

# MASTERARBEIT

## IN THE WOODS

New development ideas for Velipoja beach in Albania

ausgeführt zum Zwecke der Erlangung des  
akademischen Grades eines Diplom-Ingenieurin

unter der Leitung von

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## *Acknowldegment*

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*I also would like to thank my family, who have supported me for all these years and in particular my father Prof.Dr. Mahir Hoti who has also helped a lot with my thesis with his knowlegde of the area as a geography professor and in the gathering of materials and information.*

*A special thank you for my fiance Eldar Kopliku for always being there for me.*

*Thank you!*

*Jonida Hoti*





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1. Aerial view of Velpoja

# 1. INTRODUCTION

My master thesis deals with the touristic development and facilities in the Velipoja beach. Being from Shkodra, I've spent almost all my summers in Velipoja and I think it has potential to attract not only local tourists but tourists from all over the world. That said, the current situation is a little sad. The forest is being cut down and countless horrible hotels are built there. Like many other beaches in Albania, Velipoja suffers from the uncontrolled development. Even if the nature is beautiful, it means nothing if in the end it is destroyed.

That is why the most important aspect of my thesis is to protect the natural environment. In my project I try to create quality spaces for the visitors, that have a strong connection to nature. The project consists of both permanent and temporary structures. For me is very important the sustainable development of the area.





2. The sea

## 2. VELIPOJA BEACH

Velipoja is a beach with a natural age of 300 years. The total area of the municipality is 72.4 km<sup>2</sup> and the population is 8270 people. This coast is a gem of the Albanian nature, where the sea, river, beach, forest, lagoon and mountain are harmoniously combined. The length of the beach is 14 km and width of about 300 m.<sup>1</sup>

Velipoja beach is considered as one of the most curative of the country, because of its extremely rare climate. The steep mountain, the famous sand and the sea are invaluable assets of this coastline. Adjacent to the sea is an area of tens of acres, with a rich vegetation. These conditions are good to treat

chronic diseases such as asthma, while the sand, which has high amount of iodine is very curative for patients suffering from lymph thyroid.

Velipoja was opened as a public beach in year 1970. In summer 1970, in this totally virgin and unexploited coast there were only 15 wooden cabins and a children camp. The lucky ones, who could relax in this natural paradise were of course the selected of the system and their heirs. The development as a public beach in this area was spontaneous, without a clear strategy, based on the private initiative of the middle class of the local population and more.

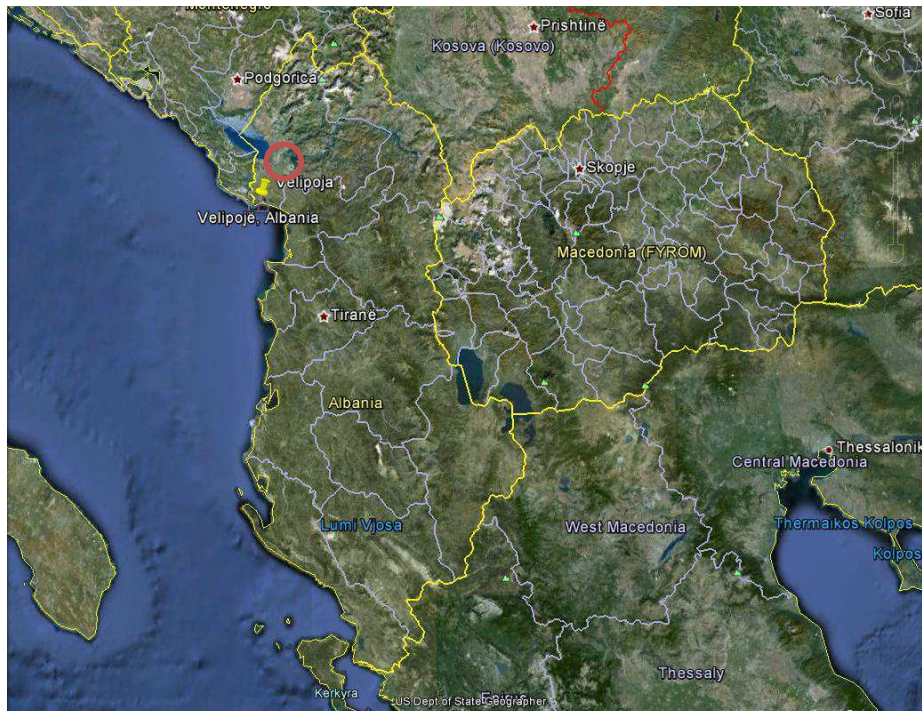


## 2.1. Geography

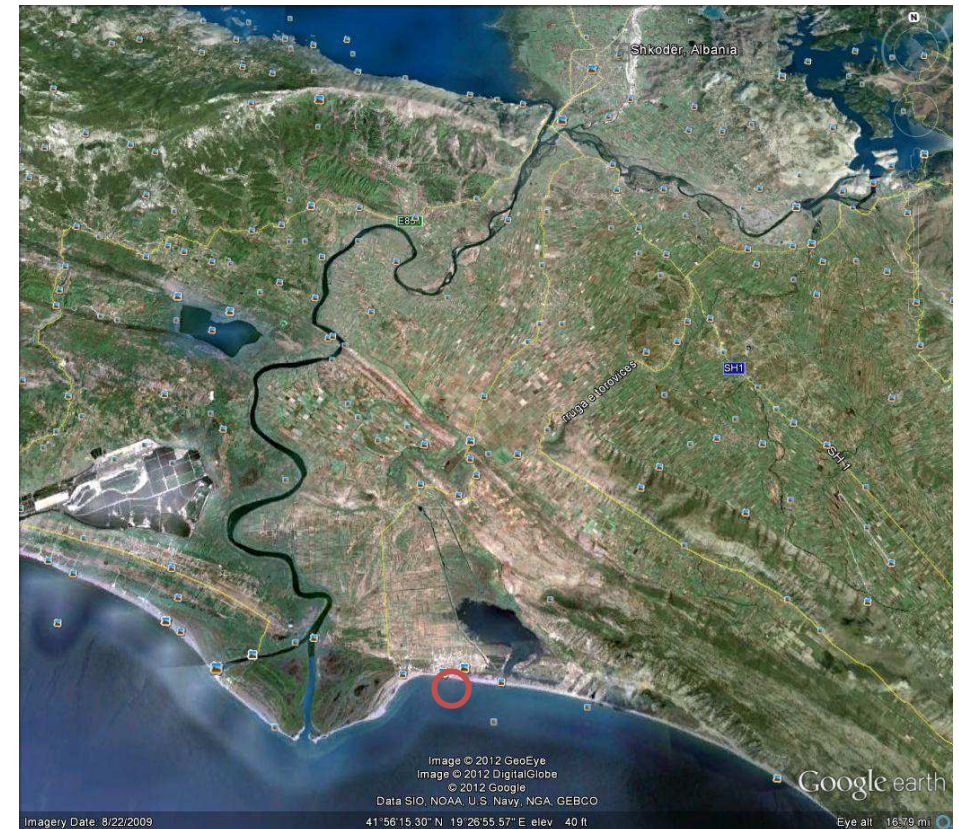
### Location

Velipoja is located 32 km away from Shkodra. The length of the beach is 14 km and width of about 100-400 m. It extends south from the delta of Buna river, which is also the boundary with Montenegro.

The terrain is flat with negligible differences of 0-1m.



3. Map of Albania



4. Map of Velipoja



5. Map of the Velipoja Beach



## Climate

Velipoja has a Mediterranean climate with a hot and dry summer and a humid and cool winter. Murlan wind, that is characteristic for Velipoja, makes the winter very cold, whereas shirok wind in the summer brings humidity. The average yearly temperature is 16°C (20°C). The area has 280-300 sunny days per year. Temperatures above 25°C is prevalent in over 100 days a year. The average annual rainfall ranges up to 2665mm per year.<sup>2</sup>

## Ecological system

The most important elements of Velipoja ecosystem is the beach with 14km length, the Buna delta and the lagoon of Viluni. Another element is the nature reserve with an area of 638 hectares, which consists of the wetland and the forest. It has a very rich vegetation and fauna.



7. Nature reserve near the delta



8. Nature reserve



6. Buna delta



9. Lagoon of Vilun



10. Lagoon of Viluni and mountain of Renc





11. Vegetation in the nature reserve



12. Main ecological systems

- 1 Buna delta
- 2 Nature reserve
- 3 Lagoon of Viluni

## 2.2. Actual situation and problems

After 1997 began the building boom in the beach territory, buildings that had no authorization. The intensity of the buildings increased in the last years with the foreseeing that the buildings would be legalized. From 15 cabins in 1970 today there are over 1300 more storey buildings. All this without an urban and landscape planning. In summer, the average number of the incoming vehicles, which transport people to the seaside, is nearly 3000-3500, in the weekend this number reaches 5500-6700 vehicles, whose circulation and parking requires a well organized transfer system and parking places.

From some rough data, Velipoja beach is frequented from averagely 30.000-40.000 daily vacationers, from which 24.000-28.000 are residents. During the summer season the total number of the vacationers has reached 300.000. Velipoja has an undeveloped infrastructure and lack of capacities to receive future growth and to provide appropriate services for tourism. Actually there are 320 hotels and 800 holiday houses. The maximal housing capacity from the hotels and family tourism is ca. 30.000 vacationers. In the peak days the number of the daily vacationers, including the residents exceeds 80.000. The beach is used only in 3km of its total of 14km length. It is a mixture of natural beauty and chaotical human exploitation.<sup>3</sup>

The number of visitors has grown every year. But in summer 2012 there was a decline in the number of visitors. There was a higher number of daily tourist and fewer long stay vacationers. It could also be related to the financial situation, but I also think that the problem is in what Velipoja offers. There are problems with the infrastructure, pollution, transfer and parking system and the hotels are all the same. To attract tourist Velipoja has to be unique. People get bored of the same type of hotels, same type of bars. There has to be something different. The main reason people go to Velipoja beach is to experience the nature, the fresh air, the sea, sun, sand, and also the forest. People want to be in a place away from the noise and pollution of the city. There should be much more effort in the conservation of the forest and the whole ecosystem. It is possible to practice hunting and fishing as a sport. There is no sustainable tourism by just increasing the number of hotels and bedding.

The image of Velipoja in October is sad, but maybe the most realistic one. A place abandoned from the tourists, but a natural oasis almost pristine, that with a little attention can be transformed into a touristic paradise.



13. Natural beauty



14. Human activity

## The Butler Model

The Butler Model is a way of studying tourist resorts and seeing how they change over time and in relation to the changing demands of the tourist industry. The Butler Model breaks down tourist development into five distinct stages.

### 1. Discovery Stage

A settlement is 'explored' or 'discovered' by a small number of people who later tell others about their experience. In time other people visit and local people seize upon the new economic opportunities provided by these visitors and provide services to meet the needs of these visitors or tourists.

### 2. Growth and Development Stage

More tourists arrive having heard about the place by word of mouth, articles, brochures or tourist guides. The extra tourists attracted by the publicity and people willing to visit somewhere new will lead to the building of new hotels, restaurants, shops and services to cater for the influx of people.

### 3. Success Stage

As more people visit the resort, the facilities are now fully utilized. At this stage mass tourism replaces what was once the original economic function of the settlement. This may cause some resentment with people in the town who have not benefited from the new industry or from the loss of distinct identity that the settlement held before. It may appear that the local culture is being diminished by a more international and non-unique culture compared to what may have existed before.

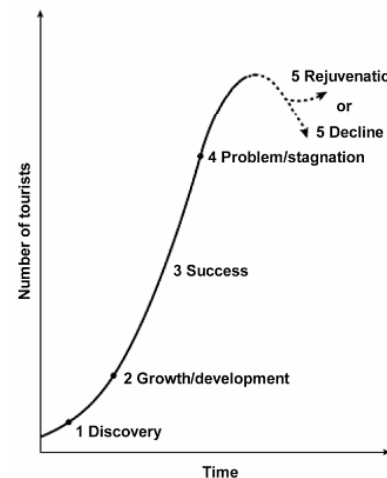
### 4. Problem – Stagnation Stage

Popularity may be short lived. People may become bored with the resort once its initial appeal had waned. Little of the original natural environment will remain and negative comments about what it used to be like may lead people to find somewhere new to discover. The effect of falling tourism if a resort goes out of fashion leads to economic decline and the underutilization of tourist infrastructure. The eventual closure of some of the businesses will lead to a rise in unemployment.

### 5. Decline or Rejuvenation

The tourist resort then has two options; either go into decline or rejuvenate and develop more sustainable strategies based upon lower visitor numbers.<sup>4</sup>

Considering this model Velipoja beach is now between the second and third stage. The number of buildings, the most part illegal, increases every year.



15. The Butler Model





16. Fotos of Velipoja

### The built area

The picture below shows the high density zones. The build area is still rather compact but has the tendency to widen. There are three main areas where the building is concentrated.

1. The first area is in the center. There were located the first cabins and hotels. The building in this area has spread from the seaside into the land. There is the center of the beach, where the most bars, restaurants are and there is also a small amusement park for children. It is also the most dense area.

2. The second area is that near the Buna delta and the nature reserve and has a lower density compared to the first area. The buildings are smaller and there is still a lot of green. It has spread along the beach.

3. The third area, the one near the lagoon of Viluni is also very dense and it has no appeal. You can hardly find any tree or green zone there. Most buildings are four-storey hotels and because it has developed without an urban planing, (like the rest) it is very chaotic. It has spread parallel to the beach.



17. The dense areas

Considering the development until now, it won't be long before the whole seafront is occupied by many storey buildings. As mentioned before there are three zones with a high density of buildings. A further development is needed and it is unavoidable. Still, creating a barrier of buildings in the seafront is not good. My idea of a more sustainable development is creating zones of high density with the right infrastructure and alternating them with the natural environment. The built areas can spread like fingers from the seaside to the inside land and in-between is the forest. This way we can increase the density while conserving the nature and creating a comfortable place for the tourists, where the city and the forest collide.



Forest



High density areas

18. A development possibility



[illegible]

21

## 2.3. Comparison with beaches in Spain

I would like to take a look at the situation of the beaches in Spain. The Catalan coast in Spain has suffered more from the urbanisation. The total area occupied by human activity has risen considerably in recent years. This trend indicates that nonbuilt land on the coast is being occupied and the heritage value and attractiveness for tourism of the affected parts will decline. Uncontrolled urbanization of these zones was at its height in the 1960s and 1970s and involved essentially the construction of hotels and apartments. The main problems faced by tourism and the associated urbanization model in these zones are as follows:

- Spain has gradually lost its market share: in terms of tourist arrivals, as a result of competition from other countries.
- The habits of tourists coming to Spain are changing and the traditional chain of value is being altered.
- Business profitability in some sub-sectors is falling, as is the socio-economic contribution of the tourism sector in Spain. Hotel occupancy levels fell from 59% to 51% and tourism's share of GDP by 0.7% between 2001 and 2003.<sup>6</sup>

Let's take a closer look at some beaches in Spain. Benidorm was once Europe's most popular holiday resort. Known as the Manhattan of Spain because of the towering skyscraper hotels that line the beach, it was a jewel in the heart of the sun-drenched Costa Blanca. Today, the city is still packed with all-inclusive hotels, bars and restaurants, but tourism has fallen off a cliff in the past three years.<sup>7</sup>

The skyscraper's monstrosity build a wall between the sea and the city making it suffocating.

Callafel is another beach near Barcelona. The speculative boom of the 1970's and 1980's resulted in the destruction of nearly all of Calafell's original seafront. The fishing cottages were replaced by an endless row of 6-storey apartments facing the sea. As a result, the seafront lacks character and charm and with the economic crisis and competition from other resorts in Spain and overseas, the number of hotel rooms has decreased by 17% in the last decade.<sup>4</sup>



20. Callafel, Spain





21. Benidorm, Spain

Generally speaking, in recent decades growth and tourism management models on the Mediterranean coast and in the Islands have been based on strategies which prioritized volume and lacked initial planning. This has led to the creation of increasingly urban and crowded recreational areas with little difference between them and which are beginning to enter into contradiction with new tourism trends, while also exceeding the carrying capacity of the territory. Spain's model of mass tourism and rapid urbanization is no longer a good thing. It is clear that the coastal development model of recent decades is

unsustainable. Holidaying on the Spanish coast is no longer pleasant or satisfying in many areas.

