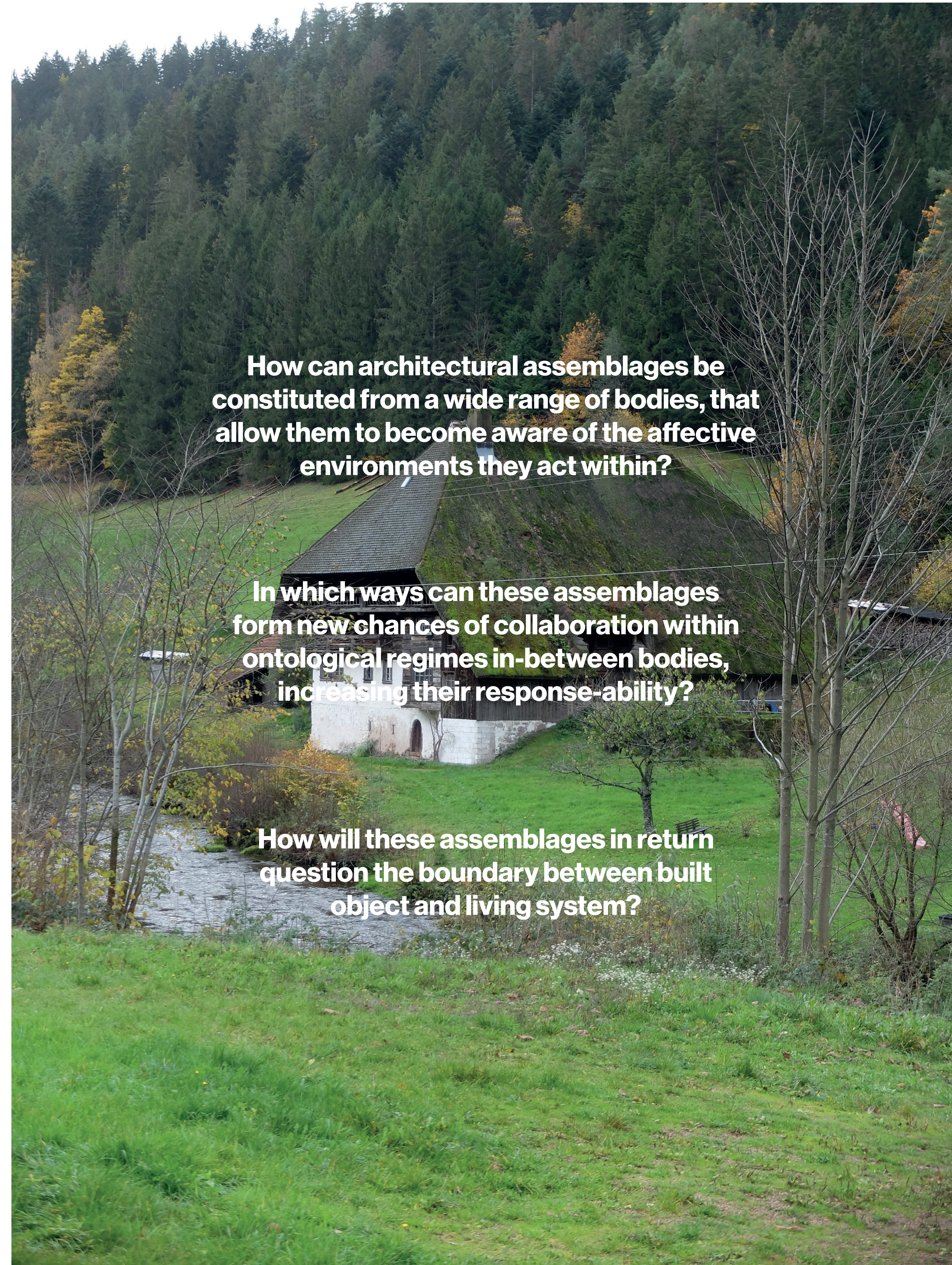


**Where the Salmon walks up the Staircase**





**How can architectural assemblages be constituted from a wide range of bodies, that allow them to become aware of the affective environments they act within?**

**In which ways can these assemblages form new chances of collaboration within ontological regimes in-between bodies, increasing their response-ability?**

**How will these assemblages in return question the boundary between built object and living system?**







**Eel, Salmon & Trout**

- annual pilgrimage
- river currents
- habitat & territory

**River**

- water level throughout year
- changed riverbed
- geological force of water
- degree of wetness

**Paper**

- cellulose as main component
- lignin as waste product of production
- epiphylogenetic memory system

**Silver Fir**

- perfect preconditions at site (sour soil)
- main material for paper production
- preconditions for all pilgrims in the black forest

**Lichen & Air Algae**

- growing on the ruinous building
- symbiotic organism
- contains extractable pigments

**Fungi**

- mycelium structure
- lignin as food source
- electric information system

**Bark Beetle**

- silver fir as food source
- environmental impact

**Rock & Soil**

- boulders in the riverbed
- soil quality
- geological force

**Factory**

- different parts evolving throughout time
- infrastructural system
- production process
- energy production

**Moss**

- contains cellulose but not lignin
- filters fog and water for nutrients
- building material

water levels in the area in relation to season and the annual fish pilgrimage

river currents and forces affecting trout and factory in a similar manner

creating shaded areas under rocks for fish and dry parts making the river passable

changed riverbed in relation to water energy and production process

relation of geological forces in deep in relation to water flows, erosion and sediments

production process of paper and relation to cellulose and lignin

paper as an epiphylogenetic system, in relation to the staircase for the fish

river currents and forces creating different moments of intensity

comparison of electricity from mycelium to factory

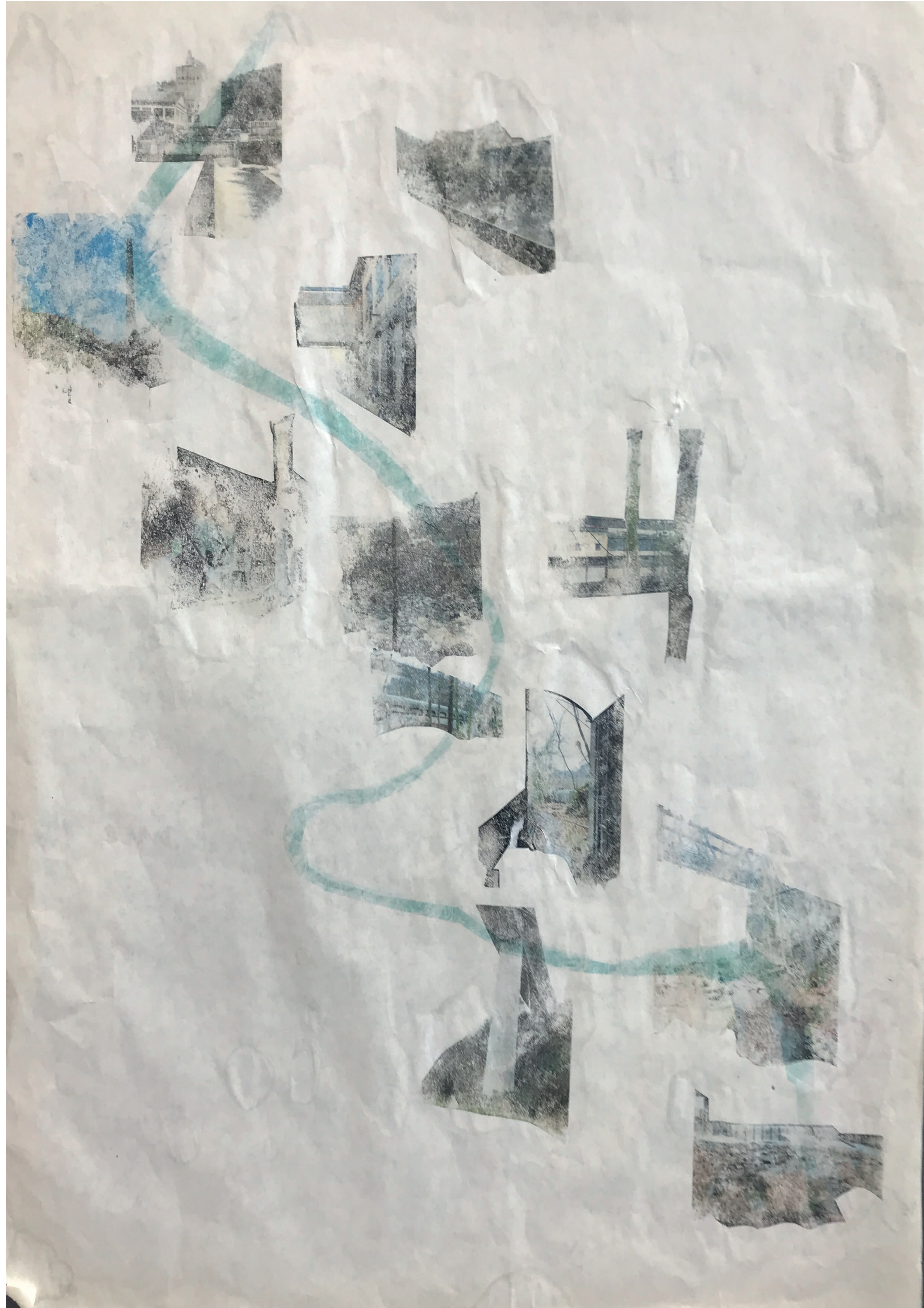
three types of memory systems and their constitution on the site

