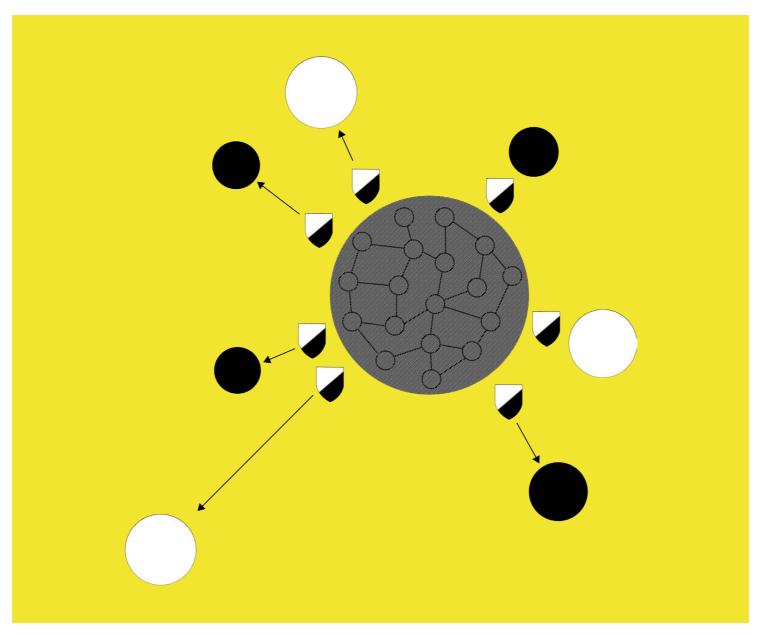
THE DEPOLARIZER



GRADUATION REPORT PUBLIC BUILDING 12/05/2025 MAARTEN HIKSPOORS 4822447

Graduation Report

Maarten Hikspoors 4822447

Studio: AR3AP100, 2024-25, Public Building Graduation Studio

Name / Theme Public Building - Public Condenser

Main mentor Paul Kuitenbrouwer Architecture – Project Design Second mentor Elina Karanastasi Technical Building Design

Third Mentor Stefano Corbo Theory & Delineation

Contents

1. Graduation Plan	4
2. Design Position & Design Brief	8
2.1. Program	10
2.2. Spatial qualities	1
3. Final Design	12
3.1. Prototype	13
3.2. Public Condenser in Bispebjerg	16
4. Research by Design Journal	68
4.1. Presentations	69
4.2. Preliminary Research	86
4.3. Site Analysis	95
4.4. Theory and Delineation Exercises	103
4.5. Concept Evolution	106
4.6. Mass Study	113
4.7. Design Evolution	116
4.8. Interior Model	132
5. Final Reflection	135

1. Graduation Plan

Name: Maarten Hikspoors

Student number: 4822447

Studio: AR3AP100, 2024-25, Public Building Graduation Studio

Name / Theme Public Building - Public Condenser

Paul Kuitenbrouwer Architecture - Project Main mentor

Design

Second mentor Elina Karanastasi Technical Building De-

sian

Stefano Corbo Theory & Delineation Third Mentor

Argumentation of choice of the studio:

During my studies I have gained interest for how people live in cities. Where I would first be interested in housing and building typologies, I found that most of the solutions for lively, healthy and affordable dwelling environments lay in the surroundings of these dwellings and what the neighbourhood has to offer. The public building, can play an important role in increasing the liveability of a place and since it reaches more people than a single housing block, researching the challenges and benefits of these buildings got my interest.

Graduation project:

The Depolarizer

A public condenser to fight the issue of polarization Goal

Location: Bispebjerg Copenhagen

The posed problem:

All around the globe political polarization is on the rise. We see increasing polarization, established according to religious, ethnic, social-economic status and political preference or because of actual societal issues like climate change, covid vaccinations or armed conflicts, and it brings up concerns about its destructive effects on our societies. Polarization disrupts social cohesion, it increases we versus them thinking and it threatens citizens' willingness to compromise. It harms our democracies by deepening political divides, and diminishing trust in institutions. It intensifies emotional biases, reinforces segregated identities, skews perceptions, modifies social behaviors and as a result it leaves our societies paralyzed and unable to deal with their issues.

In Bispebjerg, a neighborhood in Denmark's capital Copenhagen and also our design location, we see multiple indicators that show that this phenomena exists right now and will most likely increase in the future. Statistical studies show the increase of polarization in Denmark. Specifically, the issue of immigration has shown to become an important polarizing issue. The result of polarization in Denmark is an increasing amount of hate crimes against minority groups, radicalization in schools, and an increasing amount of political violence, from which the attack this summer on the Danish Prime Minister Mette Frederiksen in Copenhagen Square, is an illustrative example. In the neighborhood of Bispebjerg, we see several tendencies that could lead to polarization. The neighborhood has a high percentage of immigrants which make the national issue a local one; it is an upcoming neighborhood which risks gentrification and therefore hostilities between groups, and lastly it is a very segregated neighborhood, through physical boundaries and user groups that do not inter-

Besides the risk of polarization being seen through visible signs, the development of polarization, could emerge exponentially from a phase that is barely noticeable to a phase that consists of escalation and public incidents.

In order to create lively, healthy and attractive neighborhoods, the risk of increasing polarization has to be mitigated through its architecture. The public realm affects the way people meet, interact and perceive each other and thus can play a role in mitigating the issue.

Main research question:

How can architecture contribute to the depolarization of society?

Sub Questions:

- -What role can a public condenser play in fighting the polarization of a Danish neighborhood?
- -How does polarization characterize itself within individuals and within the collective?
- -How does space foster positive interaction between groups of people
- -How could architecture create a common identity, but at the same time celebrate the differences within this common identity?

1. Graduation Plan 5 The Depolarizer

Design assignment in which these result:

Most importantly missing in the debate is a sufficient presence of architectural case studies that address this issue. Therefore this research will produce a prototype of a public condenser that can decrease polarization. Aiming for a prototype means, that the research is going to search for universal concepts, that can be replicated and applied to the design of public condensers in different contexts, with only minor modifications. In this project, research should first create a prototype, a framework of design implementations that could be used in universal designs for public buildings to depolarize. In second place this prototype will be adjusted to and tested in the site area of Bispebjerg in Copenhagen.

Process, Method description:

In order to develop a prototype for a depolarizer, the following methods will be used in the process.

The first part of the process was about understanding the fundaments of the phenomena, existing approaches, possible interventions and difficulties which together result in a design proposal. Since the topic is guite undiscovered within architecture, this research has made use of mostly qualitative research methods and has looked at different disciplines (social studies, urbanism, industrial design) that do discuss or study the topic of (de)polarization. I have analyzed theories on decreasing polarization, to explore potentially useful concepts from reports that help municipalities, governments, or other institutions fight polarization; I have analyzed case studies to explore useful design solutions from design examples that aim on fighting polarization, within architecture or in other disciplines; I have interviewed an expert on polarization, with open ended questions, to create more understanding of the issue and come up with possible solutions together. This part has resulted in a first proposal for the prototype as an universal concept. Simultaneously during this first part I have conducted a site analysis, to understand the site specifics parameters, city fabric, existing program, presence of polarization and site specific needs, opportunities, challenges and issues regarding this phenomenon.

Once there was a proposal for the prototype and the research had conducted enough knowledge about the site, I would test the proposal of the prototype in Bispebjerg and develop it further into a complete design. This part was more based on the research by design approach. By going back and forth, design ideas where tested by academic debate.

The coming part of the design process will be about elaborating the prototype of the Depolarizer and simultaneously testing its complete design in Bispebjerg and adjusting it to the site. Holding on to the research by design approach, in depth research will be conducted on more practical matters like, construction in wood, how to choose for low embodied carbon materials, which elements of the space benefit positive encounter, how space can be shared while maintaining its practical qualities. This second part of the design process will make use of both qualitative as quantitative research methods like case studies and literature review.

Literature and general practical references:

Until now, the research part of the project has mainly been about the phenomena of polarization; the possible role of architecture in mitigating this issue and simultaneously site analysis. Interchanging this research with design has led to clear concepts behind the design of the prototype, and there is a good understanding of how this prototype can be tested in the site of Bispebjerg. In the next phase of the project, I aim towards using research for more practical aspects of the design. Important elements that need further research on are:

How space benefits positive encounter. Academic literature review will be conducted to understand how elements of the space influence encounter. Simultaneously I intend to analyze case studies like the "Stairs of encounter" (Bloomberg office Honkong) by Neri&HU.

How to design an open, demountable construction with wood. If the construction will be in wood, what are the possibilities and how can the structure allow for enough openness to maintain the concept of the prototype. For this I will look at existing case studies, but also at studies, pushing the limits of constructive wood.

Reflection:

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

As a student from the Architecture, Urbanism and Building sciences programme, I see the overall task to design for societal

1. Graduation Plan 6

needs, to come up with designs that benefit society or against issues that harm society. Within the architecture track, we focus on buildings and how the building could fulfil the needs of society. Specific for our studio topic "The Public Condenser" I see an opportunity to deal with a complex phenomenon that influences our societies; which is my graduation topic "Polarization". Designing a public building that combines multiple programs and serves a whole community, has a large reach to increase social cohesion and mitigate polarizing causes in a neighbourhood.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

The relevance of my graduation work mainly lies in starting up the conversation about how architecture can play a role in mitigating the growing phenomena of polarization and testing if architecture can actually play a role. By presenting a prototype for a depolarizer, I intend to offer a starting point, a reference for future designers to continue working on. This thesis questions the role of architecture in complex issues like polarization, does the public realm influence such phenomena?

2. Design Position & Design Brief

2.1. Program

500 **M2**

Forum





Circulation

900 **M2**

Circulation



800 **M2**

Decentralised government

Citizen Service

Meeting Rooms

Decision making place

Service (printing etc)

Entrance

Offices

Storage

200

M2

mation

Toilets

Reception infor-

Ticket counter

M2 Expo

200

Exposition

Users

Expo Polarization

Expo

200

M2

1600 **M2**

Apolitical program

Workshop

- group work space

- individual work space Changing rooms Shop Equipment

Restaurant/ cafe

Kitchen **Tables** Bar Storage Dishwashing 100 **M2**

Supportive program

Public Service:

