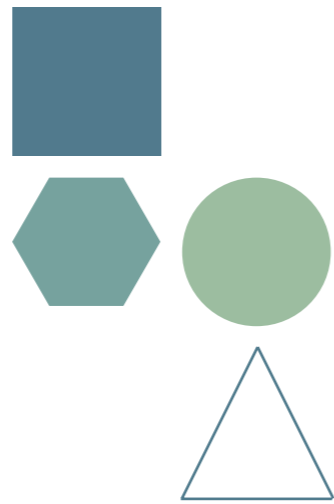


# Back to the Basics

Assignment 2



# Guidelines

**1.** Flexibility and  
adaptiv design

**2.** Sustainability

**3.** Design

# Guidelines

## 1. Flexibility and adaptiv design

### MEANING:

in relation to various life circumstances of an individual person or different user groups  
long term thinking in a sustainable way

### FUNCTIONS:

capacity to transform from use

### DIMENSIONS:

ability to transform depending on the number of users

### MATERIALS:

adaptability of changing materials

## 2. Sustainability

### MEANING:

thinking in environmental social and economical aspects

### ENVIRONMENTAL:

materials (life span)  
terms of light, ventilation, view, accessibility  
long-life materials

### SOCIAL:

mixed uses  
typology of space

### ECONOMIC:

materials: modular to avoid waste, reusable materials

## 3. Design

### MEANING:

proportions of the spaces

thinking of the importance of circulation

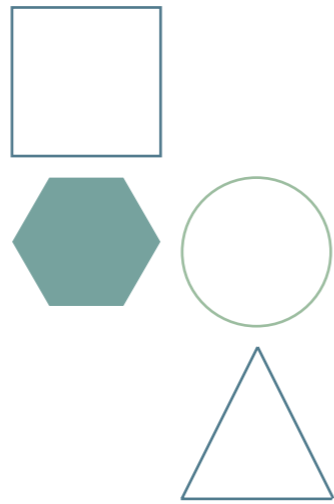
not defining specific rooms - defining actions

the main material is wood

# Back to the Basics

Assignment 2

Sleeping

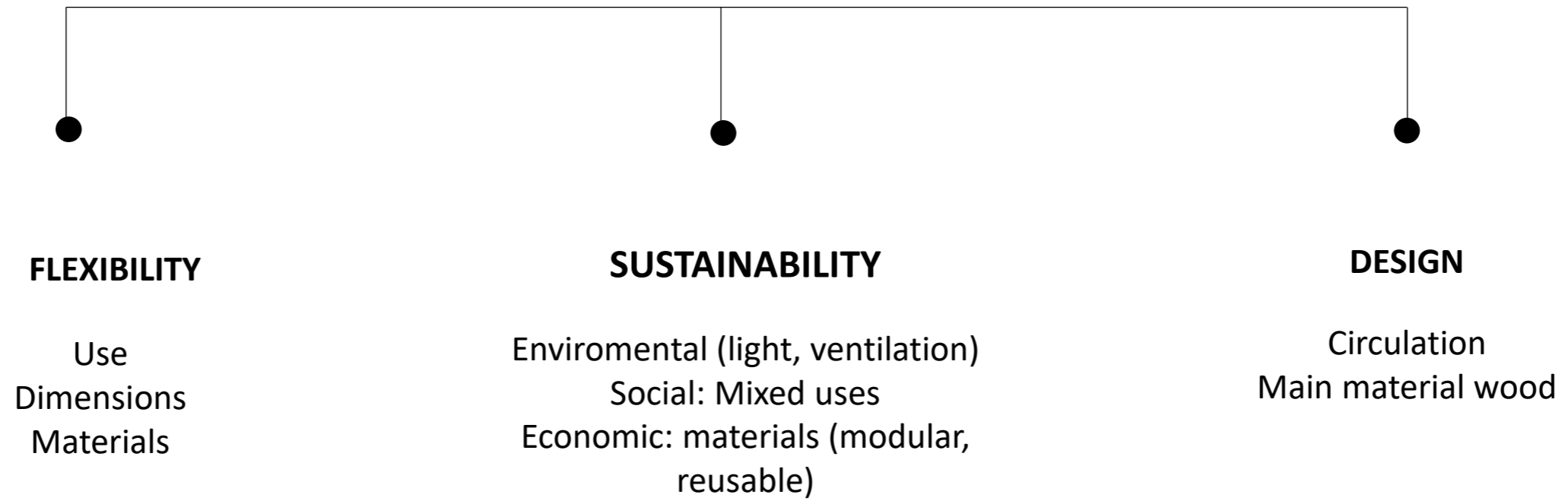


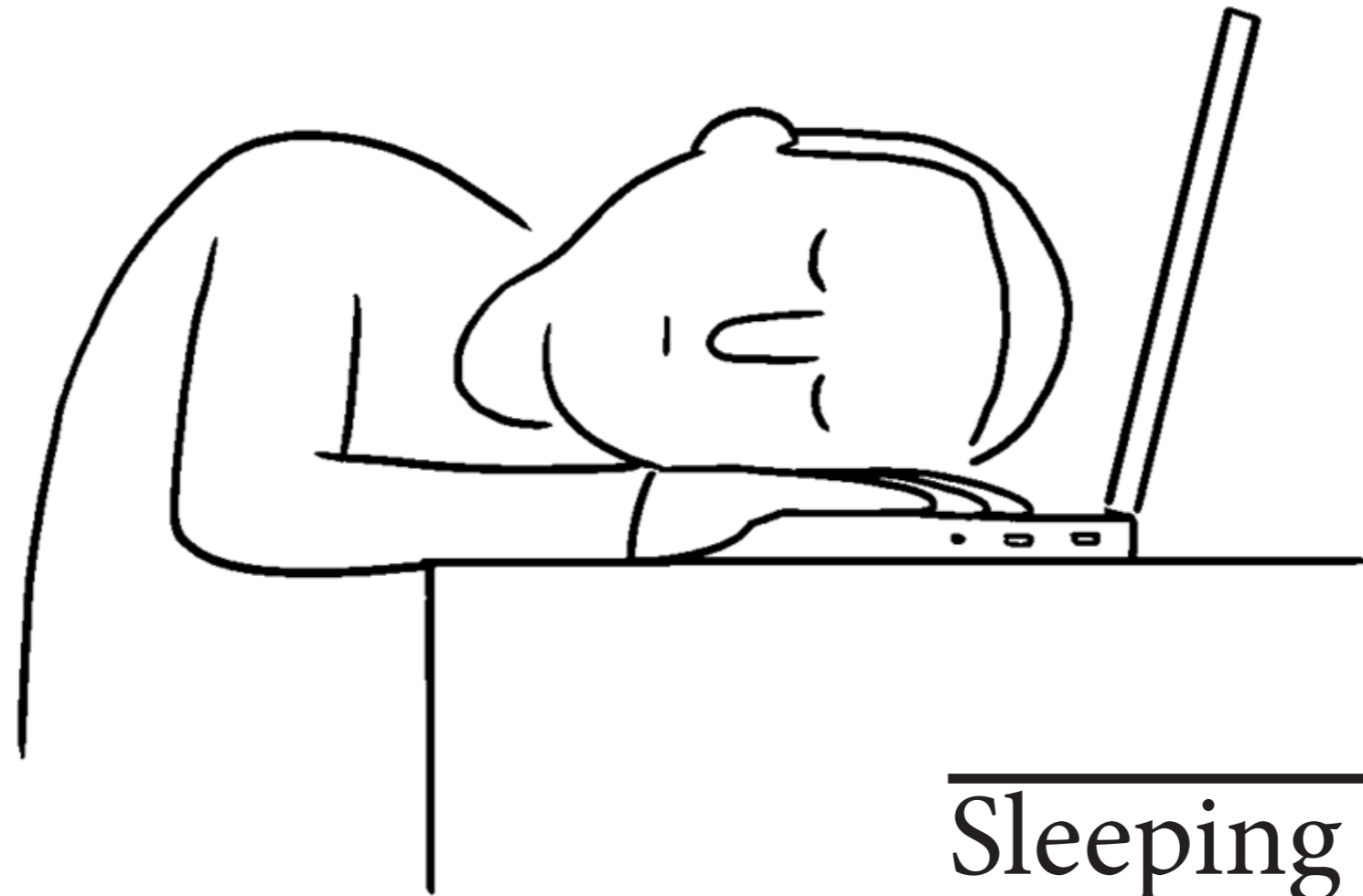


# GUIDELINES

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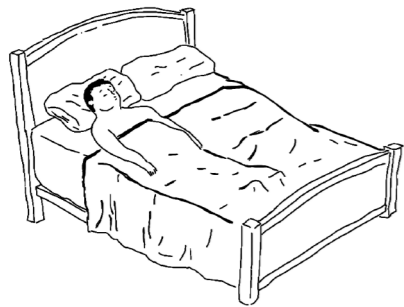
## SLEEPING SPACE





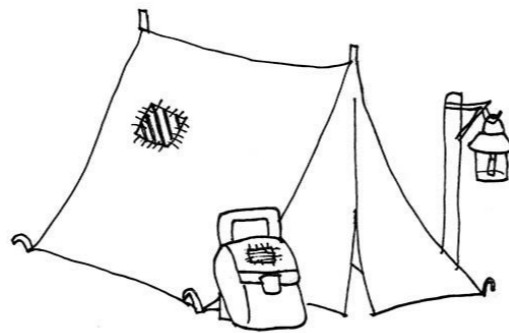
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## Sleeping Space

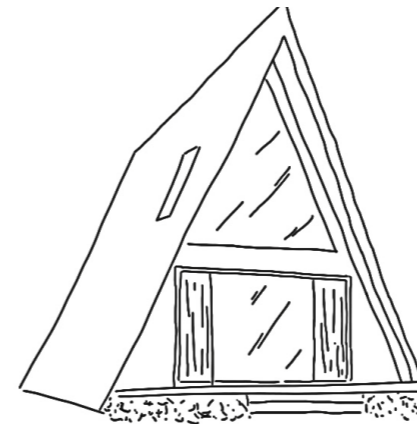


How ?

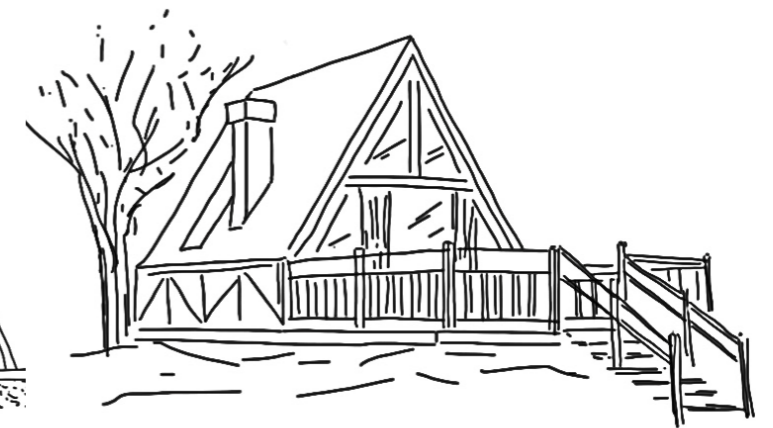
Back to basics



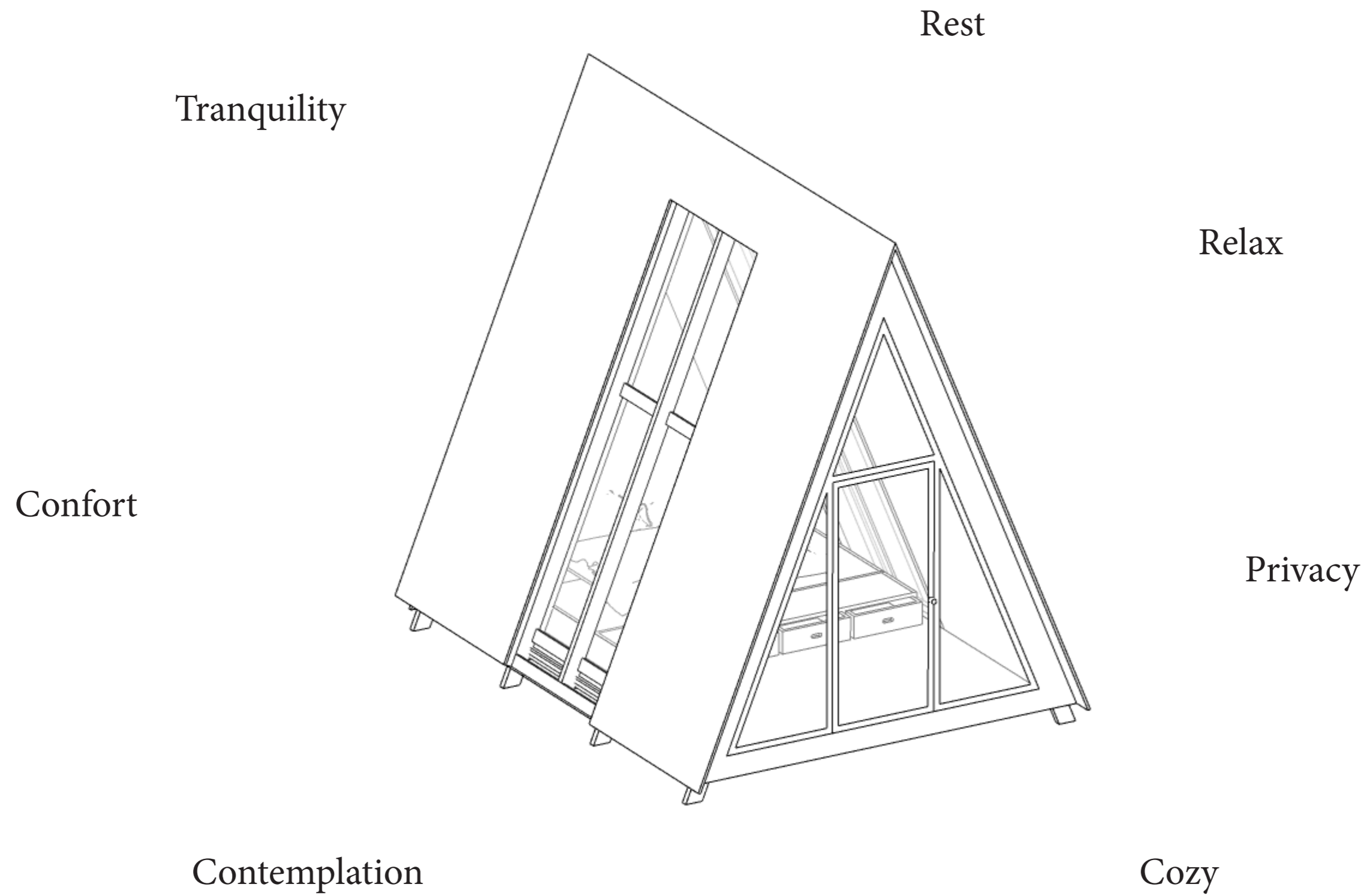
Basic



Comfortable

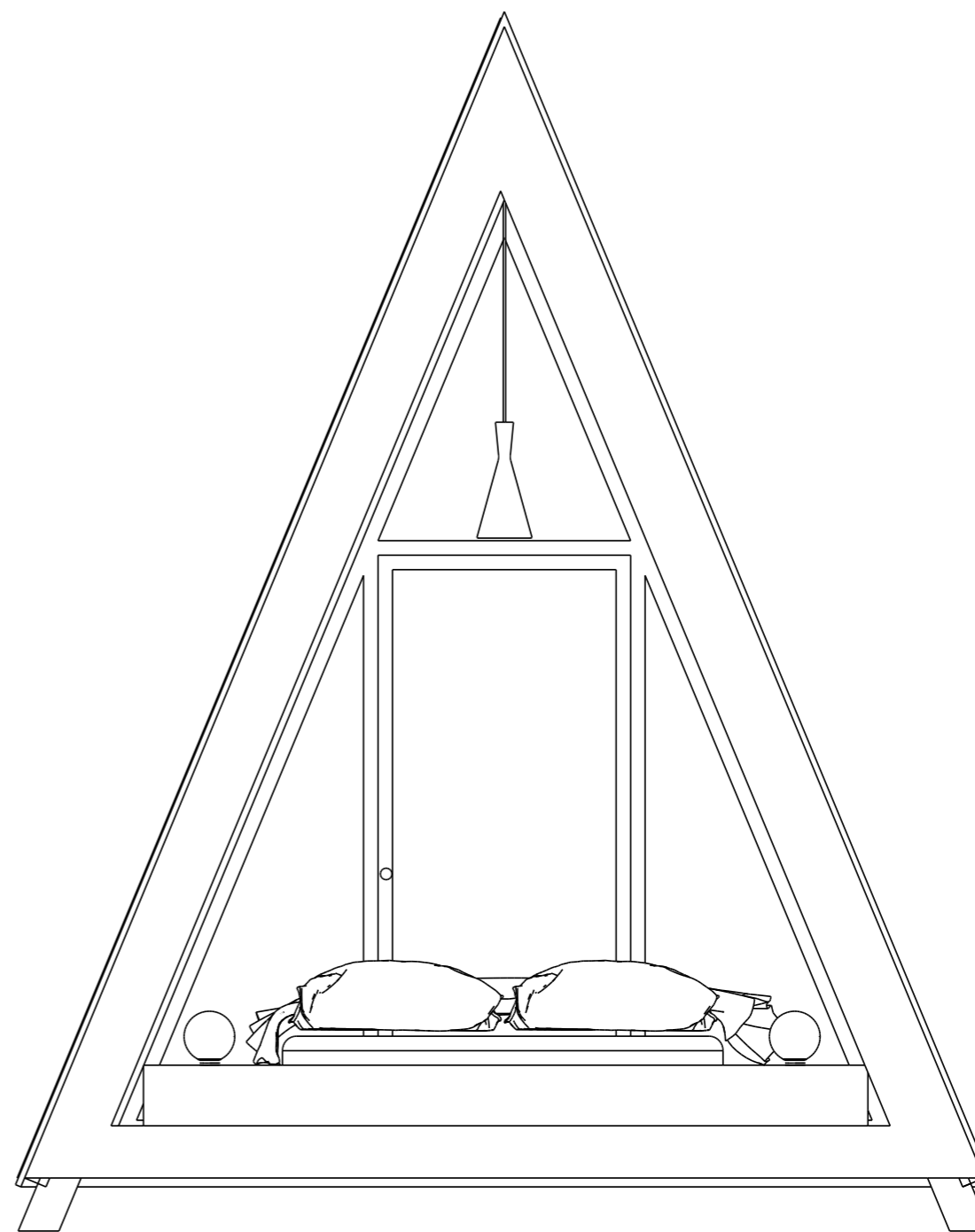
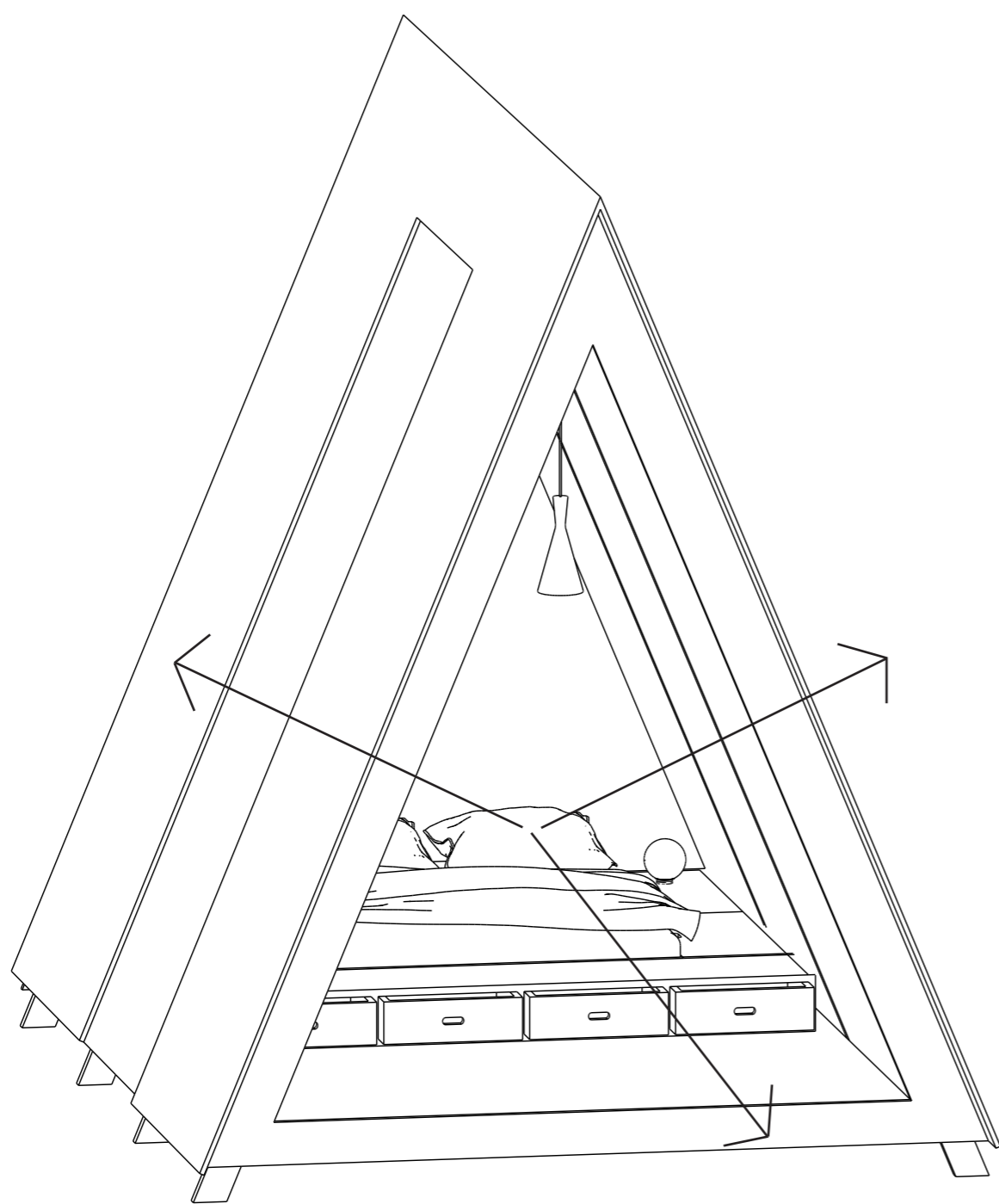