So will our future also look like this? Should we really follow their example? Why do we have to repeat their mistakes, instead of learning from them? Is it already too late to turn back and look for new forms of a sustainable urban planning? How can we profit from the tourism with the least impact on the natural environment?



22. Velipoja beach



### 3. Ground analysis

In my project I concern myself with the area next to the lagoon of Viluni. It is an area with very few buildings, mainly 1 storey buildings and has maintained parts of its forest. But the process of deforestation has already begun and surely enough in the next decades it will be full of multistoried hotels and apartments like the center area of the beach. This is an area that can still be saved from the crazy building mania. This doesn't mean that this part should not be used, rather it can be used to create quality spaces inside the forest. Spaces for those holidaymakers that want to escape the noise and pollution of the city and experience something different.



23. Building ground

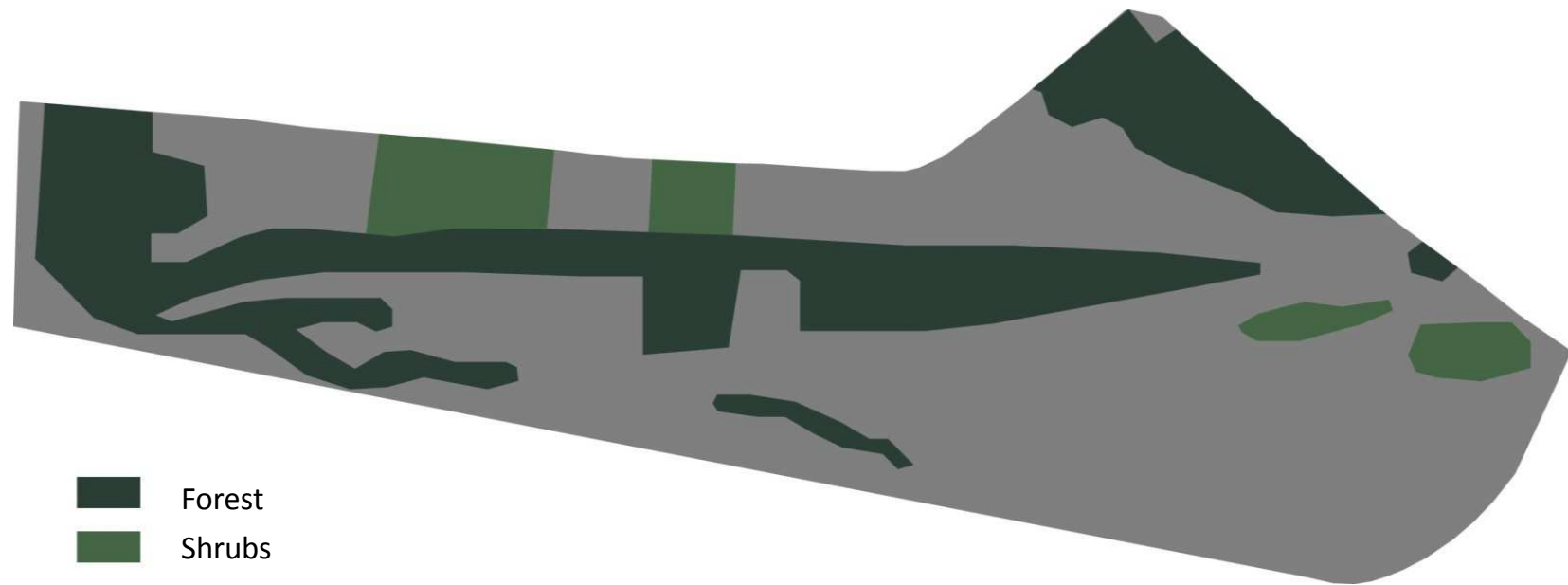
## Satellite view



24. Satellite view of the ground

Total area: 364.470 m<sup>2</sup>  
Topography: flat

## Vegetation



## Vegetation

## 25. Vegetation area

Forest area is 103.676 m<sup>2</sup> and occupies 28% of the total ground area.

Shrubs area is 23.654 m<sup>2</sup> and occupies 6,4% of the total ground area.

## Vegetation

The original vegetation in Velipoja was small trees and shrubs. The first sowings of forest cultures started in 1966 and have continued until the end of 1990, but the highest rates of plantings in the entire coastal belt of Velipoja have been those of years 1966-1980 where 90% of the surface was planted with maritime pine (*pinus pinaster*) and stone pine (*pinus pinea*).

This band of trees is the key factor that has given Velipoja new dimensions of frequentation, after having strongly influenced to alleviate the extremes of temperatures, protects the buildings from the impact of winds and coastal cyclones, protects agricultural land and its cultures from the salinity of storms and cyclones, enriches the ecological environment with ozone and oxygen and therefore directly affects improving living conditions.

Pine is planted on 90% of the area with a scheme 2x2m or 2500 seedlings / ha.



26. Pine tree



27. Forest along the coast



28. Pine forest





29. Vegetation



## Current buildings in the area

In the area there are very few buildings and they are not big. Most of them are private houses. The „big“ buildings are the pump station, a hotel and some three storey houses. The other buildings are one or two storey buildings in the woods or near them. There are also some bars and restaurants facing the sea or inside the forest.



30. Buildings in the area





31. Bars and restaurants in the area



## Farming



## 4. PROJECT

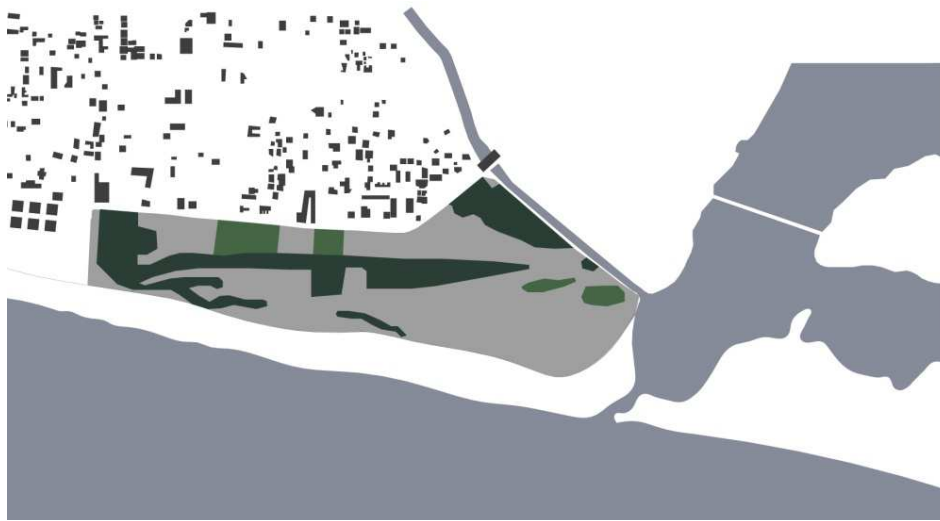
## 4.1. Concept for the development of the area

In my design, it is very important that the buildings have an impact as small as possible on nature. As the title "In the Woods" tells, it consists of buildings that are under the trees. I want to reforest the whole area where it is stripped from the people. Nevertheless, it should be planted a little looser so that construction is possible under the trees and the facilities can get more sunlight. The forest, as mentioned above, is very positive for the climate. It mitigates the extreme climate such as the marine cyclones, creates shadows that are very important in the hot summer months.

The protections of the environment increases the quality of the place, leading to a sustainable tourism development. The most

facilities are small-scale buildings from wood. I preferred to use wood as a building material because of its light weight, efficiency in the building and dismantling, good climatic characteristics and reusability. The natural view of the material fits well between the trees. By the rapid and simple construction and dismantling of the objects is possible a high flexibility in the positioning of the objects.

To increase the usefulness and the density of the area hotels with more rooms are needed. The hotels have a rich infrastructure and they are very pleasant in winter too. They are also under and between the trees and only two storey high.



35. Forestation of the whole area and more



I have divided the area into zones with a relatively high density (0.30) and quiet zones. It is so that the facilities are concentrated in certain areas, and the rest is just quiet forest. It is important to have intact nature, a place to explore for those who want to retreat in a quiet place. Also being inspired from the lagoon, I have let the water into the area like a small river that serves as a pool.















## Space program

Hotel	28.074 m <sup>2</sup>
Modular houses	7.249 m <sup>2</sup>
Cabins	2.418 m <sup>2</sup>
„Village“ Hotel	2.950 m <sup>2</sup>
SPA	715 m <sup>2</sup>
Shops	1.127 m <sup>2</sup>
Camping	1.000 m <sup>2</sup>
Events scene	2.262 m <sup>2</sup>
Fishmen's quarters	238 m <sup>2</sup>
Bars and Restaurants	3.637 m <sup>2</sup>
Parking	12.060 m <sup>2</sup>
Forest furniture	776 m <sup>2</sup>

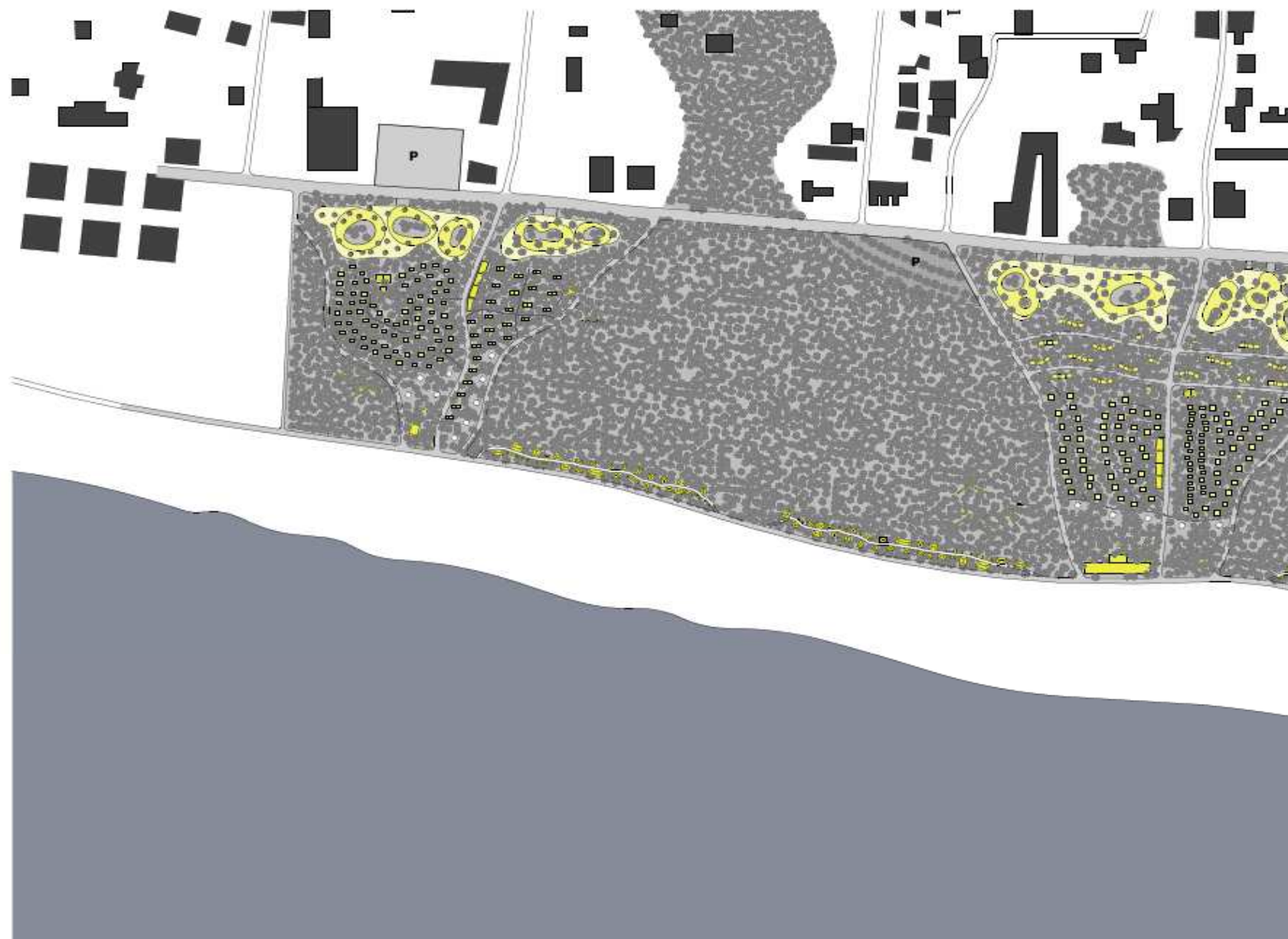


37. Functions diagram

	Hotel		„Village“ Hotel		Shops		Bars & Restaurants
	Cabins		Parking		Camping		Forest furniture
	Modular houses		Fishmen's quarter		Scene		SPA



