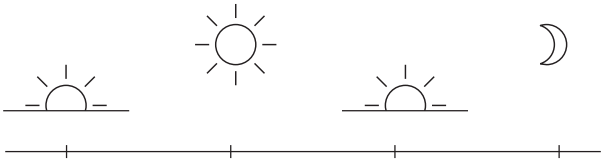
A house of stories can be an incredibly strong tool to condense the public, since for storytelling, in its many forms, it is considered a quality to have a diverse group of people involved. It allows us to understand, or in case of a strongly told story, even feel how someone else feels.

Stories break the patterns of daily life and make room for imagination, wonder and curiosity; stimulating an open view to the world and to each other.

To support this cause, the architecture of such a building should trigger a curiosity in its users. Because it brings your mind in a more open and receptive state. I will do this by focussing on the experience of discovery, by playing with contrasts like visible/invisible, open/closed, light/dark, distant/close and regular/irregular.

all-inclusive

around the clock



“Stories break the patterns of daily life and make room for imagination, wonder and curiosity; stimulating an open view towards the world and to each other.”

Existing storytelling concepts

Different modes of storytelling

project

perform

talk

exhibit

interact

record

walk

print

Storytelling settings for every mode

informal

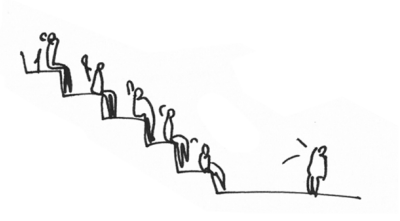
small audience

nonhierarchic

dynamic

accessible

chaotic



big audience

hierarchic

static

secluded

orderly

formal

Storytelling settings and their characteristics

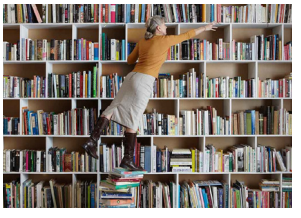
	walk	exhibit	project	perform
informal				
formal				

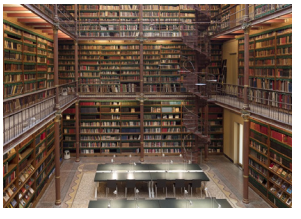
interact

talk

read

record





informal

formal

walk exhibit project perform

informal

Tour office

- gathering point
- ticket counter

Cinema room

- small stage
- wide screen
- no daylight
- comfortable seating
- controlled climate (peaks)
- sound insulation

Expo

- neutral interior
- indirect daylight
- controlled climate

formal

interact talk read record

The arena

- multiple stages
- multiple zones
- projector screen
- good acoustics

Box theatre

- retractable seating
- flexible (indirect) daylight
- projector screen
- controlled climate (peaks)
- sound insulation

Library

- book shelves
- security system
- background noise
- comfortable seating

Fly theatre

- big stage
- flexible seating
- fly tower
- orchestra pit
- dressing rooms
- artist lounge
- flexible daylight
- comfortable seating
- controlled climate (peaks)
- sound insulation

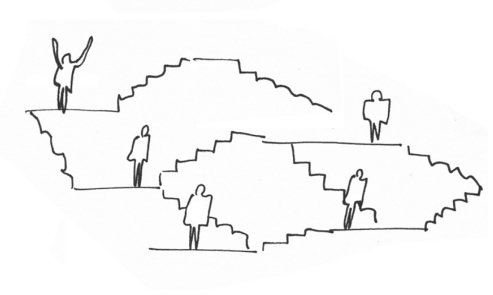
Broadcast studio

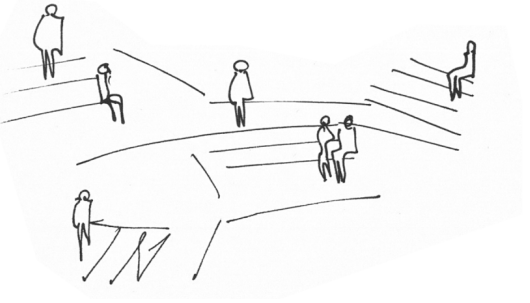
- daylight
- good acoustics
- table and seats
- recording system
- sound insulation

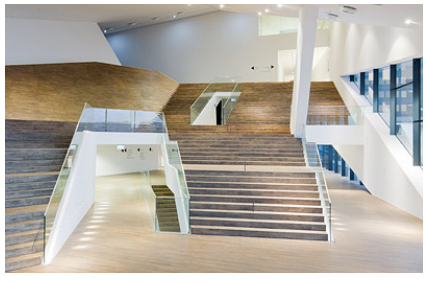
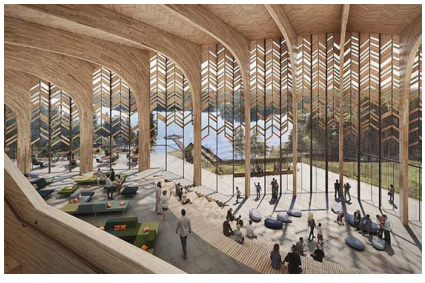
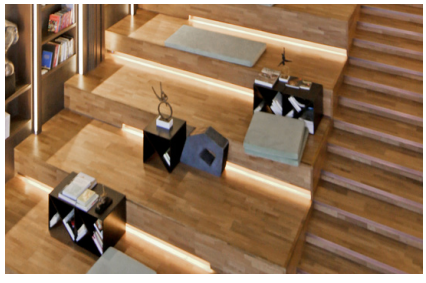
The arena

The characteristics of the more informal ways of storytelling make that they can be merged in one big space for mixed use. The quality of this space depends on the organisation of zones and routes and should be adjusted to the level of activity and sound in the building. Calm programme elements like a reading corner should be located far from the main routes in the building.

The different zones could be differentiated by hight differences. Stairs and platforms can become stages but also seating area for an audience. In this way, everyone has equal opportunity to be either audience or performer or both. Existing hierarchies will fade and the space can be used in still unimagined ways.





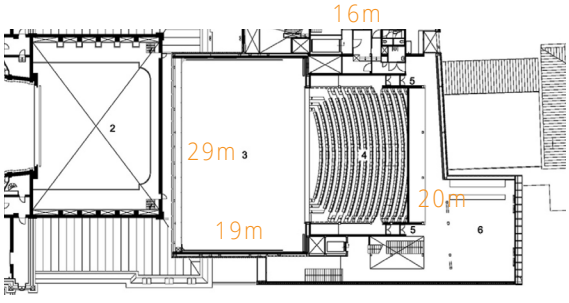




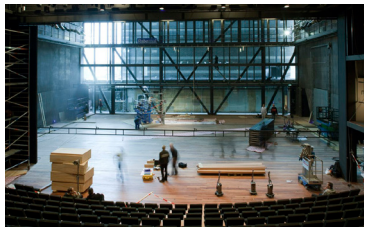
Moodboard for the arena

Fly theatre

The fly theatre is a theatre designed to house all different types of storytelling. Extremely flexible by design, it is a stand-alone space with integral control facilities and seating. The glass facade behind the stage offers a view of the street, for a dynamic street scene. Conversely, it also allows passers-by a look inside the theater.

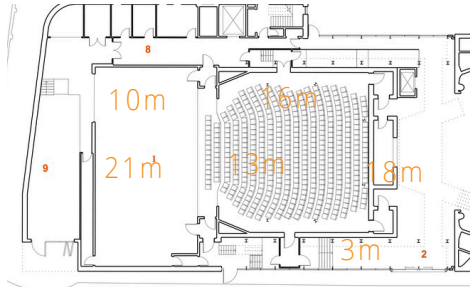
Rabozaal Amsterdam - Jonkman en Klinkhamer

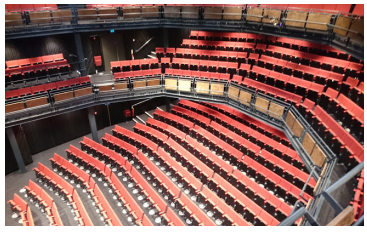




Theatre	600 m² + balconies	800 pax

Storyhouse Chester - Bennetts Associates



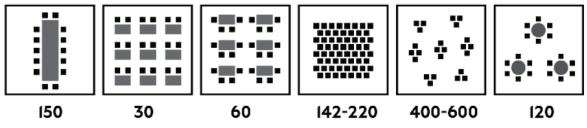


Audience	320 m²	550 pax
Stage	551 m²	

Box theatre

The box theatre is an essential teaching/performance space for performative storytelling. It provides a flexible space for the creative training of performers, technicians and theatre staff and encourages the development of experimental performance models and new means of artistic expression.

De Balie Amsterdam -



Grote zaal 200 m²	theatre	142 pax
	circus	220 pax
	party	600 pax

Bimhuis Amsterdam - 3XN

Grote zaal 200 m²	theatre	142 pax
	circus	220 pax
	party	600 pax

500 m² fly theatre

300 m² box theatre

75 m² broadcast studio

200 m²

175m²

65 m²

50 m²

expo
cinema
rehearsal room

2000 m² Nett

85 m² toilets

35 m² staff room

130 m² offices

50 m² kitchens

50 m² wardrobe

2000 + 2000 = 4000 m²

Nett + Tarra = Gross

200 m² entrance zone

100 m² wardrobe zone

50 m² reception zone

200 m² restaurant zone

200 m² bar zone

200 m² foyer zone

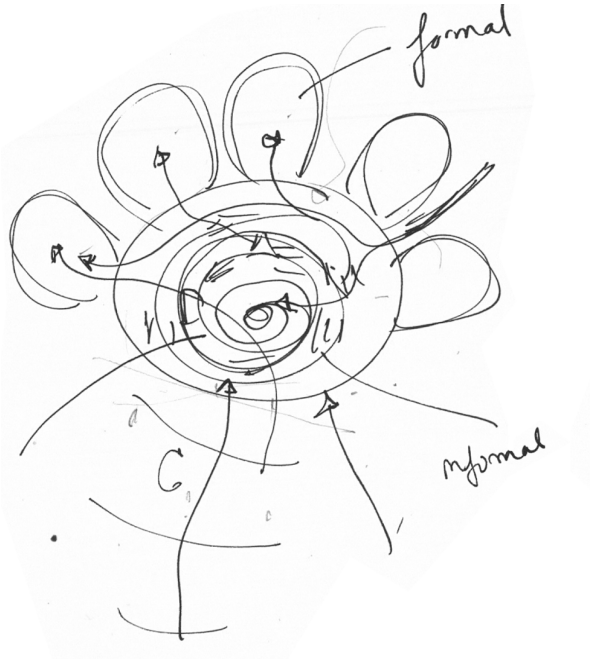
200 m² library zone

50 m² reading zone

50 m² play zone

400 m² the arena

2000 m² Tarra



Organisation of functions

Storytelling allows people to become curious and to understand or feel how someone else feels. Formal ways of storytelling attract different groups and trigger a curious state in a large audience. By informal ways of storytelling, hierarchy fades and people actually interact and inspire each other.

By situating the spaces for formal storytelling around the open, mixed, informal space, the effect of a village square will be created: different people will be attracted to the specific, adjacent programme, and in the square (the connecting, informal-space) they come together to eat, drink, chat and connect. This in-between-space will be the heart of the building, where contact is made.

The project site //

1737
Reconstruction after fire 1728

1757
Urban expansion Christianshavn

1757 - 1795
Nyboder Row Houses

1945
Suburban Expansion, DK join EU

1769
New Royal Rensidences

1860
Industrialisation, First Sewer

1879
New residential quarters out of the ring

1899
Incorporated districts

1934
First S-train line

1971 - 1976
Christiania established and Oil Crisis

1986
Suburban Expansion (Finger Plan 1947)

1992
Metro Construction, Social Service Law

2007
Eco-metropolis vision for 2015

1800 1900 2000

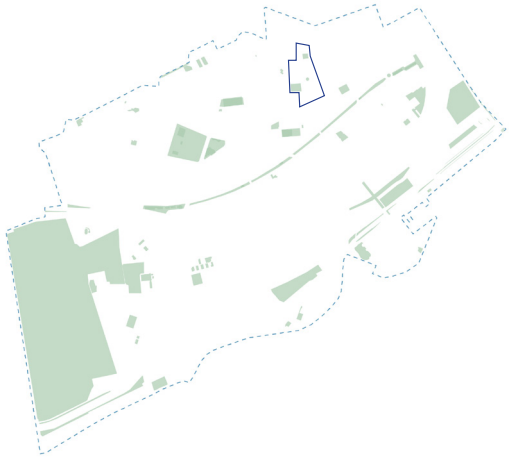
The project site

The site is located on the North side of Vesterbro, which means it was the first area to be built when the new residential quarters were allowed outside of the ring.

Paved park // Vesterbro is known to be one of the non-green areas of Copnehagen. The project site is a good example: It is known as a public park, but still at least 60% of its survace is paved.

Inside a block // The urban space of Vesterbro is shaped by its building blocks. Together these blocks form the urban fabric. A small amount of blocks have completely private gardens for their residents, in which every household has its own garden. The better part of the building blocks have collective/ semi-private gardens. These are shared with the residents of the block but are closed off to the public by fences and walls. Other blocks have gardens that are hidden but are open for everyone to enter. These can be called semi-public urban spaces. However, most of these blocks do have a strip of semi-private space along their houses, closed off by a fence. A fenced-off strip of semi-private space is also seen along buildings that are placed directly in the public space. All zones offer mainly the same or similar facilities.

Fences everywhere // It is remarkable that the transition between public and private is made to be very gradual (between public and private is always a semi-public or semi-private zone), but every gradation of privateness is very clearly defined with a fence or a wall.



First impression

Walking through a neighbourhood for the first time, one inevitably records a first impression. In psychology, it appears that the first impression greatly influences how something is treated and viewed in many contexts of everyday life. Once formed, first impressions tend to be very stable and the first impression appears to be highly correlated with later evaluations. One reason for this stability is that one's first impression serves as a guide for his/her next steps.

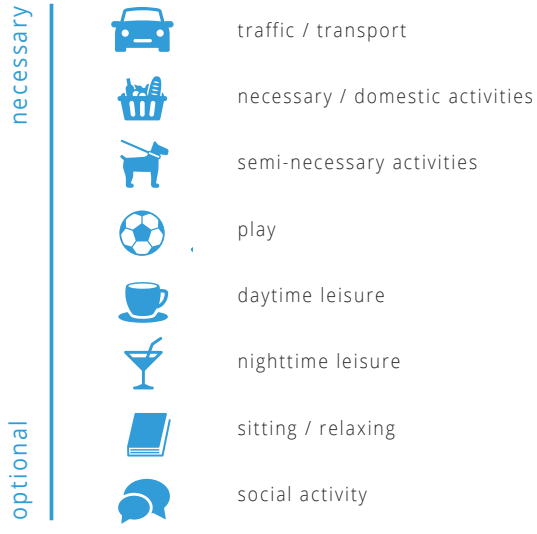
Rating of quality

General appearance | Does it look well cared for?
Activity | Quantitative measure of use.
Liveliness | Qualitative measure of use.
Social contact | Are the users in contact with each other?

Classification of activities

According to Jan Gehl[1], necessary activities take place no matter the quality of the space. Optional activities, however, only happen when the space is suitable for them.

[1] *Gehl, J. (2011). Life between buildings; using public space. Washington: Island Press*



Promoting social contact

Slow traffic //
All meaningful social activities take place while standing, sitting, lying or walking.

Low speeds //
A reasonable amount of time is needed to experience and process all sensorial impressions.

Short distances //
A small distance is closely related to a feeling of intimacy, warmth and connection.

No barriers //
Barriers prevent from seing/hearing others and inhibit contact.

Same level //
The horizontal sensory field is considerably wider than the vertical sensory field.

Face-to-face orientation //
Human senses are frontally oriented.

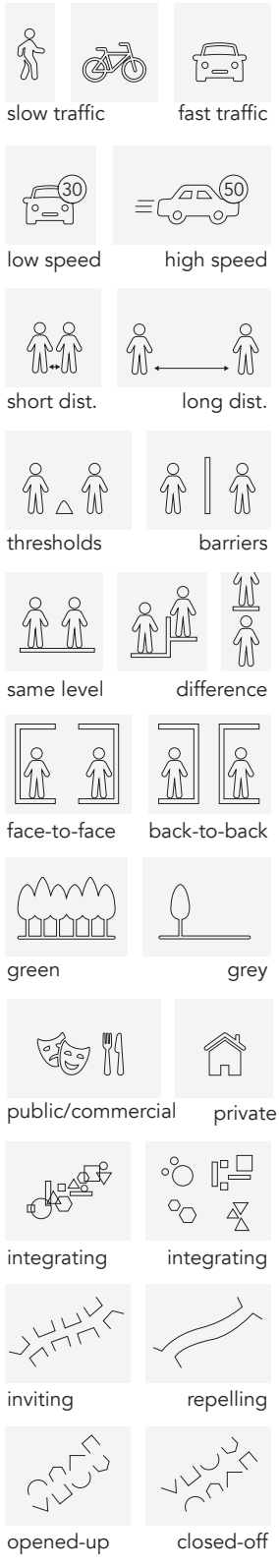
Green //
Access to green space improves general well-being.

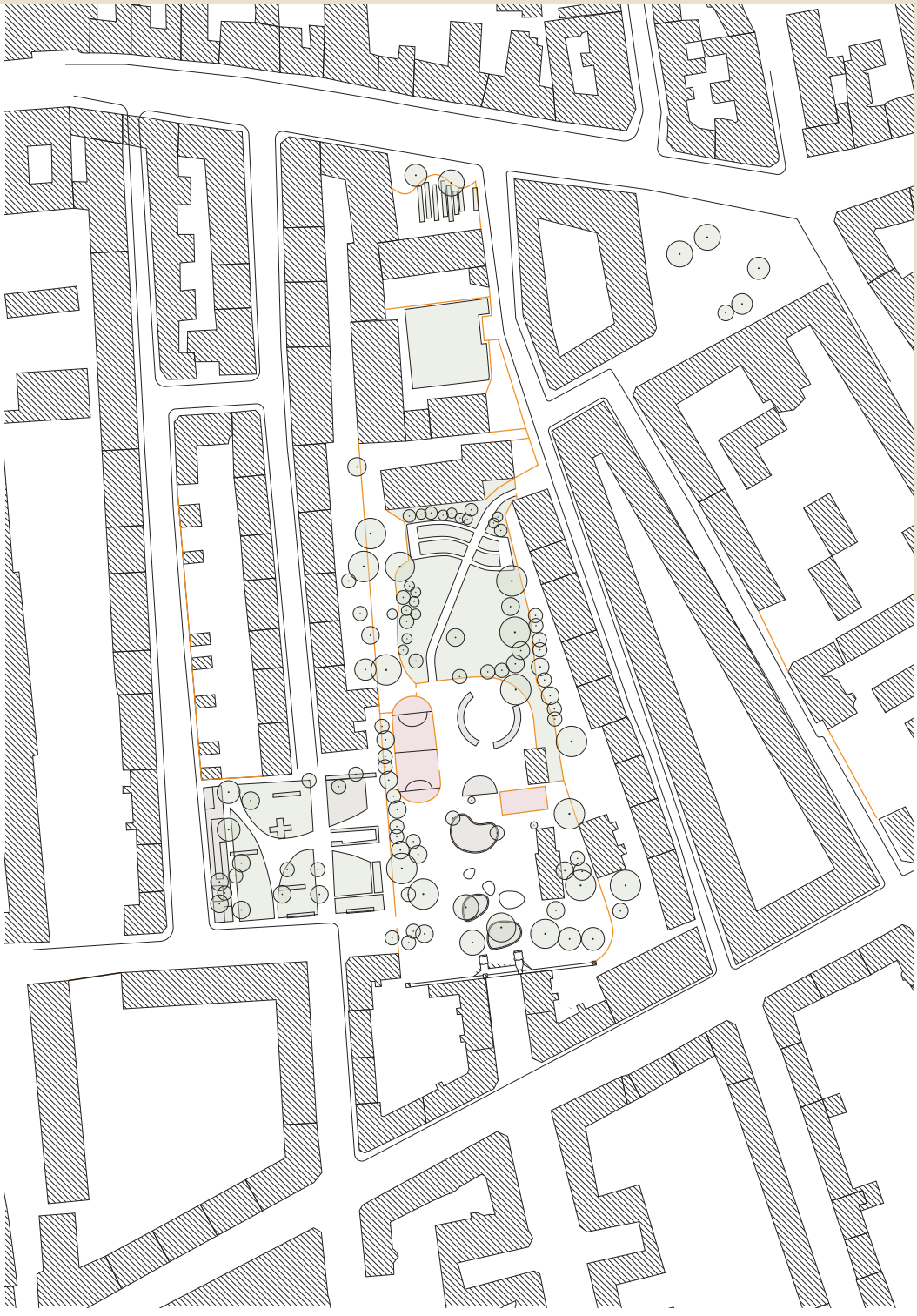
Public/commercial facilities //
These facilities attract people, and people attract people.

Integrating //
Mixed activities and categories of people

Inviting setup //
Encouraging people to move from the private to the public enviroment.

Open functions // Contact between inside and outside, between the private and the public environment.

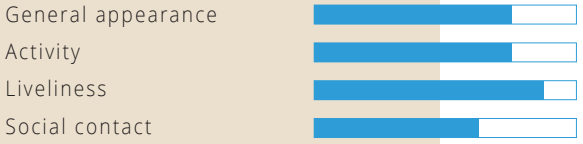




The current organisation of the public space in Skydebanehaven.

Skydebanehaven

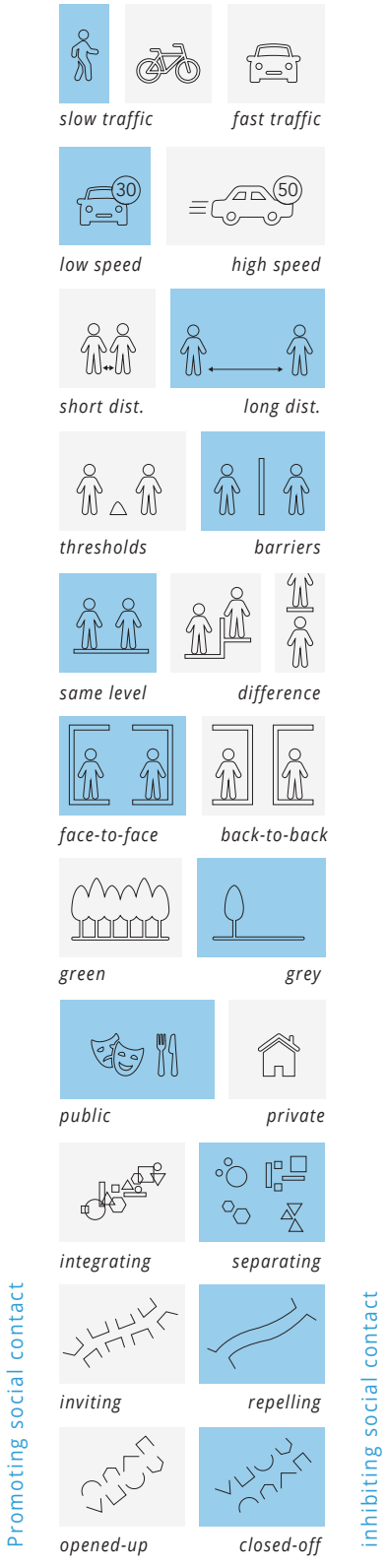
In general, skydebanehaven looks well-maintained. Even on rainy days there is a lot of activity going on, mostly by young children (0-6) and their parents. Other age groups mainly use the park and the rose-garden, separated by fences and green.



The continuous presence of children and the coffee bar works well for its feeling of liveliness during the day. Although the hard edges and interrupted sight-lines limit this liveliness to the playground itself. The 'hidden' character of the playground gives an enclosed feeling and fosters a sense of togetherness. Also the common interest of the playground user makes it easier to engage with one another. Social contact between the different urban spaces of Skydebanehaven, however, is limited.

The leisure-type of activities in Skydebanehaven seem to be a result of recent renovation of the neighbourhood, with the young, rich families as the face of gentrification. The original residents of Vesterbro are nowhere to be found on the site.

In Skydebadehaven, six out of 11 characteristics (named by Jan Gehl) inhibit social contact. Social contact could be promoted by shortening distances and replacing barriers by thresholds. Also integrating different functions and opening up the plinth could easily improve the situation in Skydebanehaven.



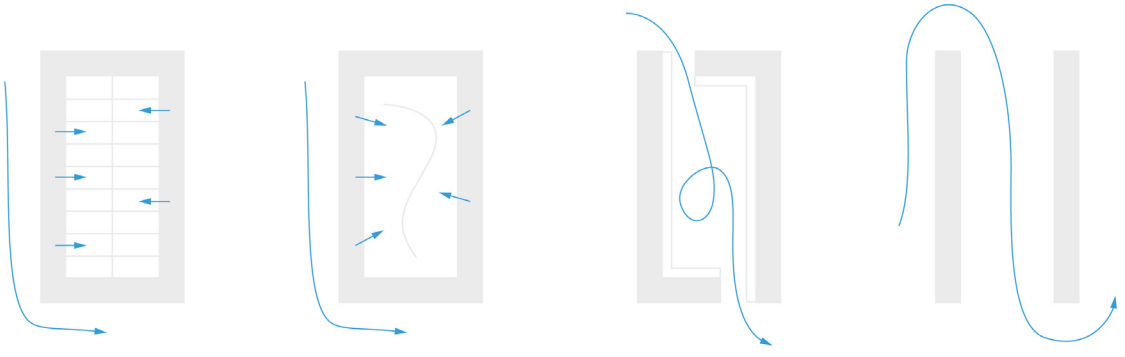
Vesterbro's building blocks

The urban space of Vesterbro is shaped by its building blocks. Together these blocks form the urban fabric and create different environments with different uses between and within them.

A small amount of blocks have completely private gardens for their residents, in which every household has its own garden. The better part of the building blocks have collective/semi-private gardens. These are shared with the residents of the block but are closed off to the public by fences and walls. Other blocks have gardens that are hidden but are open for everyone to enter. These can be called semi-public urban spaces. However, most of these blocks do have a strip of semi-private space along their houses, closed off by a fence. A fenced-off strip of semi-private space is also seen along buildings that are placed directly in the public space.

It is remarkable that the transition between public and private is made to be very gradual, but every gradation of privateness is very clearly defined. Since all gradations offer mainly the same or similar facilities, the question rises whether there is any difference in use. If yes, what is the difference? and if no, why are they fenced off?

For every type a case study is chosen to compare the following five characteristics to the type of use and the rating on activity, liveliness and social contact.

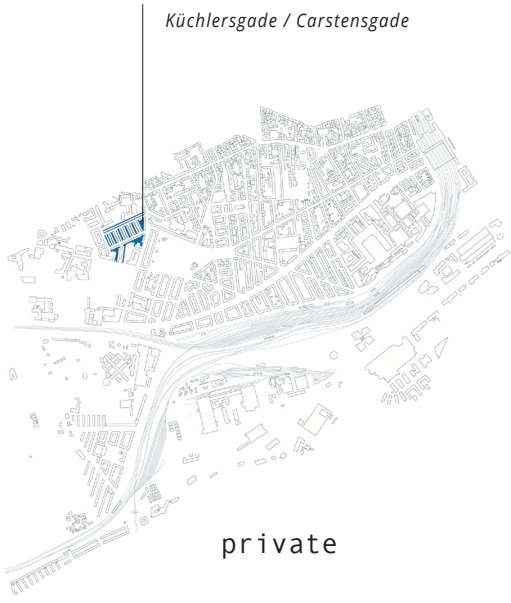


private

semi-private/
collective

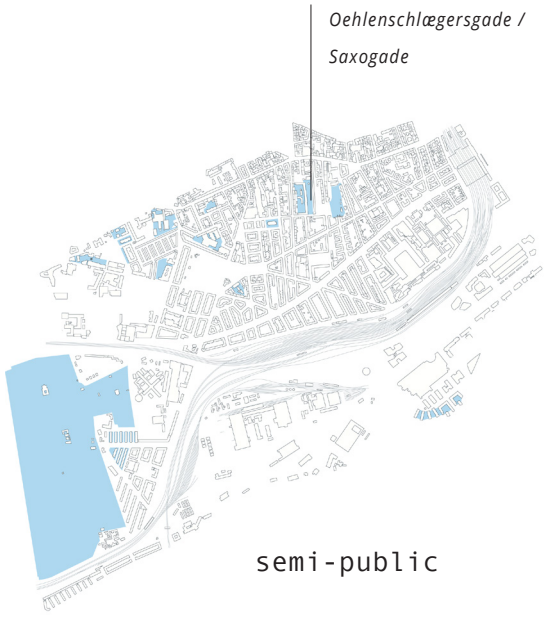
semi-public

public

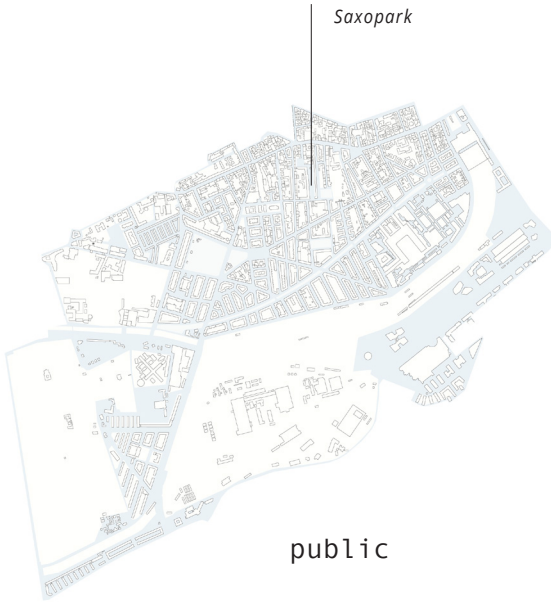


private

semi-private/
collective



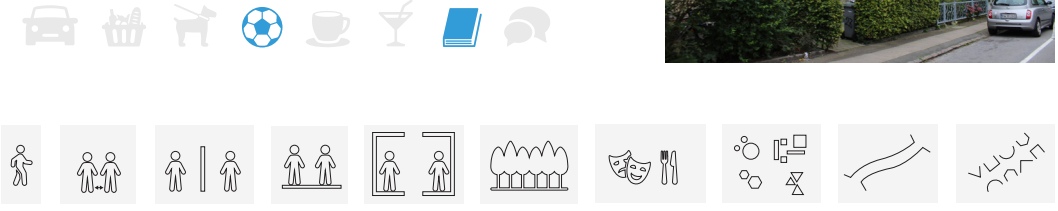
semi-public

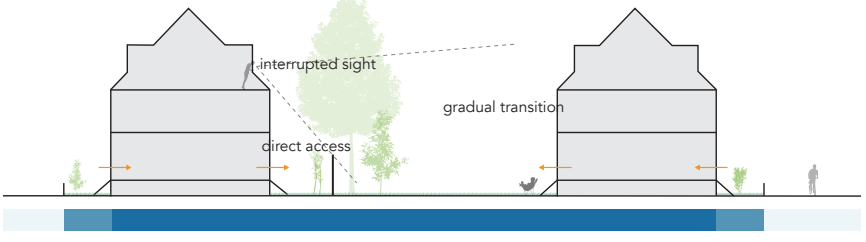


public

Private: Küchlersgade / Carstensgade

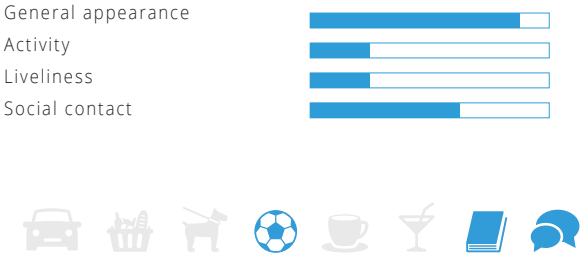
Gardens are evenly divided among residents and marked with a fence. The gardens are only accessible from the house and only used by the residents and their guests.

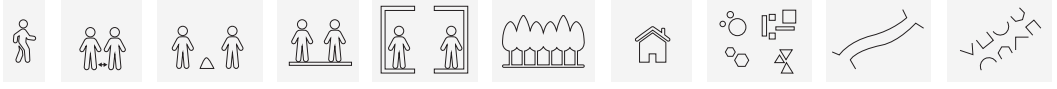


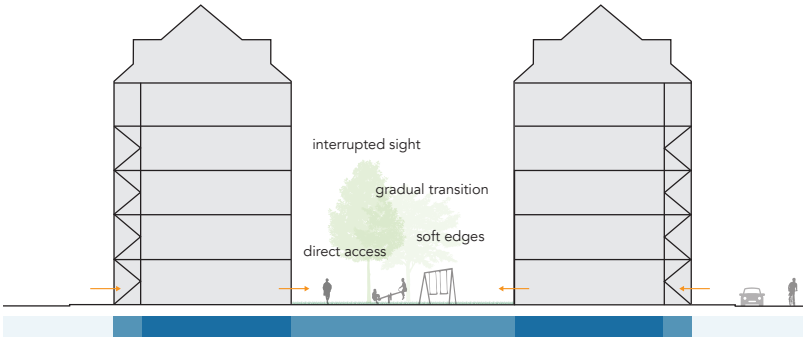


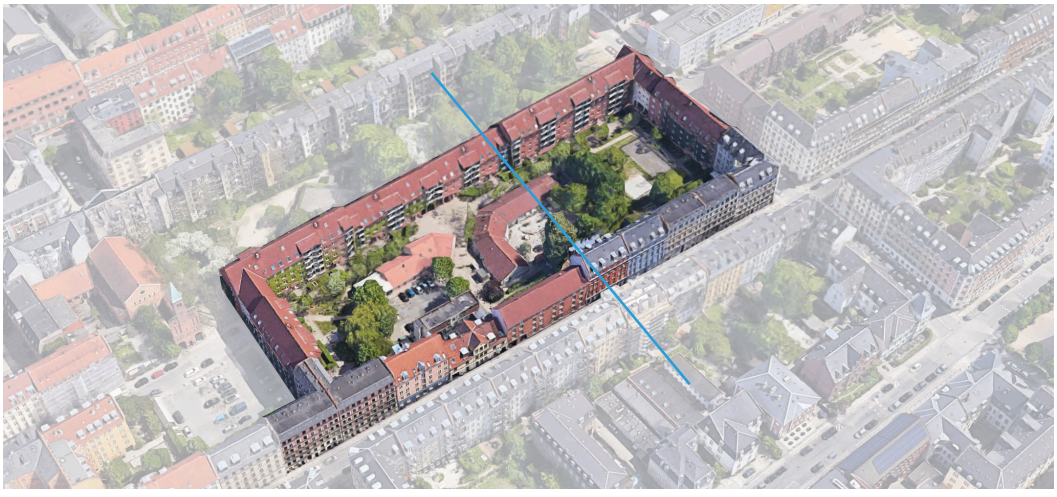
Semi-private: Flensborggade / Sankelmarksgade

Courtyard is divided into separate areas, based on function. Signs remind the user not to pee in the garden and to be silent at night.



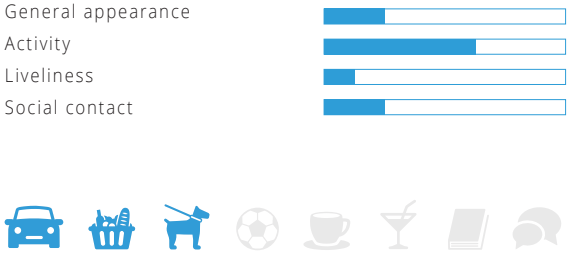


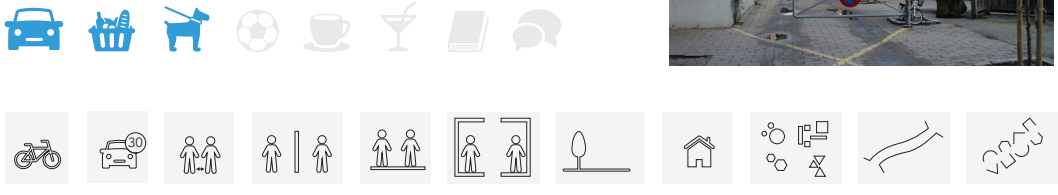


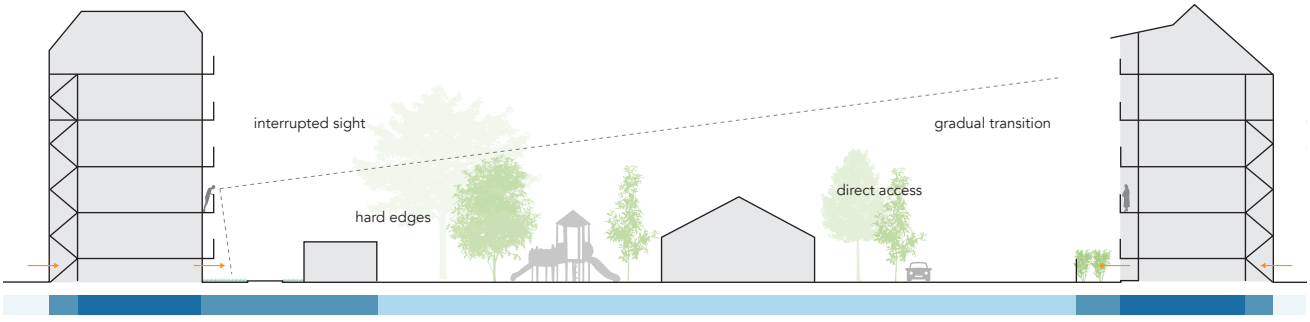


Semi-public: Oehlenschlægersgade / Saxogade

A messy ensemble of parking places and buildings. Officially open to the public, but feels like entering private terrain. Only cars and bikes of residents are allowed inside.

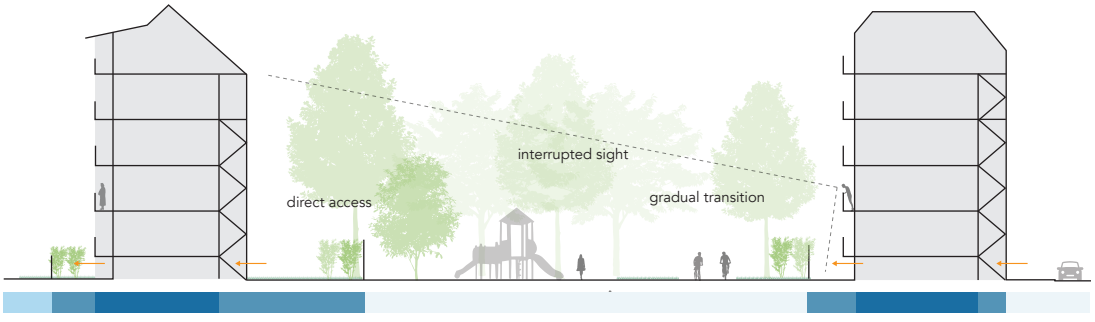






Public: Saxopark

Zones based on function, connected by a pedestrian path. The pedestrian path is used by cyclists, older youth is hanging in the corners of the block.



Segregation by fences

The large presence of fences and walls in the Vesterbro illustrates a friction in the transition between public and private space. This friction appears to be even stronger when the facilities in these spaces is considered; either side of the fence typically contains the same furniture.

I think these fences embody the social segregation that is present in Vesterbro. Also on the project site the area is devided per usergroup and the zones are clearly defined by barriers; therefore the amount of fences is extreme.

The colour palette around Skydebanehaven

Vesterbro's streets

The streets of Vesterbro seem relatively narrow, when compared with other districts of Copenhagen. Most of the buildings are five or six stories high so it can seem to be darker and starker than many parts of the city although towards the west end of the area several side streets run at angles from the main roads and are wider with triangular spaces where roads converge and that is where you find small open spaces now with lively cafes and pubs and local shops (see open spaces). In general the streets look well-maintained and clean.

Streets are mostly pedestrian, bicycle and car friendly. The buildings generally have quite flat facades without balconies so they appear as a unified whole. Most of the streets do not contain any trees or green strips.

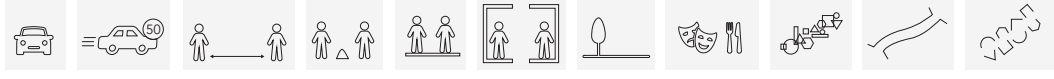
The activity in the street is highly dependent on the public or private plinth, while the livelyness seems to correlate more with the speed of traffic.

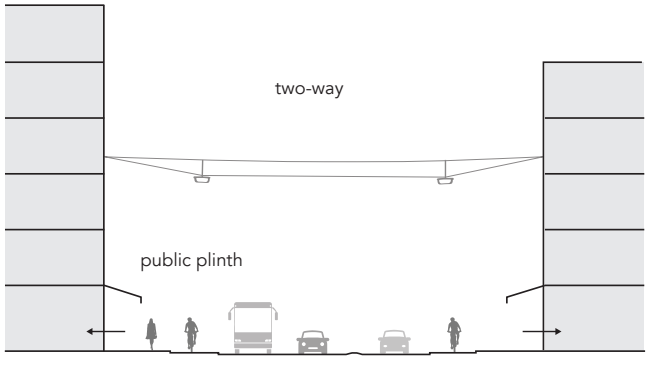
In the following pages, four streets will be analysed; comparing two wide streets and two narrow streets with very different ratings.

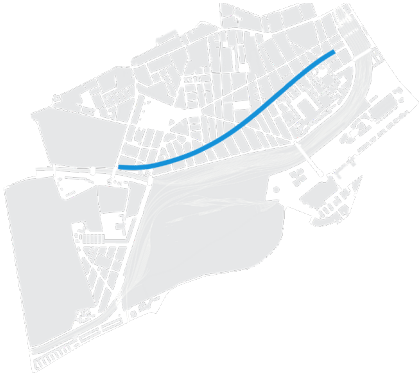
Vesterbrogade

One of the main connecting roads of Vesterbro. Lots of shops and other public facilities in the plinth. Mostly fast and inter-neighbourhood traffic.

General appearance	
Activity	
Liveliness	
Social contact	

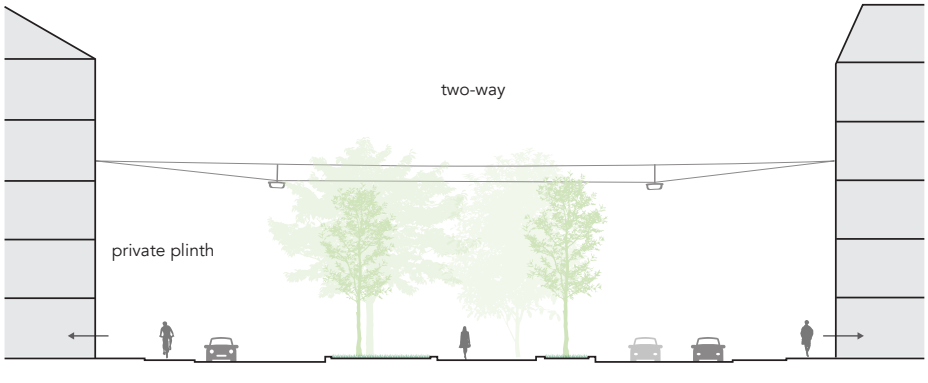


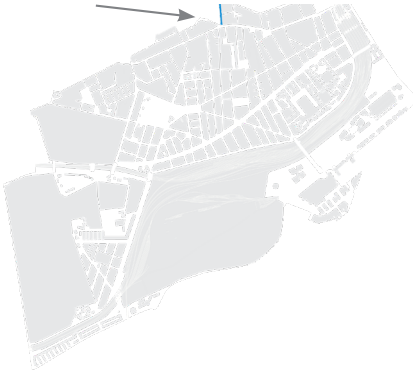




Sønder boulevard

Since a complete make over in 2007, Sønder Boulevard has been a popular stretch of green in Vesterbro used for relaxation by people of all ages.

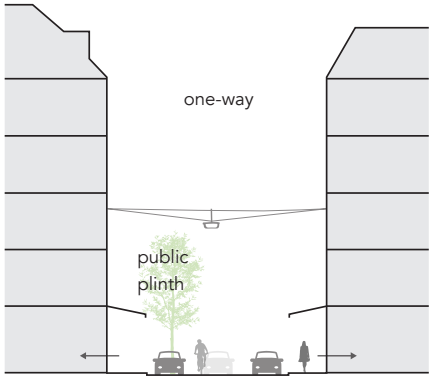


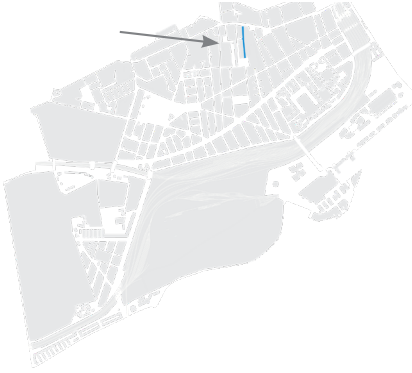


Vaernedamsvej

Værnedamsvej is a small, busy shopping street situated between Vesterbro and Frederiksberg. Kid-friendly, cozy, relaxed and French-looking.

General appearance
Activity
Liveliness
Social contact

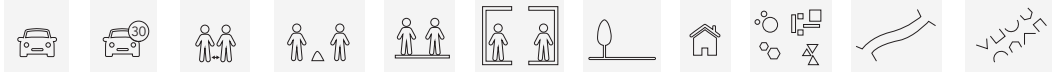


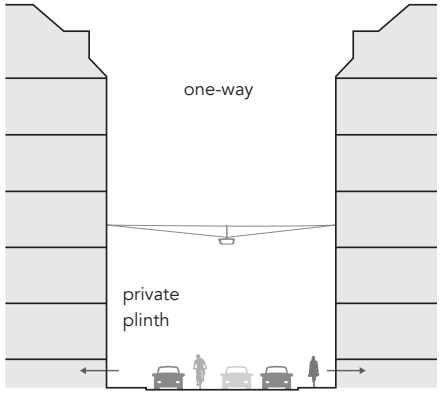


Maartensdijklaan

One of the many narrow streets of Vesterbro. Purely residential with two rows of parked cars and without any trees.