Luxury

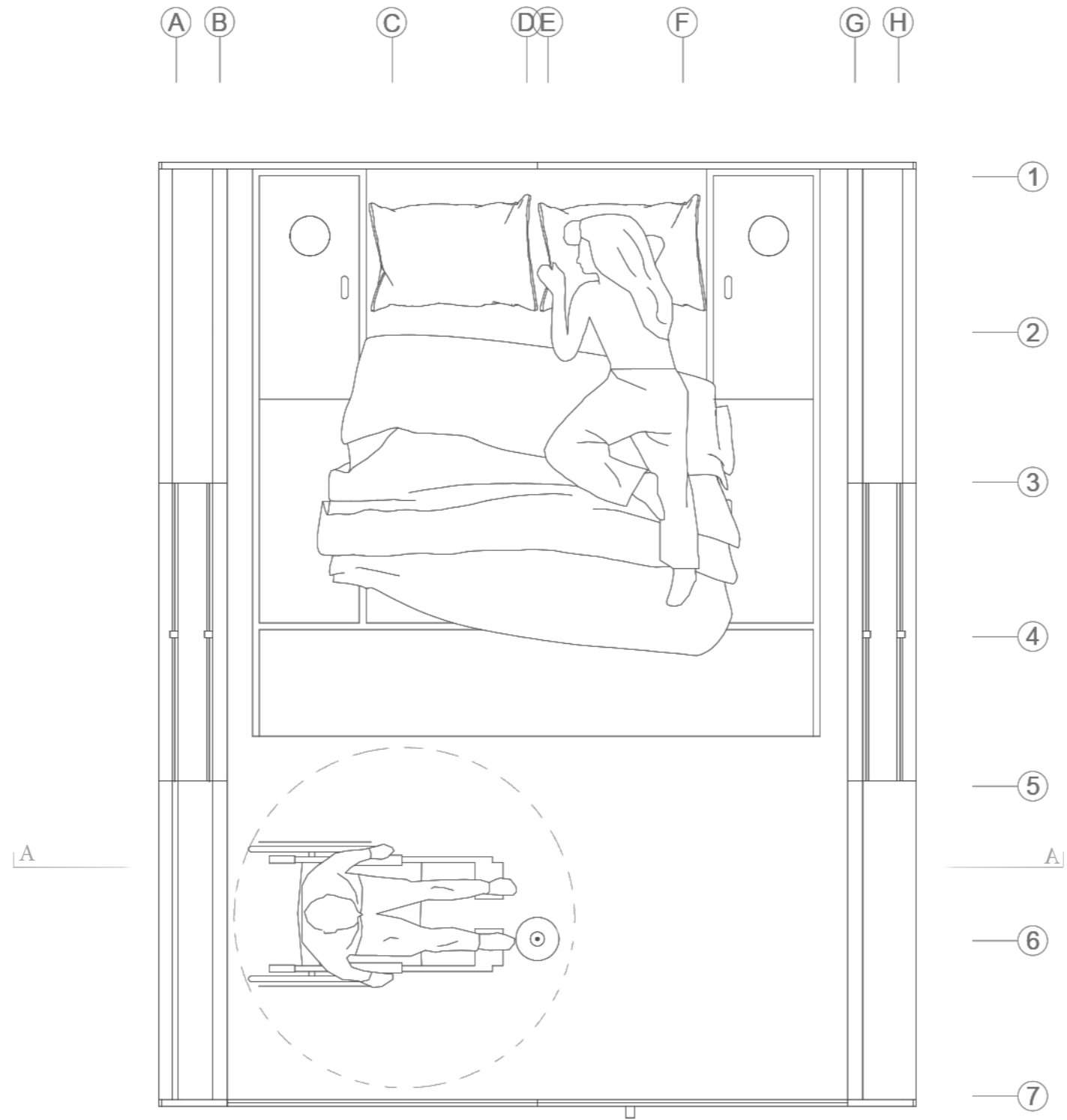


# Views

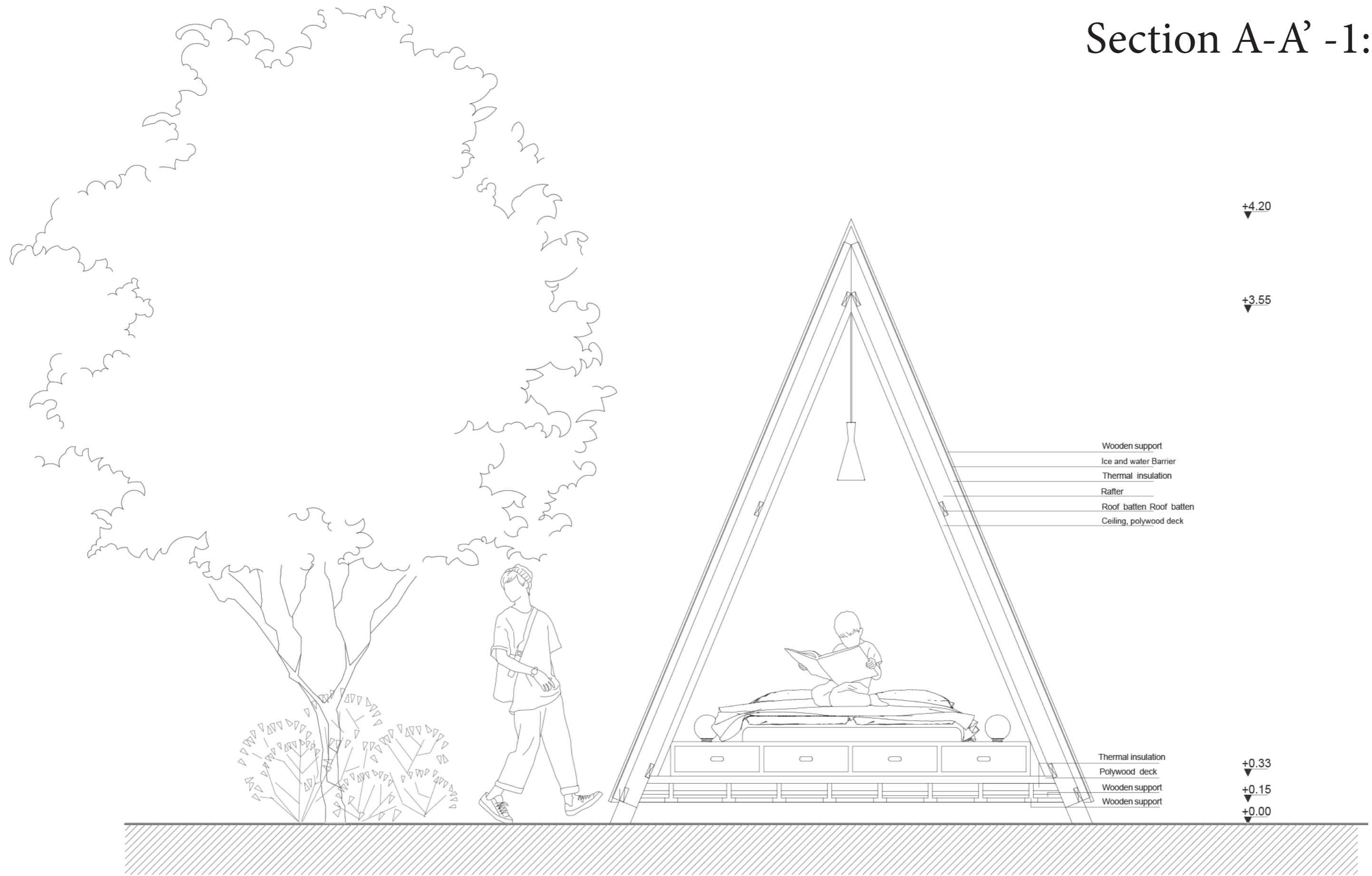
## Contemplation



# Plan 1:25

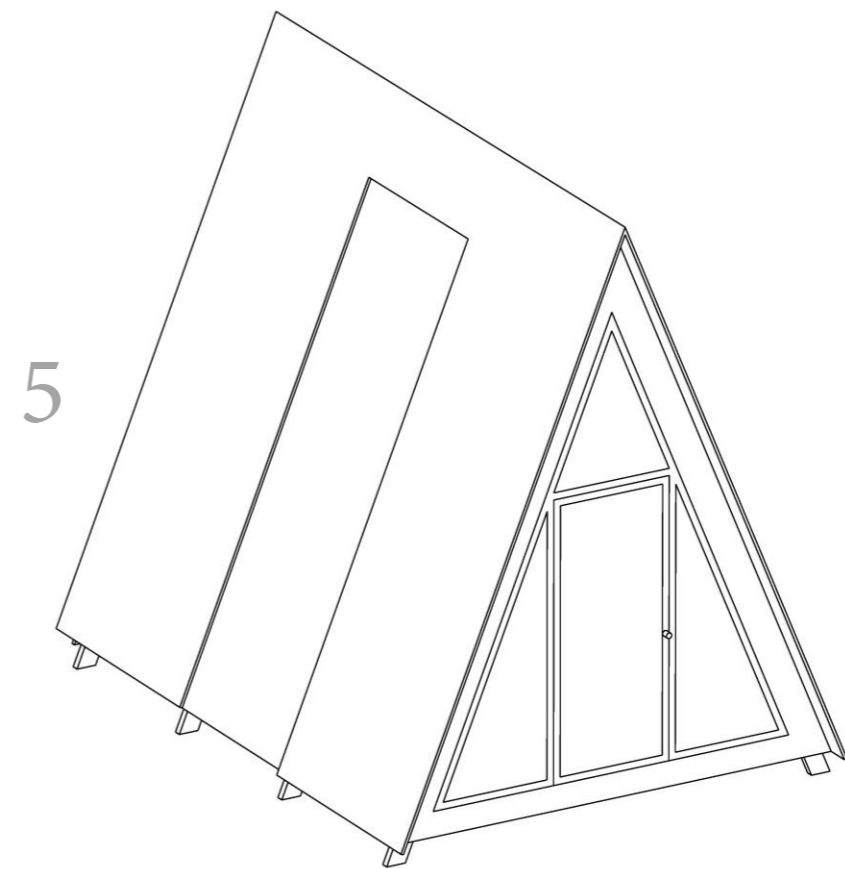
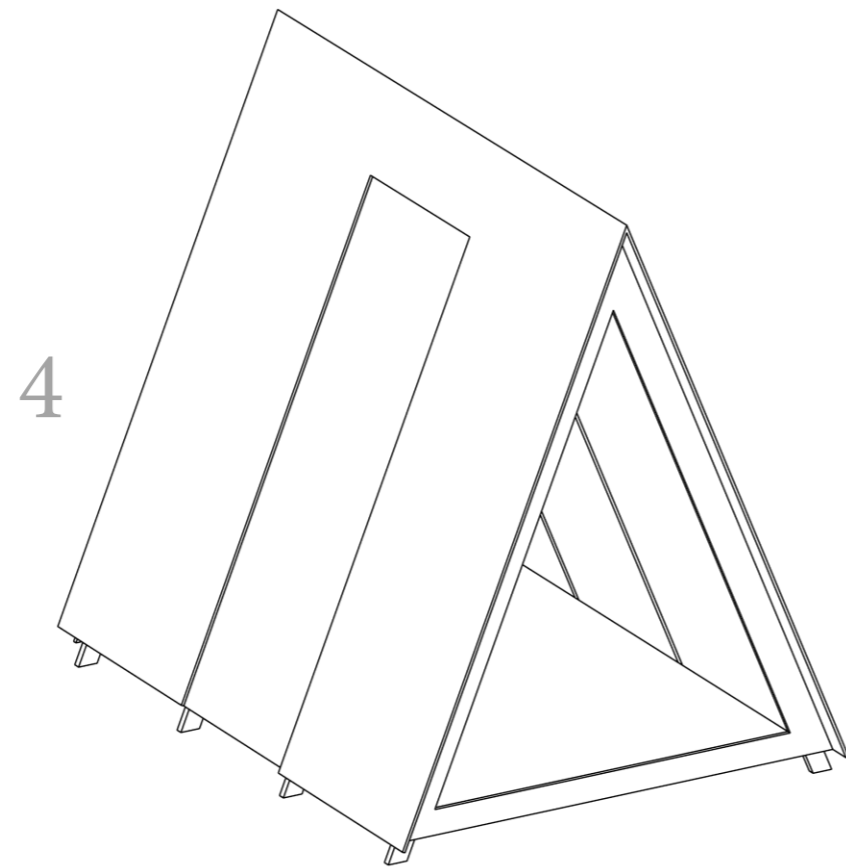
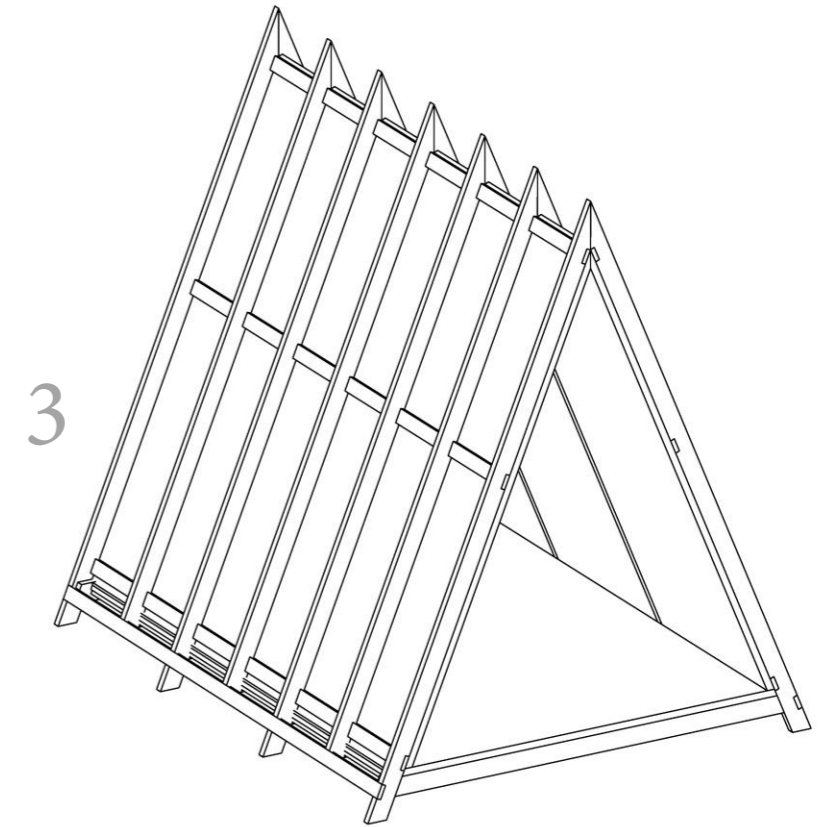
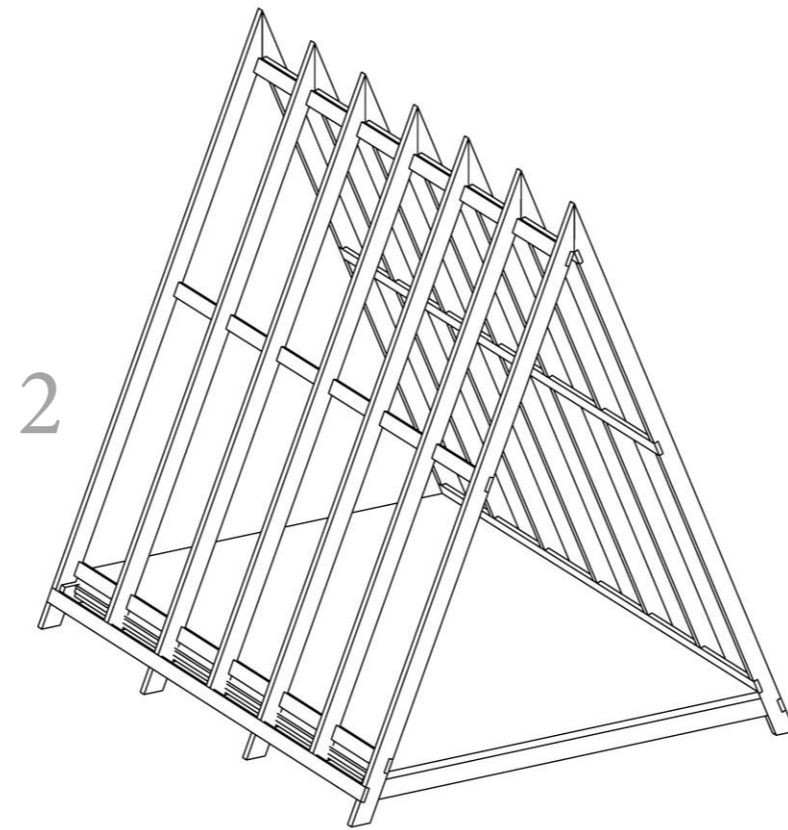
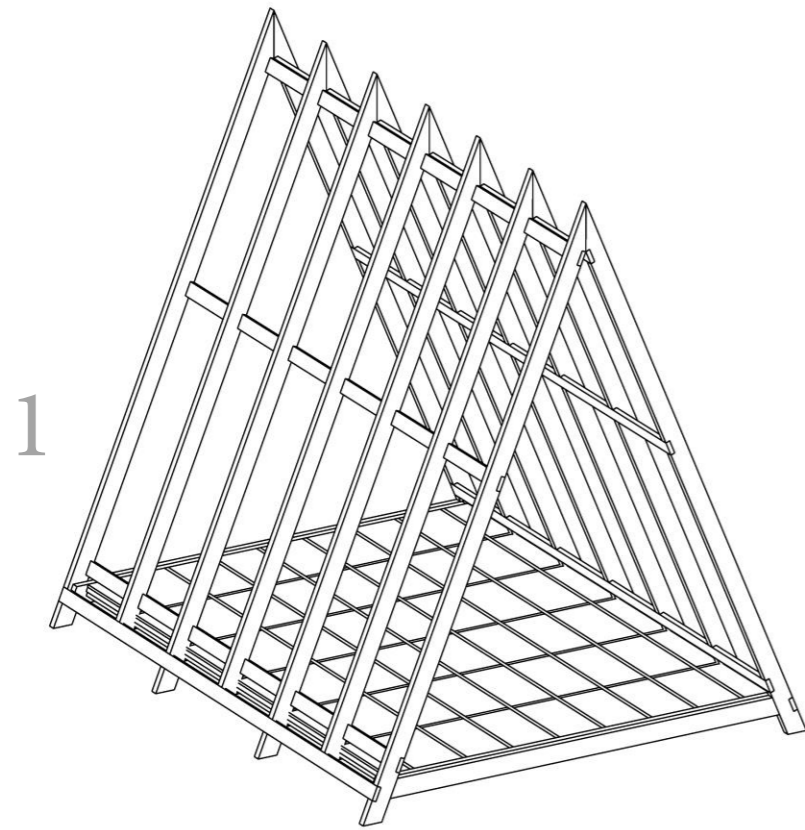