- meeting rooms

- back office

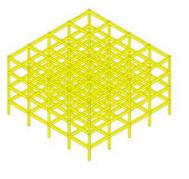
Administration and Services

- information counter/area

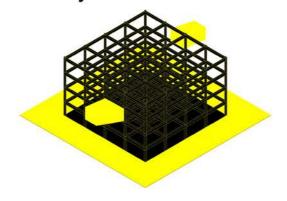
- offices

2.2. Spatial qualities

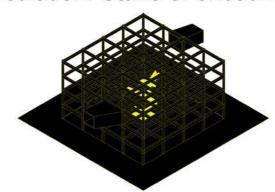
Structure



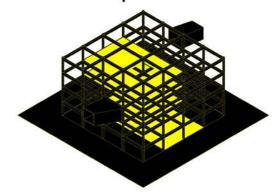
Accesibility



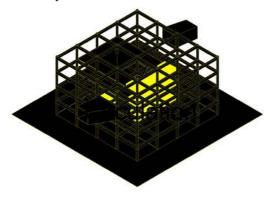
Circulation: Stairs of encounter



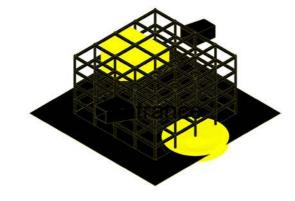
Circulation: Space of encounter



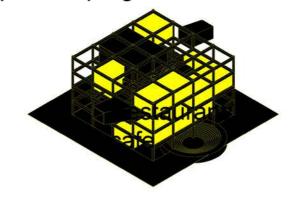
Shared space



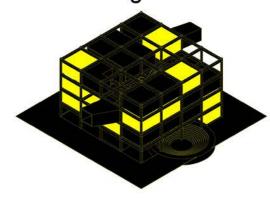
Forum



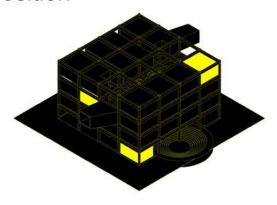
Apolitical program



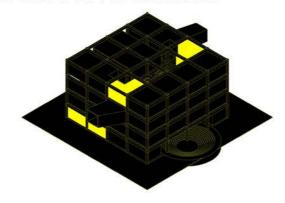
Decentralised government



Exposition



Entrance & Restaurant

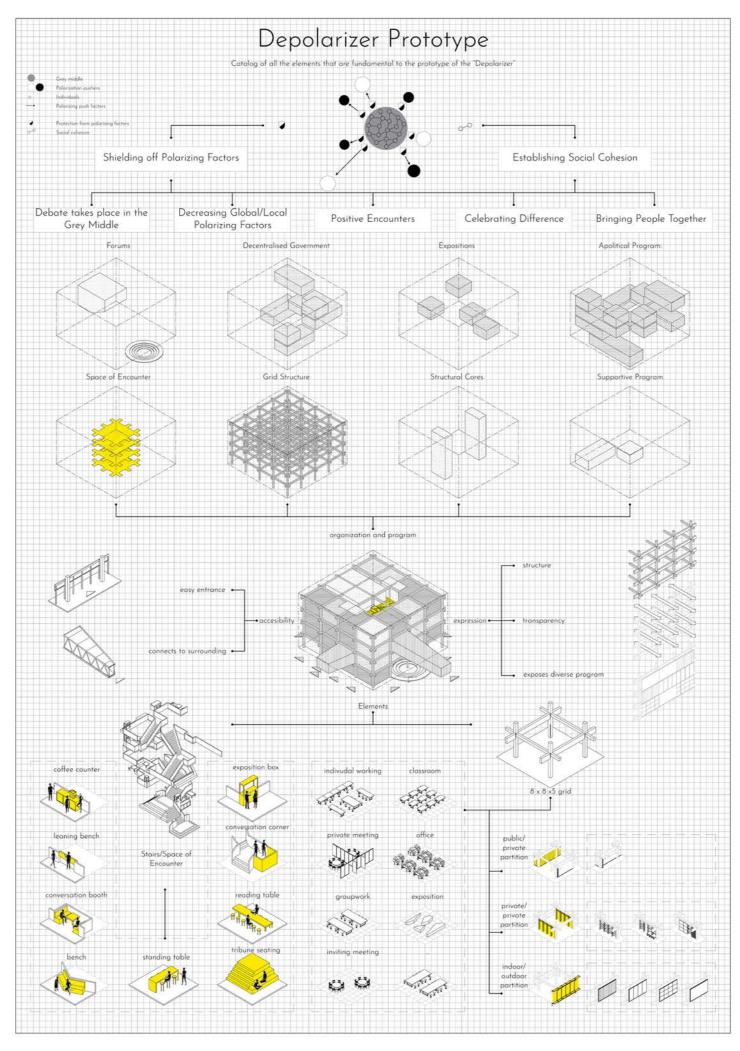


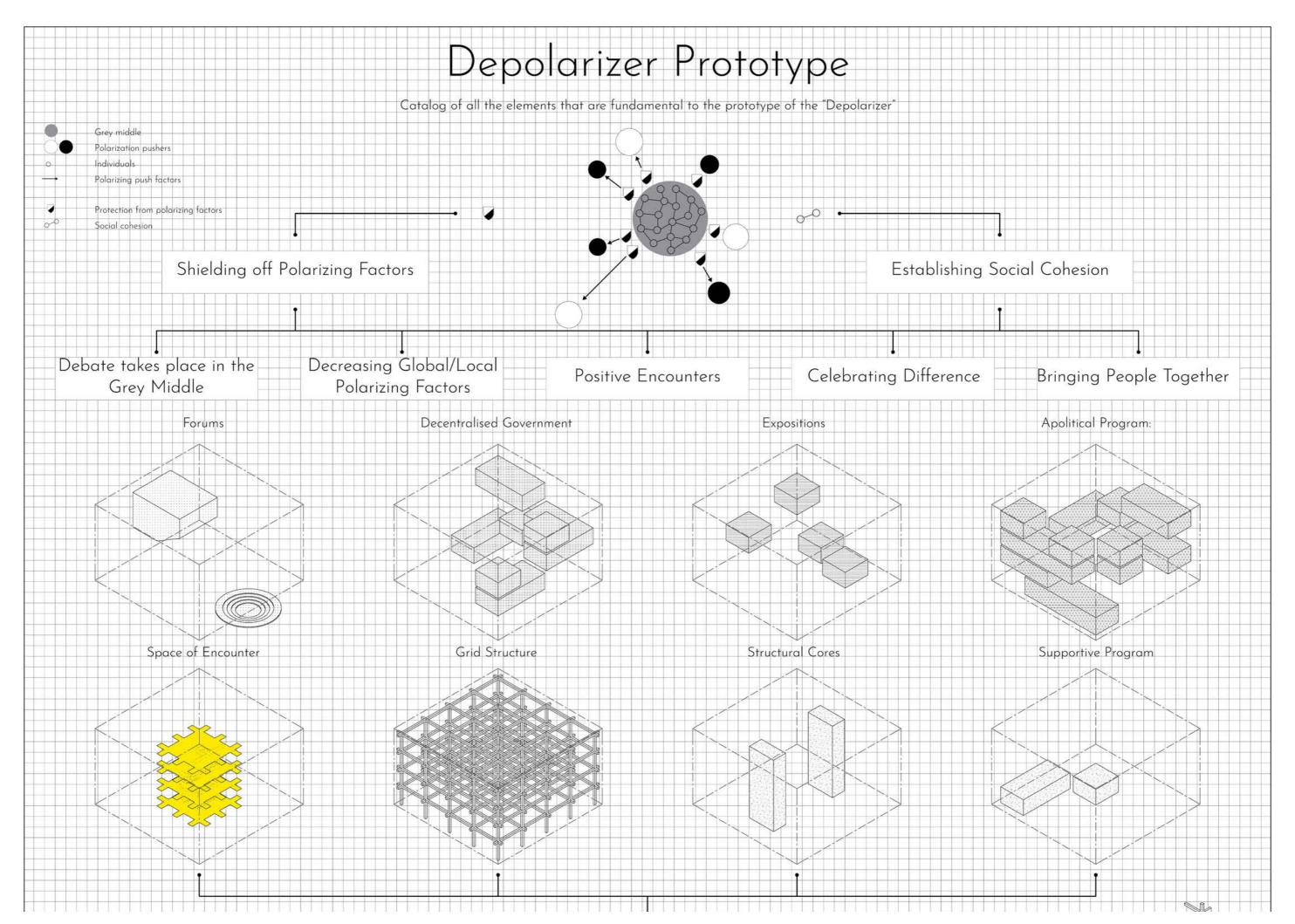
Supportive Cores

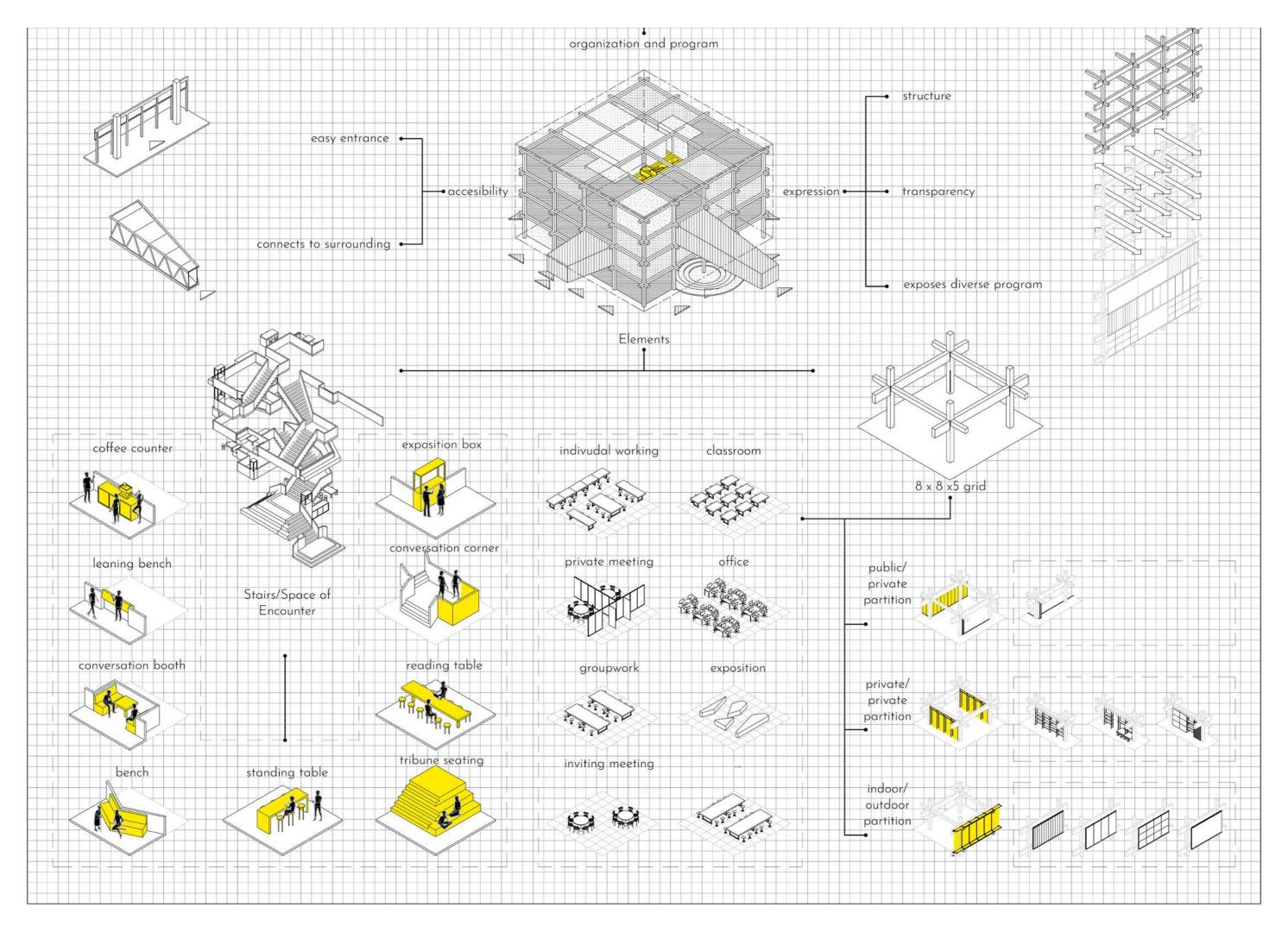


3. Final Design

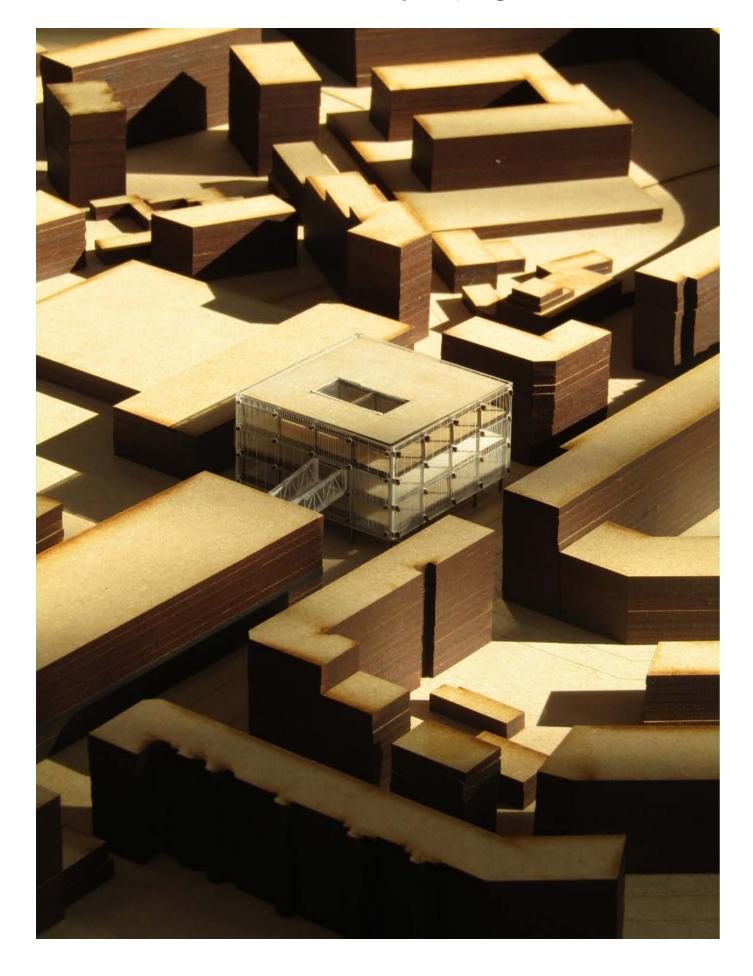
3.1. Prototype

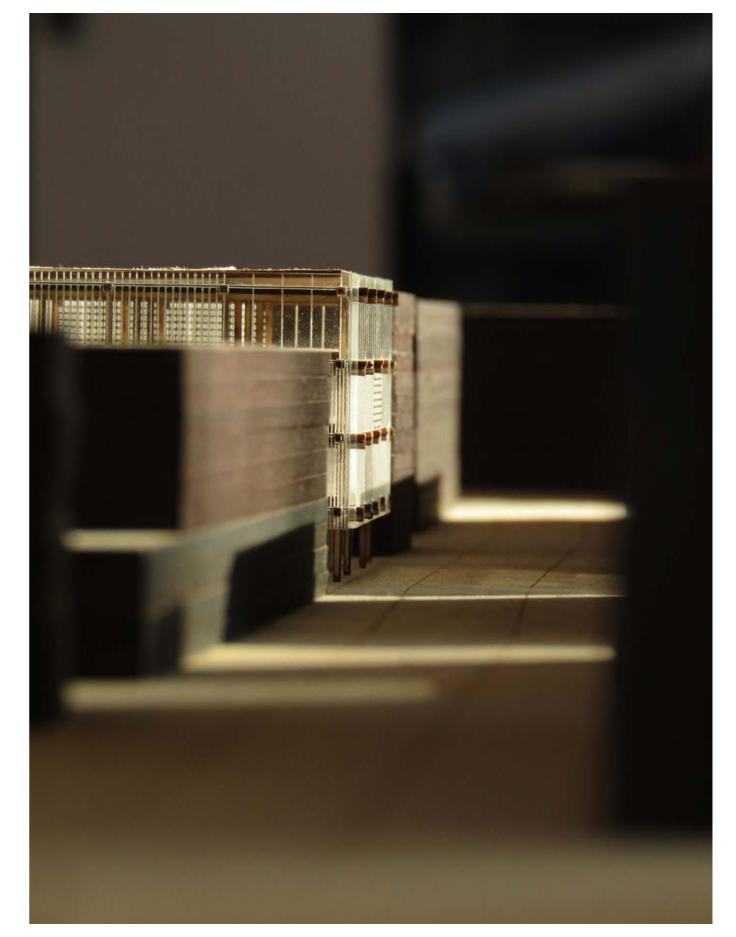


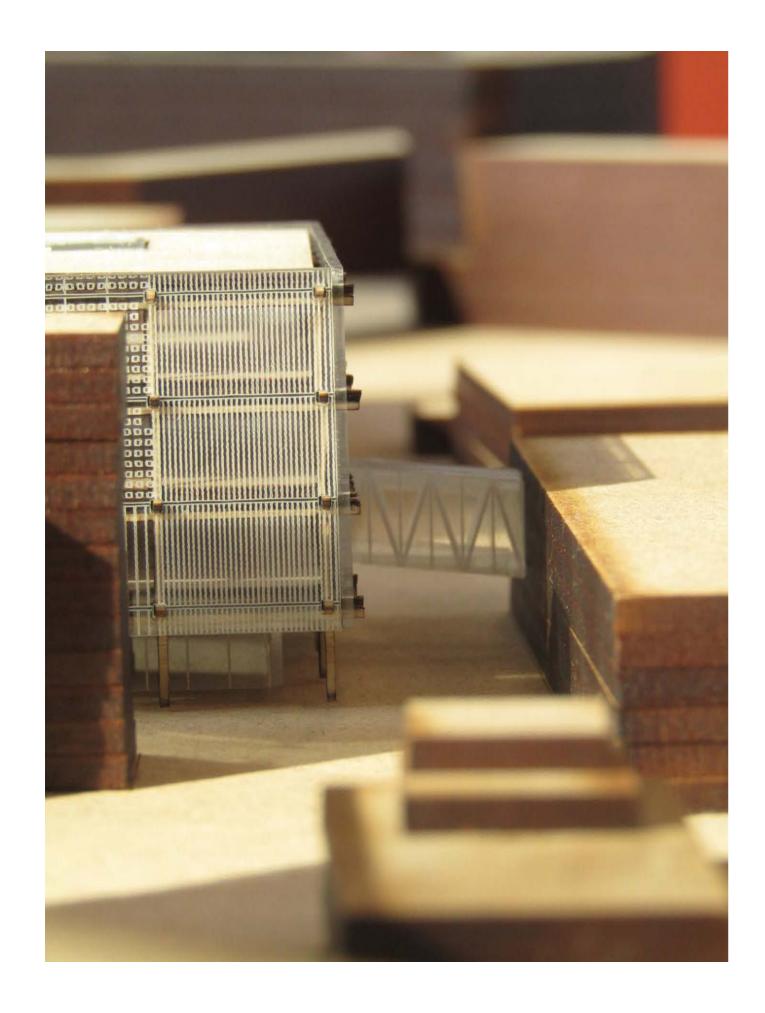


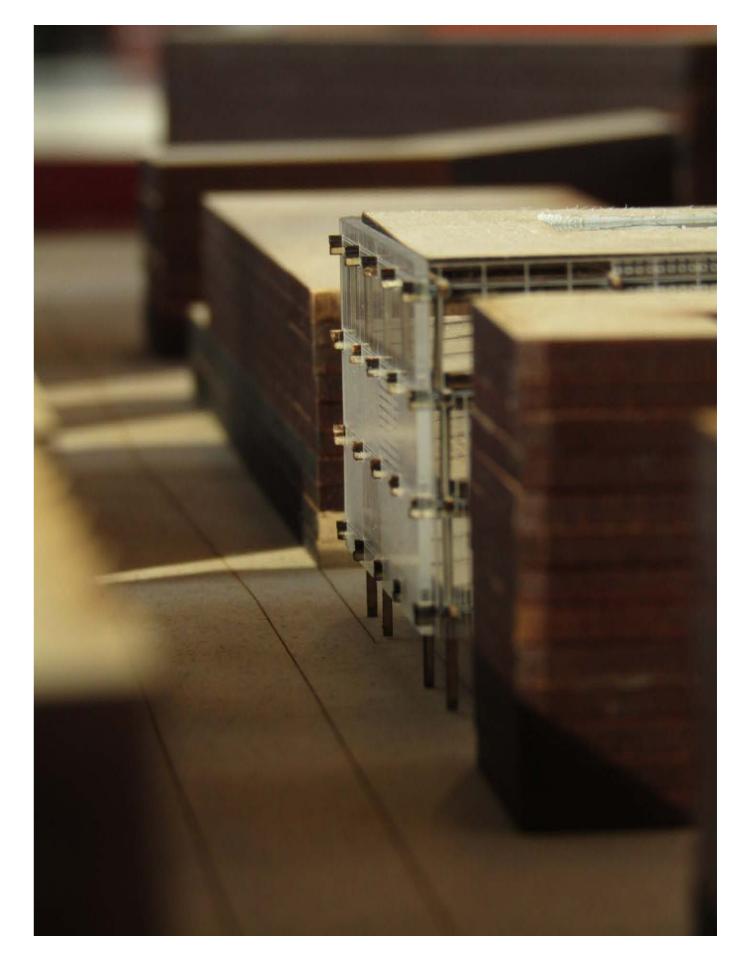


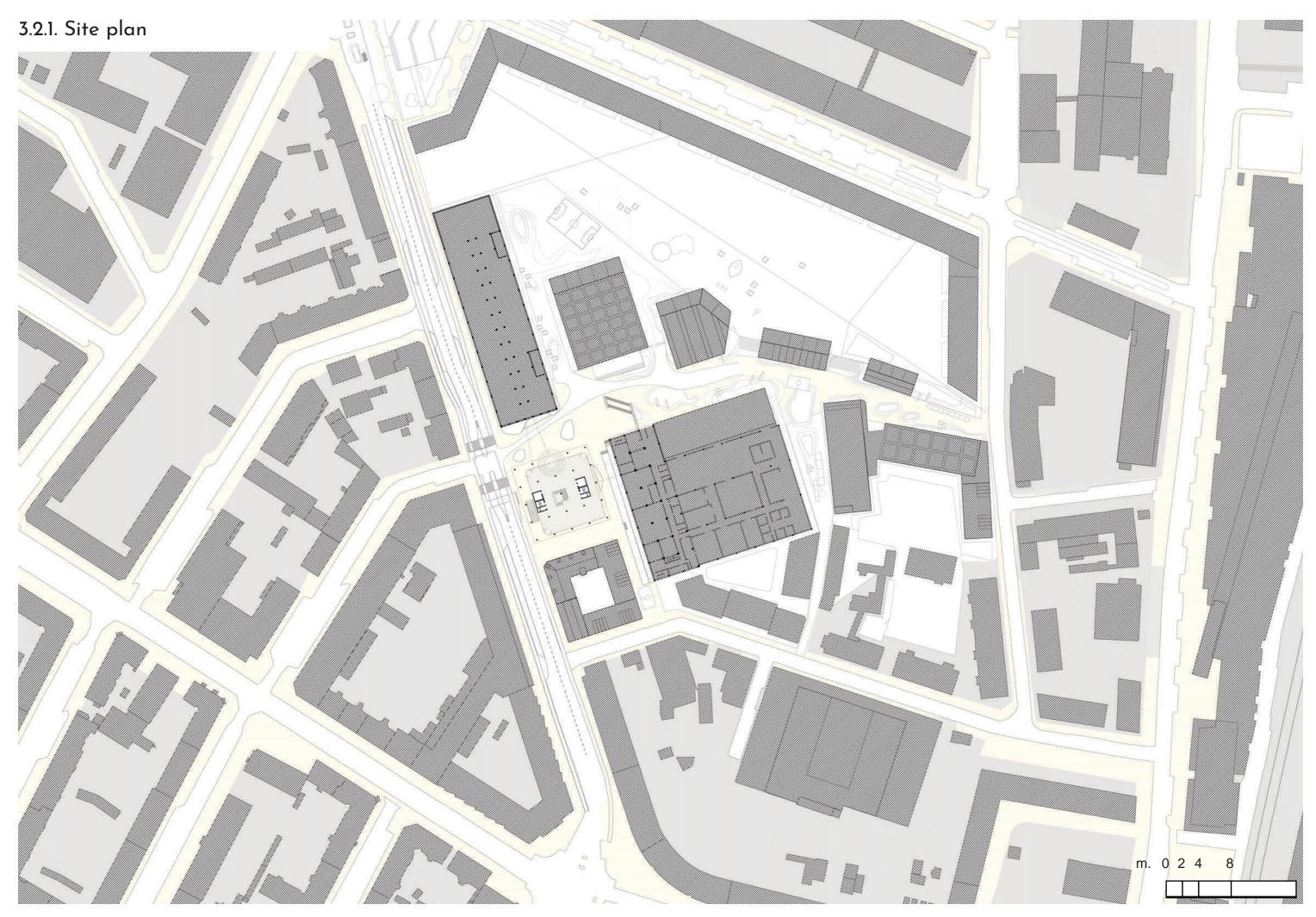
3.2. Public Condenser in Bispebjerg

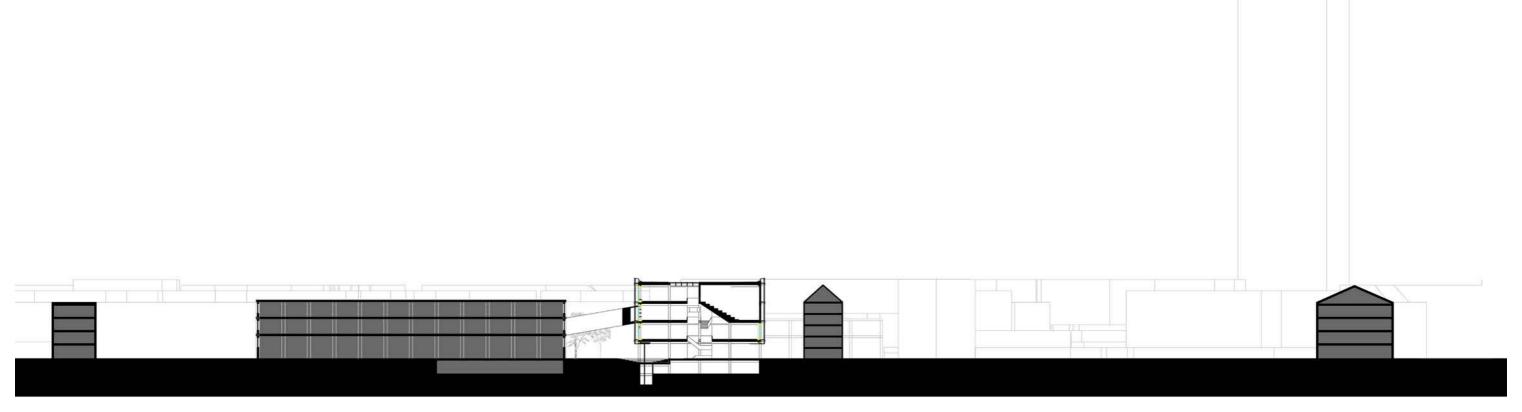


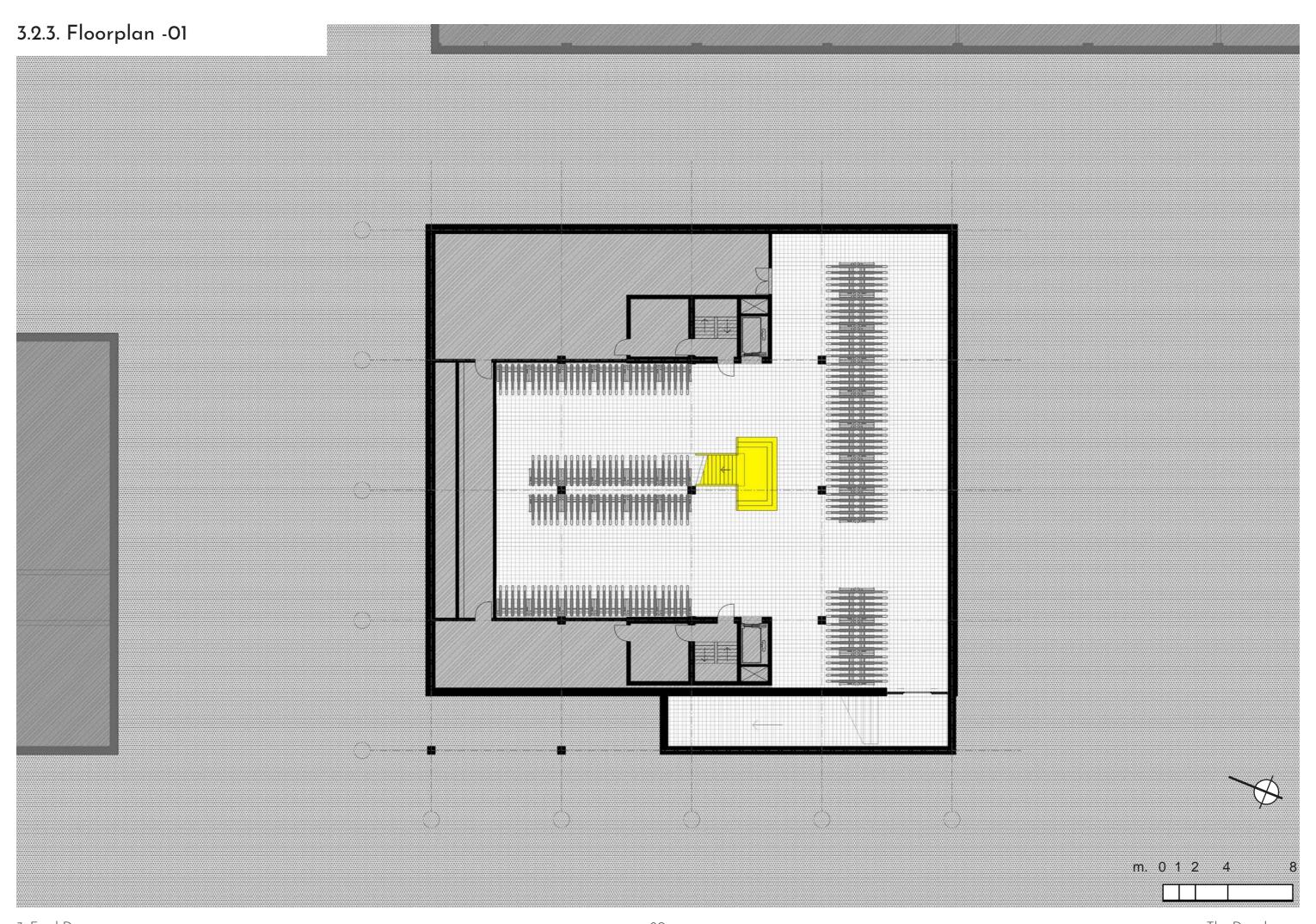


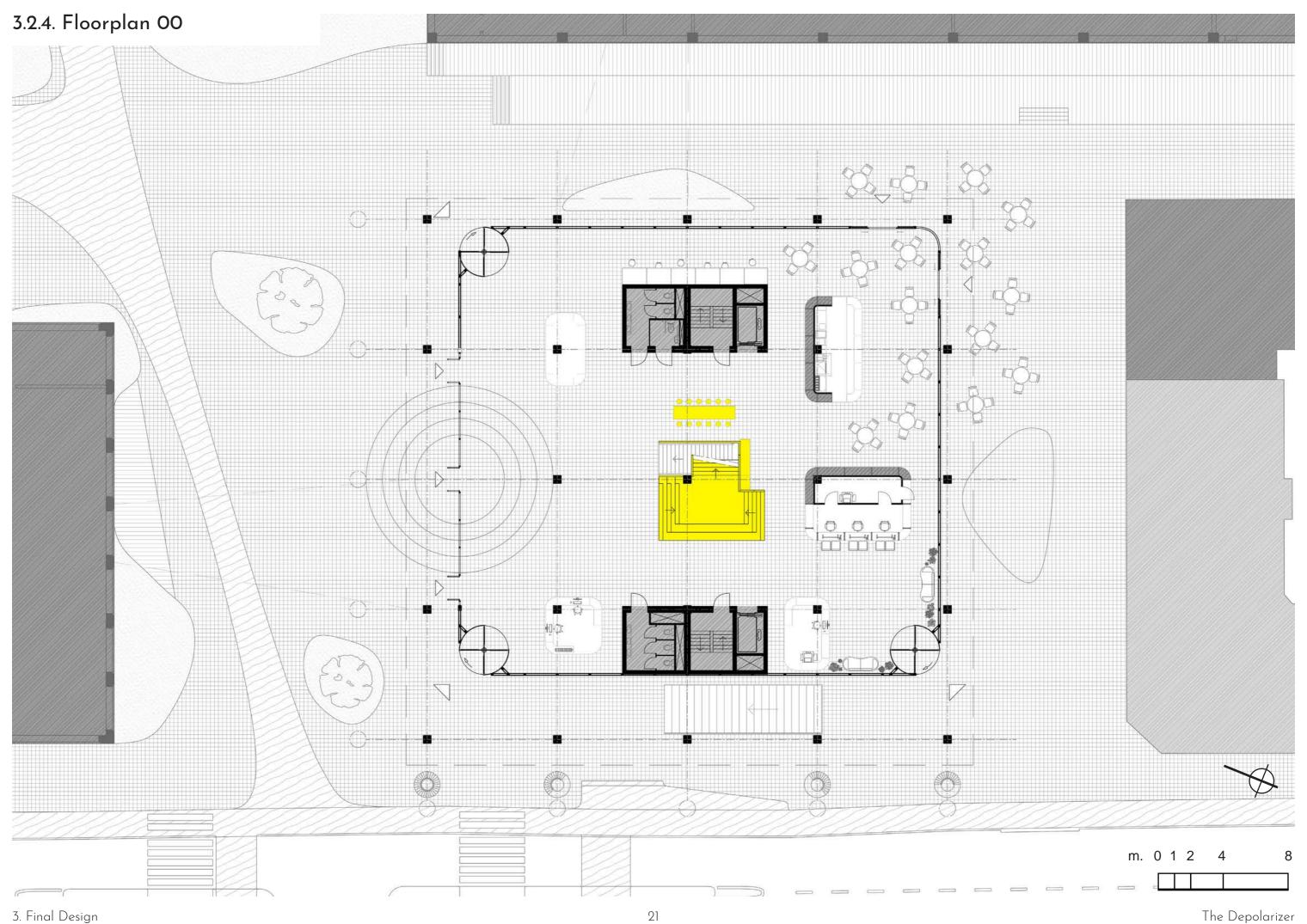