General appearance	
Activity	
Liveliness	
Social contact	





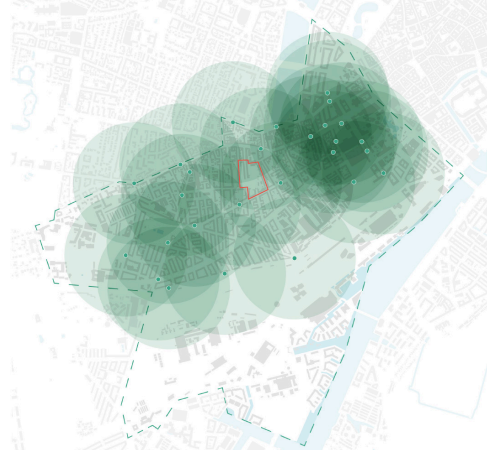
Motorways (images by Oscar von Clear and Mickael Minghetti)

Train and metro (images by Oscar von Clear and Mickael Minghetti)

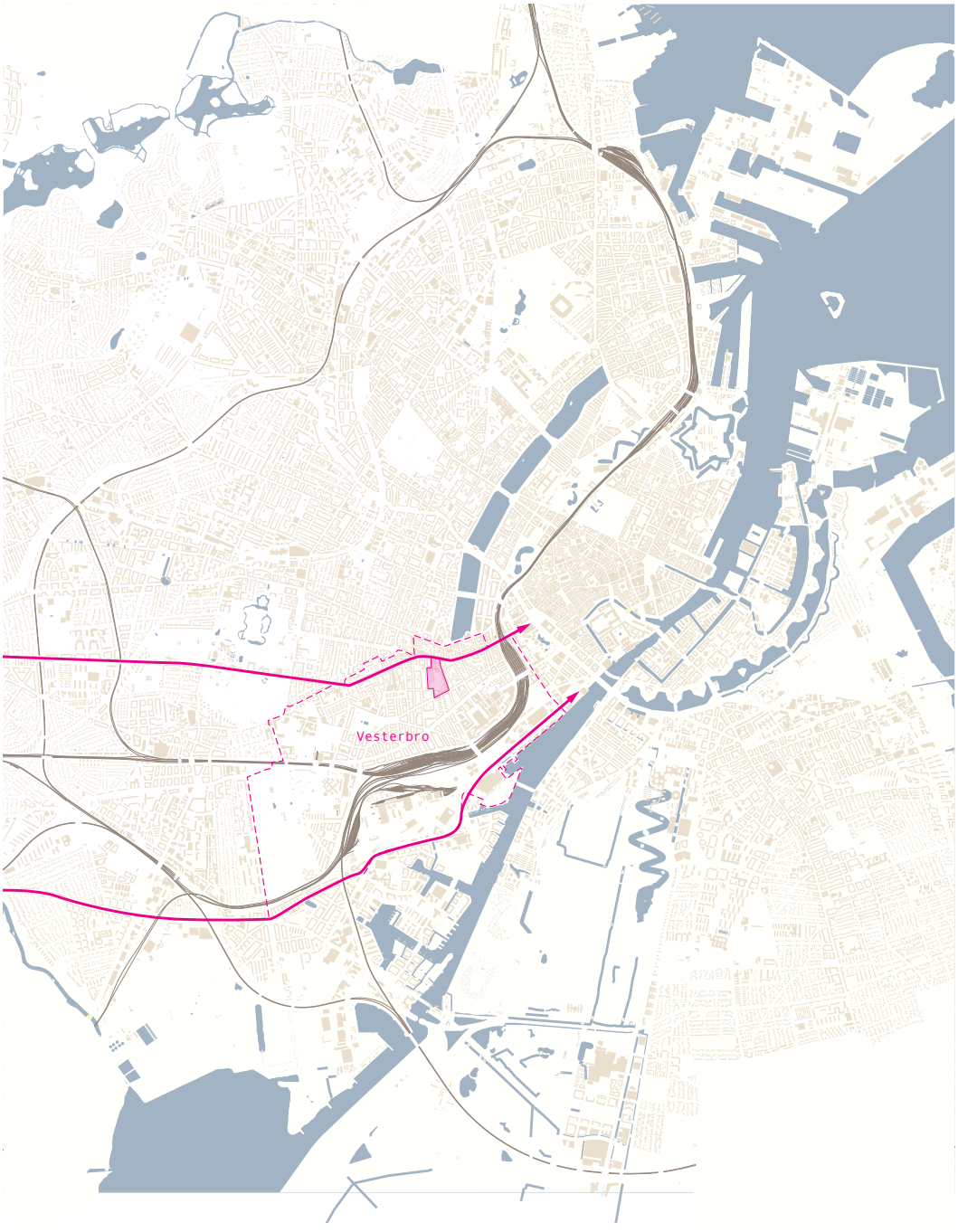
Bicycle (images by Oscar von Clear and Mickael Minghetti)

Train stops (images by Ronald van der Meer)

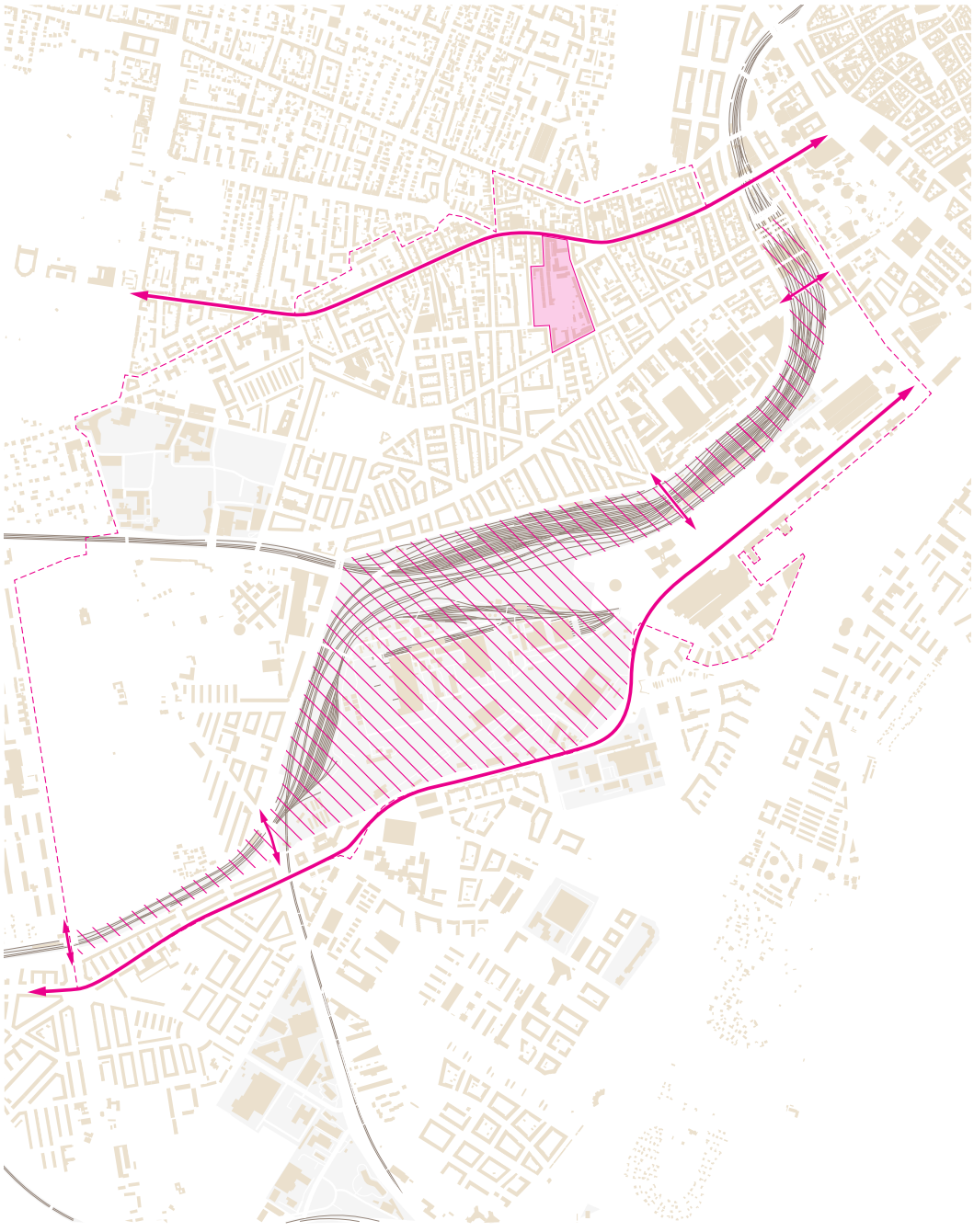
Metro stops (images by Ronald van der Meer)



Bus stops (images by Ronald van der Meer)



The project site is located in the northeast of Vesterbro. At the north of the project site, one of the main roads of Copenhagen connects Vesterbro to the city centre.



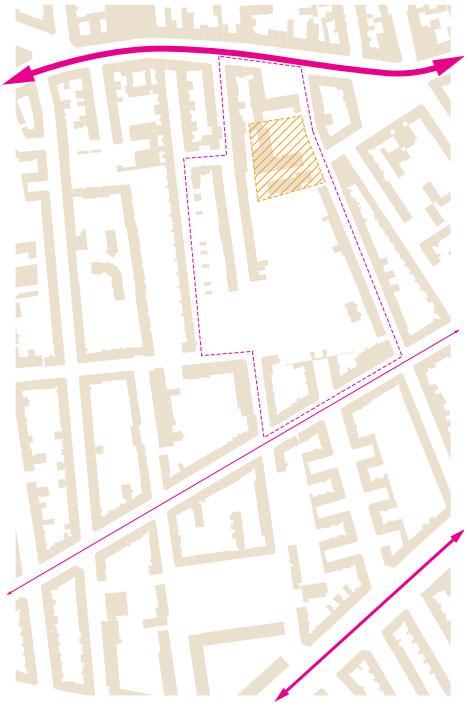
On the south side the train tracks are acting as a huge urban barrier. By its location at the ‘entrance’ of Vesterbro, the project site has great potential in attracting both local residents from the neighbourhood, as people from the rest of Copenhagen.

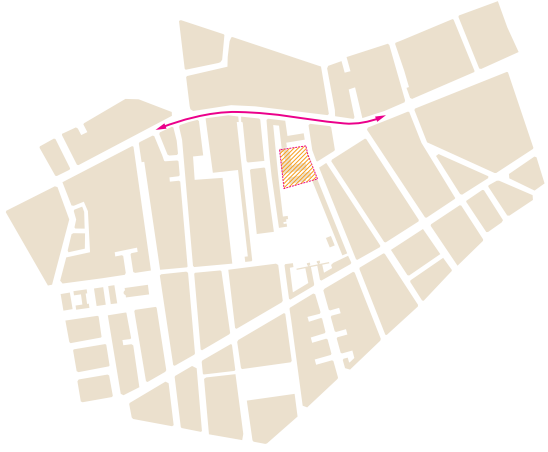
Site selection

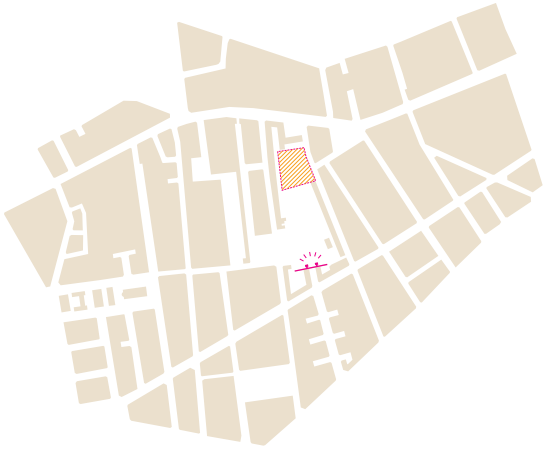
To connect the project to both user groups, I propose to place the building in the north of the site, closest to the big road. These three smaller buildings would therefore have to be demolished, which also makes sense if we look at the block structure around the site. The little sheds that you see here are out of place in the otherwise quite rigid streetscape.

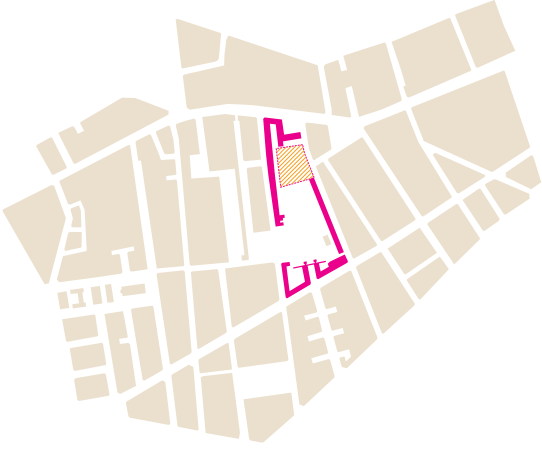
By this position also the qualities of the project site are emphasized: The site used to be a shooting range (Skydebane), and the Fortaellingernes Hus will therefore face this farytale-like wall in the south, used to protect the city from stray bullets. Since the building block will be closed, the feeling of a hidden garden will be strengthened.

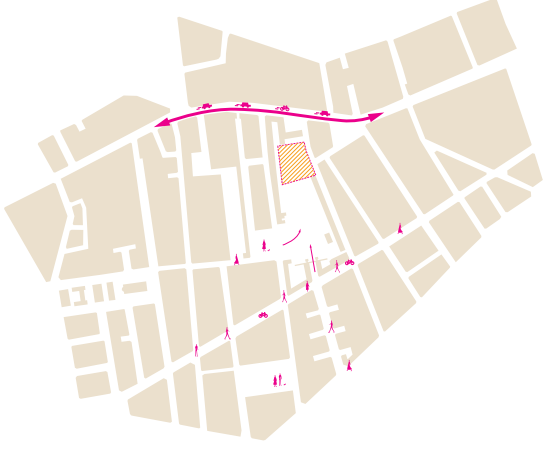
There is a big contrast between the fast traffic on the north, and the slow traffic in the south. People that arrive to the site on the north are more likely to come by car or bike, and have the fortaellingernes hus as a destination, while visitors from the south are more likely to walk and stumble upon the building accidentally.











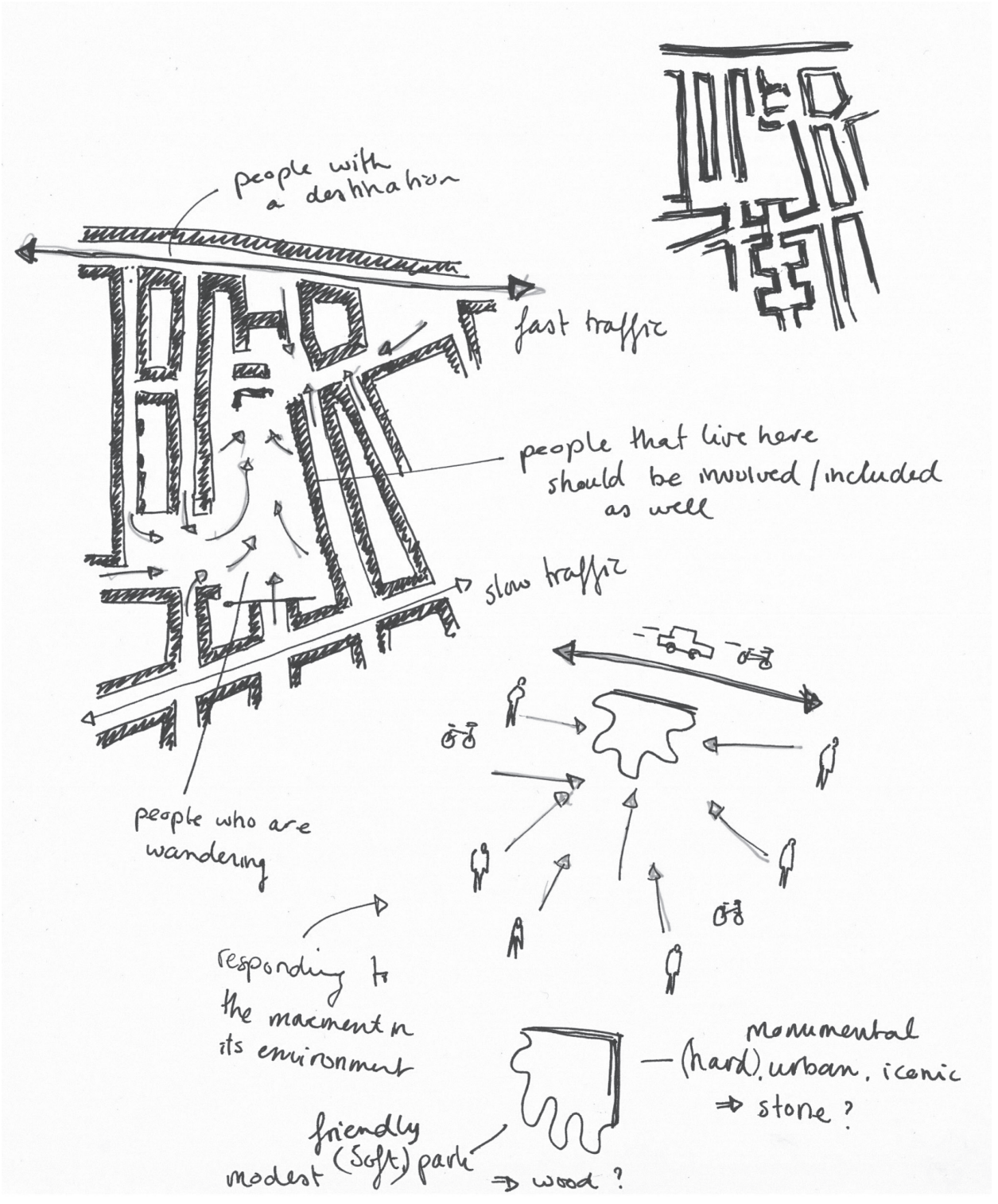
A general impression of the public space in Copenhagen.

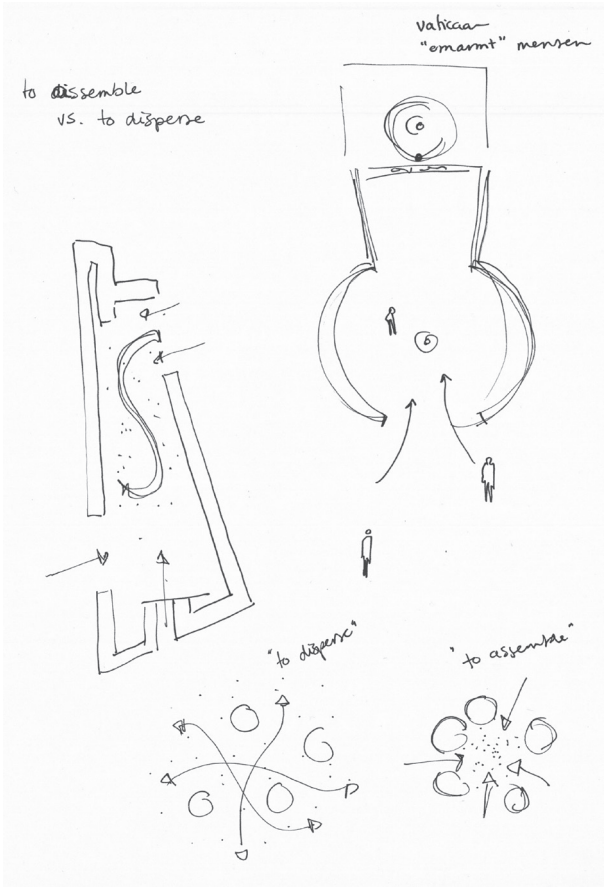
“Generating curiosity has a different meaning from the urban side (North) and from the garden side (South).

Its location inside a building block and its green character in the otherwise quite monochrome neighbourhood make it feel like a ‘hidden garden’ that intrinsically evokes curiosity and a sense of togetherness when the site is approached from the South.

From the North, the experience of discovery has to be generated by the building itself, while responding to the fast traffic and the urban form.

Design journal //


people with a destination
fast traffic
people that live here should be involved / included as well
slow traffic
people who are wandering
responding to the movement in its environment
monumental
(hard), urban, iconic
⇒ stone ?
friendly
modest (soft) park
⇒ wood ?


vaticaan
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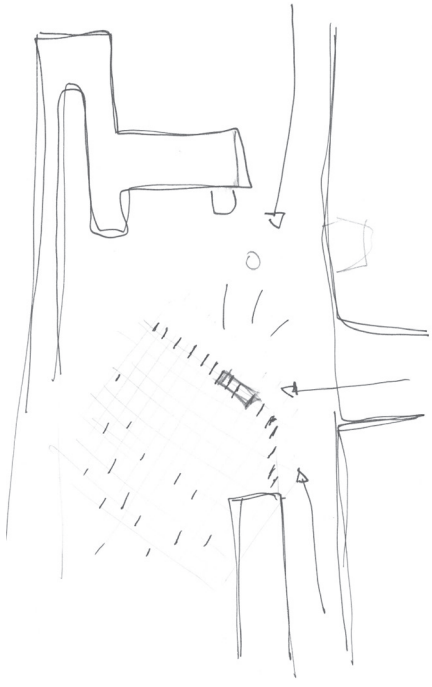
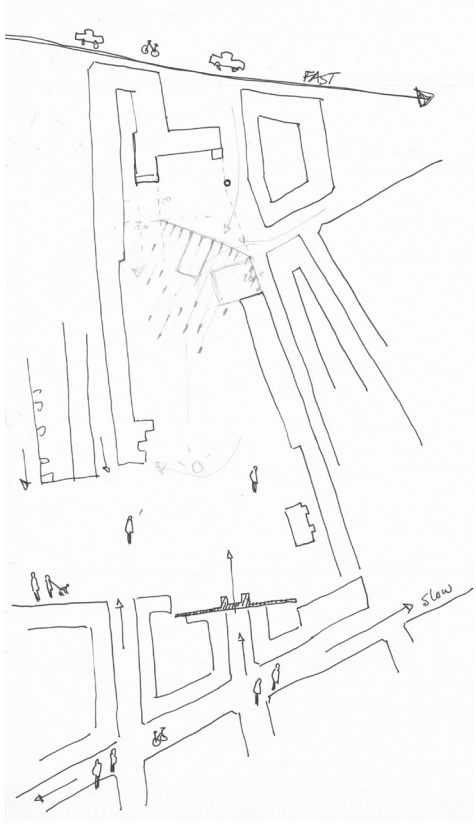
to dissemble
vs. to disperse
"to disperse"
"to assemble"




FAST
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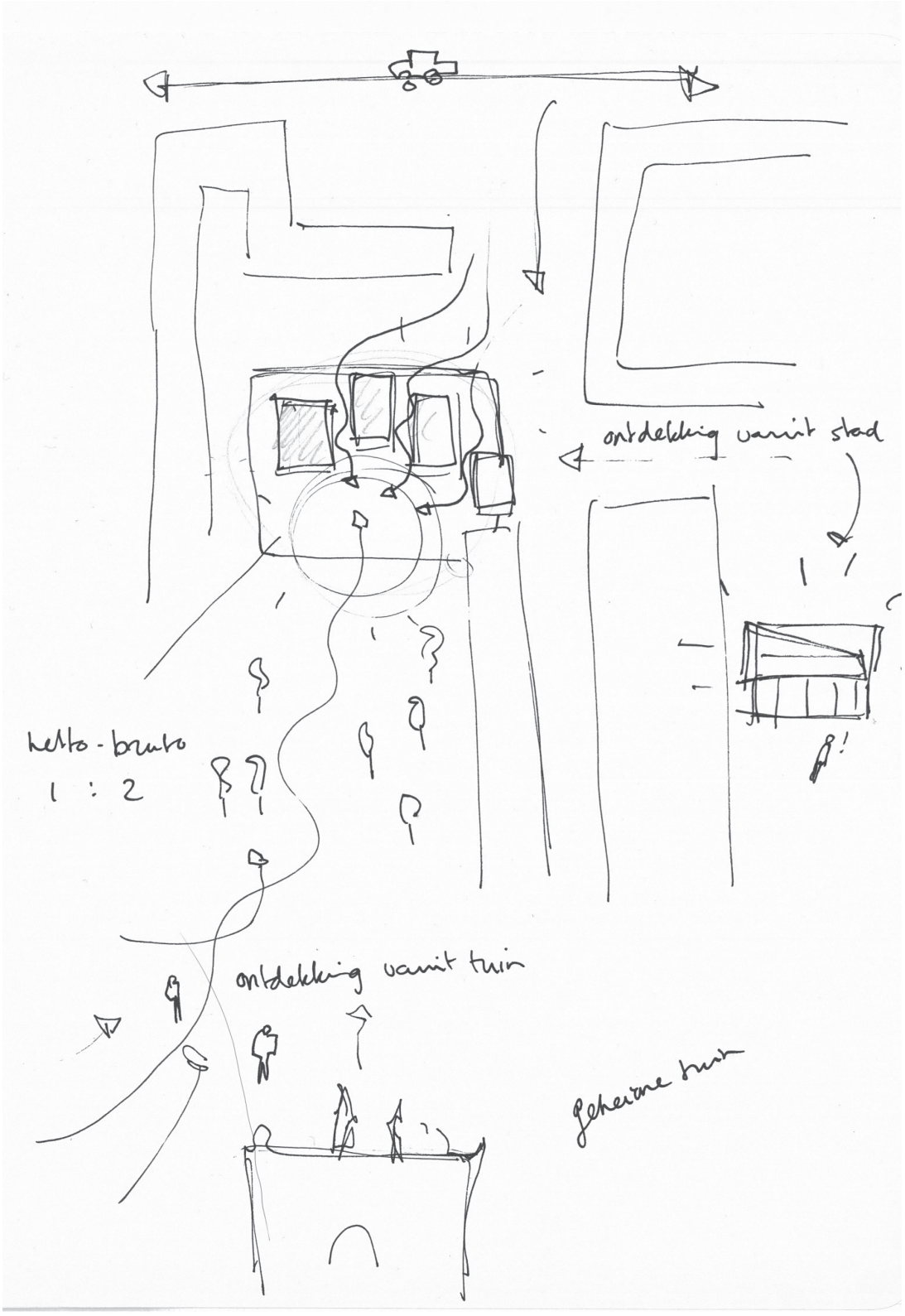
ontdekking vanuit stad
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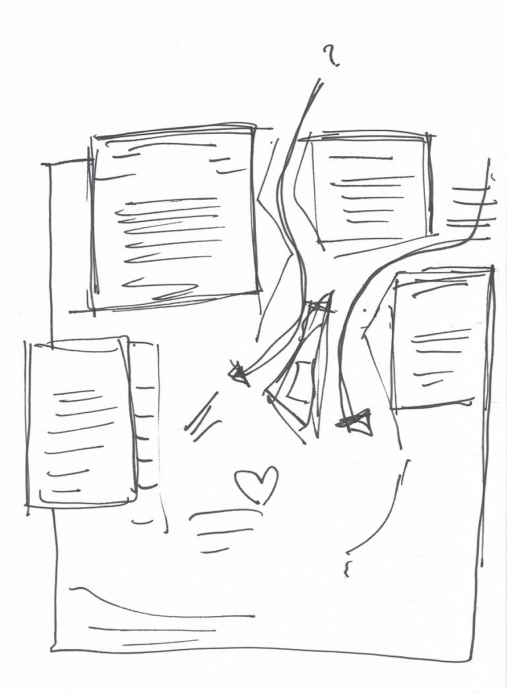

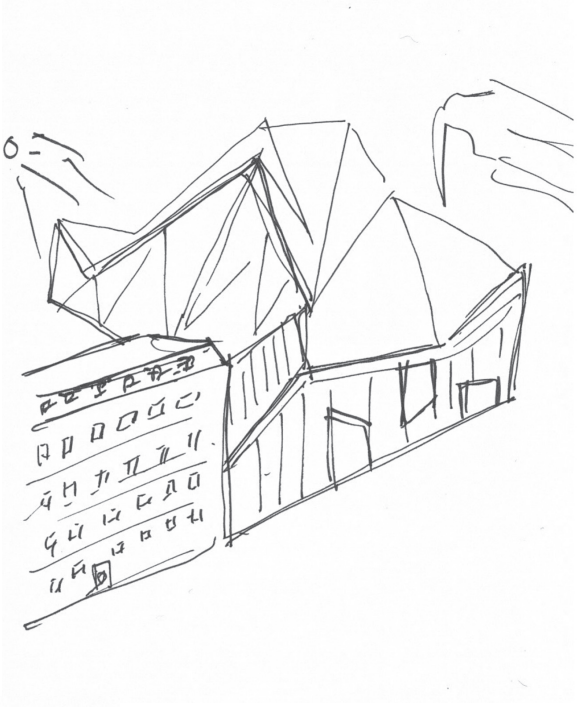

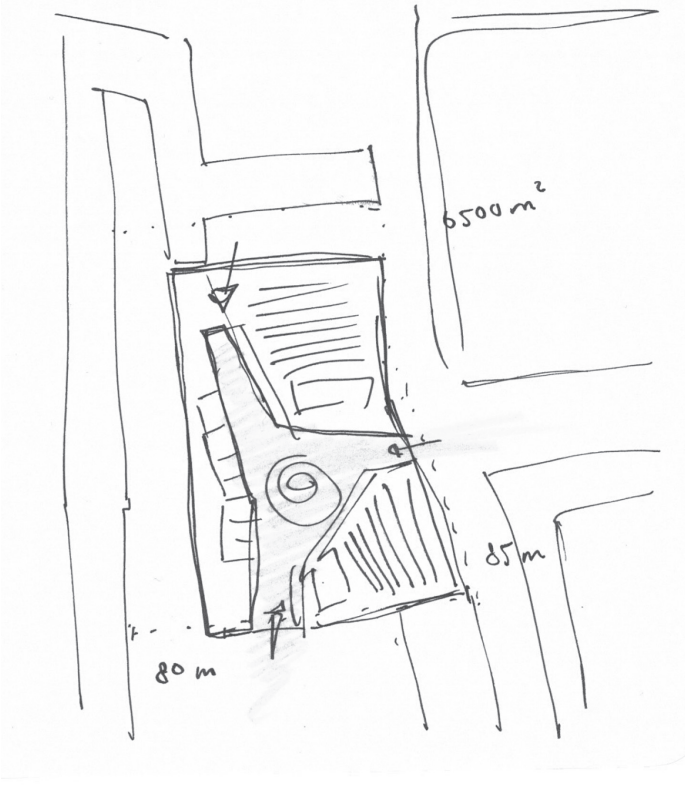
0500 m²
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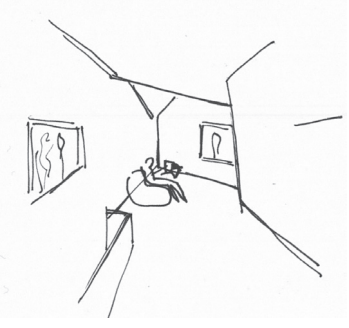

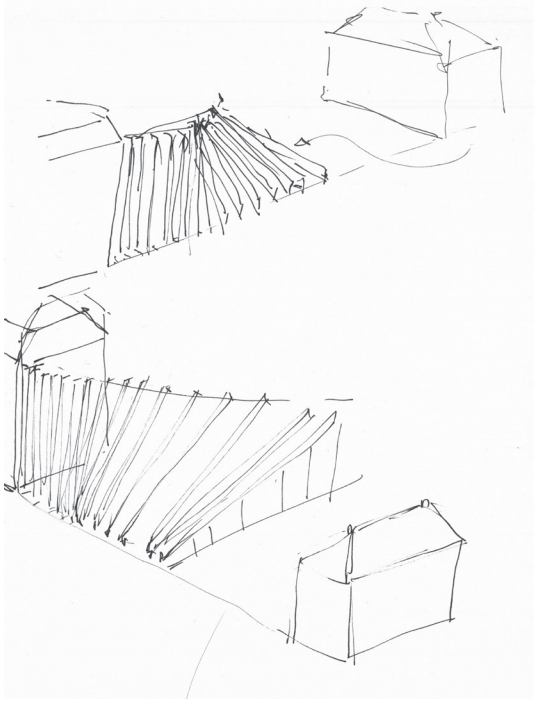

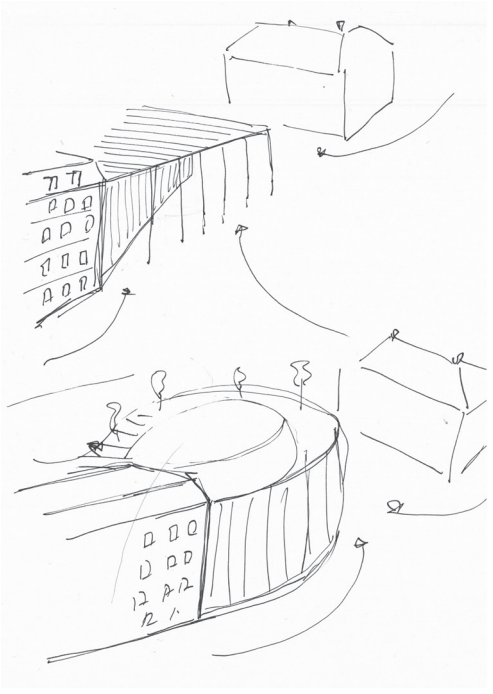

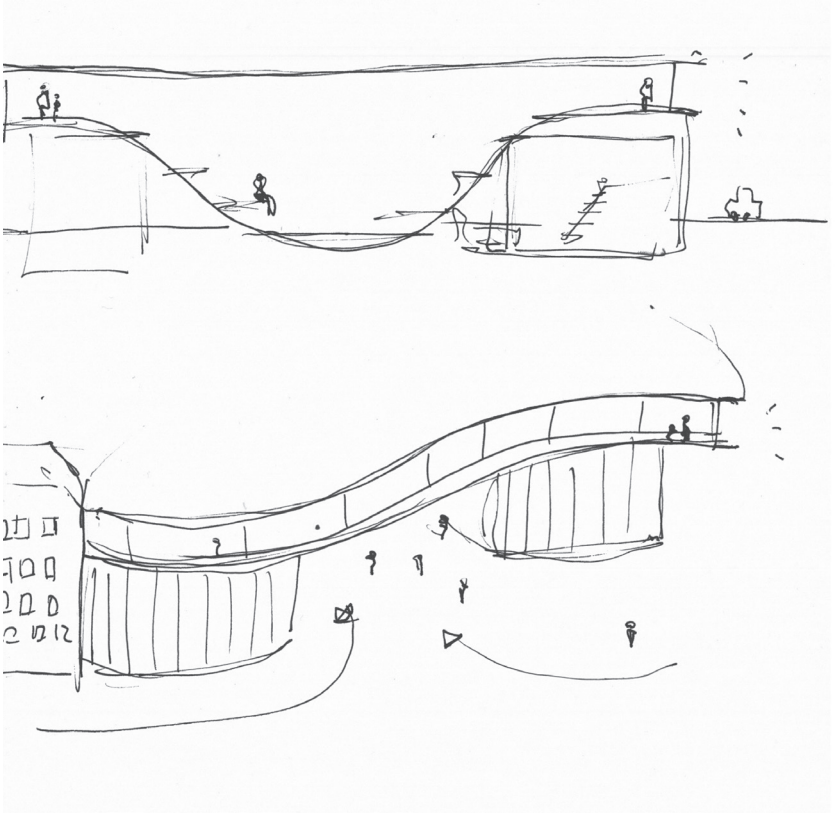

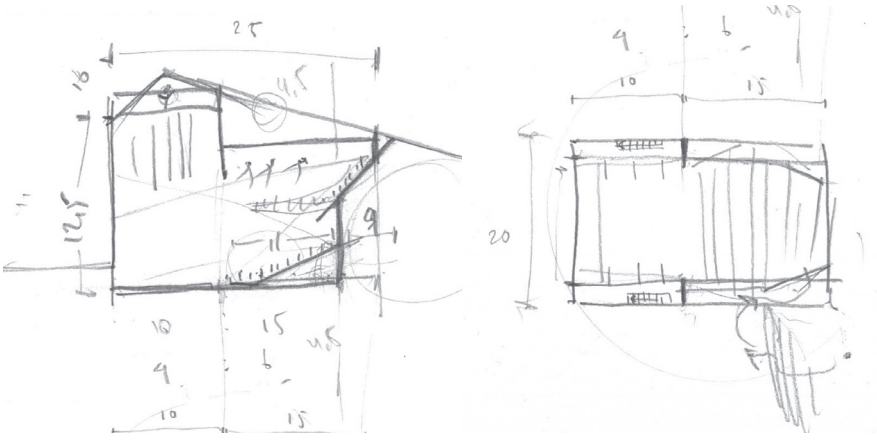
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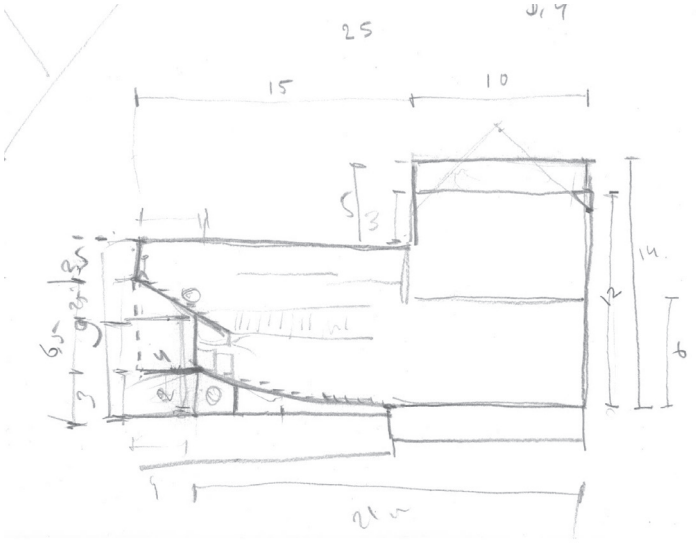
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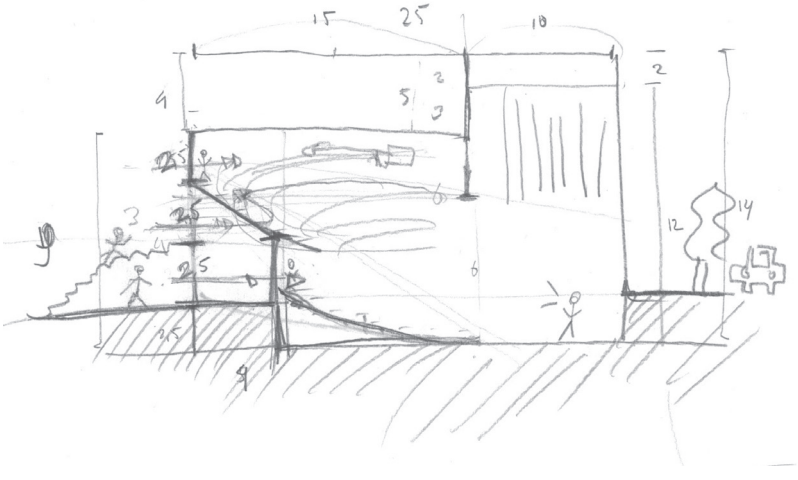
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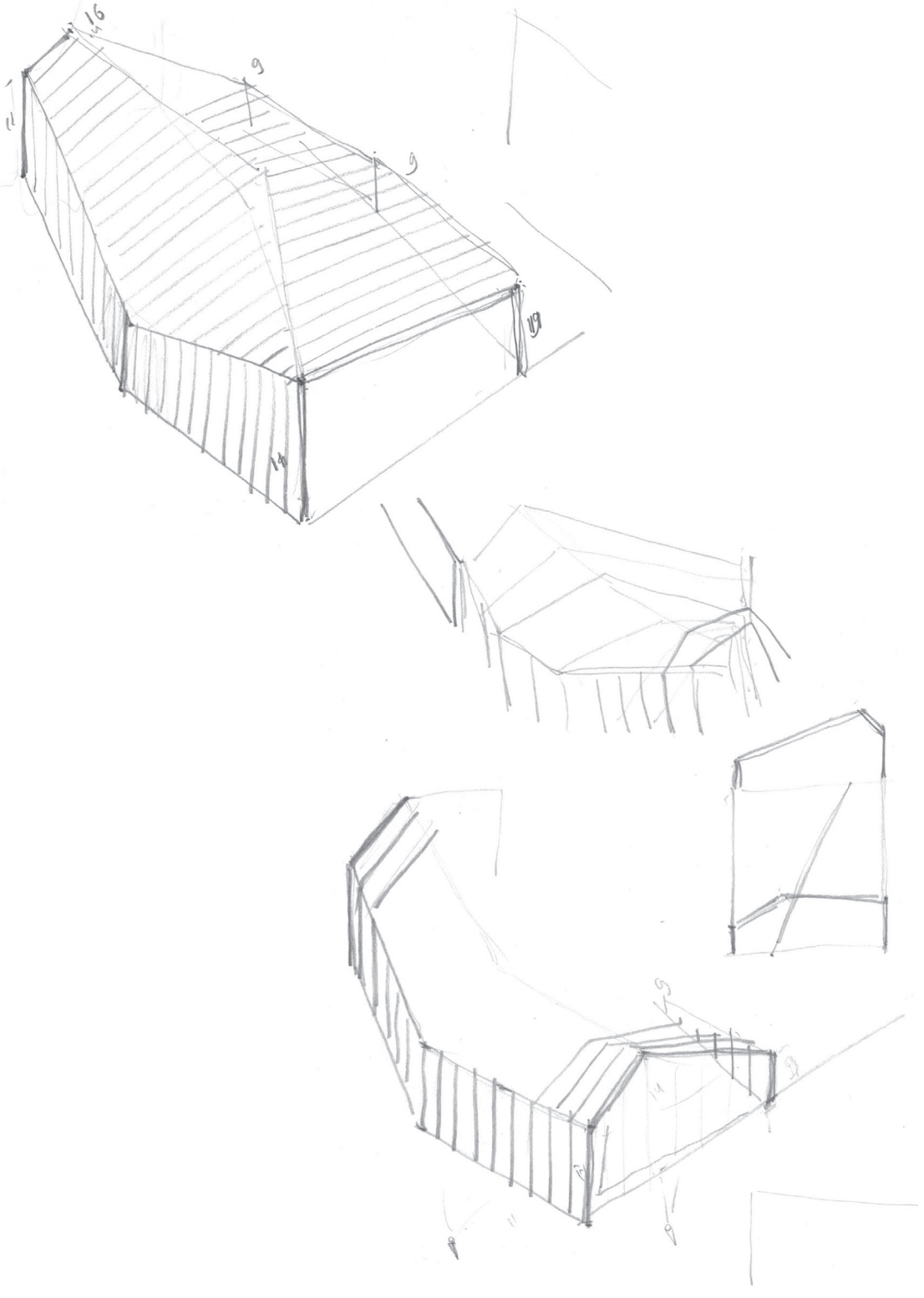
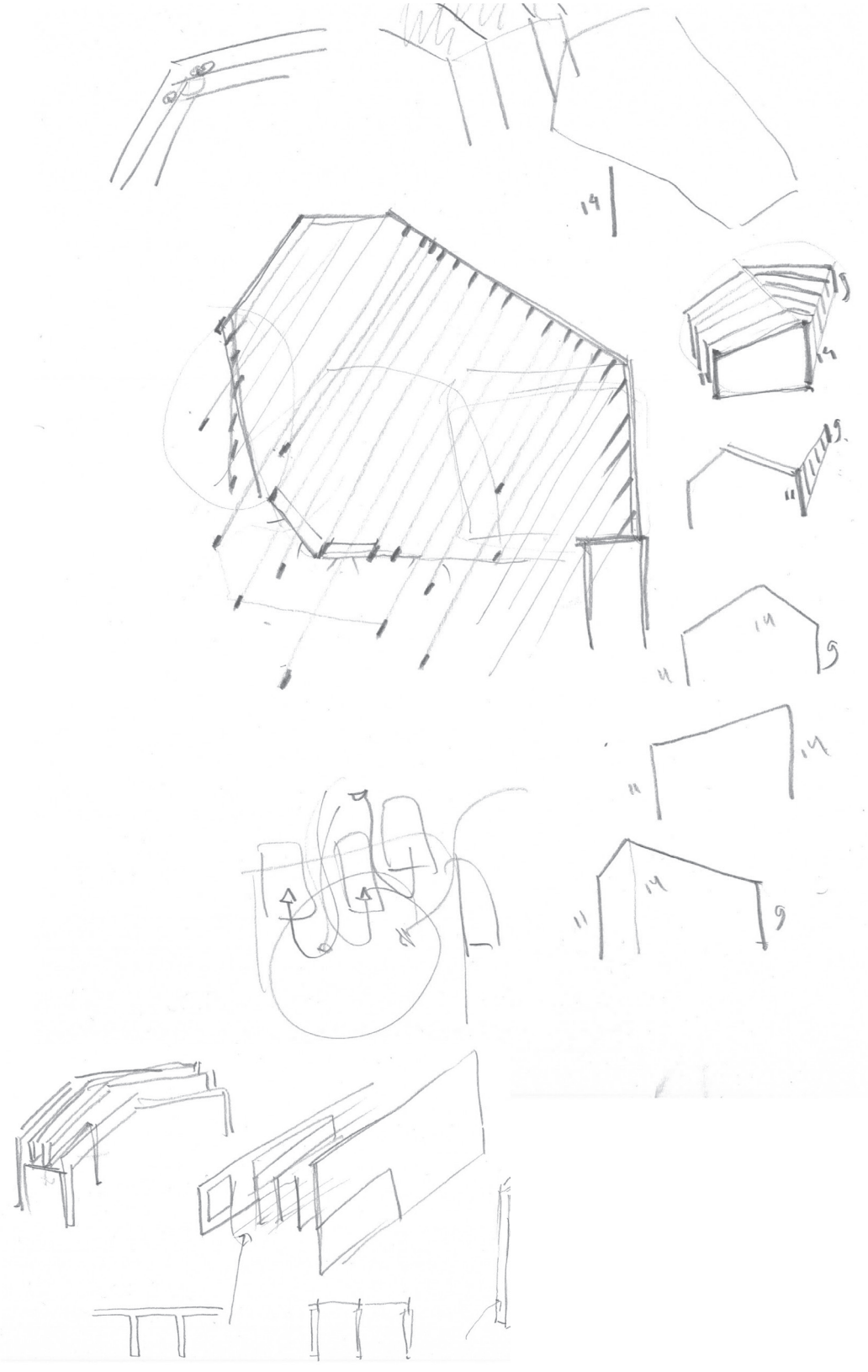
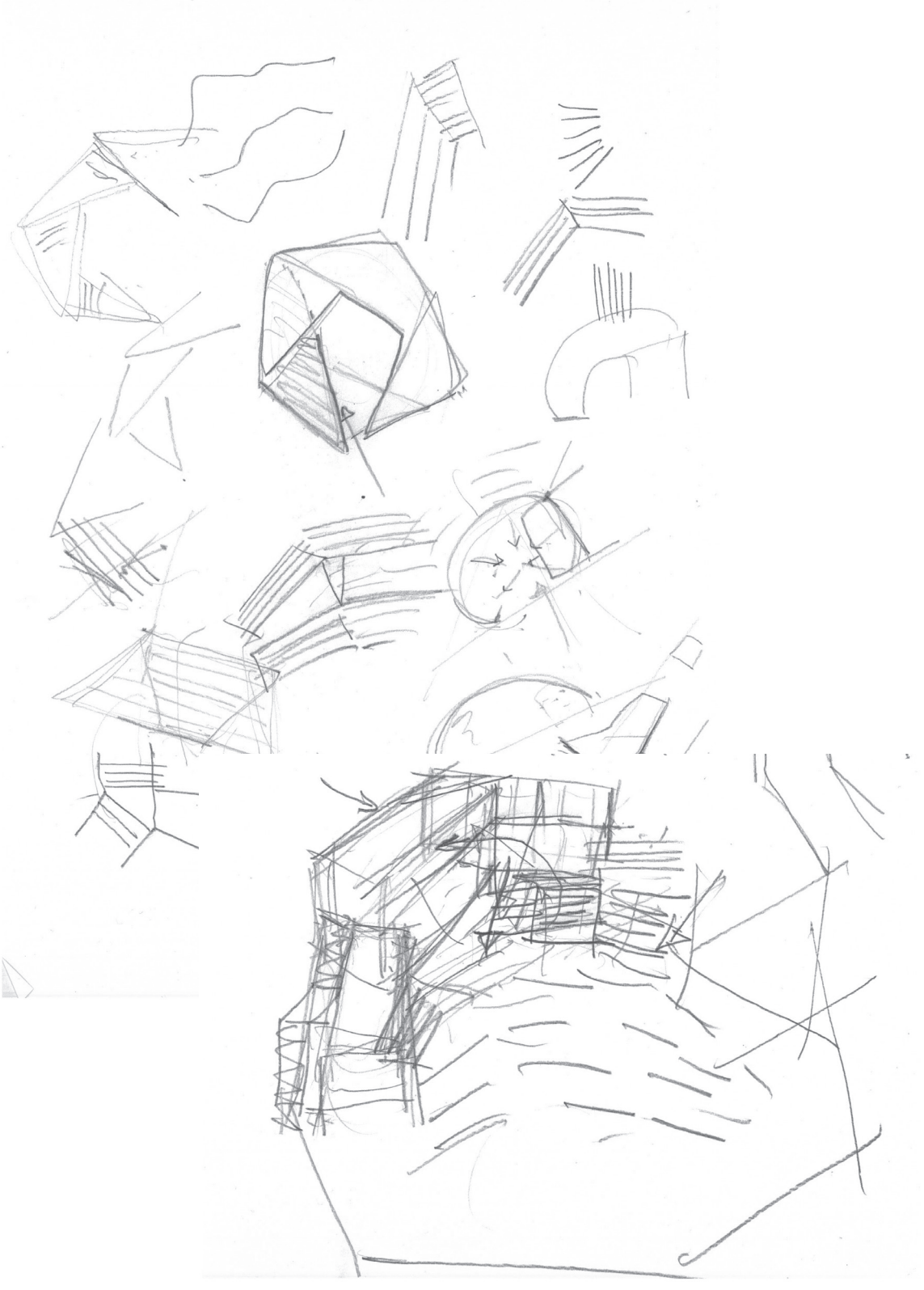
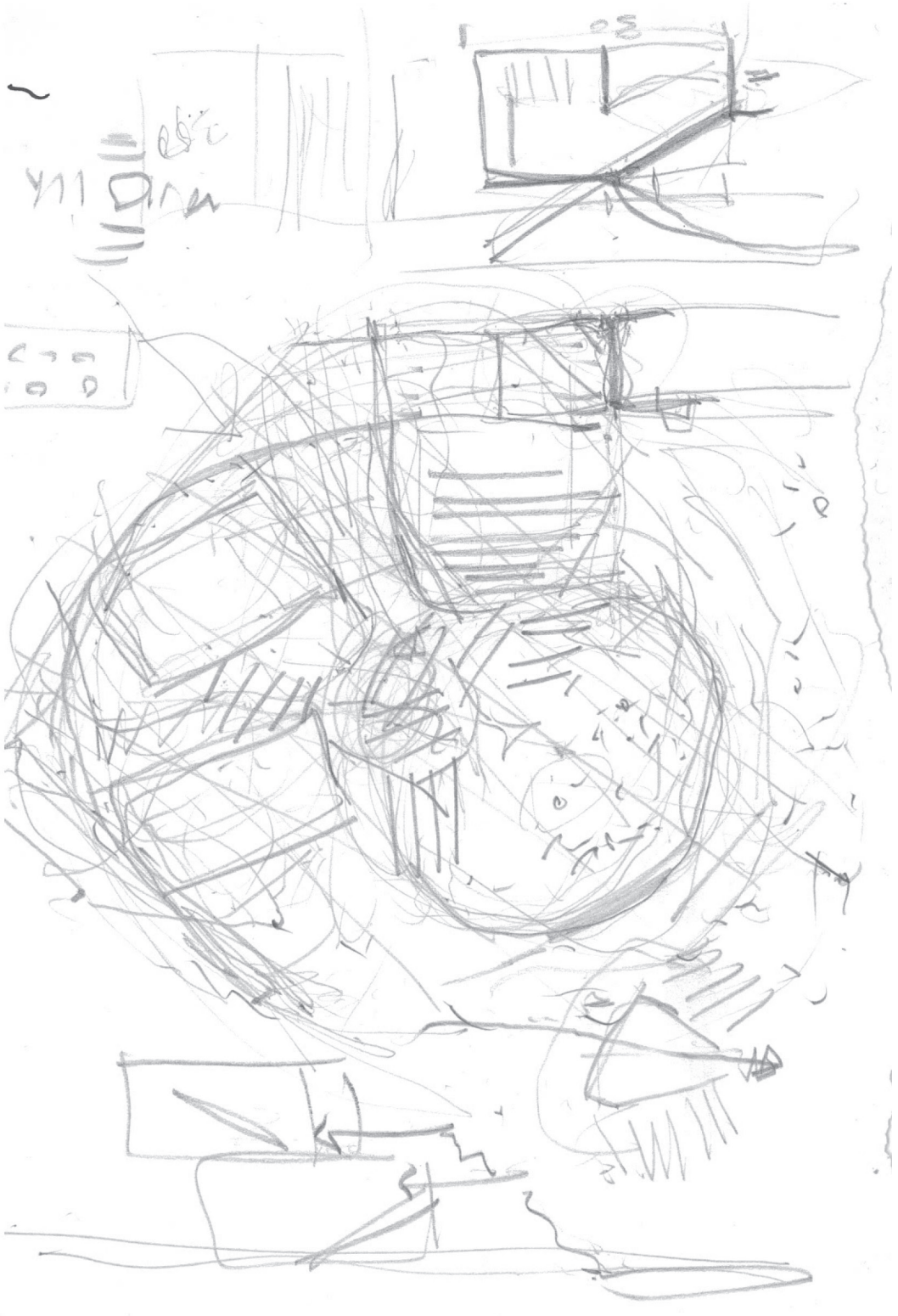
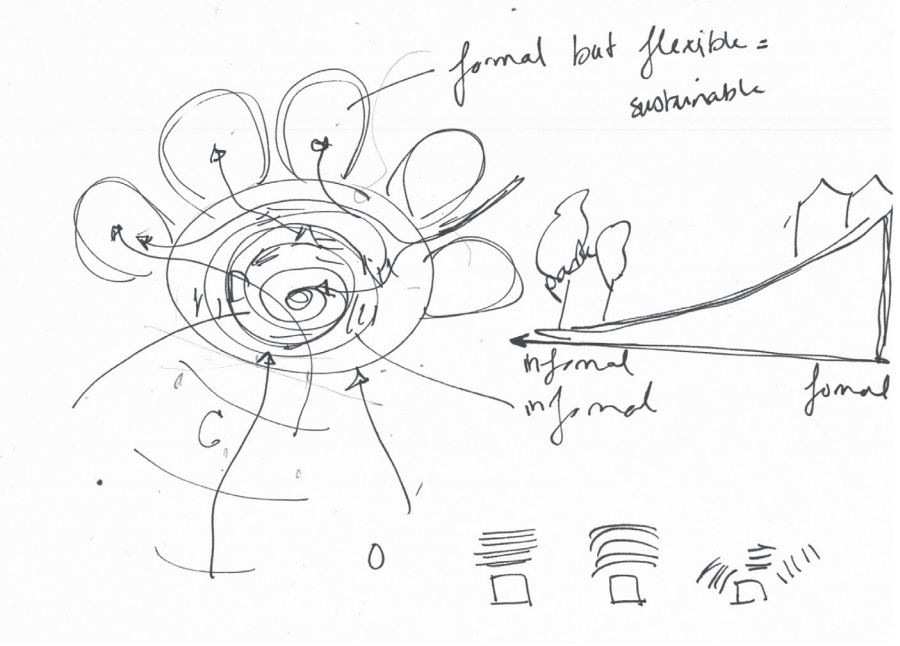
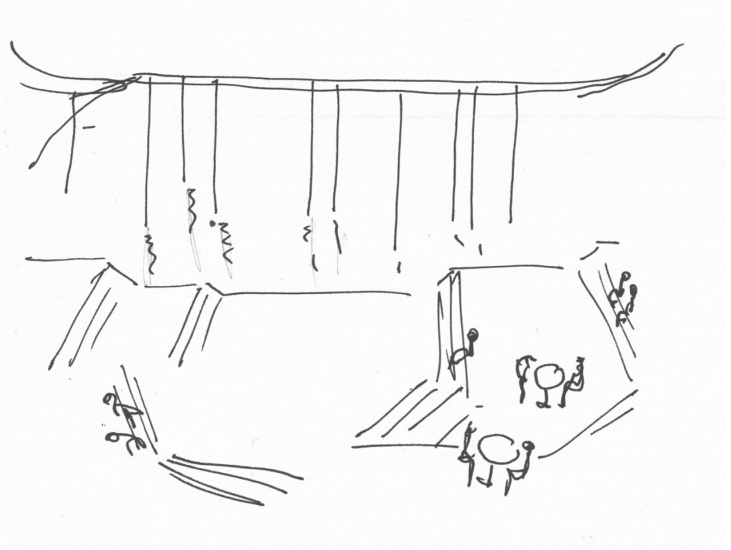