# Section A-A' - 1:25



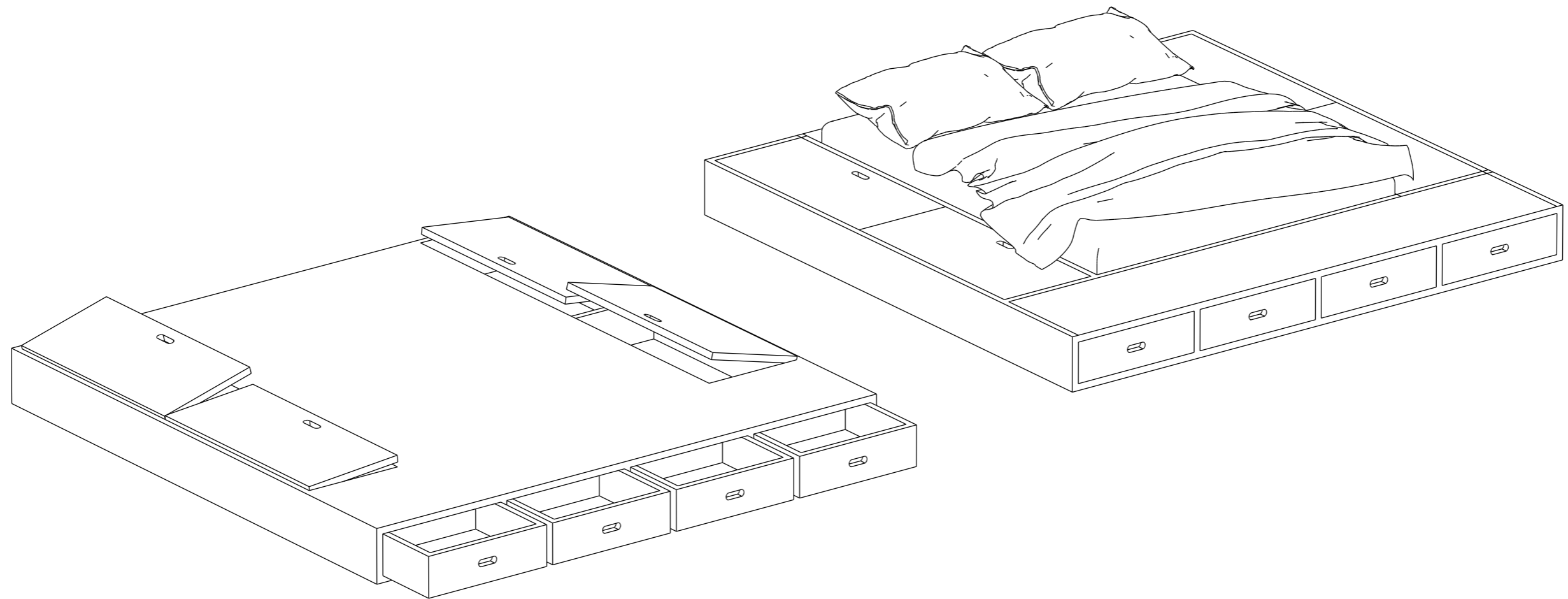


# Construction

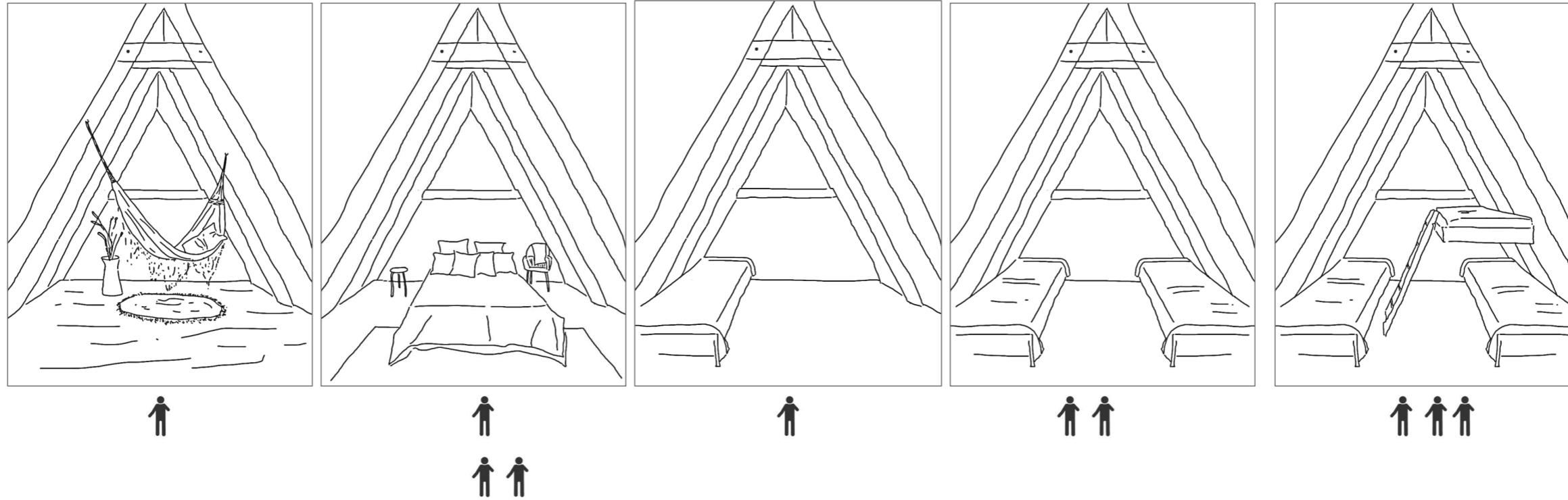




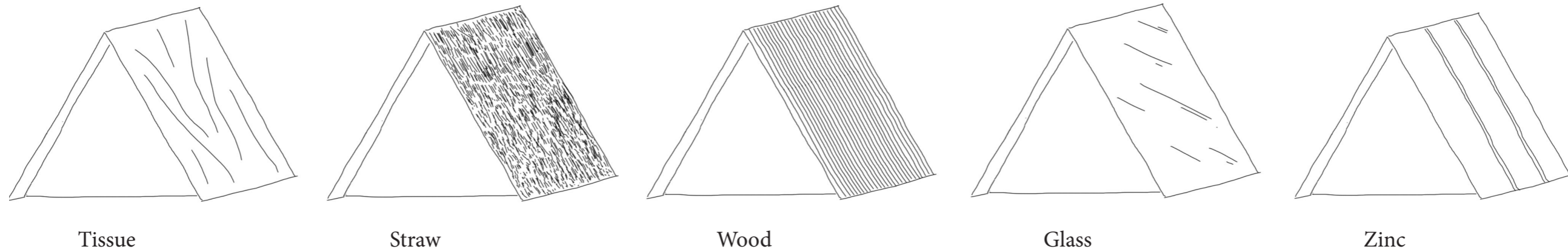
# Detail furniture



## Users



## Types of materials



# SPACE TO MAINTAIN A GOOD PERSONAL HYGIENE

a place where you can:

**empty bowel and bladder**  
**wash hands and take care of teeth and mouth**  
**wash body and hair**  
**wash clothes and other textiles**

a place with the feeling of:

**privacy**  
**relaxation**  
**warmth** (and/or actual warmth due to frequent nudity)

a place:

**that is easy to keep clean from bacteria and dirt**  
**where there is clean water**  
**with proper ventilation and light**

*basic* needs of goods:

**some kind of toilet**  
**sink**  
**shower**  
**storage**

**Laundry room could possibly be shared.**

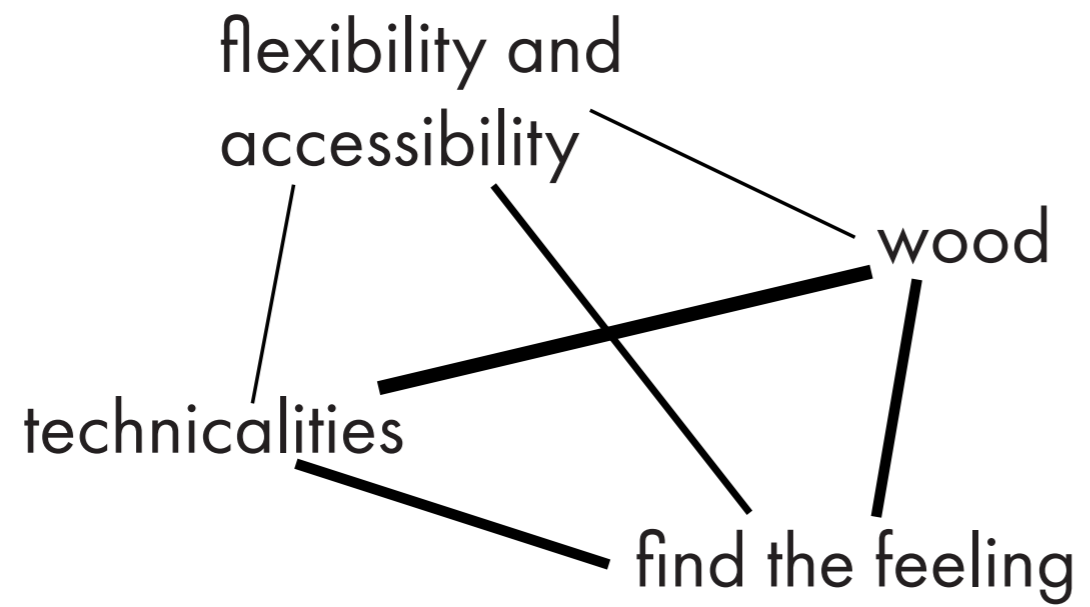
Everything listed could possibly be shared but then the feeling of privacy and relaxation would be lost.

in addition to the basic needs of goods and for increased *comfort* :

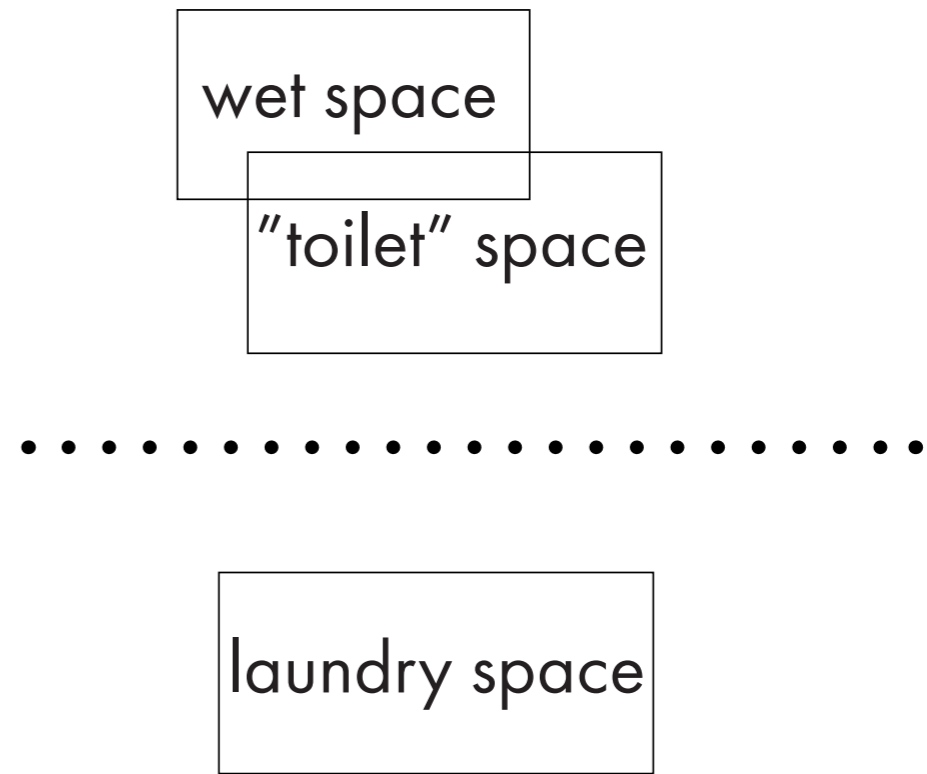
**bathtub**  
**washing machine**  
**natural light and possibility to let in fresh air**

**In case of larger family constellation, more than one space of hygiene would be necessary.**

### what it became to be about



### division of functions





inspiration



SPACE TO MAINTAIN A GOOD PERSONAL HYGIENE

Bath house in Japan, by Kubo Tsushima Architects



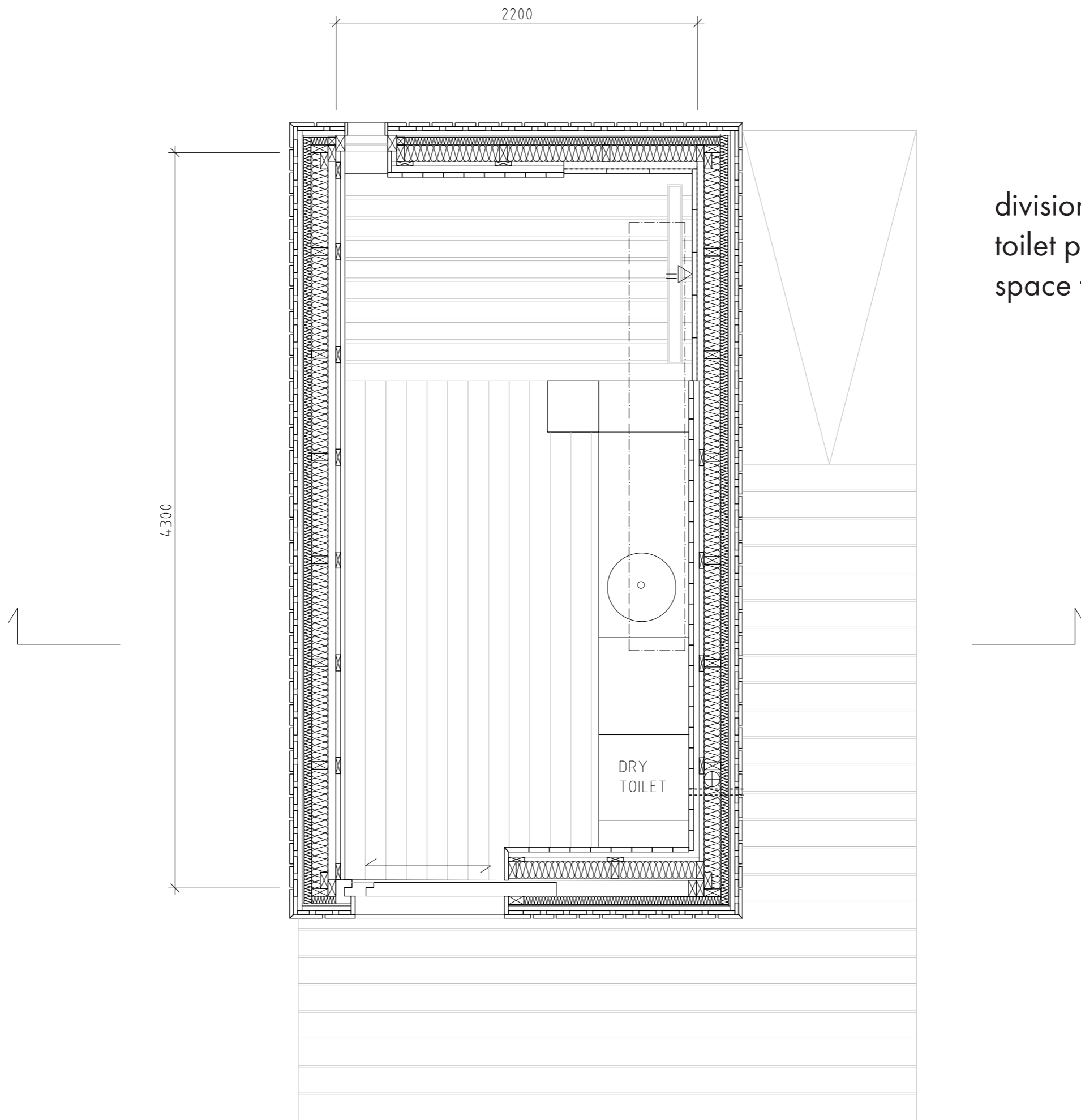
The wooden sauna

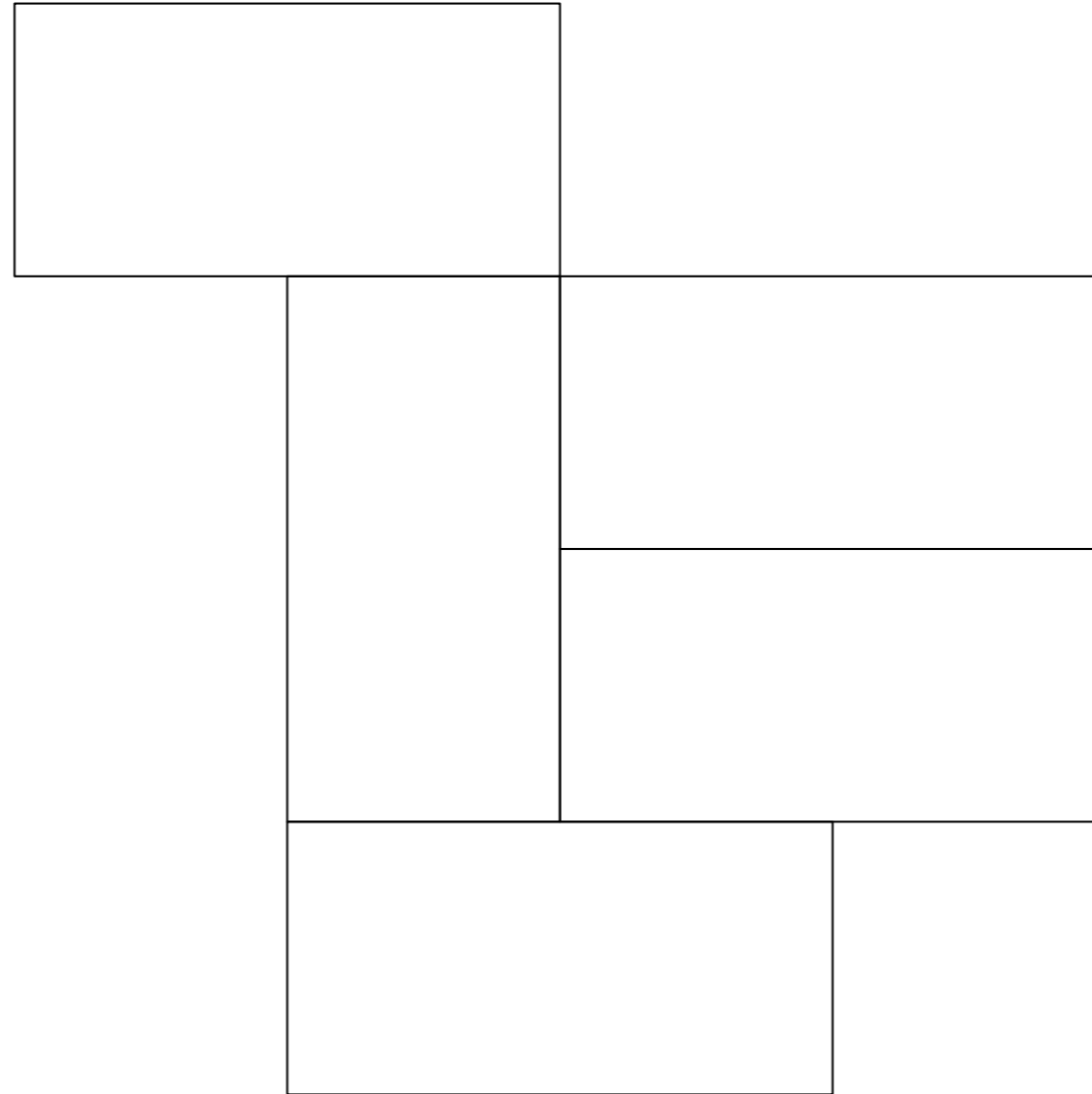


Roman bath. This one is in Bath.



