



graduation report
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patterns of a home

negotiating home, asylum and war-era heritage

abstract

The Kolonel Palmkazerne in Bussum is currently being redeveloped into a mixed-use neighbourhood. The developer, BPD, has yet to find a function for the kitchen building that stands at the head of the appelpaats. In this project this building will be repurposed as a refugee asylum, with a focus on the quality of life for refugees and maintaining the building's character.

The refugee asylum situation in the Netherlands has been getting increasingly more strained. As a result, the quality of refugee asylum has been getting worse. Especially in temporary and emergency shelters. This paper explores two methods of improving the refugee living situation. The first is preventing boredom by incorporating activities for refugees in different stages of naturalisation. The second is by helping refugees feel at home. Creating the feeling of being at home is done in a few different ways. The first is interaction with the neighbourhood by sharing certain facilities like playgrounds, a vegetable garden cafe and a second-hand store. The second is by personalising space through usage loans with this second-hand store, and the third is through architectural elements using the pattern language, aiding in creating a comfortable environment. The project has incorporated over 70 of these patterns in its architecture.

The kitchen building's structure and its architectural elements, like its basement, chimney, steel catwalks, steel trusses, brickwork and ornaments, help to maintain the building's heritage. All of which remain visible in the central hall and the basement. Finally, the building's composition, when viewed from the appelpaats, hardly changes, maintaining its original relationship towards the Palmkazerne as a whole.

Altogether these interventions serve to make refugees feel at home, giving them a way to spend their days whilst maintaining the kitchen building's heritage.

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a brief history

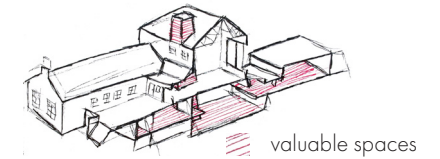
The Kolonel Palmkazerne is a former military barracks complex designed by Boost, located on the edge of Bussum. It was built in 1938 and was originally used to garrison and train soldiers, with a specific focus on military cooks. In 2005, the educational function of the complex was relocated to the Du Moulinkazerne in Soesterberg. After this shift, the military used the site only sporadically before eventually vacating it entirely.

Following the military's departure, the southern part of the site was temporarily repurposed as a refugee asylum while awaiting redevelopment. The economic crisis of 2008 delayed these plans, resulting in the site functioning as an asylum for approximately a decade (Leenders, 2012). During this period, the kitchen building, that historically functioned to train military cooks and to prepare meals for the garrison, situated on the head of the appelpaats, remained unused. Left unheated and exposed to the elements, the building suffered significant deterioration, particularly to the later additions of the facade.

More recently, the site was acquired by the developer BPD, which initiated its transformation into a mixed-use area combining residential and commercial functions. However, identifying a suitable new use for the kitchen building has proven difficult.

value assesment

The site has since been declared a national monument, and a value assessment was conducted. The kitchen building has two highly valued elements, its two chimneys and the basement. These are the only remaining elements of Boost's original design. The center hall and wings were all post-war additions. Furthermore, its strong position at the head of the appelpaats gives it an important role in the composition of the site. Finally, aside from some damage to the roof and postwar facades, both the structure and skin of the building remain in good quality.



valuable spaces

Aside from these tangible values, the building also has a more cultural character. The building has always provided for people. Historically, this used to be the cooks who prepared rations for the garrison. All the while educating these cooks on food preparation for large groups of people. This history of providing has shaped both the building's location and its space plan, giving it a unique spirit.



educating, cooking, and providing

axometric view of the original building

project aims and goals

As briefly mentioned earlier, the site has a history of housing displaced people. This gives the site a somewhat poetic paradox. During World War II, it was occupied by the Nazi army, which resulted in things like large-scale displacement, hunger, and fear. Yet later the building was used to protect people and provide education and food. As a result, the same site has both displaced and hurt people but also protected and provided for those same people. This contradiction shapes the interesting dilemma of the building. It has two characters, one beautiful and the other horrible both existing within the same brick walls. I wish to tilt this balance toward its history of providing, whilst not removing its other character.

There are, of course, many ways to interpret this “providing” aspect. There is, however, one that has a particularly contemporary importance, whilst also relating to the site’s former functions. A refugee asylum.

It has an obviously strong relationship with war and displaced peoples, while being a place where these people are protected, fed, and often educated. This function touches upon all the facets of the building’s history, whilst also tipping the balance towards its positive character.

problem statement

Even though the history and spirit of the building form an important foundation for this project, the refugee asylum situation has become a nearly insurmountable problem within the Netherlands.

the societal problem

In 2023, 38,370 people requested asylum in the Netherlands (CBS, 2024). In January 2024 the Dutch government passed the *spreadingswet*, demanding every municipality to house a part of these asylum seekers. The *kolonel palm kazerne* is uniquely located within 3 municipalities, meaning it can possibly play a role as a flying team member, supporting the municipalities that struggle to meet governmental demand.

To illustrate the demand, let’s take the municipality of the Gooise Meren as an example. They are responsible for 389 of these refugees (Ministerie van Justitie en Veiligheid, 2024).

The Gooise Meren has already transformed an old office building into an emergency shelter location on the *Rijksweg 81*, a kilometer from the city of Naarden. This location temporarily houses 174 refugees, meaning they are still actively searching for new locations (Bestuur Gemeente de Gooise Meren, 2024). Additionally, across the Netherlands the immense shortage of asylum beds has

forced many municipalities to rent hotels or similarly expensive locations to meet the demand. The Gooise Meren has also done this to house Ukrainian refugees in *Het Gooiland Hotel*. This exemplifies both the societal and financial imperative of creating more asylum locations.

the humanitarian problem

The *spreadingswet* is making many municipalities look for suitable shelter locations. The necessity of these locations is extremely high. Government mandate request for an acute realization of new emergency asylum locations. Often-times these emergency locations offer lesser living quality for their residents (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2021). These locations are more often than not a hastily transformed building outside of the city or a cluster of temporary units in a field. They are mostly fenced off and under camera security. These emergency shelter locations only meet people’s physiological needs while falling short on many of the other important aspects of human dwelling. They lack both the comfort and habits of a home and the usual activities that regular asylum locations facilitate. Creating boredom amongst refugees.

Additionally, with the backlog of work for the IND and the shortage of houses for status holders, many refugees have to stay in asylum locations for years

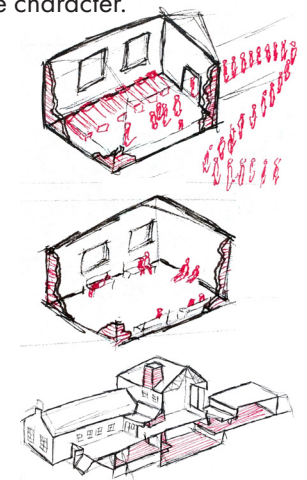
even though these locations are often unsuitable for a lengthy stay. Over half of the asylum locations in use are emergency shelter locations (COA, 2025).

the heritage problem

These problems are important; however, there is another obvious part of this project that cannot be overlooked. The building is a valuable World War II and Cold War heritage site, and this character must be preserved in its new function.

summary

With the high demand for new asylum locations, municipalities often build fast temporary shelters that do not provide necessary facilities for refugees. This project must address the lack of capacity, help refugees feel at home, and find methods of staving off boredom whilst maintaining the building’s Cold War heritage character.



objectives and motivation

In my life I have had the opportunity to meet many refugees. Most are from Ukraine and Syria, and some are from different African countries. Knowing their history and reason for seeking asylum. I have become unable to think of them as anything less than a person that deserves safety, dignity, purpose, and most importantly the feeling of being at home. It has become clear that these needs are often overlooked in most of the current emergency shelters and many of the permanent shelters. It is for this reason that I chose to take this direction for the graduation project. It combines personal interests, like humanitarian beliefs, personal experience with refugees, history, theory, and philosophy, with my favorite fields in architecture, like social design, dwelling, and heritage.

scope

The project will limit itself to the kitchen building. The surrounding area planned by BPD can be considered a realistic plan for this neighbourhood. In the plan their ideas will largely remain unchanged, as it reduces the scope of this research while giving it a realistic context to exist within.

The neighbourhood's response to this project creates a great level of unpredictability. Usually the creation of a

new refugee asylum location comes with a great deal of local resistance. This is something that cannot easily be simulated in this hypothetical project and will therefore not be directly discussed. Instead, the project will aim at long-term and sustainable relations between the project and the neighbourhood by way of interaction.

The building will not be strictly limited to an asylum function. It is necessary for the building to have one or more alternative functions in order to create this interaction and fulfil the project's goals.

research & design questions

The general aim of the project has now been established and can roughly be divided into 2 questions:

RQ1: How can the design of a refugee asylum location help to prevent boredom?

RQ2: How can the Palm Kazerne's military heritage character be maintained whilst also creating the feeling of homeliness for refugees?

theoretical framework

There are two main objectives within this project. The first is the creation of homeliness, and the second is staving off boredom amongst refugees. Solving boredom is quite simple: find the most appropriate methods of keeping busy. Creating homeliness, however. Requires more theoretical basis.

Feeling at home

The feeling of homeliness can be tied to multiple aspects. A 2017 study researched the benefits of place attachment related to 13 aspects in different groups of people. The most prominent benefits were memories at 69%, belonging at 54%, relaxation at 49%, emotions at 38%, activities at 33%, and comfort and security at 31%. (Scannel & Gifford, 2017). It seems reasonable to say that stimulating these psychological aspects would encourage people's attachment to a place and, therefore, make them more likely to feel at home.

Belonging, which has been more thoroughly investigated on the neighbourhood level and linked to the evolutionary drive to establish social bonds (Suval, 2018), is often underaddressed in refugee asylum locations. These locations are mostly placed away from the public domain and fenced off. This disallows interaction between the public and refugees and therefore

maintains the distance between these groups. A programme that supports the interaction between refugees and the public in a positive sense could help to establish these social bonds and aid in their feeling of belonging. Additionally, this might ease the fear of the unknown amongst the public.

Relaxation should be stimulated by adding places of rest with different levels of intimacy and by enabling as much privacy in individual spaces as possible. This way people can choose to relax together with others and retreat to private space when it becomes too much.

The programme must allow for plenty of activities; this not only aids in the feeling of being at home but also staves off boredom and aids in the creation of memories.

Comfort security can be divided into physical and psychological comfort. Physical relating to, for example, soft seating and comfortable temperatures. Psychological comfort, however, is more complicated and perhaps more architectural. It is about the experience of space as being comforting.

Although memories and emotions are among the most important to being at home, this is not something that can be easily designed. Yet heritage specifically does come with some benefits. The building itself carries memories and in-

vokes emotions. In doing so, it allows for people who have little relation to a space to still engage with the communal memories and emotions. Though perhaps not as personal, these memories and emotions could help compensate for this lack until personal memories and emotions are created.

heidegger, heritage and place attachment
Besides the scientific field. There is also a more philosophical view of place attachment.

Heidegger says that all humans dwell, yet some dwell better than others. Those that do are dwelling poetically. This means that their consciousness is in a strong constant relationship with their environment. It is in this relationship that value exists. It suggests that we are at home in a place because we recognise and care about what is essential to the unique and distinctive place that it is. (Wrathall, 2025)

Heritage has an incredibly strong position when it comes to creating this relationship. Heritage often comes with a unique sociocultural character. This is expressed in, for example, the Charter of Venice of 1975 and the Declaration of Amsterdam 1975. (Van Emstede, 2017) This sociocultural character gives the place an identity that can easily be recognised as valuable and with which

a person can quickly form a relationship. This relationship then not only creates value for a person by becoming able to dwell more poetically, but it also ties them strongly to its sociocultural history. This grants refugees an easier path for attaching to place and therefore feeling more at home.

christopher alexander
One writer that, be it intentionally or unintentionally, addresses place attachment and poetic dwelling is Christopher Alexander in his works "A Pattern Language" and "The Timeless Way of Building". According to him, the work in which he applied these theories the best was the Linz Café. The building was designed to, above all else, be simple, ordinary and comfortable. He made a list of all the patterns that aided in creating this building. (see next page)

He clearly defined these patterns in "A Pattern Language" and therefore made them easy to recognise and replicate. Recognising these elements in the kitchen building and supplementing them where the buildings fall short could greatly aid in attaching to place and, therefore, feeling at home.

summary

Both theory and science suggest that attaching to a place can help people to feel at home. This can be achieved through programmes, building elements and heritage values.

PATTERNS USED IN THE LINZ CAFÉ

NUMBER OF STORIES

CIRCULATION REALMS

BUILDING THOROUGHFARE

MAIN ENTRANCE NUMBER OF STORIES

CIRCULATION REALMS

BUILDING THOROUGHFARE

MAIN ENTRANCE

ENTRANCE TRANSITION

CASCADE OF ROOFS

SHELTERING ROOF

ROOF GARDEN

INTIMACY GRADIENT

INDOOR SUNLIGHT

ENTRANCE ROOM

THE FLOW THROUGH ROOMS

SHORT PASSEGES

STAIRCASE AS A STAGE

ZEN VIEW

TAPESTRY OF LIGHT AND DARK

SEQUENCE OF SITTING SPACES

LIGHT ON TWO SIDES OF EVERY ROOM

SUNNY PLACE

OUTDOOR ROOM

GALLERY SURROUND

SIX- FOOT BALCONY

CONNECTION TO EARTH

PATTERNS USED IN THE LINZ CAFÉ

GARDEN SEATS

ALCOVES

WINDOW PLACE SITTING CIRCLE

CEILING HEIGHT VARIETY THE SHAPE

OF INDOOR SPACE

HALF OPEN WALL

STAIRCASE VOLUME

OPEN SHELVES

BUILT-IN SEATS

STRUCTURE FOLLOWS SOCIAL SPACES

GRADUAL STIFFENING

ROOF LAYOUT

COLUMNS AT THE CORNERS

PERIMETER BEAMS

NATURAL DOORS AND WINDOWS

LOW SILL

LOW DOORWAY

FRAMES AS THICKENED EDGES

COLUMN CONNECTION

FLOOR SURFACE

LAPPED OUTSIDE WALLS

WINDOWS WHICH OPEN SOLID DOORS

WITH GLASS

SMALL PANES

HALF INCH TRIM

FRONT DOOR BENCH

CANVAS ROOFS

ORNAMENT

WARM COLOURS ROOM

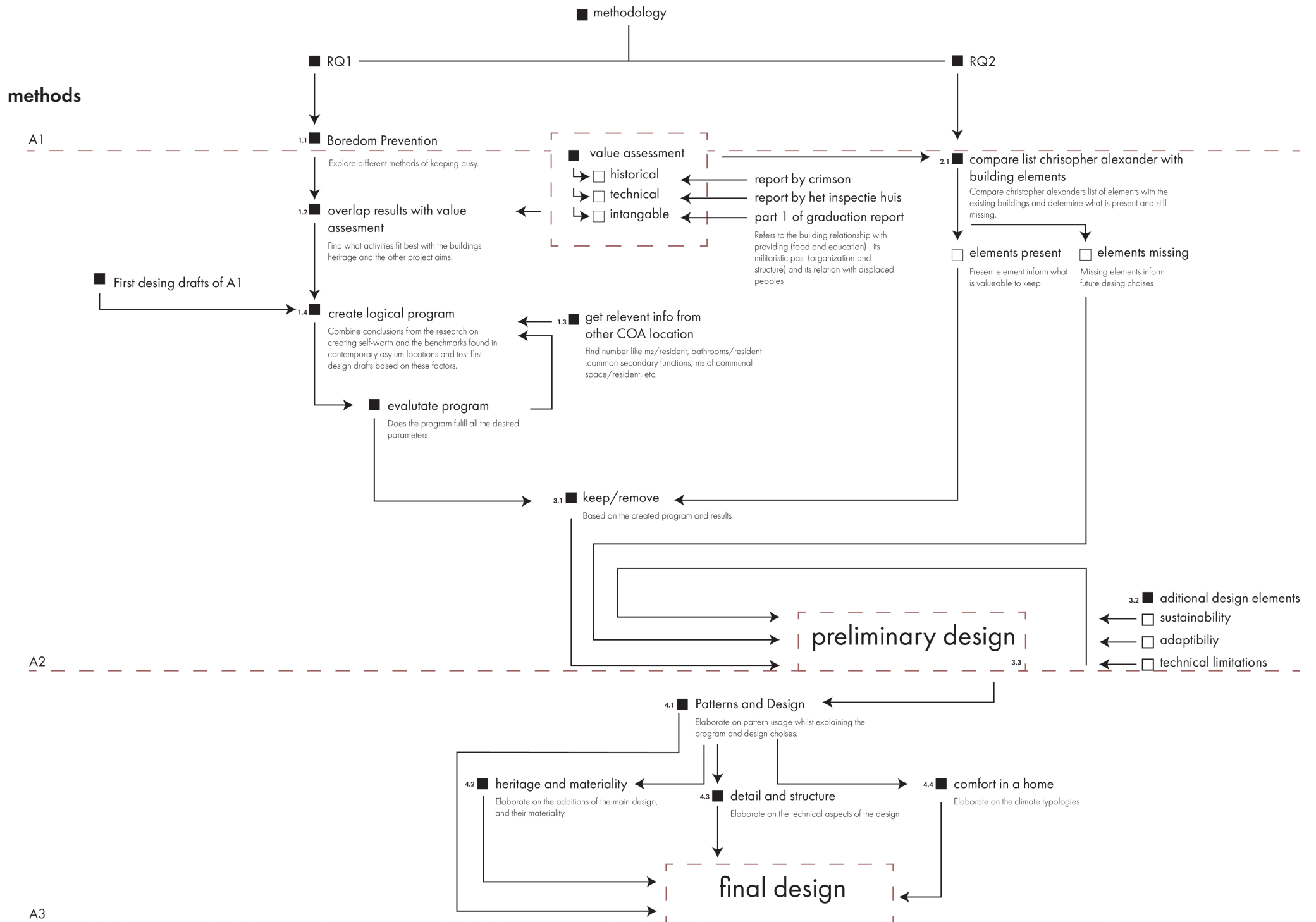
(Alexander, 1981)

The next pages contain pictures from the Linz café.
(Alexander, 1981)









PART 3 RESULTS

This chapter will elaborate on the steps described in the methodology. As a reminder, the research questions are as follows:

RQ1: How can the design of a refugee asylum location help to prevent boredom?

RQ2: How can the Palm Kazerne's military heritage character be maintained whilst also creating the feeling of homeliness for refugees?

1.1 exploring different methods of keeping busy.

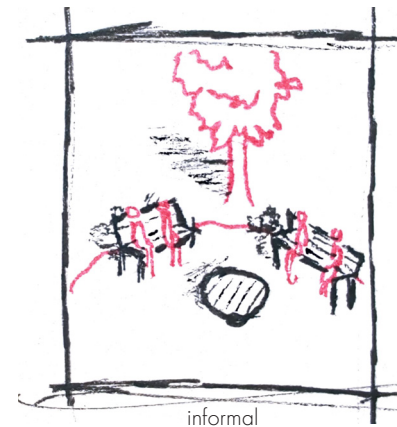
One of the main issues found in refugee asylum locations is boredom. A 2025 report issued by the WODC called this one of the main reasons for incidents and nuisances (Staring, Kuppens, Nillessen, & van Esseveldt, 2025). This boredom is mostly caused by bureaucracy. For the first 6 months, a refugee is not allowed to work. After that they still require a BSN (citizen service number) to open a Dutch bank account and be able to receive a salary. Because of a large backlog of work at the IND (Immigration and Naturalisation Service), refugees often have to wait a long time before receiving a BSN (Vluchtelingenwerk, 2026). During this time refugees can experience great boredom. (Staring, Kuppens, Nillessen, & van Esseveldt, 2025)

There are already some initiatives from different foundations that mitigate this problem, and COA's program of requirements already reserves space for recreation and education rooms. Yet these facilities are often not present in temporary and emergency asylum locations and do not provide a way to spend most of your days.

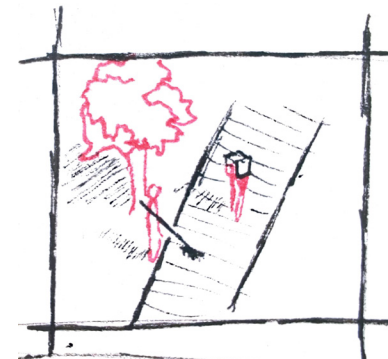
Being allowed to work takes time and is therefore not possible for all refugees, but volunteering is easier, as one does not need a TWV (working permit) nor a Dutch bank account.

This means there are a few ways of categorising ways of keeping busy depending on how far a refugee is in their asylum process:

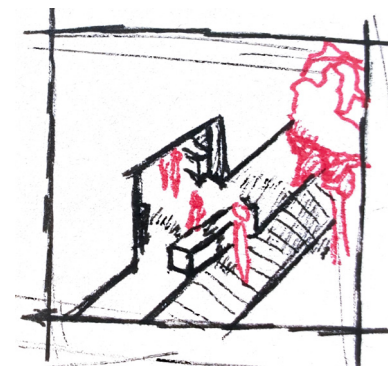
1. Informal
No requirements or responsibilities related to doing these activities
2. Volunteering
Low requirements and small responsibilities. No income but more interaction with the public.
3. Work
High requirements and more responsibility. An income and more interaction with the public.



informal



volunteering



work

1.1.1 informal activities

Besides the recreation rooms in which many group activities can take place. Some other informal activities also require their own space to function. There are, of course, some limitations to what one can realistically add. A bowling alley or a swimming pool would take up too much space and be too expensive to consider. There are, however, fairly affordable yet enjoyable possibilities. Examples are:

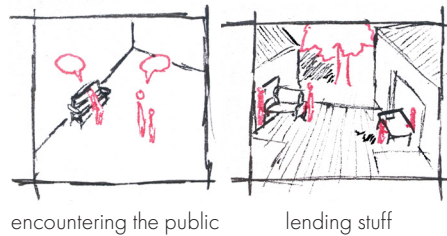
Gym spaces, contemplation rooms, sportsfields, communal outdoor areas, circular walking paths, playgrounds, and a vegetable garden.

Most of these activities are outdoors, and the indoor activities don't require much space. Considering this, all of these examples have been integrated in the design.

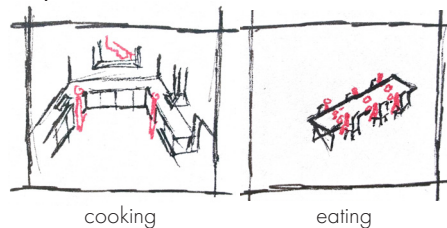
1.1.2 volunteering and the second-hand store

COA commonly sets up a "meedoebalie" (participation counter), allowing refugees to see what volunteer work is available in both the asylum location and the neighbourhood. This is already a great start. There is, however, one addition that could greatly help all aspects of this project. A second-hand store.

The theoretical framework highlighted the importance of place attachment. The most important, yet hard-to-design, aspects of place attachment were memories and emotions. These are created through conscious interaction with a space. This is similar to Heidegger's ideas of dwelling poetically. A way of quickly creating this personal interaction with space is moving stuff and furniture into a building, thereby personalising it. This is, of course, hard for refugees, as they don't own a lot. Even if they wanted to, getting an expensive moving van and purchasing furniture would likely not be worth the money and effort. This is especially true when considering the uncertain length of their stay. But if the stuff were free and already on site, this hurdle could be completely removed. This is where the second-hand store comes in. Refugees can volunteer in this store and lend items for free. It would not be owned by them, yet they are able to use the stuff for an undetermined amount of time. When they move out, new residents can choose to remove or exchange these pieces of furniture for ones that more represent themselves. In a sense, the Aylum would be a buffer for the stuff in the second-hand store. Additionally, this function would encourage interactions between refugees and the public.

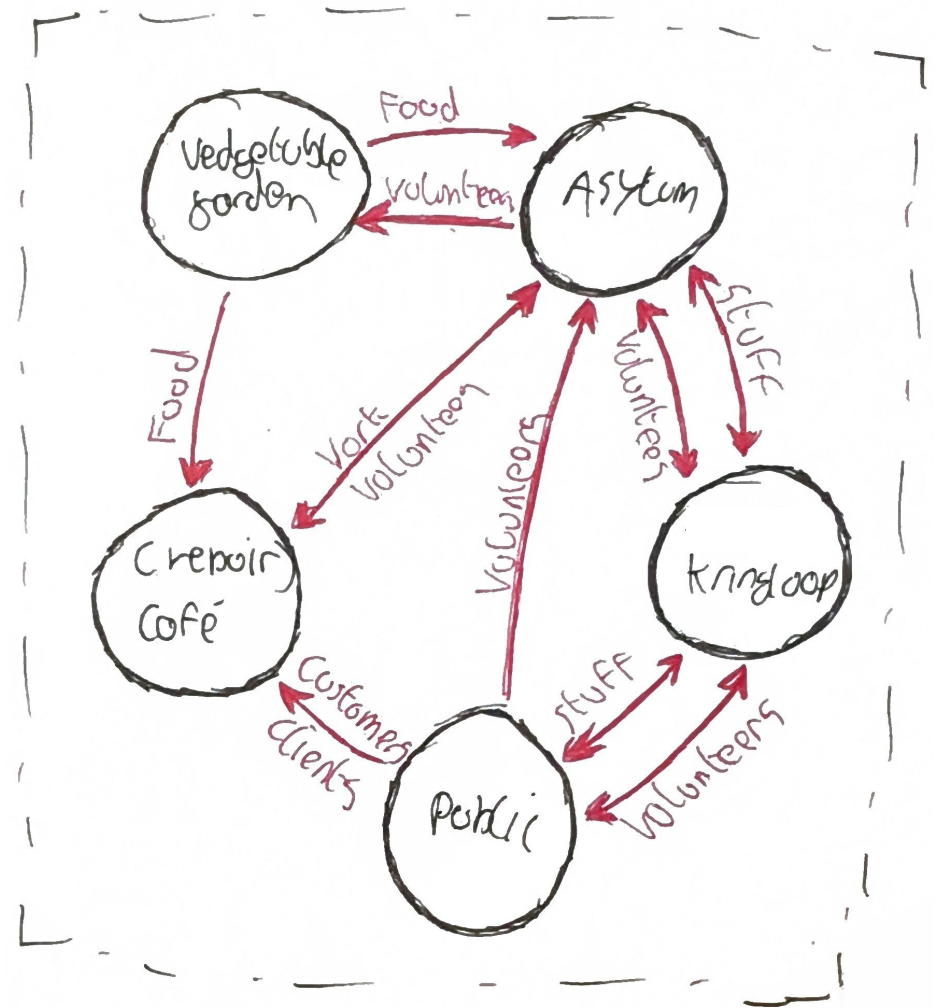


1.1.3 work and the café
 One of the most interesting examples of refugees working on a refugee asylum site is "A Beautiful Mess". This is a series of restaurants in Aylum locations that allows local refugees to cook and serve their home cuisine to anyone who wishes to try it. Although the restaurants are known to be messy, they are a beautiful way for refugees to spend time, earn money, learn about Dutch culture and interact with and teach the locals about their culture. I suppose that is why it is called a beautiful mess. It also respects the food-related tradition that used to be present within the kitchen building. For these reasons, it's a great addition



In summary, it would help prevent boredom, help make people feel at home and decrease the boundary between

Conclusion
 The programme should include as many informal activities as possible, a se-



the interaction between the parts

1.2 overlap results with value assessment.

