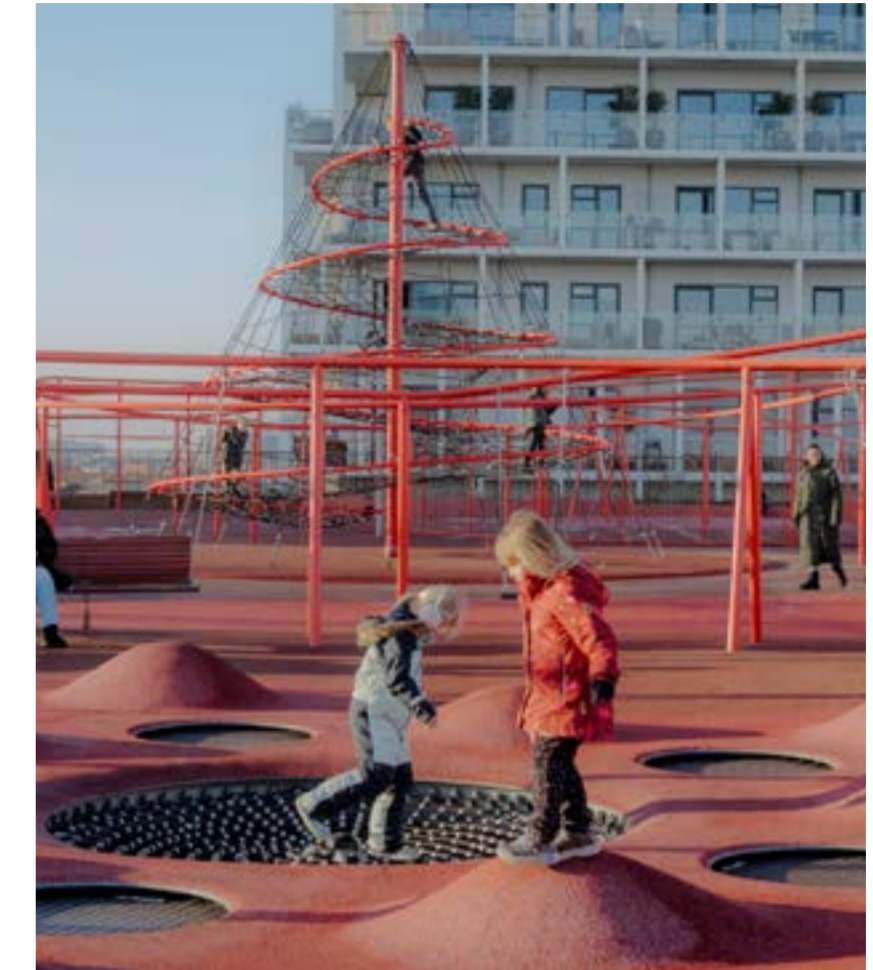


# LIMEN

## NORDHAVN

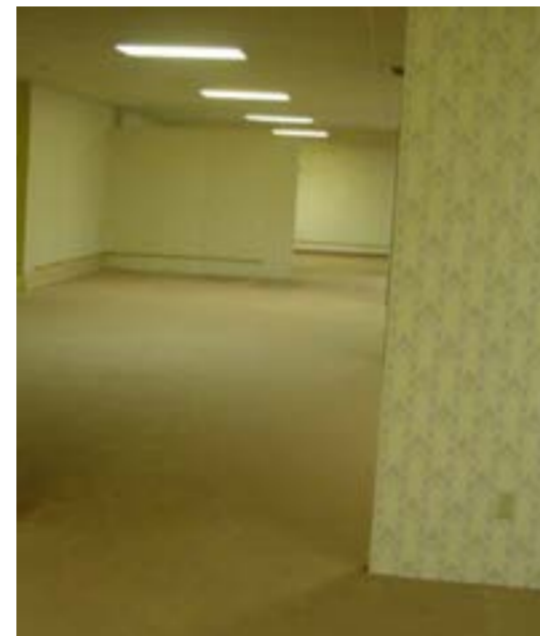
Nordhavn; labelled the '15-minute city' is a district in Denmark which underwent significant urban transformation in the past 20 years. Reforming from an old industrial port into a sustainable growing city.

The area boasts a high-level of mix-used spaces, buildings which are simultaneously residential accommodation, leisure facilities and commercial spaces etc. Employing a smart-city infrastructure with sustainable transport options and renewable-energy sources. In spite of this, Nordhavn is also infamous for its negative attributes, such as: high living costs, a lack of community structure, class discrimination, extreme noise pollution, and a lack of public amenities.



## LIMINALITY

Liminality, and liminal spaces, are a growing internet fascination associated with abandoned or unused spaces attached with feelings of ambiguity and temporal loneliness. Liminal spaces are perceived with a level of unease and due to the lack of presence and population of said space. I approach liminality with the sense of capturing the characteristics; transition, change, and a sense for lack of better wording 'in-betweenness.' In juxtaposition I propose a space which encompasses the threshold between past and future, idea of being present.



## WHAT IS LIMEN?

Limen is the latin word for 'threshold,' primarily referring to the physical boundary between two states; a doorway, a corridor, a sill etc. In my proposal of library in this site, I explore the figurative and ephemeral state with is limen and the concept of liminality. Limen in this proposal is the idea of a library which serves beyond a collection for the sociological betterment of a community and has multi-faceted functions. Functions such as providing third-space for the residents of nord-havnen and bring a space which is not dictated via a social of class hierarchy.



# LIMINALITY AND THIRD SPACES

## WHAT IS A THIRD SPACE?

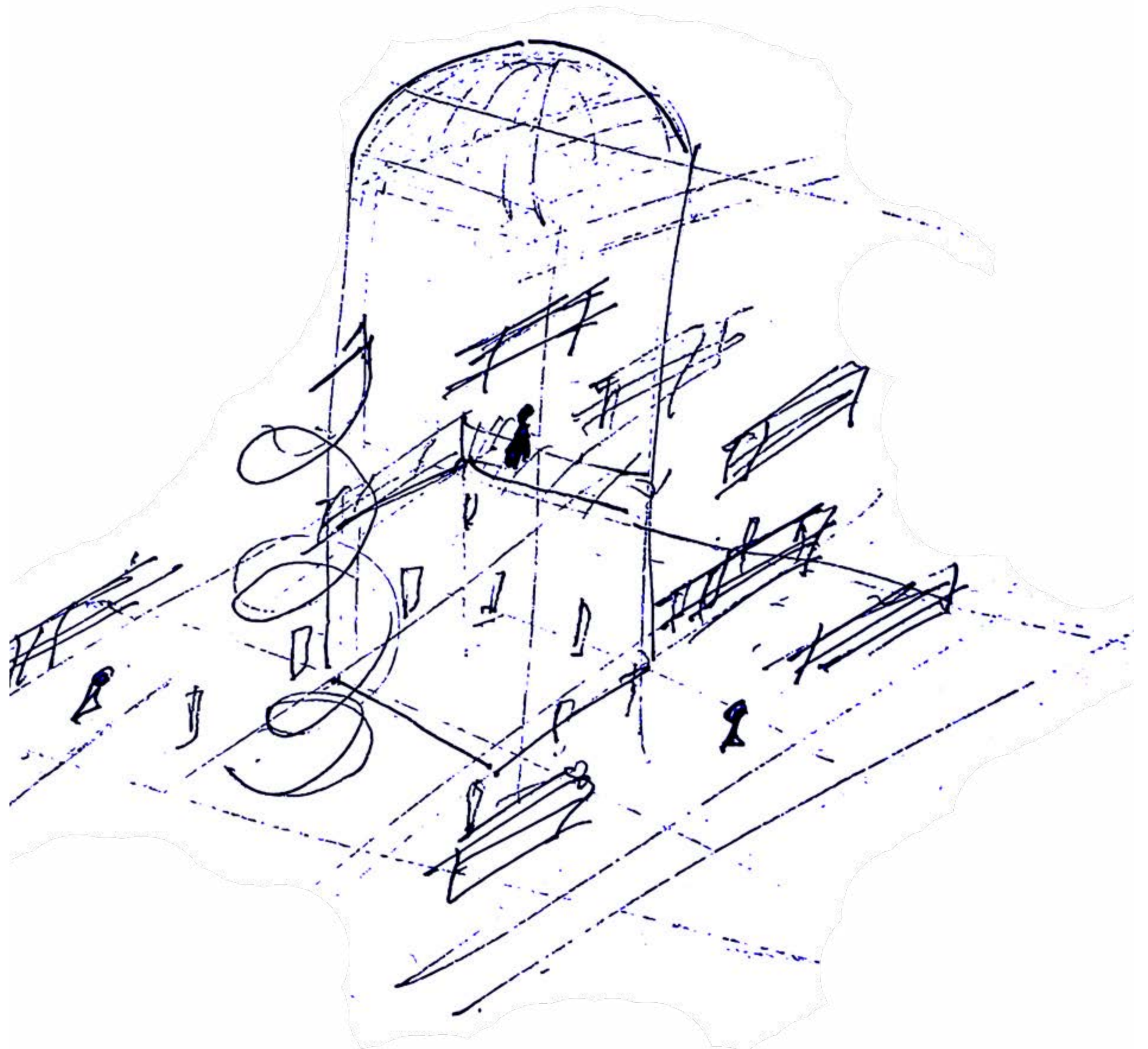
'Third spaces' are a social space separate from the two usual social environments of home ('the first space') and workplace ('the second space'). Typologically third space examples include; cafes, churches, bars, clubs, libraries, gyms, parks, theatres etc. American sociologist's Ray Oldenburg and Karen Christensen describes third spaces as a key solution to loneliness and social isolation.

## WHAT SEPERATES A THIRD SPACE FROM THE PUBLIC SPACE REALM?

Oldenburg and Christensen clarify that the third space is a separate entity to public spaces. Based off factors: third spaces do not require invitation for entry, are comfortable, convenient and reliable, and disregard class discrimination in that everyone is equal within these spaces. Because of these factors that allow for socialisation to take freely within these spaces and invite visitors to come back.

## LIBRARIES AND WHY THEY ARE IMPORTANT

According to a study by Seismonaut and Roskilde Central Library in Denmark, Libraries are an important and essential space which has various positive impacts on the Danish people. Libraries have a multifaceted form of impact on their users and are important for; providing haven, perspective on life, allowing people to develop creatively, and helping form and maintain communities. Libraries are third spaces which in the modern era have adapted in this sociologically sense beyond just providing information and a physical collection. I propose for the site a public library which focuses on providing community, perspective, spaces to develop creatively, and haven.