SPACE TO MAINTAIN A GOOD PERSONAL HYGIENE

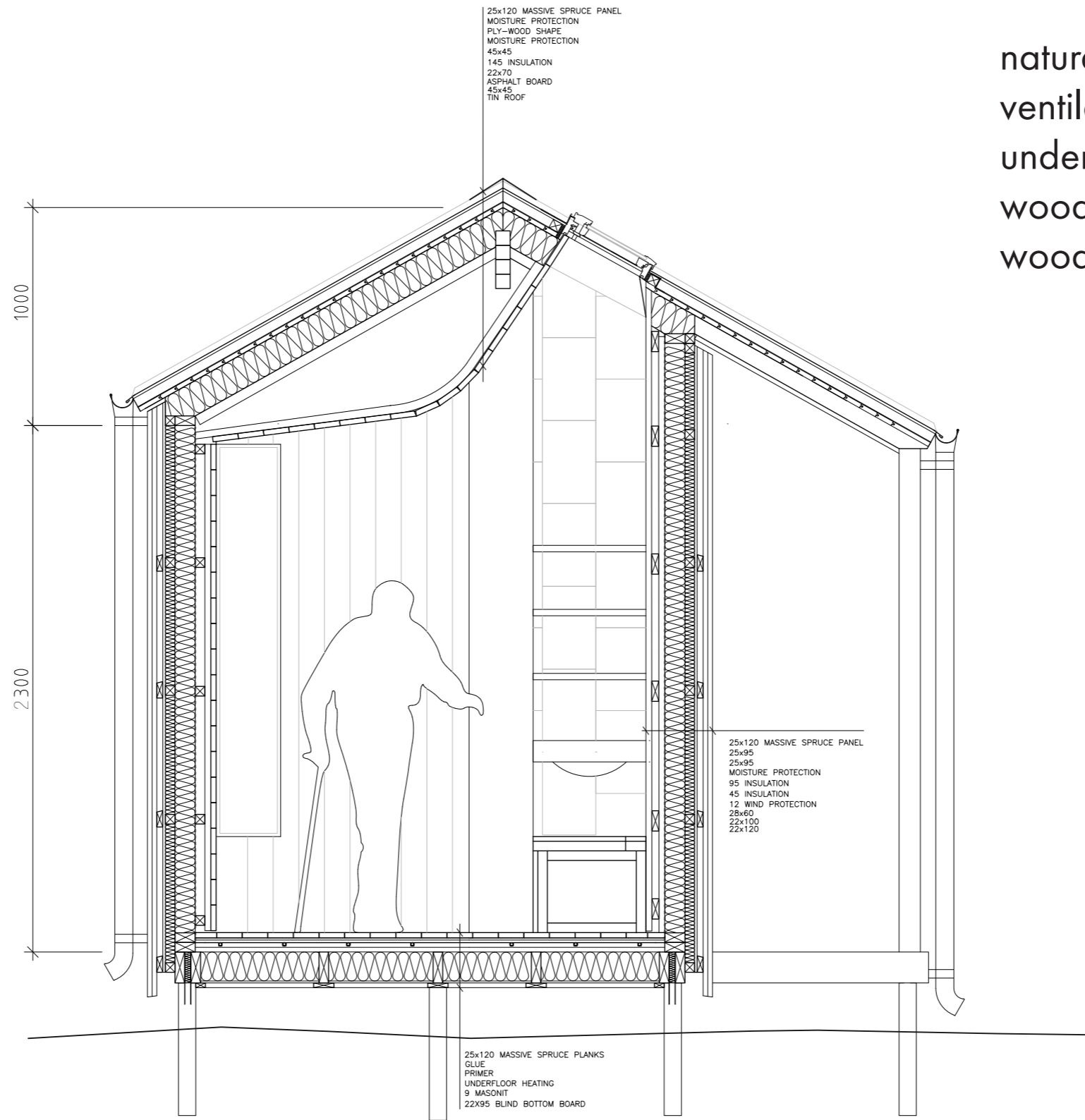




**The possibilities with the shape.**

Twice as long as wide.

SPACE TO MAINTAIN A GOOD PERSONAL HYGIENE



natural light  
ventilation  
underfloor heating  
wooden frame construction  
wooden facade

SECTION scale 1:25



# Concept.

## Social Behavior.

Social behaviour during cooking and eating.

How do people behave during this time and what other activities are associated with it?

Adaptive space that changes depending on the users change depending on the users.

## Dimensions.

Optimal working area for cooking and cosy dimensions for eating.

Dimensions which make sense.

What is important for an efficient workflow and how can this be combined with other actions?

Space that can be used for various activities.

Useful circulation.

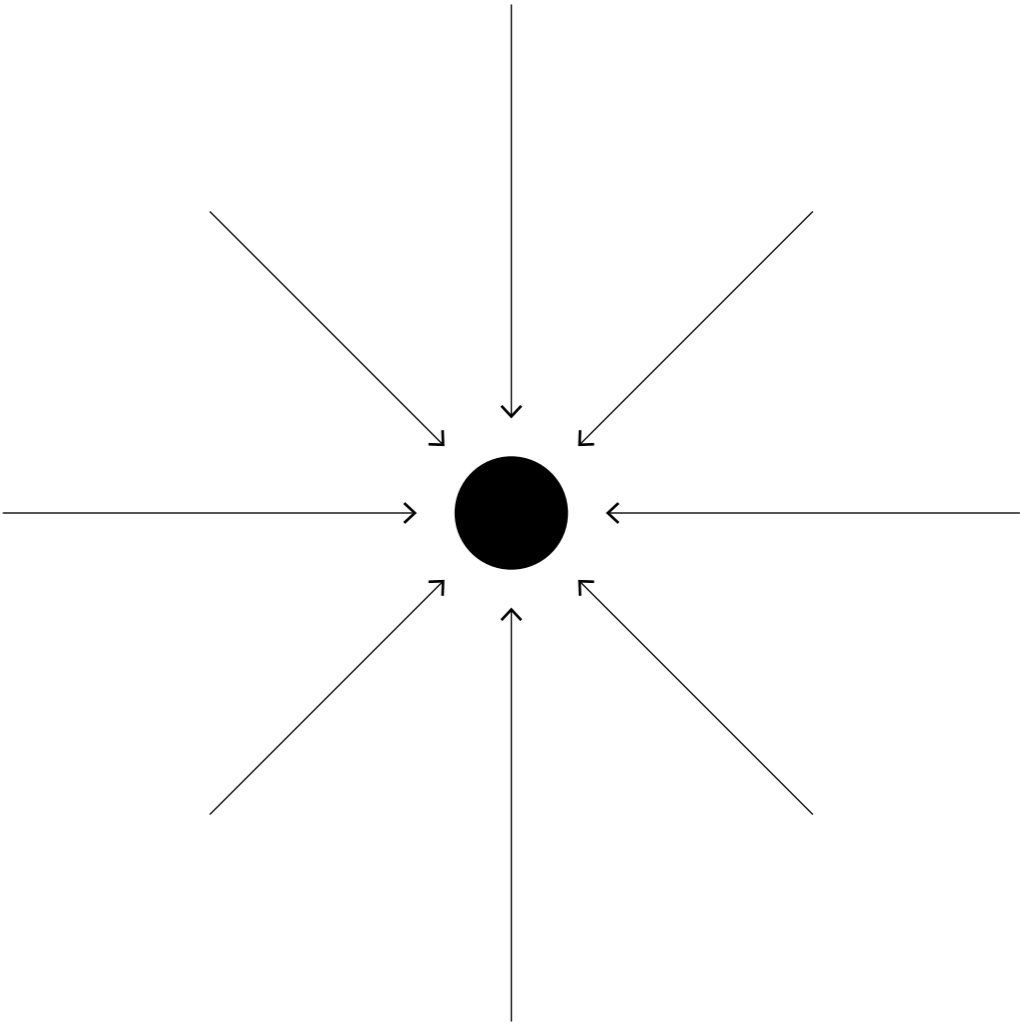
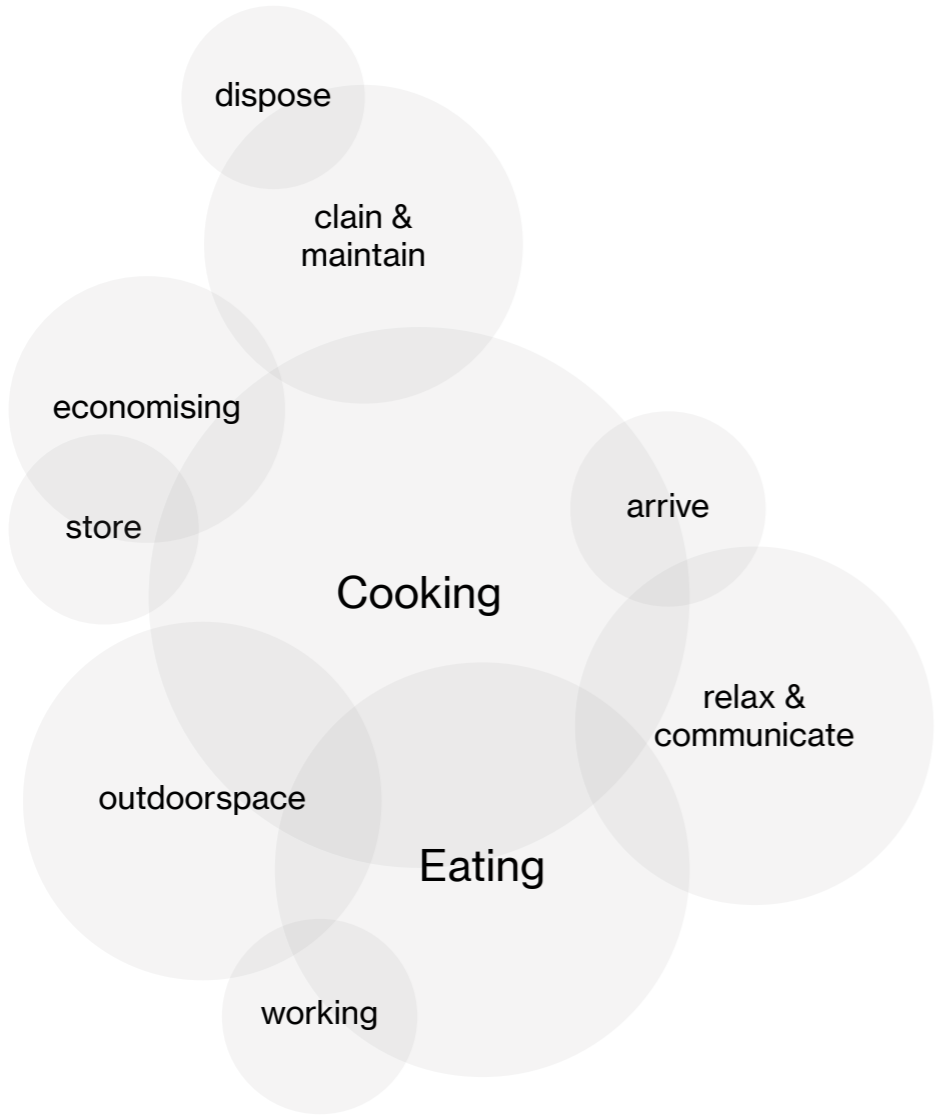
## Atmosphere.

How can I combine my guidelines to create an architecturally pleasing space.

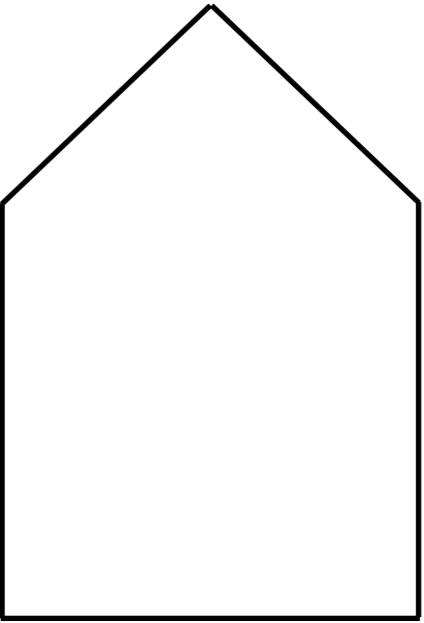
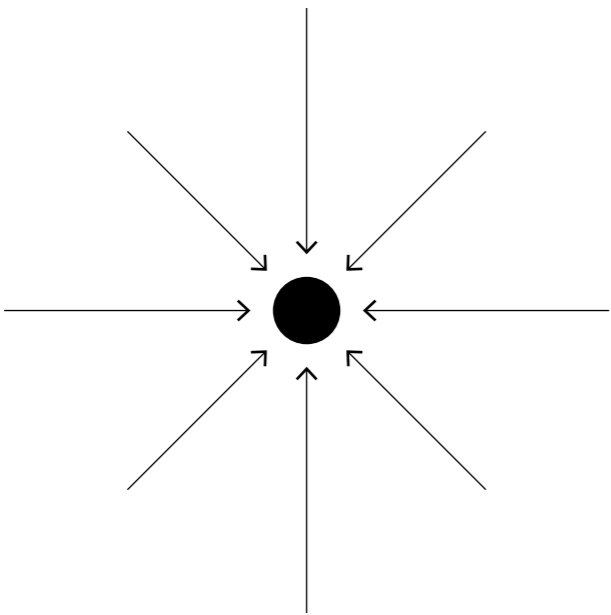
What makes sense?

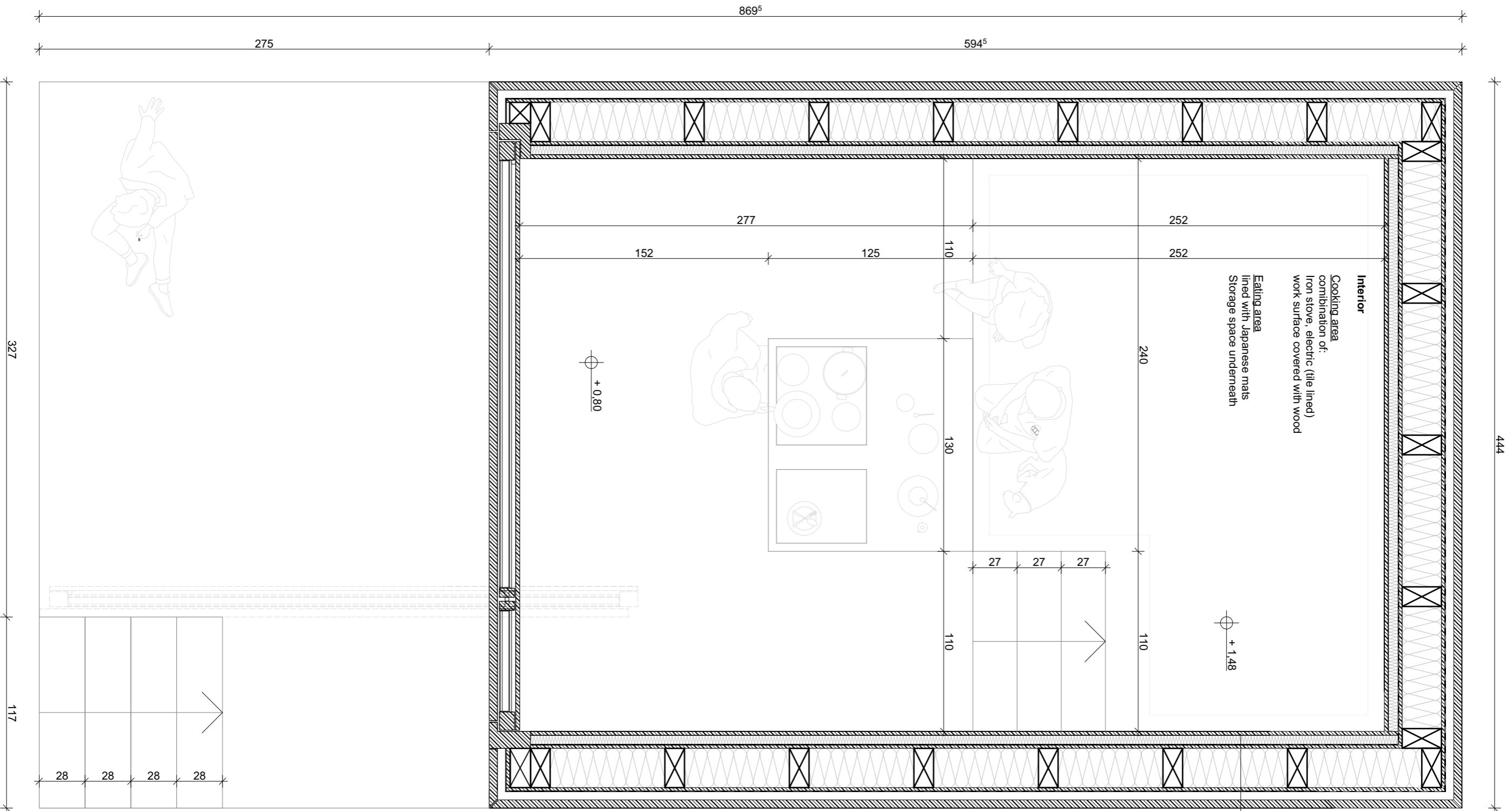
Materials that support the concept and are sustainable and local.

