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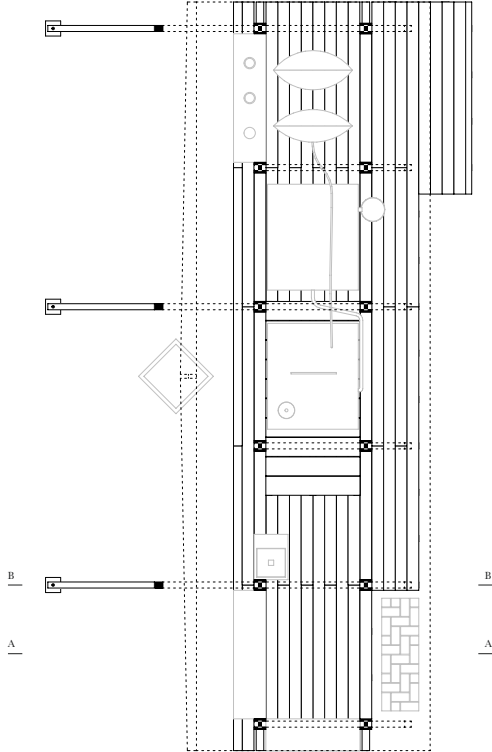
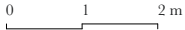














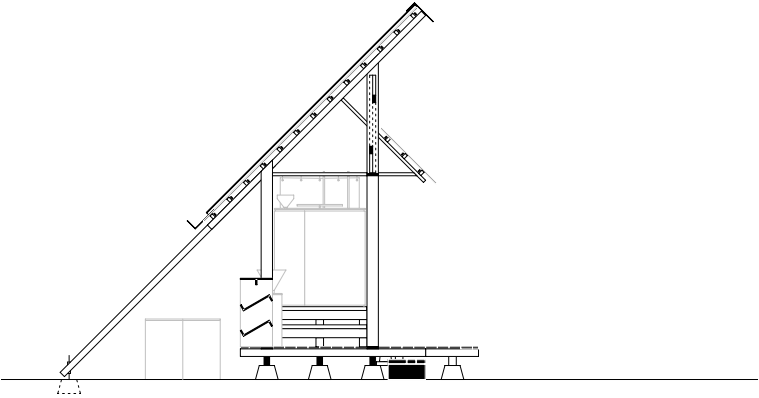








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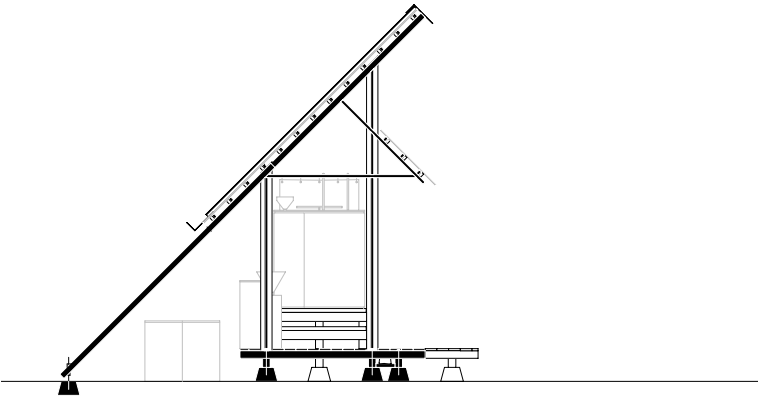


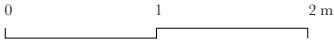
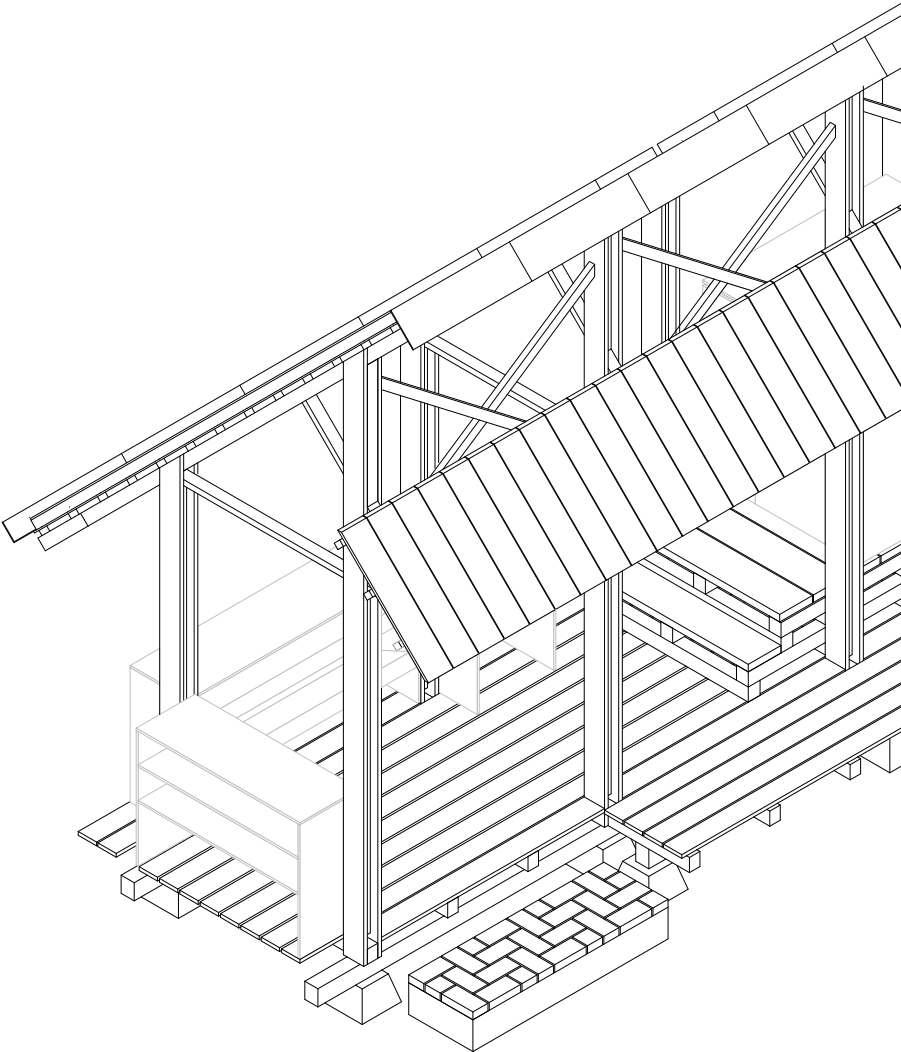


