




03-07-2023

Circular Retreat

House of Modern Rituals


5435145

Heritage & Architecture



The design tells a story about how we should live in harmony with our natural environment, ourselves and others. It encapsulates the shift between religion and spirituality by illustrating the individual, impermanent, and imperfect nature of the spiritual in contrast to the collective, permanent, and perfect structure of religion.

Approach

- 
1. RESEARCH → Defining spirituality and research into what architectural qualities can help evoke spiritual experiences
 2. PRINCIPLES → Defining design principles that result from the research
 3. CONCEPT → Create a concept for the redesign with the gathered information and design principles
 4. DESIGN → Follow the principles while designing to create spiritual architecture

Motivation

1. SECULARISATION → As a result of secularisation and the shift from religion to spirituality, there is a noticeable increase in vacant church buildings.
2. ZERO WASTE → How can we make the building relevant again without losing the social and spiritual values of the church?
3. SPIRITUALITY → In this research a design strategy is proposed that revises the original function in a way it can better accommodate the modern spiritual needs. In a way it reuses the original function and values.

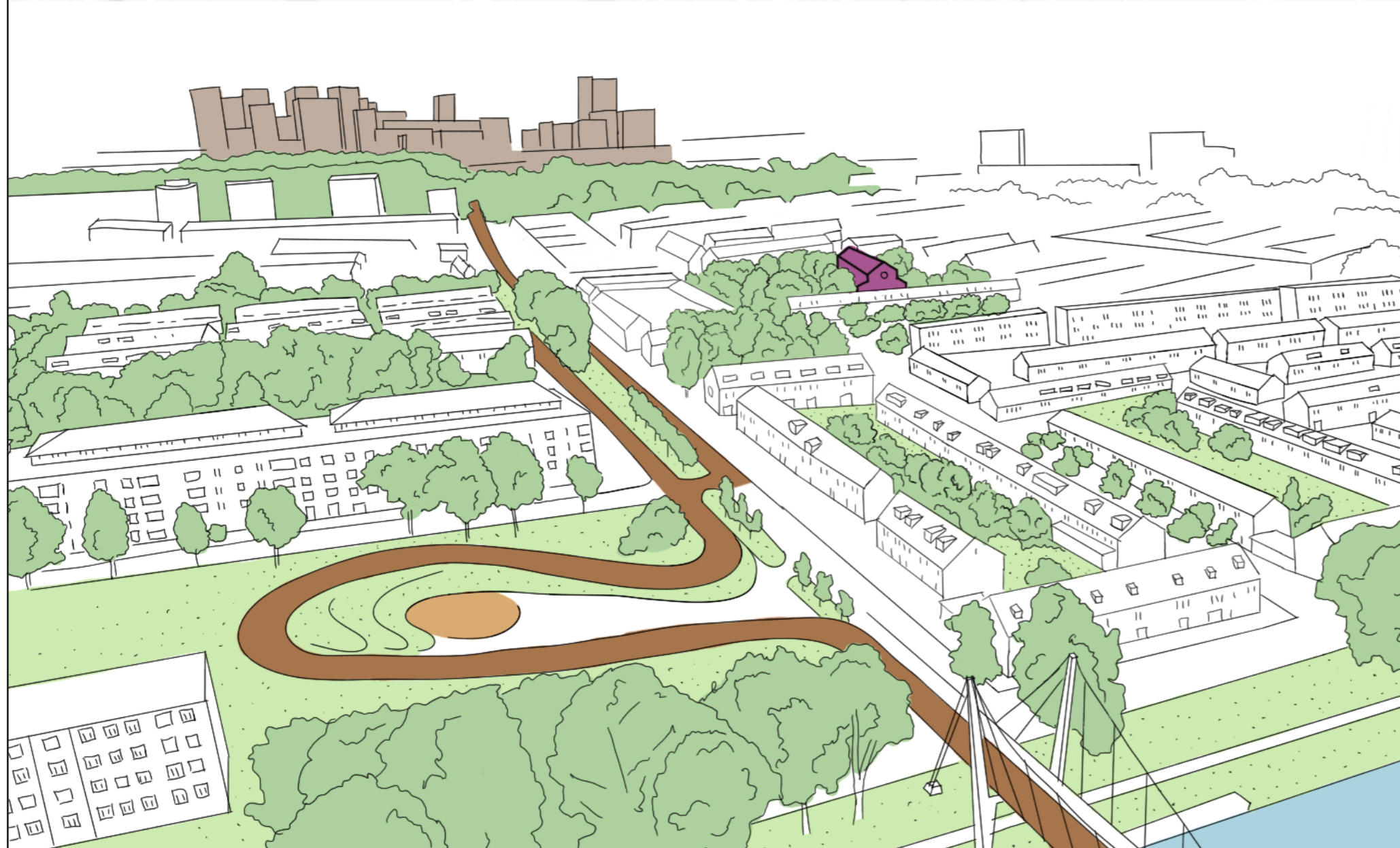
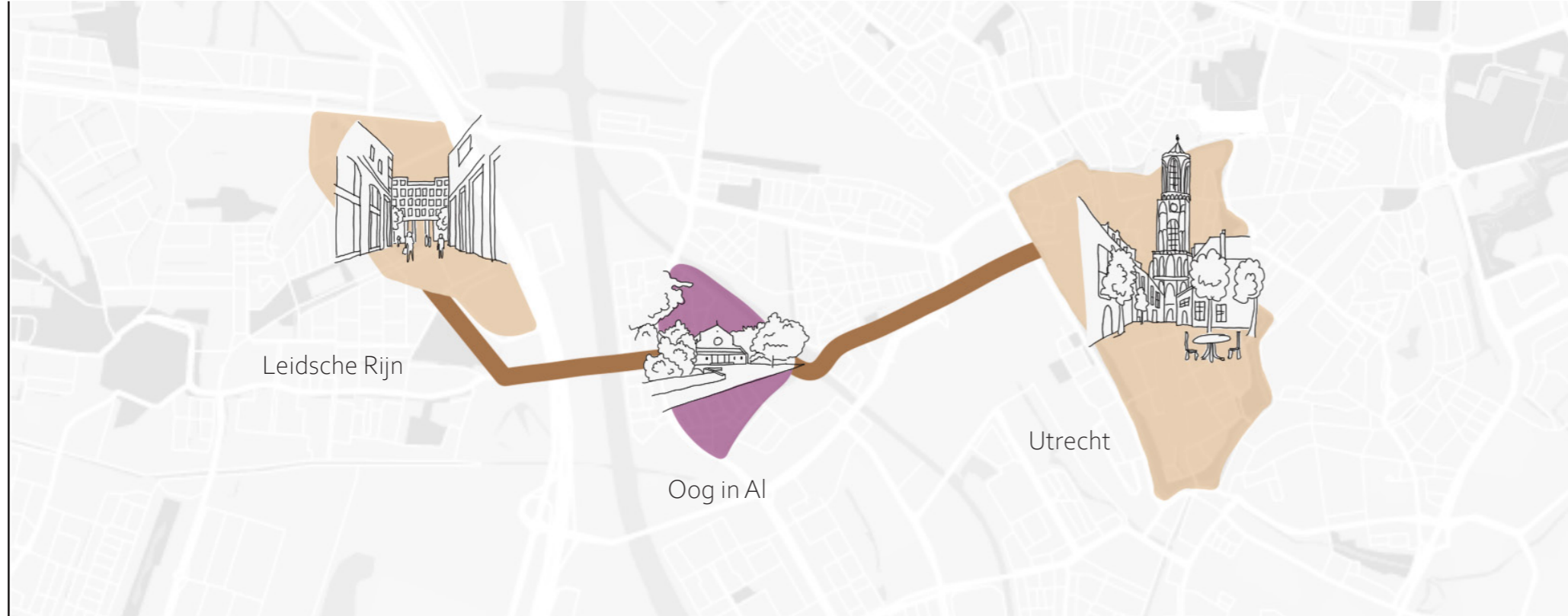


St. Dominicus church



St. Dominicus church
Utrecht, Oog in Al
The Netherlands

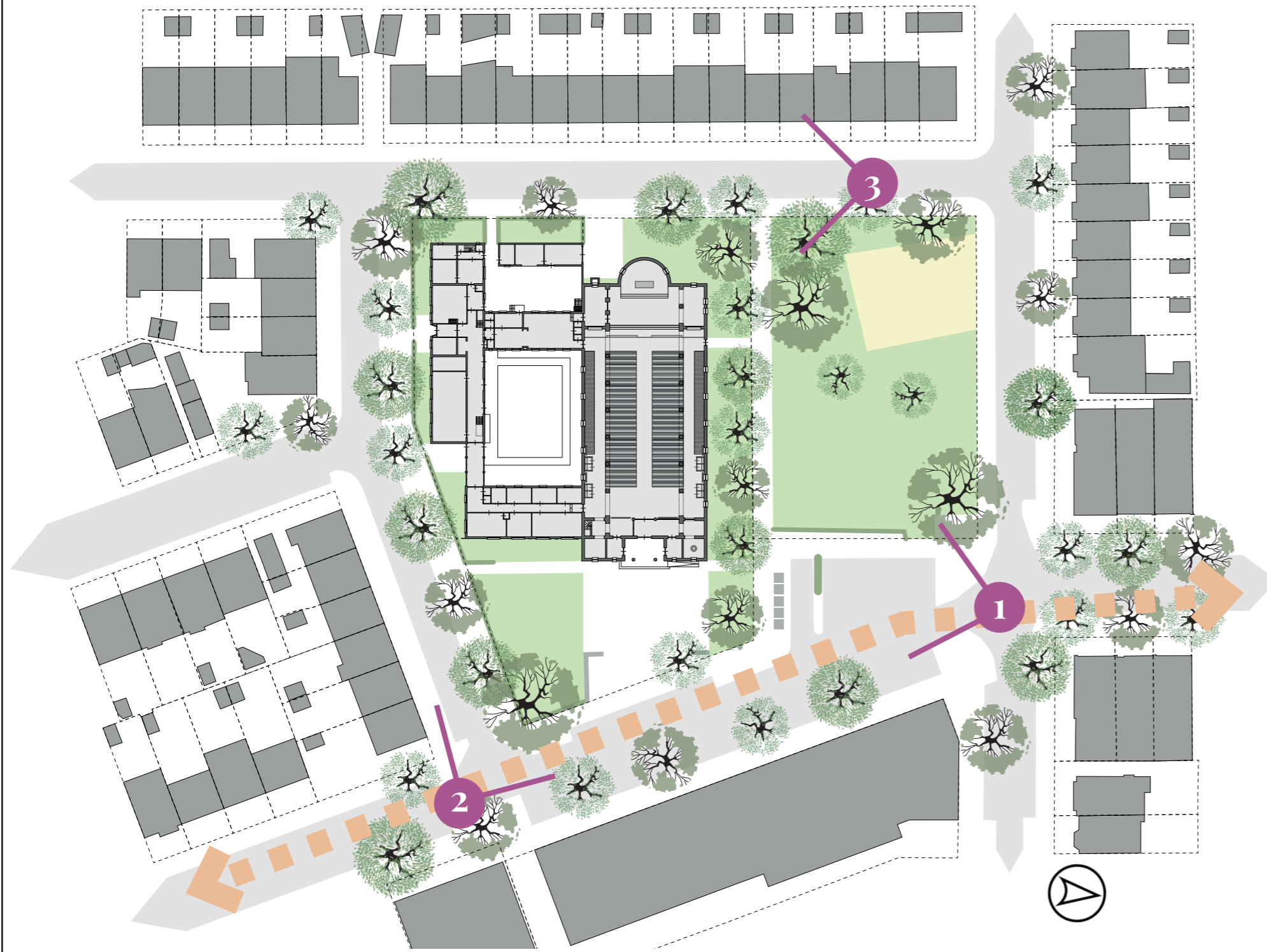
Project location



A connection between city centers

The neighborhood Oog in Al is centrally located in between Utrecht city centre and the centre of Leidsche Rijn

Project location



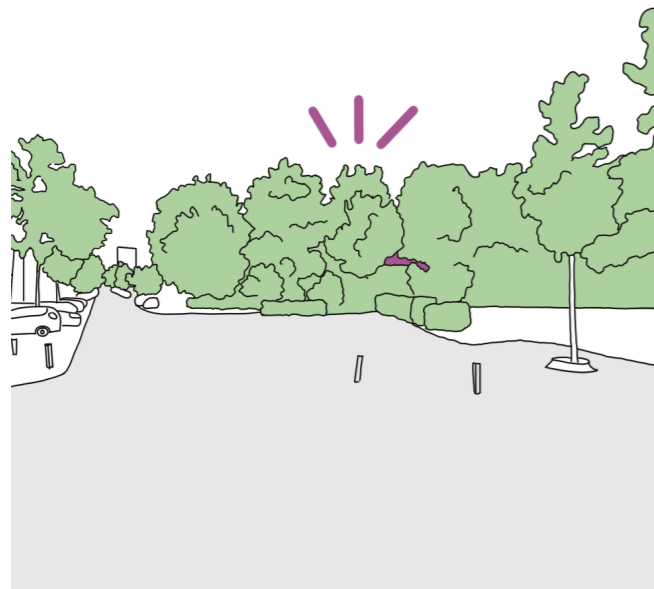
The Heart of Oog in Al

The St. Dominicus church is situated on a island in the middle of the neighborhood and lays hidden behind overgrown greenery.



Value assessment

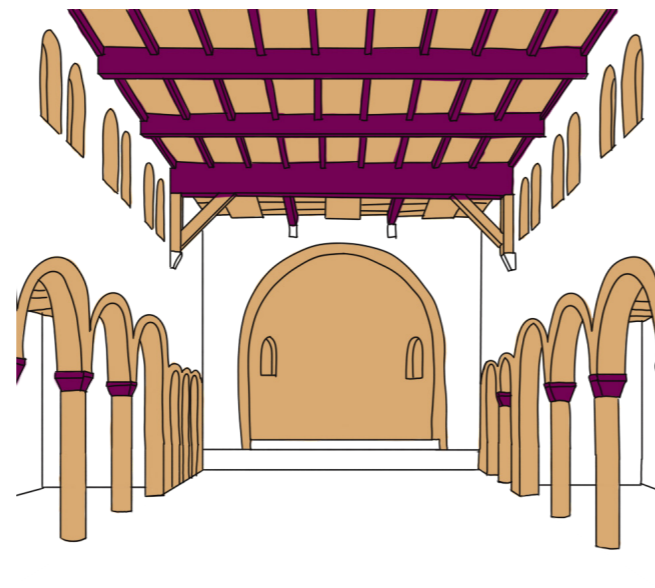
SECLUDED



Hidden quality

The greenery that surrounds the church and hides it from view can be considered a quality for the new design.

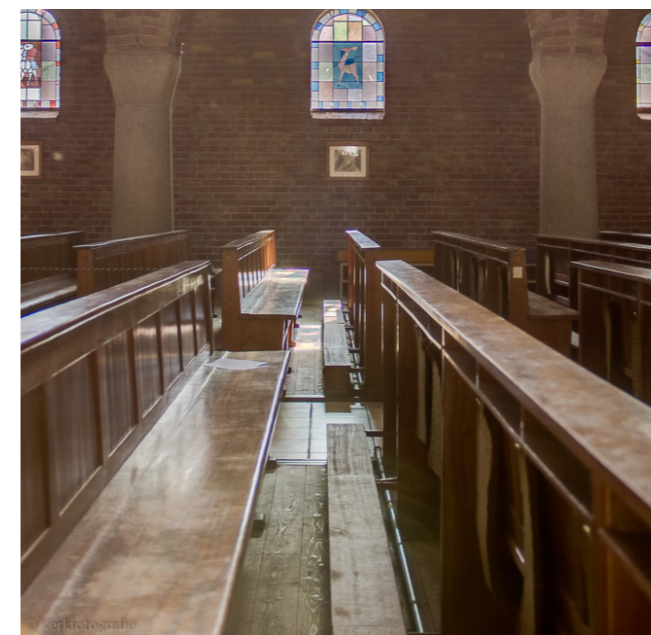
BUILDING ELEMENTS



Aesthetics

The Bossche School and Romanesque architectural elements give the church its character.

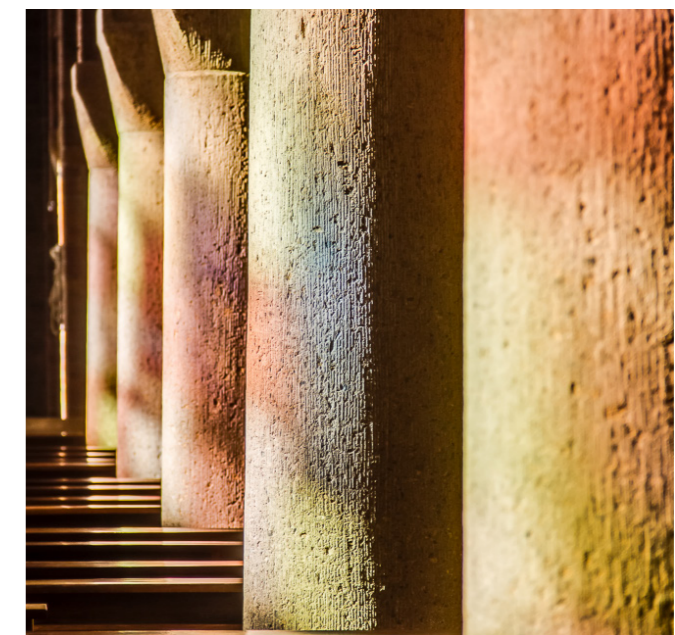
FURNITURE



Material value

The furniture of the church were not considered valuable by the church caretaker. This gives opportunity to reuse some elements into the new design.

INTANGIBLE VALUES



Impression

These values include the original use and function of the building, and the atmosphere of the spaces.

How can contemporary spiritual values help repurpose the St. Dominicus church?

1.

The individual

Instead of collectively worshiping an external being, spirituality focusses on personal spiritual experiences.

2.

Architectural elements

Architecture can be a tool to help design more spiritual experiences.

3.

Modern Rituals

Modern rituals are reinterpreted to be more inclusive of various beliefs and separate spirituality from religion.

4.

Spiritual concepts

To help evoke spiritual experiences, a design must adhere to bigger spiritual concepts.

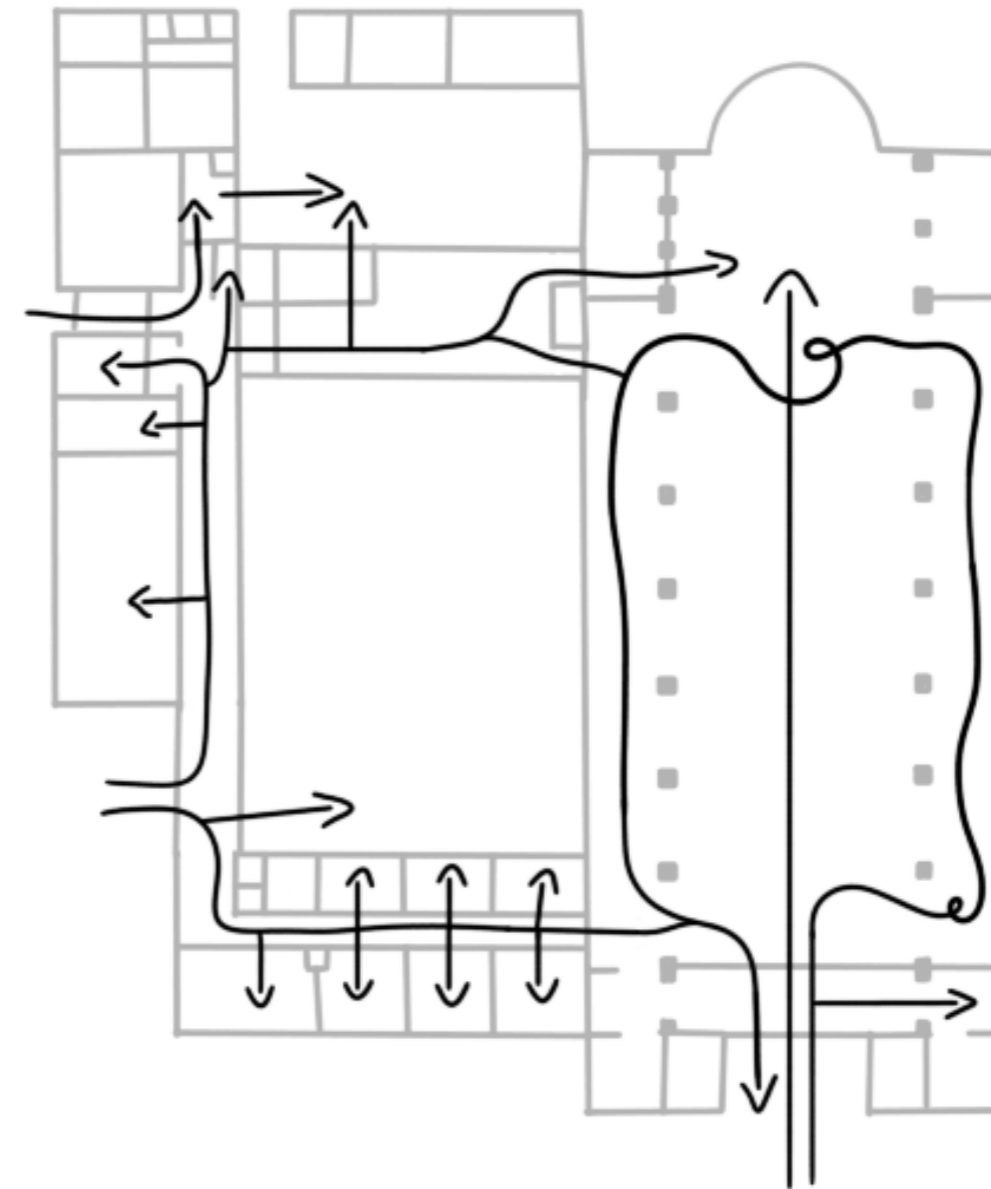


10 Design Principles for Spiritual Architecture

- 01 Use prominent geometric forms
- 02 Create at least one large and open space (inside or outside)
- 03 Frame views of the surroundings with care
- 04 Use homogeneous and solid materials that are long-lasting (unity,
- 05 Use natural and weathered materials (or materials that weather over time) to show impermanence as a contrast to the solid structure
- 06 Use reflective materials, such as water, to evoke meditation and
- 07 Create a route that allows for different flows through the building
- 08 Consider the connection with nature/the environment when
- 09 Design with the history of the place and/or the building in mind
- 10 Variate light and shadow to experience the rhythm, scale, and



Spiritual architecture



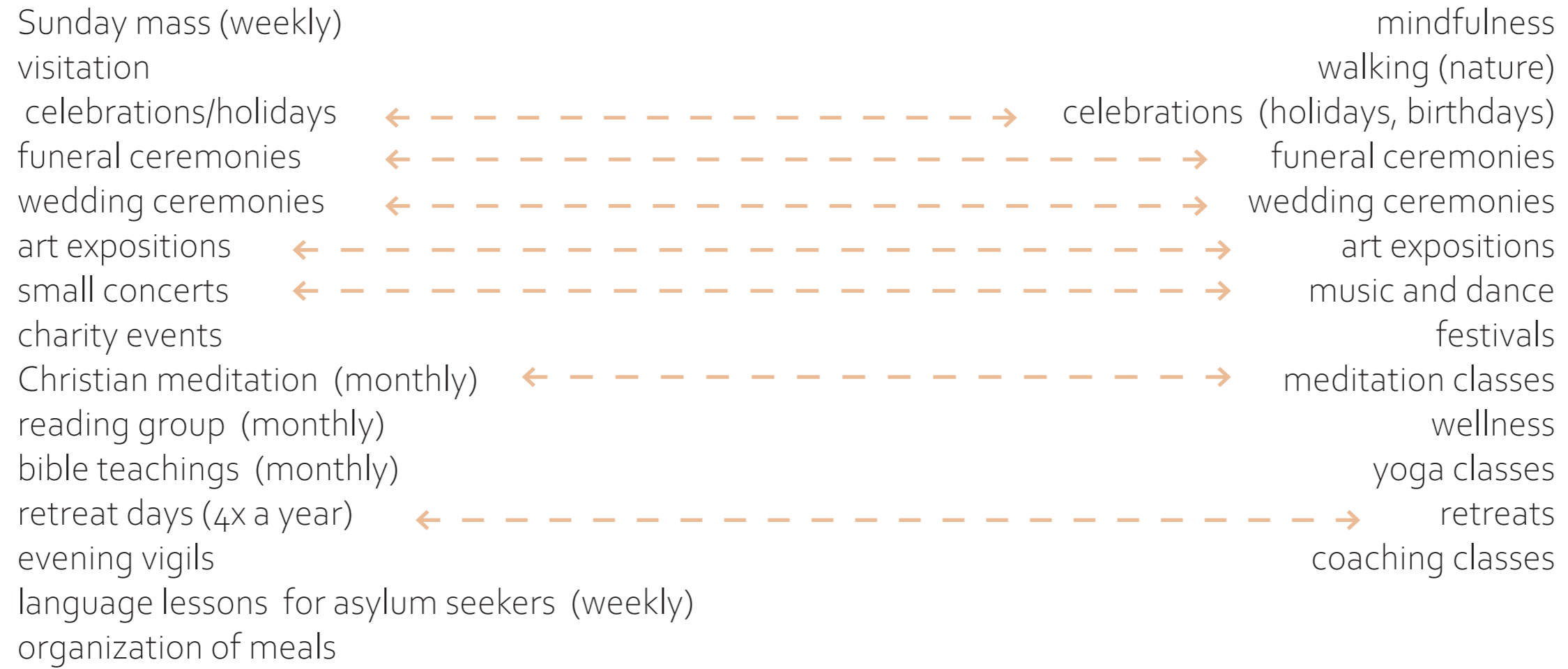
Spatial qualities

All architectural elements of the church work together to create an atmosphere of awe, mystery and grandeur.

Modern Rituals

CHURCH FUNCTIONS

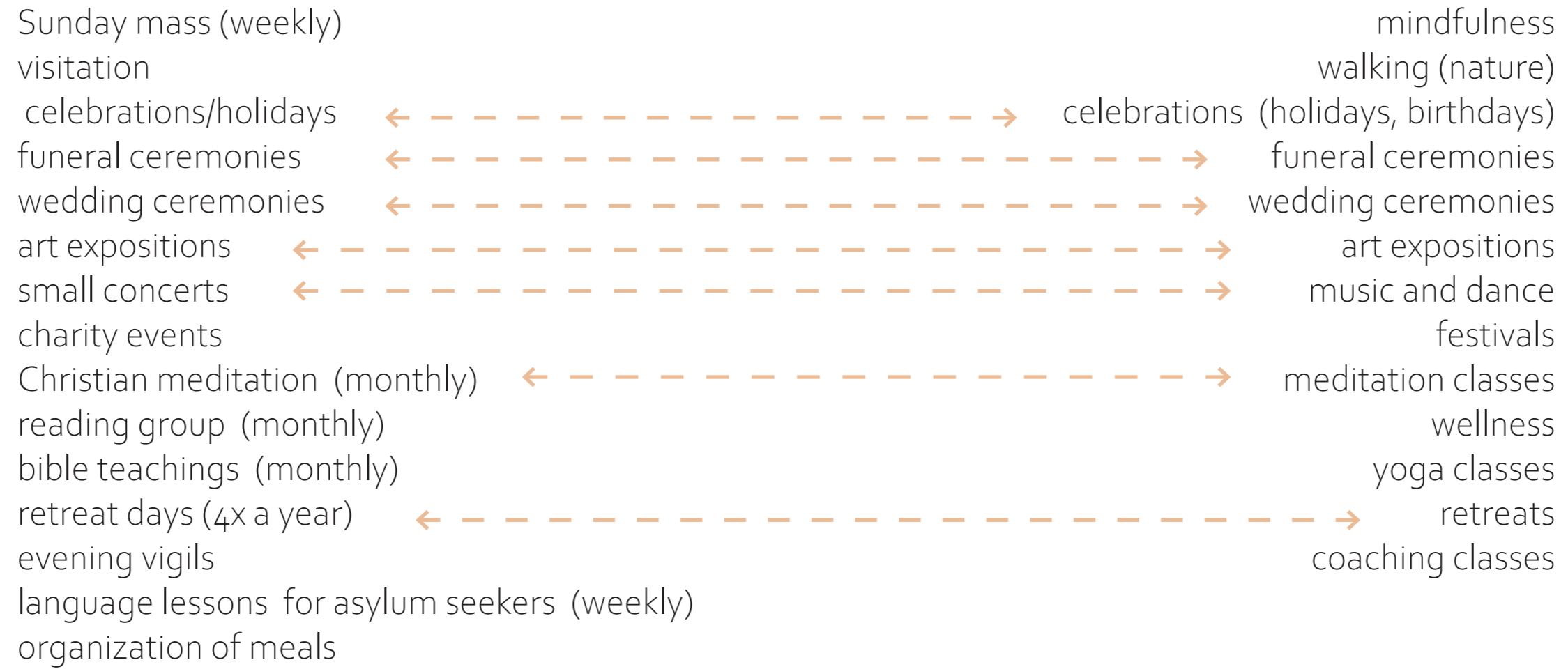
MODERN RITUALS



Modern Rituals

CHURCH FUNCTIONS

MODERN RITUALS

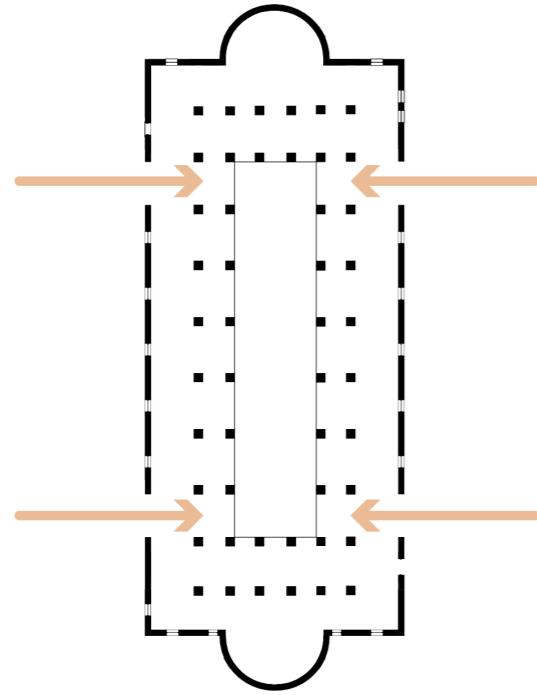


↑
DESIGNATED SACRED

↑
UNINTENTIONAL

Ritual space

EARLY ROMAN BASILICA

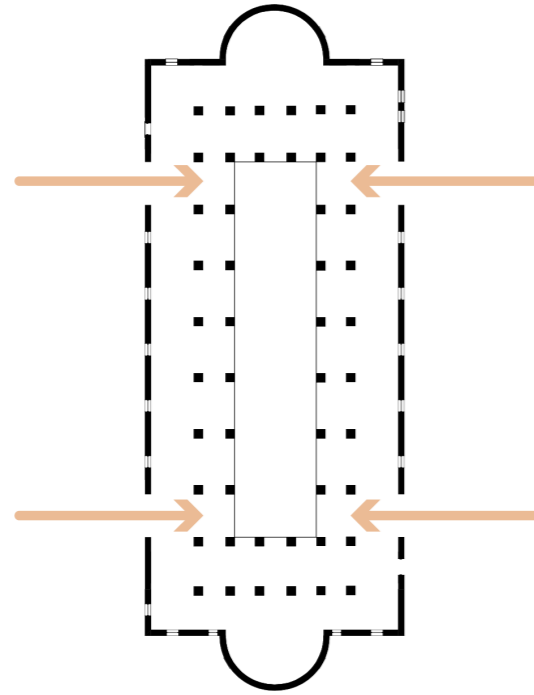


Open structure

The early Roman basilica was not meant to be sacred but a public building and was accessible from all sides without specific direction.

Ritual space

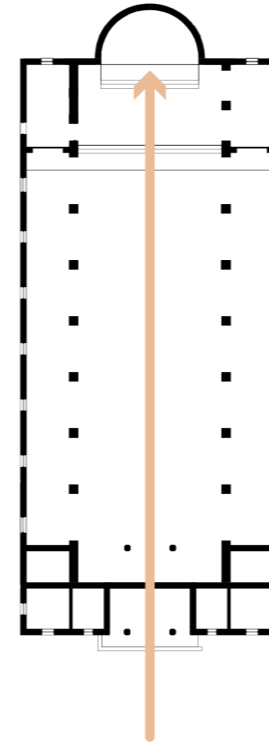
EARLY ROMAN BASILICA



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CHRISTIAN BASILICA

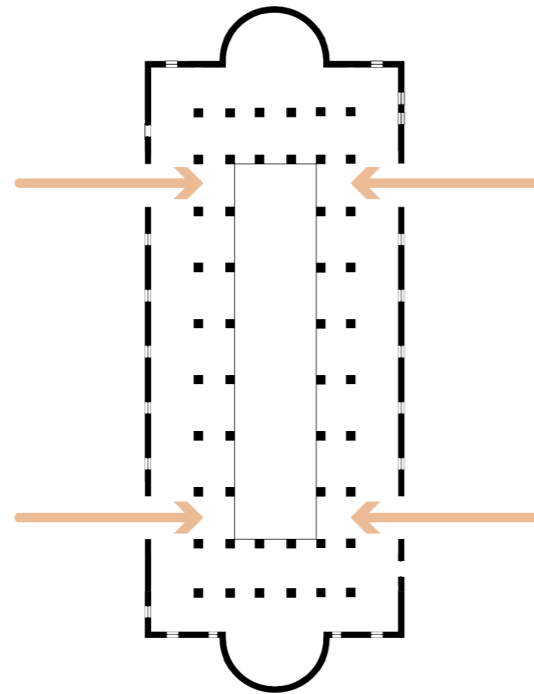


Prominent direction

Serves Christian rituals by introducing a specific direction in the building to the most spiritual place: the apse.

Ritual space

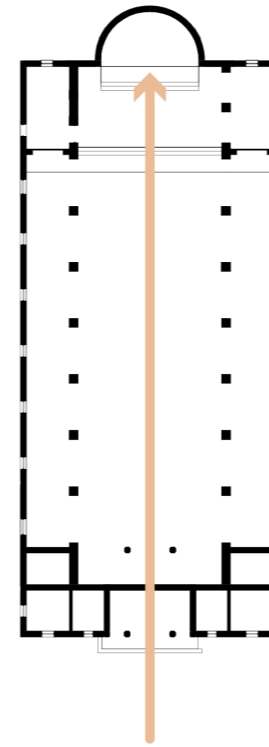
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Open structure

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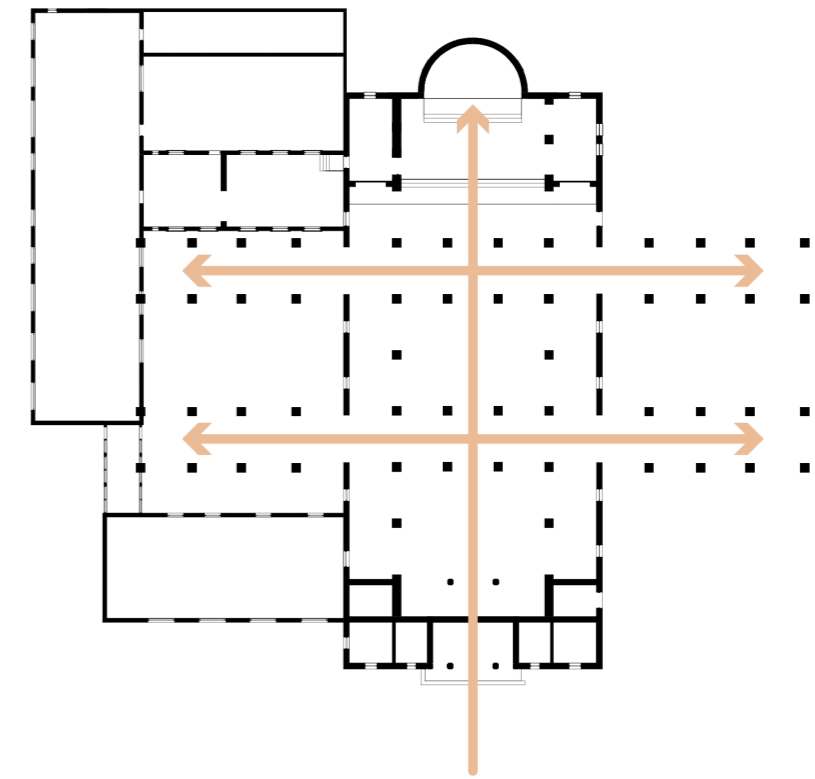
CHRISTIAN BASILICA



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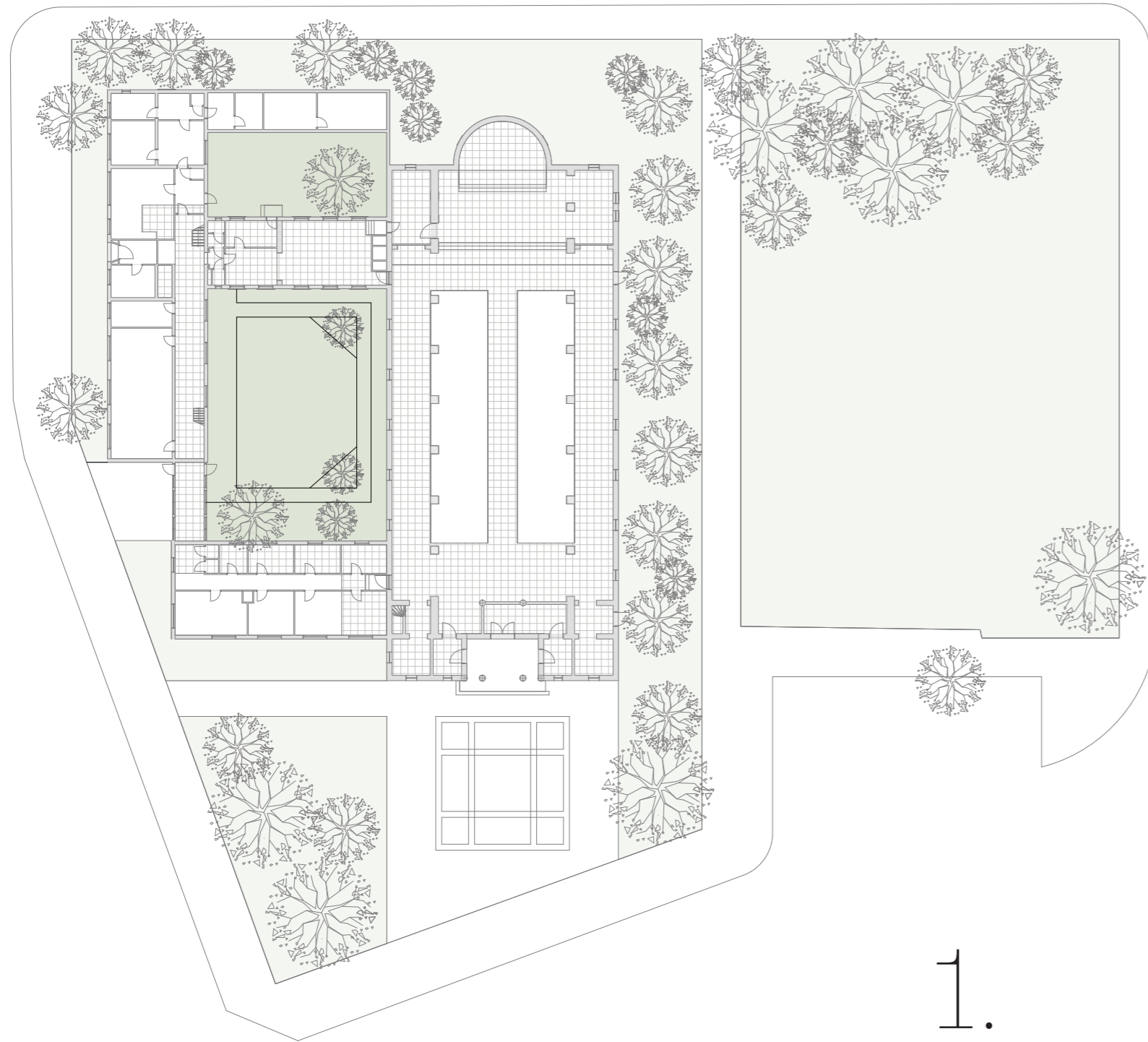
INTERVENTION



New direction

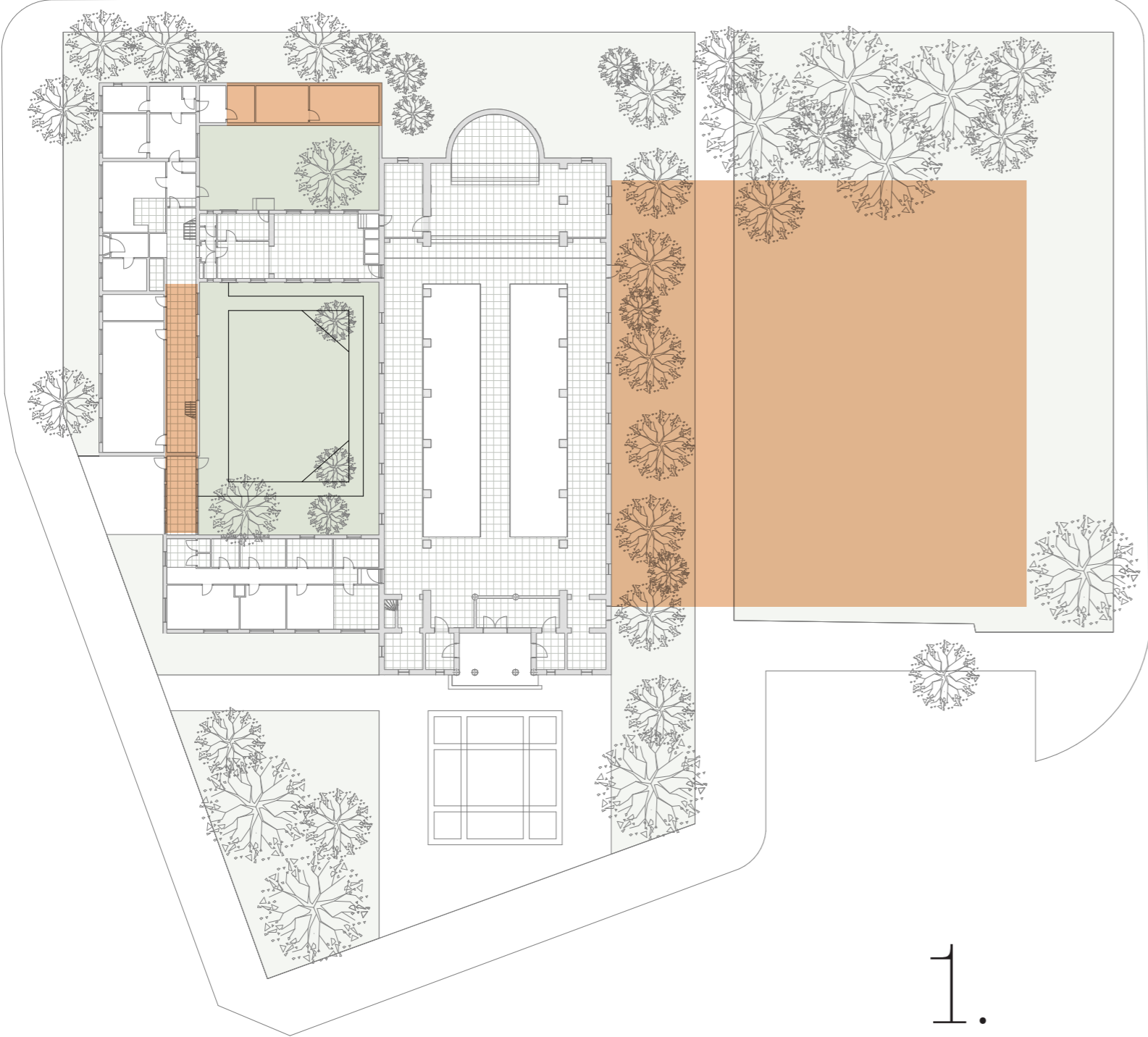
For the redesign a new direction is introduced that refers back to the more open structure of the early Roman basilica and represents the new spiritual orientated layer.