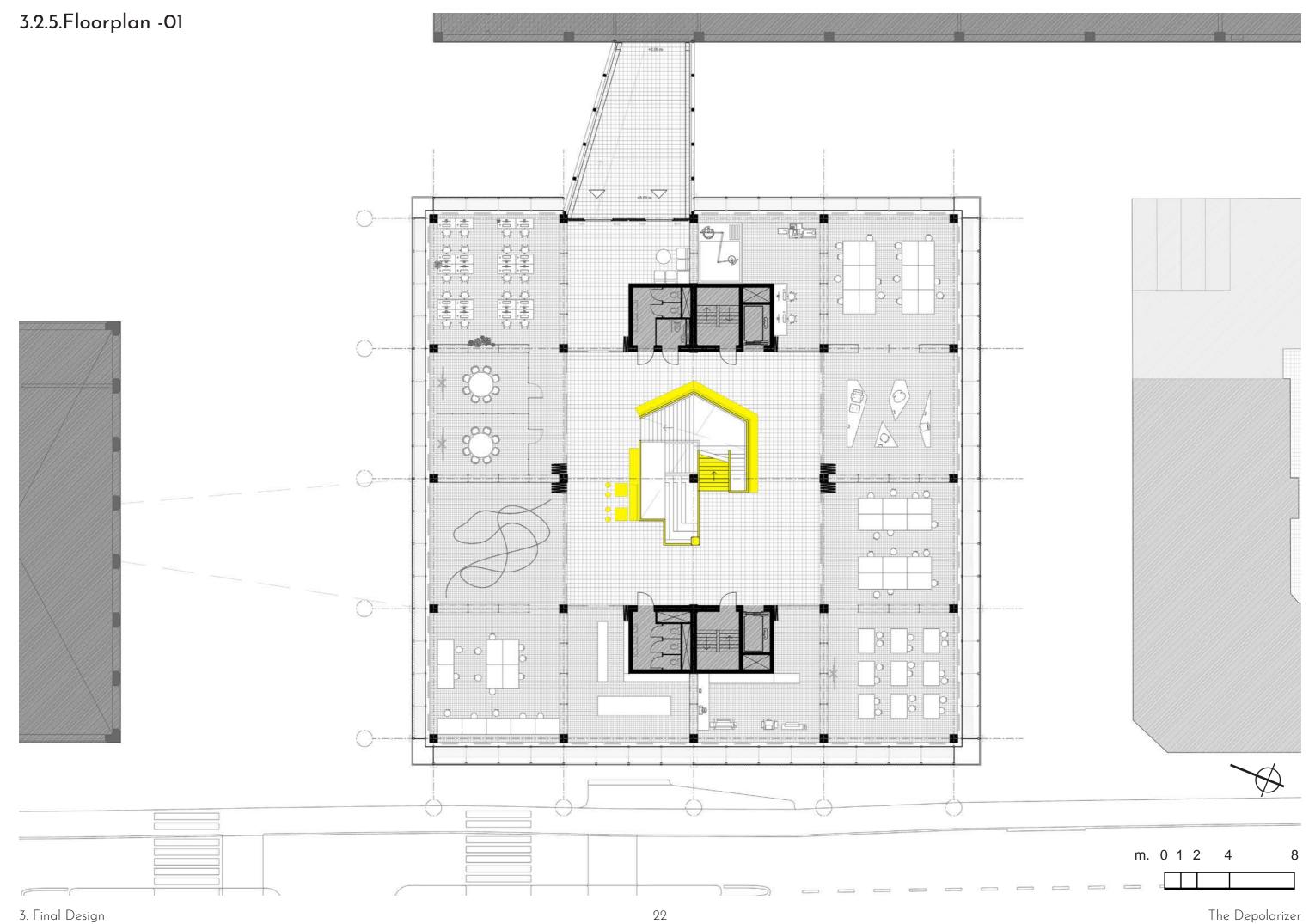


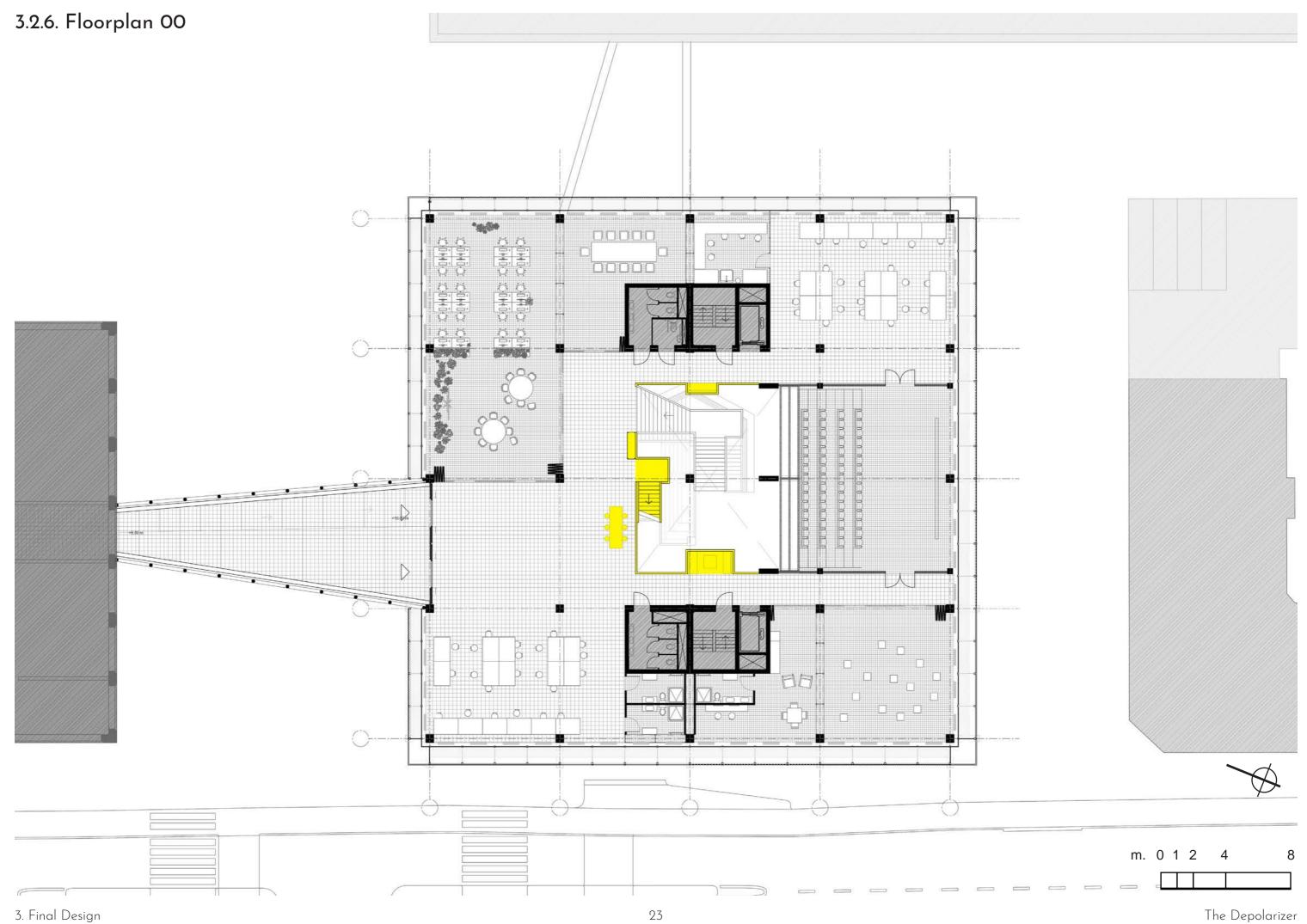


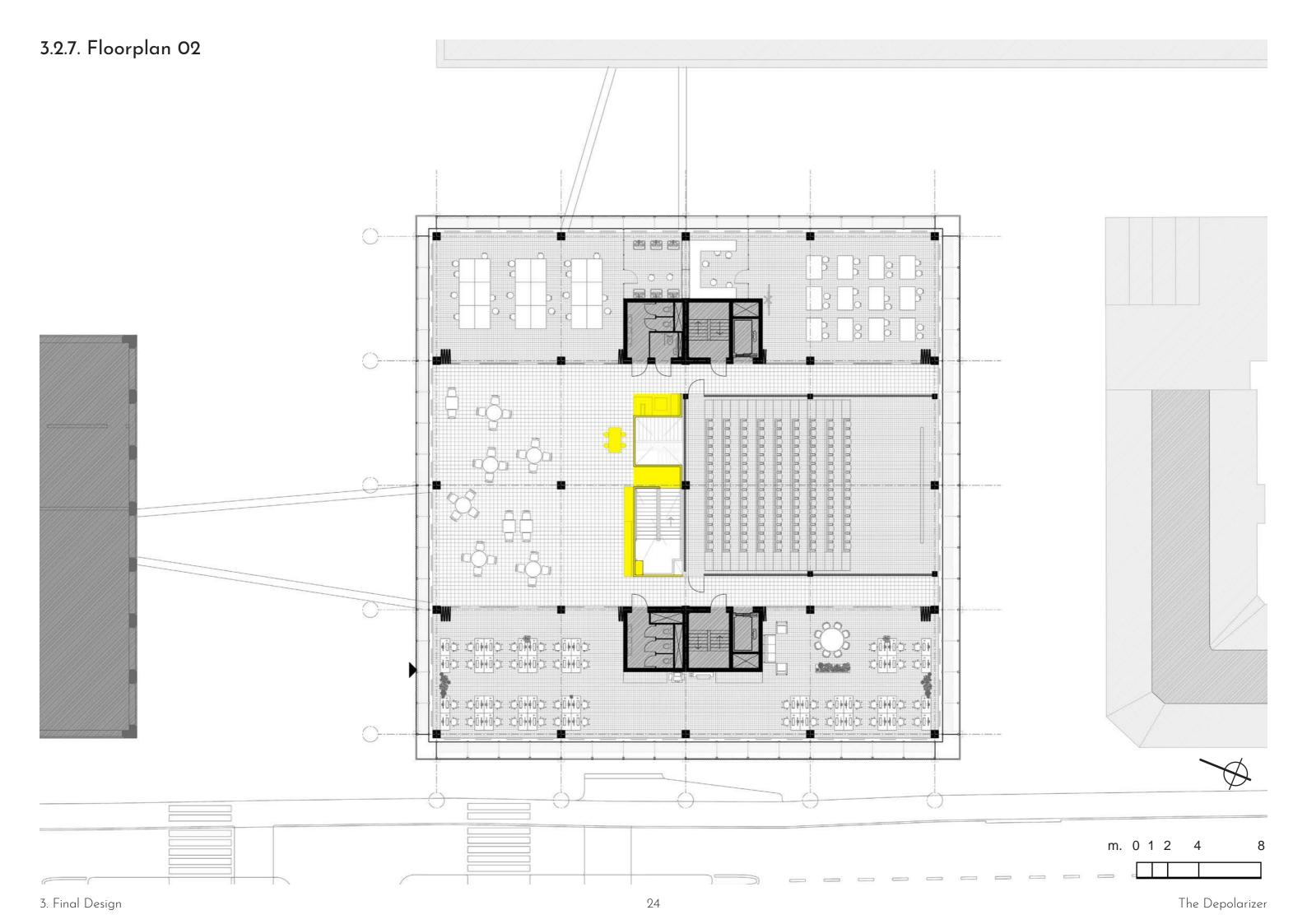


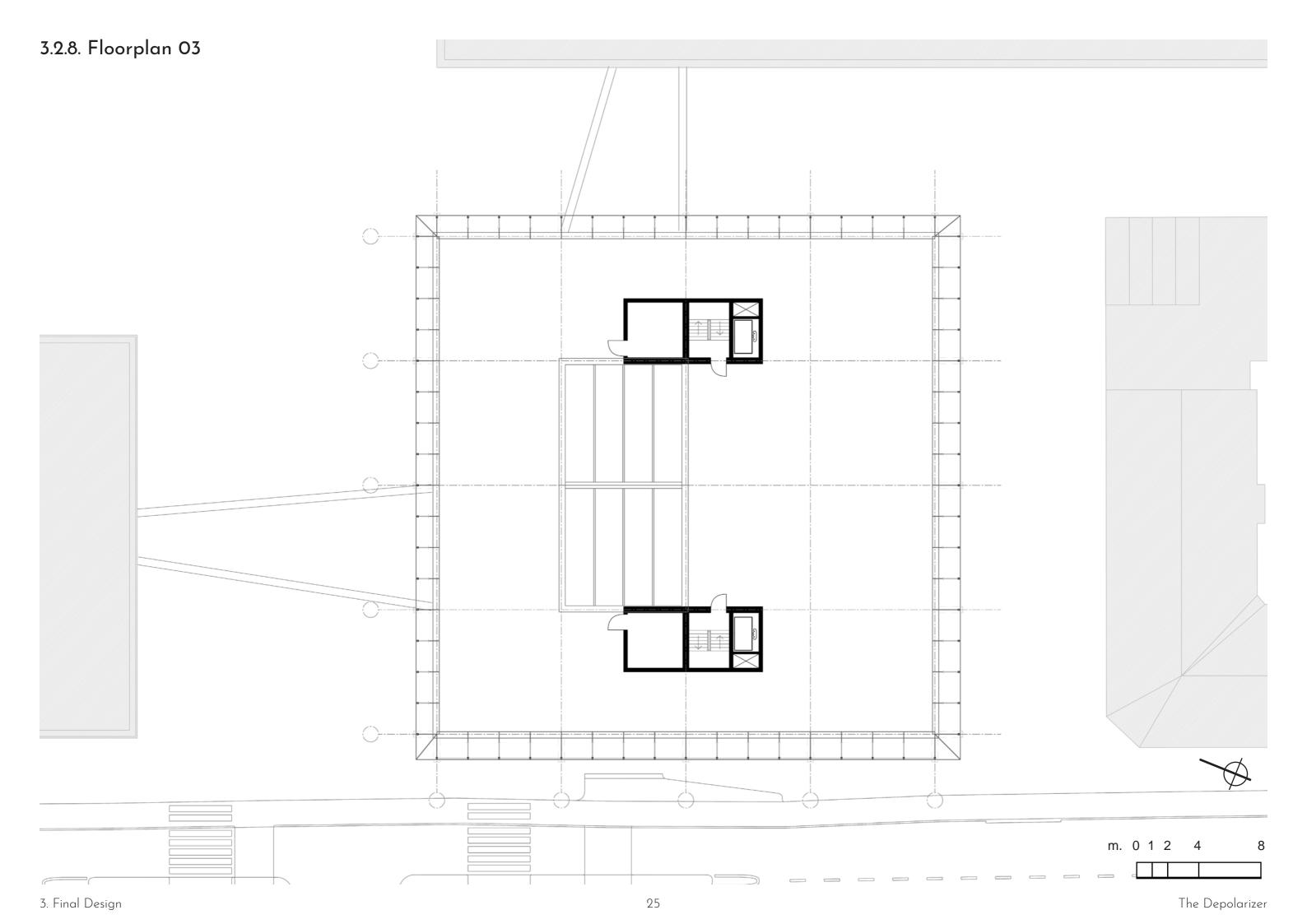






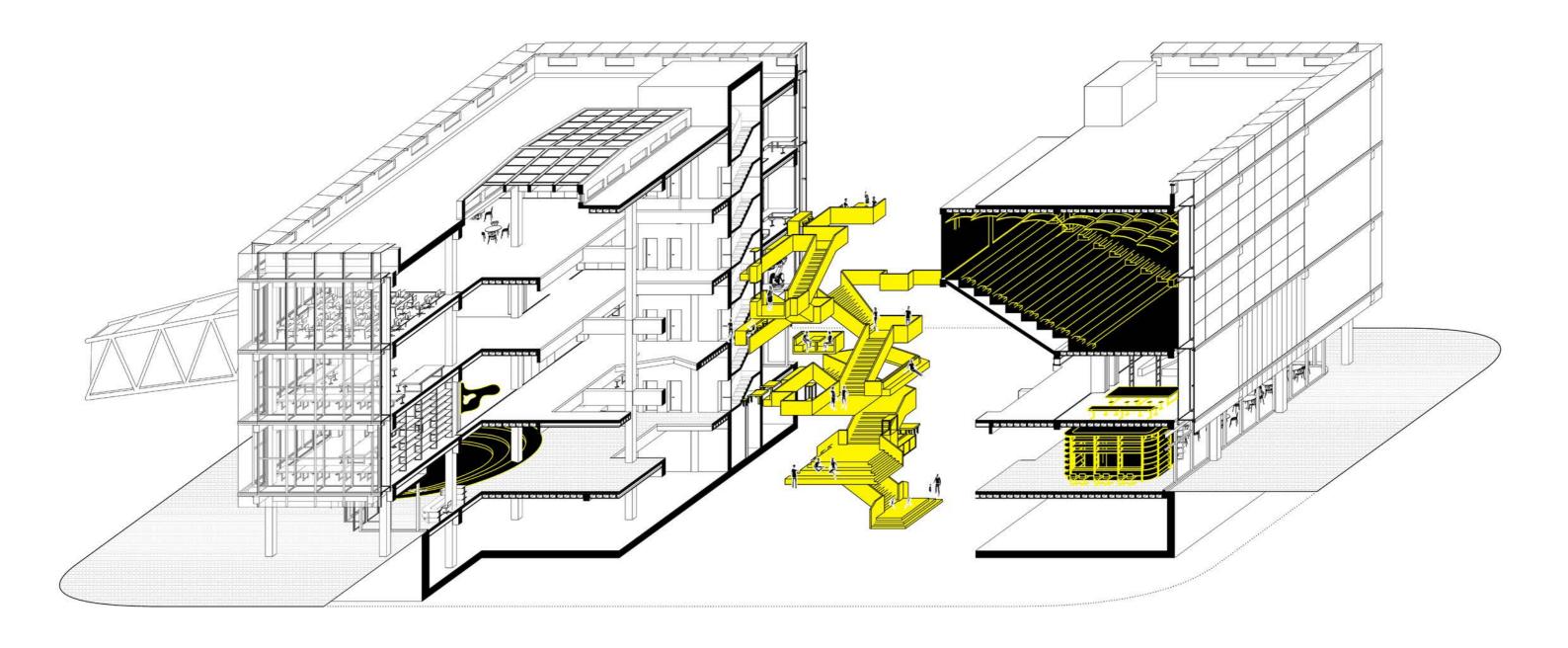




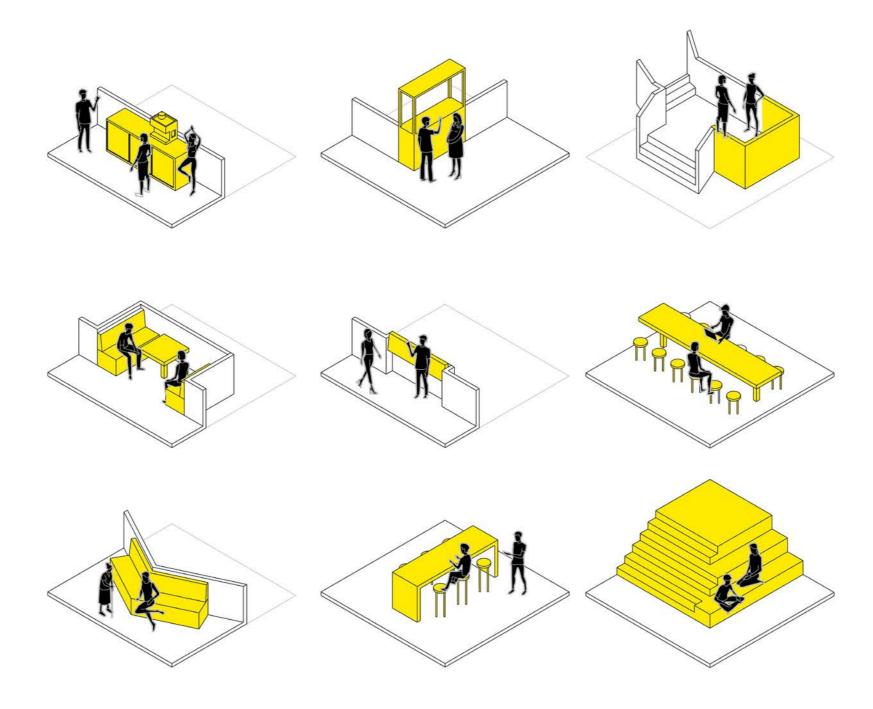


3.2.9. Exploded Axonometric





3.2.11. Stairs of Encounter Elements

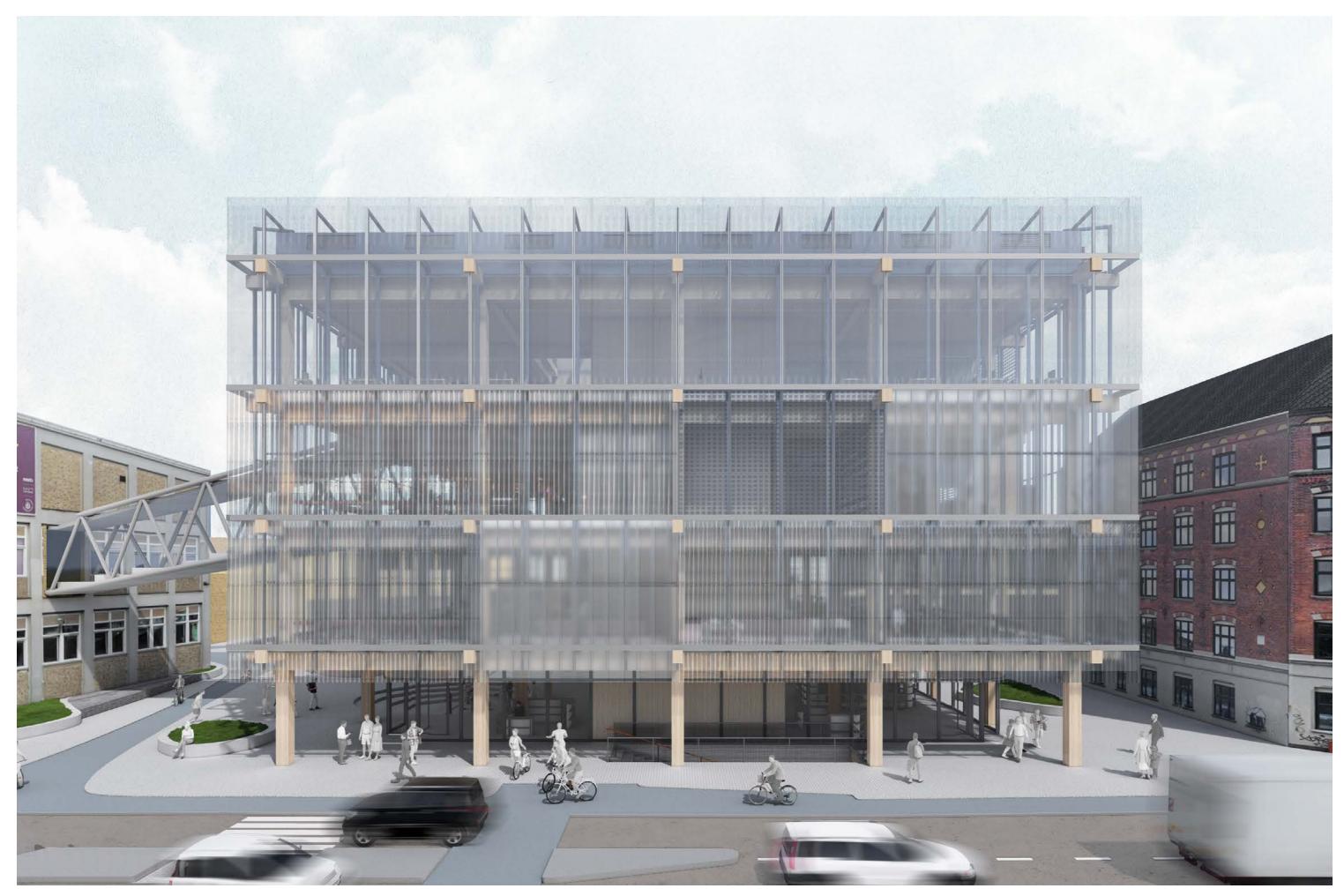








3.2.15. Exterior during day



3.2.16. Exterior during night



3.2.17. Impression Street



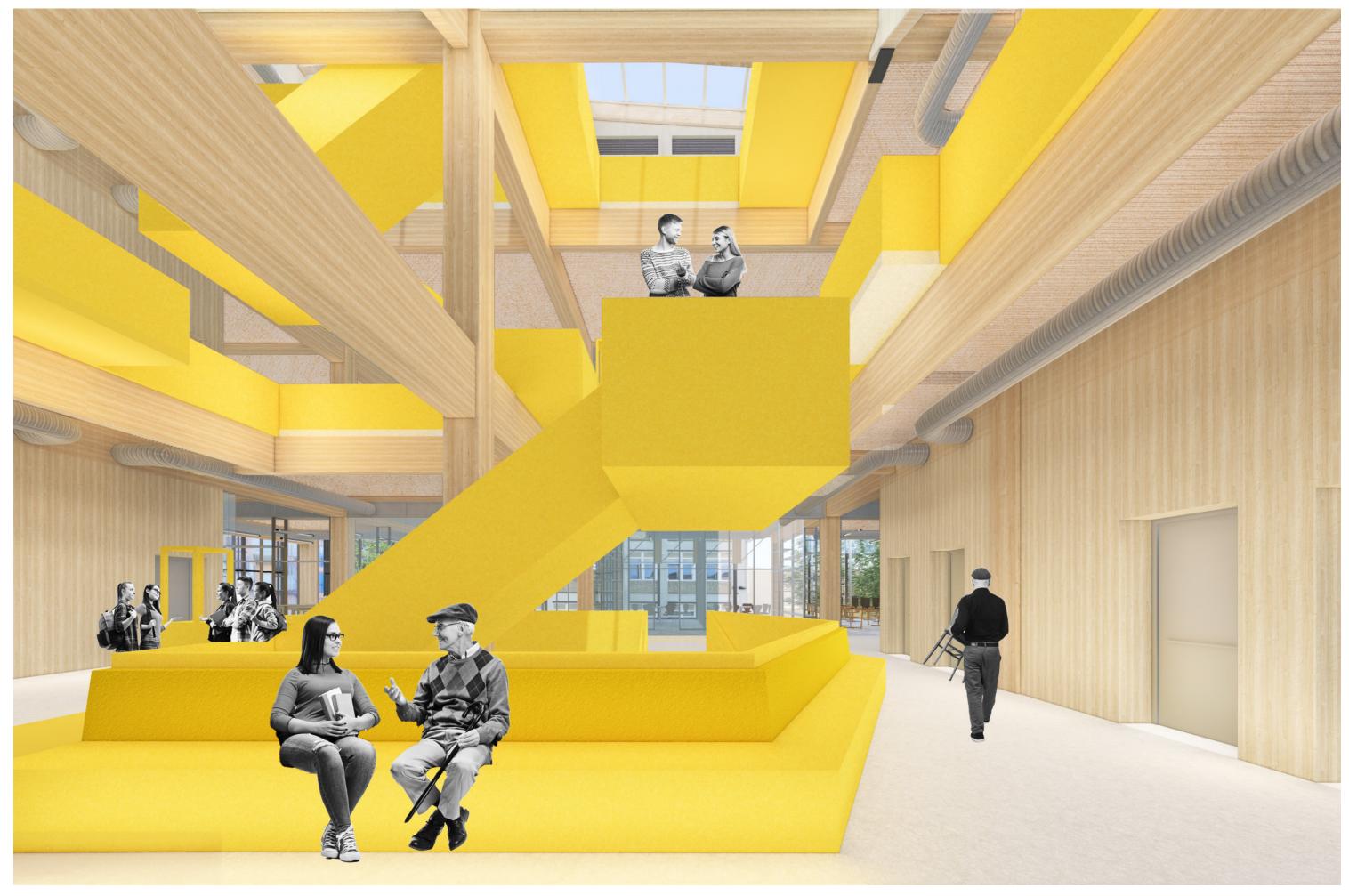
3.2.18. Impression NEXT School



3.2.19. Impression public entrance



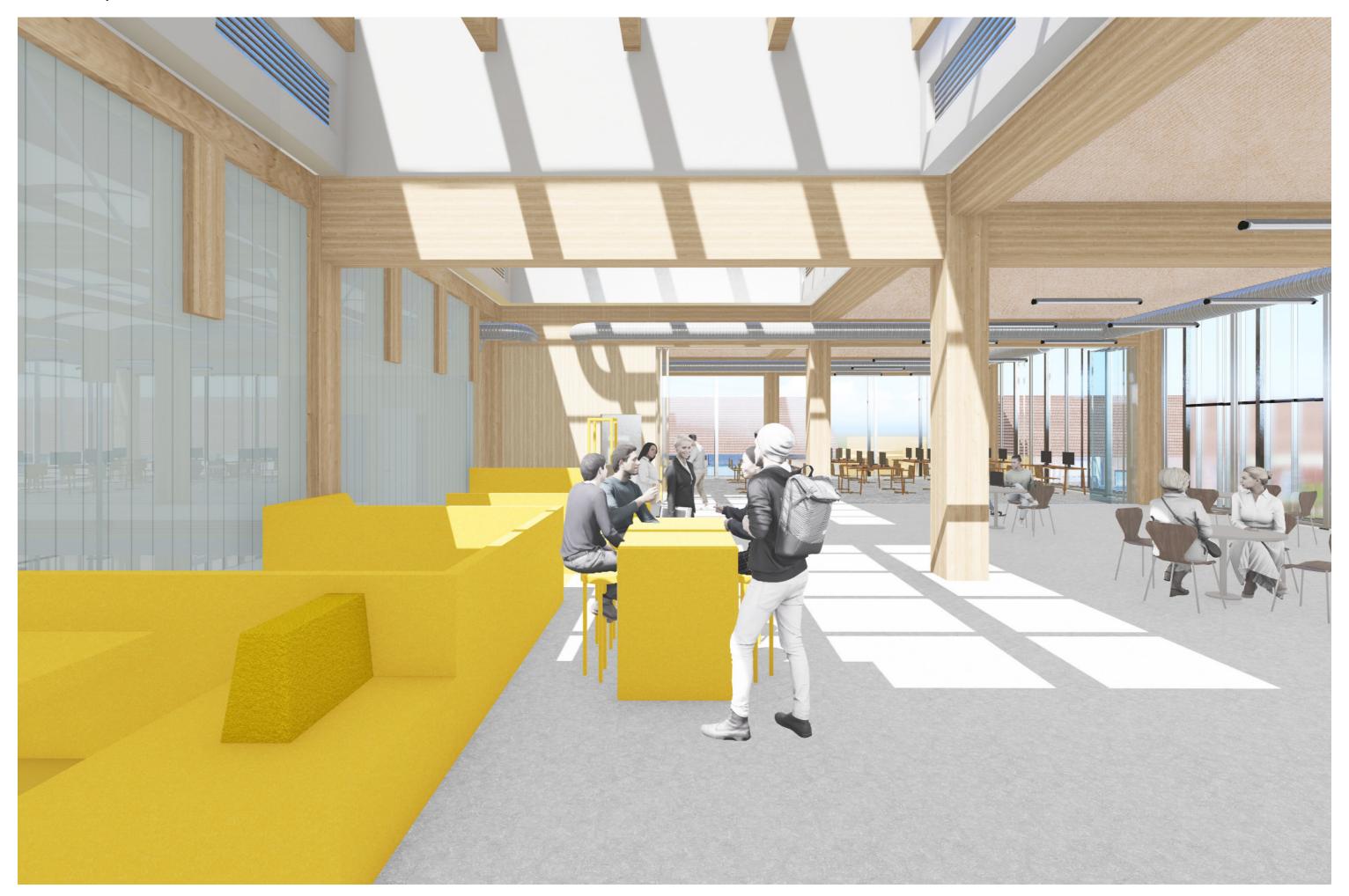
3.2.20. Impression stairs of encounter



3.2.21. Impression stairs of encounter



3.2.22. Impression first encounters



3.2.23. Impression Makerspace communal tables + Exposition



3.2.24. Impression Decentralised government offices plus informal meeting



3.2.25. Impression Makerspace Individual tables



3.2.26. Impression Makerspace group tables + instruction room

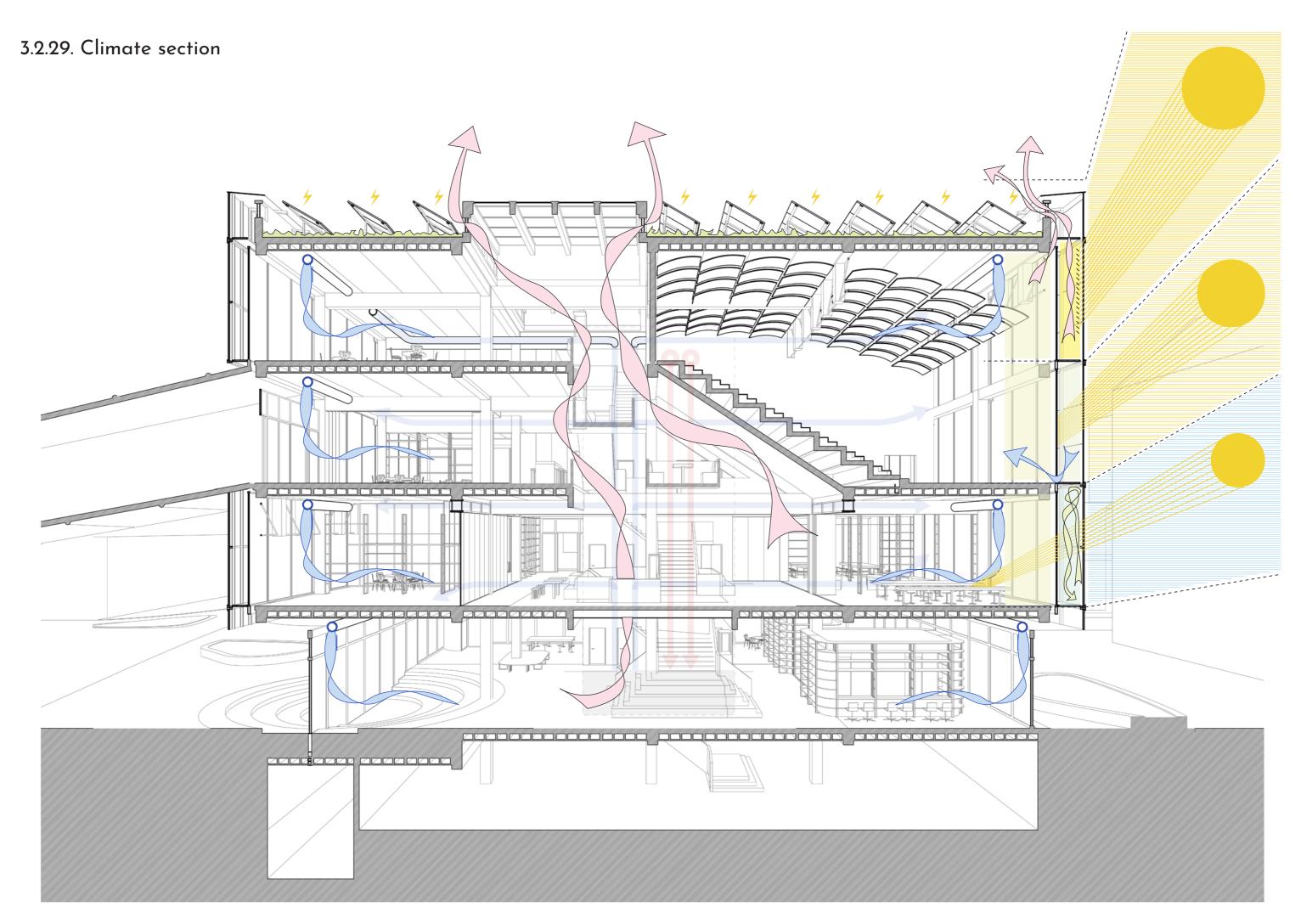


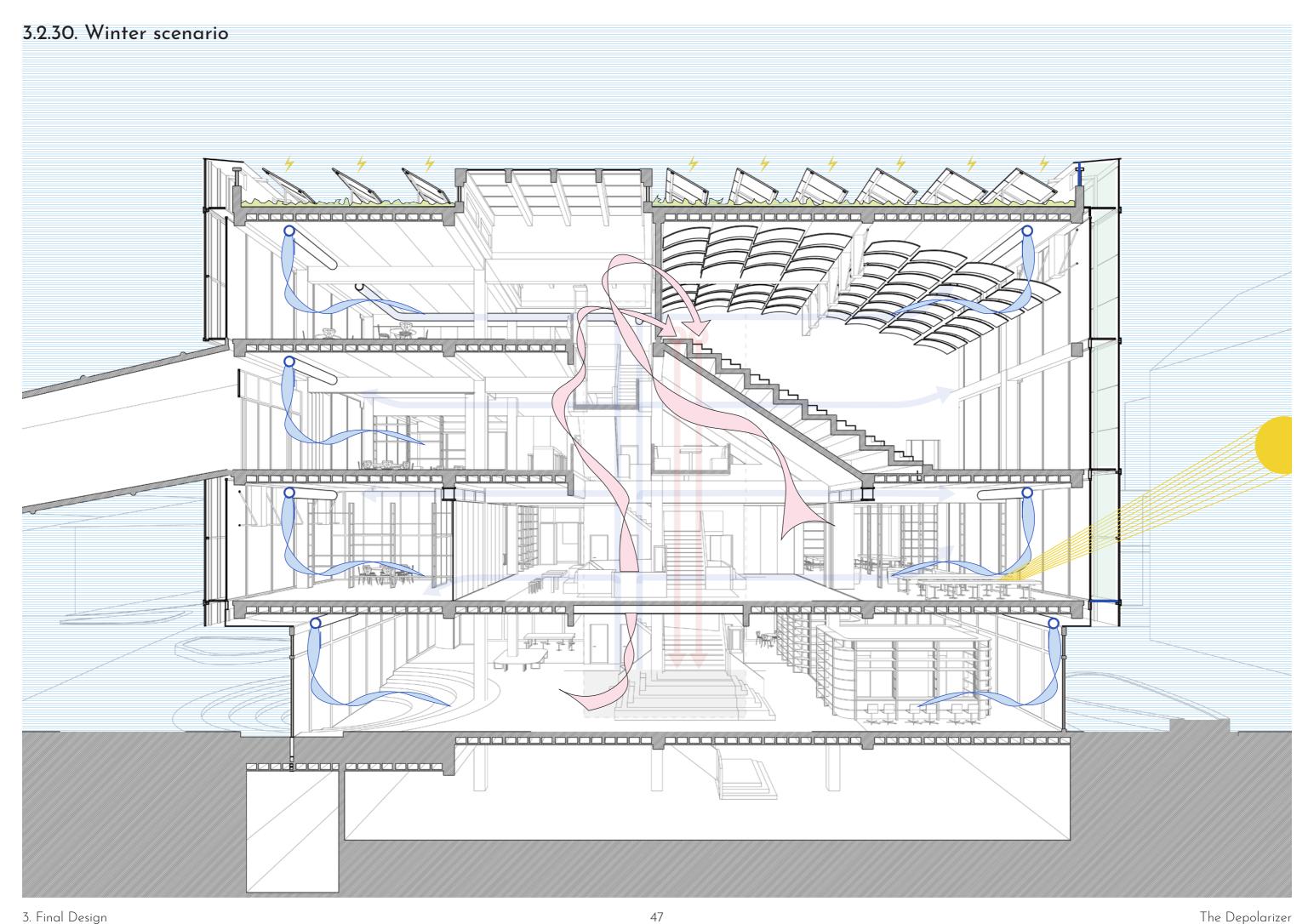
3.2.27. Impression entrance from school building E

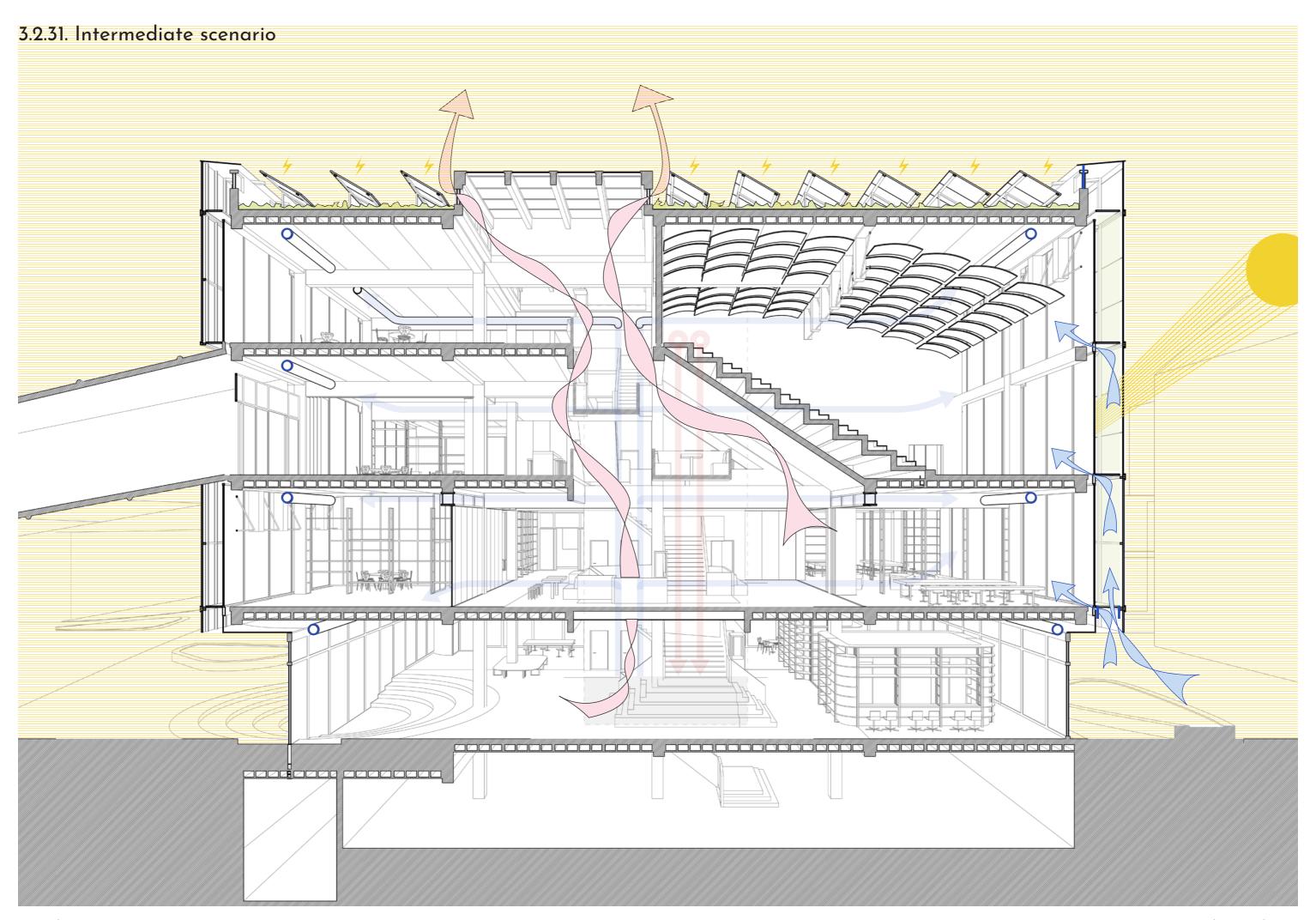


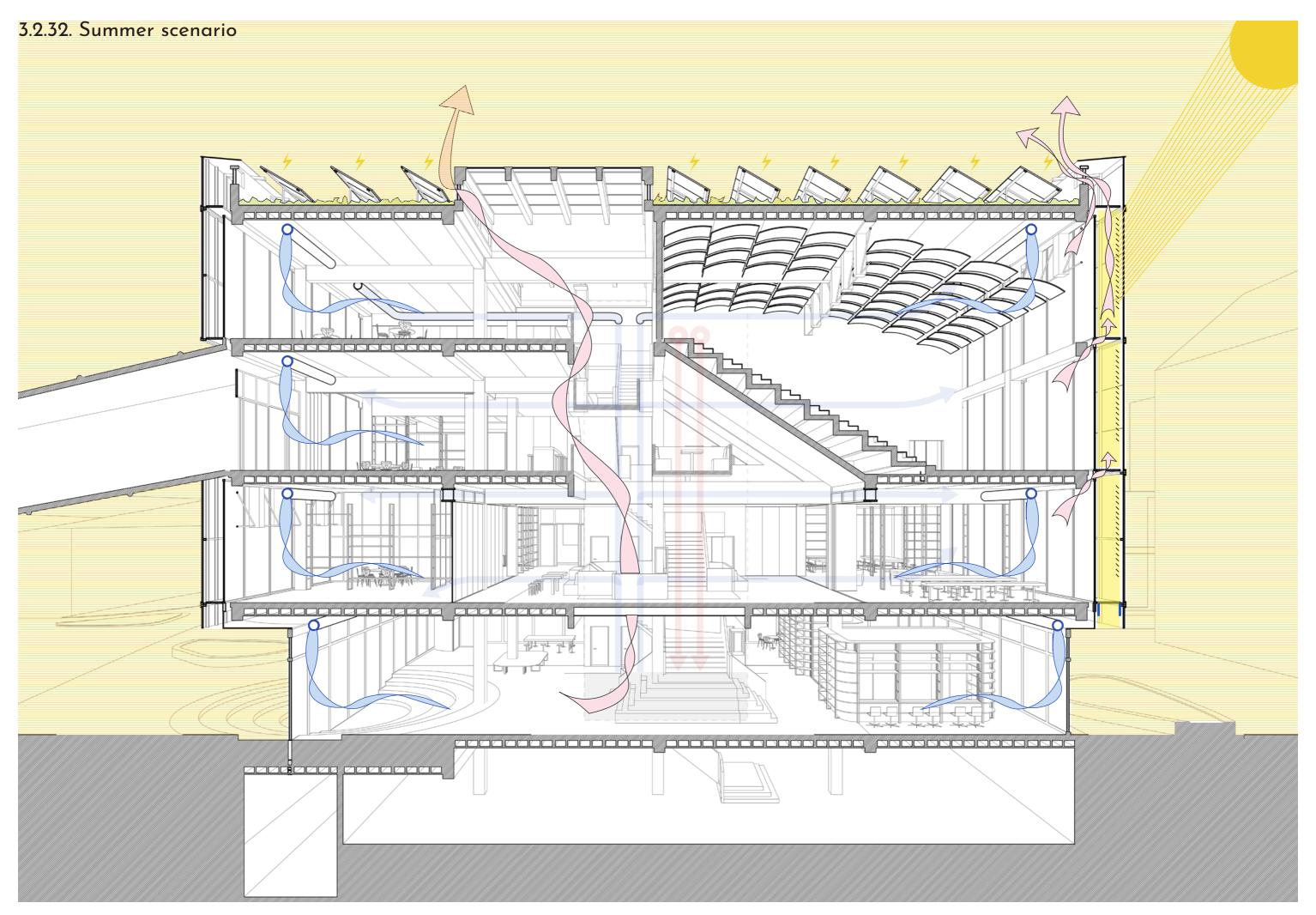
3.2.28. Impression entrance to school building D