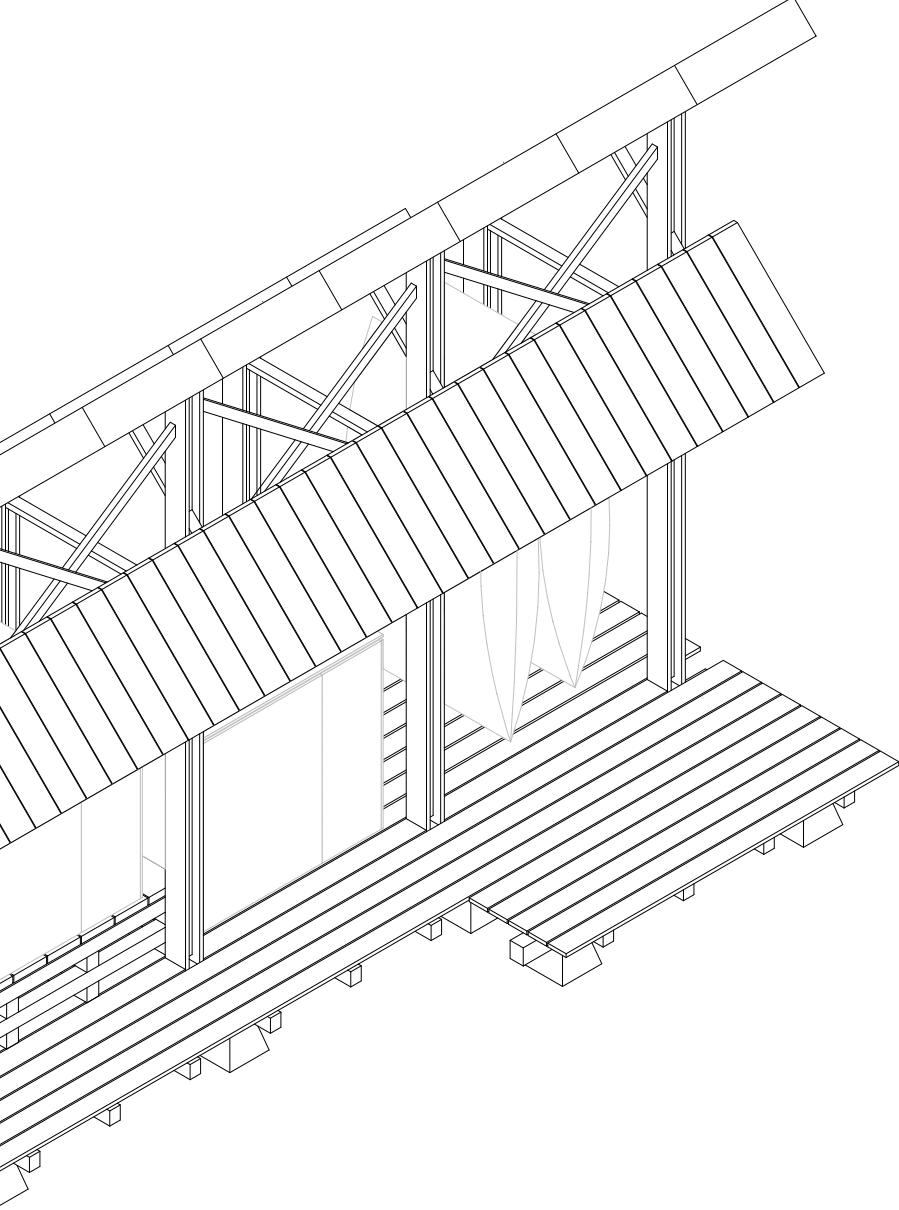


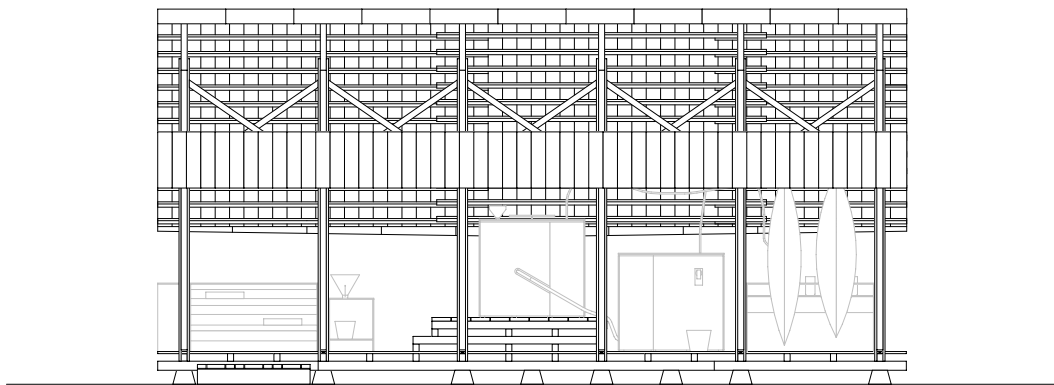


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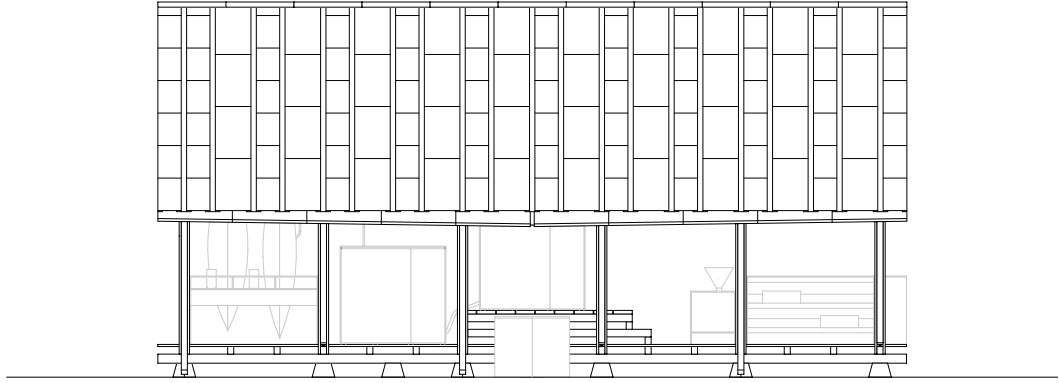
























The increasing climate problems call for a more conscious and responsible approach to the planet and its resources. Especially, the fields of building production and architecture are challenged by strong demands for more sustainability.

This is why sustainable strategies in architecture no longer focus exclusively on technological solutions. Durability, adaptability or transformation as well as vernacular building culture are explored with the goal of creating an architecture that is sustainable.

For the building sector, one of the main important aspects is to move towards circular thinking, in which buildings can take on new uses. Structures can be adapted to changing requirements. Materials are durable, can be reused, reassembled or even be reintegrated into 'nature'.

The project ZINNERGIE explores the potential of circular concepts by building a small urban biogas plant using exclusively discarded materials. In this undertaking, we tried to manifest the reuse of materials as a tangible and bodily experience of the architectural artefact itself.

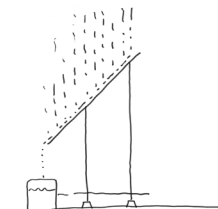
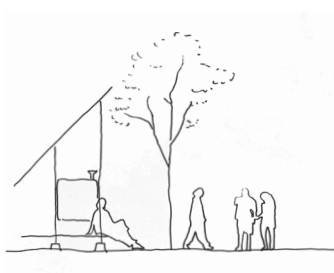
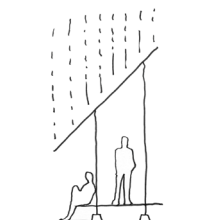
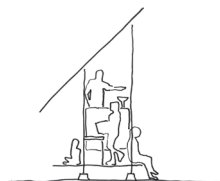
The search for available materials formed the starting point of the project work. Demolished houses function as material archives and suitable building materials were identified and dismantled. We examined and collected discarded building materials from material assortments, whilst existing remainders on site were considered as potential building materials.

The actual designing began by exploring and getting to know the given materials. We explored and tested the inherent properties and structural capacities through the physical interaction with the materials. By following the aim of transforming the technical aspects of construction into an aesthetic dimension we developed a

structure that is simultaneously building the construction, defining the spatial character and creating the architectural expression.

This approach resulted in a robust and adaptable framework that can host and even exhibit the technical infrastructure as well as the actions connected to it. A large roof protects from the rain and at the same time collects it for further uses. It defines the 'face' to the public street. The structure's openness to the other side invites people to enter, explore and interact with the architecture. It activates the square in front as a place of public life.