Building intervention

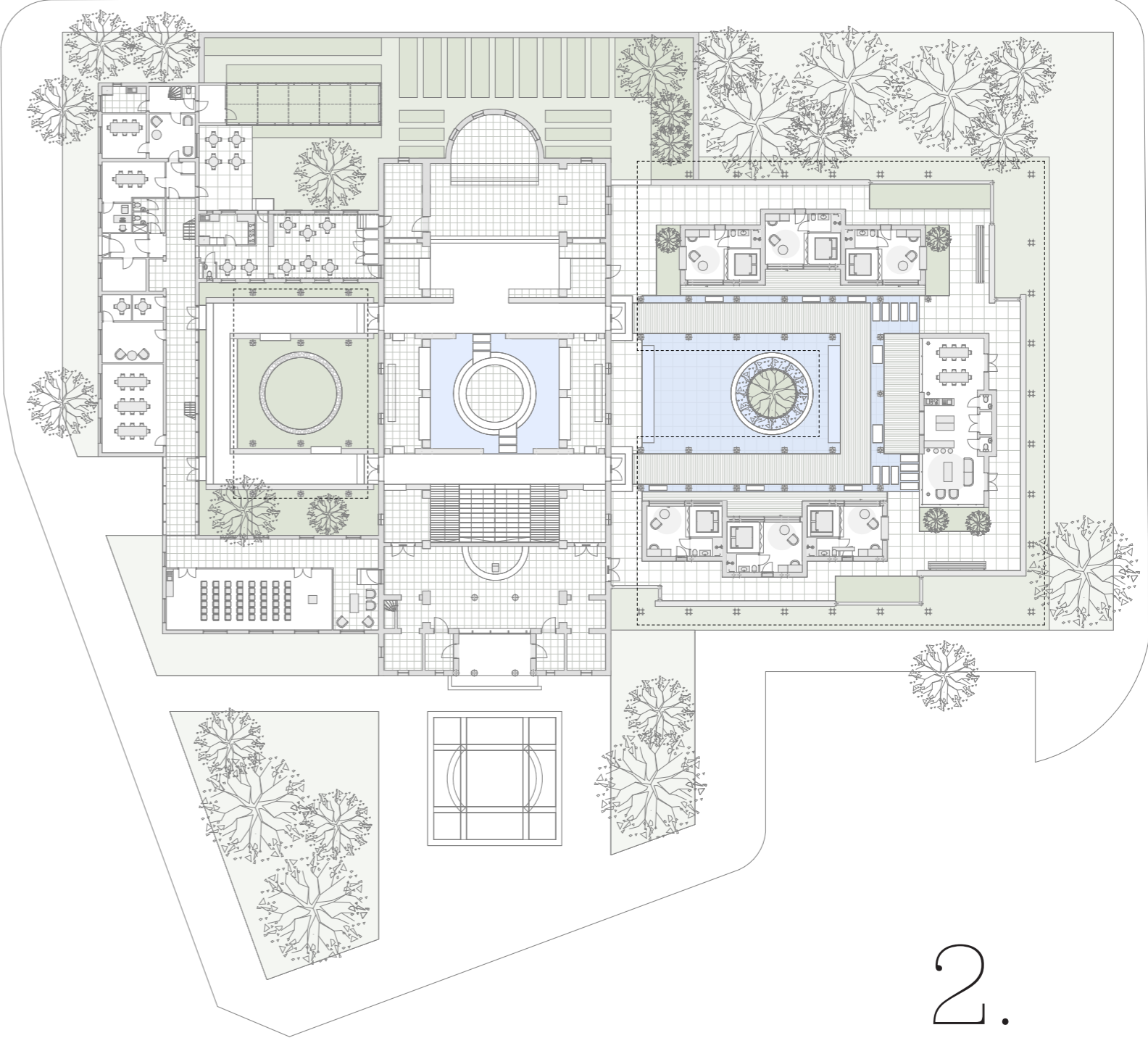


1.
Current state

Building intervention

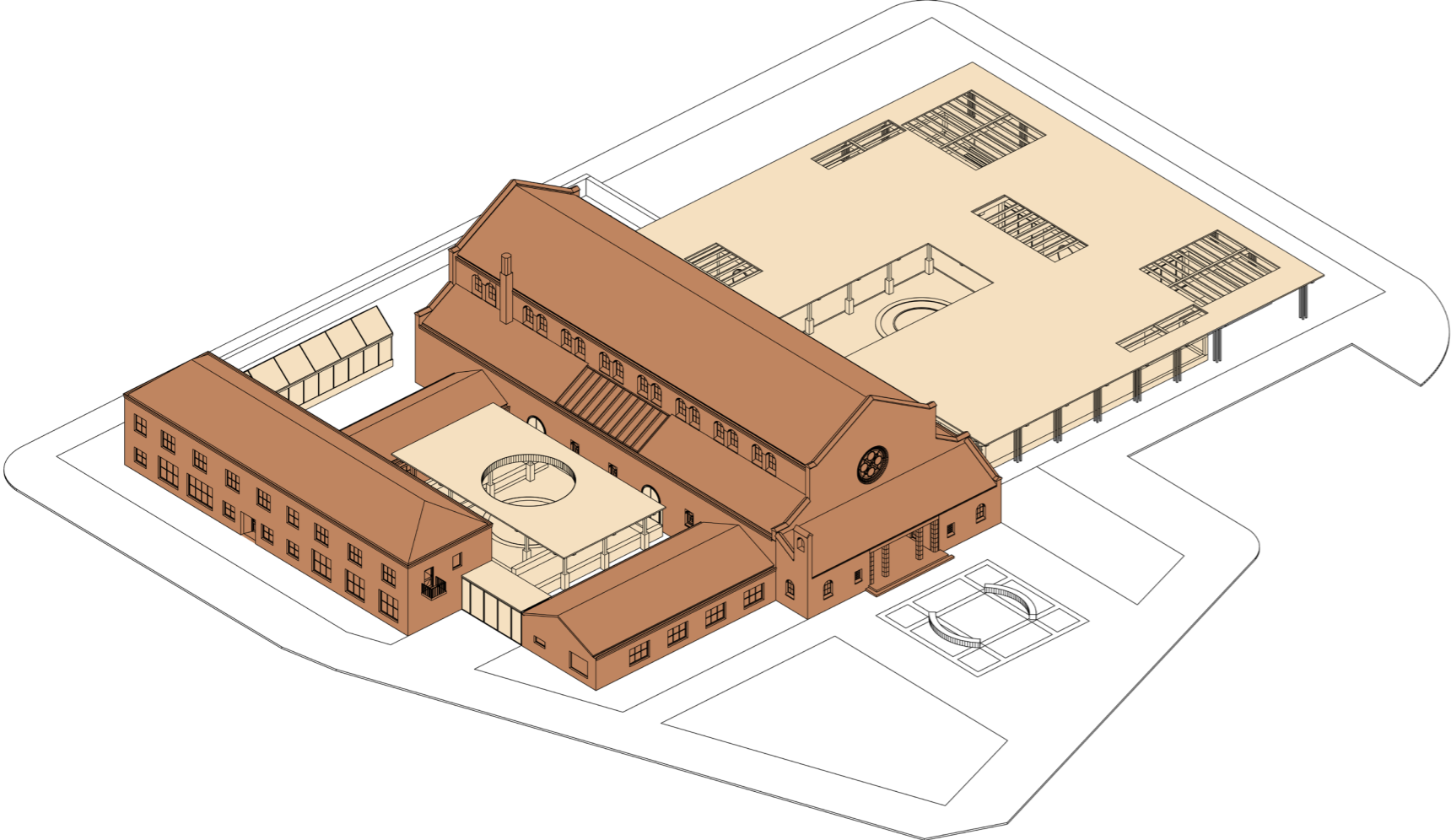


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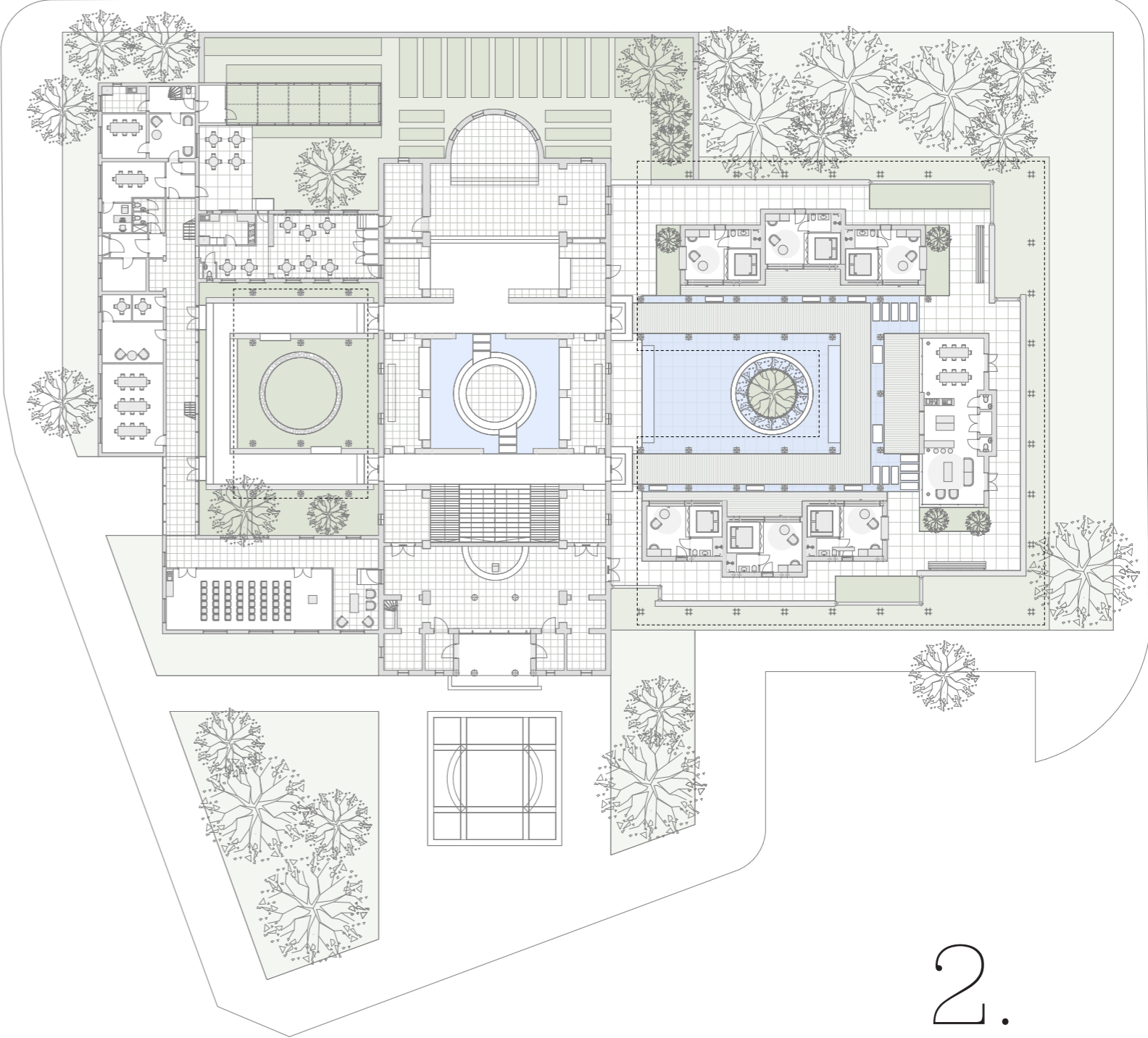


2.
Redesign

Building intervention

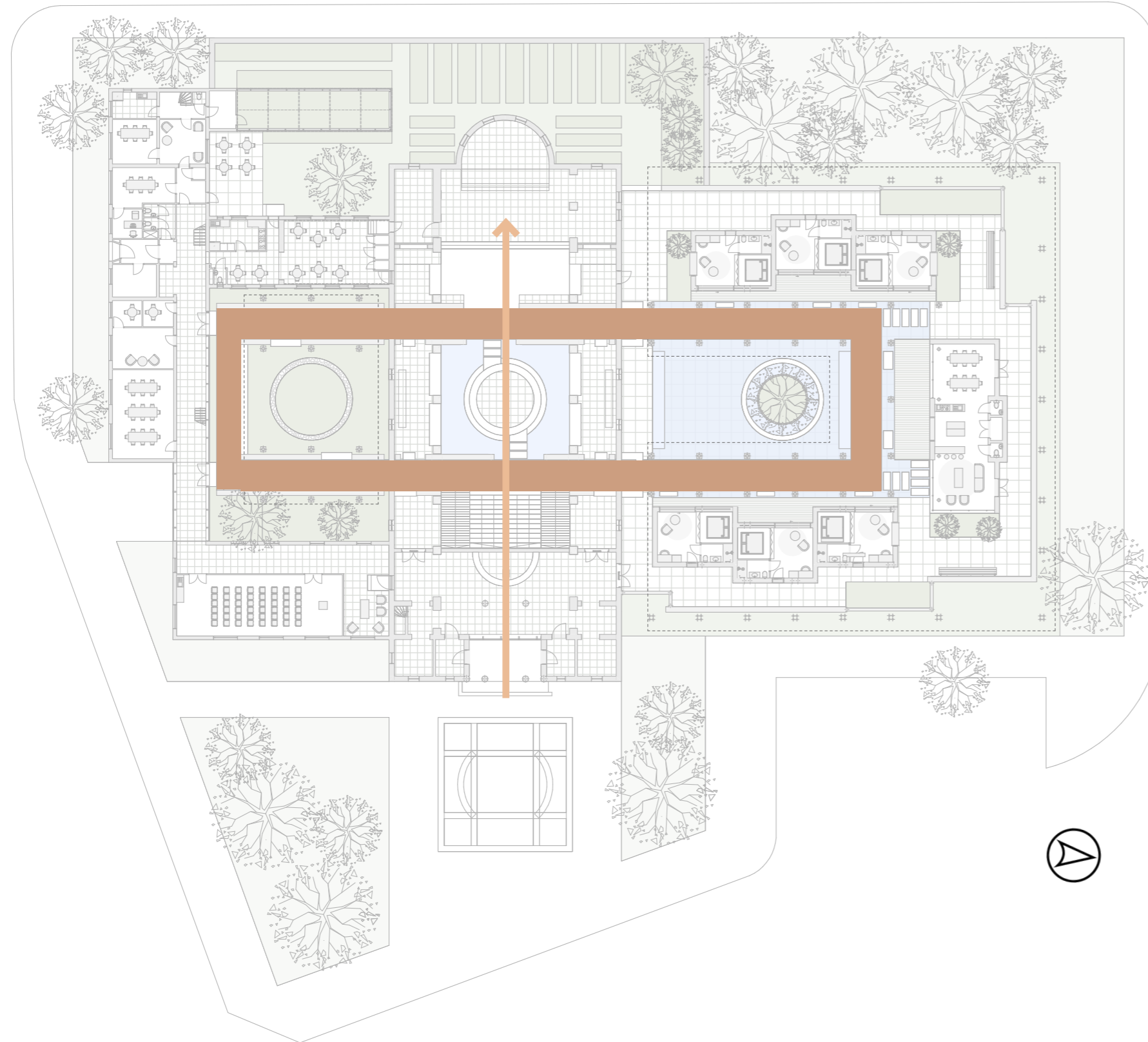


- *Religious, old, permanent*
- *Spiritual, new, impermanence*



2. Redesign

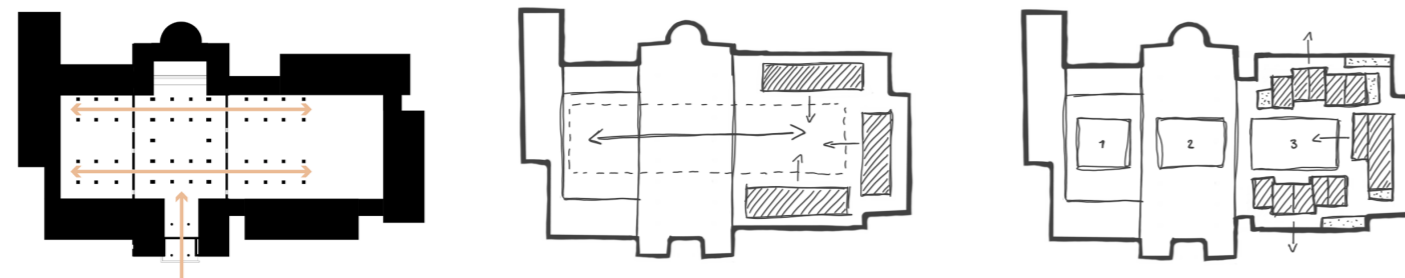
Building intervention



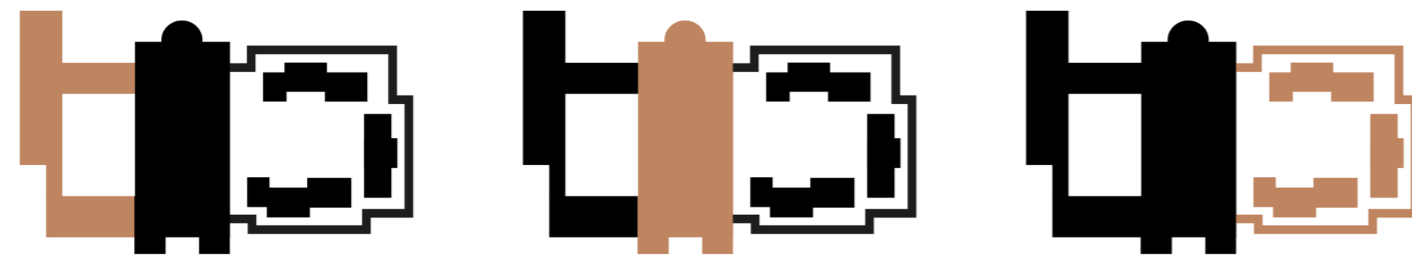
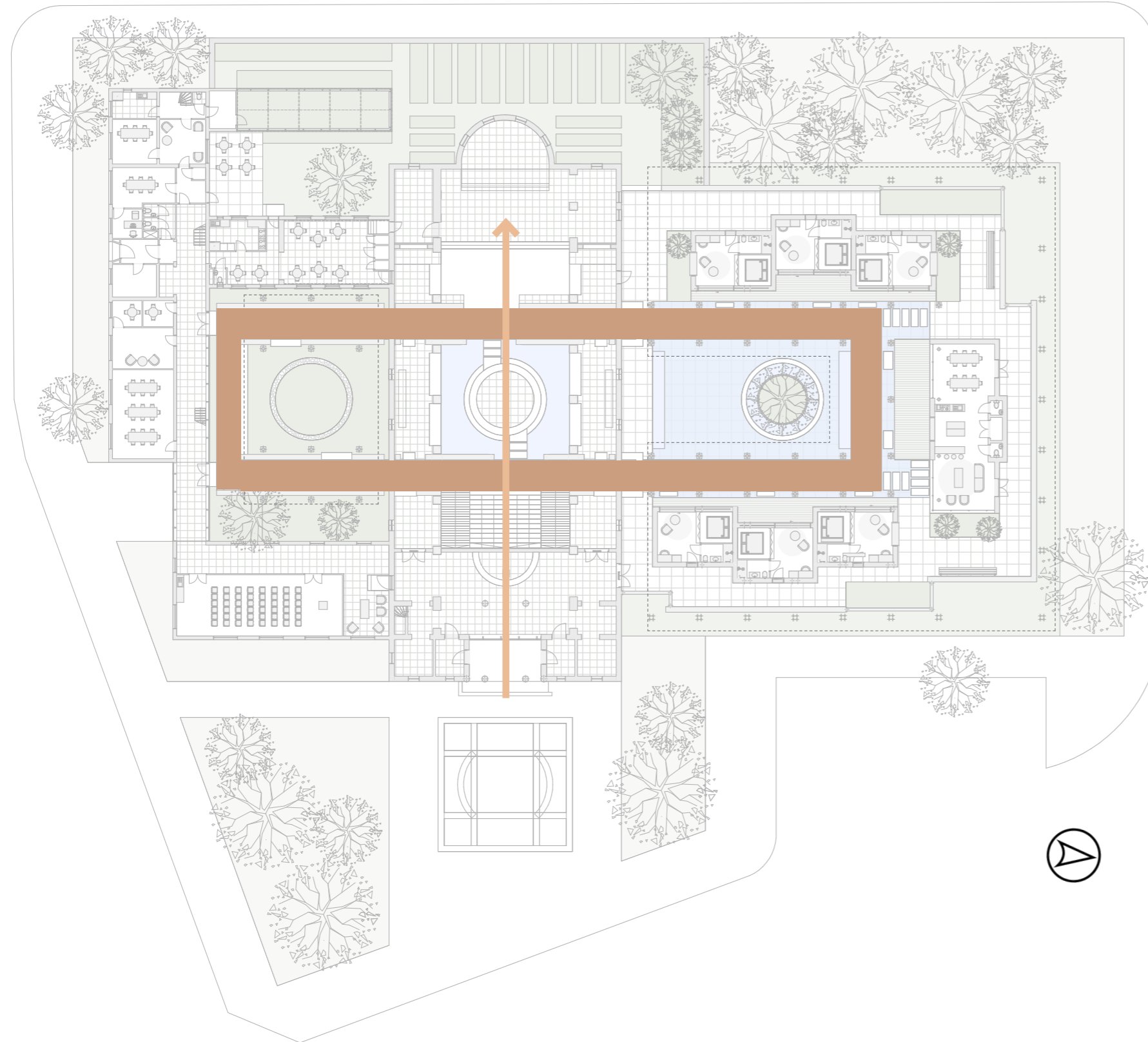
Circular routing

The new direction in the church structure becomes a circular routing that stands at right angles with the original routing.

The new circular routing connects the different areas and buildings on site.

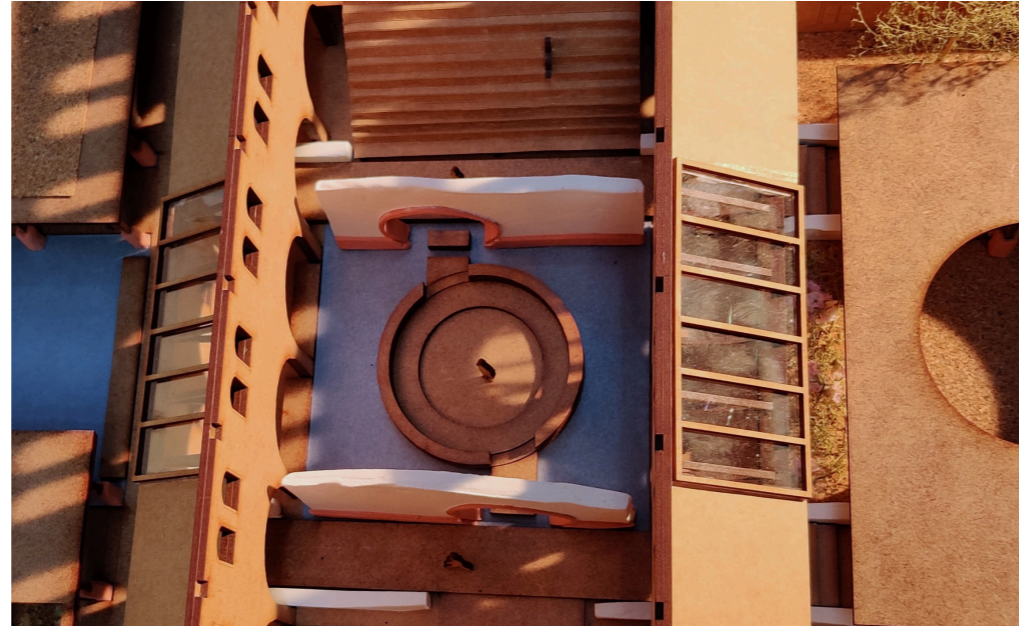


Building intervention



Three areas

Each of the three areas, that become visible in the structural layout, have their own character and are connected to bigger spiritual concepts.



Materialisation



Red cedar wood



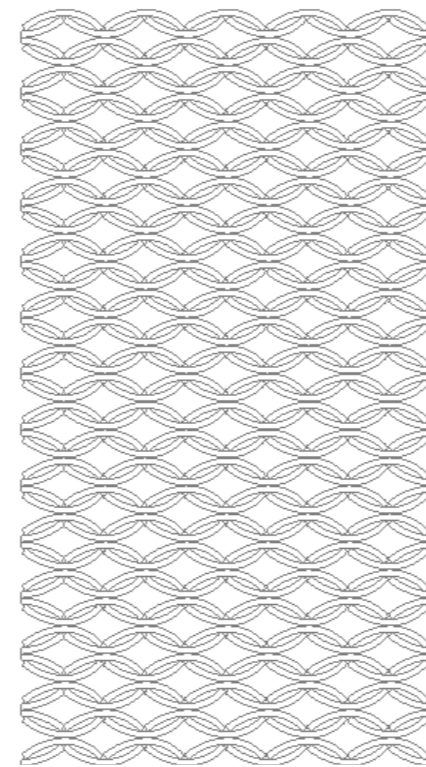
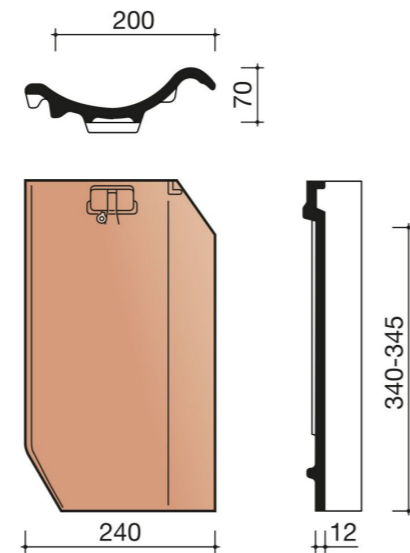
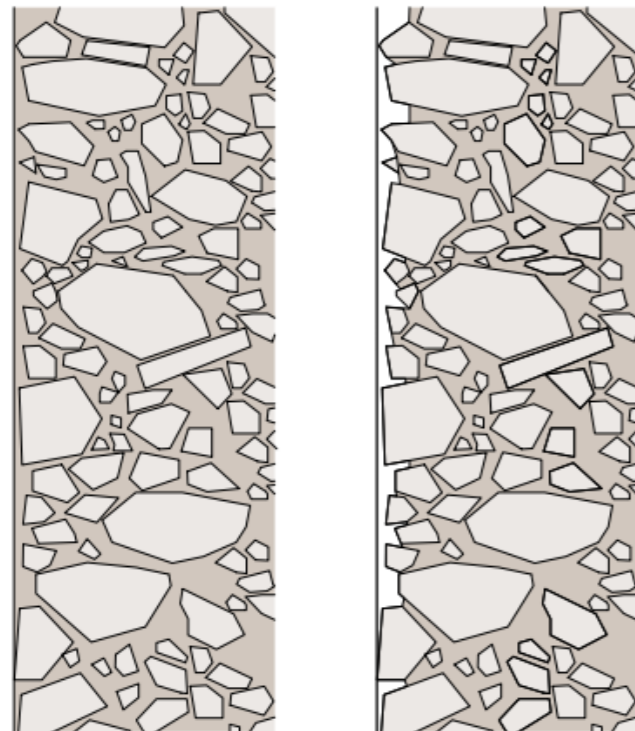
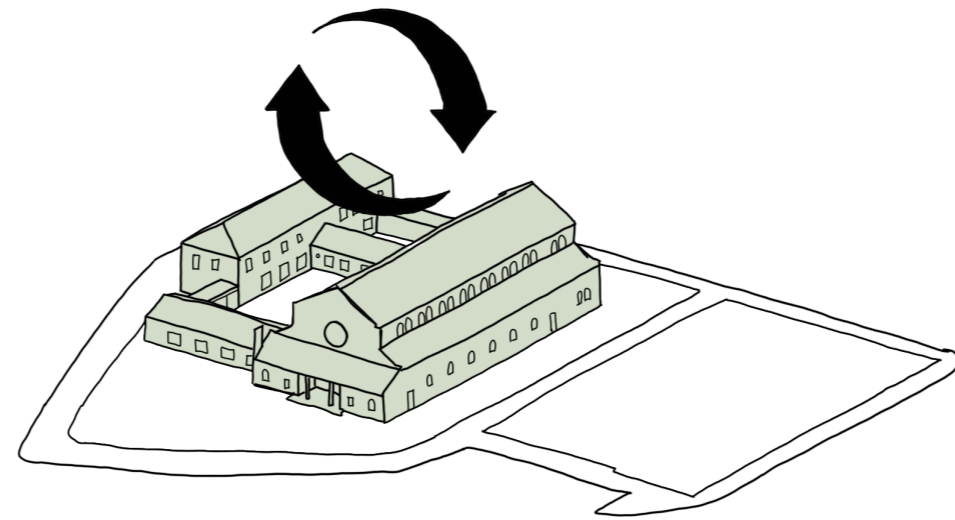
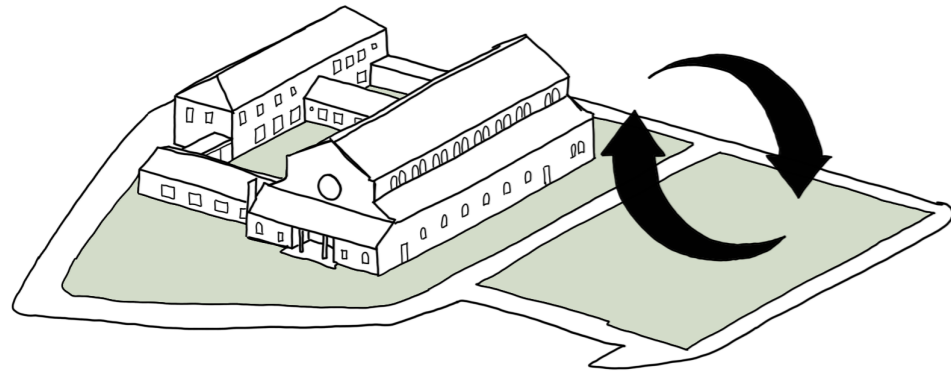
Rammed earth



Reclaimed brick
/roof tiles

Sensual experience

These materials have their own characteristics and work together in the design to complement the imperfect and create a sensual experience.



Materialisation



Red cedar wood



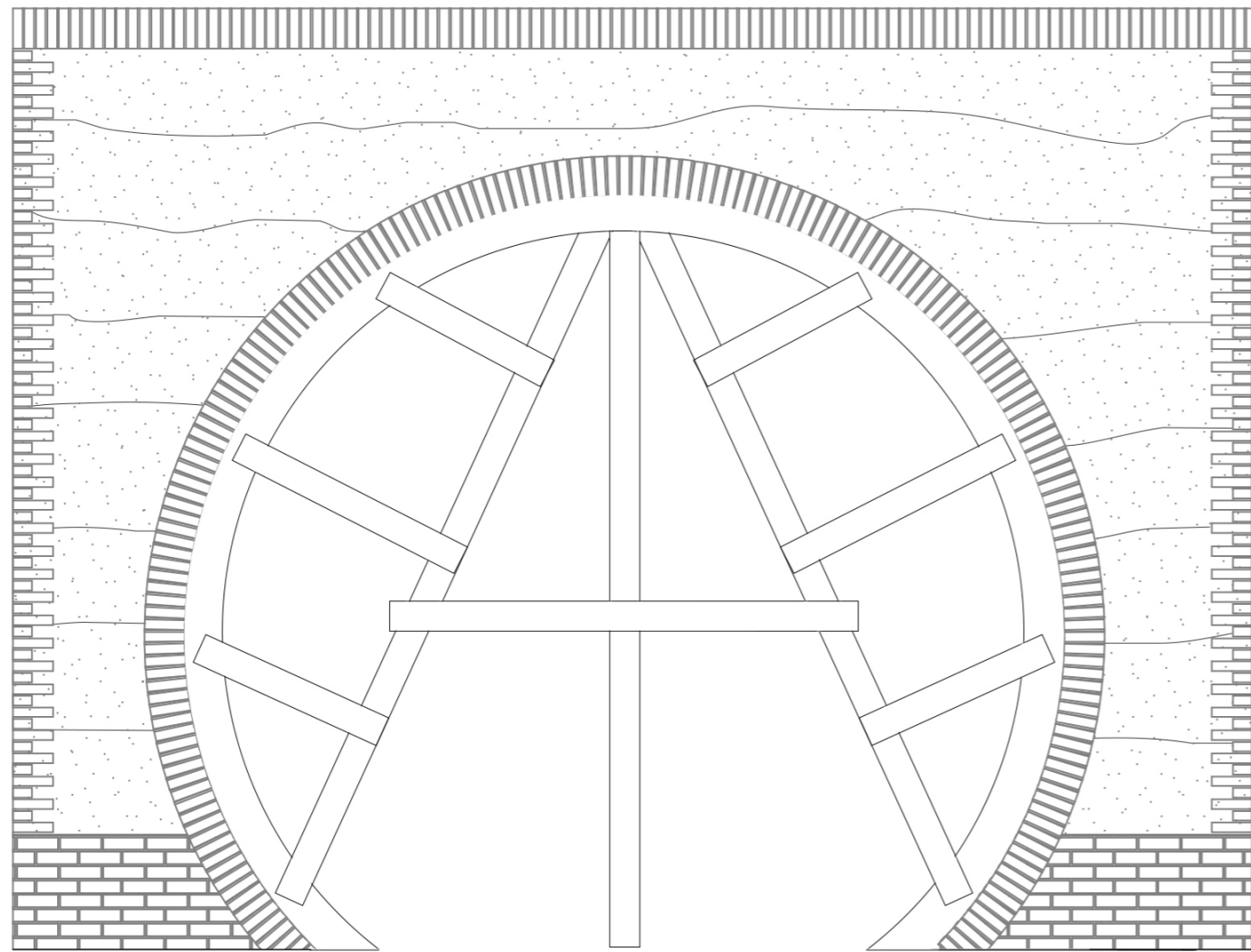
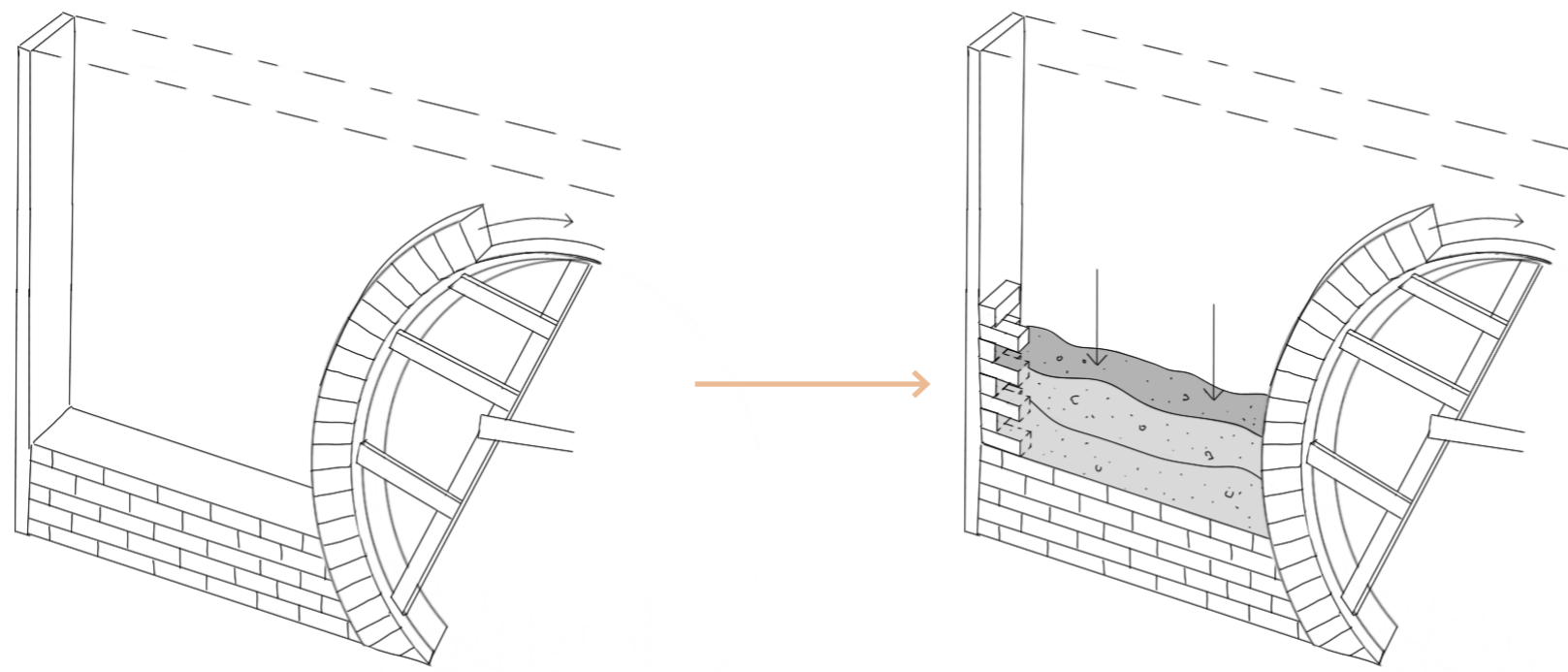
Rammed earth



Reclaimed brick /roof tiles

Sense of impermanence

The zero waste strategy for this design is closely related to the spiritual concept. Weathered materials are used to show the impermanence of the structure.



Material rules



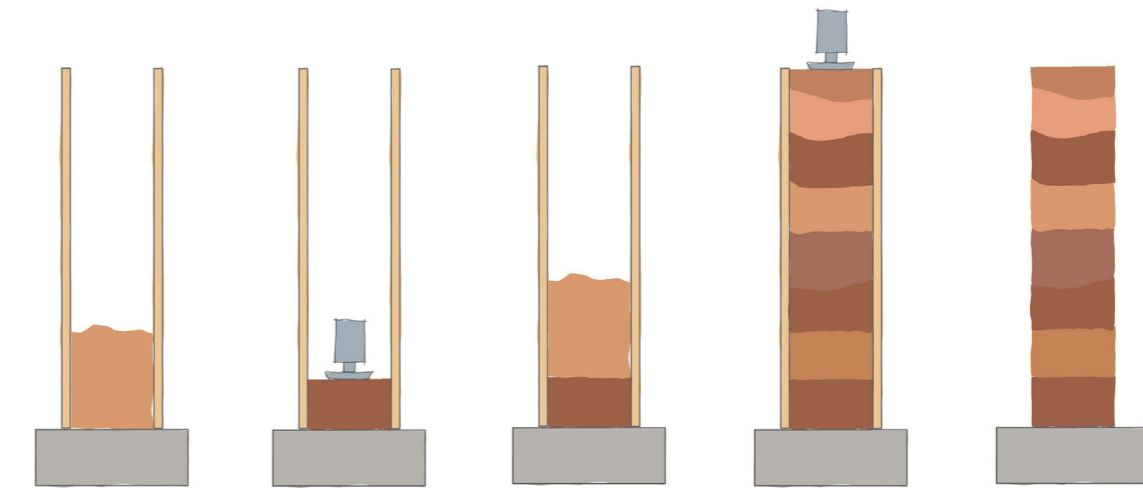
Red cedar wood



Rammed earth

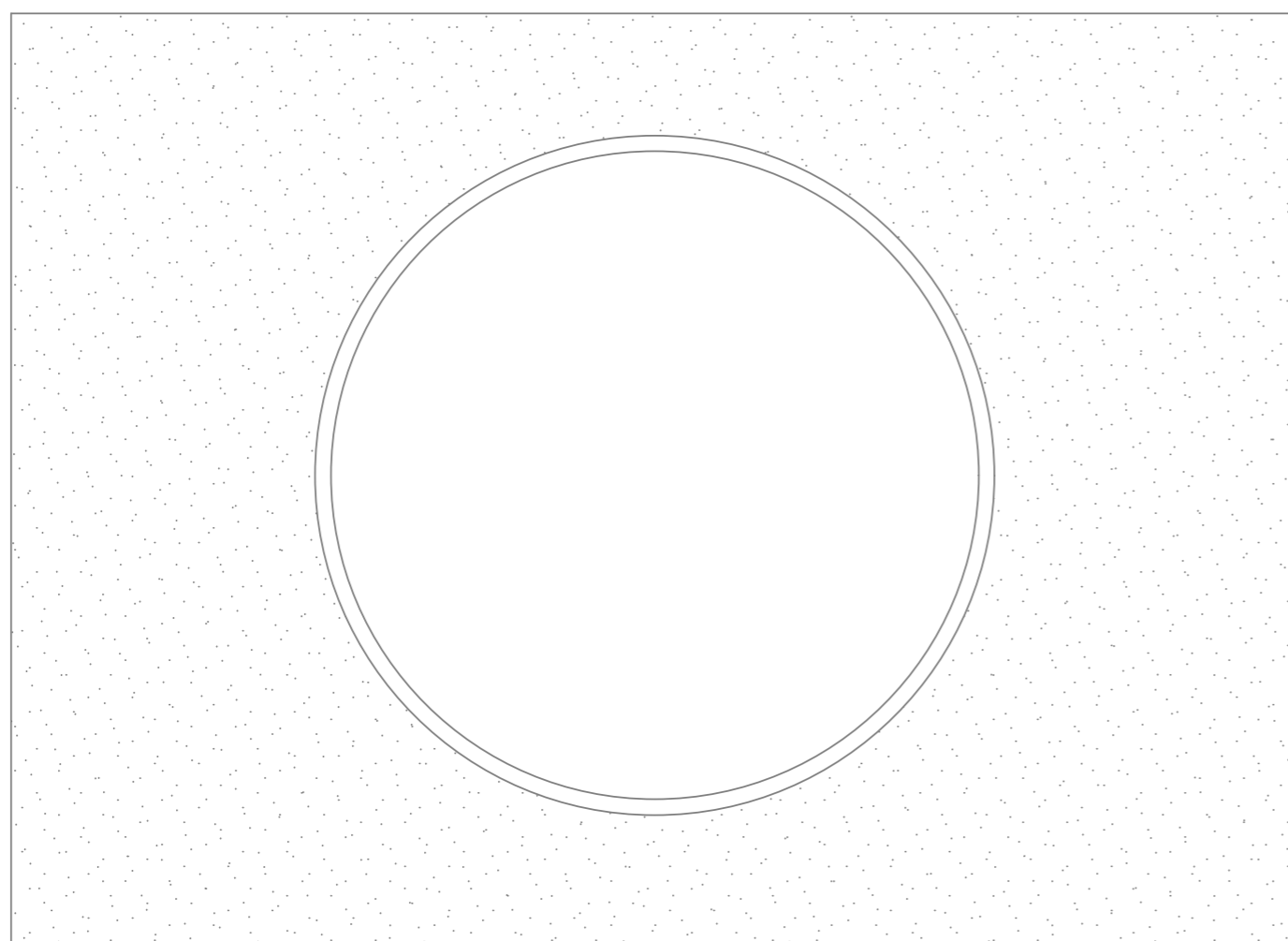
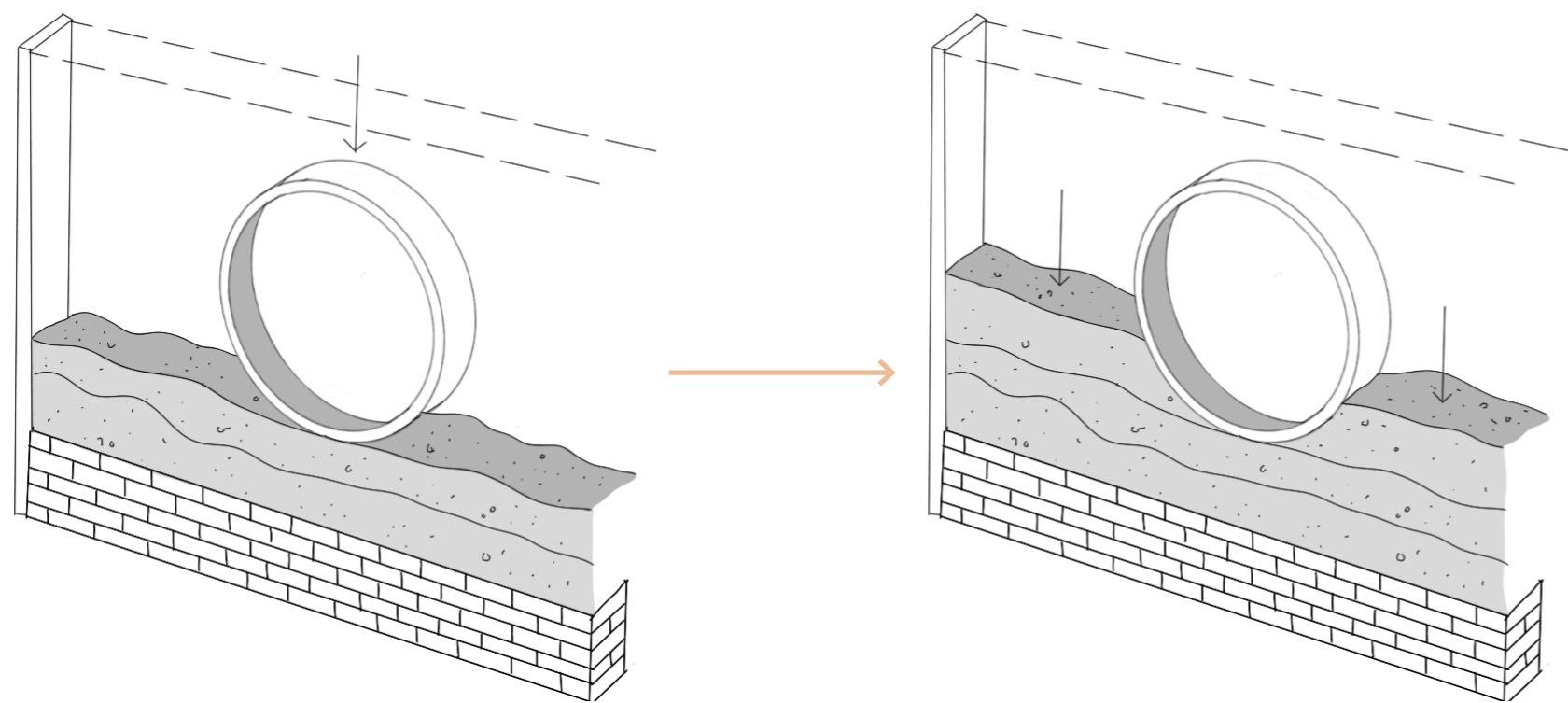


Reclaimed brick
/roof tiles



Protective layer

All of the fragile edges of the rammed earth walls will be covered by the reclaimed bricks. They will offer protection and support.