The value assessment mentions both tangible and intangible values; in this case the chosen activities mainly regard the intangible values of the building. It has a spirit of providing, educating and cooking. Within the results from 1.1 all of these are represented.

providing

The asylum function itself, the kringloopwinkel and the vegetable garden all provide people with either stuff or food.

educating

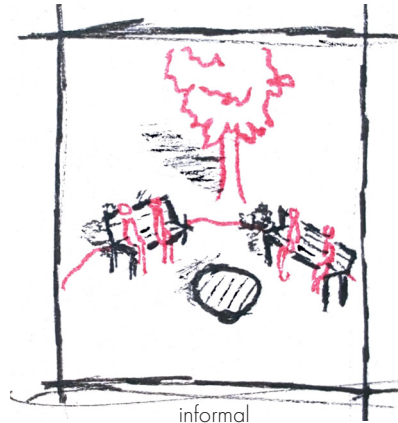
The education rooms and the cultural exchange aspects of the second-hand store and the café all aid in educating both the refugees and the public about each other's cultures.

cooking

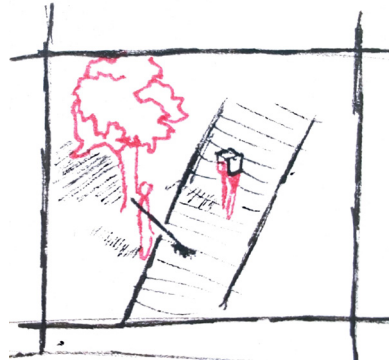
Its history of cooking is mainly represented in the café but can also be seen in more private communal kitchens and the vegetable garden.

conclusion

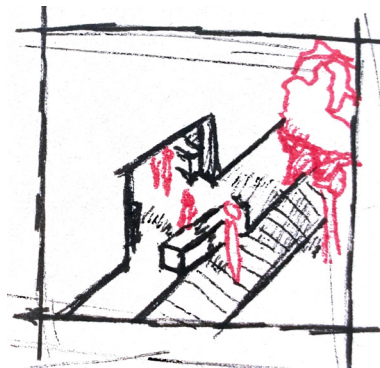
The additional functions respect the building's spirit.



informal



volunteering



work

1.3 get relevant information from other coa locations

In this step, data will be gathered from the current COA's standard program to create a benchmark for the design. Only the housing parts of the programme will be discussed here. (For the complete program, see the appendix 2)

All of this information is derived from COA's RFPvE (spatial functional program of requirements) (COA, 2020). Coa generally divides living spaces into 4 different types, all with 8 beds.

8-person house 62m²:

Three 2-person rooms and two 1-person rooms shared a bathroom, toilet and living room + open kitchen.

dubbel-4 house 74m²:

For two families, 2 separate living rooms, each with one 2-person room and two 1-person rooms, communal use of a kitchen and one shared bathroom. The two 1-person rooms must be changeable from one living room to the other.

MIVA (disabled persons) house 64m²:

Disabled persons' houses have four 2-person rooms of +-10 m² bordering a hallway. They have a shared living room and kitchen, and spaces must be wheelchair accessible.

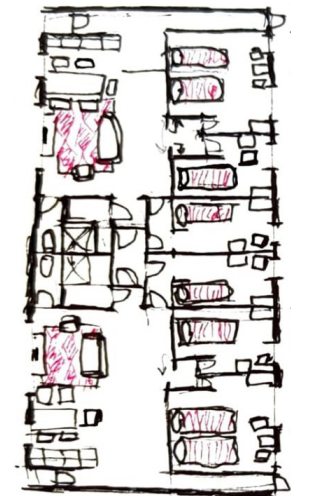
For 440 capacity they count

37	8 person houses,	67%
16	dubbel 4 houses,	29%
2	miva houses,	4%

It is mainly the ratios which have been taken into account.



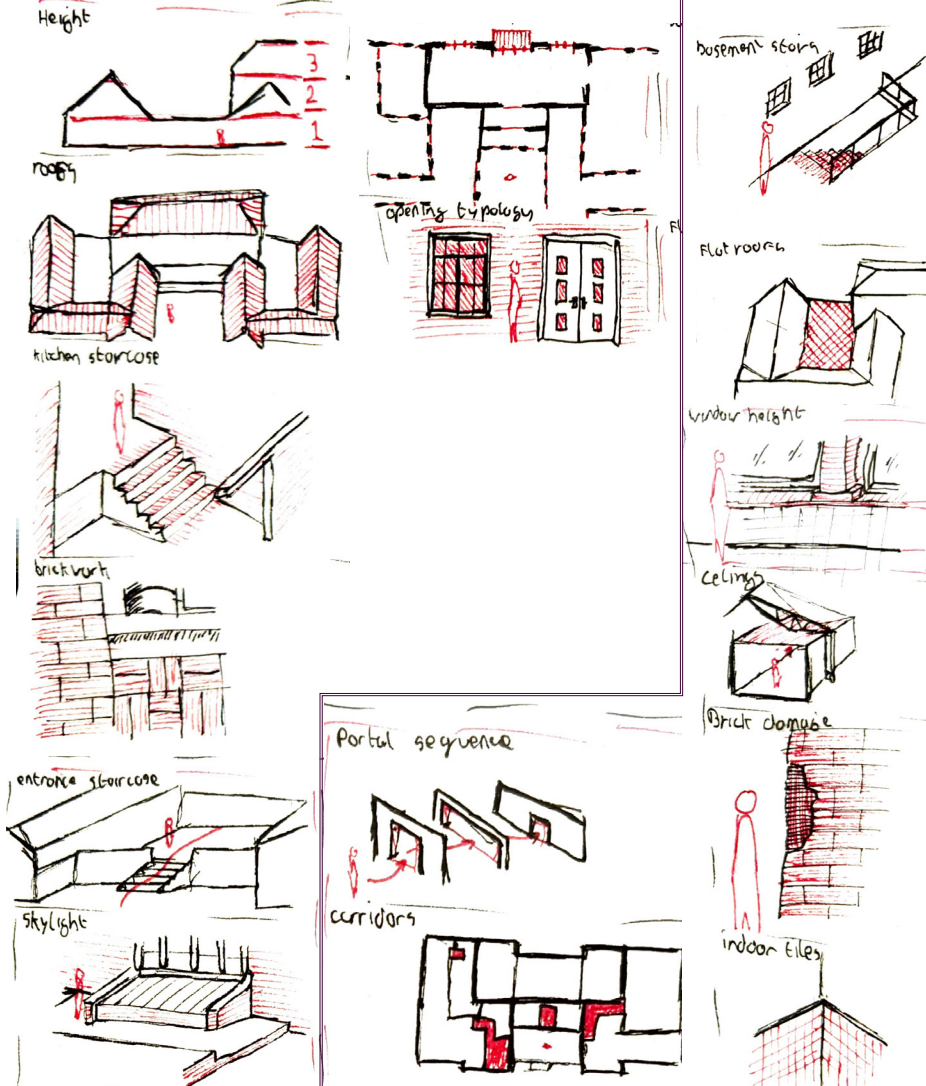
sketched example of a 8-person house



sketched example of a dubbel-4 house

KEEP
(add to comfortability)

REMOVE
(takes away from comfortability)



conclusion of the pattern language analyses

2.1 analyses of the kitchen building based on chistopher alexanders pattern language

In Alexander's works many guidelines are given that help in creating a comfortable and pleasant space. In the analyses (see appendix 3), the kitchen building's elements were analysed based on some of the more relevant patterns. From this analysis, some building elements turned out to help in creating a comfortable space, whilst others hindered it.

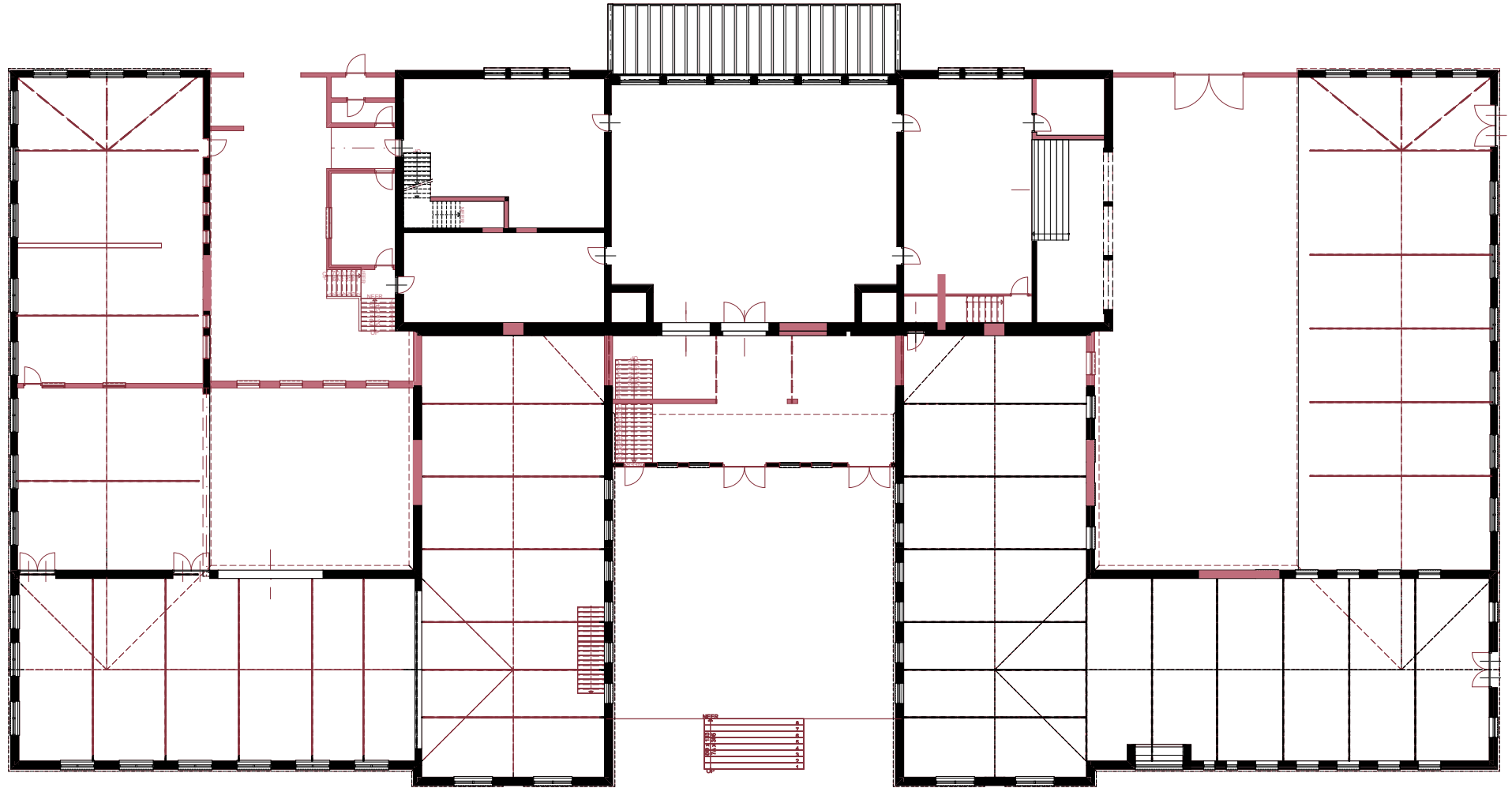
Elements that help will be protected in addition to the already highly valued chimneys and basements and sometimes exadurated, whilst elements that hinder will be removed or altered.

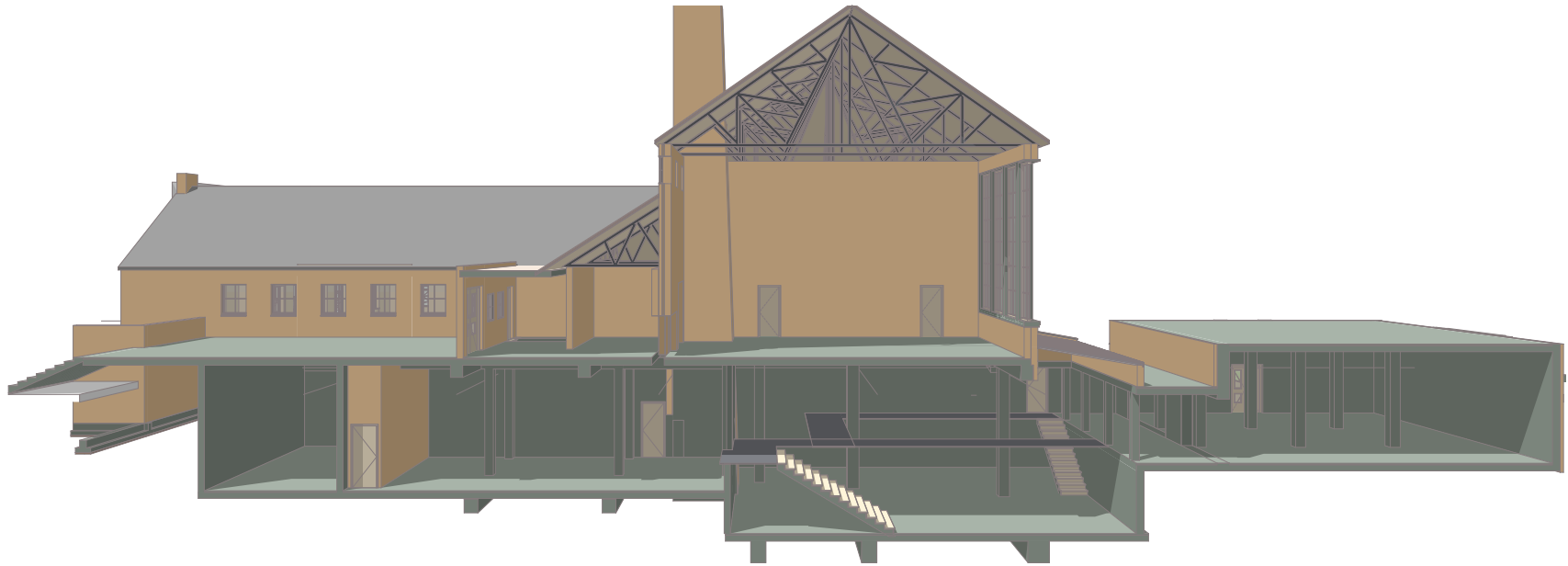
3.1 keep/remove

Given the findings from RQ1 and RQ2, conclusions can finally be drawn on what building parts to keep and remove. The basement and chimneys were already established as valueable and will remain. Additionally, the brickwork, roof shapes, window and door typologies, window hierarchy and skylight will be either repaired or recreated in their original character.

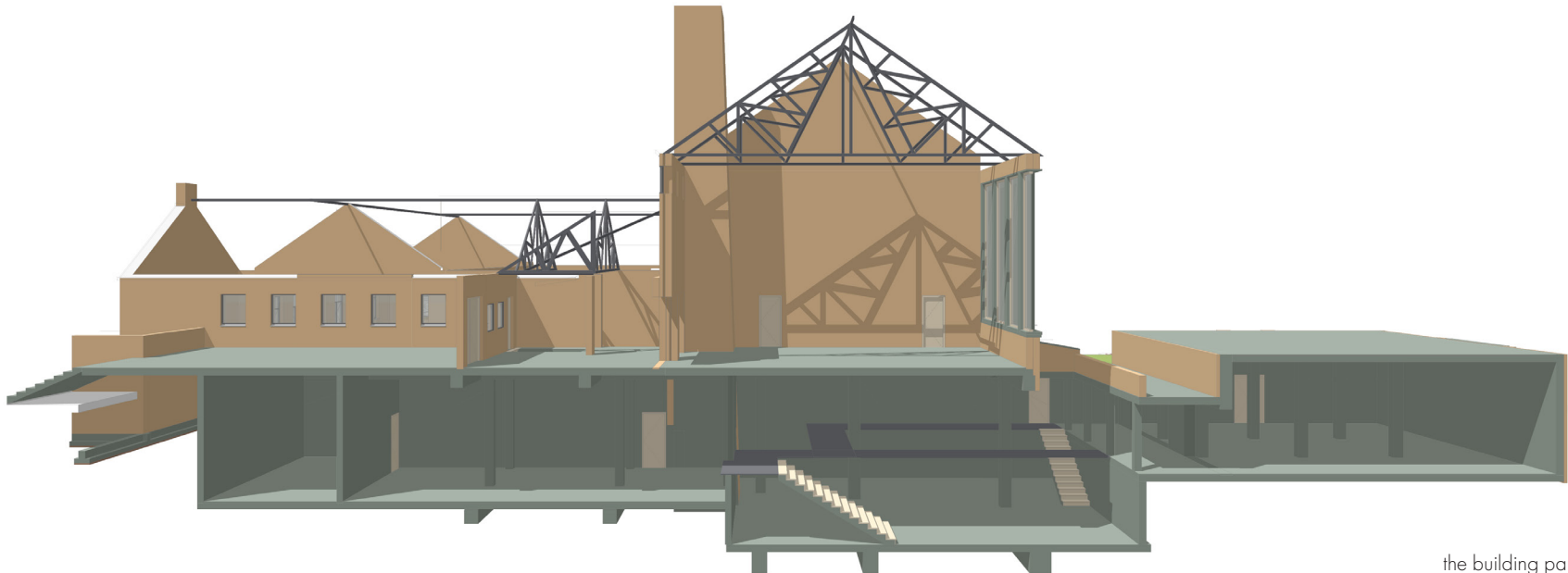
The space plan, ceiling tiles, and flat roof areas are all to be removed in the new programme. (See next pages.)

keep
remove





the building in its complete state november 2025



the building parts that are reused

4.0 introduction

The kitchen building has now been stripped to its most valuable elements. Leaving both the historically valuable elements and the elements that aid in creating homeliness. Having established this and the program's activities, it's time to elaborate on the design.

4.1 patterns and design

As mentioned before, the pattern language has been the main tool used for the creation of homeliness. These rules have been a guiding light for most of the design choices made in this project. Both on the technical and the spatial level. The aim of these rules is to create a feeling of comfortability within a space relative to its function.

A major limitation of these rules is that there are 253 of them. Far too many patterns apply in different places within the building. Because of this, showing the exact application of all these patterns would be far too much work. Alexander himself used two media to communicate the use of his patterns in the Linz café: a list of patterns and photographs of his building.

Here, the list of used patterns is mentioned first, showcasing the number of these patterns used in the design.

There are no photographs of the pro-

ject, as it has not been built; instead, the visual representations of the spaces used throughout this paper can hopefully communicate what the photographs otherwise would. Textual elaboration will be given to the patterns that were of the most importance for the creation of this project.

The following chapter will showcase the use of the patterns, the application of the program, and the connection with the neighborhood, while discussing both the experiential side and the technical aspects of the project.

PATTERNS USED IN THE KITCHEN BUILDING

*BUILDING COMPLEX
NUMBER OF STORIES
CIRCULATION REALMS
MAIN BUILDING
FAMILY OF ENTRANCES*

*SOUTH FACING OUTDOORS
POSITIVE OUTDOOR SPACE
WINGS OF LIGHT
LONG THIN HOUSE*

*MAIN ENTRANCE
HANF-HIDDEN GARDEN
ENTRANCE TRANSITION
HIERARCHY OF OPEN SPACE
COURTYARDS WHICH LIVE*

PATTERNS USED IN THE KITCHEN BUILDING

*CASCADE OF ROOFS
SHELTERING ROOFS*

*ARCADES
PATHS AND GOALS
STAIR SEATS
SOMETHING ROUGHLY IN THE MIDDLE*

*INTIMACY GRADIENT
COMMON AREAS AT THE HEART
ENTRANCE ROOM
SHORT PASSEGES
STAIRCASE AS A STAGE
ZEN VIEW*

*SEQUENCE OF SITTING SPACES
BULK STORAGE*

*COMMUNAL EATING
SMALL WORK GROUPS
RECEPTION WELCOMES YOU
A PLACE TO WAIT
SMALL MEETING ROOM
HALF-PRIVATE OFFICE*

*BUILDING EDGE
SUNNY PLACE
OUTDOOR ROOM
STREET WINDOWS
GALLERY SURROUND
CONNECTION TO THE EARTH*

*TERRACED SLOPE
FRUIT TREES
TREE PLACES
GARDEN GROWING WILD
GARDEN WALL
GARDEN SEAT
VEGETABLE GARDEN*

*ALCOVES
WINDOW PLACE*

PATTERNS USED IN THE KITCHEN BUILDING

*EATING ATMOSPHERE
SITTING CIRCLE
BED ALCOVE*

*CEILING HEIGHT VARIETY
SHAPE OF INDOOR SPACE
HALF-OPEN WALL
INTERIOR WINDOWS
CORNER DOORS
THICK WALLS
CLOSET BETWEEN ROOMS
SUNNY COUNTER
BUILT-IN SEATS*

*STRUCTURE FOLLOWS SOCIAL SPACES
GOOD MATERIALS*

*ROOF LAYOUT
THICKENING THE OUTER WALLS
GROUND FLOOR SLABS
PERIMETER BEAMS
WALL MEMBRANES*

*LOW SILL
LOW DOORWAY
FRAMES AS THICKEND EDGES*

*DUCT SPACE
ROOF CAPS*

*LAPPED OUTSIDE WALL
SOFT INSIDE WALLS
WINDOWS WHICH OPEN WIDE
SOLID DOORS WITH GLASS
FILTERED LIGHT
SMALL PANES
HALF INCH TRIM*

*SEAT SPOTS
FRONT DOOR BENCH
SITTING WALL
SOFT TILE AND BRICK*

building and environment

As mentioned before, the Palm Kazerne is going to be repurposed into a mixed-use neighbourhood. Connection with this neighbourhood is essential for creating a bond between the site's residents and their neighbours. It is important to start by looking at what the site shares with its neighbourhood.

The obvious compositional and material relationship that the site has with the neighbourhood is important for maintaining the building connection to the neighbourhood. But the connection between residents and neighbours is arguably far more important; the activities on and off the site are what encourage the creation of these personal relationships. For example, the ring around the appelplaats can be used for cycling lessons. The appelplaats itself was already planned to be a kickingfield and the vegetable garden and playground can be opened up to the community during daytime hours.

Smaller, more concealed green spaces can act as an intimate outdoor space for residents without a hard barrier. This way the activities stimulate interaction with the neighbourhood whilst also allowing residents a safe space to retreat when things become too much.

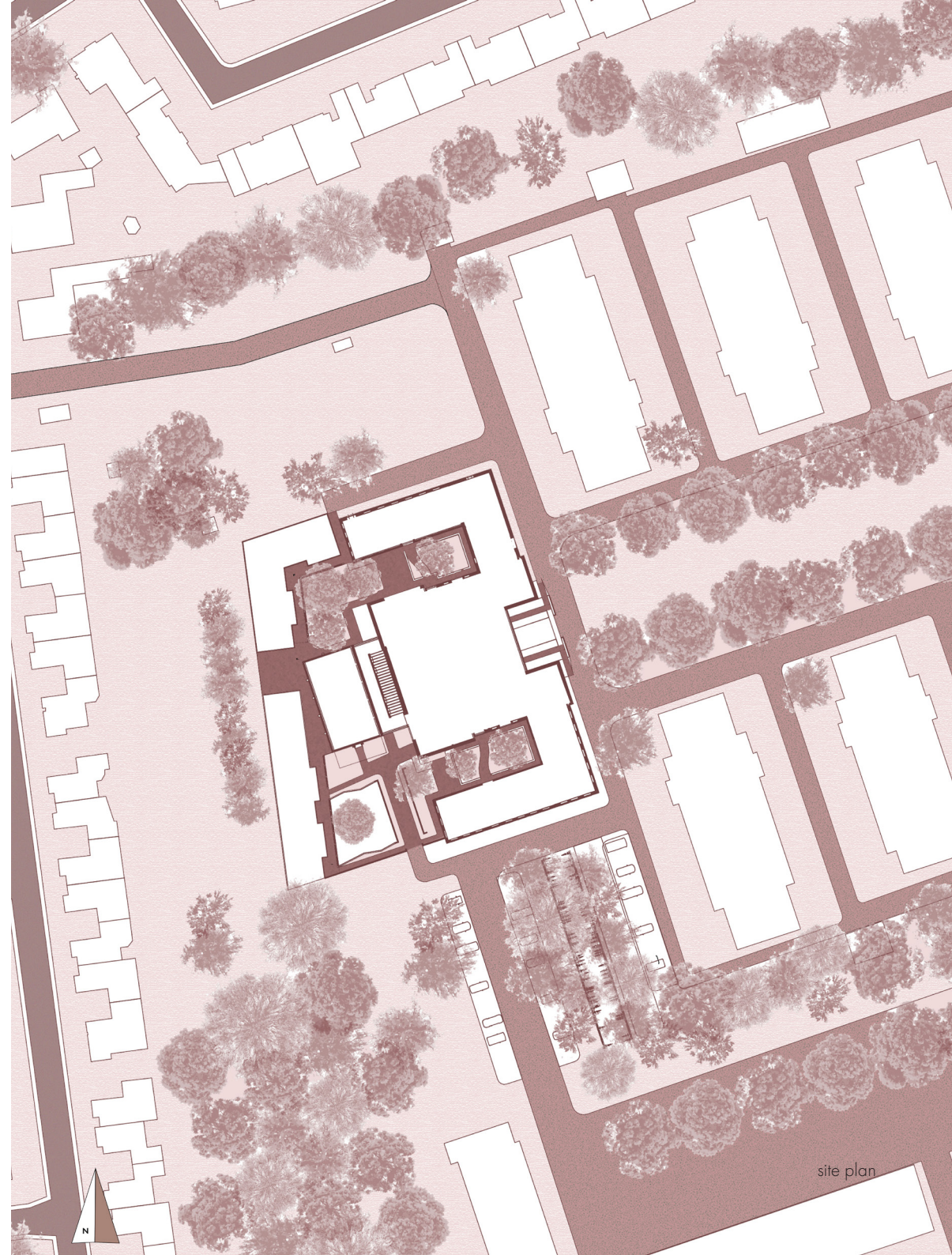
This way, the site's residents are drawn into the neighbourhood, and the

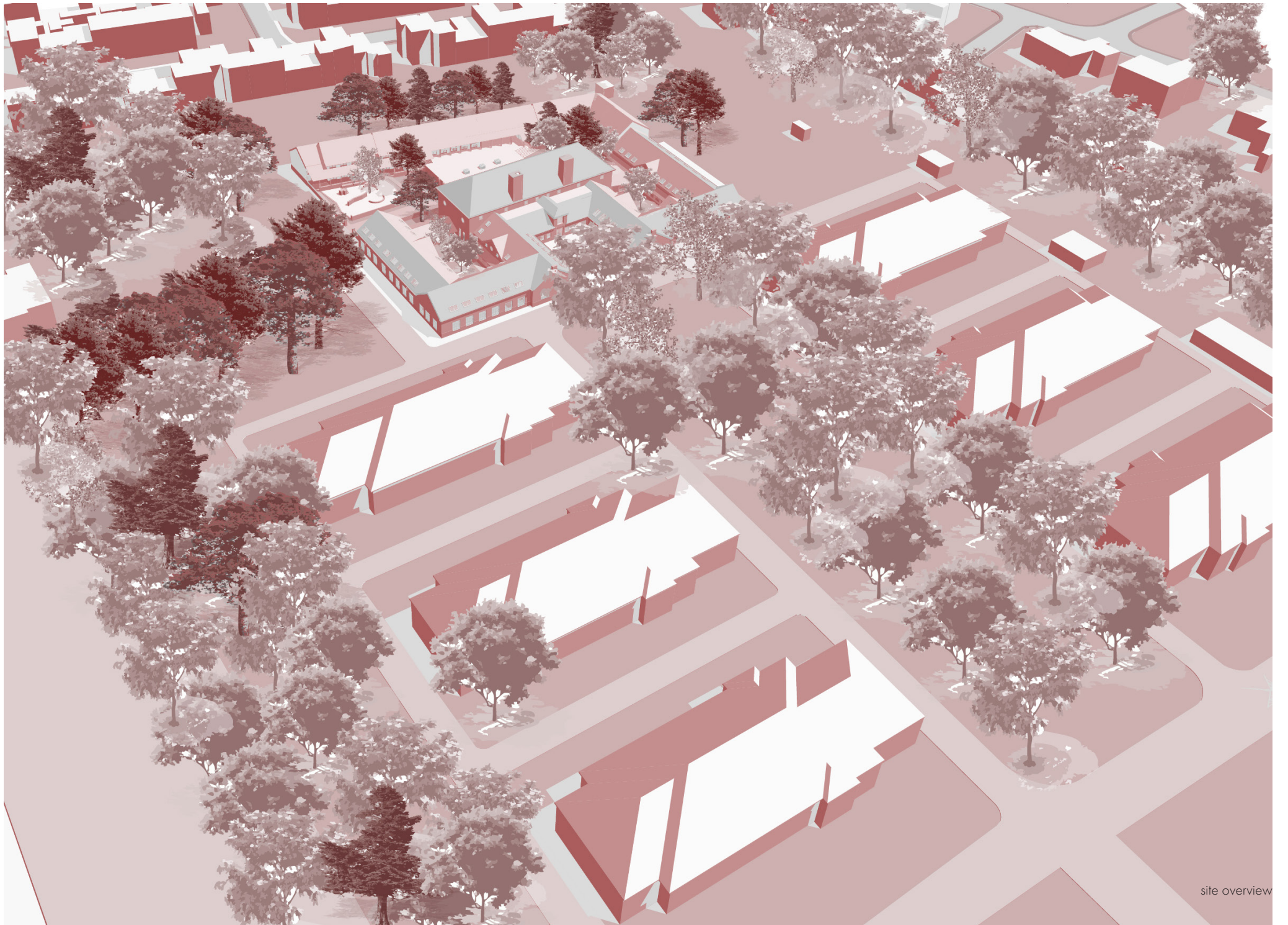
neighbourhood is drawn into the site, while still maintaining places that feel private and safe. The importance of this goes without saying. Neighbourhood interactions and bonds make people feel welcome and connected. Though perhaps not as architectural as the patterns, this is at least equally important.