# Concept.



**Concept.**





- Wall structure**
- larch strip cladding 50 mm
  - battens/back ventilation 50/50 mm
  - facade membrane
  - tongue-and-groove formwork spruce 20 mm
  - squared timber vertical 60/240 mm
  - insulation in between: cellulose fibre flakes 20 mm
  - tongue-and-groove formwork spruce
  - vapour barrier
  - battens/insulation 60 mm
  - fir band sawn timber 24 mm



±0.00

# Floor Plan.



Function



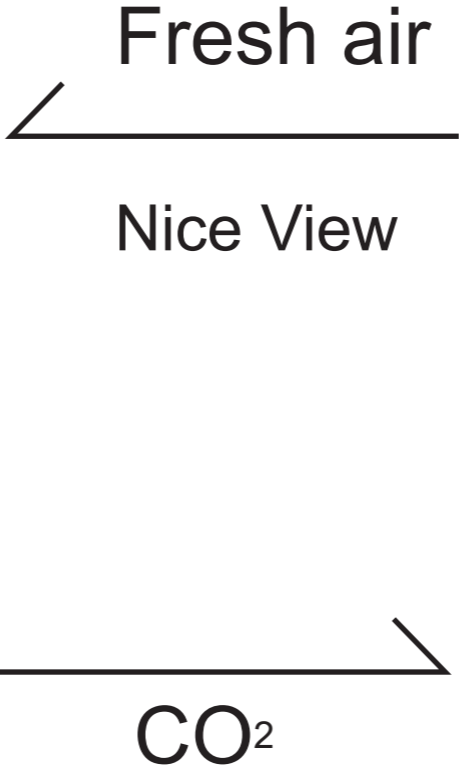
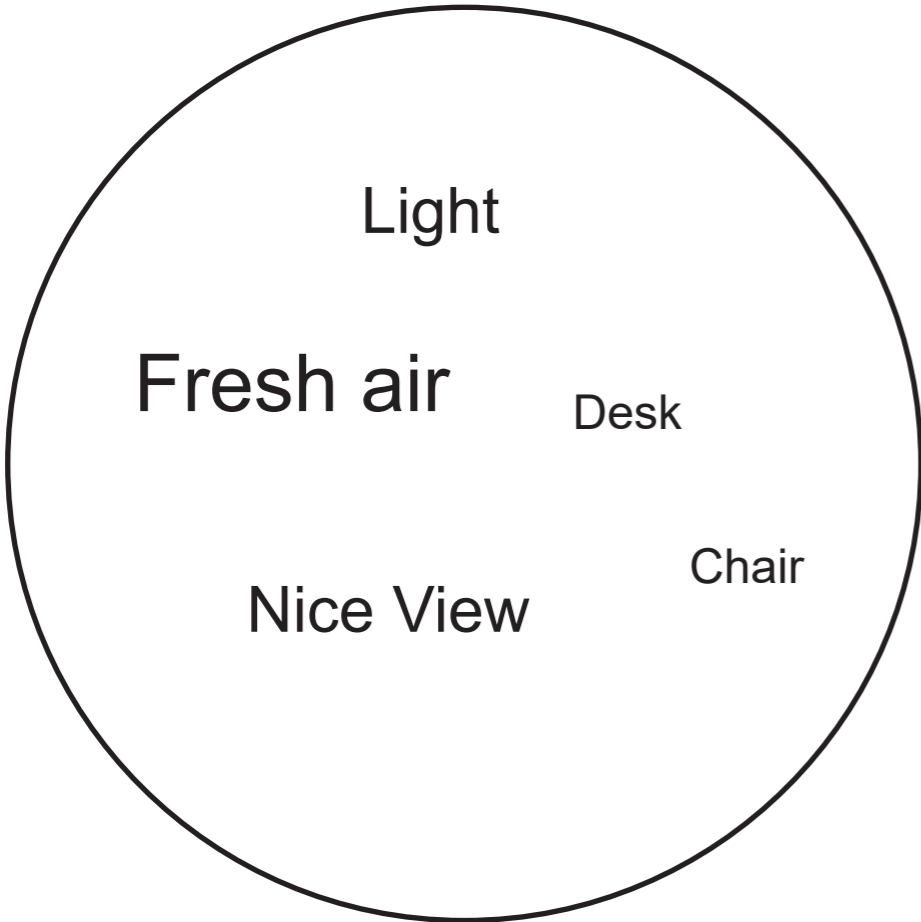
Work space

and  
or

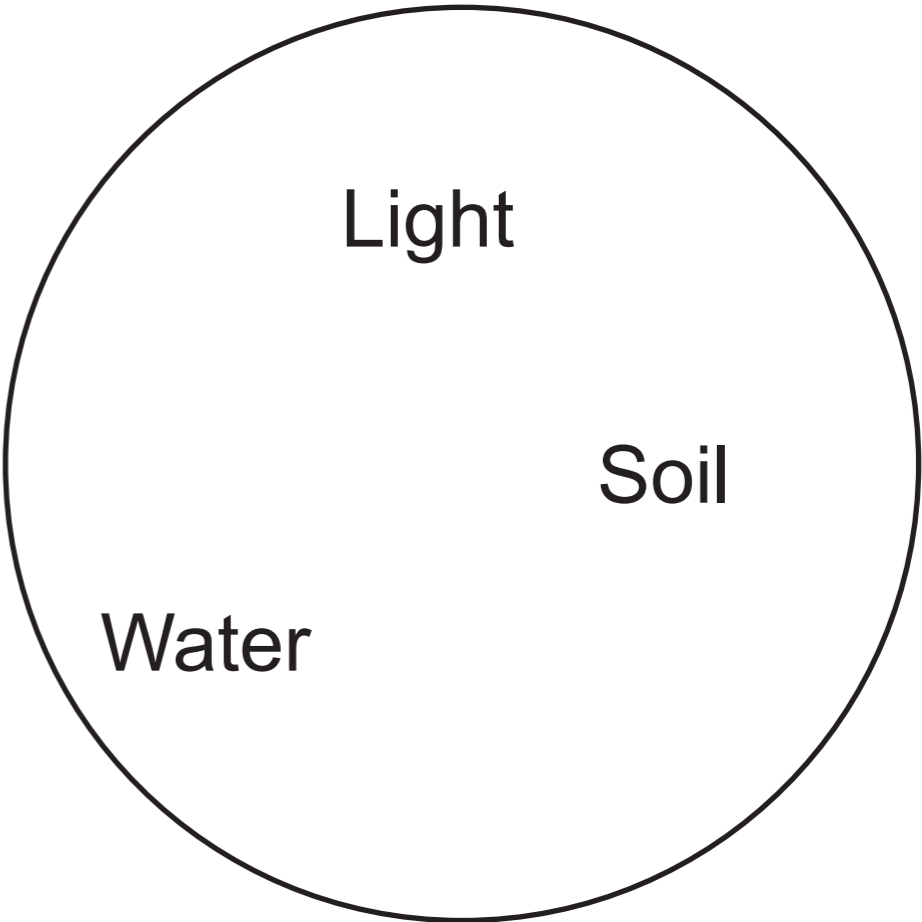


Flower house

Necessary for Work Space

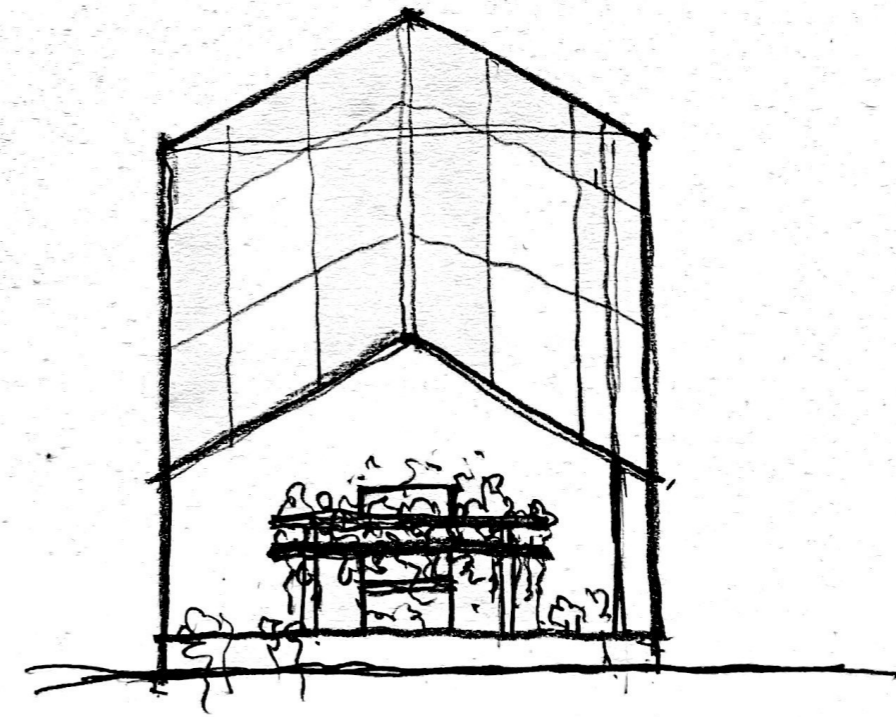
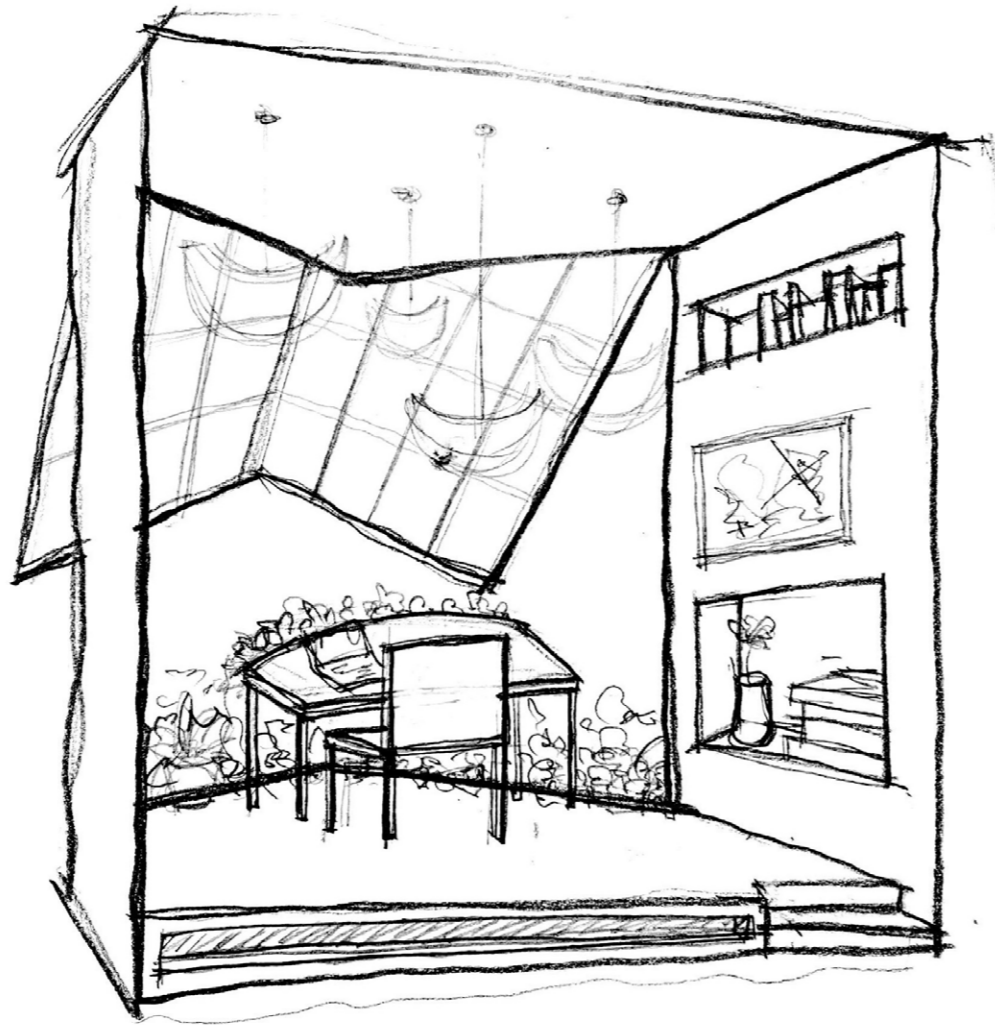


Necessary for Plants House

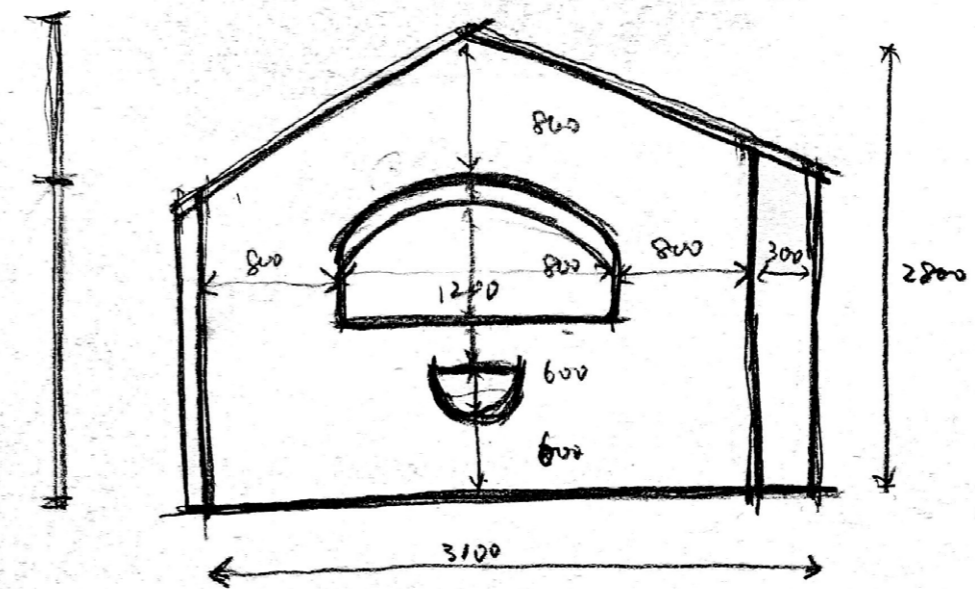




# Space sketch



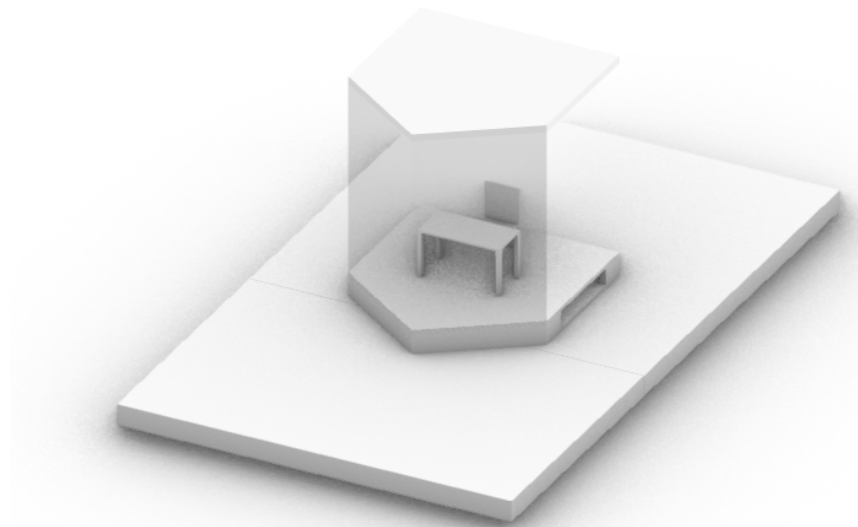
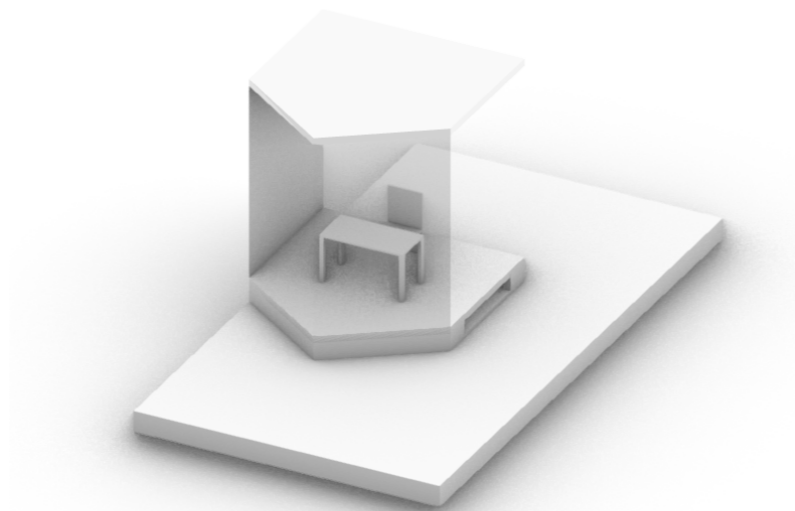
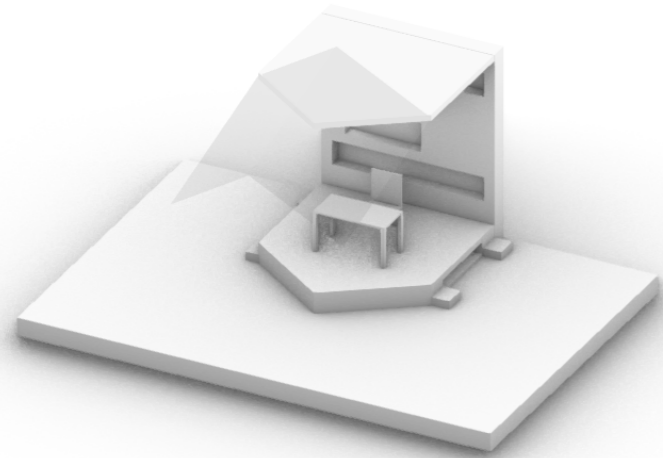
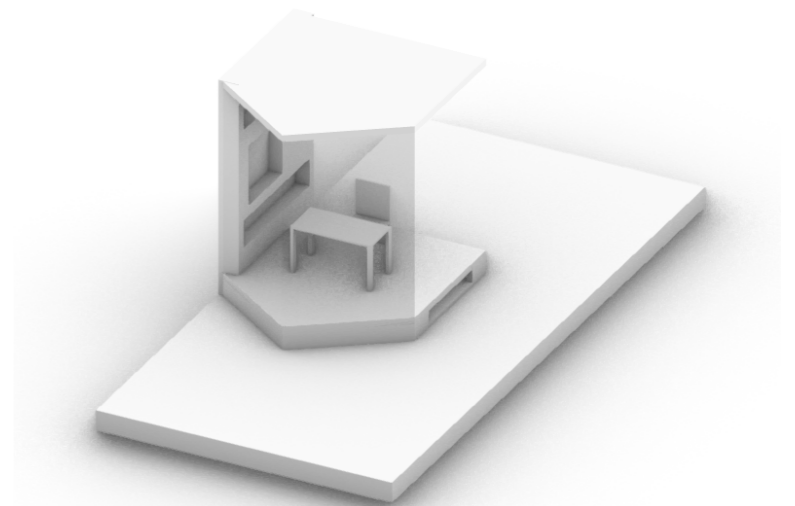
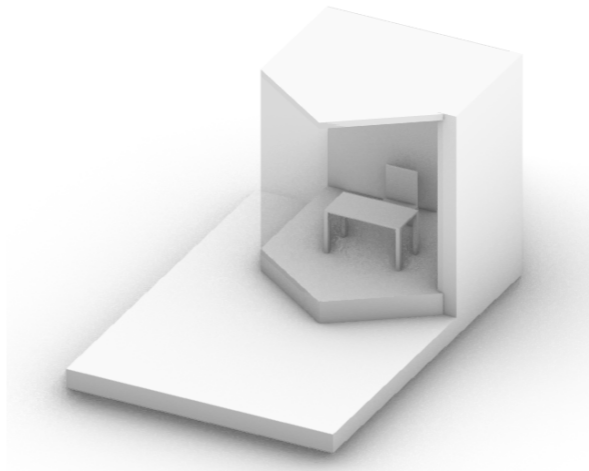
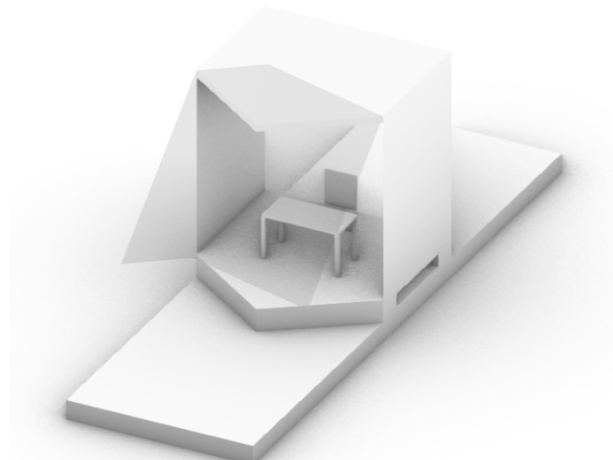
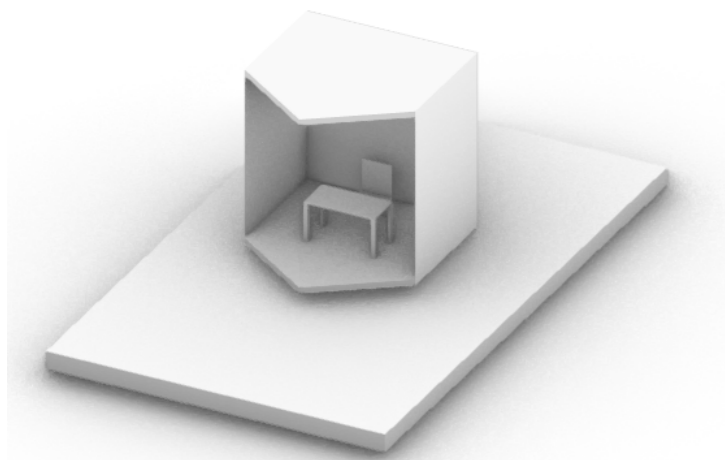
Elevation