Material rules



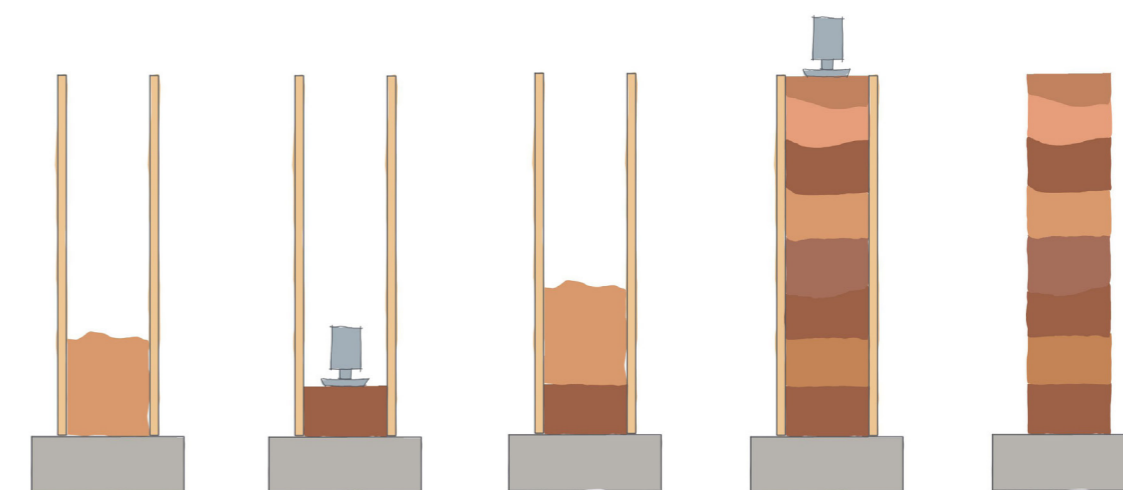
Red cedar wood



Rammed earth

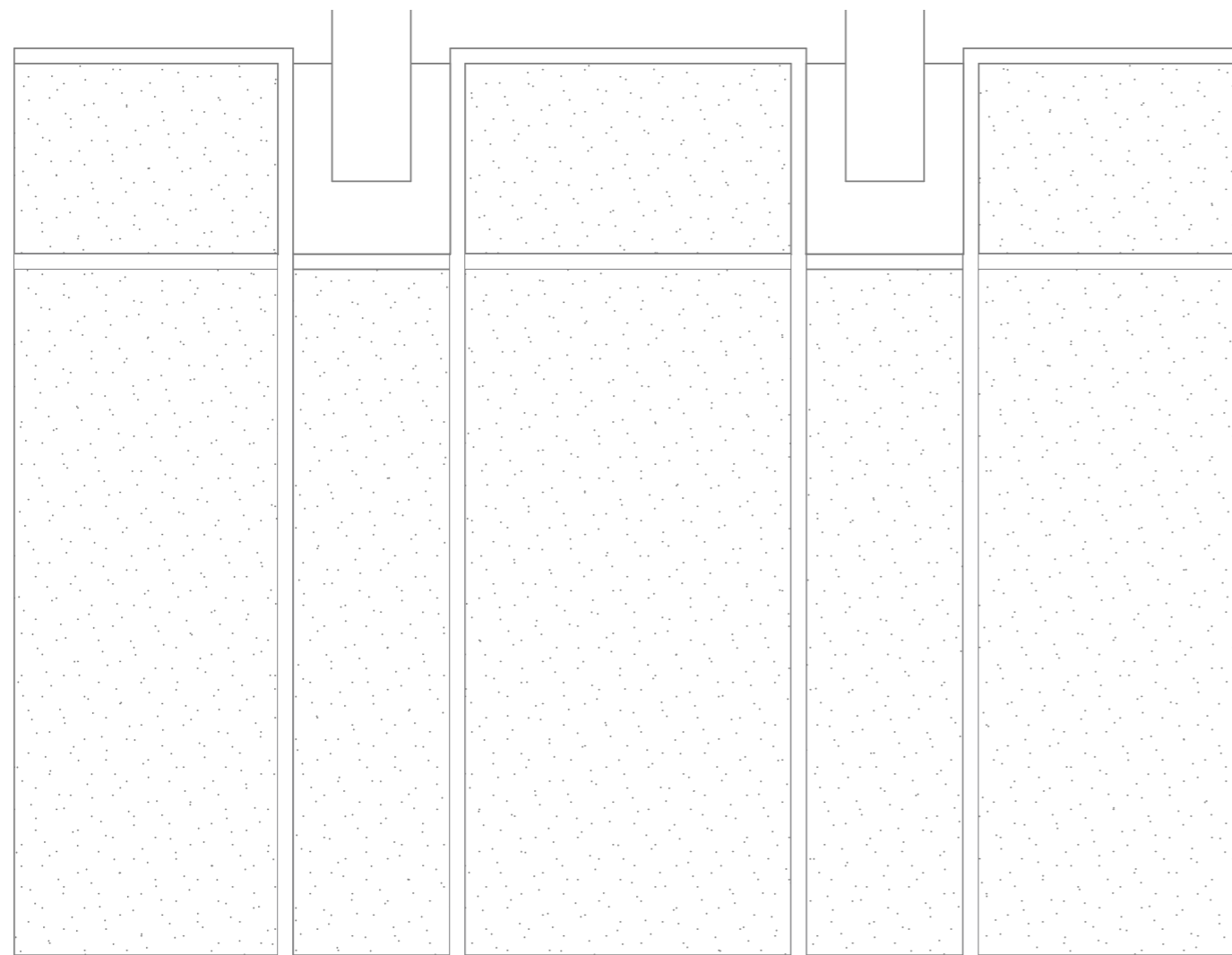
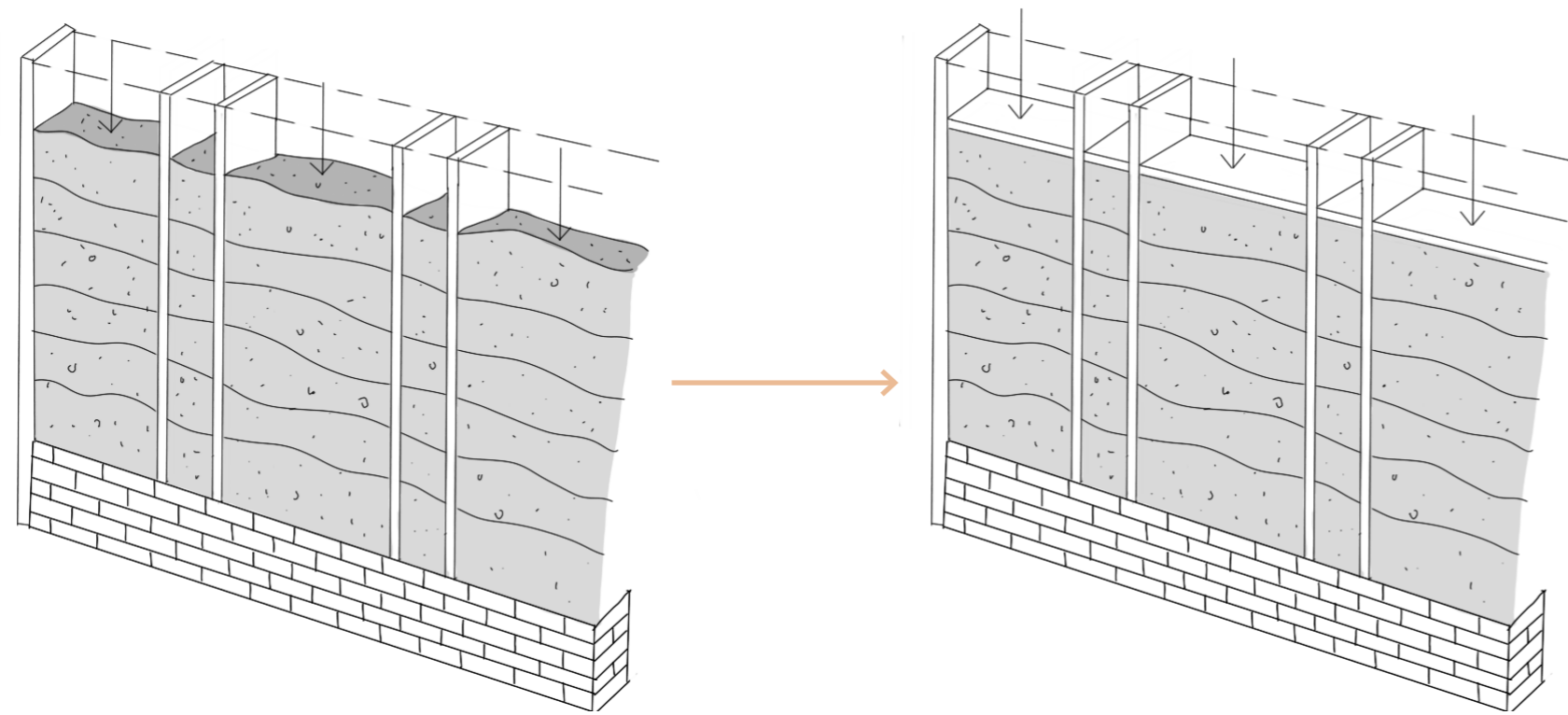


Reclaimed brick
/roof tiles



Sense of interior

Whenever a opening is made in the walls, a timber frame will be used to create a sense of interior in the "fabric" of the rammed earth wall.



Material rules



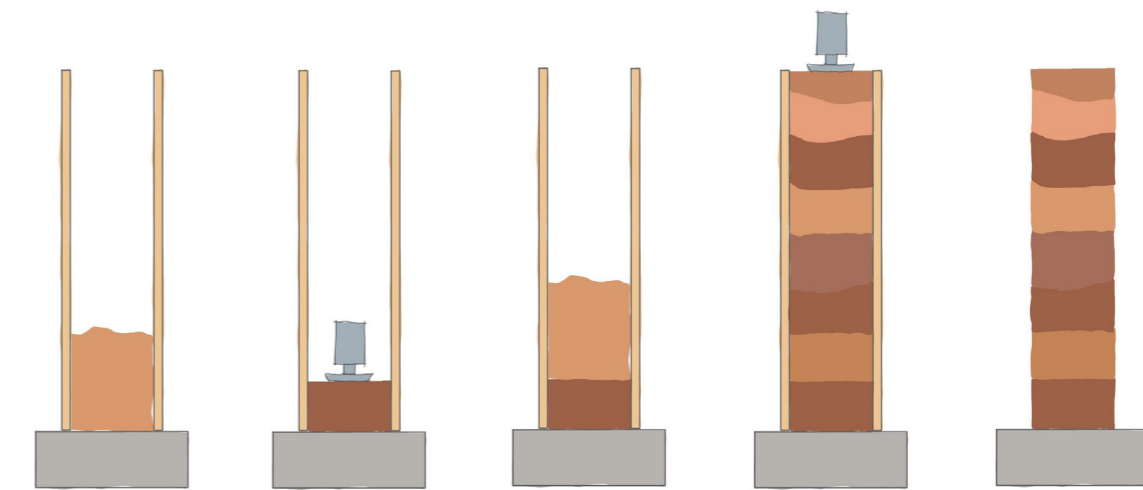
Red cedar wood



Rammed earth

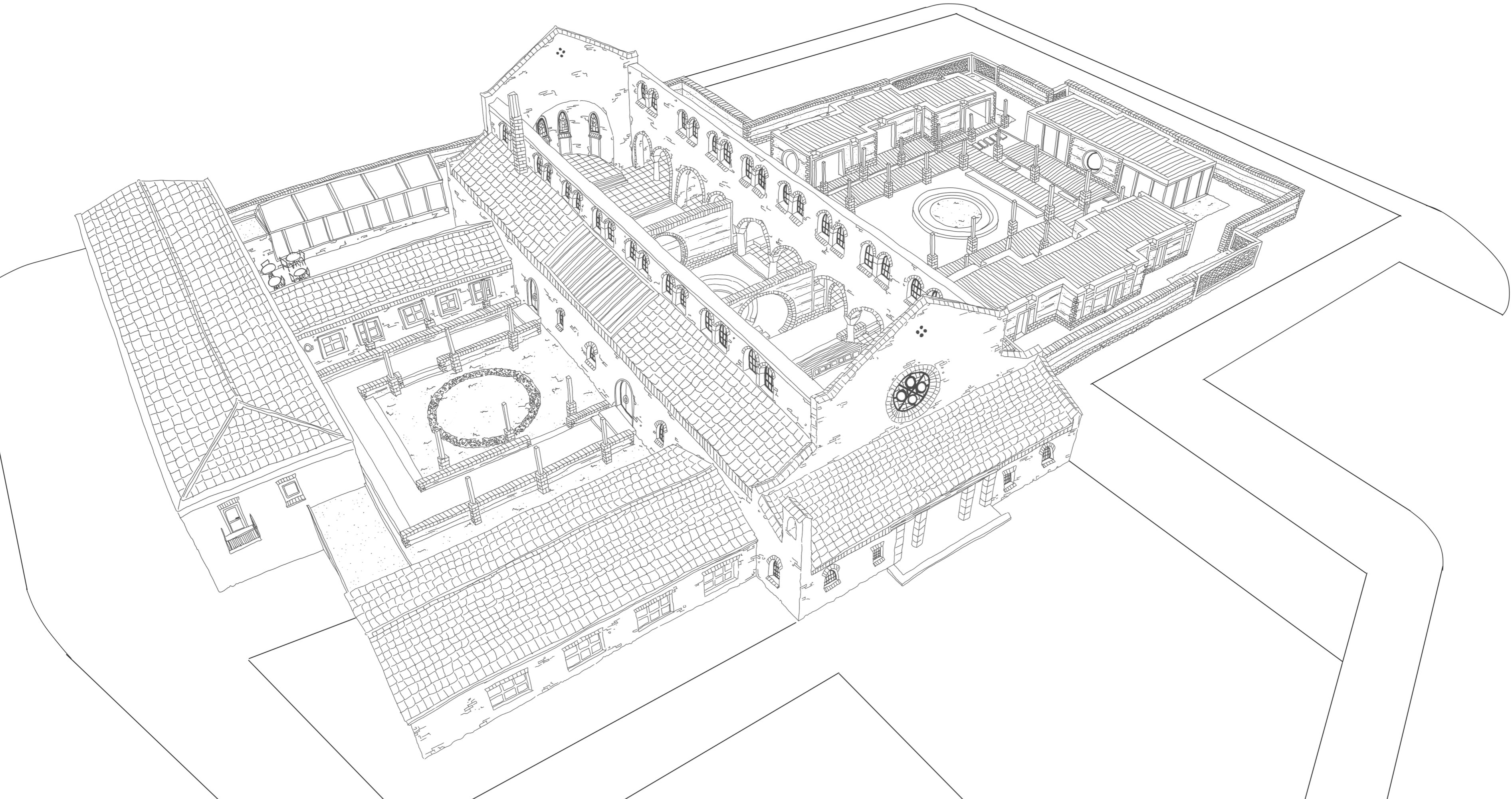


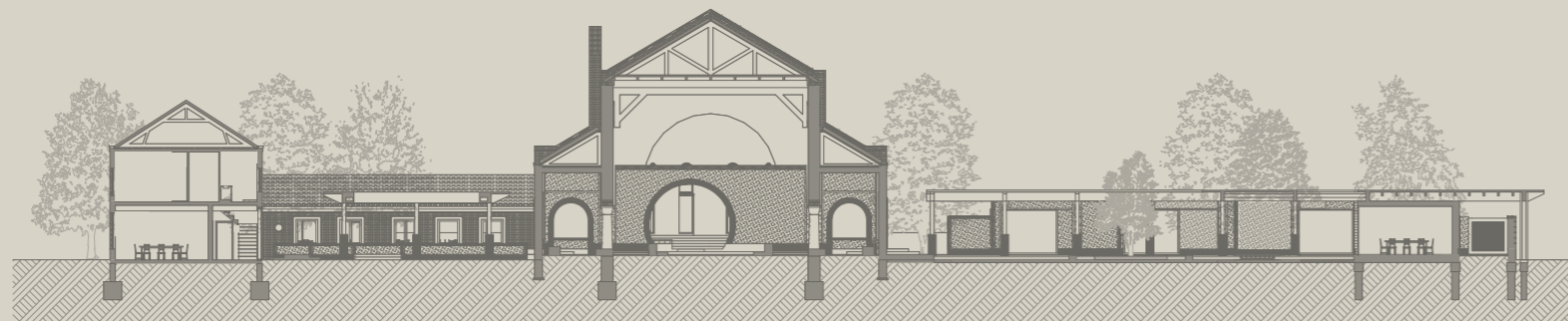
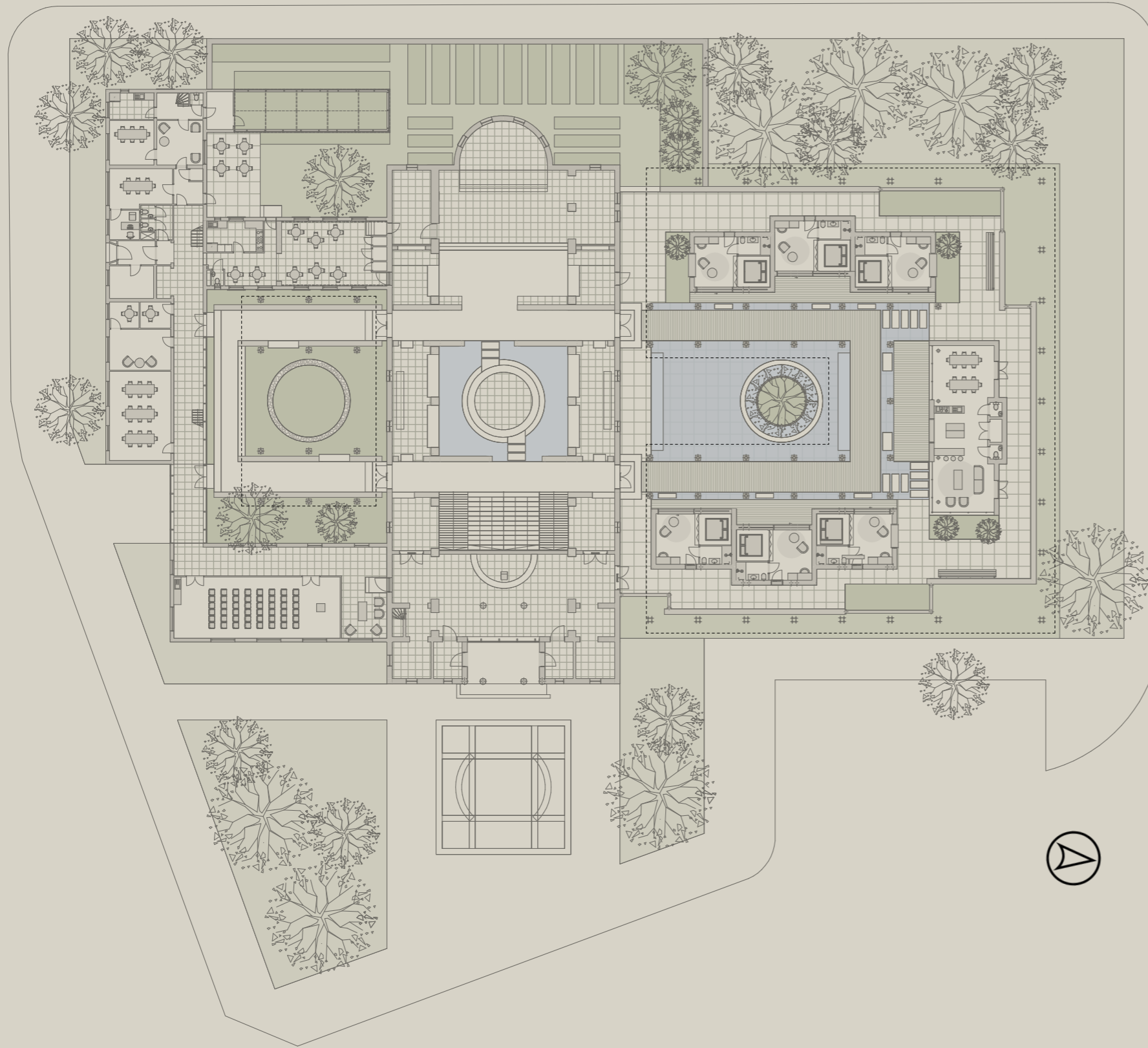
Reclaimed brick /roof tiles



Separation of elements

When the new structure meets the old, a timber frame prevents the two from touching. This way the new layer weaves through the old structure.





Spiritual Design Concepts

SUSTAINABILITY

To connect with the environment

•

HUMANITY

To connect with the social/cultural

•

SENSUALITY

To connect with the self



The Monastery

SUSTAINABILITY

To connect with the environment

•

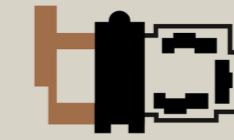
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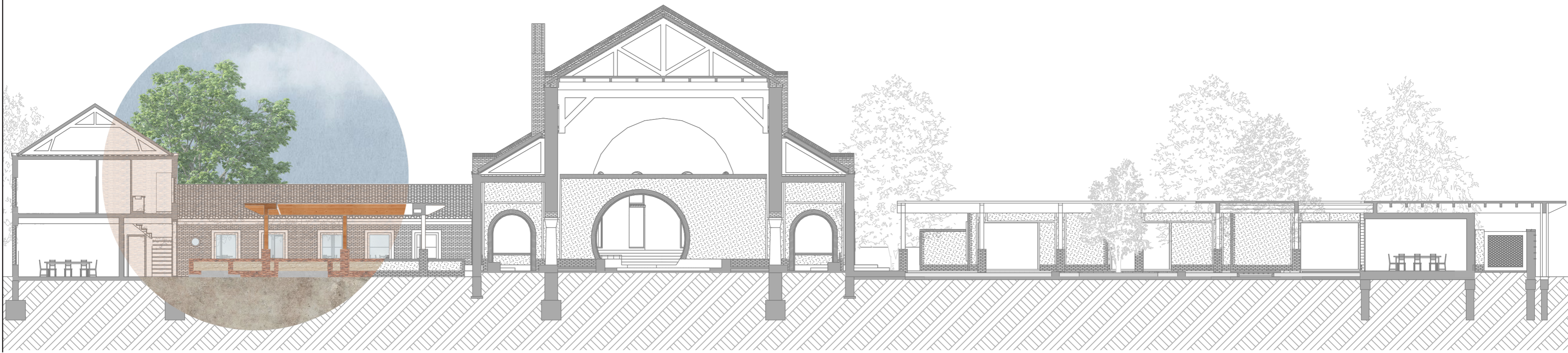
SUSTAINABILITY

To connect with the environment

1. EXPLORING

2. ENVIRONMENT

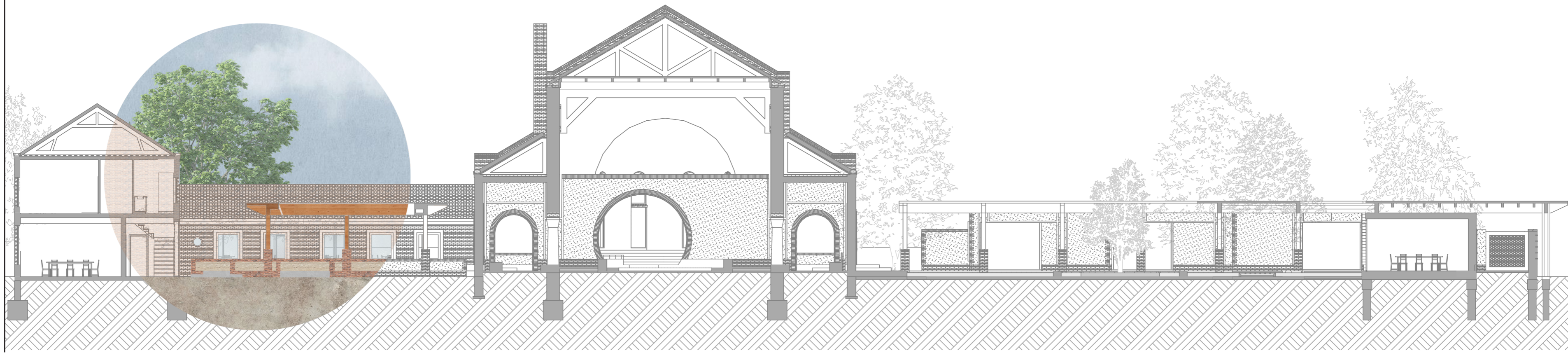
3. LEARNING



1. EXPLORING

2. ENVIRONMENT

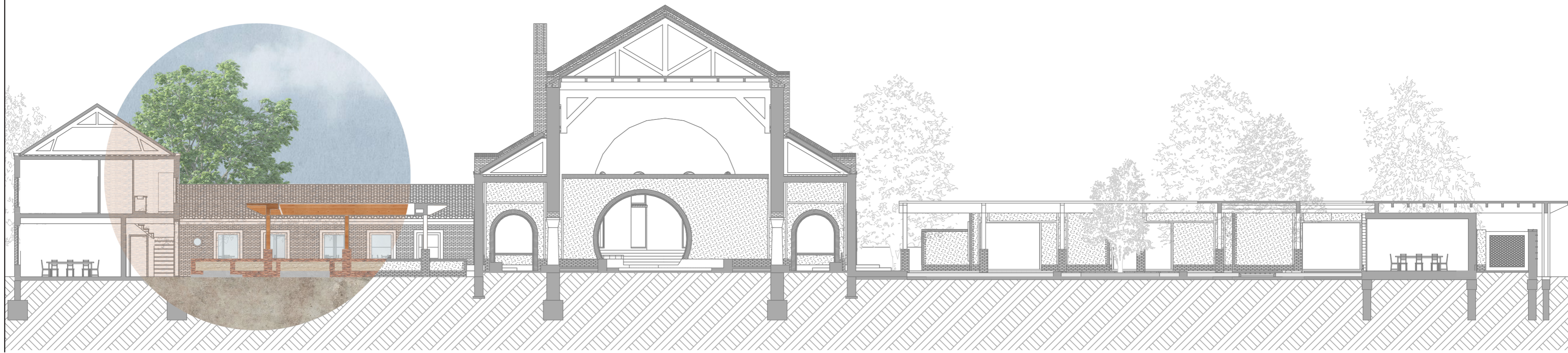
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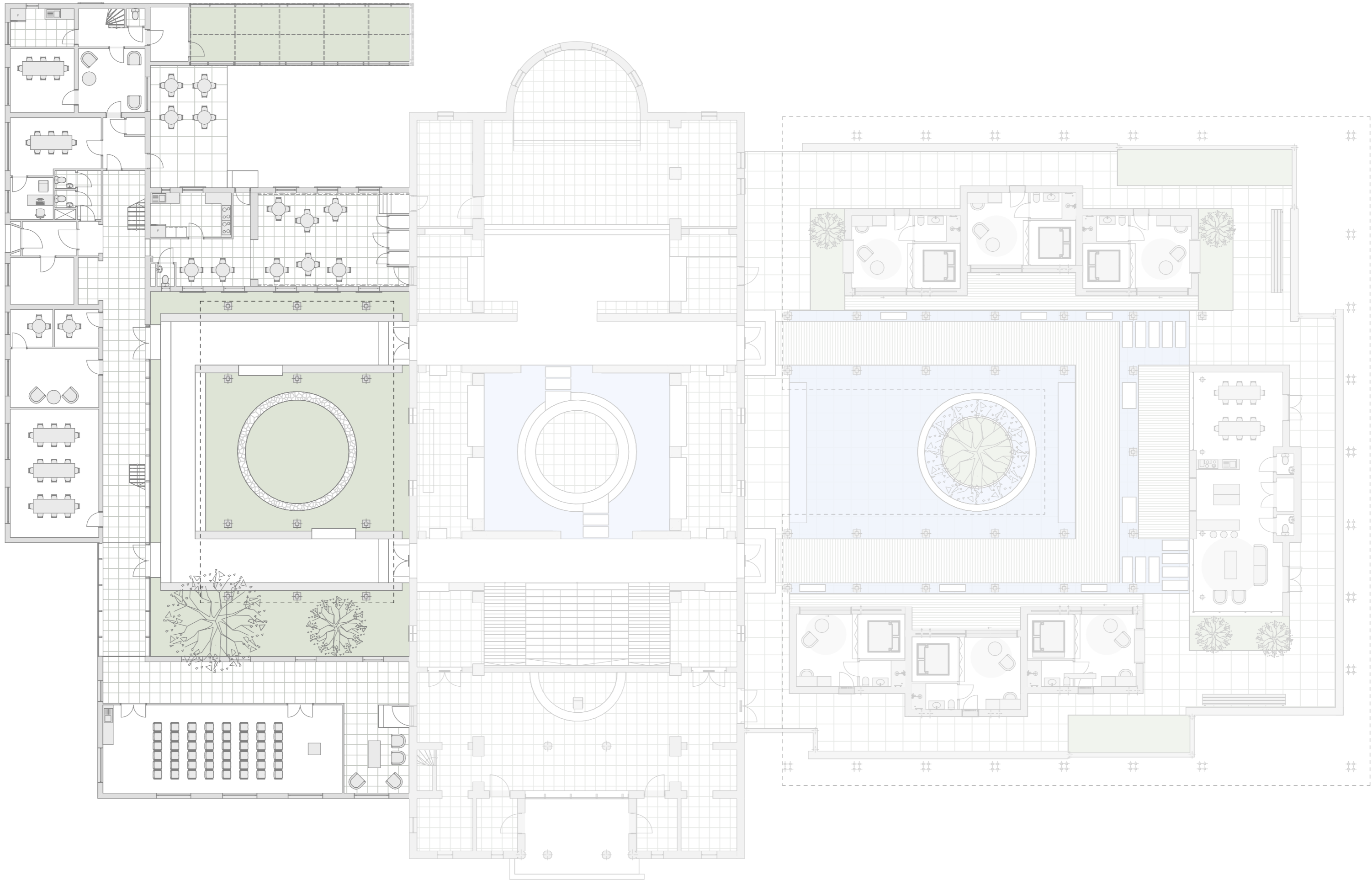


1. EXPLORING

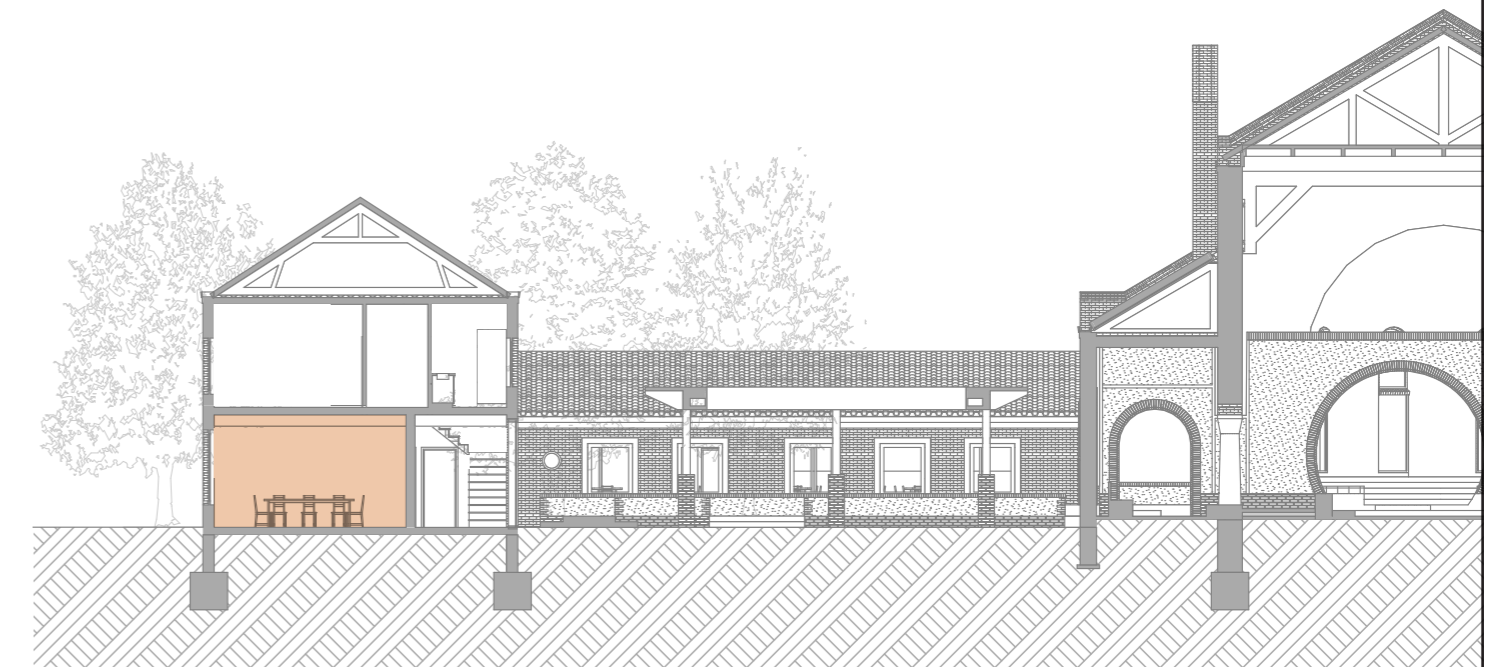
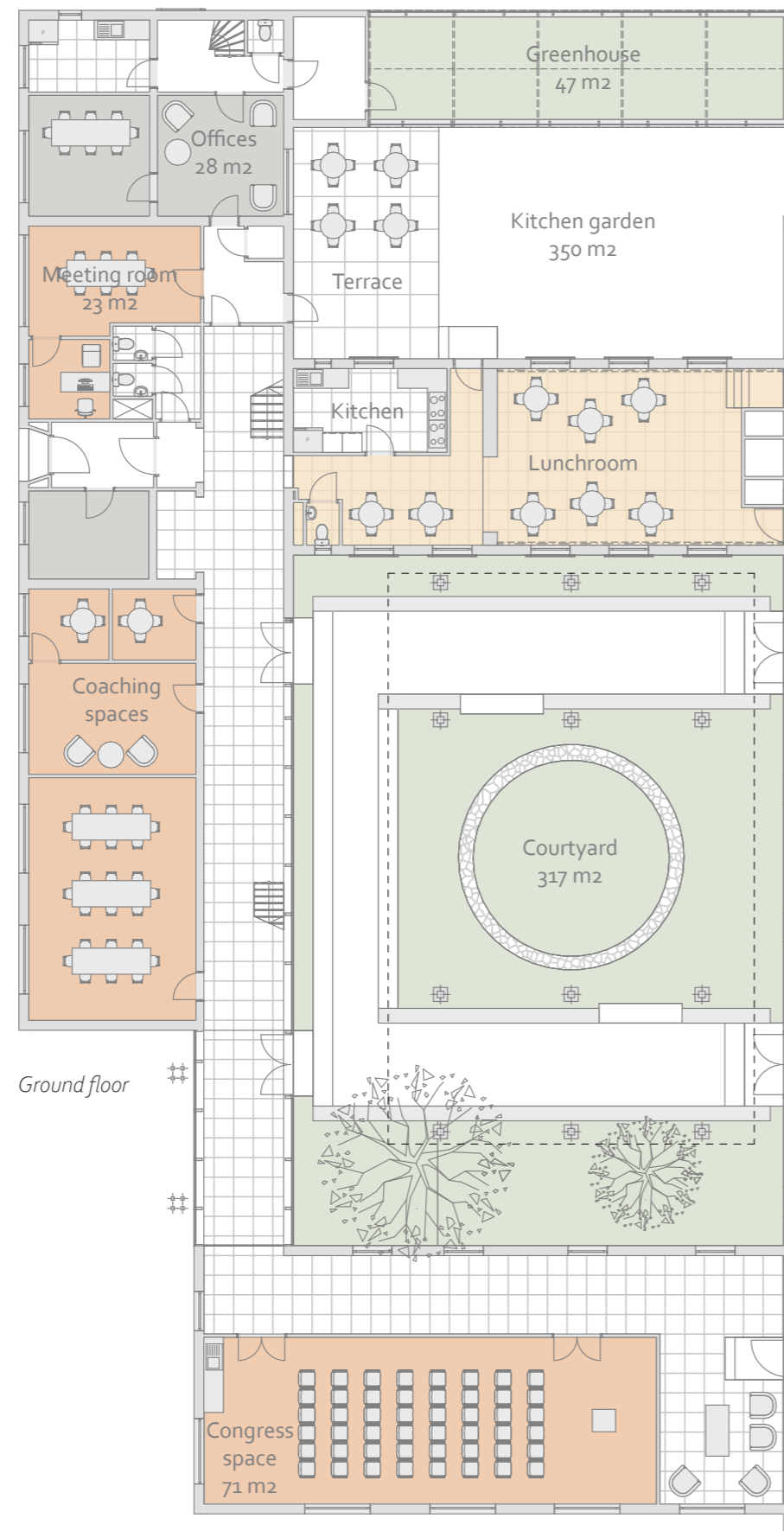
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3. LEARNING





The Monastery

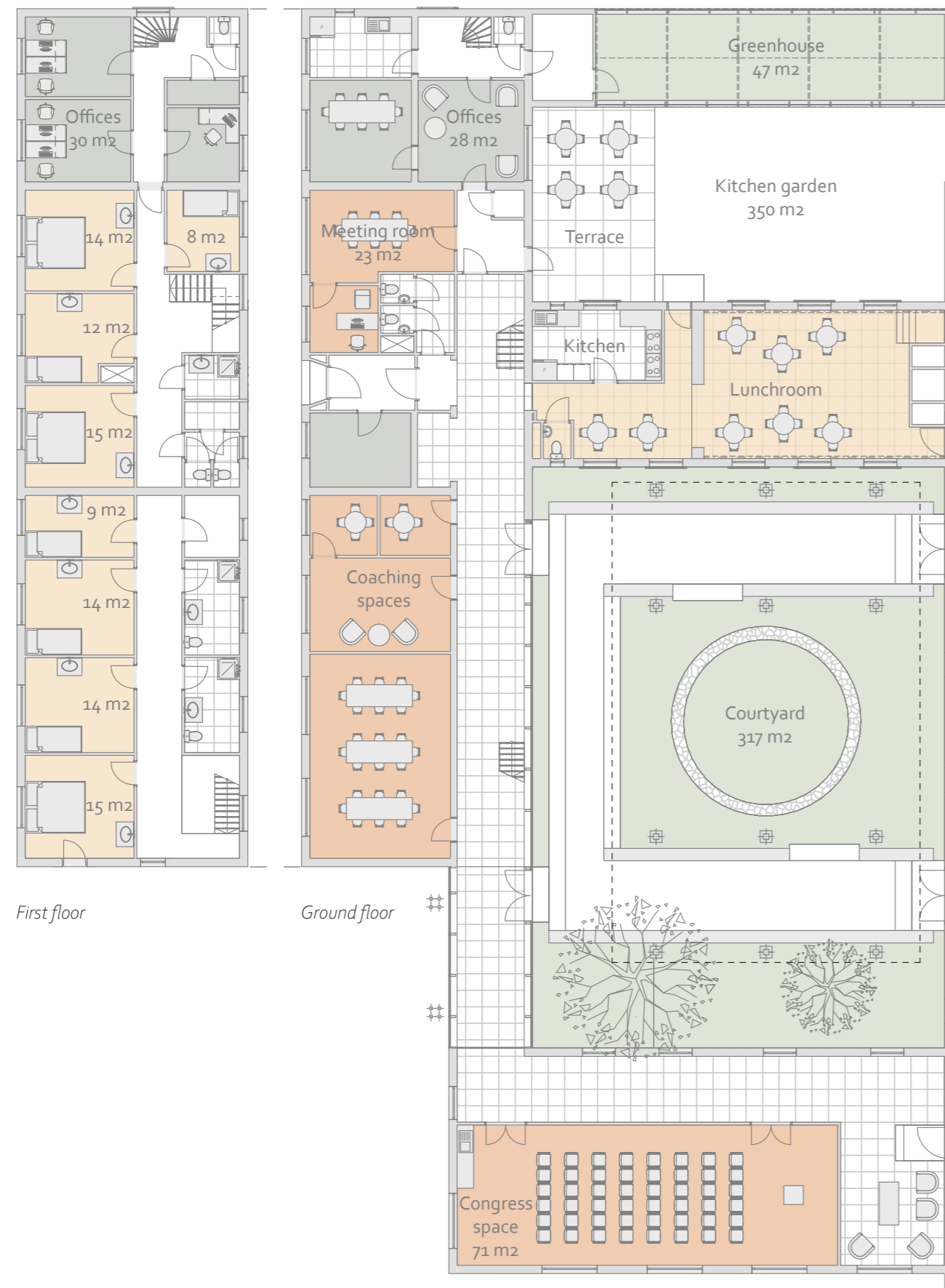


Ground floor

Functions

In this area visitors can attend coaching/ mindfulness classes and congresses and go to the lunchroom, courtyard garden and kitchen garden