At the moment the structure is appropriated for the use of the biogas plant but it also allows multiple other uses in the later future. Materials and joints are kept raw and generic in order to allow a future disassembling and a reuse of the materials.



**Multifunctional** allows for appropriation and flexible uses

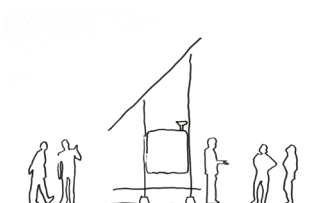
**Robust** to resist unpredictable bodily interactions

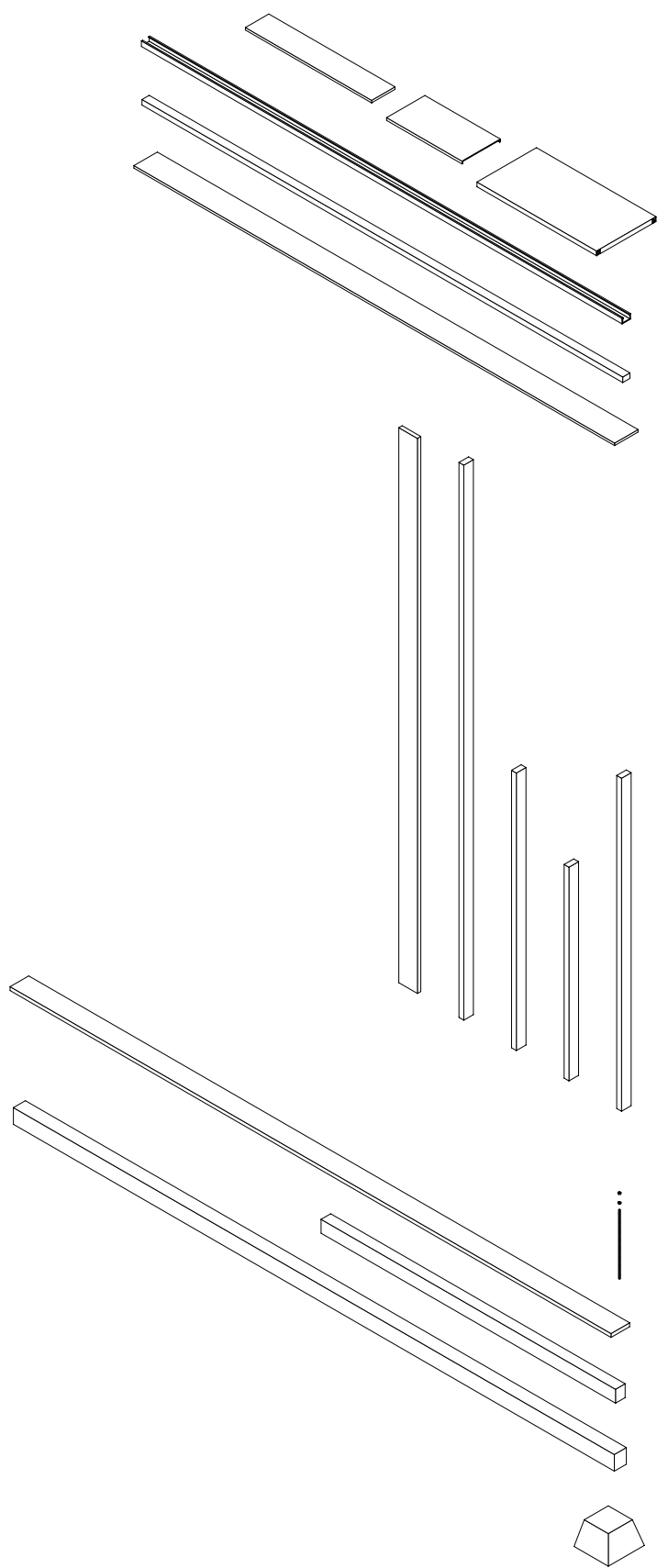
**Protection** a place protected from rain and too much sun

**Public Space** to create a place for the community

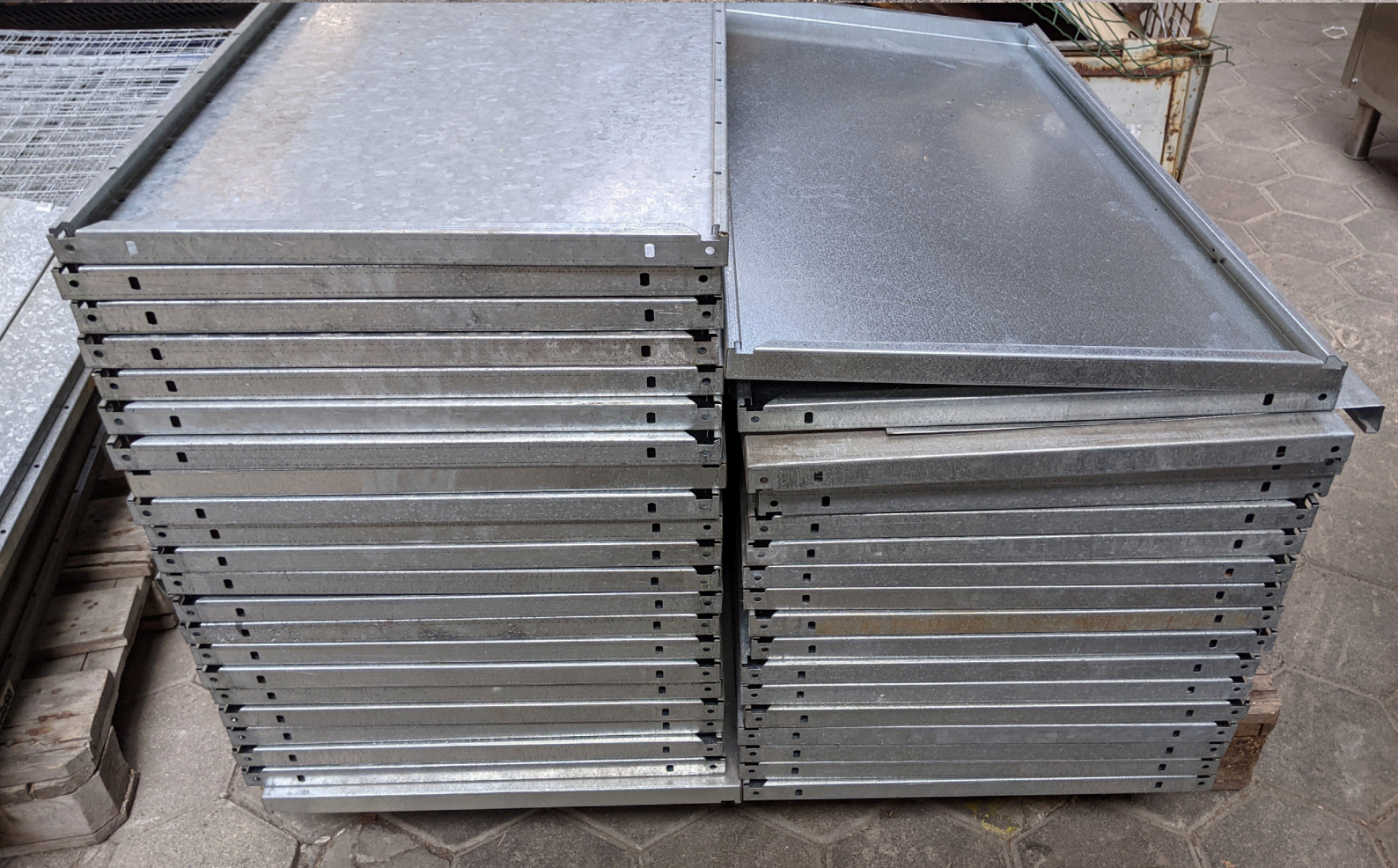
**Rainwater Collection** for the daily operation of the plant