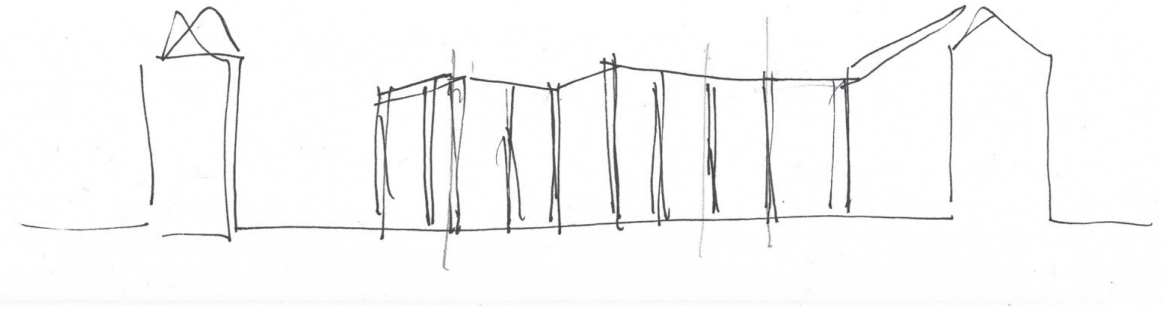


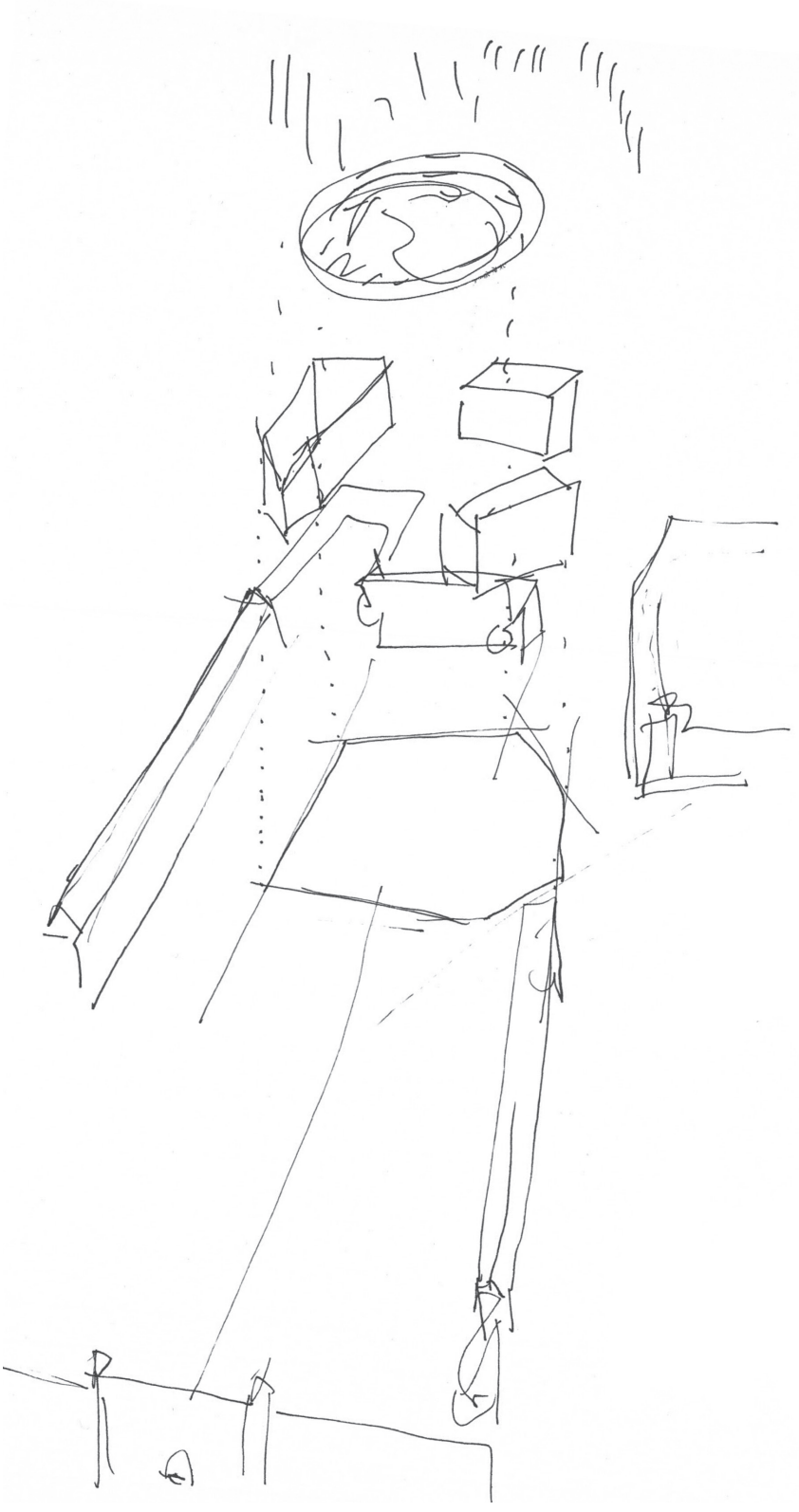


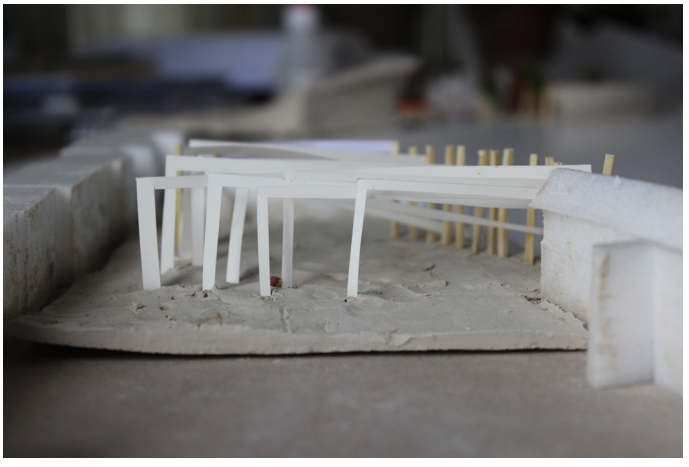


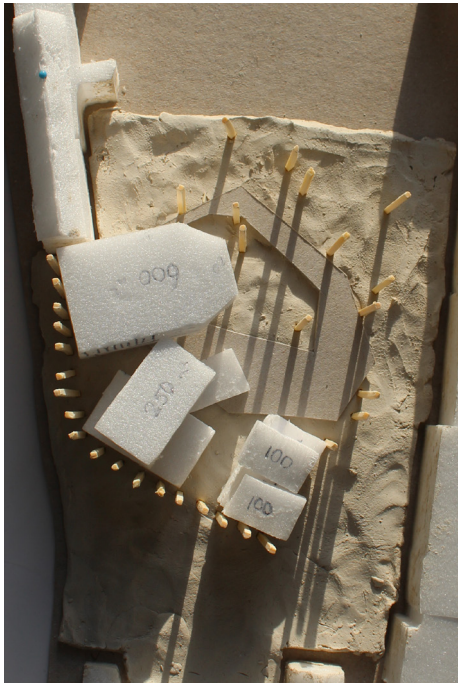

formal but flexible =
sustainable
facade
informal
informal
formal










009
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100
100

009
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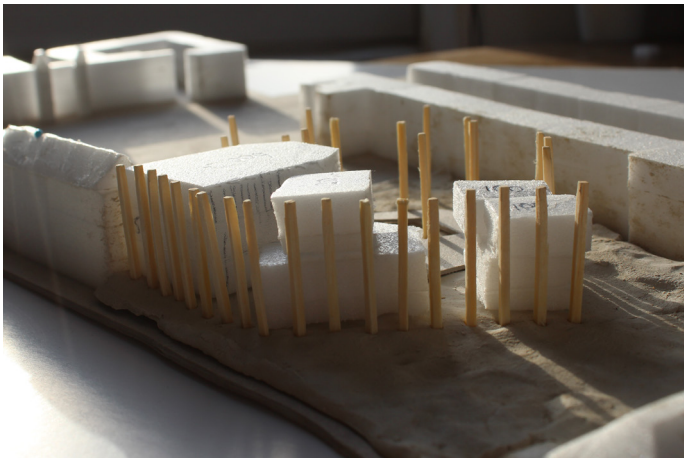
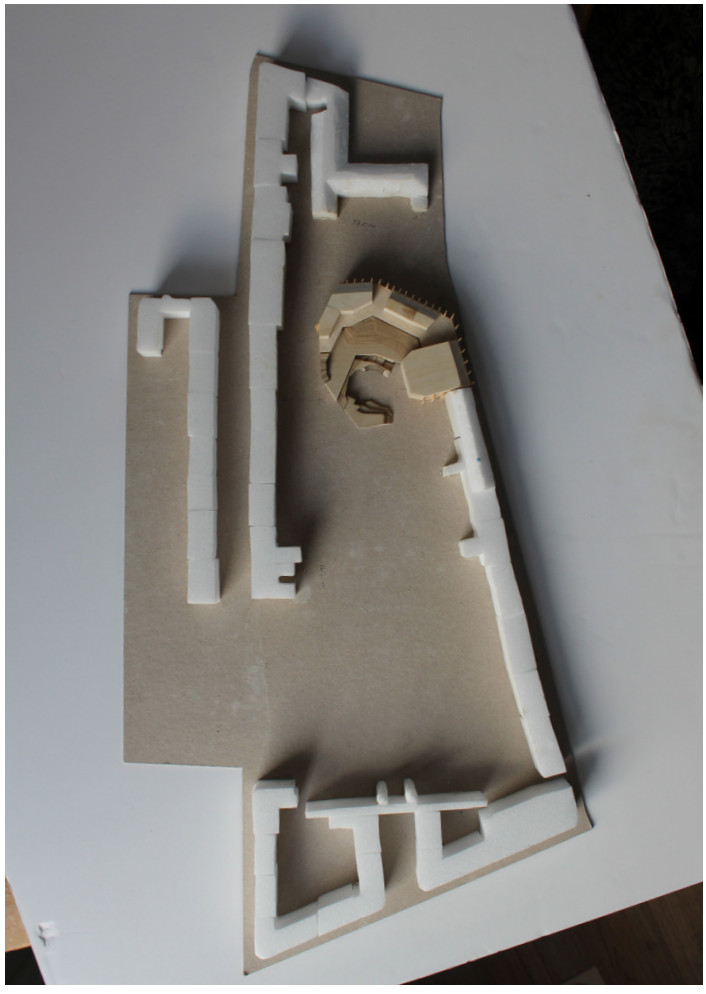
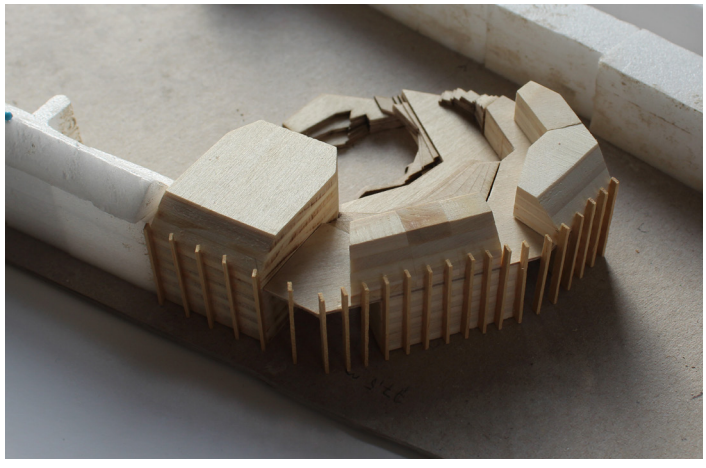
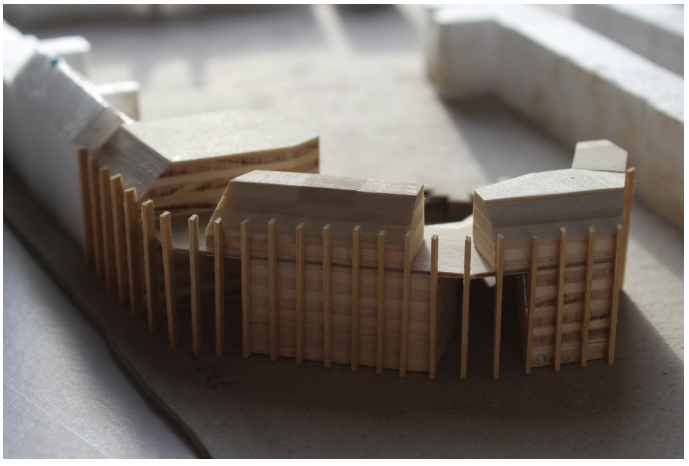
150
200
100
100
100

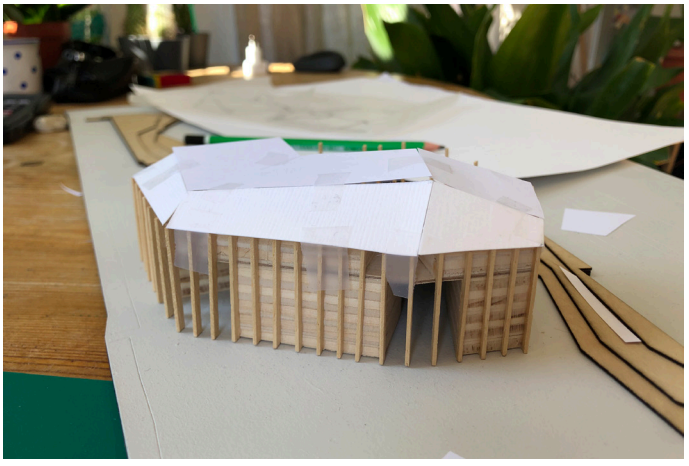
009
250
150
200
100
100
100

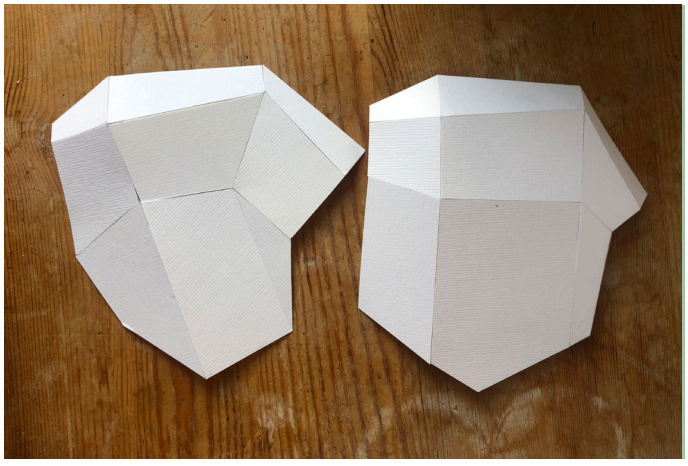


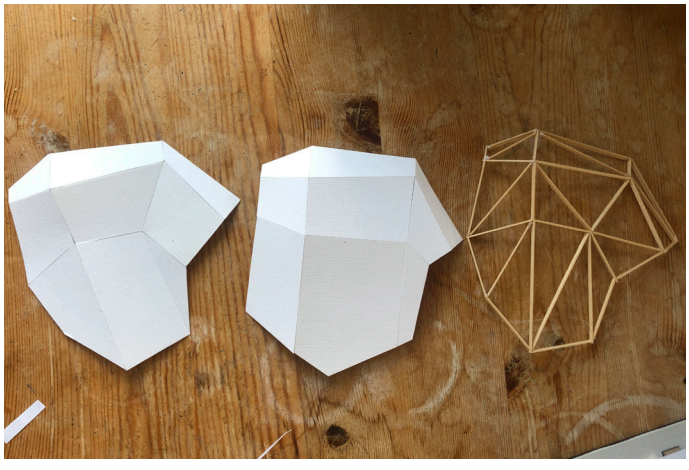


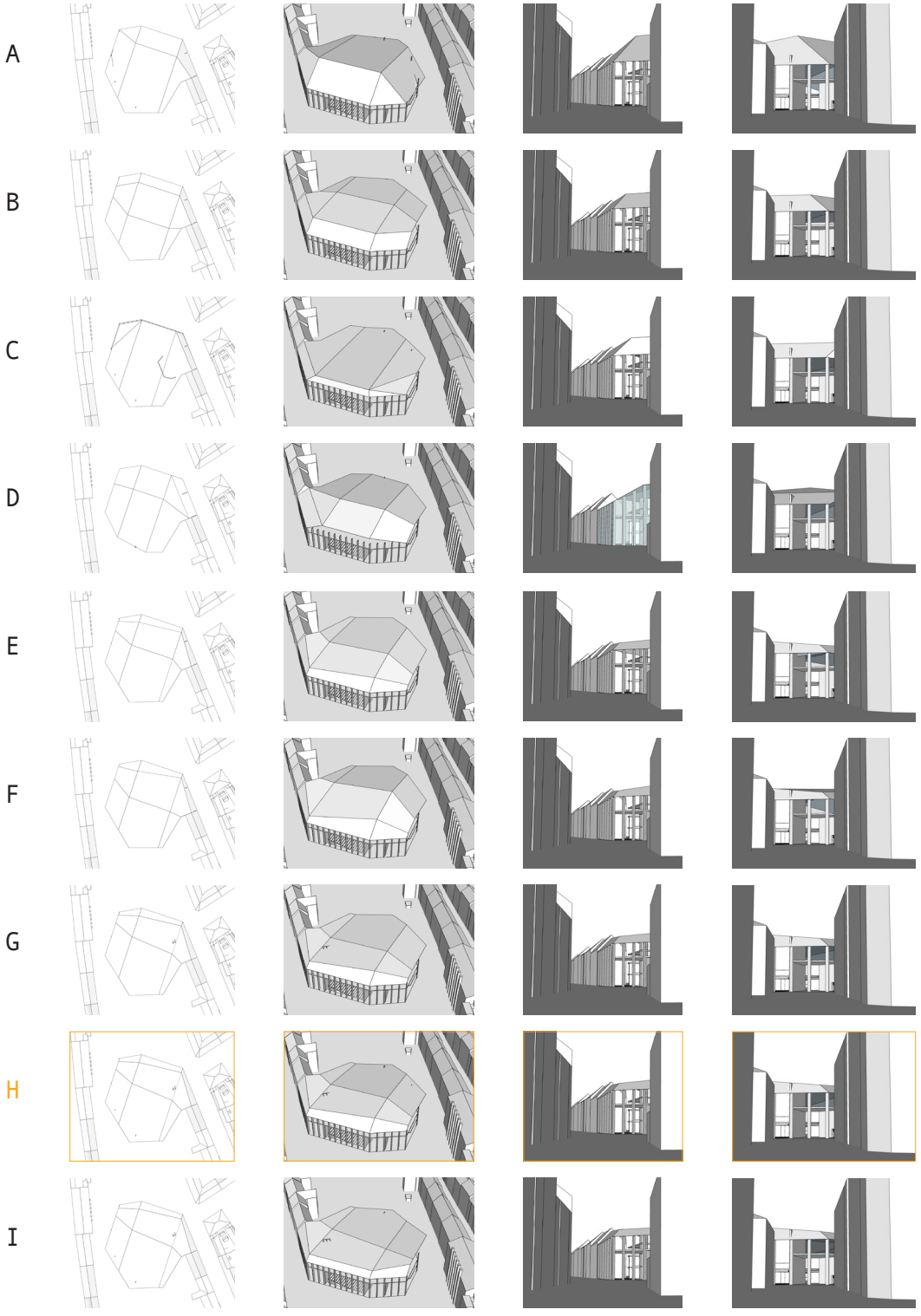


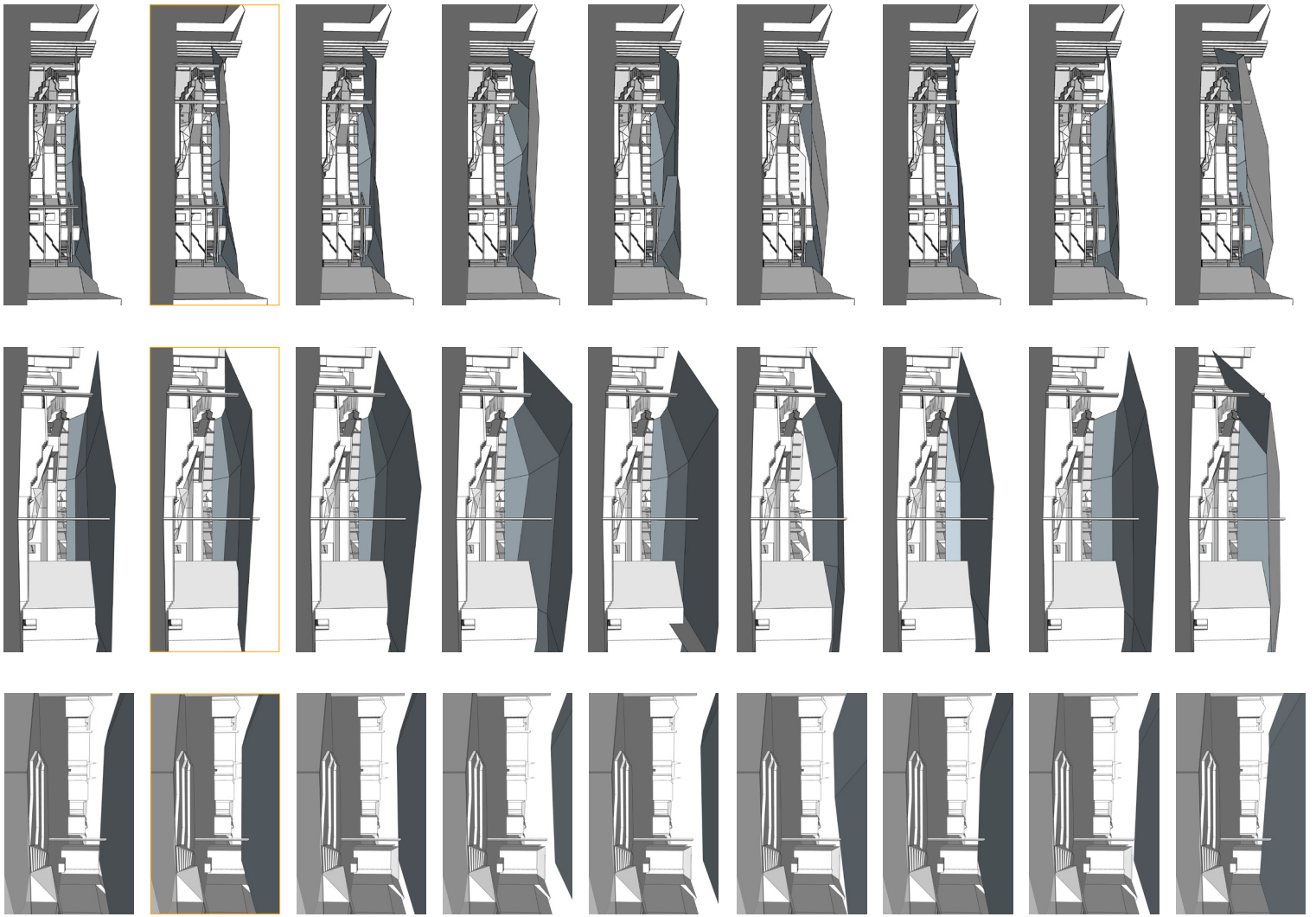


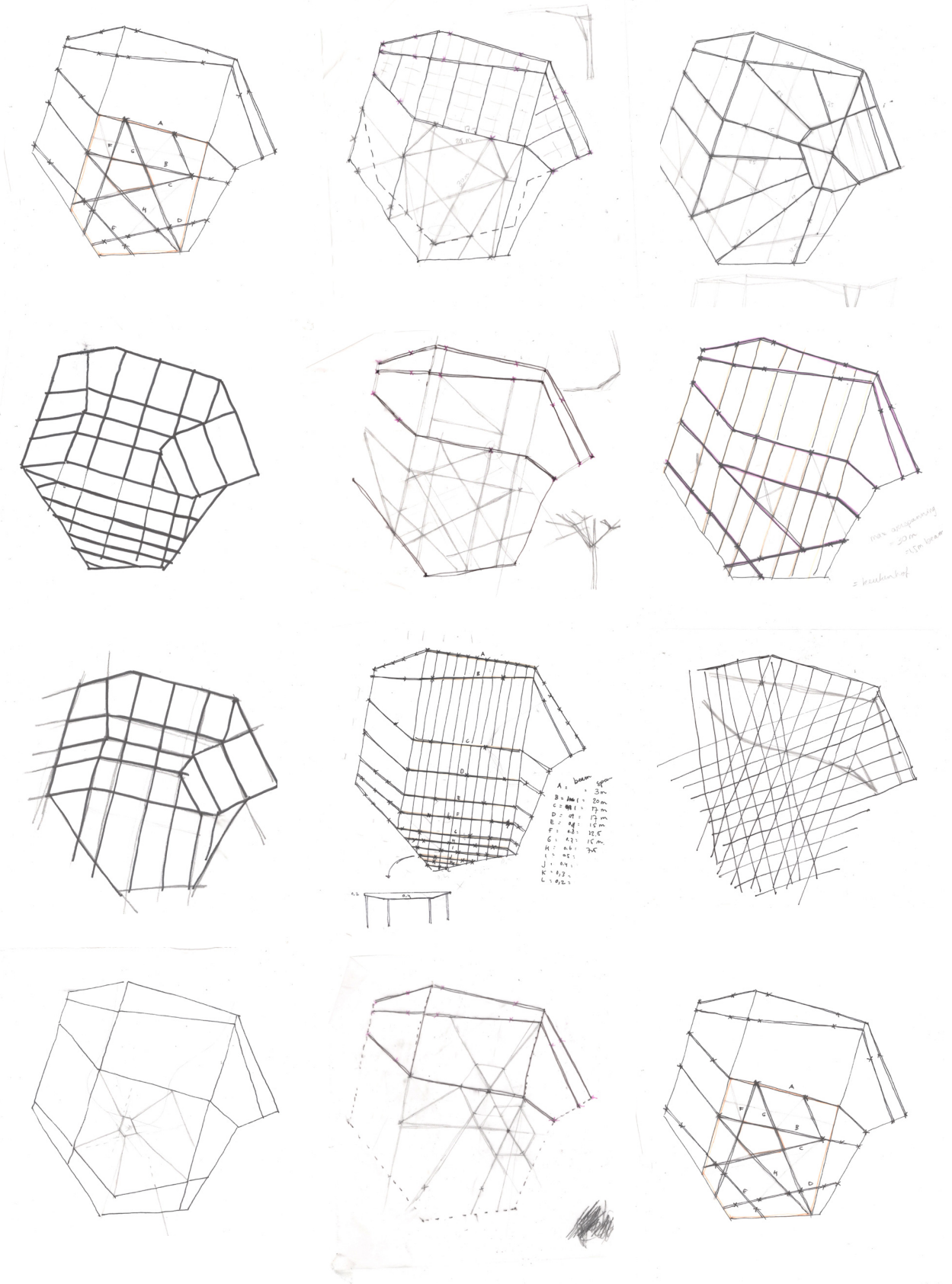


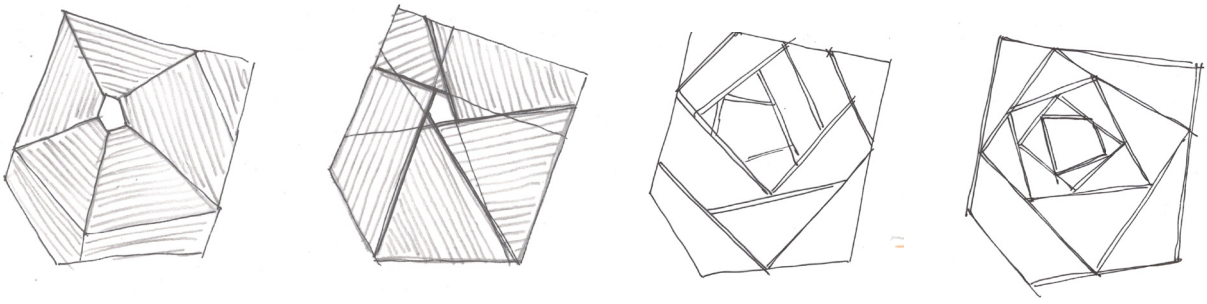


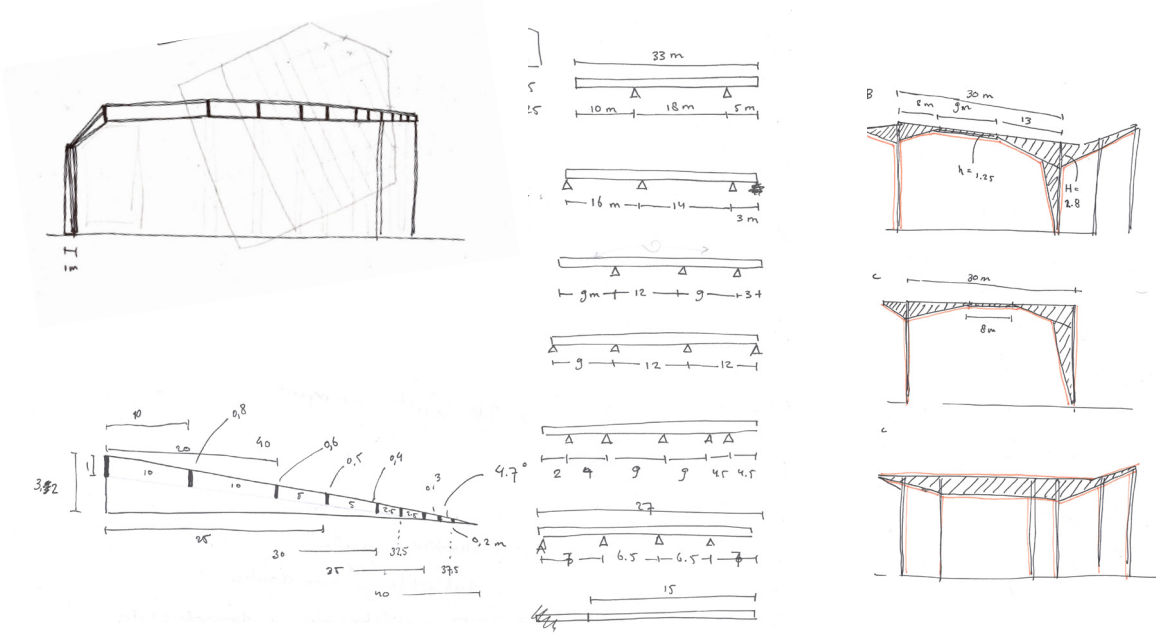


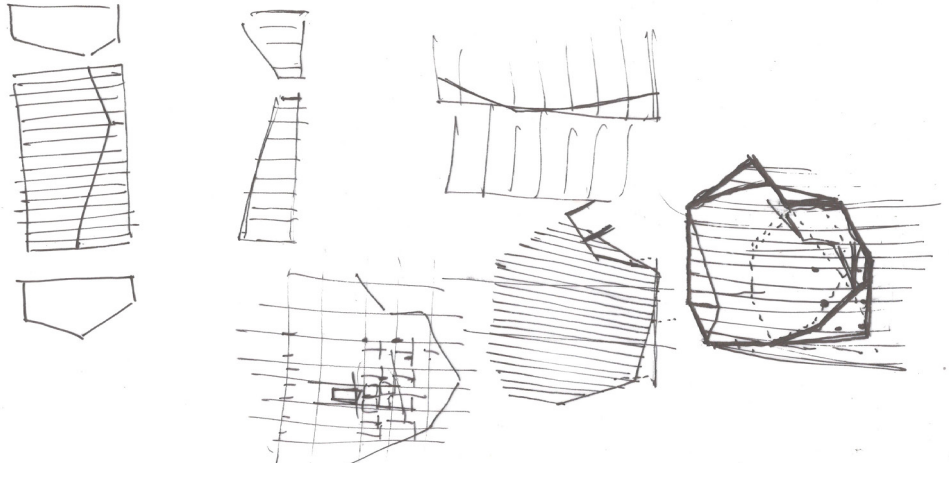

A
B
C
D
E
F
G
H
I

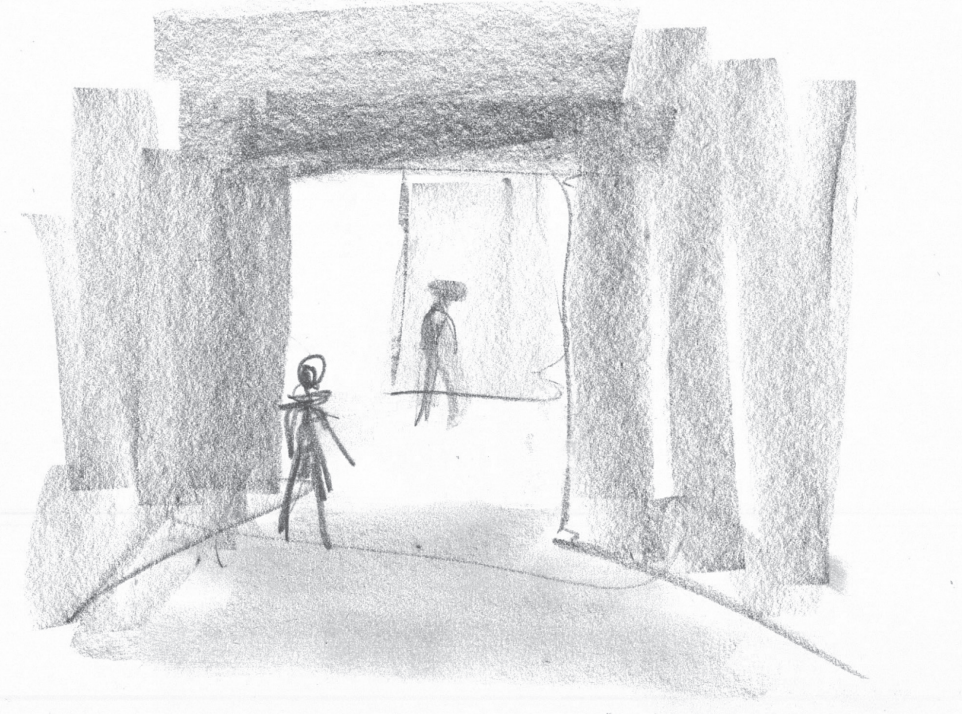


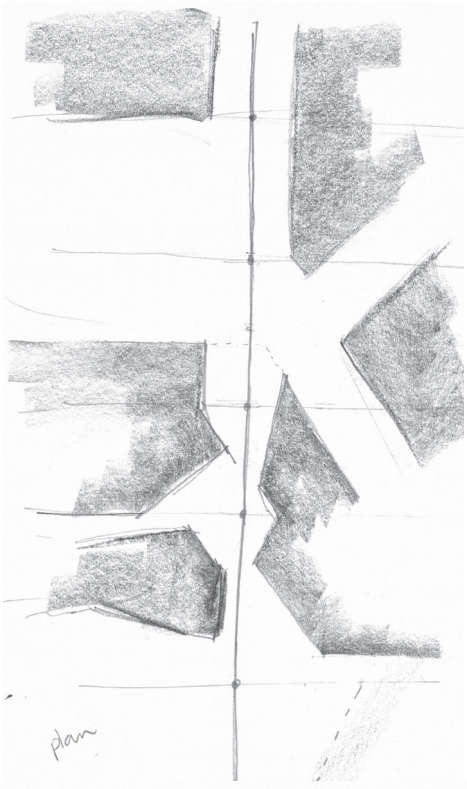


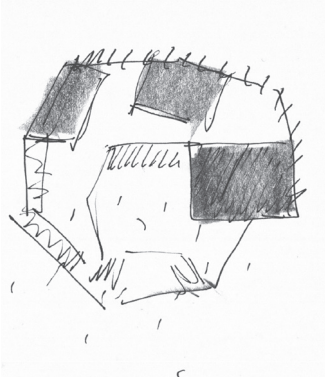


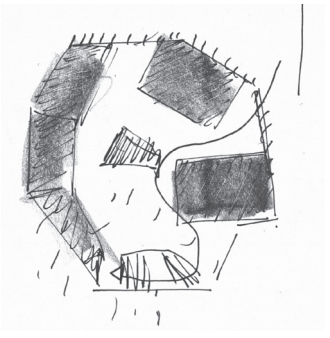

33 m
10 m
18 m
5 m
16 m
14
3 m
9 m
12
9
3
9
12
12
2
4
9
9
4.5
4.5
27
7
6.5
6.5
7
15
B
30 m
8 m
9 m
13
h = 1.25
H = 2.8
C
30 m
8 m
4.7°
0,2 m
25
30
32.5
35
37.5
40

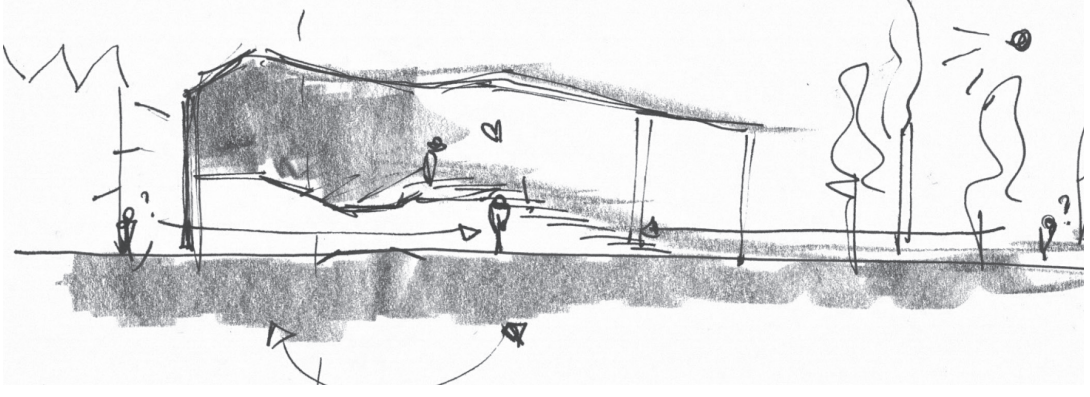


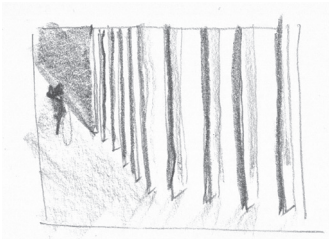
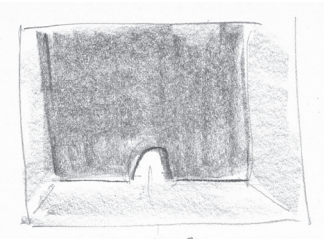
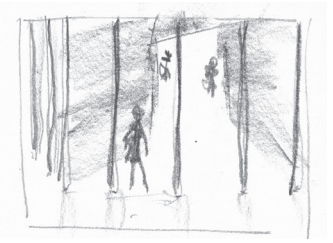
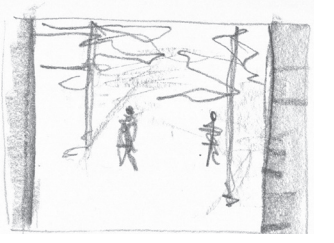
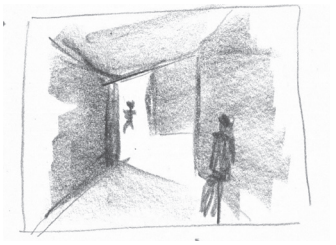


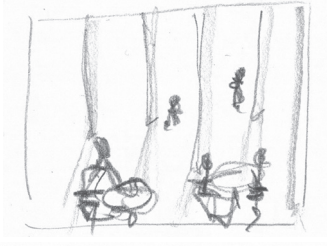
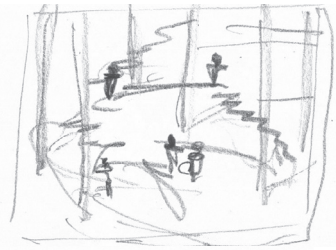
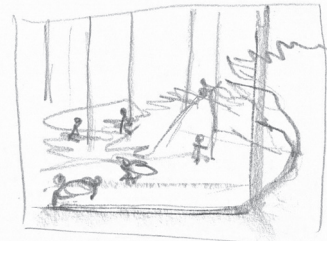

plan

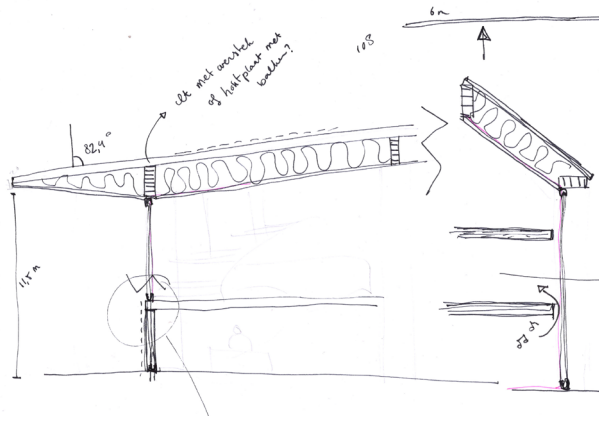


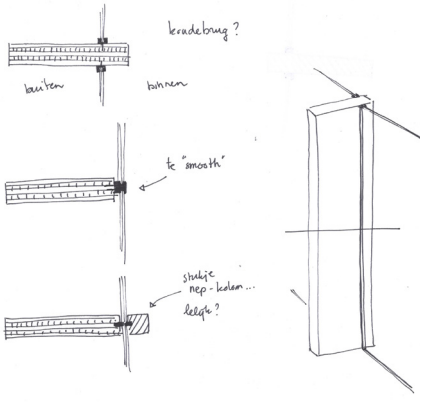


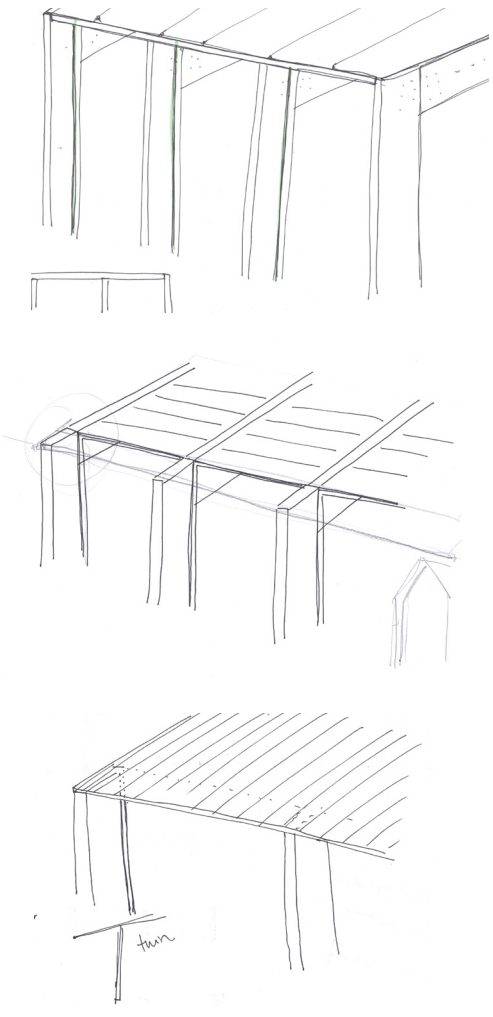


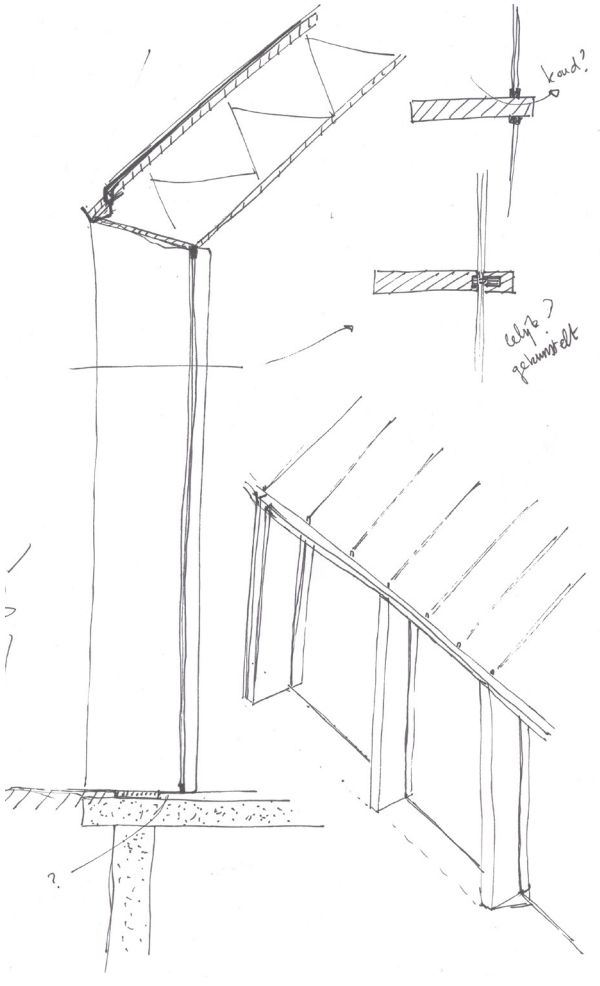






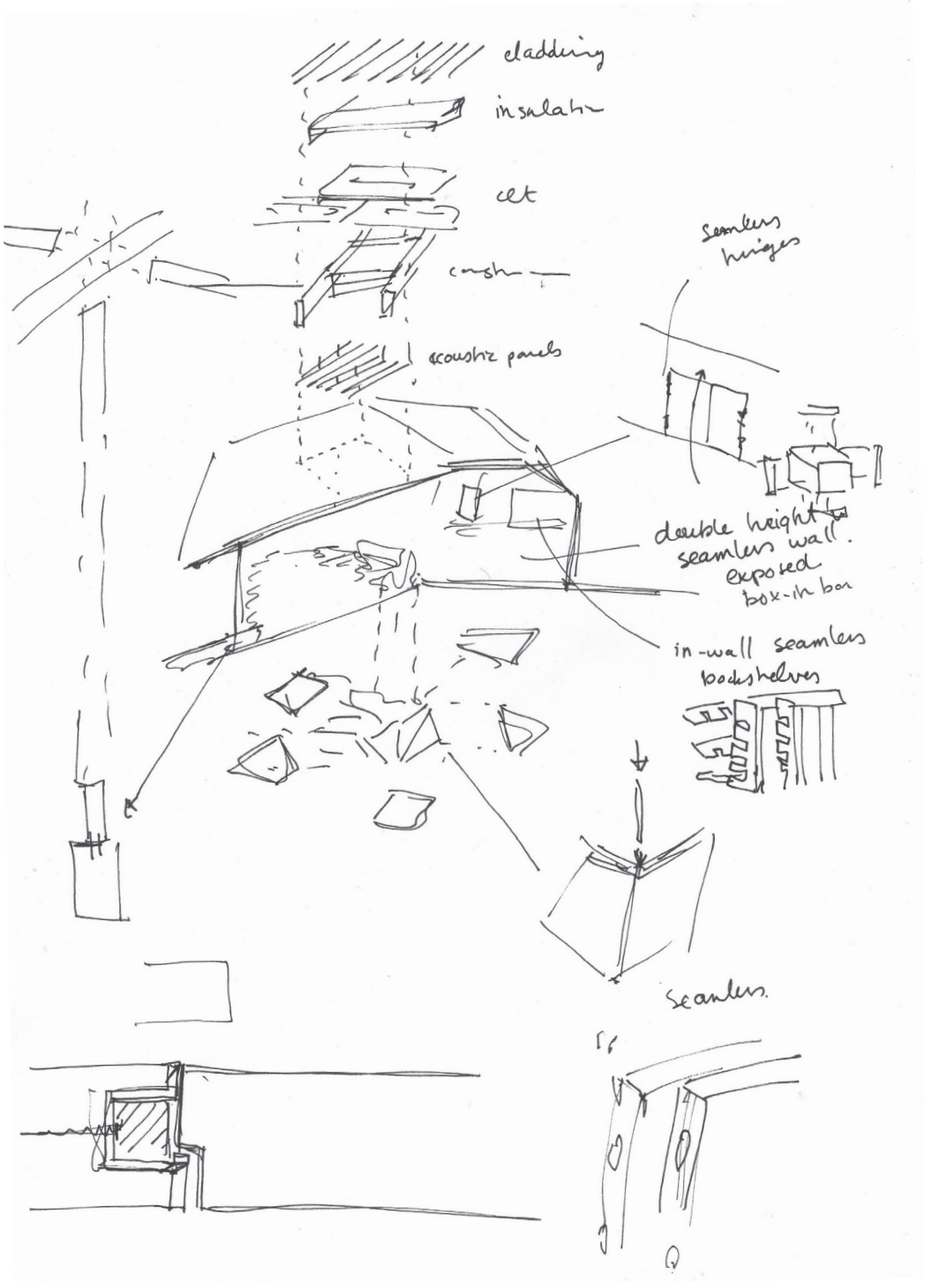




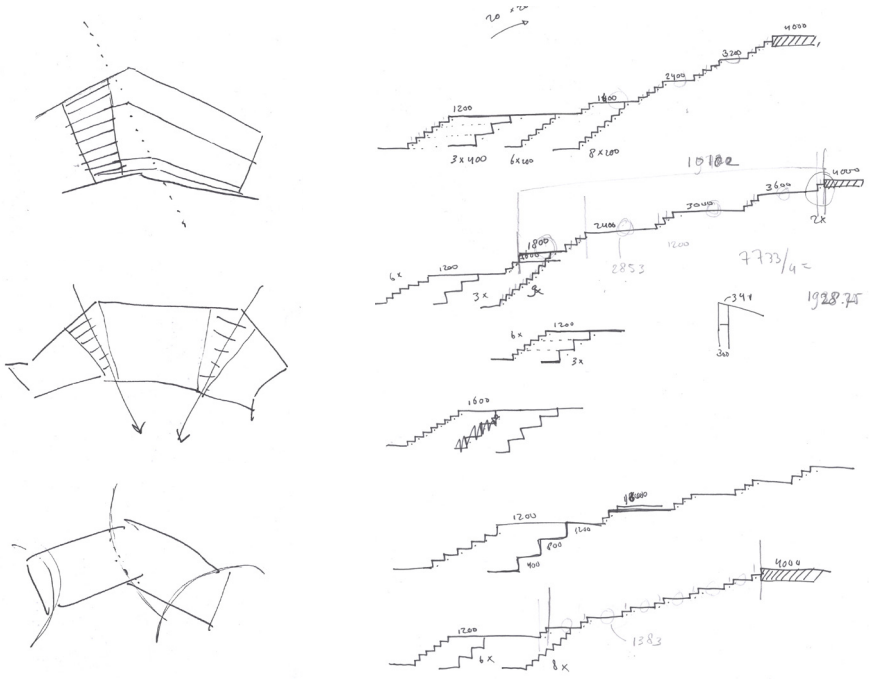

6m
108
82,4°
11,5m

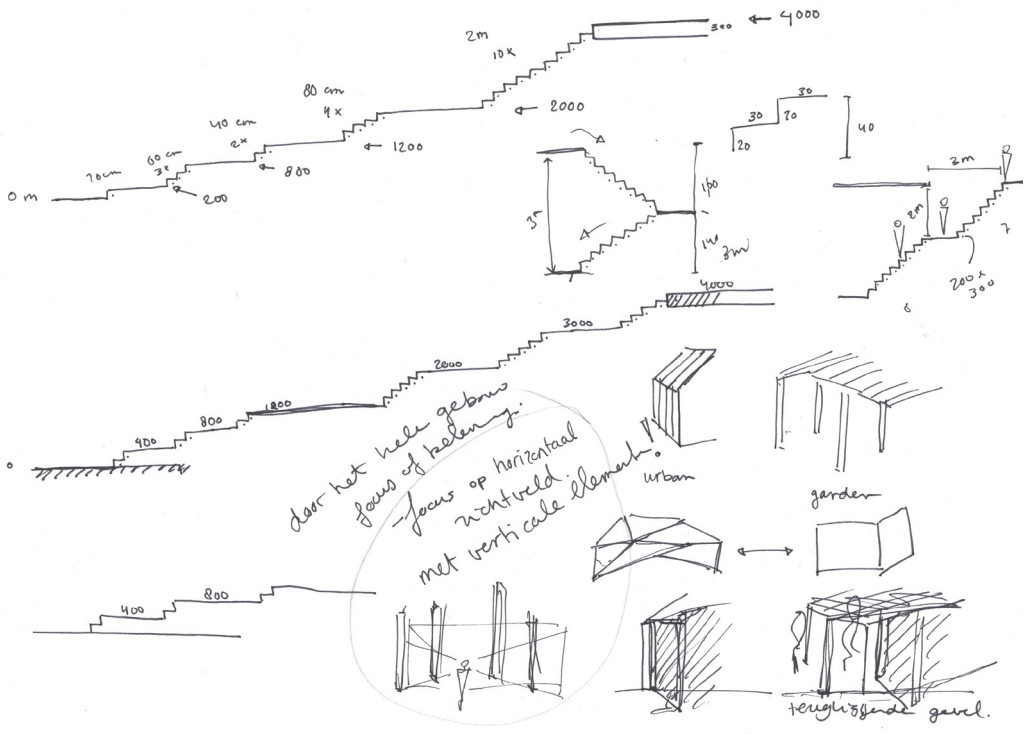

koudebrug?
buiten
binnen
te "smooth"
stukje nep-kolom...
lelijk?