The site plan also determines the location of the main entrances. The most obvious entrance is at the head of the appelplaats. New residents will likely arrive via public transport, walking them through the appelplaats to the main entrance. The shape of the appelplaats naturally guides people toward the entrance ramp and staircase on the eastern side of the building, marking this as one of the main entrances.

The second entrance is less obvious. The building follows the planned nature corridor on the west side of the site. This allows the southern end of the courtyard to become wider, which makes it open up to the clusters of trees to the south. This makes the south side a logical "back door" entrance.

There are two rows of black pine in between these entrances. There is plenty of space between and beside these rows for natural and slightly concealed parking spaces and bicycle racks. There is no need to remove or replace any trees for this.





site overview



bike riding and playing football on the appelplaats



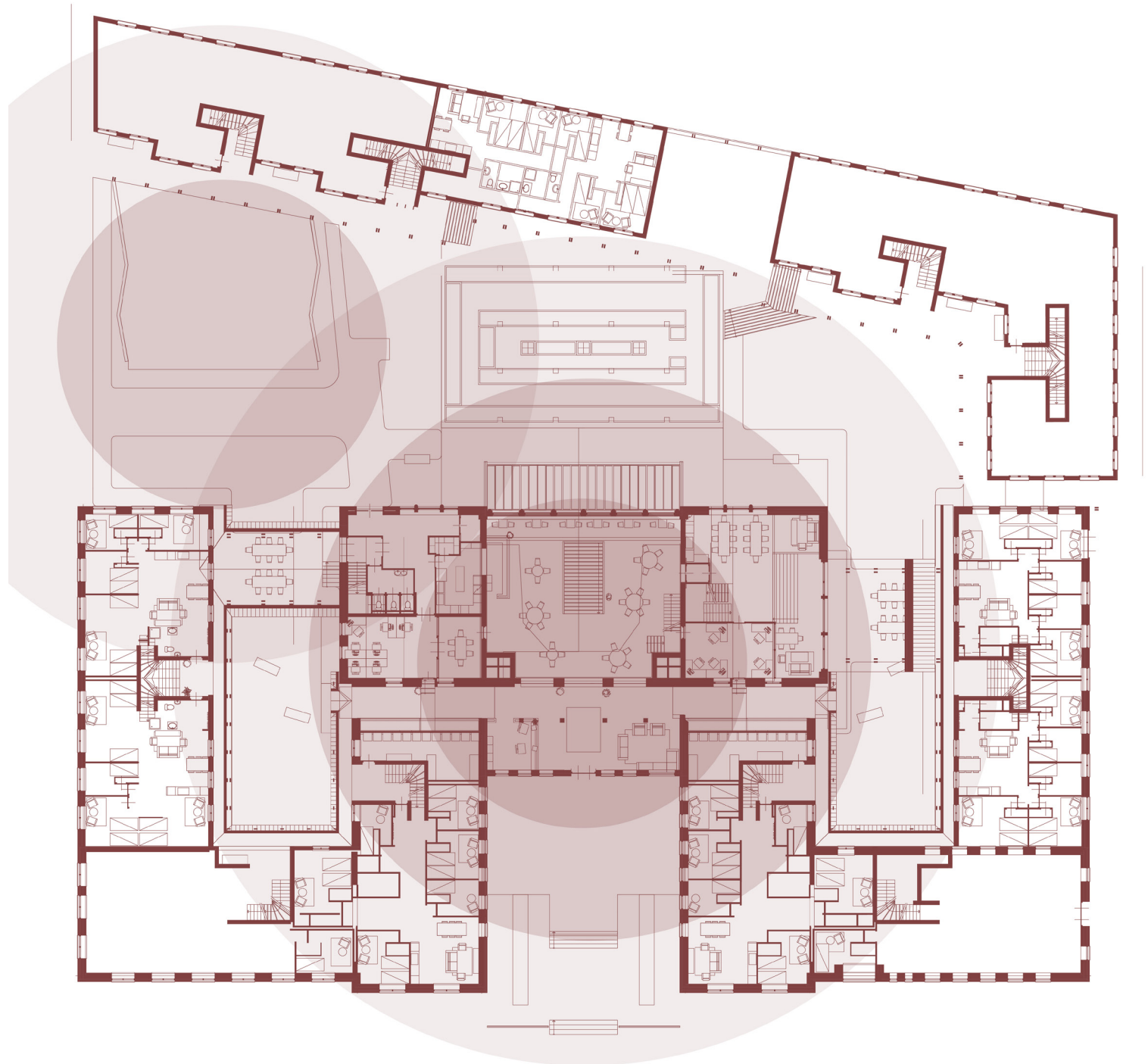
intimacy gradient

Although it is not possible to elaborate on all of the patterns that are being used. There are some that played a larger role in the design. One is the intimacy gradient.

This pattern encourages always gradually increasing the privateness of a space as one moves from room to room. To achieve this you need to know the main entrances of the building, the position of the wings, and the number of stories. It is also related to many other patterns like common areas at the heart, entrance rooms, or sequences of sitting spaces.

The two main entrances are already established. Yet there is one more distinction that should be elaborated upon. The main entrance is used by new arrivals, like asylum-seekers and visitors of the café or second-hand store. The side entrance is used by local people and residents using the playground or vegetable garden or simply going home. This makes the main entrance far less intimate than the backdoor entrance.

From this the gradient can be established, and from the gradient follows the program.

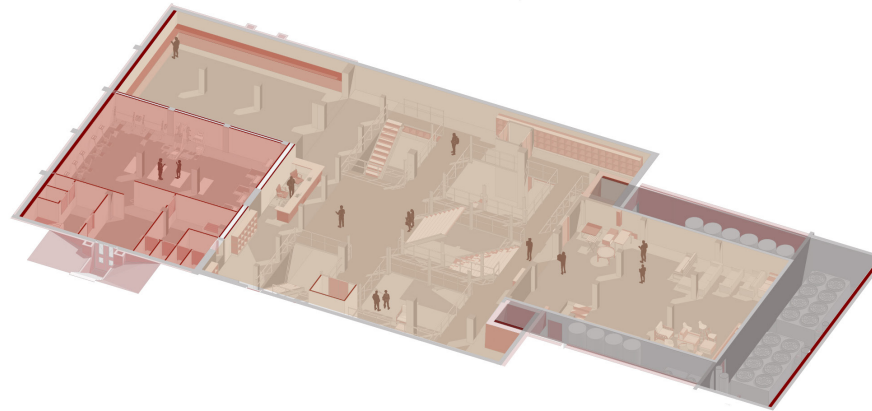



basement


The basement lacks a lot of daylight compared to the other spaces. This makes it more suitable for functions where this is less of a problem.

The main source of daylight is the skylight above the central room. This central location is used for the second-hand store. The large furniture can be placed on the bottom floor, while the smaller items can stay on the catwalk. The spaces that flank the basement can fulfill second-hand store storage demands and the buildings' installations.

The old outdoor staircase leading to the basement will now lead to the gym, which is separated from the store. This way the gym can be part of the more intimate area of the site.



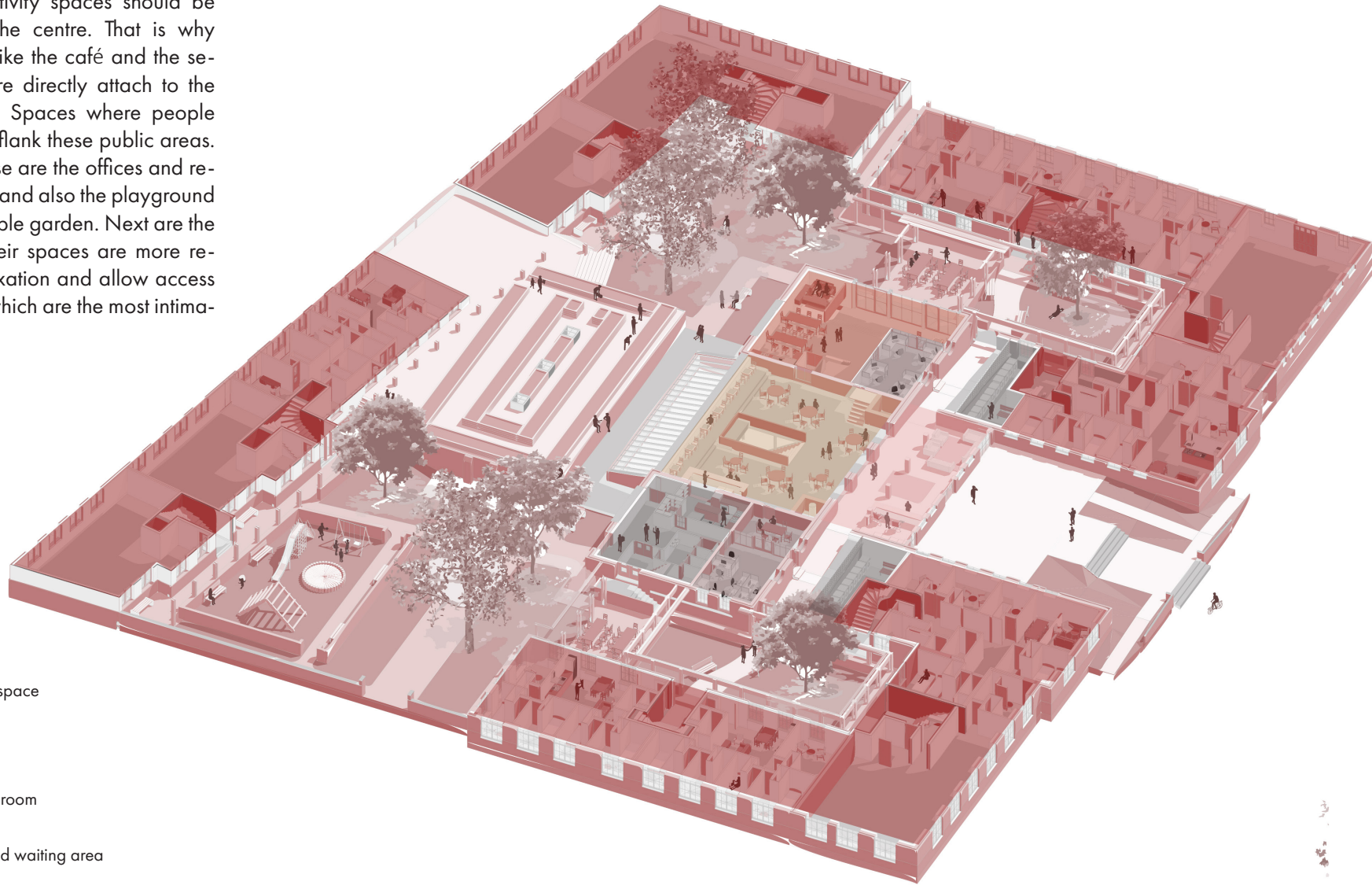
 secondhand store & workshop

 gym space

 technical room

ground floor

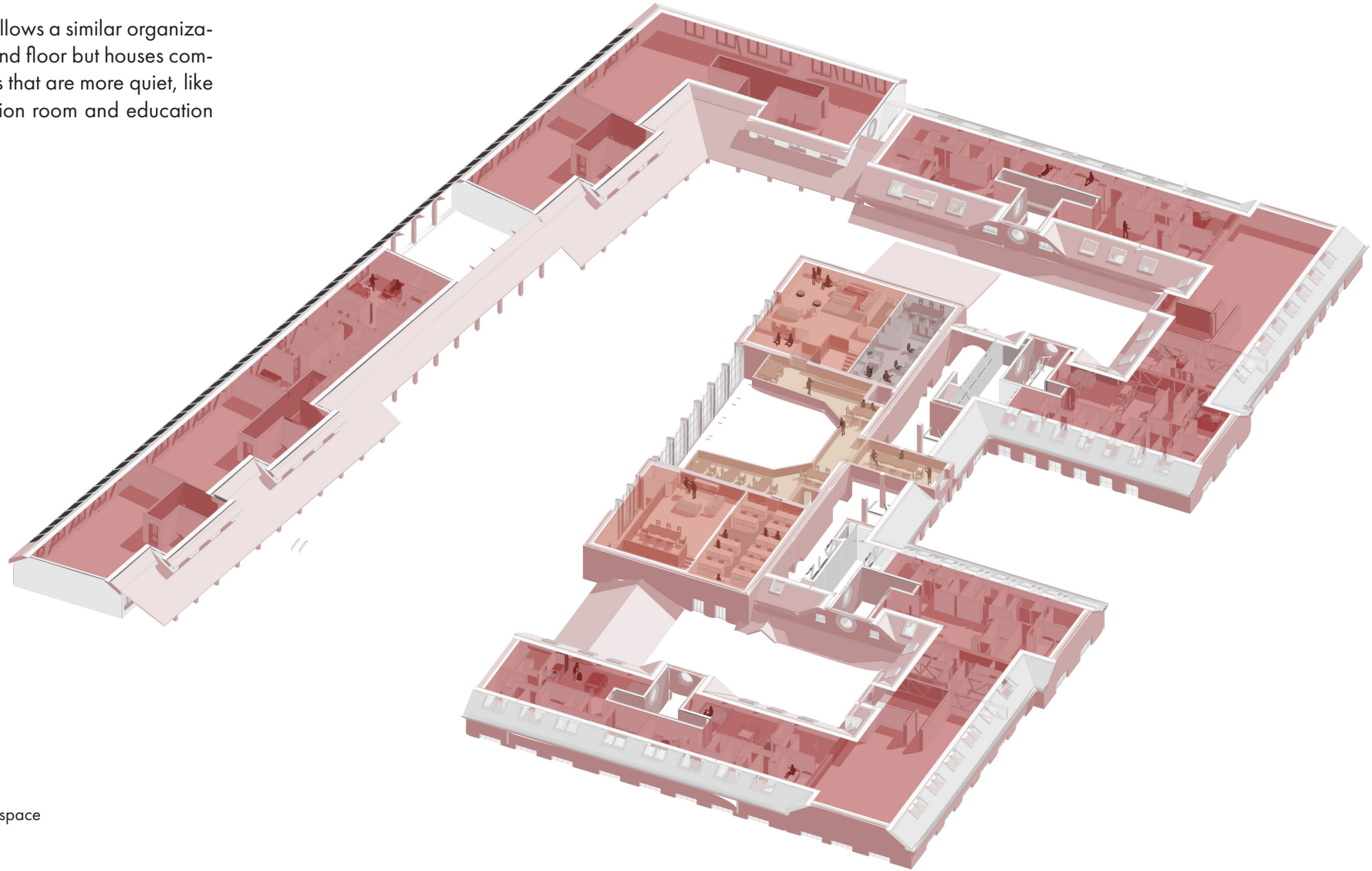
The highest activity spaces should be organised at the centre. That is why public spaces like the café and the second-hand store directly attach to the main entrance. Spaces where people come together flank these public areas. In this case these are the offices and recreation rooms and also the playground and the vegetable garden. Next are the tree places. Their spaces are more reserved for relaxation and allow access to the homes, which are the most intimate of all.



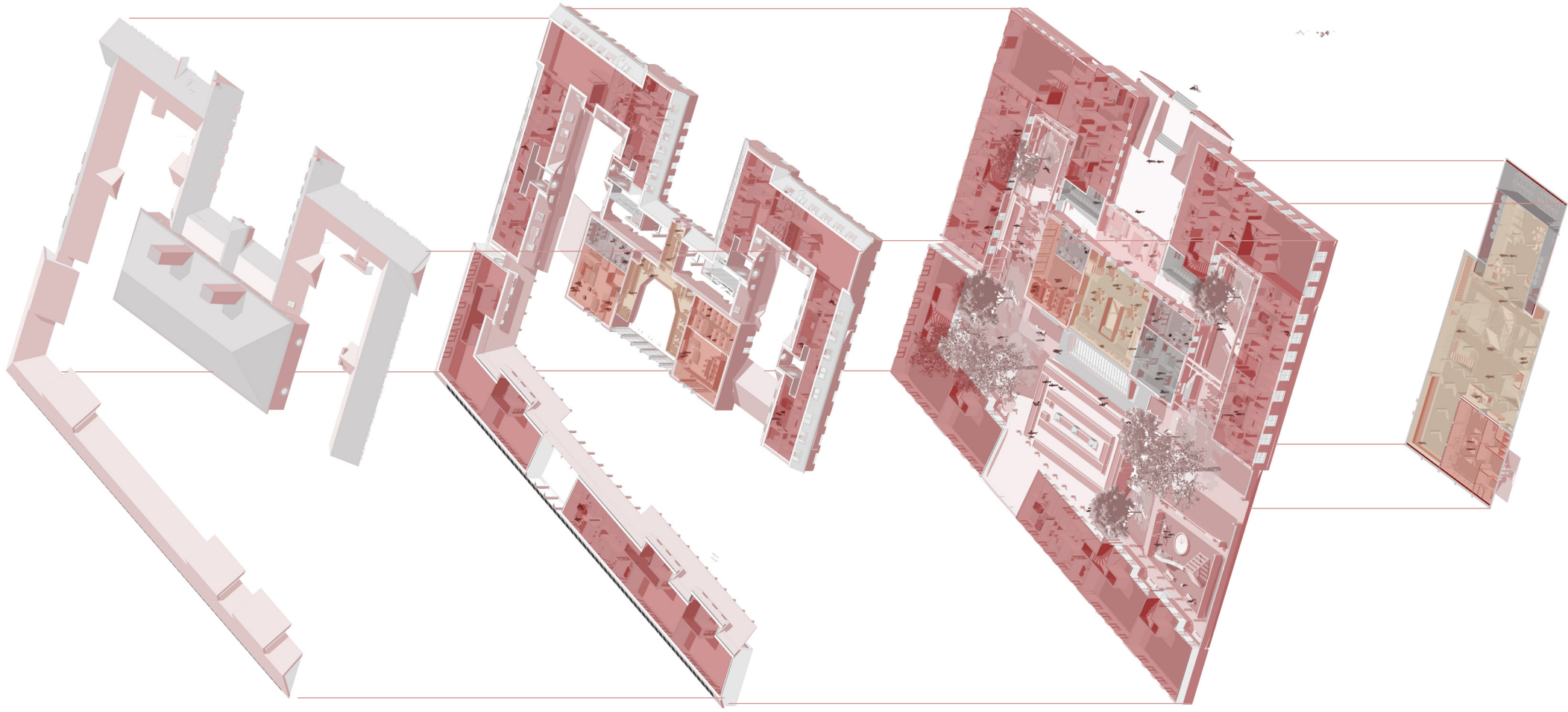
- COA office space
- café
- recreational room
- reception and waiting area
- logistical rooms (washingroom and cafe logistics)
- housing

first floor

The first floor follows a similar organization to the ground floor but houses communal functions that are more quiet, like the contemplation room and education room.



- COA office space
- cafe
- recreational room, education room, and contemplation room
- housing



1st floor

- COA office space
- café
- recreational room, education room, and contemplation room
- housing

ground floor

- COA office space
- café
- recreational room
- reception and waiting area
- logistical rooms (washingroom and cafe logistics)
- housing

basement

- secondhand store & workshop
- gym space
- technical room room

the outdoors

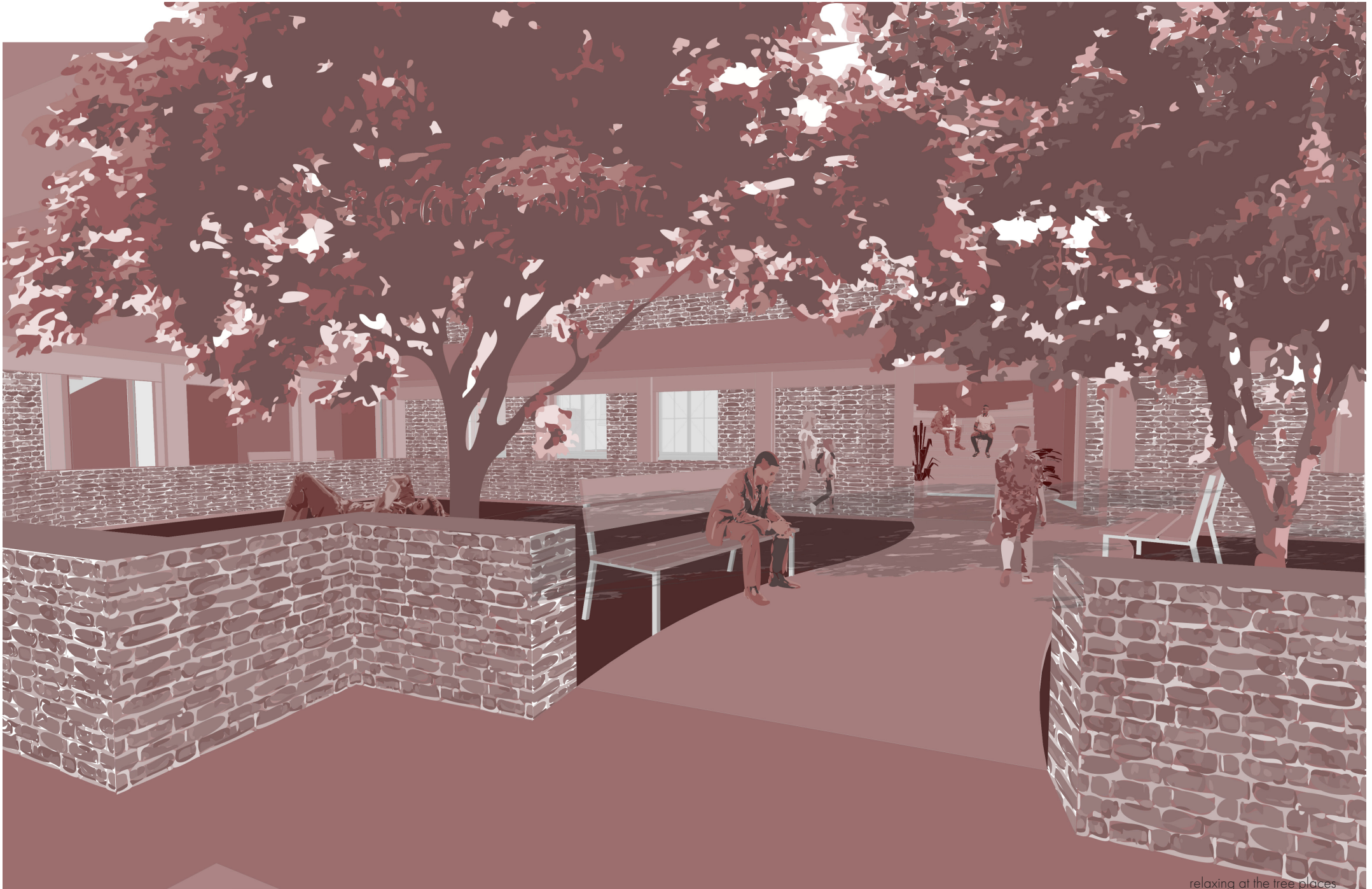
The outdoor spaces can be roughly subdivided into a few different areas. There are activity spaces, where children play, goods move, and people walk and talk. Then there are tree places where outdoor space starts feeling more like a room. The areas are smaller, less daylight penetrates, and there is always a fruit tree, where you can likely find people relaxing and reading a book. All these spaces are flanked by arcades with half-open walls. These separate the space where people relax from the places where people live, while also giving people dry places to wander around, sit, and talk. These spaces follow patterns like arcades, sequences of sitting spaces, connections to the earth, tree places, fruit trees, and half-open walls.