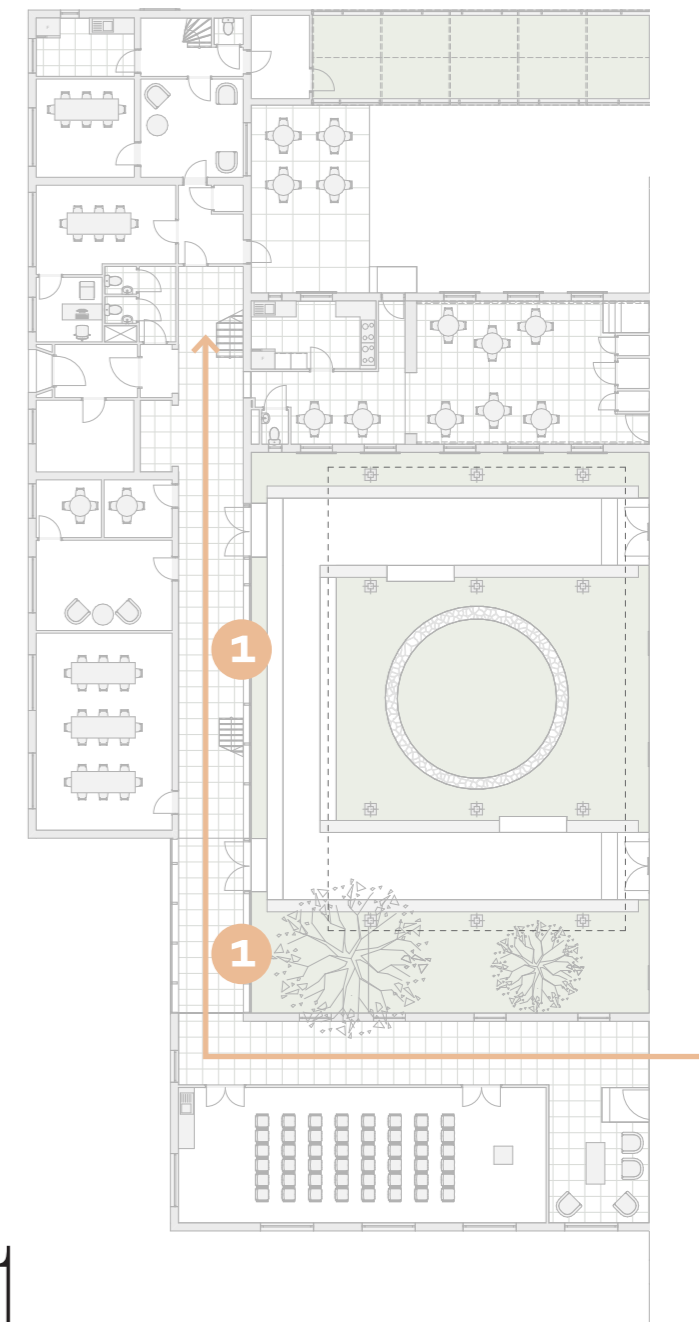
The Monastery



First floor

Monastery retreat

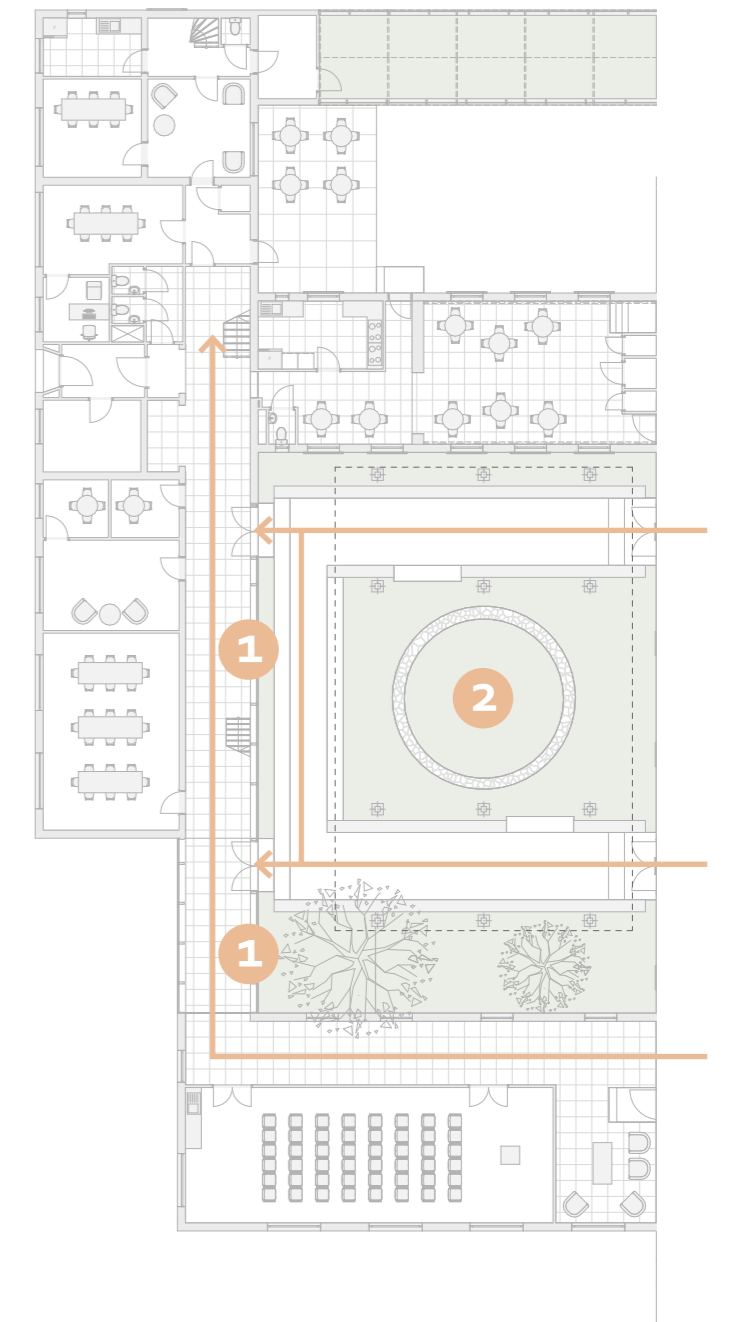
In this retreat area the visitors will stay in the old rooms of the monks. These rooms all share bathrooms and are situated on the first floor of the old



1.

Glass passageway

The new glass passageway connects the surrounding monastery buildings with the courtyard where a large circular opening draws the attention of the visitors.



2. Courtyard

Light and rain fall through the circle into the centre courtyard and can evoke a sense of serenity.

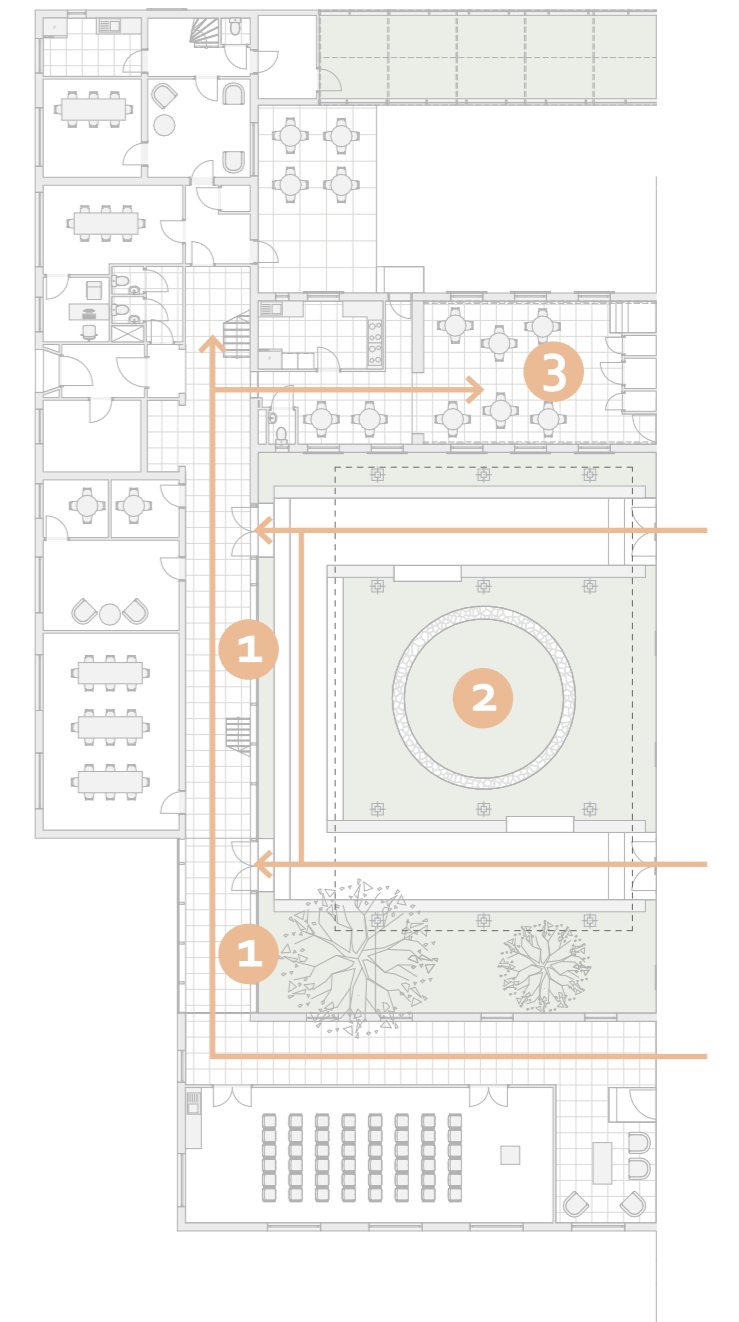


Courtyard

Framing the courtyard

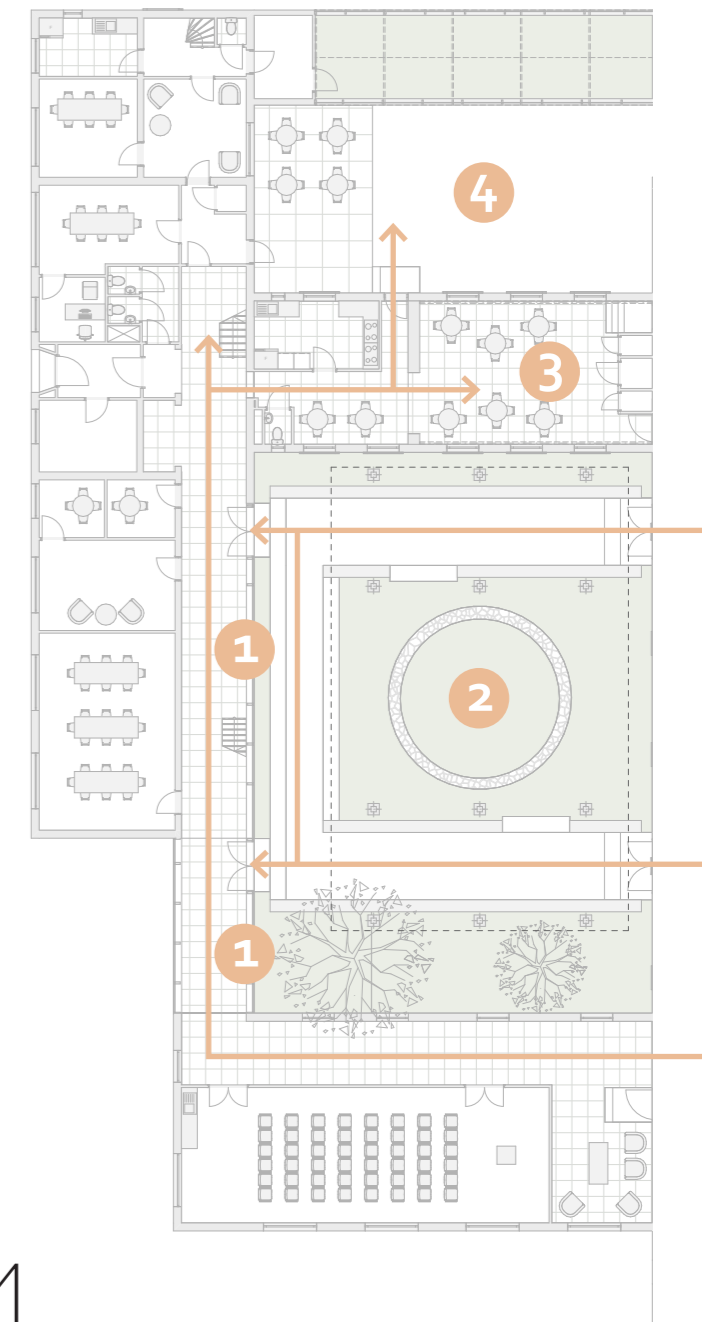
In the courtyard, the rammed earth walls act as smaller balustrades that guide the users in a certain direction but also frame the green inside space.





3. Lunchroom

The lunchroom is located in the old sacristy. Visitors can share their meals here.



4.

Kitchen garden

While residing in the retreat, visitors can work in the kitchen garden/greenhouse. This garden provides the vegetables and fruits that can be consumed in the lunchroom.



The Church

SUSTAINABILITY

To connect with the environment



HUMANITY

To connect with the social/cultural



SENSUALITY

To connect with the self



The Church

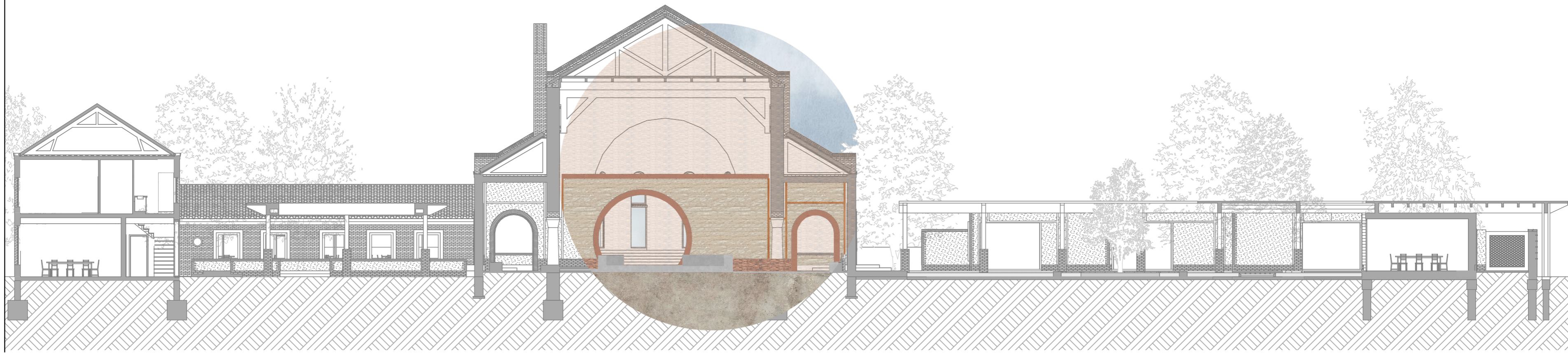
HUMANITY

To connect with the social/cultural

1. HISTORY

2. SOCIAL

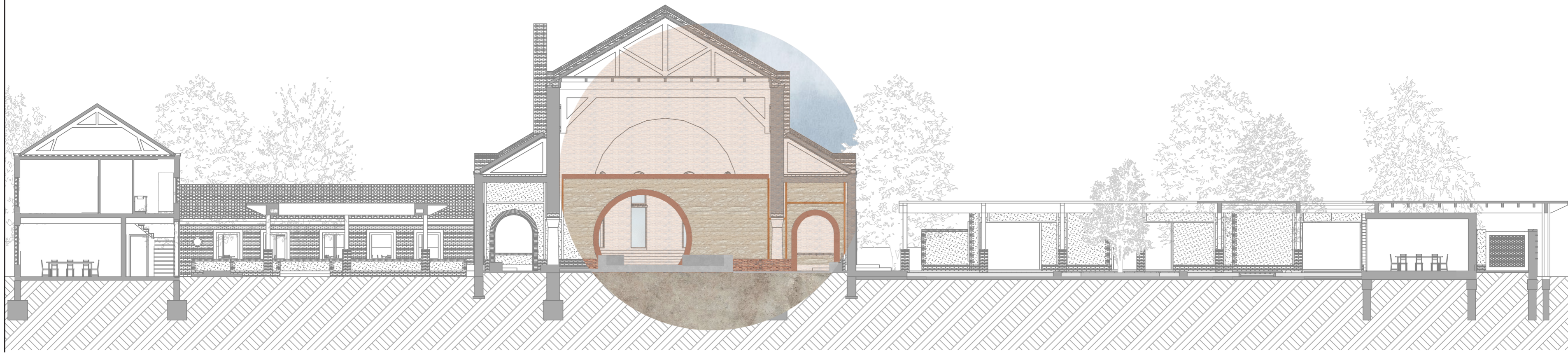
3. CULTURE



1. HISTORY

2. SOCIAL

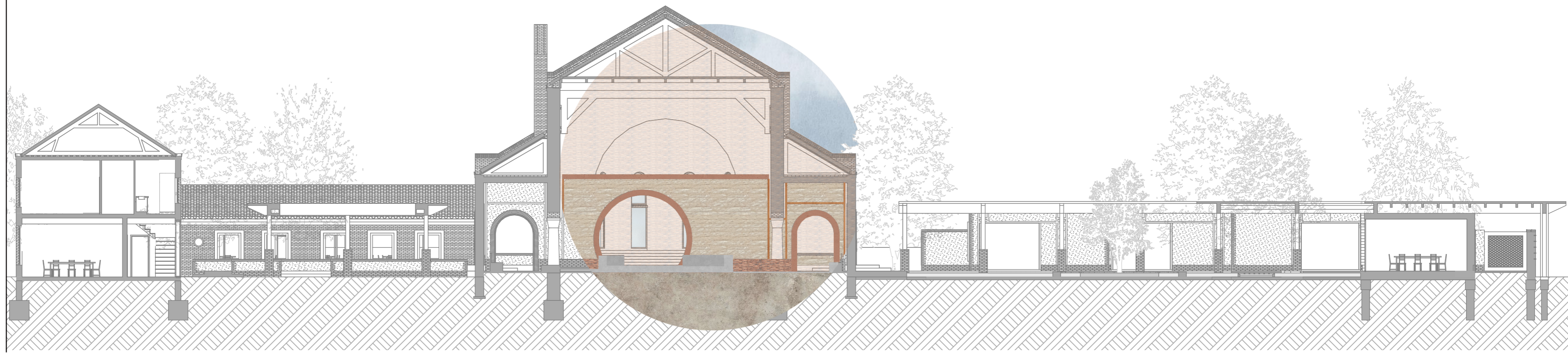
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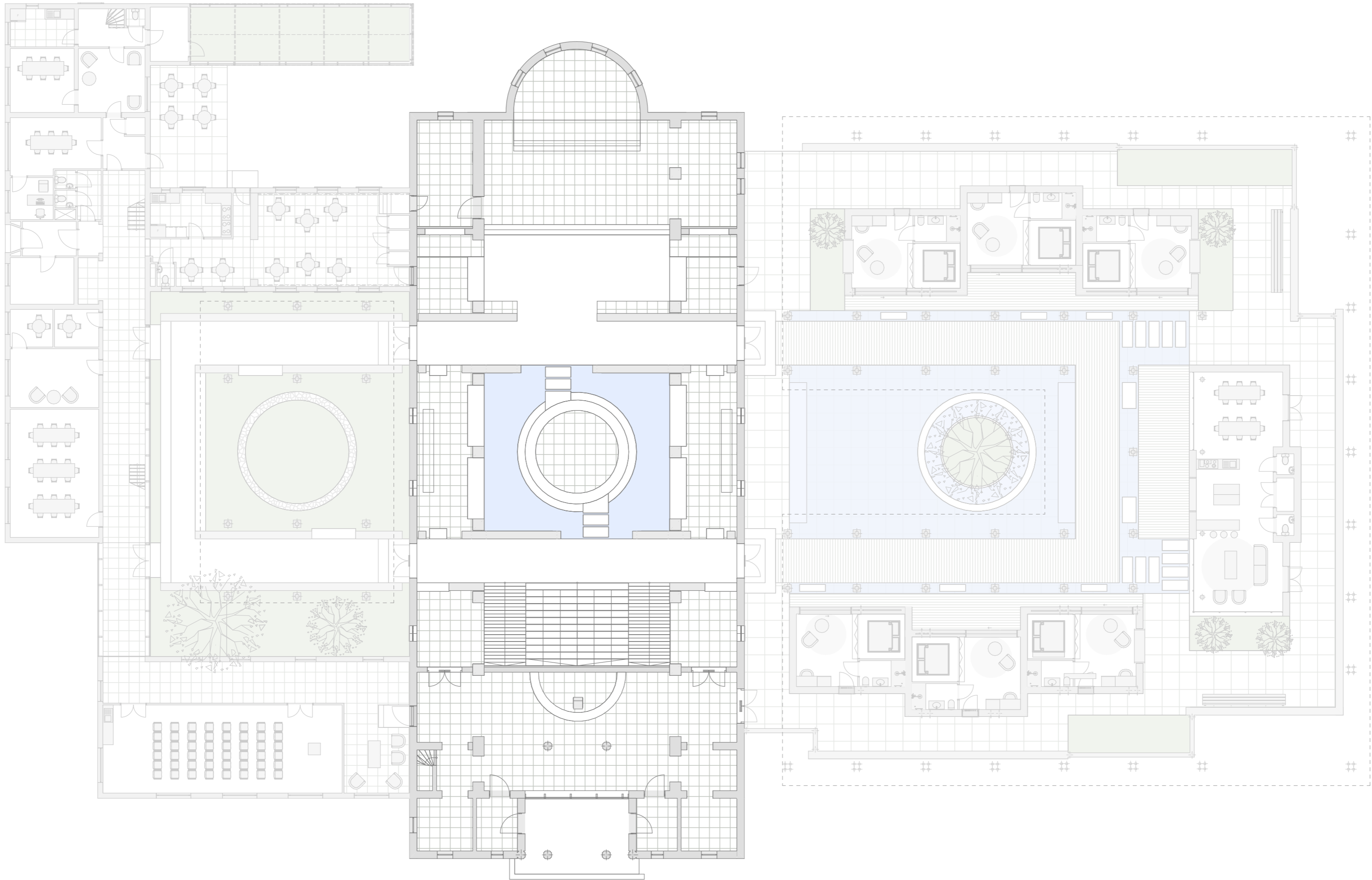


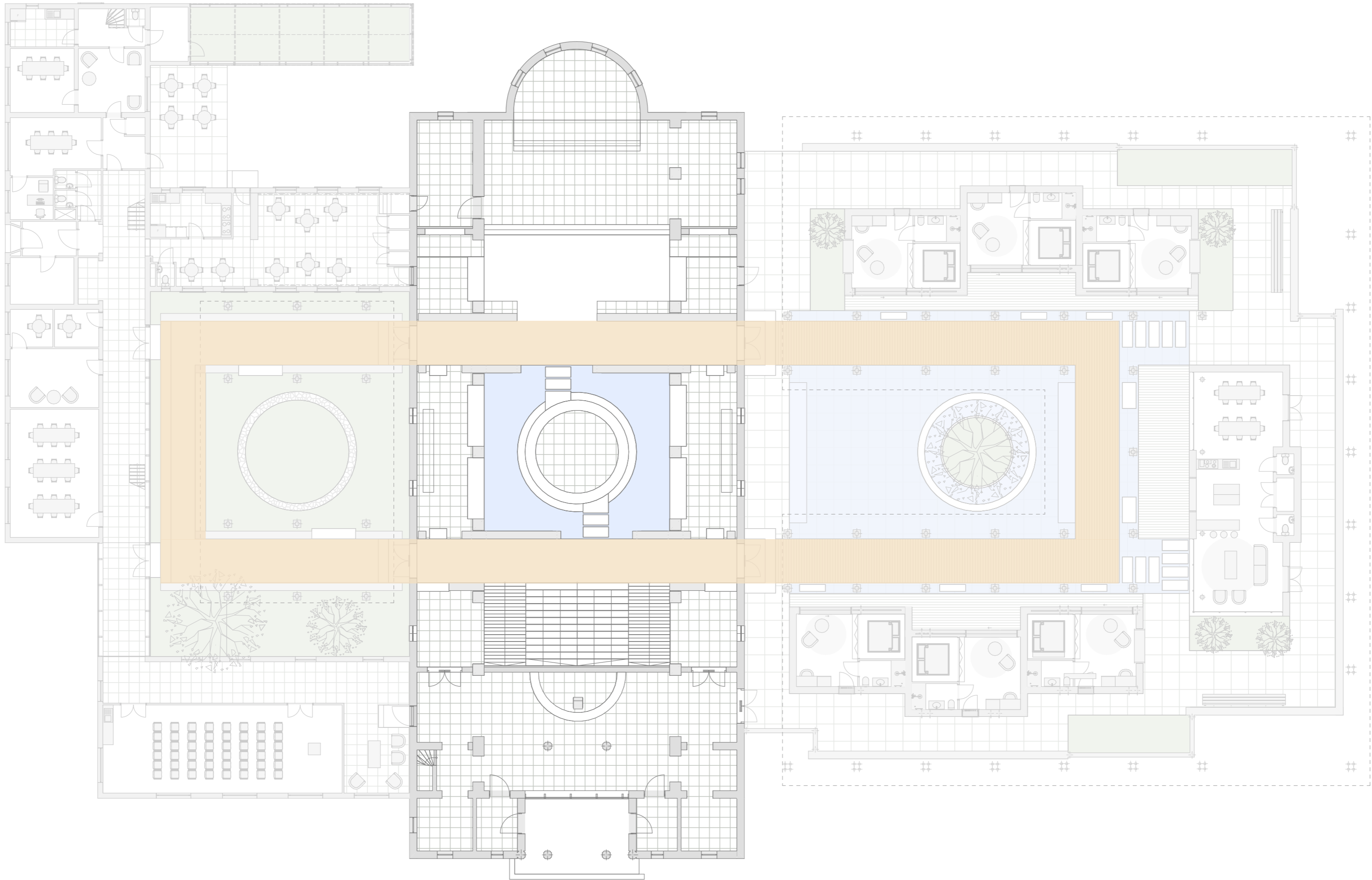
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2. SOCIAL

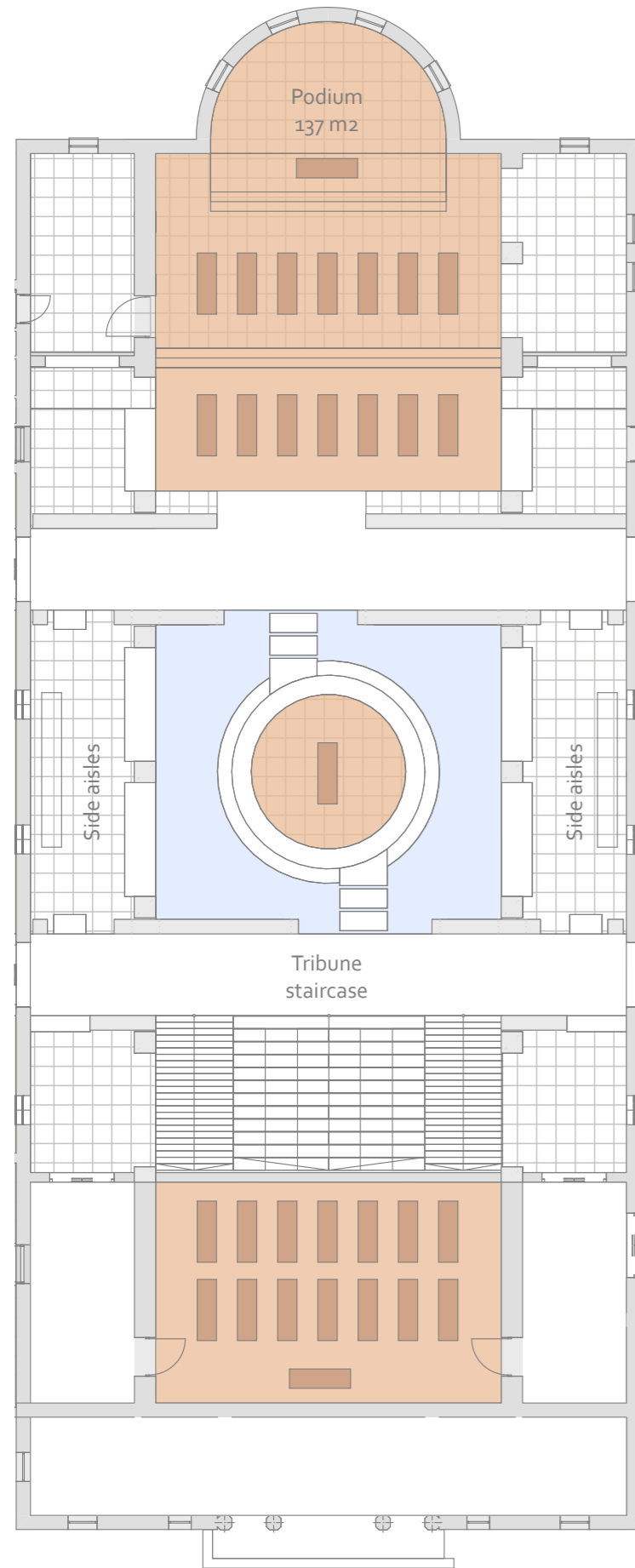
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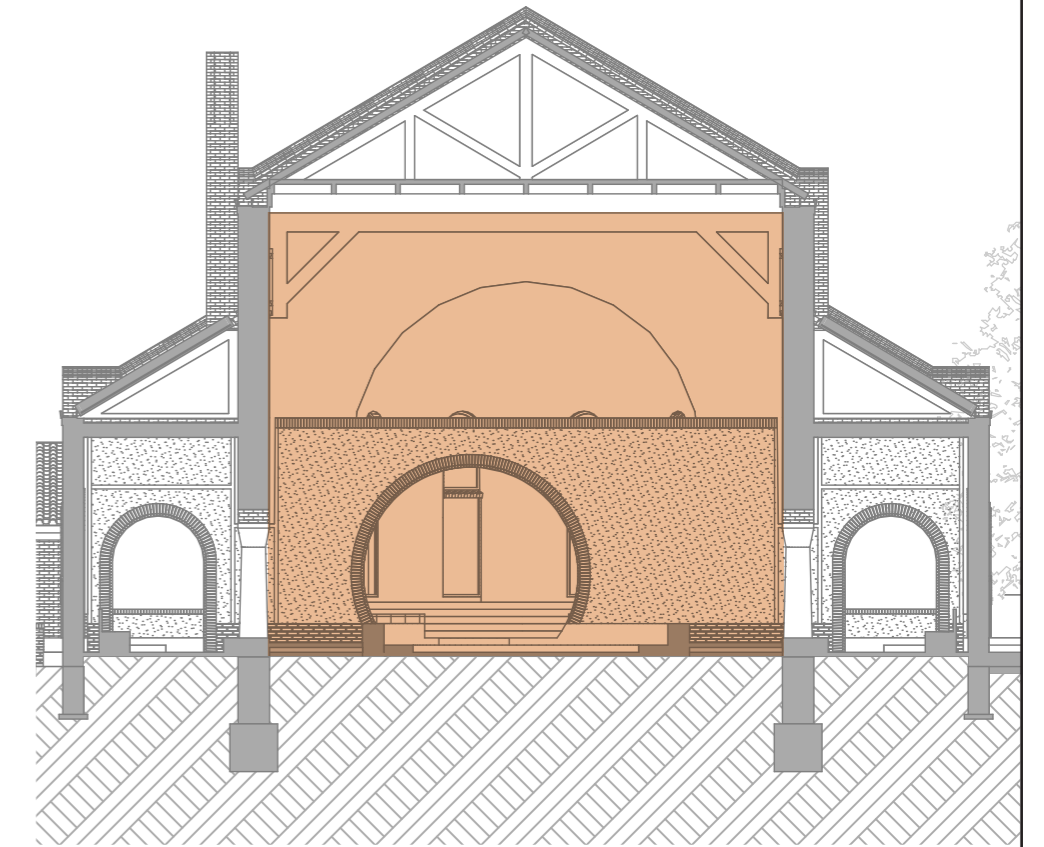




Meditation & yoga



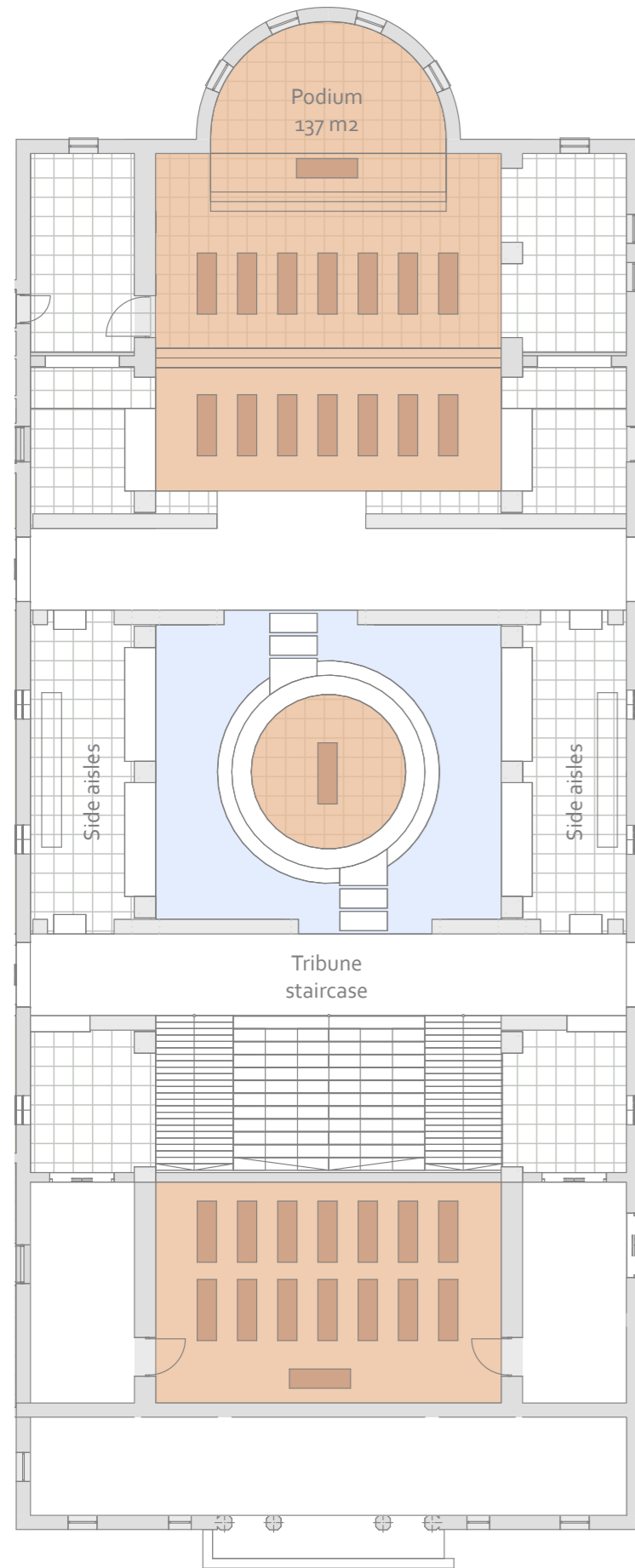
The Church



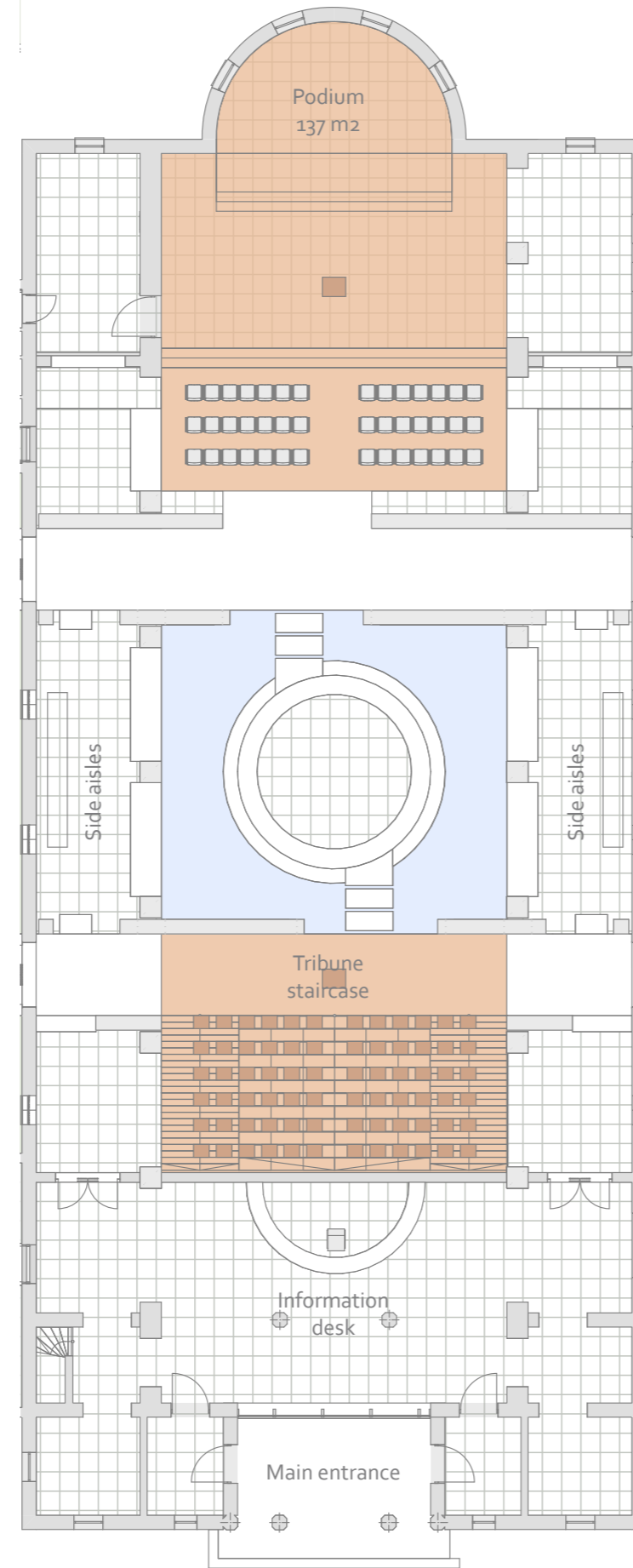
Meditation & yoga

The church becomes a multifunctional space that can be closed off if necessary. If no activities occur, this space can be used for personal contemplation or meditation.