geology of the site in relation to the larger area

variety of body structures on the site and their relation the factory











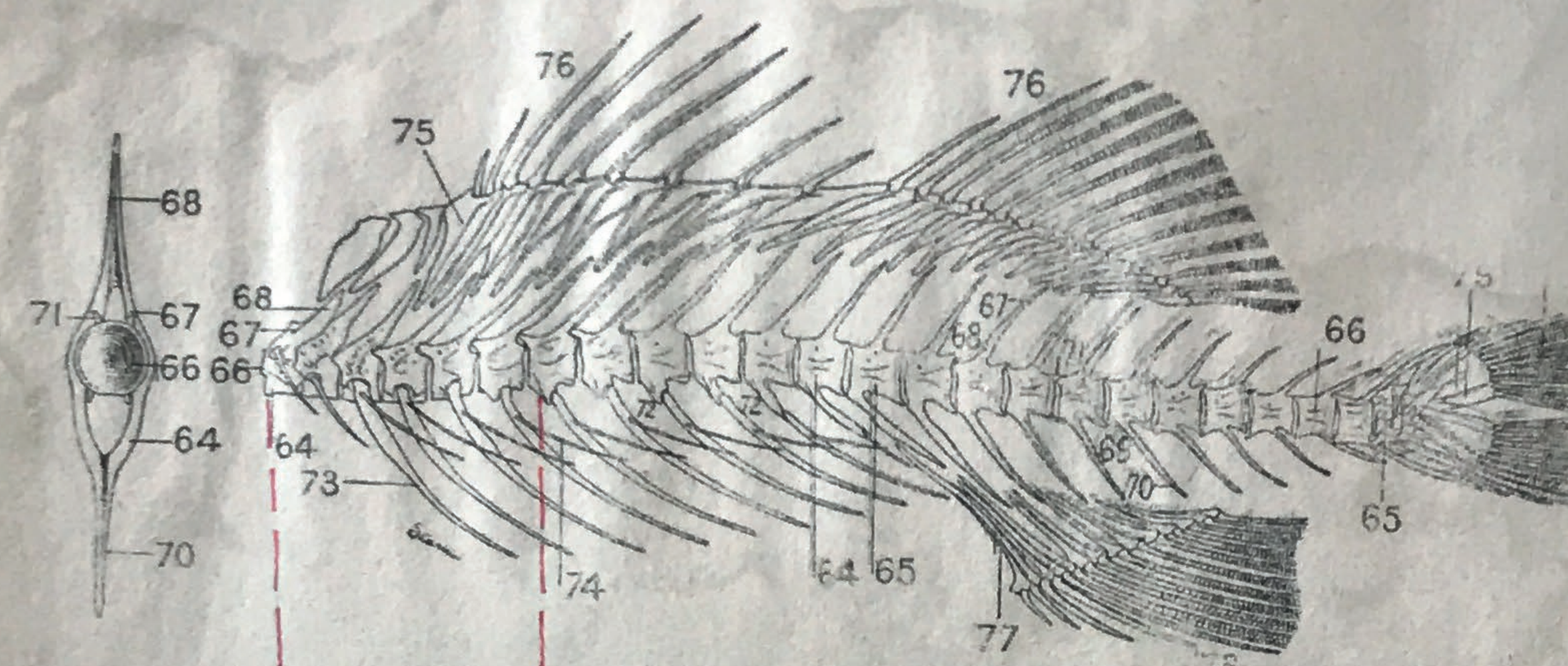








Detail A-A



Sideview

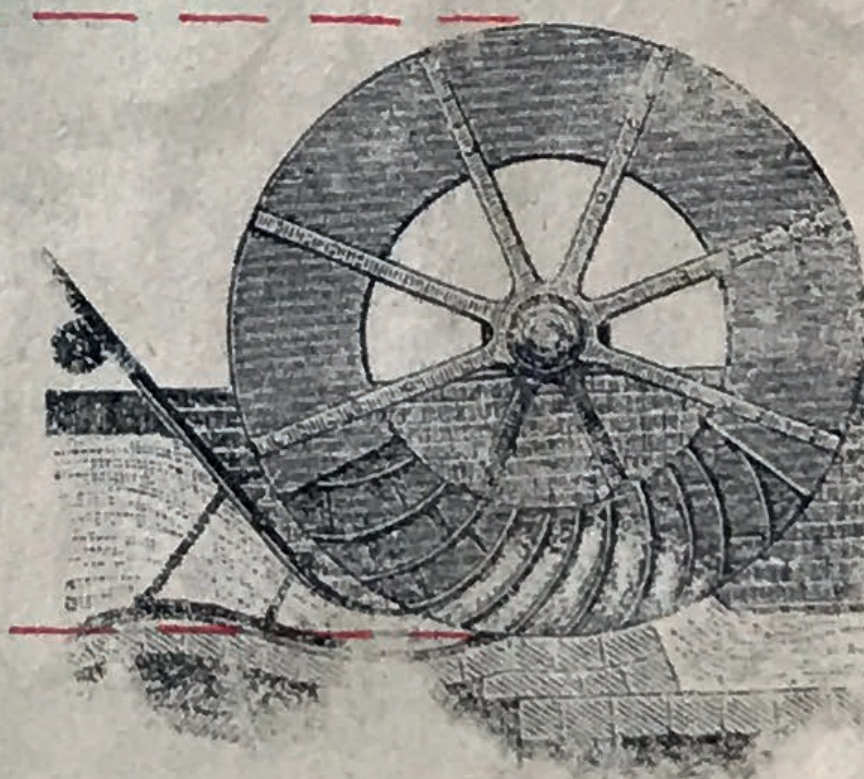
virtual direction

0,02

0,15

flow direction

virtual intensity

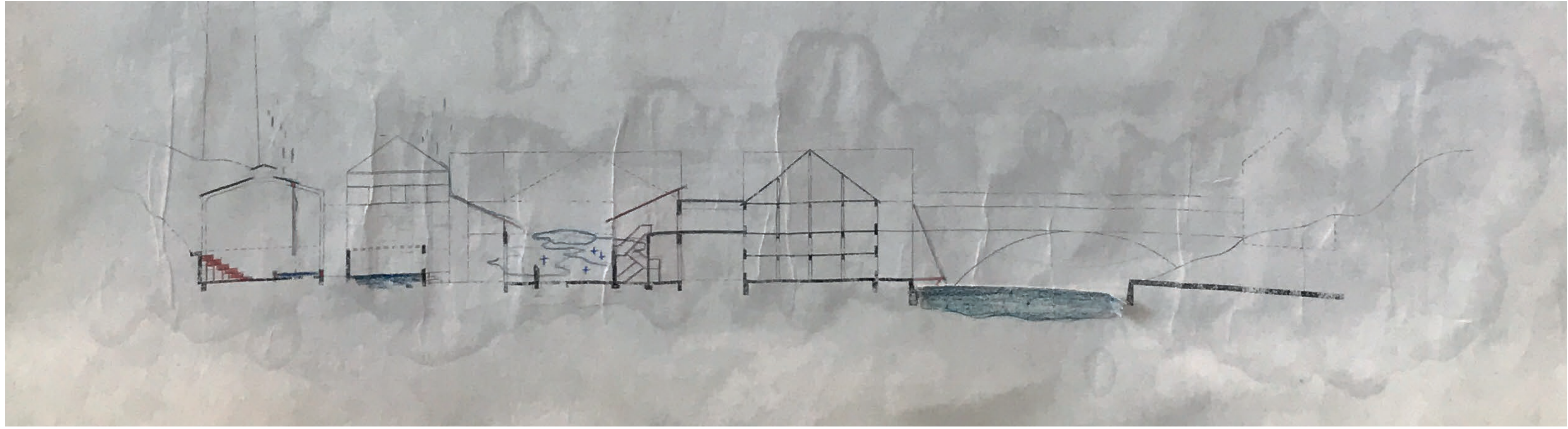
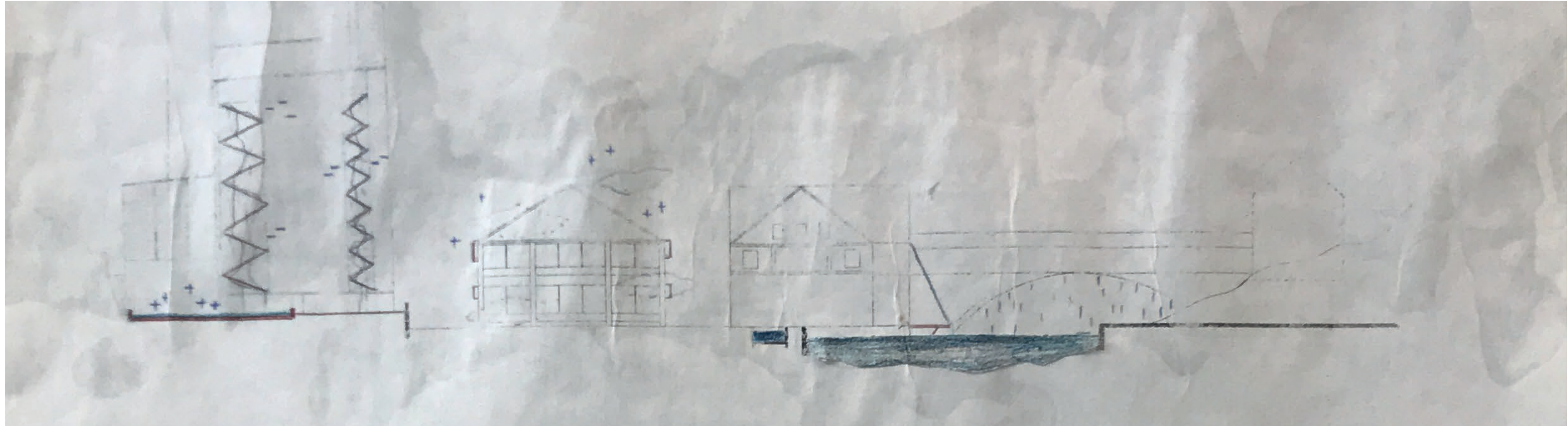


Sideview

\* a: the intensity of the river's current is related to the movement intensity of the trout, yet this factor also depends on the temperature [see also B-B]