**Teaching and Learning Object** the technical infrastructure is exhibited to make it accessible













*„The structure should be a meeting point where you bring by your organic waste but also have a cup of coffee.“*







*„The aim of the design is to  
arouse interest and thereby  
bring people into the  
architecture.“*

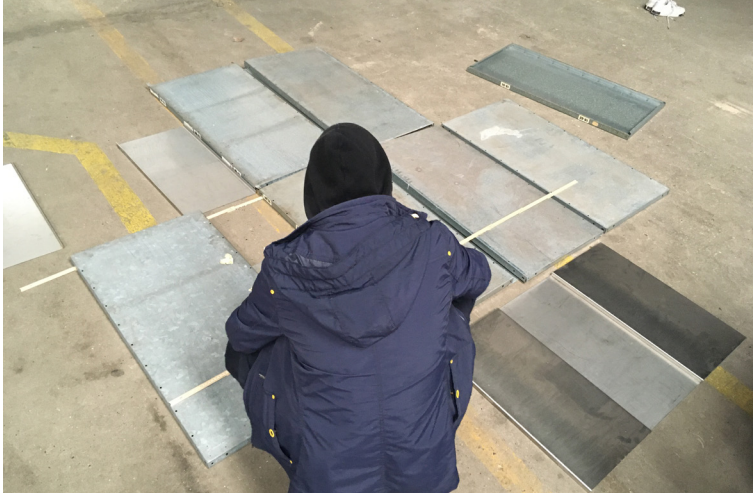








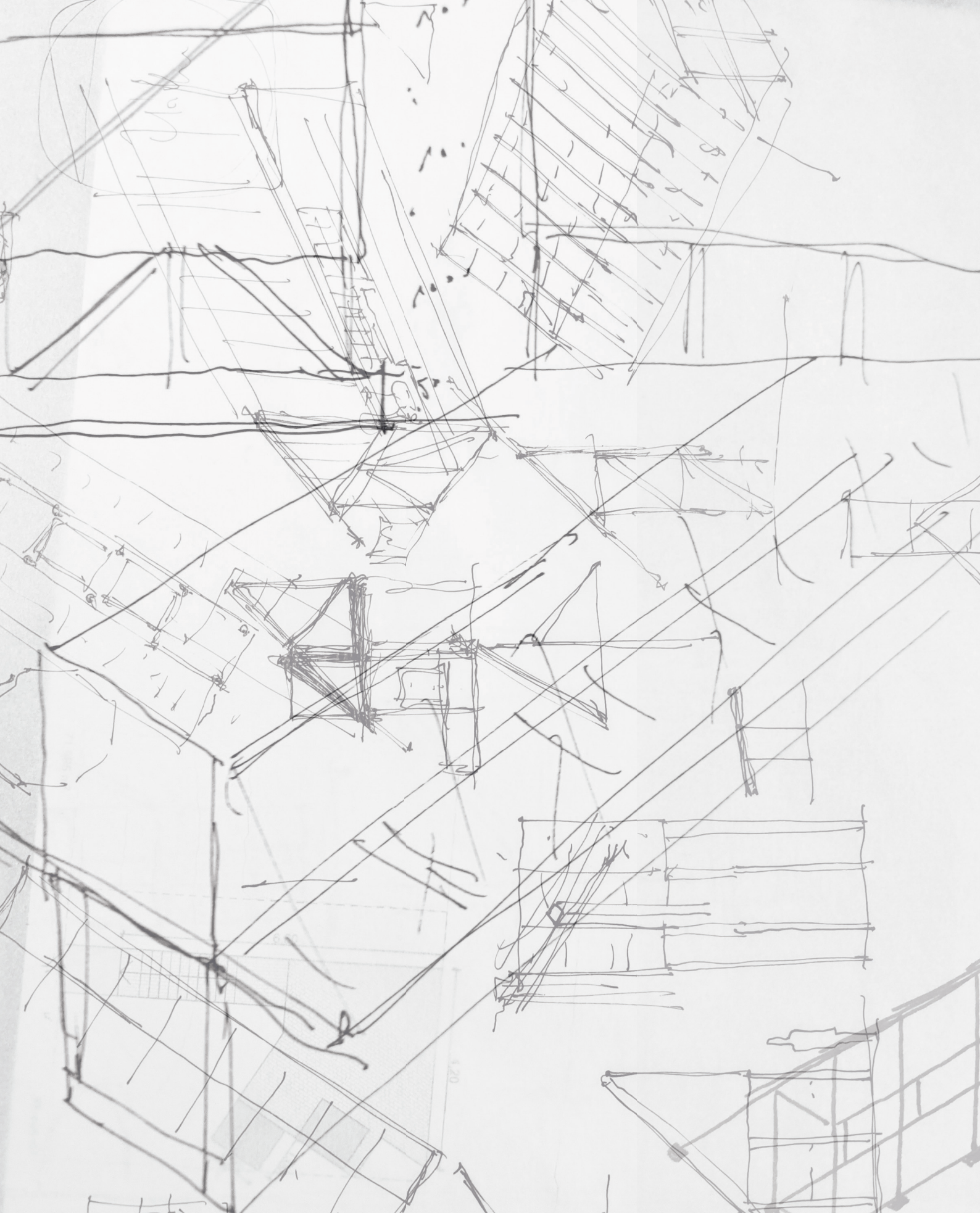
*„At the end we created  
something really sustainable.“*