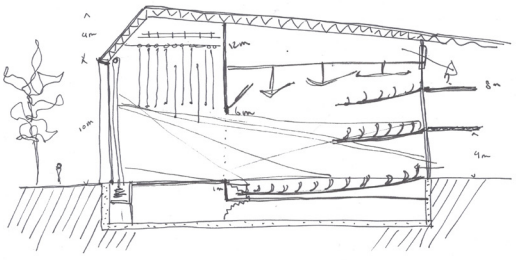

turn

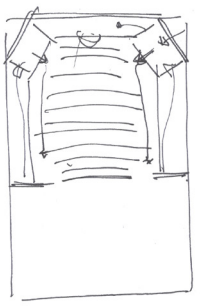

koud?
lelijk?
gekunstelt
?

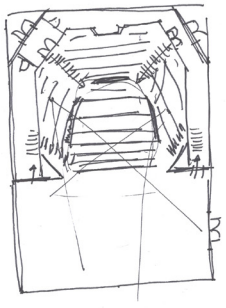

cladding
insulation
cct
seamless hinges
acoustic panels
double height seamless wall. exposed box-in bar
in-wall seamless bookshelves
seamless

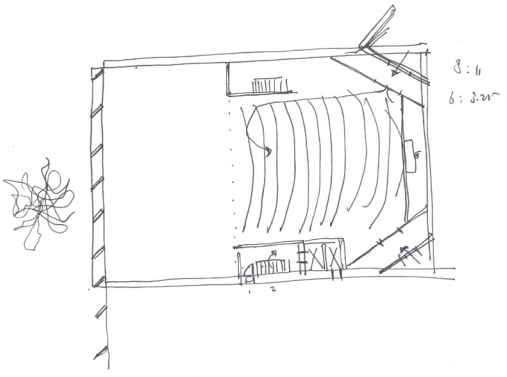

1200
3x400
6x200
8x200
4000
3200
2400
1600
1200
6x
3x
1600
1200
800
400
4000
1383
6x
8x

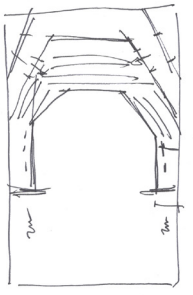

0 m
70cm
60 cm
3x
200
40 cm
2x
800
80 cm
4x
1200
2m
10x
2000
300
4000
3000
2000
1800
800
400
0
400
800
door het hele gebouw
focus of belang.
-focus op horizontaal
richtveld.
met verticale elementen!
urban
garden
teruglissende gevel.

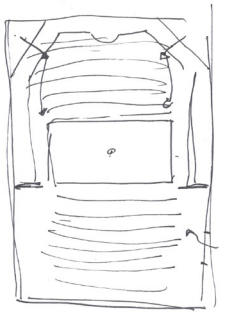

12m
8m
4m
1m

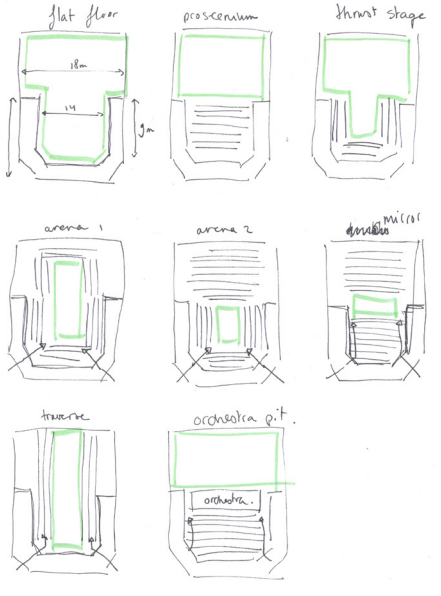


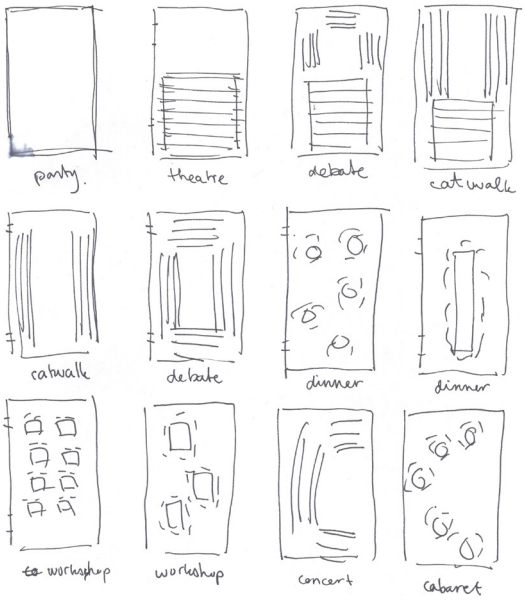



8 : 16
δ : 2.5m

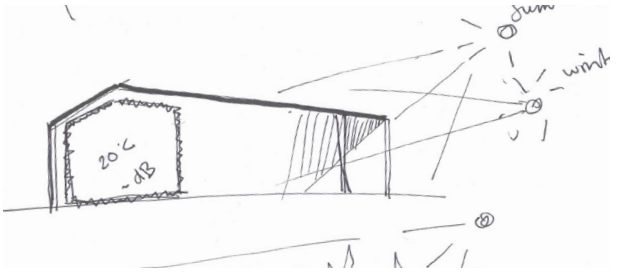


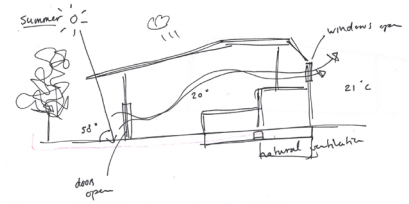


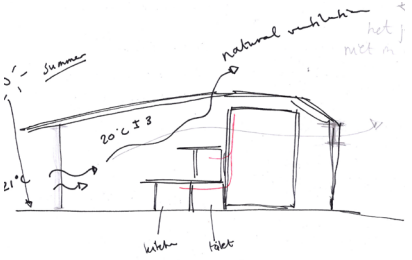

flat floor
proscenium
thrust stage
18m
14
9m
13
arena 1
arena 2
mirror
traverse
orchestra p.t.
orchestra

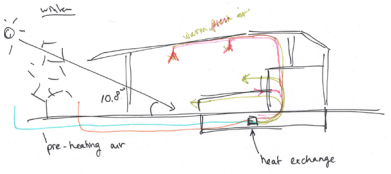

party
theatre
debate
catwalk
catwalk
debate
dinner
dinner
workshop
workshop
concert
cabaret

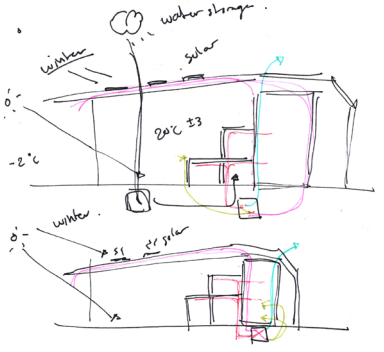
Summer

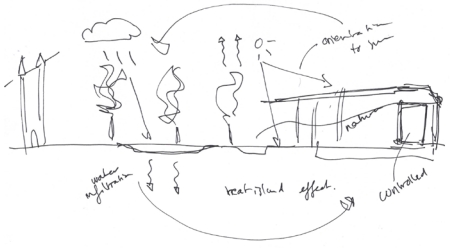

20°C
dB

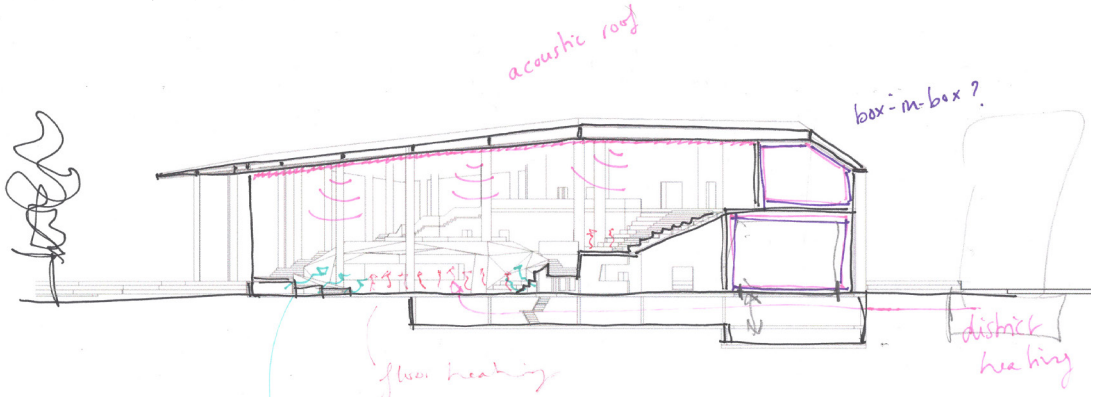

Summer
windows open
20°
21°C
58°
natural ventilation
doors open

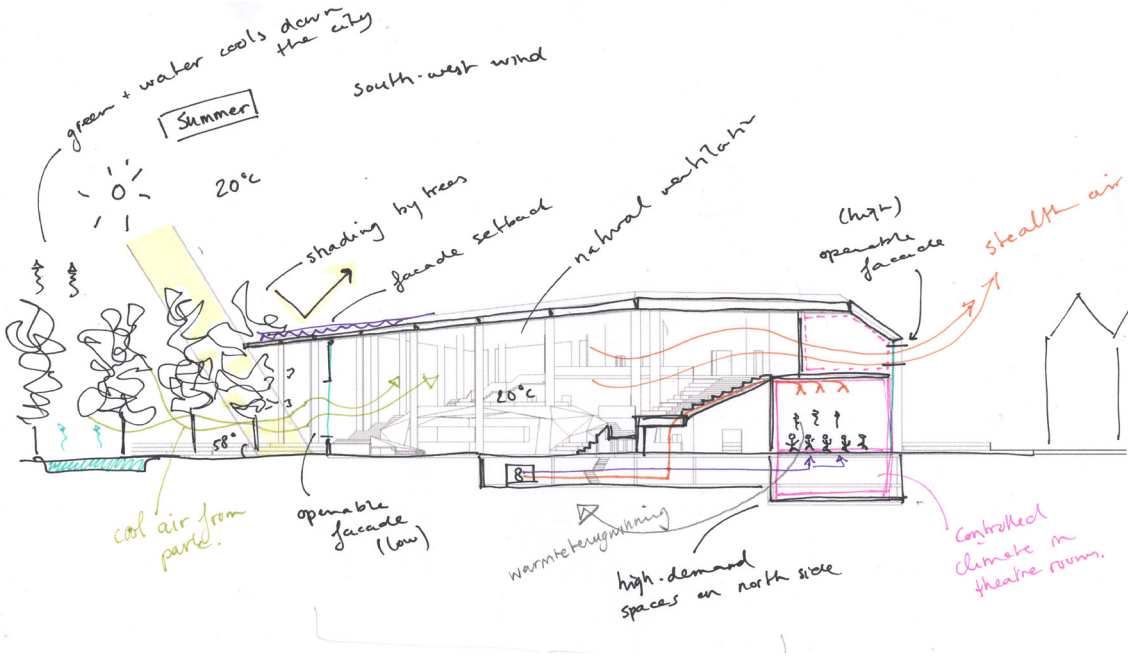

Summer
20°C ± 3
21°C
kitchen
toilet

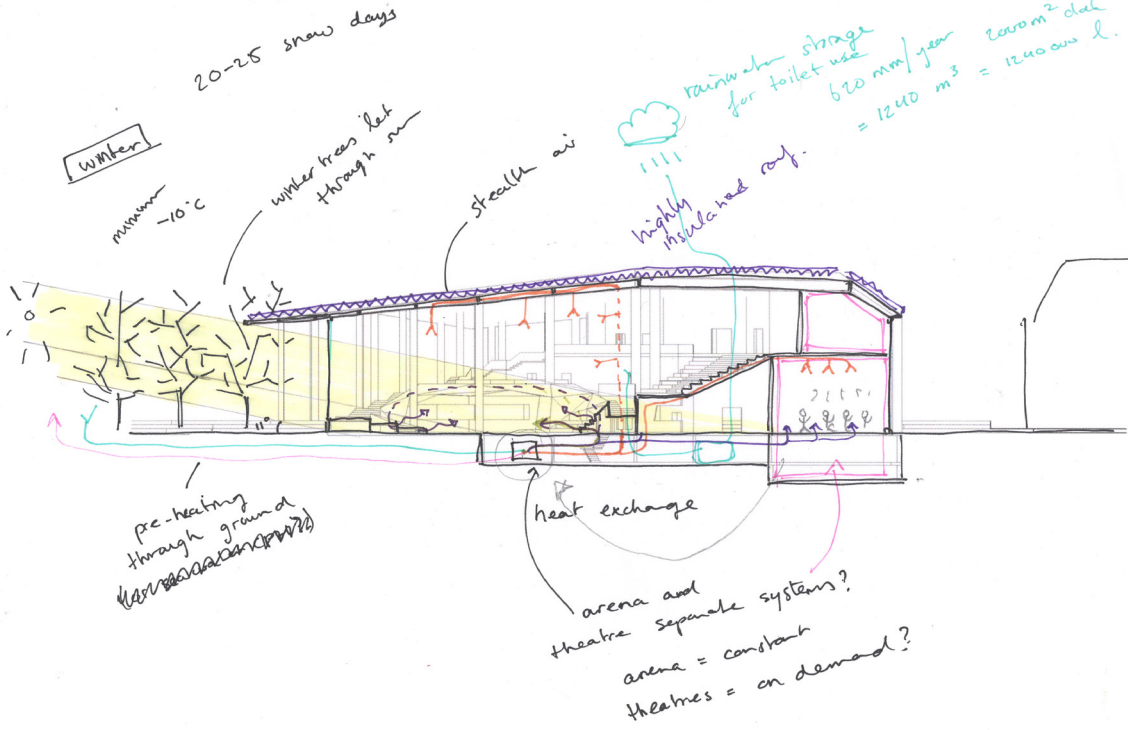

winter
10.8°
pre-heating air
heat exchange


water storage
winter
solar
20°C ± 3
-2°C
winter


heat-island effect
controlled


acoustic roof
box-in-box ?
floor heating
district heating


green + water cools down the city
Summer
South-west wind
20°c
shading by trees
facade setback
natural ventilation
(high) openable facade
stealth air
20°c
58°
cool air from park
openable facade (low)
warmteterugwinning
high-demand spaces on north side
Controlled climate in theatre rooms.


20-25 snow days
winter
-10°c
winter trees let through sun
stealth air
rainwater storage for toilet use
620 mm/year 2000m² dak
= 1240 m³ = 1240 000 l.
highly insulated roof.
11°
pre-heating through ground
heat exchange
arena and theatre separate systems?
arena = constant
theatres = on demand?

Design //

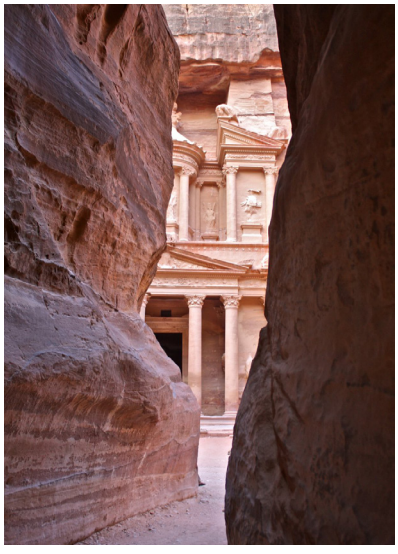
The experience of discovery

A house of stories as public condenser should trigger curiosity to stimulate a more open view towards eachother. To profit from its multiplicity, the spaces will be organised according to their formality. These two factors come together in my concept design while making use of the intrinsic qualities of the project site.

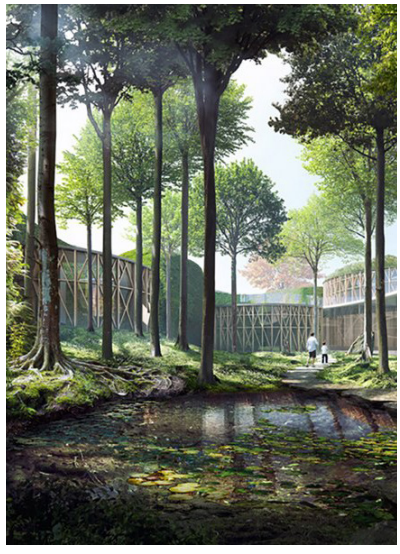
From the urban side (the north) the experience of discovery has a different meaning than from the garden side (the south), so different means will be used to attract people and keep them fascinated.

In the south, only the existing qualities of the garden have to be emphasized for the visitors to meander through the garden towards the building. In the north, the informal spaces will be used to hinder light and sight before visitors enter the open, informal space, so also there a curious state of mind is triggered.

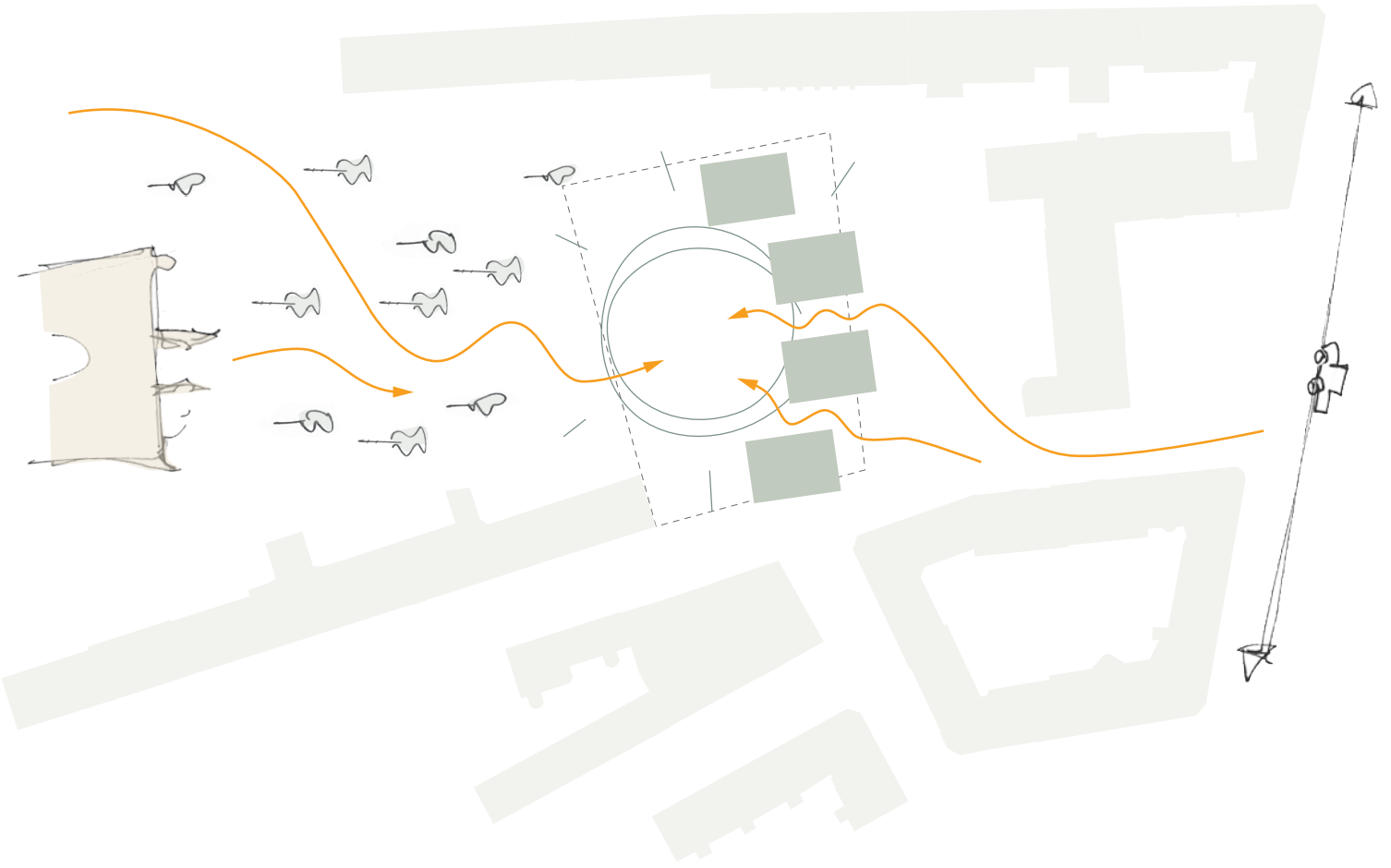
In this way the secluded character of the formal spaces is used to emphasize the open character of the informal space. The passage in between the formal spaces will be located at the urban side, while the informal space merges into the garden.

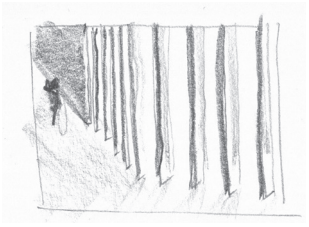


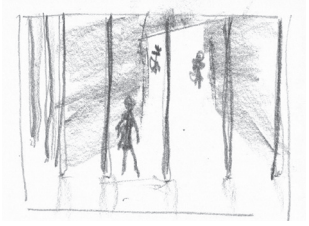
Urban approach

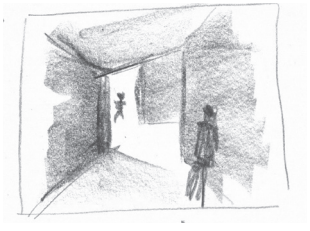


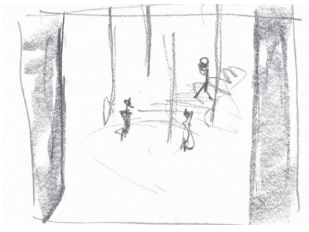
Garden approach

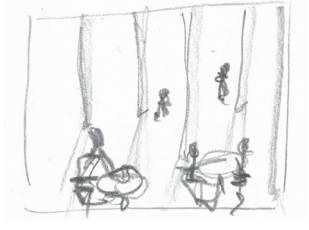


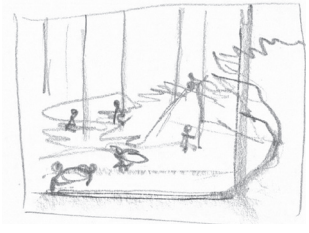


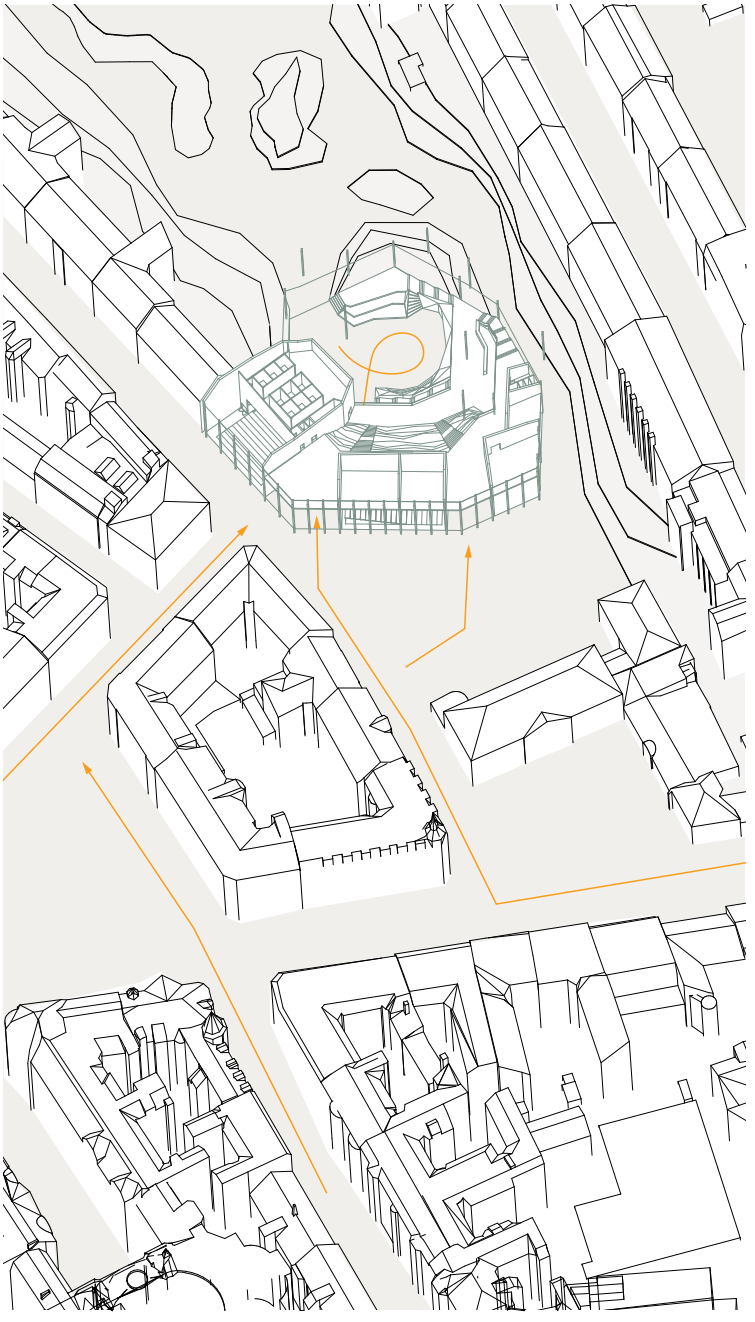




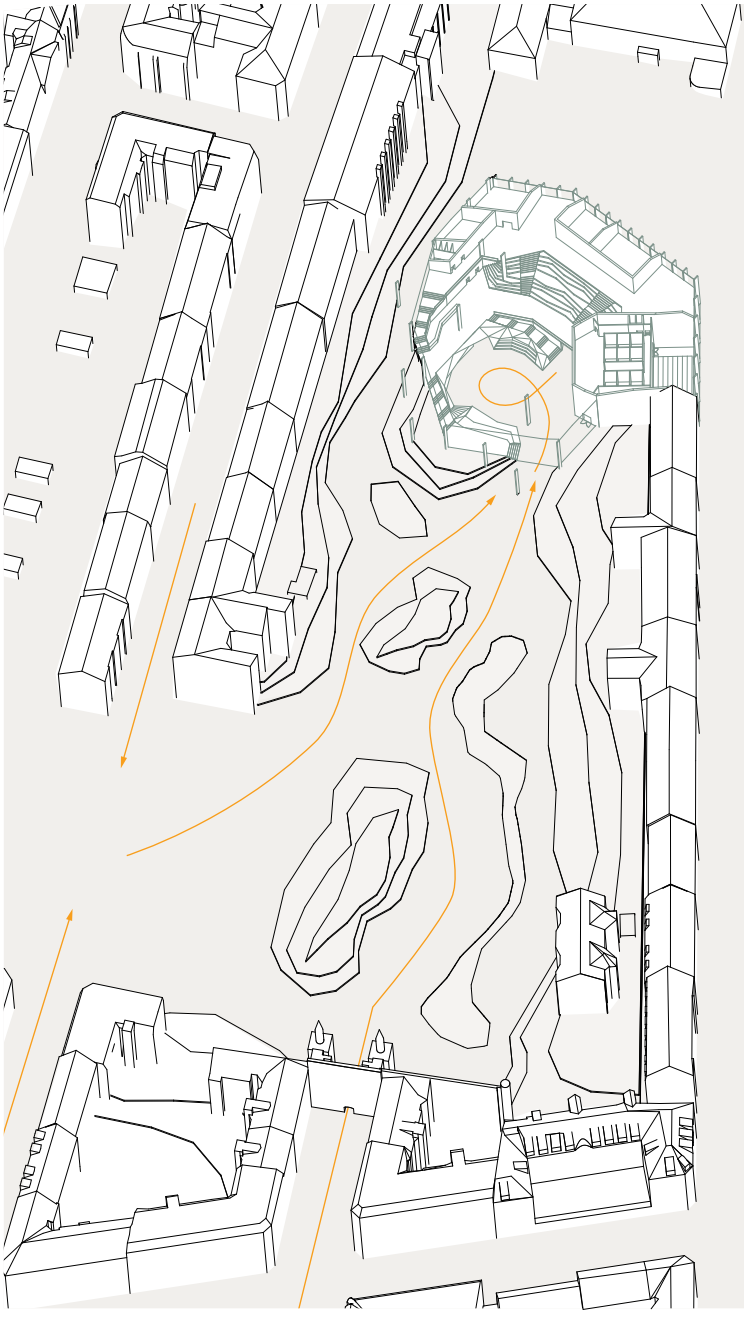


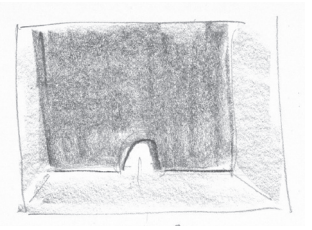


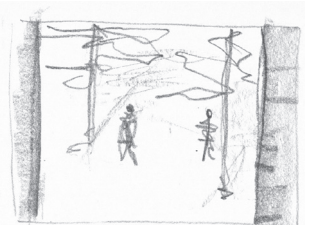




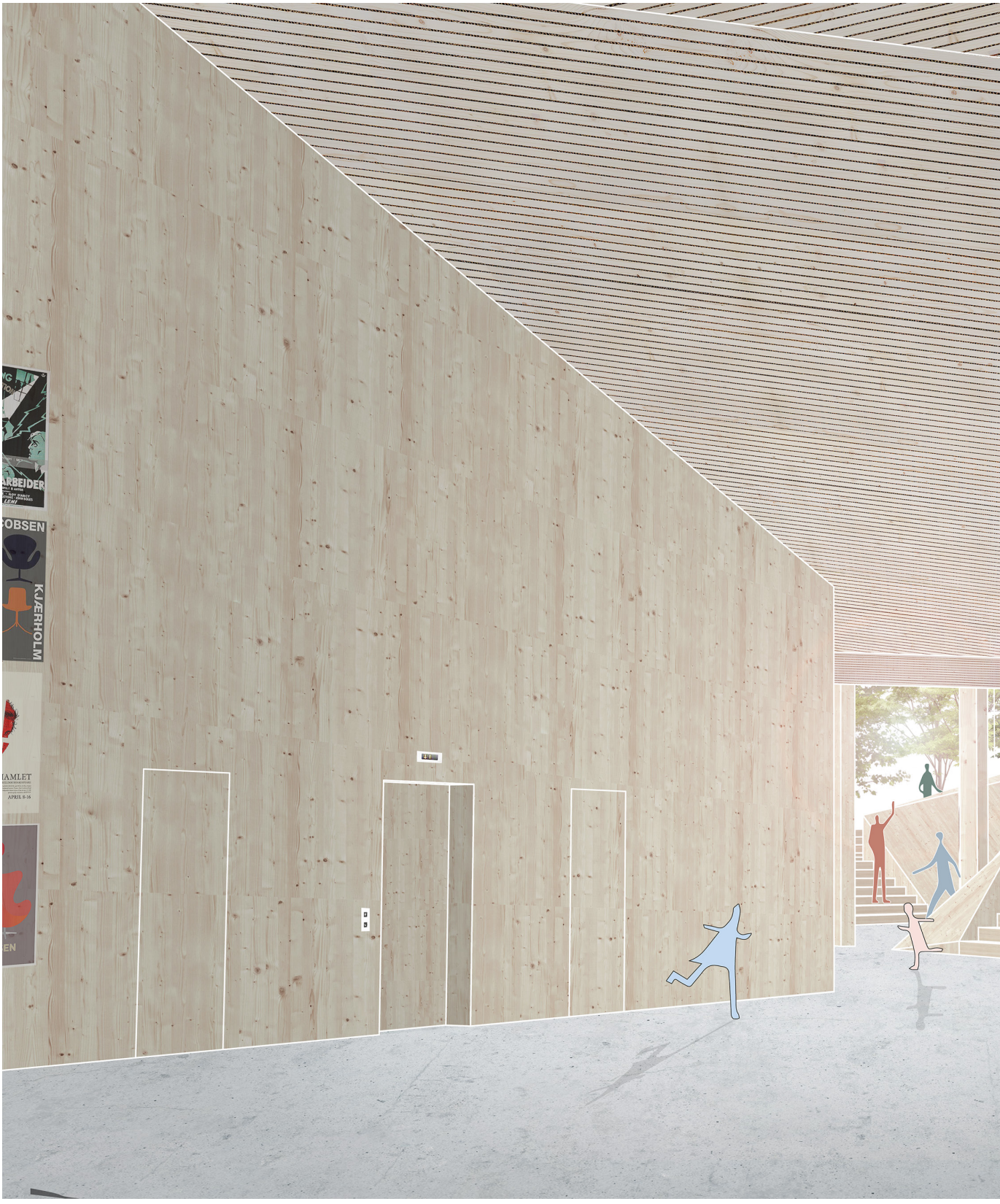
Approaching from the North, curiosity is triggered by the building itself. The rhythm and density of the architectural elements are used to play with light, sight and sound; offering multiple options of paths which lead to unseen spaces.







Approaching from the South, a state of curiosity is generated by the intrinsic qualities of the project site. The 'hidden garden' in the urban fabric is emphasised by the landscape and transitions fluently into the interior of the building.


ARBEIDER
OBSEN
KJÆRHOLM
HAMLET
APRIL 8-16

RISING TEMPERATURES
APRIL FESTIVAL 2019
Mænd & Høns
NAAR POLITIET ARBEJDER
SUMMER IN WONDERFUL COPENHAGEN
VESTERBRO TEATERFESTIVAL
8.-12. MARTS 2017
KØBENHAVN
MELLEM OS SAGT
26. SEPTEMBER
KL 20:00
COPENHAGEN ARCHITECTURE FESTIVAL CAFX
10. - 20. marts 2016
ODENSE
WEGNER JACOBSEN KJÆRHOLM
JUHL
LOUISIANA
PICASSO
KERAMIK
ROYAL DANISH BALLET AND MUSIC FESTIVAL
DENMARK
KULTURHAVN
7.-9. AUGUST 2009
KOM OG DELTAG I 80 GRATIS SPORTS OG KULTUR AKTIVITETER
Flora Danica
RIKKE YDE TORDRUP
SAMTALEKORT til UDVIKLENDE ØJEBLIKKE
VESTERBRO TEATERFESTIVAL
8.-12. MARTS 2017
HAMLET
APRIL 8-16
GRUPEN
DENMARK
FAMOUS FOR FINE FURNITURE
Jeg Taler Til Jer
KLIMA PÅSKE MARCH
HOLBÆK KØBENHAVN
9-11 APRIL
KOM MED
DET NYE INTERNET
PUDEMIN
ARNE JACOBSEN
SKAGEN
HVOR TO HAVE OG ALVERDENS TURISTER MØDES
Pygmalion

A

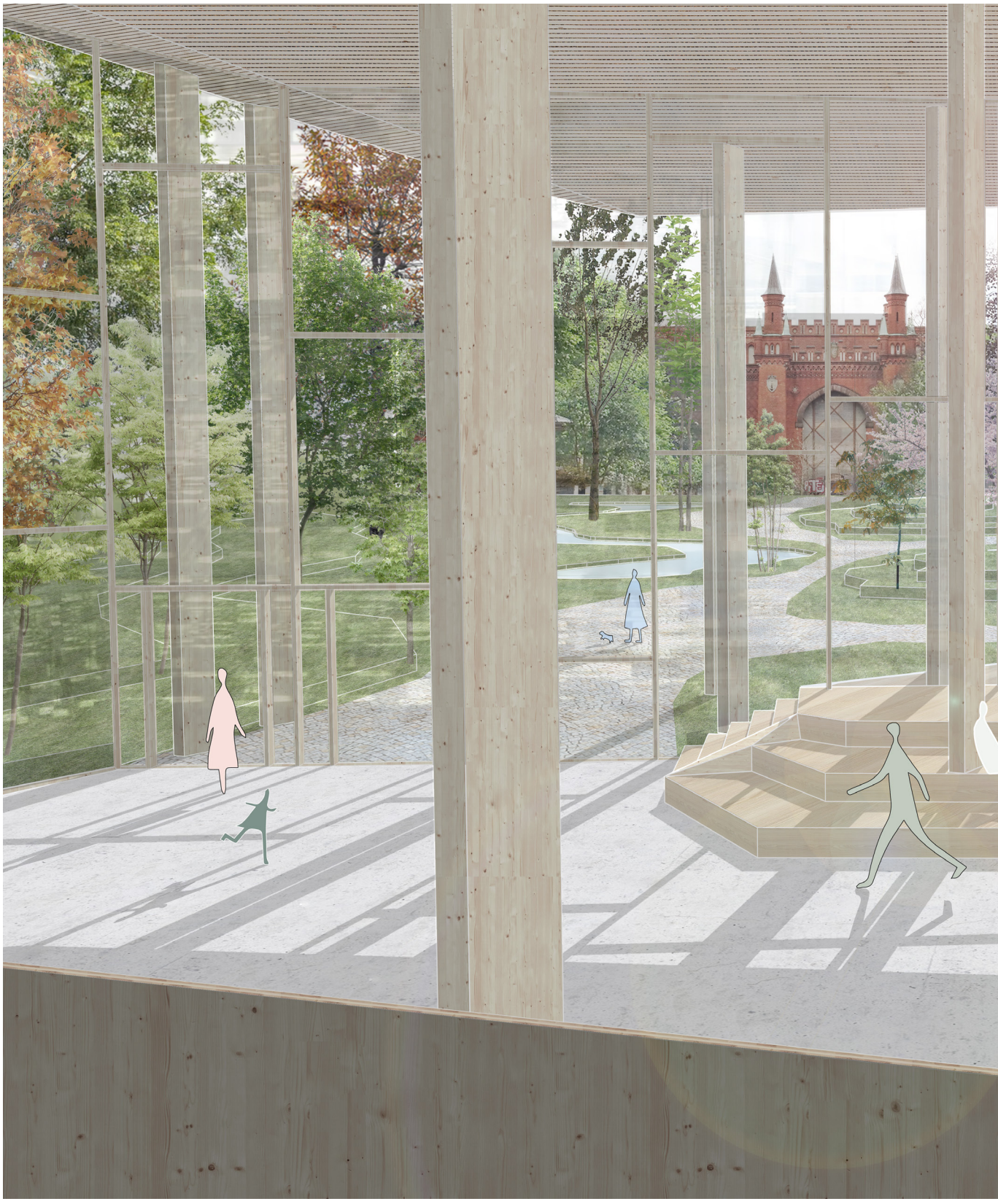
billet

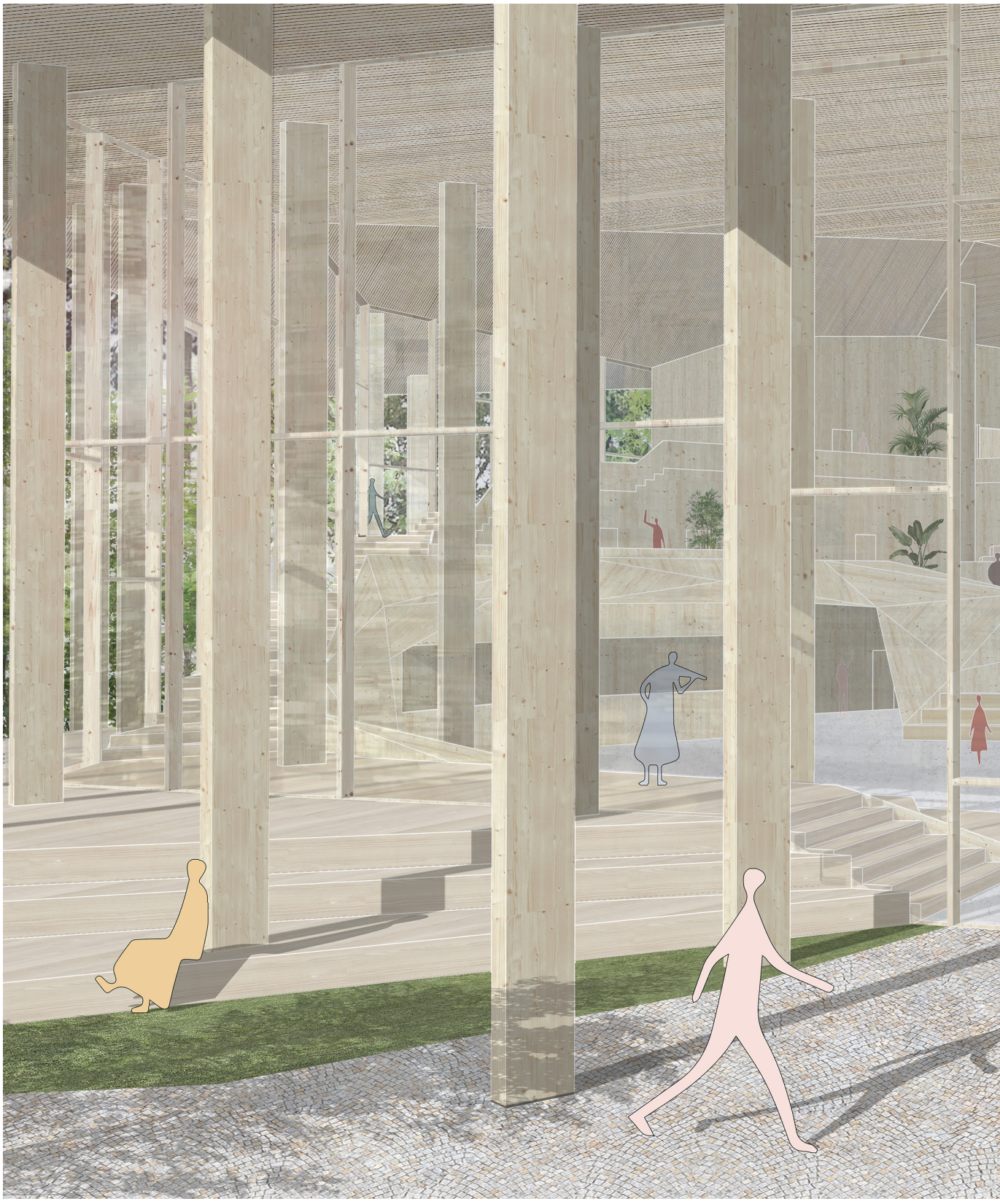
J
K

Medmindre han ikke fortalte os alt.
Manuela Schween er meget erfaren.