# THE DANISH AND LIBRARIES

## WHAT ARE LIBRARIES IMPORTANT FOR?

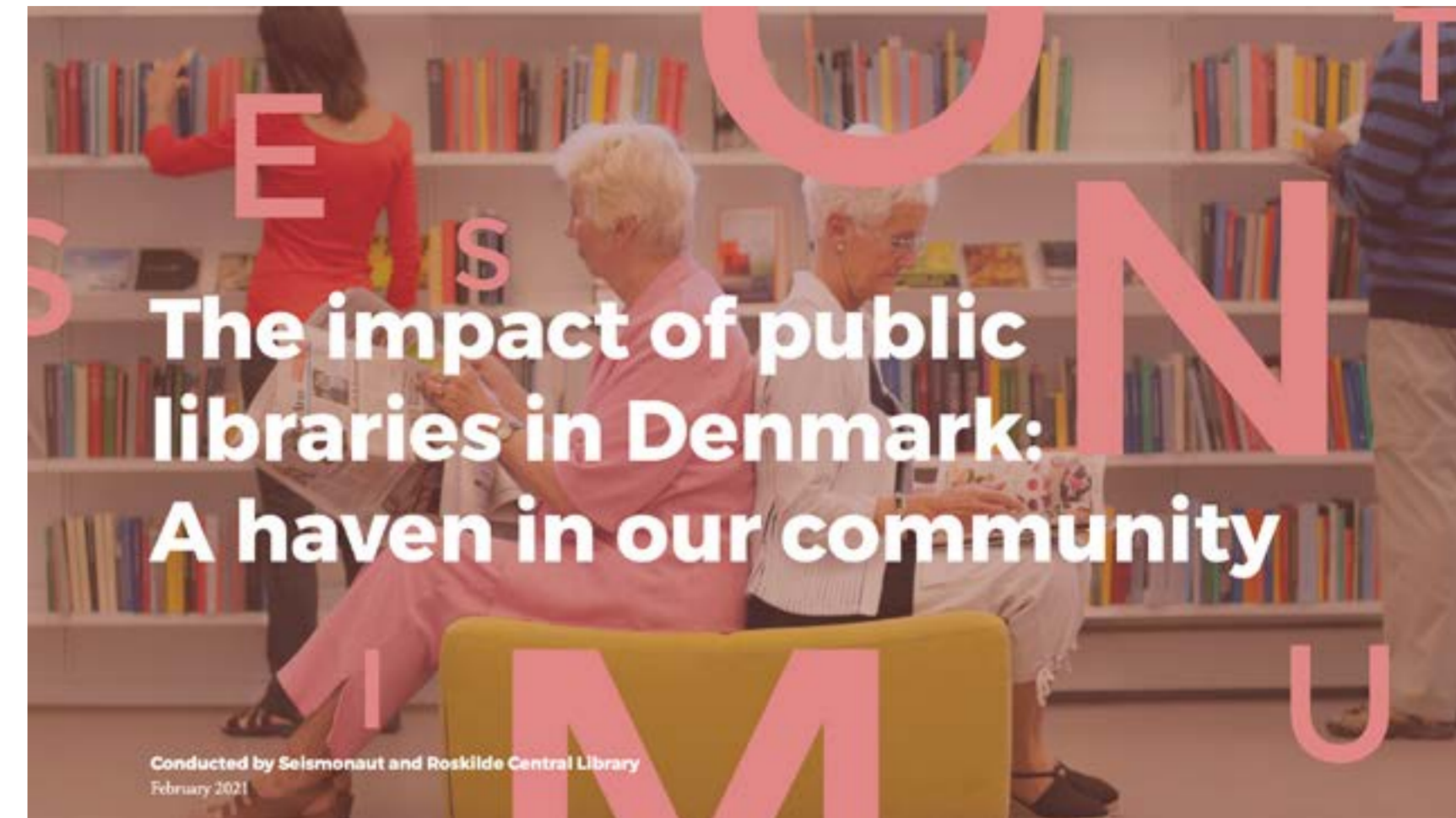
The spatial relationships between rooms in my building and their functions are heavily based on this study conducted by Seismonaut and Roskilde Central Library (2021) on the impact of public libraries in Denmark. I initially wanted my proposal to be a building which had diversified functions and encouraged community outreach and socialisation in the area. The study taught me that libraries were a perfect culmination of this on these four factors which is provides for the Danish Public; haven, persepective, creativity, and community. In summary; libraries provide haven for the individual to positively immerse themselves in, libraries provide the resources through the physical, and digital, allowing user's perspective on a range of topics. Furthermore, libraries provide space for people to devlop creatively and motivates user's to try and learn new skills, and finally libraries, help form and maintain communities.

## WHY IS THIS NEEDED IN NORDHAVN?

I felt that this was a necessary building proposal in Nordhavn based off site analysis which I conducted, and my own personal experience on the University study trip to Copenhagen. I felt that off my own personal experience, Nordhavn district was lacking in social hubs and lacked a definitive community culture. This could have been due to other factors, such as the weather, or politics which were going on at the time, nevertheless I wanted to propose something which could negate this affect.

In addition to this, Nordhavn is notoriously being labelled a 5-minute city based off the redevelopment plan that prioritises pedtrianisation and uplifts functional economic design, the area is lacking in free public spaces.

Whether that is a lack of green space, or a lack of civic centres, this can create a lack of community relationship, and may contribute to social isolation.

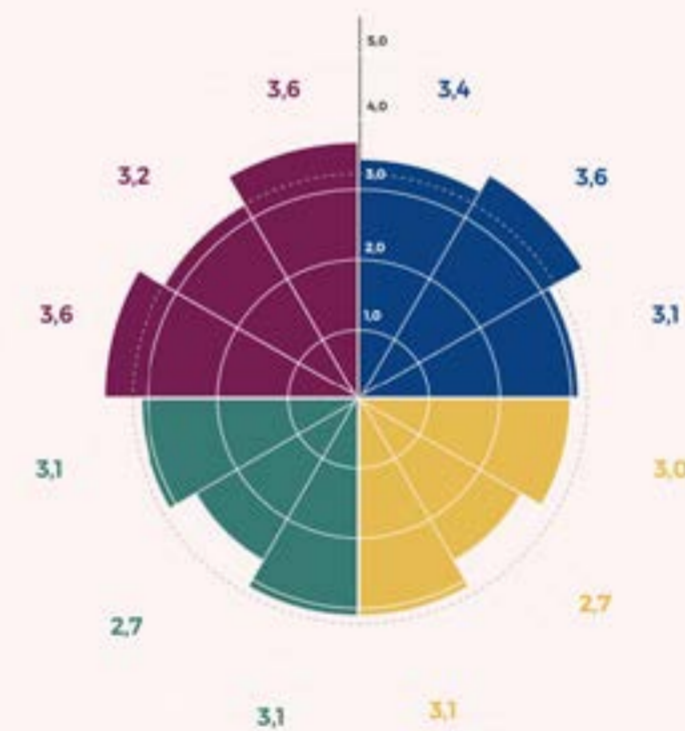


## The Impact Compass

Haven  
Perspective  
Creativity  
Community

3.2 average impact rating for the public libraries

5 EVERYONE has responded to a very great extent  
4  
3 Probable sample space  
2  
1 EVERYONE has responded not at all



## Findings on public libraries overall

56% of citizens in Denmark have made use of a public library within the past year. The most-used service is the collection, which nine out of ten (89%) have used, followed by the physical facilities (34%), staff guidance (21%) and events (19%).

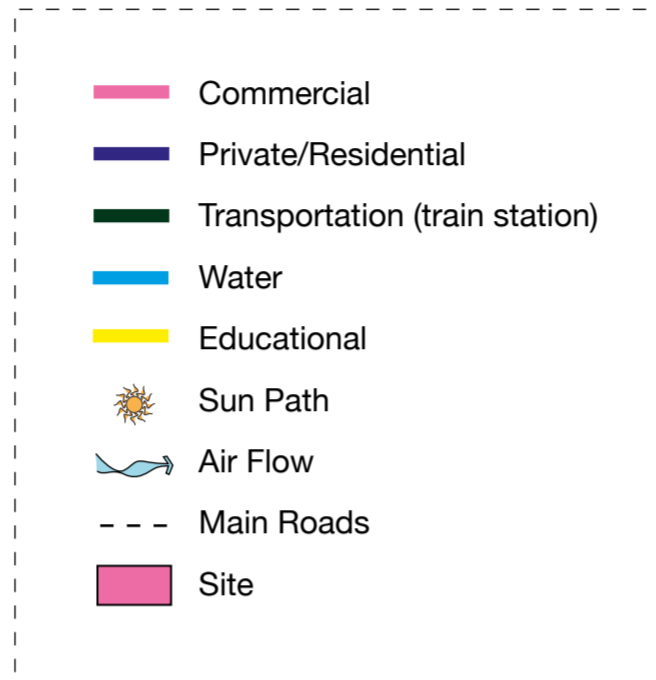
The average assessment of the overall impact of public libraries is 3.2, which is indicated by a dotted line in all the Impact Compasses.

The average assessment of the four dimensions of public libraries as a whole are:

Haven	3.5
Perspective	3.4
Creativity	3.0
Community	3.0



# THE SITE



## THE AREA

The area is located in Nordhavn district of Copenhagen, Denmark. Within about a ten minute walk from Orientkaj metro station, the site directly faces the international school along along the harbour in between two commercial warehouses and adjacent to high apartment residences. Nordhavn is a recently redevopedel urban area that once acted as a majoy port for Denmark up until the 21st centryry. Due to a massive urban growth in the area and developments redesigning major areas of the district, it has been labelled the new '5-minute city' with proposed plans to accomodate 40,000 residents and subsequent job oportunities. Designed as a city of soft mobility, Nordhavn prioritizes walking, cycling, and public transport over car use. The green loop, an elevated bicycle expressway, connects the individual neighborhoods and links the area directly to the rest of Copenhagen. Across the islands, diverse urban typologies come together to form a vibrant and inclusive district. The urban grid is carefully oriented to capture sunlight and reduce wind exposure, ensuring that Nordhavn becomes a truly livable waterfront community.



## NEGATIVES

- The site has to take into consideration extreme wind from the harbour as well as extremely cold weather in the winter.
- The site has two commercial warehouses with windows facing towards the site the proximity may limit window placement.
- Due to the highrise apartment buildings located directly behind the site, direct sunlight is limited, and windows need to accomodate privacy to the residents.
- The area lacks public green spaces, on site is a public basketball court may need to be cleared for the construction of a new proposal.
- Supposedly there is a feeling of isolation due and exclusion from online forums due to the nature of high-income residents.

## POSITIVES

- The district has alot of opportunites for economic growth due to the redevelopment which has prioritised pedestrians and introduced vital community/commercial centres.
- The site is in a promising area with its proximity to the metro station and the commercial centre.
- The site boasts good views sitting adjacent to the harbour.
- The area is designed with the idea of maximsing renweable enrgy sources and being active towards promoting more sustainable building practices which can become a key highlight for the proposal.
- The area has a unique history and culture which can be taken into account for design and function.



# PRECEDENTS

## LA FABRICA

The building now familiar as 'la fabrica' was once used as a cement factory in the early 1920s, undergoing a major revival in the 1970s once acquired by Ricardo Bofill and Taller de Arquitectura. The Spanish industrial site, now an institution, is used by the group as an expression of their methodology and design practices. The site boasts courtyards, office spaces, and loose undefined meeting spaces and social hubs. The once brutalistic structure is now a contemporary form of art which combines the old industrial forms and material with modern imaginations blended with the surrounding nature.

The building evolves continuously physically and sociologically over time.



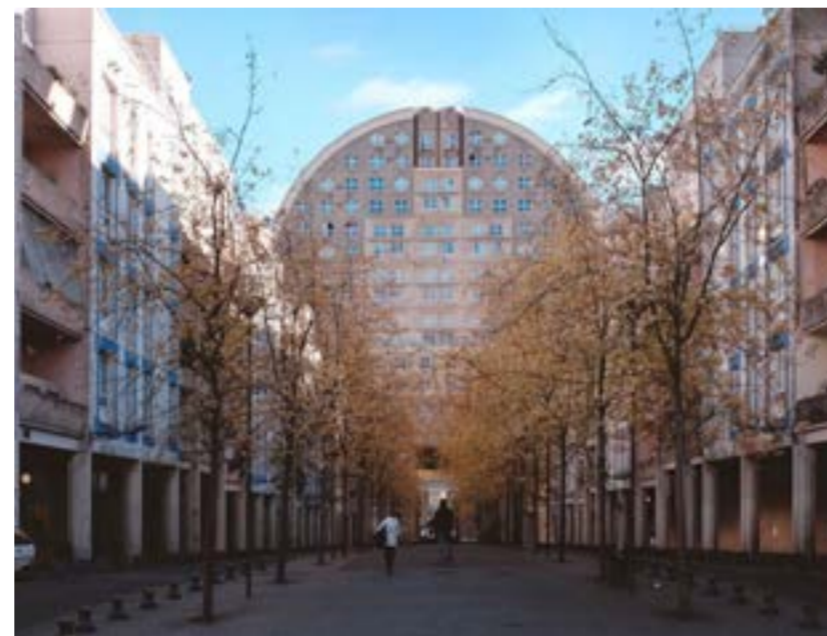
## LES ESPACES D'ABRAXAS

Les Espaces D'abraxas is a monumental post-modern social housing complex in Noisy le Grand, also by Taller de Arquitectura and Ricardo Bofill. As the landmark building it constitutes a great public space which merges the neo-classical and post-modern characteristics of the pre-existing complexes. The complex achieves a polychromatic look via prefabricated concrete, achieving a monumental height of 64 metres.