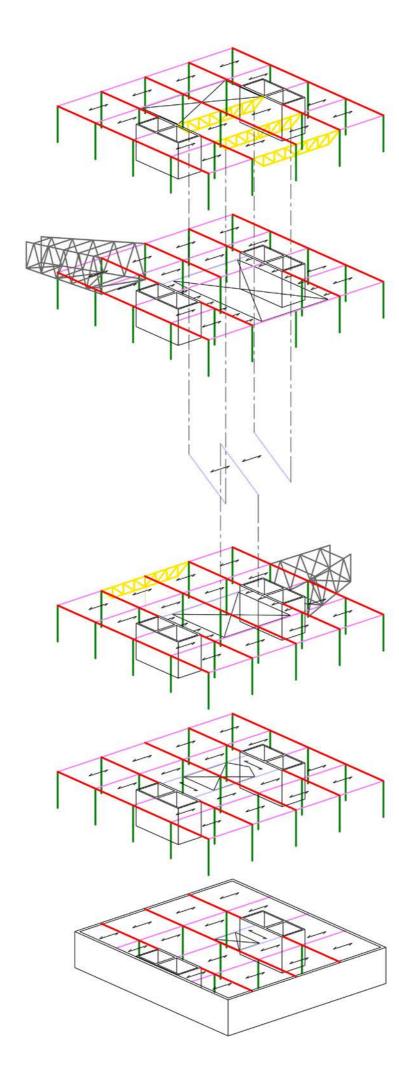




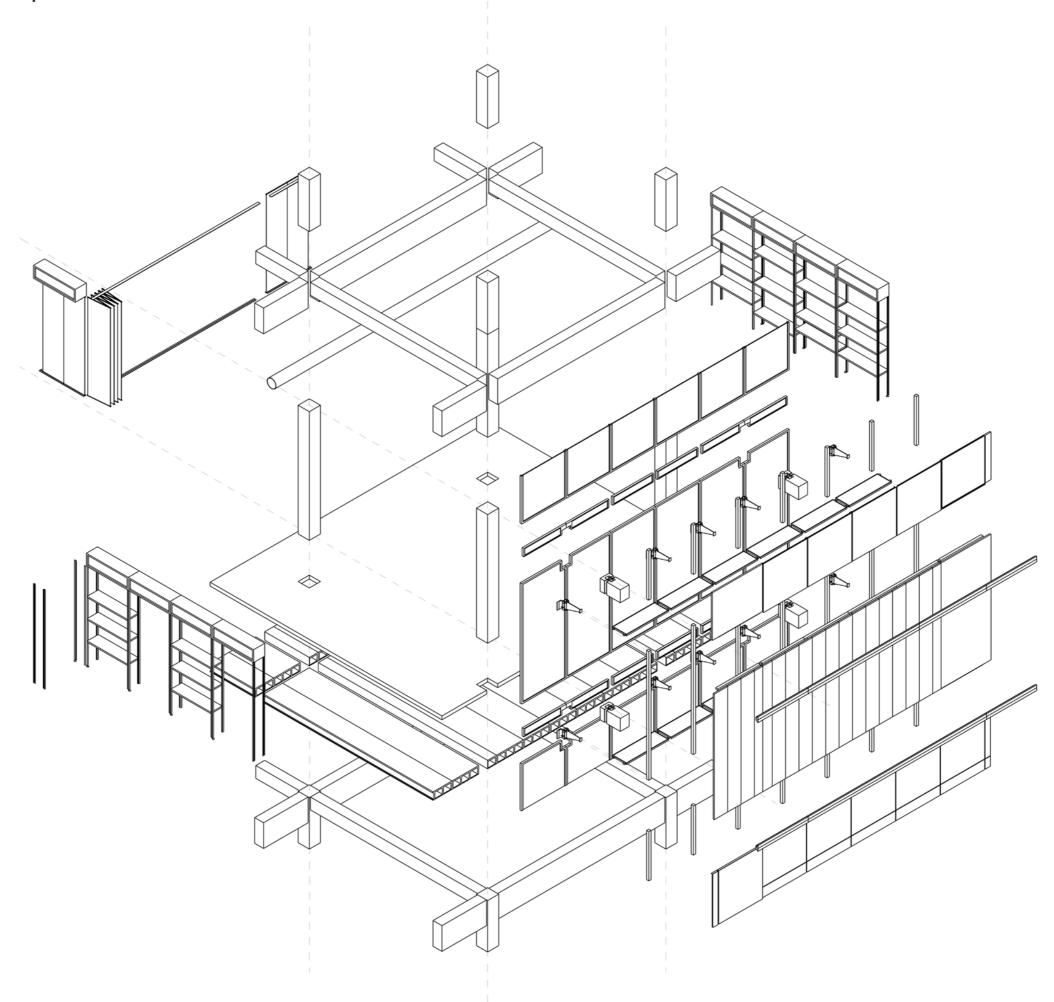




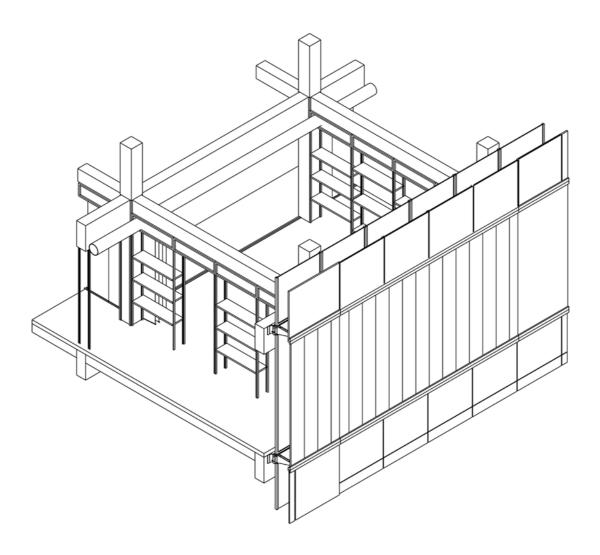
3.2.33. Construction diagram

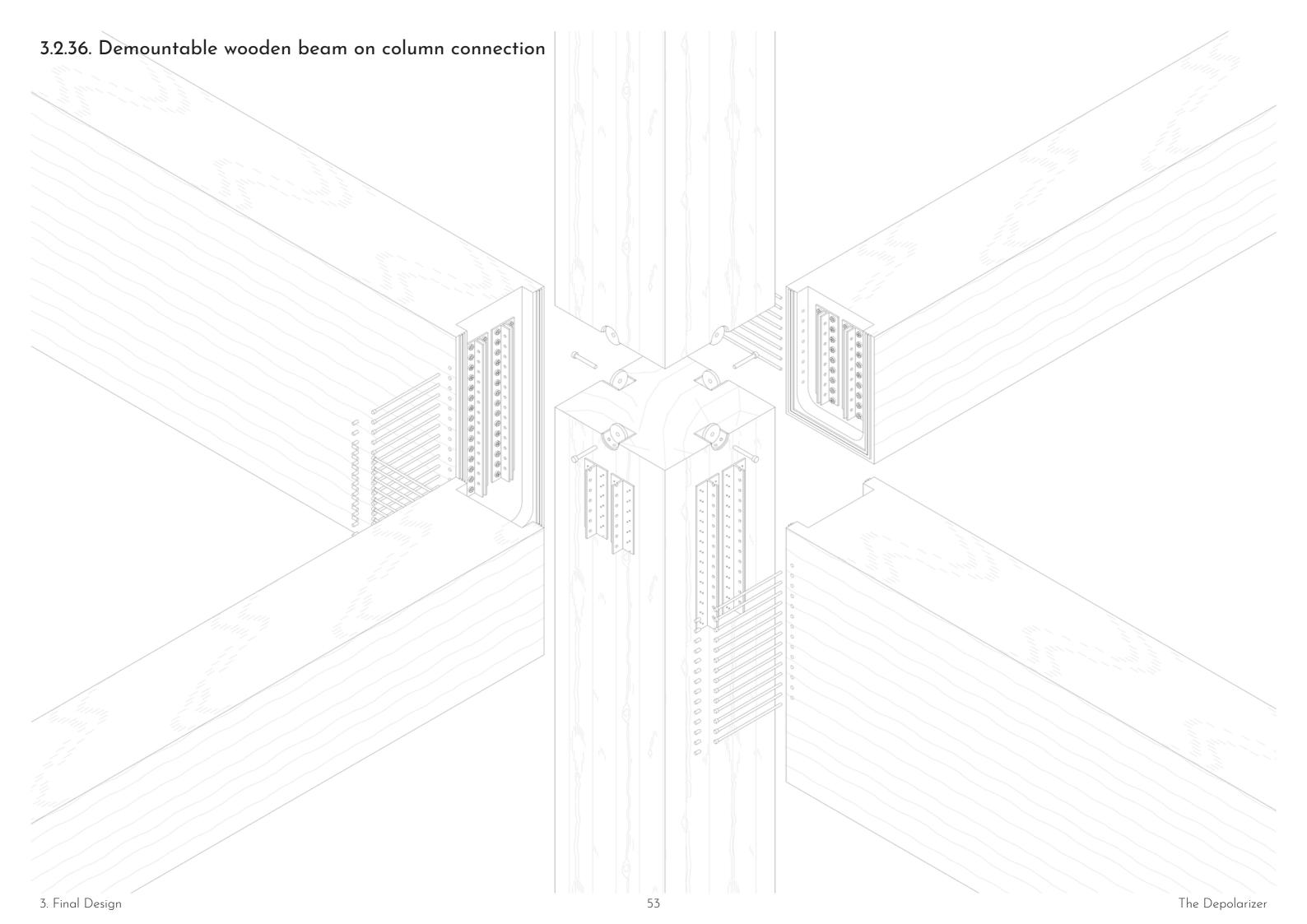


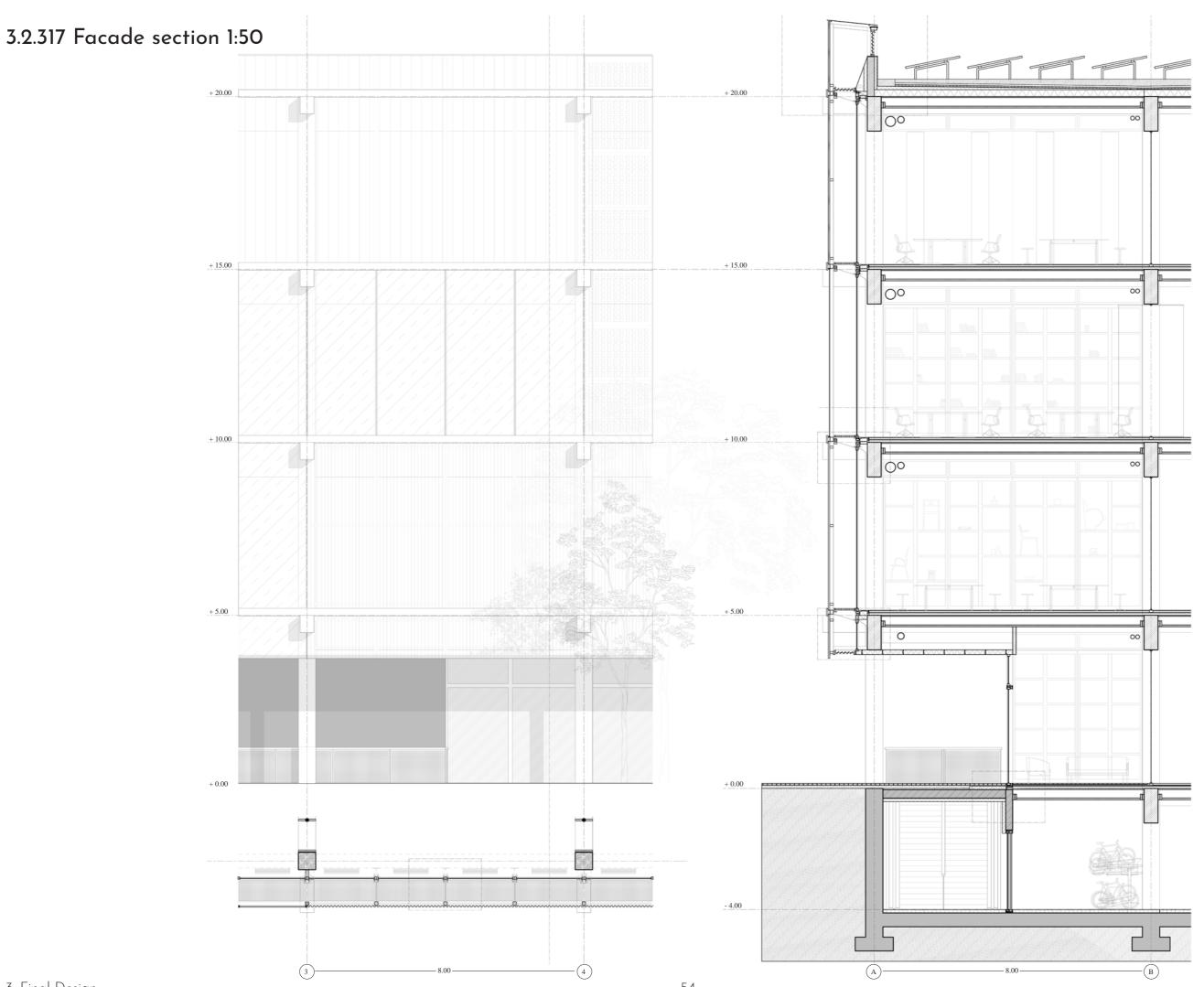
3.2.34. Building elements exploded

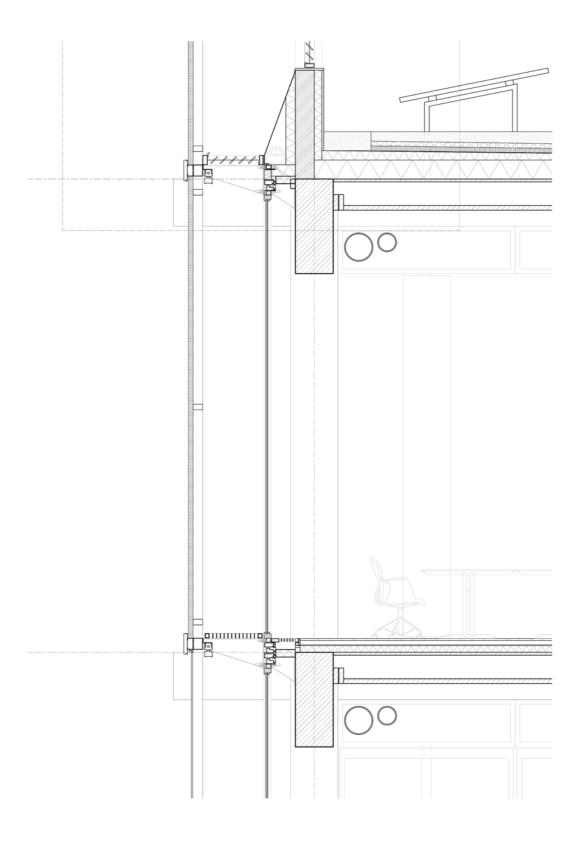


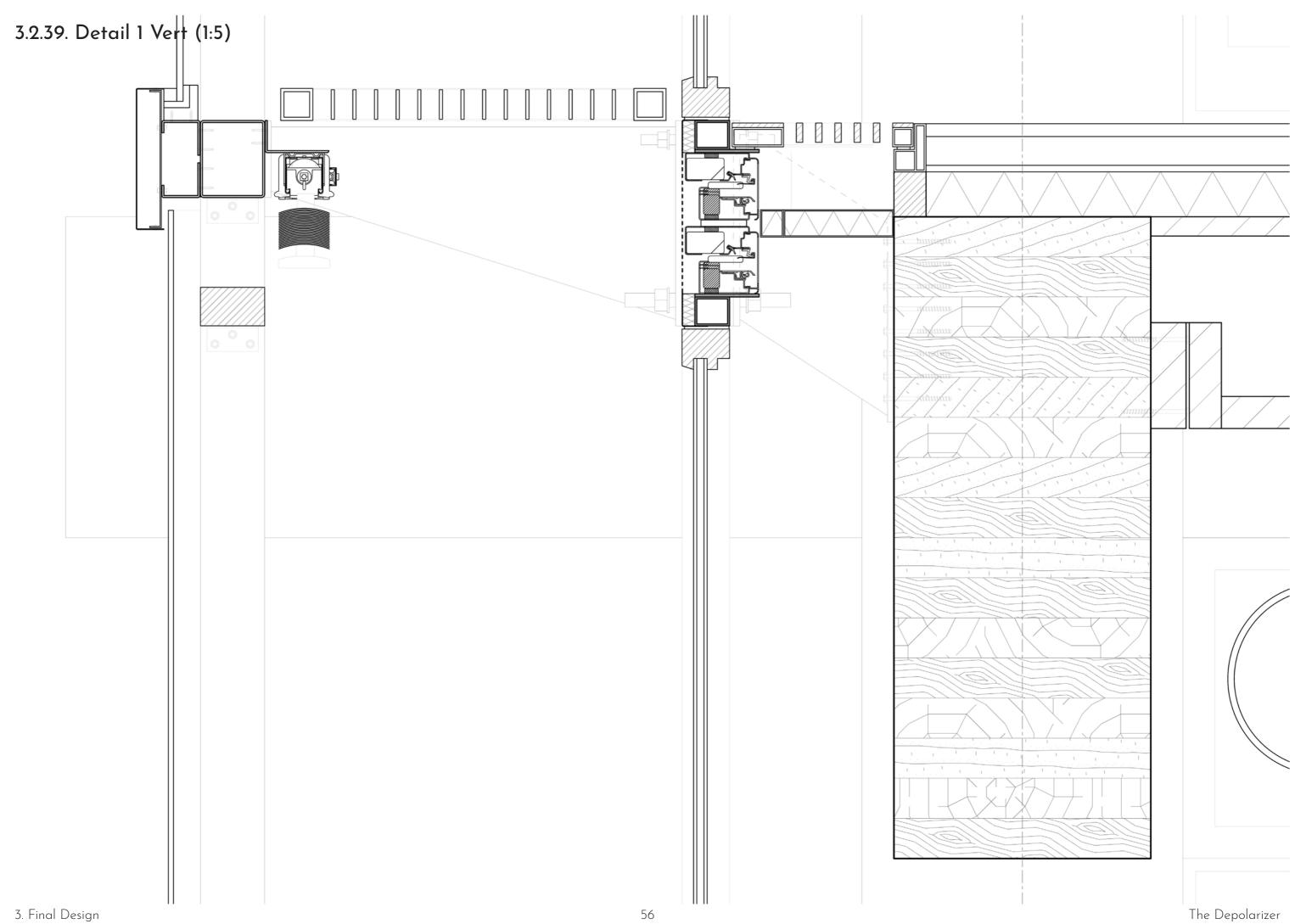
3.2.35. Building elements combined

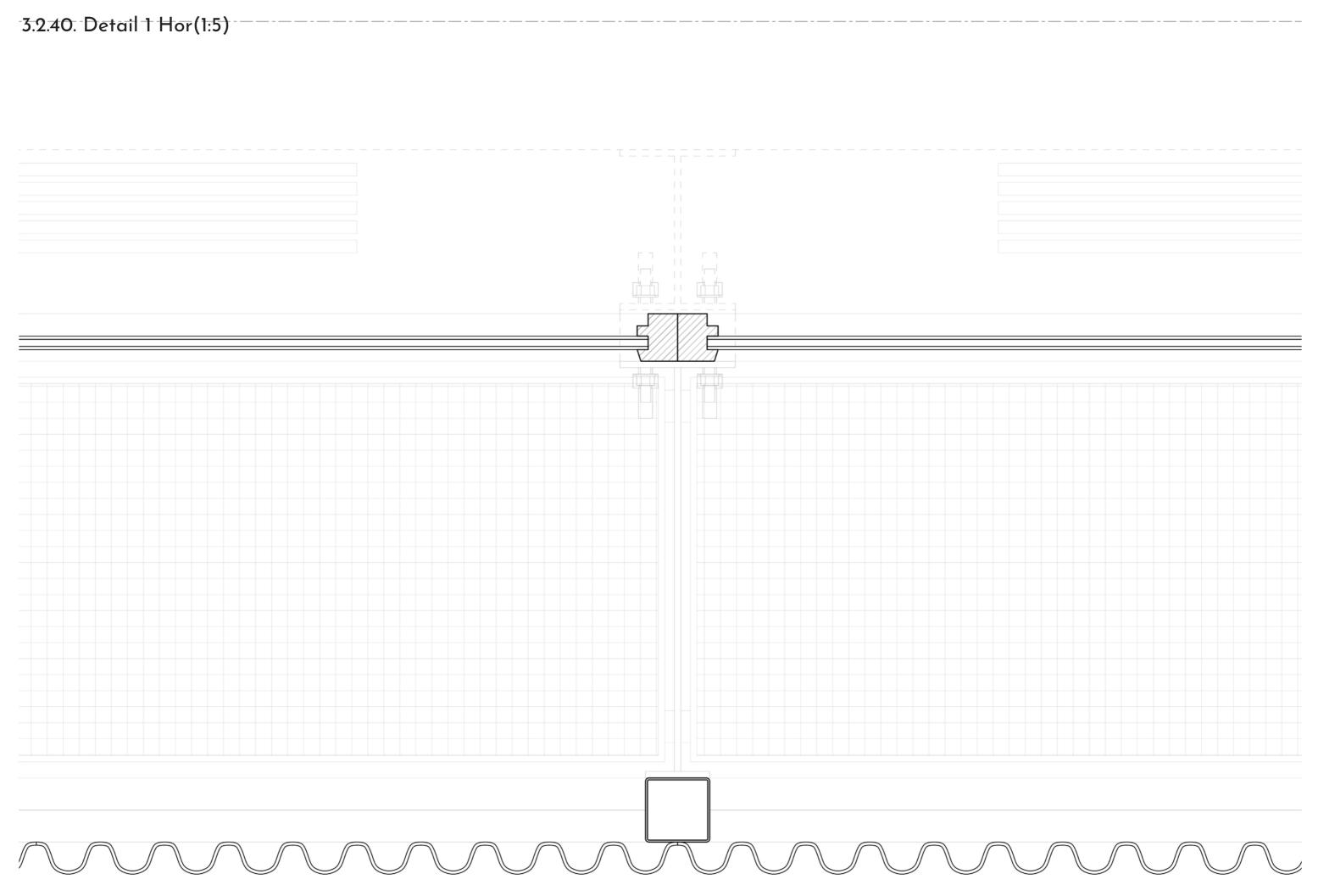


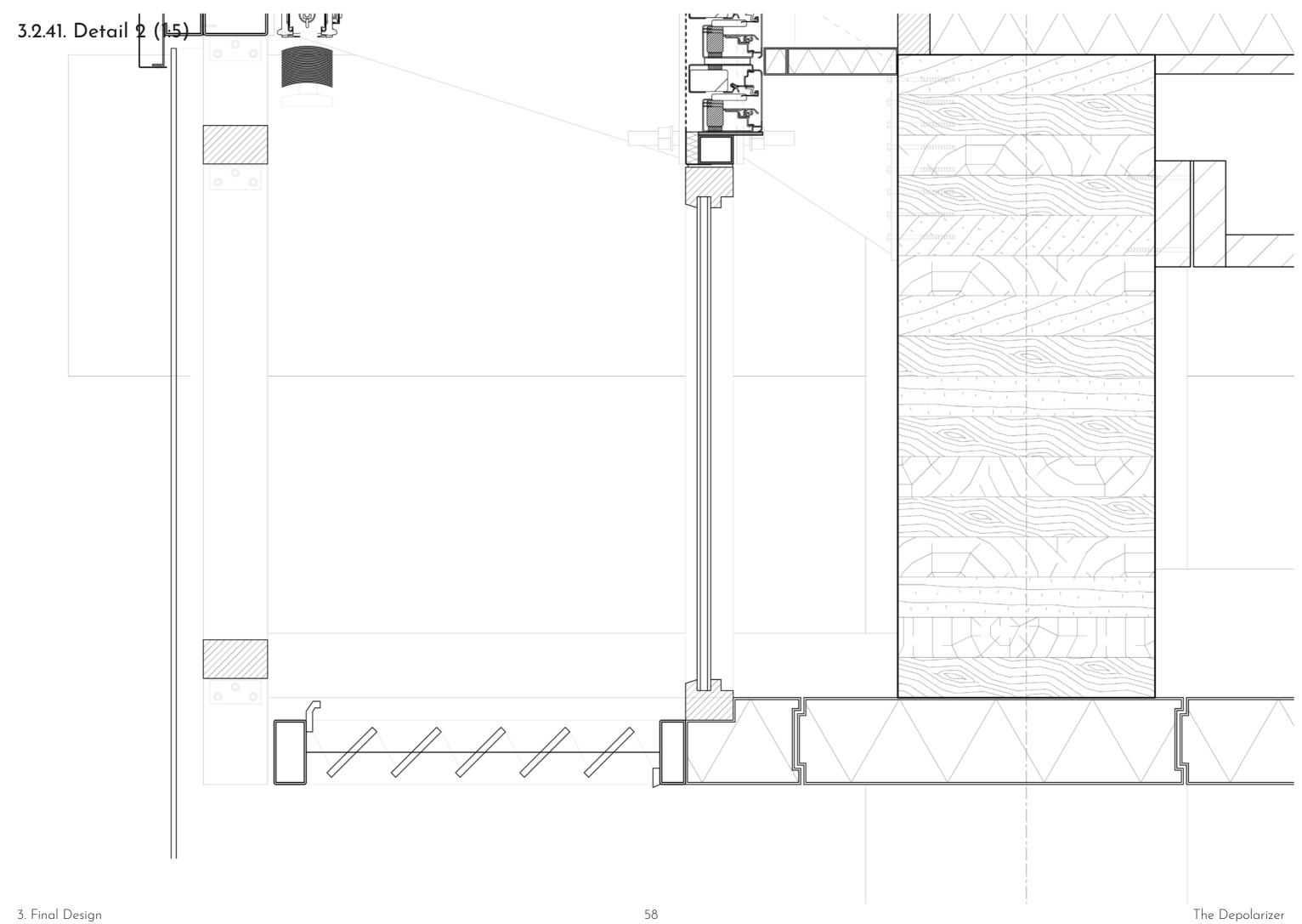


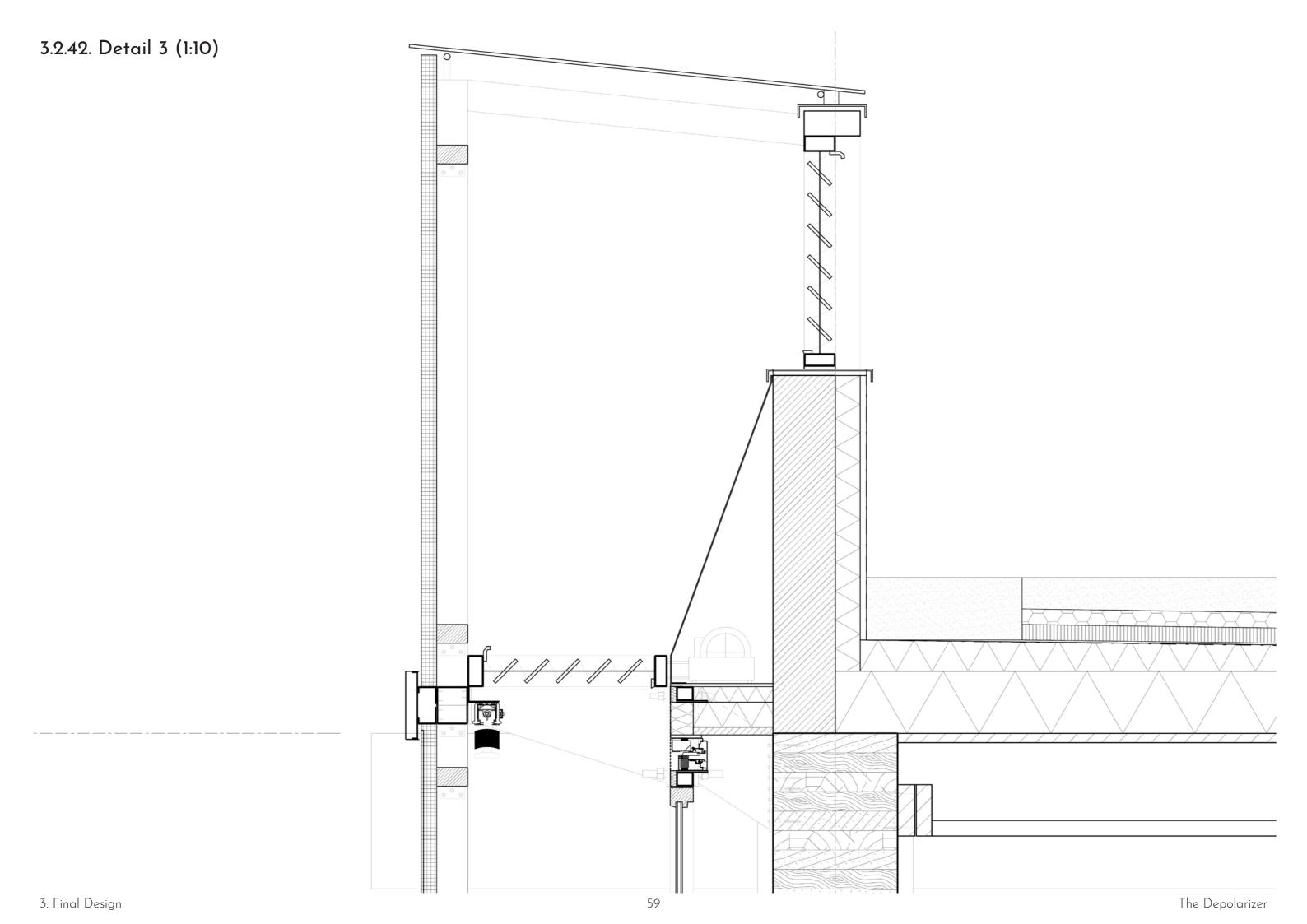


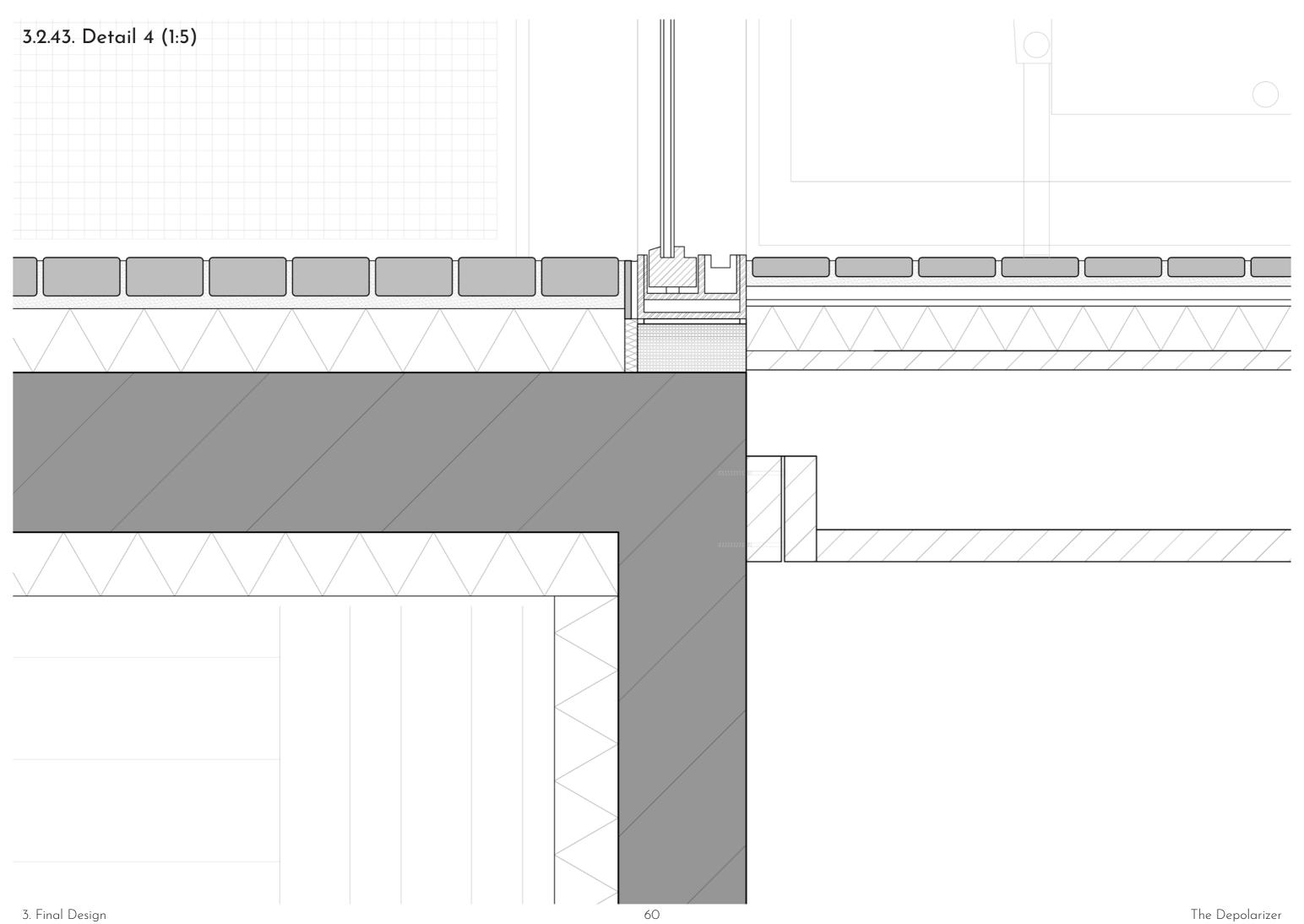




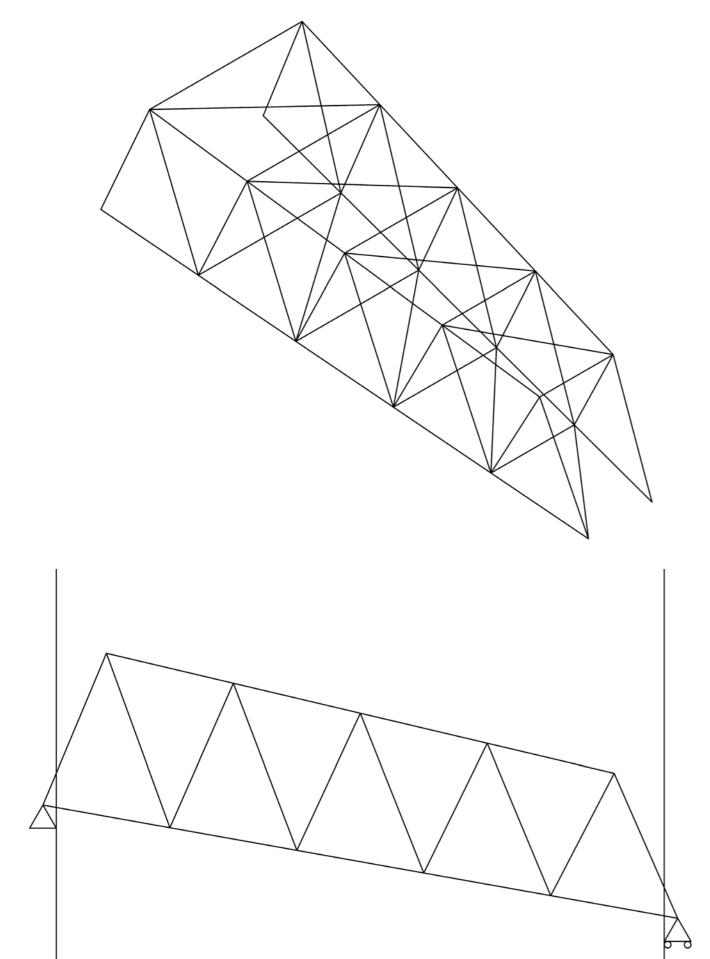


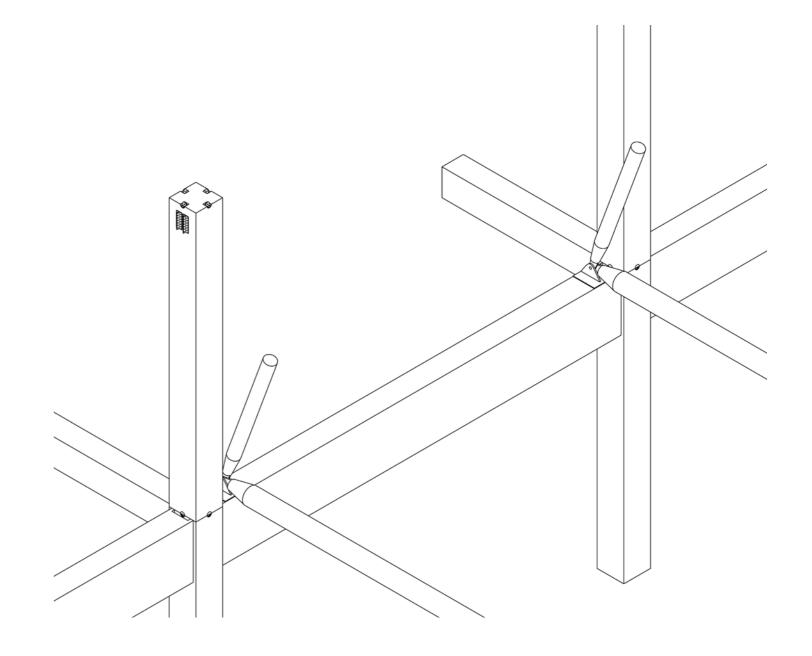






3.2.44. Detail Bridge





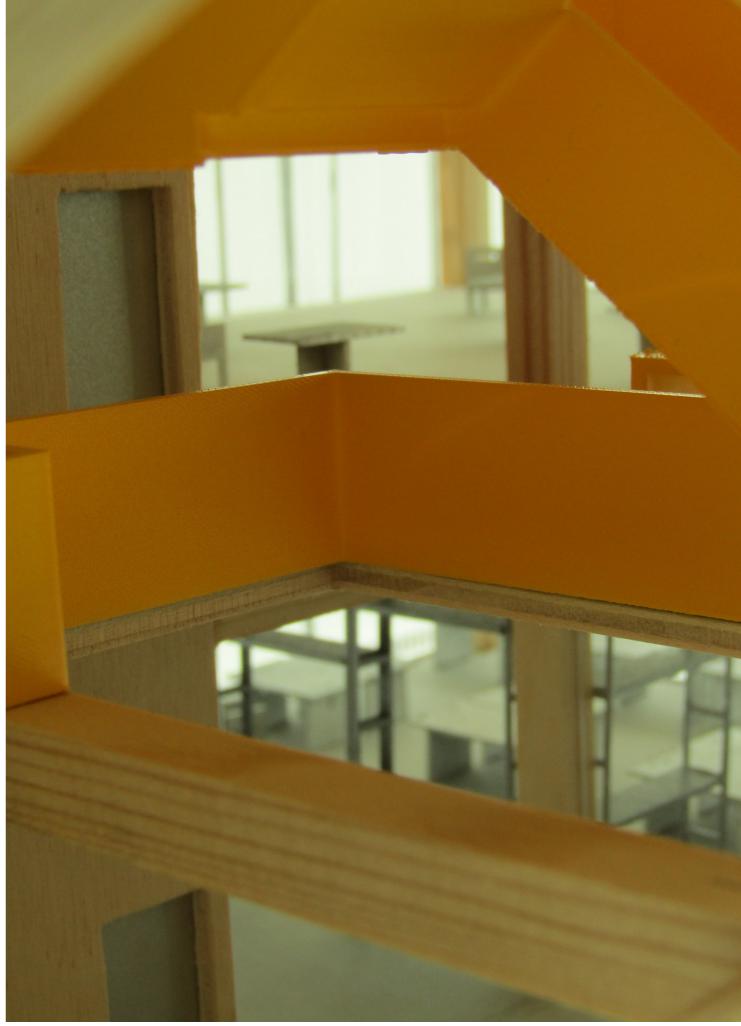






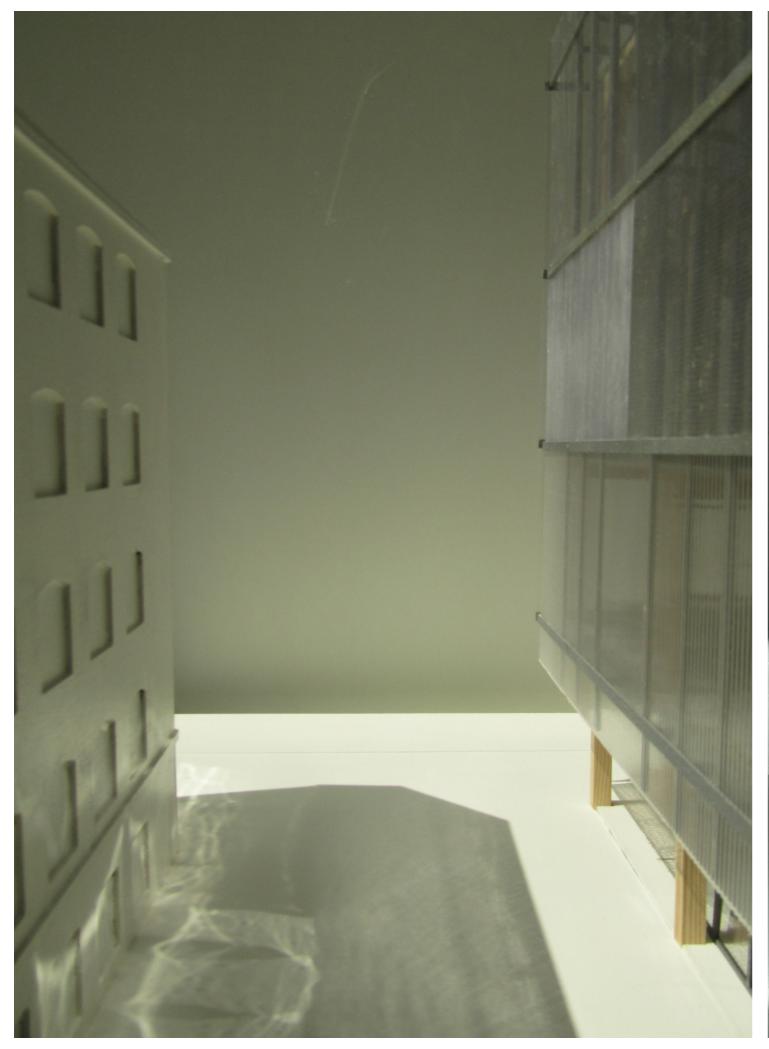












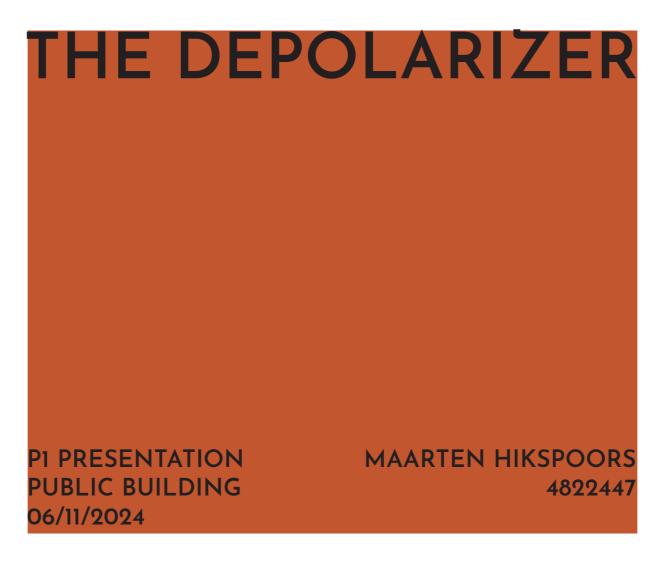




4. Research by Design Journal

4.1. Presentations

4.1.1. P1



POLARIZATION

POLITIC

How Americans came to hate each other

And how we can make it stop.

by Victoria Chamberlin

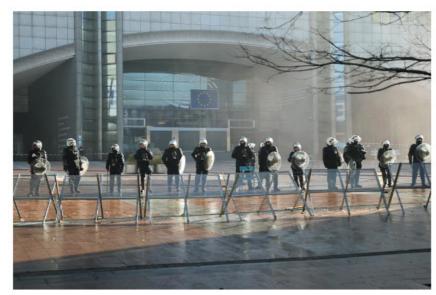


Image 1: Polarization in the USA https://www.vox.com/politics/381789/partisanship-polarization-political-violence

Political violence surges in Europe amid rising polarization

Source: Xinhua Editor: huaxia 2024-08-08 19:28:15

f 0



Police stand guard in front of the European Parliament in Brussels, Belgium, Feb. 1, 2024. (Xinhua/Zhao Dingzhe)

The case-by-case approaches couldn't tackle the root cause, but in the long run, erode the unity of the EU and the essence of European integration.

by Xinhua Writer Zhang Xin, Zhang Gaiping

BRUSSELS/BUCHAREST, June 8 (Xinhua) - The attack on Denmark's Prime Minister Mette Frederiksen on Friday serves as the latest indication of a troubling surge in political violence sweeping Europe, amid the ongoing European Parliament (EP) elections.

Image 2: Polarization violence in Denmark https://english.news.cn/20240608/2ef2e933d7f44cc3b8dfac737912ce58/c.html

RESTING

(nothing happens yet, but there are indications of the development of polarization)

DISCOMFORT

(The atmosphere gets unfriendly, discomfort towards each other, misconceptions and alienation)

SUBDUED TENSIONS

(Irritations, negative imagining, increasing we vs them thinking, groups avoid each other)

OPEN INCIDENTS AND ESCALATIONS

Image 3: Polarization in phases Theory from Joline Verloove: Theorien en aanpakken van polarisatie



					ding the role of Depolorizing Society				
	Depo	olorizing Society		Architecture in E	Seponorizing Society		can a public condenser play in plarization of Denmark's society		
	By designing a communal sp	ace with a new overarching Ide	entity for the				tion characterize itself within ind		
	neighborhoods residents and students; in order to improve mutual understanding of each other's differences, positive interaction and constructive discussion, in a neighborhood vulnerable to polarization?					How does space foster positive interaction between groups of people? How could architecture create a common identity, and simultaniously			
					show the difference within this common identity? • How can people live in a polarized society?				
	Where? Who?	What?	How?						
	Bispebjerg Diverse				Li	terature Ca	se studies Interviev	ws History	
	Intersection of the Neighbourhood NEXT, Students Emaljehaven park Children and Frederigsb	PROTOTYP	E Fight issue					Mitigate issue	
					===				
EPTS:			Offer a place i people are vulnarable polarizati	less l	Foster Positive nteraction between groups of people	Create a common identity	Create awareness people belonging different group	g todifferences, but brings	
	Community Workshop/Vocational Education (NEXT)		Second ho	ome S	Space for encounter	Makers club	Celebration of difference	Apolitical activities	
			/ 		×				
	Form		Materiality	Tectonics	Program	Space planning		nction Light	
	Morphing of existing form (neighbourhood, culture, function, etc) to new form identity. Opening existing barriers	encounter, exchange of ideas, awareness of differences, personal. Storage	Local materials combined with a focus on craft and dentity. Using embodied carbon data as a tool to choose materials.	Express craftmanship and simultaniously be demountable and low carbon intensive.	Extension of the home, hybrid program bringing people together with apolitical activities. Workshop for	Personal space intertwined with communal space with limited but existing overlap to encourage encounters.	Different scales of circulation, ability to seperate circulation but keep it open. Building functions as a connector		
	and creating new entrance.	is also stiowcase.	LHOUSE HIGHERIGIS.		communal and individual projects.	encounters.	between seperated areas.		

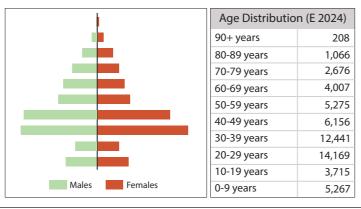
ANALYSIS

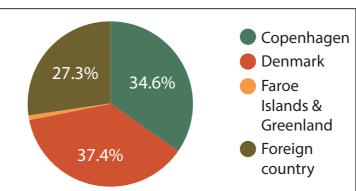
BOUNDARIES





STUDENTS, IMMIGRANTS, ORIGINAL RESIDENTS, NEW RESIDENTS, GENTRIFICATION





Place of Birth (E 2024)						
Copenhagen	19,037					
Denmark	20,586					
Faroe Island & Greenland	328					
Foregin country	15,029					

DIVERSITY



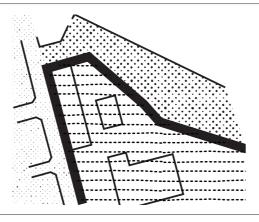
MAKERS HERITAGE GLUD & MARSTRAND

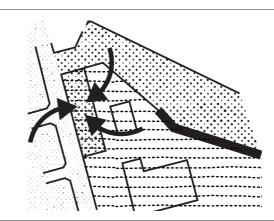


CONCEPTS

BOUNDARIES/BOR-DERS

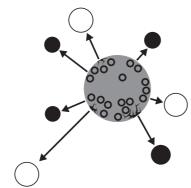
Existing boundaries prevent different groups of people to interact. The public condenser is going to open up the barrier and function as a gate between areas that lead to lifely intersection.

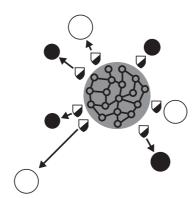




STRENGHTEN GREY MIDDLE

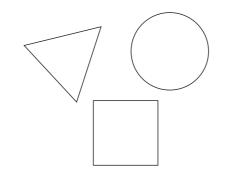
Protect users from pushers of polarization, mix users so they do not gravitate towards one pole and establish connections between individuals.

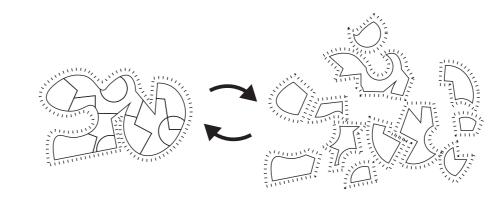




IDENTITY

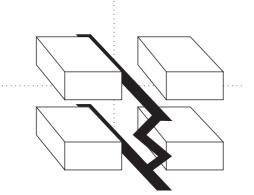
Public Condenser is going to shape a new identity through form materiality and program while celebrating the different identities within.

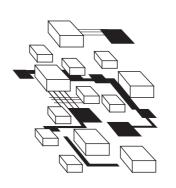




HYBRIDITY

Hybridity is how this Depolarizer is going to establish its multiplicity of goals.