38. Transfer system

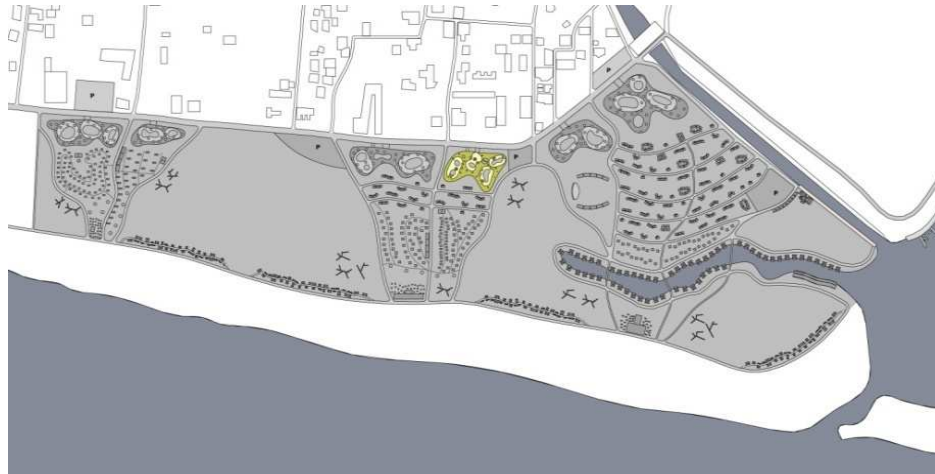


0 100 200 m

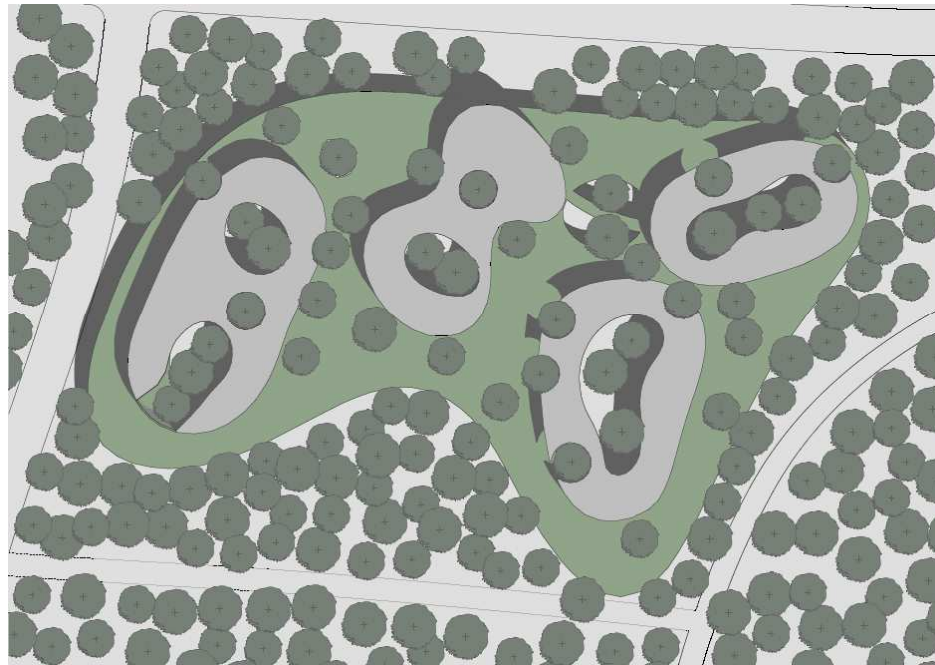








40. Positioning of the hotel



41. View from above

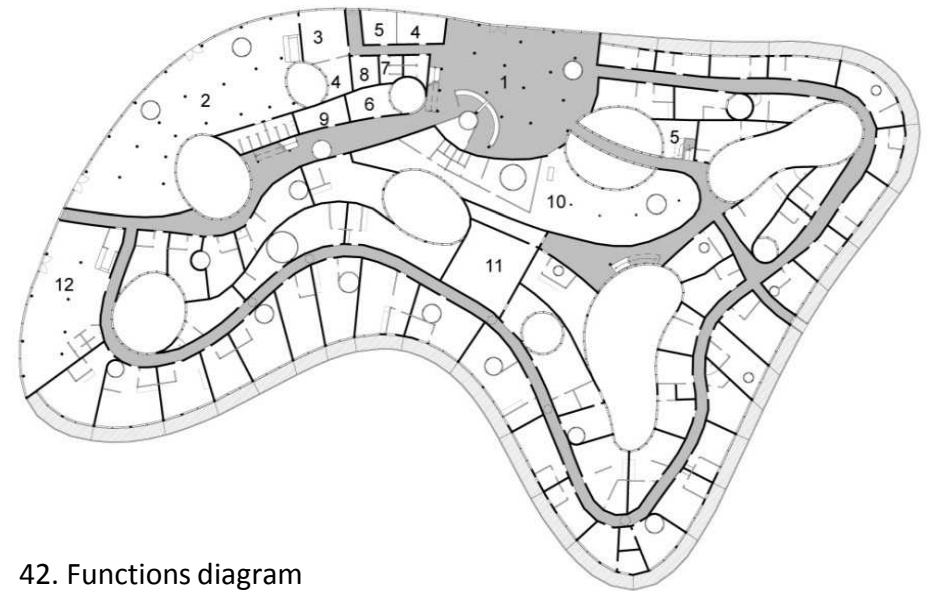
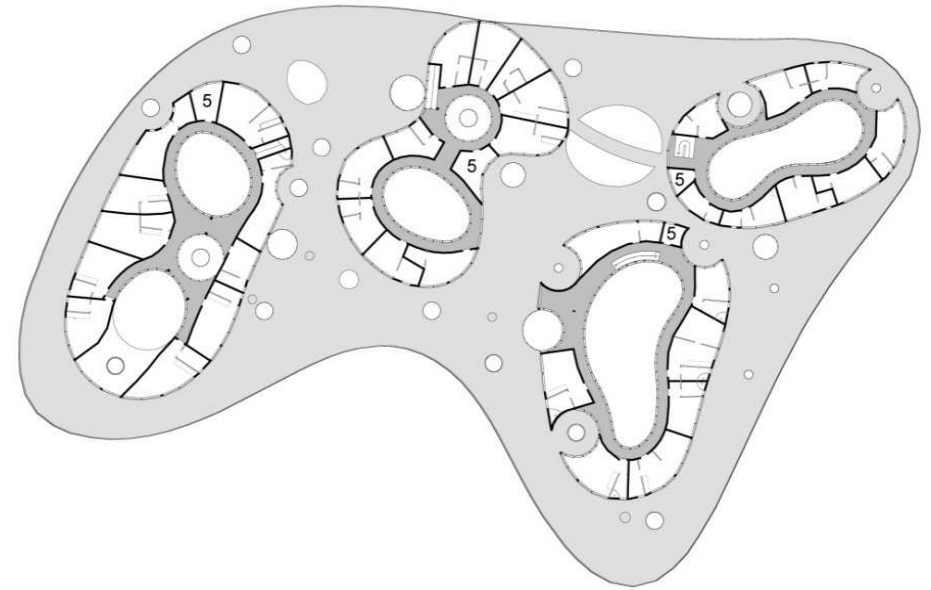
## 4.2. Hotel

The idea here is a hotel set inside the forest. The building doesn't disturb the landscape, but it is integrated into the landscape. The goal is not to cut down trees or reduce it to a minimum. The hotel stands in the middle of the forest and trees "pierce" the hotel. This way courtyards are created, some smaller and some bigger and sometimes inside the rooms. the courtyards with trees in the rooms and the large glass facade looking out to the forest, give the impression that you are sleeping outside in the woods. By opening of the facade, the inside becomes the outside. The form of the hotel reflects the organic structure of the landscape. The side facing the street has a more regular shape and then it becomes freer. Being under the trees, in their shadows keeps the hotel always cool and it becomes really comfortable especially in summer.

## Space program

1. Lobby	236 m <sup>2</sup>
2. Restaurant	360 m <sup>2</sup>
3. Kitchen	41 m <sup>2</sup>
4. Storage	30 m <sup>2</sup>
5. Maid rooms	63 m <sup>2</sup>
6. Office	16 m <sup>2</sup>
7. Toilettes	15 m <sup>2</sup>
8. Waste space	10 m <sup>2</sup>
9. Tecnic space	15 m <sup>2</sup>
10. Fitness	220 m <sup>2</sup>
11. Small cinema	95 m <sup>2</sup>
12. Billiard Bar	139 m <sup>2</sup>
 Total hotel area	 4.955 m <sup>2</sup>

10 one-bed rooms  
 62 doouble rooms (18 rooms with kithchen)  
 17 family rooms (8 rooms with kitchen)  
 89 rooms in total  
 200 beds



42. Functions diagram

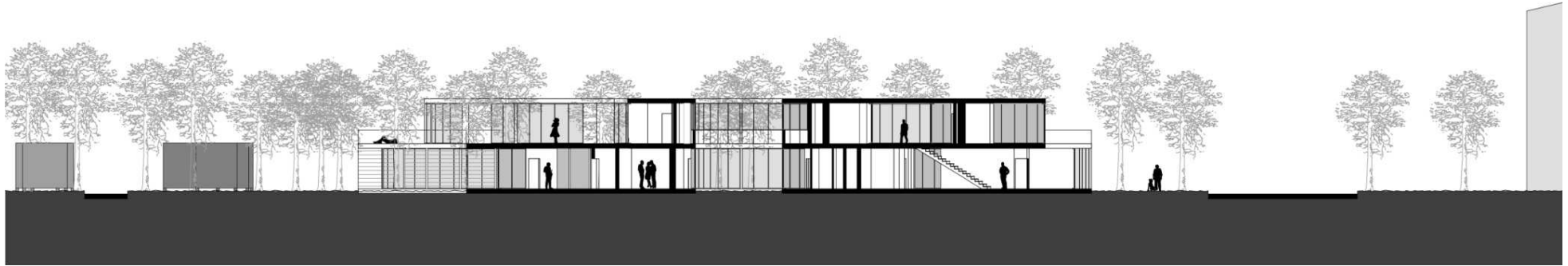


43. Ground floor plan

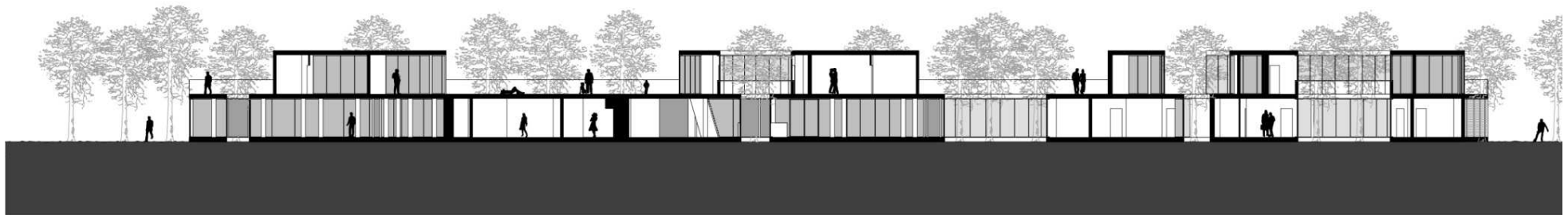


44. 1. floor plan





45. Section S1



46. Section S2

0 5 10 m

 A horizontal scale bar is located at the bottom left of the page. It consists of a black line with white markings at the 0, 5, and 10-meter points, with the corresponding numbers printed above it.



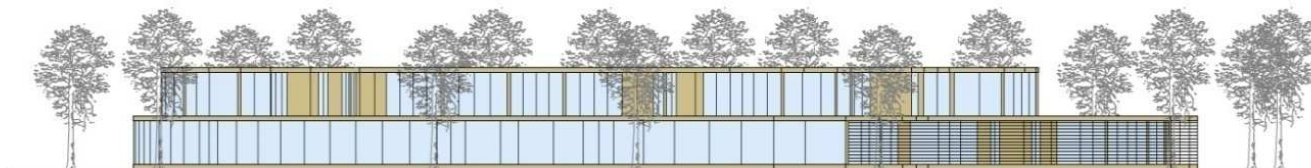
North view



East view

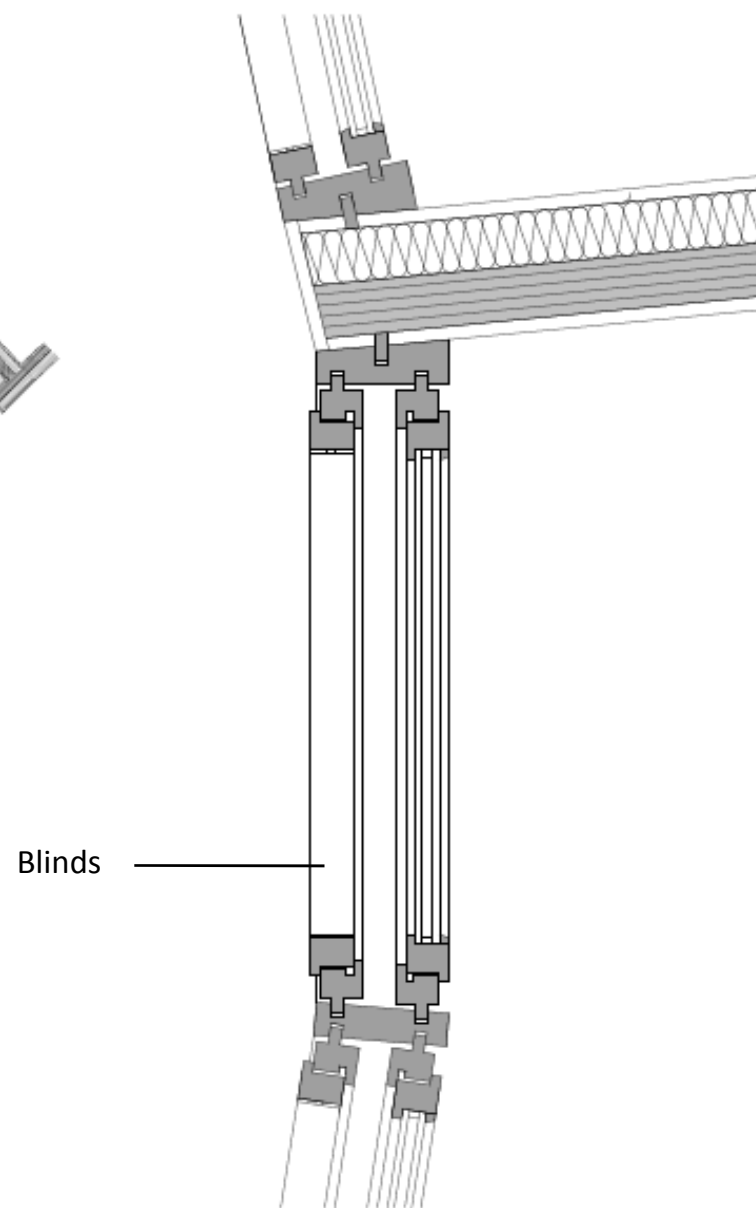


South view

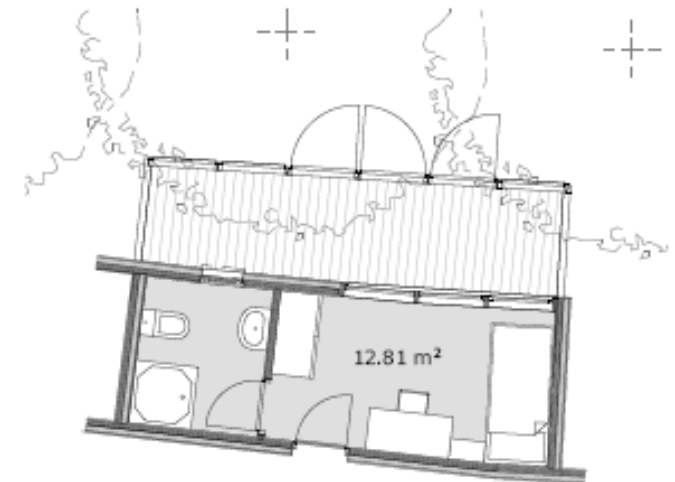
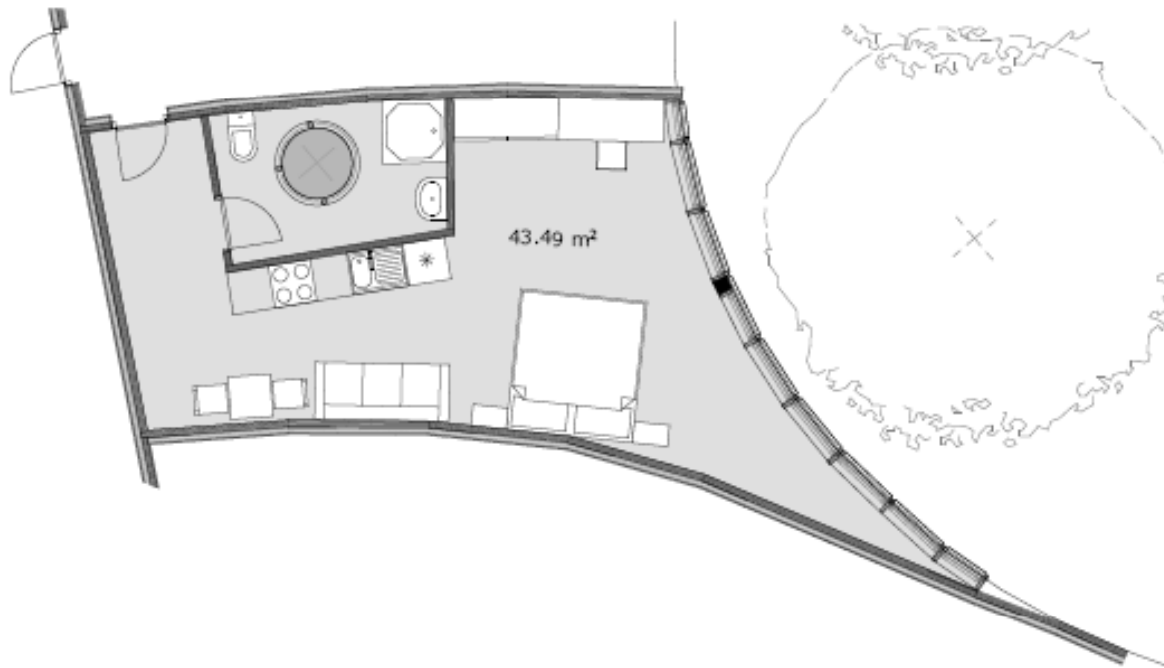