## LES ARÈNES DE PICASSO

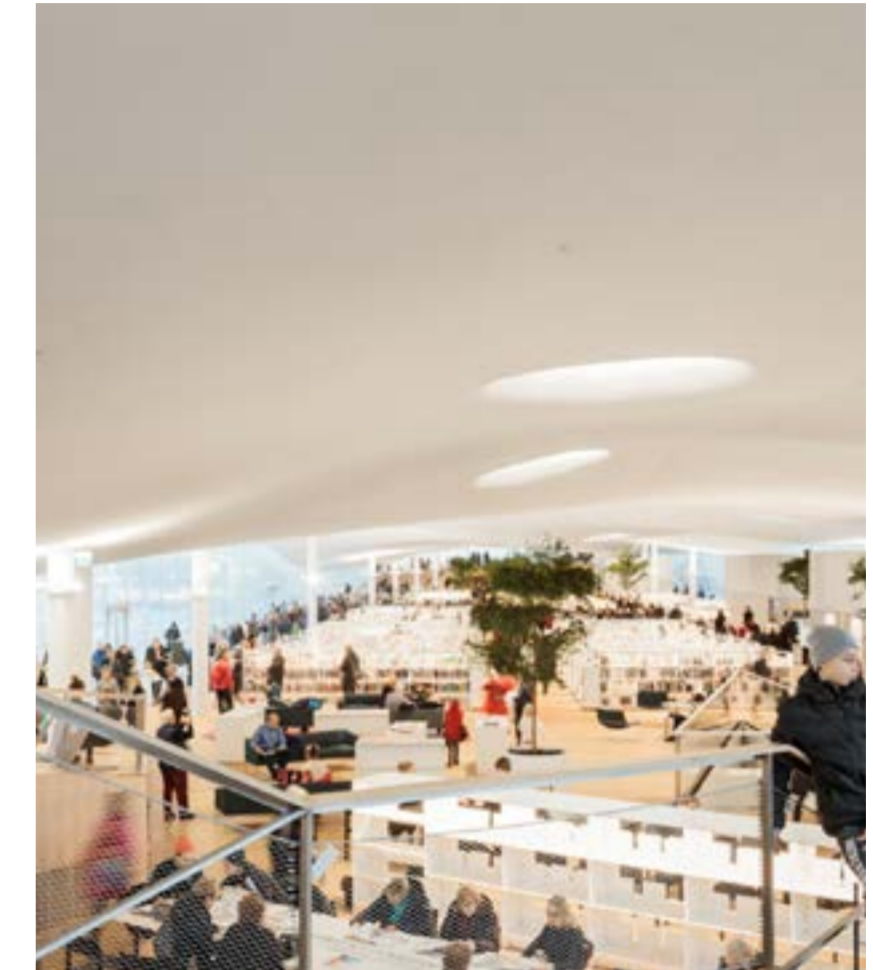
Les Arènes de Picasso is a residential complex also located in Noisy-le-Grand, designed by architect Manuel Núñez Yanowsky. The complex is arranged around the octagonal Place Pablo Picasso, the composition forms as an abstract representation of an overturned Roman chariot. With 540 social housing units, playgrounds, boutiques and a secondary school, the complex achieves this unification of all three spaces in one imagining.



## HELSINKI CENTRAL LIBRARY OODI

Helsinki Library is a good example of how libraries in the modern age have expanded their purpose beyond providing a physical collection. In addition to providing traditional library services, the building's modern and vibrant spaces serve as a cultural living room and multimedia centre for locals and visitors alike.

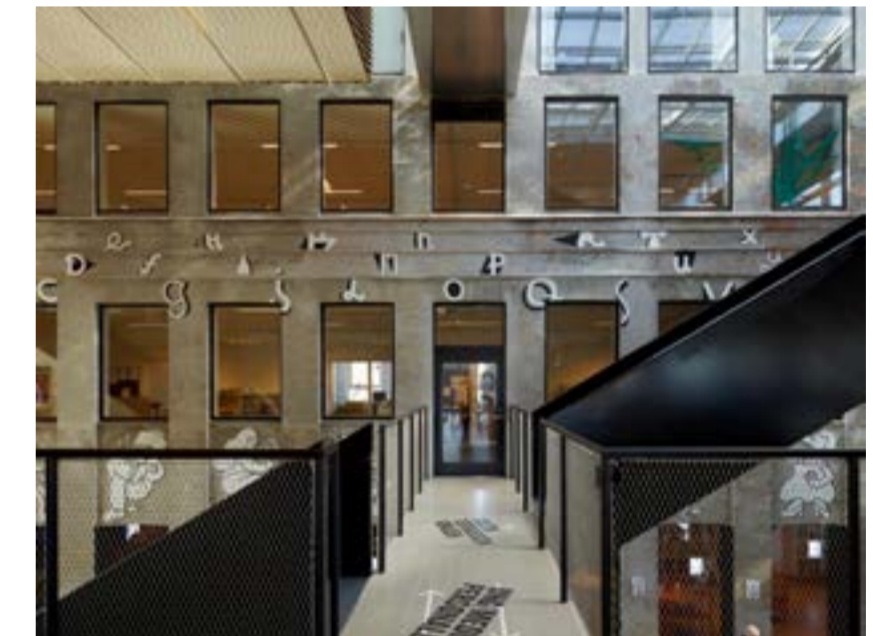
The library exemplifies the use of mixing steel, concrete, wood, and glass construction to be more energy efficient. The 17,250 square-metre building contains around 100,000, with the majority of space dedicated to public amenities including a cinema, recording studios, a maker space, and areas for hosting exhibitions and events.



## TRANSFORM

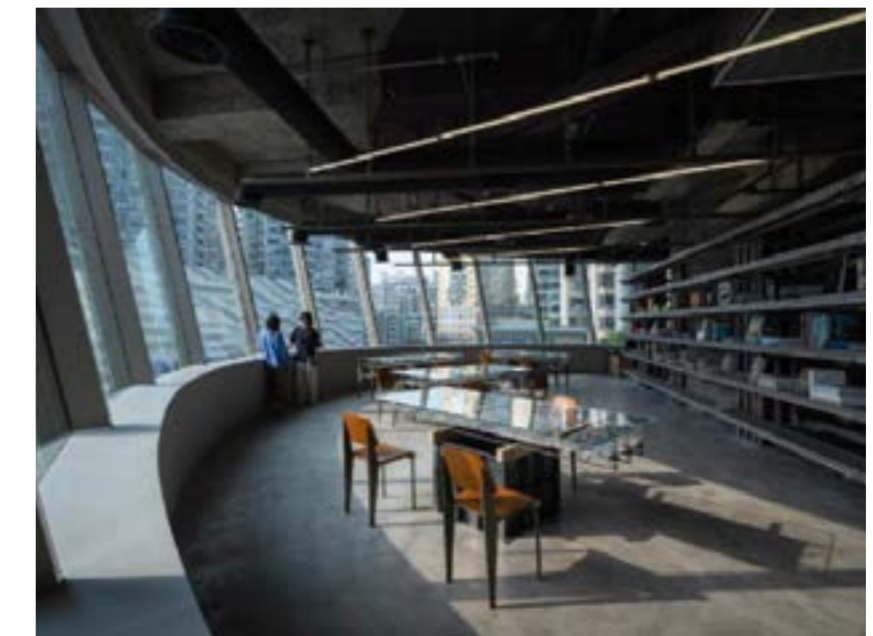
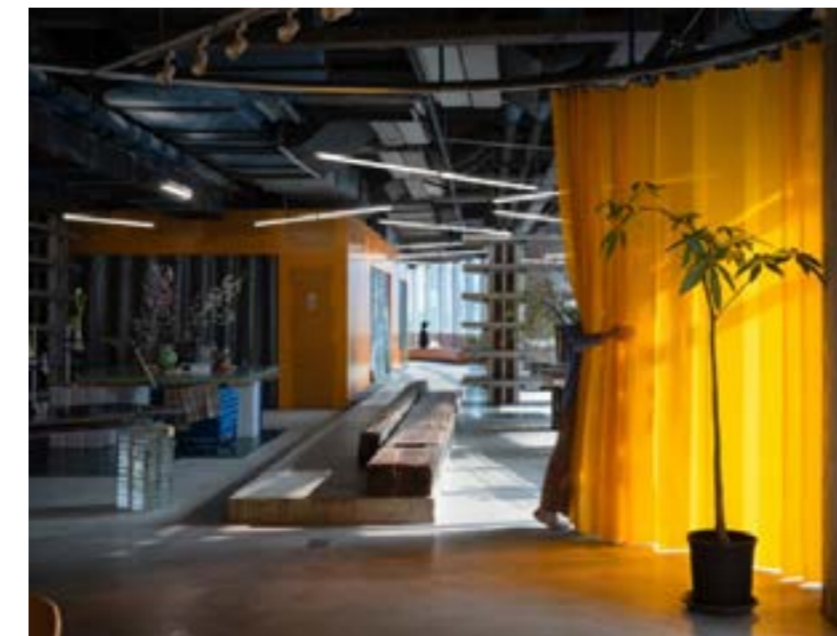
The Library is an extension of an existing culture house in Copenhagen North-west. The main functions: kids, youth, adult library, and a concert hall, in 4 golden boxes. The formation is divided via the four uses.

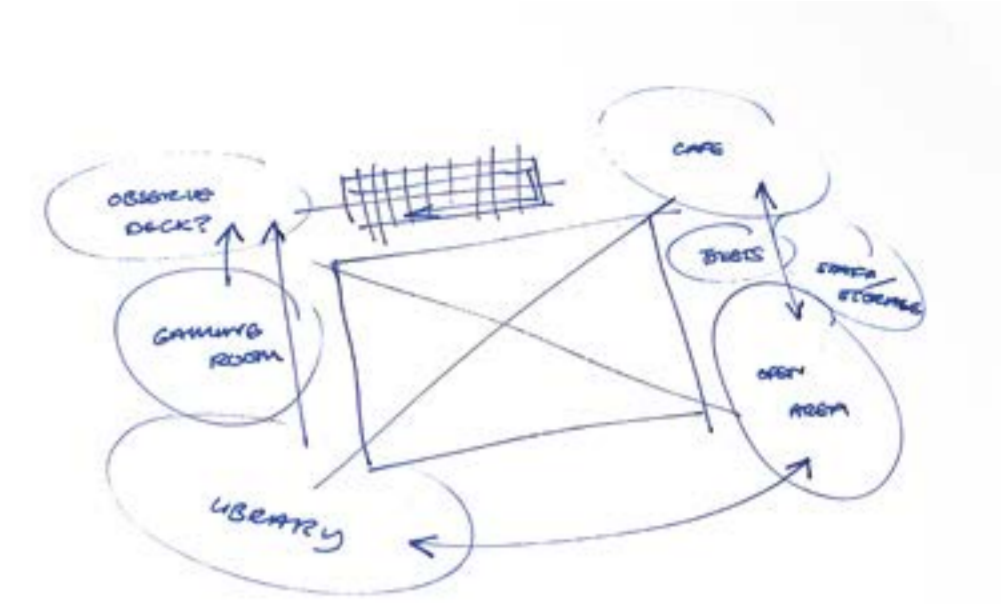
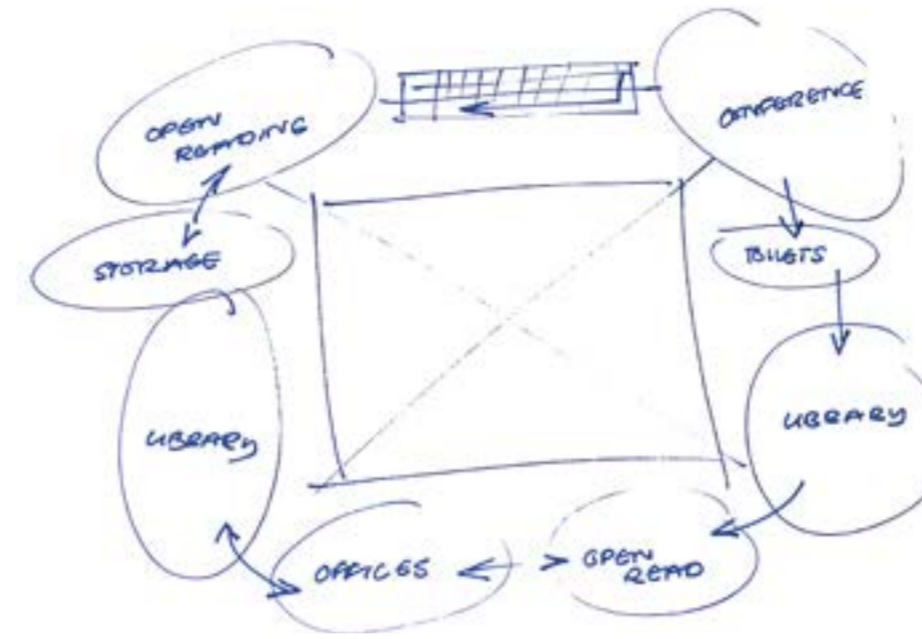
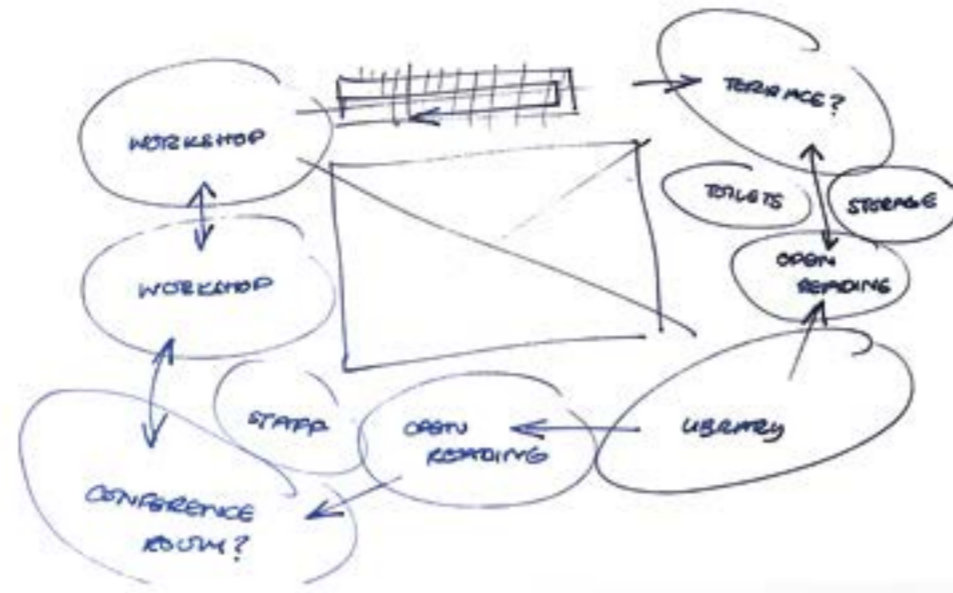
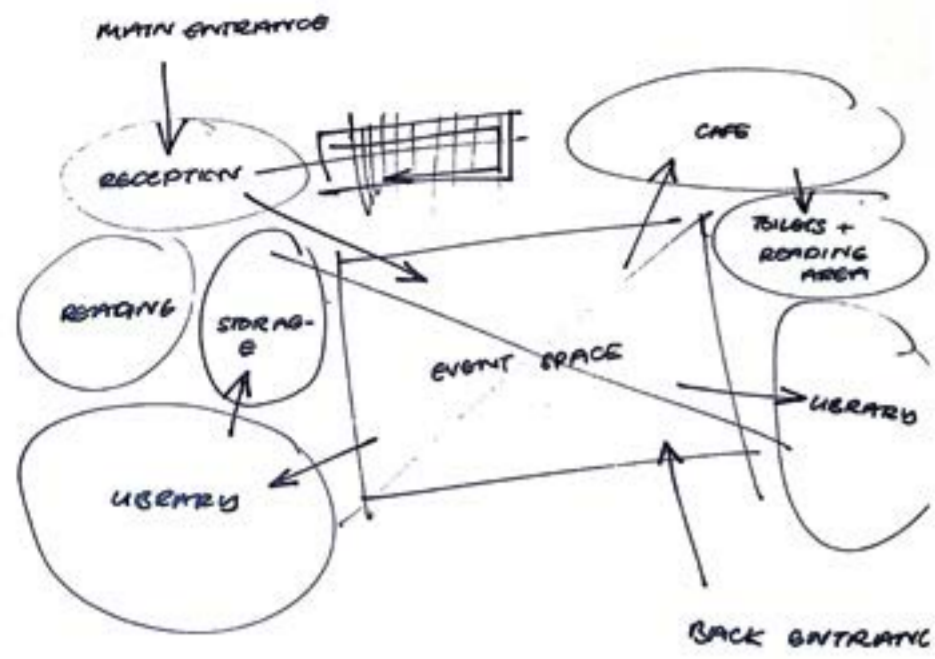
The building is developed through a profound user involvement process where the local community has been part of the project development throughout its duration.