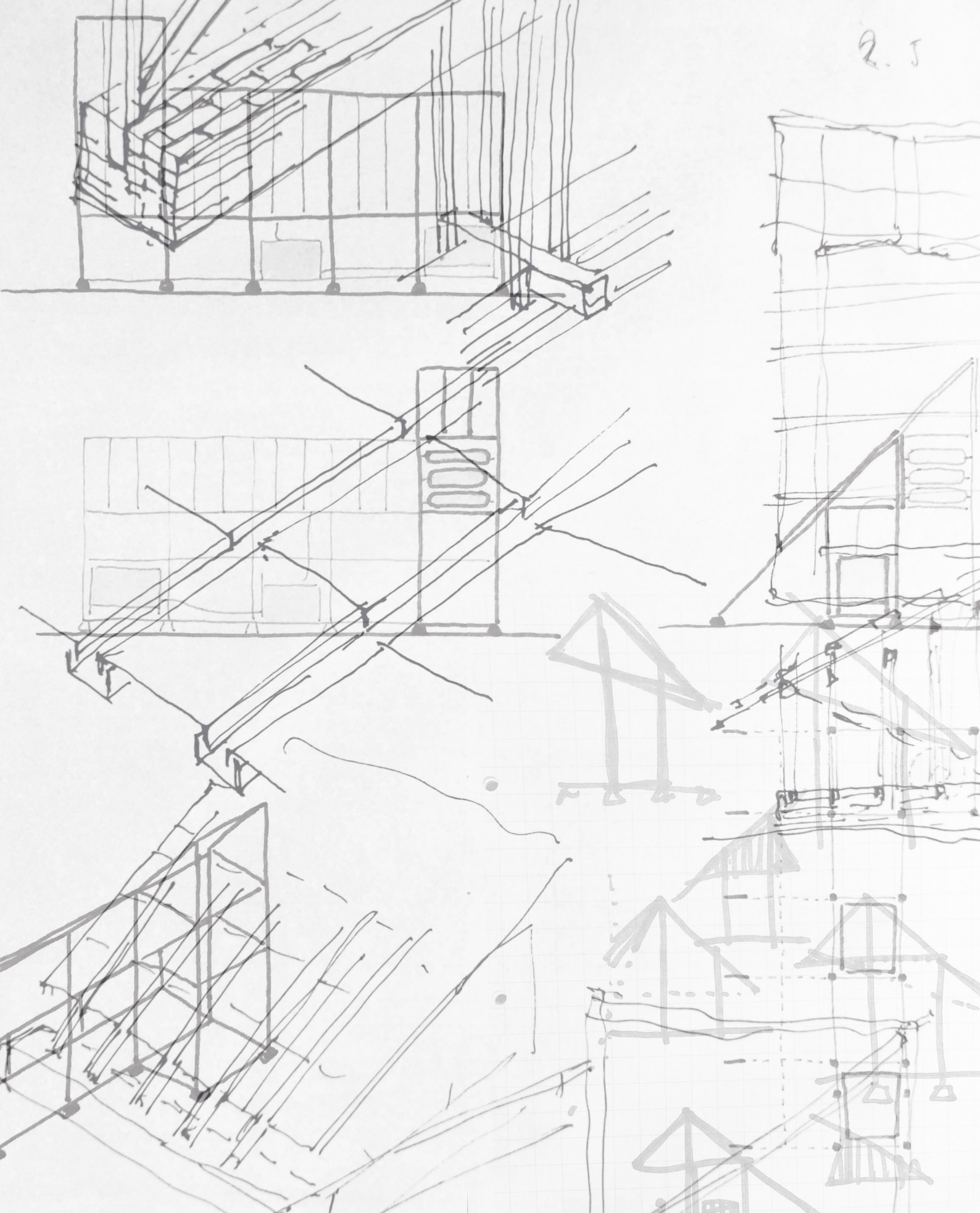








2.5

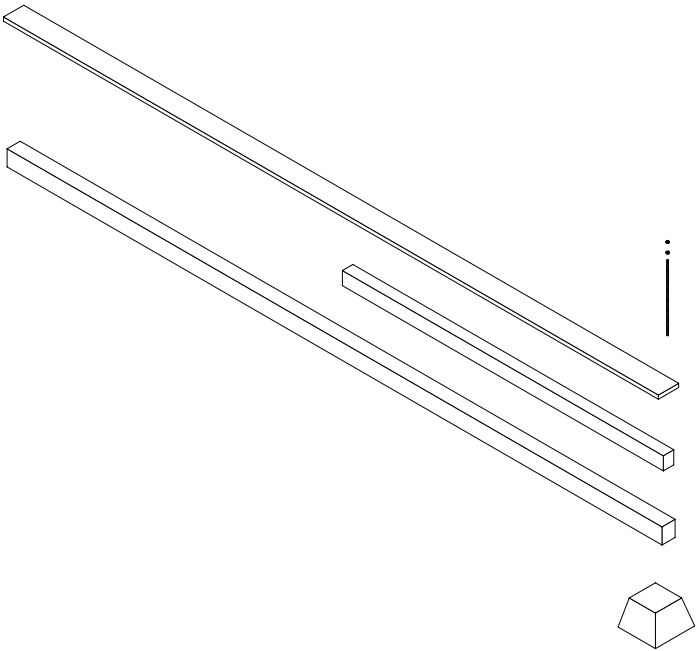




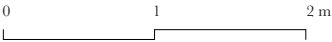




- 1 threaded rods and screw nuts
- 2 wooden boards 2,5x15,5 cm (oiled)
- 3 wooden beams 8x10 cm (oiled)
- 4 wooden beams 10x12 cm (oiled)
- 5 concrete piles 30x30x18,5 cm



1  
2  
3  
4  
5

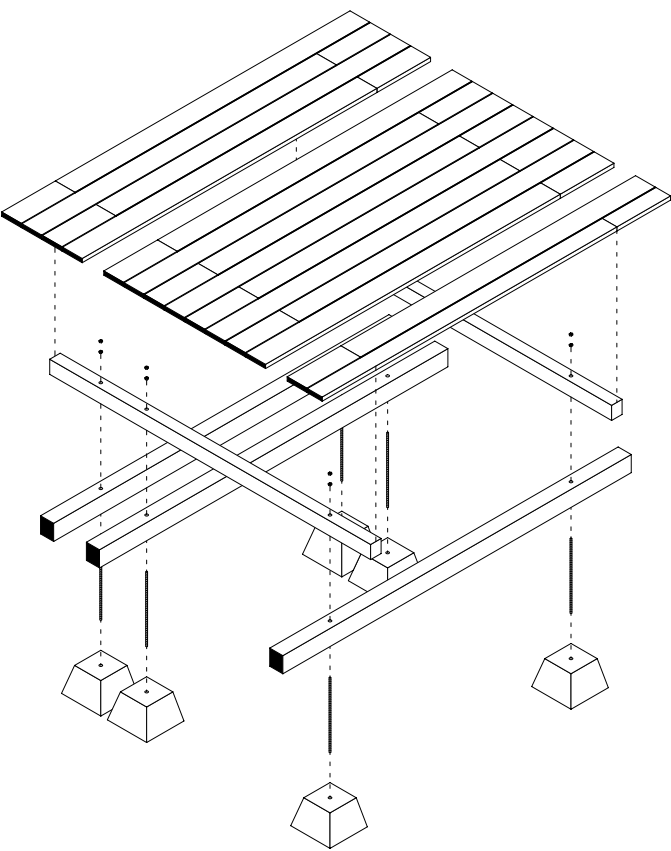








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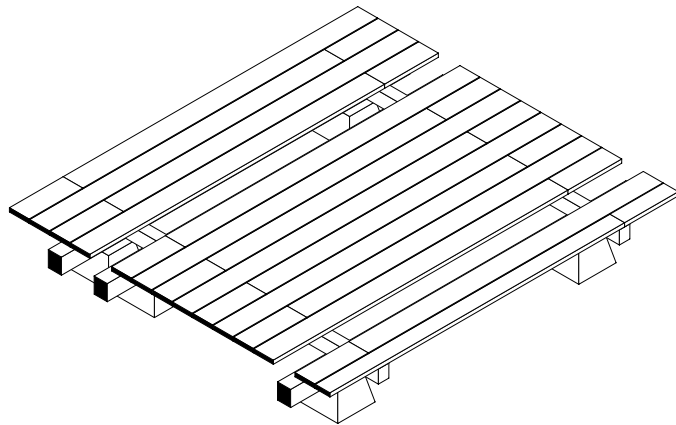






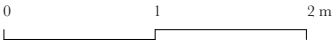
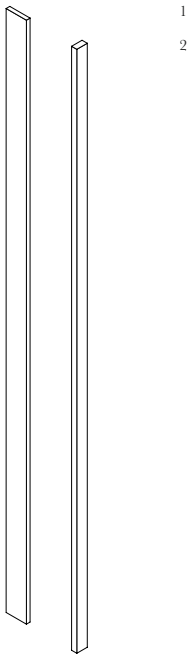