West view

## Room with facade detail

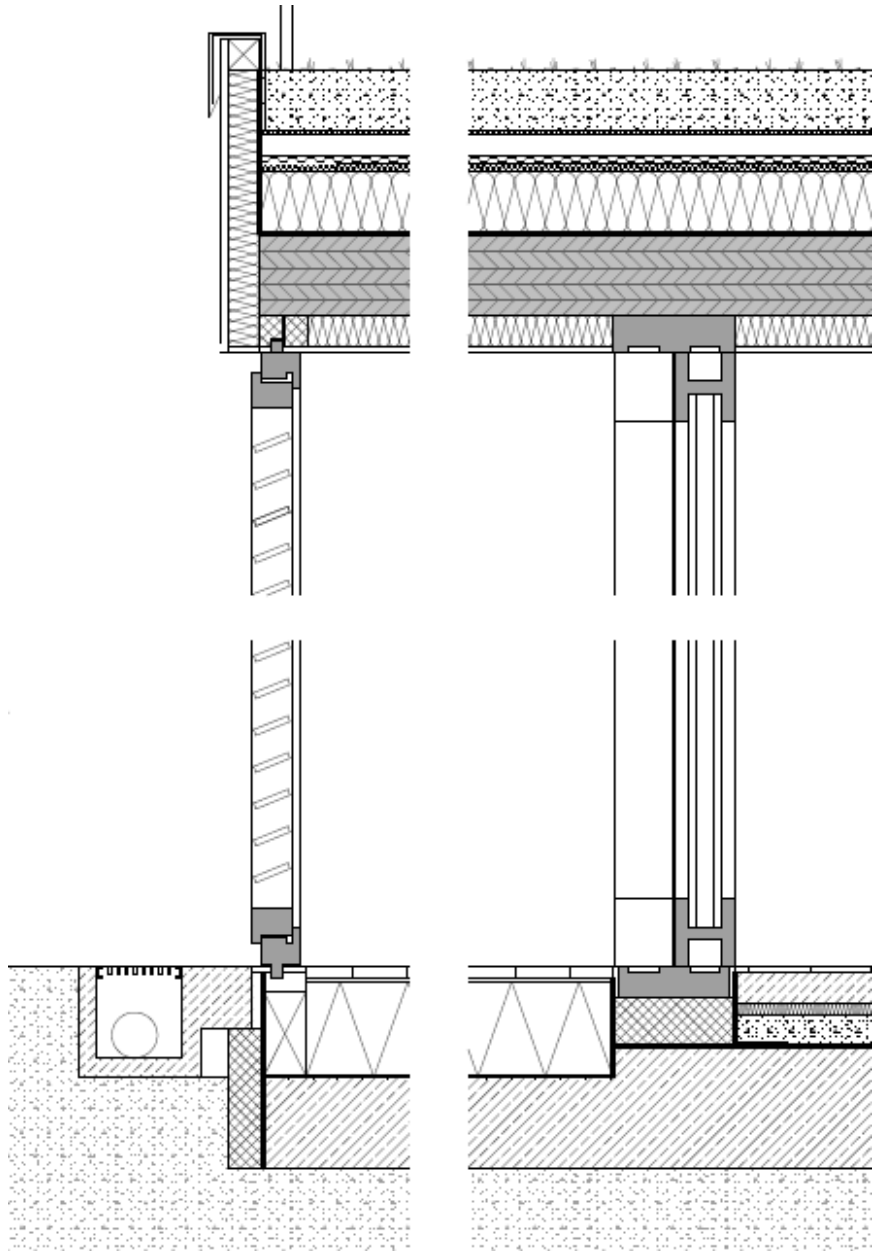
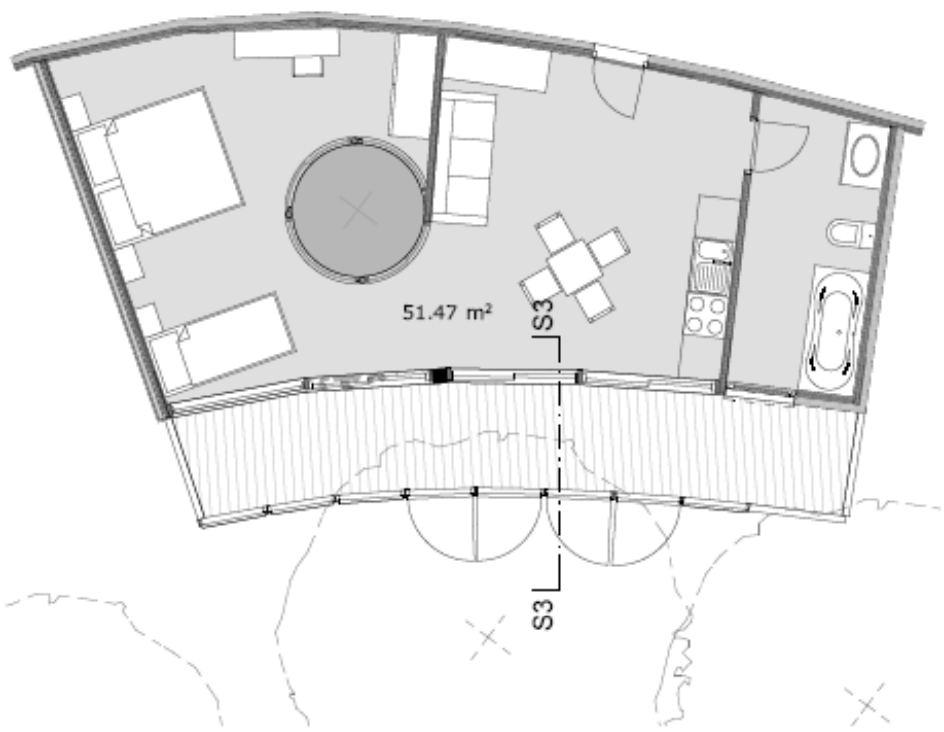


## Rooms





Room with facade section



50. Room with facade section

# Construction

The hotel has a massive construction from plywood panels. Because the hotel is build directly on the ground the foundation is made of concrete and the rest is all wood. Where there are major spans, the construction is supplemented by pillars. The construction with panels has a high degree of prefabrication and is efficient and fast in building. Plywood board also has very good climatic characteristics.



51. Construction



52. Rendering from outside





53. Rendering from the green roof





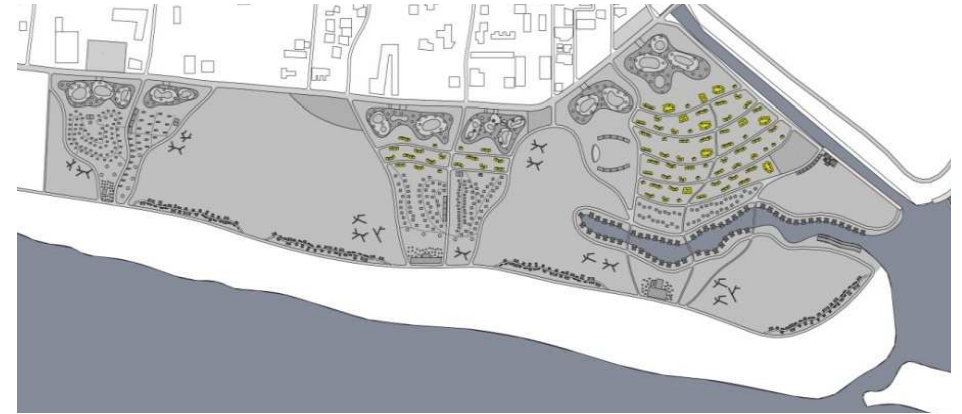
54. Rendering



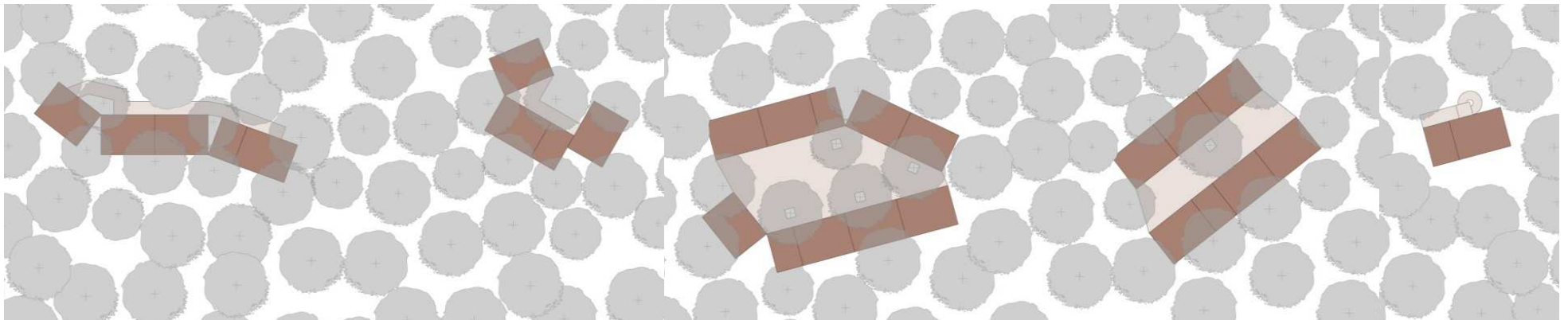
55. Rendering room

## 4.3. Modular holiday houses

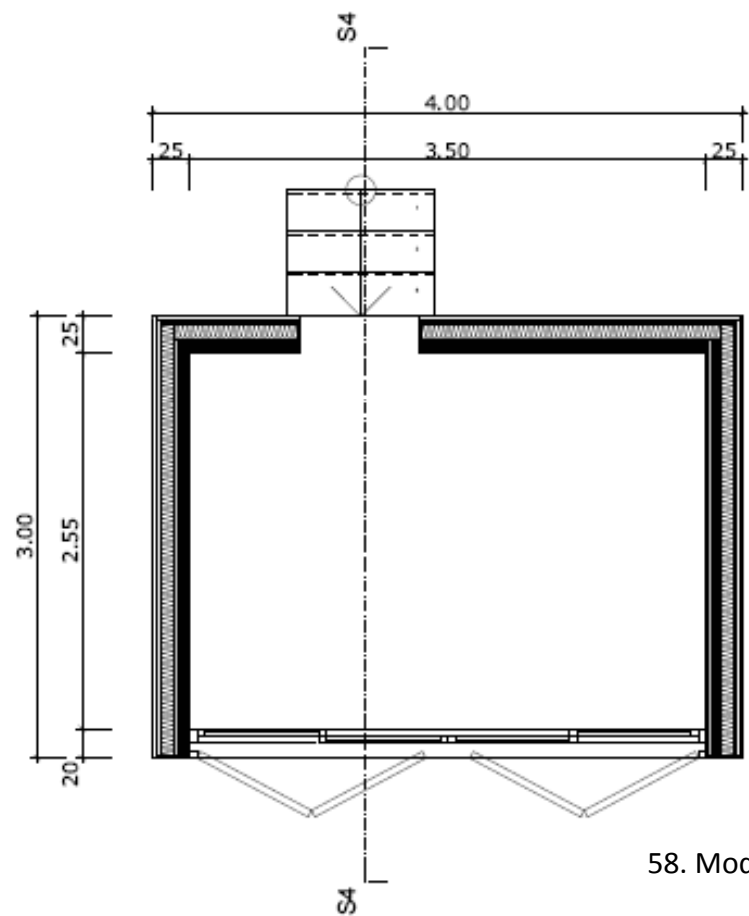
The modular holiday houses are built from the assembly of space modules and custom made passageway special for each site. The modules have a dimension of 3x4 m and bathroom module 3x2m. These modules can be rented and placed in the forest. The positioning of the module is free, they can be positioned between the trees. Only the passageway must be specially built to be adjusted to the position of the trees.