Plan

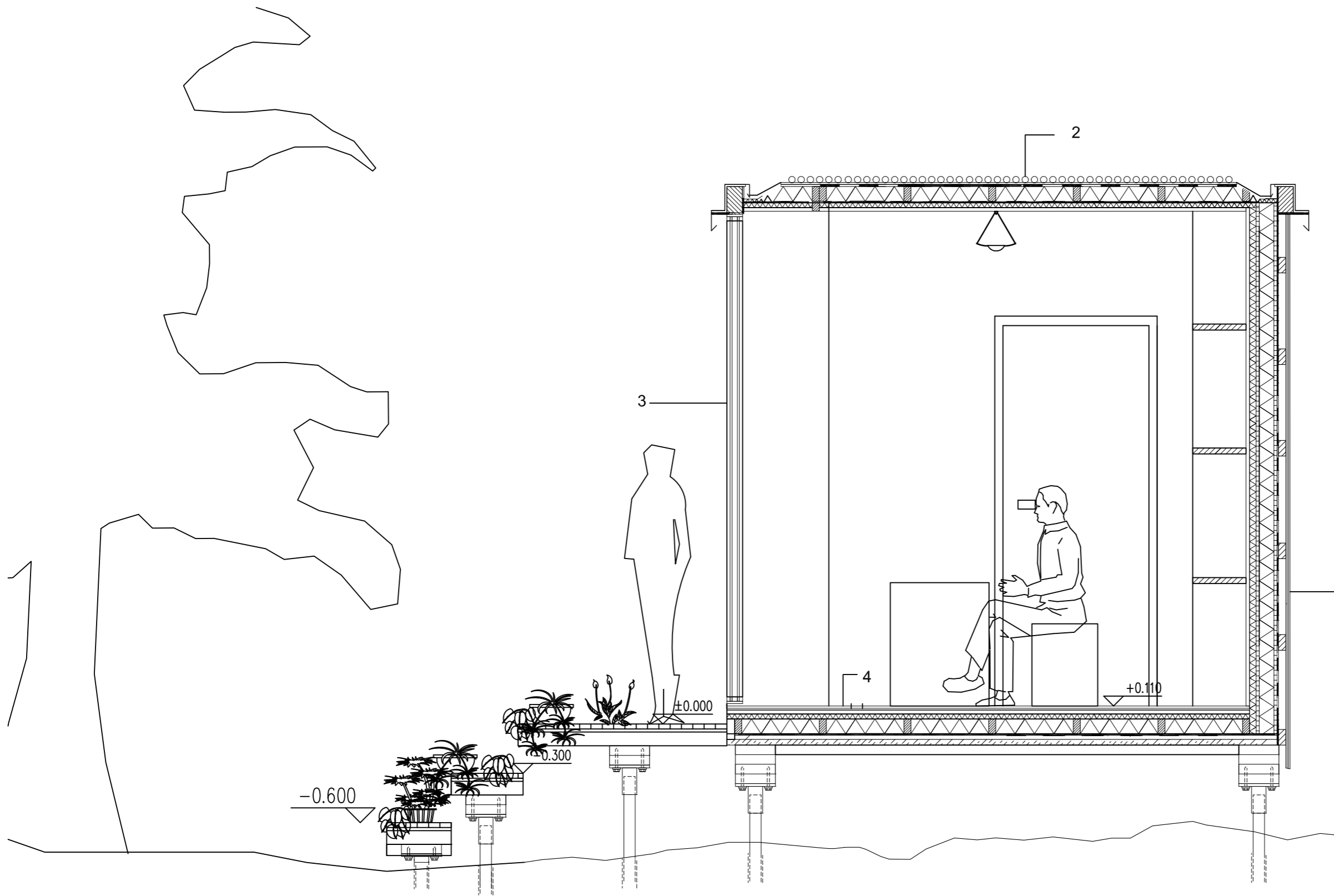


# Deformation





# Section



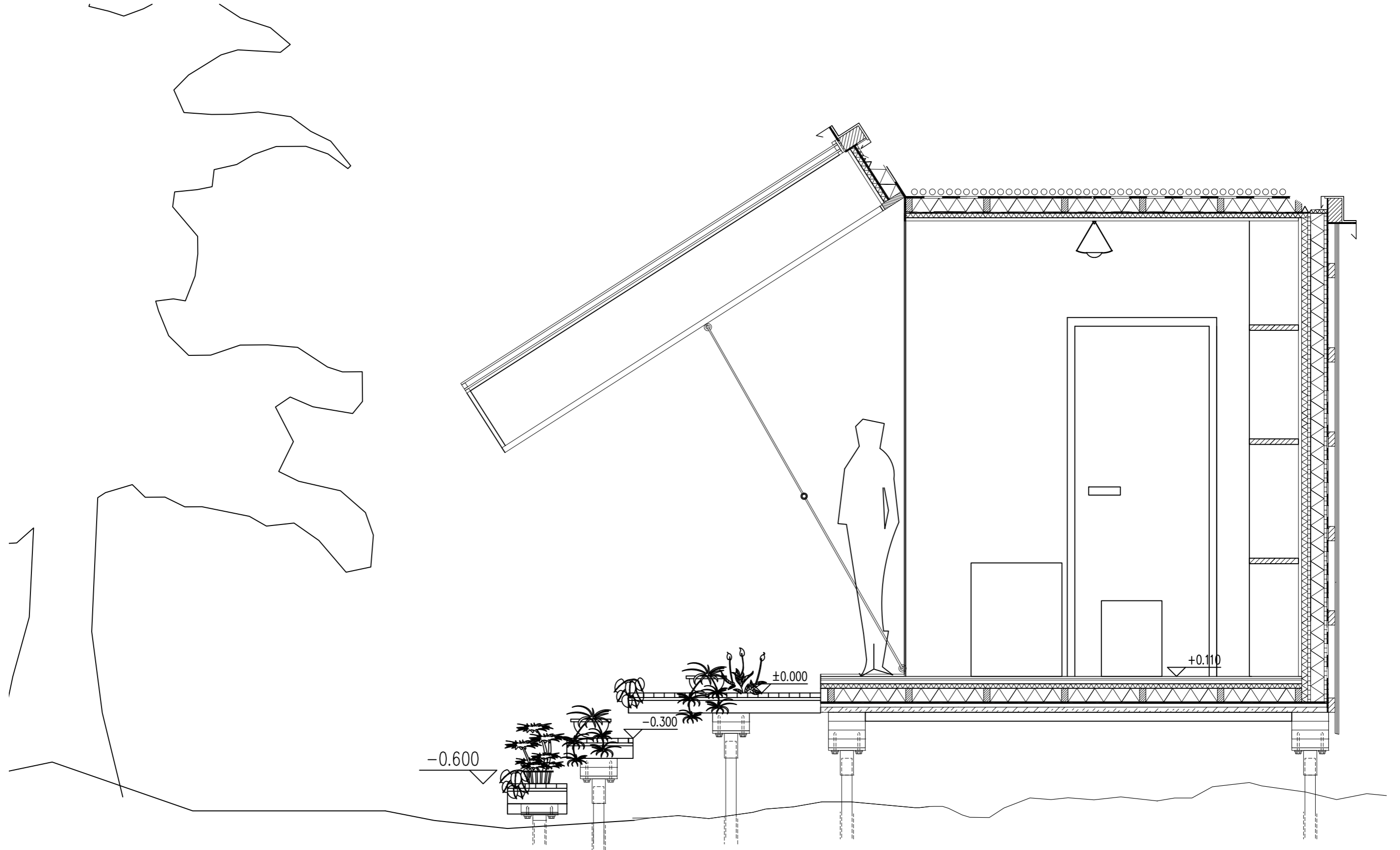
- 1 25 mm exterior boarding  
45 mm air-gap  
8 mm water proof layer  
20 mm wind-barrier board  
90 mm thermal insulation  
20 mm moisture-diffusing chipboard  
40 mm thermal insulation  
20mm interior panels

- 2 40mm gravel  
20 mm wind-barrier board  
8 mm water proof layer  
90 mm thermal insulation  
8 mm water proof layer  
40 mm thermal insulation  
20mm interior panels

- 3 double layer glass




- 4 wool carpeting  
25mm softwood boarded floor  
90 mm thermal insulation  
air-barrier  
40 mm thermal insulation  
8 mm water proof layer  
20 mm wind-barrier board

# Section



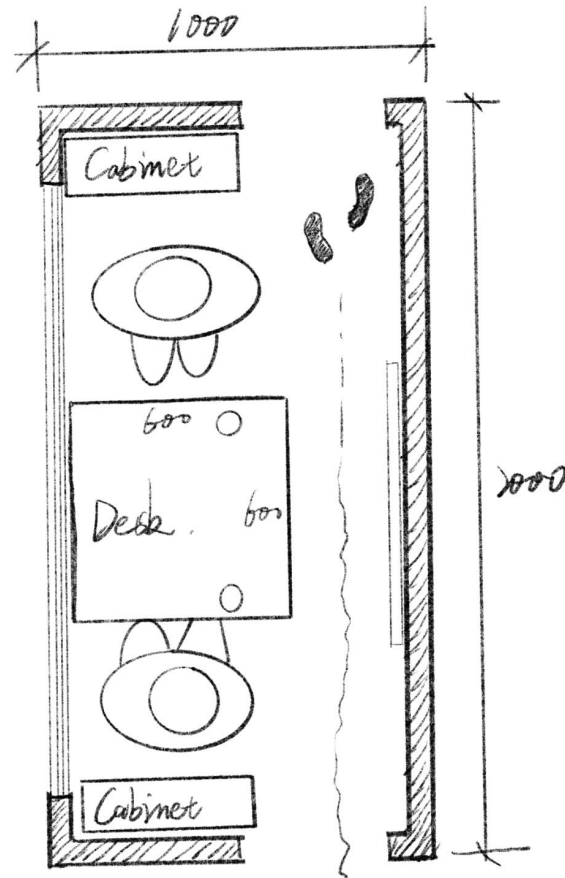
# Social Space

Necessary things in social space

	 ×2	 ×3~5	 ×5+
Type	Basic	Comfortable	Luxury
Action	Speak, Stand, Sit, Walk, Drink, Eat, Watch	+Lie, Play, Dance, Sauna	Exhibition, Feast
Feeling	Private or Public Open or Close Silent Indoor or Semi-Indoor Warm	More public Open Noisy	Public Noisy
Things	Place to sit, Desk Windows, Roof, One wall Something can be discussed Heating, Screen Two entrance Light, Fresh air	+Big empty space, Cabinet, More things to play Noise insulation	One big space and several small space

# Social Space

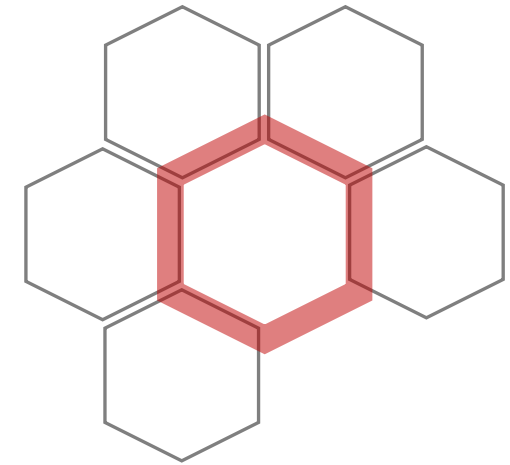
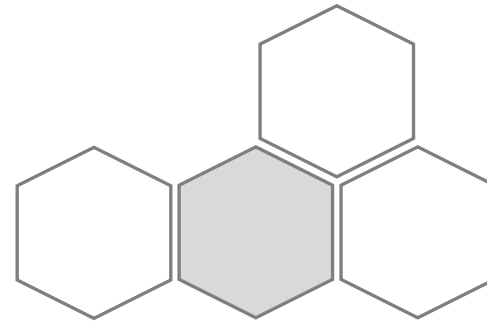
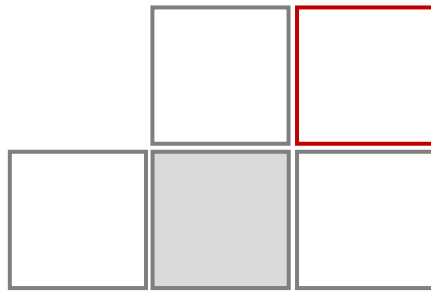
Space design



Basic

# Social Space

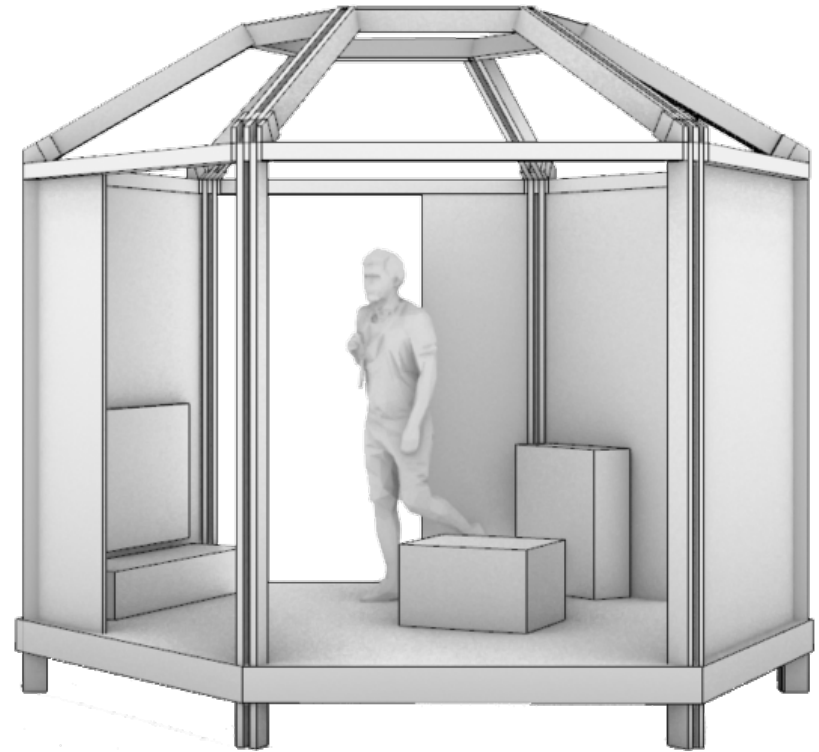
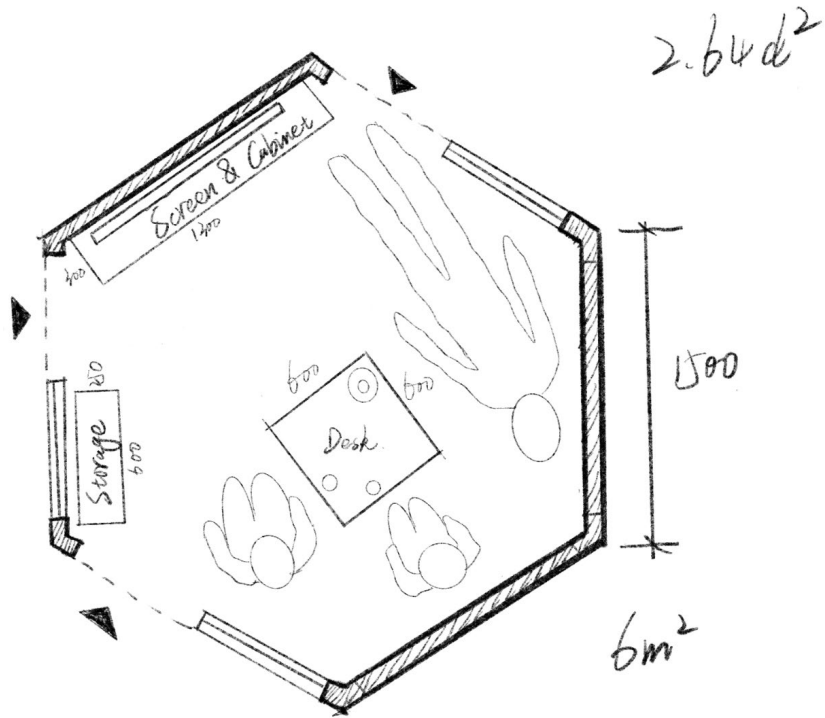
Space design



Flexibility

# Social Space

Space design

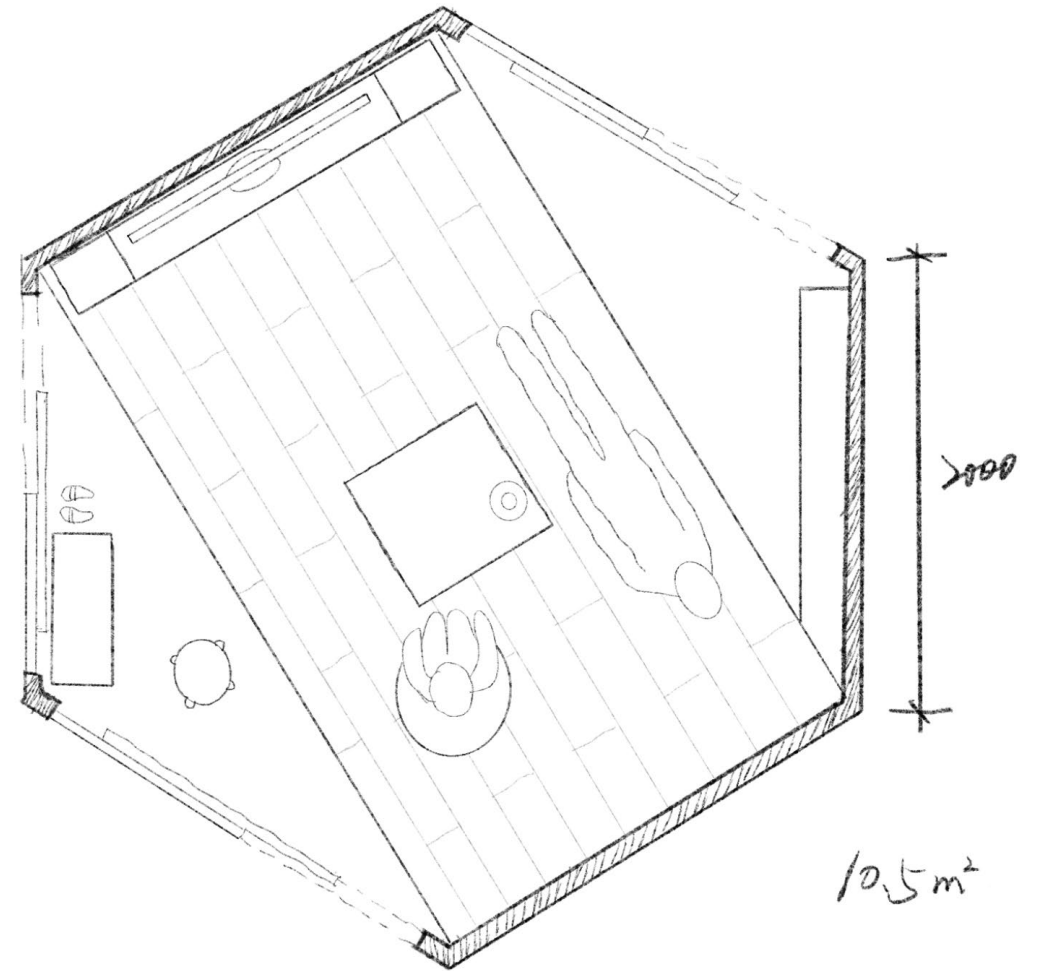
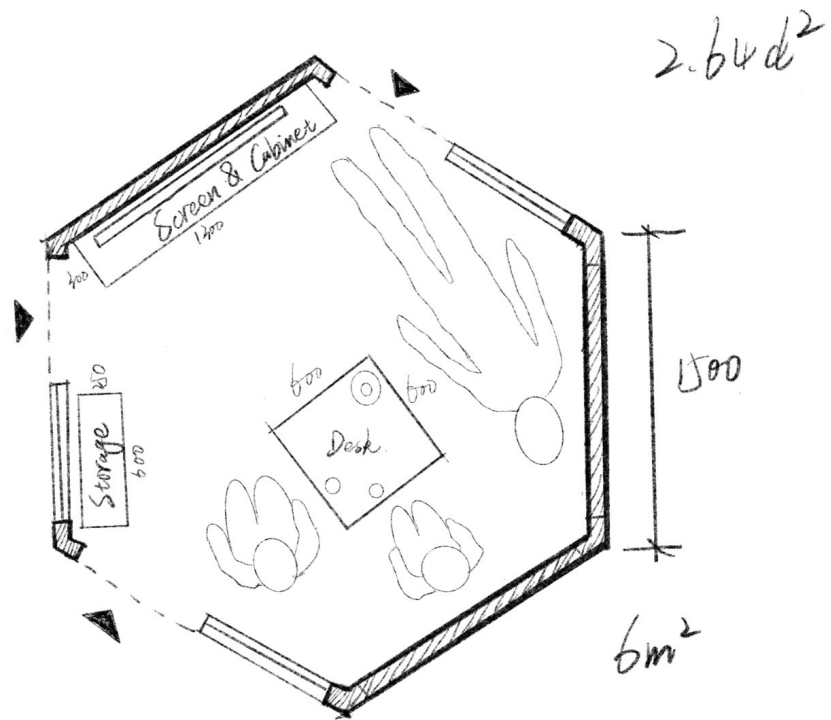