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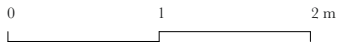
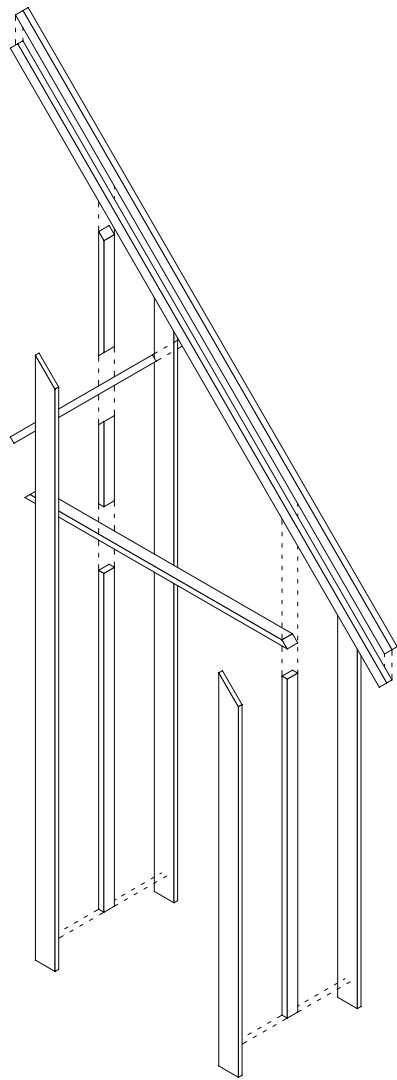
- 1 wooden boards 2,8x15 cm (oiled)
- 2 wooden bars 8x4 cm (oiled)







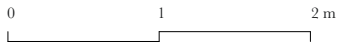
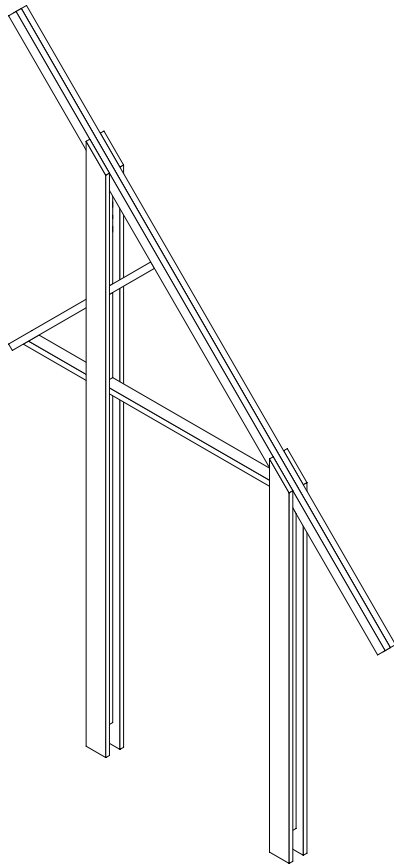














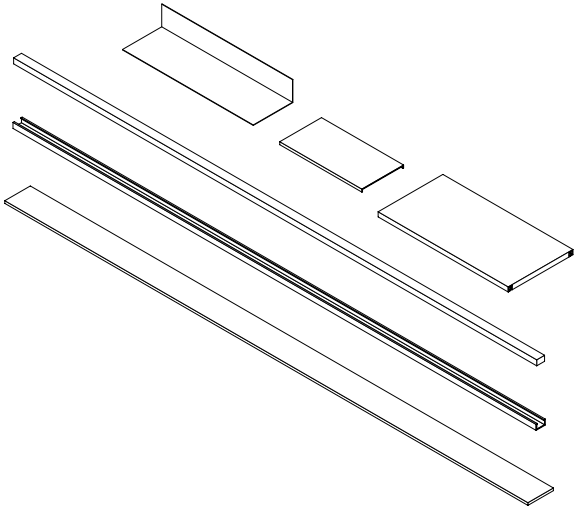




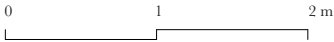




- 1 folded steel sheets (green coated)
- 2 stainless steel boards
- 3 galvanized steel boards
- 4 wooden bars 4x6 cm (oiled)
- 5 drywall profiles
- 6 wooden boards 1,8x19,5 cm (flamed)



1  
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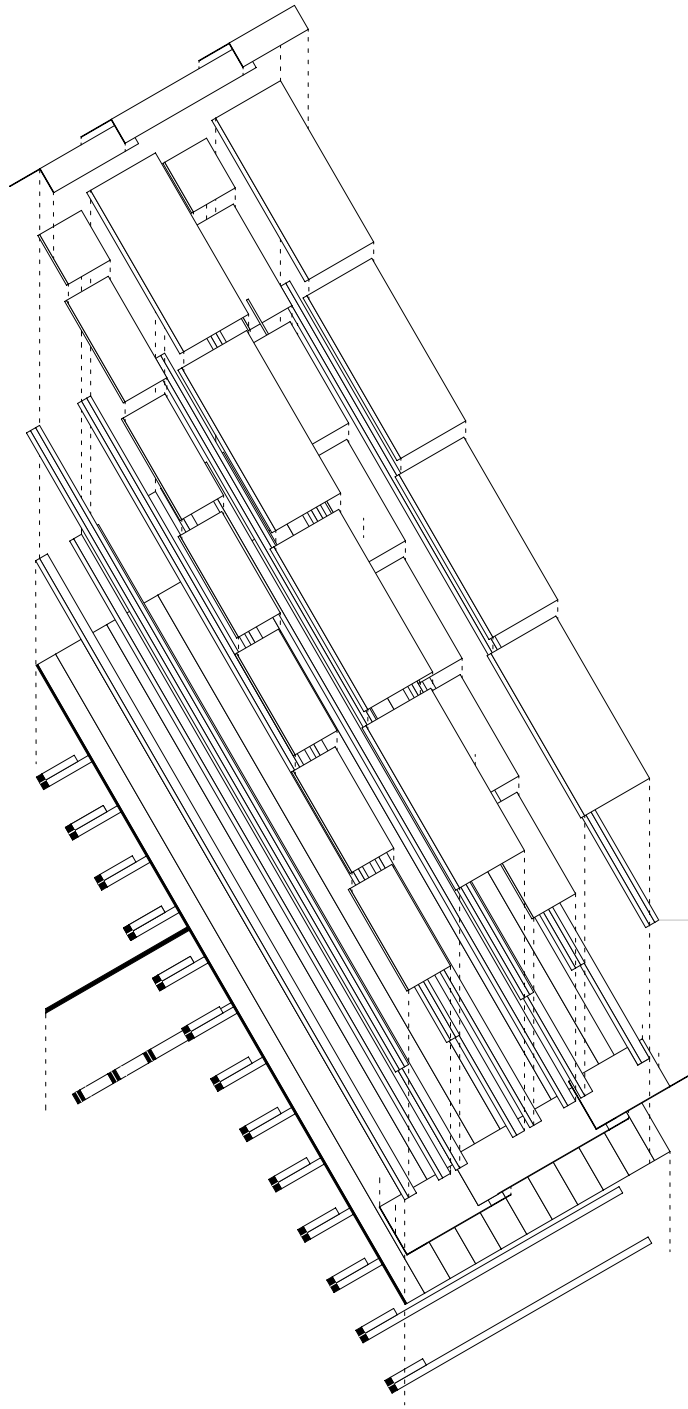