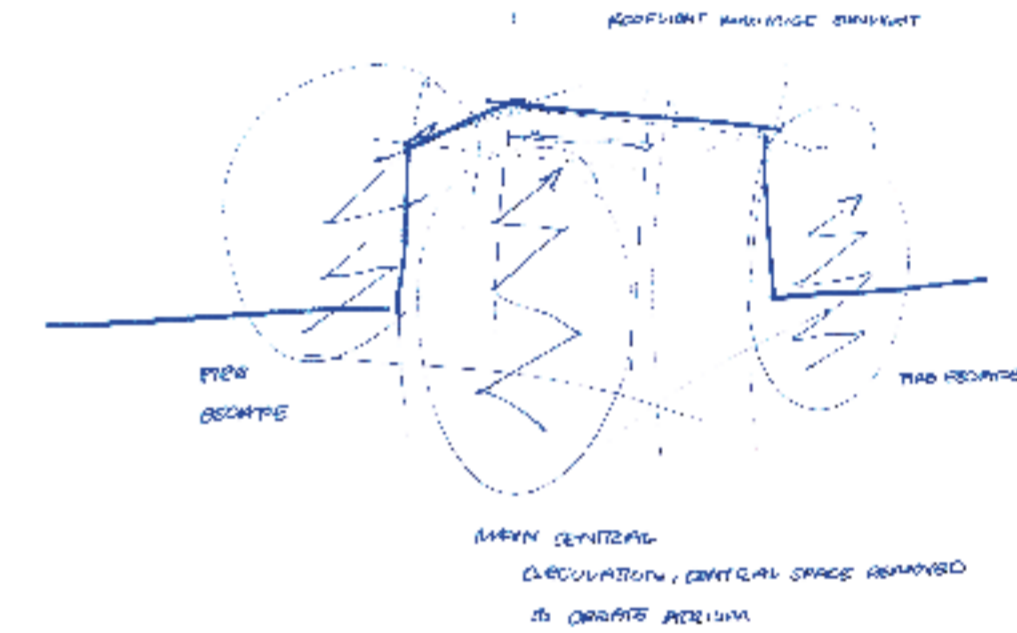
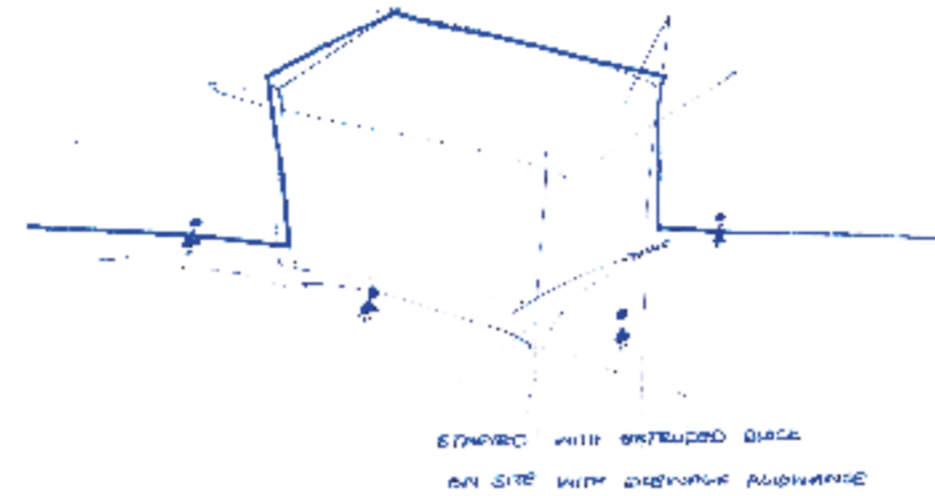
## SPACTRUM/889GLO ART SPACE

Shanghai, the 889 Plaza embarks on redefining itself as a distinctive community art/creativity hub within the city's fiercely competitive commercial landscape. A nearly 1,000-square-meter creative platform designed to activate community art exchanges, integrate scenographic displays, and foster diverse social interactions.

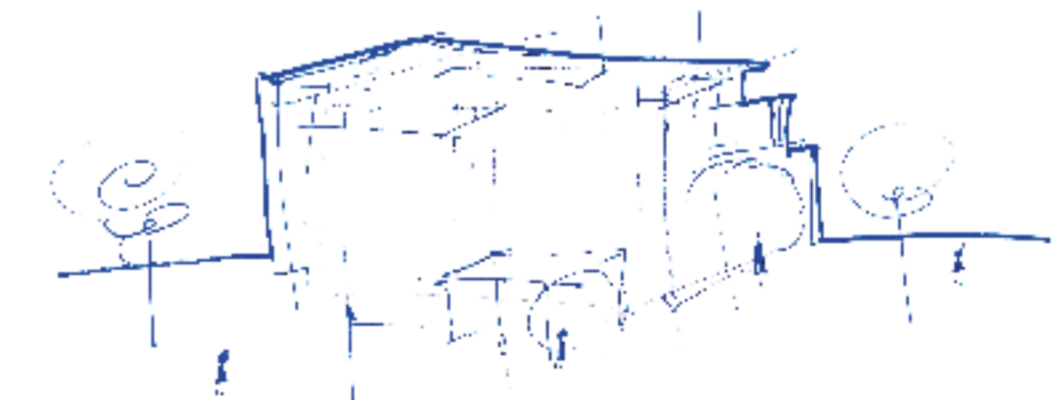
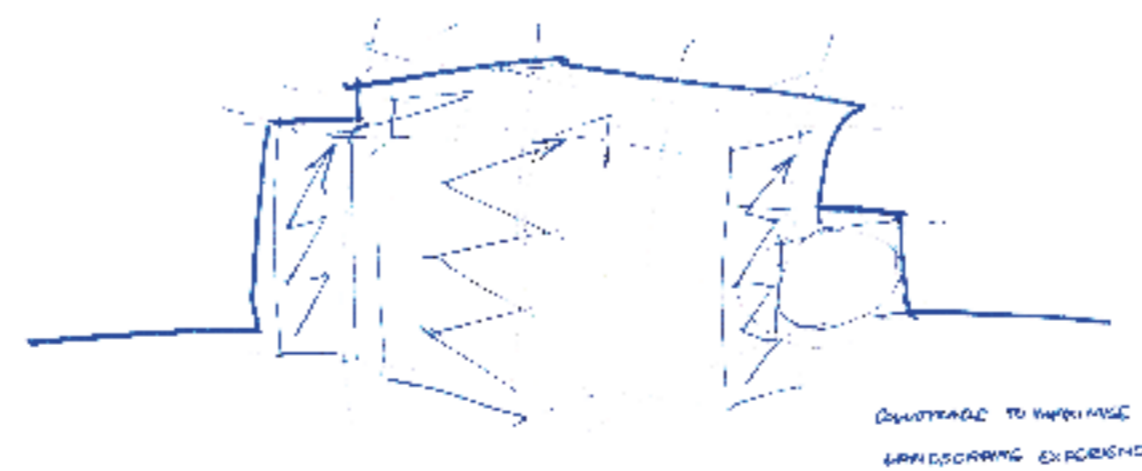