original sketches of the addition arcades



chatting at the playground

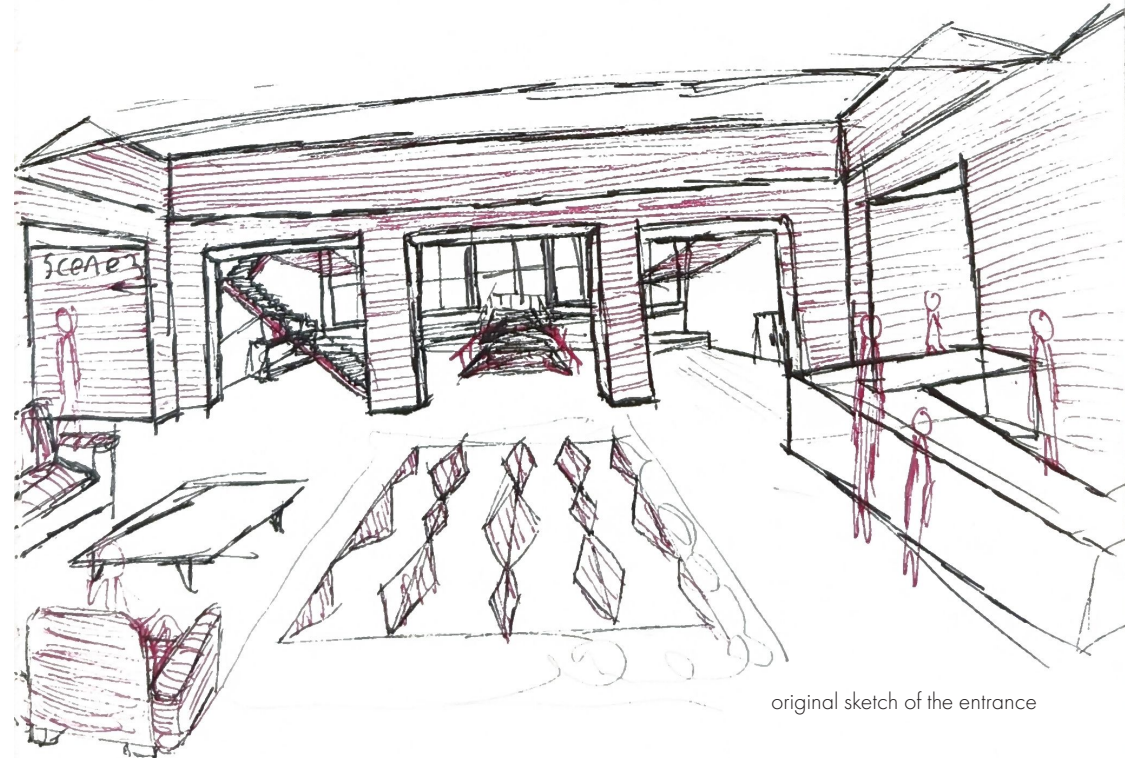
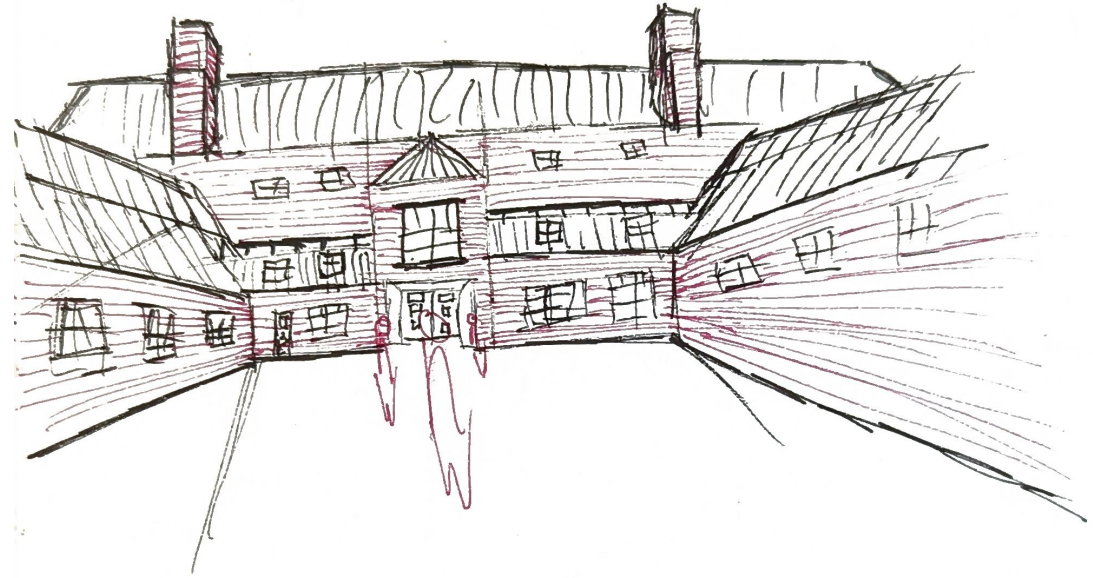




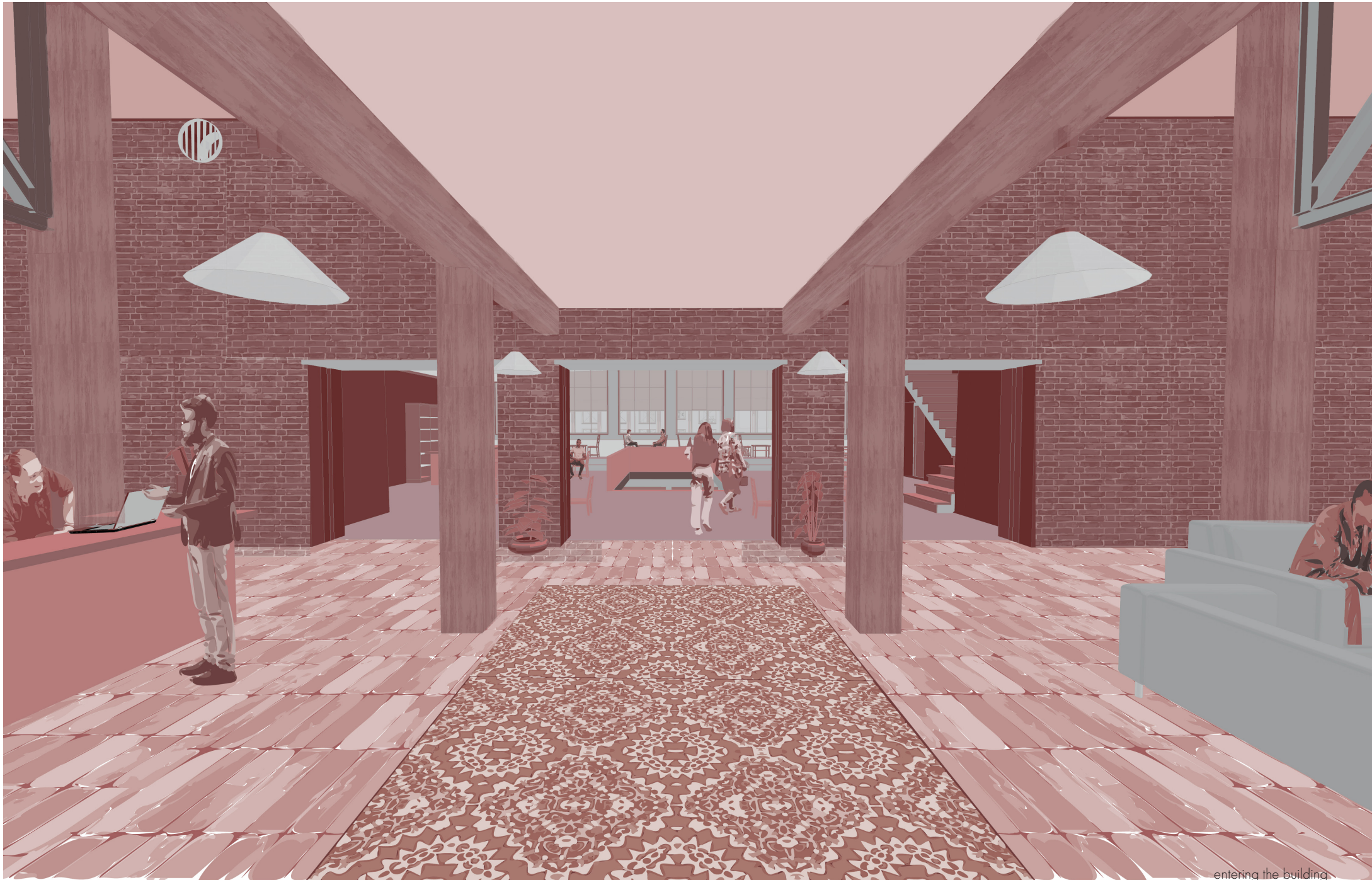
the entrance

When new residents arrive or when current residents have to report at the reception, they will head to the main entrance. Here you can find patterns like the reception welcoming you and a place to wait. The materiality is harder, yet the colours remain warm.

The entrance opens up into the common rooms, like the café, whilst having less obvious entrances toward the hallways on the left and on the right. This difference separates those that visit the building from those that live in the building by discouraging visitors from walking into more intimate areas. Without the need for any hard barriers, like gates or doors.



original sketch of the entrance

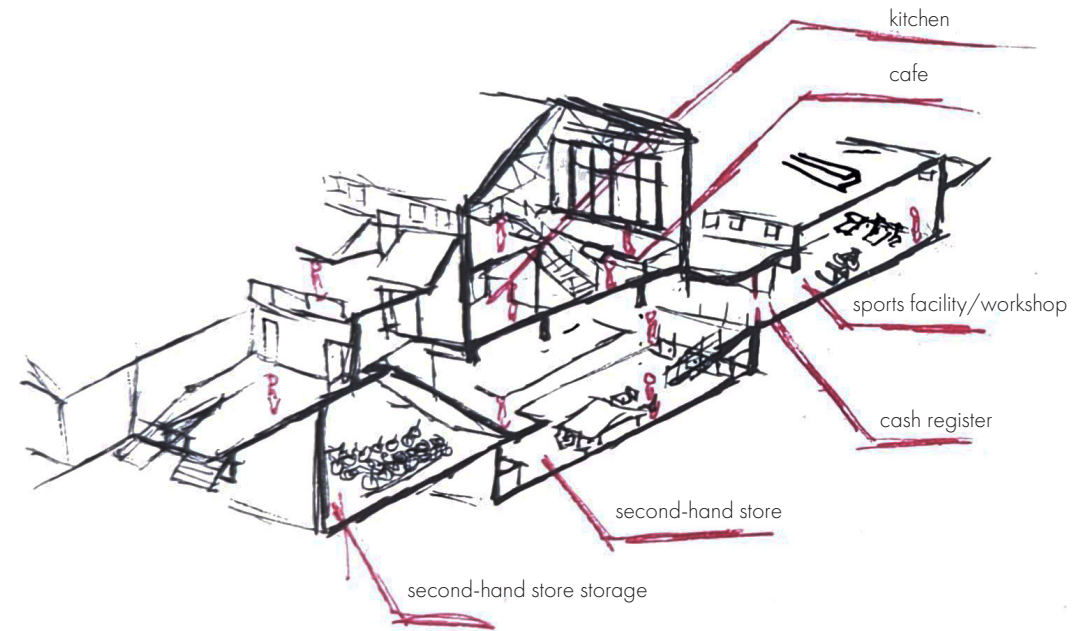


the common areas

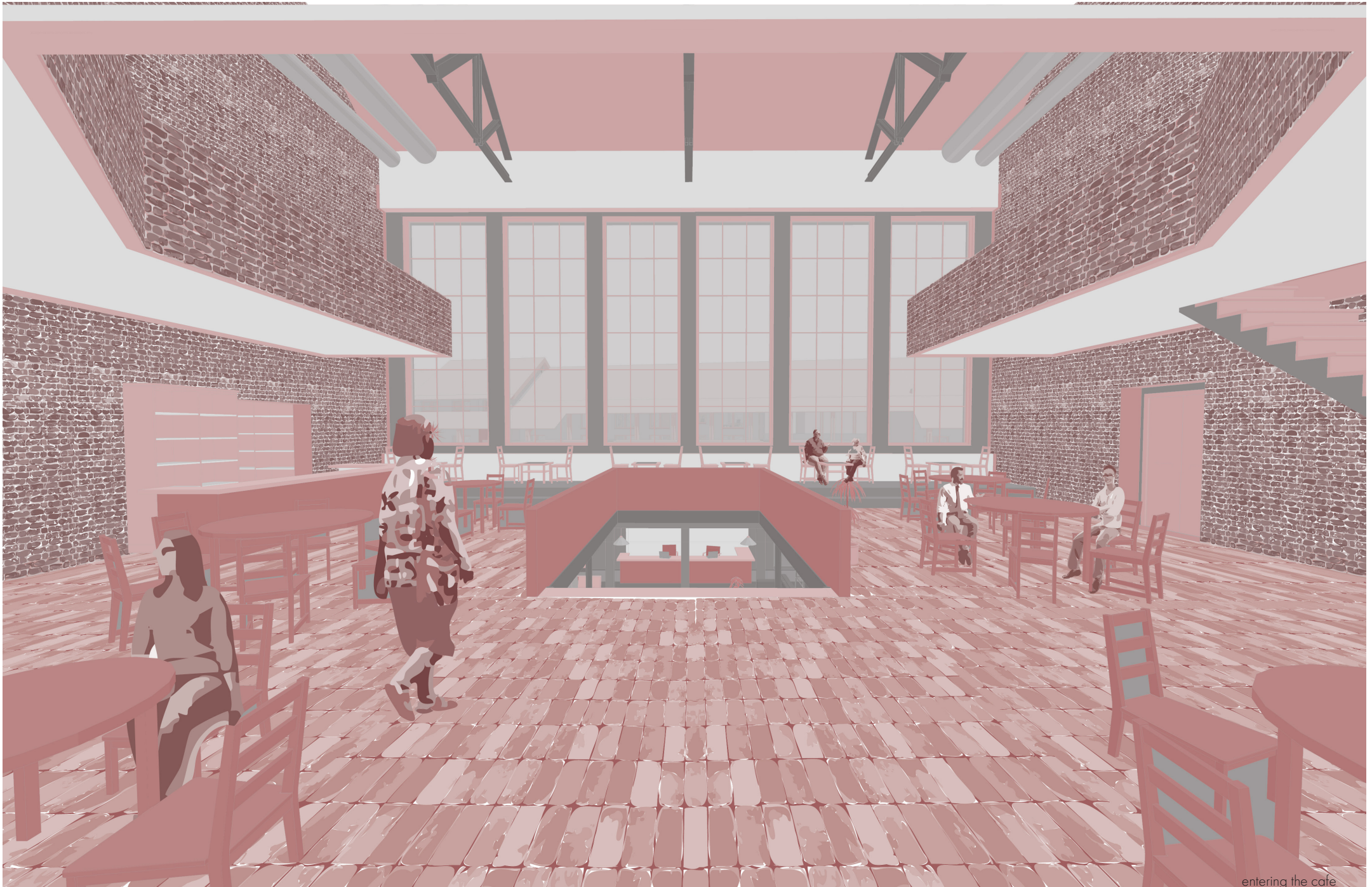
The old building core forms the hierarchical centre of the building. According to Alexander, the common areas must be located here. These are spaces with less intimacy yet more activity. These spaces have high ceilings, large openings and a harder materiality. In doing so, they establish themselves as areas to be shared with many people, instead of being private. These spaces also house the kitchen building's most characteristic elements. Its large windows, its chimneys, its unique basement with its catwalks, its steel trusses, and its brick and concrete structure. Highlighting these is important for maintaining the buildings' heritage character. These two synergise fairly well, as these large, impressive elements fit the public functions much better than they would fit the buildings' more intimate functions.

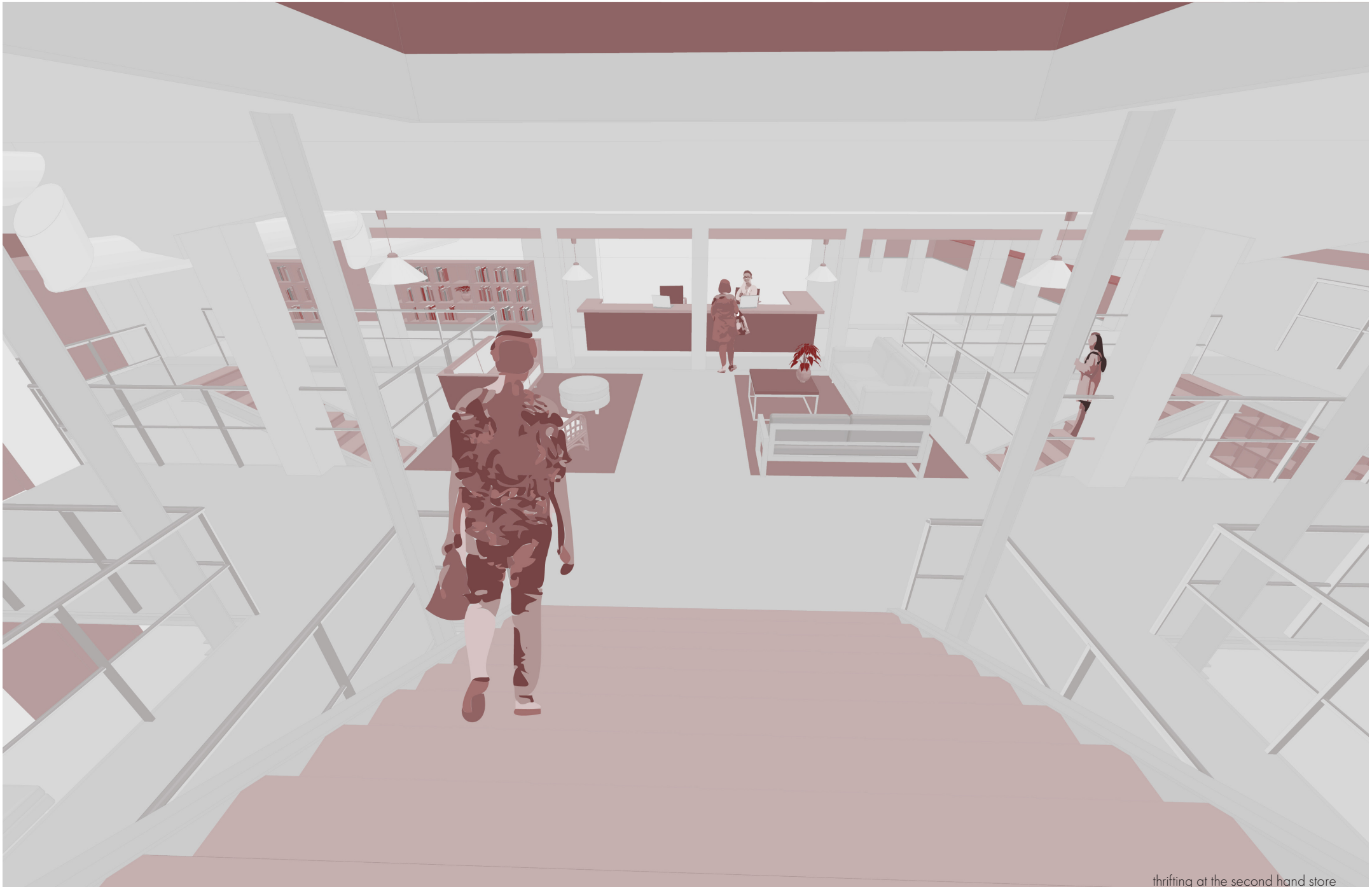
One problem with experiencing these elements. Is it that the basement doesn't have a great relation with the main hall? This means you experience these spaces as two different rooms, without understanding their relationship. The new staircase in the main hall's centre connects these two spaces, showcasing the time layers that exist within the building whilst also allowing for a stronger connection between the main entrance and the second-hand store. It uses patterns like a main building, a hierarchy of open space, something roughly in the

middle, a staircase as a stage, a window place, good materials, a low sill, soft tile and brick and warm colours.



original sketch of the cafe and second-hand store

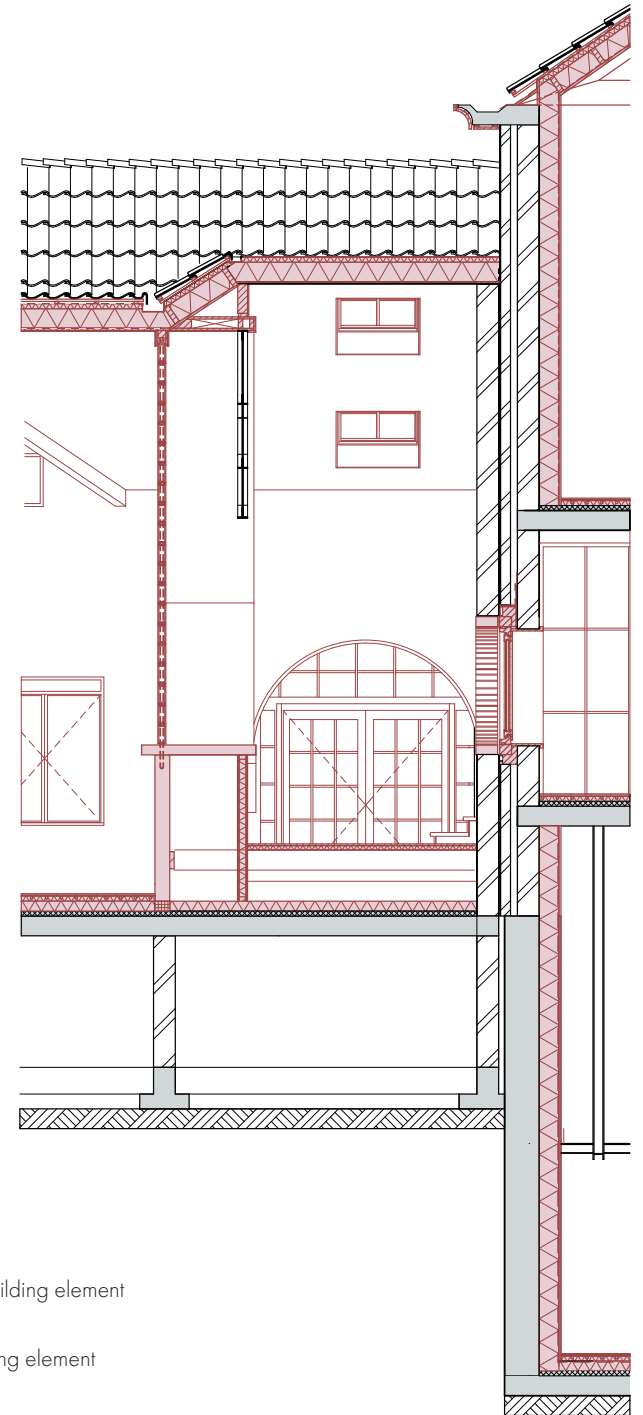




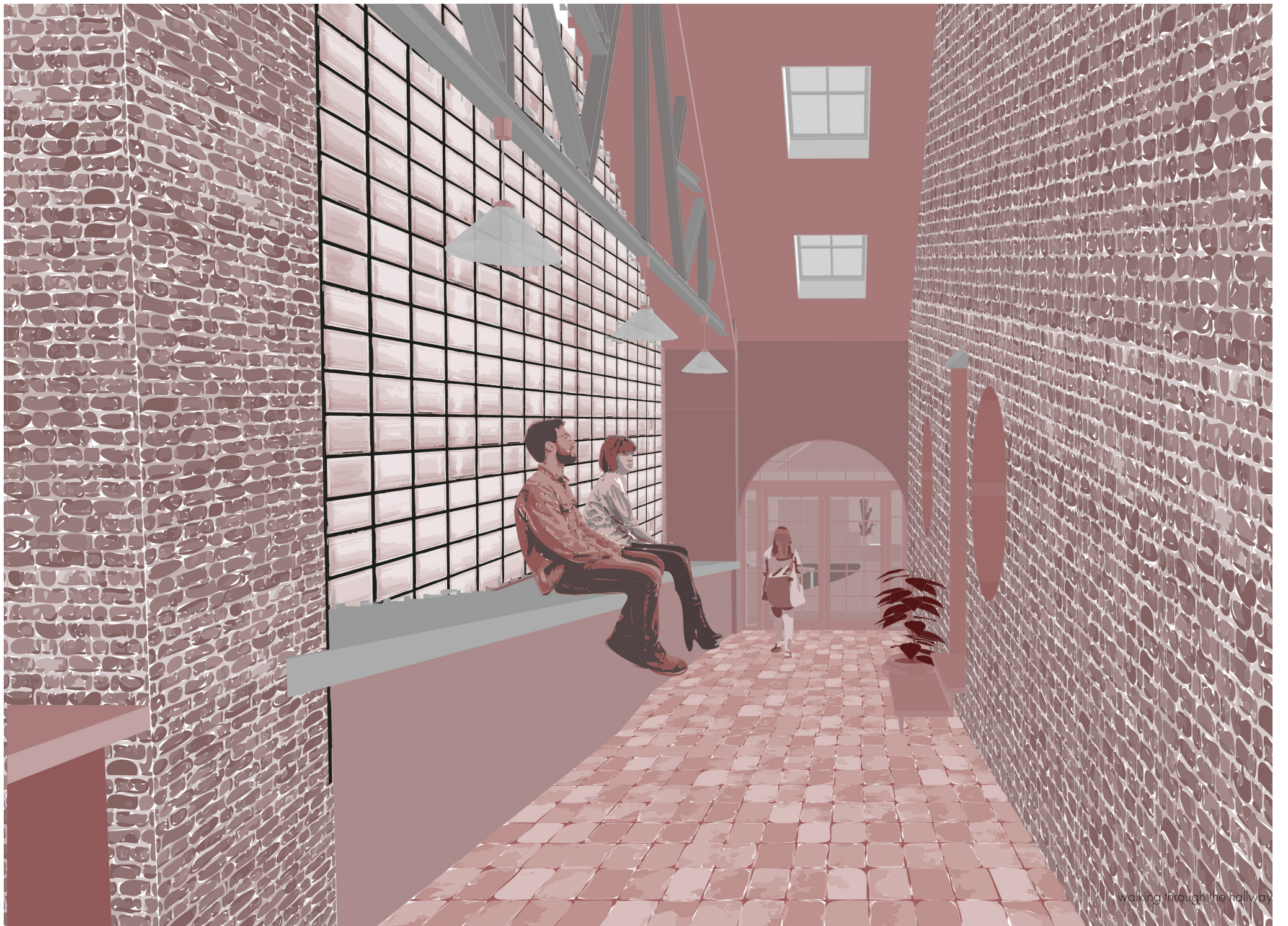
the hallway

To allow movement from the main entrance toward the arcades. There had to be a hallway passing through the wings. Generally speaking, Alexander discourages hallways, preferring routing through functional spaces. However, if a hallway is necessary, it should be a space that has value.