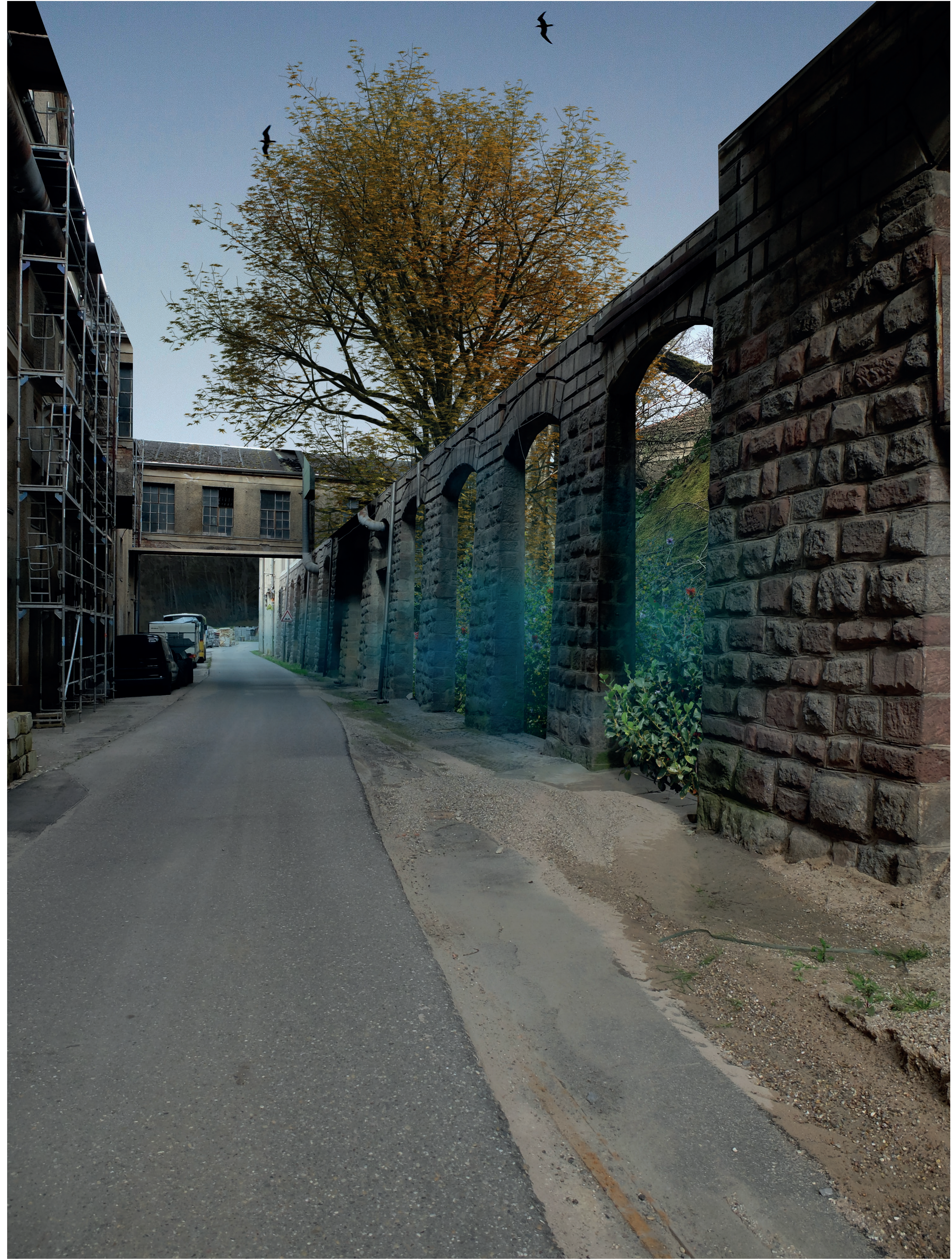




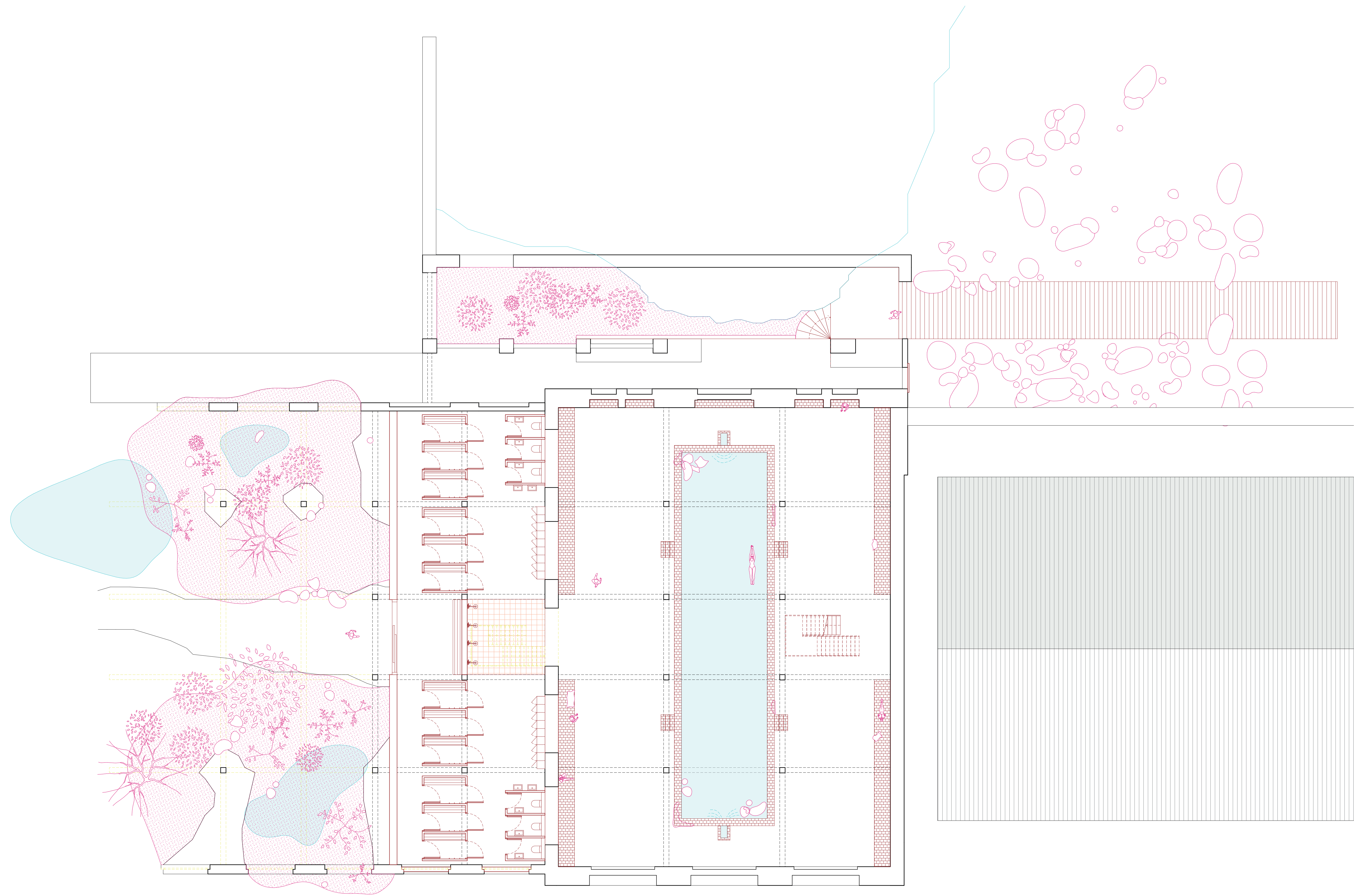