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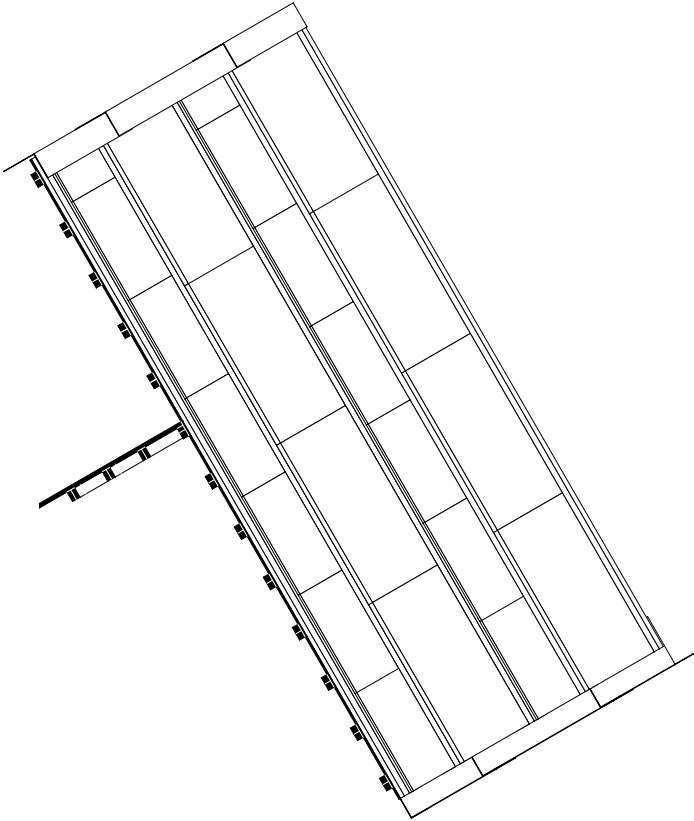




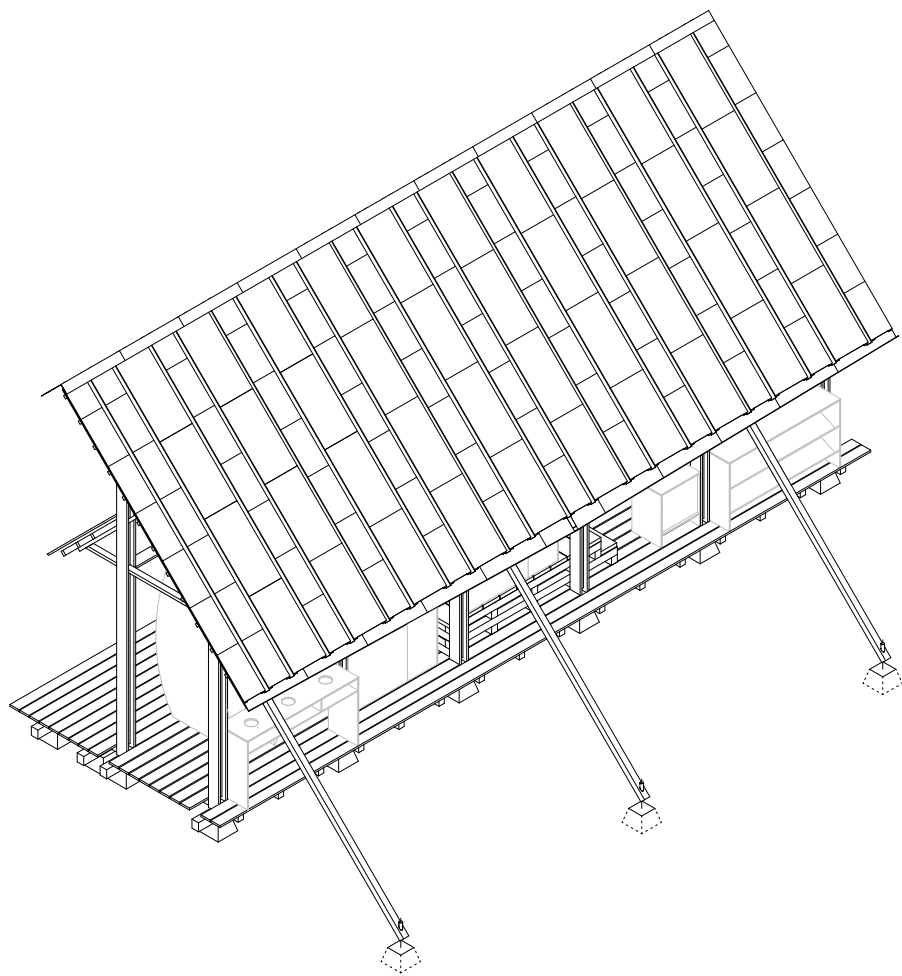




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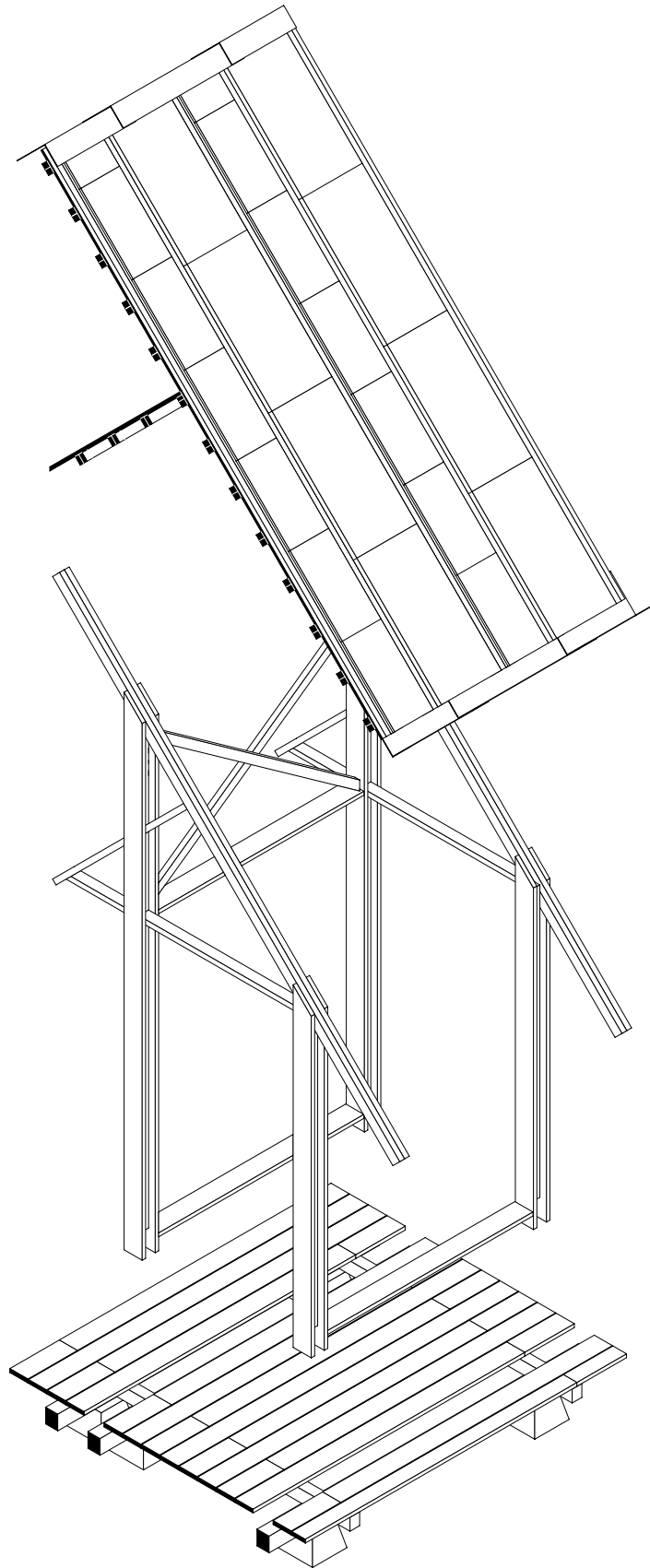