To make this hallway a valuable space, it was given more attention than most other spaces in the building. It uses patterns like built-in seats, good materials, warm colors, interior windows, the zen view, and half-open walls to make the space feel calming and give it a usage besides movement.



- original building element
- new building element



walking through the hallway

houses

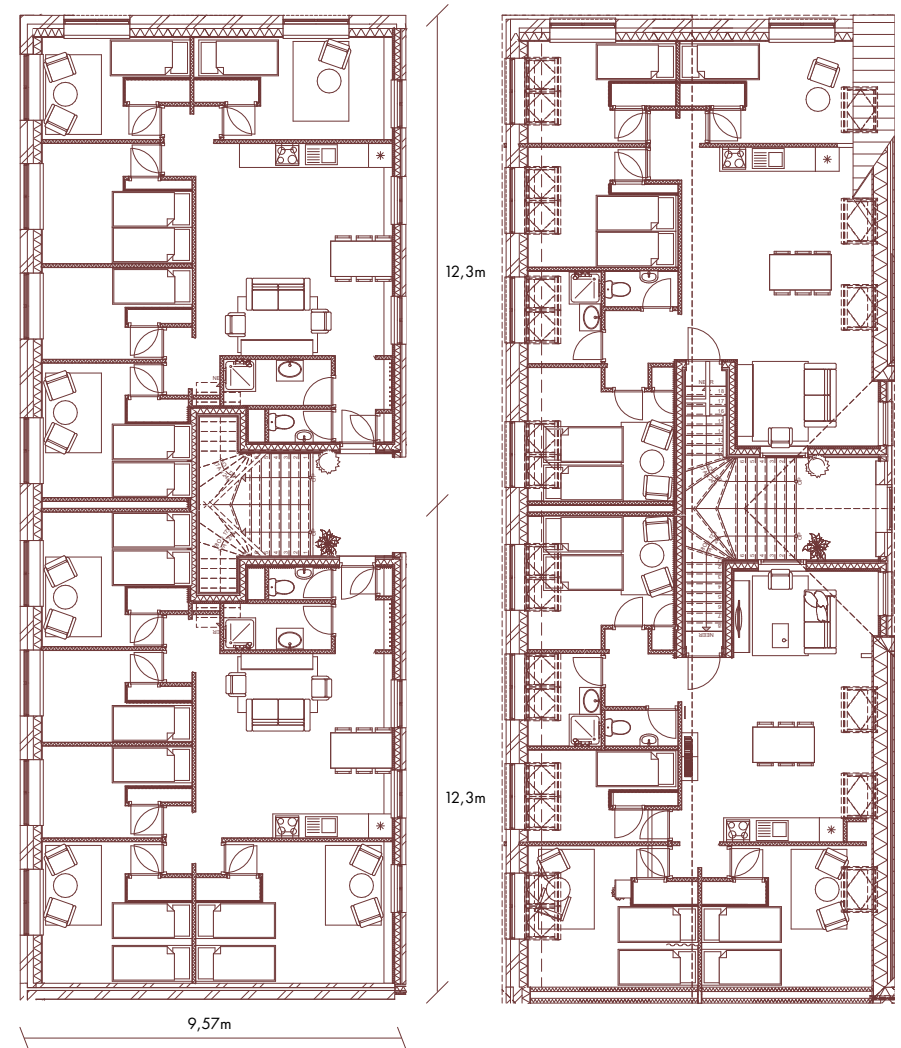
The houses are a more complex puzzle compared to the other spaces. There are many patterns related to houses in the pattern language; however, they usually do not take space constraints into account. Specific rooms, like a playroom for children and private bathrooms for the adults, are not realistic in this project. This is because the houses in the asylum are very restricted when it comes to space. The more residents the location can have, the more luxuries can be afforded in the shared areas.

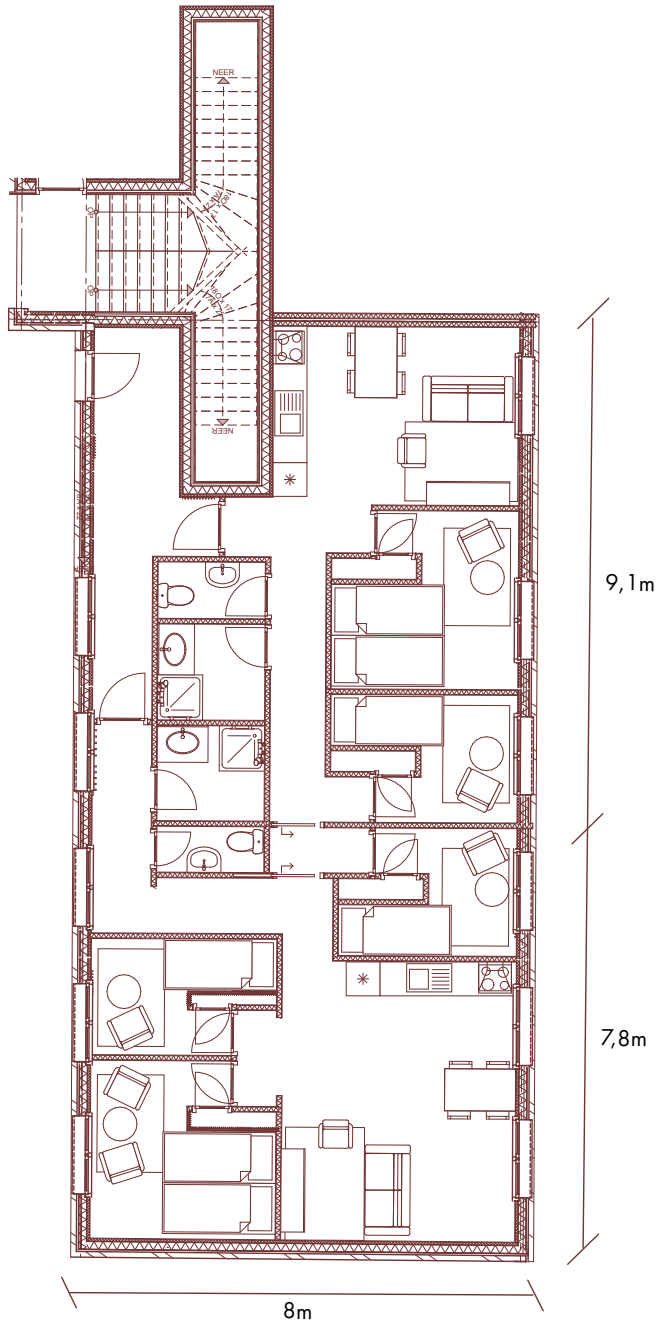
The pattern language also assumes that people living together are familiar with each other. In an asylum context, this is often not the case. For that reason some of the patterns regarding homes were ignored.

There are still many patterns that were applied, like the window place, sitting circle, the sunny counter, warm colours, etc. It is, however, the alcoves that are the most important, as they solve one of the largest dilemmas within the houses.

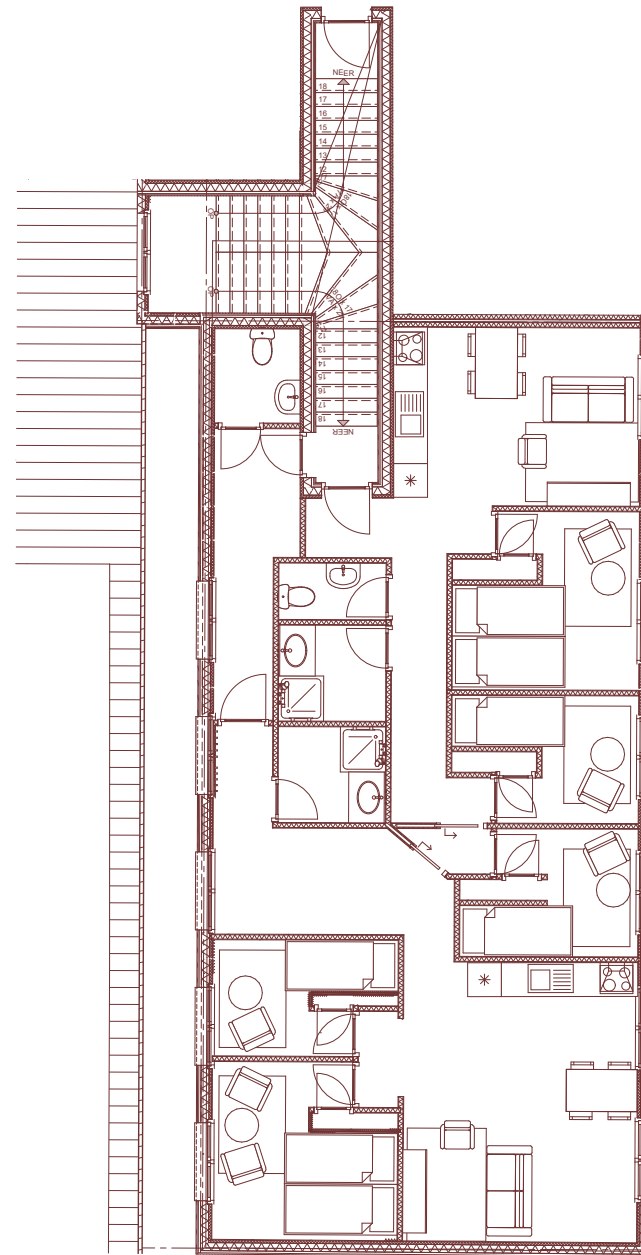
Hallways in houses create a more gradual entry into the private bedrooms; they are, however, dark and can contain hidden corners. For those that are not very familiar with their roommates and for those that are traumatized, this can be quite scary and potentially triggering. The alcoves provide a middle

way. They create a more gradual entry from the living room to the bedrooms, while avoiding a hallway. A nice side effect is that they make the entry to the bedrooms very cozy.





ground floor home in the new wing
76



1st floor home in the new wing
77

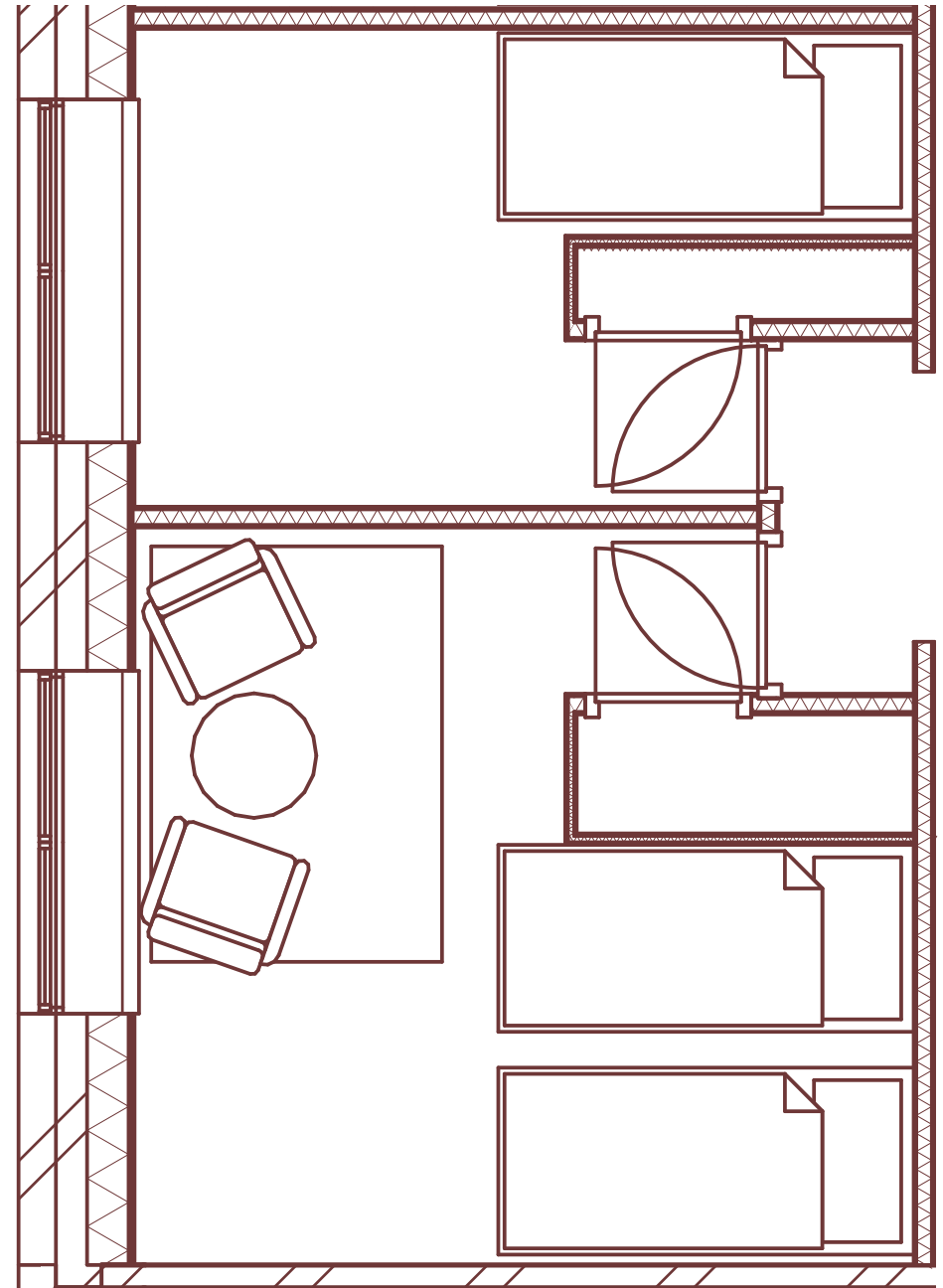


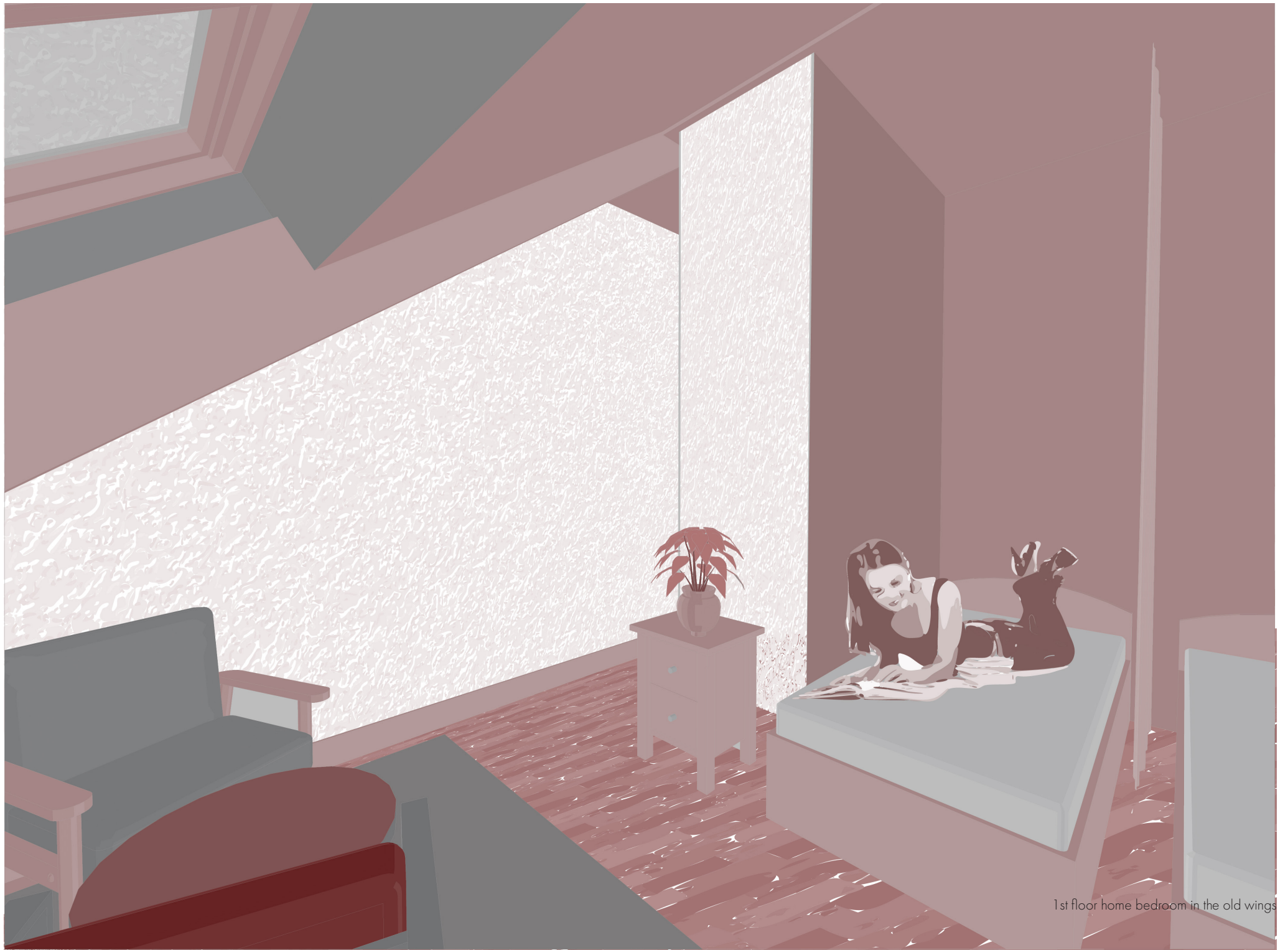
bedrooms

There are two types of bedrooms, the double and single rooms. They are small, yet they still contain many patterns like the bed alcove, warm colours, soft interiors and corner doors.

Each room has a built-in closet blocking the space between the door and the bed. This way residents have a place to store their belongings that also serves as a barrier between the private and the communal.

The double rooms have beds that can be separated with a curtain. This way when they are being used by partners or a parent and child, they can choose to sleep in each other's company. Yet if it is two friends or two strangers, they can at the very least create a visual separation from each other.





1st floor home bedroom in the old wings

4.2 heritage and materiality

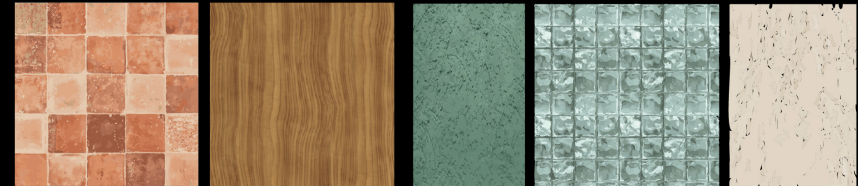
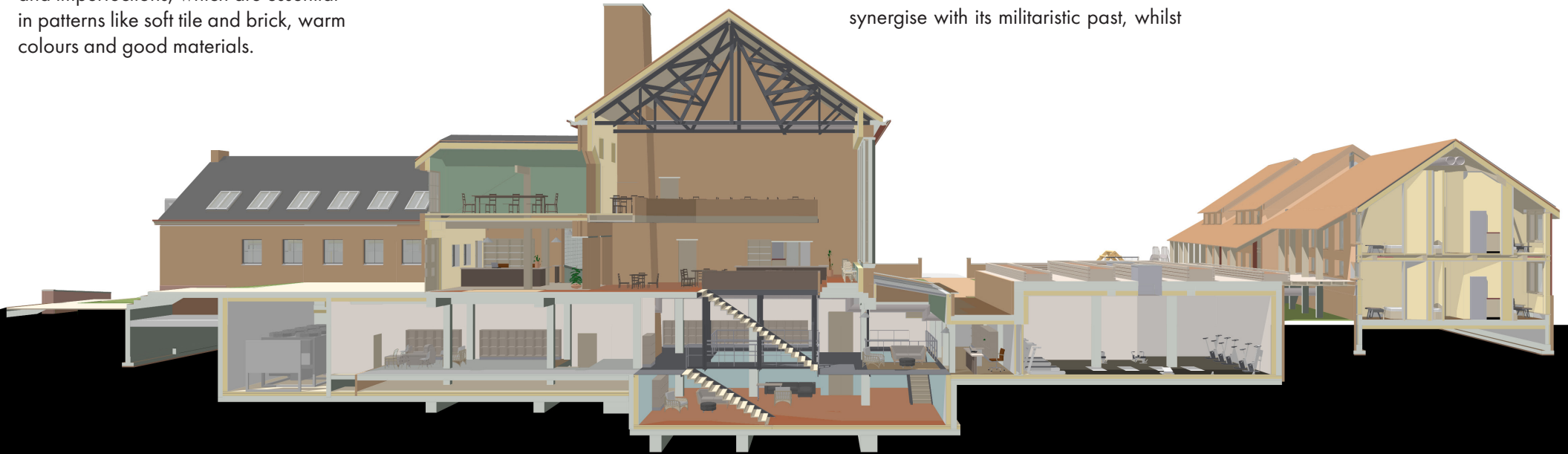
The building's interior materiality used to be white tiles and paints. This represents its history as a kitchen building, yet it does not fit the needs of the new functions. Its colours are too cold and its materials too hard. It lacks texture and imperfections, which are essential in patterns like soft tile and brick, warm colours and good materials.

old and new materiality

The floor tiles will be removed and replaced with imperfect orange/red-dish-coloured clay floor tiles in public spaces. More private spaces get teak laminate and carpets, as hardwood floors would likely be too expensive.

The new insulated walls will be covered with a loam plaster, as it gives a warm, natural, and vernacular aesthetic but also acts as a moisture regulator. Copper green pigments can be added to give some intimate spaces more separation from the rest. Making them slightly darker. The green colours are a common theme on the Palm Kazerne and synergise with its militaristic past, whilst

the copper's blueish hue suggests a new direction for the site. The old structural brick wall will be exposed. And if necessary, they can be covered with a thin layer of loam paint. This way the structure of the brick is still visible, and the colours fit in the material composition.



The new structure uses mainly solid timber, coated with an oil finish. Lastly, recycled glass bricks are used to make crammed spaces like the hallways feel more open and light. The imperfections in recycled glass give it a slightly more muddied look, synergising with the imperfections of the other materials. The basement's concrete wall used to be painted in a greyish white and a greyish

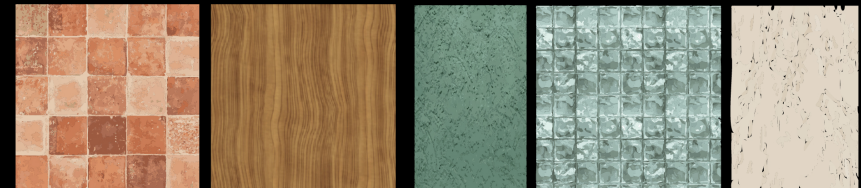
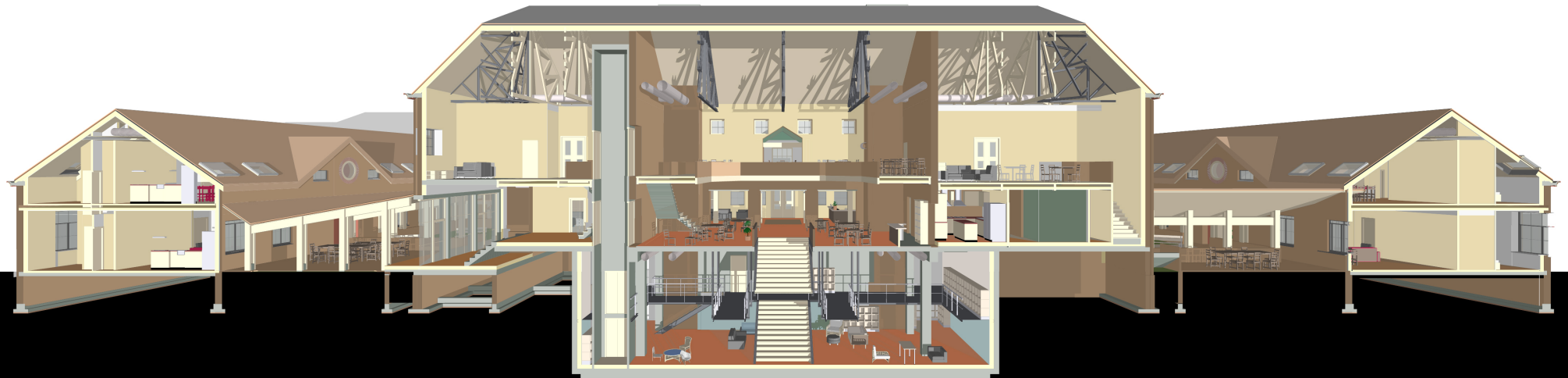
blue, with a blue-coated steel catwalk. The colours will be brought back using limeplaster after the basement has been insulated. The catwalk also returns, albeit with a new configuration.

All together, the new materials used and the old materials kept strike a balance between sustainability, the good materials' pattern and the building's

building element exposition. The building materiality is one way to showcase the building's architectural heritage; however, it could be argued that the building elements are much more important. For this reason, the reuse of the steel trusses and catwalks, the exposition of the brick structure, and the ornamented large windows are all showcased and still visible after the

additions. The main staircase in the cafe aids in this as it allows people to understand the layers of the building better.

These choices make sure that the old-time layer will not be hidden behind new materials.



4.3 detail and structure

Now that the materiality of the new elements is established, it is time to start looking at the structure and detailing.