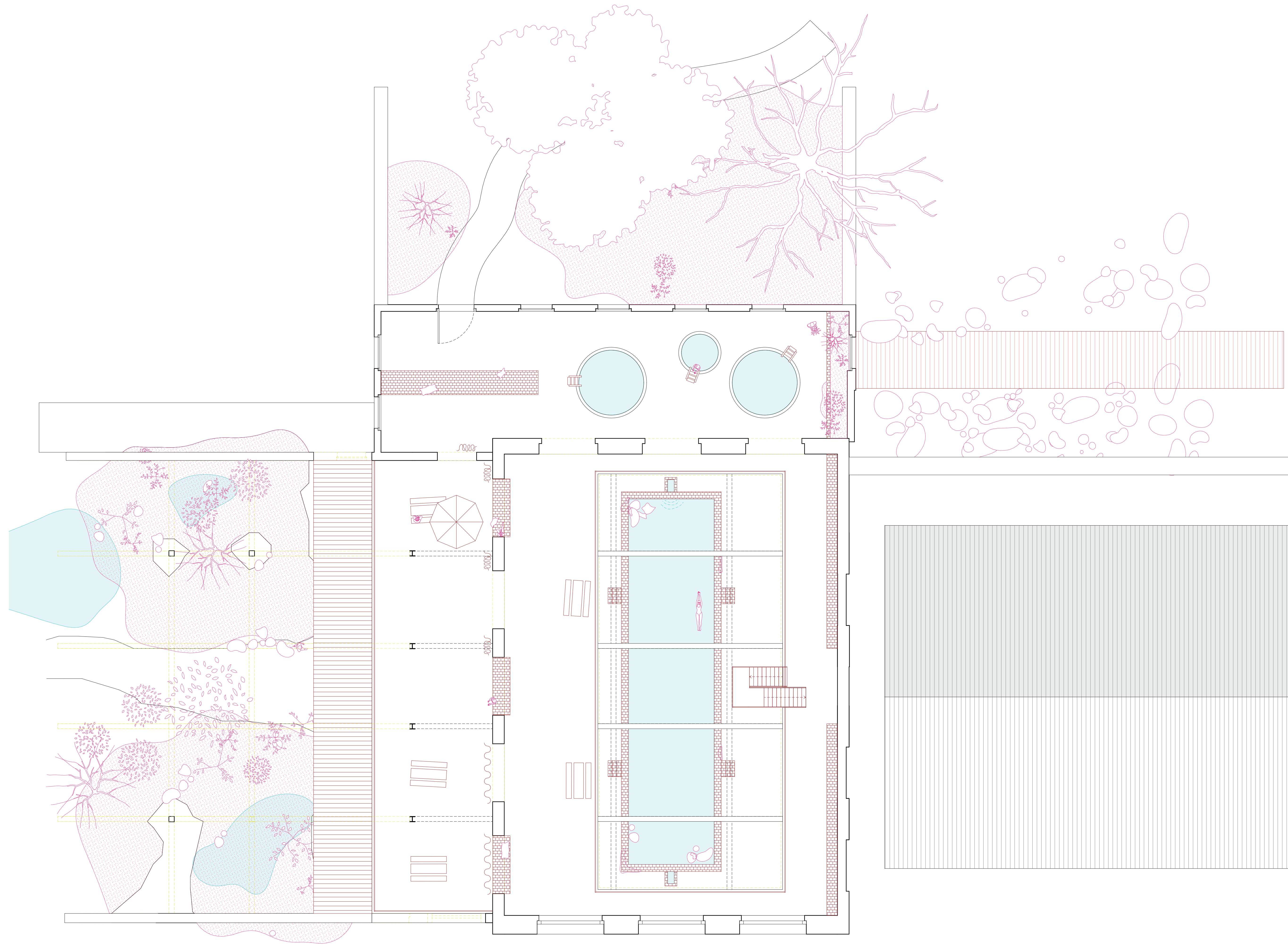