LOCATION

LOCATION

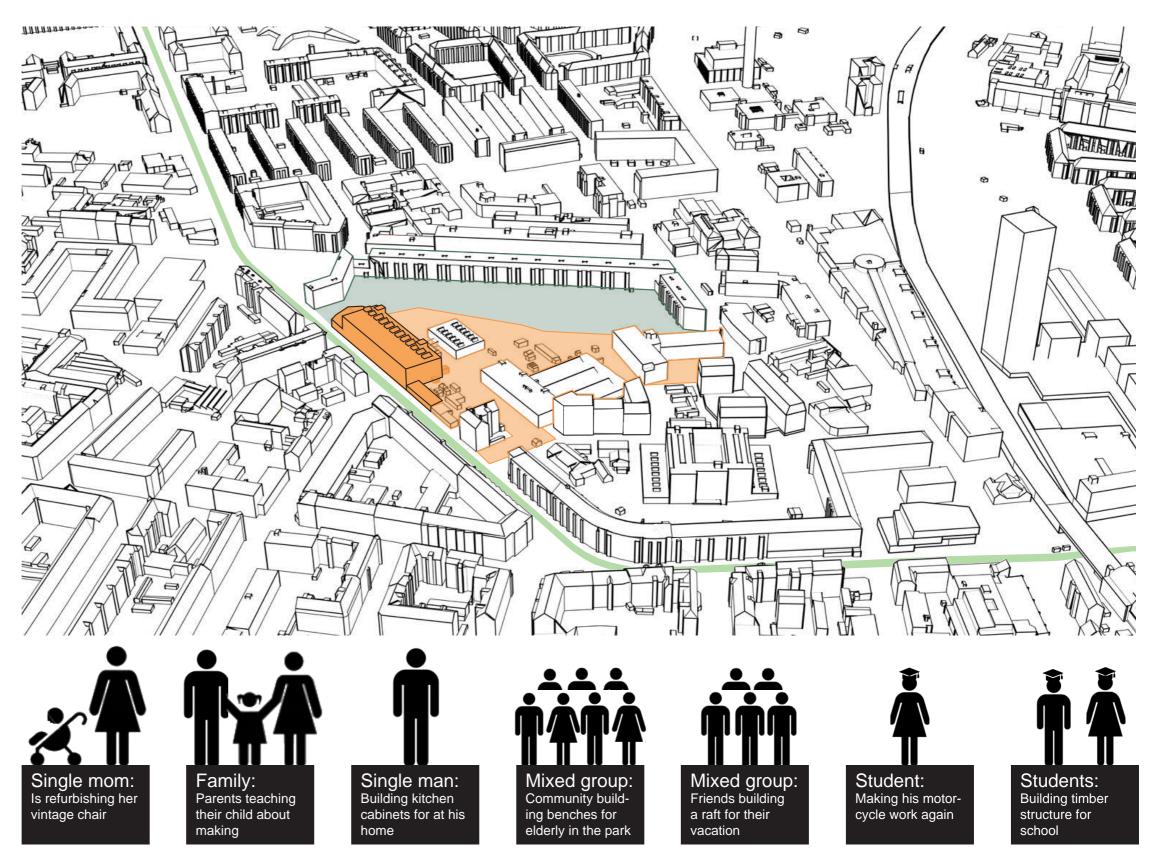
- Intersection of segregated areas
- Identity in heritage
- Apolitical program

TARGET GROUPS

Students, neighbourhood, intergenerational Single people with low income, young families. Community groups.

ROLE, PUBLIC CONDENSER

It will function as the extension of the house. The garage of the suburbs. A makersspace for gathering, interaction and constructive discussion. It's a place that should help stabilize the neighbourhood so the residents will work together in a constructive way on issues the neighbourhood faces, simultaniously it will create a buffer in Copenhagen society, that could inspire other neighbourhoods.





OPENING BOUNDARIES

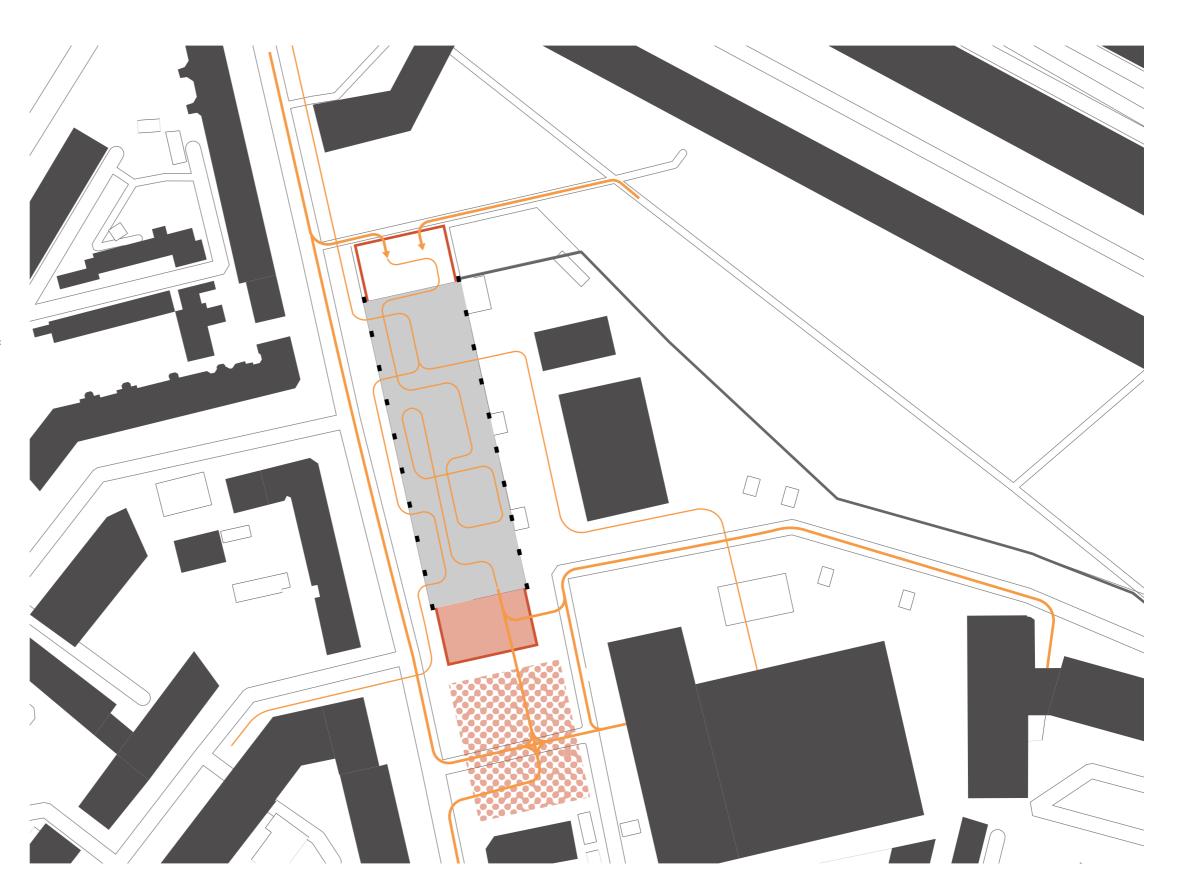
Building as gate that connects areas.

VISABILITY

New entrance and square to increase visability of the school and public building.

CIRCULATION

Close knitted circulation network that establishes encounters.

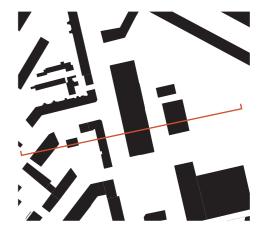


SECTION

EXTENSIONS

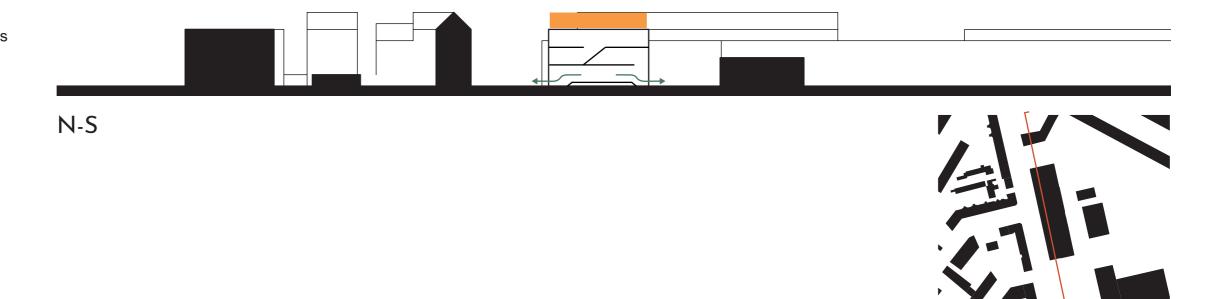
E-W

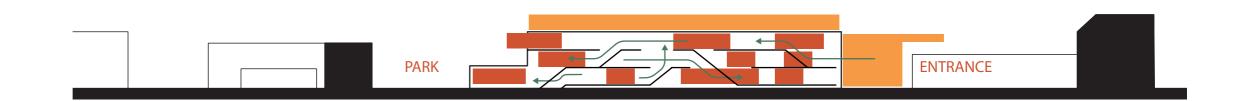
Possible new parts on roof and at entrance. Extension emerges from existing architecture.



HYBRIDITY

Close-knitted organization of functions Vertical circulation Constant relationships between different users and functions.







HYBRIDITY

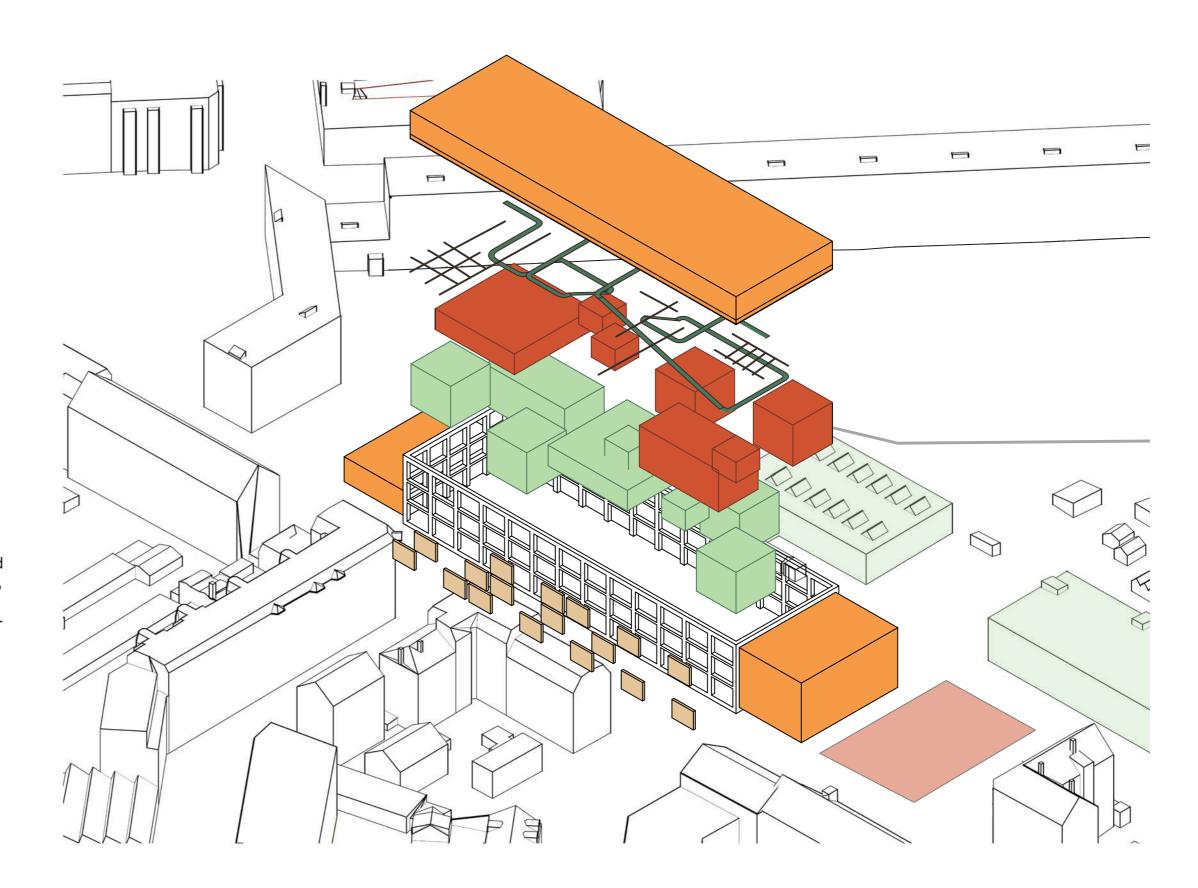
- Old and new mixed togetherFunctions constant in relation to each other

SUSTAINABILITY

- Reusing original manufacturing hall
- Low Thermal Energy Demand IntensityEmbodied Carbon Calculation as design tool

HEALTHINESS

Physical health: Activating users by program and circulation, reestablishing connection with green, healthy transport encouraged Mental health: slowing down with program, inclusiveness by celebration of differences.

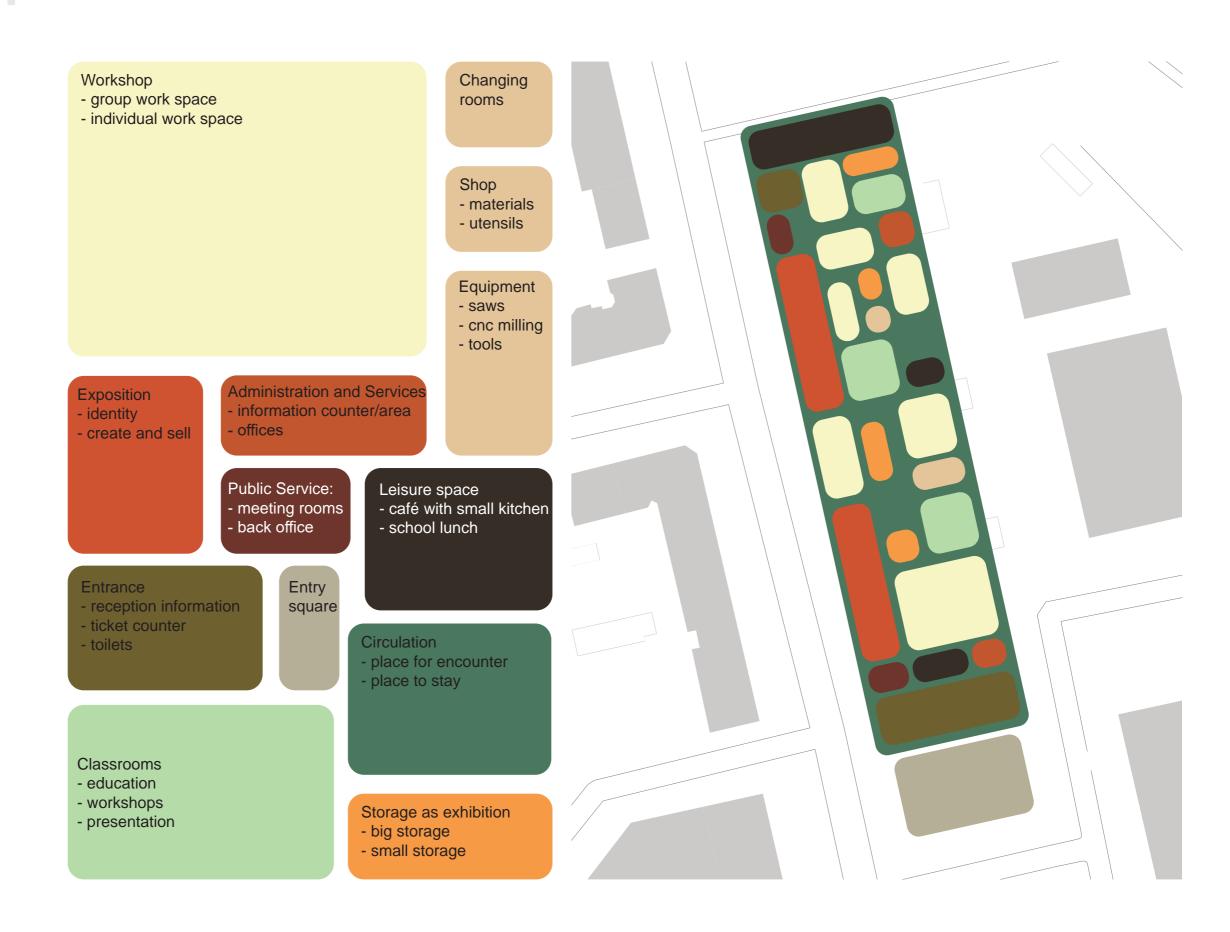


PROGRAM

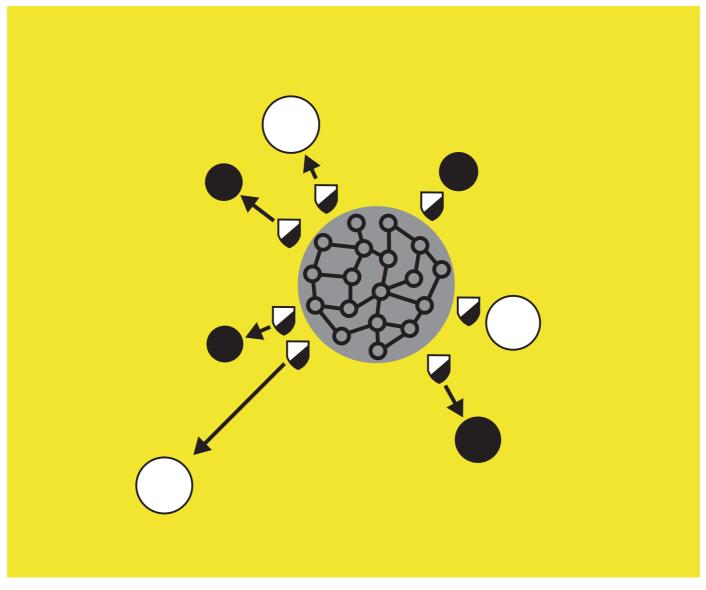
QUANTITATIVE BRIEF

Existing building 3x28x80m = 6,720m2

New program 3,500-4,500m2



THE DEPOLARIZER



P2 PRESENTATION 23/01/2025

MAARTEN HIKSPOORS 4822447

THE DEPOLARIZER

QUALITATIVE RESEARCH

CONCEPT

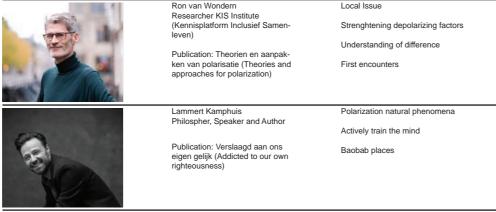
P2 PRESENTATION, 23/01/2025 AR3AP100, 24/25, PUBLIC BUILDING GRADUATION STUDIO

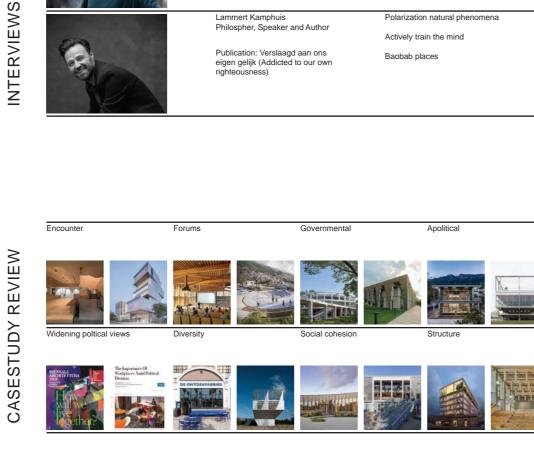


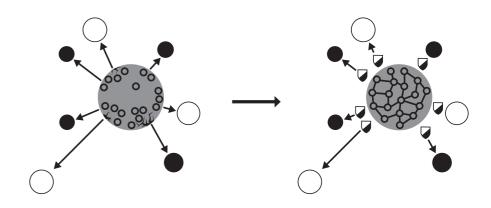
4. Research by Design Journal



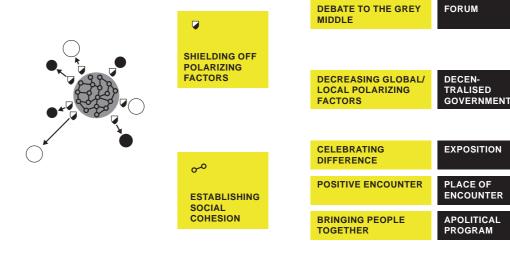
RESEARCH







Polarization pushers



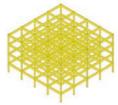
80

ANALYSIS BISPEBJERG

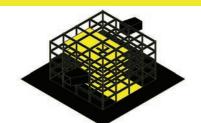
COPENHAGEN

STRUCTURE

8 M X 8 M GRID



CIRCULATION: SPACE OF **ENCOUNTER** 800 M2



APOLITICAL PROGRAM 1600 M2

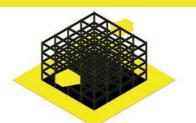


ENTRANCE & RESTAURANT 400 M2



THE DEPOLARIZER PROTYPE MANUAL

ACCESIBILITY



SHARED SPACE 500 M2



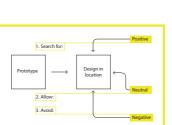
DECENTRALISED GOVERN-MENT 800 M2



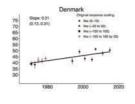
SUPPORTIVE CORES 100 M2



HOW DOES THE PROTOTYPE ADAPT TO ITS LOCATION LOCATION, MATERIALS, ESTHETHICS, **PROGRAM**



POLARIZATION INCREASING IN DENMARK



CIRCULATION: STAIRS OF

100 M2

500 M2

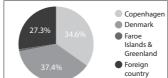
200 M2

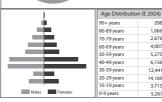
ENCOUNTER

FORUM

EXPOSITION

DIVERSE











GENTRIFICATION

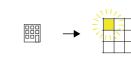




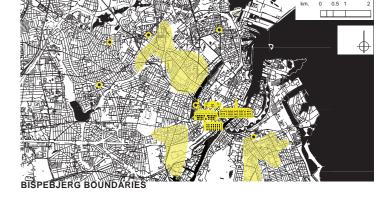
PARALLEL SOCIETIES



GOVERNMENT



BOUNDARIES

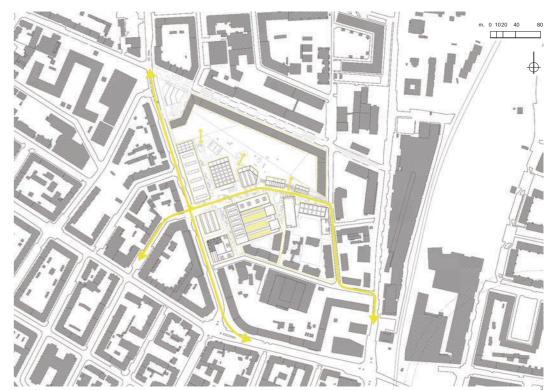






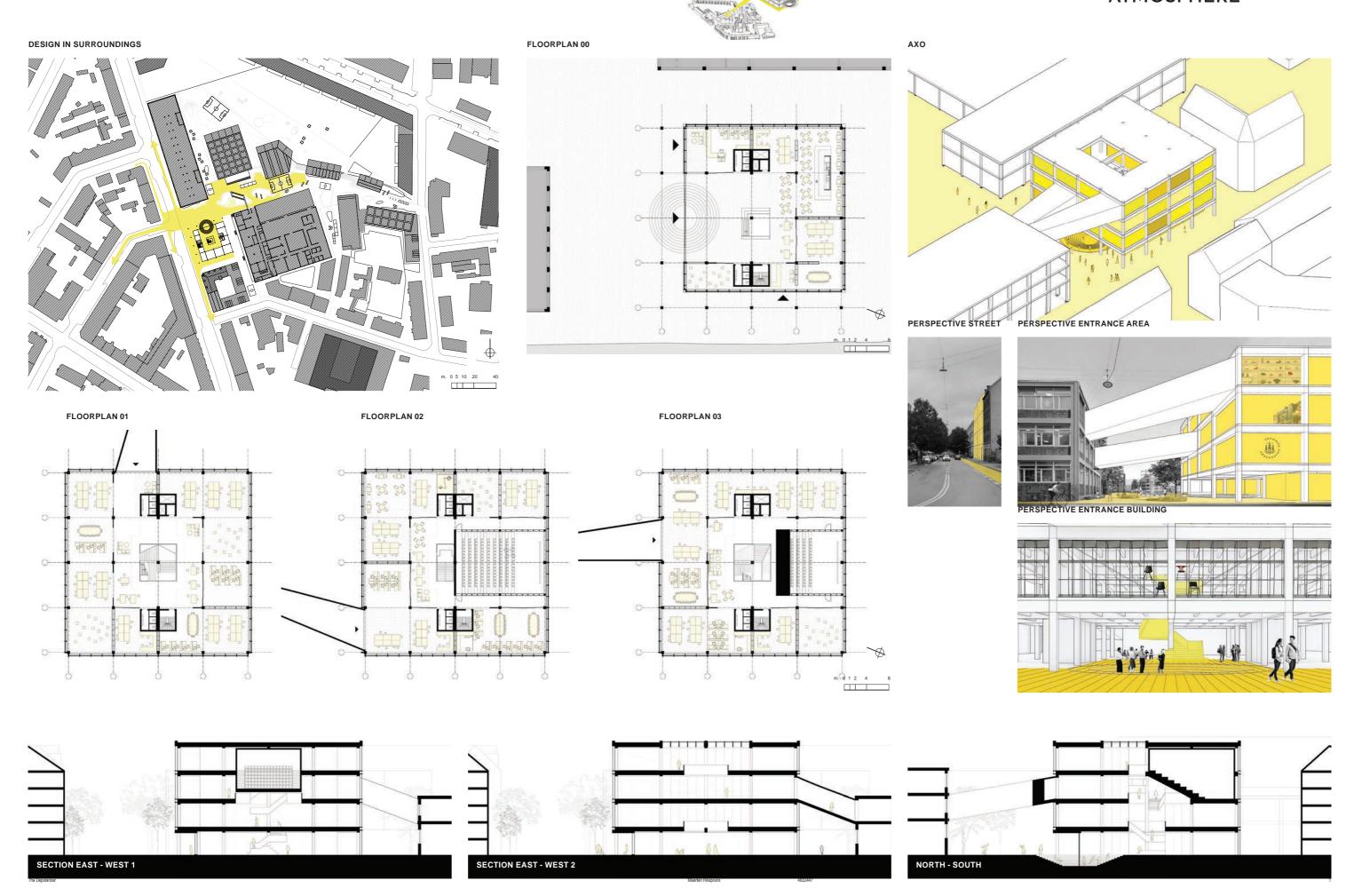




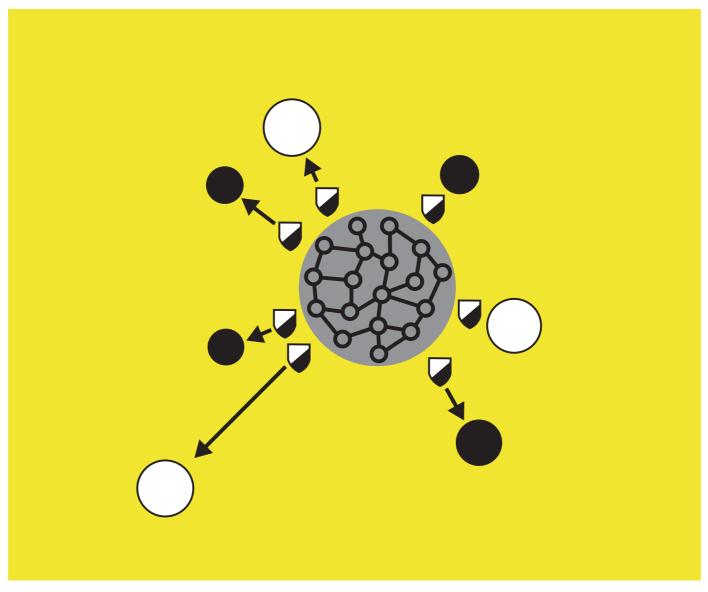


DEPOLARIZER IN BISPEBJERG

DEPOLARIZER IN BISPEBJERG ATMOSPHERE



THE DEPOLARIZER

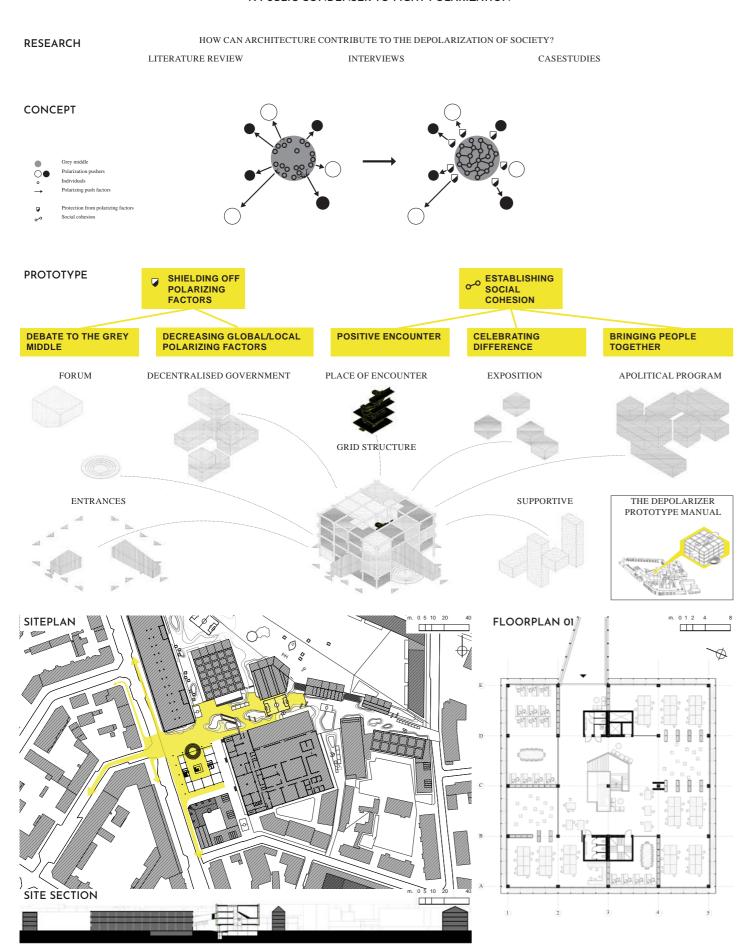


P3 Presentation 03/04/2025

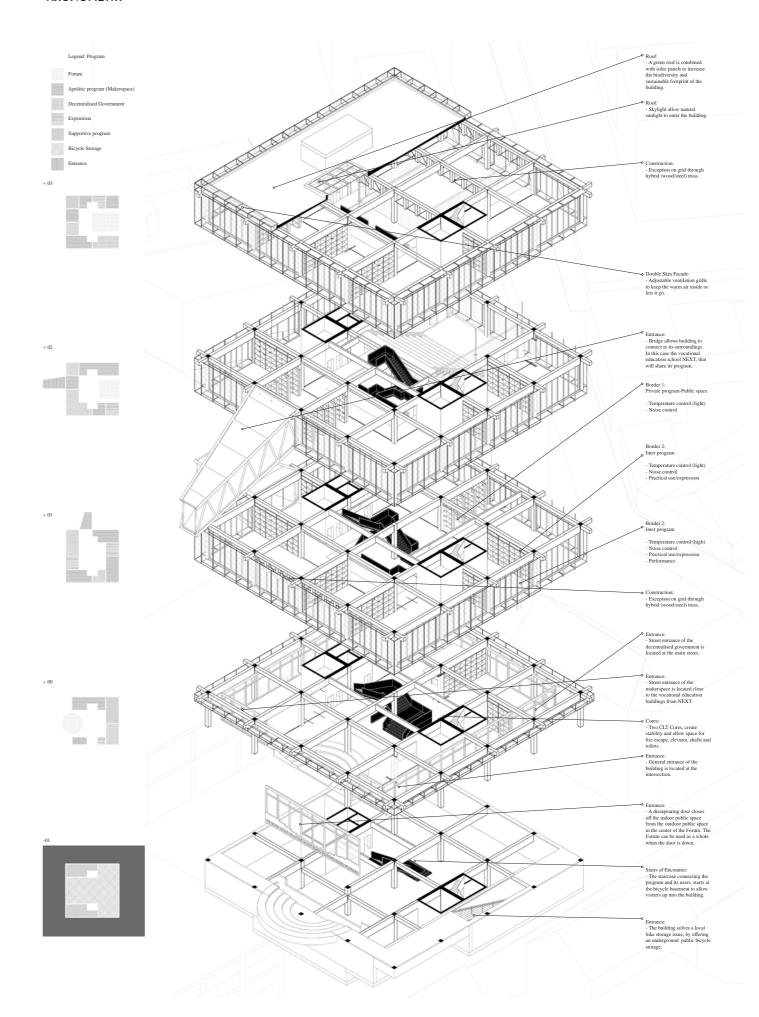
MAARTEN HIKSPOORS 4822447

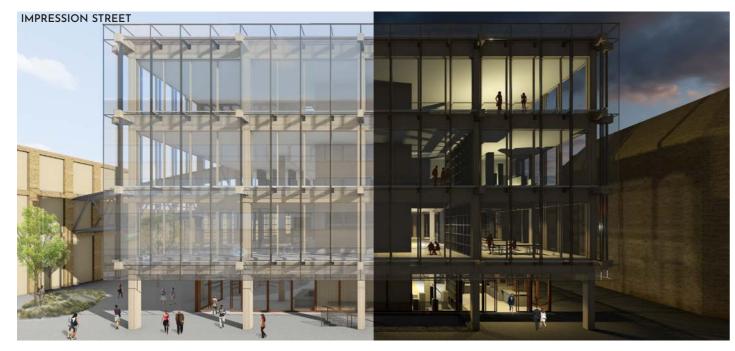
THE DEPOLARIZER

A PUBLIC CONDENSER TO FIGHT POLARIZATION

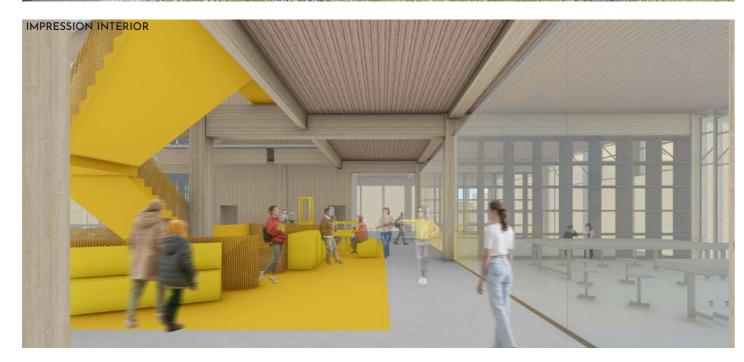


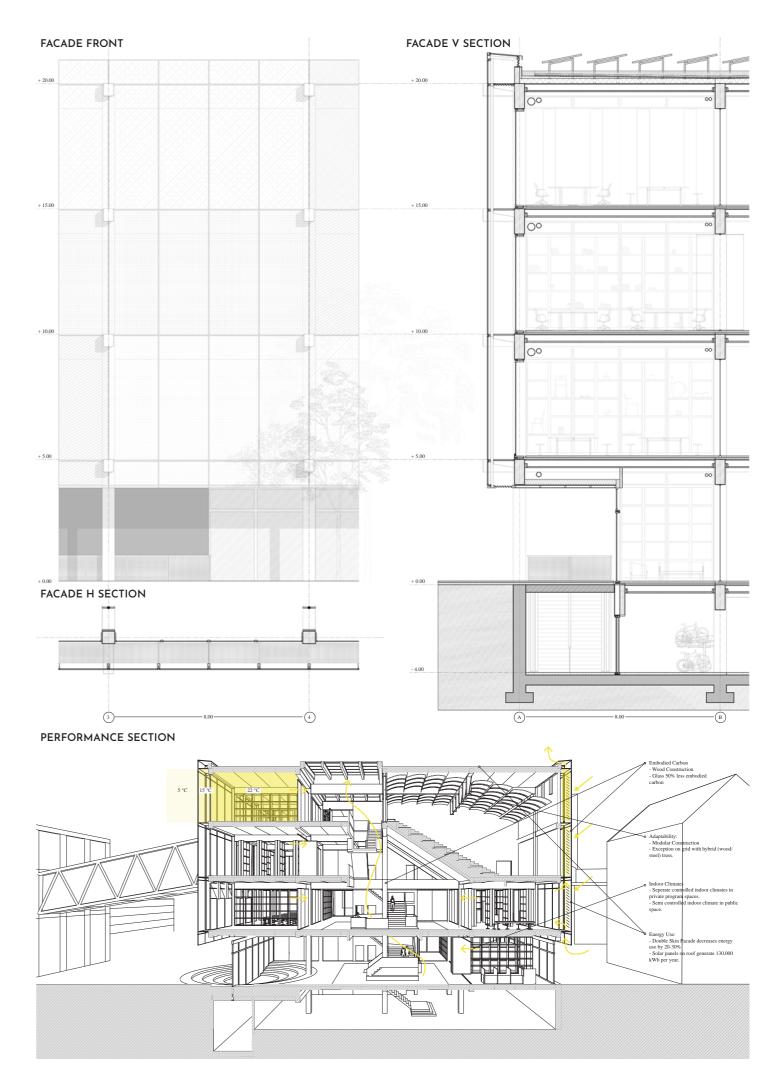
AXONOMETRY











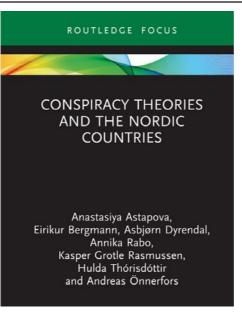
4.2. Preliminary Research

4.2.1. Literature Review

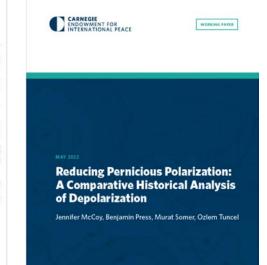












4. Research by Design Journal 86



Conclussions

Ron van Wondern Researcher KIS Institute (Kennisplatform Inclusief Samenleven)