WC
WC
WC

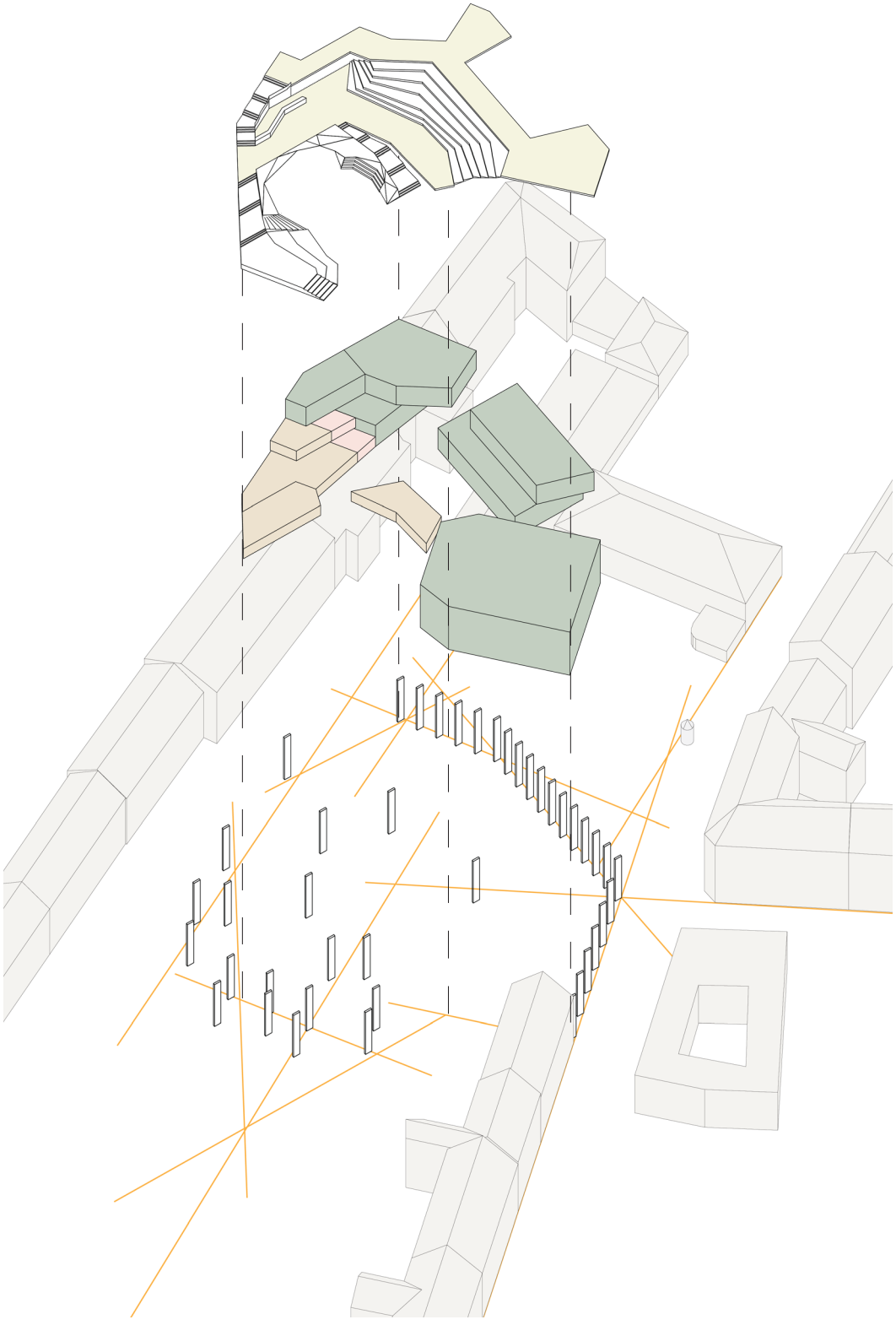
H
I
J

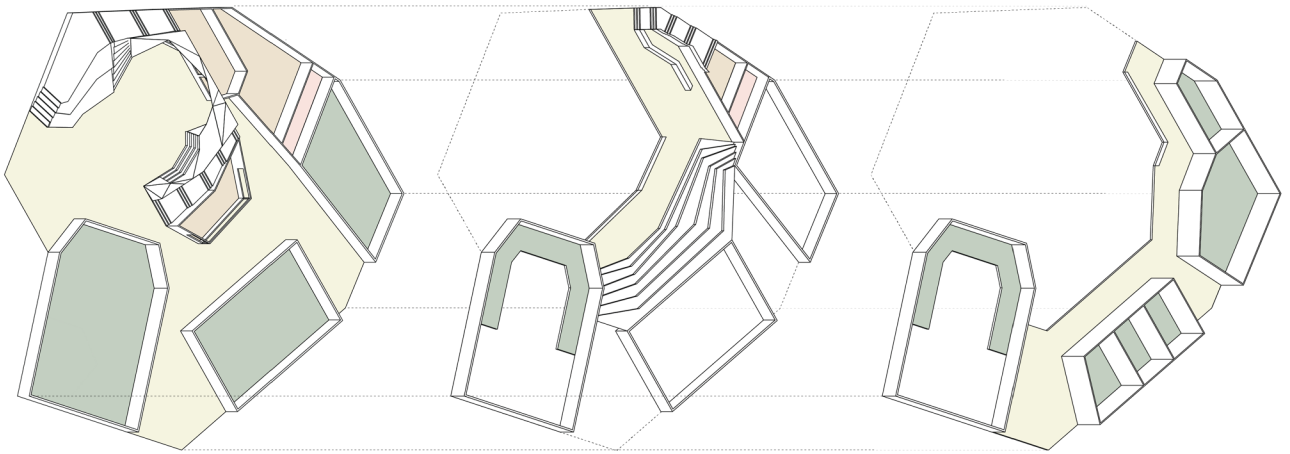


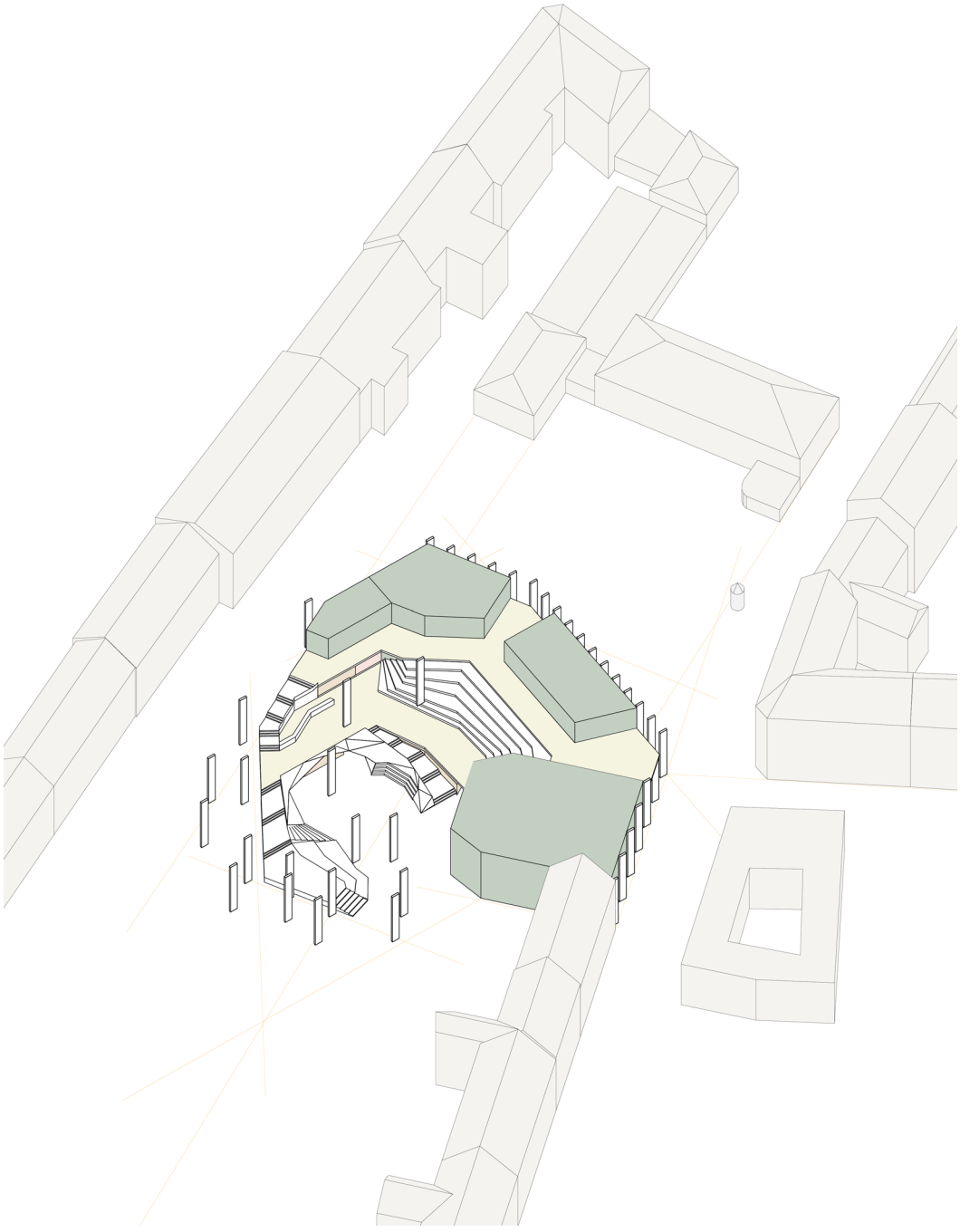


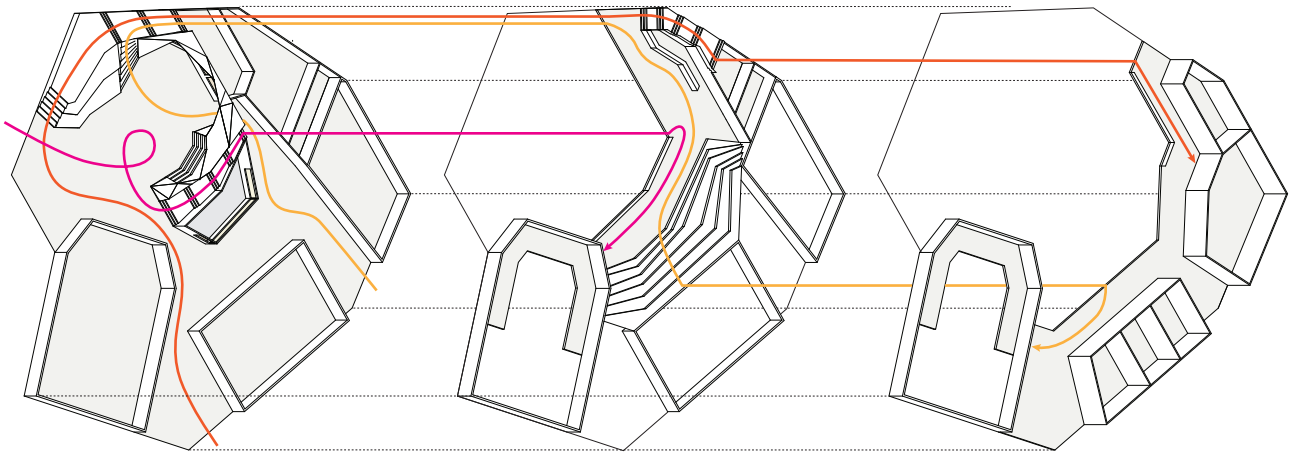
Roofscape

Nolli map





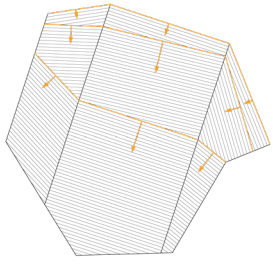


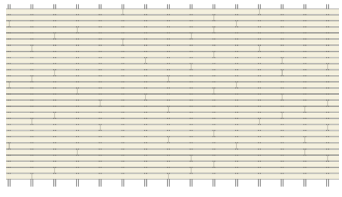


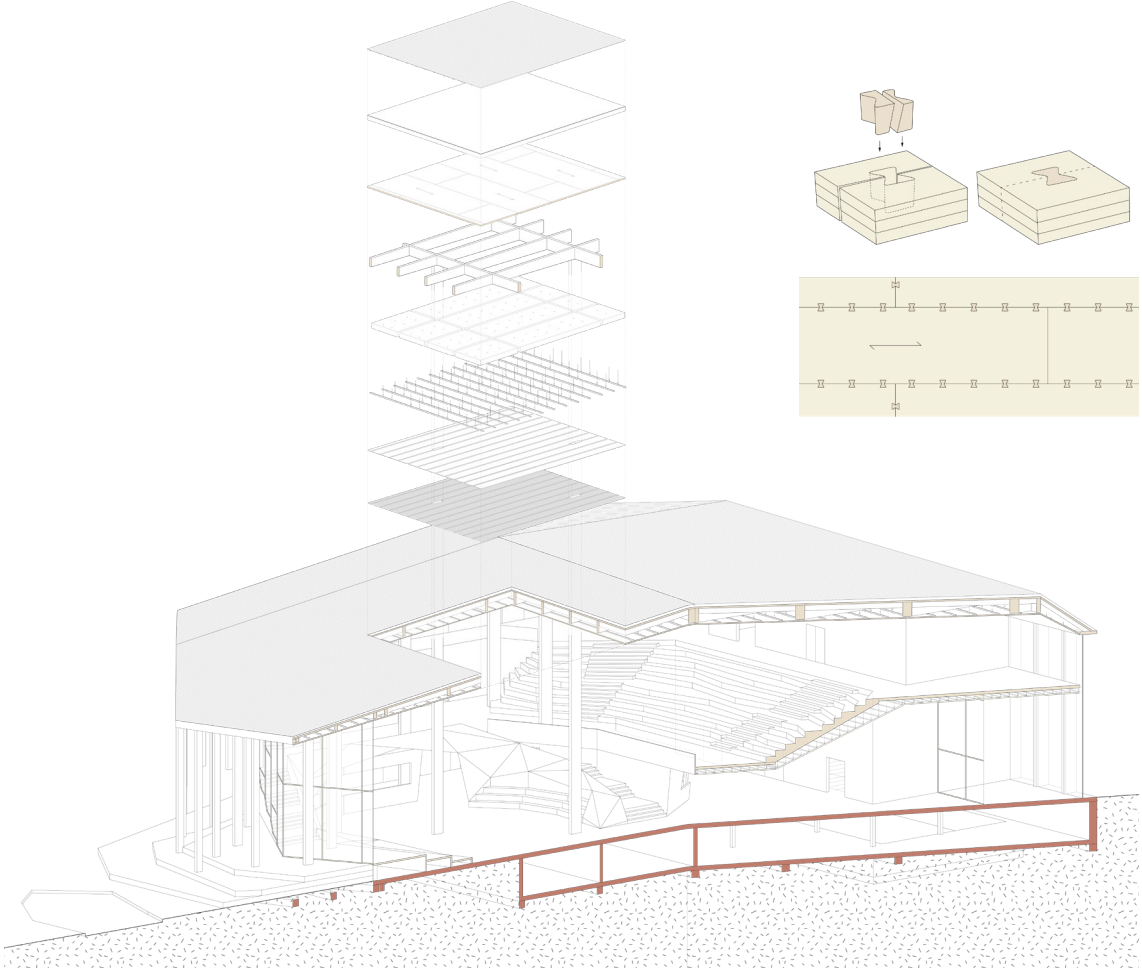
Roof +11500

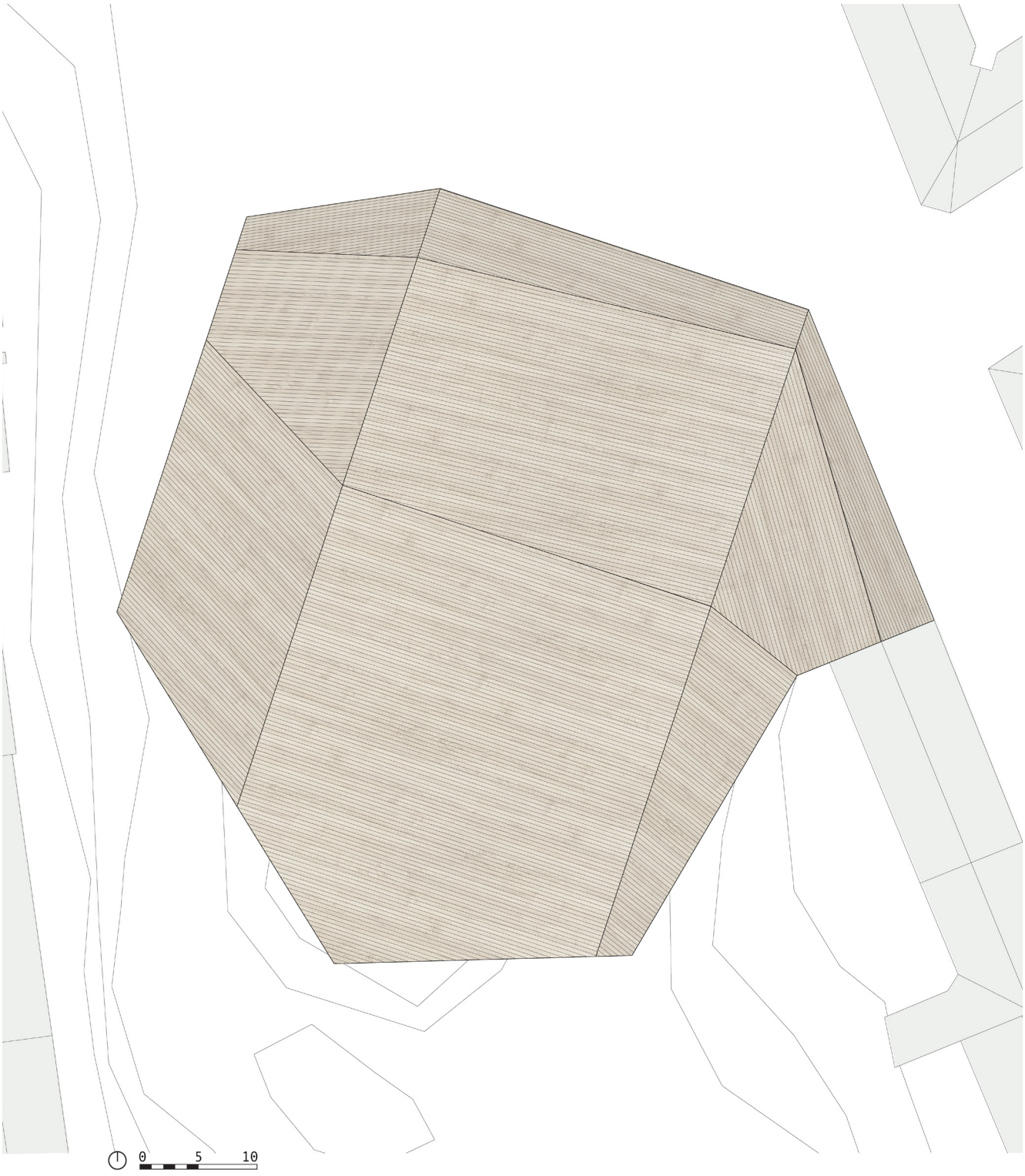
The cladding is nailed to battens on a 600mm distance. The direction of the lines follows the eaves on the North side and thereby emphasizes the way the roof is folded over the building.

The cross laminated timber ceiling panels are connected with wood-on-wood double dovetil connectors (X-fix) that are self tightning, form locking and invisible from the inside.

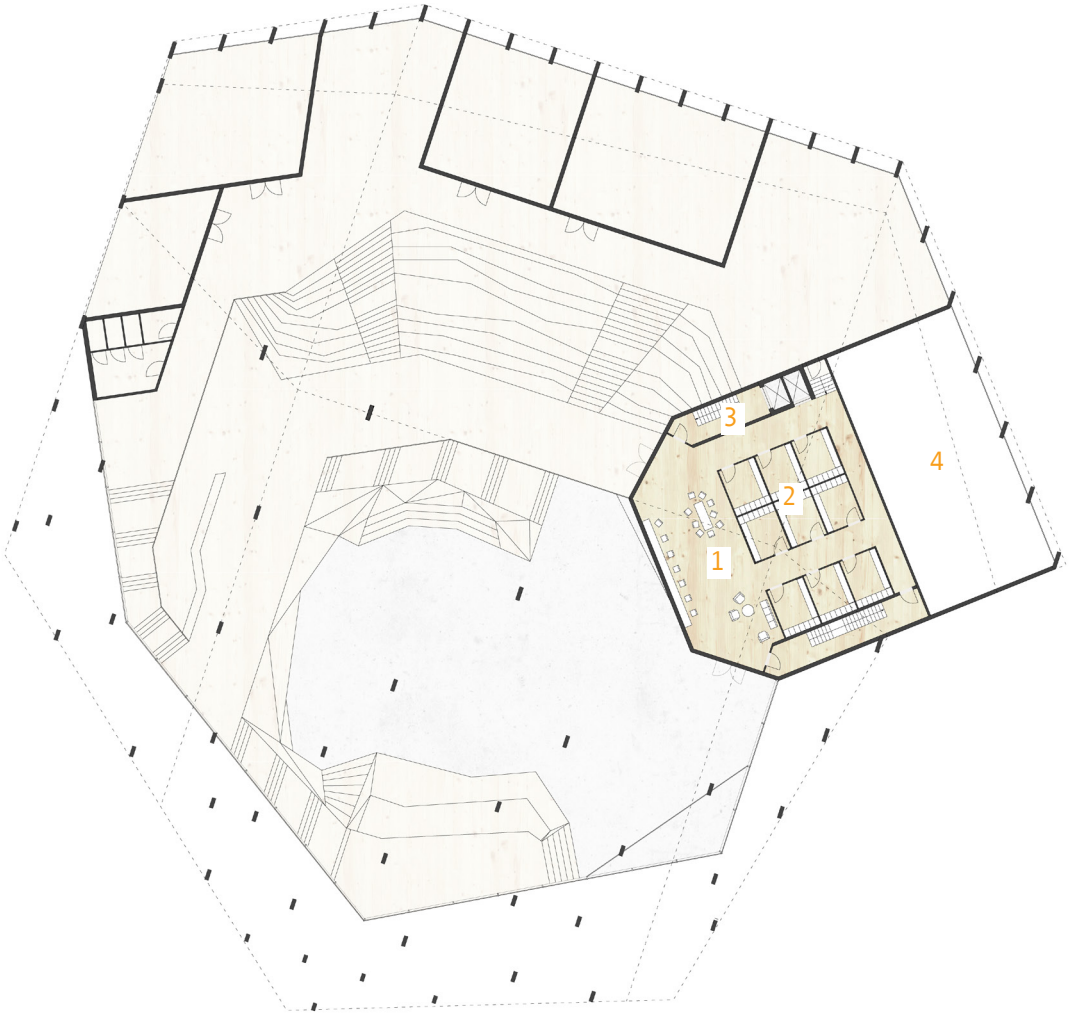







0
5
10

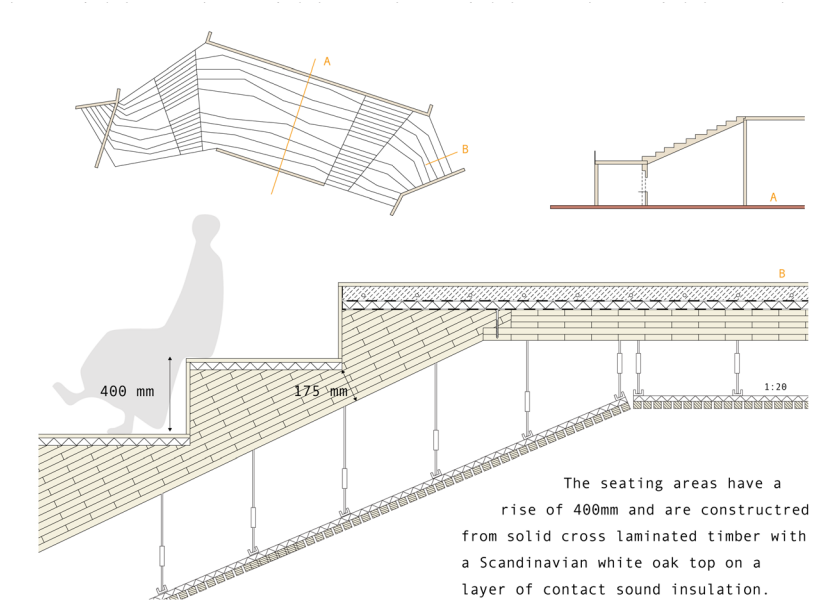
Third floor +9000



1. artist lounge
2. dressing rooms
3. backstage
4. fly tower

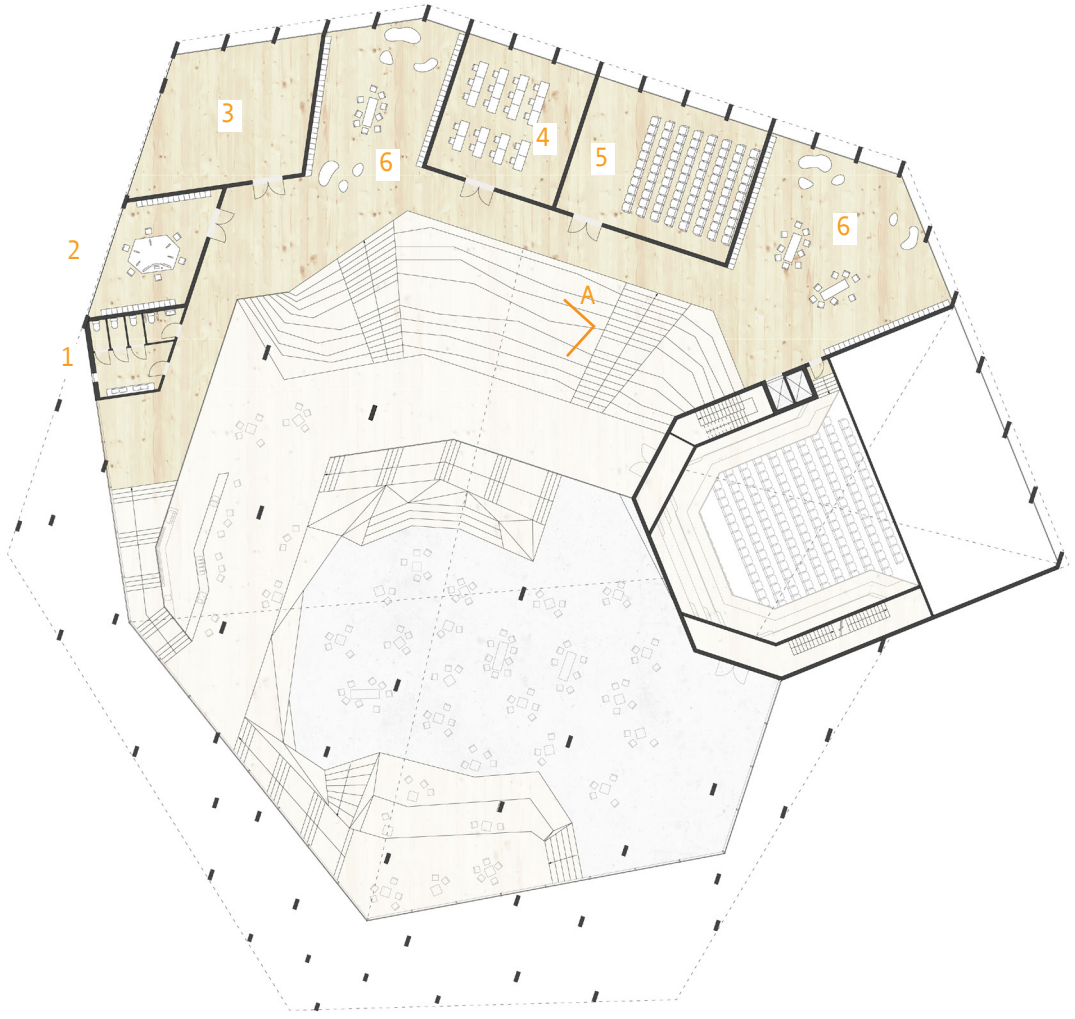
0 5 10

Second floor +8000



The seating areas have a rise of 400mm and are constructred from solid cross laminated timber with a Scandinavian white oak top on a layer of contact sound insulation.

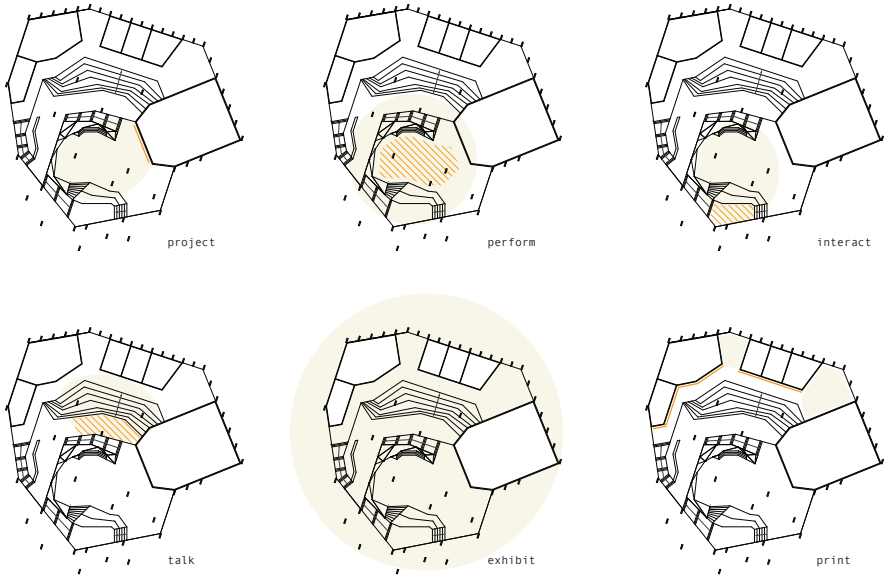
A

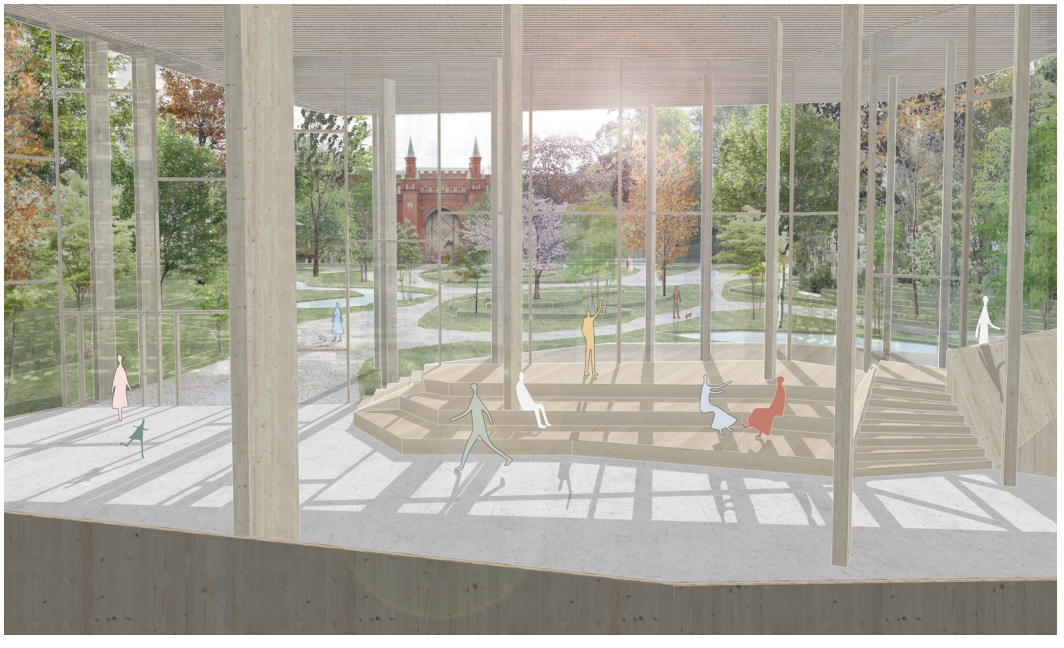


1. toilets
2. radio studio
3. rehearsal room
4. meeting room
5. cinema room
6. library zone

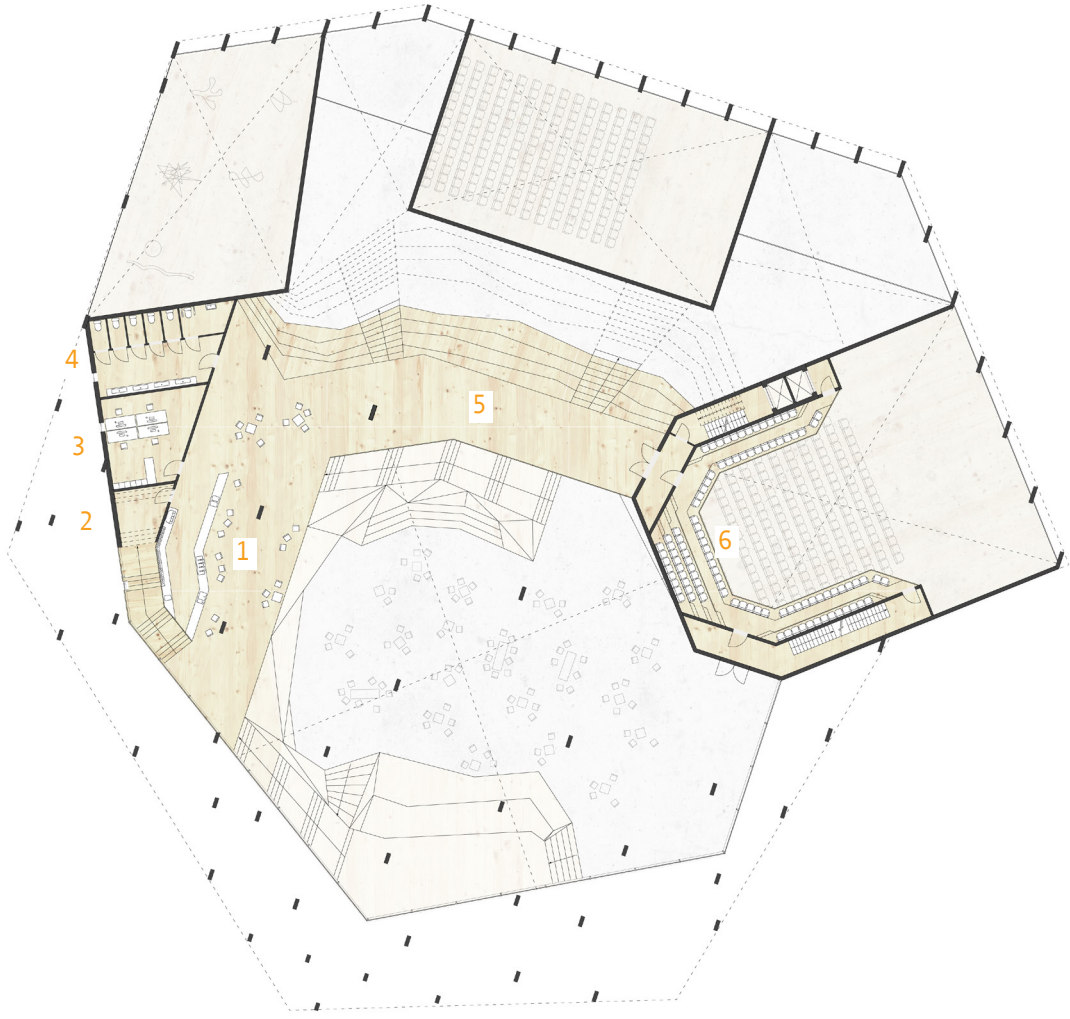
0 5 10

First floor +4000





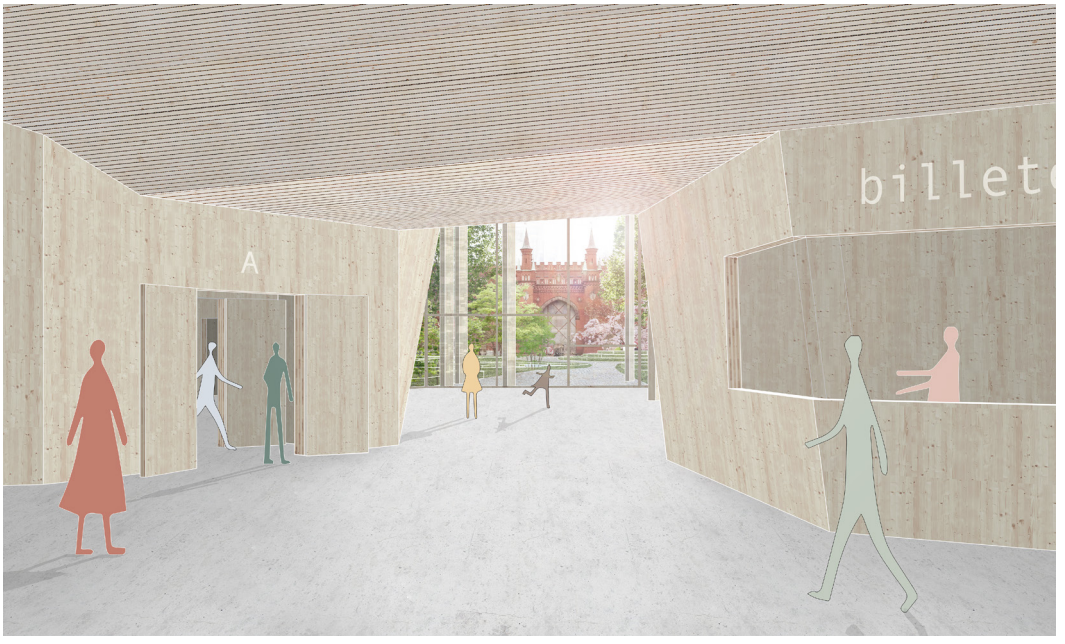
A



1. bar area
2. bar storage
3. tour office
4. toilets
5. foyer zone
6. fly theatre balcony

0 5 10

Ground floor +00

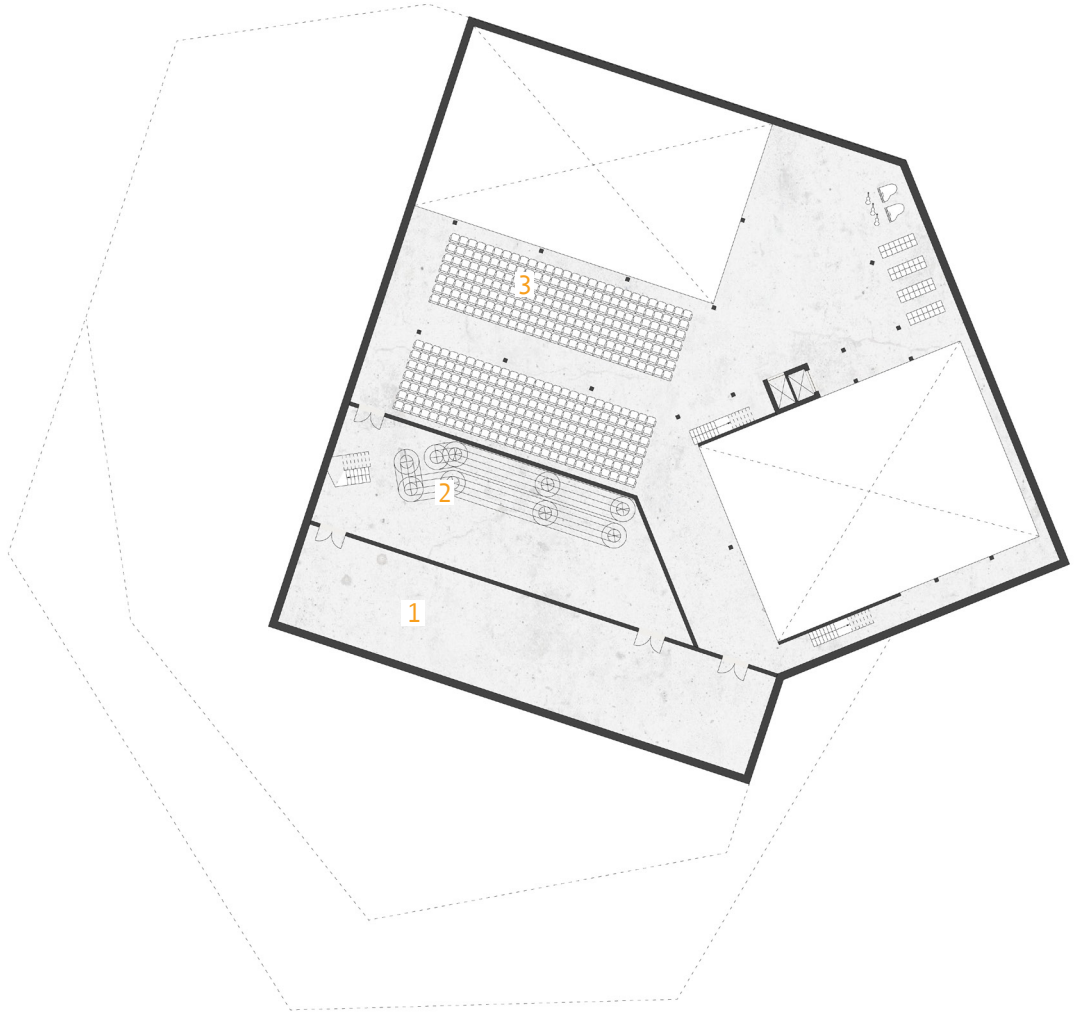


A

B

1. entrance zones
2. reception
3. cloakroom
4. arena
5. fly theatre
6. box theatre
7. exposition room
8. toilets
9. office
10. staff room
11. kitchens

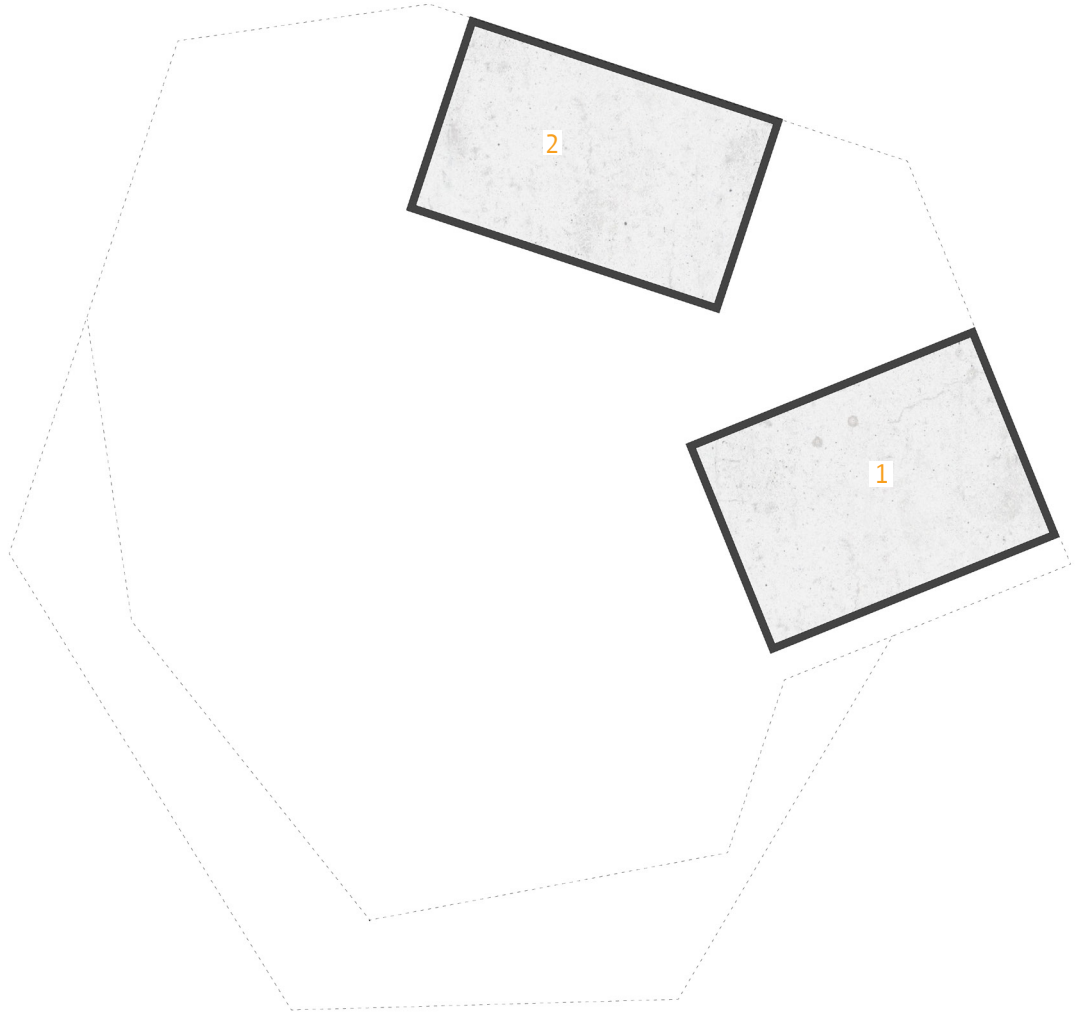
First basement -2700



0 5 10

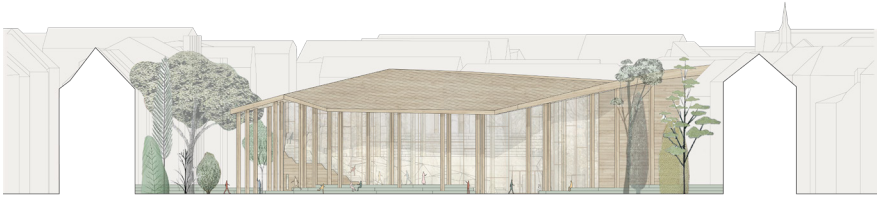
1. technical space
2. cloakroom storage
3. theatre storage

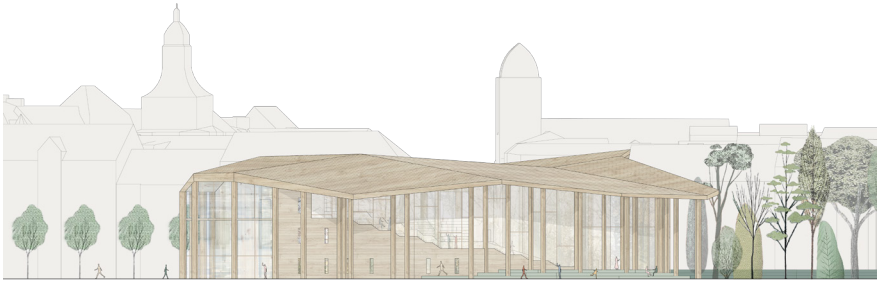
Second basement -4200



0 5 10

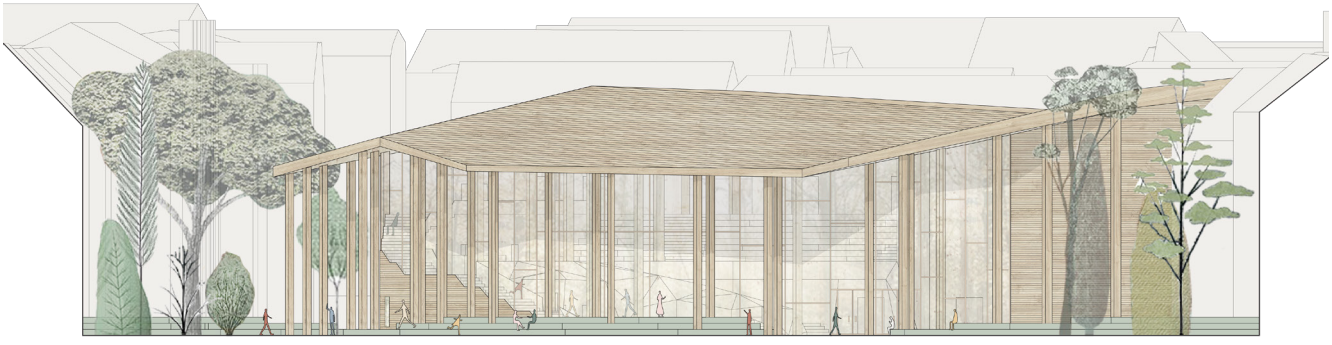
1. mechanics fly theatre floor
2. mechanics box theatre floor