The general technical detailing can be found in the drawings, but there are a few parts that might need elaboration.

the trusses

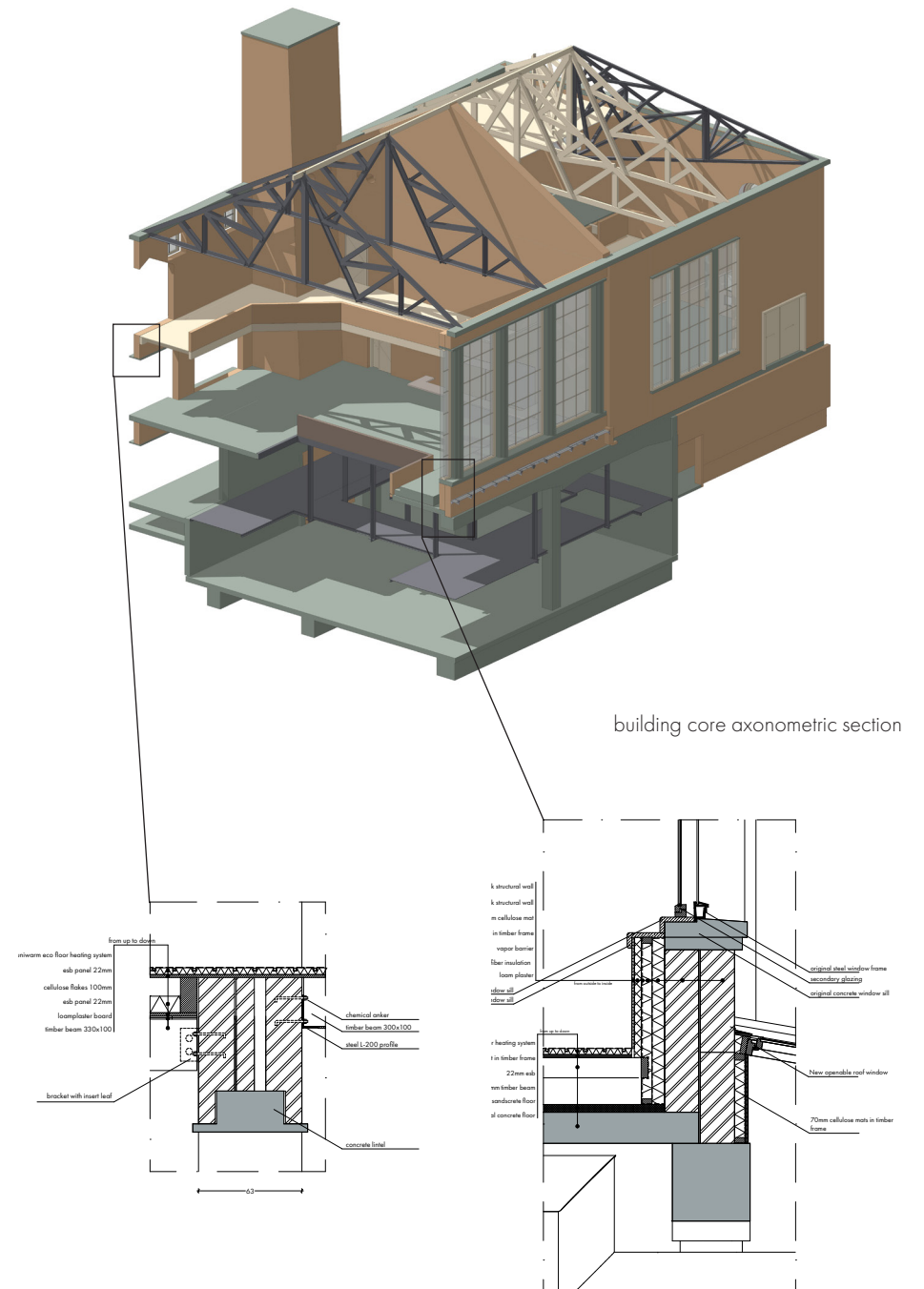
The steel trusses are not strong enough to carry the added insulation. Because of this, the L-shaped steel strusses are bolted together in pairs of two, doubling their structural capacity. They can then be reused. In the spots where the steel trusses have been taken away, new timber trusses have taken their place. In the main hall these replicate the space of the original trusses, while in the wings they take the shape of more traditional Dutch timber trusses. This is to allow for more room in the wings' first-floor houses.

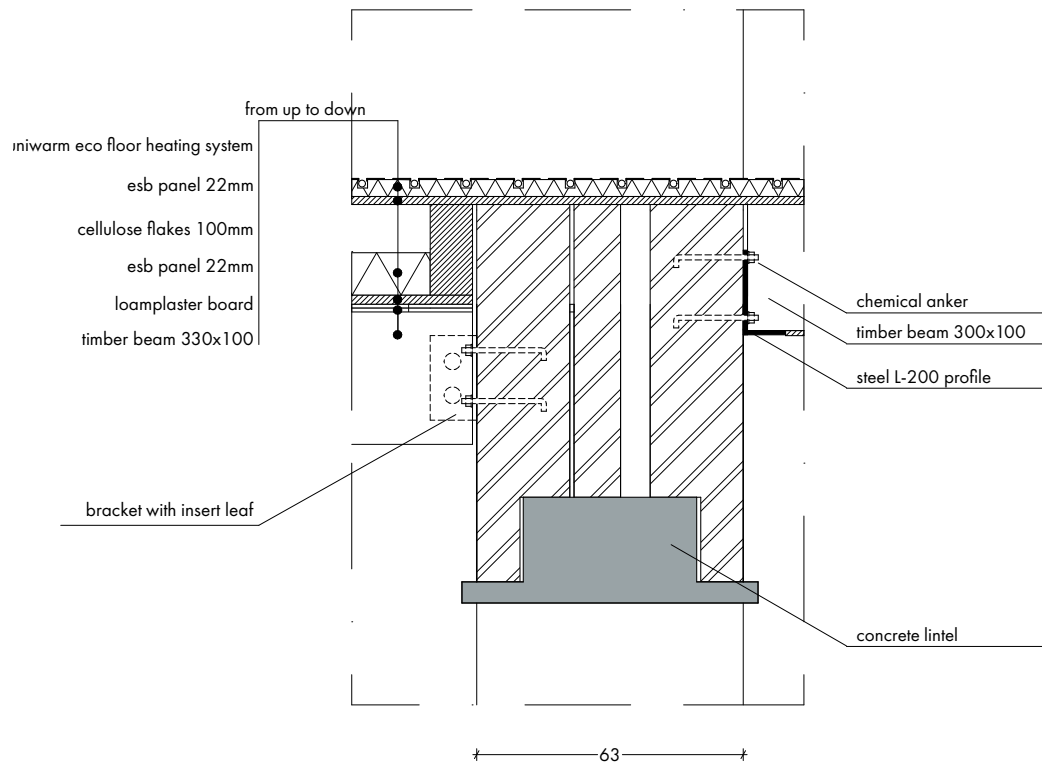
the additions

The structure and materiality of the additions were mainly chosen to be affordable and lightweight, yet also comfortable and flexible. Because of this, it uses a timber frame load-bearing wall structure with acoustic Kerto-Ripa T floors.

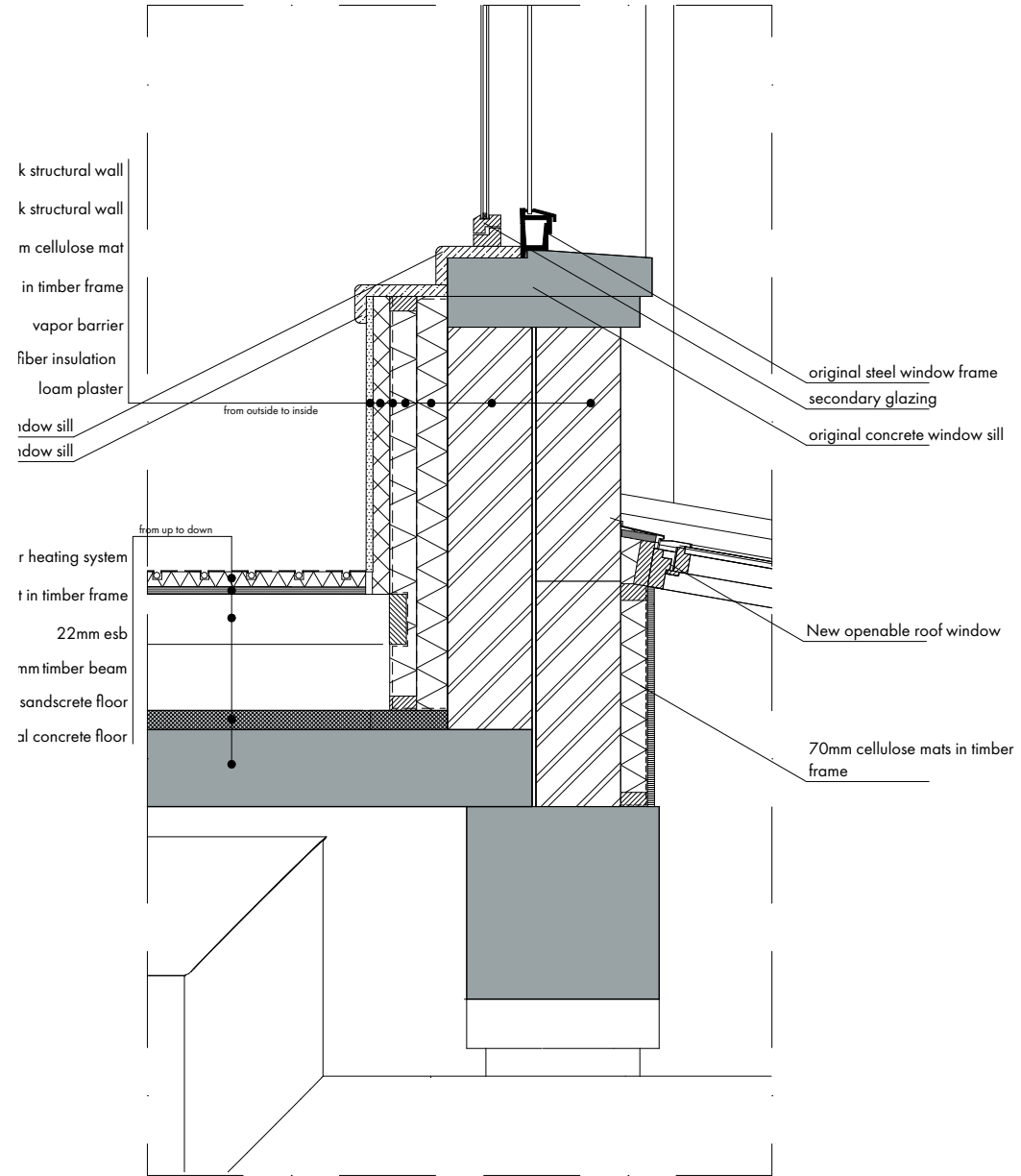
Where possible, the new structure uses patterns like structure follows social spaces, perimeter beams, and wall

membranes.

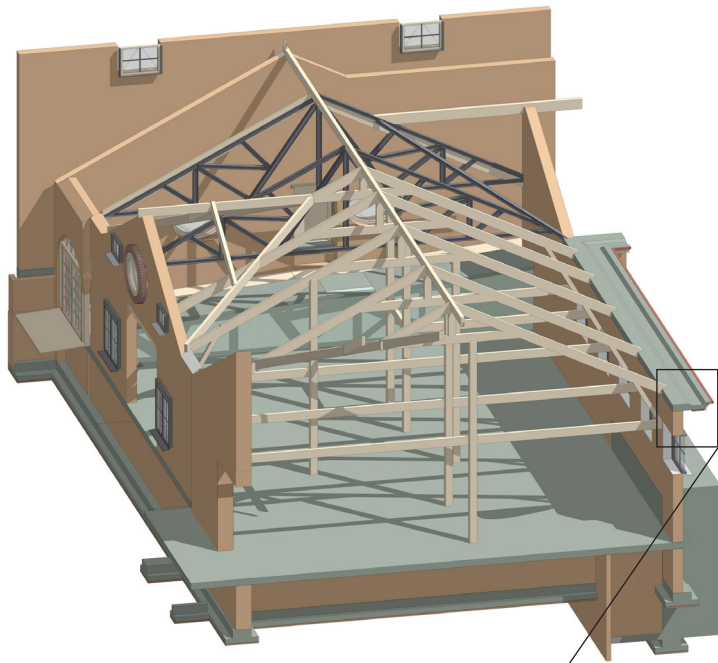




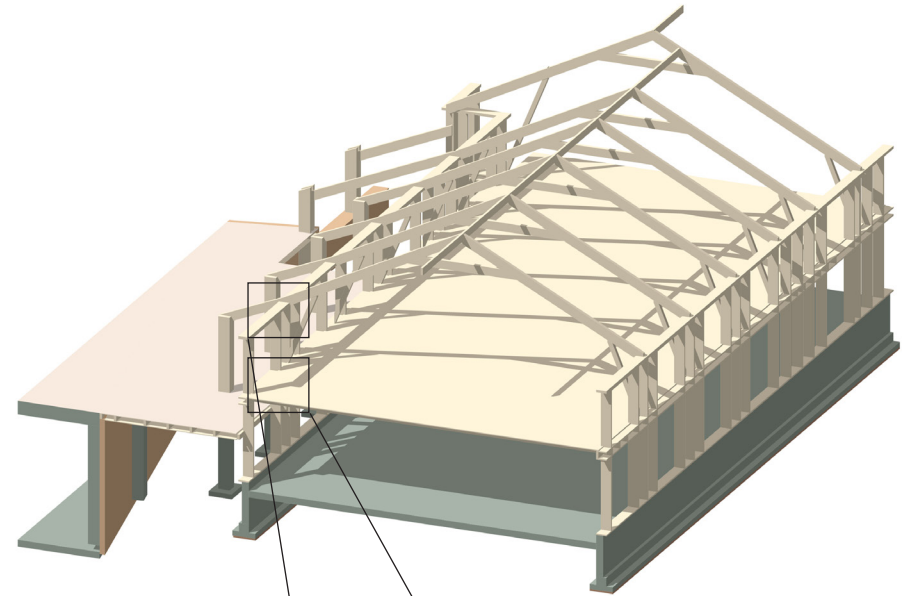
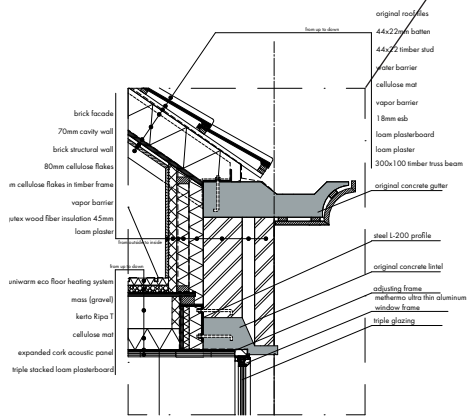
detail 1st floor
 Detail Scale 1:5
 Physical Scale 1:20



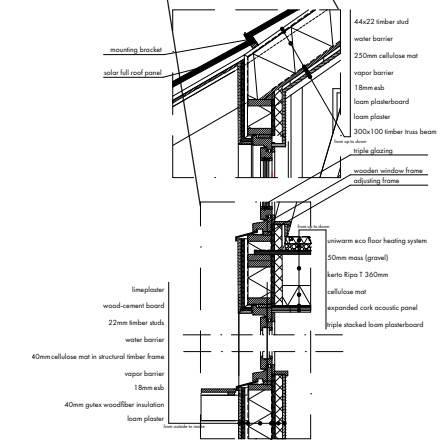
detail roof windows
 Detail Scale 1:5
 Physical Scale 1:20

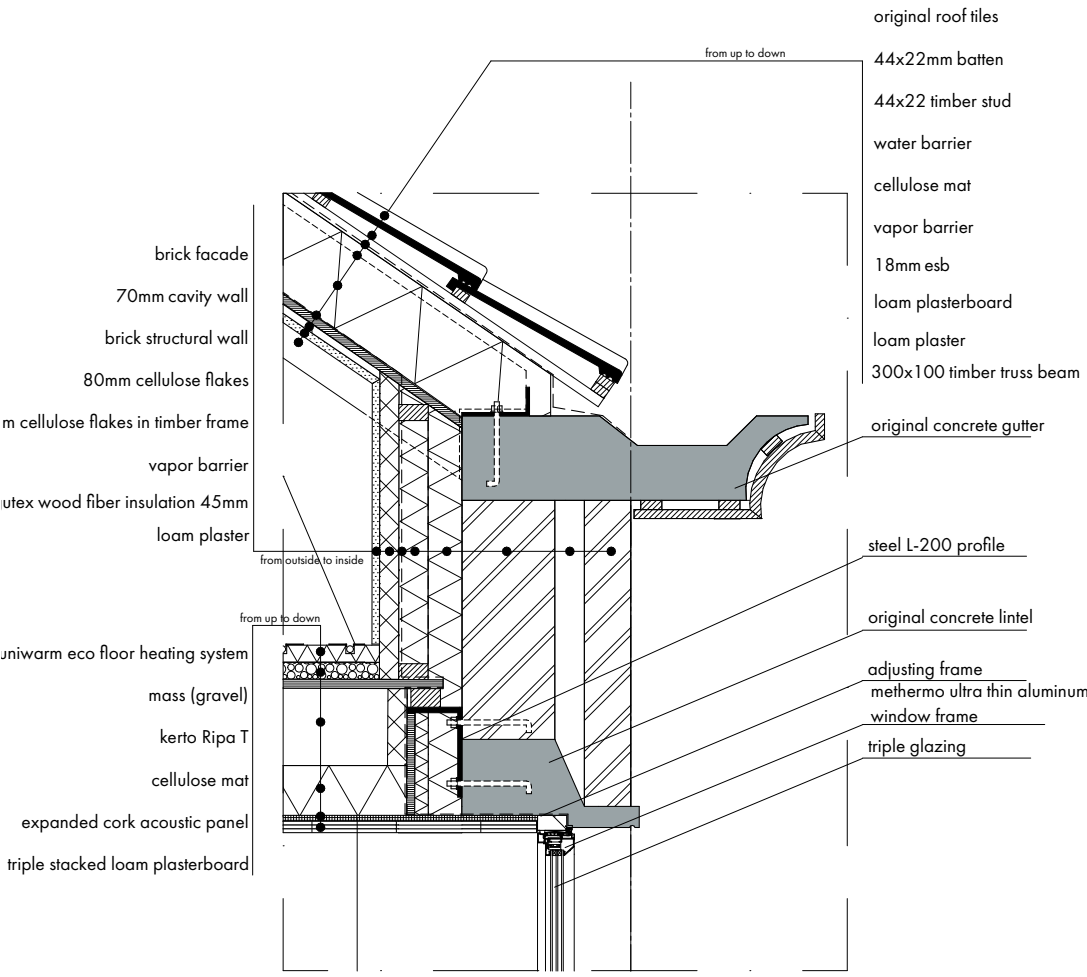


old wing axonometric section

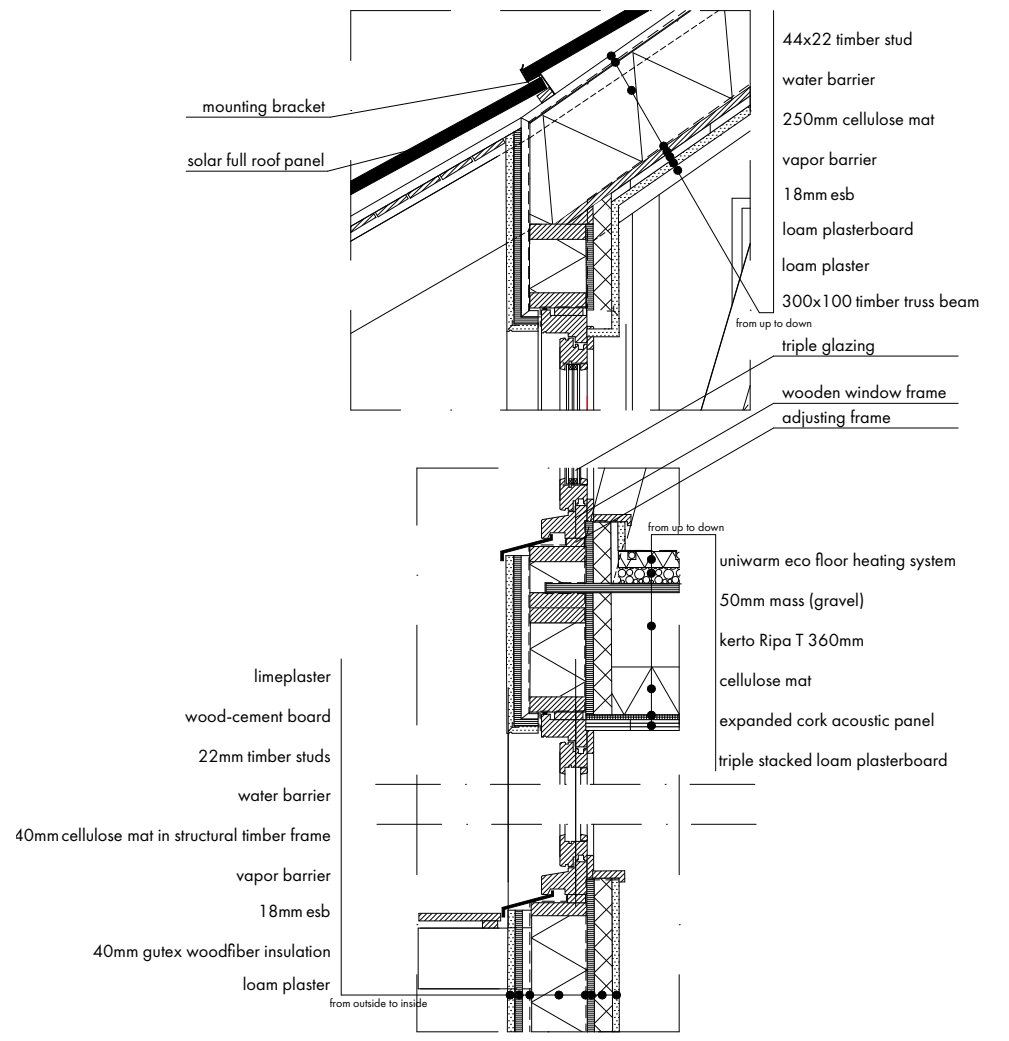


new wing axonometric section





detail old wings
Detail Scale 1:5
Physical Scale 1:20



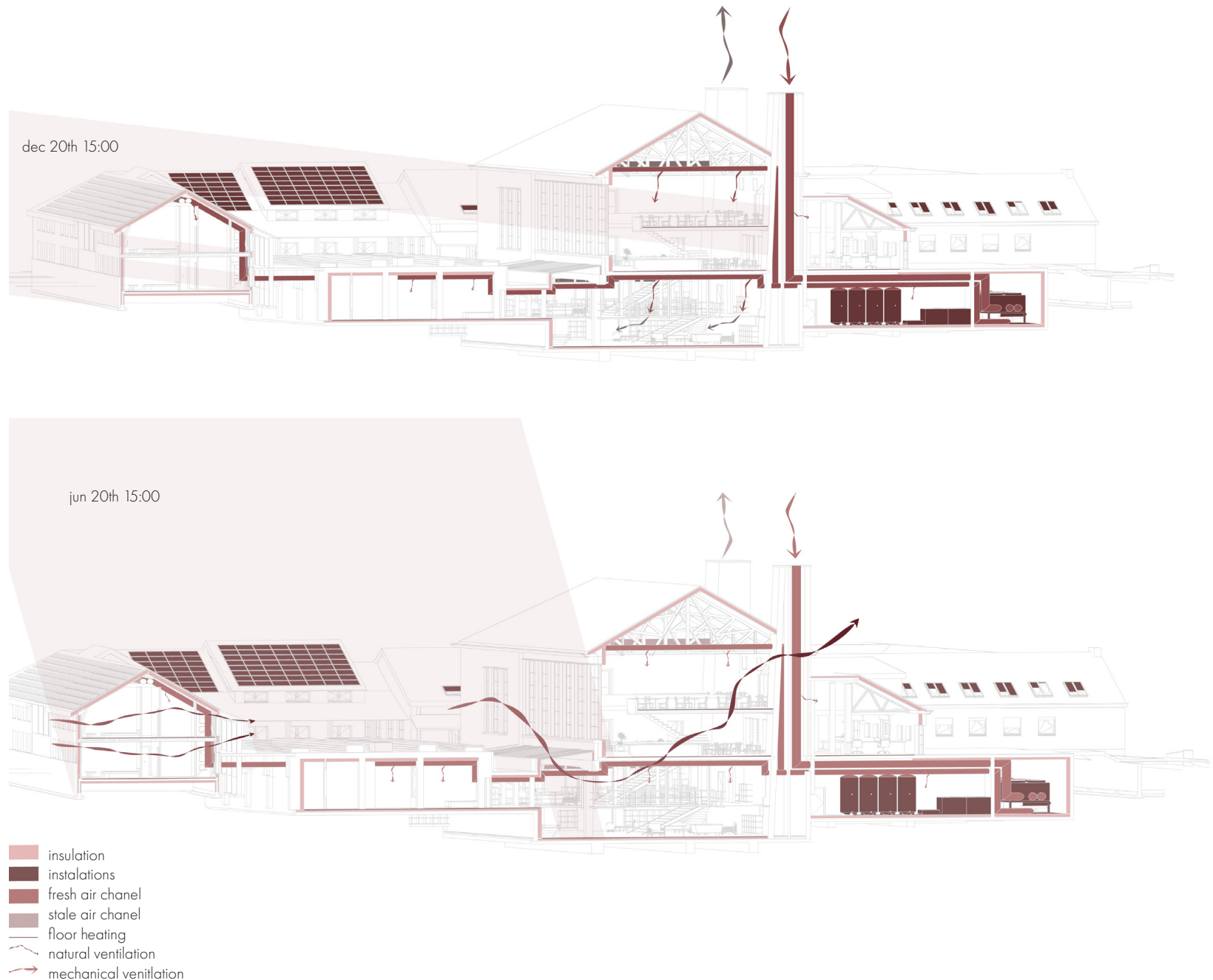
detail additions
Detail Scale 1:5
Physical Scale 1:20

4.4 comfort in a home

In terms of installations, the building is fairly standard. Depending on the season, it uses both mechanical and natural ventilation with a heat recovery system.

The additions have solar roofs, allowing for around 250 m² of solar on both the east and the west and another 60 m² to the south. At peak moments the energy surplus can be used to heat the 10 two-meter-tall water boilers. This hot water can be used to heat the building and help with the high demand of hot water for the 240 residents.

The whole building uses floor heating and cooling following the radiant heat pattern. The floor heating also creates more localized heat near the floor in taller buildings, which is advantageous in spaces like in the café.



PART 4 CONCLUSION & DISCUSSION

Conclusion

The degree to which the used methods help to create homeliness is somewhat undeterminable. There is no statistic that can show the effectiveness of the design choices, nor can drawings be made to illustrate that feeling. What it means to be at home is something someone creates for themselves on an individual level. Regardless, the design has aimed to make the creation of that feeling as simple as possible. By following the pattern language and using over 70 patterns, the building spaces serve to make people feel comfortable.

The second-hand store allows refugees to personalize their spaces without the need for money or transport. It also, like the cafe and the playground, aims to let refugees meet and connect with the neighborhood. Some functions, like the sports field and a space for cycling lessons, have not been incorporated on purpose. These can be shared with the neighborhood, encouraging neighborhood interaction both inside and outside the asylum. This interaction will likely create friendlier relations between refugees and the neighborhood. Altogether, the building stimulates homeliness by way of architectural elements, personalization of space, and neighborhood interaction.

Activities like the cafe, playground,

sports fields, recreational rooms, education spaces, contemplation room, tree places, and vegetable garden. Allow the residents to both relax and stay active depending on their personal desires. Minimizing the possibility that they will experience boredom while also allowing ways to interact and integrate into Dutch society.

The old kitchen building remains for the most part. The foundations and walls carry new roofs that offer comfortability in the form of daylight, insulation, and ceiling height. They are largely clad with the original roof tiles. Public spaces display the building's past through its brickwork, steel trusses, and concrete features. The themes of cooking, education, providing food, and eating together aid in remembering the building's original function as a kitchen building. The view from the appelplaats remains largely unchanged, maintaining the site's composition. The building's heritage is thereby protected through its architectural elements, a relationship with its original functions, and its compositional relation with the appelplaats.