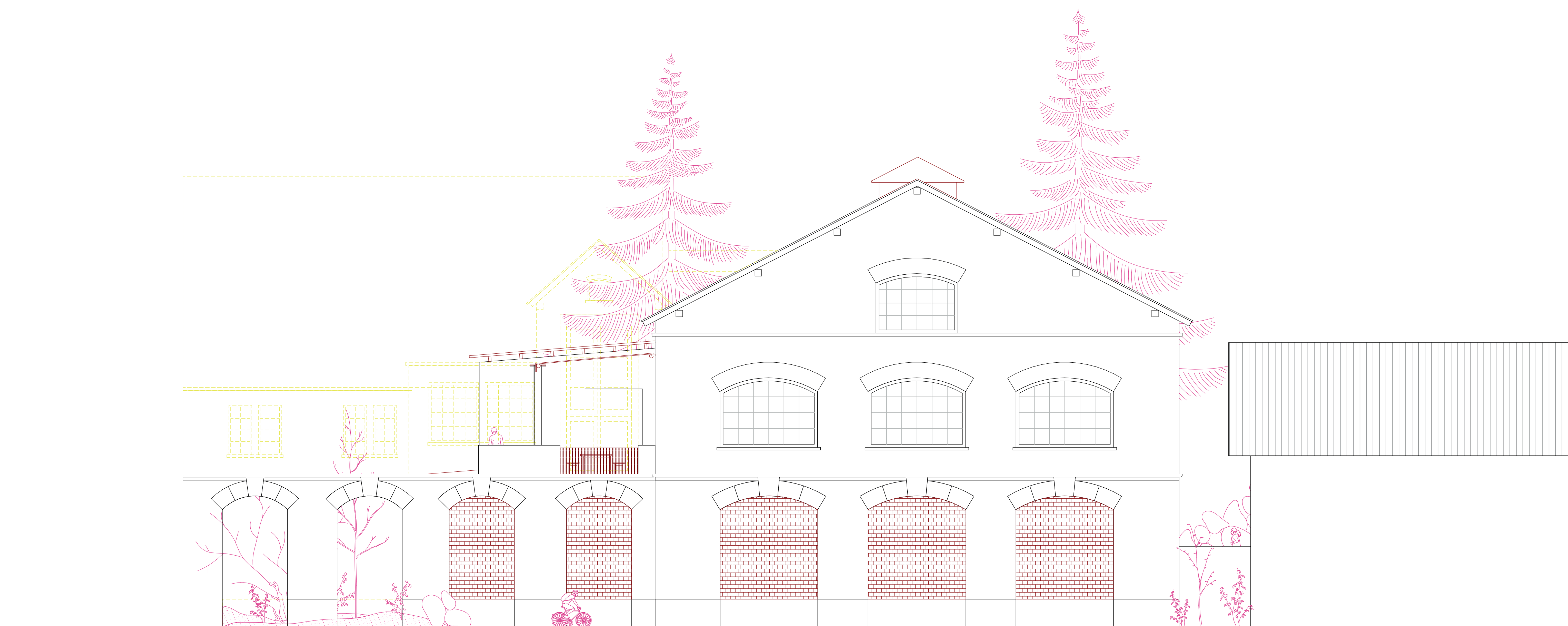
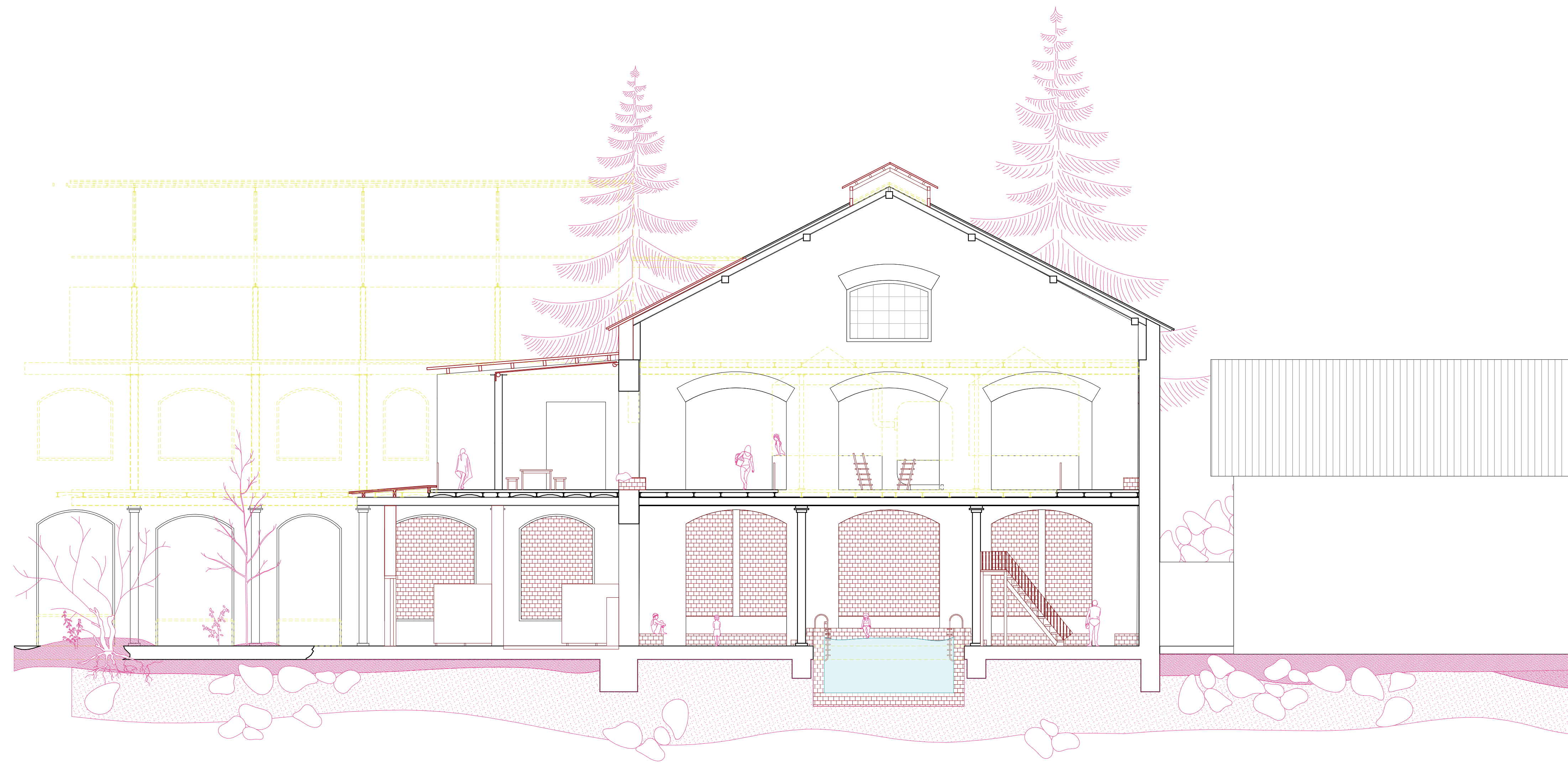