Publication: Theorien en aanpakken van polarisatie (Theories and approaches for polarization)

Local Issue

Strenghtening depolarizing factors

Understanding of difference

First encounters



Lammert Kamphuis Philospher, Speaker and Author

Publication: Verslaagd aan ons eigen gelijk (Addicted to our own righteousness)

Polarization natural phenomena

Actively train the mind

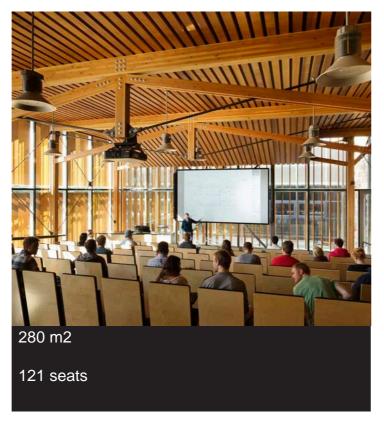
Baobab places

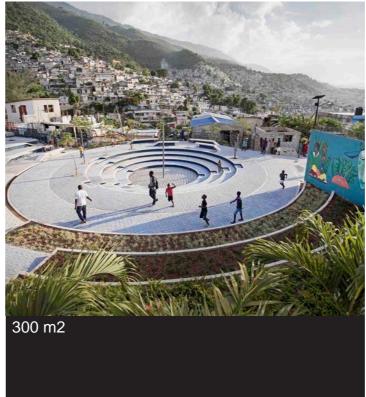
4.2.3. Casestudies

4.2.3.1. Forum Architecture

500

sq. m. for forum program in the Depolarizer

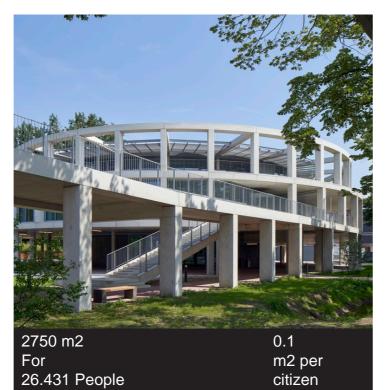


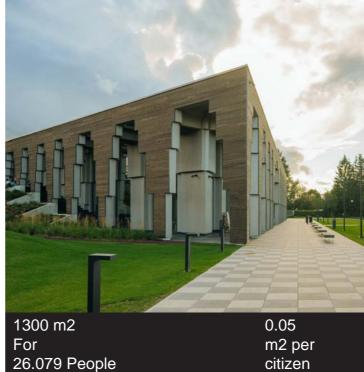




800 sq. m. for governmental program in the Depolarizer

Analysis of square meters needed by municipalities for their townhouses/local governmental institutions





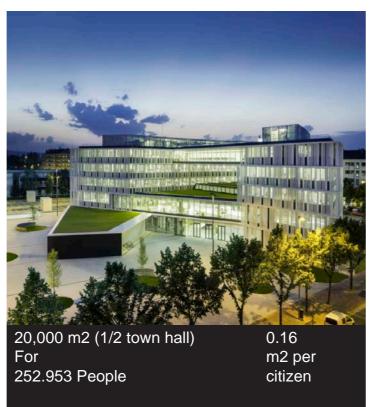


Average is 0,21 m2 per citizen

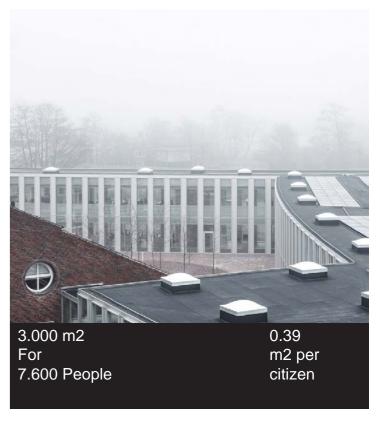
Average (without really small muncipalities) is 0,1 m2 per citizen

Bispebjerg has a population of 32.000 people. Divide the municipal institutions by 4 over the neighbourhood.

https://www.citypopulation.de/en/denmark/copenhagen/admin/1008__bispebjerg/

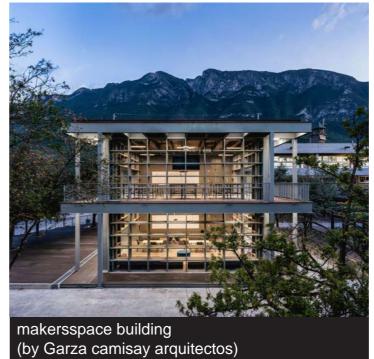






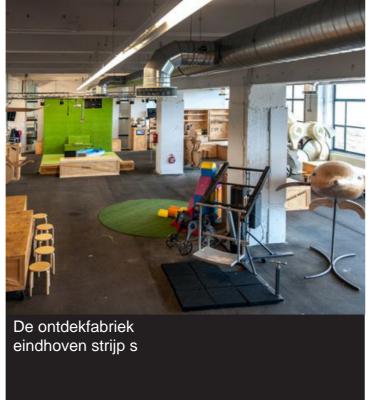


(By Beta)



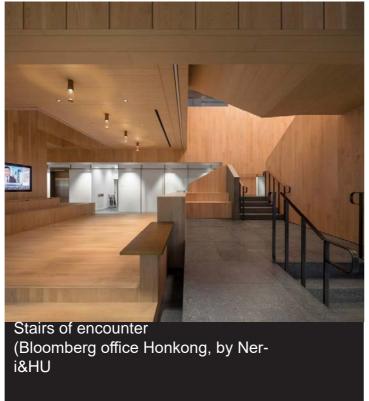


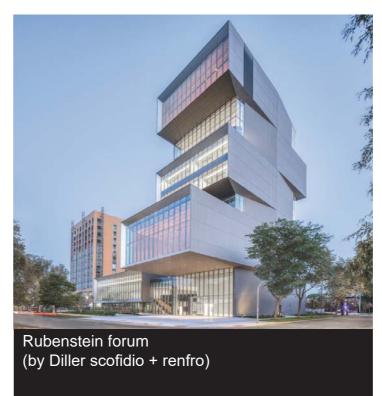
Model hall tu delft Architecture faculty

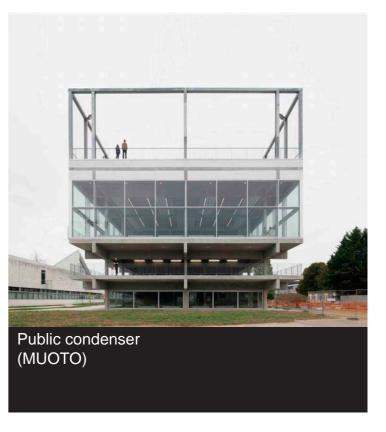










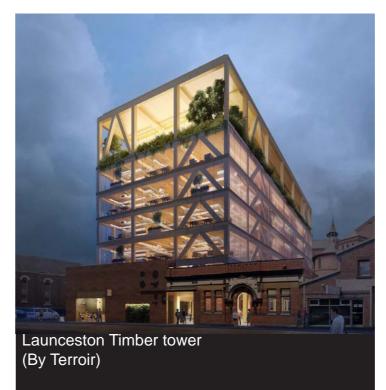












Mass Timber building in Utah (by Gardner)

4.2.4. Architecture of Power

4.2.4.1. National government

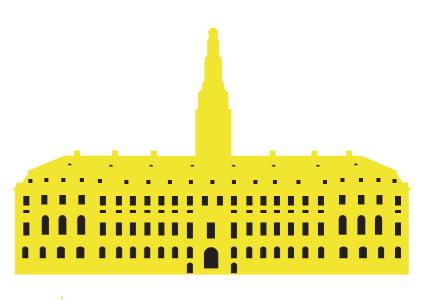
Closed off facades of Danish government institutions

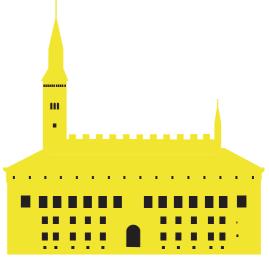






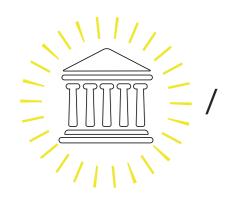






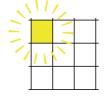












CONCLUSION

- Hidden away
- Just citizen service
- Doesnt express government

•































4.3. Site Analysis

4.3.1. Connections



05. Infrastructure

- Well connected by public transport;
 - ...to region
 - ...to city centre
 - ...to neighbourhoods

Regional/ International Train

Rail (to site)

Rail

Waterbus

Water stop

5.1 1:40000 Map of Copenhagen

1/30



5.2

- Site area next to Norrebro Transit Hub;
- Well connected by bus;
- Well connected through bicycle routes.

Metro
Rail
Bus
Bike
Rail
Bus stop
Rail station

5.2 1:5000 Map of the Bispebjerg site area

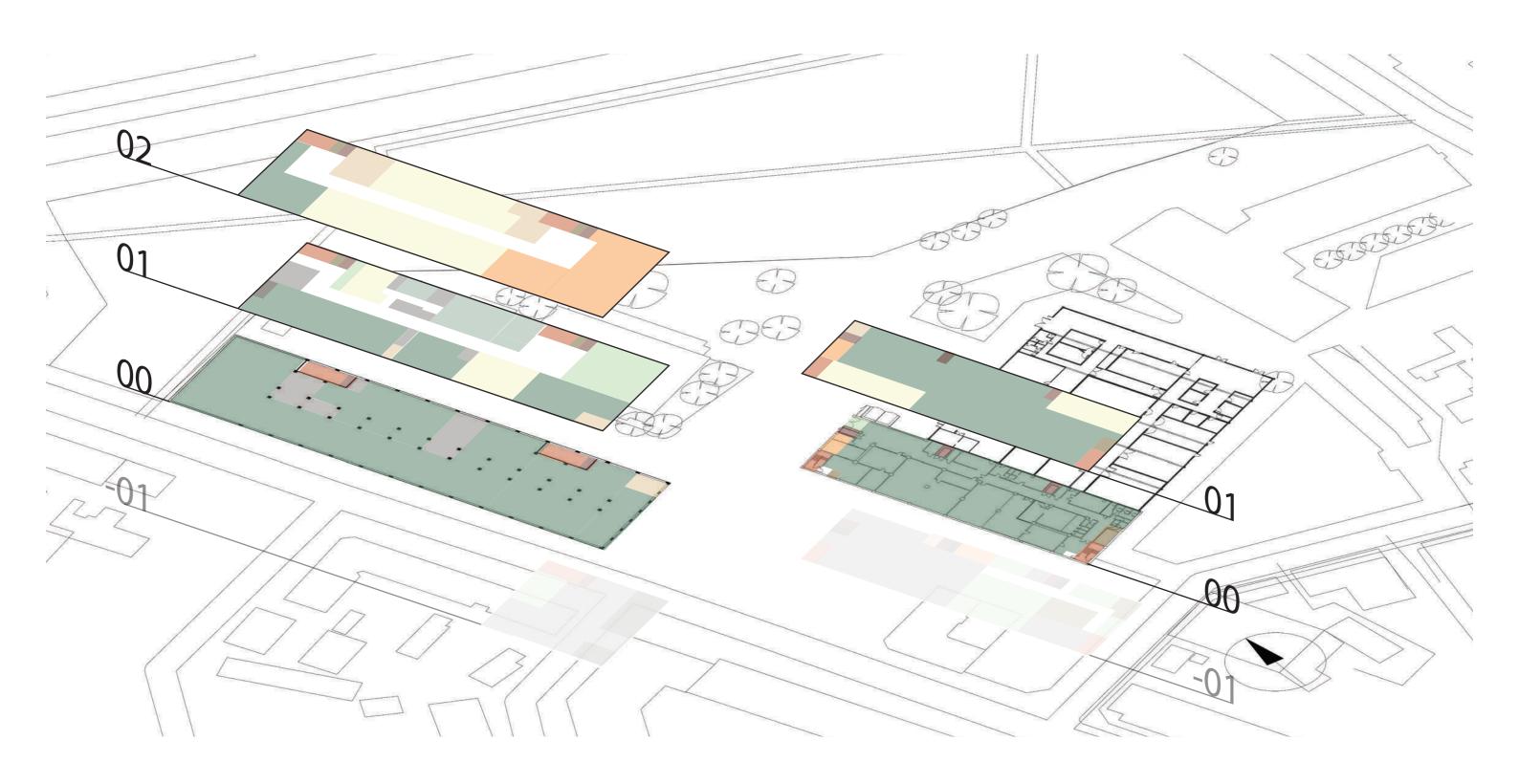
2/30



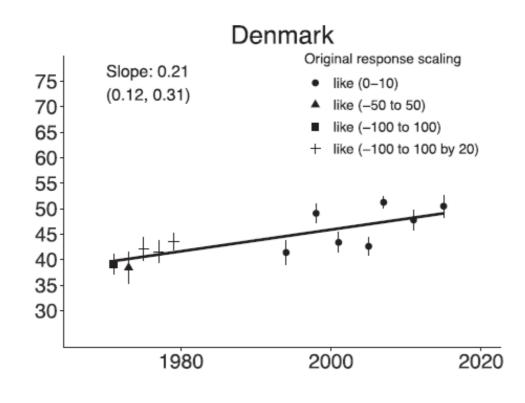
- Public transport stops around site;
- Large physical boundaries;
- Lack of designated bicycle storage.

3/30

4.3.2. Surrounding Program

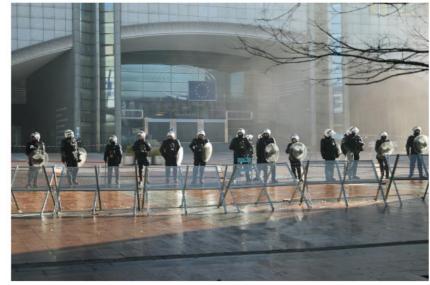


4.3.3.1. Denmark



Political violence surges in Europe amid rising polarization

Source: Xinhua Editor: huaxia 2024-08-08 19:28:15



Police stand guard in front of the European Parliament in Brussels, Belgium, Feb. 1, 2024. (Xinhua/Zhao Dingzhe)

The case-by-case approaches couldn't tackle the root cause, but in the long run, erode the unity of the EU and the essence of European integration.

by Xinhua Writer Zhang Xin, Zhang Gaiping

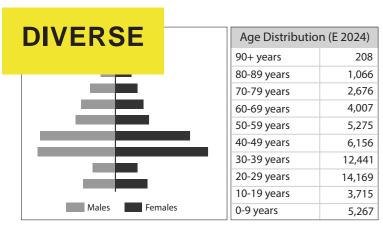
BRUSSELS/BUCHAREST, June 8 (Xinhua) - The attack on Denmark's Prime Minister Mette Frederiksen on Friday serves as the latest indication of a troubling surge in political violence sweeping Europe, amid the ongoing European Parliament (EP) elections.

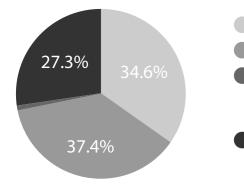
PARALLEL SOCIETIES

GOVERNMENT









- Copenhagen
- Denmark
- Faroe
 Islands &
 Greenland
- Foreign country







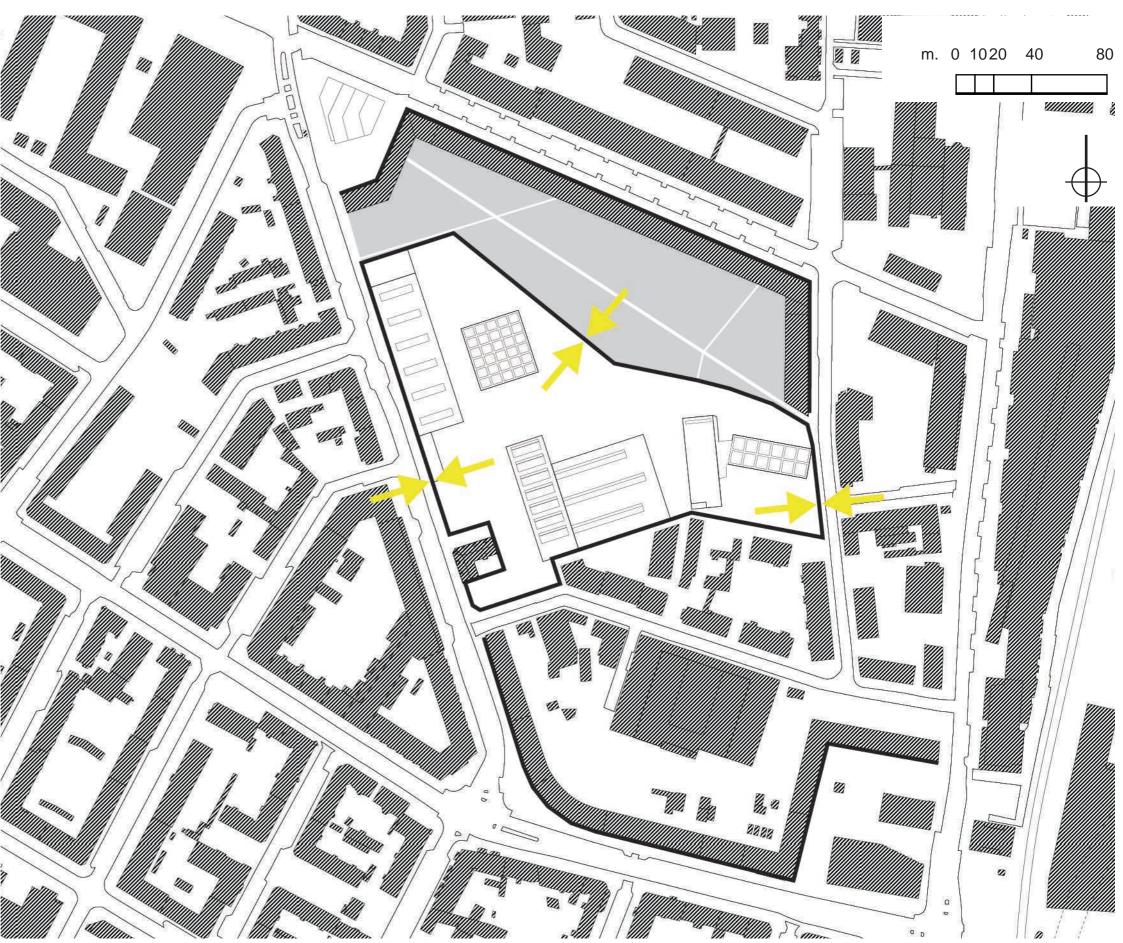












4.4. Theory and Delineation Exercises

4.4.1. Sennet & Feinberg

Public Building, Theory & Delineation, 11/09/2024 Lucca Ardesh, Yanal Haj Khalaf Allah, Yichen Li, Maarten Hikspoors

A reflection on Richard Sennett' "The Public Realm" and Arthur Feinberg' "Urban Commons"

The complexities of Urban Commons and Cosmopolitanism Urban commons play a vital role in enhancing the social, economic, and physical fabric of cities. A key challenge highlighted in the literature revolves around the specific nature and implementation of urban commons. Whether urban commons are established through an open or closed system or by the government or the private sector, each approach offers distinct advantages and disadvantages explained in the texts. In an open system, decision-making and bureaucracy can hinder the development of commons. In contrast, closed systems limit the interaction between users and authorities, potentially compromising their effectiveness. However this discussion is much more complex to be binary and this inherent complexity appears to be a defining characteristic of urban commons. This text aims to underscore how nuanced the topics discussed really are by using three examples from the text. In these examples, Sennett identified certain aspects to be beneficial or drawbacks, while our group found these distinctions to be less clear-cut.

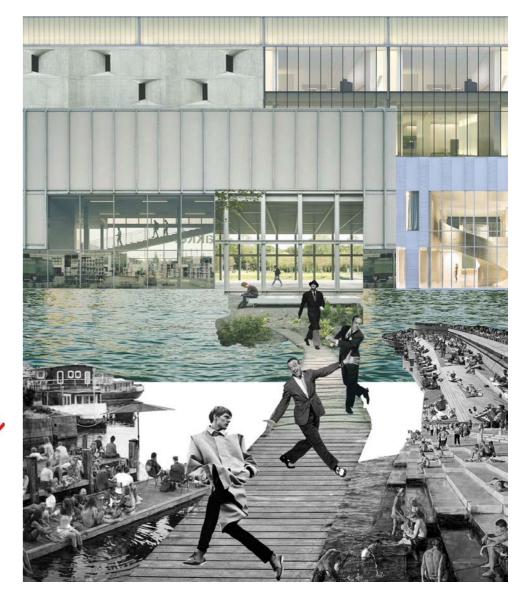
Firstly, Sennett describes how the mixture of difference and indifference within a city leads to social fragments living beside each other, instead of with each other. This anonymity allows people to experience a certain form of freedom which is oftentimes appre-

ciated. However, this leads to people no longer using the urban commons provided in the public realm: people no longer dwell in it and use it merely as a means of transporting oneself whilst avoiding potentially encountered unpleasantries by simply walking away from situations that are outside of one's sphere of relatability. Secondly, Sennett's perspective presents certain "skilled cosmopolitan actors" as an ideal model for urban living. These skilled cosmopolitans have learned the rituals of "the presentation of self in everyday life" allowing them to communicate well with strangers. They are skilled at living in time, at home with change. According to Sennett, they may be the city's future: they could be a model on how to inhabit the city well. However, this assumption presupposes the capacity to modify the behaviour of urban dwellers themselves. Shouldn't the focus, instead, be on shaping the built environment to meet the needs of all inhabitants? This raises a critical question: are we tasked with designing the individuals who inhabit the city, or are we designing the public realm for those individuals? Sennett is a proponent of the performative approach, which emphasises a group of people capable of performing certain (very) social rituals. However, positioning this as the ideal is problematic, as it inherently excludes those who are less adept in such skills, for example, people with any type of antisocial behaviour disorder.

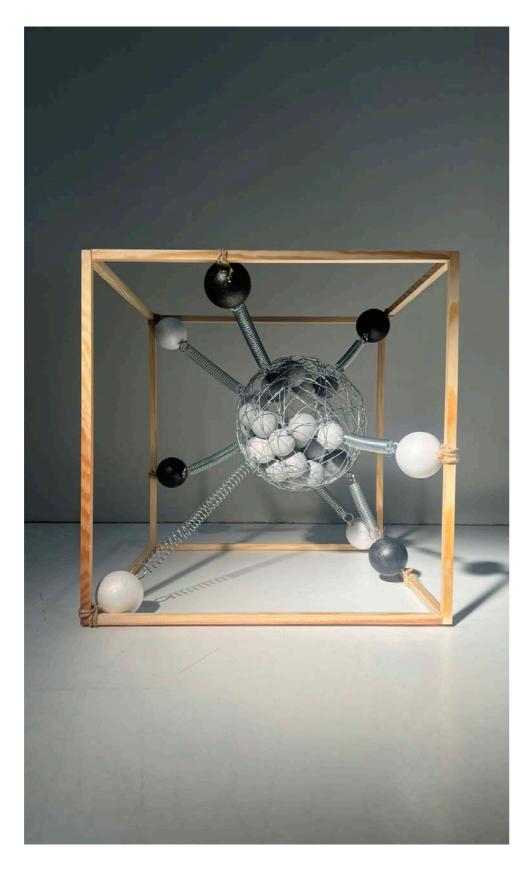
Lastly, Sennett is trying to employ metaphors from natural ecologies to urban/building design, on both macro and micro scales. By analysing the notion of the border, he compares the urban and built environment to the habitat and cells. In nature, the borders of the habitats are zones where organisms of different species interact more intensely. In biology, the cell membrane allowing selective matter to flow in and out, is porous and resistant. In these cases, borders' functions are both limits and active exchange areas. He argues that increasing the porosity of buildings will be one of the great challenges of 21st-century architecture. Porosity could make buildings more genuinely urban, transforming them into active public spaces, and allowing physical communication. In cases where physical permeability is not possible, he mentioned water can serve as a soft boundary, allowing only visual penetration. The view beyond the boundary becomes a spectacle, and the shared experience of observing it helps shape the public realm.









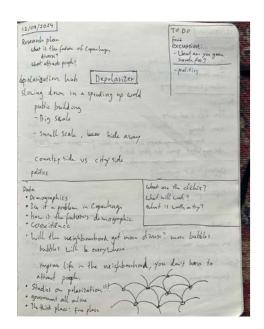


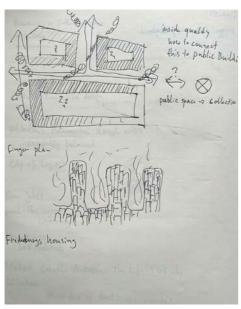
105

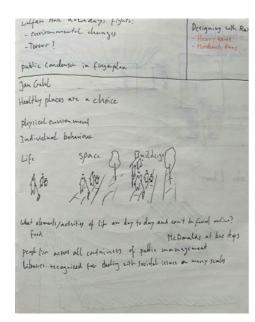


4.5. Concept Evolution

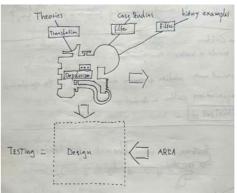
4.5.1. Sketches P1

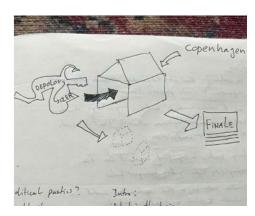


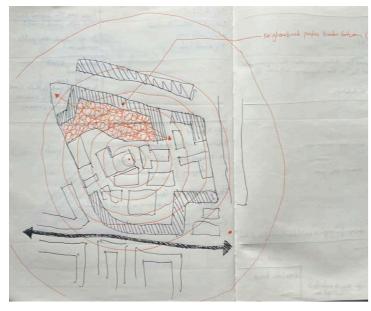


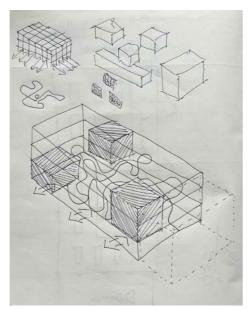


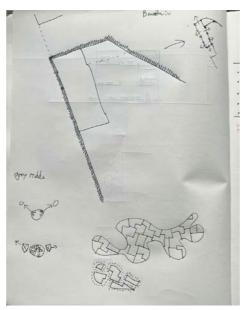


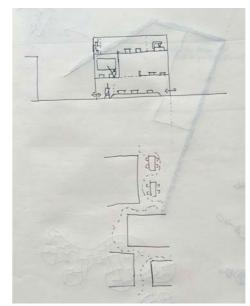


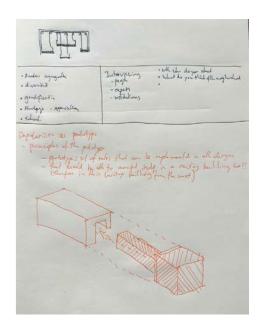












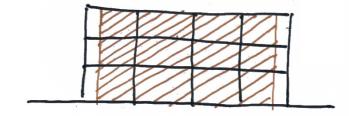
Transparancy

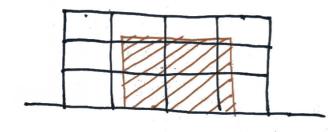
Flexibility Allows for

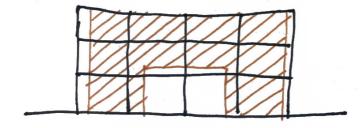
Openness

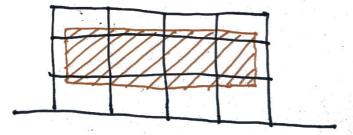
Allows for interaction and connection within the building.

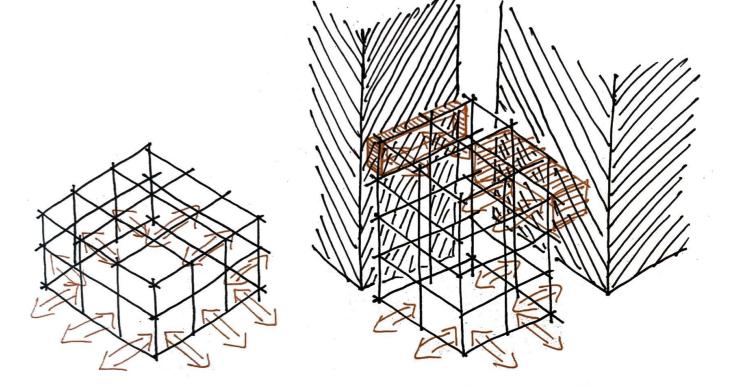
Implementable in any new or existing locally based skin