Comfortable:  $6m^2$

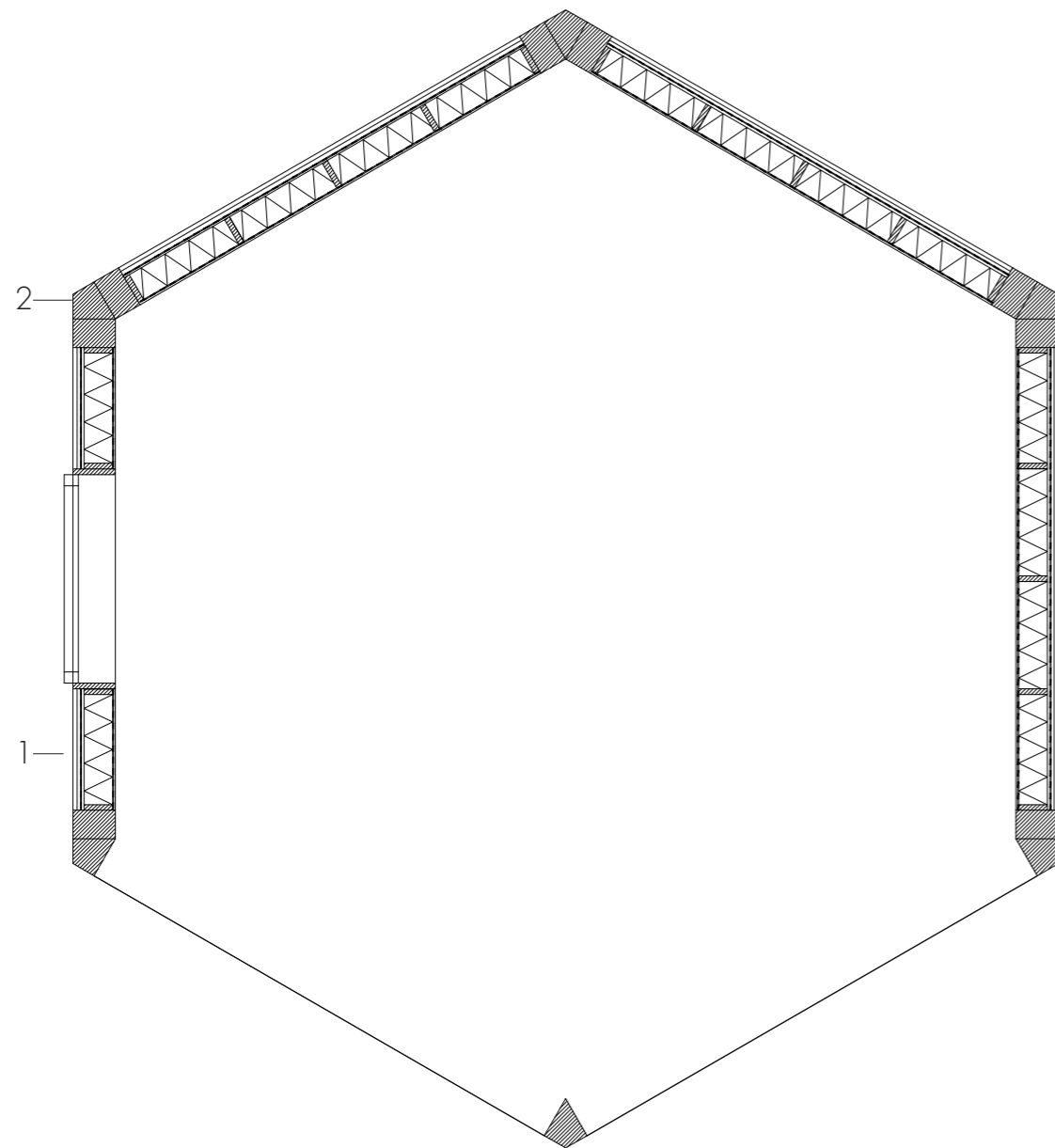


# Social Space

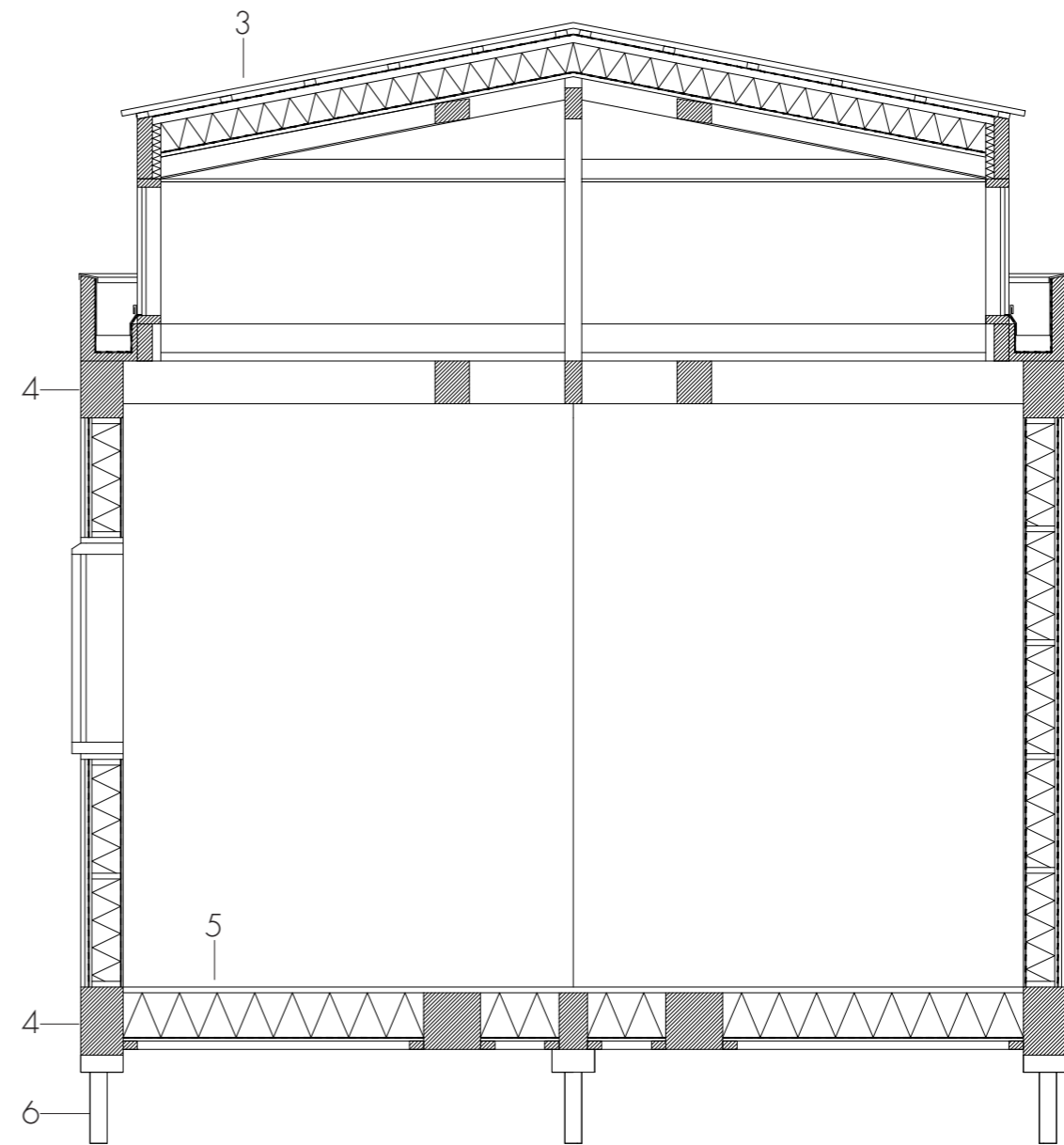
Space design



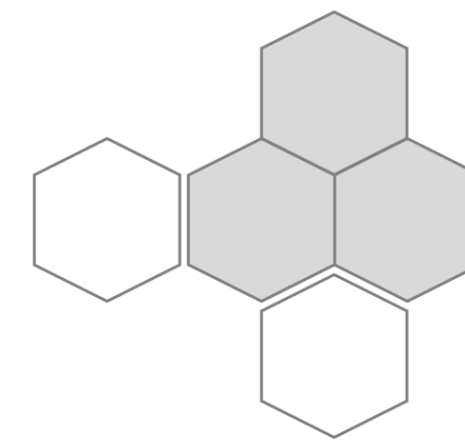
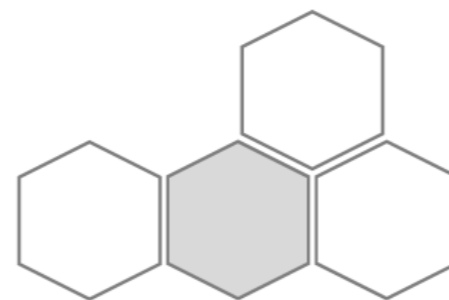
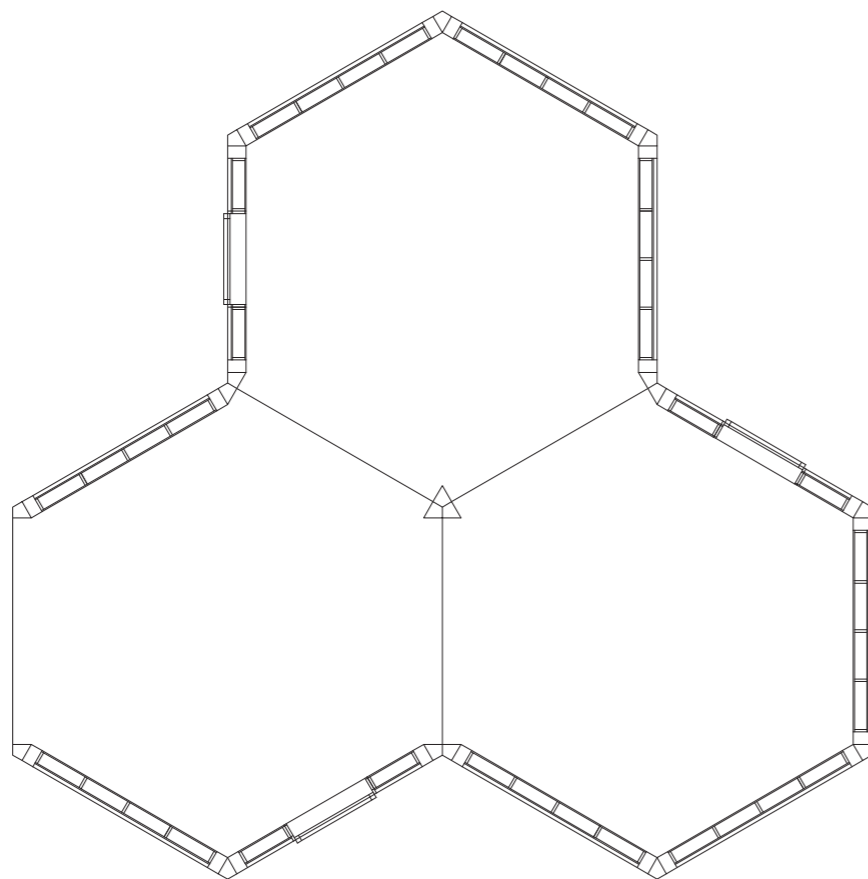
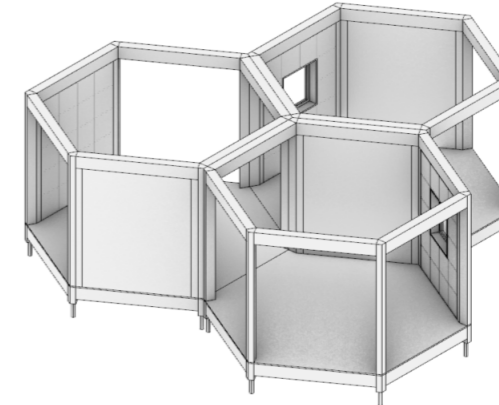
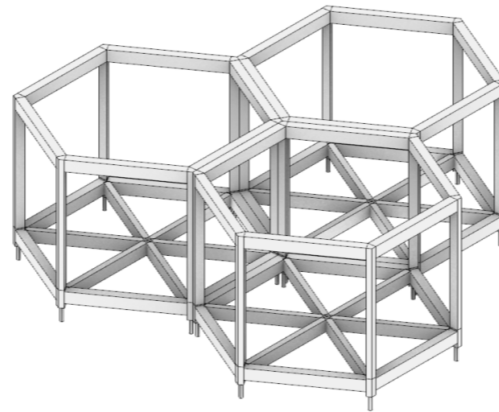
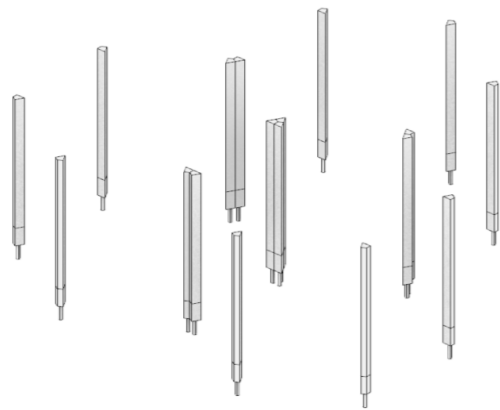
Comfortable: 10.5m<sup>2</sup>



- 1.External Wall, 150mm
  - 15mm Spruce plywood boards
  - 15mm Air-gap
  - vapour barrier
  - 10mm Spruce plywood boards
  - 100mm Wood fibre wool, 20x100 plywood boards
  - vapour barrier
  - 10mm Spruce plywood boards
- 2.Spruce Column



- 3.Roof
  - 20mm Spruce plywood boards
  - 20mm Air-gap, 20x30mm battens
  - vapour barrier
  - 20mm Plywood boards
  - 100mm Wood fibre wool
  - vapour barrier
  - 20mm Spruce plywood boards
- 4.Spruce beam, 200x150 mm  
240x150 mm
- 5.Floor
  - 20mm Birch plywood boards
  - 150mm Wood fibre wool
  - vapour barrier
  - 20mm Spruce plywood boards
- 6.Levelable column base



The structural frame of the building is arranged in a hexagonal grid with a side length of 2 meters, the walls can be replaced with doors, and can be easily assembled and disassembled, and can be expanded horizontally. The prototype consists of three modules, which are arranged in a hexagonal plane.

# Social Space

Reference

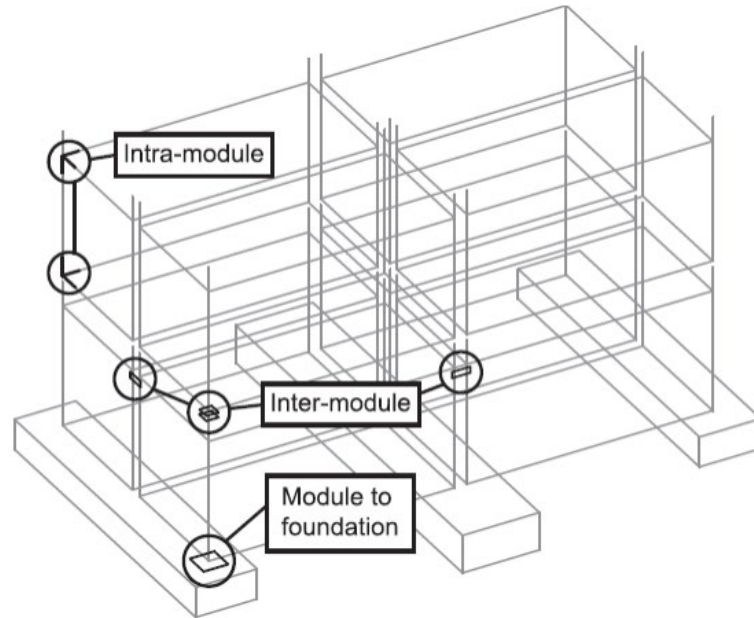


Figure 3.5.1 Drawing of the three types of connections mentioned.

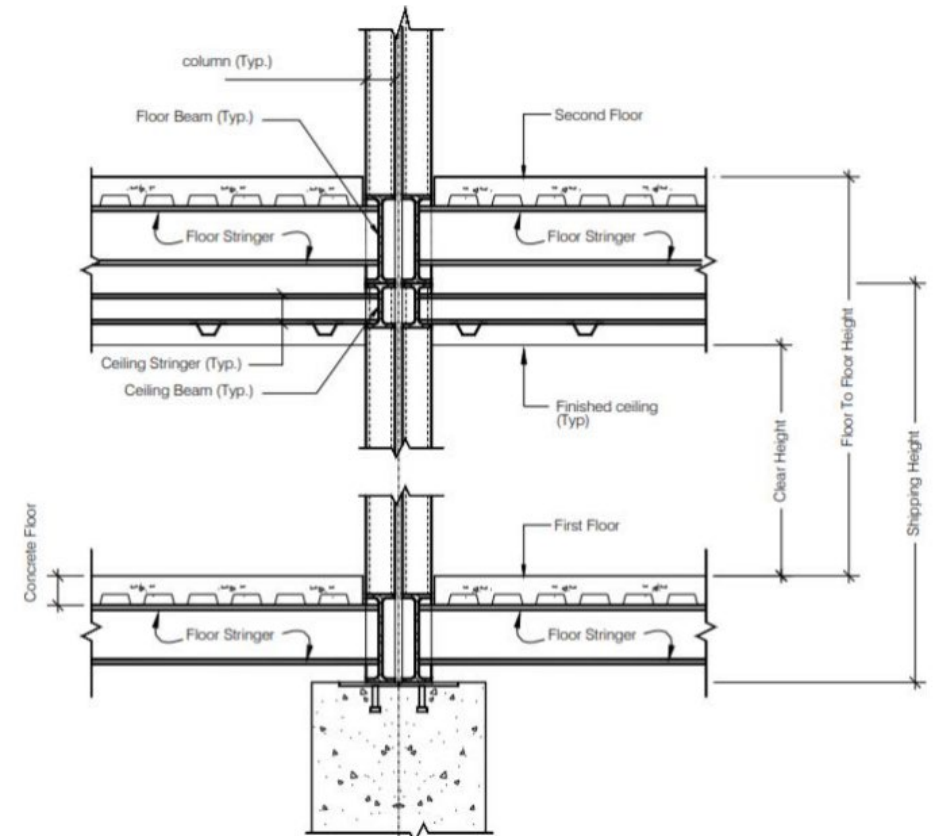


Figure 3.5.2 A section of a typical modular floor assembly, retrieved from [36]



# Research

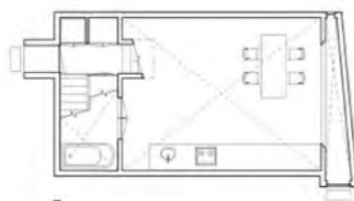
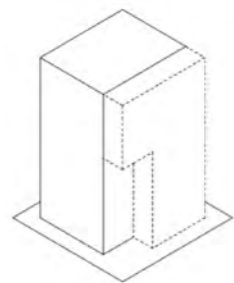
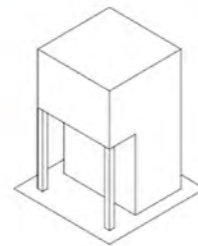
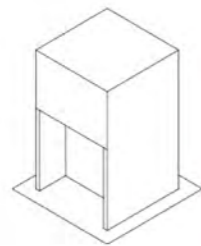
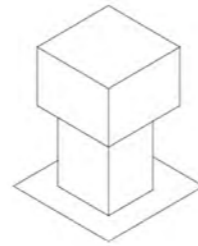
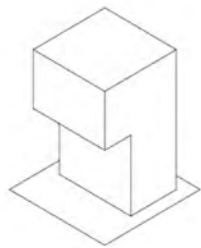
## Typology study