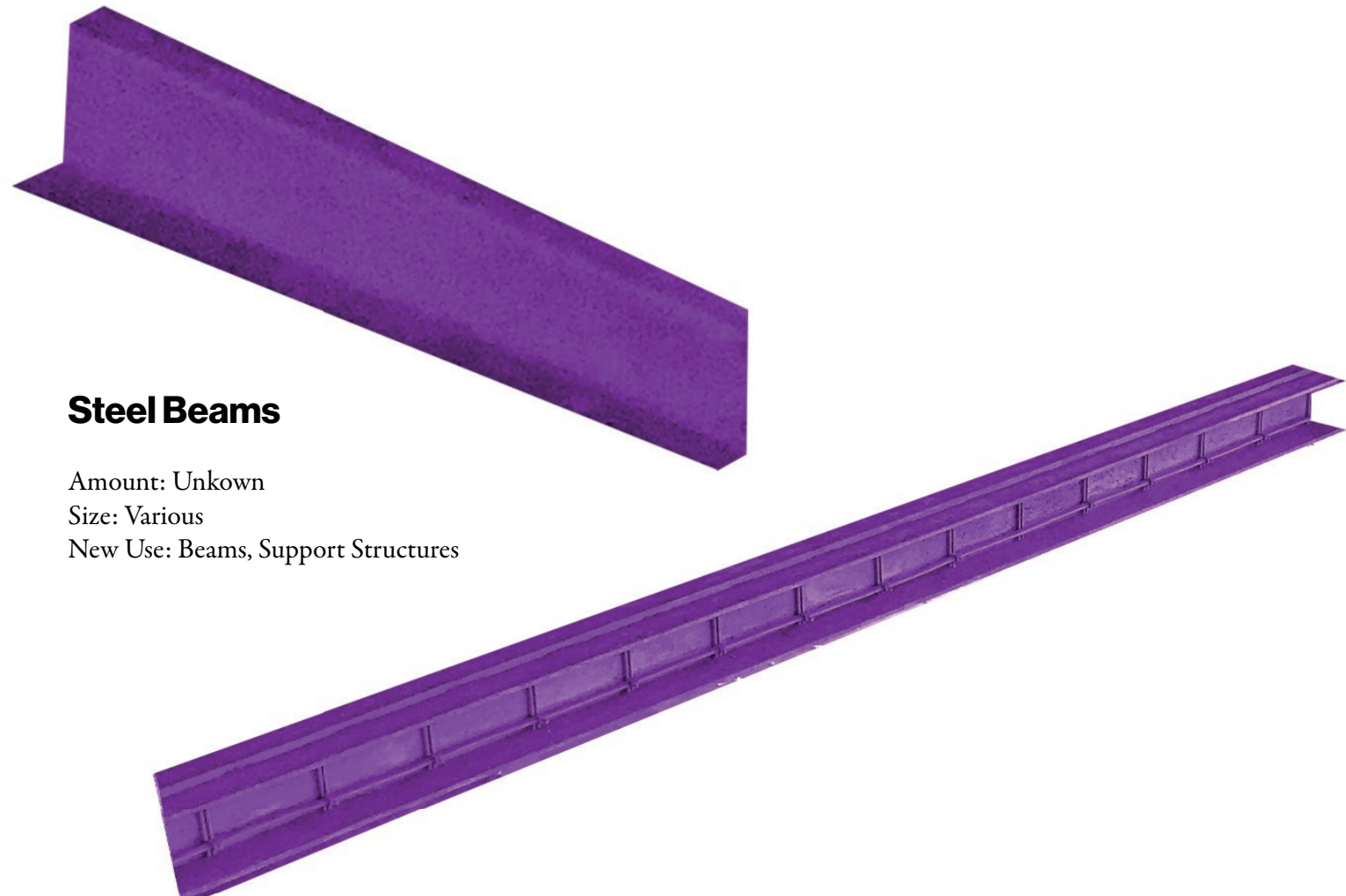




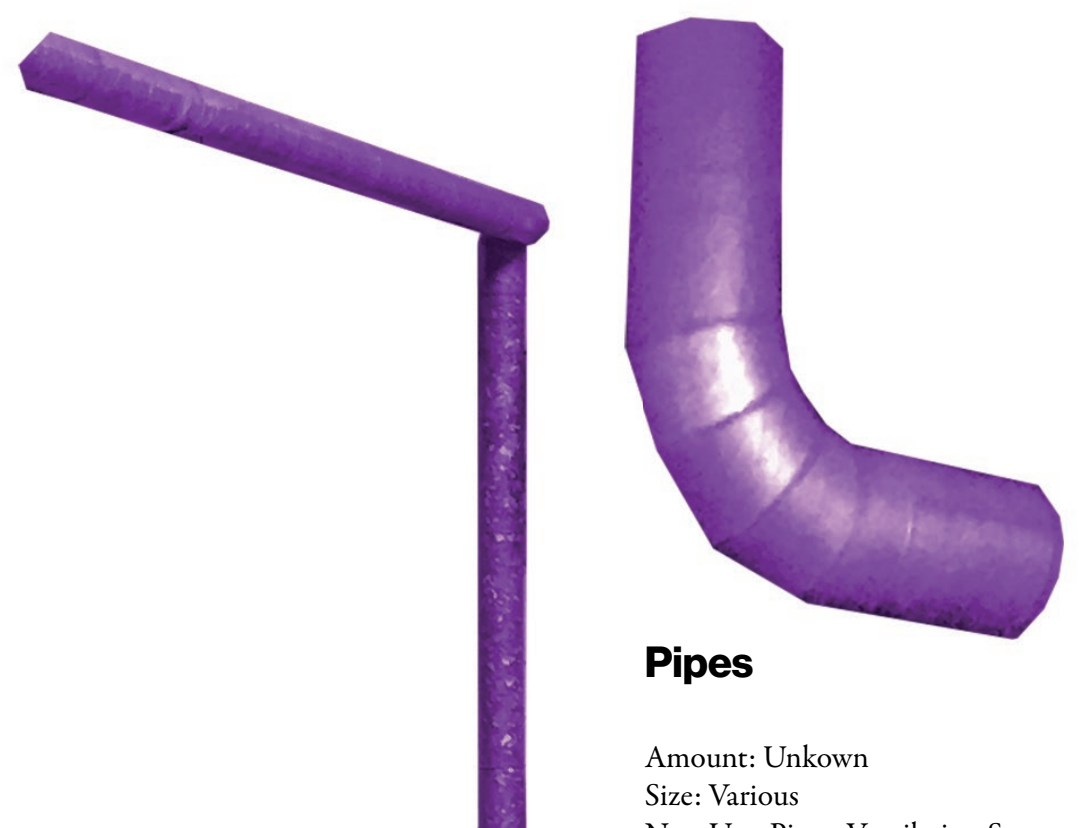




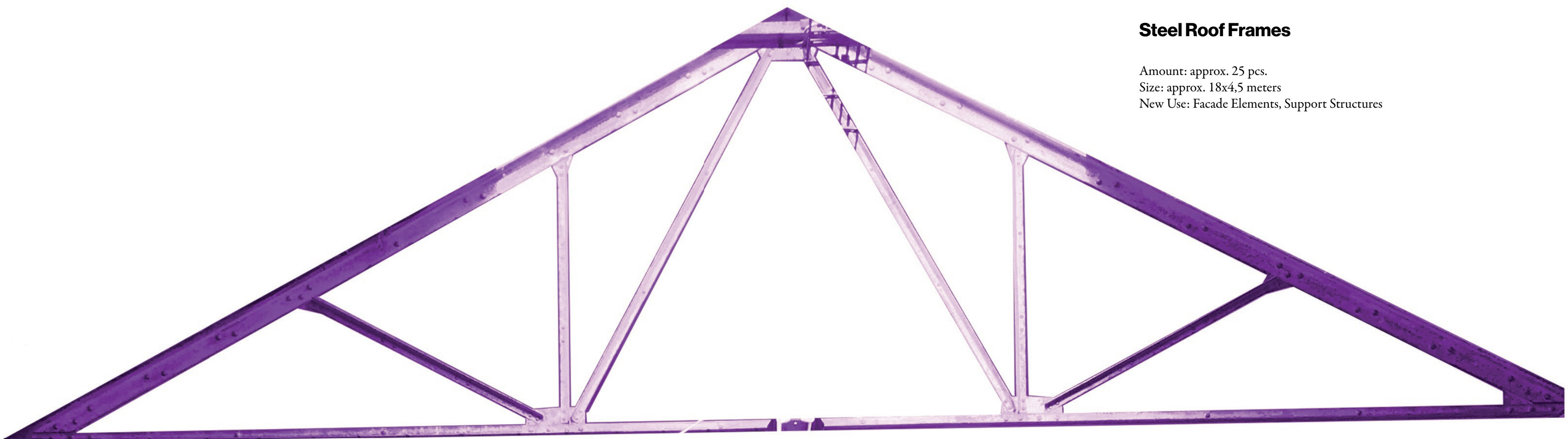




**Steel Beams**  
Amount: Unknown  
Size: Various  
New Use: Beams, Support Structures



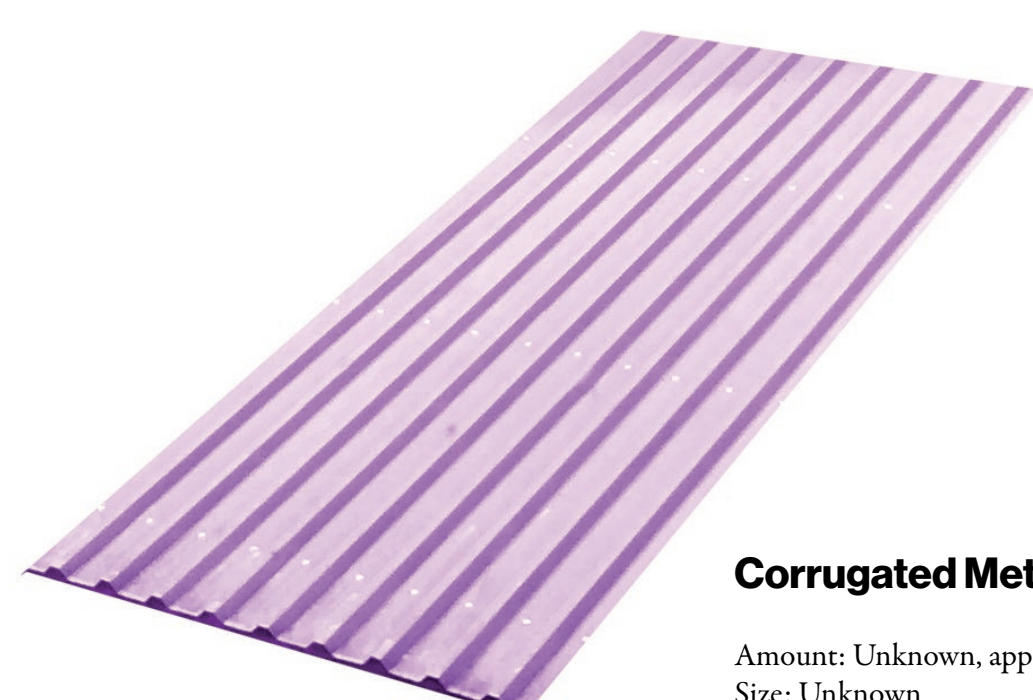
**Pipes**  
Amount: Unknown  
Size: Various  
New Use: Pipes, Ventilation Systems, Trash System



**Steel Roof Frames**  
Amount: approx. 25 pcs.  
Size: approx. 18x4,5 meters  
New Use: Facade Elements, Support Structures



**Lockers**  
Amount: Unknown, approx. 150 pcs  