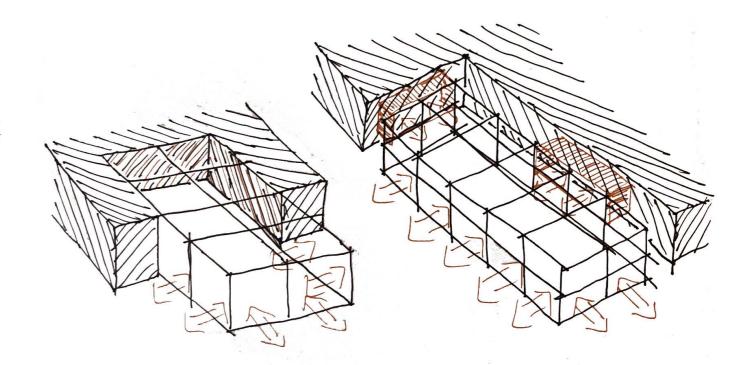






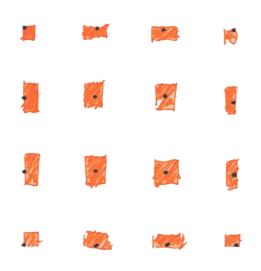


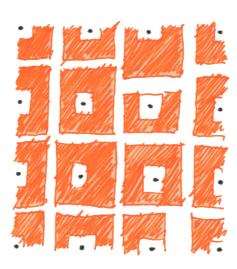


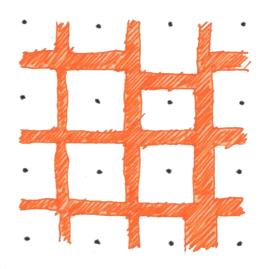


4.5.3. Floorplan concept

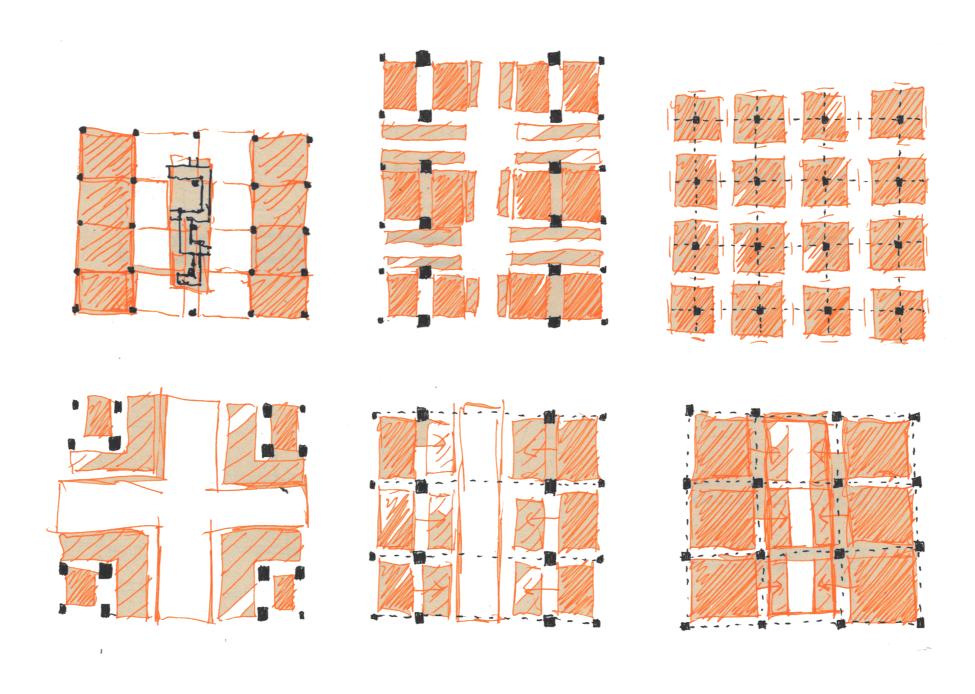
Floorplan concept private to public

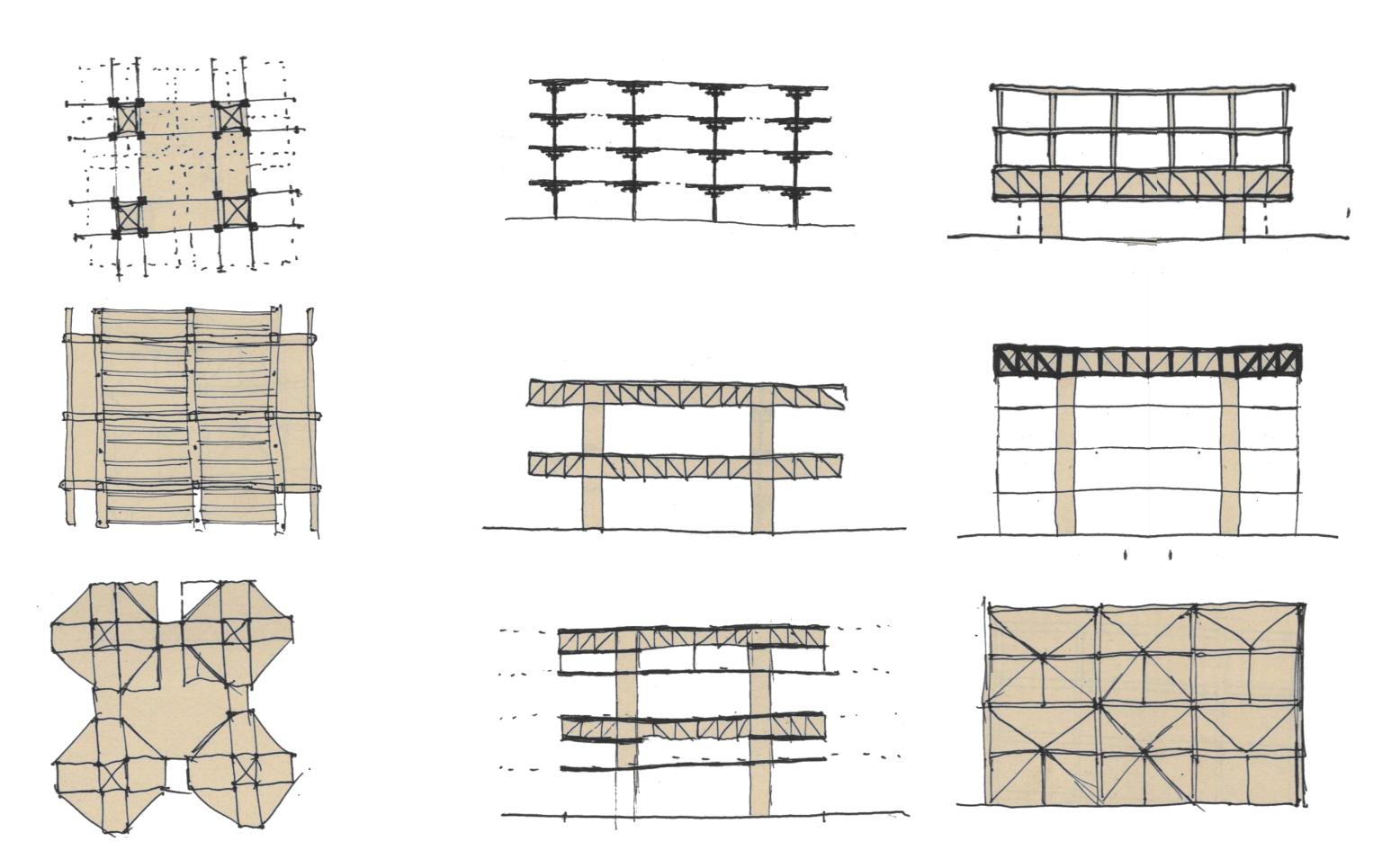




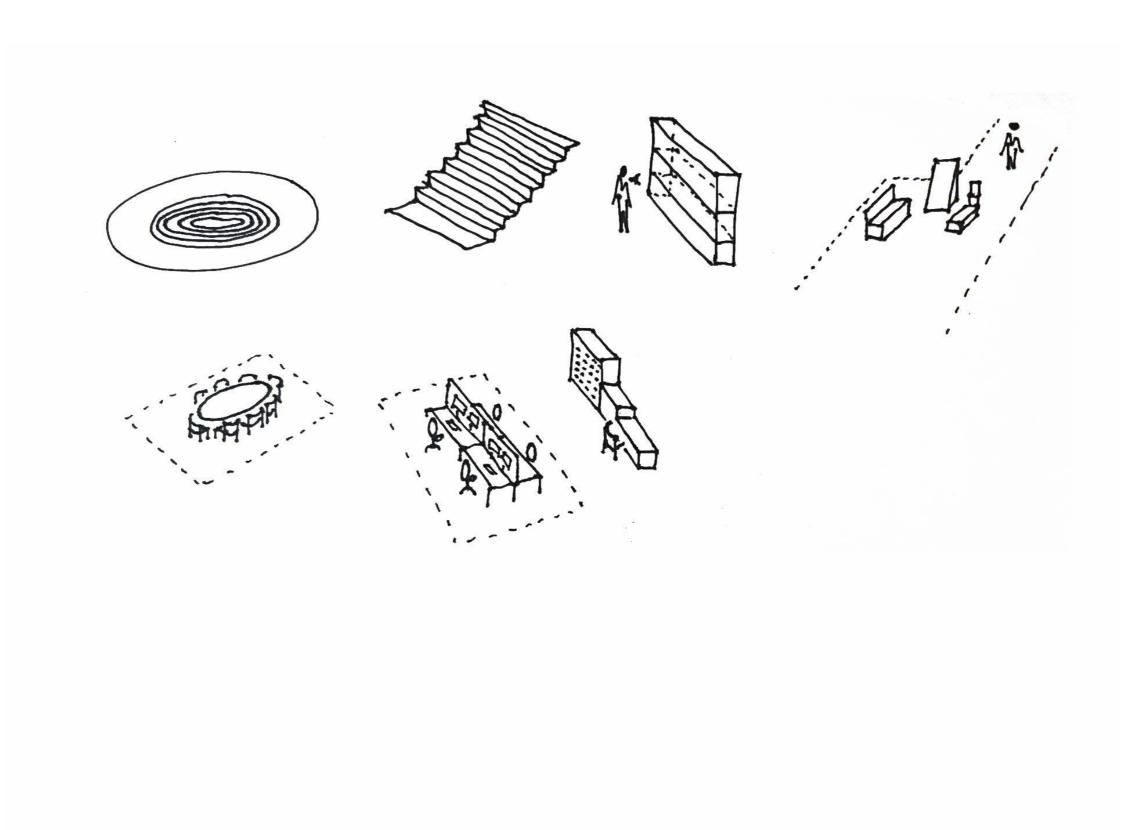


4.5.4. Floorplan Arrangement

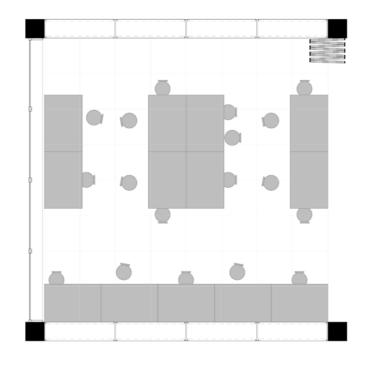


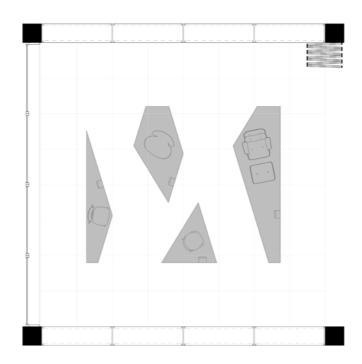


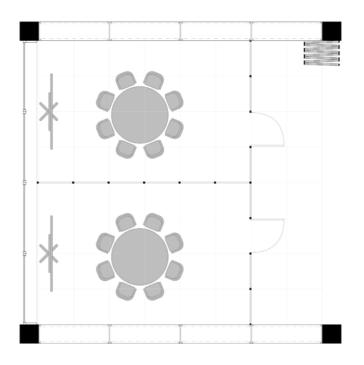
4.5.6. Plug and Play elements

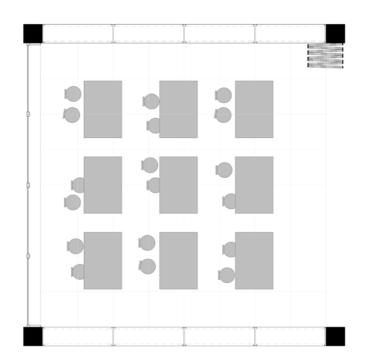


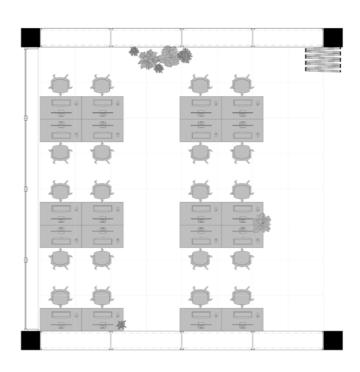
4.5.7. Use within the grid





















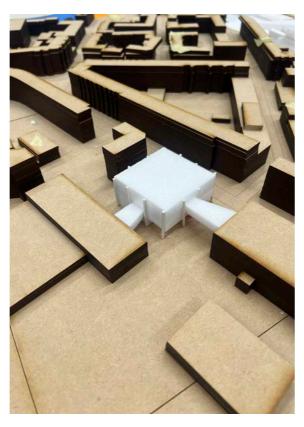






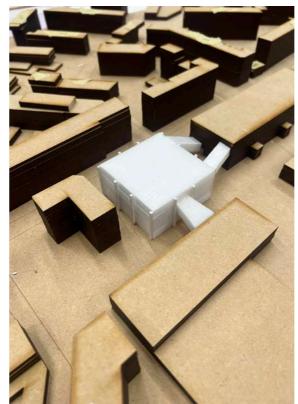






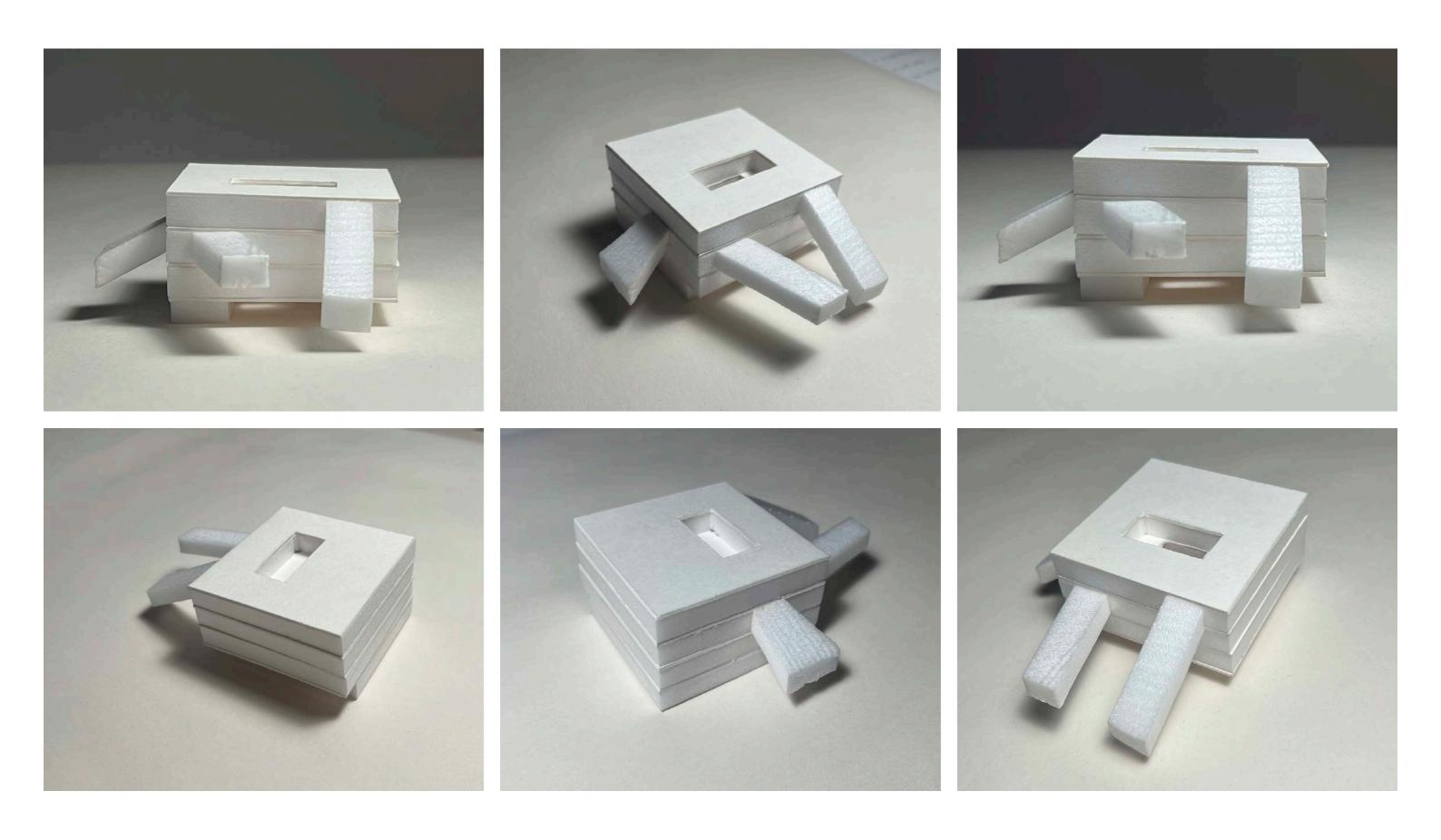






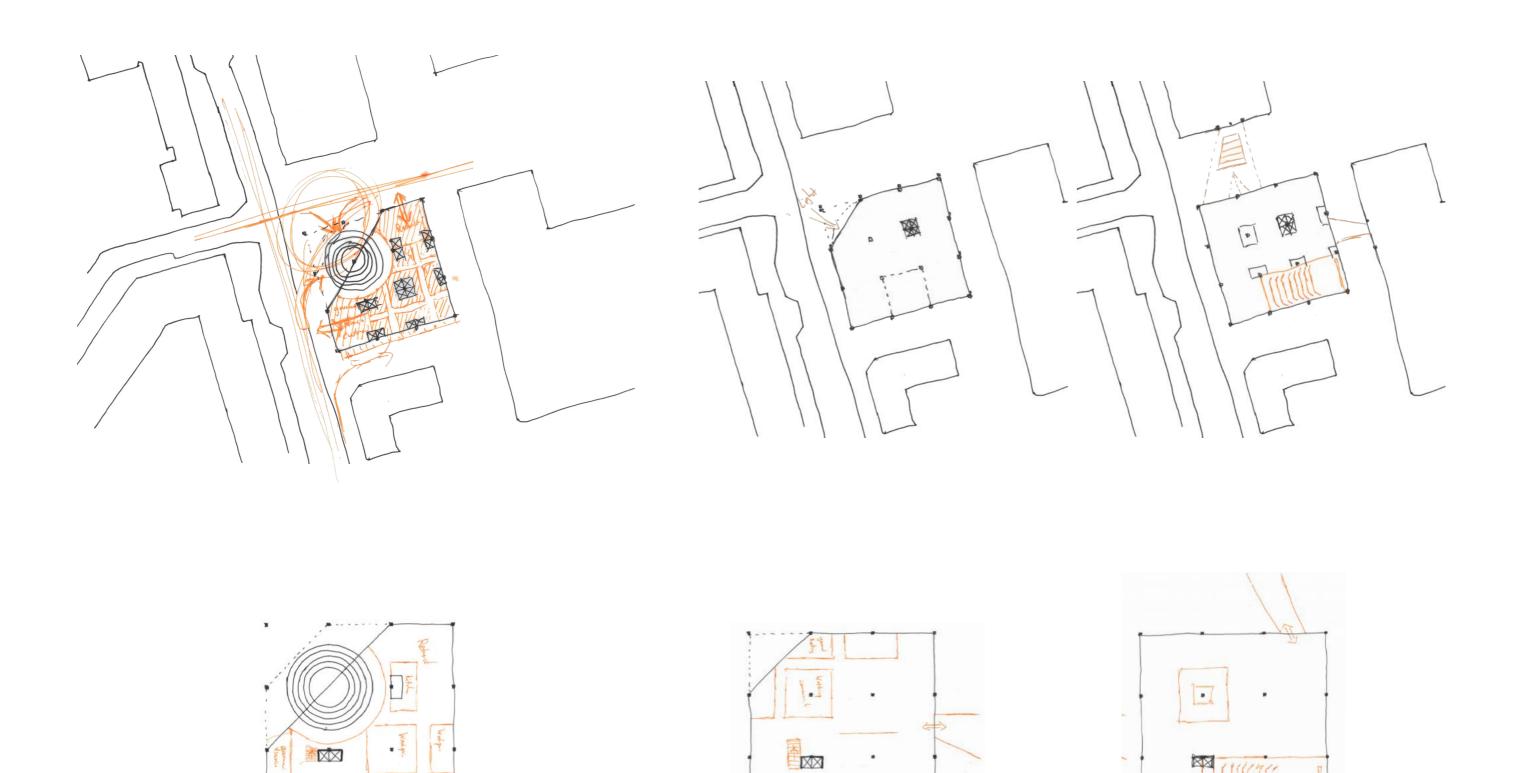




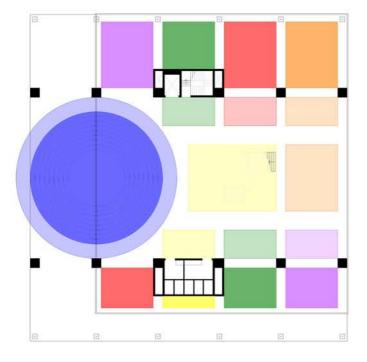


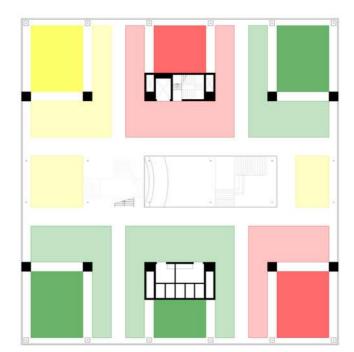
4.7. Design Evolution

4.7.1. P2 Options

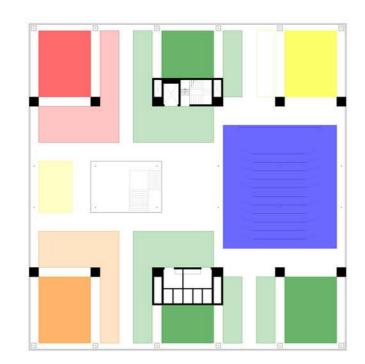


FLOORPLAN 00 FLOOKPLAN UI



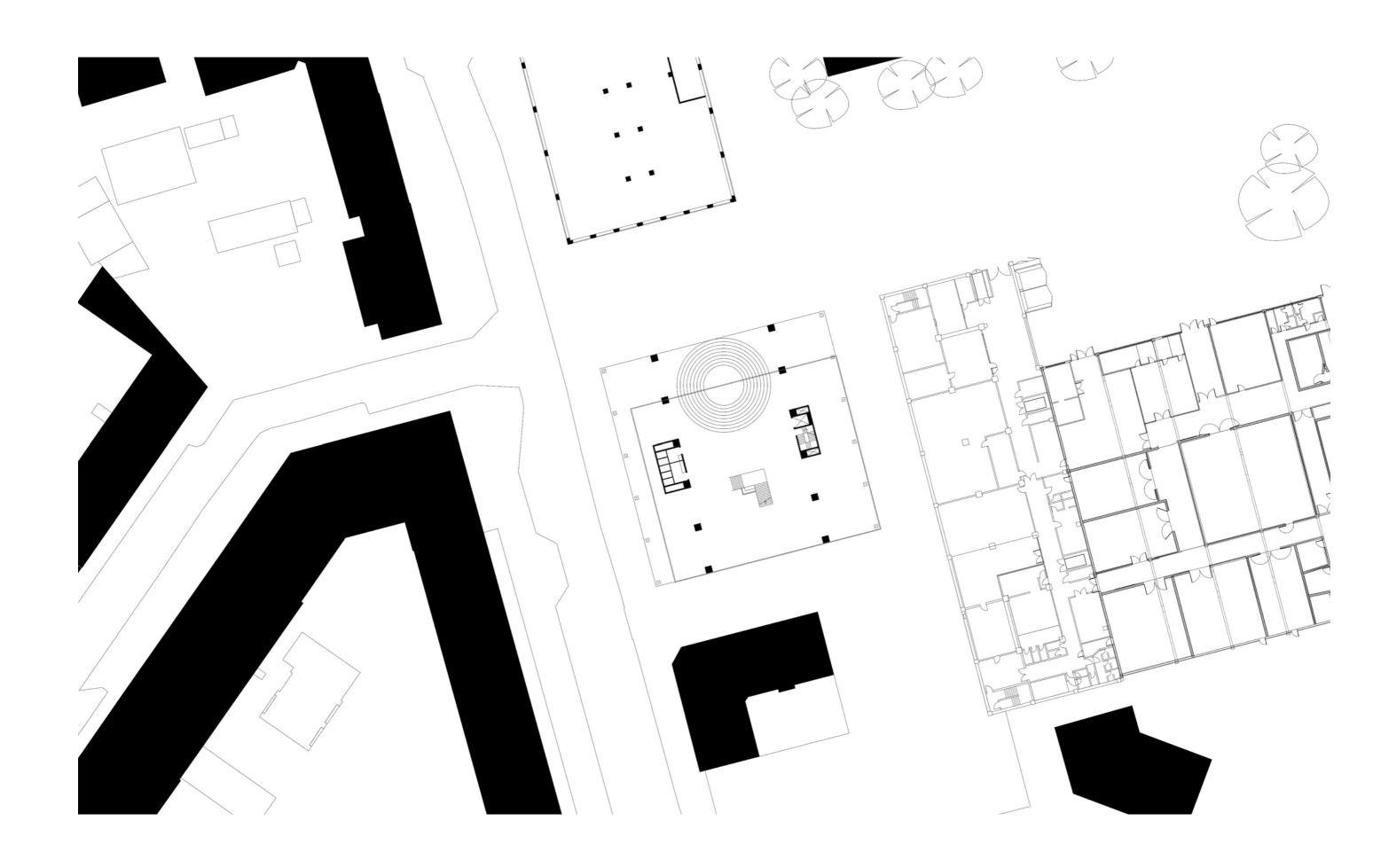


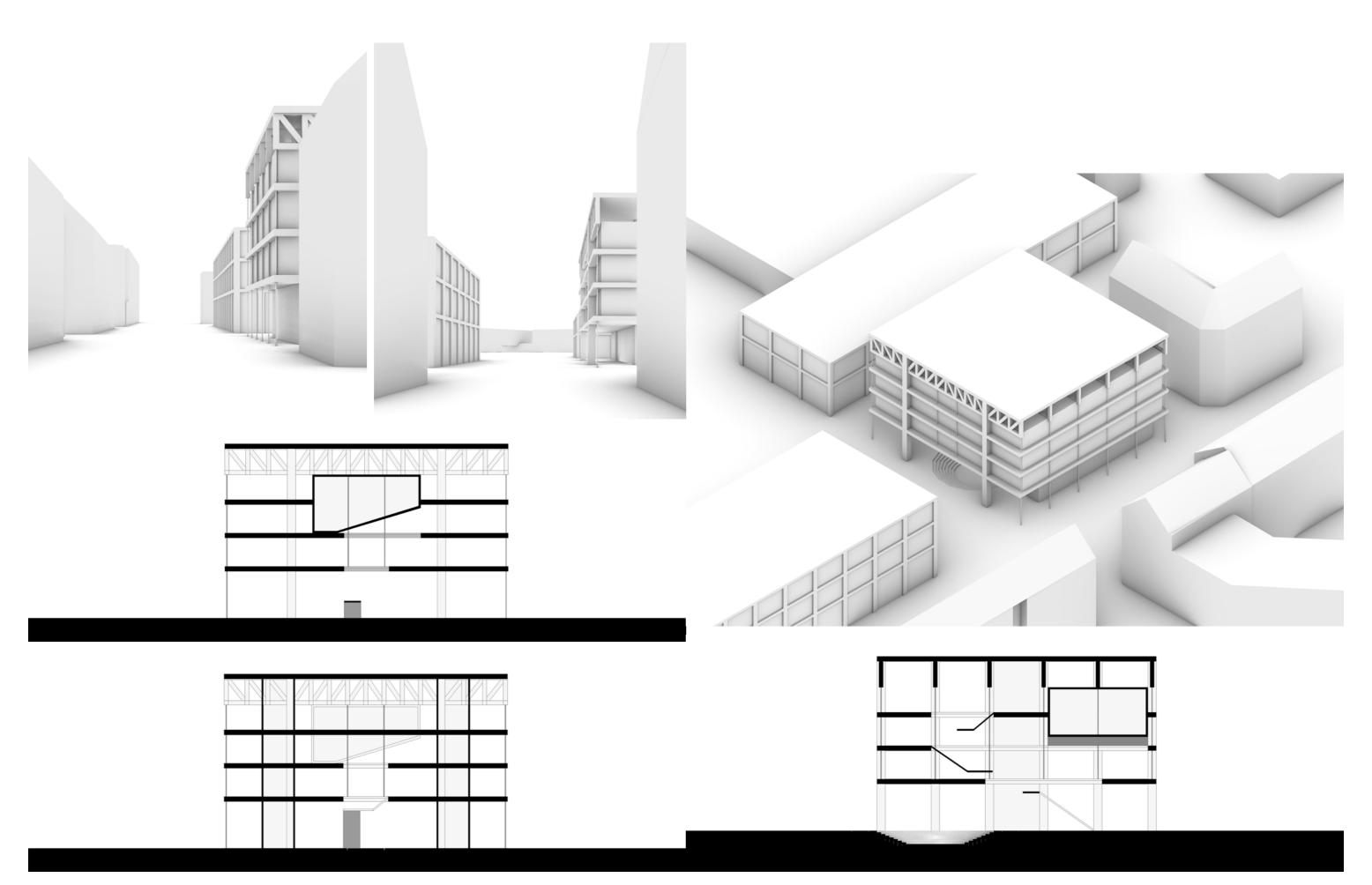
FLOORPLAN 03



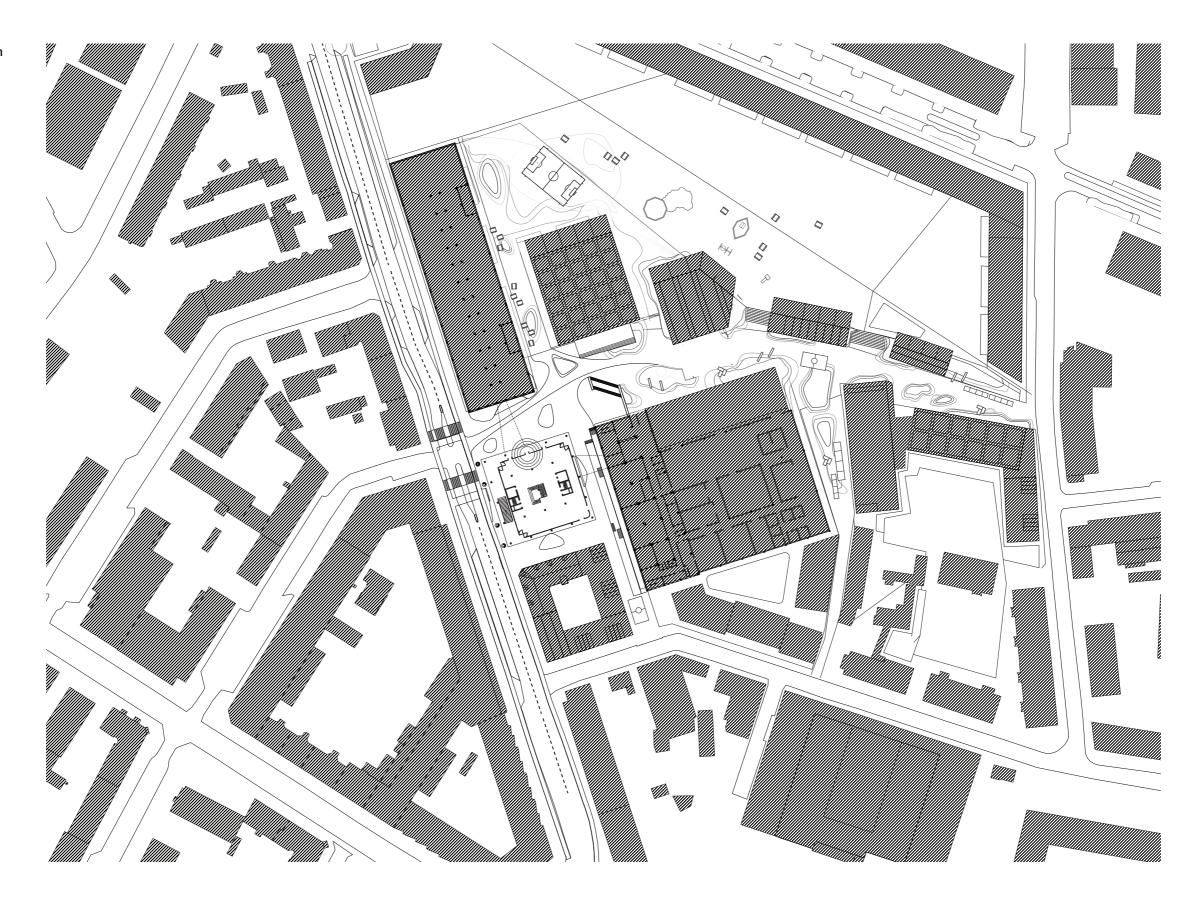


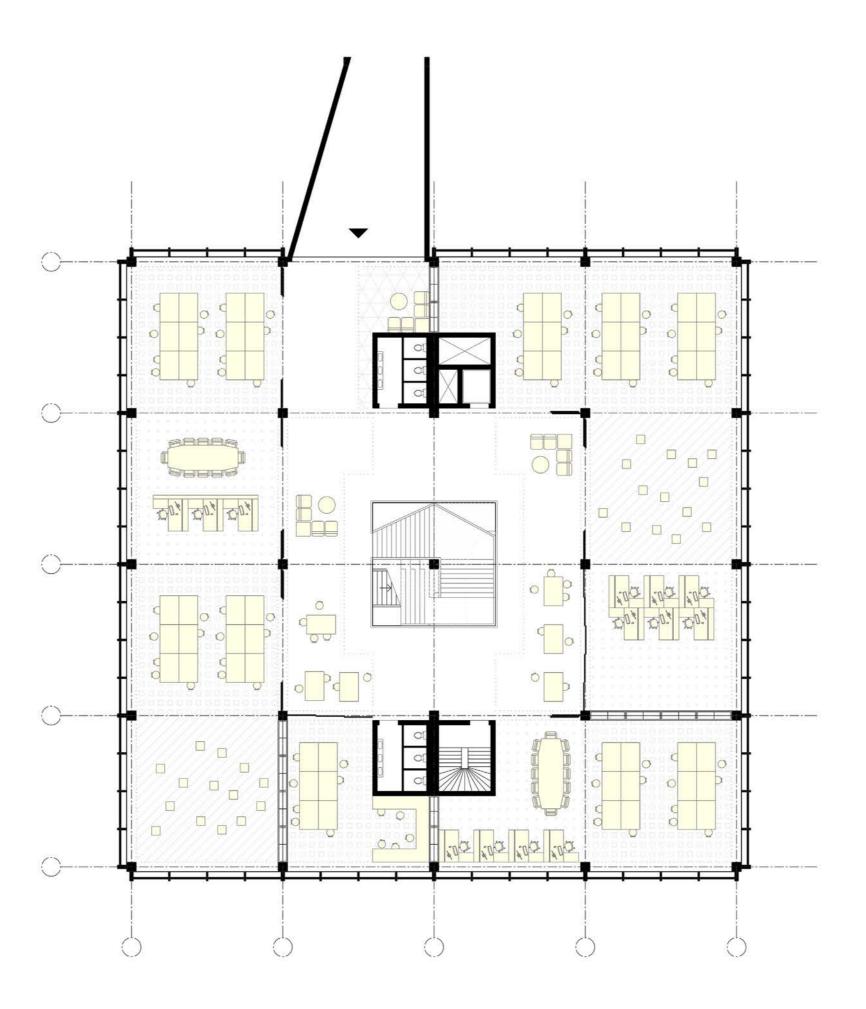
FLOORPLAN 02

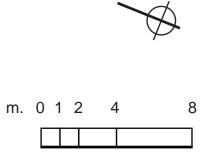


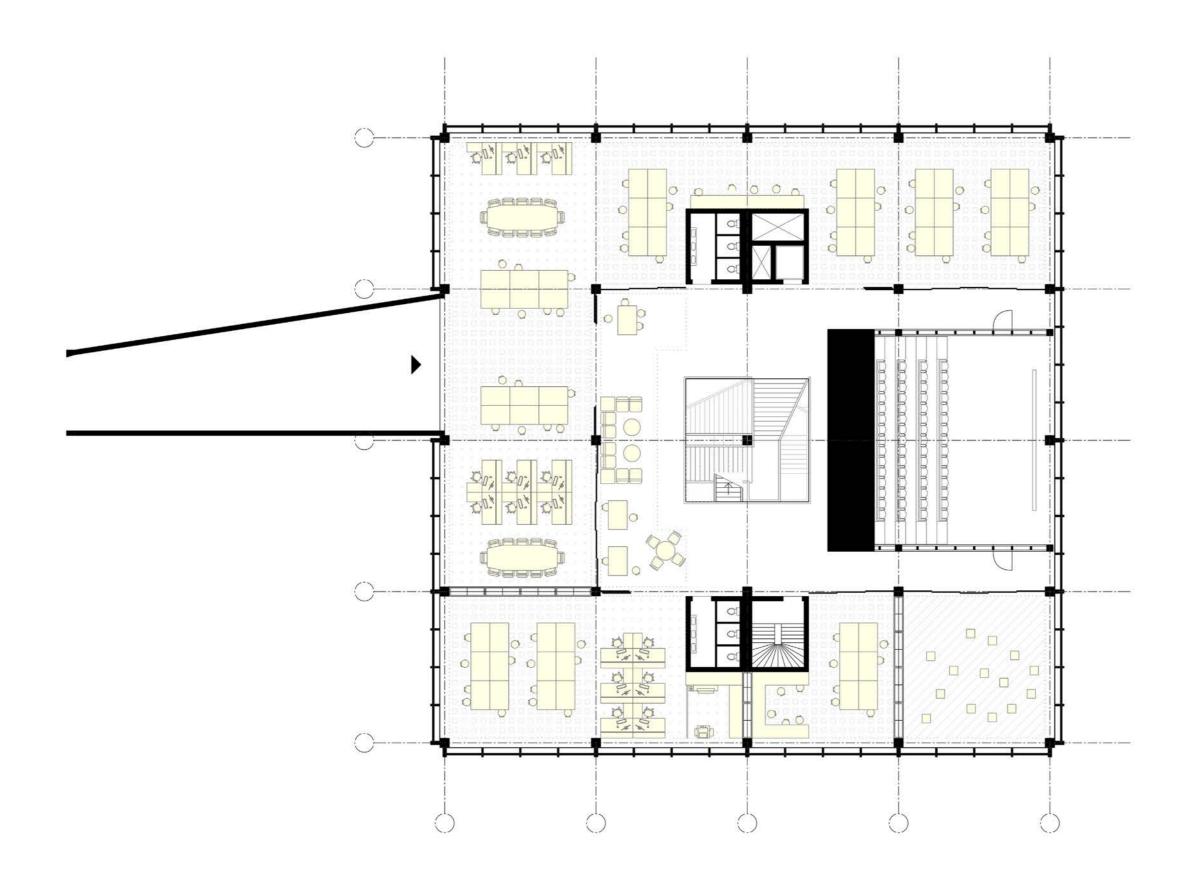


Design in location

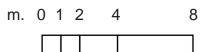


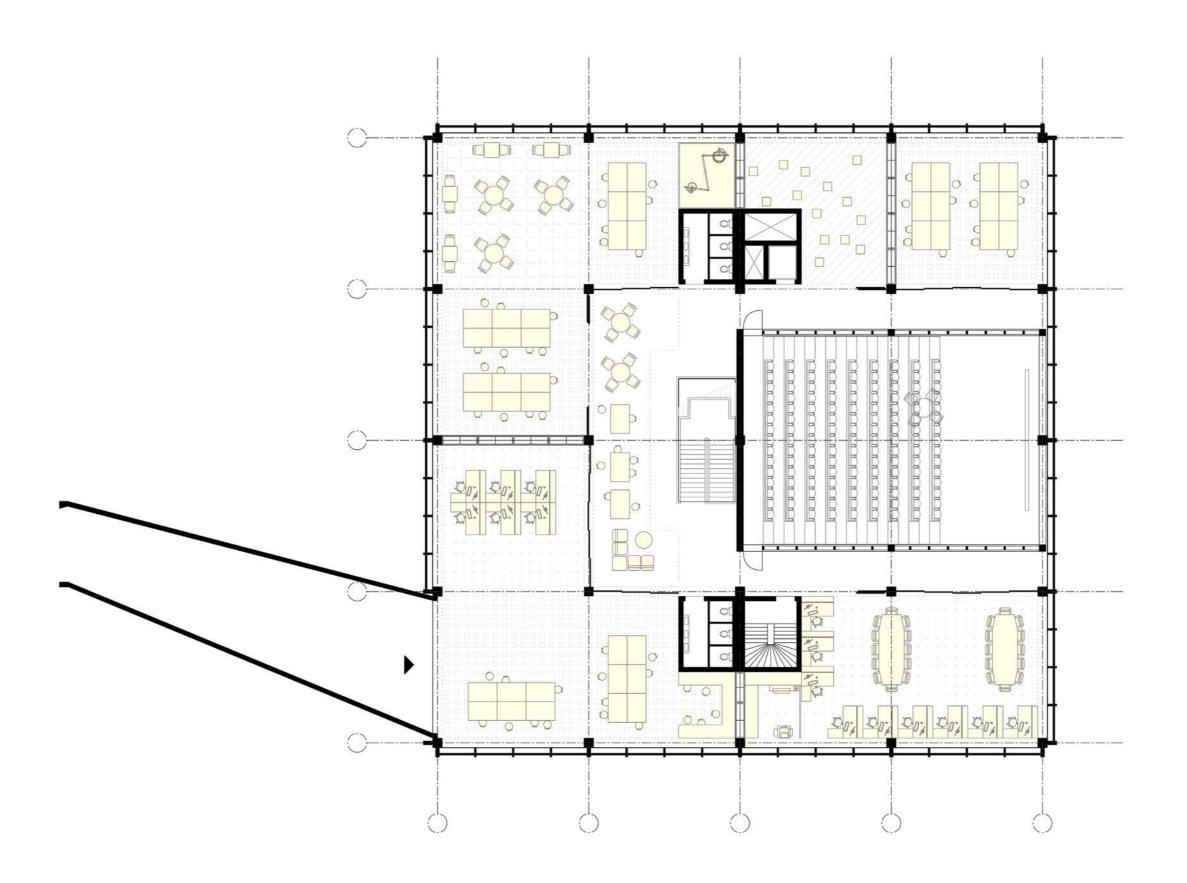


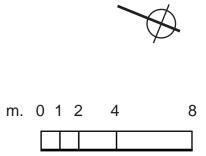


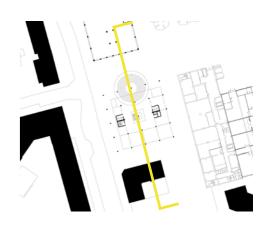




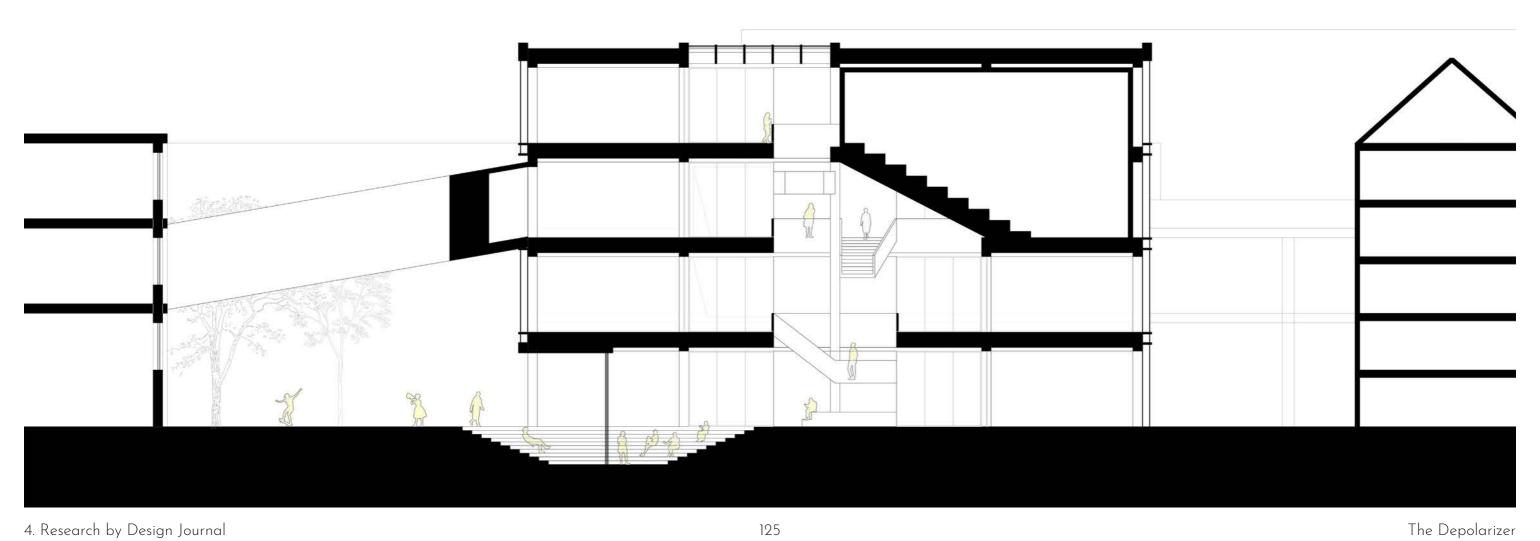


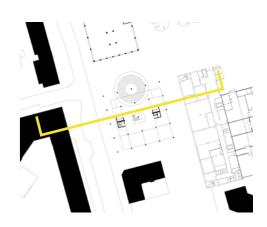




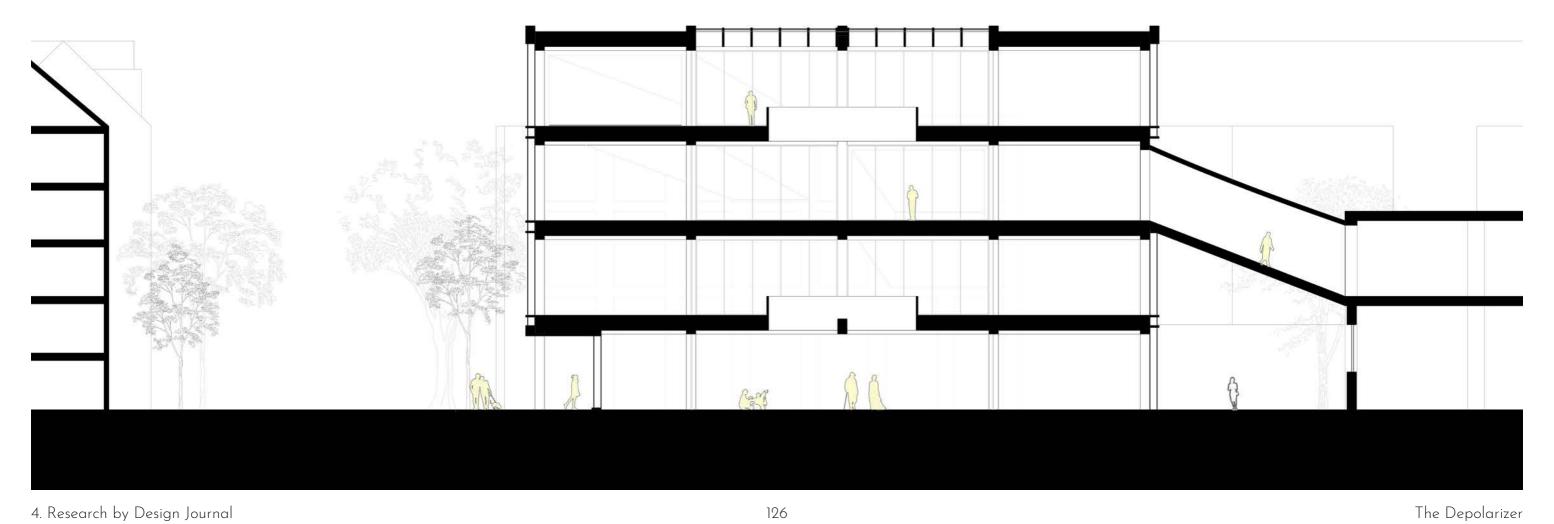


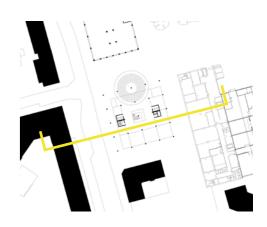
m. 0 1 2 4



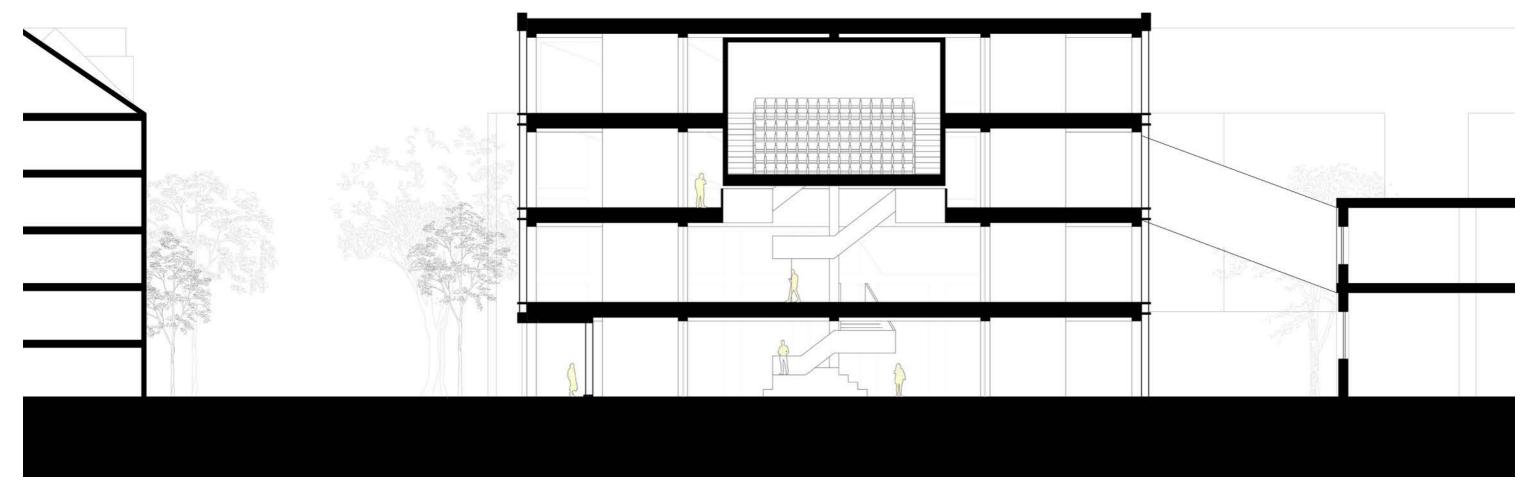


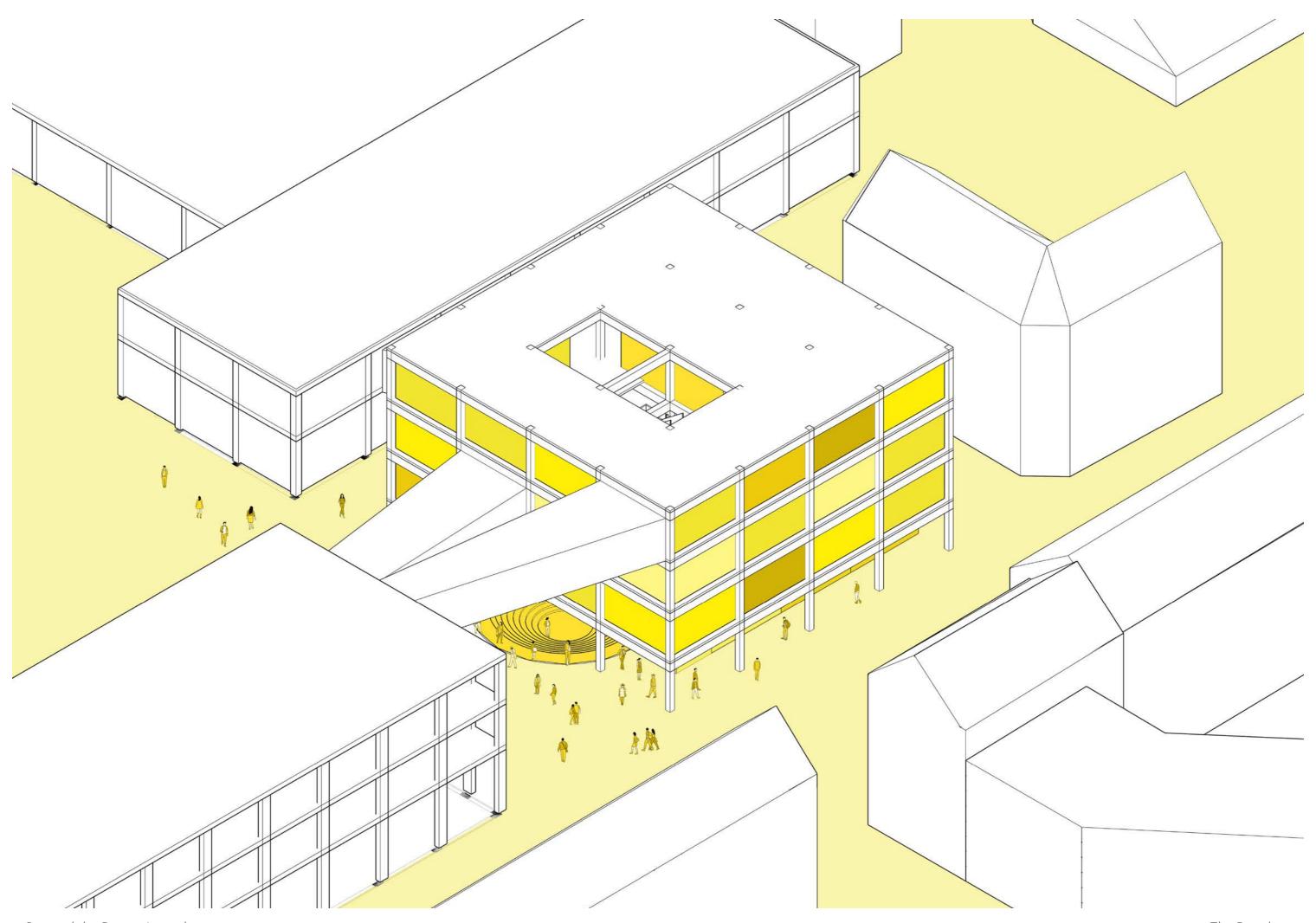
m. 0 1 2 4

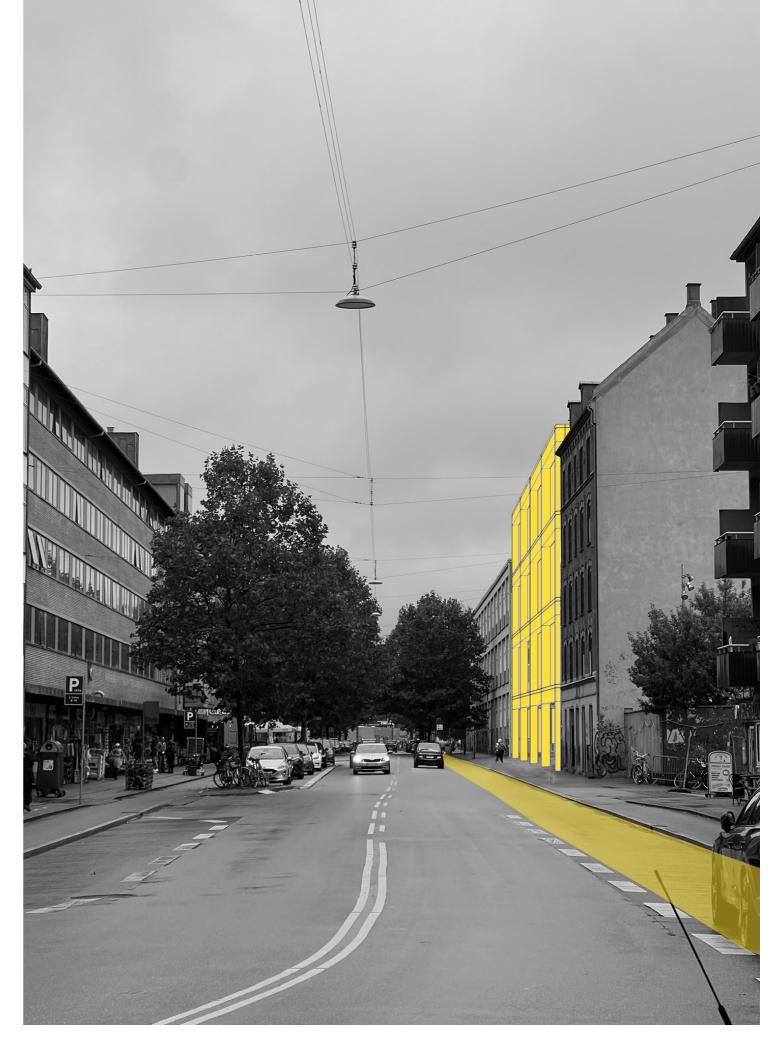




m. 0 1 2 4











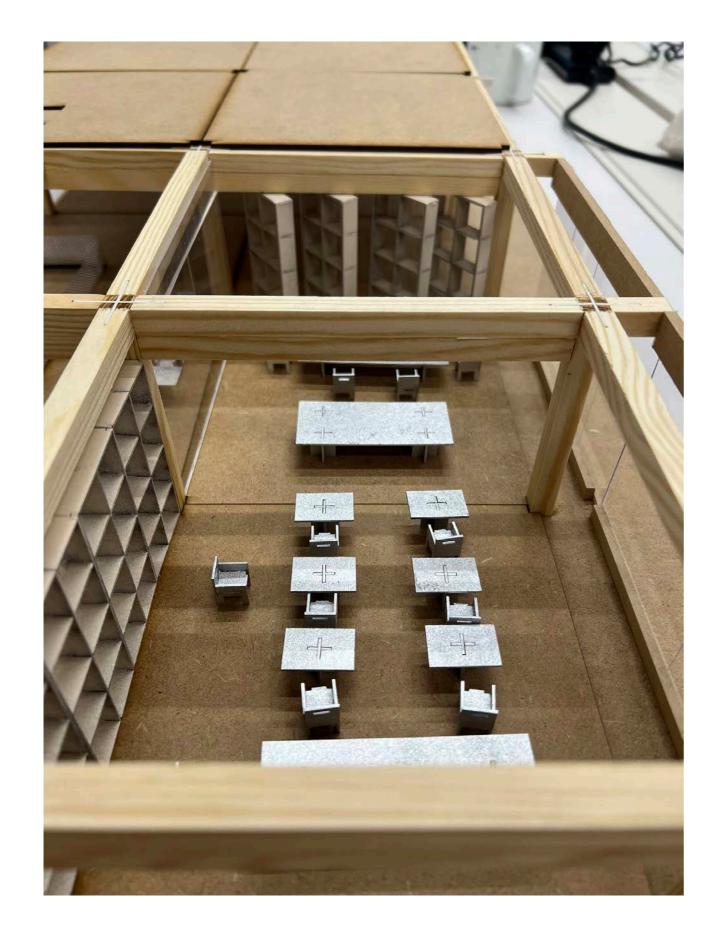
4.8. Interior Model



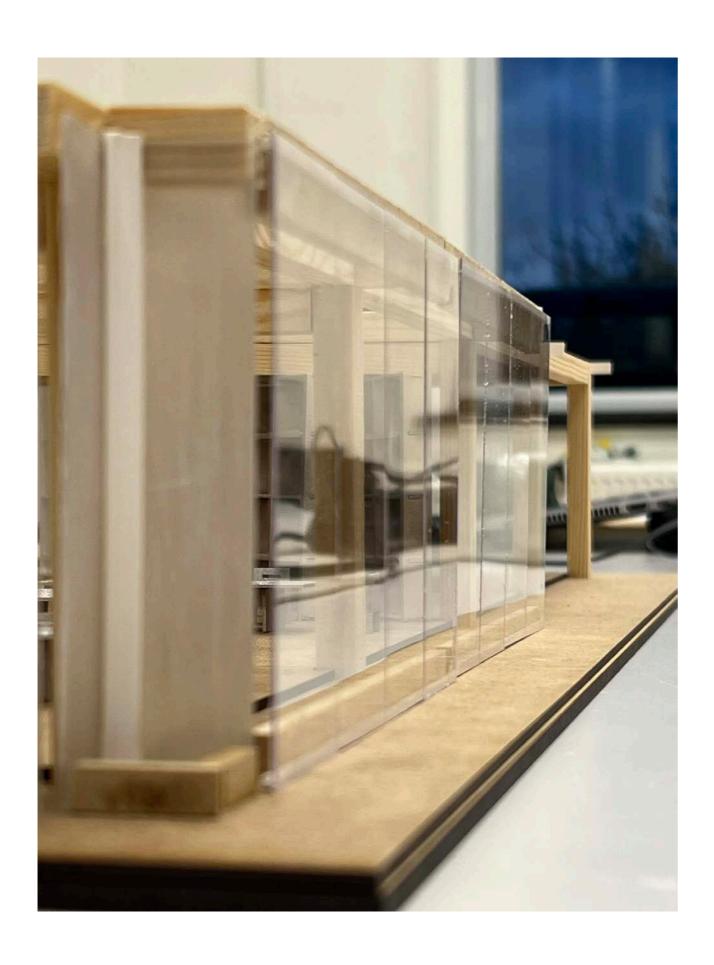






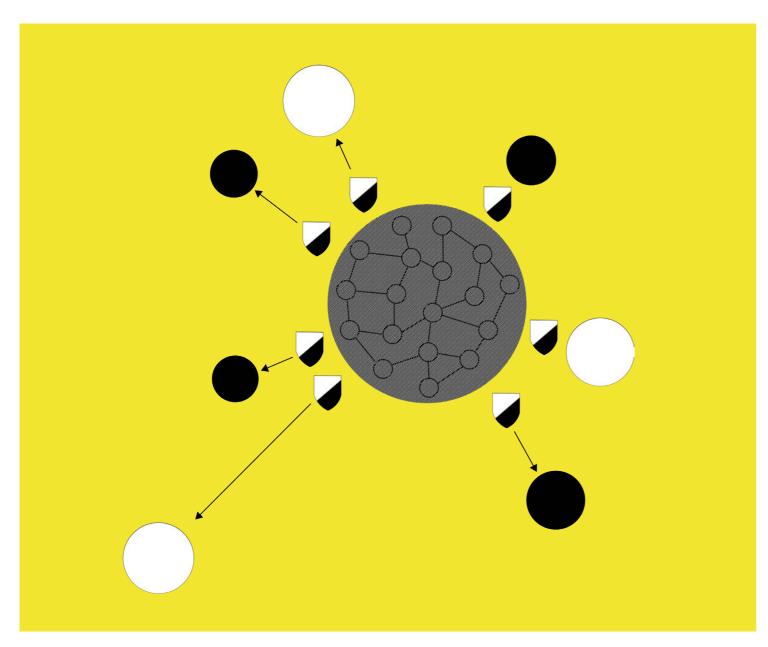






5. Final Reflection

THE DEPOLARIZER



FINAL REFLECTION 08/05/2025

MAARTEN HIKSPOORS 4822447

Public Building

Graduation Studio - Public Condenser AR3AP100, 2024-25

Maarten Hikspoors 4822447

Paul Kuitenbrouwer - Architecture/Project Design Elina Karanastasi - Technical Building Design Stefano Corbo - Theory & Delineation

The Depolarizer

A public condenser in Bispebjerg, Copenhagen: to fight the issue of polarization

Project Summary

This project explores the role of architecture in mitigating polarization in our societies. The growing fragmentation of society into hostile groups that see each other as opponents on all major issues concerning the future, brings up concerns about the functioning of our societies. While solutions are often sought in politics, the social sciences, or social media design, in architecture the conversation has barely started. Yet, I believe our discipline has a crucial role to play. Beyond people, architecture co-shapes the foundation of society and, through its tangible presence, determines how we live for the next thirtyplus years. If we aim to build a society that is resilient to polarization, we must ensure that its foundation is designed to withstand it.

This project consists of both a prototype of what a "Depolarizer" could be (figure 1), and a design for a public building in Bispebjerg, Copenhagen, which is based on the principles of this prototype.

The Depolarizer prototype is built on the concept of shielding people off from polarizing factors, while at the same time strengthening social cohesion within the community. In architectural terms, this means creating space for debate in the "grey middle" through forums, reducing global and local polarizing influences (such as the distance between government and citizen, thus creating space for decentralized governance), celebrating diversity and difference through

exhibitions, and bringing people together through apolitical activities such as sports, food, makerspaces, and community gardens. Crucially, it must also ensure that these interactions are experienced positively by designing spaces that foster interaction and connection while minimizing potential disturbances caused by its openness. In spatial terms, this translates into a building that allows for transparency, expresses what happens inside, and offers flexibility and freedom for shared use and adaptation. The design is structured within a rigid grid, but emphasizes on organization and a human scale to facilitate the first encounters between people.

The public condenser in Bispebjerg is based on these principles but has been adapted to fit the specific characteristics of the location. The building aims to connect different separated groups of people and areas, at both the neighborhood as city scale. The building is easily accessible through its placement at the intersection of two important routes and opens up the area by redeveloping the border between the closed off NEXT vocational education school and the surrounding multicultural residential neighborhood (figure 2). The public condenser serves both groups by extending and opening up the school's existing apolitical program (crafting, making), to the neighborhood (figure 3). This new makerspace, allowing the two communities to meet and work together, combined with two forums, exhibition spaces, and the presence of government services, encourages dialogue, and mutual understanding.

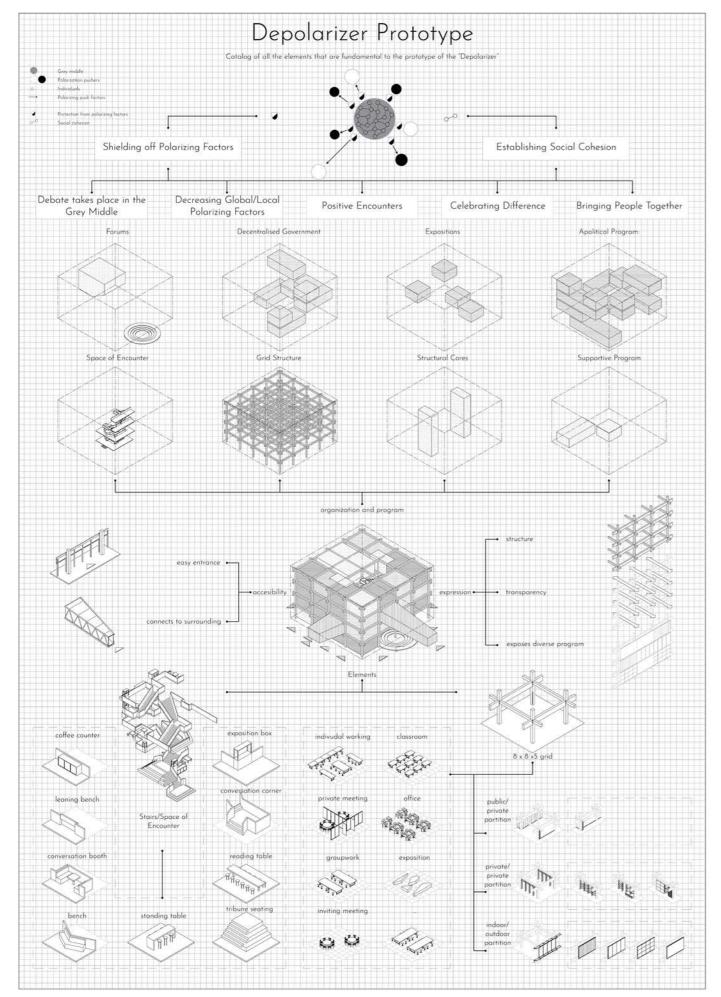


figure 1 depolarizer prototype



figure 2 Public Condenser in Bispebjerg: connecting people



figure 3
Public Condenser in Bispebjerg: connecting areas

Motivation

This project originated from a personal fascination. I have always been interested in politics and societal debate. After being involved in various political discussions and witnessing the large contrasts between opposing groups, thus also having to reflect on my own views, my interest shifted from specific topics to the underlying system behind them. On the one hand, I have found it frustrating that important issues could not be addressed anymore by a declining constructive debate. On the other hand, I was fascinated by how people who are fundamentally similar could become so hostile toward one another. This led me to explore how my own field of architecture could respond to this growing phenomenon of polarization.

Process and Methodology

Because my project includes both a prototypical component and a site-specific implementation, I conducted two parallel researches throughout the process, each continuously influencing the other. Both began with a broad preliminary research and were further developed through the research by design approach. See figure 4 for an overview of the schematic time distribution throughout the process.