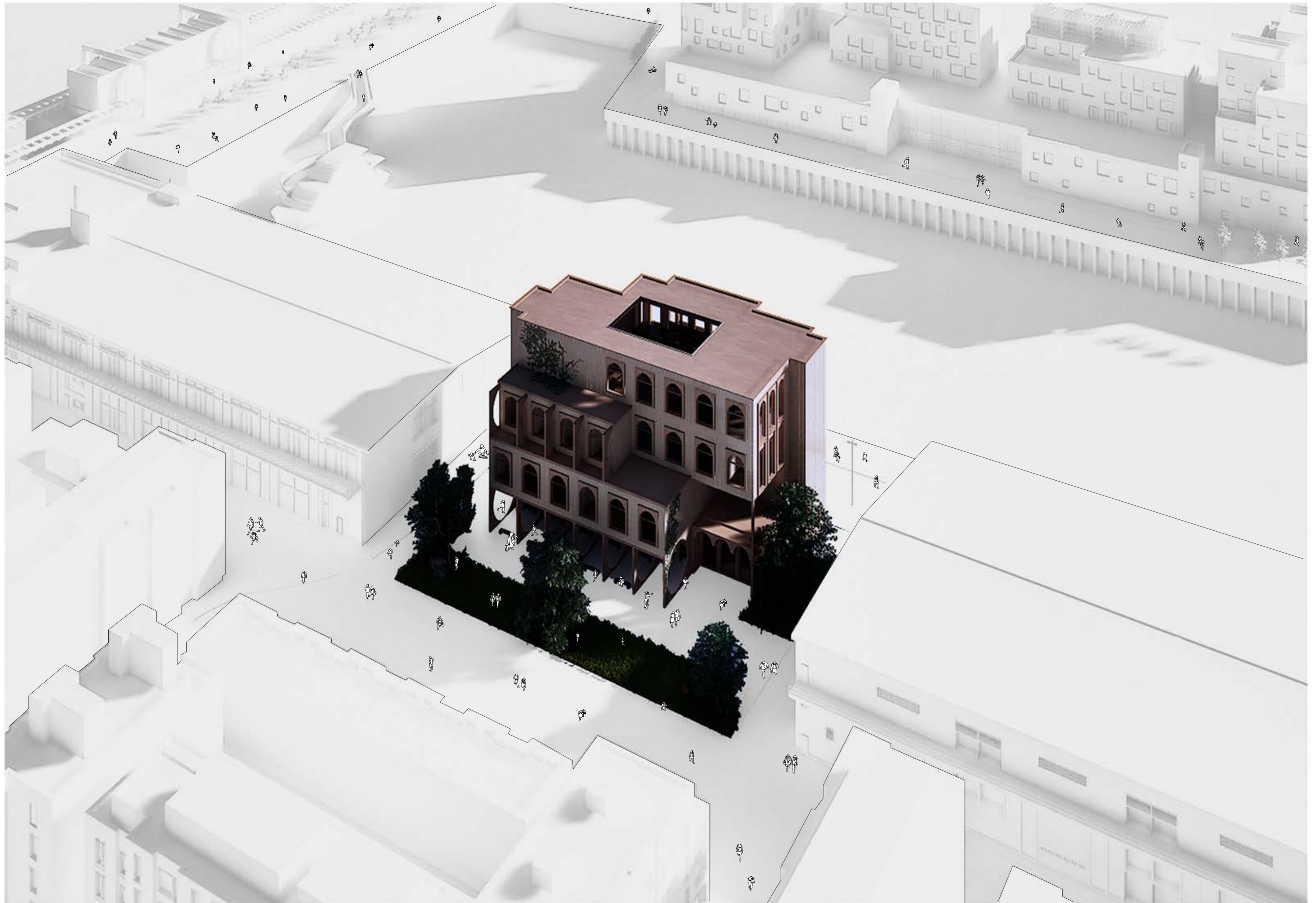


<b>HAVEN</b>
<b>CREATIVE DEVELOPMENT</b>
<b>PERSPECTIVE</b>
<b>COMMUNITY</b>

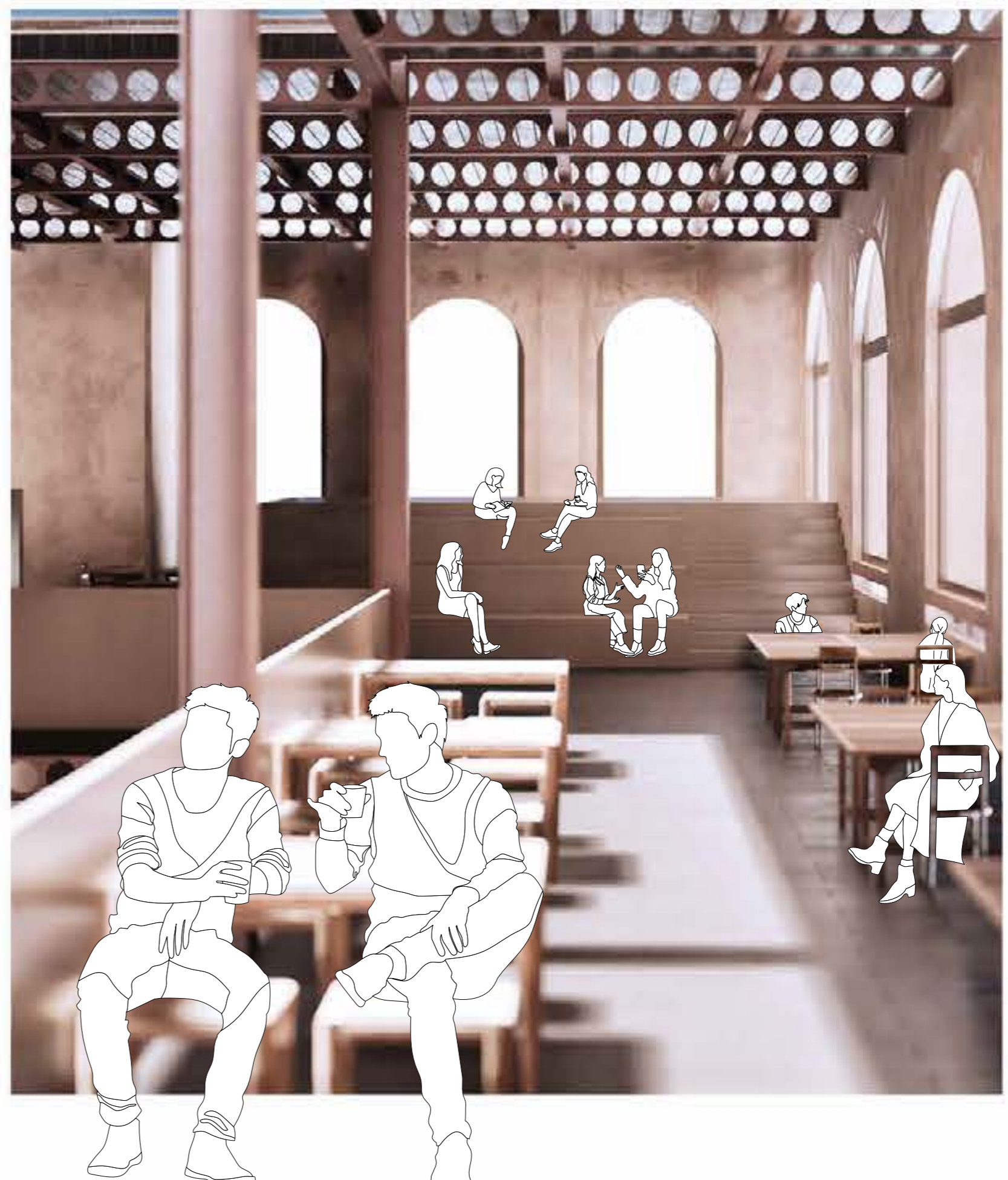


First, I started by creating spatial diagrams, which although not to scale helped me determine the importance of rooms and areas in relationship to each other. These spatial diagrams represented my floors which I based off of the Roskilde central library study indicating the importance of public libraries in Danish Culture based off of four main factors: Haven, Creative Development, Perspective, Community. Ground; centred around spaces that encourage community and socialisation (cafes, event space, family, young adult and teen libraries etc.). First; perspective, holds the bulk of the physical and digital. Second; the prioritisation of spaces that encourage creative development (workshop spaces, music rooms, laser cutters, 3d printing, etc.). Third; rooms and spaces which provide haven and comfort, cafe, gaming spaces, seating, etc.).