Implications and recommendations

In heritage there is usually a strong focus on maintaining the parts that are deemed valuable by degree of rarity.

In this project, however, the meaning of 'valuable' has been extended to building elements that follow the pattern language and, in doing so, aid in creating the feeling of homeliness. Viewing conservation not just through the lens of rarity but also through its potential value for new functions might be able to aid other projects in creating a synergy between the old life of the building and the new life it has just entered.

The BK faculty has already produced some papers on refugee asylums, focusing on efficient building technologies, on camps outside of the Netherlands, some more theoretical papers on the state of society surrounding refugees and some on the integration of refugees into Dutch society. There is also a paper on co-living discussing homeliness; however, there are none that discuss homeliness and/or boredom prevention as their key focus with relation to refugee asylum. This paper adds this perspective to the discussion. This gap also exists outside of the BK faculty. There are papers on social policy surrounding refugees, yet they similarly do not focus on homeliness and/or boredom prevention in asylum locations.

Architecturally, the building will likely not draw a lot of attention. Its design is not aimed at shocking the architectural world with big, impressive interventions. It uses simple building techniques

and common architectural shapes. It is a humble design aimed at the people who use it. The rest is secondary.

Its societal implications are perhaps the greatest. The building does show that some thoughtful design can improve the living situation of refugees. These interventions do not have to be expensive. Things like the cafe and second-hand store, in fact, generate money. Things like a vegetable garden and tree places don't have to cost much either. It is the effort and attention of those that design and occupy these spaces that is the determining factor. This project does, however, leave many things out of consideration. There is no real physical budget, no municipal resistance and no time pressure. Realistically the design might not be possible; nevertheless, its design strategies still show great promise to help refugees feel at home and avoid boredom in asylum locations.

Reflection

This project has used the pattern language as a guide for making design choices. This method is not an all-encompassing design strategy. It is, to a degree, interpretive, just like any theoretical text. For that reason, I have little doubt that my personal convictions and tastes shine through many of the design choices. For this reason, the re-

PART 5 BIBLIOGRAPHY

sults don't deliver any definitive conclusion. This, however, does not mean it isn't useful. Just like philosophy tries to answer the questions that science can't, the pattern language addresses the feelings that are not always explainable.

The main way of illustrating these feelings throughout this report is with the use of images which show a potential way of living in the building, aided by text elaborating on pattern usage. These images can never truly predict how someone interacts with the space. Nor can it illustrate what makes something a home to someone, but it can at least communicate the intention behind the design and visualise the use of patterns.

The necessity to communicate many of these spaces visually has limited the degree of elaboration within each drawing. The message could be better communicated through the use of correct colours and textures. This way the drawings could show the softness, brightness and feeling of spaces better than the current red-scale colour theme. Unfortunately, due to time constraints, this was not possible here.

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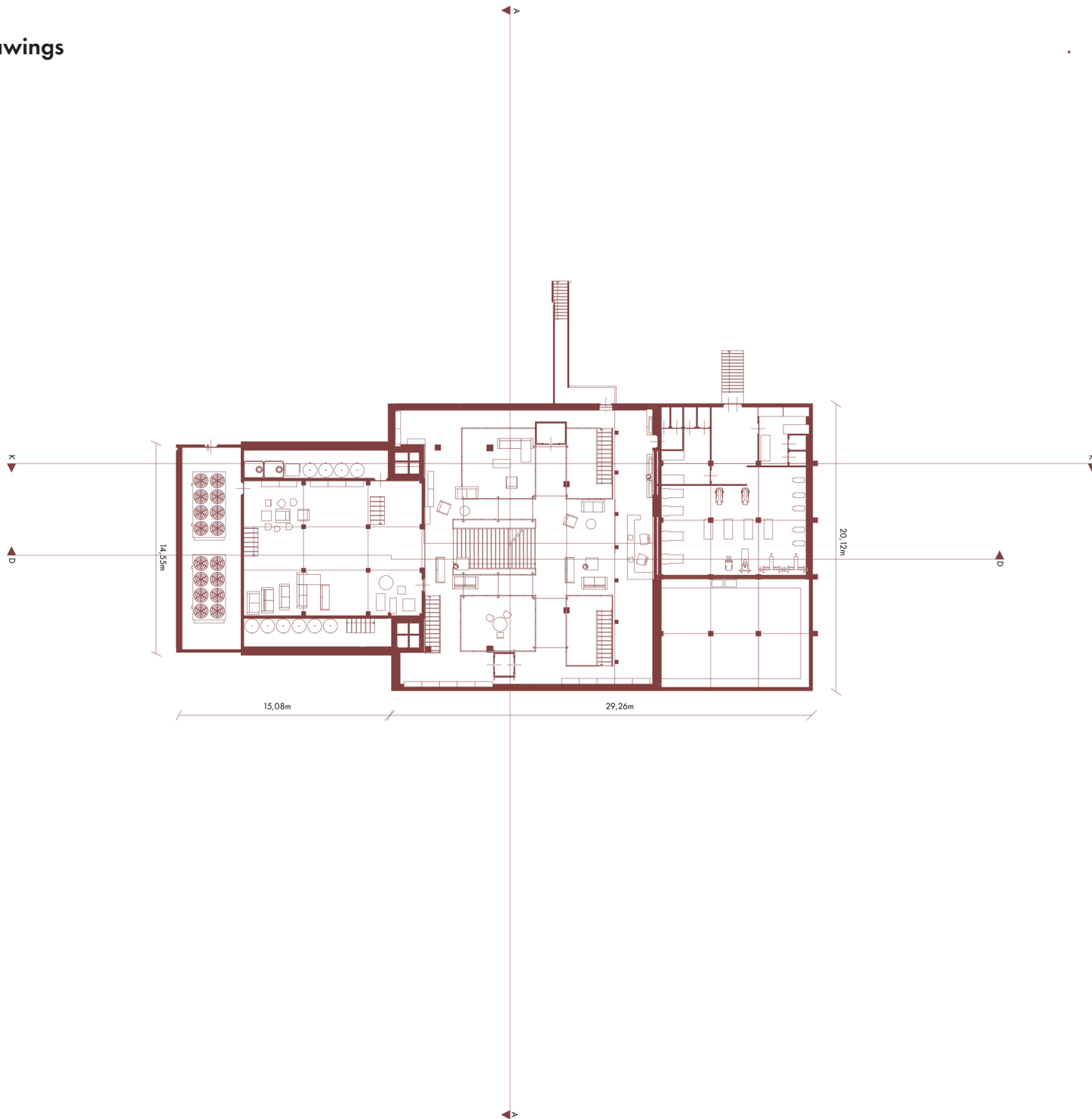
PART 6 ACKNOWLEDGEMENTS

Throughout the process of this project, I have received a lot of support from the people around me. The first and also largest thank you goes to my tutors, Lidy Meijers and Thijs Bennebroek for helping me stay on track towards my goal, for their sharp comments, and for giving me freedom in my design choices. Then I want to thank my peers within the graduation studio for helping me understand the old kitchen building, giving me insight into what heritage in architecture means and also helping me make the decision to open up the courtyard. Lastly, I would like to thank Roeland de Jong for dissuading me from using self-building within this project.

PART 7 APPENDIX

appendix 1 : building drawings	104
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appendix 4 : wall insulation intervention toolbox	138
appendix 5 : data management checklist	142

appendix 1 : building drawings



-1 basement
Detail Scale 1:200
Physical Scale 1:800



0 ground floor
Detail Scale 1:200
Physical Scale 1:800

19,58m

9,68m

13,75m
79,27m

9,68m

19,58m

33,96m

69,11m

26,81m

8,33m

41,53m

23,53m

9,40m

23,40m

33,96m

2m

19,07m

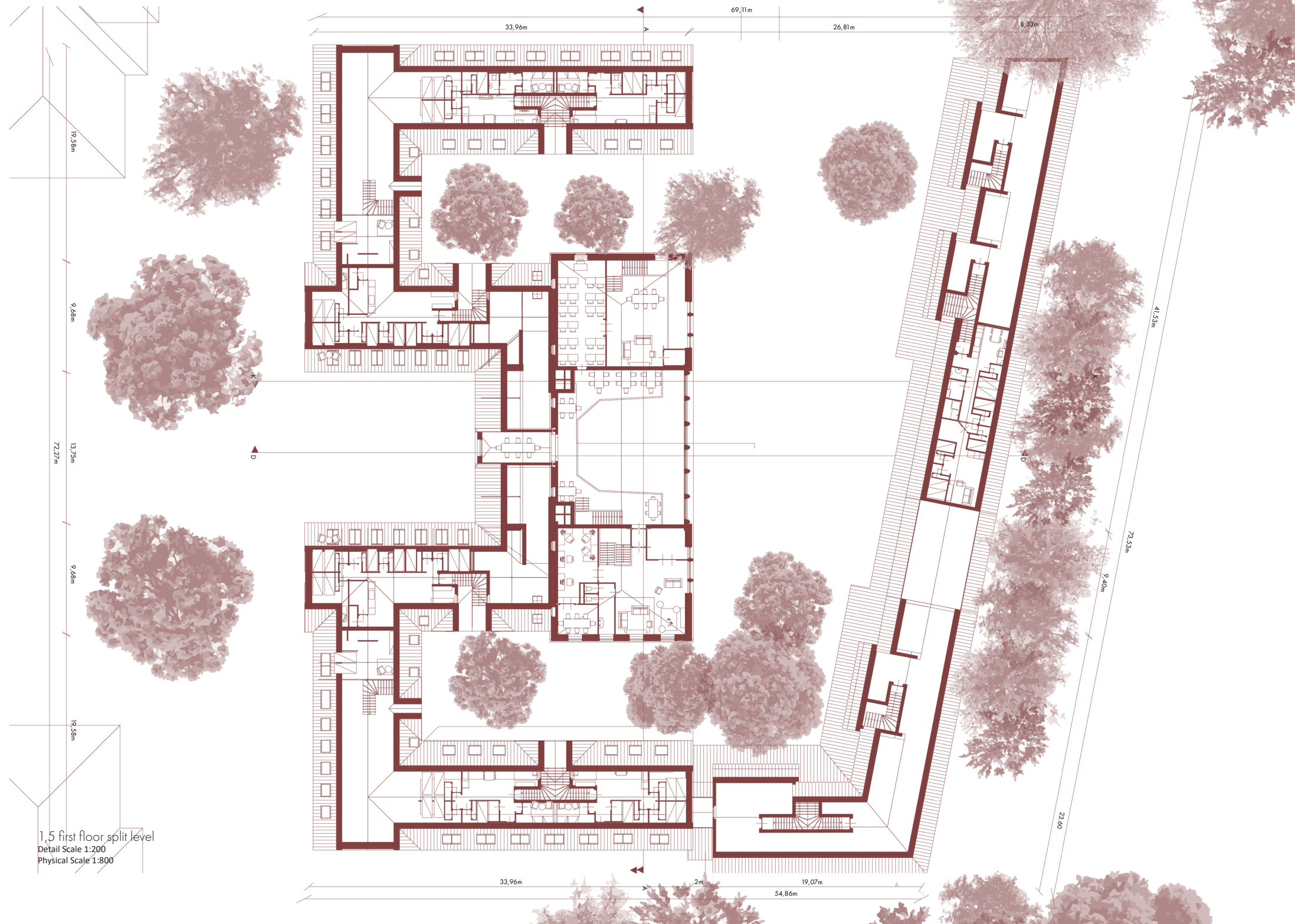
54,86m



0,5 split level
Detail Scale 1:200
Physical Scale 1:800



1 first floor
 Detail Scale 1:200
 Physical Scale 1:800



33,96m

69,11m

26,81m

8,33m

19,58m

9,58m

13,75m
72,27m

9,58m

19,58m

41,53m

23,53m

9,40m

23,60

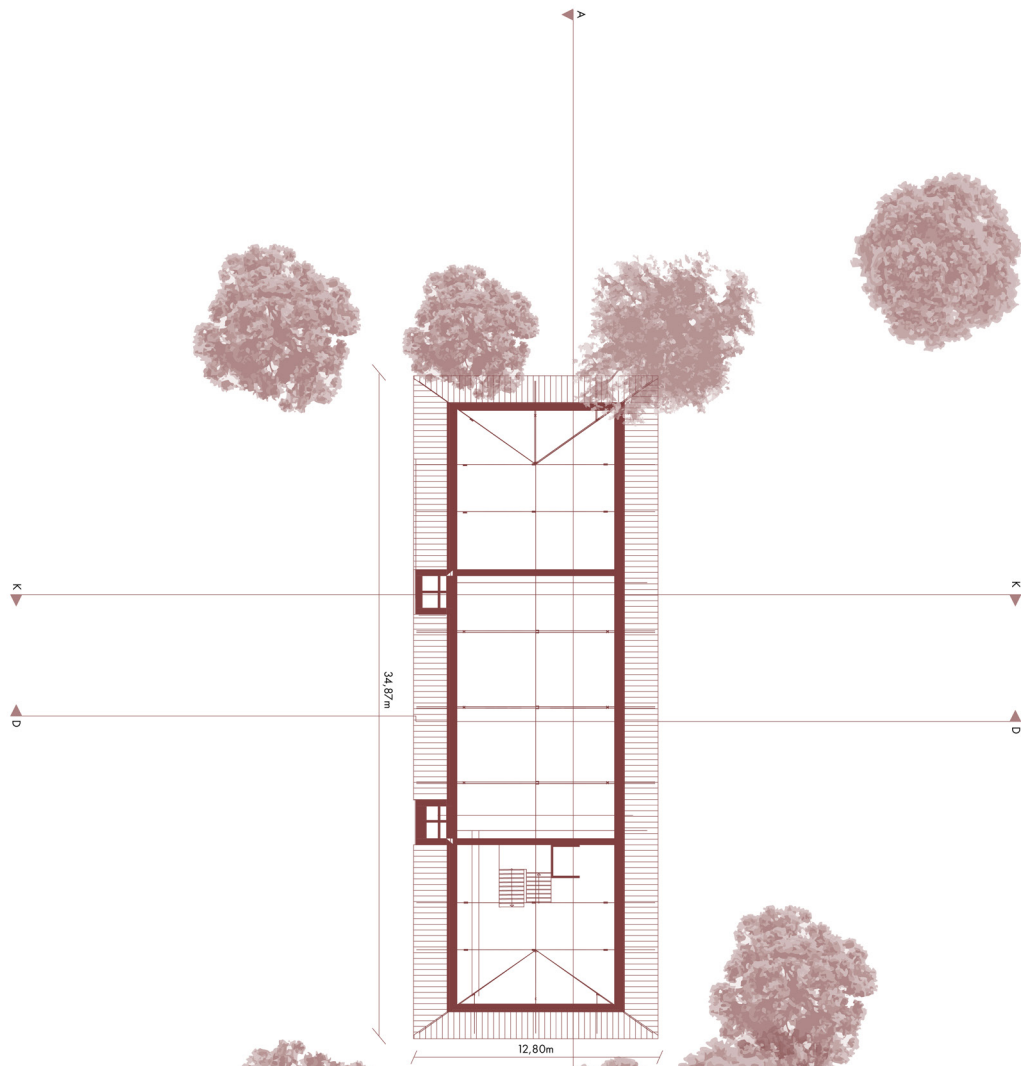
33,96m

2m

19,07m

54,86m

1,5 first floor split level
Detail Scale 1:200
Physical Scale 1:800



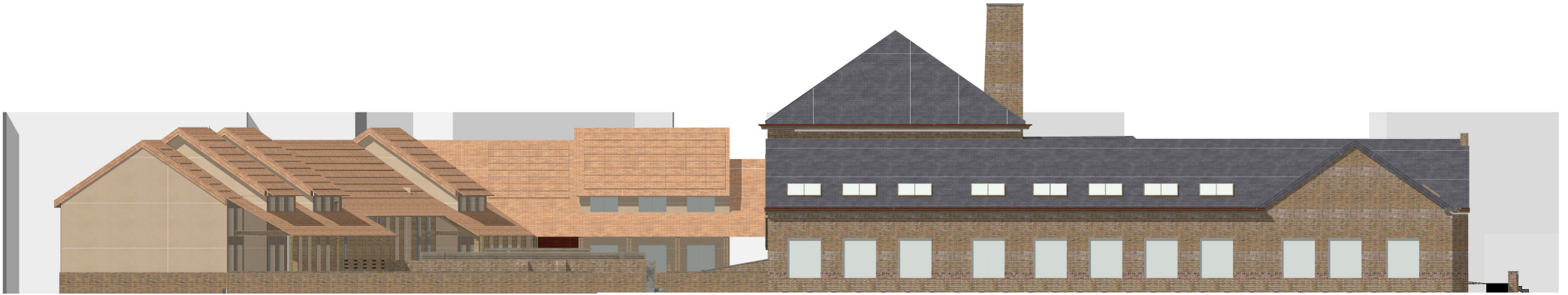
2 roof
Detail Scale 1:200
Physical Scale 1:800



front elevation
Detail Scale 1:200
Physical Scale 1:400



right side elevation
Detail Scale 1:200
Physical Scale 1:400



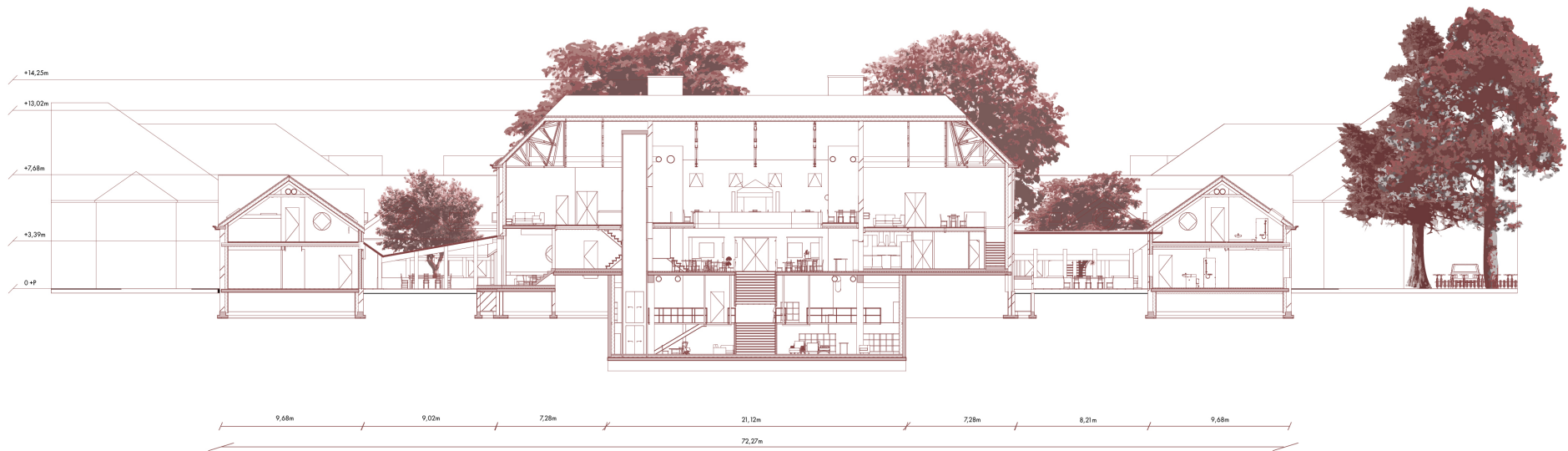
left side elevation
Detail Scale 1:200
Physical Scale 1:400



rear elevation
Detail Scale 1:200
Physical Scale 1:400



section A-A
 Detail Scale 1:200
 Physical Scale 1:400



section D-D
 Detail Scale 1:200
 Physical Scale 1:400

appendix 2 : building program

Program COA Location

amount		size		capacity	total	
23	8-person house	100	m2	8	2300	m2
10	dubbel-4 house	100	m2	8	1000	m2
1	MIVA house	100	m2	8	100	m2
TOTAL				272	3400	m2

service buildings

1	reception	121	m2		121	m2
1	activity/education space	362	m2		362	m2
1	play room	72	m2		72	m2
1	storage/workshop	242	m2		242	m2
1	office COA	190	m2		190	m2
1	office branchpartners	190	m2		190	m2
1	washing room	88	m2		88	m2
TOTAL				272	1265	m2

terrain

120	bicycle rack residents		m2	120	0	m2
30	bicycle rack employees		m2	30	0	m2
1	sportsfield		m2		200	m2
1	playgrounds		m2		120	m2
24	parking spaces		m2		0	m2
TOTAL					320	m2

additional indoor spaces

1	café/kitchen	250	m2		250	m2
1	second-hand Store	500	m2		500	m2
1	contemplation room	15	m2		15	m2
1	small gym	120	m2		120	m2
TOTAL					885	m2

additional outdoor spaces

	walking paths		m2			m2
	vegetable garden		m2		200	m2
	communal outdoor eating area		m2		100	m2
TOTAL					300	m2

TOTAL indoor m2					5550	
TOTAL outdoor m2					620	

extra information

three 2-person rooms and two 1-person room shared bathroom toilet and livingroom + open kitchen
for two families 2 separate livingrooms each with one 2-person room and two 1-person rooms communal use of a kitchen and one shared bathroom. The 1 person room must be changable from one living room to the other
disabled persons houses have four 2-person rooms +-10m2 and bordering a hallway. They have a shared livingroom and kitchen and spaces must be wheelchair accesible

preferably central in the locaiton

preferably central in the locaiton

preferably central in the locaiton

close to reception with meetingrooms officespaces and research rooms

close to reception with meetingrooms officespaces and research rooms

preferably central and combined with other functions (clothing shop)

one spot per two residents and one rack per living unit, must have good visibility or be closable and sheltered

closable shelterd bicycle rack

must be hardens and usable for bike lessons

1 spot per 10 asylum beds mainly for COA employees

Enough seating, kitchen area, bar, storage, supply access.

Storage, payment register, workshop, supply acces/delivery point

Neutral space for contemplation

Changing rooms, toilet and showers not neccisary as only locals use it

Advice based on chris alex

Key building parts

- ↳ Max Height - - - - - 95
- ↳ raised entrance platform - - - - - 167, 242, 112, 130, 16
- ↳ roof composition - - - - - 204, 116, 117, 118, 11
- ↳ basement skylight + platform - - - - - 129, 168
- ↳ kitchen & entrance staircase - - - - - 133, 193
- ↳ window placement - - - - - 224, 129, 159, 161,
- ↳ brick walls - - - - - 191, 205, 249,
- ↳ window/door type - - - - - 237, 239

conflicting building parts

- ↳ Portal sizes - - - - - 98, 110
- ↳ corridor placement - - - - - 101, 131, 132, 1
- ↳ basement staircase - - - - - 133
- ↳ flat roof areas - - - - - 117, 159, 167,
- ↳ mo low window sills/doorways - - - - - 223, 224
- ↳ strong window frames - - - - - 225
- ↳ ceilings - - - - - 227
- ↳ brick damage - - - - - 229
- ↳ tile placement - - - - - 235, 240, 249,

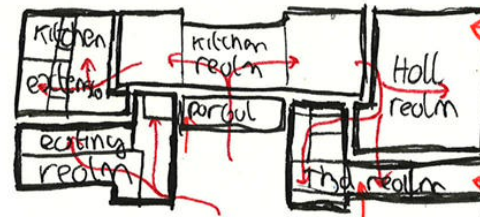
96 Number of stories ✓

- original
- additional
- descriptive



- stories can't exceed top roof gutter height so max 2 stories

98 circulation of realms ✗

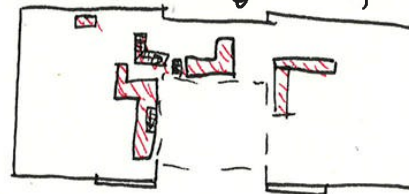


- No correlation large to small

↳ add logical structure

101 building thoroughfare ✗

131 flow through rooms



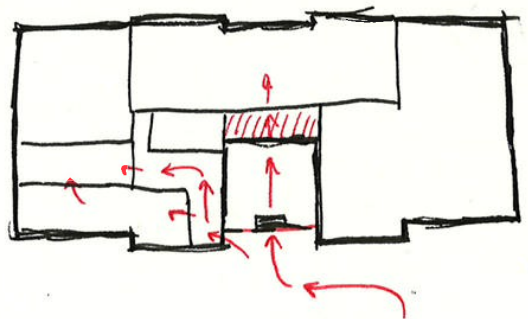
- Many odd narrow corridors
 ↳ replace or widen these
 ↳ outside access preferred ✗

110 Main entrance ✗



- No clear main entrance
 - routing chaotic
 ↳ redefine a clear entrance

112 entrance transitions ✓



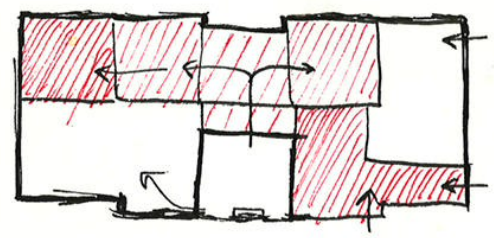
- very graceful transitions from the street

- 116 cascade of roofs ✓
- 117 sheltering roofs ✓
- 118 roof gardens ✗



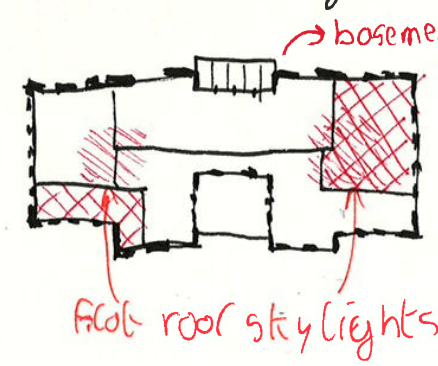
- beautiful cascade of roofs
- great hierarchy of height
- roofs can be seen
- no roof gardens / roof accessibility

127 intimacy gradients ✓
142 sequence of sitting places



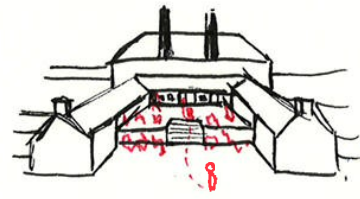
- logical gradient from different entrances not logical from front entrance
- no seating in private areas

129 indoor sunlight



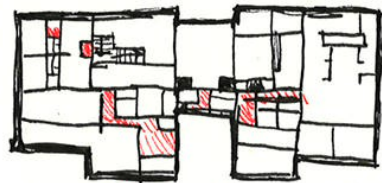
- large windows all round
- large basement skylight
- large interior space for from windows
- important rooms not facing south

130 entrance room



- raised platform is nice
- entrance portico is very closed and dark
- transition very strong

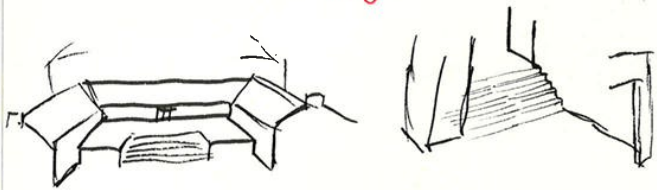
131 the flow through rooms
132 short passages