Choosing a theme that was quite undiscovered in architecture and more commonly addressed in the social sciences meant that the first phase of my process focused on understanding the phenomenon and identifying potential architectural leads. This phase included mostly qualitative research: reviewing literature from multiple disciplines, analyzing case studies from architecture, industrial design, media design, and urbanism, and engaging in conversations with as many people as possible, including experts I encountered in the literature. Would I have had more time, I would have liked to expand this phase further, interview more experts to uncover more potential solutions.

The next phase was all about developing the prototype. The research brought numerous

ideas and approaches that suggested how such a building could function. However, to turn these into a coherent design and communicate it effectively, I needed to organize them under a few overarching concepts. A spatial diagram we had developed in one of the "Theory and Delineation" assignments proved helpful here. The diagram illustrated how polarization works and what roles exist within this phenomenon. By identifying points of intervention within this system, I was able to define what the building needed to do. This concept was, "shielding people off from polarizing factors," and "establishing social cohesion." (figure 5). All previously generated ideas could now be placed under these two themes.

At the same time, these individual concepts began to generate ideas for the architecture, for the program, the spatial organization, the form, circulation, construction, sequence of spaces, and overall user experience. This was the point at which the prototype began to turn into physical form and therefore could also be tested within the context of Bispebjerg. To do this effectively, a thorough site analysis was essential. This included not only an investigation into local polarizing factors but also a broader analysis of the site. This research was conducted in a group, with each subgroup focusing on specific themes in Bispebjerg and Copenhagen as a whole. It included analyses conducted both in the Netherlands and during a field trip to Copenhagen. From out this collective research, I was able to elaborate into topics that were especially relevant to my project. These included local issues such as gentrification, closed borders, social segregation, and the presence but inaccessibility of the NEXT Vocational Education School. Looking back, I would have liked to visit Copenhagen once again for a deeper insight into specific polarizing issues in the neighborhood. Interviews with local residents might have uncovered specific tensions that my building could have addressed. After the P2 presentation, during which I

After the P2 presentation, during which I presented all conceptual ideas, I felt that I missed understanding of the visitor experience in my building and I needed a tool to test

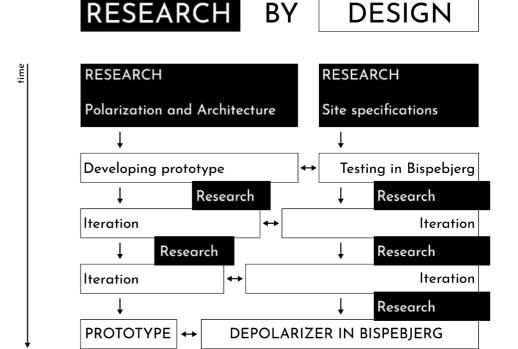


figure 4 research by design balance

time consumation design

time consumation research

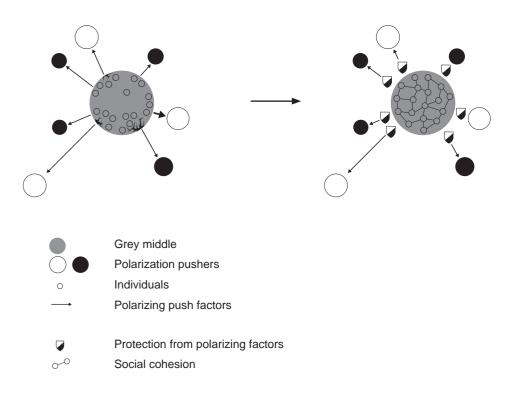


figure 5 depolarization concept

how the various architectural elements I was designing interacted. This led to the construction of a 1:50 scale model of a section of the project. This turned out quite helpful, and surprisingly it also helped me understand the structural concept of the building and the characteristics of the joints that enabled the structure to be demountable and expandable. The final phase of the process focused primarily on the technical exploration of building elements that would fulfill the promises made in the design concept. Particularly allowing transparency while maintaining comfort in a moderate climate like Copenhagen gave some challenges.

Relation to Program, Track, and Studio Topic

As a student from the Architecture, Urbanism and Building Sciences program, I see the overall task to design for societal needs, to come up with designs that benefit society or against issues that harm society. In the Architecture track, we focus on the scale of buildings and even down to the scale of human interaction, which means we have the ability to influence how people relate to one another. Specific for our studio topic "The Public Condenser" I see an opportunity to deal with a complex phenomenon that influences our societies; which is my graduation topic "Polarization". Designing a public building that combines multiple programs and serves a whole community, has a large reach to increase social cohesion and mitigate polarizing forces in a neighbourhood.

Academic and Societal Relevance

The academic and societal relevance of my graduation work mainly lies in starting up the conversation about how architecture can play a role in mitigating the growing phenomena of polarization and testing if architecture can actually play a role. By presenting a prototype for a depolarizer, I intend to offer a starting point, a reference for future designers to continue working on. This thesis questions the role of architecture in complex issues like polarization, does the public realm influence such phenomena?

Transferability of Results

the central question of depolarization, I have partly achieved my goal. However, for a more successful outcome, this thesis must enable architects, designers, and critics to continue the conversation. It is therefore crucial to present a compelling and complete first design of a "Depolarizer". Then it could become a project that others can use, criticize, reflect on, and elaborate on. For clarity and to ensure the project's findings are transferable, it is important to distinguish clearly between elements of the general prototype and the site specific design for Bispebjerg. In the coming weeks, the story and visualization of the project into a simple to understand and convincing presentation will be the number one priority.

By framing this graduation project around

Conclusion

Throughout the project, polarization was the central theme. However, during the process, I came to realize that many of the individual concepts are already part of the architectural discourse, especially within the typology of the Public Condenser, which is all about bringing diverse programs and users together and creating interaction between them.

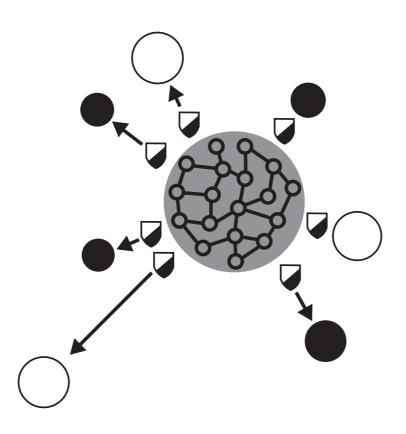
This raises the valid question: isn't every Public Condenser a Depolarizer?

Still, I believe the added weight of the label "Depolarizer" is important. It places greater focus on the issue and encourages people to reflect, regardless of their discipline, on also their own roles within this topic.

Final Reflection "Depolarizer"

Maarten Hikspoors 4822447

THE DEPOLARIZER



GRADUATION REPORT PUBLIC BUILDING 12/05/2025 MAARTEN HIKSPOORS 4822447