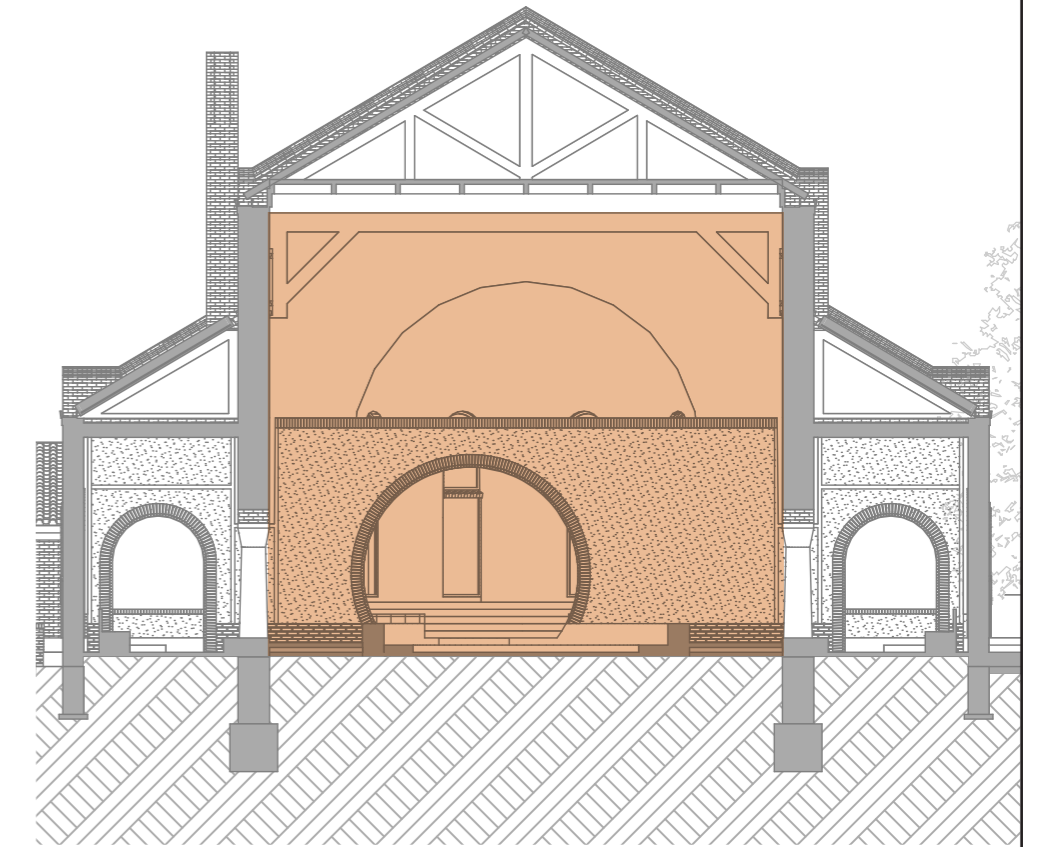
Meditation & yoga



Talks & concerts



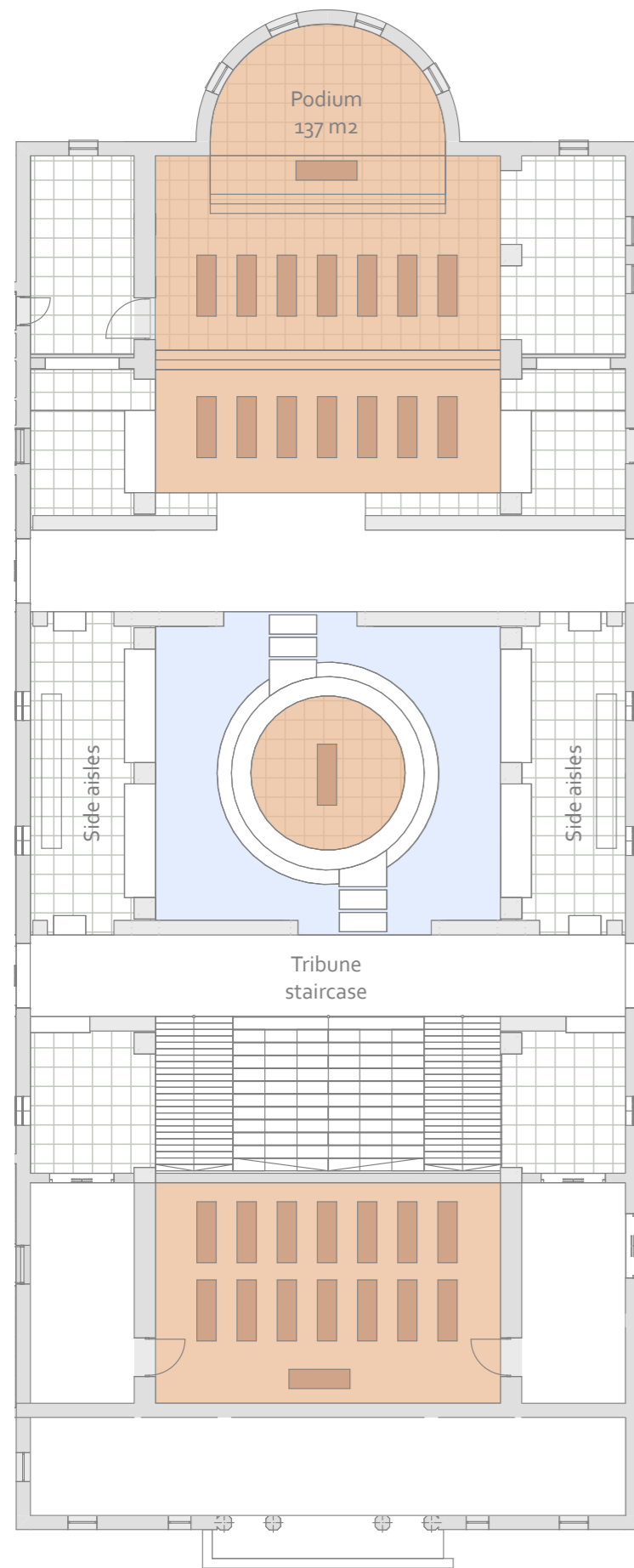
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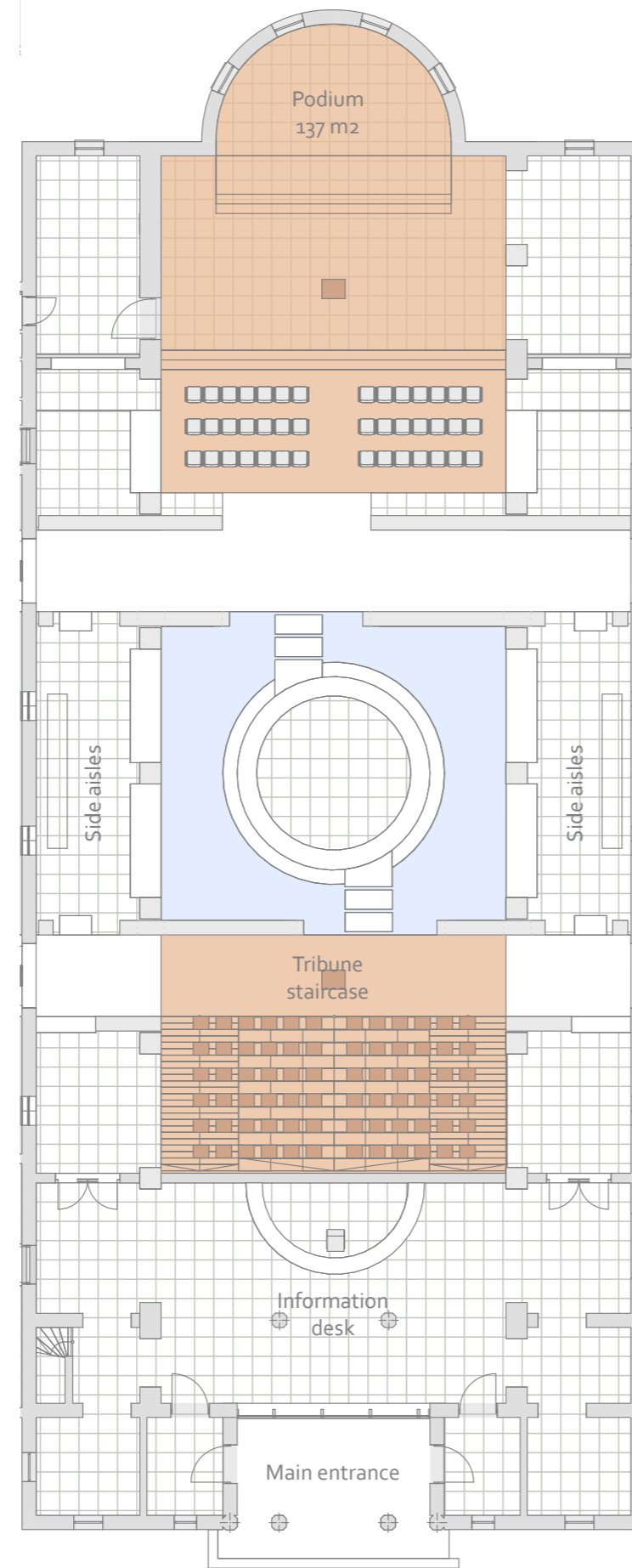
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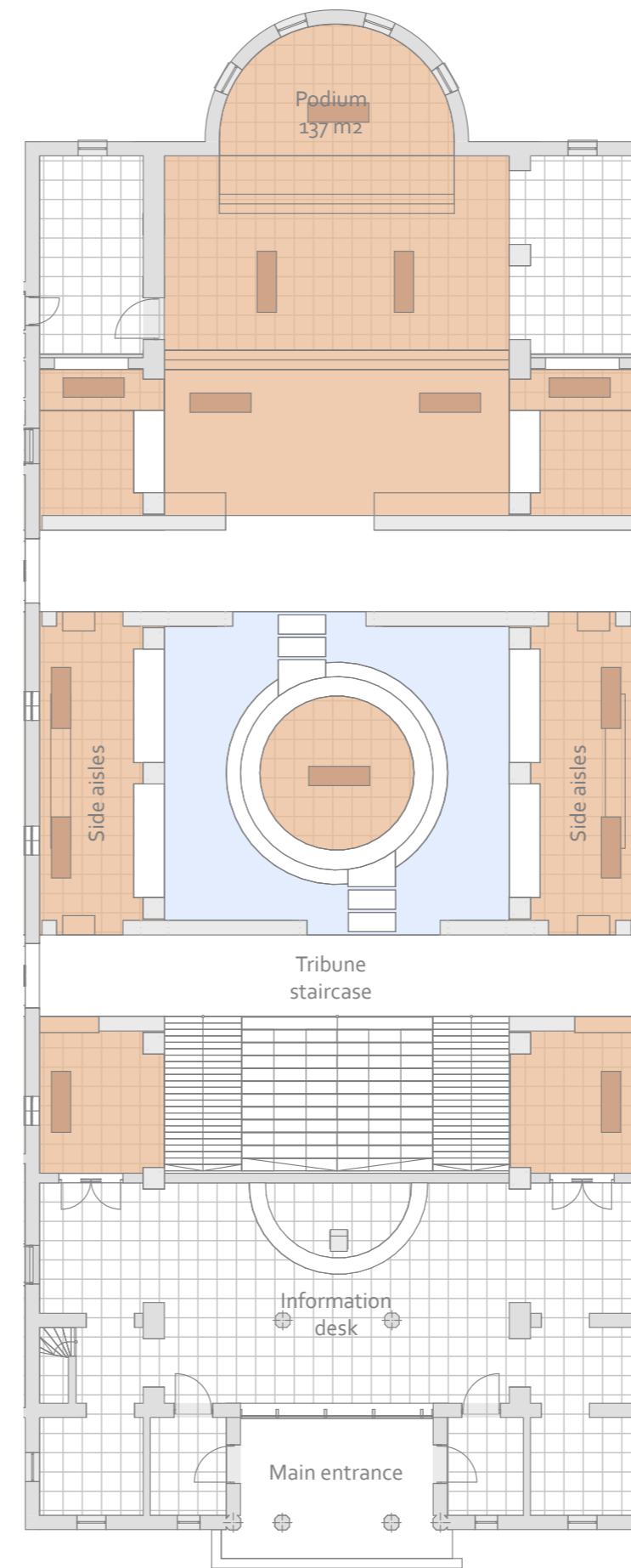
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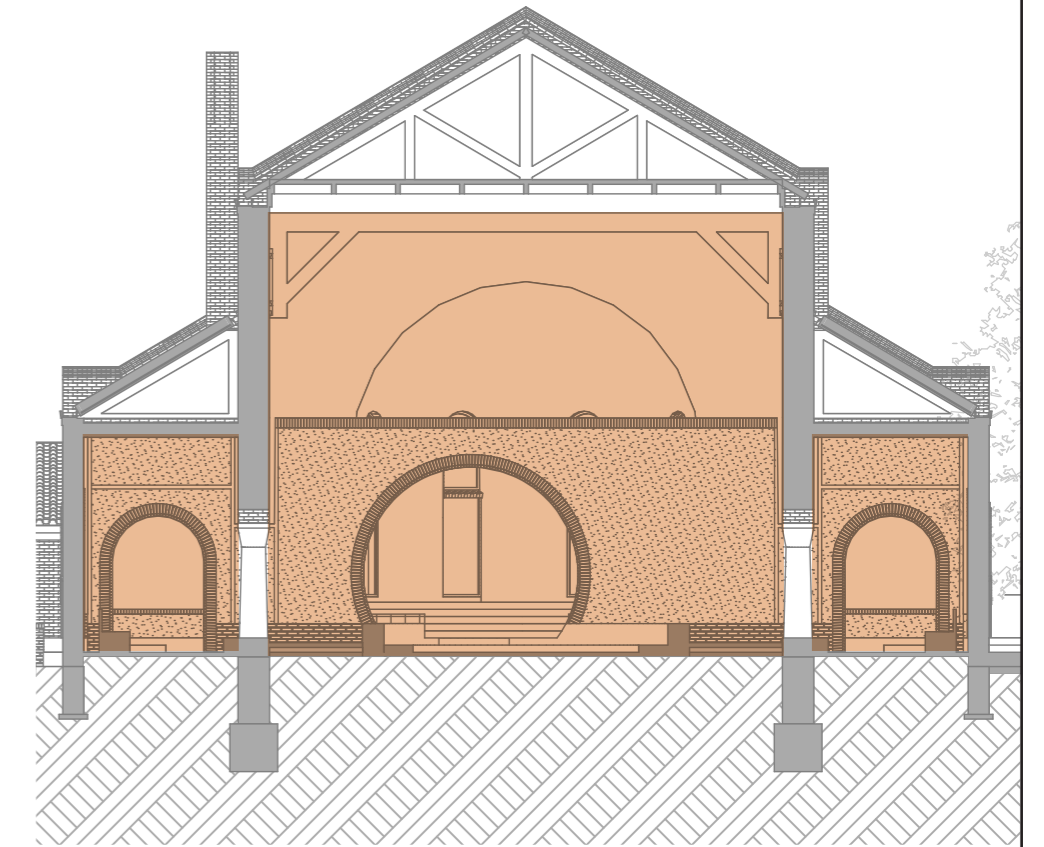
Talks & concerts



Expositions

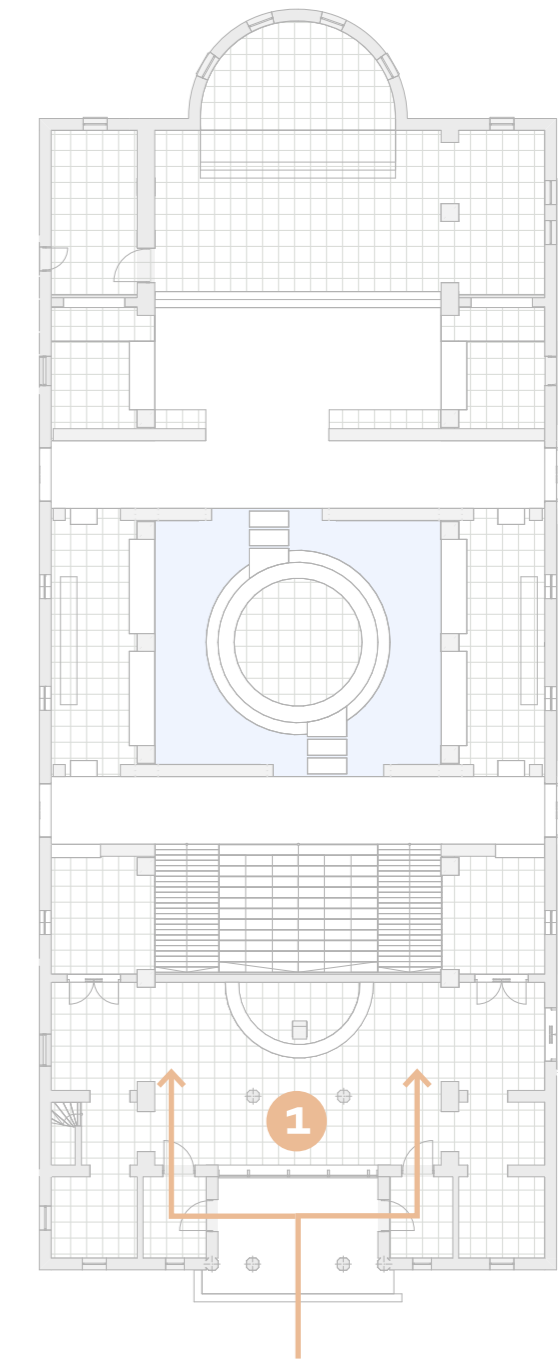


The Church



Expositions

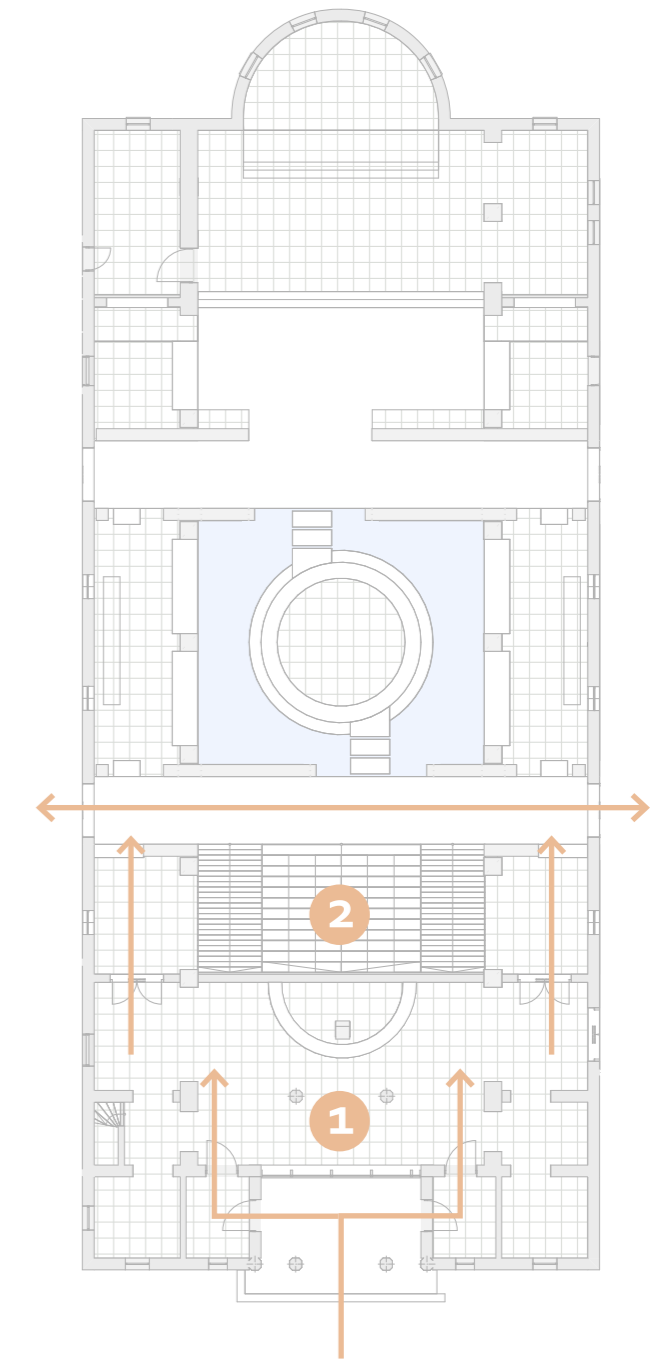
The church becomes a multifunctional space that can be closed off if necessary. If no activities occur, this space can be used for personal contemplation or meditation.



1.

Main entrance

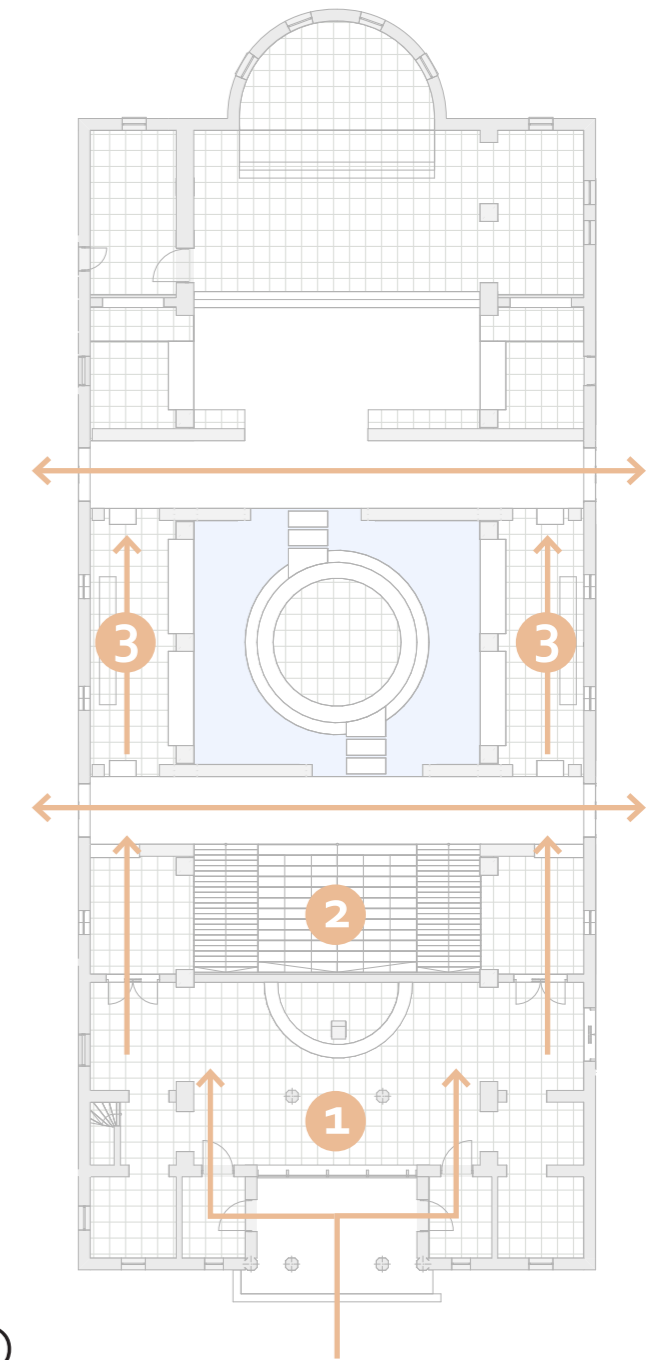
All visitors enter through the main entrance. This place is the gateway towards the spiritual. The visitor leaves the outside world behind.



2.

Tribune staircase

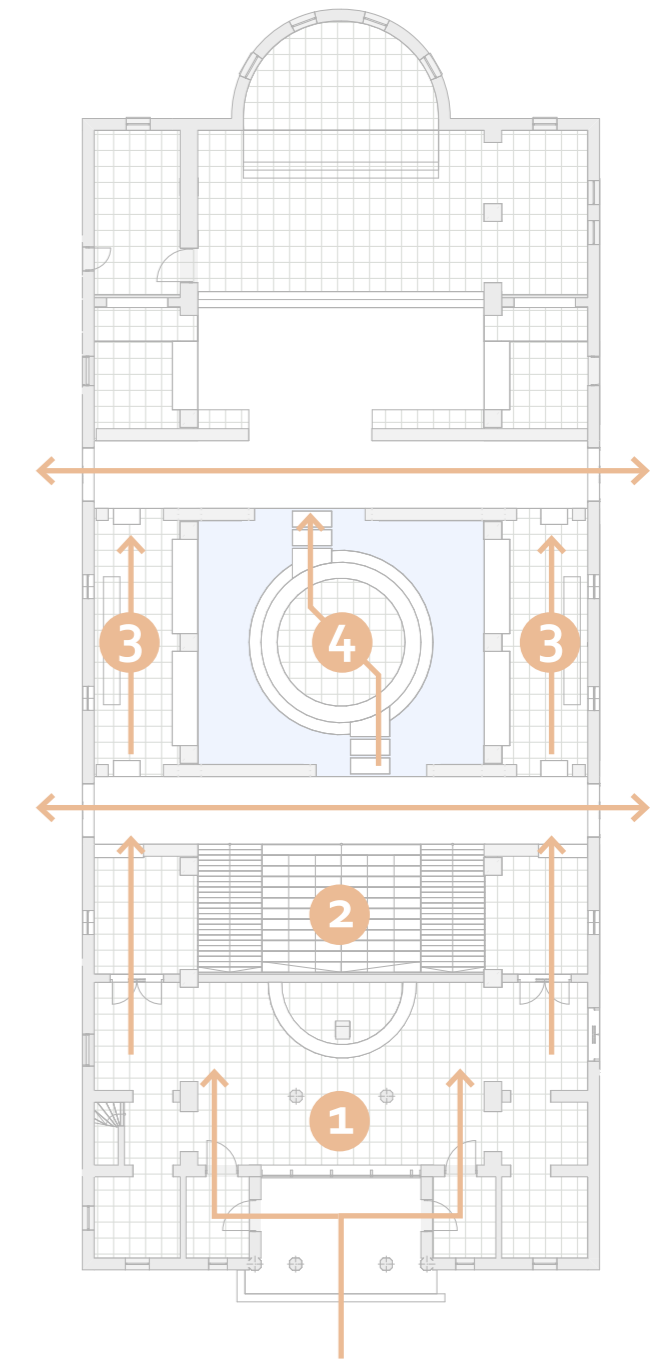
The staircase made from the old church benches will function as seating and as a way to reach the upper platform.



3.

Side aisles

The side aisles are a secondary routing that looks towards the inner, most spiritual space of the church. A skylight was added that allows more light to enter the centre of the church.



4.

Centre of the church

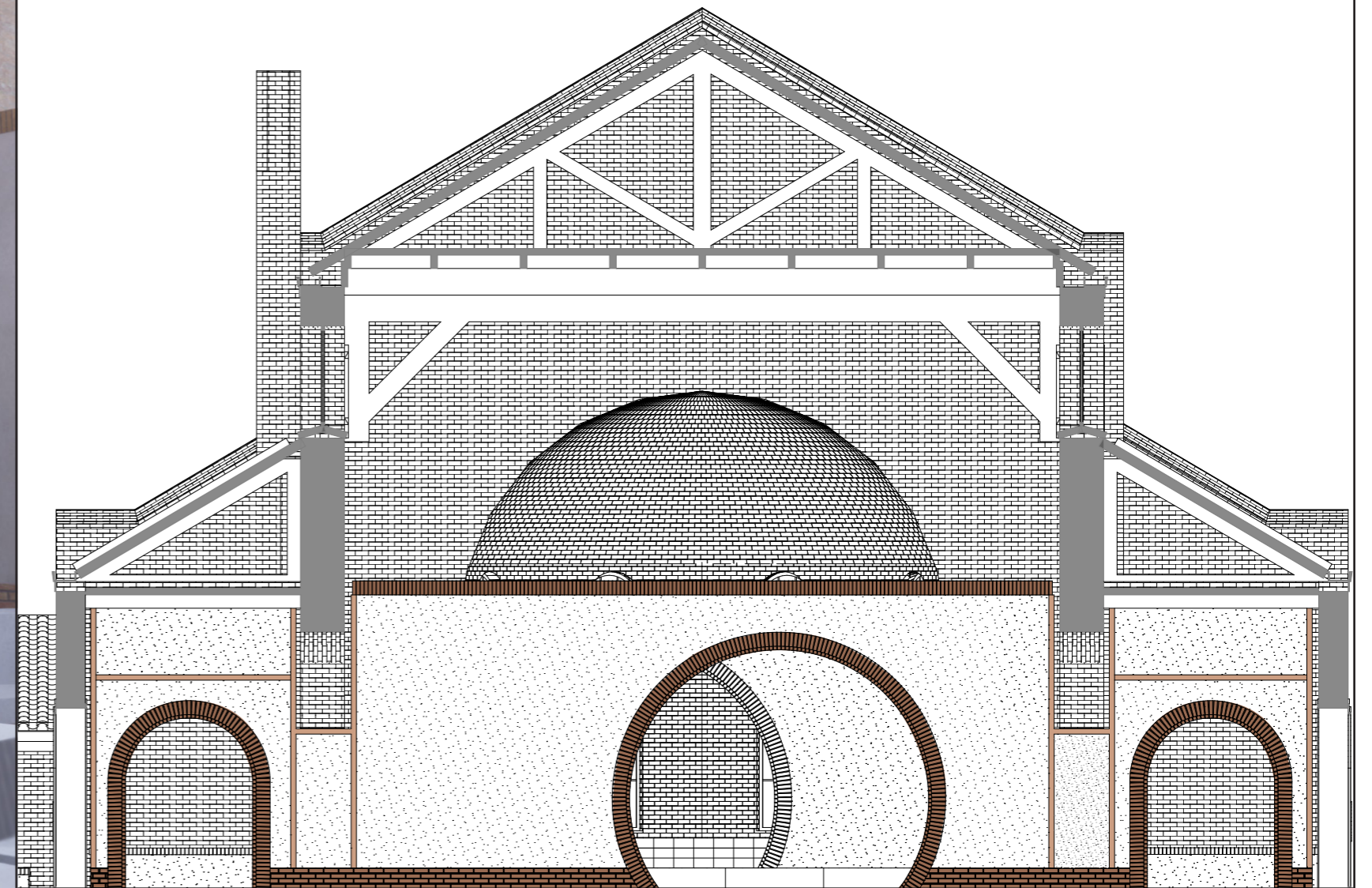
Instead of the apse where god would be worshipped from a distance, this now becomes the most sacred space where the individual is placed in its centre.



Church walls

Scale

The walls inside the church are the highest and are there to bring back the human scale into the church, without sacrificing the spatial qualities of the large open space.





The Circular Retreat

SUSTAINABILITY

To connect with the environment



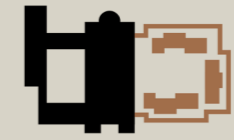
HUMANITY

To connect with the social/cultural



SENSUALITY

To connect with the self



The Circular Retreat

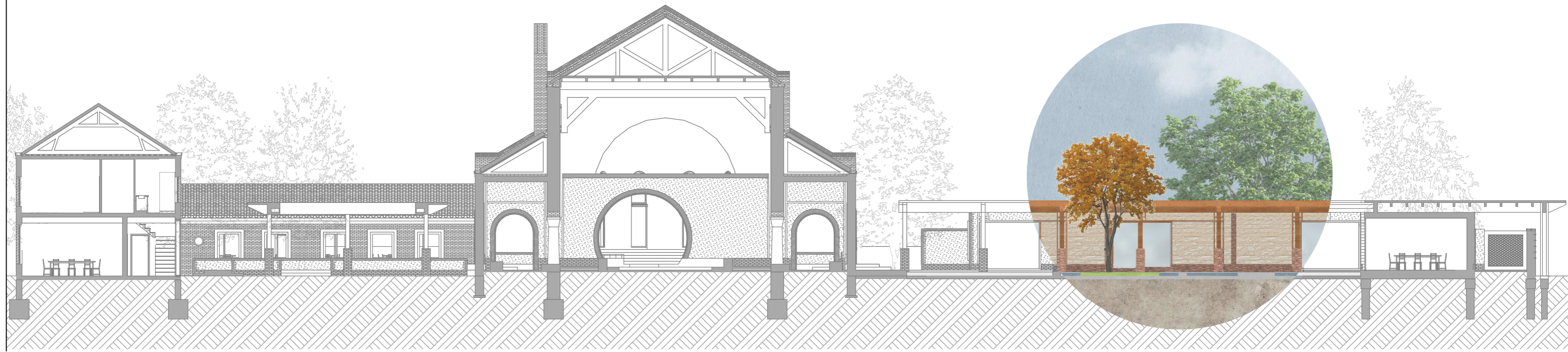
SENSUALITY

To connect with the self

1. SENSES

2. SELF

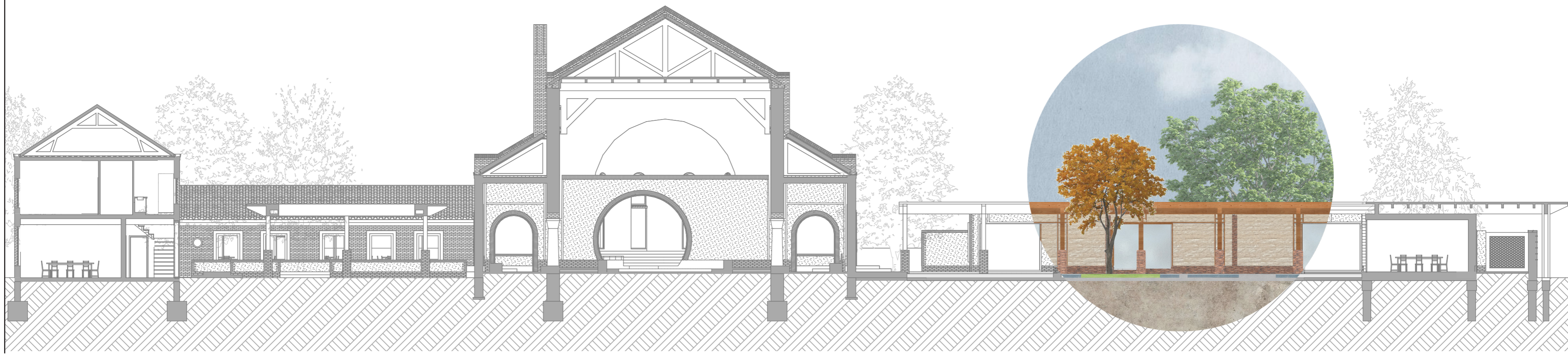
3. NATURE



1. SENSES

2. SELF

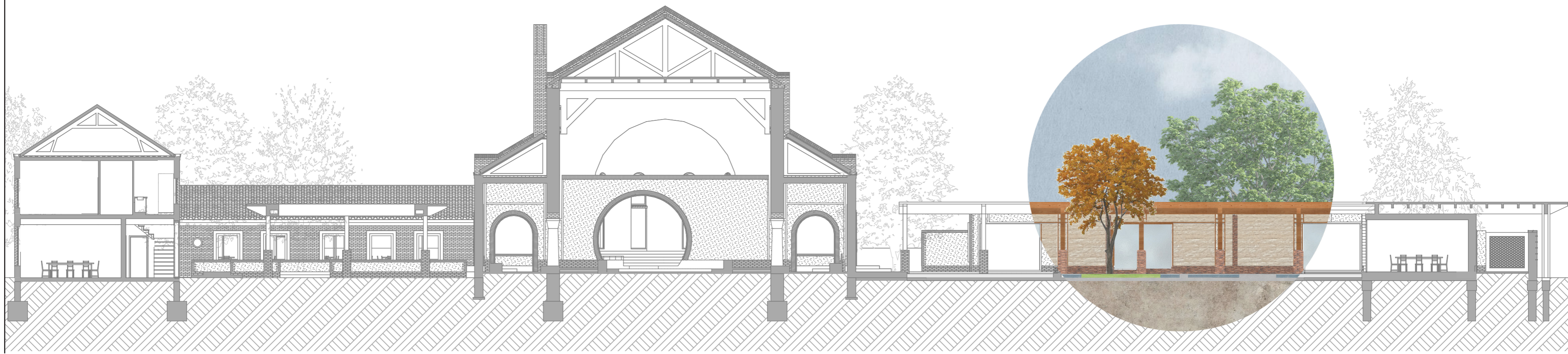
3. NATURE

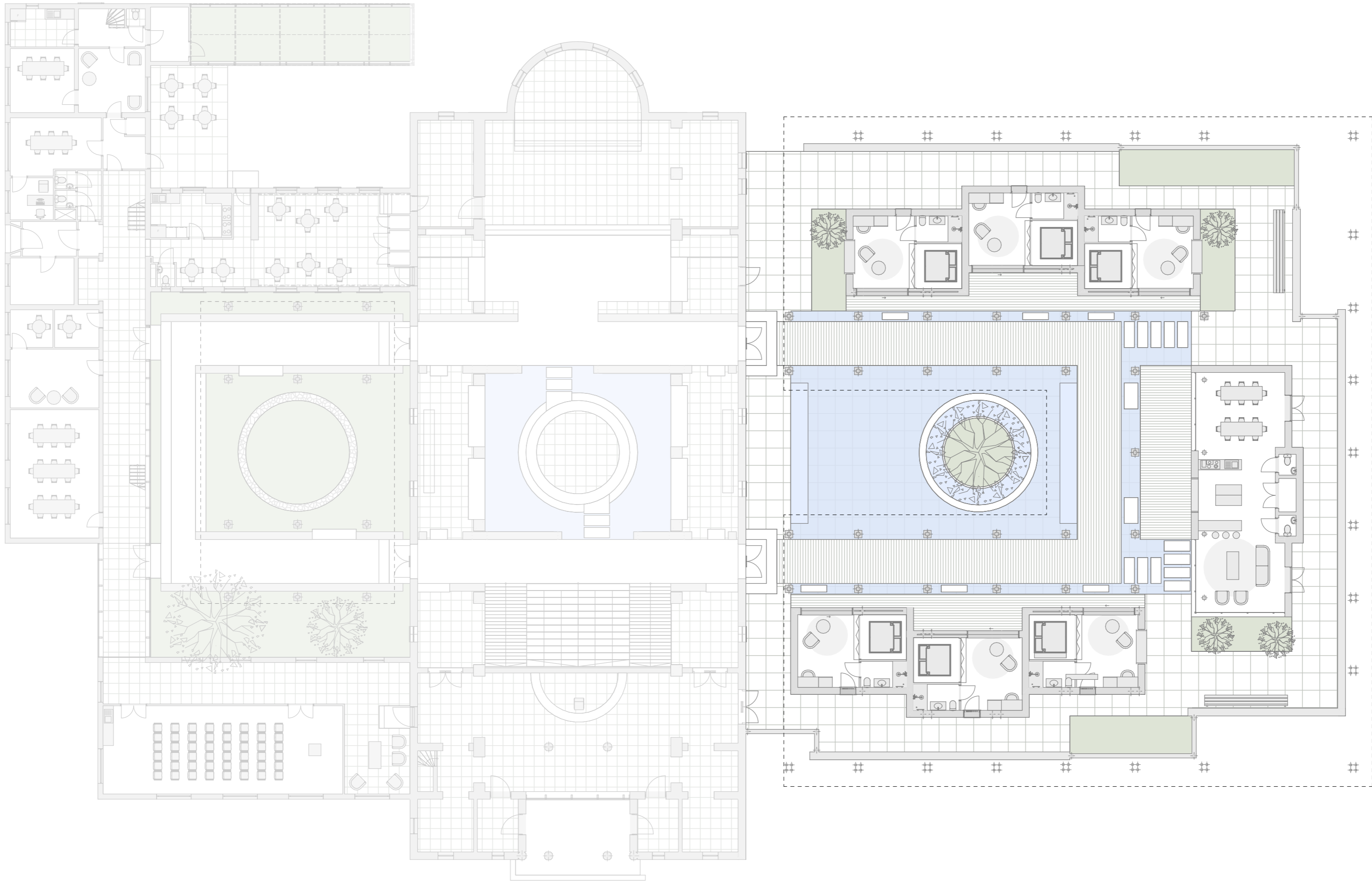


1. SENSES

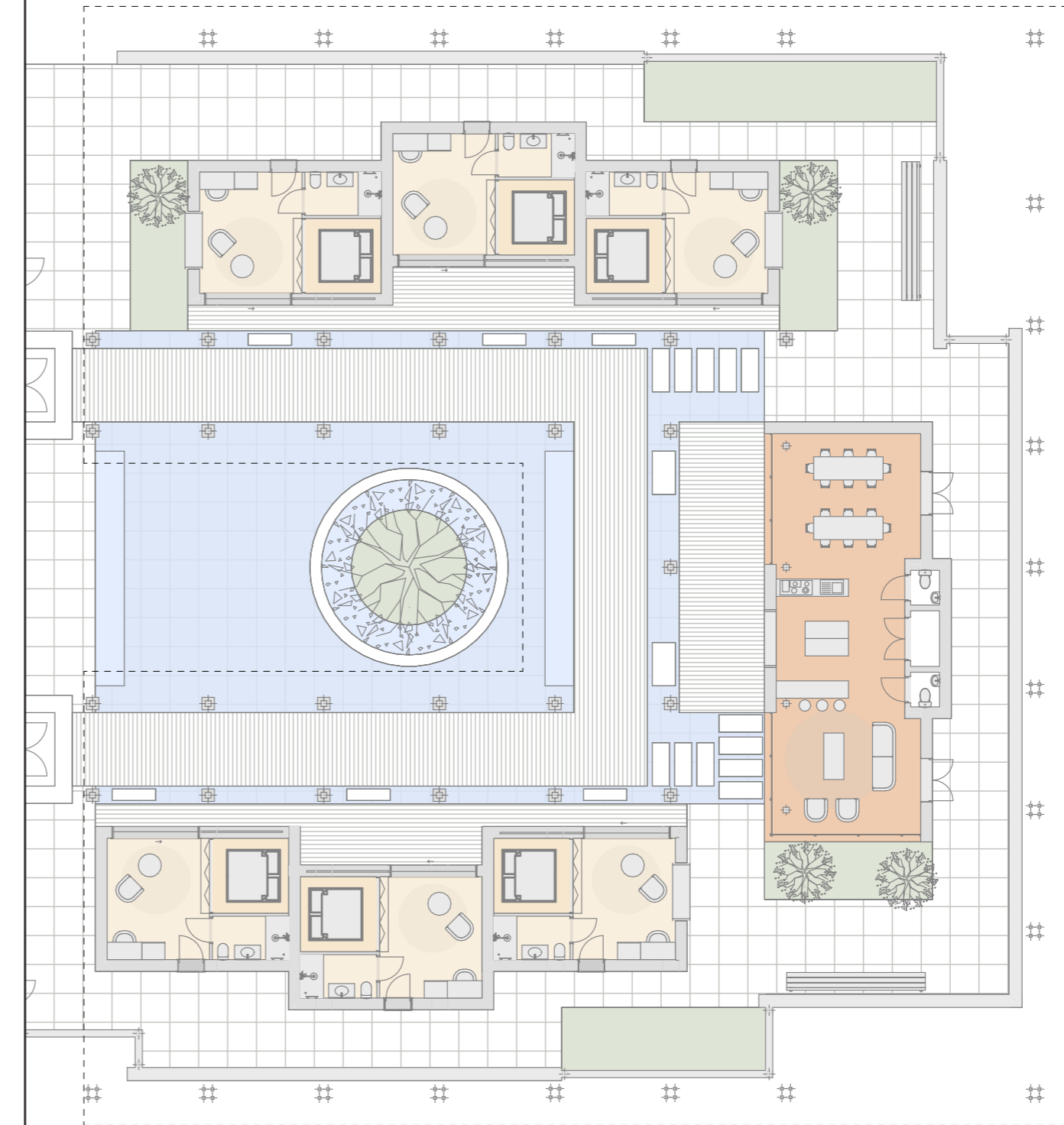
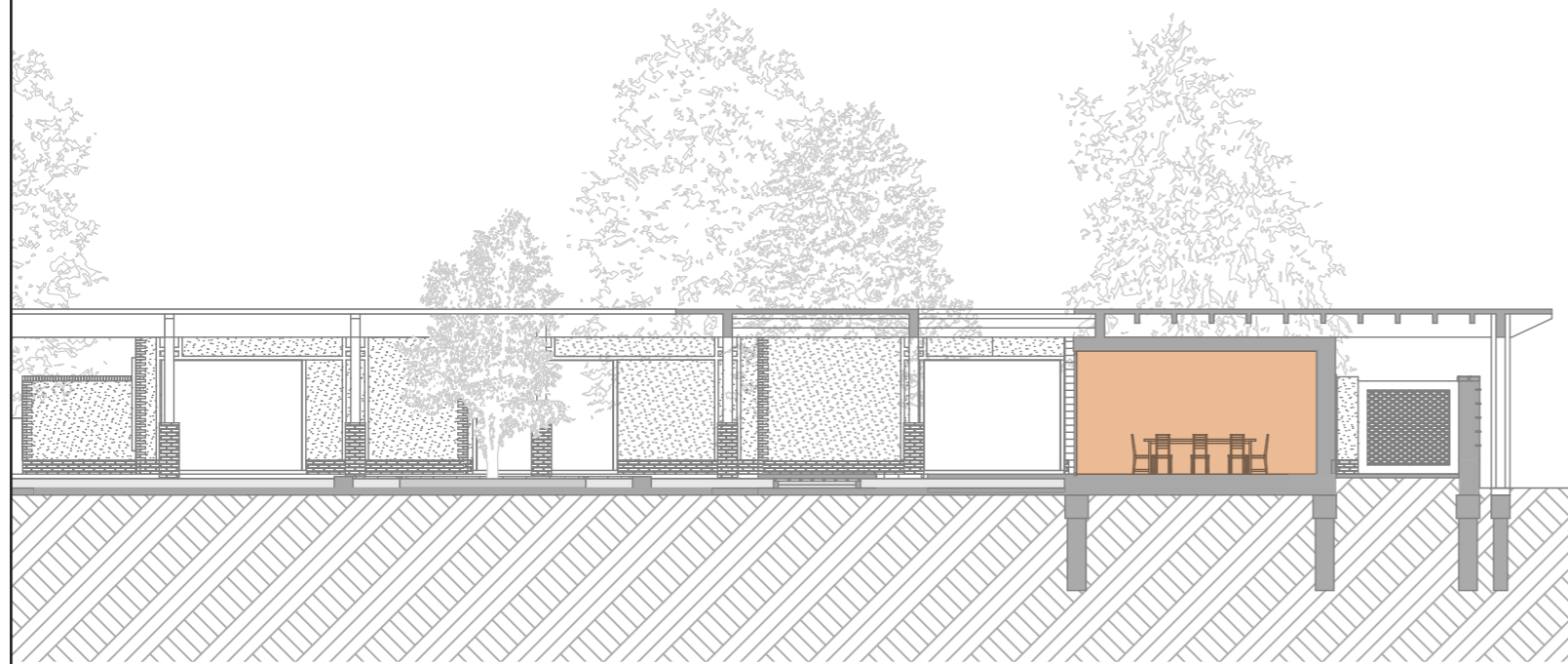
2. SELF