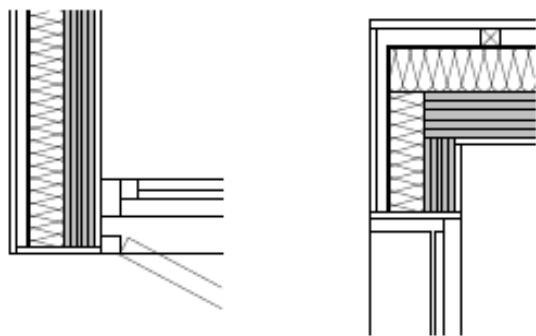
56. Positionig of the modular houses



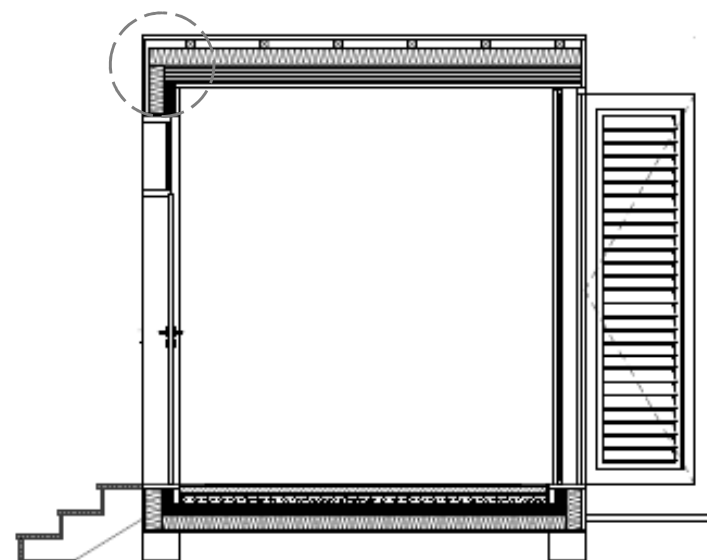
57. Konzept modular houses



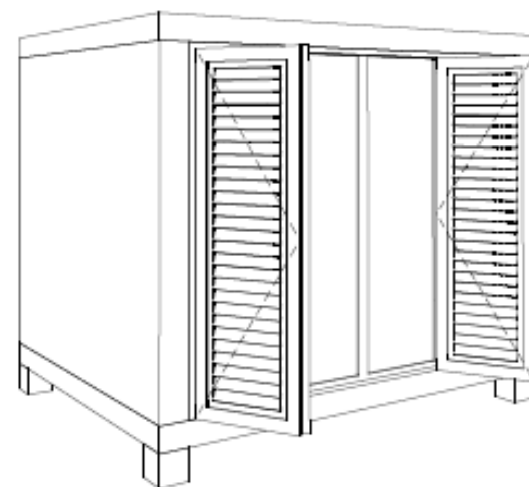
58. Modul plan



60. Details

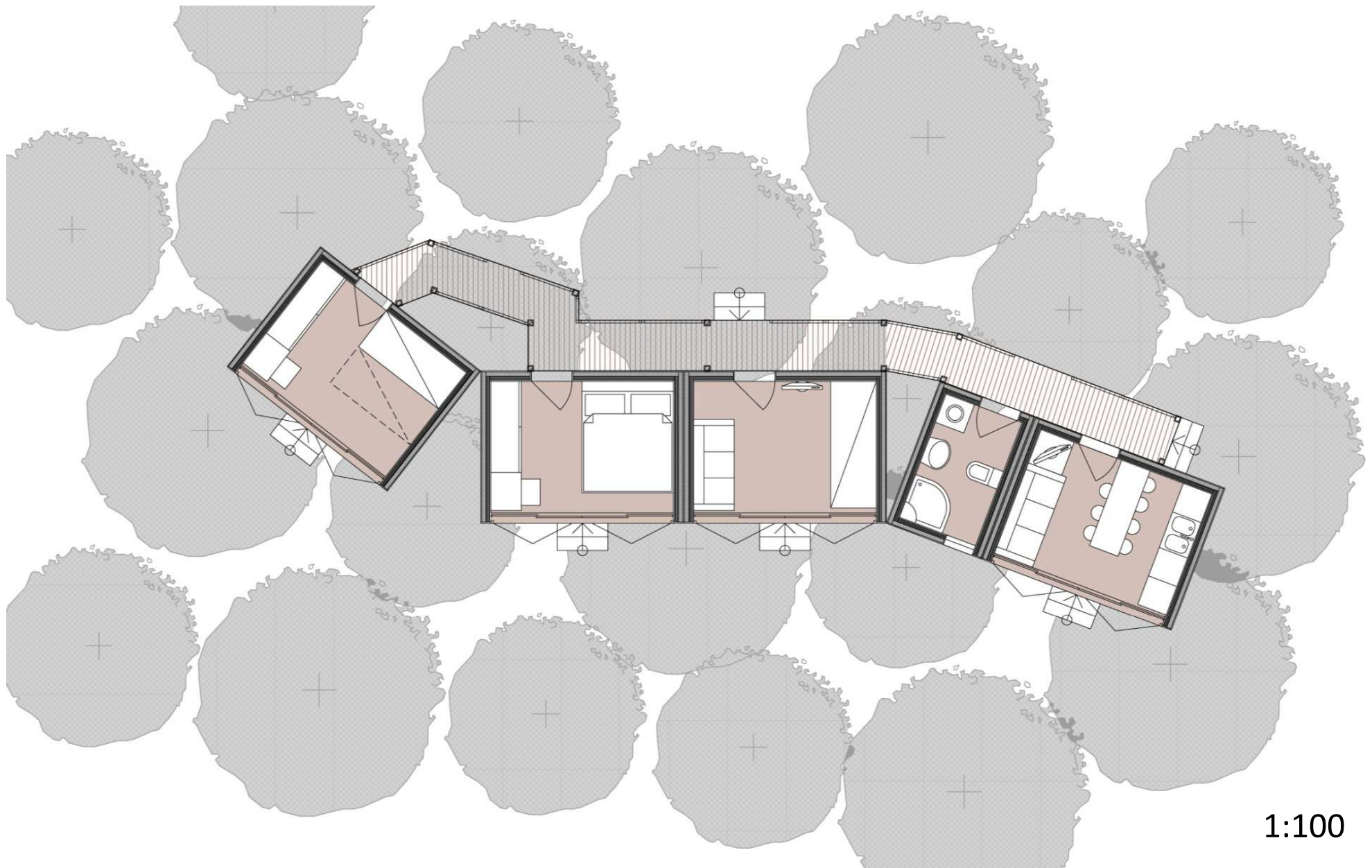


59. Modul section



61. Modul 3D

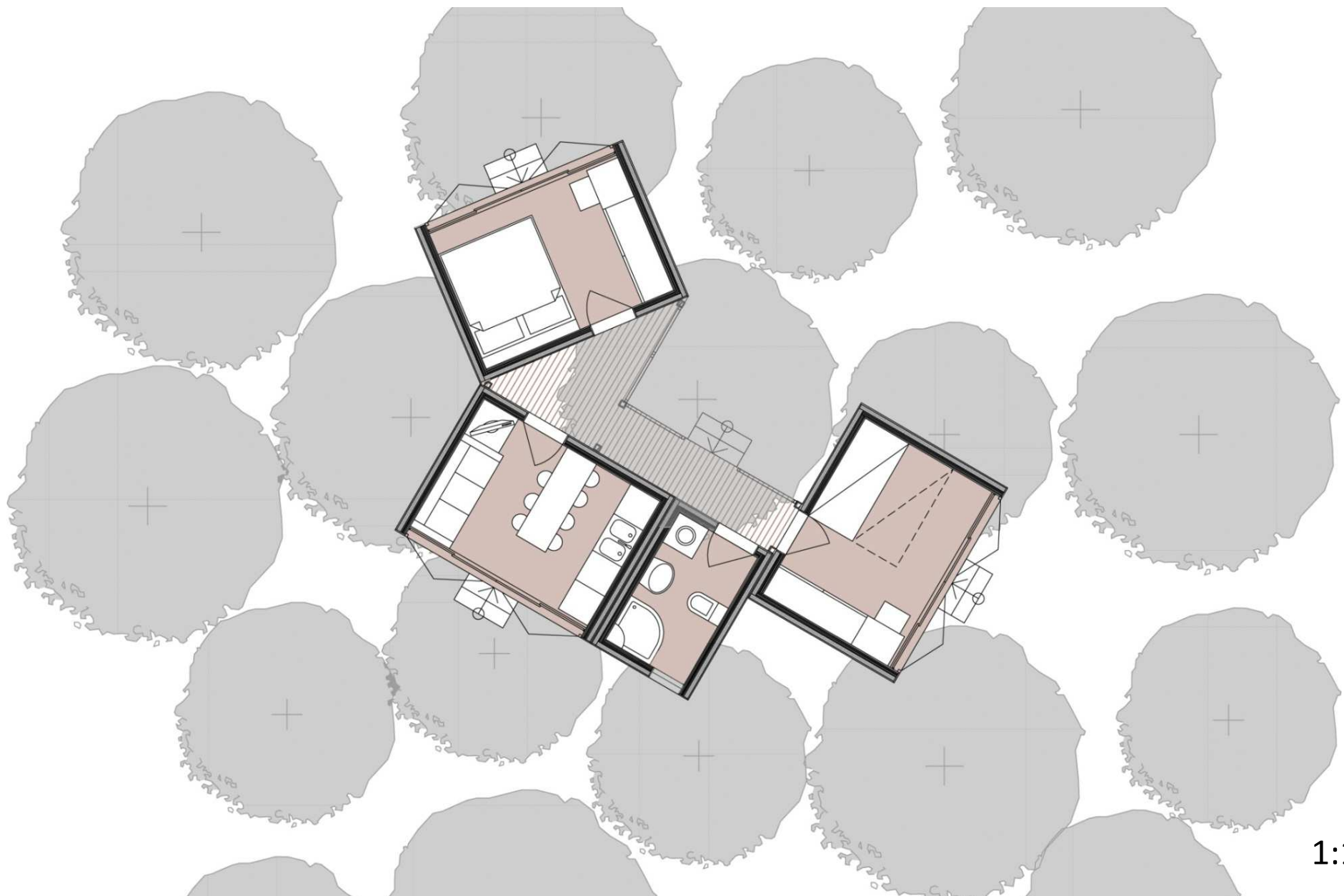




1:100

62. Modular house with passageway  
variant 1





1:100

63. Modular house with passageway  
variant 2



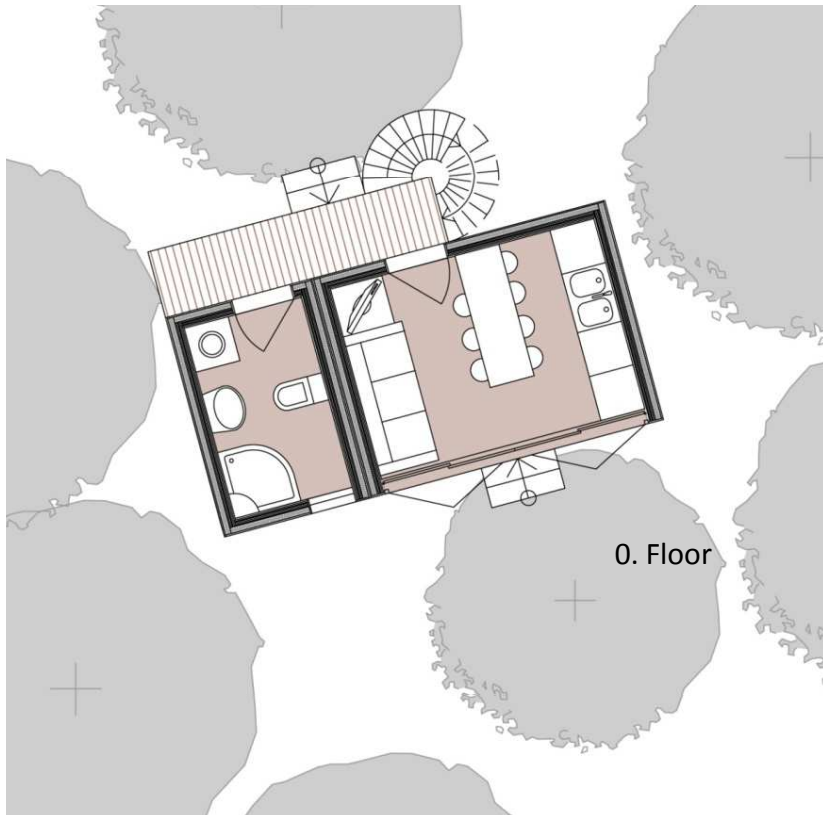
64. Modular house with patio  
variant 1



1:100

65. Modular house with patio  
variant 2

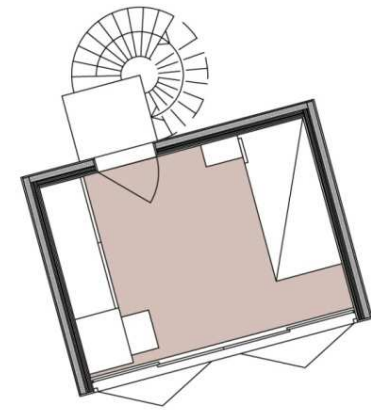




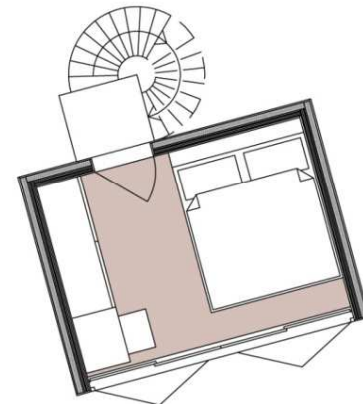
0. Floor

1:100

66. Vertical modular house

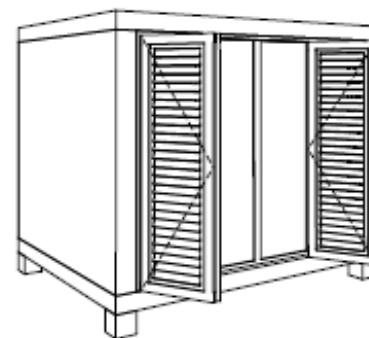
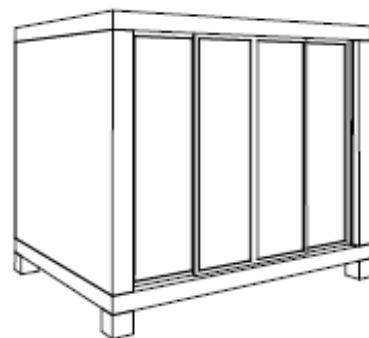
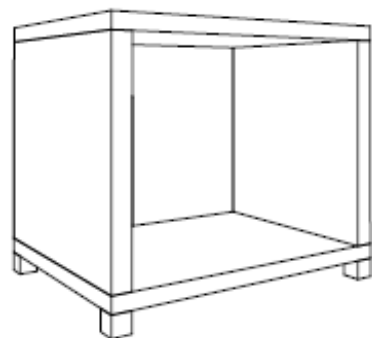
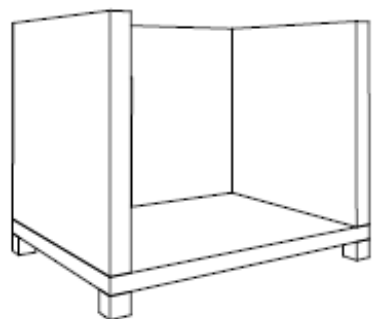
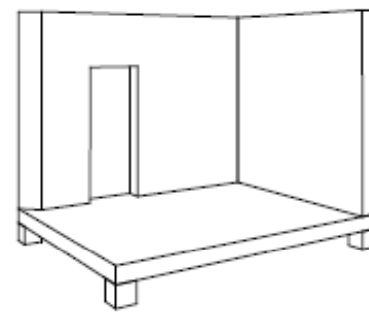
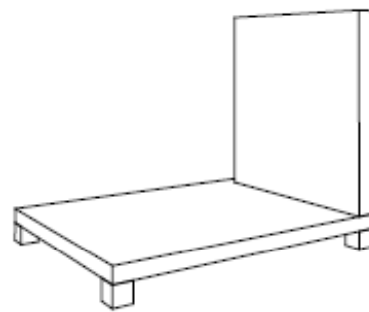
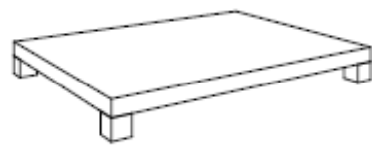
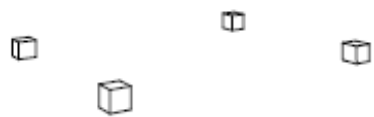