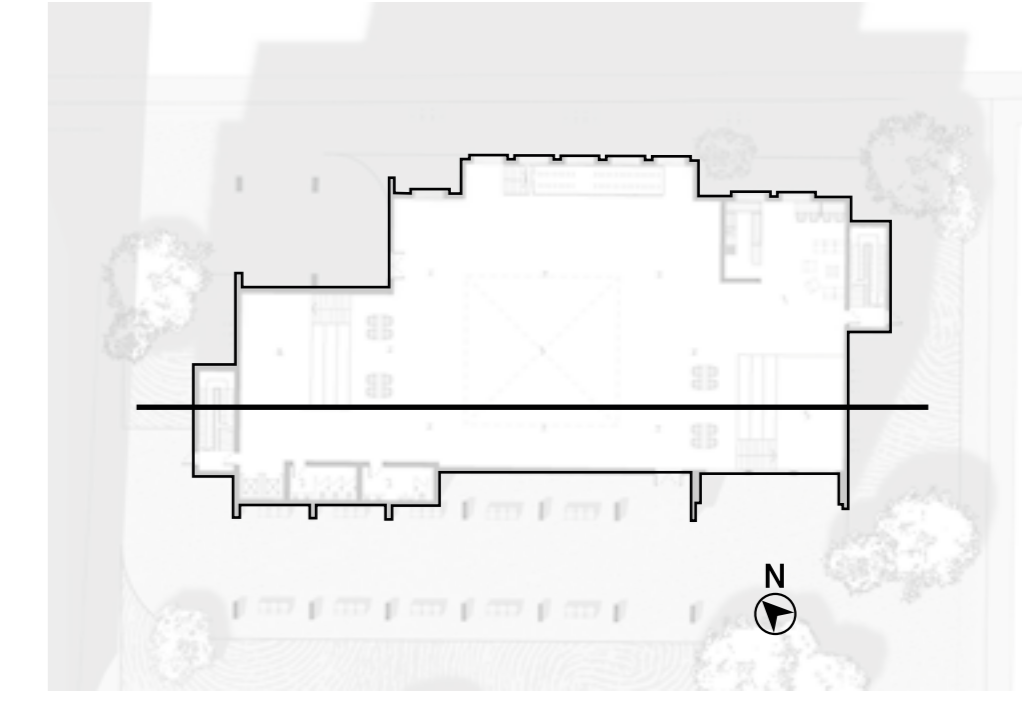










# INTERIOR AND EXTERIOR VIEWS



0 1 2 5 10 1:50

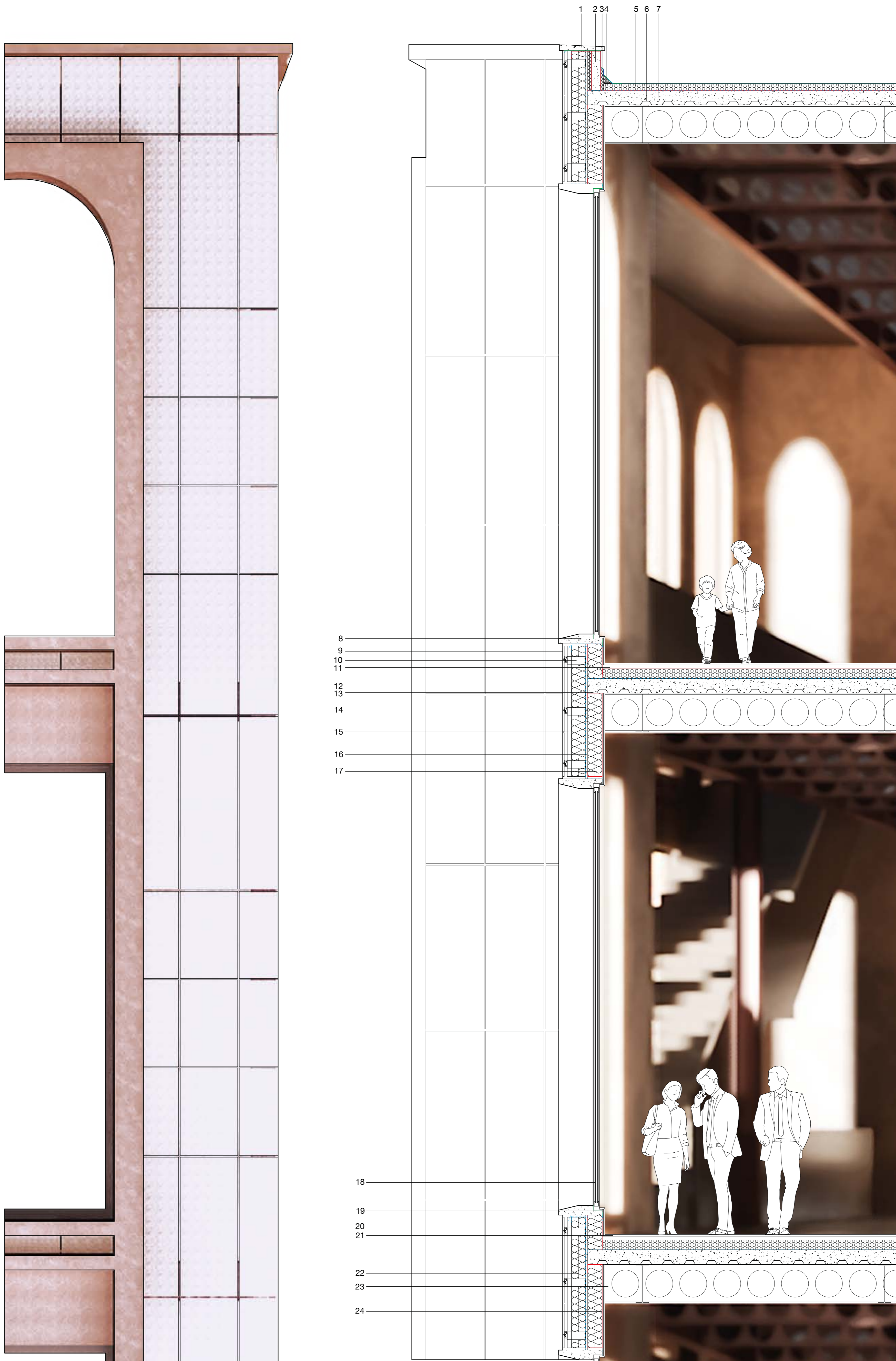


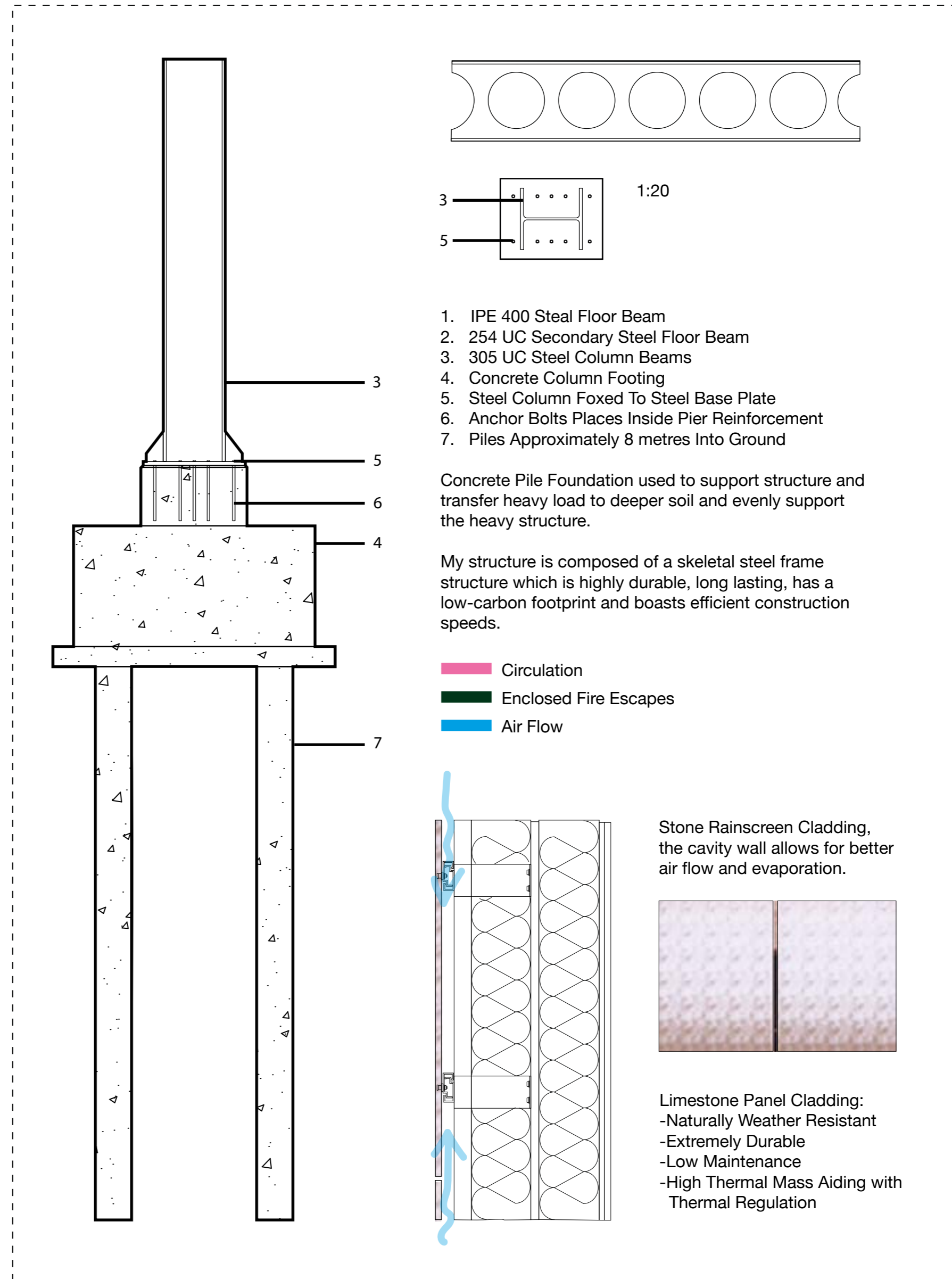
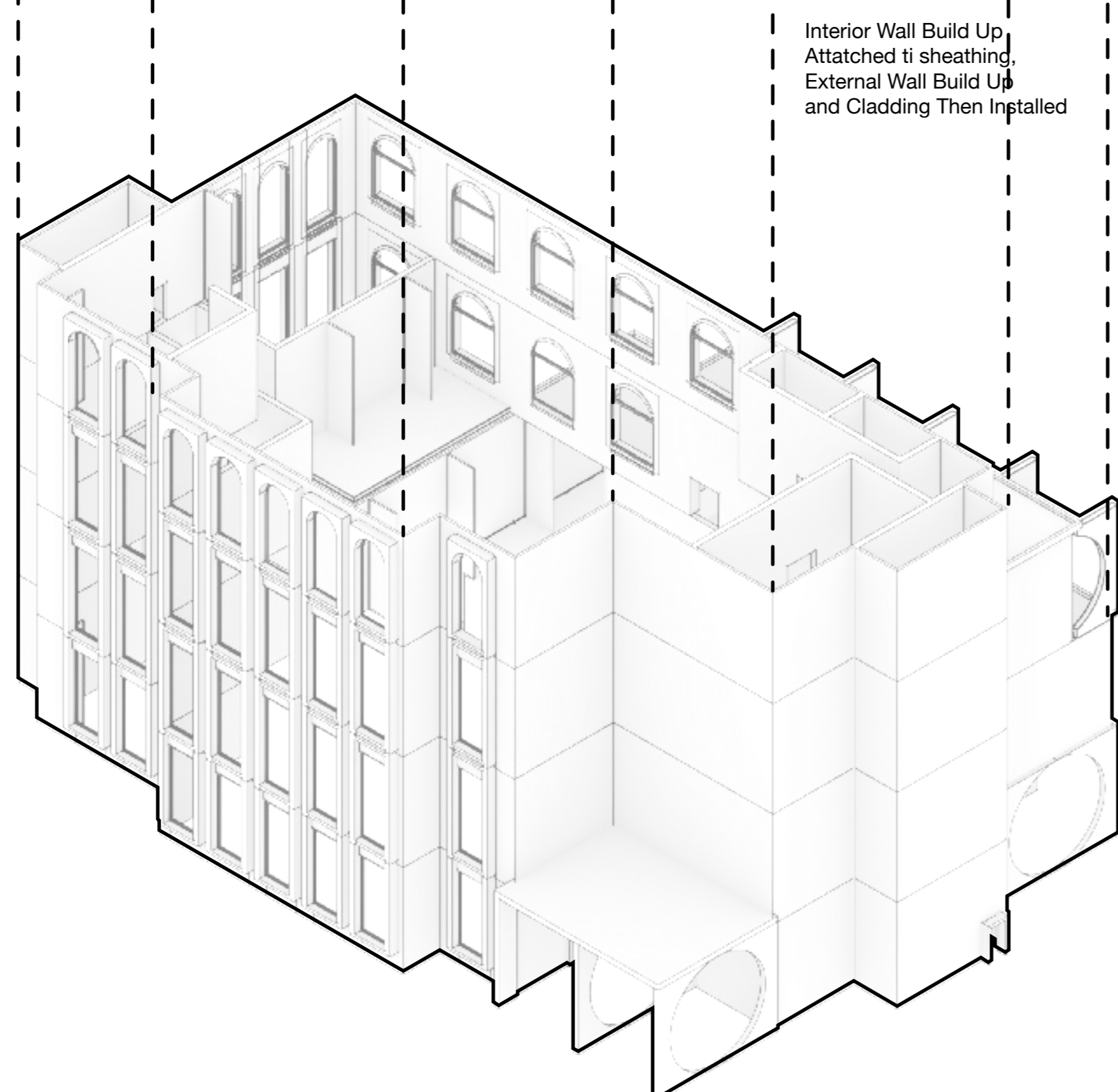
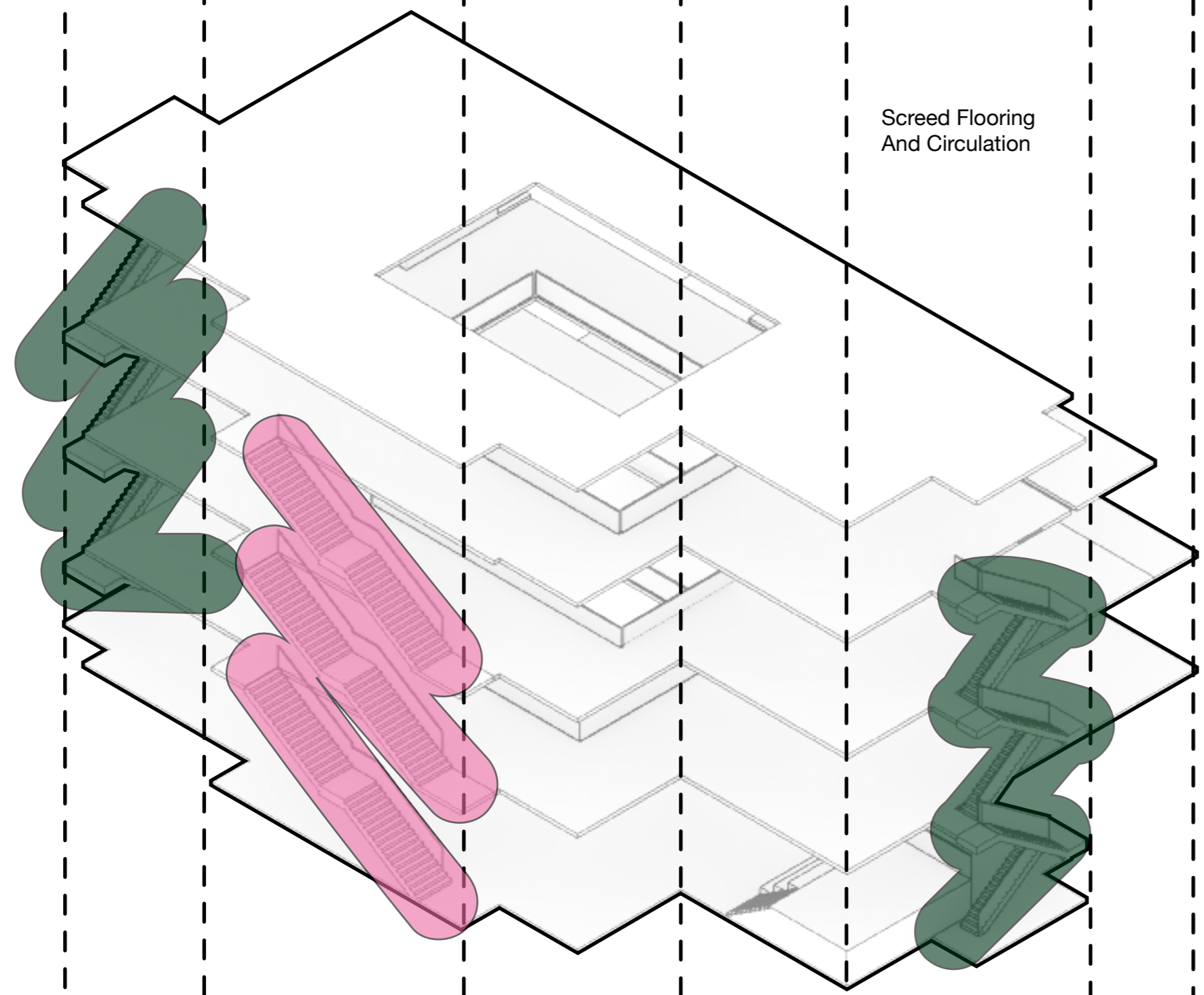
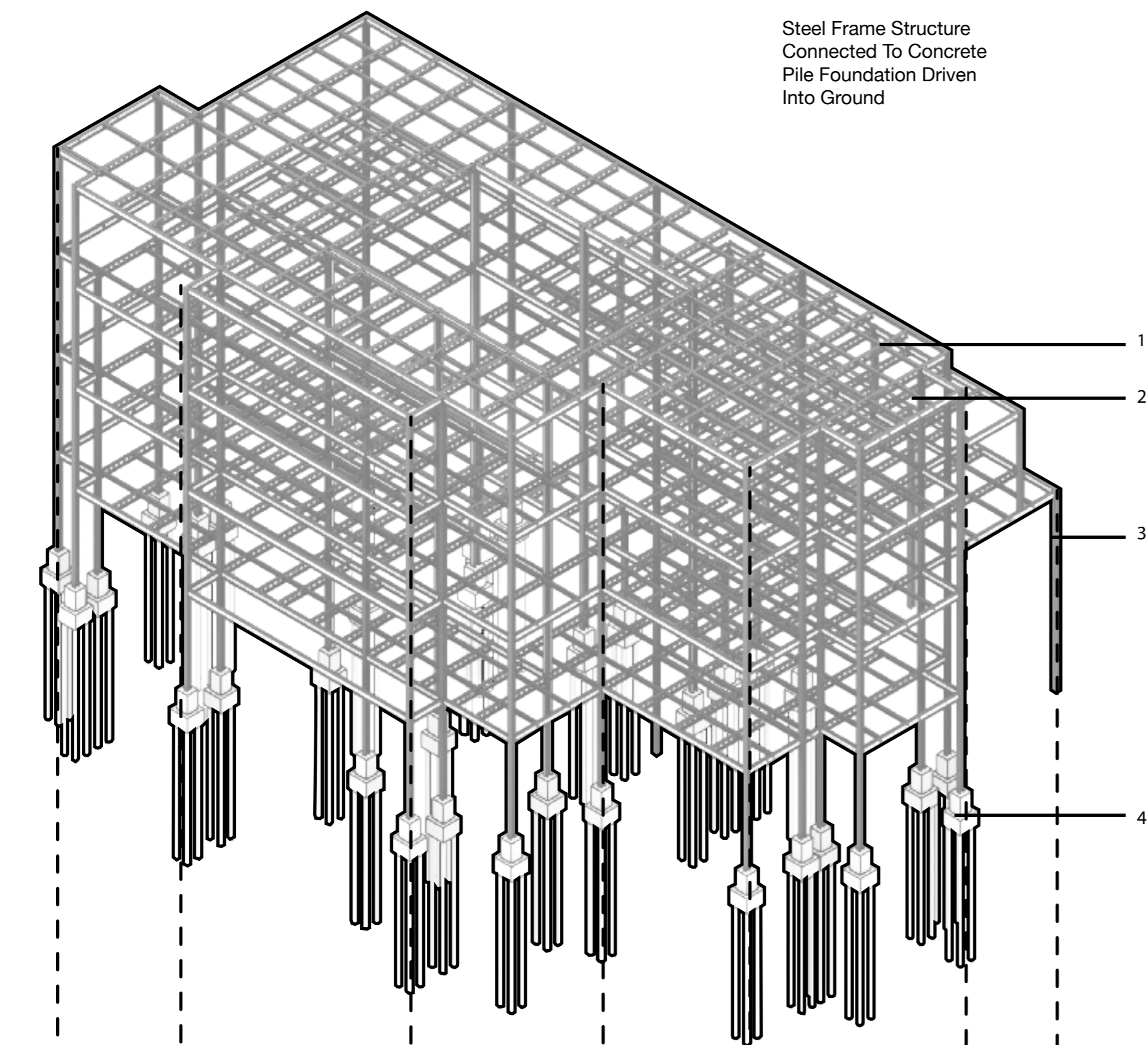
Legends	
	Under Layer
	Breather Membrane
	Vapour Control Layer
	Capping Sheet
	Support Bracket
	Batting Insulation