3. NATURE



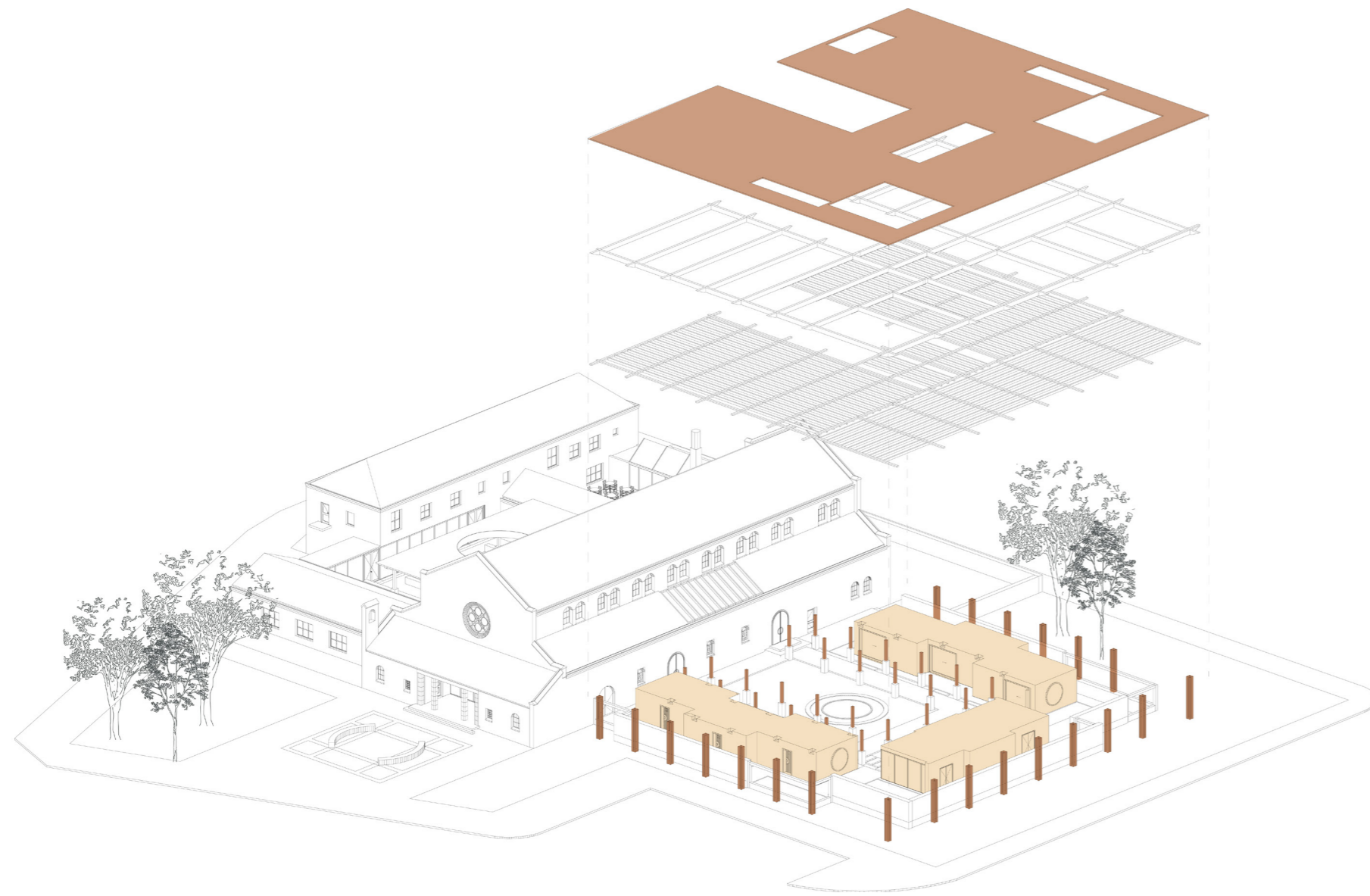


The Circular Retreat

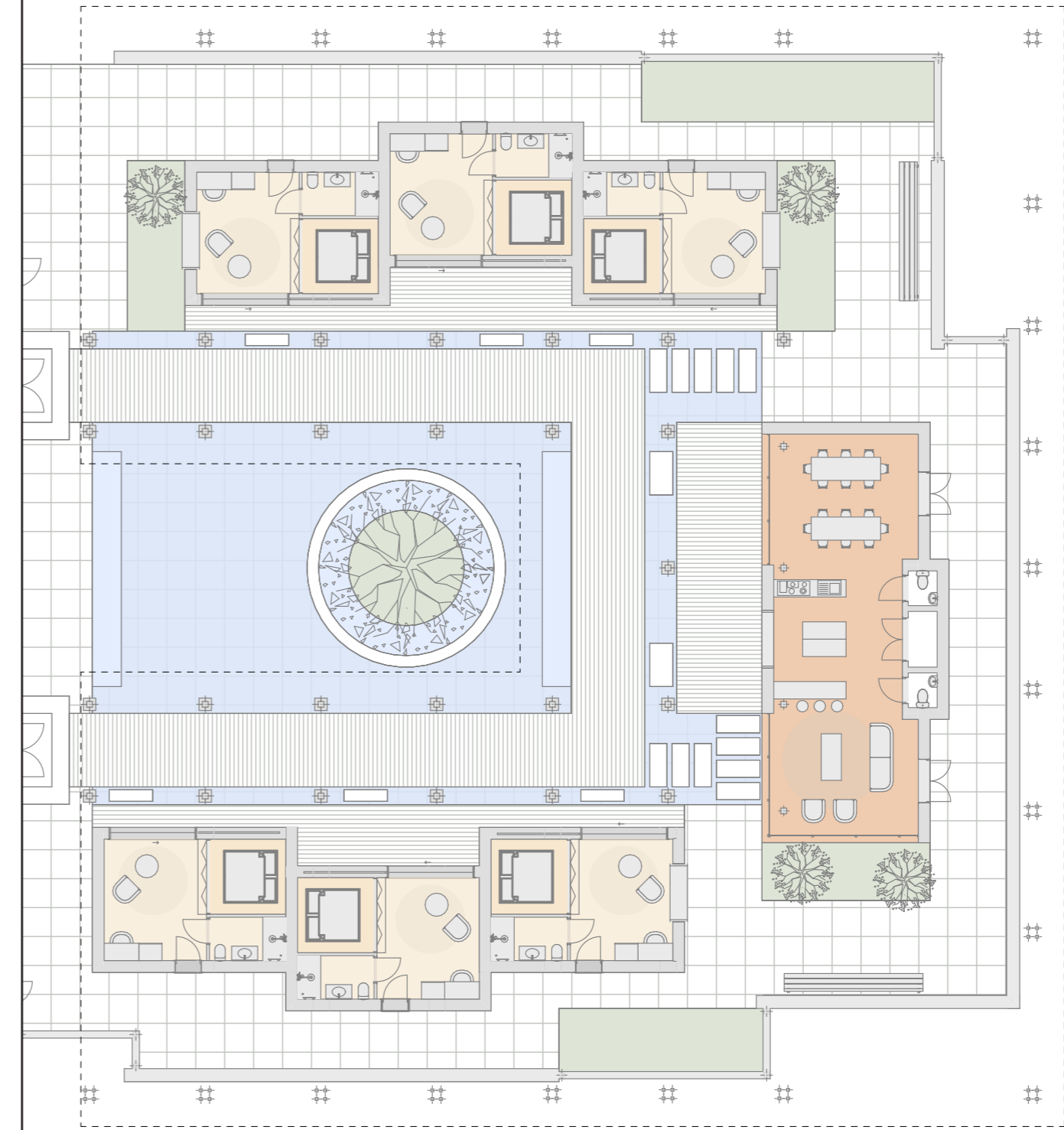


1. Functions

The visitors have their own separate rooms and a shared living room where they can eat together.



The Circular Retreat

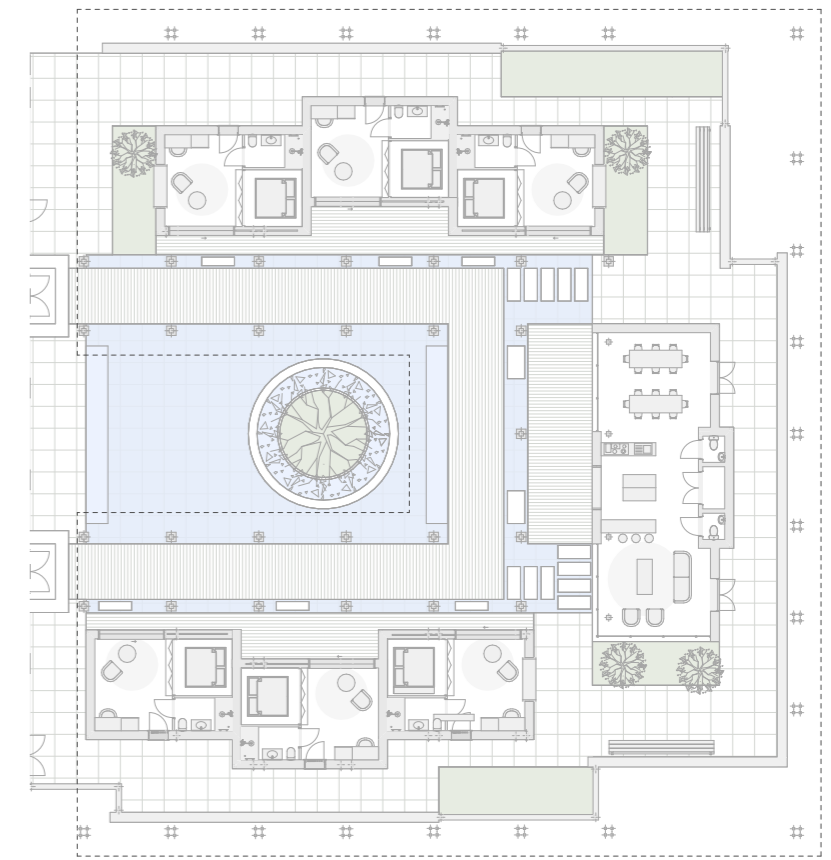


1. Functions

The visitors have their own separate rooms and a shared living room where they can eat together.

2. Construction

The roof is a separate structure that hovers over the buildings like an umbrella.



1.

Outer walls

The thick rammed earth walls that surround the retreat separate the outside and inside and offer protection.

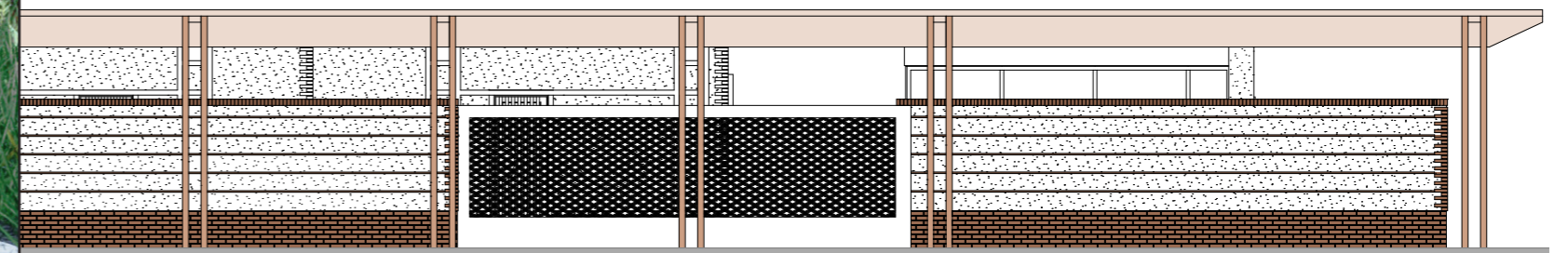
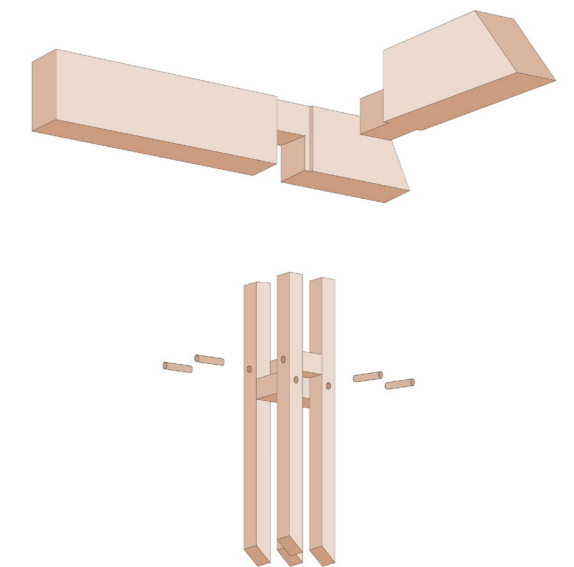


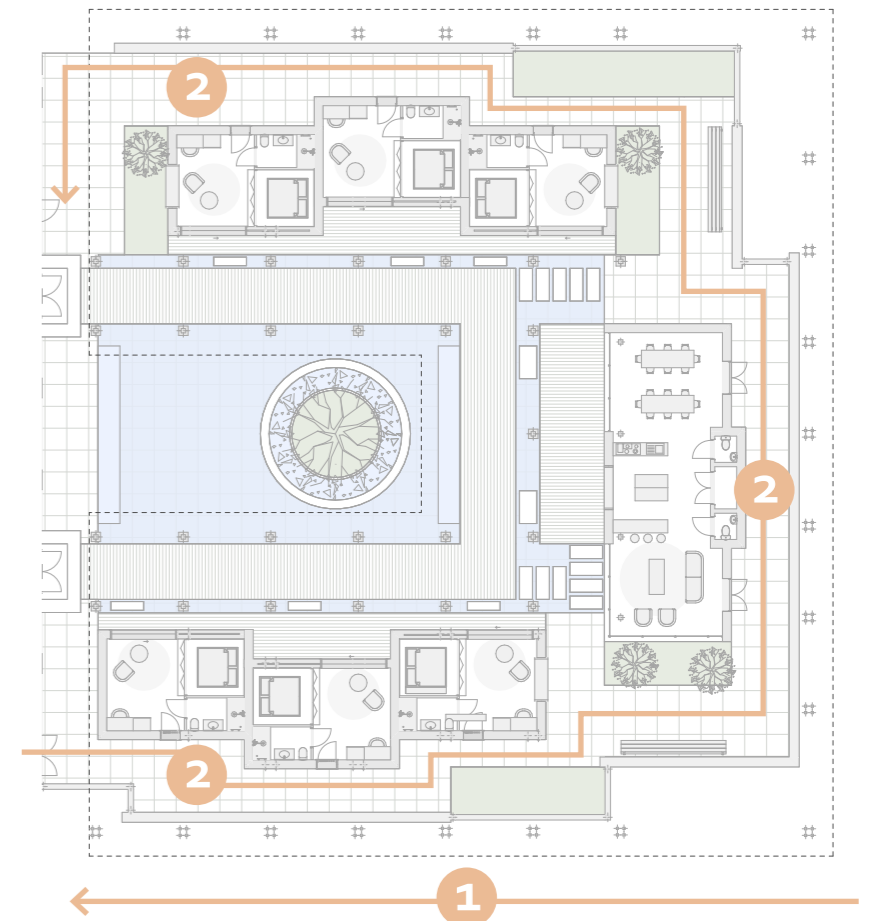
Outer walls

Protective layer

Reclaimed bricks will be used in the new wall construction as reinforcements and erosion checks.

The roof structure hovers over the outer walls and lands on the ground on thin long legs. This gives the building a lighter and more transparent appearance.

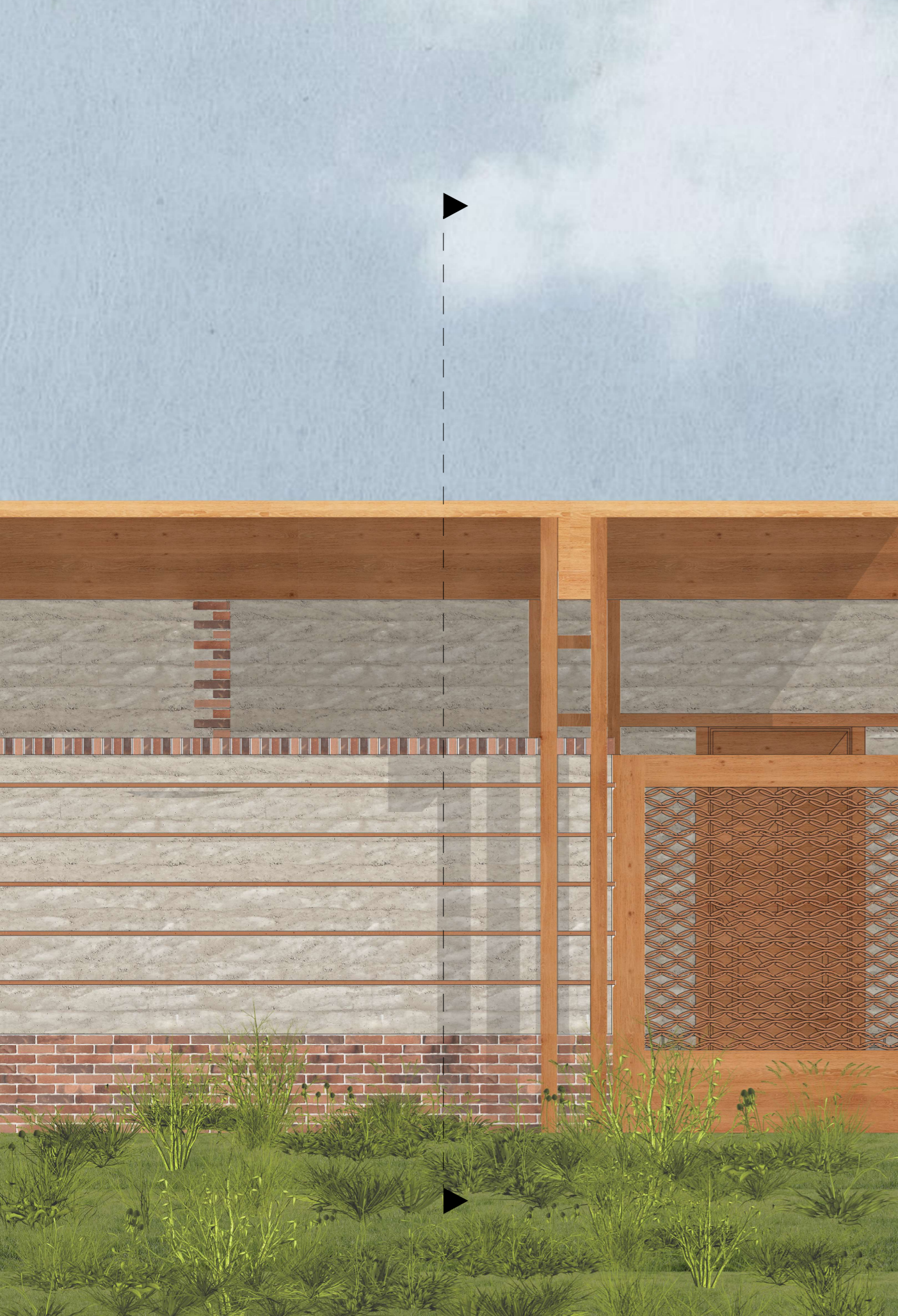




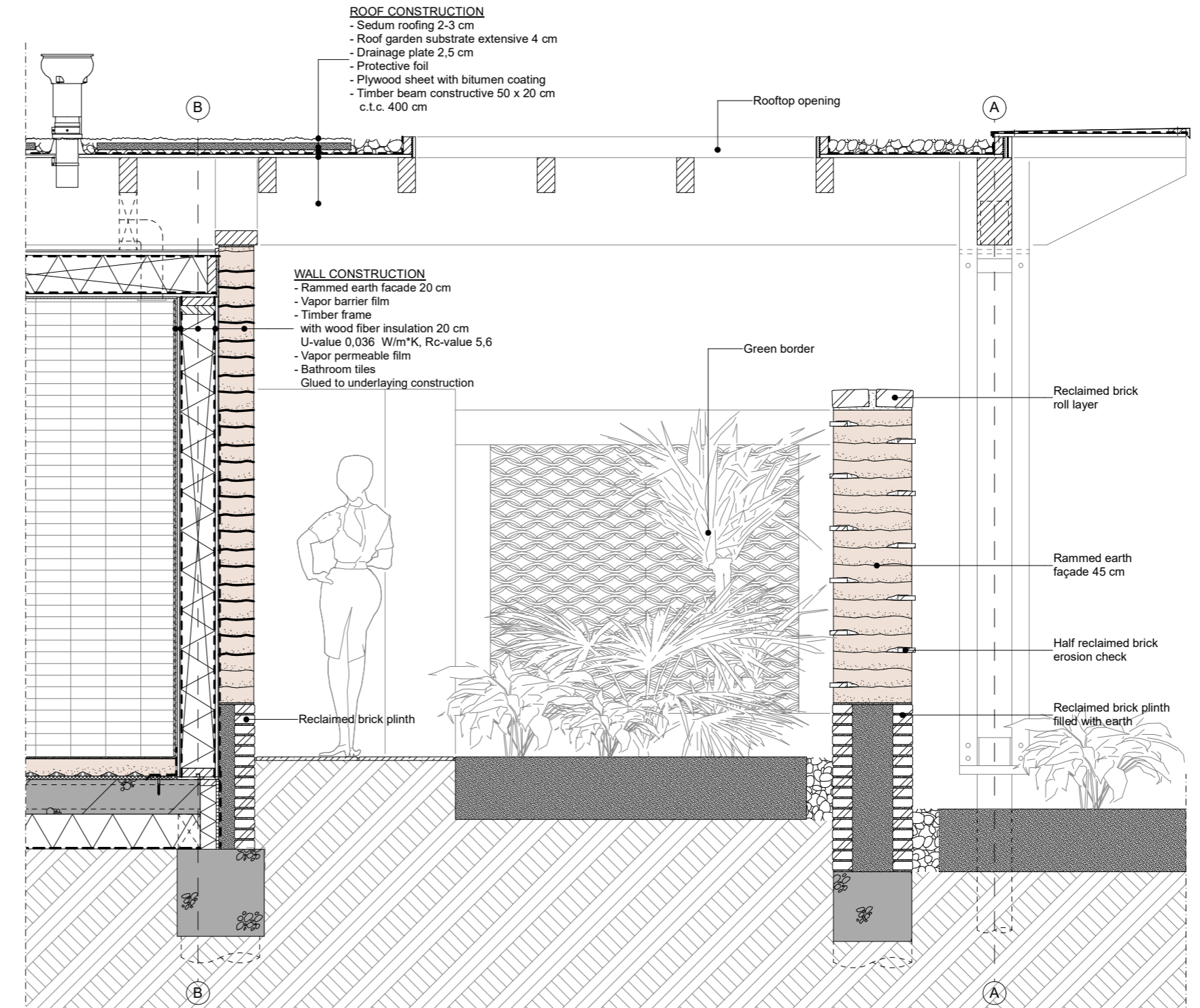
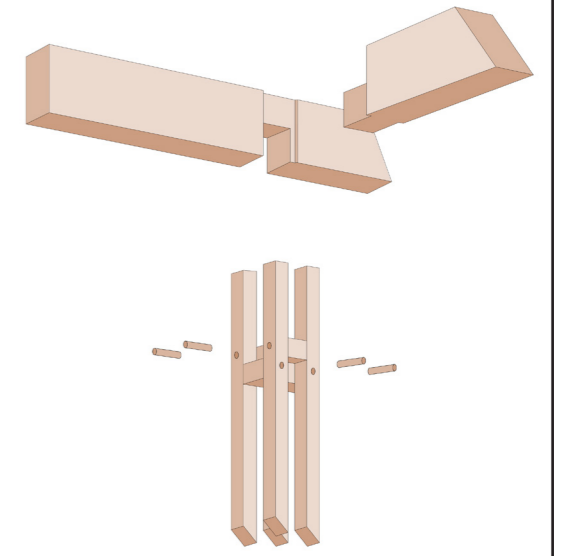
2.

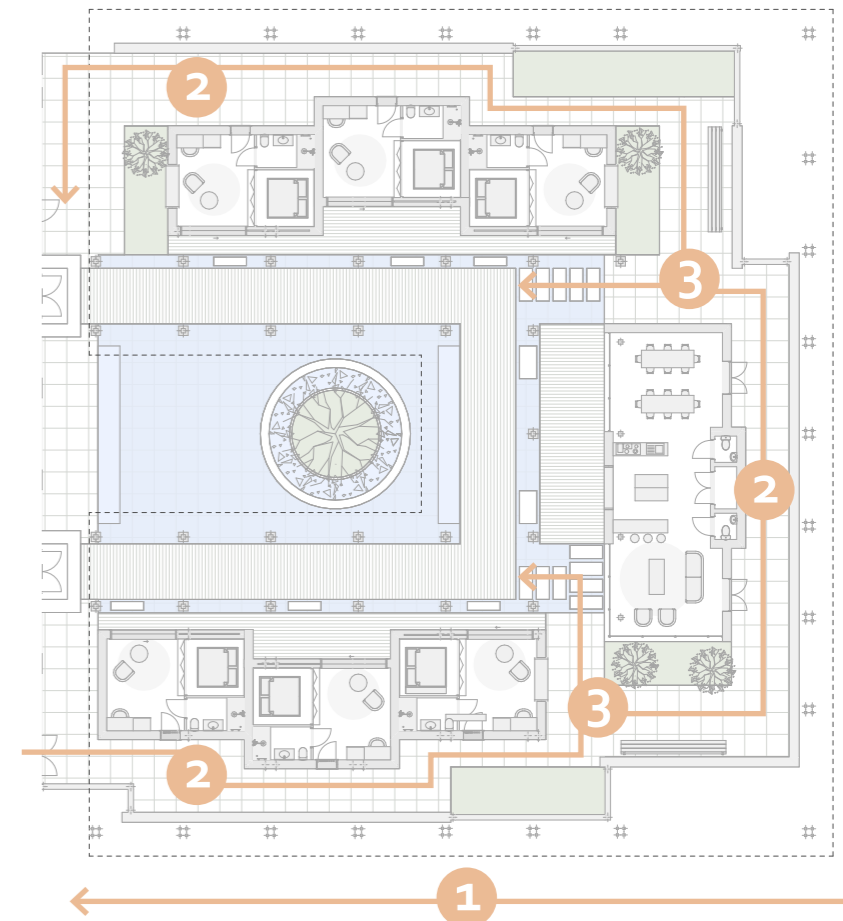
Inner hallway

The walls on the inside of the retreat are less robust than the outside walls but still function as a protective layer between the outside and the inside for the visitor.



Inner hallway



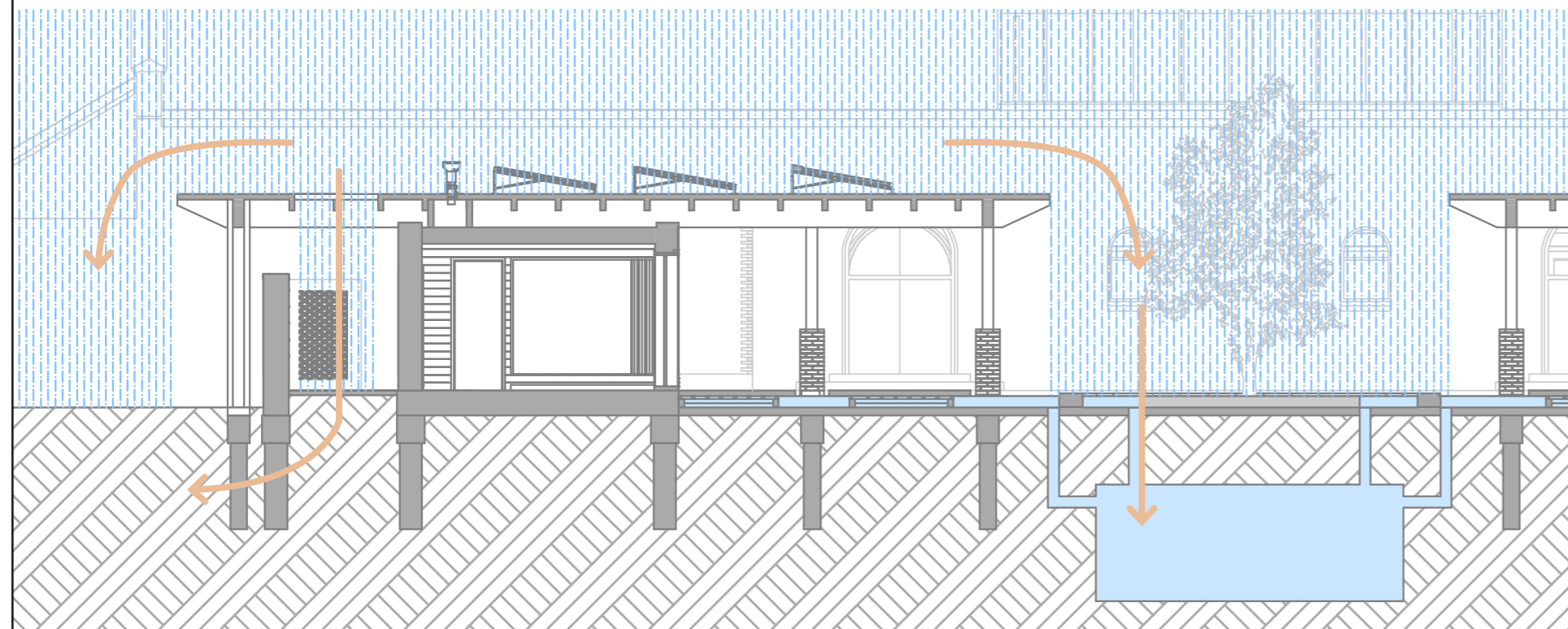
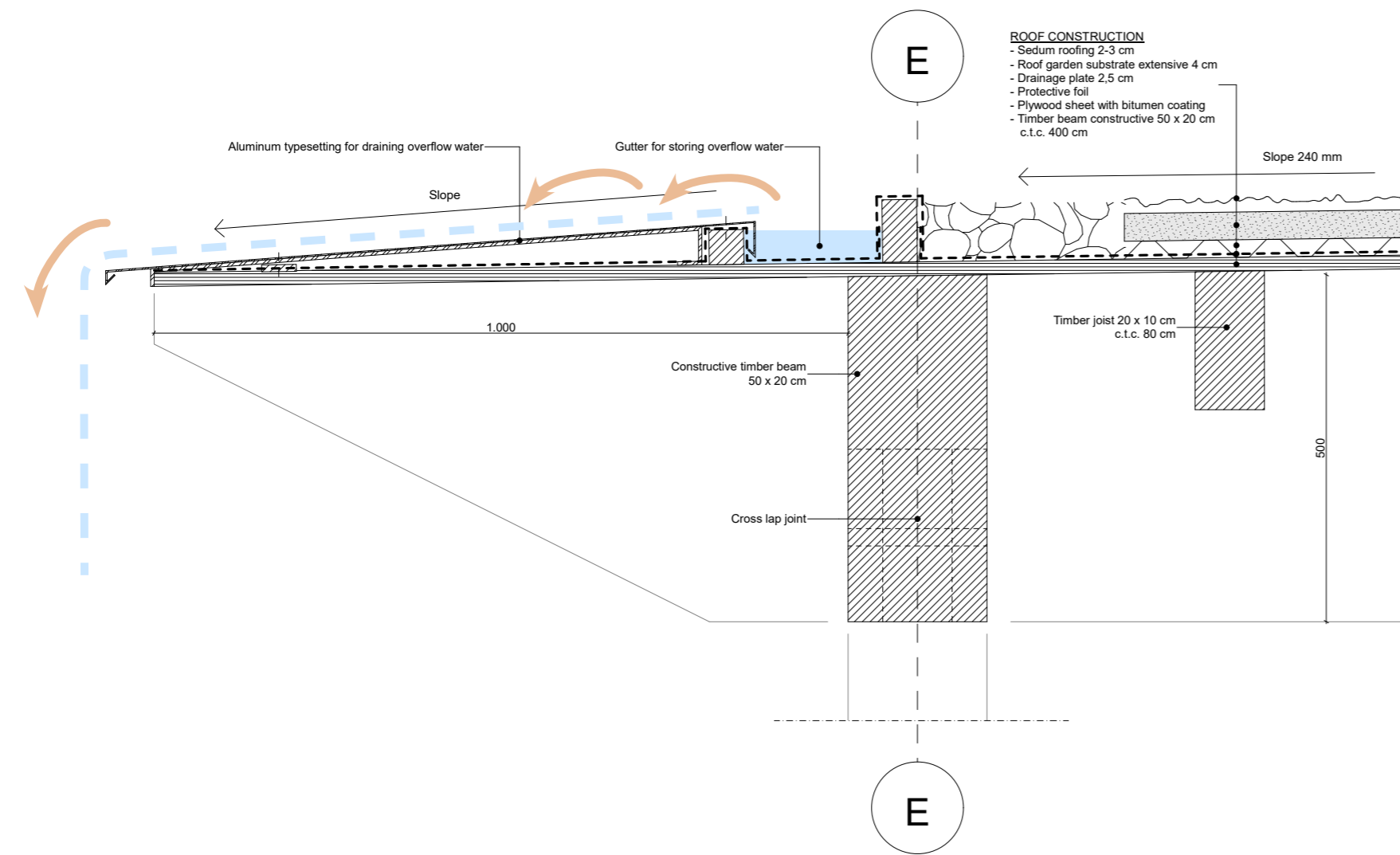


3.

Transition zone

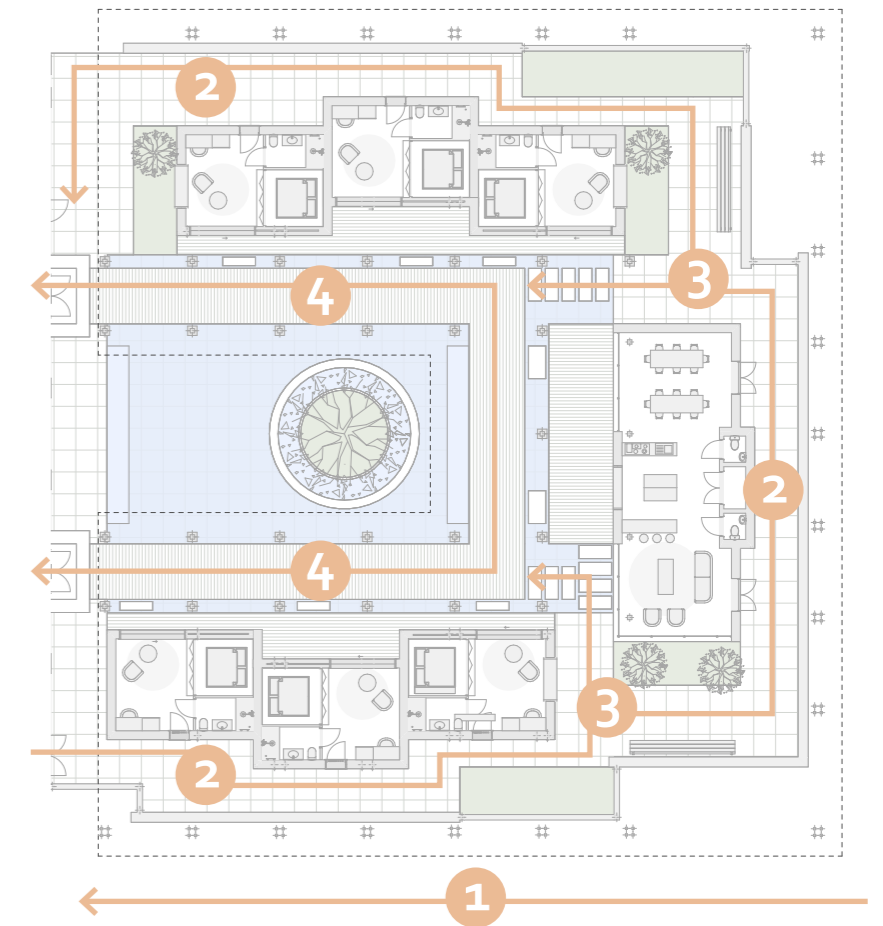
The roof and walls create spaces that give a sense of inside and outside, protection and exposure.

Transition zone



Experiencing rain

The square at the centre of the retreat functions as a water reservoir to store rainwater. The water will flow off the roof freely.



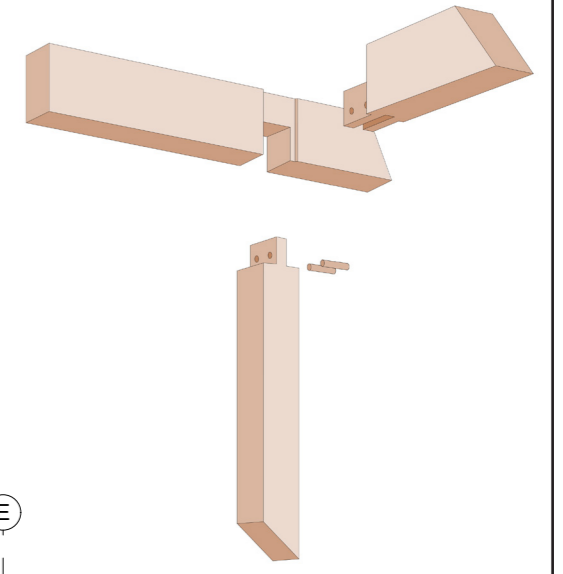
4.

Boardwalk

The rooms are located around the circular routing that leads towards the other areas. It is an elevated pathway that floats over the inner square.

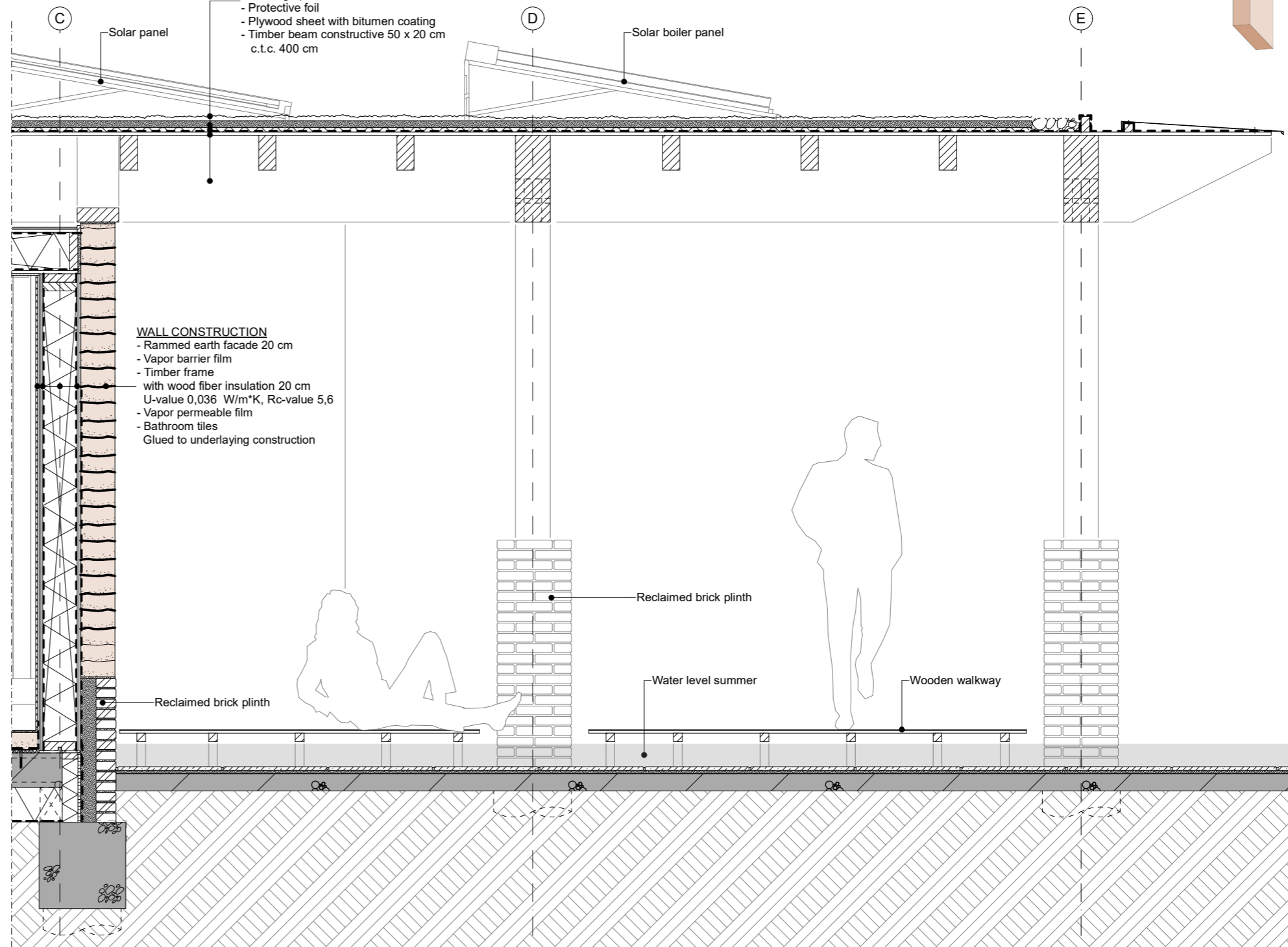


Boardwalk



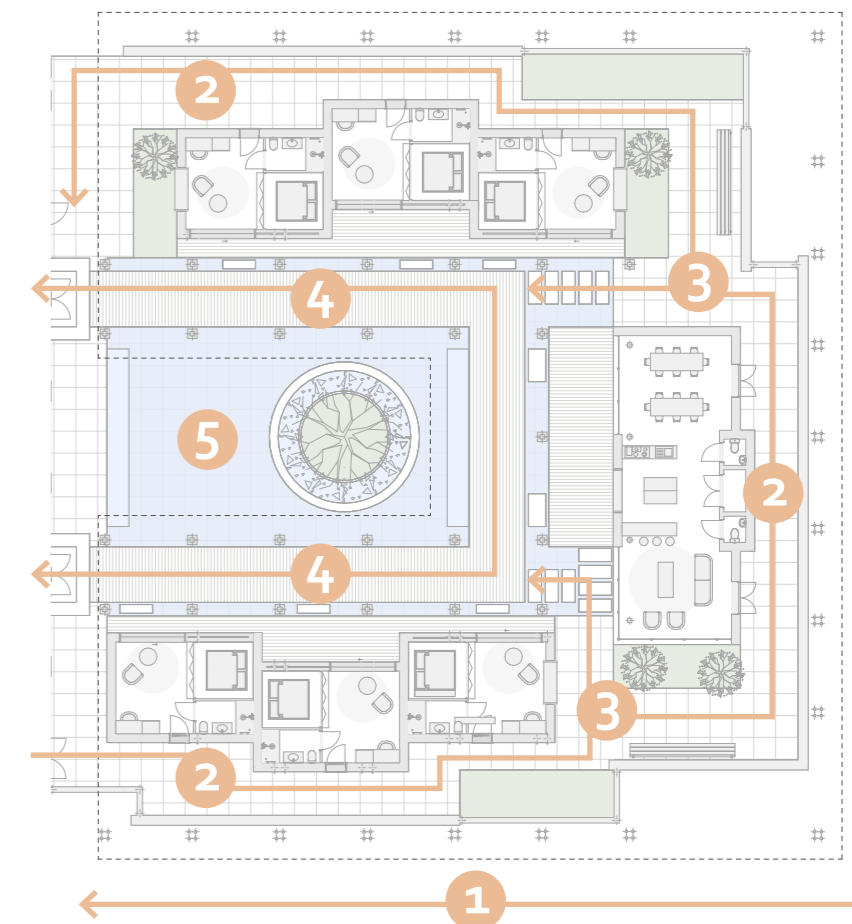
ROOF CONSTRUCTION

- Sedum roofing 2-3 cm
- Roof garden substrate extensive 4 cm
- Drainage plate 2,5 cm
- Protective foil
- Plywood sheet with bitumen coating
- Timber beam constructive 50 x 20 cm c.t.c. 400 cm



WALL CONSTRUCTION

- Rammed earth facade 20 cm
- Vapor barrier film
- Timber frame with wood fiber insulation 20 cm
- U-value 0,036 W/m²K, Rc-value 5,6
- Vapor permeable film
- Bathroom tiles
- Glued to underlying construction



5.