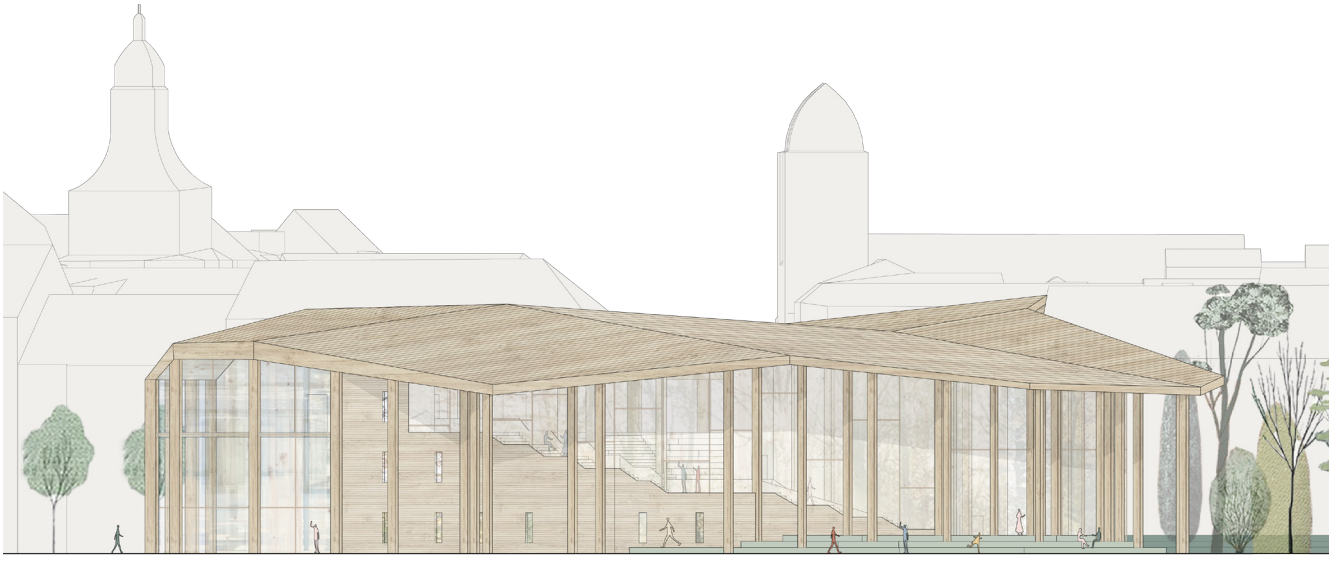


North elevation 1:500

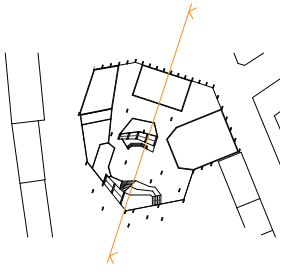
East elevation 1:500



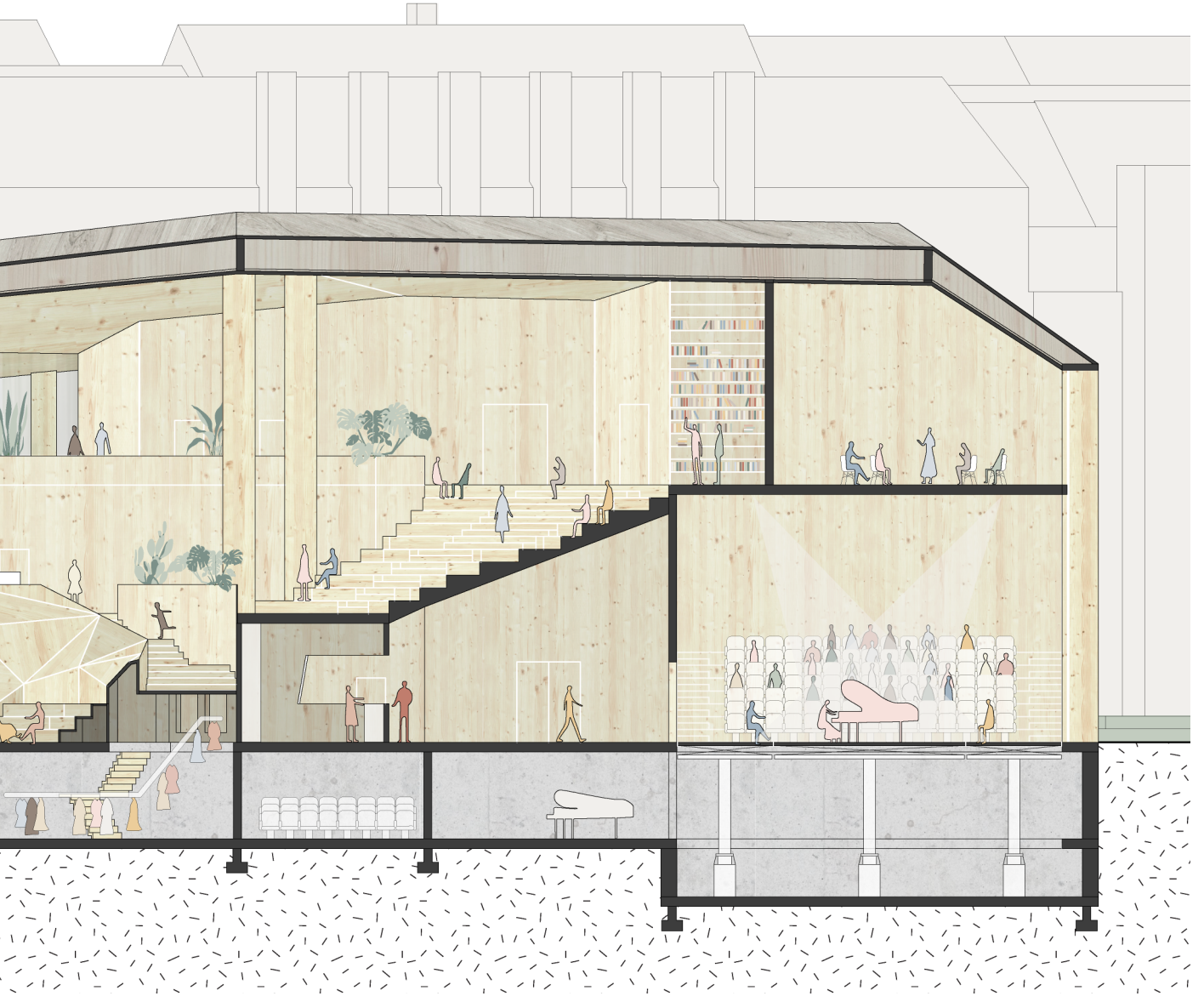
South elevation 1:500

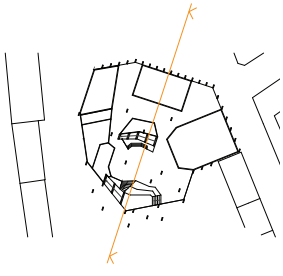


West elevation 1:500

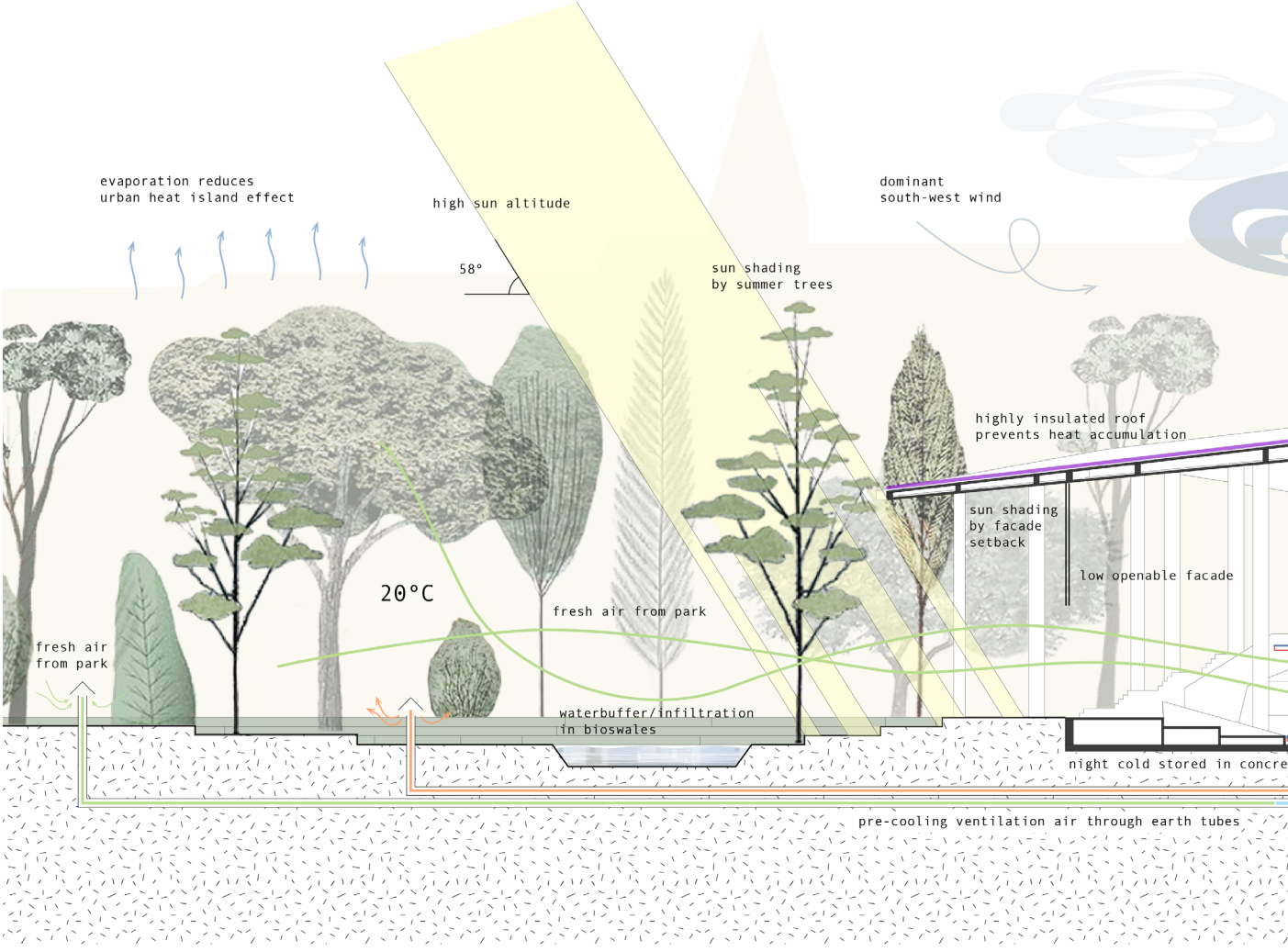


Section North-East 1:200





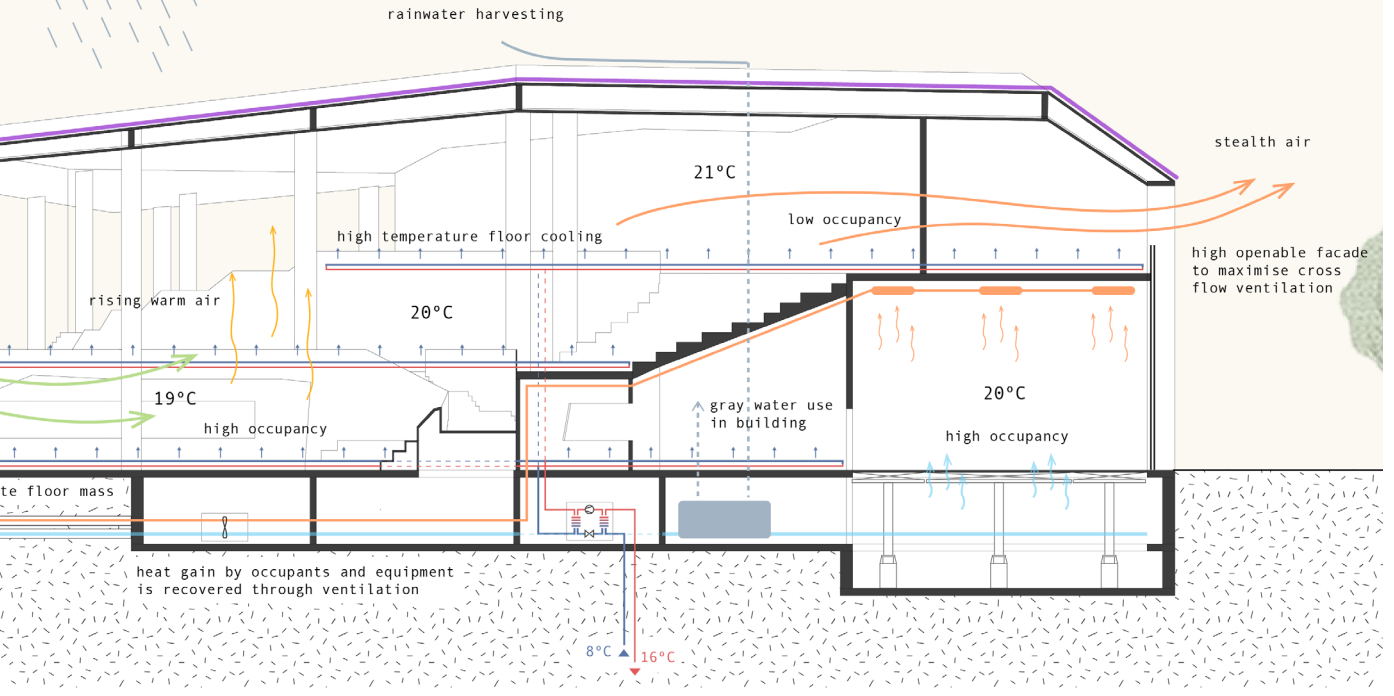
Section North-East

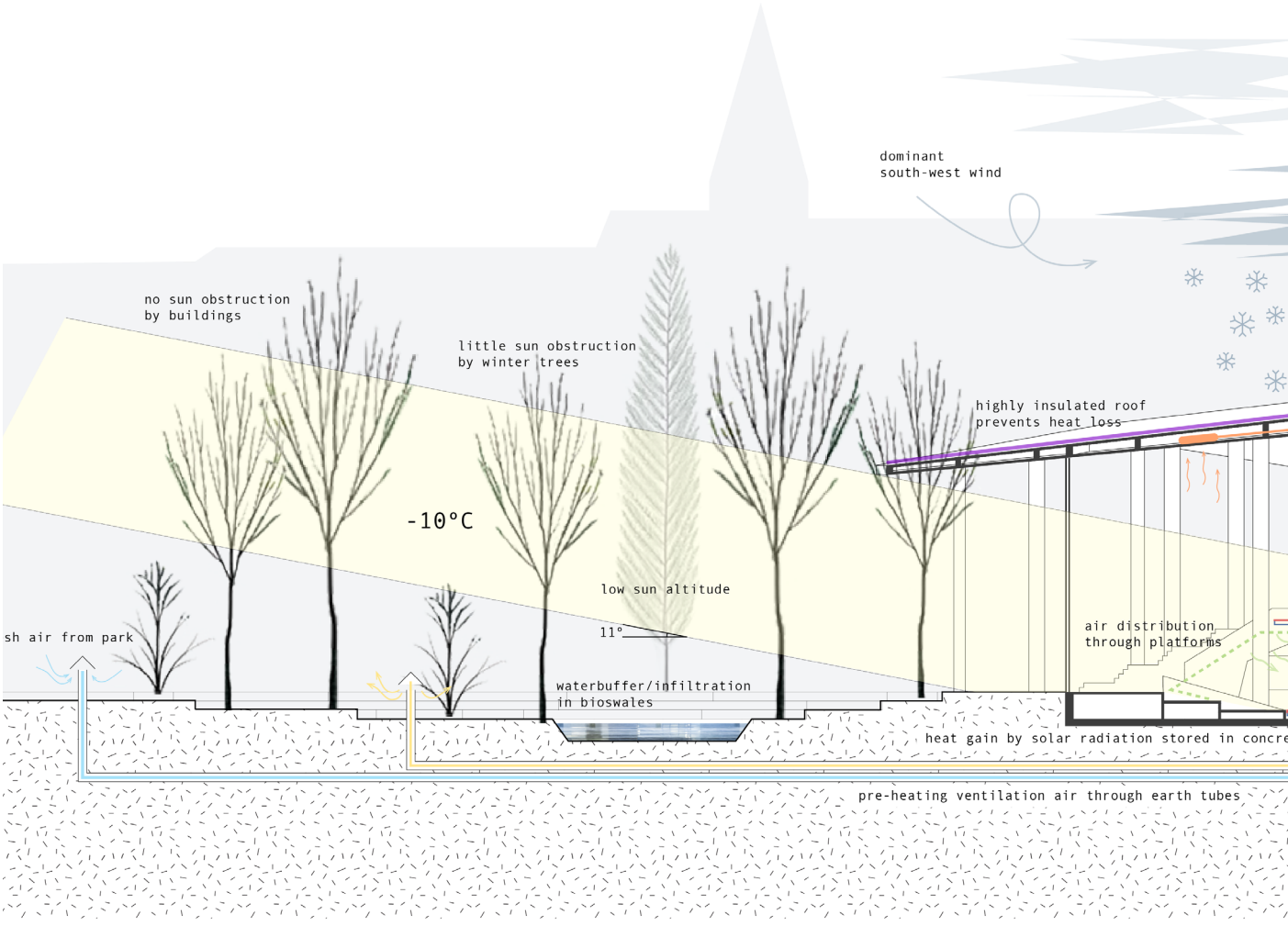


Climate system // summer - spring (May-Okt)

SPRING/SUMMER (May - Oct)

Average maximum temperature 18,3°C
Average minimum temperature 11,0°C
15 days warmer than 25°C
Maximum temperature 31°C
Average of 6,7 sunshine hours per day
51 rainy days
300 mm rain

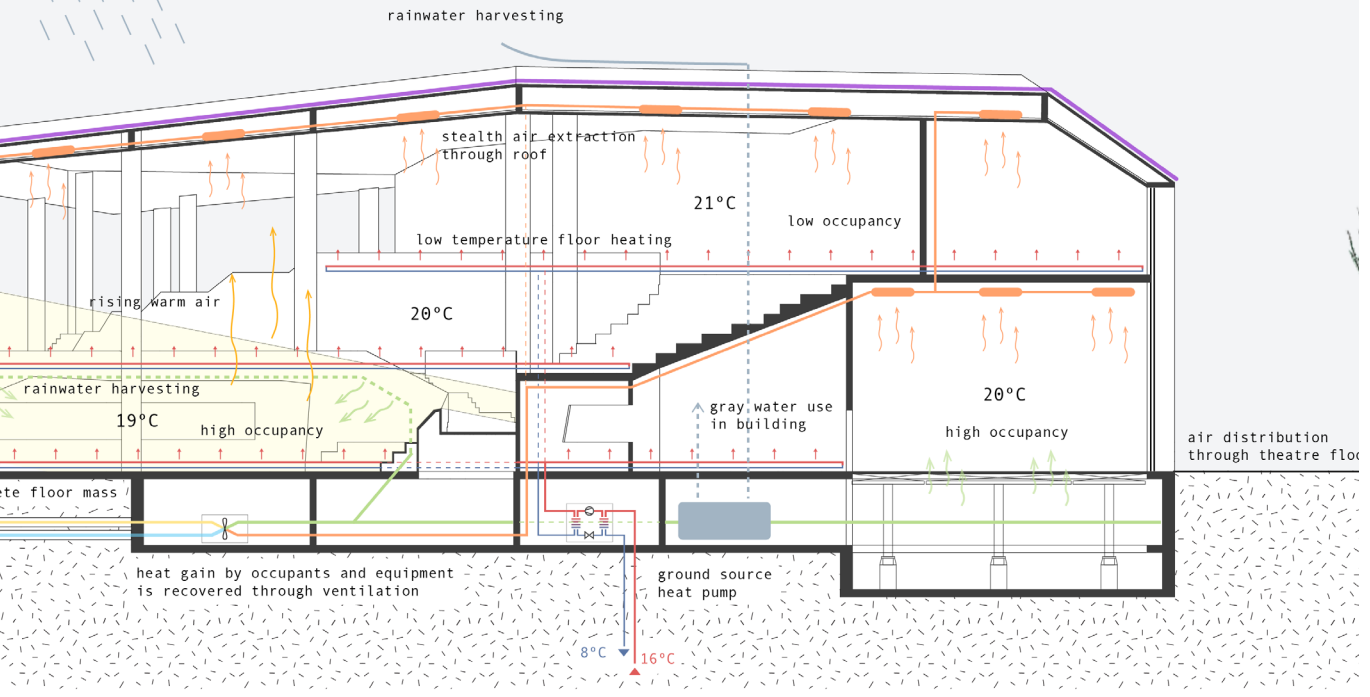




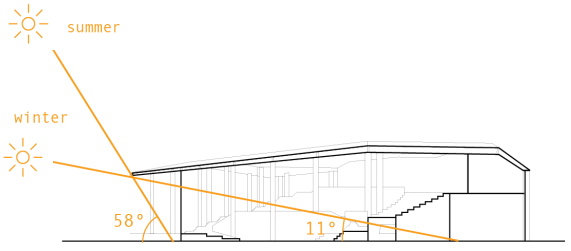
Climate system // autumn - winter (Nov-April)

AUTUMN / WINTER (Nov - April)

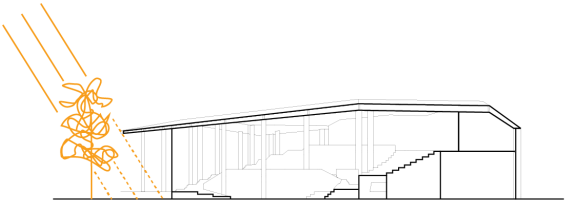
Average maximum temperature 6,0°C
Average minimum temperature 1,3°C
Minimum temperature -18°C
13 days colder than -5°C
Average of 2,7 sunshine hours per day
50 rainy days (of which 20 snow)
225 mm precipitation



Sun shading

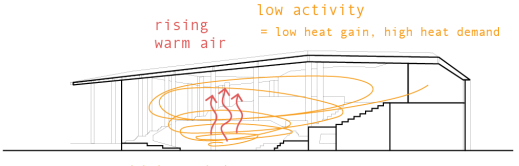


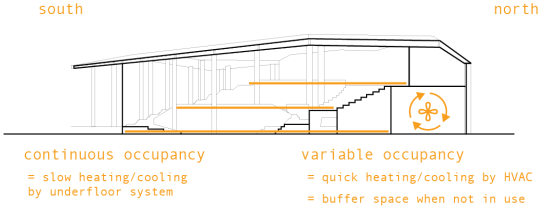
seasonal sun shading by facade setback



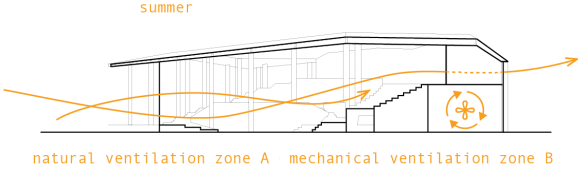
seasonal sun shading by deciduous trees

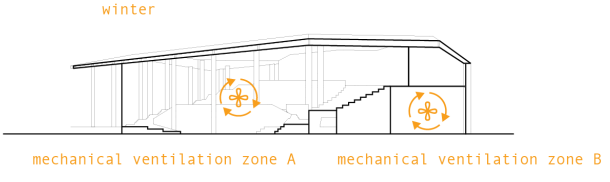
Heating/cooling



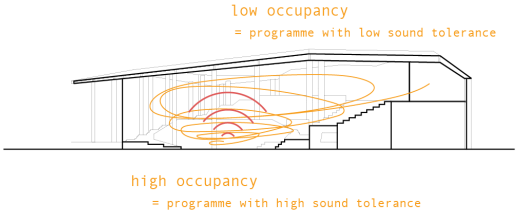


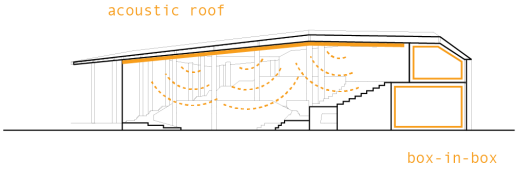
Ventilation



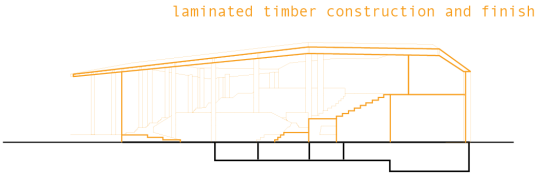


Acoustics

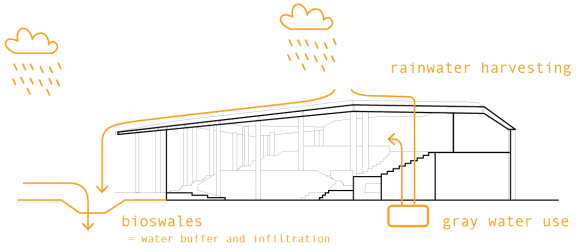


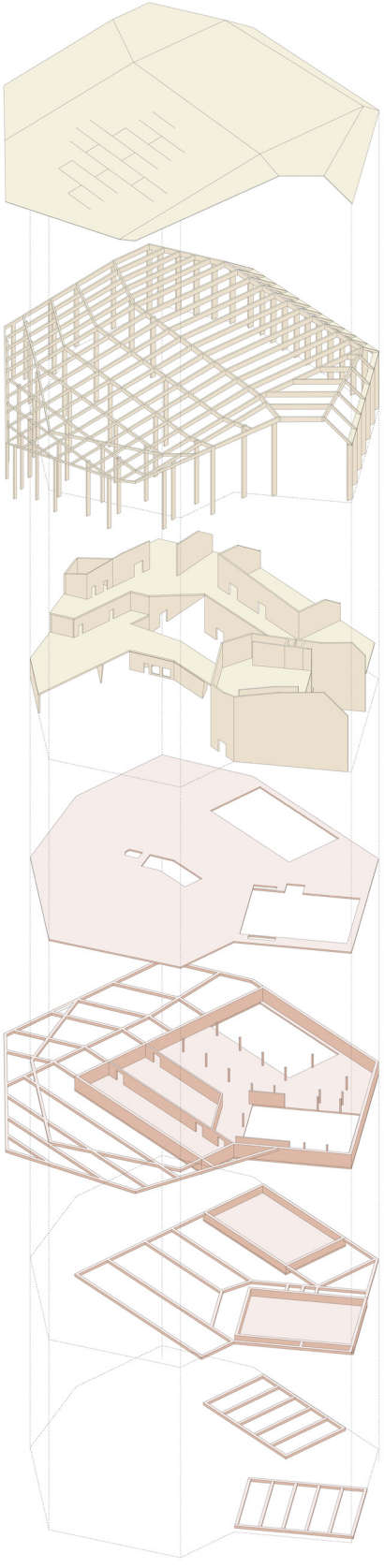


Material



Rainwater





3-PLY CLT roof elements

GLULAM post and beam structrue

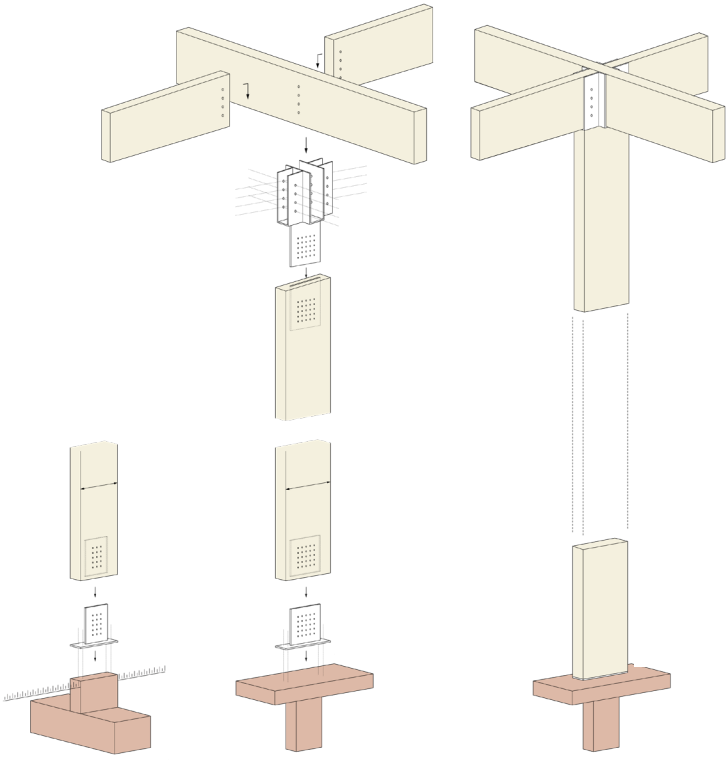
5-PLY CLT shear wall and floor elements

Concrete ground-floor slab

Upper concrete basement and foundation beams

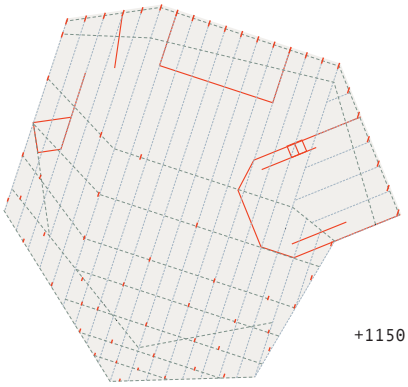
Lower concrete basement and foundation beams

Concrete foundation beams



Column connections

Columns and beams are bolted to a steel connection piece above the ceiling. Below the ceiling the connection is conceiled inside the column. Dowels are covered by wood plugs. The column is placed on a steel foot, to avoid contact with concrete/soil. The connection is conceiled inside the column.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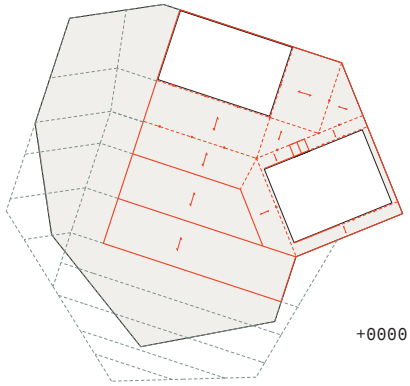
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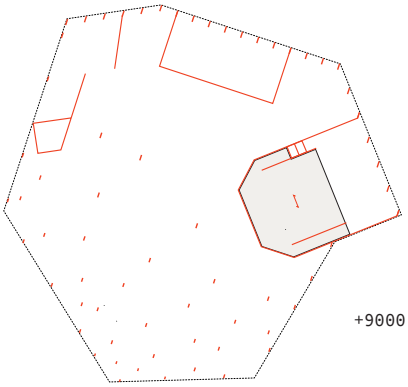
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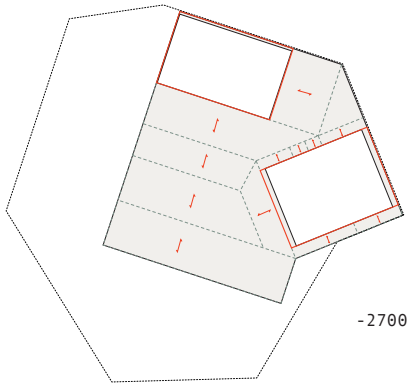
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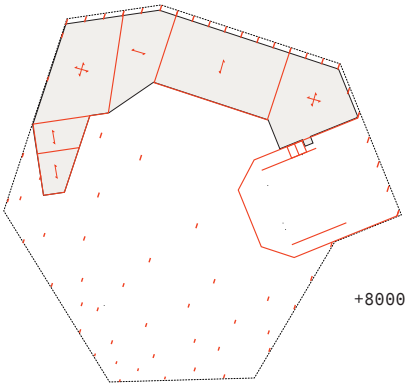
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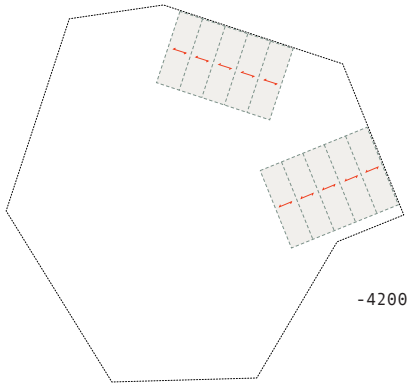
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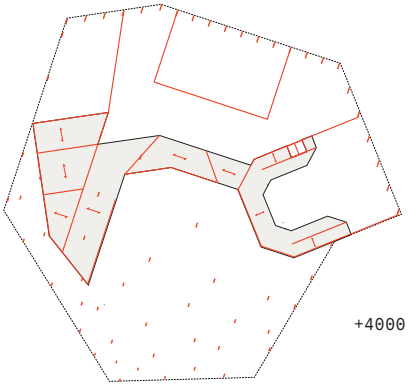
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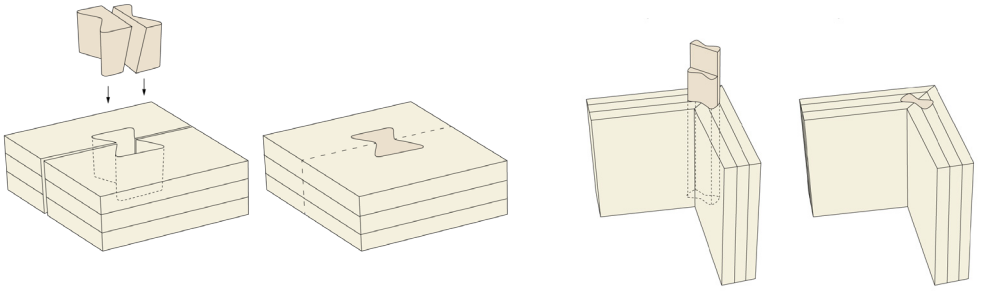
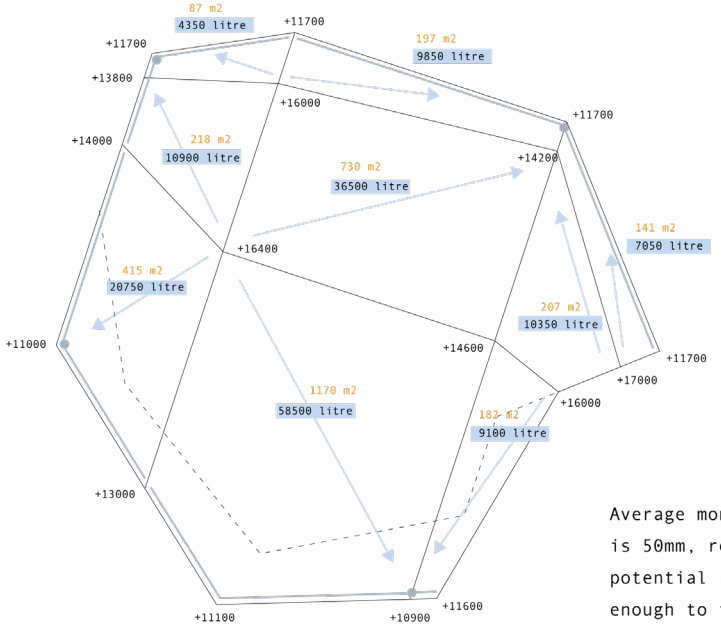
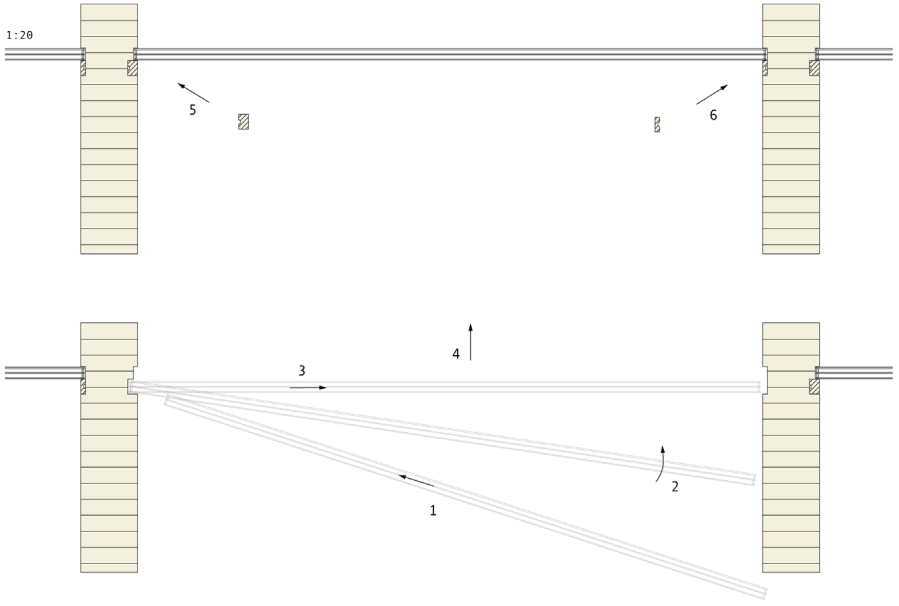


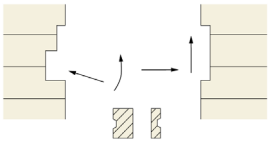
The cross laminated timber ceiling panels are connected with wood-on-wood dovetail connectors (X-fix) that are self tightening, form locking and invisible from the inside. Interior walls are connected by dovetail-shaped strips. It is split-wedged and acts as a self-tightening connector following insertion. This a pure wood-wood connection for which no additional tools or adhesives are needed.

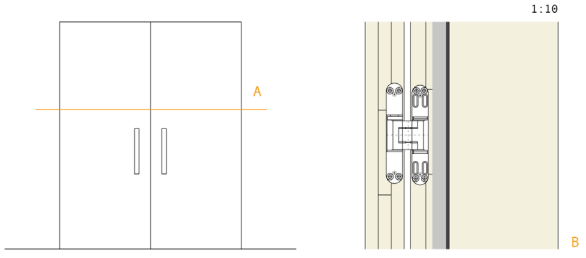


Average monthly rainfall in Copenhagen is 50mm, resulting in 167.000 litre potential rainwater harvest per month; enough to flush the toilet 28.000 times.

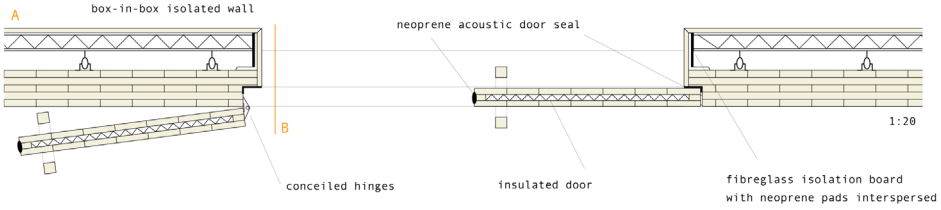


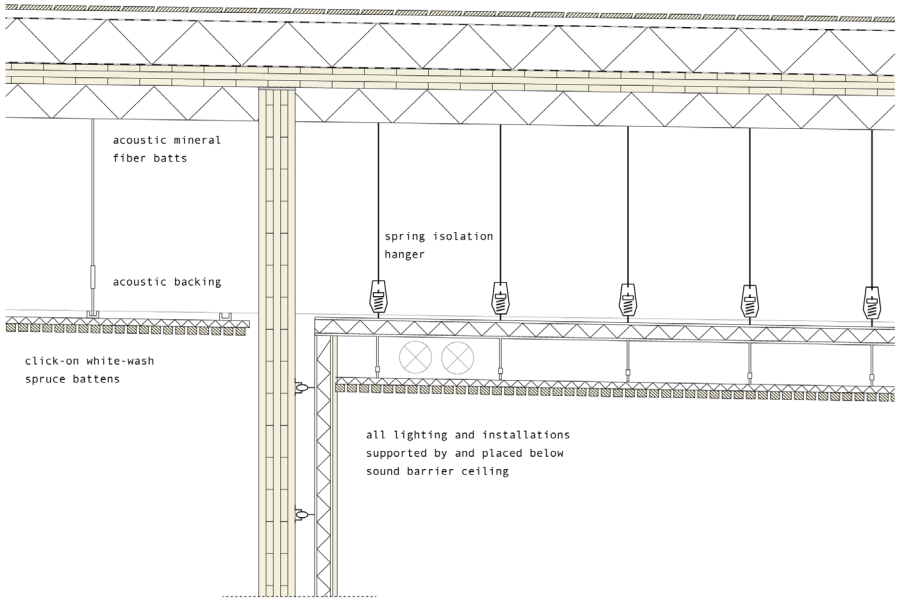
Apart form their structural role, the glulam columns on the North side function as window frames for the glass facade. To place the 275mm wide glass panels, double slots are milled into the column.



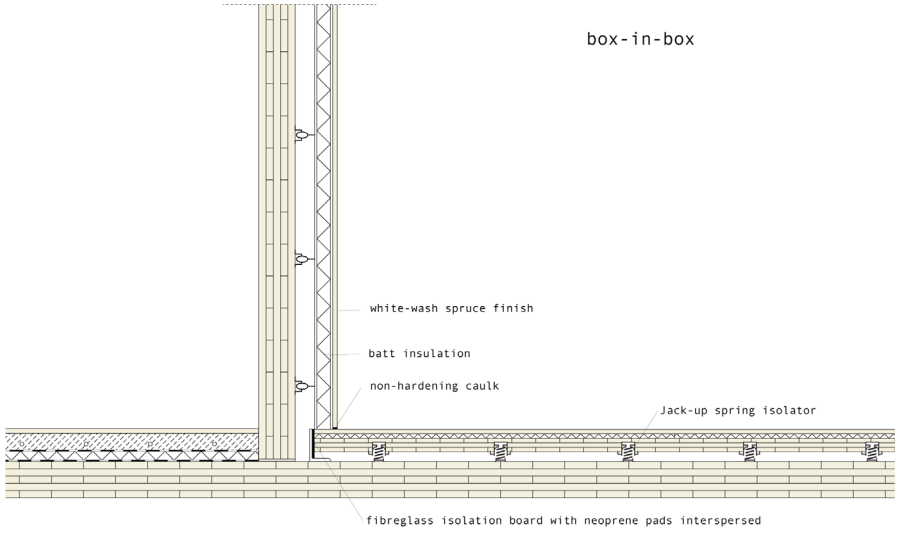


Interior doors are acoustically sealed and blend framelessly into the exposed side of the clt walls.





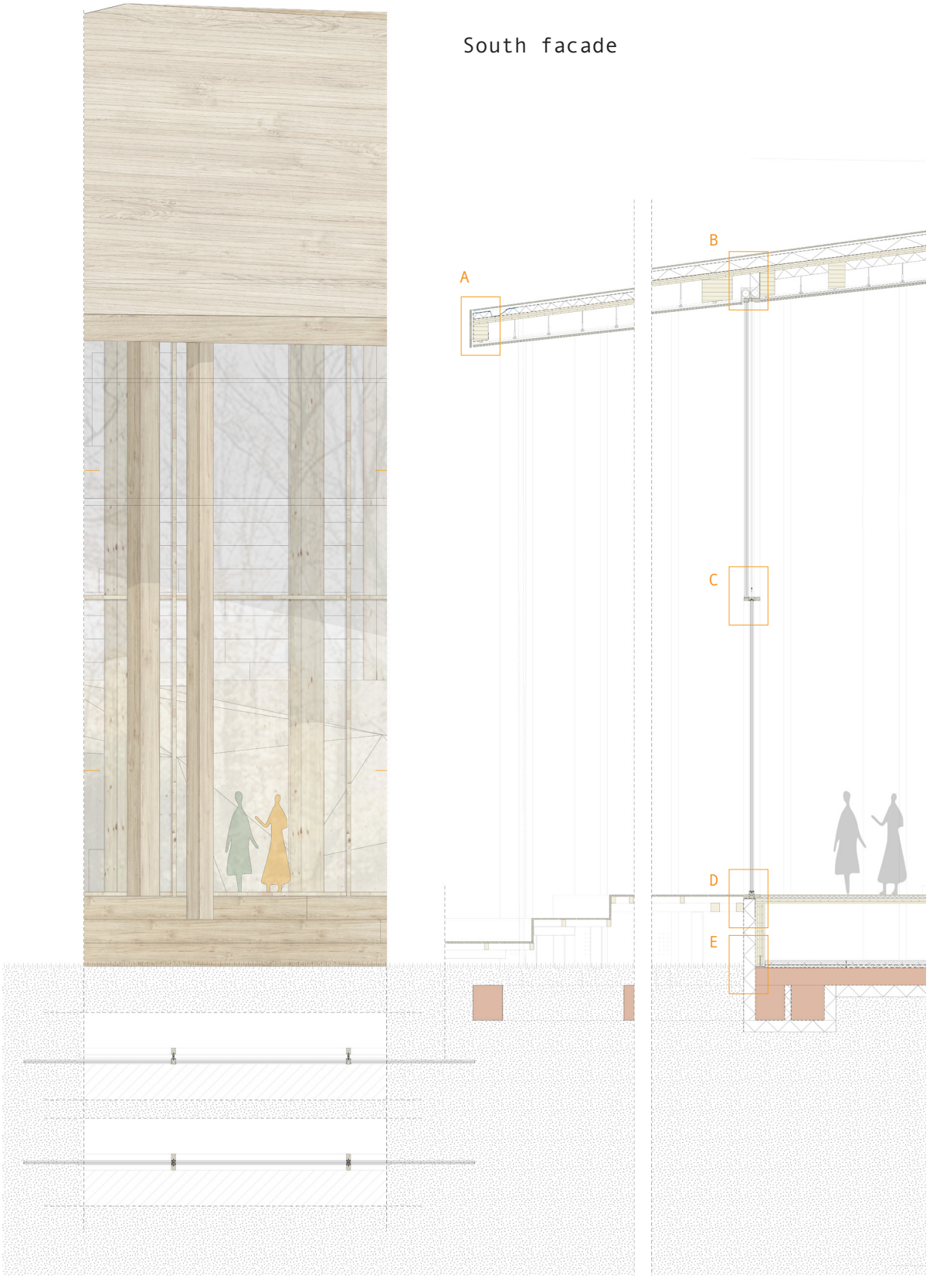
box-in-box



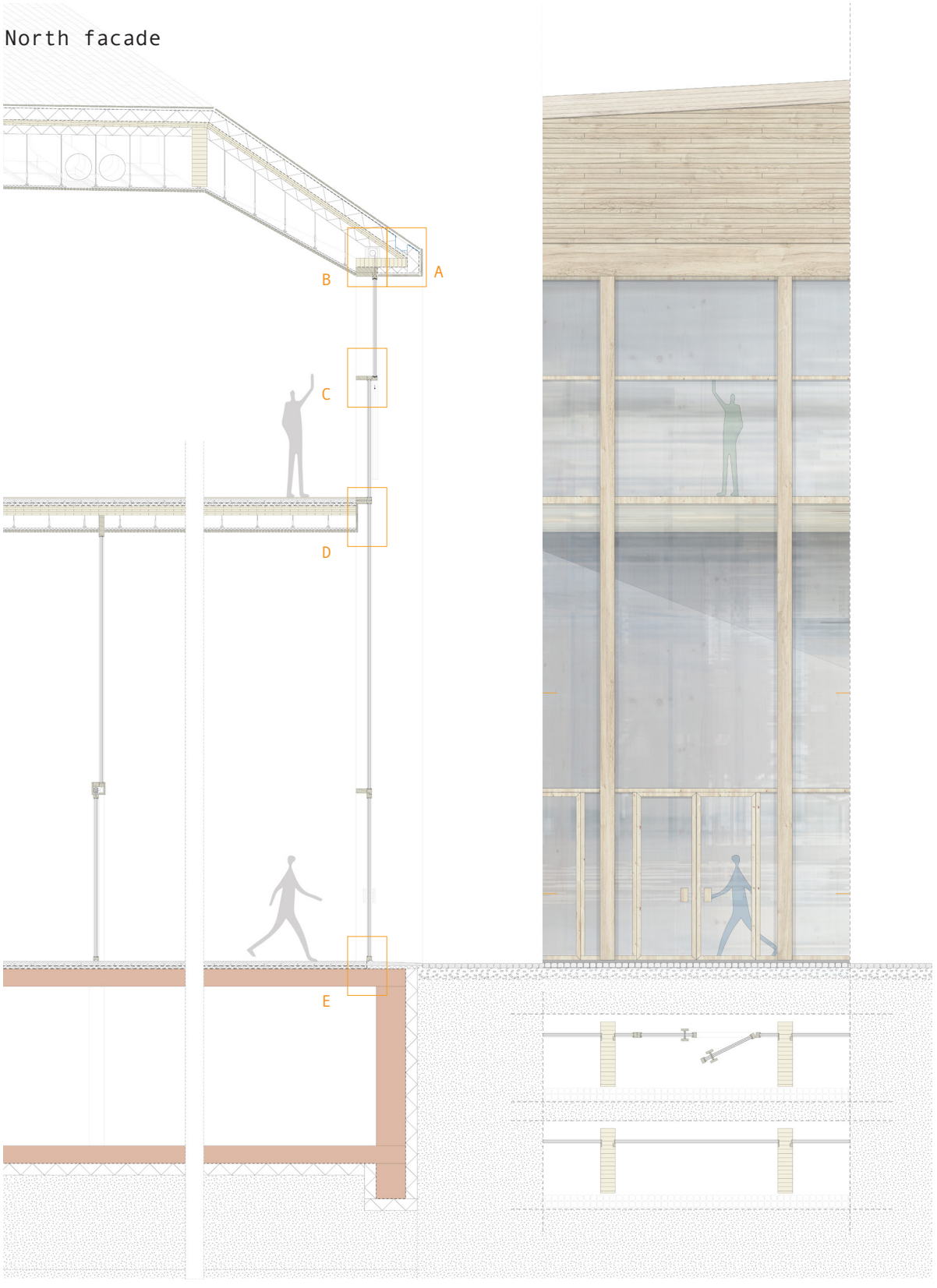
To facilitate simultaneous active use of the different rooms and the arena, both airborne sound and flanking sound transmission as well as vibrations are reduced by constructing the formal rooms following a box-in-box principle for sound proofing.

Acoustics within the rooms and the arena are optimised by acoustic ceilings to partly absorb and partly diffuse the sound of all different activities going on.