- some corridors that don't feel like rooms, lack daylight, or are long

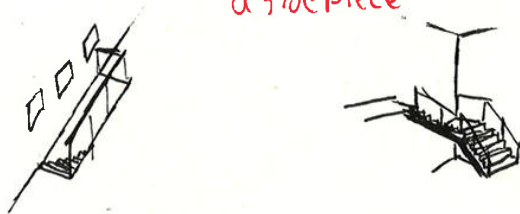
133 staircase as a stage

a stage



- some staircase as stage

a sidepiece



- others not as much

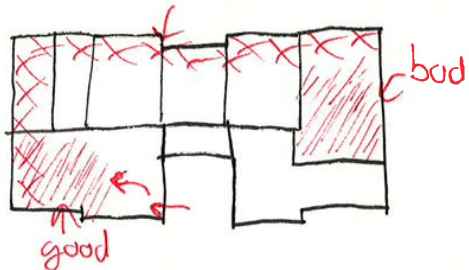
134 Zen views



- place beautiful views as in places of transition rather than places of rest

135 Ecstasy of light and dark

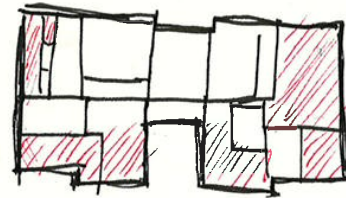
missed opportunity



- do defined ecstasy of light and dark

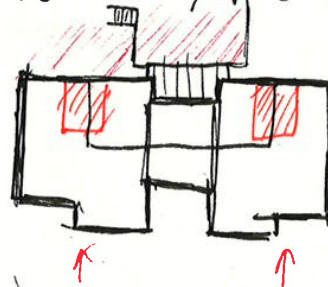
~~142 sequence of sitting places~~

159 light on two sides



- fairly good coverage
- some spaces could be better

161 sunny place



- potential for sunny places

163 outdoor room

- potential for outdoor rooms

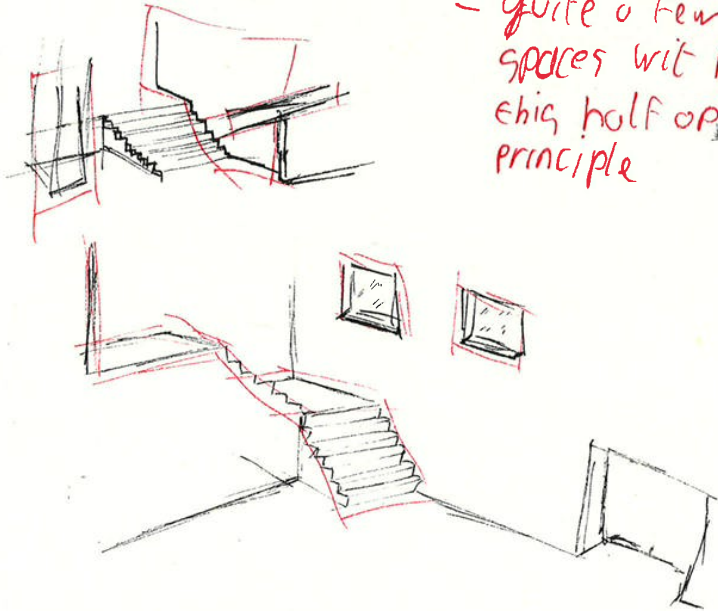
166 gallery surround

167 6 foot balcony



- except the entrance terrace there isn't any connection with the outdoors

193 Half open space

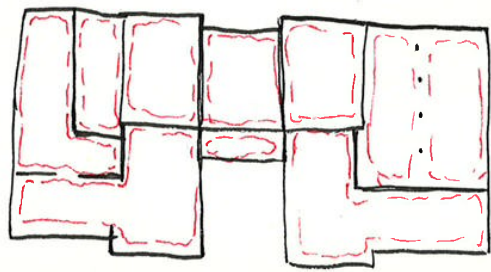


- quite a few oddly shaped spaces with potential for this half open space principle

195 staircase volume
200 open shelves

202 built-in seats

205 structure follows social spaces

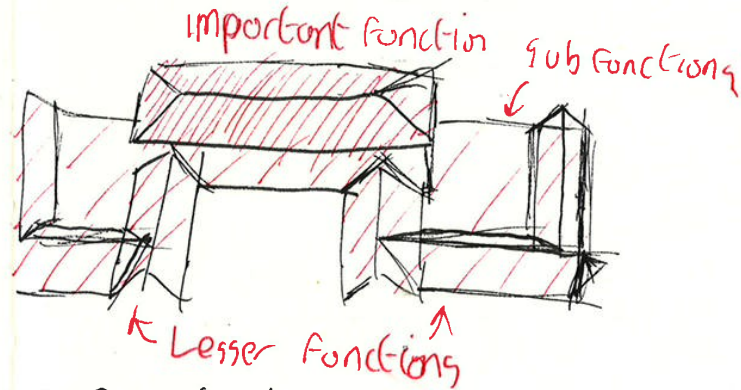


- no real correlation between this and Herko design
- also for future design choices

- solid walls clearly define possible social spaces.
- avoid extending one space into another

208 gradual stiffening - references a process rather than a element

209 roof layout



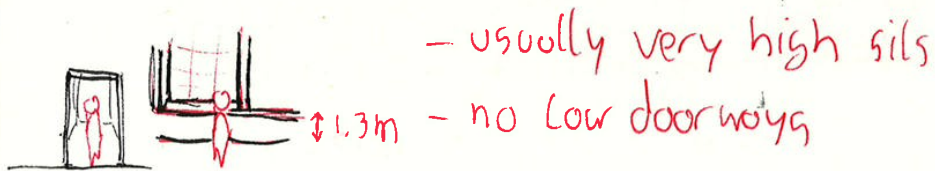
212 columns at the corners

221 natural doors and windows

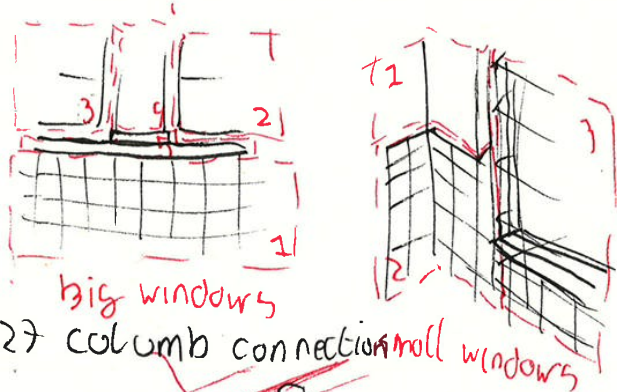


- windows usually clustered
- closely linked to building roof hierarchy
- no strong correlation between story height and window size

222 low sill
 224 low doorway



225 Frames as thickened edges



- strong frame on big windows
 - soft frame on small windows

227 columb connection small windows



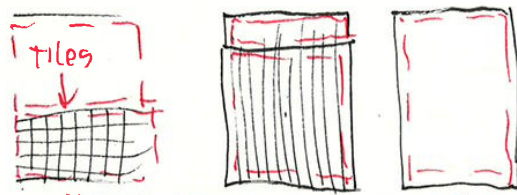
- ceilings often block structure connections

234 Lopped outside walls



- no easily replaced material
 - known damage to post war facade materials
 - create way to easily repair damage

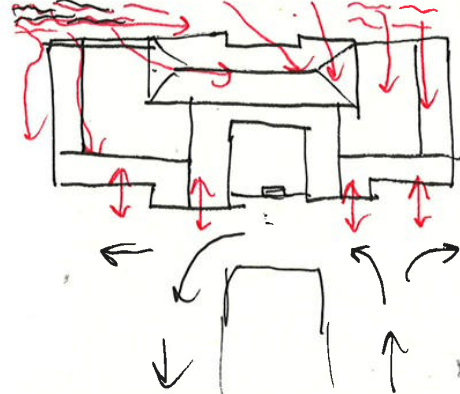
235 soft interior walls



Tiles + plaster wood + plaster plaster

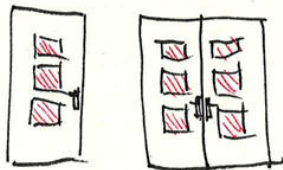
- tiles create hard cold feeling
 - some wood
 - some hard plaster
 ↳ requires softer approach

236 windows that open wide



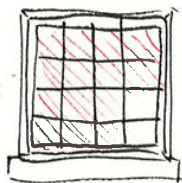
- windows south - north
 west to flower fields
 - windows north - east to people walking

237 solid doors with glass



- most doors have small glass openings

239 small panes



- most windows have mullions creating smaller panes

240 Half inch Grim



no Grim on tiles



Grim on wood

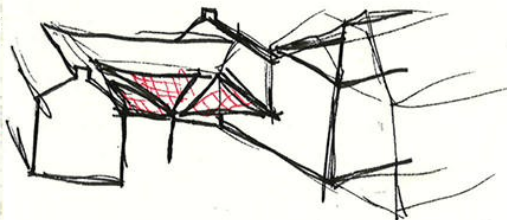
- mostly Grimless material transitions

242 Front door bench



- good potential for front door benches

249 canvas roofs



- Many spaces which could benefit from the softness of canvas shading

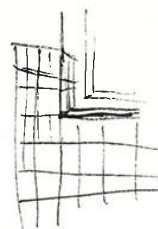
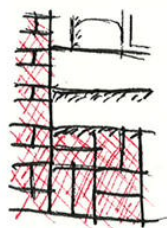


249 ornament

250 warm colors

outside

inside



- inside cold and plain
- outside warm and decorated

appendix 4 : wall insulation intervention toolbox

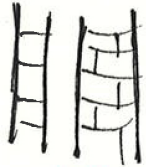
Intervention toolbox

30cm

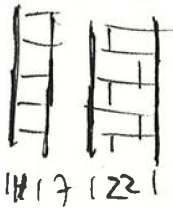


kelder

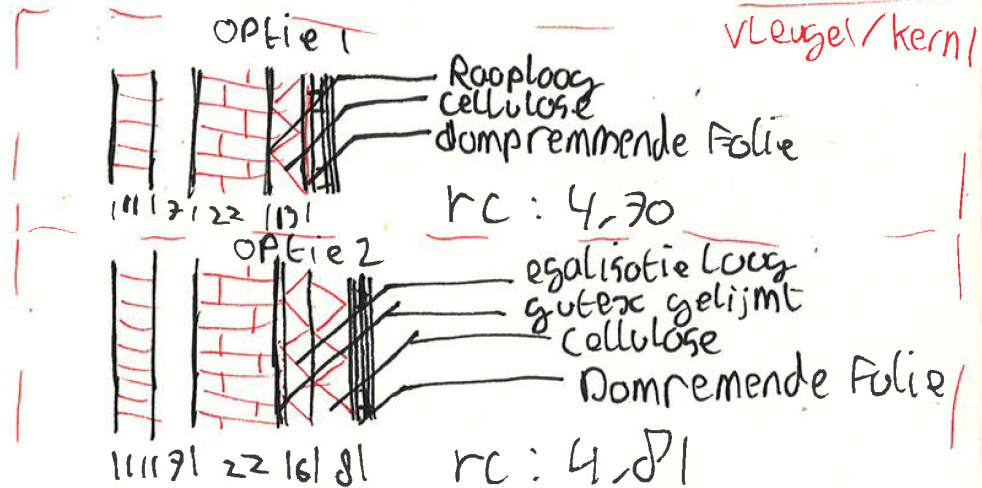
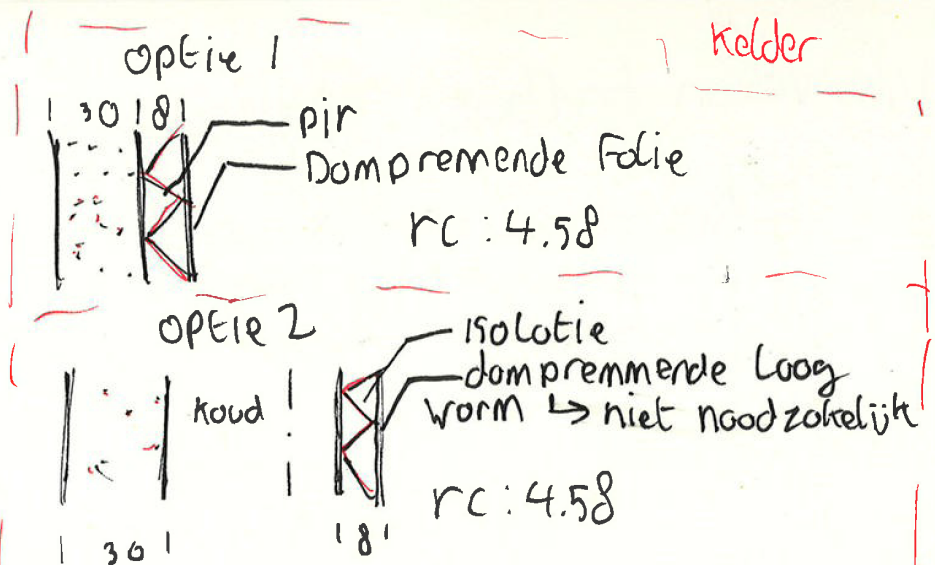
Nieuwbouw eis
RC
Vloer : 3,0
Vand : 4,5
Dak : 6,0
RC 0,35



vleugel RC 0,89



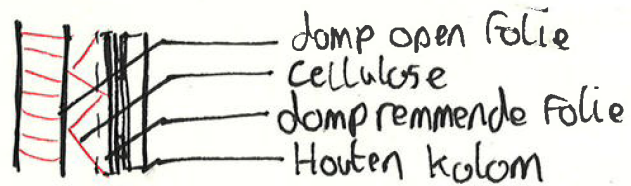
kern RC 0,89



voor kwetsbaar binnenblad

~~optie 1 beter~~

optie 3

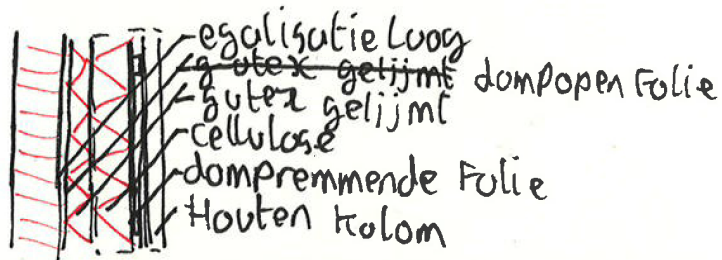


111151?!

RC: 4.68

- ↳ voor niet kwetsbaar buitenblad
- ↳ houten kolom niet tegen metselwerk
- ↳ ventileren of extra isoleren balkkoppelen

optie 4



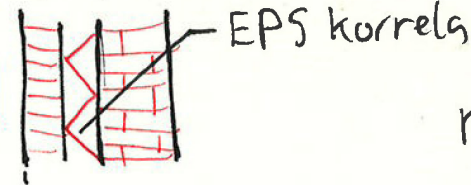
11116171?!

RC: 4.63

- ↳ voor kwetsbaar buitenblad
- ↳ Houten kolom niet tegen metselwerk
- ↳ ventileren of extra isoleren balkkoppelen

optie 5

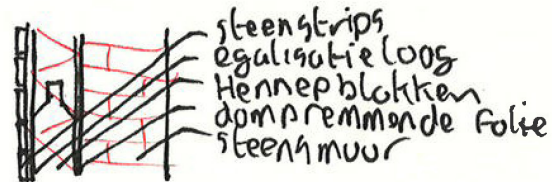
111171221



RC: 2,76

- ↳ enkel bij hoog kwaliteit buitenblad

optie 6



1221 221

RC: 4,51

- ↳ onder isolatie materiaal mogelijk dunner

appendix 5 : data management checklist

DATA MANAGEMENT CHECKLIST

Instruction

This checklist is relevant for all graduation projects of the Master AUBS. The form is intended to highlight common aspects of graduation projects that require particular attention with regard to planning the research and data management. Relevant information and supplementary sources regarding each question are provided below each question.

With this checklist, the faculty wants to avoid that students unexpectedly find themselves in complex and stressful situations, in which ethical or privacy matters and/or other laws and regulations become an issue. In projects involving humans, certain types of data processing increase the risks to the human participants: planning such projects requires additional evaluations and advice from university staff before ethical approval can be received and the project can begin. In the case of a graduation project, obtaining additional advice or permits may delay the project with an extra education period or semester. To avoid this, it is recommended that students set up a graduation project with a low level of risk. Therefore, all students have to check their risk, by completing this checklist before their A1.

The first section of the checklist (A) should be completed by all students, together with their supervisor, during the planning of the graduation project, before the A1. It does not need to be submitted to anyone for review or approval. Please consider questions 1 to 3 carefully in relation to the intended graduation project, and answer with 'yes' or 'no'.

The second section of the checklist (B) should only be completed if the graduation project involves working with data from human participants. In that case, the student and their supervisor must apply for and receive ethical approval from the [Human Research Ethics Committee](#) (HREC) before the project can begin (see the paragraph 'Explanation and follow-up' after the questions). The student can submit the application to the HREC, but the supervisor is responsible for making sure that the project is compliant with relevant privacy regulations and ethical policies.

Section A. General considerations	yes	no
<p>1. Is the graduation project conducted as part of an internship (at a company), or as part of a research project at TU Delft?</p> <p>If a student's graduation project is conducted at a company or as part of a research project at the university, questions of data ownership and intellectual property rights need to be addressed in a written graduation or internship agreement before the project begins. Students and their supervisor should consult the Intellectual Property Rights of Students webpage. Additional information can also be found in the Extended Personal Research Data Workflow.</p>		✓
<p>2. Does the project involve conducting (part of) the research outside the Netherlands?</p> <p>Students who intend to travel abroad (even to other EU countries) for study, exchange, research, internship, or graduation project purposes need to follow the Travel Safety Protocol. This includes attending a mandatory Travel Safety Training Session: see the Disclaimer.</p>		✓
<p>3. Will the research involve processing data from humans, such as running a survey, conducting interviews or workshops, collecting data through social media or internet forums, or re-using existing datasets about humans provided by a third party? (If 'yes', see follow-up questions 4 to 13 in Checklist B.)</p> <p>Students who work with data from human participants must complete the next section and apply for and receive ethical approval from the Human Research Ethics Committee (HREC) before conducting the research.</p>		✓

Section B. Extended risk factors (only if question 3 has been answered with 'yes'.)	yes	no
<p>4. Will the project involve participants who may be considered vulnerable, such as the elderly, refugees or asylum seekers, ethnic minorities, patients, or people with disabilities?</p> <p>Participants who may suffer very adverse consequences (for instance, due to discrimination) if their personal data became publicly available can be considered vulnerable.</p>		✓
<p>5. Will the project involve participants who cannot themselves give informed consent for taking part in the project, but for whom consent must be obtained from a legal guardian?</p> <p>Participants who cannot give informed consent can include, for instance, children or participants with intellectual disabilities, mental disorders, or dementia. Such participants are also considered vulnerable in the context of the General Data Protection Regulation (GDPR).</p>		✓
<p>6. Will the project involve processing any of the special categories of personal data below?</p> <ul style="list-style-type: none"> - Race - Ethnicity - Criminal offence data - Political opinion - Union membership - Religious or philosophical beliefs - Sex life and/or sexual orientation - Health data (including measurements such as heart rate) - Biometric or genetic data (including fingerprints, iris scanning, facial recognition) <p>The General Data Protection Regulation (GDPR) defines a stricter rules for processing special categories of personal data. If it is necessary to process these data in a project, it is important to provide additional safeguards.</p>		✓
<p>7. Will the project involve processing personal data that could be considered sensitive, such as the ones listed below?</p> <ul style="list-style-type: none"> - Information about a person's income, debts, or other payments - Information about a person's (un-)employment status - Information about a person's performance at school or work - Information about relationship problems or (gambling) addiction - Information about poverty, domestic violence, or youth welfare/social work involvement <p>Some types of personal data are considered sensitive, because they can have a high impact on the privacy of the data subject if other persons gain access to these data. Sensitive personal data should only be processed if necessary: in such cases, additional safeguards need to be put in place.</p>		✓
<p>8. Will the project involve processing video-recordings, or photographs of participants?</p> <p>TU Delft considers photographic and video-materials of research participants to be sensitive personal data. If such data need to be processed, additional safeguards must be put in place.</p>		✓

Section B. Extended risk factors (only if question 3 has been answered with 'yes'.)	yes	no
<p>9. Will the project involve sharing or transferring personal data between multiple partners or collaborating organisations involved, such as between TU Delft and an internship company?</p> <p>According to privacy law, sharing personal data between organisations requires a privacy agreement to be in place: setting this up takes time, and requires support from additional university staff. Furthermore, personal data sharing can potentially expose research participants to different types of risks: these risks must be considered in the ethical application.</p>		✓
<p>10. Will the project involve deception, or covert observation of participants?</p> <p>In some types of research, obtaining informed consent for processing participants' personal data is not an option: for instance, if the research involves deception, or the research is covert (conducted without participants knowing about it). In such situations, the steps to mitigate risks to participants are important, and an alternative legal basis for processing the participant's data needs to be established with the help of additional support staff.</p>		✓
<p>11. Will the project involve working with social media data?</p> <p>Social media data are personal data, but since it is usually not possible to ask for informed consent for processing social media data, another legal basis for processing the participant's data needs to be established. Processing of social media data also involves legal considerations related to terms of use of data from third-party platforms: therefore, research with social media data requires expert support on privacy, ethics, and legal matters.</p>		✓
<p>12. Will the project involve using learning algorithms or other AI to analyse, combine, or otherwise process data from participants?</p> <p>The use of AI in research involves many considerations in terms of data protection, ethics, security, and intellectual property: for more information, see TU Delft's Instructions for use of Generative AI.</p>		✓
<p>13. Will the project involve participants who are based in a country or countries outside of the EU?</p> <p>Students affiliated with TU Delft must comply with Dutch and EU regulations of personal data processing (GDPR). Furthermore, the student and their supervisor must make sure that the research complies with local (privacy) legislations of any foreign destinations. Additional support from an external (local) expert may be required.</p>		✓

Explanation and follow-up

If you have answered 'no' to all questions 4 to 13, your project is likely to be considered low or minimal-risk: see the paragraph 'Projects with minimal or low-risk' on the next page.

If you have answered 'yes' to one or more of the questions 4 to 13, your research likely involves extended or high risks to participants, according to the [General Data Protection Regulation](#) (GDPR) and TU Delft's privacy and ethical policies: for information regarding such projects, see the paragraph 'Projects with extended or high-risk' on the next pages.

Projects with minimal or low-risk

If you have answered 'no' to questions 4 to 13, your project is likely to be considered low-risk. This does not mean that the project involves no risks at all, but suggests that these risks can likely be addressed by the student and supervisor in the application to the [Human Research Ethics Committee](#) (HREC) within the timeline for a graduation project and without need for additional support.

Compiling the HREC application:

An application to the HREC generally involves a Data Management Plan (DMP), a risk-identification and mitigation checklist, and informed consent materials. Master's students at ABE who intend to compile a HREC application are advised to make use of the following support documents:

- the [student guide](#)
- the [Example Data Management Plan](#) for MSc projects

The graduation supervisor is [responsible](#) for the student's project and ethical application, and must provide support for compiling the HREC application documents.

Additional support

For low-risk student graduation projects, compiling of the HREC application documents should be done by the student in consultation with the supervisor. The Faculty Data Steward can be contacted for individual questions at datasteward-BK@tudelft.nl: however, the Data Steward does not provide detailed feedback on student DMPs for low-risk HREC applications.

Additional resources

The HREC has guides available for [completing the checklist](#) and for compiling [informed consent materials](#). Additionally, the [Guide to the Extended Personal Research Data Workflow](#) has been created to help researchers and students who work with human participants comply with both GDPR principles and TU Delft's policies on Data Management and Human Research Ethics.

Timeline

Minimal or low-risk HREC applications are generally processed faster than extended or high-risk applications (see the paragraph below). Nevertheless, the initial evaluation by the HREC usually takes approximately 2 weeks, and may take longer during busy periods or holiday: see the [HREC website](#) for up-to-date information. Additionally, the application may require revisions before final approval is granted. If you do not receive an initial response about your ethical application after 4 weeks from the time of submission, you may follow up with the HREC to enquire about an update.

Projects with extended or high-risk

If you have answered 'yes' to one or more of questions 4 to 13, there are potential increased risks related to how data from human participants will be processed in your project. These risks will need to be addressed in consultation with the Data Steward and other relevant support staff before submitting the ethical application to the [Human Research Ethics Committee](#) (HREC).

Compiling the HREC application

An application to the HREC generally involves a Data Management Plan (DMP), a risk-identification and mitigation checklist, and informed consent materials. Master's students at ABE who intend to compile a HREC application are advised to make use of the following support documents:

- the [Ethical Approval & Data Management Planning Student Information](#)
- the [Example Data Management Plan](#) for MSc projects

The graduation supervisor is [responsible](#) for the student's project and ethical application, and must provide support for compiling the HREC application documents.

Additional support

Once the DMP has been compiled and reviewed by the supervisor, feedback should be requested from the Data Steward via DMPonline. After this, any other necessary support staff will need to be contacted. Crucially, if the project involves one or multiple ways of personal data processing that could result in high-risk to the participants according to the GDPR, the TU Delft Privacy Team must be consulted to establish whether or not a [Data Protection Impact Assessment](#) (DPIA) is required.

Additional resources

The HREC has guides available for [completing the checklist](#) and for compiling [informed consent materials](#). Additionally, the [Guide to the Extended Personal Research Data Workflow](#) has been created to help researchers and students who work with human participants comply with both GDPR principles and TU Delft's policies on Data Management and Human Research Ethics.

Timeline

It can take a long time to compile a complete research plan and HREC application for projects involving extended risks. DMP feedback from the Data Steward usually takes around 2 weeks, but can take longer during busy periods or holidays. Receiving additional support from other staff, such as the Privacy Team, can take anywhere from a few days to multiple weeks, depending on the project and capacity of university staff. If a DPIA is deemed necessary, it can take anywhere from 4 weeks to several months.

It is important to note that advice from the Privacy Team or other support staff, as well as any additional documents (such as necessary contracts, or a DPIA, if needed) must be in place before the application is submitted to the HREC. The initial evaluation by the HREC can be processed in 2 weeks, but may take longer during busy periods or holidays: see the [HREC website](#) for up-to-date information. Additionally, the application may require revisions before final approval is granted. If you do not receive an initial response about your ethical application after 4 weeks from the time of submission, you may follow up with the HREC to enquire about an update.

Considering the limited time available for students conducting their graduation projects, students working with data from human participants are strongly advised to prioritise low-risk research projects. If a student project necessitates processing data in ways that are considered extended or high-risk, both student and supervisor need to be aware of the extended processing times involved in obtaining ethical approval and beginning the graduation project.