Size: 1,8x0,5x0,45m  
New Use: Lockers, Furniture



**Corrugated Metal**  
Amount: Unknown, approx. > 650 sqm  
Size: Unknown  
New Use: Roofing, Cladding



**Wood Elements**  
Amount: Unknown, at least one roof structure of 100 meters length  
Size: Various, different types like beams, boxes, cladding  
New Use: Composting Base, Composting Base



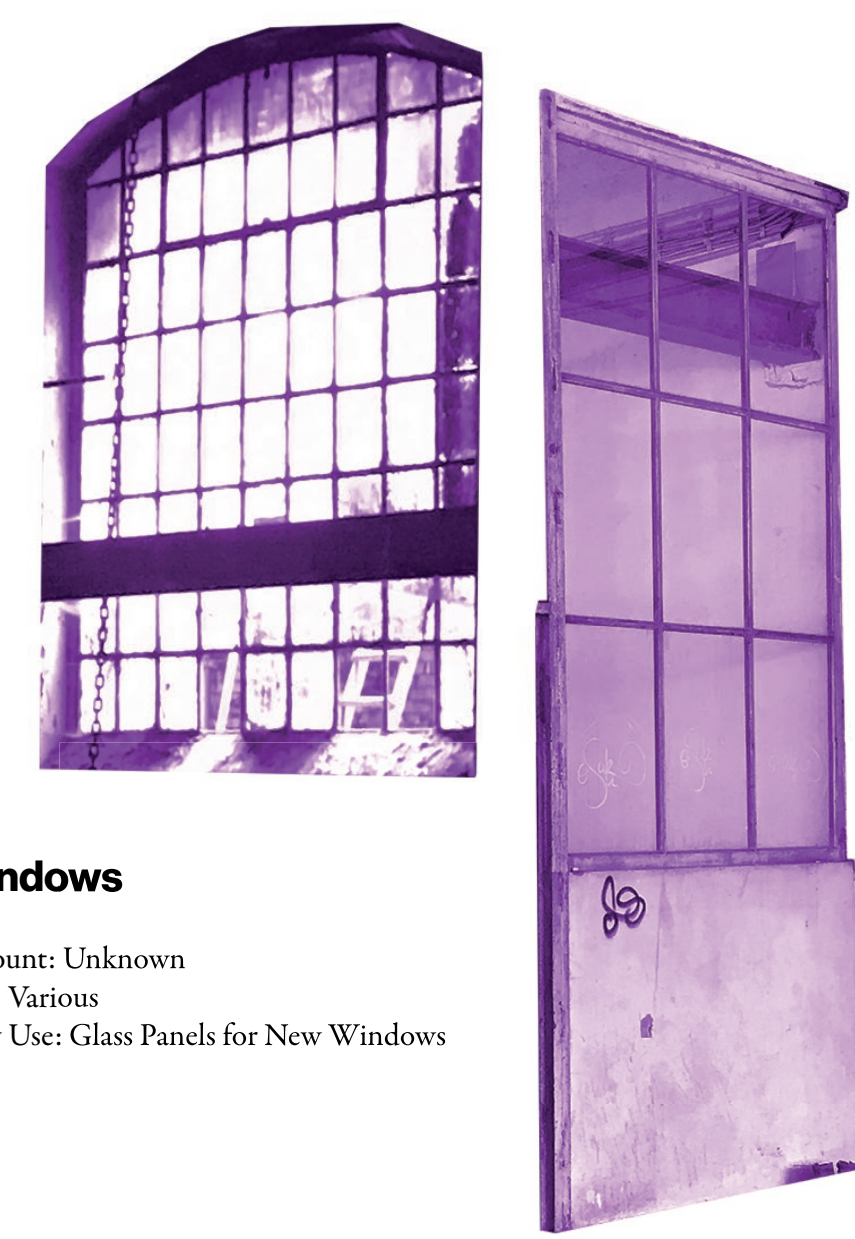
**Poles**  
Amount: Unknown, over 30 spotted on site  
Size: Various, ranging from 2-6 meters  
New Use: Adjustable elements