Water square

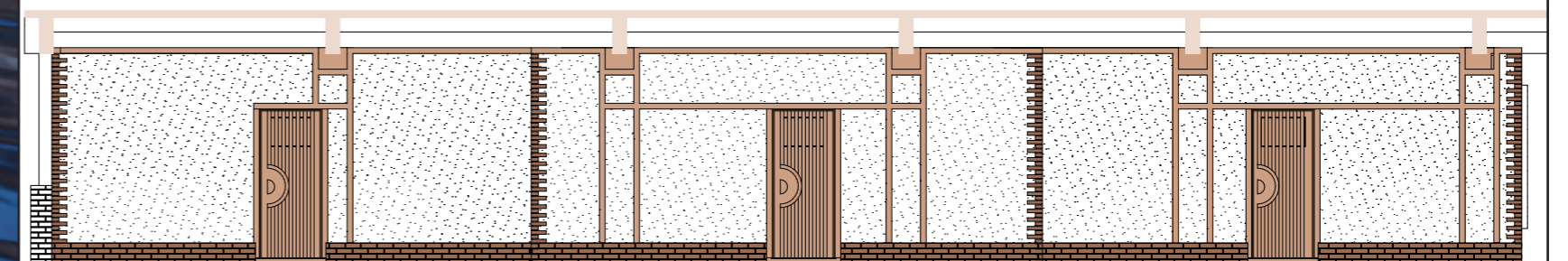
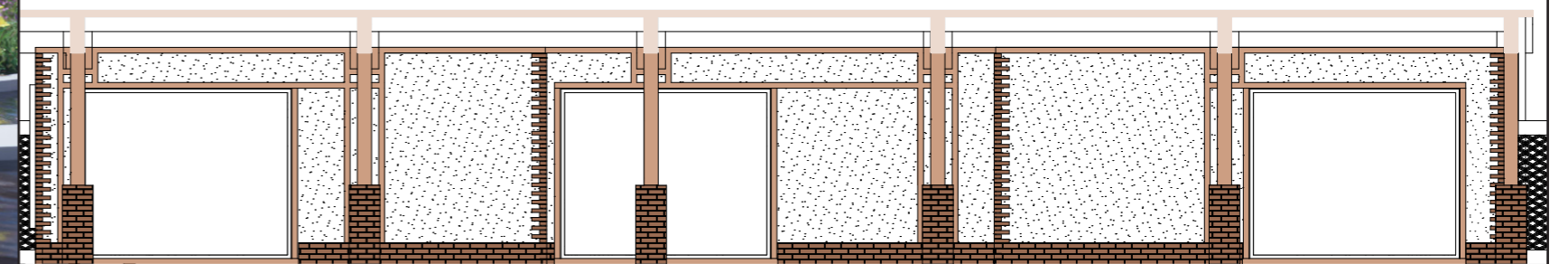
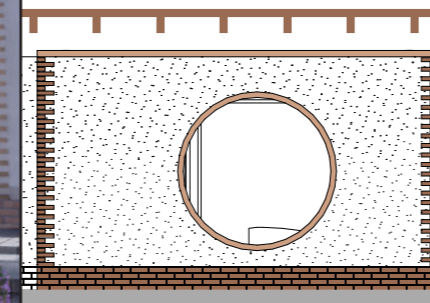
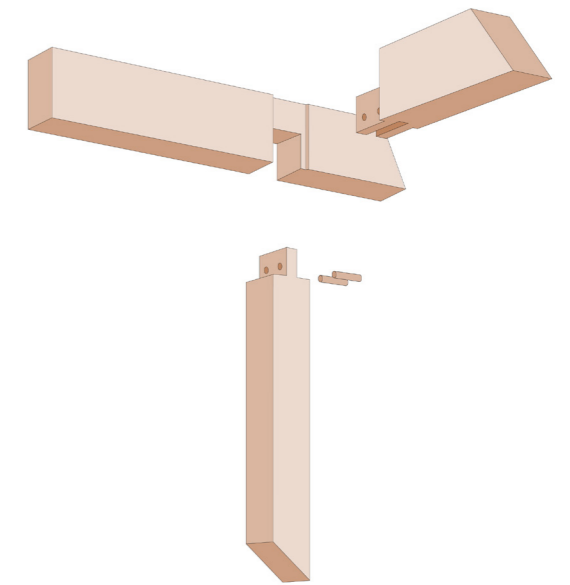
The reflective quality of the water in the central square can evoke contemplation and meditation. In the middle a cherry tree marks the passing of the seasons.

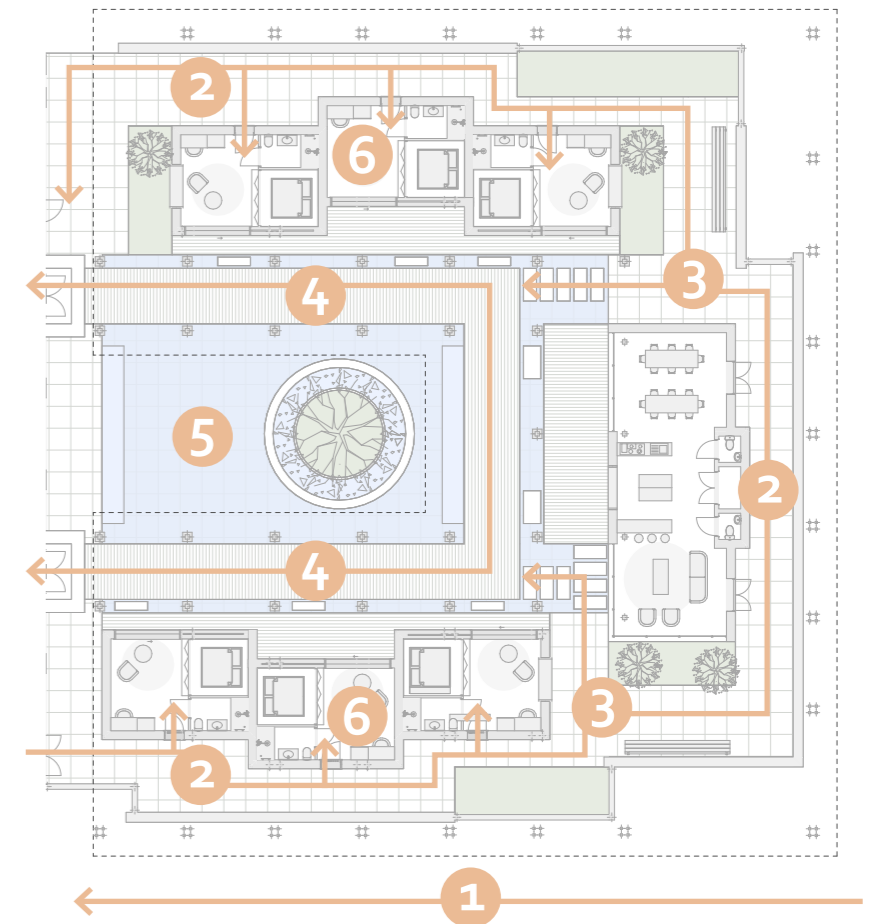


Inner walls

Interior layer

The inner walls of the retreat have their unique facade drawing that derives from the openings in the walls as well as the overhanging roof structure. These timber infills give the walls a sense of warmth and interior.



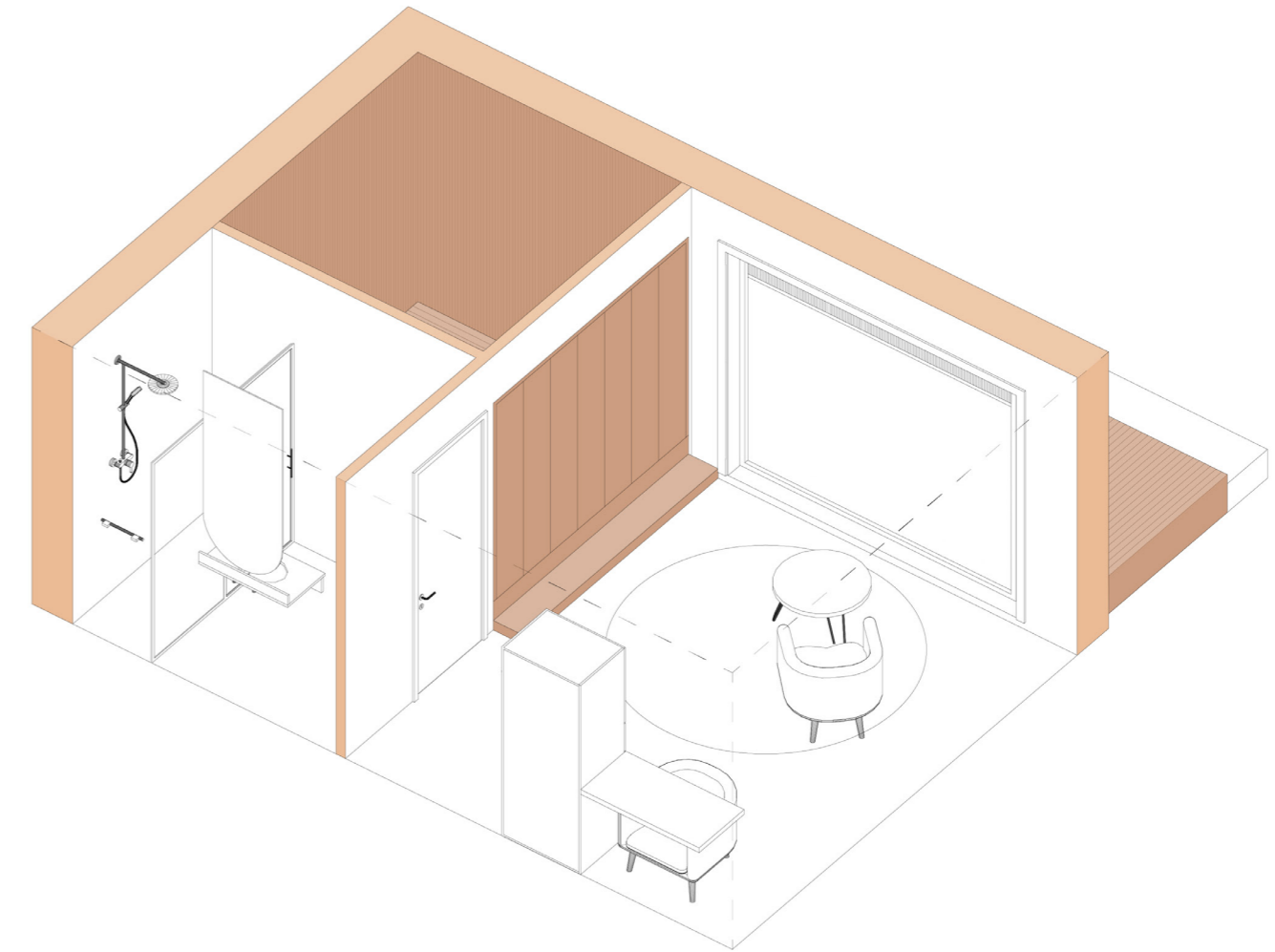


6.

Guest rooms

In the warmer periods the rooms can be fully opened towards the outside. Every room looks towards the inner spiritual space, marked by a cherry tree.

Guest rooms



1.

Autumn/Winter

The rooms are also designed to experience nature more. The sleeping area can be closed off to heat up faster during colder periods. This forces visitors to withdraw and rest in the winter period.

Guest rooms

1.

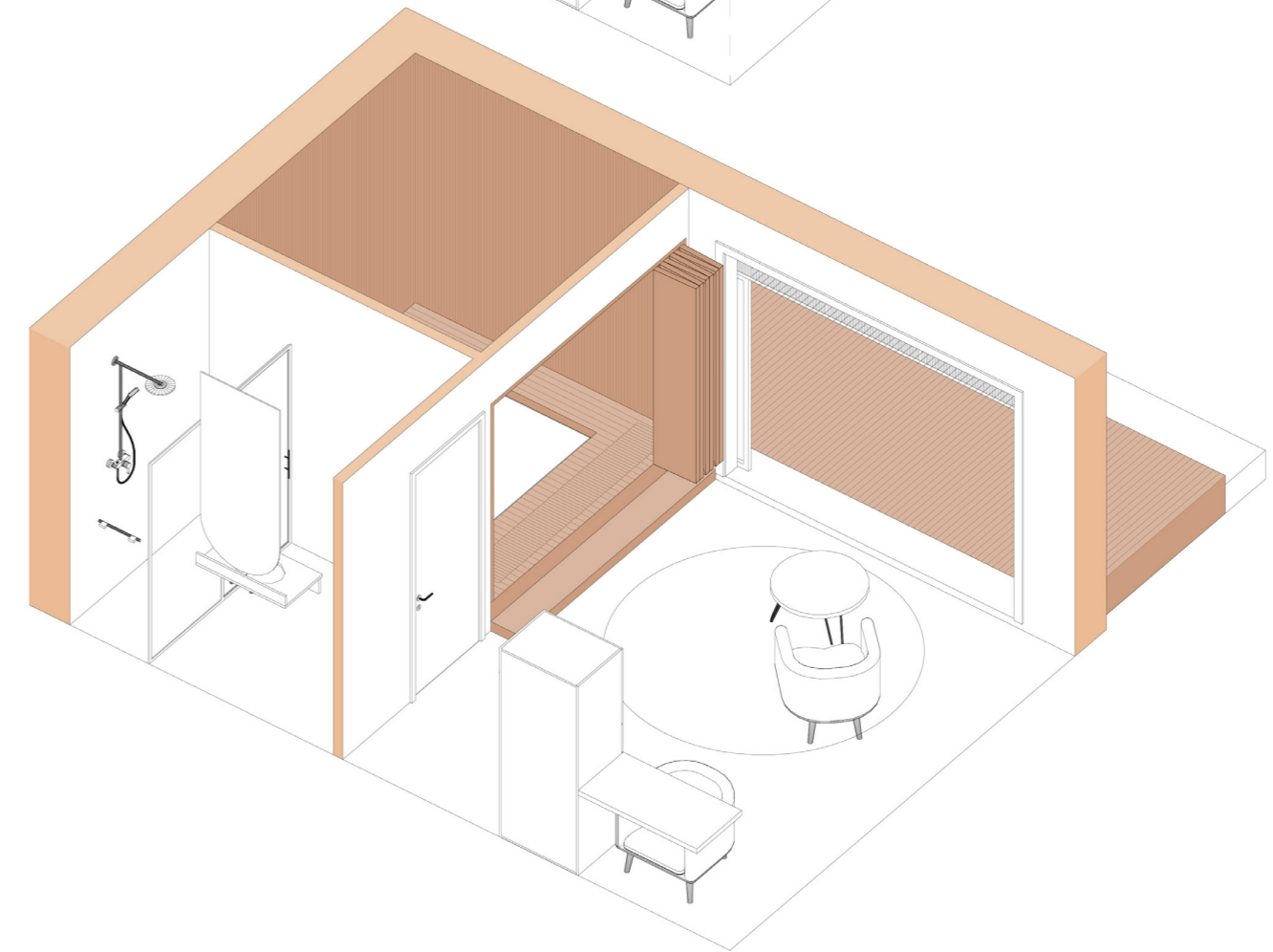
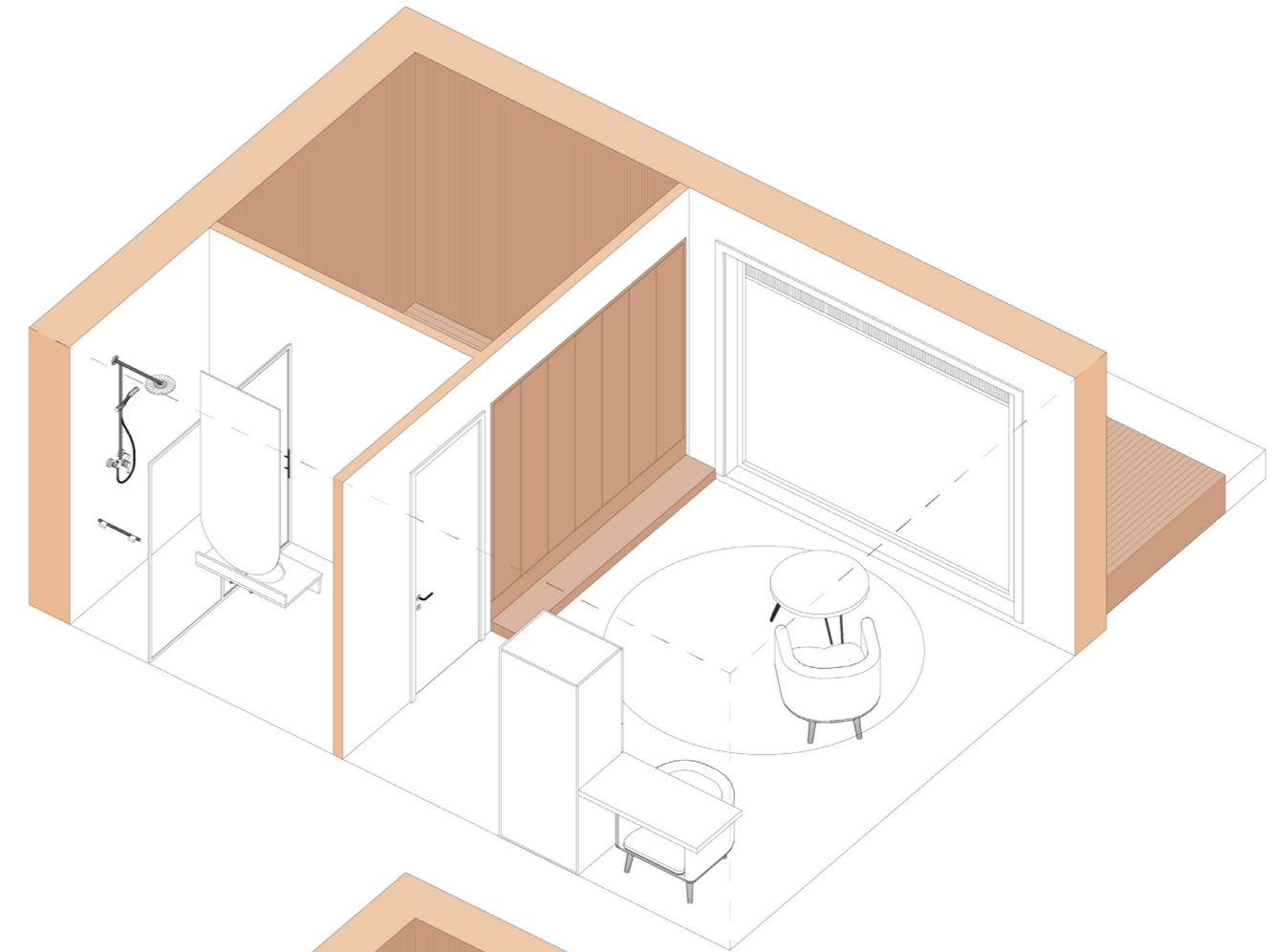
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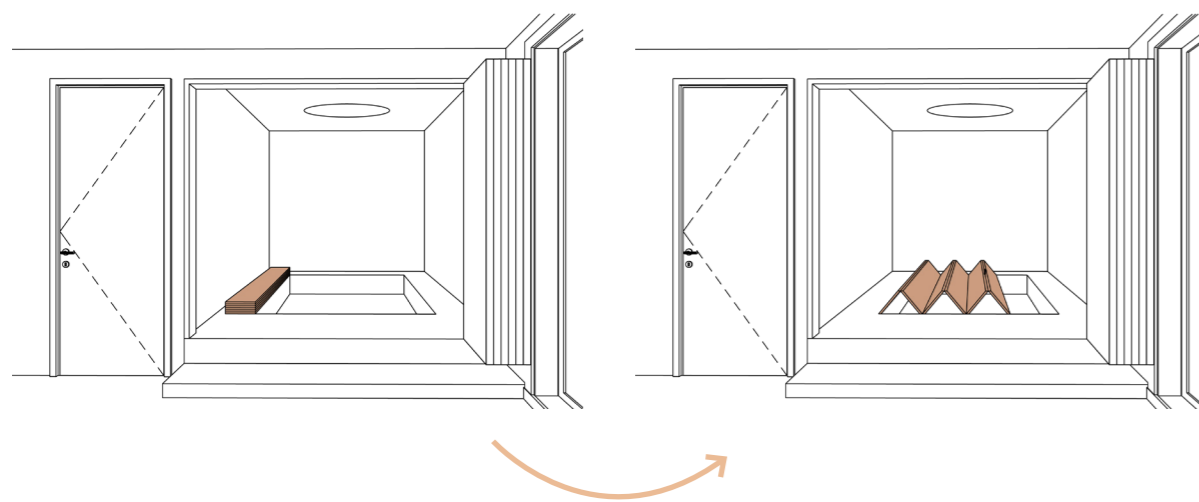
2.

Spring/Summer

In the warmer periods, the wall can be opened to keep cool air in the room. A sliding door can be opened to access the outside terrace.



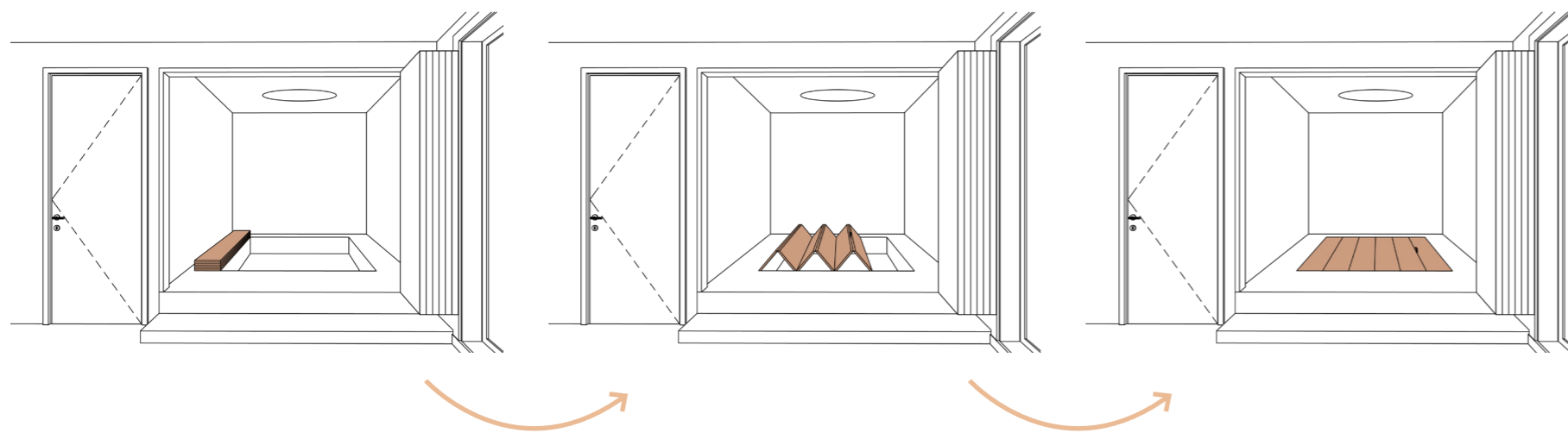
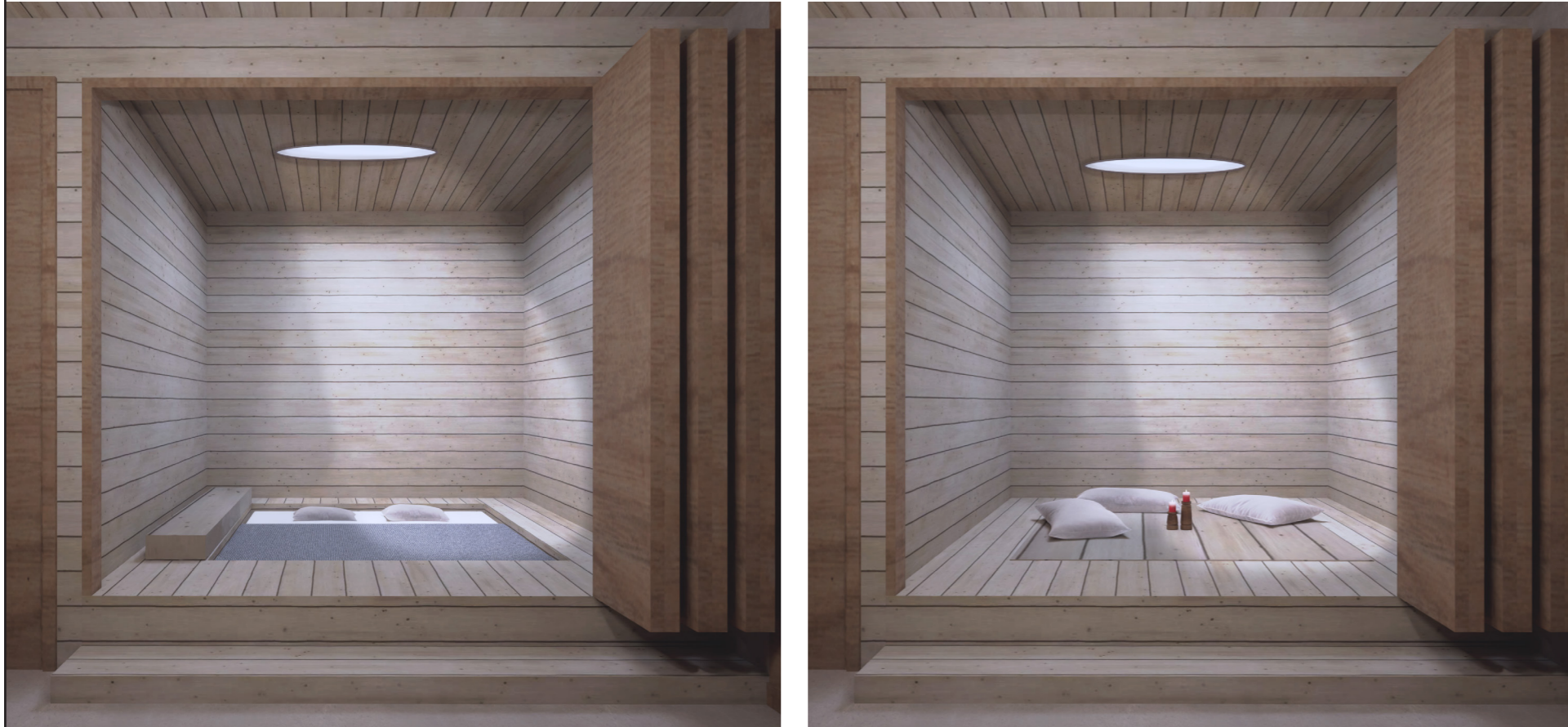
Guest rooms



Multifunctional space

In the spring and summer, people will turn more to the outside, when it is warmer and more comfortable. In this period the modern box bed can also be transformed into a meditation space.

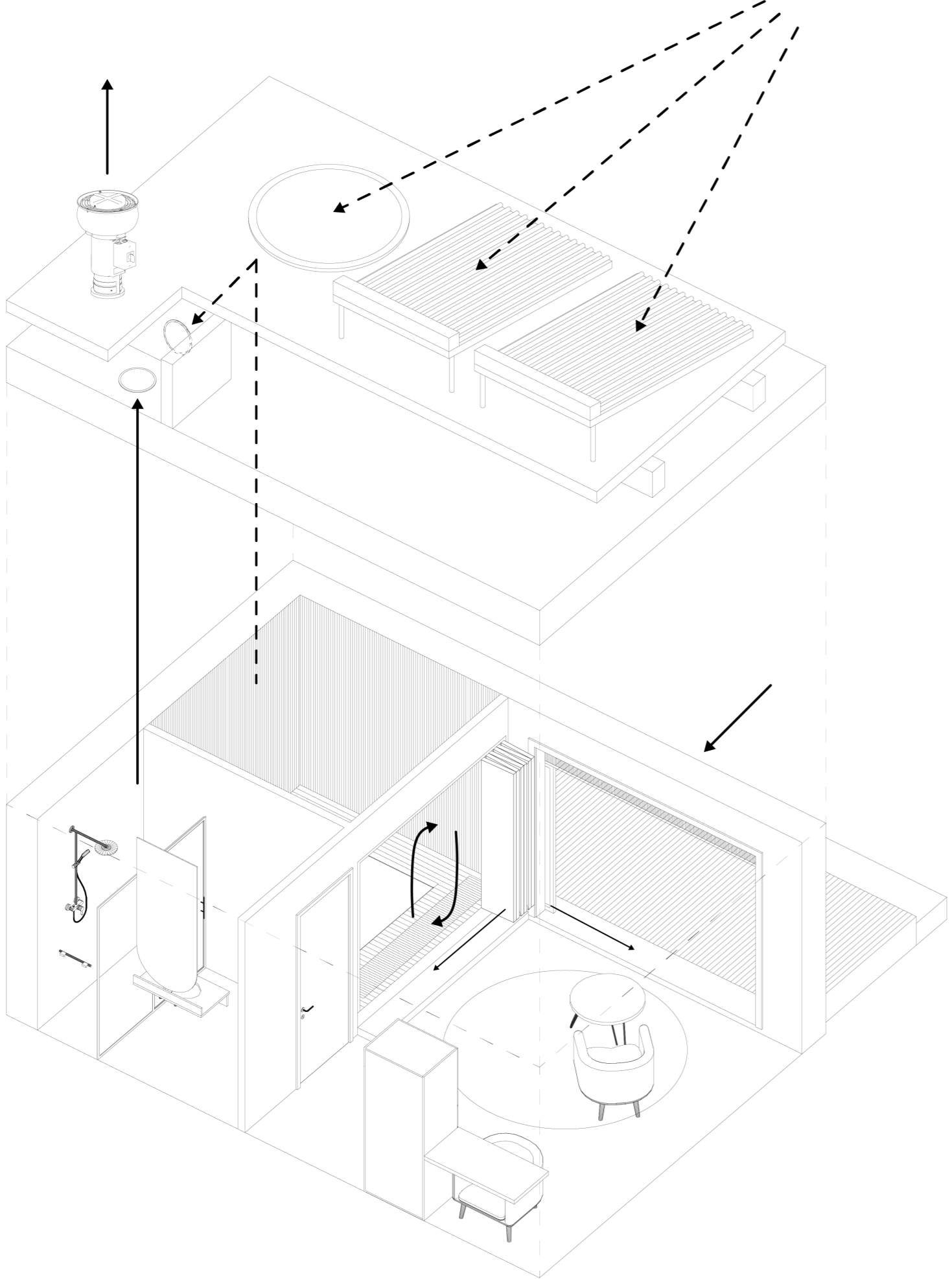
Guest rooms

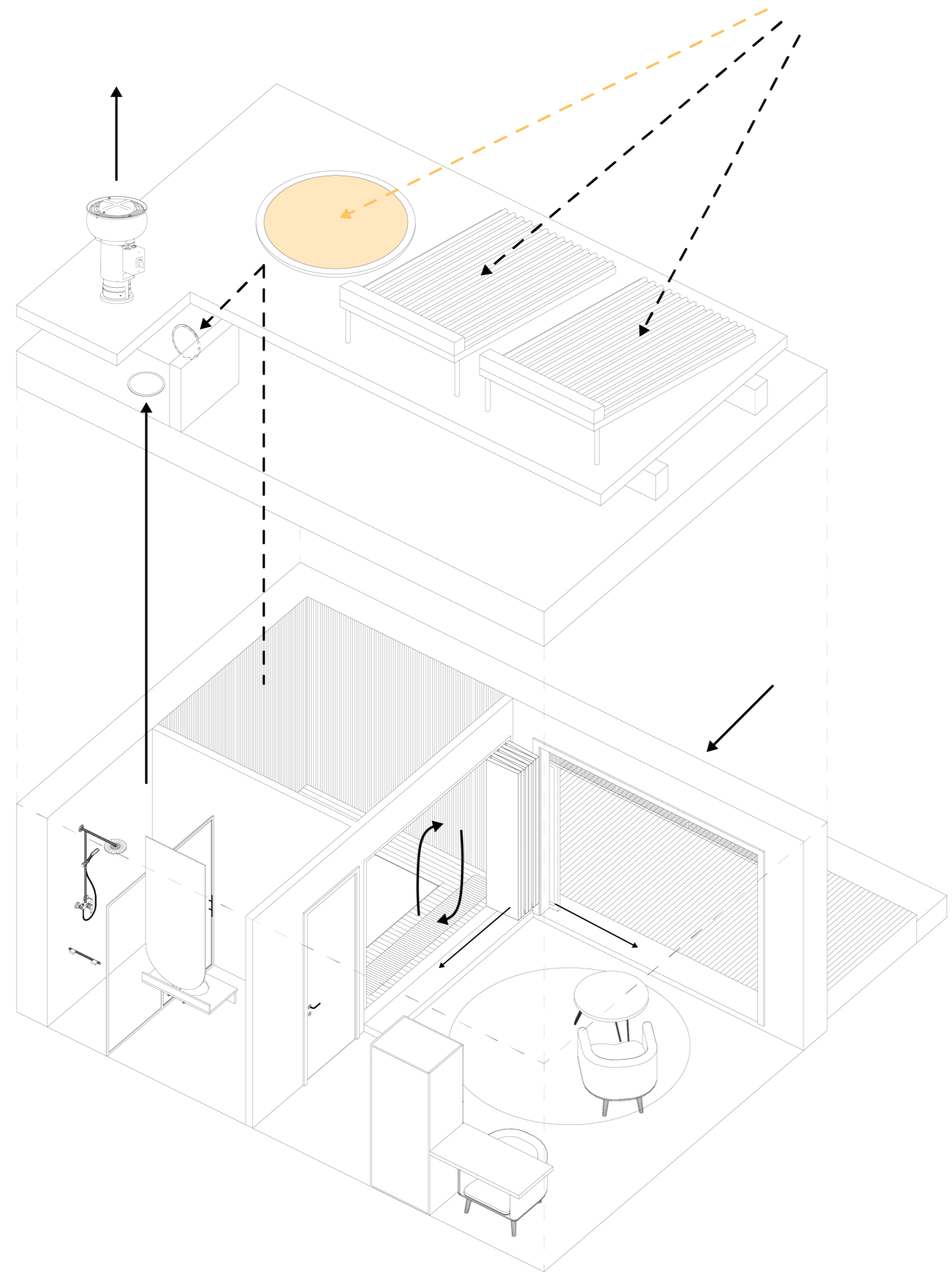


Multifunctional space

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Climate design



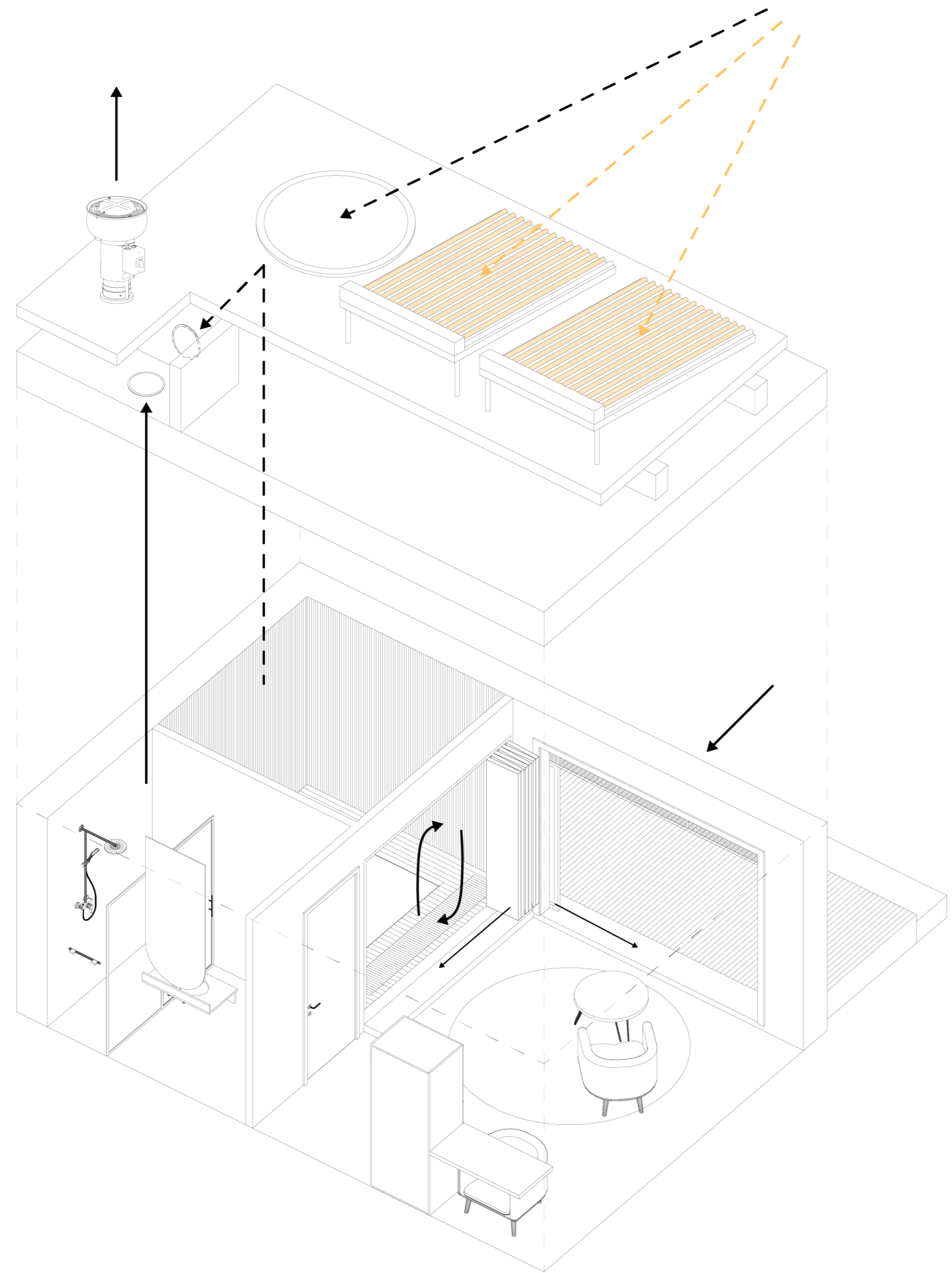


Climate design

1.

Natural daylight

Visitors wake up with natural daylight through a skylight in the sleeping area. This strengthens the connection with the natural rhythm.



Climate design

1.

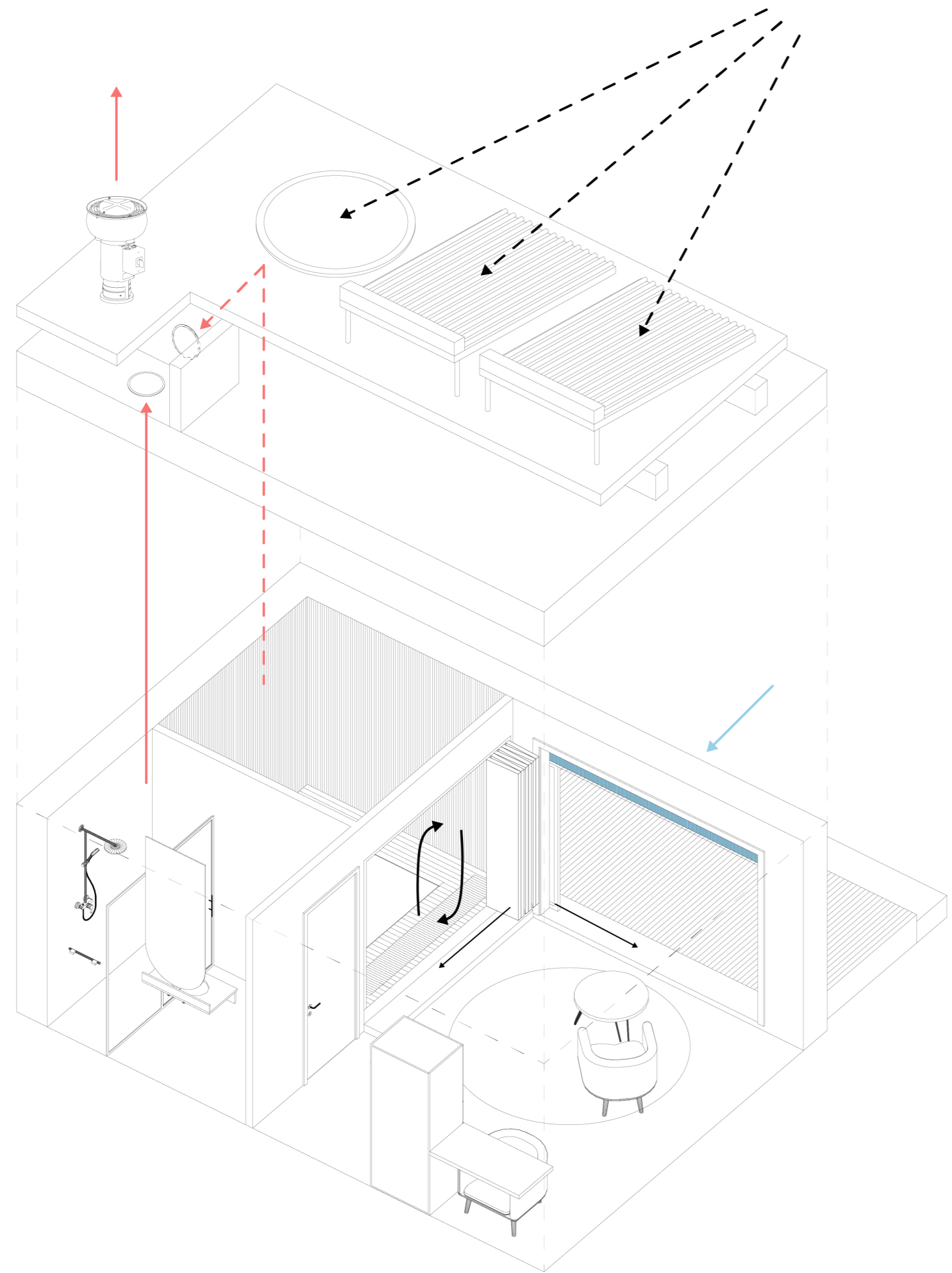
Natural daylight

Visitors wake up with natural daylight through a skylight in the sleeping area. This strengthens the connection with the natural rhythm.

2.

Solar boiler panels

Water will be heated by sunlight through panels on the roof. The water will be warmer when there is more sun. This creates awareness.