Roof

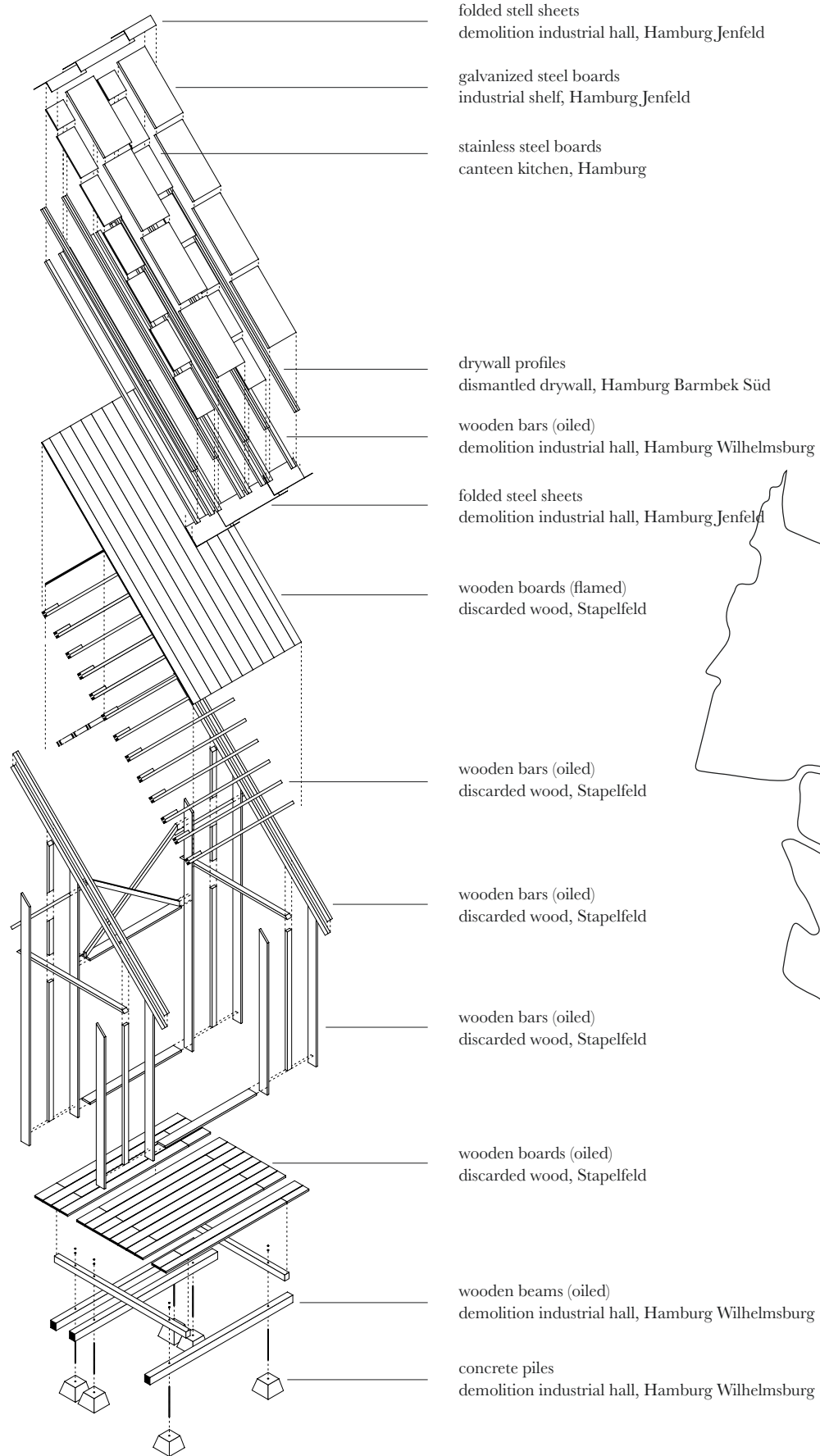
Frame

Base

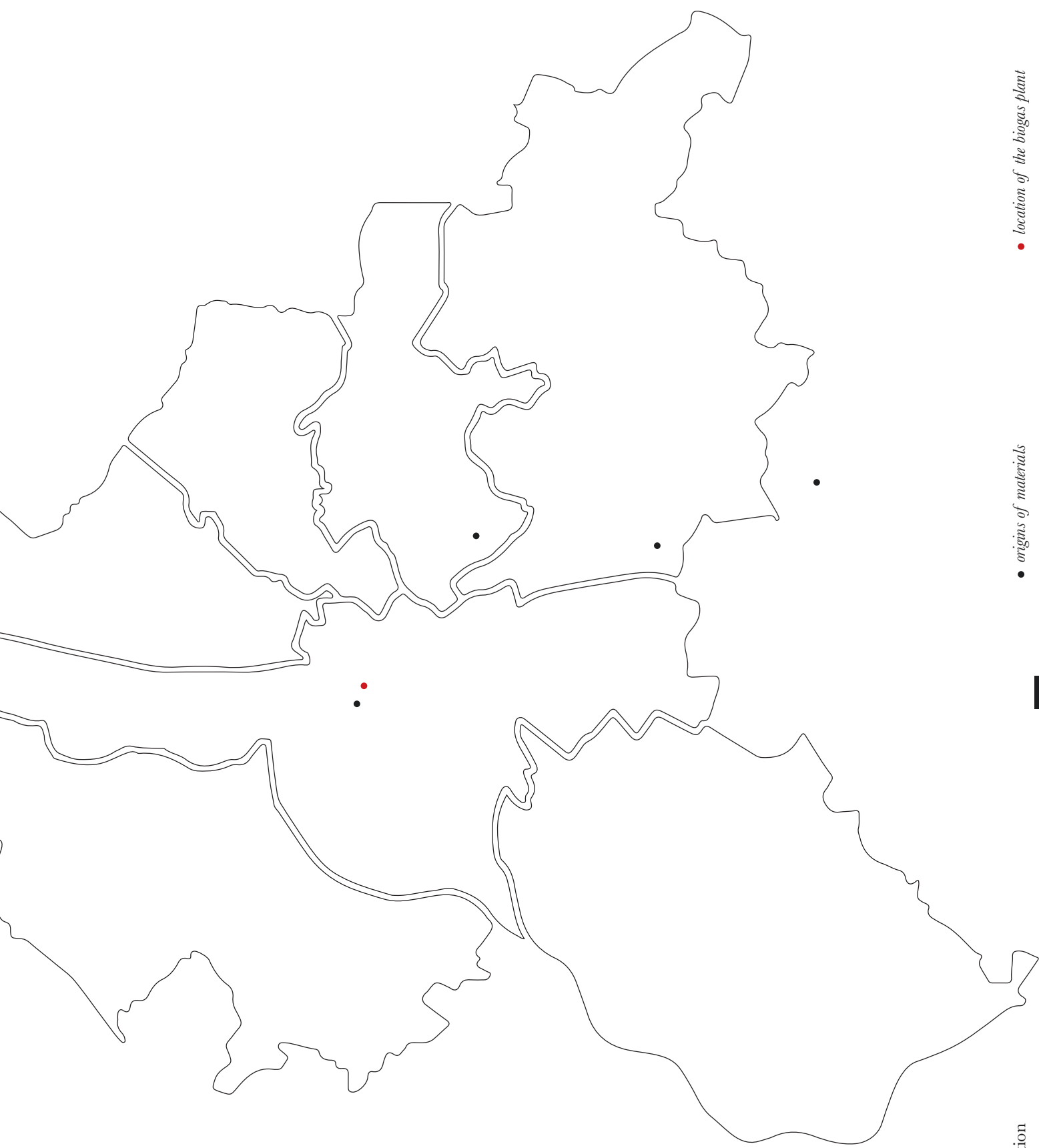
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1

organic waste delivery and sorting

2

food sharing

3

shredder and storage

6

liquid fertilizer

7

gas cleaning

8

gas storage





4

filling station

5

biogas production

































Das Baubüro  
im gesamten  
der Baugewerke  
strategische



































## Image credits

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## Illustrations

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