2. Floor



1. Floor







68. Rendering modular house with patio



69. Rendering modular house with passageway

#### 4.4. „Village“ hotel

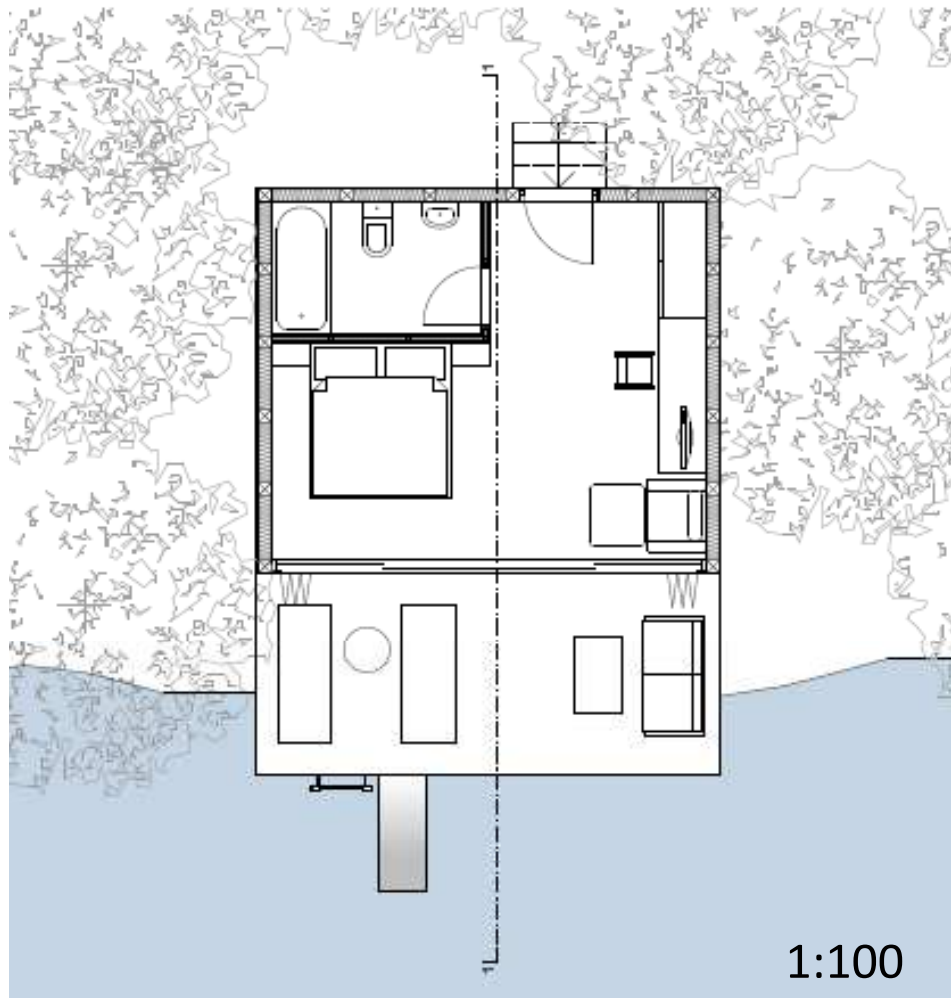


70. Rendering „Village“ hotel

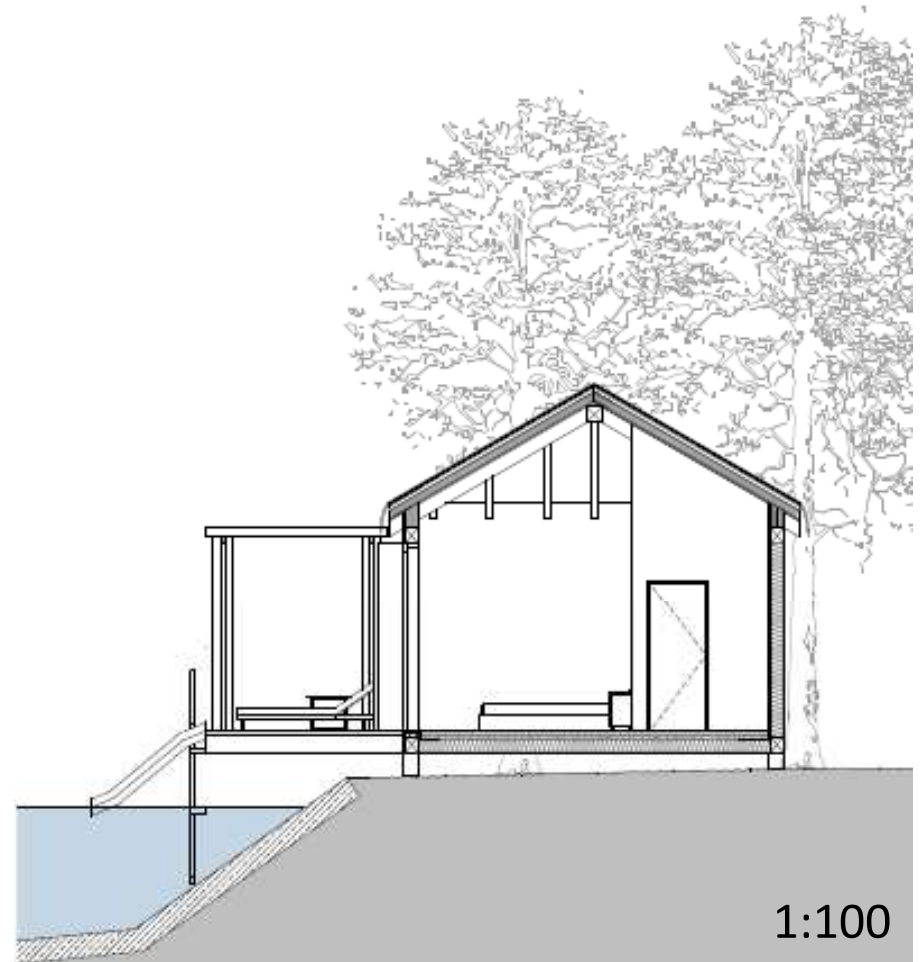


71. Positioning of „Village“ hotel



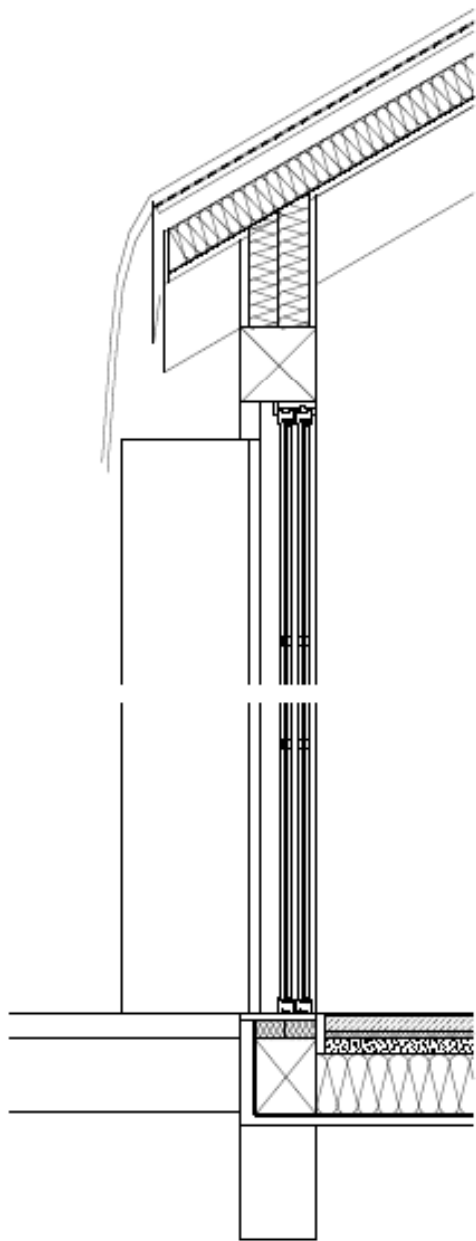


72. Floor plan

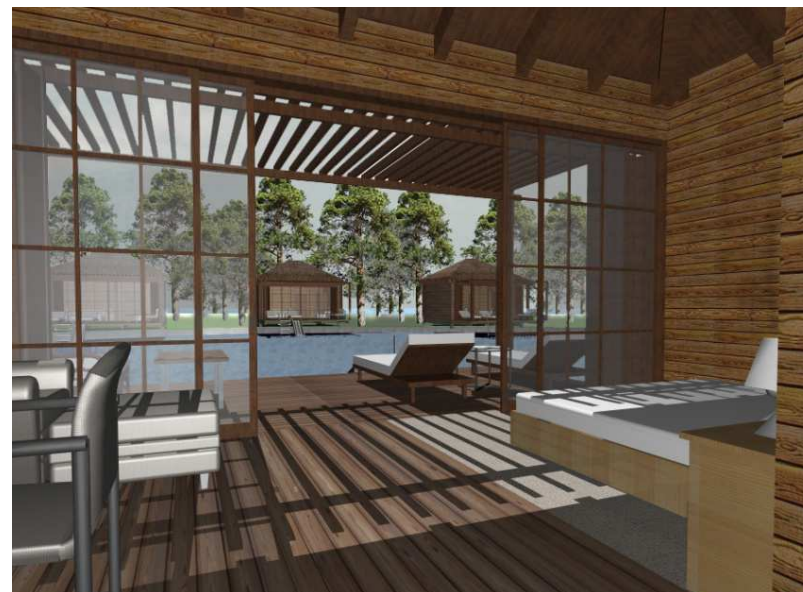


73. Section 1-1





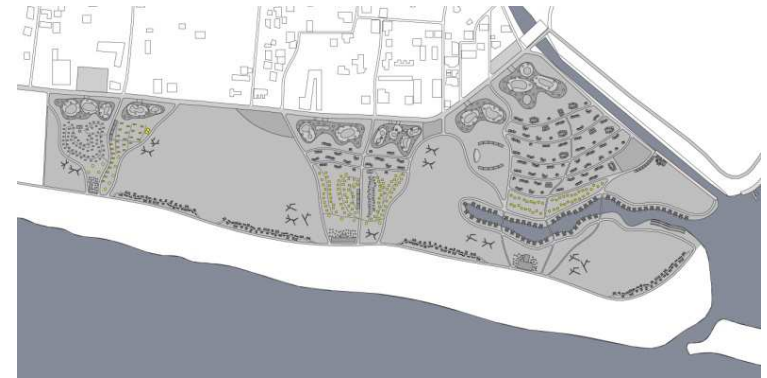
74. Facade section



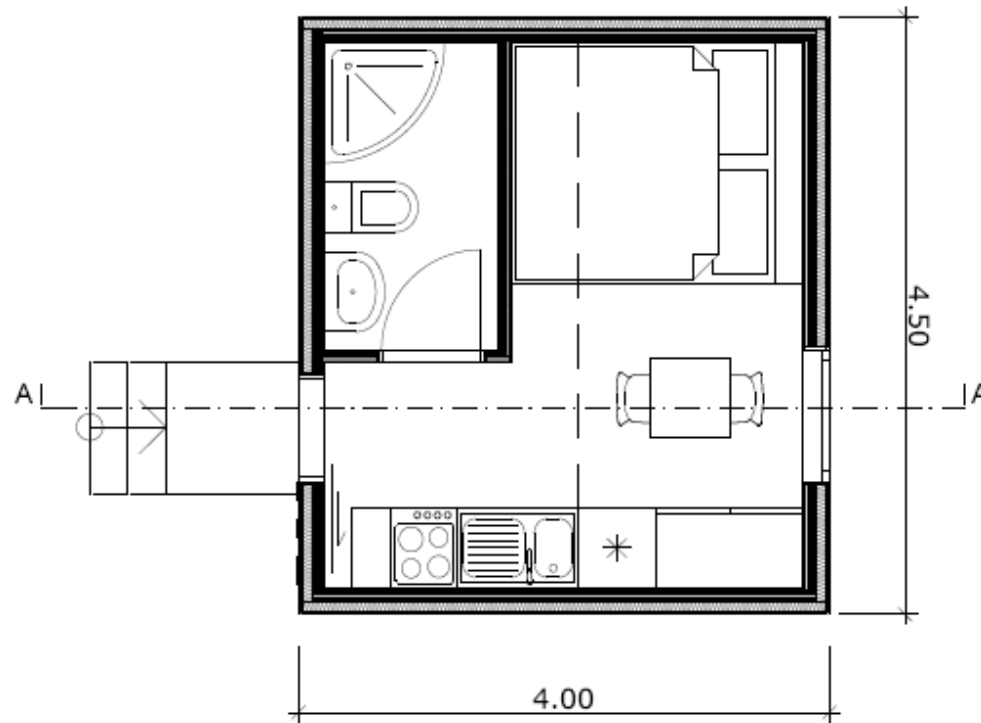
75., 76. Renderings Hotel „Village“

## 4.5. Cabins

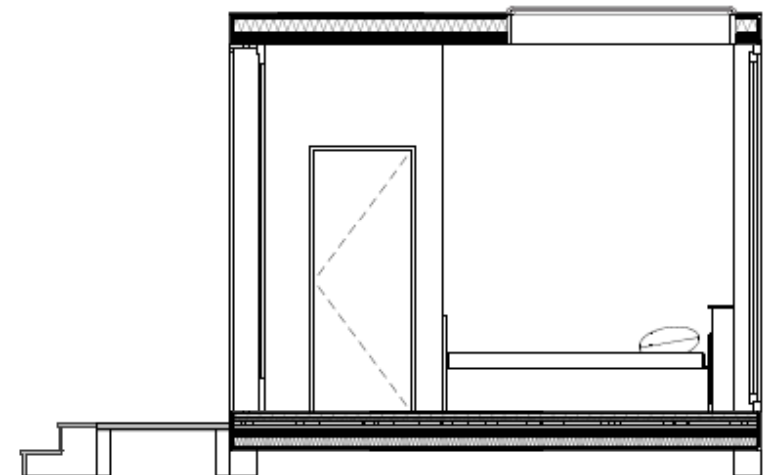
Variante1



77. Positioning of the cabins



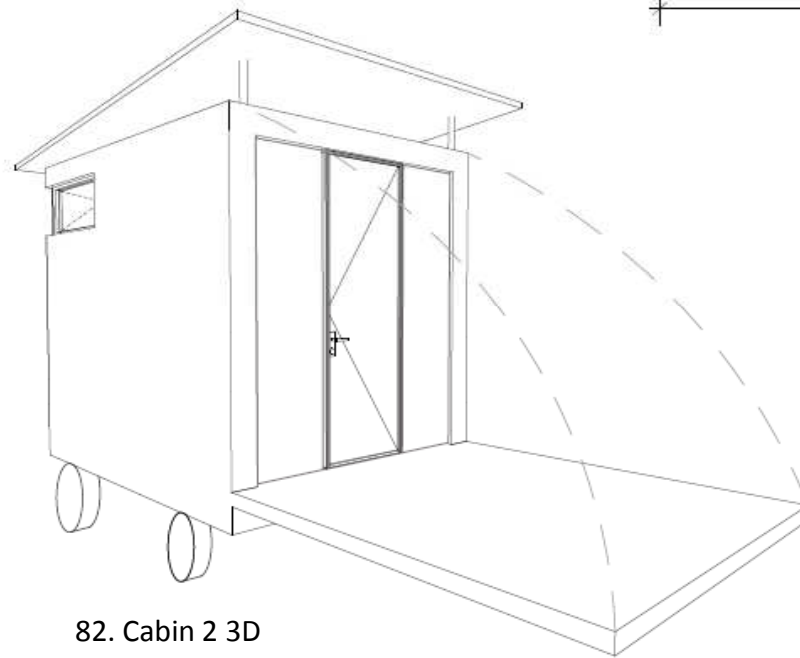
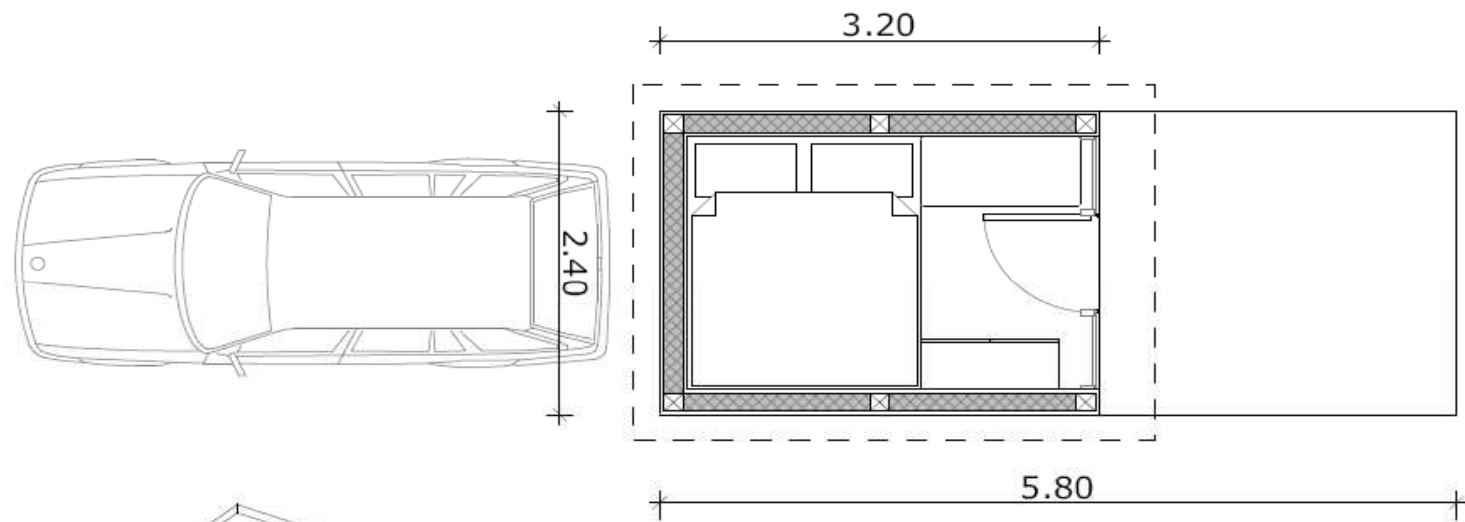
78. Cabin plan