1. Concrete Coping Stone
2. 97 mm Concrete Block Work
3. 30 mm Batt Insulation
4. Partition Block
5. 70 mm Rigid PIR Insulation
6. Steel Decking
7. 150 mm Cement Screed
8. Precast Concrete Slip Sill

9. 15 mm Limestone Panel Cladding
10. Helping Hand Wall Bracket
11. 40 mm Floor Screed Over Insulation
12. 150 mm Screed Over Steel Decking
13. Steel Decking Fixings
14. Metal Bracket Fixed to Sheathing
15. Metal Cladding Rail System
16. 20 mm Sheathing Board

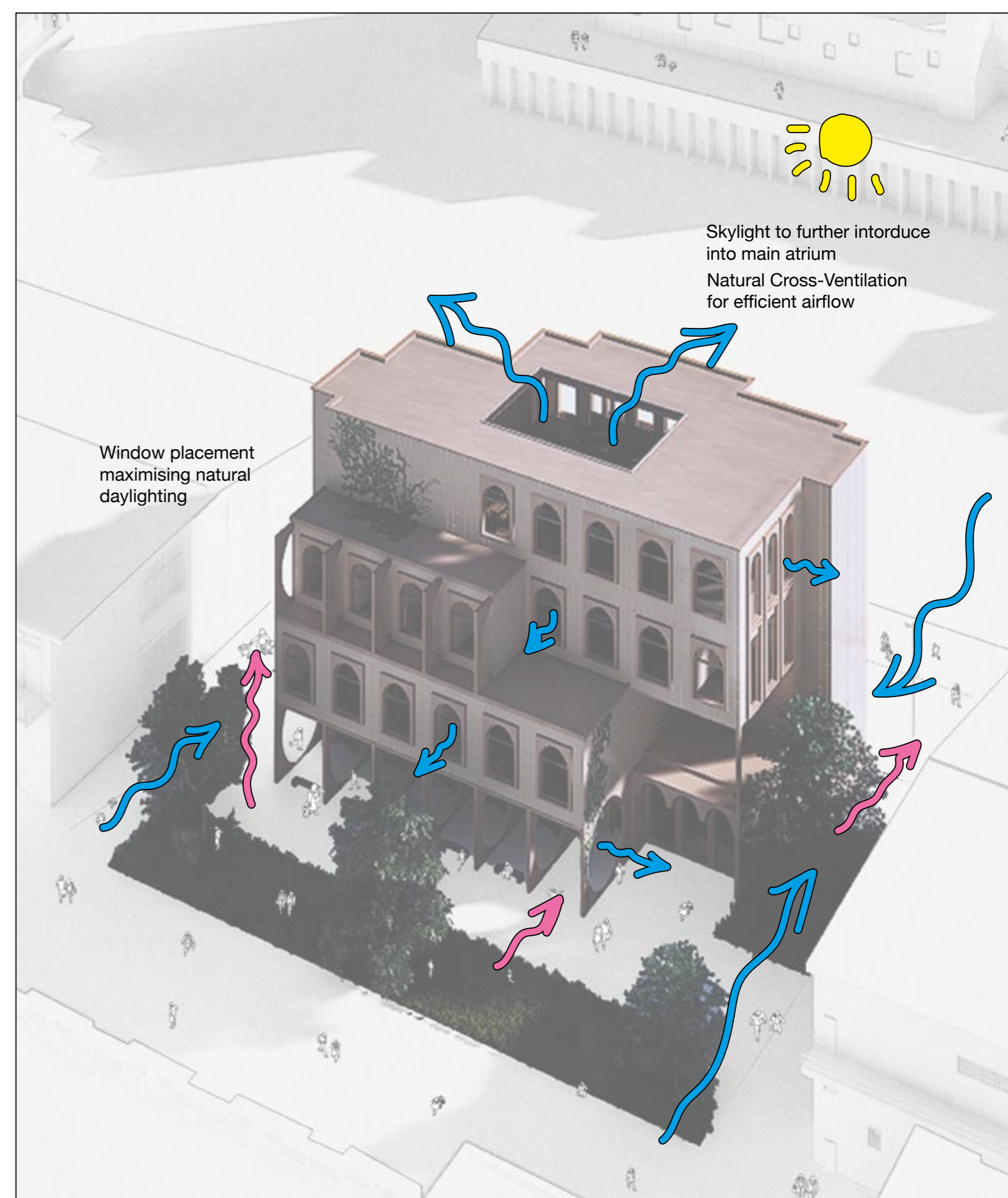
17. 150mm Batt Insulation in Steel Frame
18. Double Glazed Window
19. 15mm Window Insulated Packing
20. 15mm mm Wood Wall Finish
21. 20mm Wood Floor Finish
22. 147 mm Batt Insulation Fixed to Sheathing
23. IPE 400 Floor Steel I-Beam
24. 12mm Gypsum board

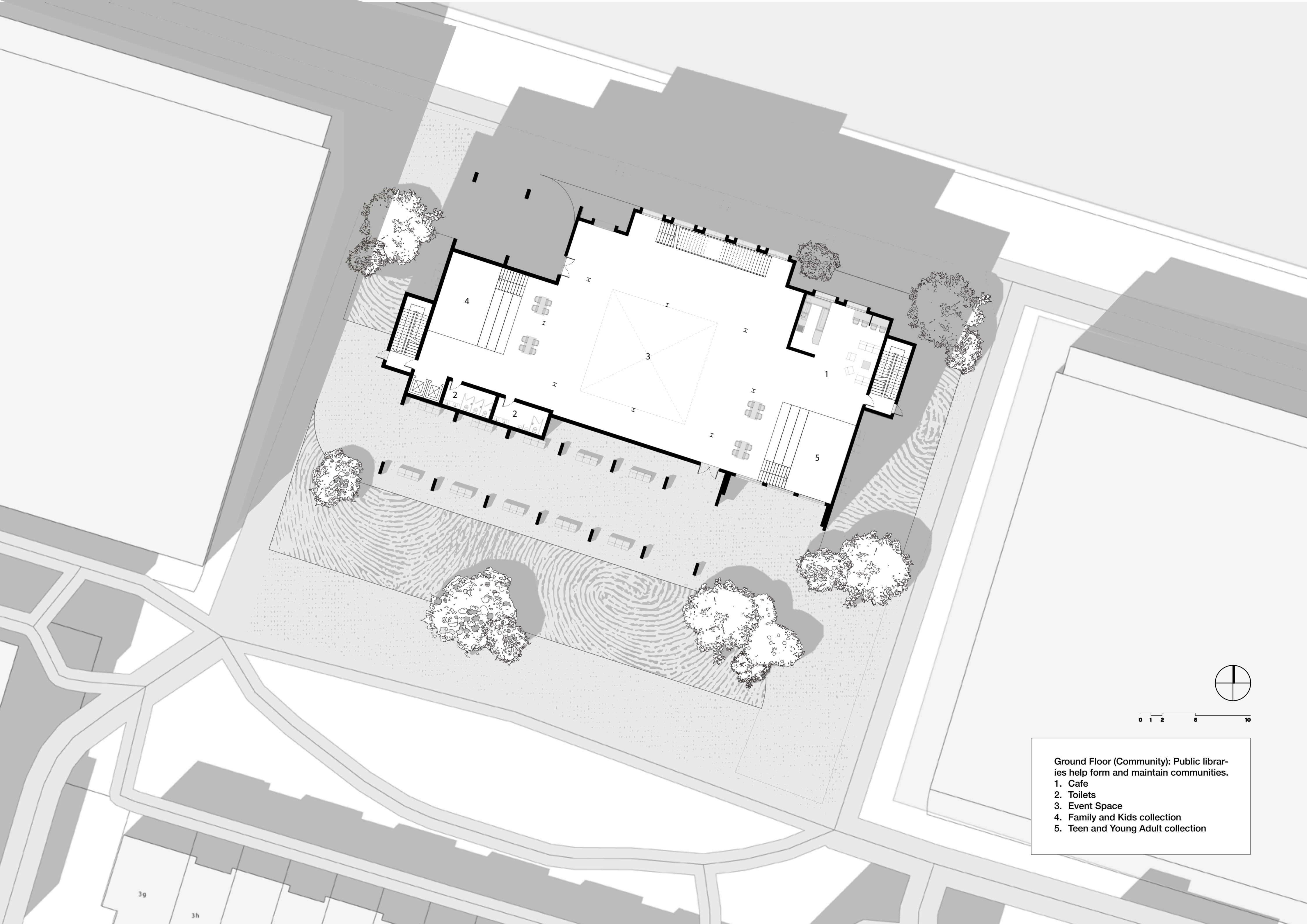




Key Materials Used	Total embodied carbon used per (KgCO <sub>2</sub> e)	Total Area (m <sup>2</sup> )	(KgCO <sub>2</sub> e/m <sup>2</sup> )
Steel	2,484,853		
Light Concrete	44,926		
Rigid Insulation	52,554		
Hardwood (sequestered)	0		
Limestone	9,608		
	2,591,941	2779	933

My building has an estimated calculation of 933 kgCO<sub>2</sub>e/m<sup>2</sup> which exceeds the RIBA 2030 Climate Challenge to keep buildings below a 625 kgCO<sub>2</sub>e/m<sup>2</sup>. This means that per square metre, my building embodies high amounts of carbon, however if you take into account where the materials are sourced, the carbon emissions emitted from sourcing materials domestically is far less than if I were to source materials internationally. Denmark has is naturally abundant in limestone and Hardwood which makes key materials such as this more ideal than importing materials.