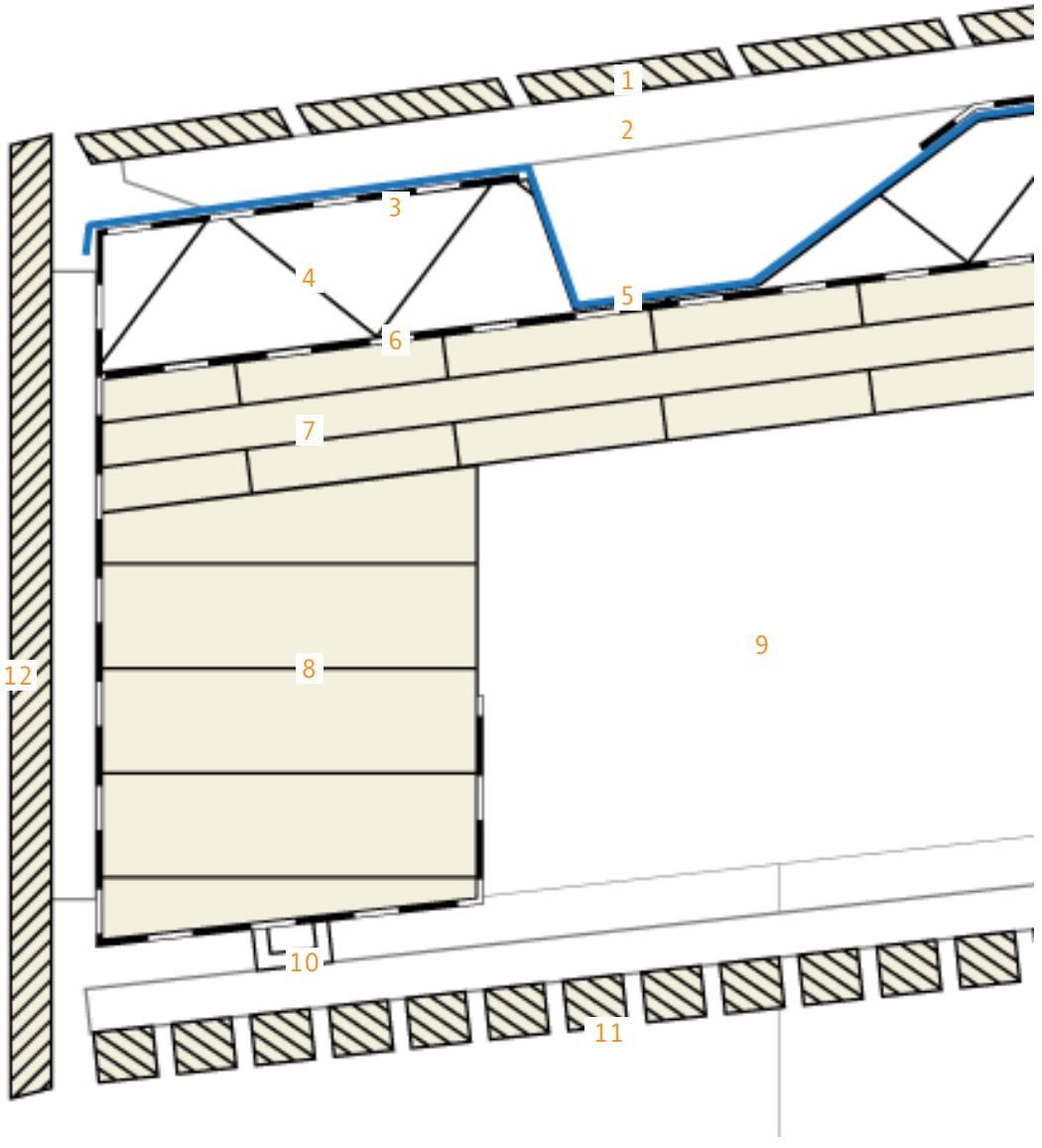
South facade



North facade

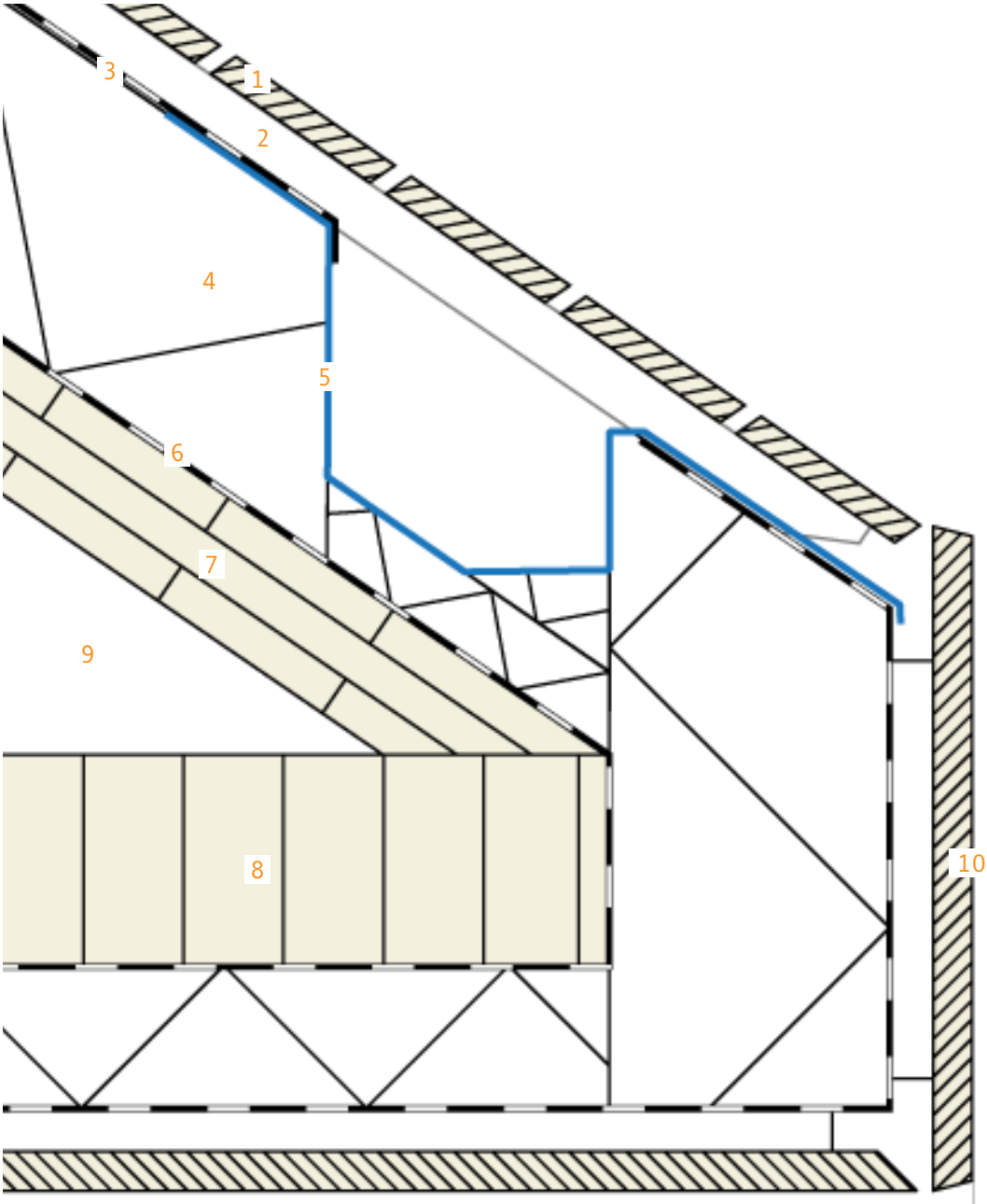


South facade // detail A



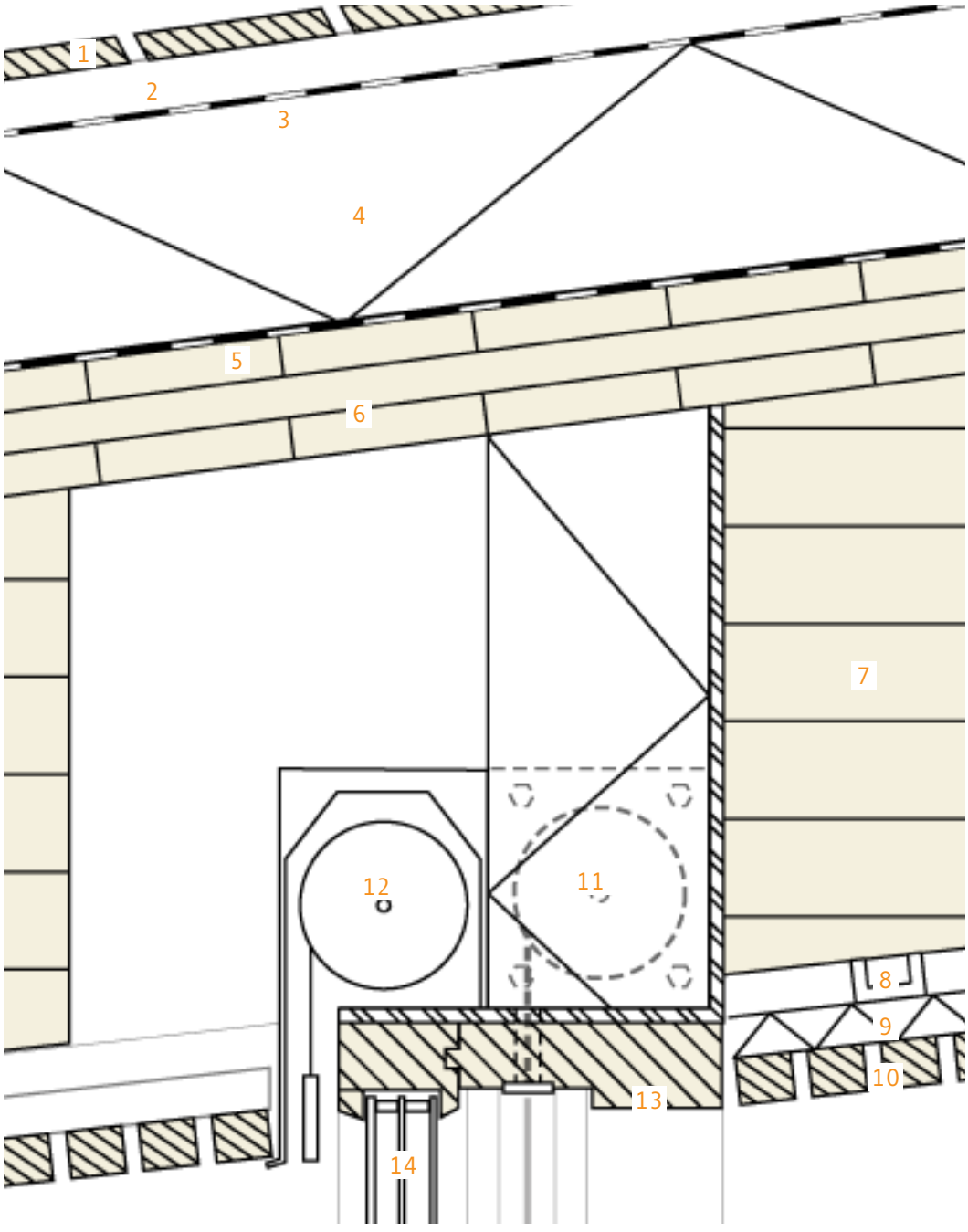
(1) Silver fir cladding 18mm, rear ventilated; (2) Battens silver fir, 40/50mm; (3) Waterproofing, black; (4) Gradient, rigid wood fibre insulation 100-200 mm; (5) Gutter, sheet metal; (6) Vapour barrier; (7) Cross laminated timber, 90 mm; (8) Glulam beam; (9) Installation space; (10) Metal frame mounting system; (11) Spruce battens 40/36; (12) Silver fir board.

North facade // detail A



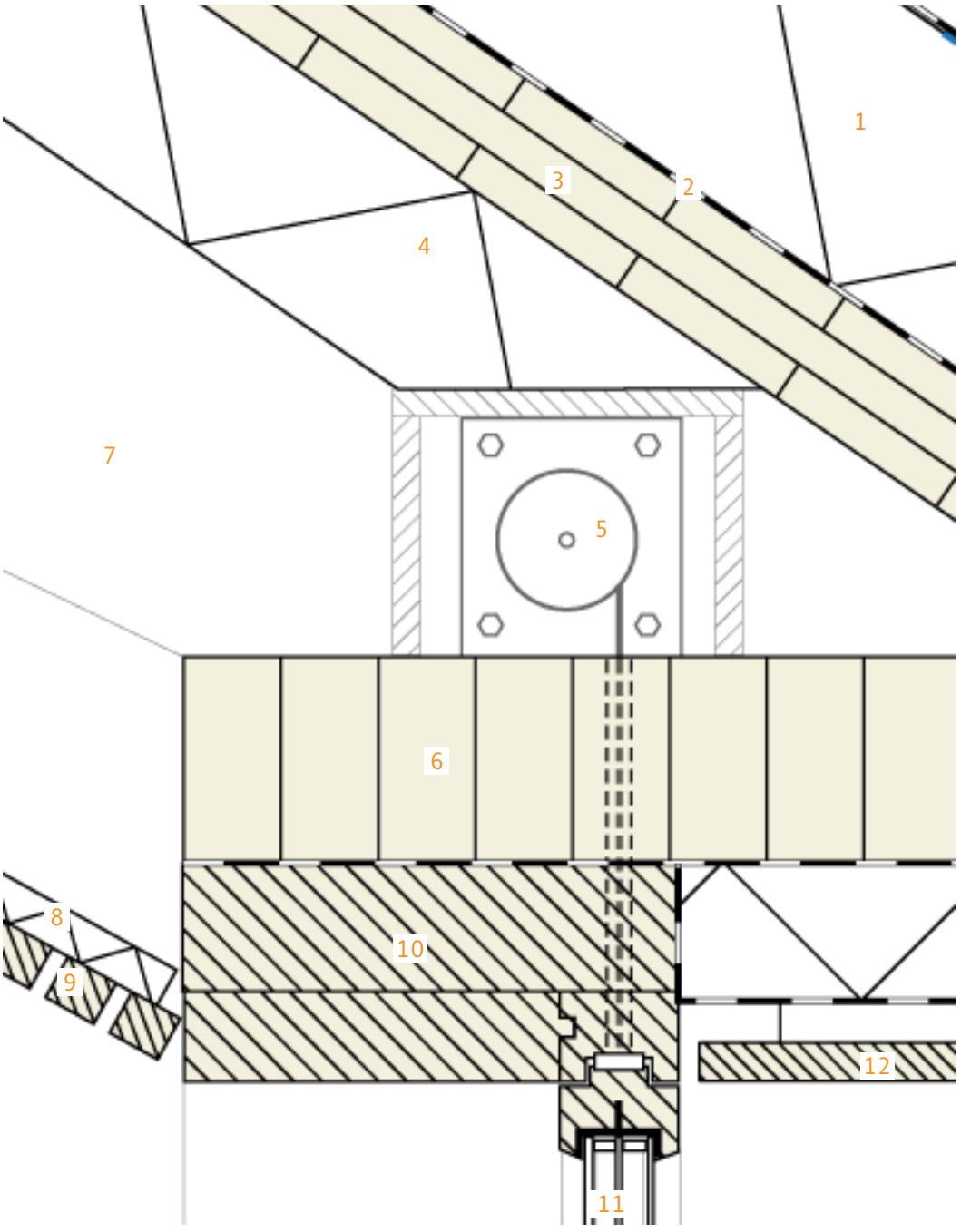
(1) Silver fir cladding 18mm, rear ventilated; (2) Battens silver fir, 40/50mm; (3) Waterproofing, black; (4) Rigid wood fibre insulation 200 mm; (5) Gutter, sheet metal; (6) Vapour barrier; (7) Cross laminated timber, 90 mm; (8) Glulam beam; (9) Installation space; (10) Silver fir board.

South facade // detail B



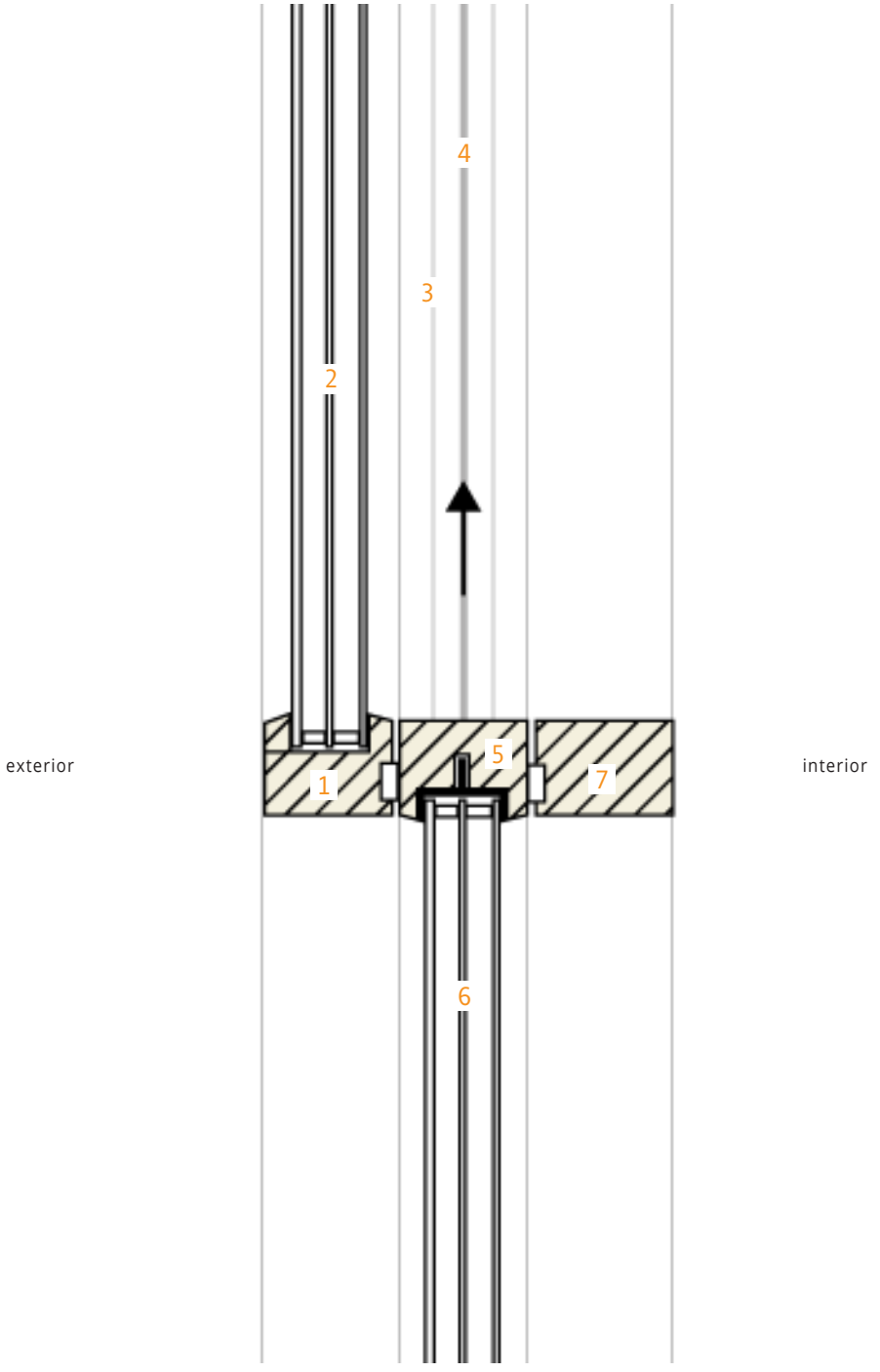
(1) Silver fir cladding 18mm, rear ventilated; (2) Battens silver fir, 40/50mm; (3) Waterproofing, black; (4) Gradient, rigid wood fibre insulation 100-200 mm; (5) Vapour barrier; (6) Cross laminated timber, 90 mm; (7) Glulam beam; (8) Metal frame mounting system; (9) Battens with in between acoustic mineral fibre, 30 mm; (10) Spruce battens 40/36; (11) Electric hoist, sash window; (12) Sun screen; (13) Sash window frame, silver fir, sanded smooth (14) Insulated triple glazing.

North facade // detail B



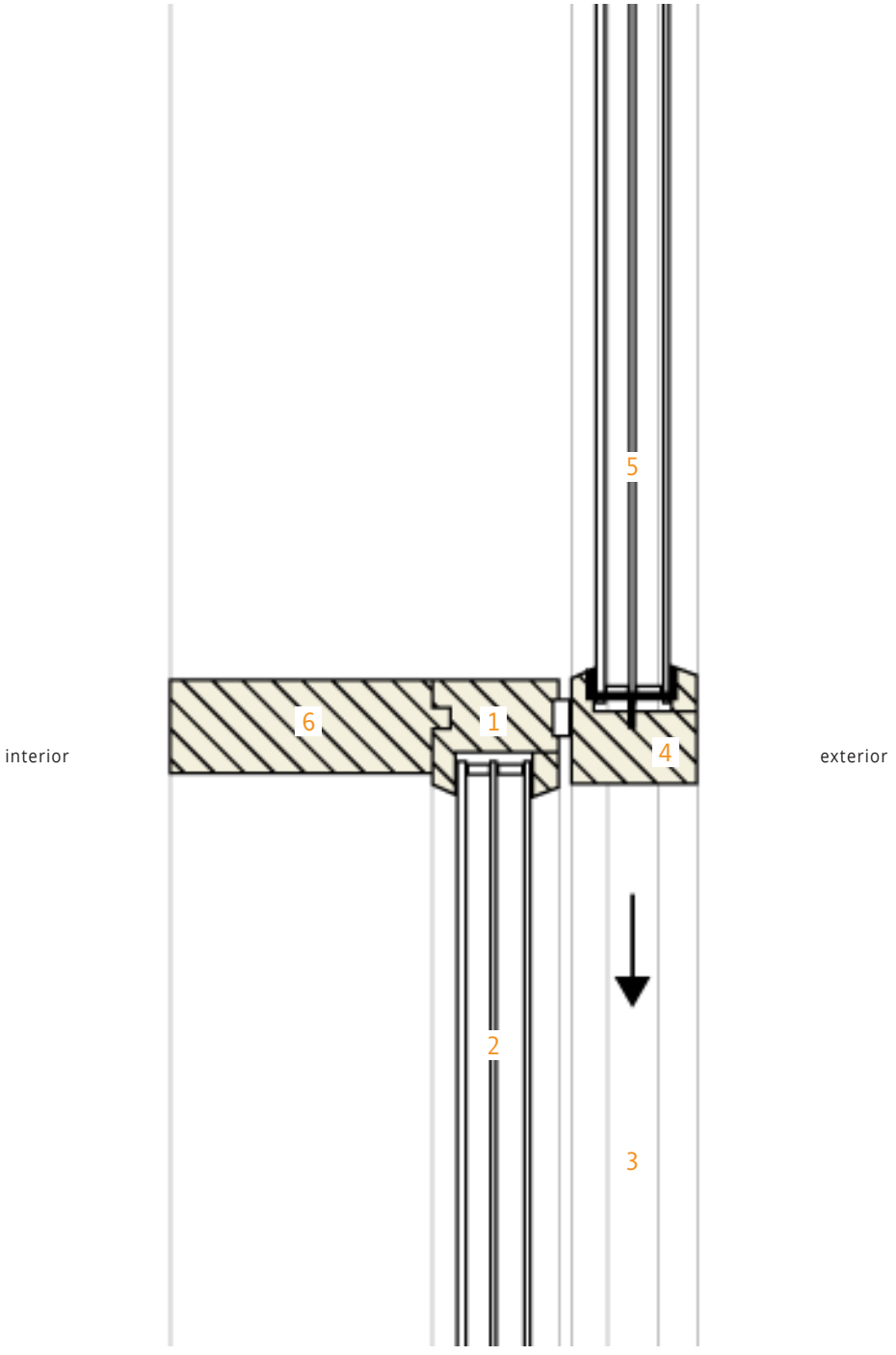
(1) Rigid wood fibre insulation 100-200 mm; (2) Vapour barrier; (3) Cross laminated timber, 90 mm; (4) Acoustic mineral fiber batts in between beams, 150 mm; (5) Electric hoist, sash window; (6) Glulam beam; (7) Installation space; (8) Battens with in between acoustic mineral fibre, 30 mm; (9) Spruce battens 40/36; (10) Sash window frame, silver fir, sanded smooth (11) Insulated triple glazing; (12) Silver fir board.

South facade // detail C



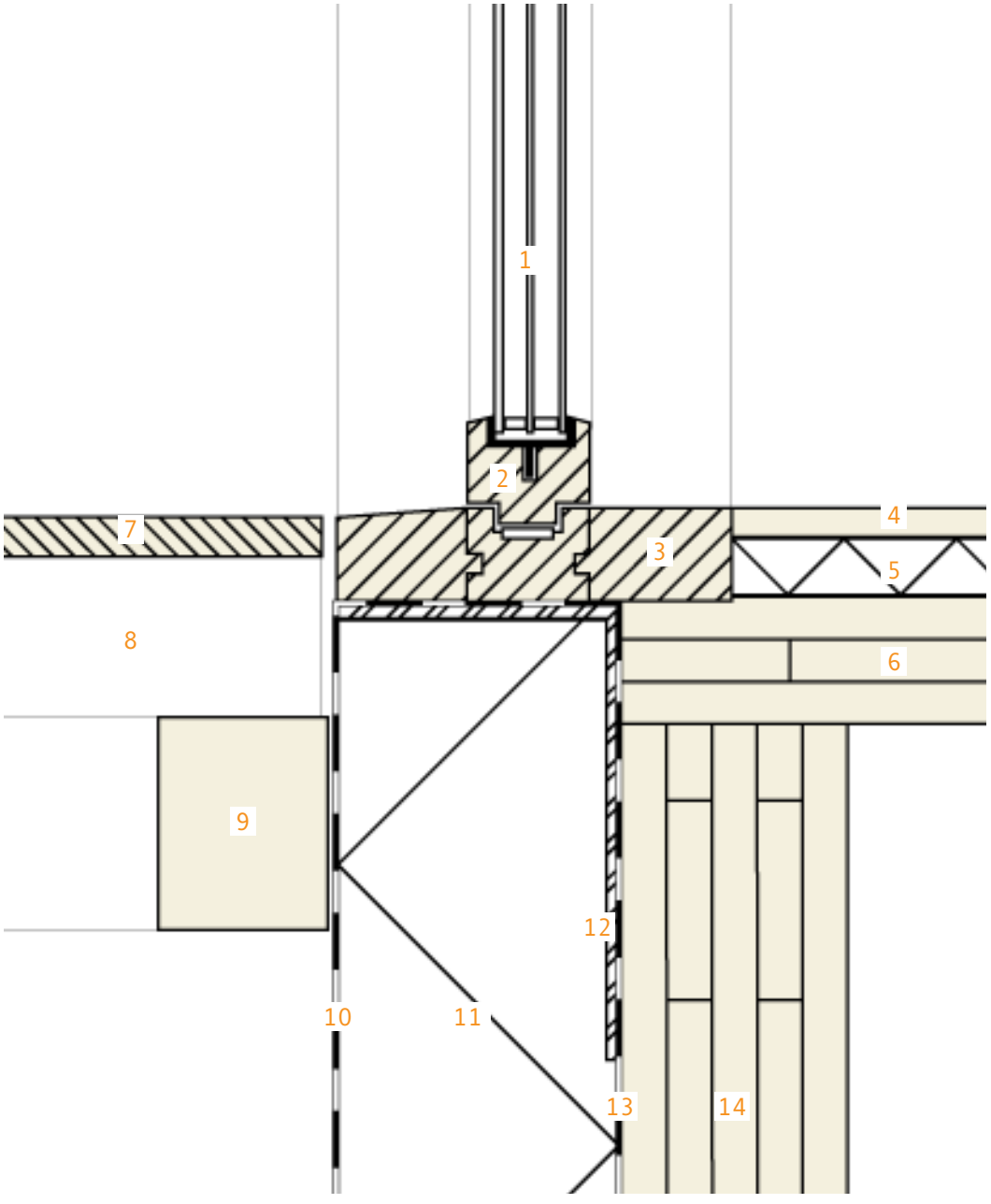
(1) Fixed window frame, silver fir, sanded smooth; (2) Insulated triple glazing; (3) Steel sash window rail; (4) steel cable electric hoist; (5) sash window frame, stainless steel with silver fir hood, sanded smooth; (6) Insulated triple glazing; (7) window sil, silver fir, planed solid.

North facade // detail C



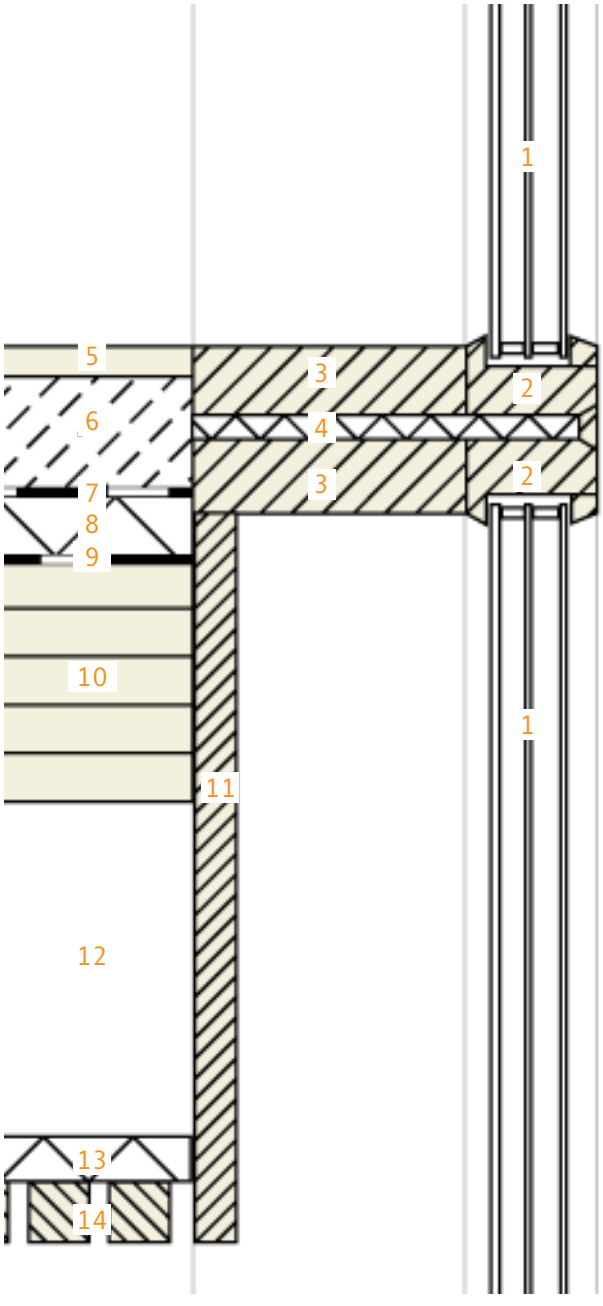
(1) Fixed window frame, silver fir, sanded smooth; (2) Insulated triple glazing; (3) Steel sash window rail; (4) sash window frame, stainless steel with silver fir hood, sanded smooth; (5) Insulated triple glazing; (6) window sil, silver fir, planed solid.

South facade // detail D



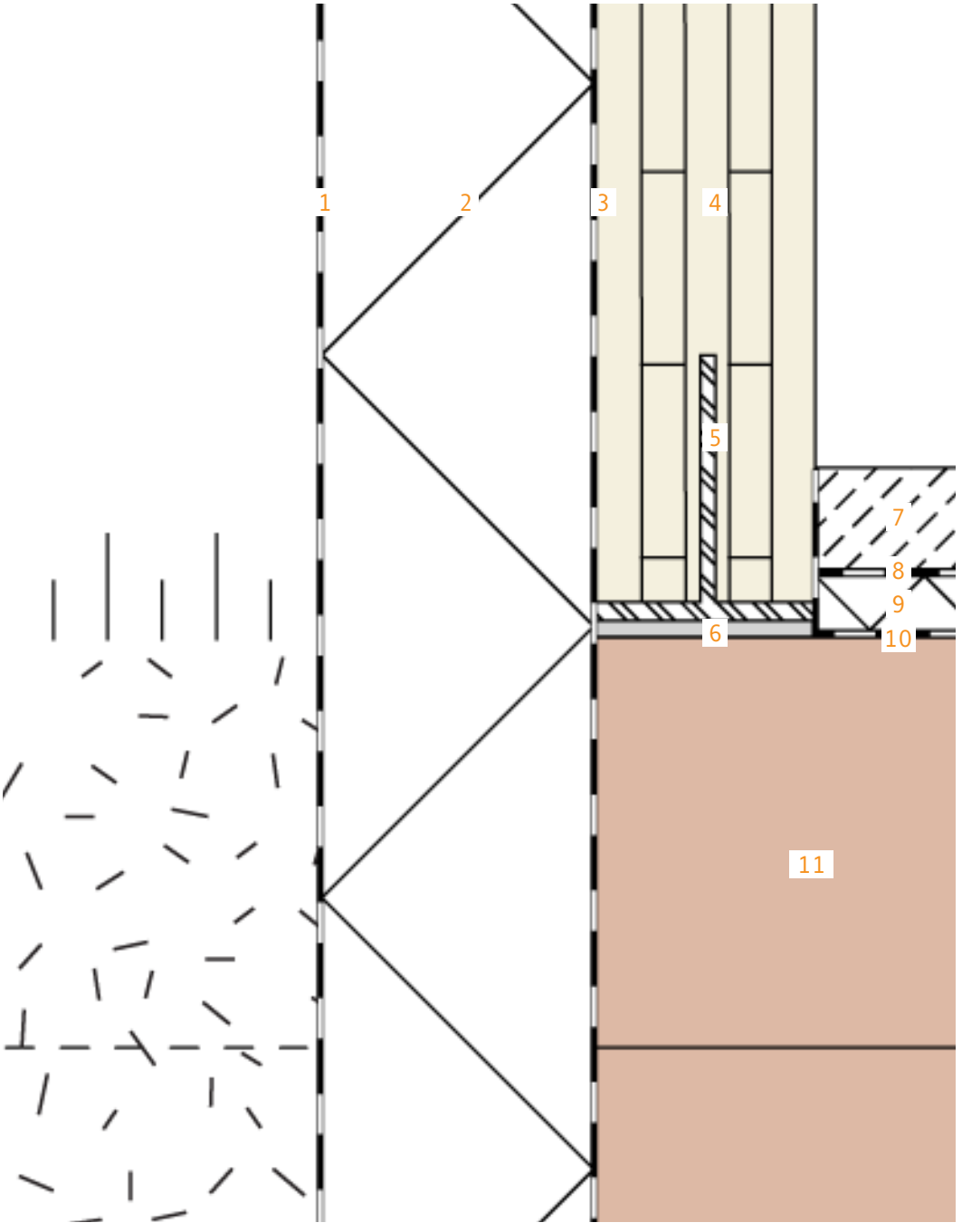
(1) Insulated triple glazing; (2) Sash window frame, stainless steel with silver fir hood; (3) window sil, silver fir, planed solid; (4) Scandinavian white oak flooring parquet, 16mm; (5) Impact sound insulation, 30mm; (6) Cross laminated timber platform, 90mm; (7) Silver fir boards, pressure treated, planed/sanded 27mm; (8) Battens, 60 mm; (9) Beams, 150 mm; (10) Windproofing; (11) thermal insulation, 200mm; (12) Steel window support; (13) Vapour barrier; (14) Cross laminated timber 160mm, exposed.

North facade // detail D



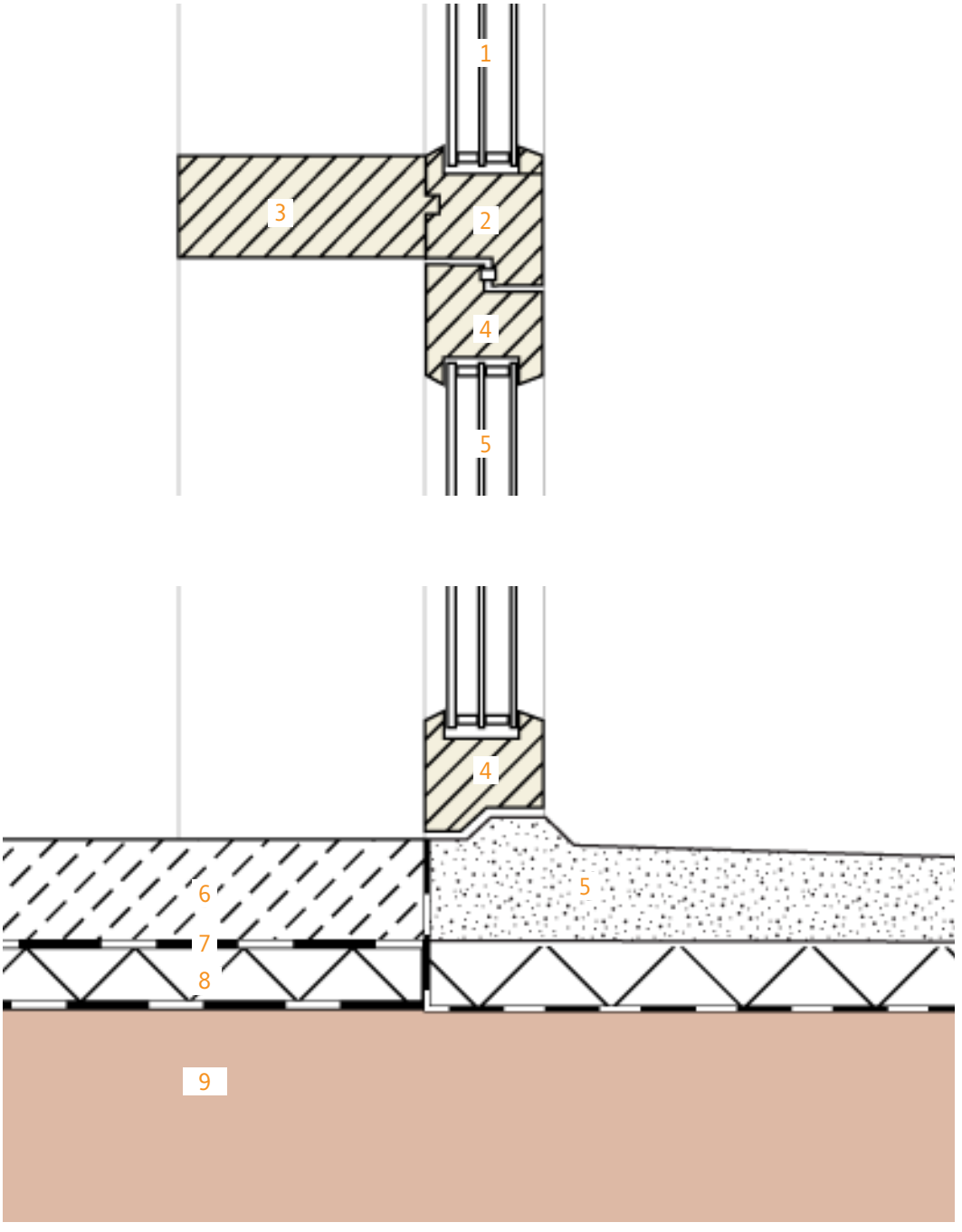
(1) Insulated triple glazing; (2) Fixed window frame, silver fir, sanded smooth; (3) Window sil, silver fir, planed solid; (4) Flanking sound break; (5) Scandinavian white oak flooring parquet, 16mm; (6) Heating screed, 74mm; (7) Separating layer; (8) Impact sound insulation, 30mm; (9) Sealing; (10) Cross laminated timber floor slab, 160mm; (11) Silver fir board, planed/sanded 27mm; (12) installation space; (13) Battens with in between acoustic mineral fibre, 30 mm; (14) Spruce battens 40/36.

South facade // detail E



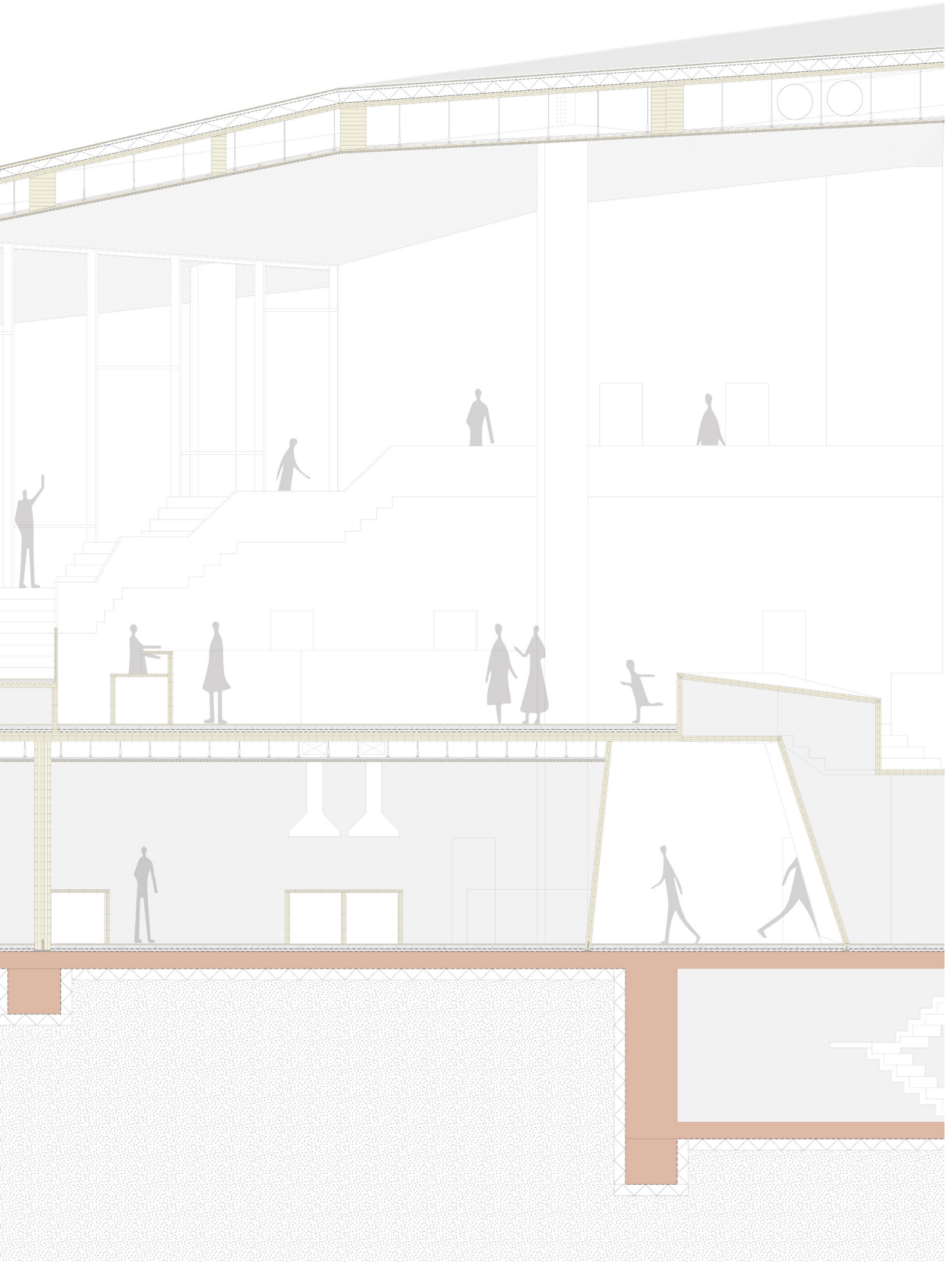
(1) Windproofing; (2) thermal insulation, 200mm; (3) Vapour barrier; (4) Cross laminated timber 160mm, exposed; (5) Metal plate, fixed with anchor bolts and tight fit dowels; (6) Flanking sound break; (7) Heating screed, 74mm; (8) Separating layer; (9) Impact sound insulation, 30mm; (10) Sealing; (11) Concrete ground floor slab, 300mm.

North facade // detail E

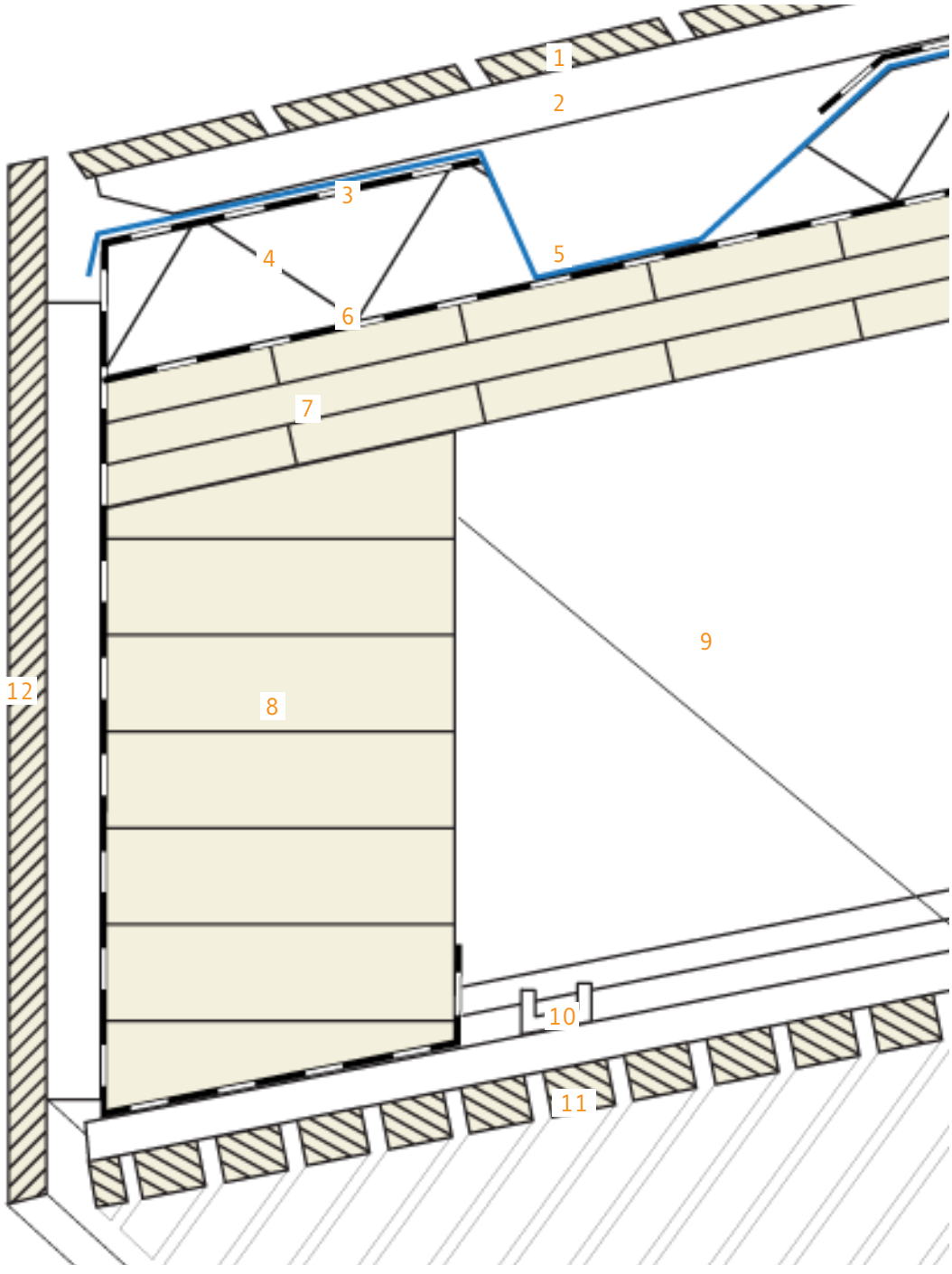


(1) Insulated triple glazing; (2) Fixed window frame, silver fir, sanded smooth; (3) Window sil, silver fir, planed solid; (4) Door frame, silver fir, sanded smooth; (5) Gradient granite threshold in between columns; (6) Heating screed, 74mm; (7) Separating layer; (8) Impact sound insulation, 30mm; (9) Sealing; (10) Concrete ground floor slab, 300mm.