79. Cabin section A-A

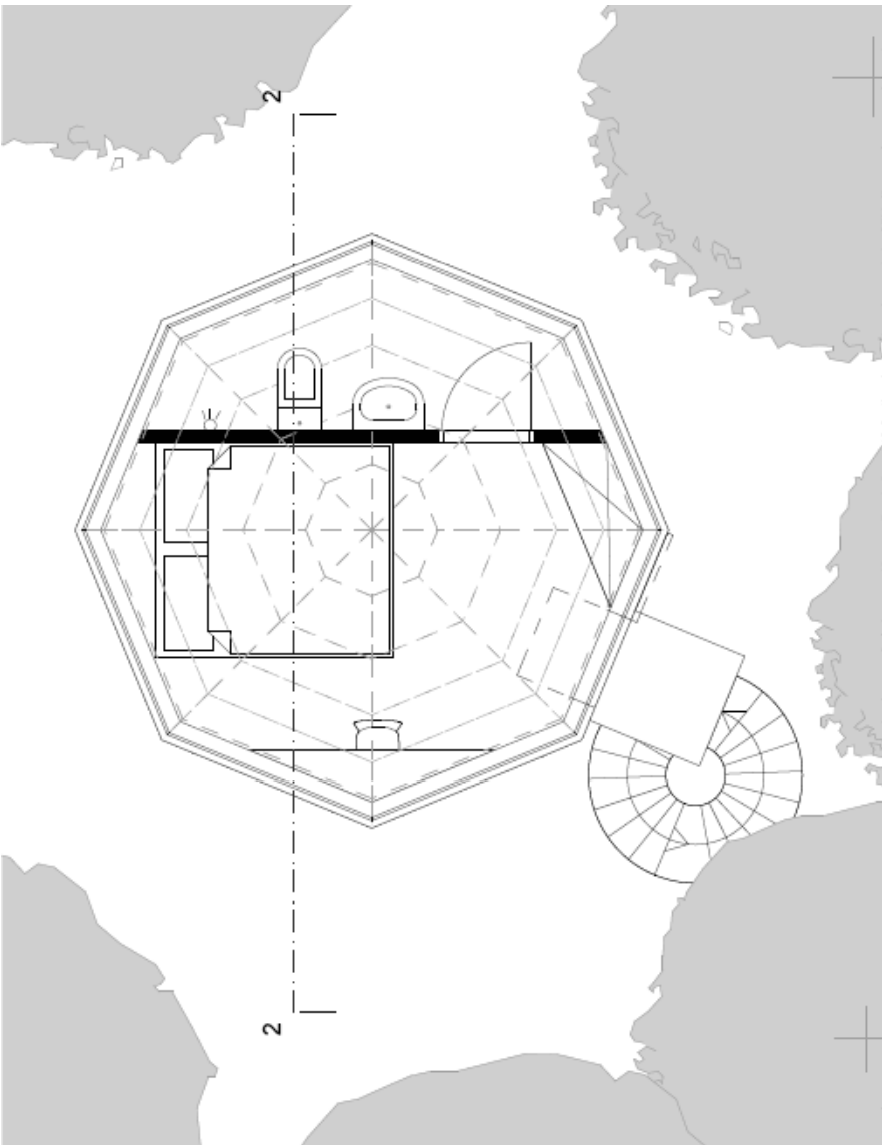


## Variant 2

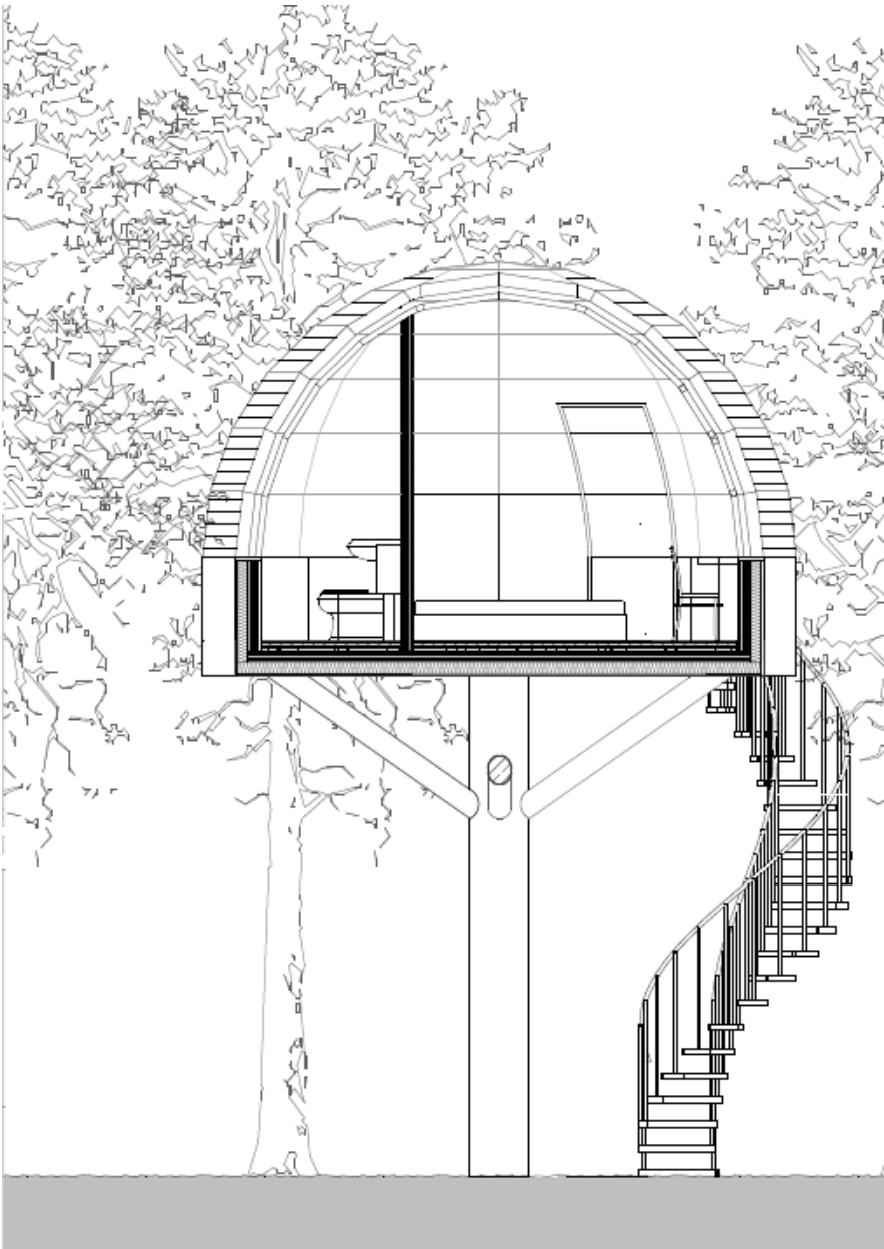




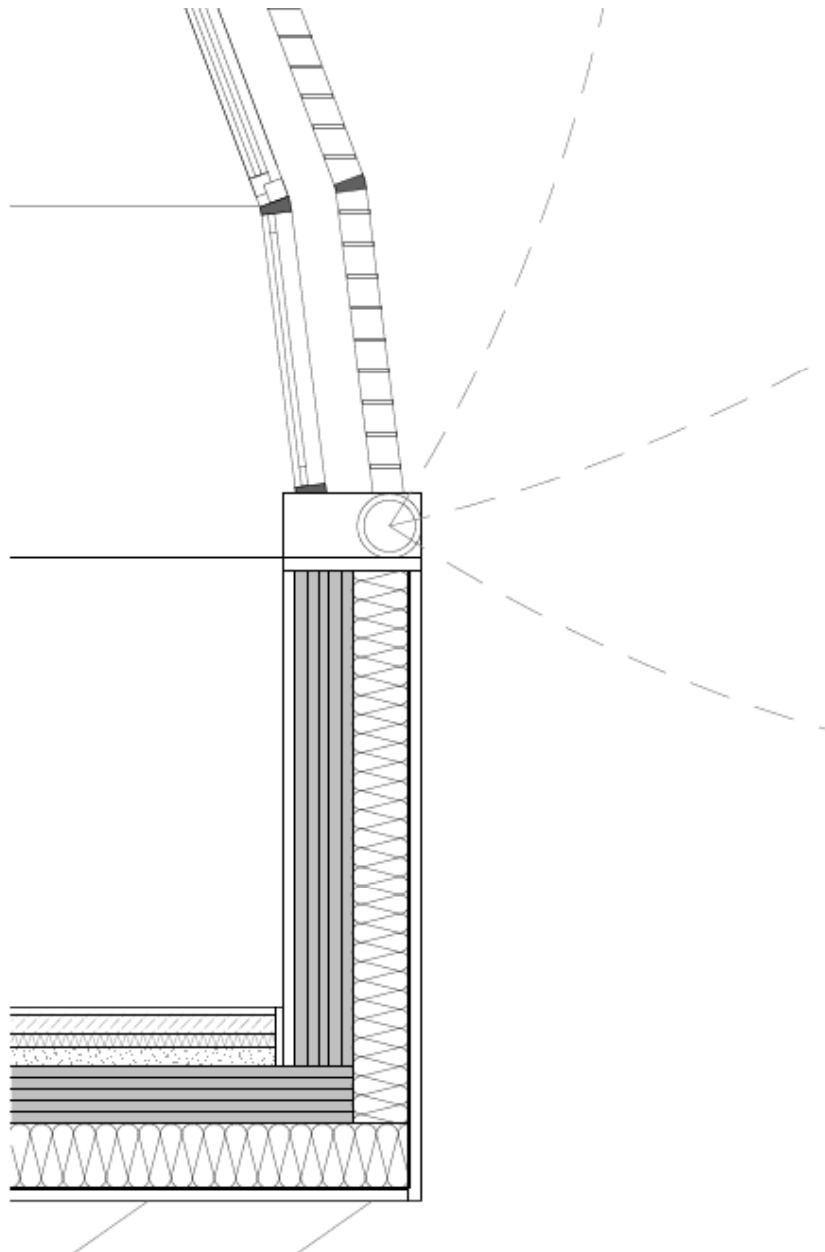
Tree cabin



83. Tree cabin plan



84. Tree cabin section 2-2



85. Tree cabin detail



86., 87. Tree cabin renderings

4.6. Camping



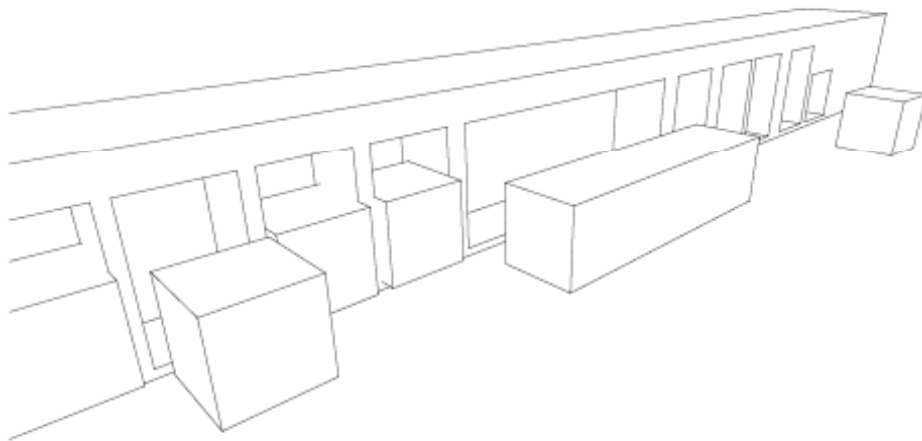
88. Camping zone



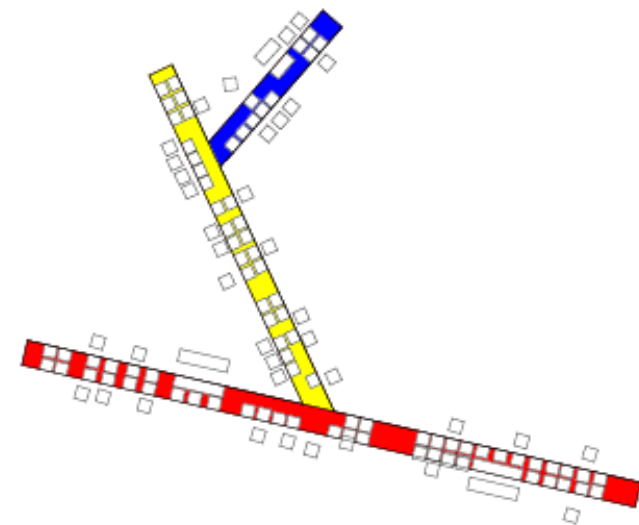
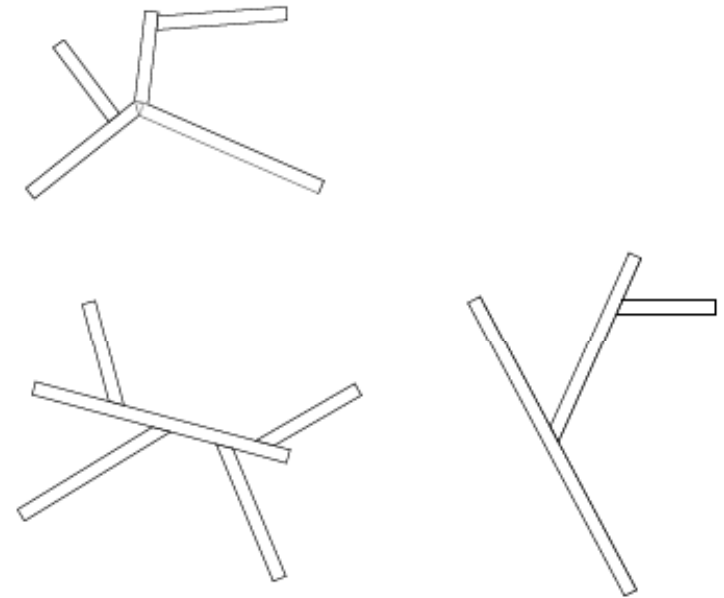
89. Camping tent examples<sup>8</sup>

## 4.7. Forest furniture

The forest furnitures are meant mainly for the daily visitors. The coolness of the forest is the perfect place to pass the extremely hot midday hours (1:00-4:00 pm), where it can be uncomfortable to stay in the beach. The furnitures are simple, they are long tables and from them cubes that are used as benches can be pulled out.