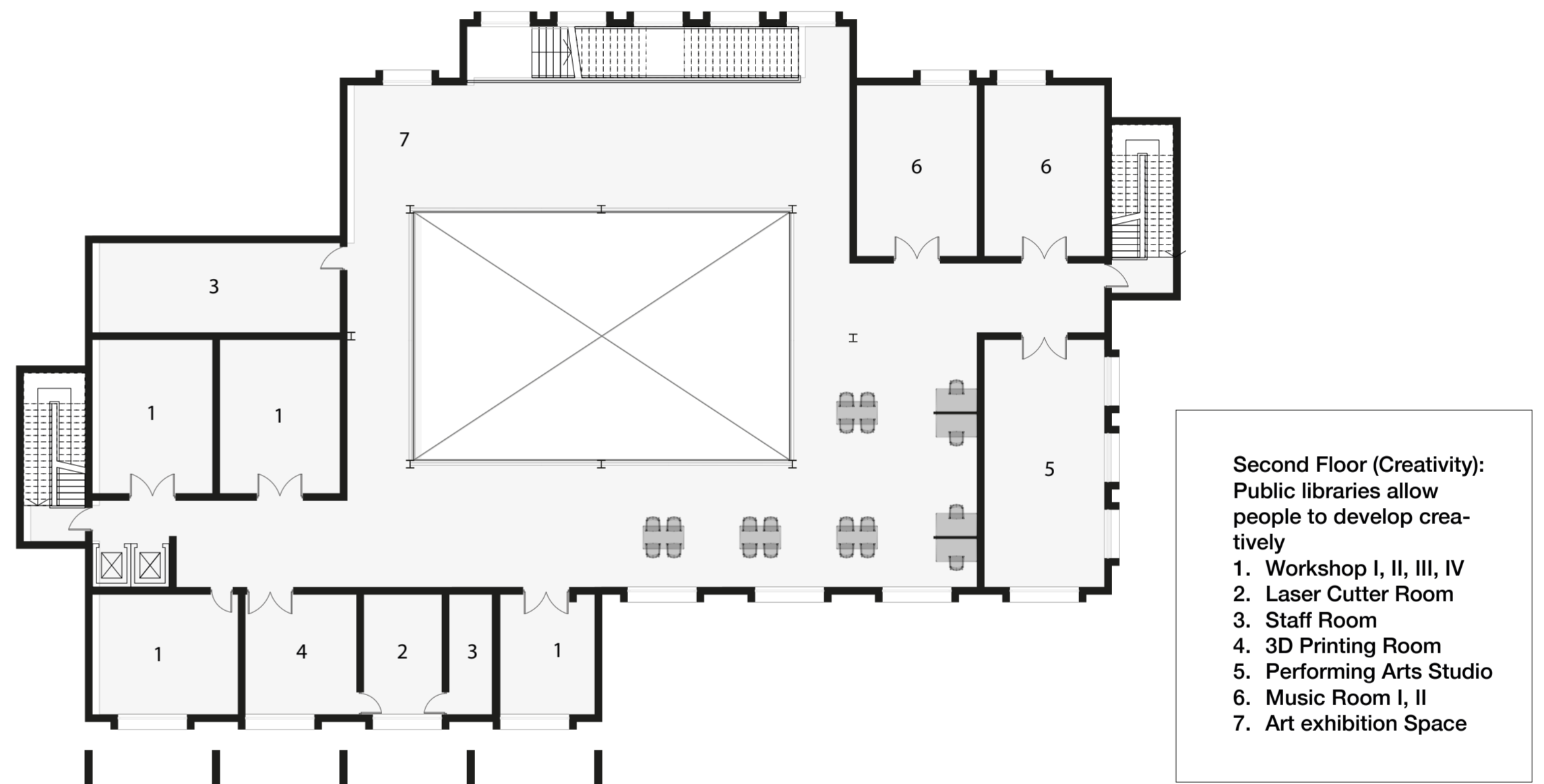
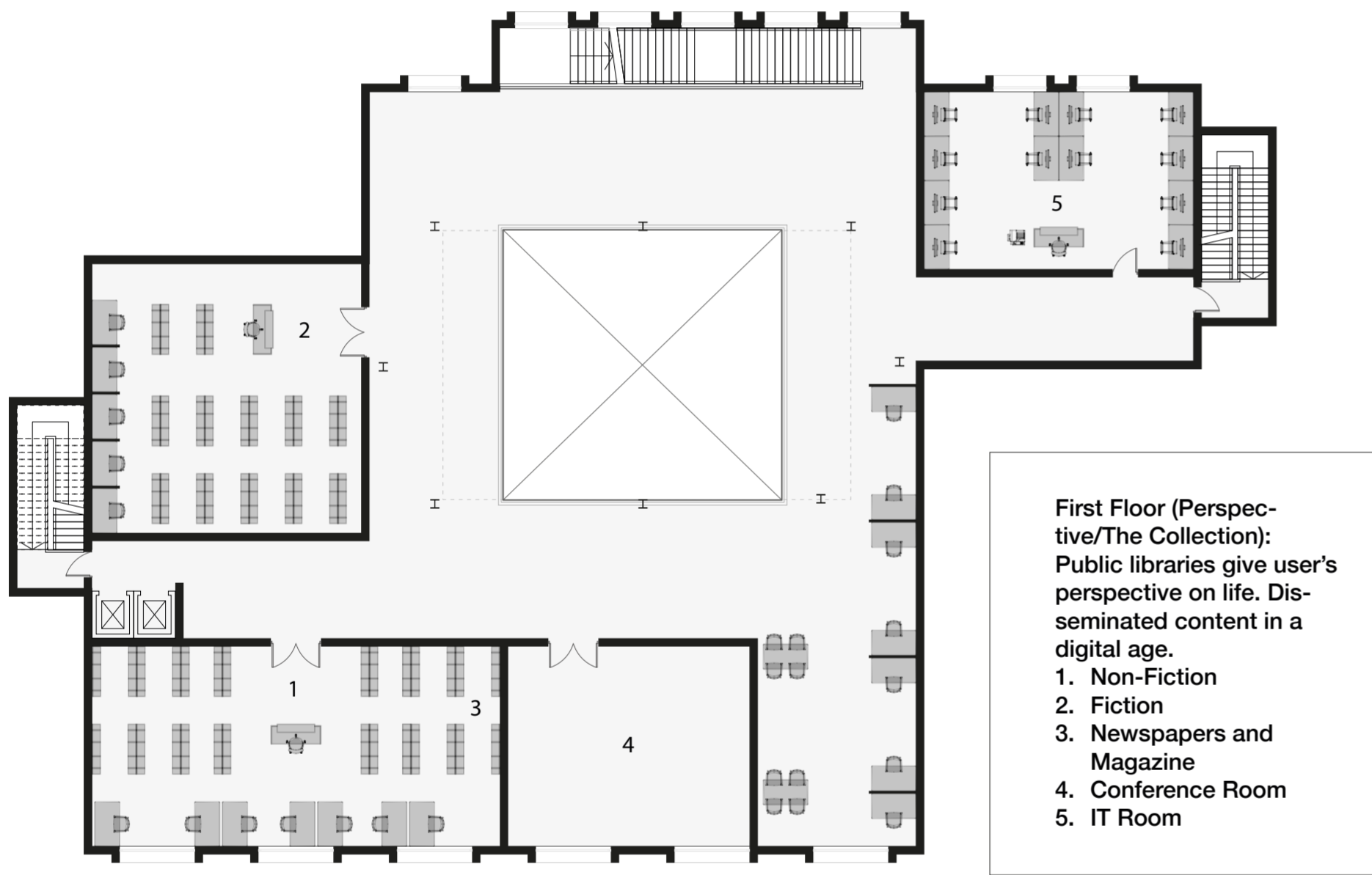


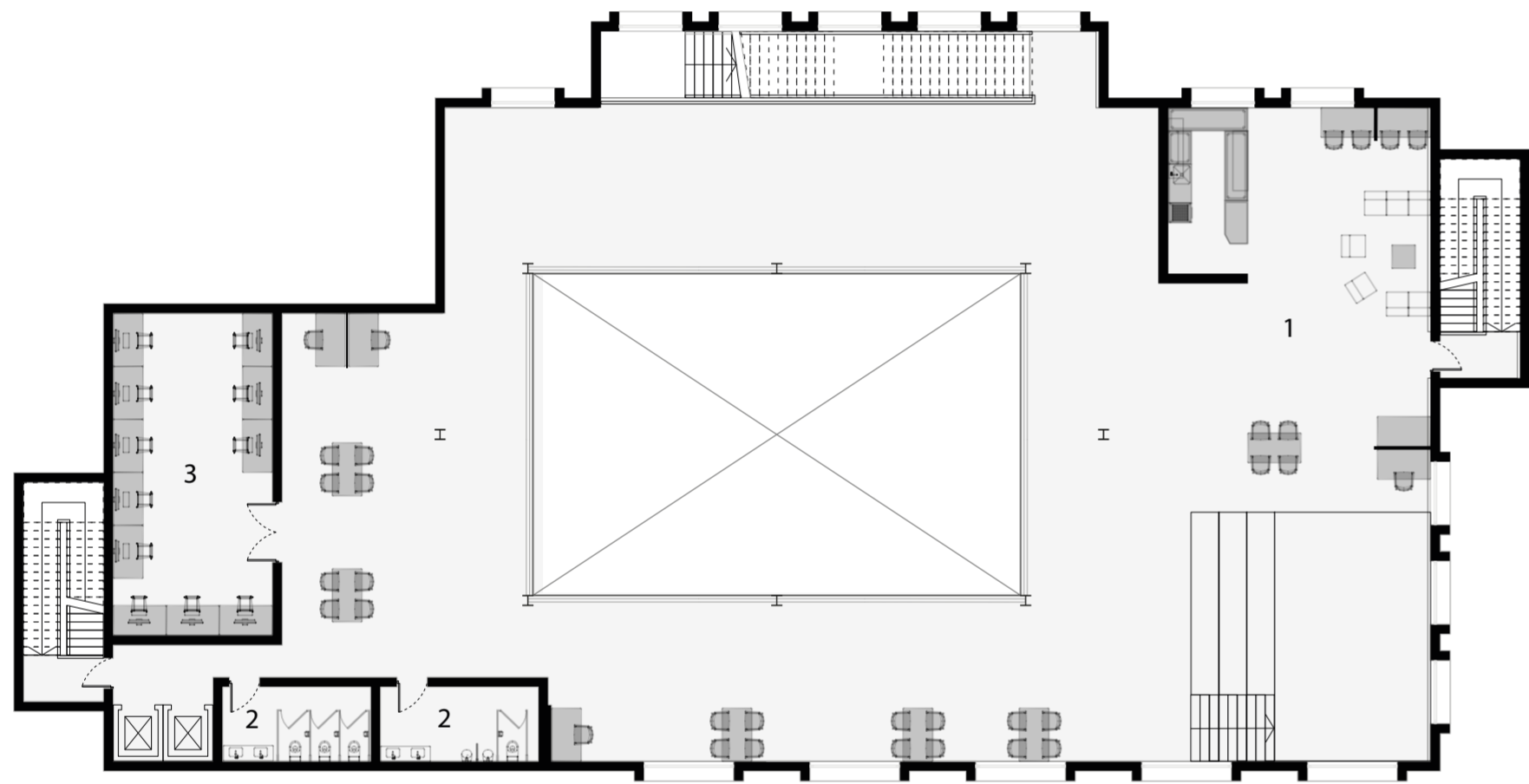
Ground Floor (Community): Public libraries help form and maintain communities.

1. Cafe
2. Toilets
3. Event Space
4. Family and Kids collection
5. Teen and Young Adult collection

3g

3h





Third Floor (Haven): Public libraries are a haven in which user's can immerse themselves and experience well-being

1. Cafe
2. Toilets
3. Gaming Room