West facade

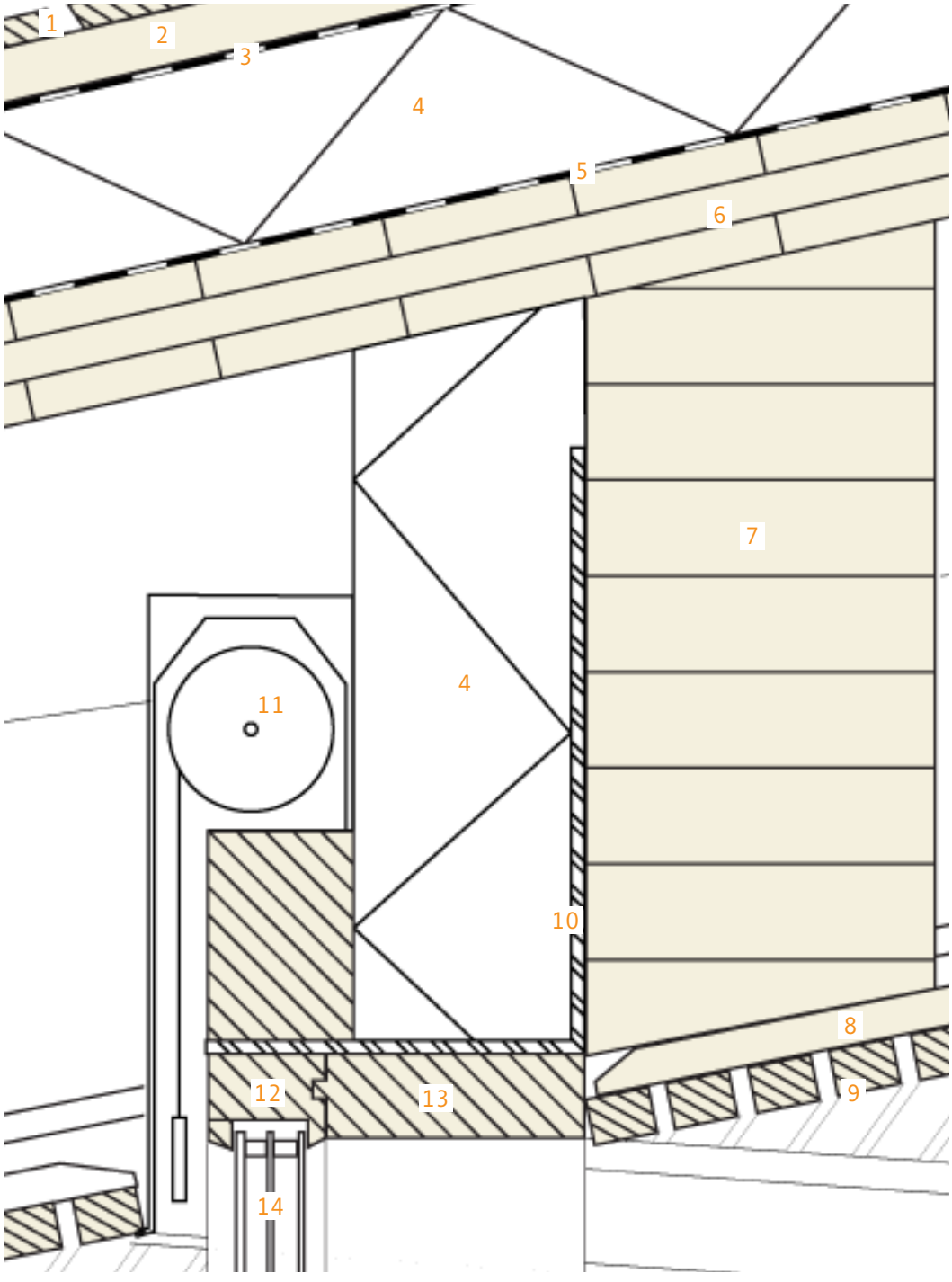


West facade // detail A



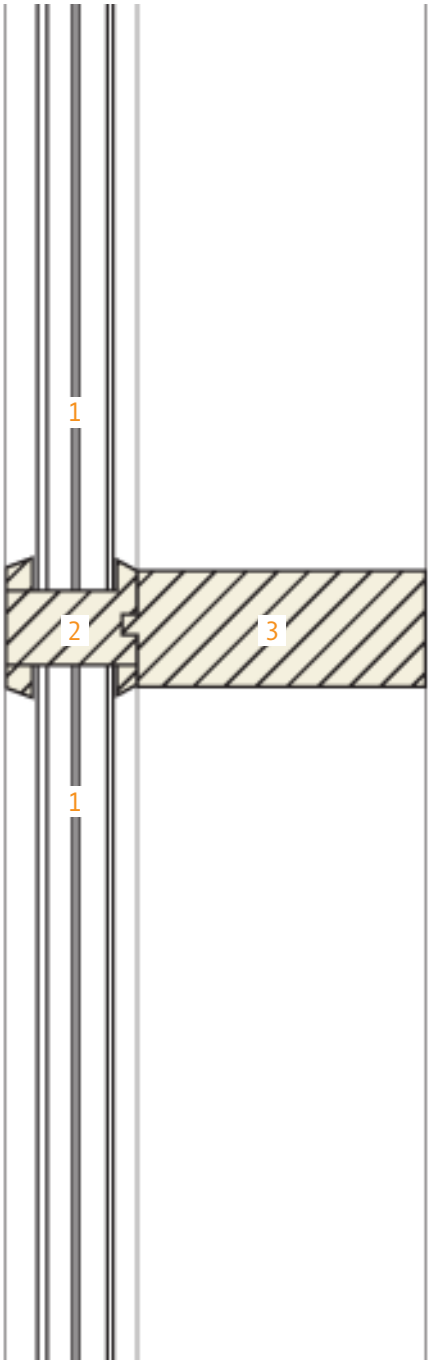
(1) Silver fir cladding 18mm, rear ventilated; (2) Battens silver fir, 40/50mm; (3) Waterproofing, black; (4) Gradient, rigid wood fibre insulation 100-200 mm; (5) Gutter, sheet metal; (6) Vapour barrier; (7) Cross laminated timber, 90 mm; (8) Glulam beam; (9) Installation space; (10) Metal frame mounting system; (11) Spruce battens 40/36; (12) Silver fir board.

West facade // detail B



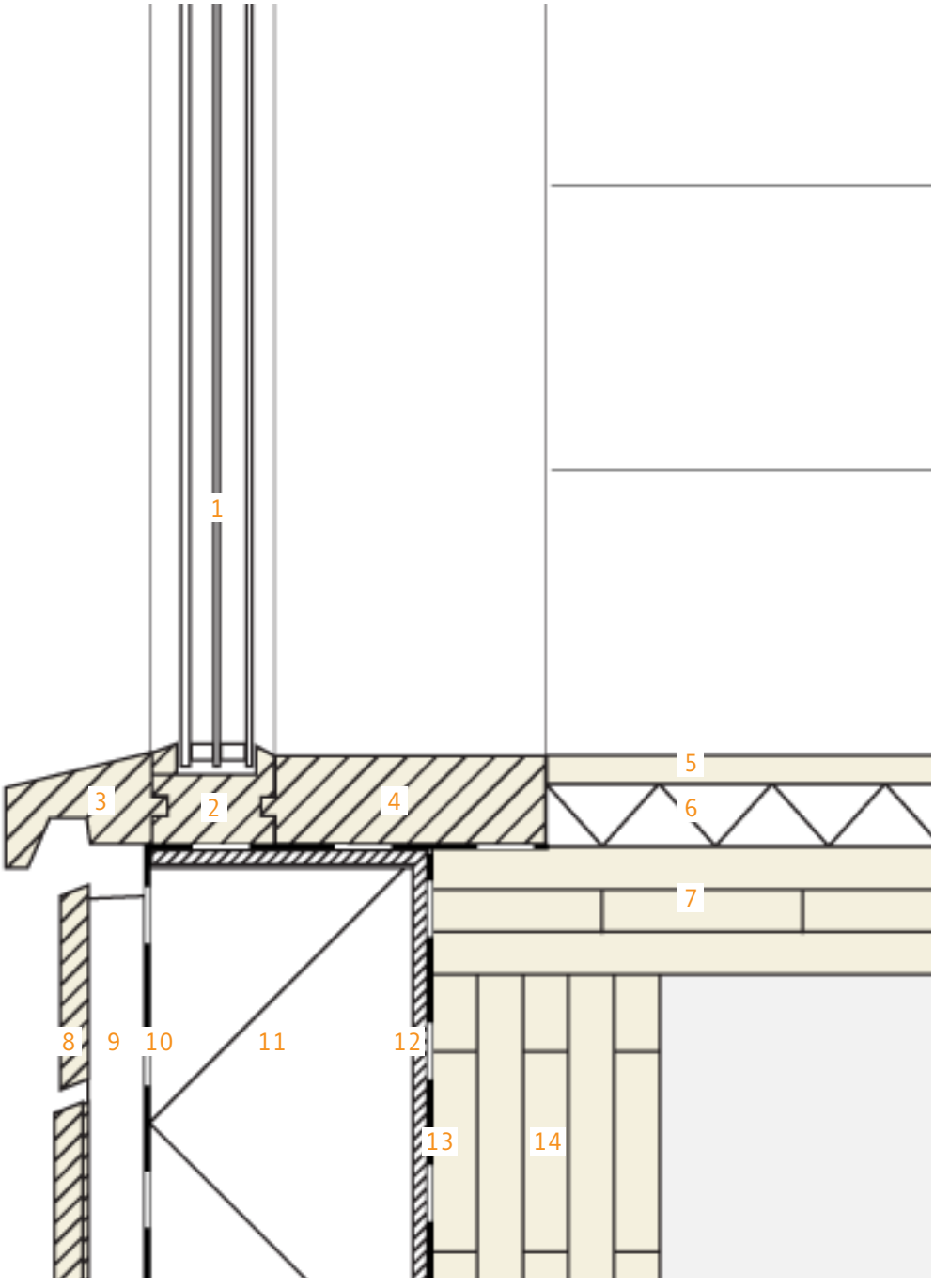
(1) Silver fir cladding 18mm, rear ventilated; (2) Battens silver fir, 40/50mm; (3) Waterproofing, black; (4) Gradient, rigid wood fibre insulation 100-200 mm; (5) Vapour barrier; (6) CLT roof, 90 mm; (7) Glulam beam; (8) Battens with in between acoustic mineral fibre, 30 mm; (9) Spruce battens 40/36; (10) Steel window support; (11) Sun screen; (12) Fixed window frame, silver fir, sanded smooth; (13) Window sil silver fir, planed solid; (14) Insulated triple glazing.

West facade // detail C



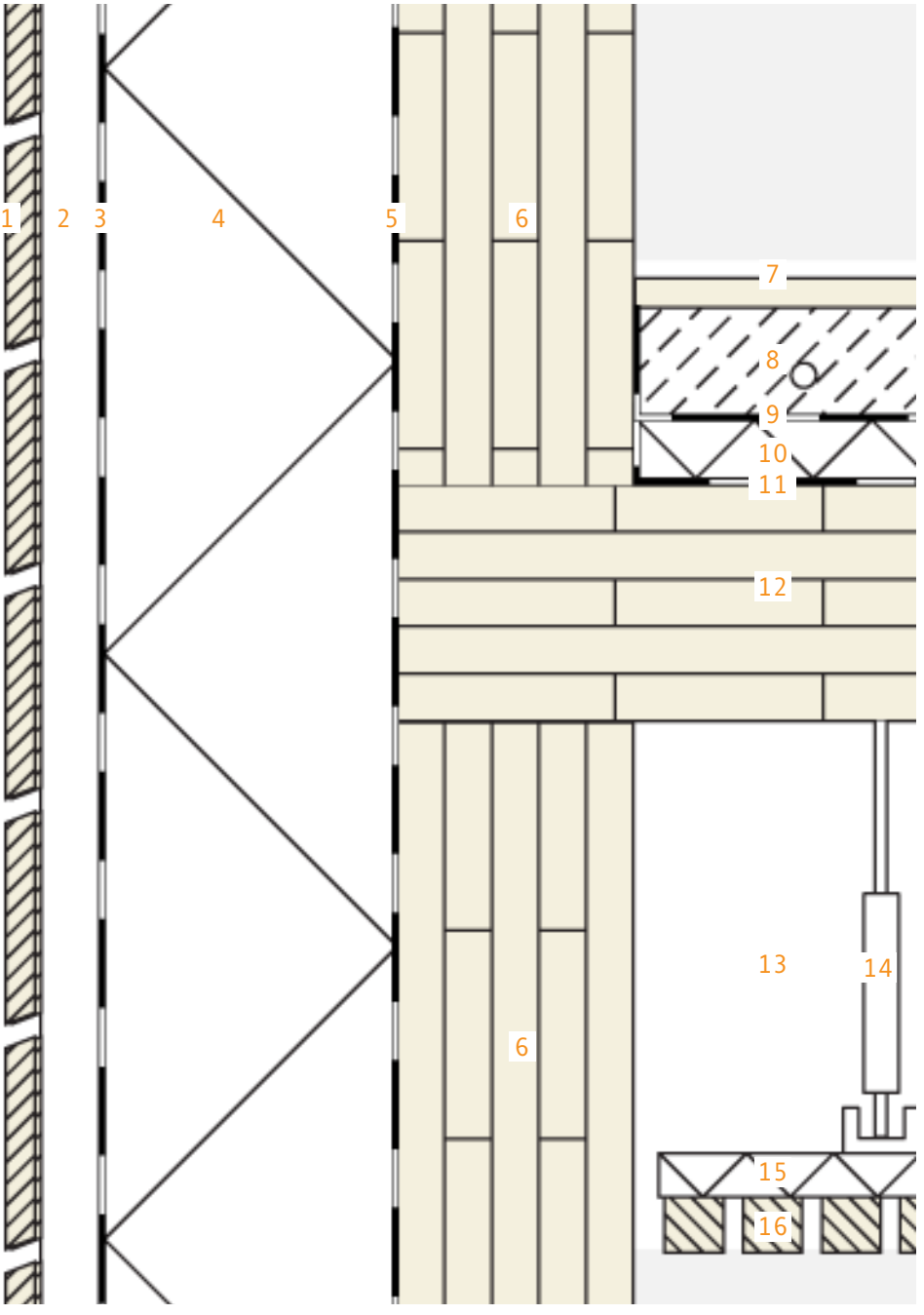
(1) Insulated triple glazing; (2) Fixed window frame, silver fir, sanded smooth; (3) Window sil, silver fir, planed solid.

West facade // detail D



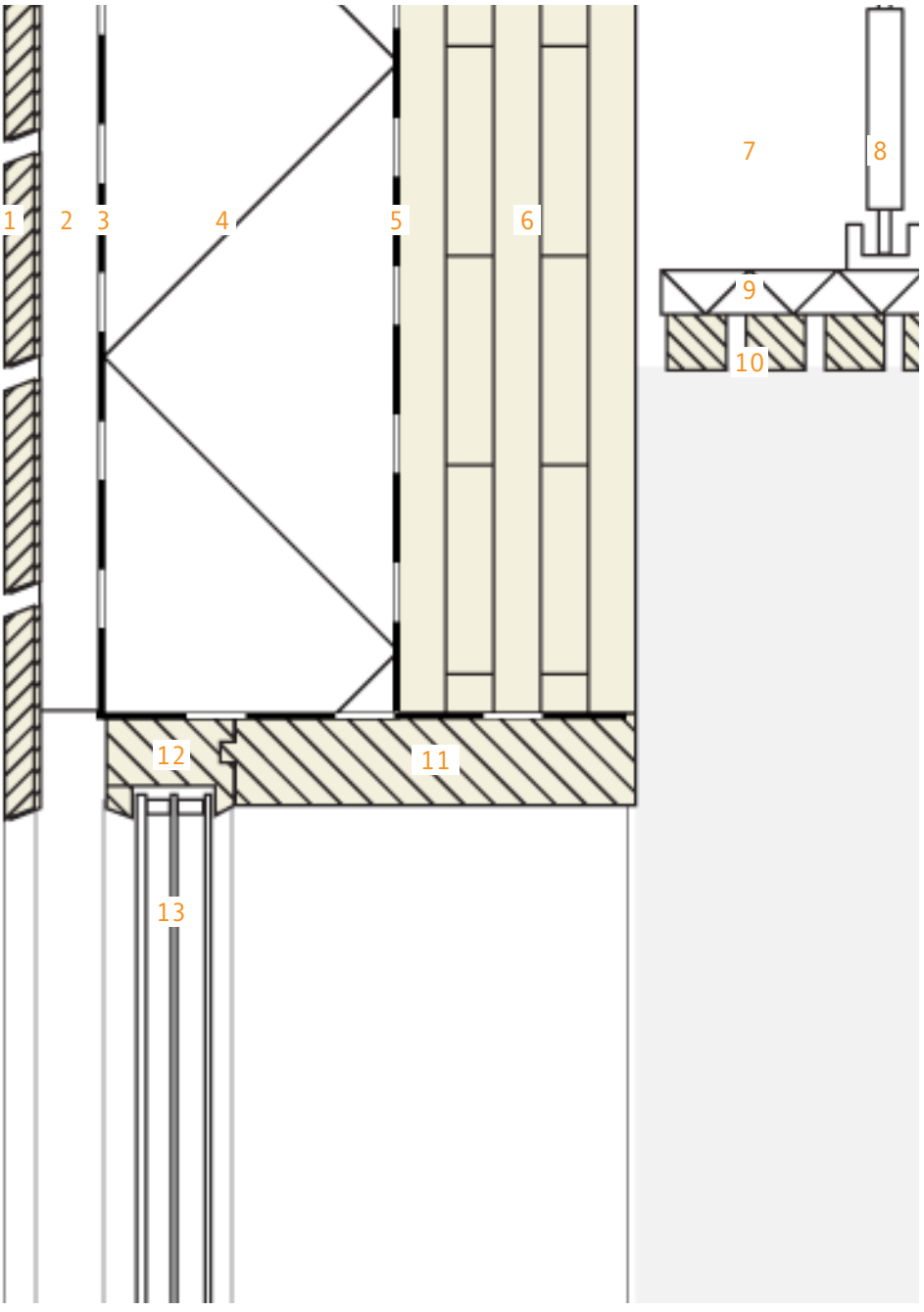
(1) Insulated triple glazing; (2) Fixed window frame, silver fir, sanded smooth; (3) Window bar, silver fir (4) Window sil, silver fir, planed solid; (5) Scandinavian white Oak flooring parquet, 16mm; (6) Impact sound insulation, 30mm; (7) Cross laminated timber platform, 90mm; (8) Silver fir cladding 18mm, rear ventilated; (9) Battens, 40mm; (10) Windproofing; (11) Thermal insulation, 200mm (12) Steel window support; (13) Vapour barrier; (14) Cross laminated timber 160mm, exposed.

West facade // detail E



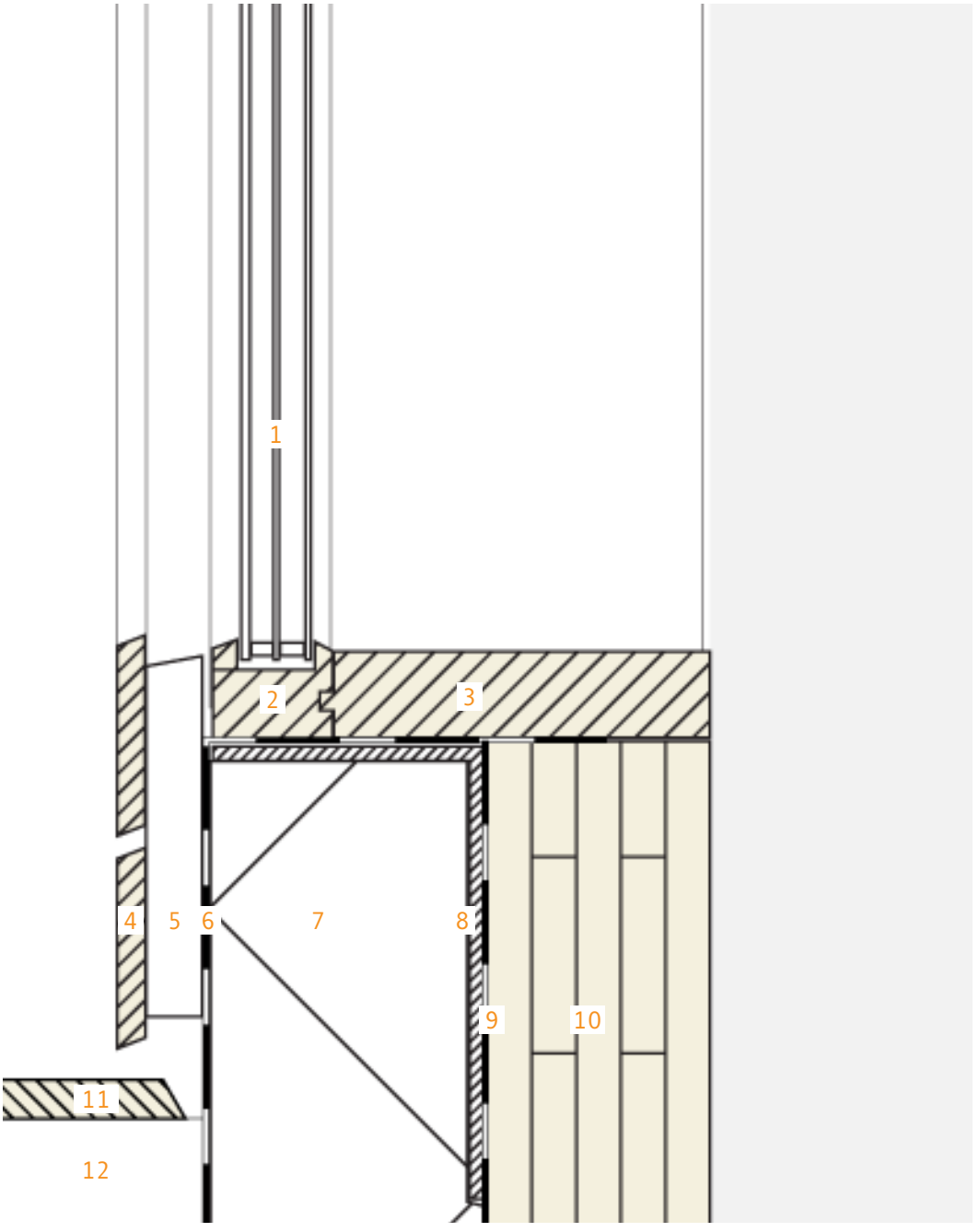
(1) Silver fir cladding 18mm, rear ventilated; (2) Battens, 40mm; (3) Windproofing; (4) Thermal insulation, 200mm; (5) Vapour barrier; (6) Cross laminated timber wall, 160mm, exposed; (7) Scandinavian white Oak flooring parquet, 16mm; (8) Heating screed, 74mm; (9) Separating layer; (10) Impact sound insulation, 30mm; (11) Sealing; (12) Cross laminated timber floor slab, 160mm; (13) Installation space; (14) Metal frame mounting system; (15) Battens with in between acoustic mineral fibre, 30 mm; (16) Spruce battens 40/36.

West facade // detail F



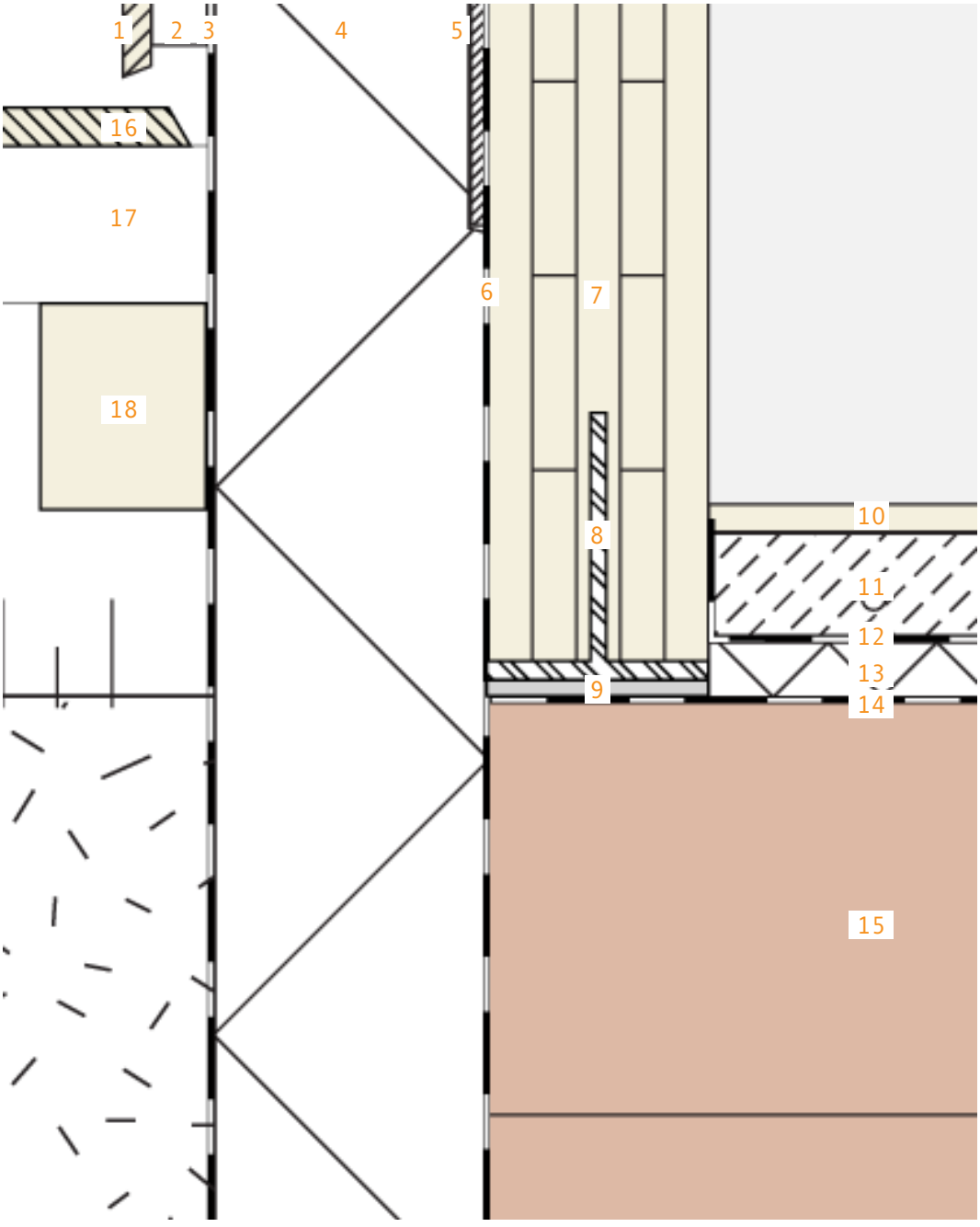
(1) Silver fir cladding 18mm, rear ventilated; (2) Battens, 40mm; (3) Windproofing; (4) Thermal insulation, 200mm; (5) Vapour barrier; (6) Cross laminated timber wall, 160mm, exposed; (7) Installation space; (8) Metal frame mounting system; (9) Battens with in between acoustic mineral fibre, 30 mm; (10) Spruce battens 40/30; (11) Window sil, silver fir, planed solid; (12) Fixed window frame, silver fir, sanded smooth; (13) Insulated triple glazing.

West facade // detail G



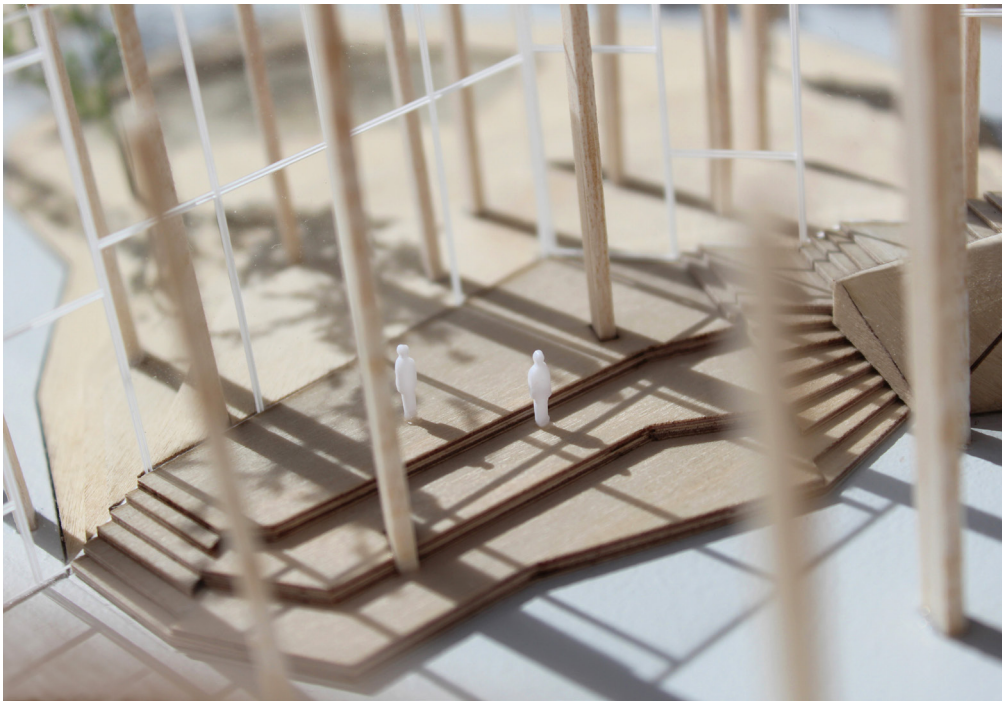
(1) Insulated triple glazing; (2) Fixed window frame, silver fir, sanded smooth; (3) Window sil, silver fir, planed solid; (4) Silver fir cladding 18mm, rear ventilated; (5) Battens, 40mm; (6) Windproofing; (7) Thermal insulation, 200mm; (8) Steel window support; (9) Vapour barrier; (10) CLT wall, 160mm, exposed; (11) Silver fir boards, pressure treated, planed/ sanded 27mm; (12) Battens, 60 mm.

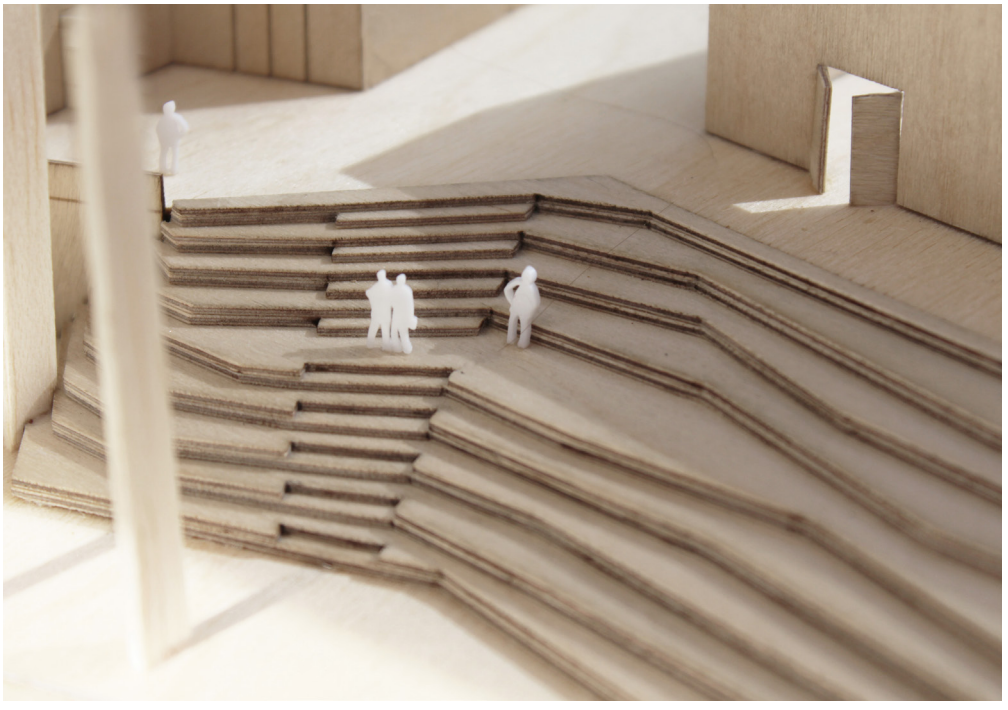
West facade // detail H

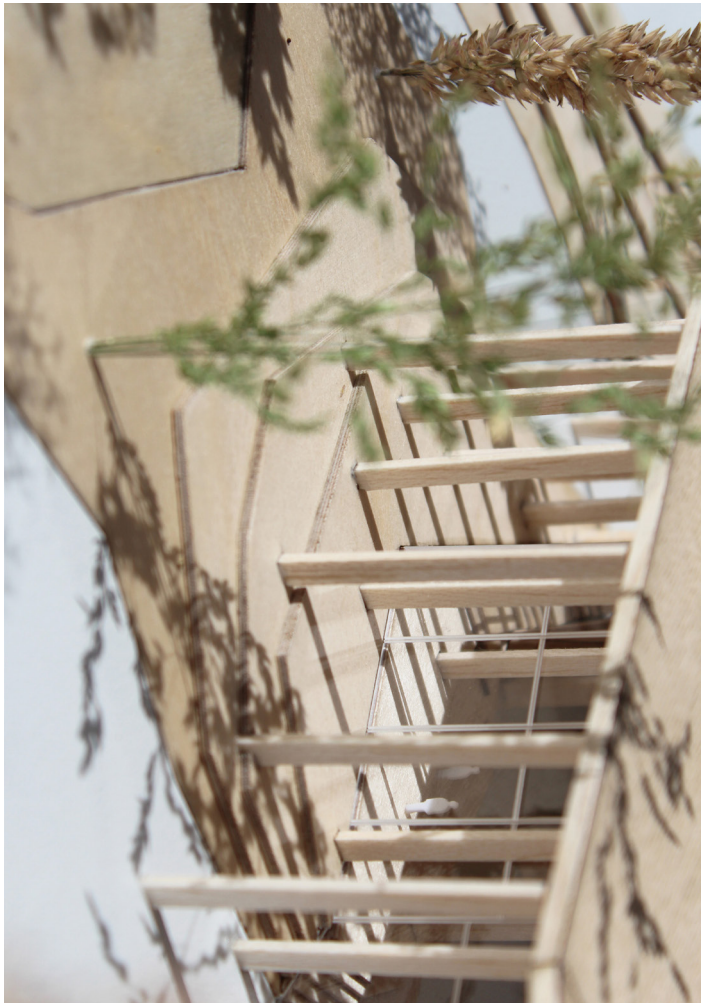


(1) Silver fir cladding 18mm, rear ventilated; (2) Battens, 40mm; (3) Windproofing; (4) Thermal insulation, 200mm; (5) Steel window support; (6) Vapour barrier; (7) CLT wall, 160mm, exposed; (8) Metal plate, fixed with anchor bolts and tight fit dowels; (9) Flanking sound break; (10) Scandinavian white Oak flooring parquet, 16mm; (11) Heating screed, 74mm; (12) Separating layer; (13) Impact sound insulation, 30mm; (14) Sealing; (15) Concrete ground floor slab, 300mm; (16) Silver fir boards, pressure treated, planed/sanded 27mm; (17) Battens, 60 mm; (18) Beams.

Architectural model //







Reflection //

Reflection

My project Fortællingernes Hus is a part of the Public Building graduation studio, in which Multiplicity is investigated as a property of a Public Condenser. In this reflection I will account for the results of my research and design in the graduation phase. I will chronologically describe how I approached the assignment and shed light on the implications of my approach for both the process and the result.

As I wrote in my graduation plan, I am most interested in the interaction between people and the built environment. I think atmosphere has a great effect on people and their mental state, and therefore the atmosphere of a building should be considered to have a fundamental function in the design. Architects can to a large extent define how places are perceived. However, even architects that seem to be able to direct experiences, like Tadao Ando and Peter Zumthor, say that they do not rationally know what exactly creates them (Frick, 2013) and while designing, they mainly rely on their intuition (Van Duijn, 2014). As I described in my thesis on Intuitive Architecture (2019), I am convinced that an architect inevitably relies on unconscious thought, in order to work with the multi-sensory and highly interdependent variables of a design problem; meaning that a big part of the architectural design process is inherently intuitive. By definition, we cannot be aware of the processes in our unconsciousness, but we can understand how they work and learn how to work with them. The challenge in every design process is to find appropriate methods to do so.

In my graduation project, my design process started with a thorough analysis of the design assignment and its context, resulting in a personal interpretation of the problem and a general aim for the project. By research and design I explored the possible resources to create the desired effect by means of architecture.

Goal definition

In short, the design assignment describes a Public Condenser; a shared facility that encourages the encounter of people that are living close to one another, but are rarely meeting. The project site is located in Vesterbro, an area that has been in the process of gentrification; its character has changed by big scale renovation projects and the influx of more wealthy inhabitants in what used to be an economically homogenous neighbourhood (Larsen and Hansen, 2008). The resulting mix of different socio-economic groups is often assumed to create more opportunities in life for the original residents (Lees, 2003a; Lees, 2003b). Yet, the spatial proximity of different groups does not automatically generate neighbourhood-level social mixing (Rose, 2004) and the new distribution of

people can even turn out to cause polarisation and therefore to be a threat to social cohesion (Smith and Williams, 1986).

To me, introducing a public condenser in this area means trying to prevent polarisation and to encourage social mixing. With my project I aim to foster togetherness among the different social groups of Vesterbro, that goes beyond placing different people in the same space. Thereby I hope to ensure that the benefits of economic growth will be shared by both the original and the new inhabitants of Vesterbro.

The aim to foster togetherness among the people of Vesterbro has been the constant factor in the research and design in my graduation phase; defining both the programme and the architectural expression through all the scales. By literature research I found that polarisation can arise from mild in-group preferences. However, it can be reduced by mildly opening up to people from a different group (Meyers & Lamm, 1976). Prejudice, as a precursor for polarisation, is a direct result of the generalisation of a group of people based on incomplete or incorrect information. Information about the out-group therefore leads to prejudice reduction (Allport, 1954) and improves the ability to take their perspective and empathise with them (O'Donnel, Neumann, Duffy, & Paolini, 2019). So to foster togetherness among different social groups, people need to open-up and acquire information about each other, letting go of disinterest. From this knowledge I concluded that in order to foster togetherness, I would have to aim to evoke a state of curiosity in the users of my project.

Programme adjustment

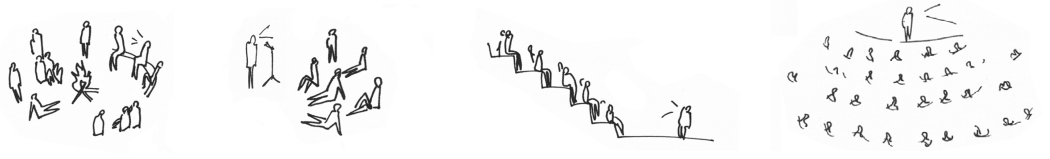
With the diverse target group and my aim for curiosity in mind, I chose to deviate from the design brief and decided to centre the functions in the building around storytelling. Because for storytelling, in its many forms, it is considered a quality to have a diverse group of people involved. Stories allow us to become curious to one another, and to understand, or even feel how someone else feels. They stimulate a more open view to the world and to each other and therefore they foster togetherness.

Stories can be told in many ways, resulting in a multiplicity of functions. By analysing the ways that stories are usually told, I figured that all modes of storytelling (theatre, cinema, performance, etc.) can be done in both formal and informal ways. I found that all the formal ways of storytelling, require quite specific spaces, while the informal ways can easily be merged in one big space for mixed use. The programming in the formal spaces could attract all

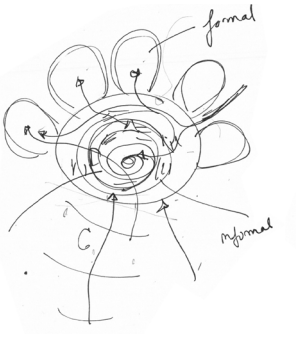
different groups and evoke a curious state in a large audience. In the informal space, all boundaries would fade and people would actually interact and inspire each other. By surrounding the informal space with the formal spaces, cross-fertilisation would evoke curiosity, and the whole of the building will become more than the sum of its parts.

Multi-sensory ideas

By the time I had decided to address gentrification by fostering togetherness by evoking a state of curiosity in a building made for storytelling in formal and informal ways, my notebook (design journal) was mostly filled with text and drawings of people gathering in different settings.



The sketch that came closest to a building was this flower-like composition of formal and informal space, illustrating the organisation of functions and the movement of people through the building:



So planning wise, a lot of time had passed without me having a visual of what the building would actually look like. I remember that in one of the tutoring sessions Nathalie advised me to start drawing a building. As an example she started sketching while I explained my programme, her sketch turned out to become something like a building in the shape of a book. At this point I didn't have a shape in mind, but I knew I wanted to evoke curiosity by playing with visibility, density, light and routing. This made me realise how much the idea in my mind was shaping around a multi-sensory experience rather than a visual one. From here, my design process was devoted to finding the spatial qualities

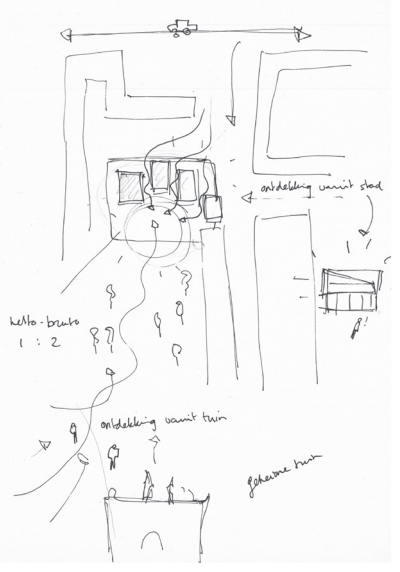
that would create this multi-sensory experience, suited to its specific location in Copenhagen.

Translation into form

I analysed the project site and came to the conclusion that the shooting wall in the South and its location inside a building block make it feel like a 'hidden garden' that intrinsically evokes curiosity and a sense of togetherness when the site is approached from the South ("Wow, we both found this hidden oasis in the middle of Copenhagen"). From the North, however, this experience of discovery has to be generated by the building itself, while responding to the fast traffic and the urban form. So I concluded generating curiosity has a different meaning from the urban side (North) and from the garden side (South).

In the North, the building should have a modest yet iconic urban appearance; drawing attention without giving too much away. Architectural elements could follow the lines, scale and rhythm of the surroundings to blend in, while standing out by the use of material, for example. I realised I could use the formal spaces in the programme to create a passage, playing with visibility of what is behind it. The sunlight from the south, and hints of activity (visual and auditory) behind the passage could then evoke curiosity in the user.

In the South, I would emphasise the intrinsic qualities of the project site to evoke curiosity; openness to the garden, height differences combined with structural elements in irregular patterns, and a view on the fairy tale-like shooting wall.



Feeding intuition

In my process I usually distinguish two ways of using references. In the first way, I deeply dive into some projects with my own goals and ambitions in mind, and I analytically evaluate what aspects of these projects would be successful, in my opinion, and most importantly why they would or wouldn't be. In the Eye film museum in Amsterdam by Delugan Meissl Architects, for example, I find the arena of stairs very impressive; it brings together all different events that take place in the building, only I find the atmosphere too formal to really foster togetherness. The stairs are not inviting to sit on; I think because they are quite steep and there is no division between 'walking stairs' and 'sitting stairs'. The low side of most stairs is more narrow than the high side, giving the impression that by sitting on them you would create a barrier for people that would like to pass. Also the restaurant has tables fixed to the ground in a quite stiff layout, not inviting to socialise further than your own table. These are aspects that I took into account while designing the Fortællingernes Hus.

Usually only visiting a project in person makes it possible for me to analyse it in this way, since only then I can experience the building multisensory. Unfortunately, when Paul gave me the advice to look at projects of Hans Scharoun, I wasn't able to visit them. However, my imagination and Paul's lively description of people flowing through the designed spaces made it a valuable reference after all.

In the second way of using references, I usually flip through my favourite architecture books and endlessly scroll through Archdaily, Pinterest, Dezeen, Detail and Oase with the goals and ambitions for my project in mind. I like to look at quite vague architectural images that show a material, a detail, an impression or a model to feed my imagination. If I would describe what happens in my head in my most creative moments, I would say all previous knowledge, experience and aspects of images I once saw blend together in a way I cannot

distinguish what came from where. Looking at images, I usually do not even see the actual thing, but a distortion in a way that it would better suit my project. When I am really focussed on the assignment for days in a row, sometimes I even start to see my building in household objects, urban elements or in textures in nature. When I am in the shower or on a bike my mind wanders through parts of my unfinished building. I like to think of this as my intuition working on full speed.

Giving shape

I believe a design should embody its concept on all aspects. So everything that came to my mind, I weighed against my goals and ambitions. Does it match my ideas on what is needed in the North and the South of the project site? (1) And with my ideas on the organisation of the programme? (2) Is it suitable for storytelling? (3) Does it evoke curiosity? (4) Does it foster togetherness? (5) Does it fit in the Danish, Copenhagen and Vesterbro culture? (6).

When only this set of simple questions needed to be answered with "yes" at every design choice to make it a solid design, the design process would be a piece of cake. The difficult part is, especially in this phase, that the questions are not fully consolidated yet, which makes it more of an iterative bouncing back and forth between formulating the problem and the solution.

In earlier projects I have learned that in this stage I shouldn't feel stressed when the solution doesn't immediately present itself. (Giving myself) a deadline works very well to push the process described above, and working with rough modelling materials prevents me from being too precise in an early stage. This time I decided work with clay, a quite unusual material for architectural models, but I knew it would help to work with landscape-like compositions in a 1:500 site model. Using this method I came to a rough building shape and the idea to let the rhythm of the city and the garden reflect in the construction of the building (3rd picture). I decided that the most poetic and elegant design was to be discovered in the model in the 3rd picture.

I remember Nathalie's comment on this model; that it was becoming a bit of an 'amorphous thing', which I could maybe emphasise; to make it explicitly have a non-shape. Maybe even to make its 'amorphousness' a starting point for my design. Testing what that would mean for my design made me realise that in my approach, the form was to follow from my goal (the experience of the user). This could indeed result in an amorphous building, but in this case making an amorphous building shouldn't be the goal in itself. It made me realise that I had to define the premature questions above more clearly, while (and by!) continuing to solve my puzzle.

Take a step back

From that point and that model, fitting in all programmatic elements and practically solving the puzzle over Christmas was quite successful. I have a strong sense for coherence and balance, so when something didn't feel right, I knew I had to rethink the reason for my decisions and their relation to the concept. While doing so I consolidated the questions above even further, and I could feel my concept design becoming a coherent whole. At P2, the main feedback was very positive, with the note to be careful not to 'pin myself too much to the presented design', and allow myself to take a step back.

The weeks after I focussed mostly on re-investigating the spatial and functional requirements. I tried different techniques to explore how the space should be experienced and focussed on the sequence of atmospheres that would be needed to get this experience.

Also I reflected on the way I structured my programme and refined the way that the formal and informal spaces and zones would interact and what "formal" and "informal" actually meant in this context.

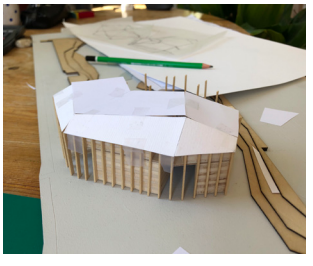
In short, I defined the requirements in further detail. At that point I slowed down in my process. I didn't want to pin myself to the presented design of P2, but I

didn't know how big of a step to take back and I lost my starting point. I kept on looking for different ways to make my building meet my own set of requirements, and trying to come up with a different design than I presented before. I didn't continue designing.

I realise now that I should have immediately started where I left off at P2, move from scale 1:500 to scale 1:200 to see what I would run into, trusting myself that I wouldn't pin myself too much to the presented design. After all, as described earlier, it comes naturally to me to iteratively re-evaluate every design decision along the way, and I have never been afraid to adjust decisions taken earlier if necessary. I would have refined my requirements while designing, instead of separating the research and design that used to be so intertwined in my approach. Paul gave me the valuable advice to zoom-in on specific elements of my design, work them out in detail and then zoom-out again to see whether it still suits the whole. After some time, this helped me to get back into research-AND-design-mode.

Big steps forward

In this phase I found the roof of the building to be the most important aspect, since the roof affects both the experience from the garden and from the city, as well as the experience from the inside of the building. All these different faces had to come together in one structure and express unity. Again modelling helped me to show the effect of different shapes and structures, and how it would interact with the rest of the building.



While re-drawing my 3D model, I refined the lines in my design. Where I had drawn a 88 degree corner before (based on the lines in the surroundings) I would adjust it to be 90 degrees. Where I had drawn a just off-parallel line, I would make it perfectly parallel. In this way I made the building 'click' together; finding the characteristic structure and rhythm of my building that had evolved from the structure and the rhythm of its surroundings. I precisely adjusted the sizes of the designed spaces to the programme, including fire escapes, elevators, back-

stage areas and technical spaces, and I aligned paths and sightlines in my interior; guiding the visitor through the building in a subtle way.

Time trouble

In hindsight, it is easy to see that I was moving in the right direction. My concept was getting stronger and making design decisions through all scales became more easy and self-evident. Only at the time, I didn't realise that myself. I now know that during the process I am my own worst critic. Due to the Corona crisis I lost vision of the work of my peers and therewith I lost the way that I usually put my own critic into perspective. This, combined with my interest in (and worries about) the current unprecedented global issues, slowed down my process and made me run out of time for P4. I had the feeling that, due to lack of time, I had to force-in puzzle pieces that didn't fit perfectly yet. Since I didn't want to make concessions on the design of my graduation project, I decided to postpone my deadline for P4.

Materialisation

With a little more peace of mind, I could focus again on finding the perfect puzzle pieces. Diving into details, I discussed with Gilbert whether I could use a combination of concrete and wood to make the building reflect the city (concrete) on one side and the garden (wood) on the other side. Testing what that would mean for my design reminded me that my design is not only about reflecting the city and the garden. This would be a simplification of the concept and wouldn't do right to its subtlety/nu¬ance. As described above, my project is about evoking curiosity: this curiosity is set in motion differently on the urban side and on the garden side, but it doesn't necessarily mean the building should be simply reflecting its surroundings.

I believe that curiosity is found on the fine line between the known and the unknown. So apart from playing with (in)visibility and (in)audibility, I used some architectural elements to blend in (the known) and others to stand out (the unknown). I chose to reflect the surroundings of the building in rhythm and density to blend in, and use the materiality to stand out and draw attention.

By using one single material that is expressed in different ways, the Fortællingernes Hus does not only evoke curiosity, but also radiates unity and has a strong identity. This is exactly where I think the strength of my design can be found; that by working with multiplicity, unity is created; in both its programme, its architecture ánd in its users. With that, I stated what multiplicity means to me as a property of a public condenser.

Conclusion

In my thesis on architecture theory (2019) I described the design process as follows: "[Designing] is a game of chaos and order. It is a battle between precise, logical reasoning and letting it all go; believing in the generative power of unconscious thought and trusting on intuition." In this reflection I mentioned the challenge to find the appropriate method to guide this both rational and intuitive design process.

My design process started with a thorough rational research to define the general societal goal for my project. This was followed by defining an effect that the project should have on its users to contribute to this goal. The rest of the design process was devoted to finding spatial qualities that would influence the perceivable properties of the building in such a way that this experience was likely to be created. I rationally translated my abstract ideas into some design-guidelines. I fed my imagination and gave space to my intuition to come up with new ideas, where after I rationally evaluated these ideas according to the goals and guidelines that I defined earlier in the process. I iteratively redefined the guidelines while giving space to intuition.

The aim to foster togetherness among the people of Vesterbro has been the constant factor in the process; defining both the programme and the architectural expression through all the scales. Because my approach started out quite theoretical and abstract, it took a while before I could draw a building. Later in the process, I took a detour in finding an alternative for what I presented at P2, and I slowed down by the current unprecedented global issues caused by the Corona virus. However, having a strong and theoretically supported concept has guided every decision in the design process, and I can conclude that this has worked out very well to get to a solid design.

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Thank you //