90. Forest furnitures 3D



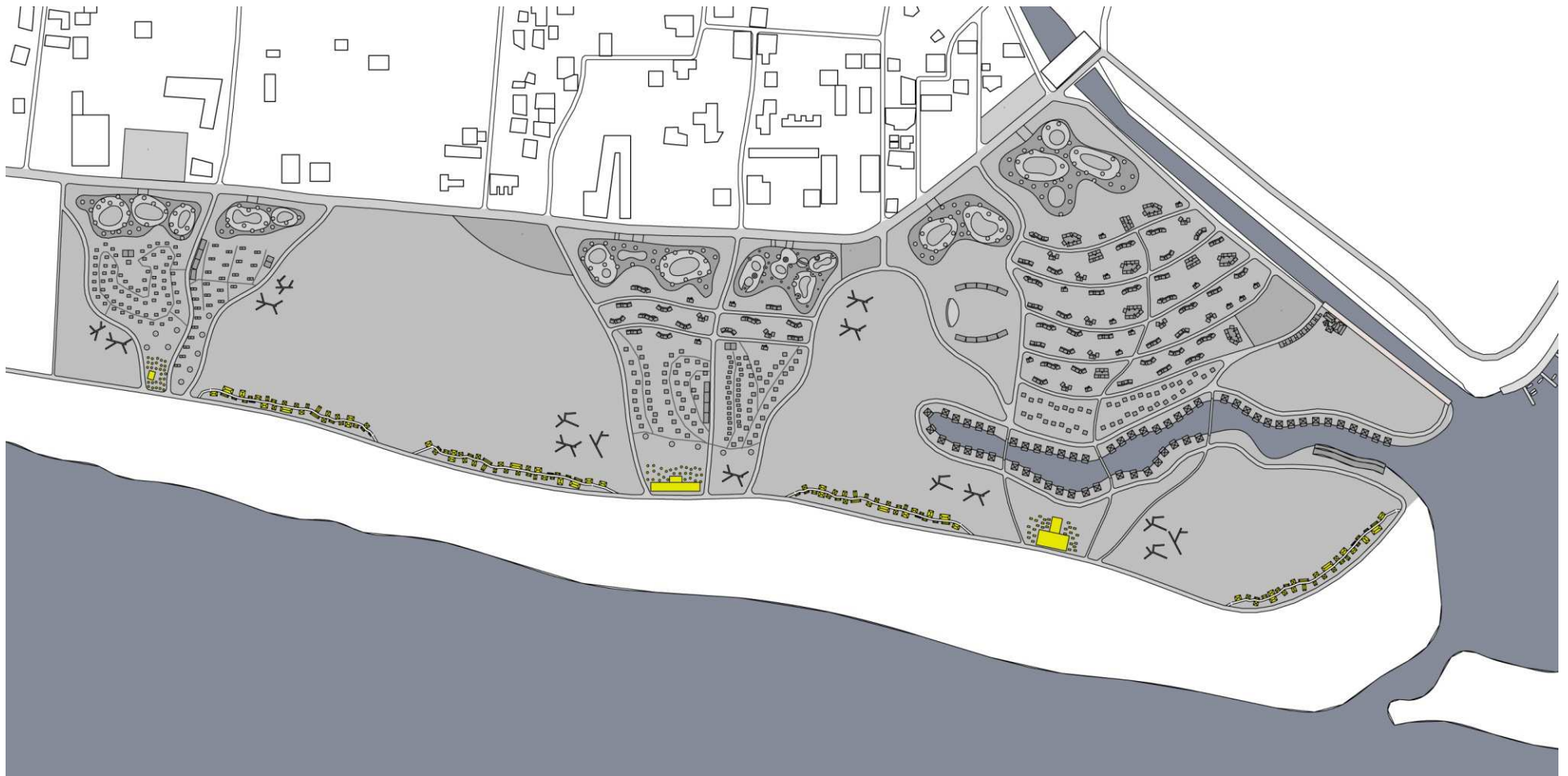
91. Forest furnitures





92. Forest furnitures rendering

## 4.8. Bars and restaurants

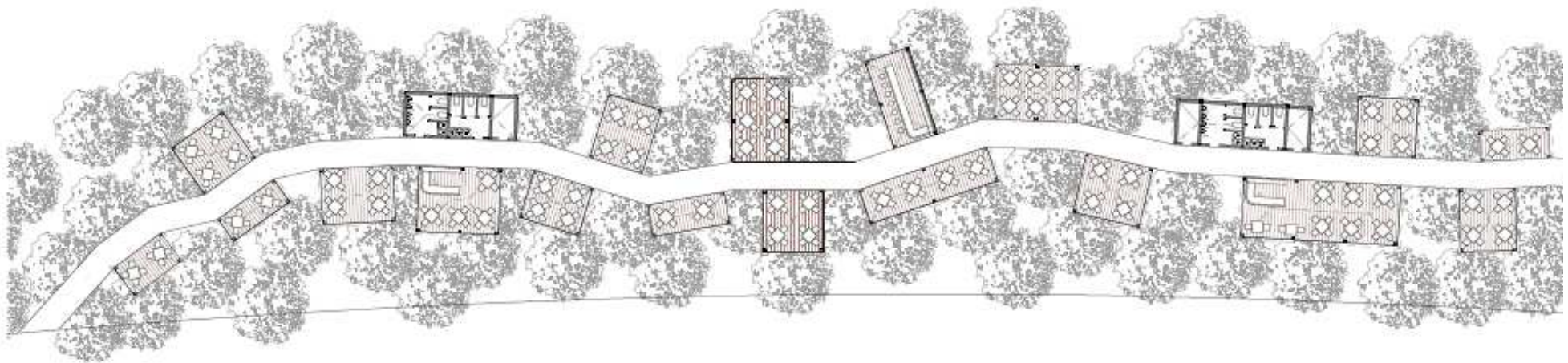


93. Positioning of the bars and restaurants





94. Bars rendering

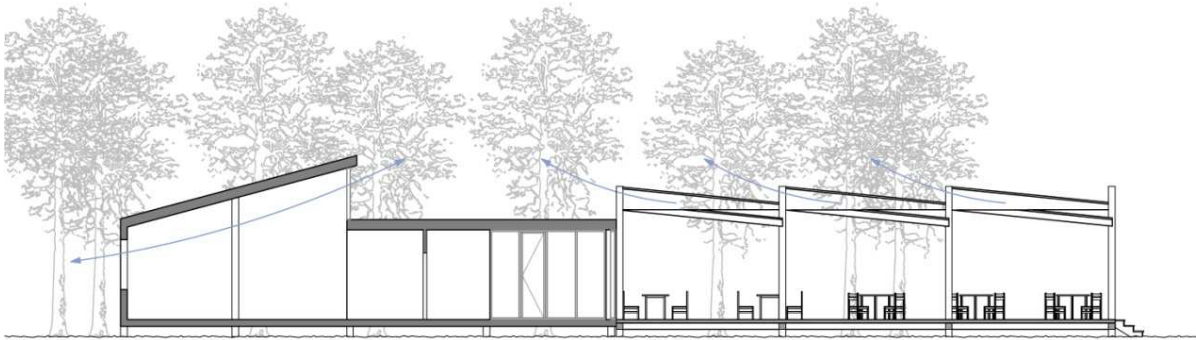


95. Bars plan

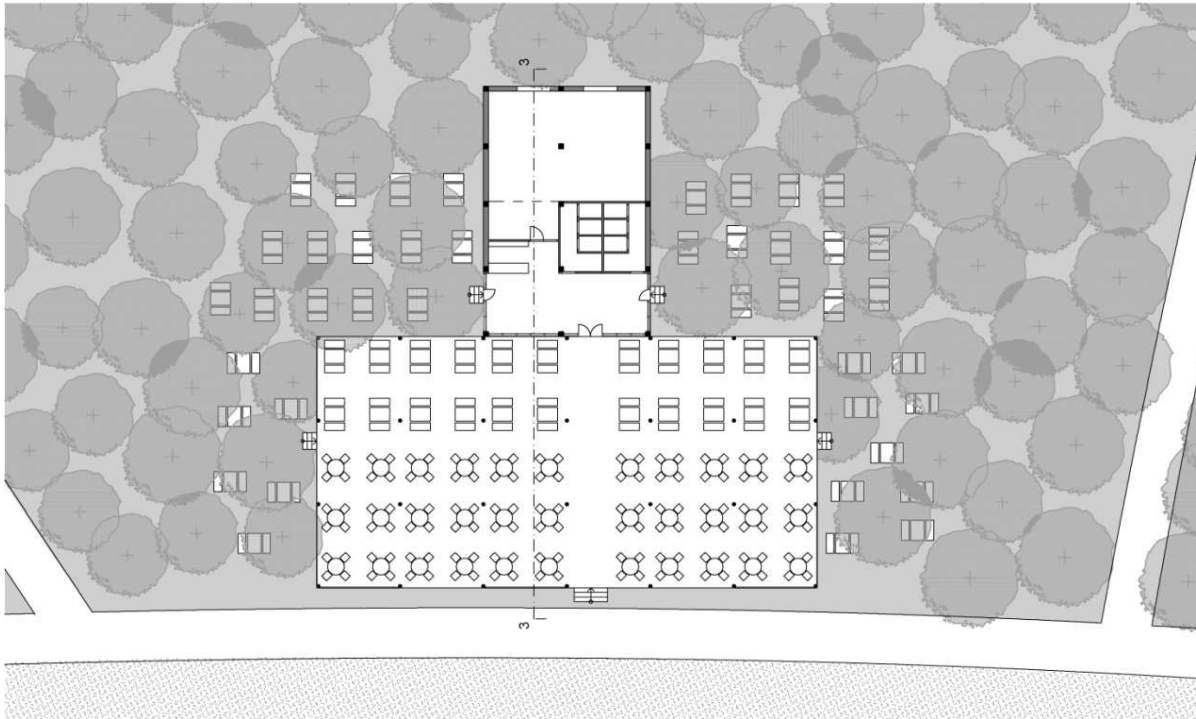


96. 1.Restaurant rendering





98. 2.Restaurant section 3-3



97. 2.Restaurant plan



99. 2.Restaurant rendering from inside



100. 2.Restaurant rendering from outside

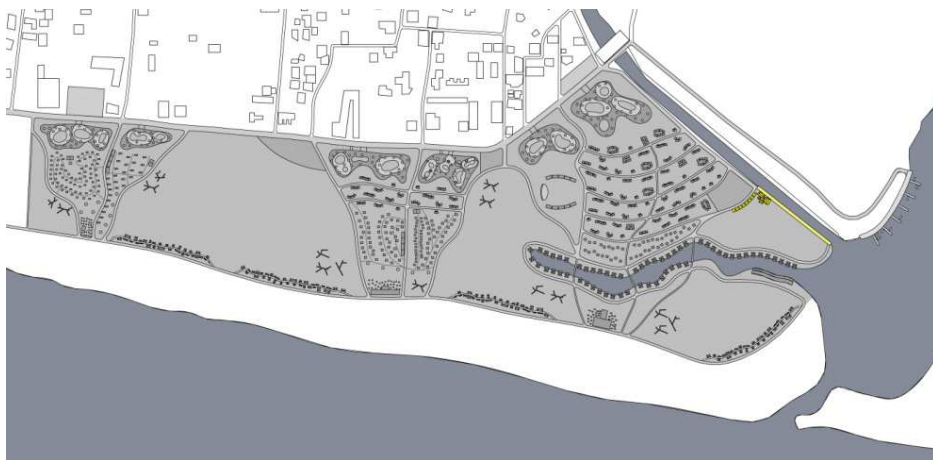


## 4.9. Fishmen's quarters

The lagoon of Viluni is rich in fish and makes fishing possible. It should be controlled so that people don't abuse with fishing, damaging the ecosystem. But fishing as a sport in small scale should be allowed. In my project I have created a fishmen's quarter, where people with this hobby can come together, meet and rent the necessary equipment for fishing. It is positioned next to the canal and it has a bridge from where people can fish or get on small boats to go fishing further. It is also a nice place to take walks. Next to the fishmen's quarter there are small shops where fish and other fresh local products like fruits and vegetables can be sold.



102. Fishing in the lagoon of Viluni

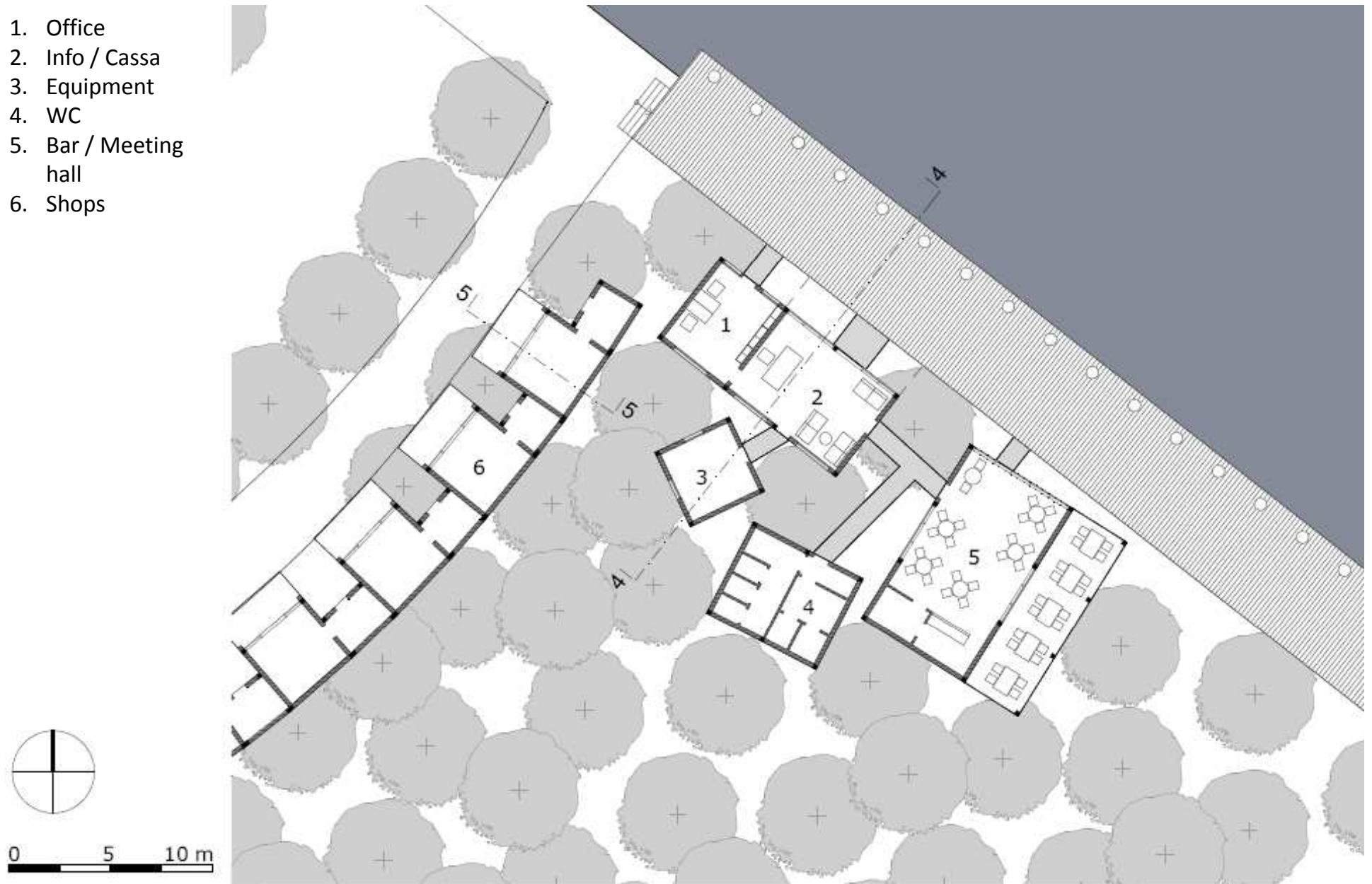


101. Positioning of fishmen's quarters



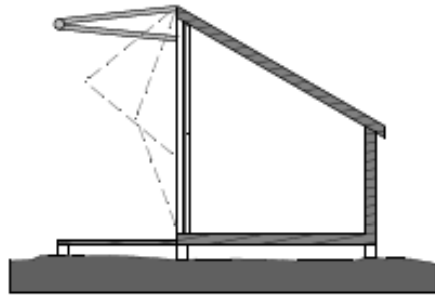
103. Fishing in the sea near the lagoon

1. Office
2. Info / Cassa
3. Equipment
4. WC
5. Bar / Meeting hall
6. Shops

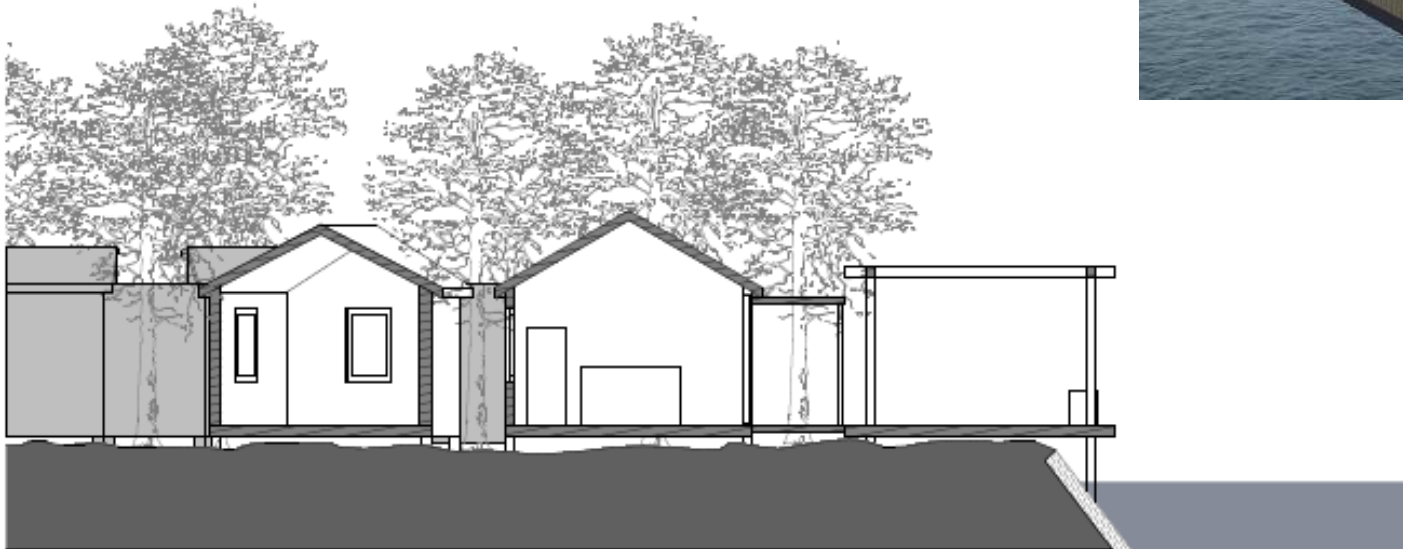


104. Fishing quarter plan





106. Section 5-5



105. Fishing quarter section 4-4



107. Fishing quarter rendering



## 5. Literature

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