Climate design

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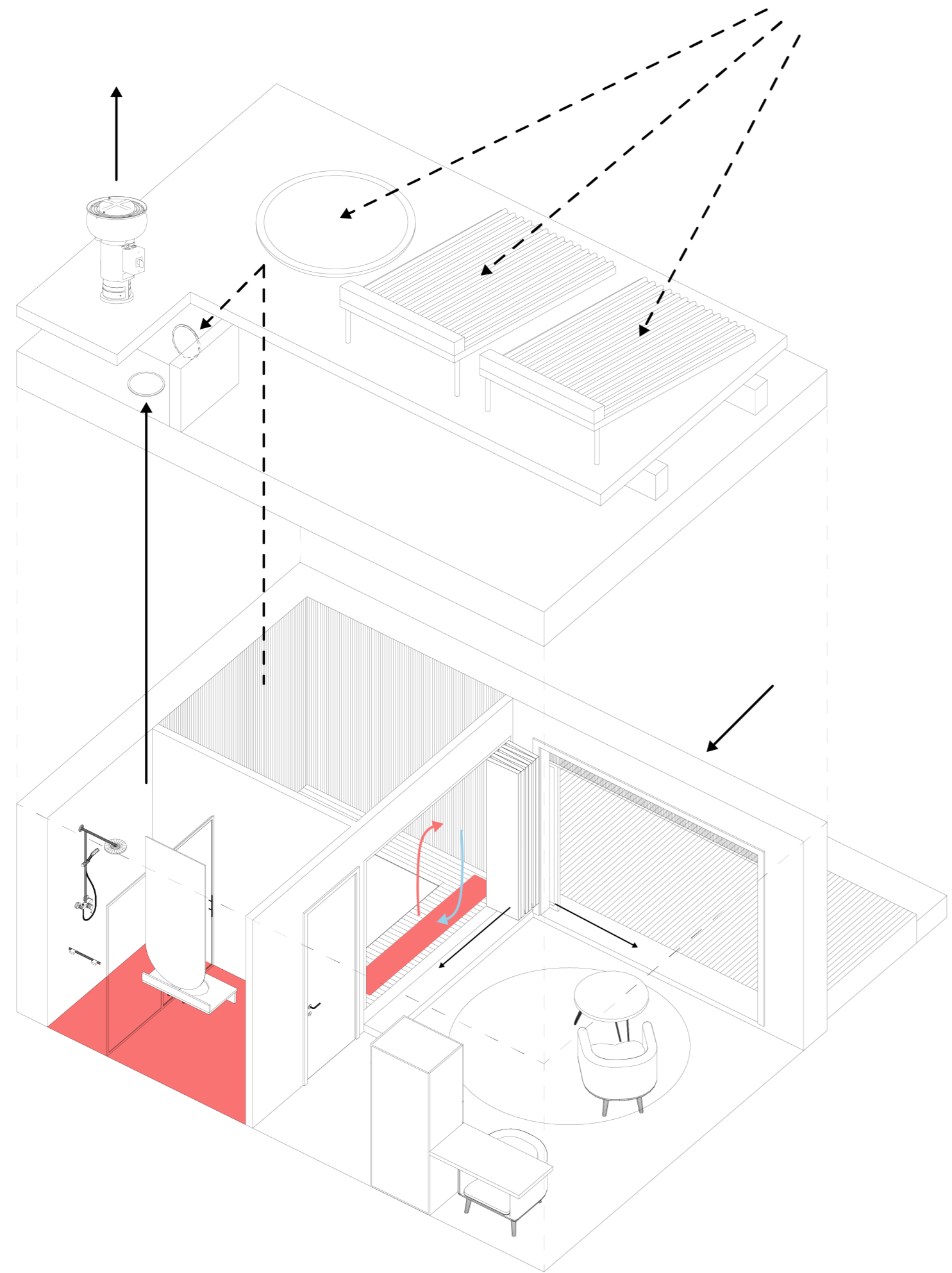
Solar boiler panels

Water will be heated by sunlight through panels on the roof. The water will be warmer when there is more sun. This creates awareness.

3.

Ventilation

Fresh air will enter the room through a vent in the facade and is sucked off by a pipe roof ventilator.



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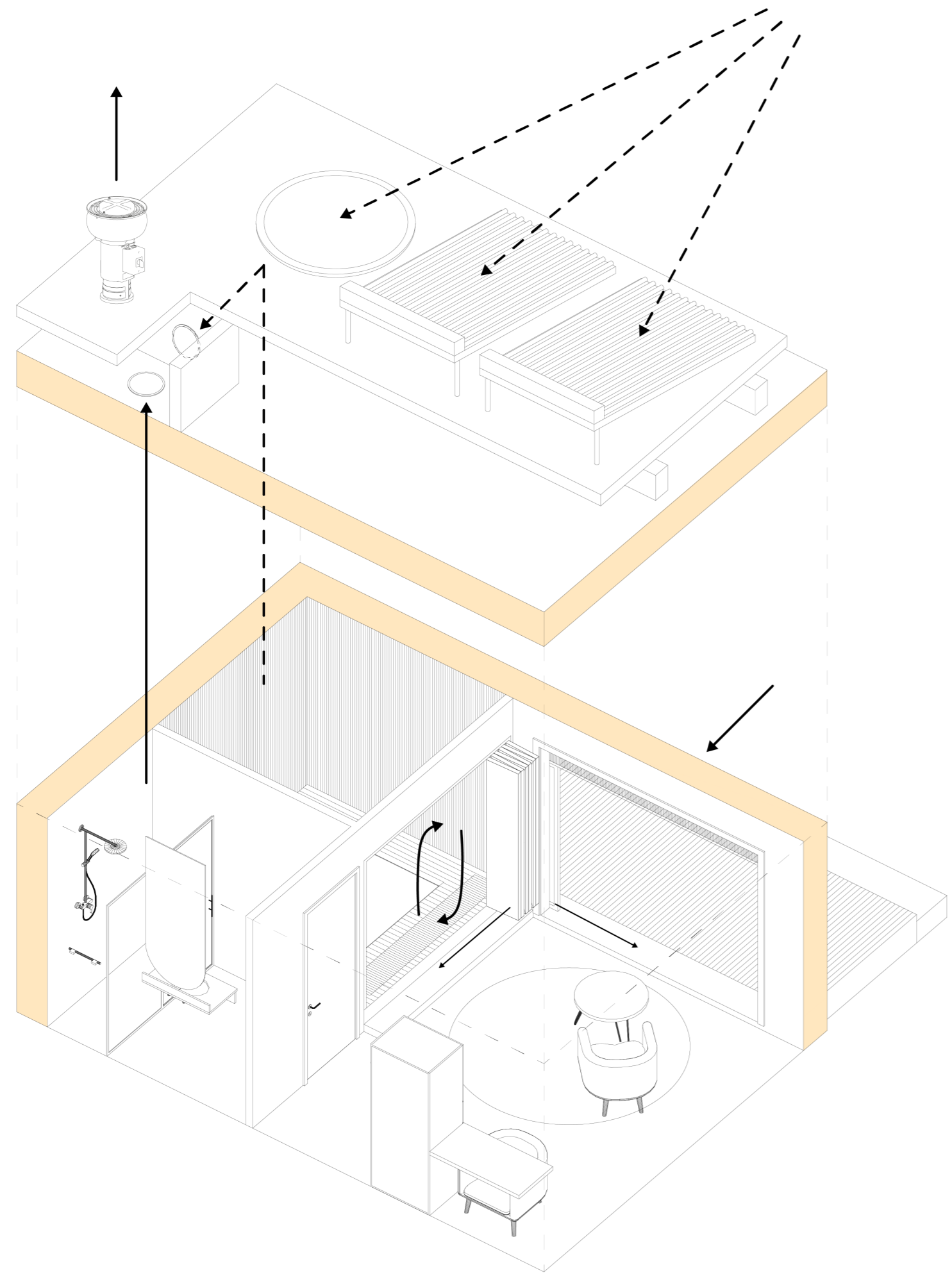
Ventilation

Fresh air will enter the room through a vent in the facade and is sucked off by a pipe roof ventilator.

4.

Heating & cooling

The bathroom will be heated by underfloor heating and the sleeping area through a floor convector. This convector heats or cools the incoming air.



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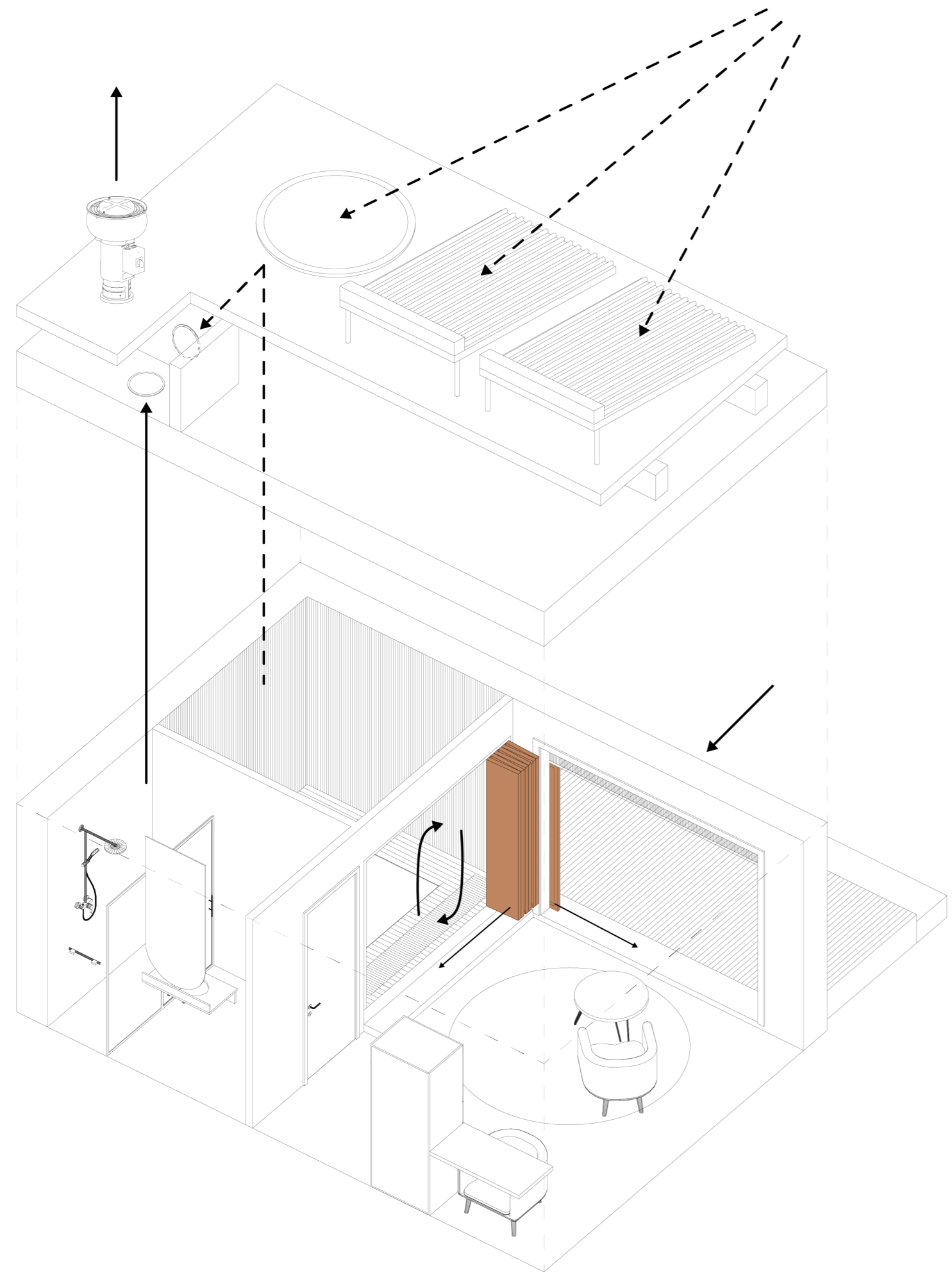
Heating & cooling

The bathroom will be heated by underfloor heating and the sleeping area through a floor convector. This convector heats or cools the incoming air.

5.

Insulation

The entire room is well insulated so it can be warmed more efficiently. Every room works separately and has its own envelope.



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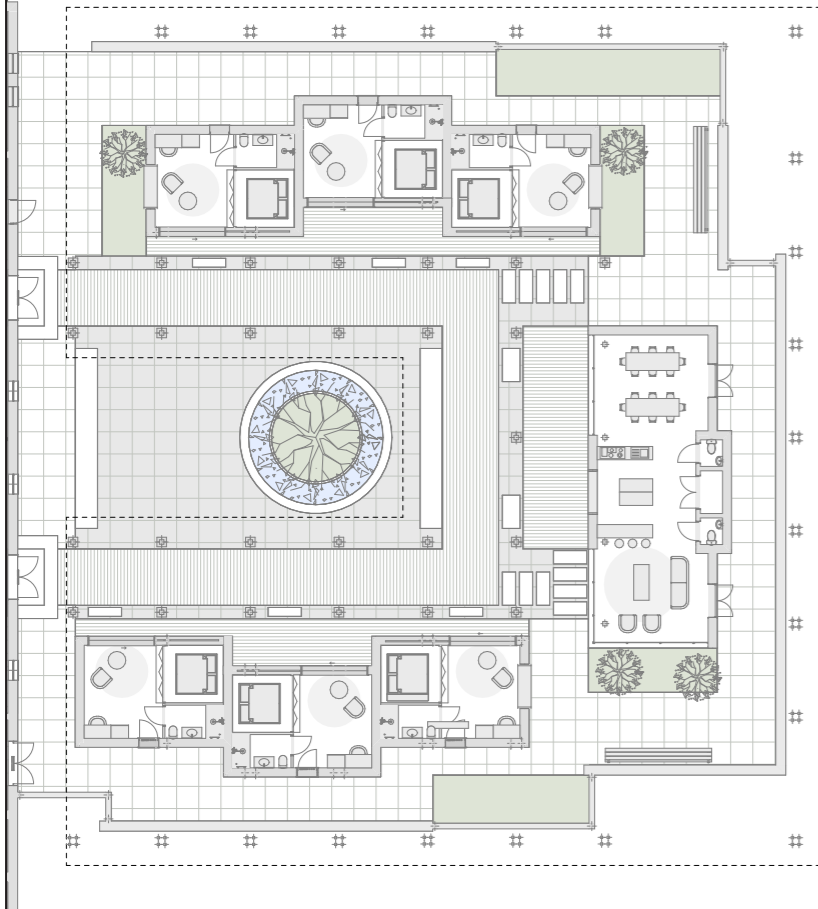
The entire room is well insulated so it can be warmed more efficiently. Every room works separately and has its own envelope.

6.

Openings

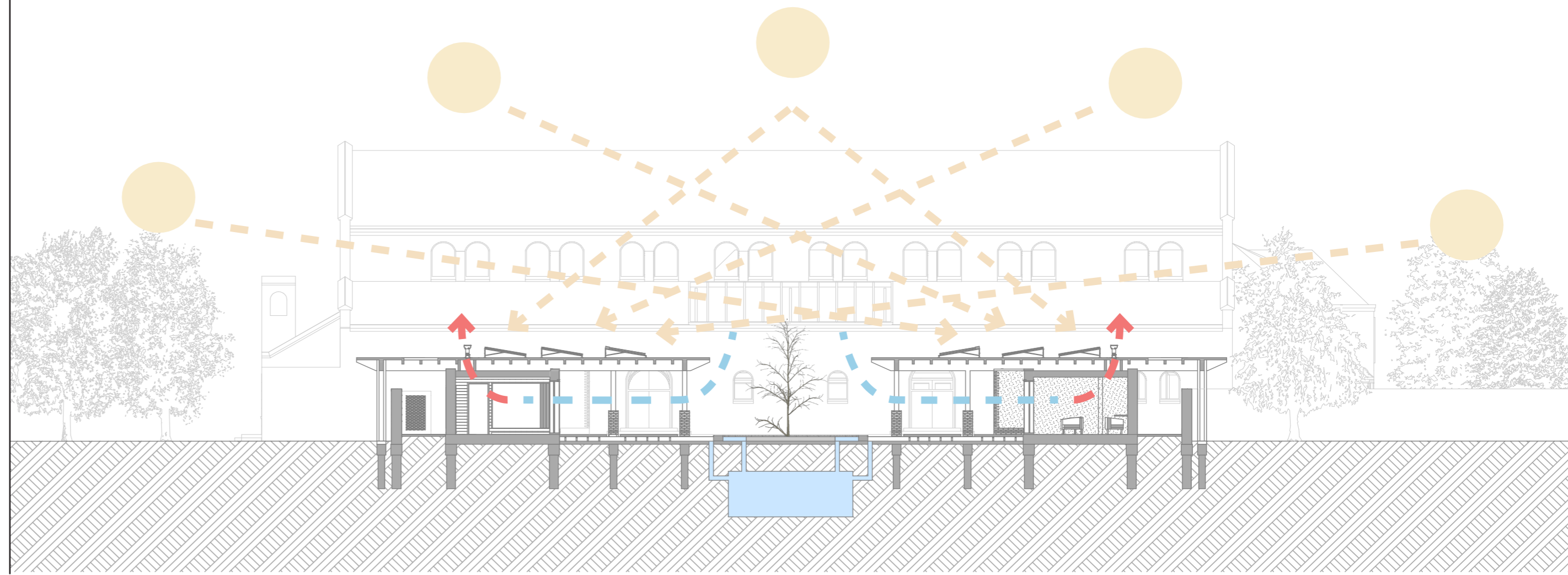
The sleeping area can be closed off to warm up the small space. And together with the facade can be opened up to cool down faster.

Climate design

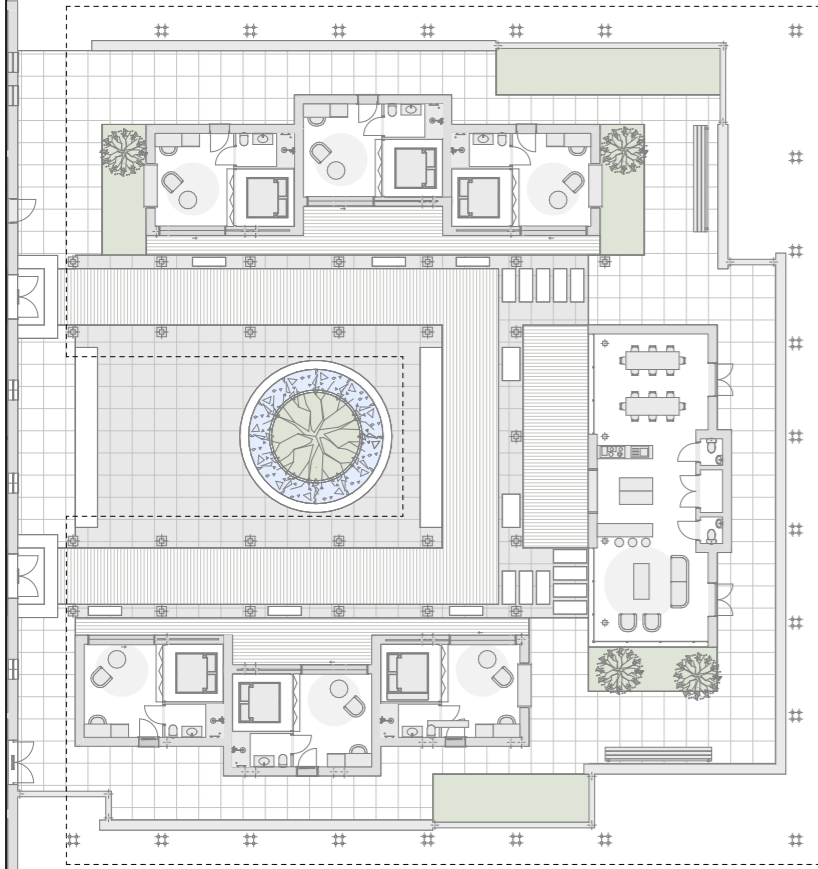


- Period of rest and contemplation
- Empty square
- Water is stored underground

WINTER PERIOD



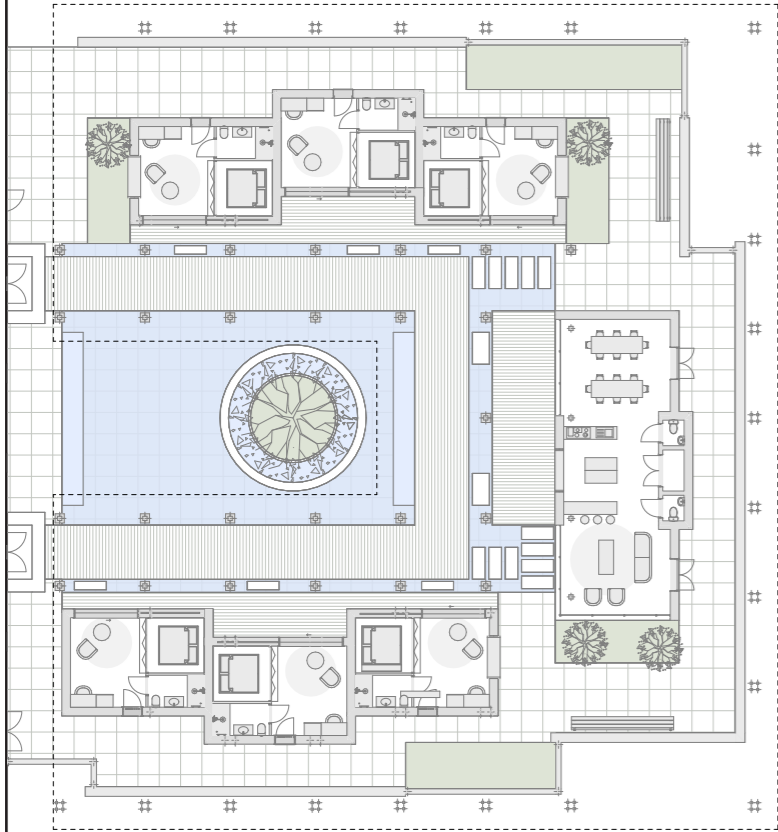
Climate design



- Period of rest and contemplation
- Empty square
- Water is stored underground

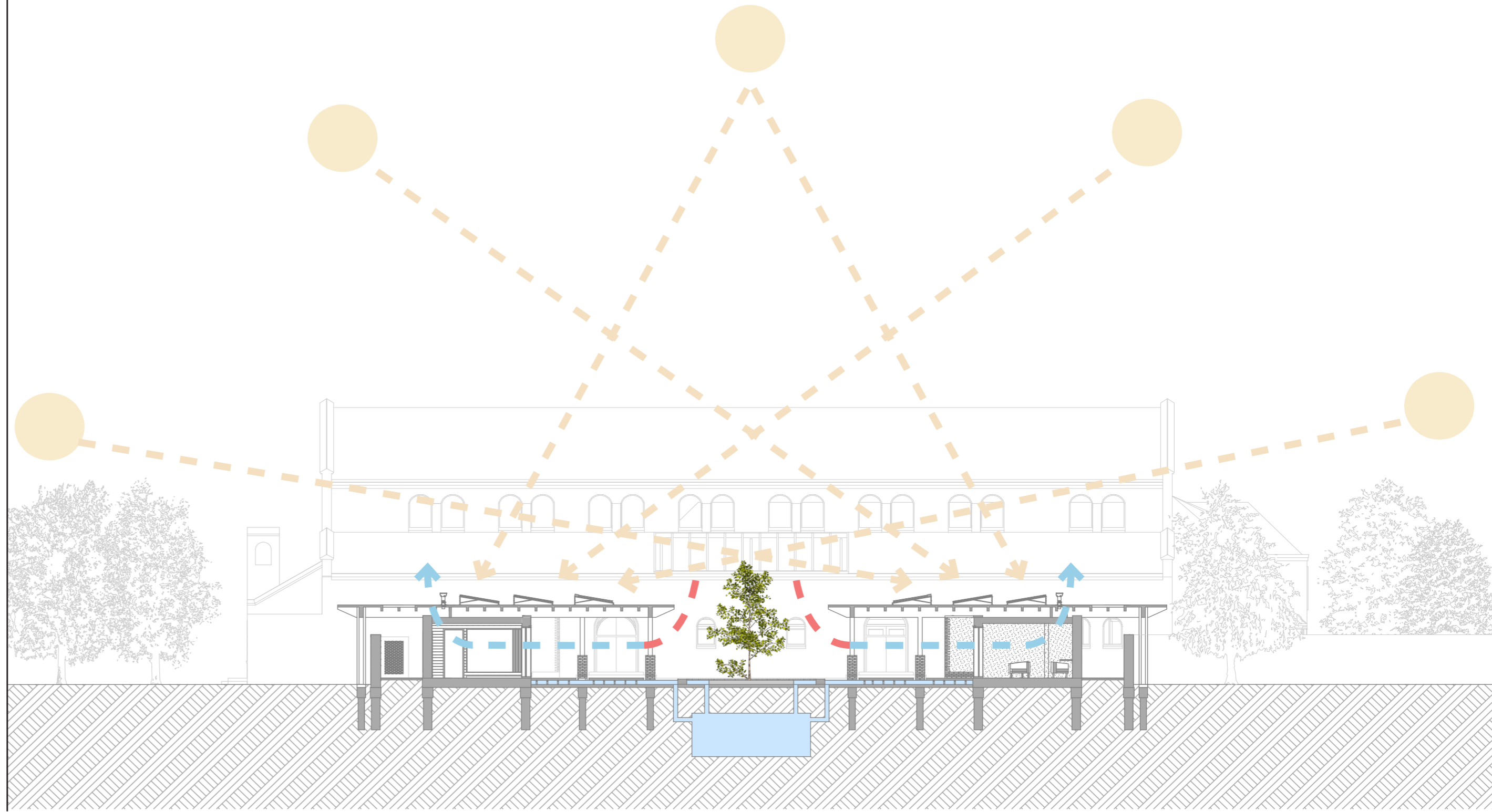


Climate design

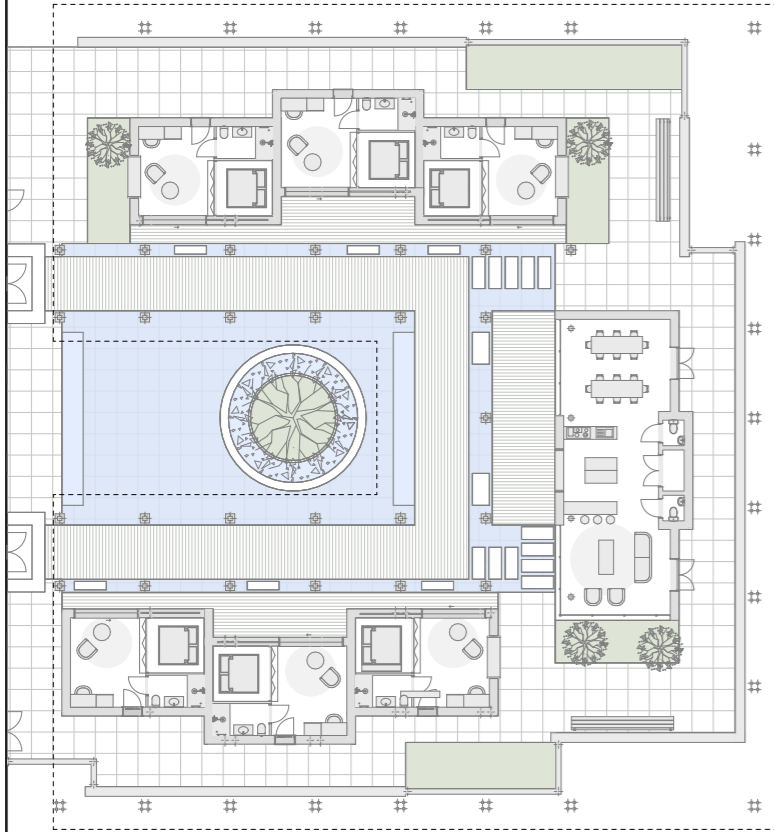


- Period of activity and new ideas
- Square filled with water
- Water cools warm air

SUMMER PERIOD



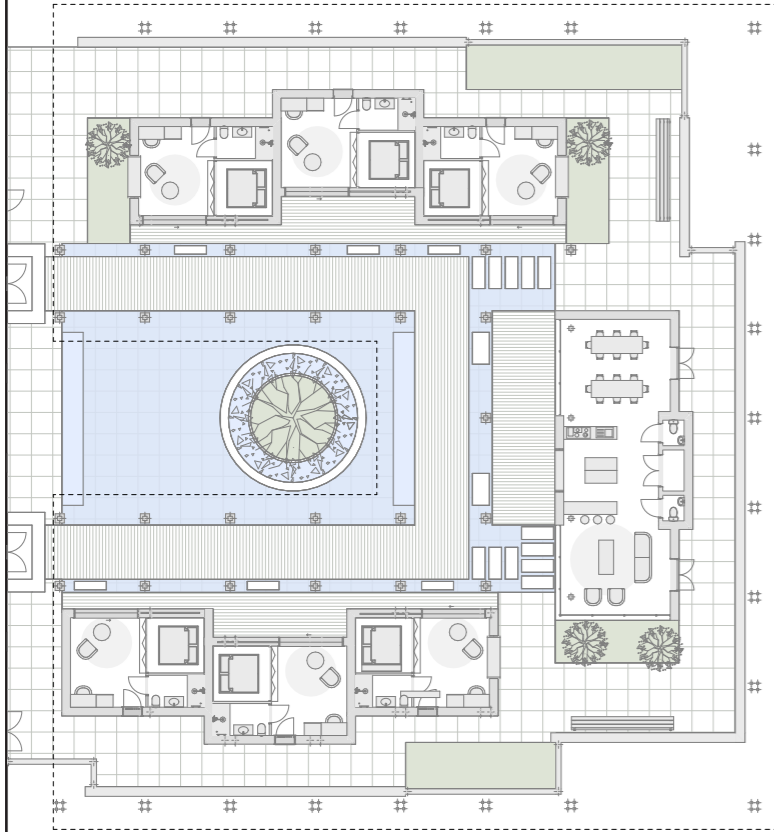
Climate design



- Period of activity and new ideas
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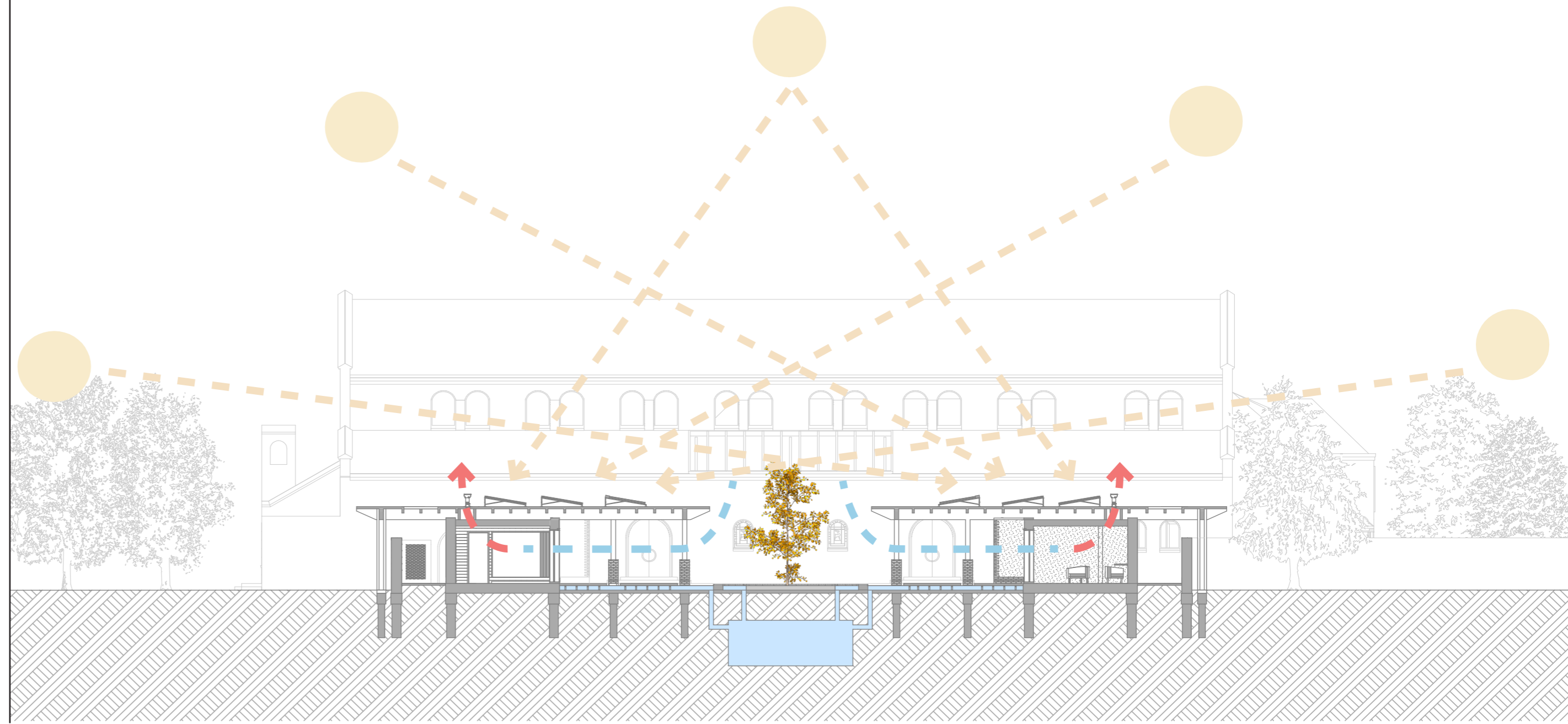


Climate design

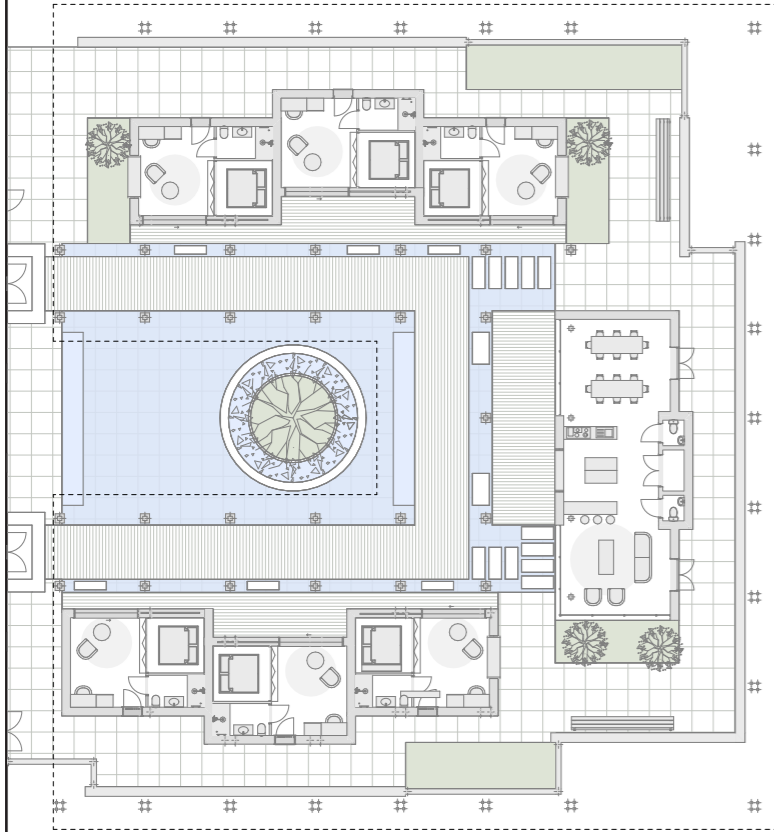


- Autumn as period of withdrawal and reflection
- Emptying square
- Spring as period for new ideas/ beginnings
- Filling square

AUTUMN AND SPRING PERIOD



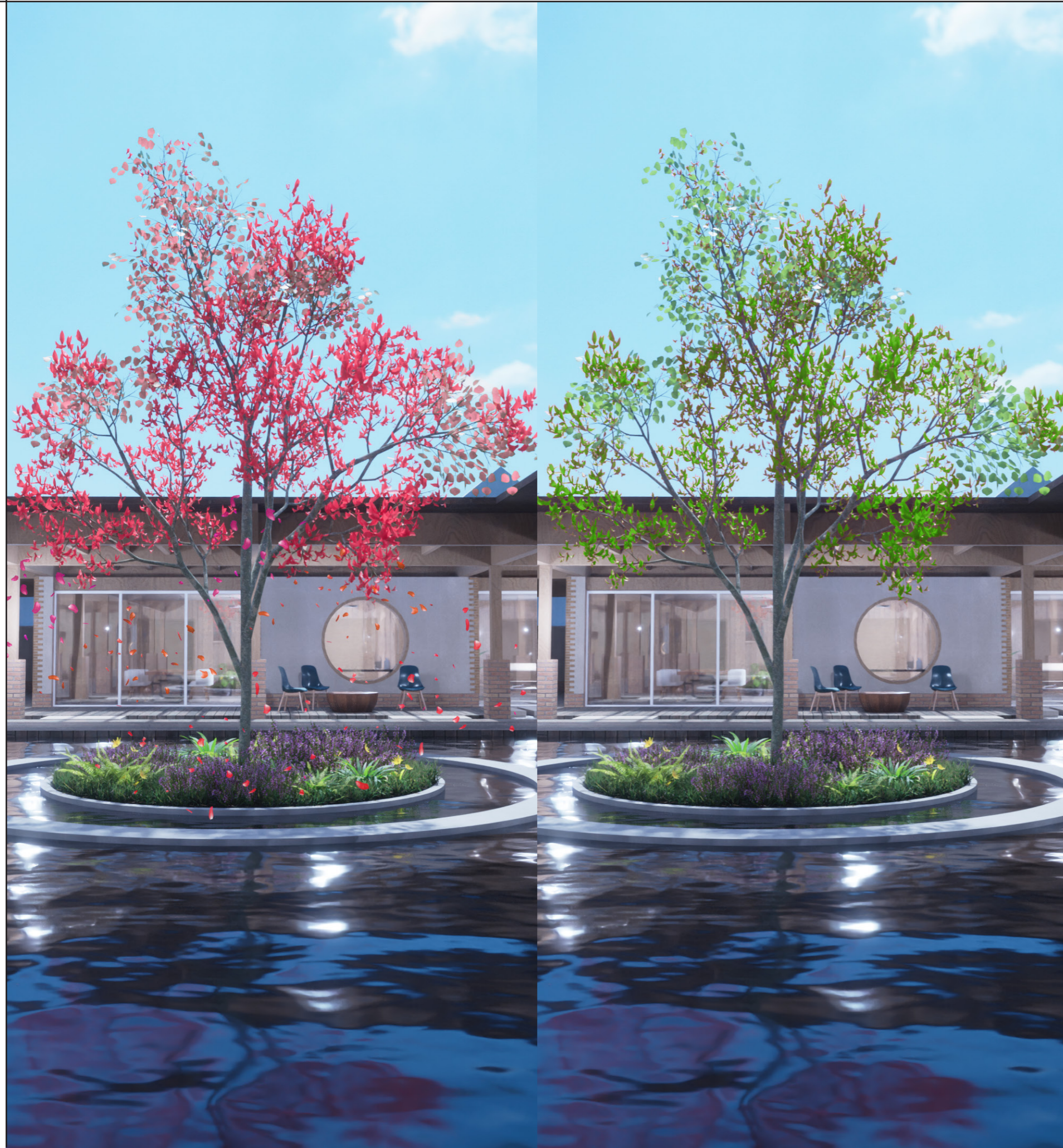
Climate design

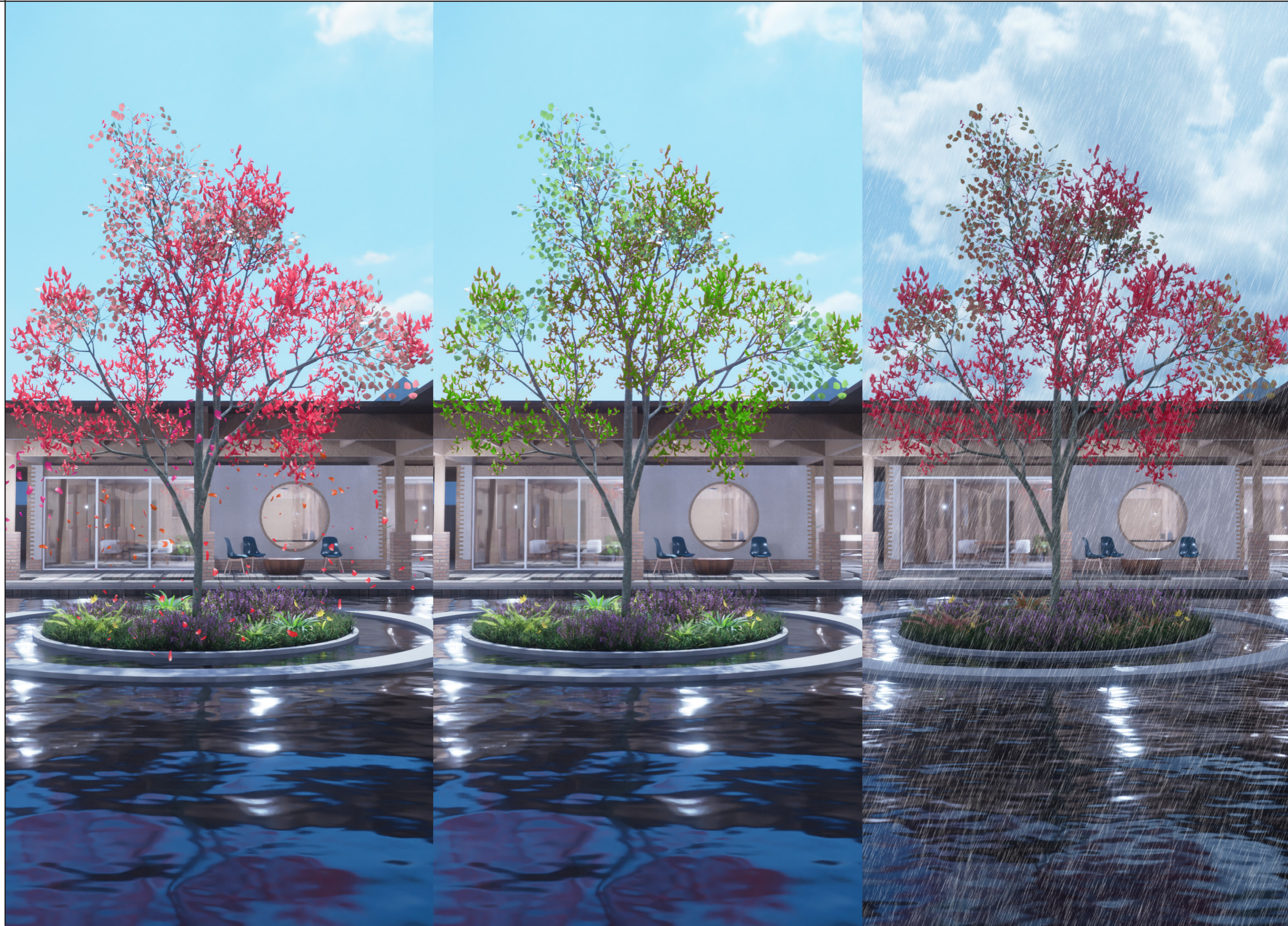


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- Emptying square
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- Filling square













03-07-2023

Circular Retreat

House of Modern Rituals

5435145

Heritage & Architecture