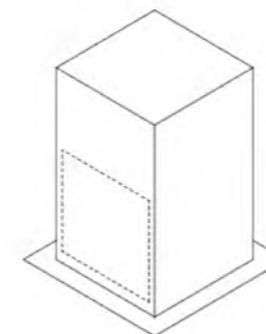
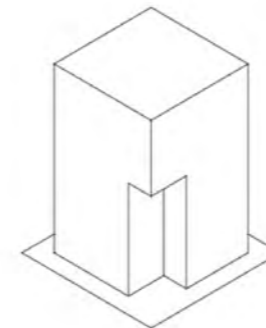
INSIDE × OUTSIDE

# Research

## Typology study



3





# Research

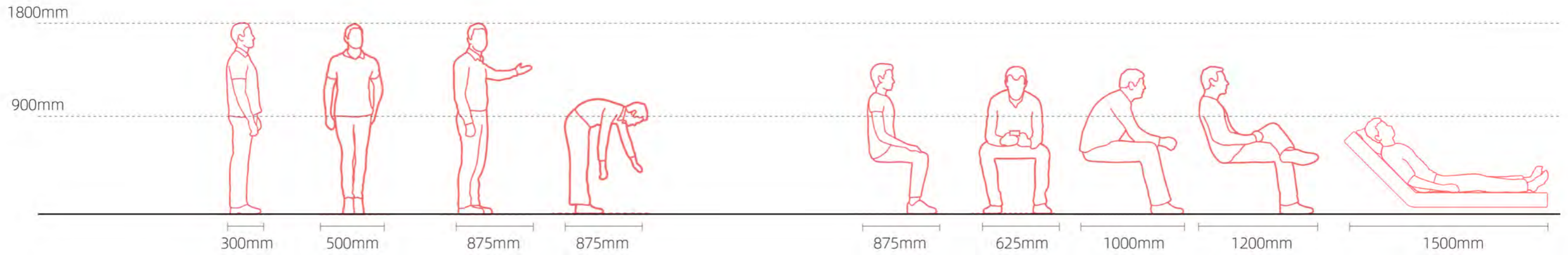
Basic to comfortable

Type	Basic	Comfortable	Luxury
<b>Actions</b>	stand walk enter (outside actions) / mix use with other functions observe (inside actions)	stand sit walk enter observe (outside actions) / be observed relax think (inside actions) read	stand sit walk enter observe (outside actions) / be observed relax eat think read performance social (inside actions)
<b>Things</b>	Roof, door, wall, window, goods required for other functions	Roof, window, door, wall, chair, sofa small garden, plants, light	Roof, window, door, wall, chair, small garden, many plants, grass, outdoor table, more light



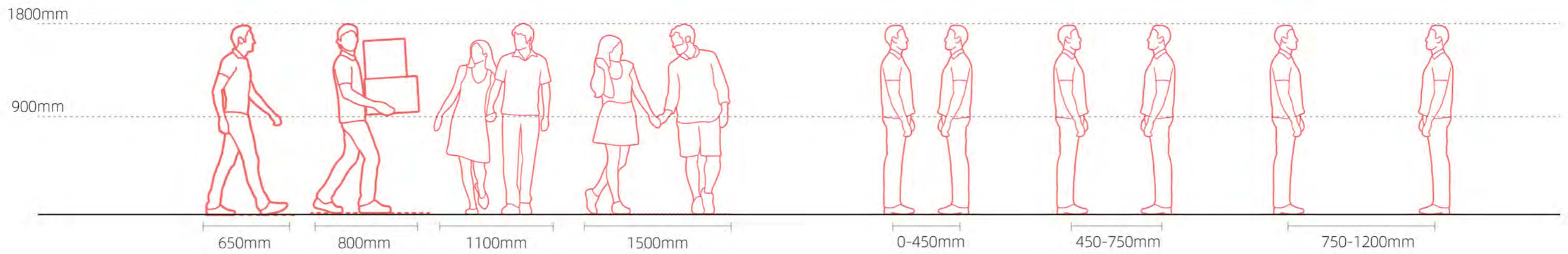
# Research

Basic to comfortable



**stand**

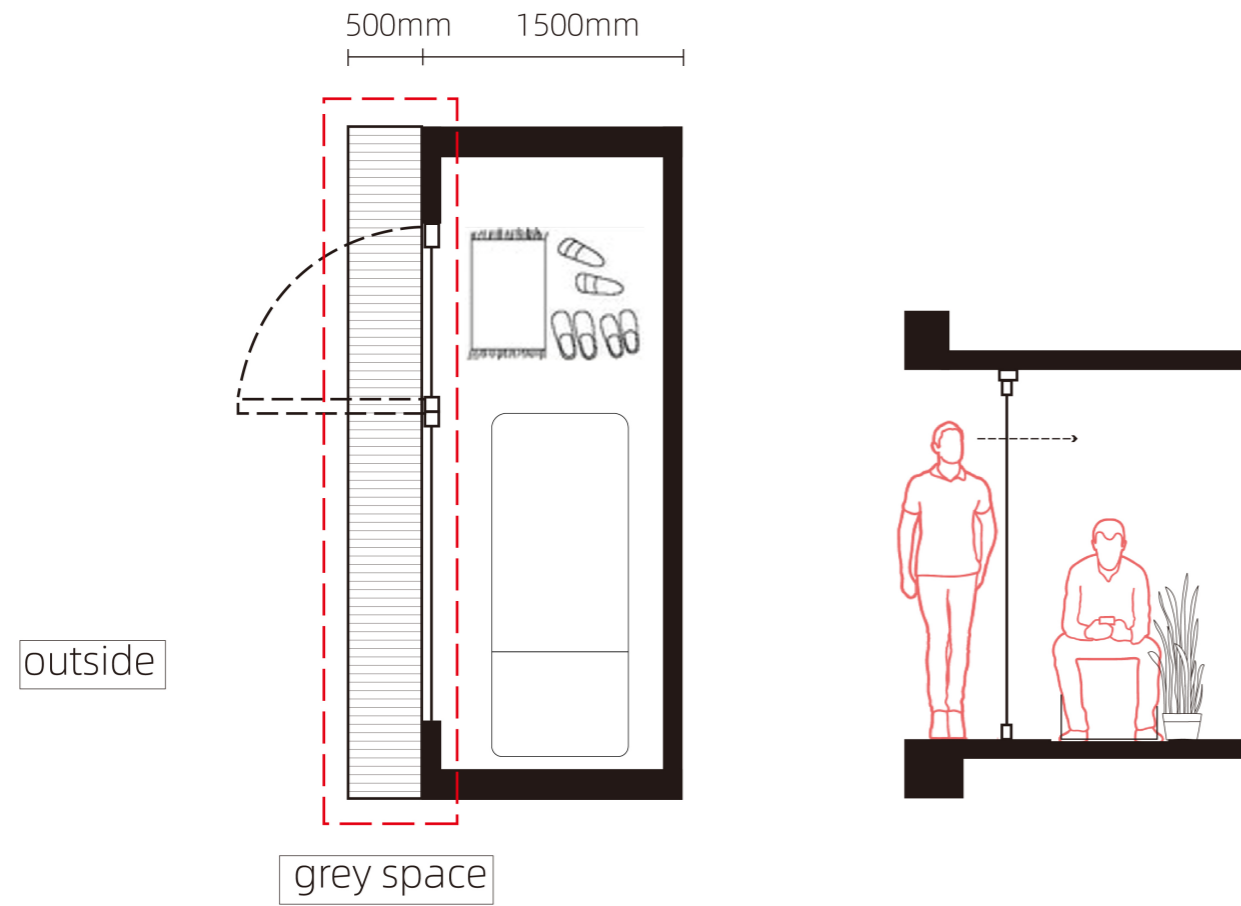
**sit**



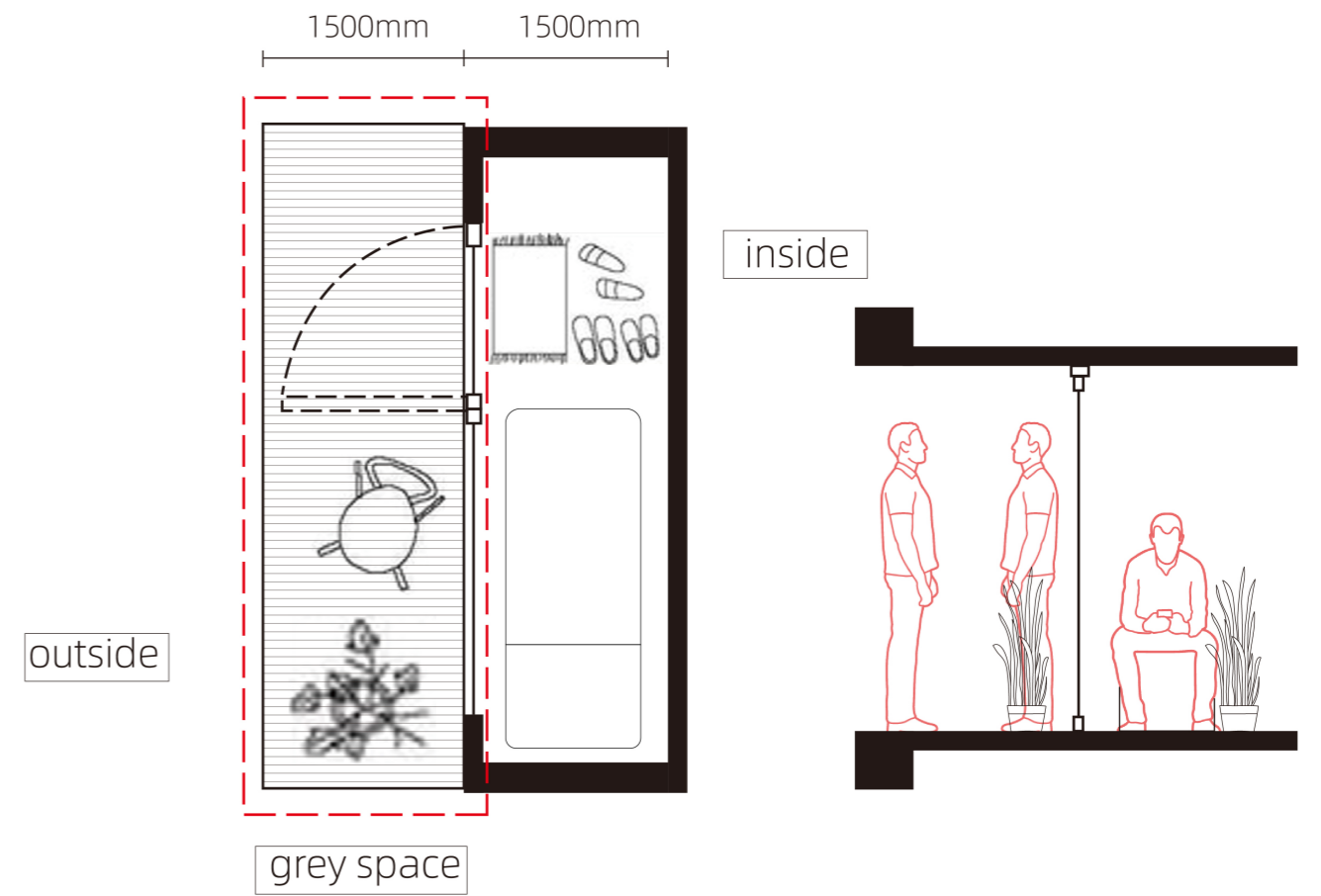
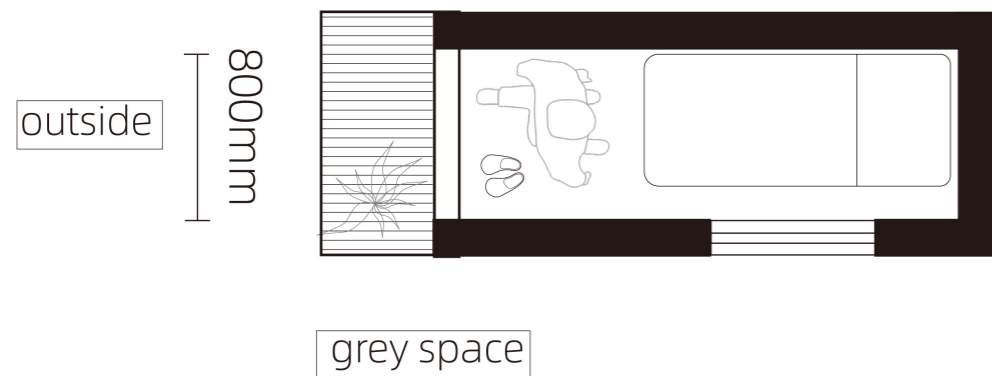
**walk**

**talk**

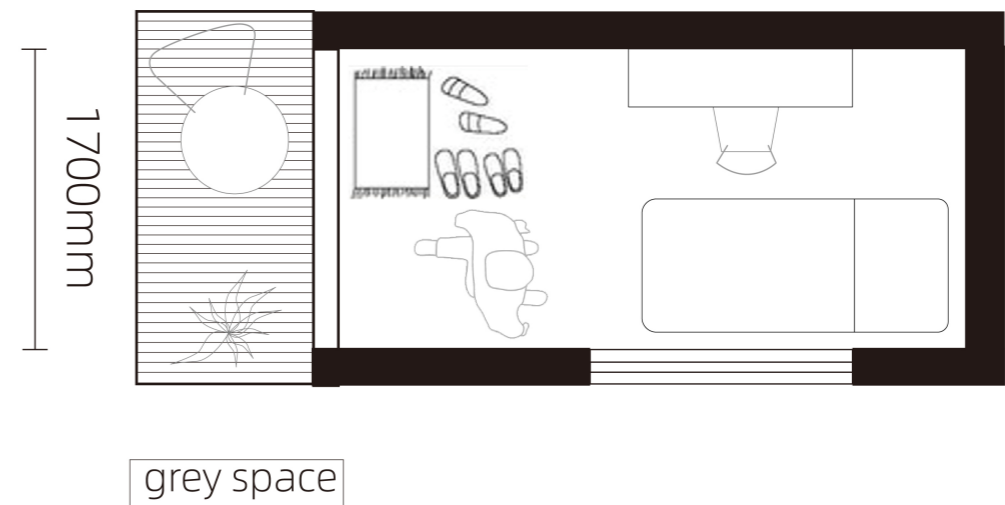
# Design



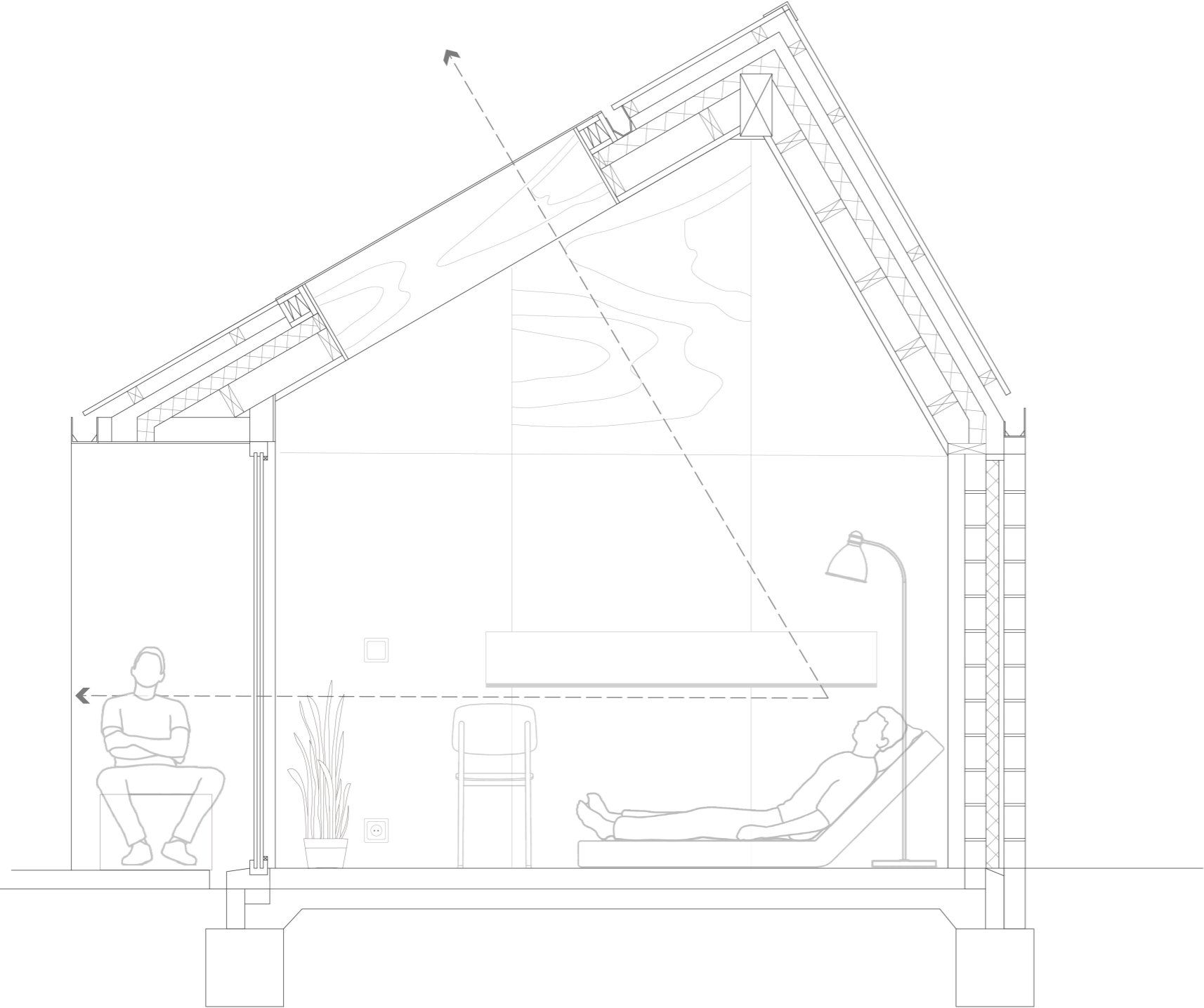
**Basic**



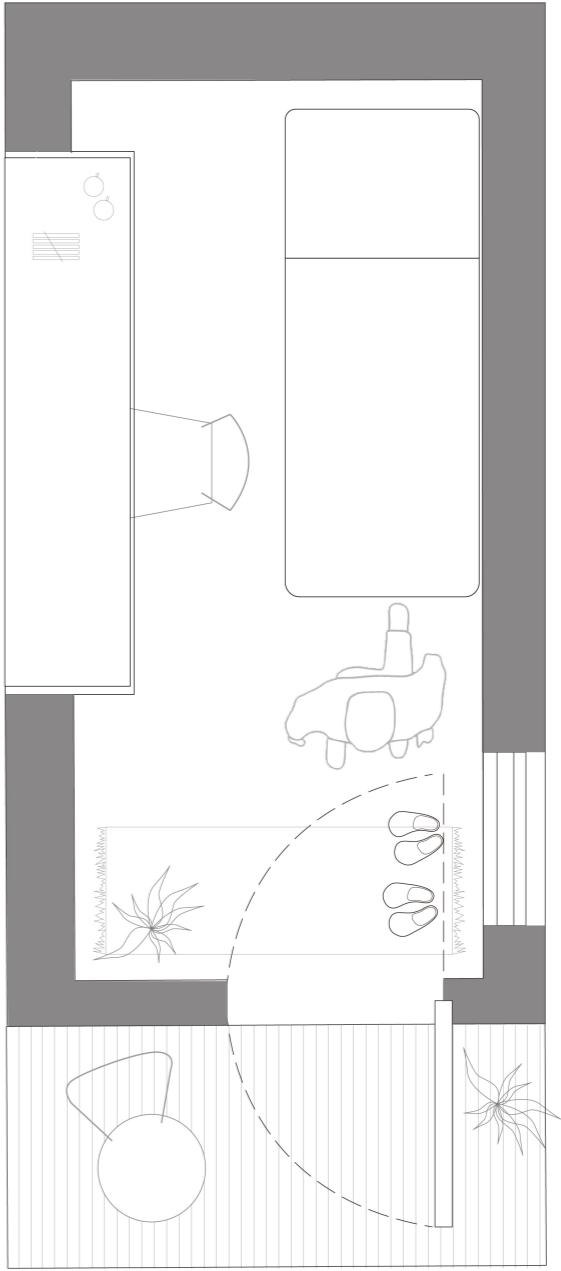
**comfortable**



# Design



SECTION 1:25



PLAN 1:25