**Pressure Tanks**  
Amount: Over 25 different types spotted on site  
Size: Various  
New Use: Bioreactors or bathing tubs



**Steel Columns**  
Amount: Unknown, approx. > 200 pcs.  
Size: Various, Height Range 3-5,8 meters  
New Use: Columns, Support Structures



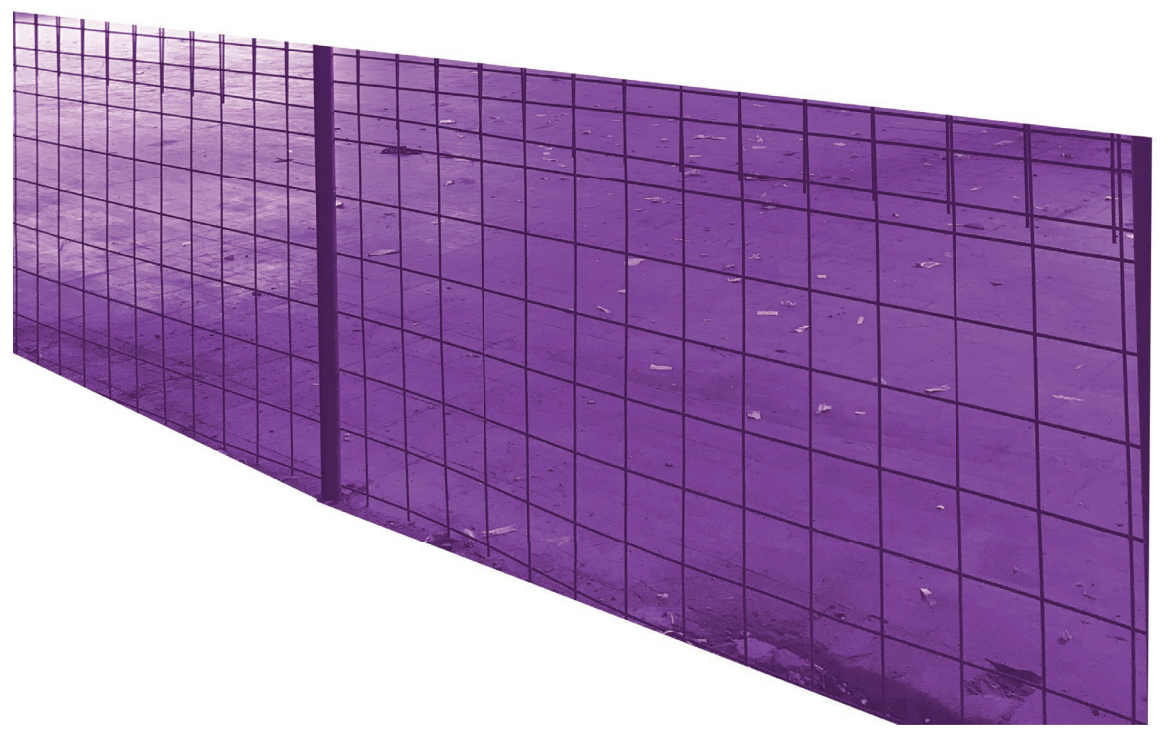
**Windows**  
Amount: Unknown  
Size: Various  
New Use: Glass Panels for New Windows



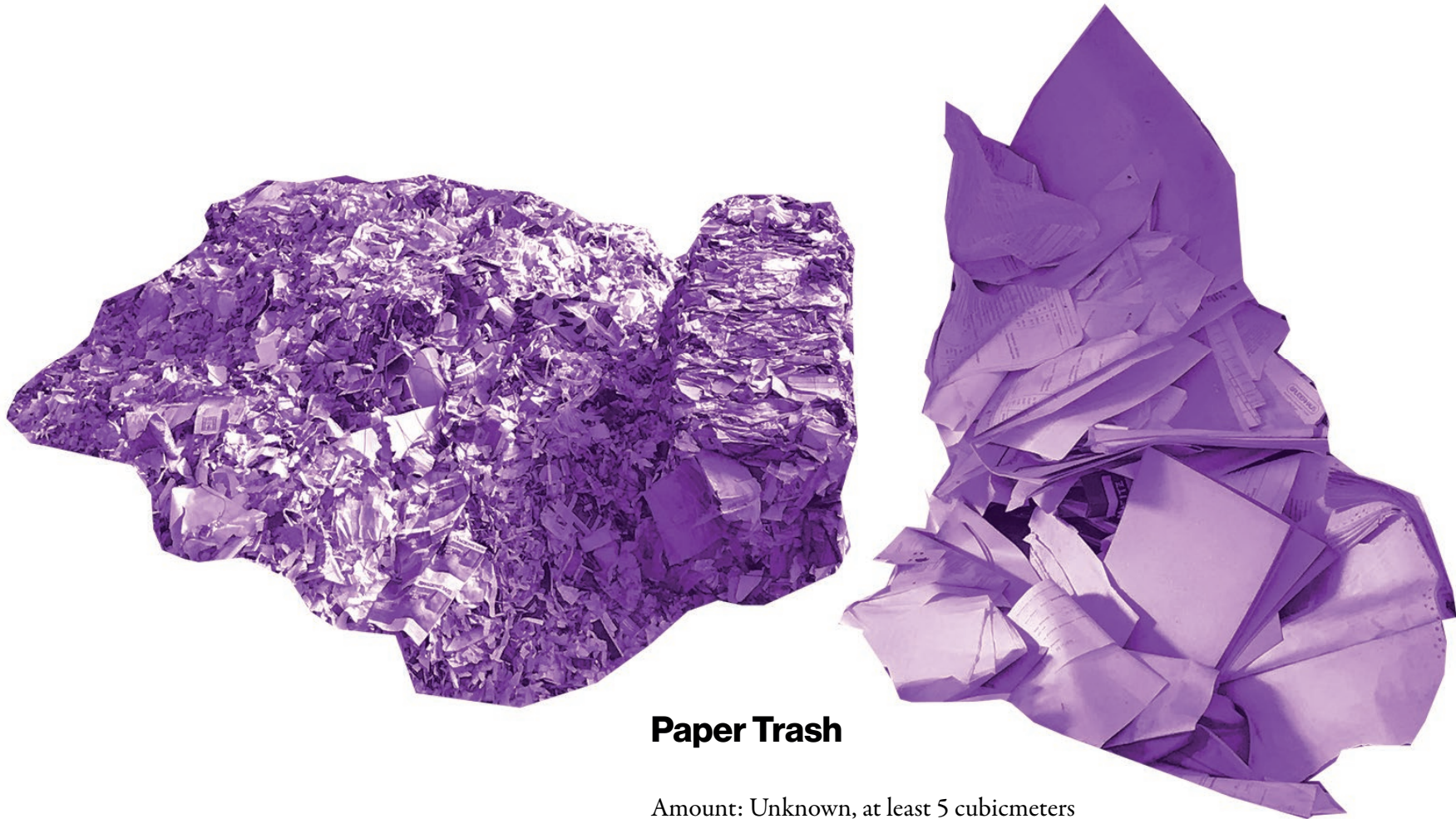
**Doors**  
Amount: Unknown, approx. 30-40 pcs.  
Size: Various  
New Use: Doors, Glass Elements, Composting Base



**Ceiling Lamps**  
Amount: Approx. 200 meters  
Size: 1,50 meters in length per piece  
New Use: Ceiling Lamps



**Metal Grid**  
Amount: Unknown  
Size: Various  
New Use: Interior Cladding

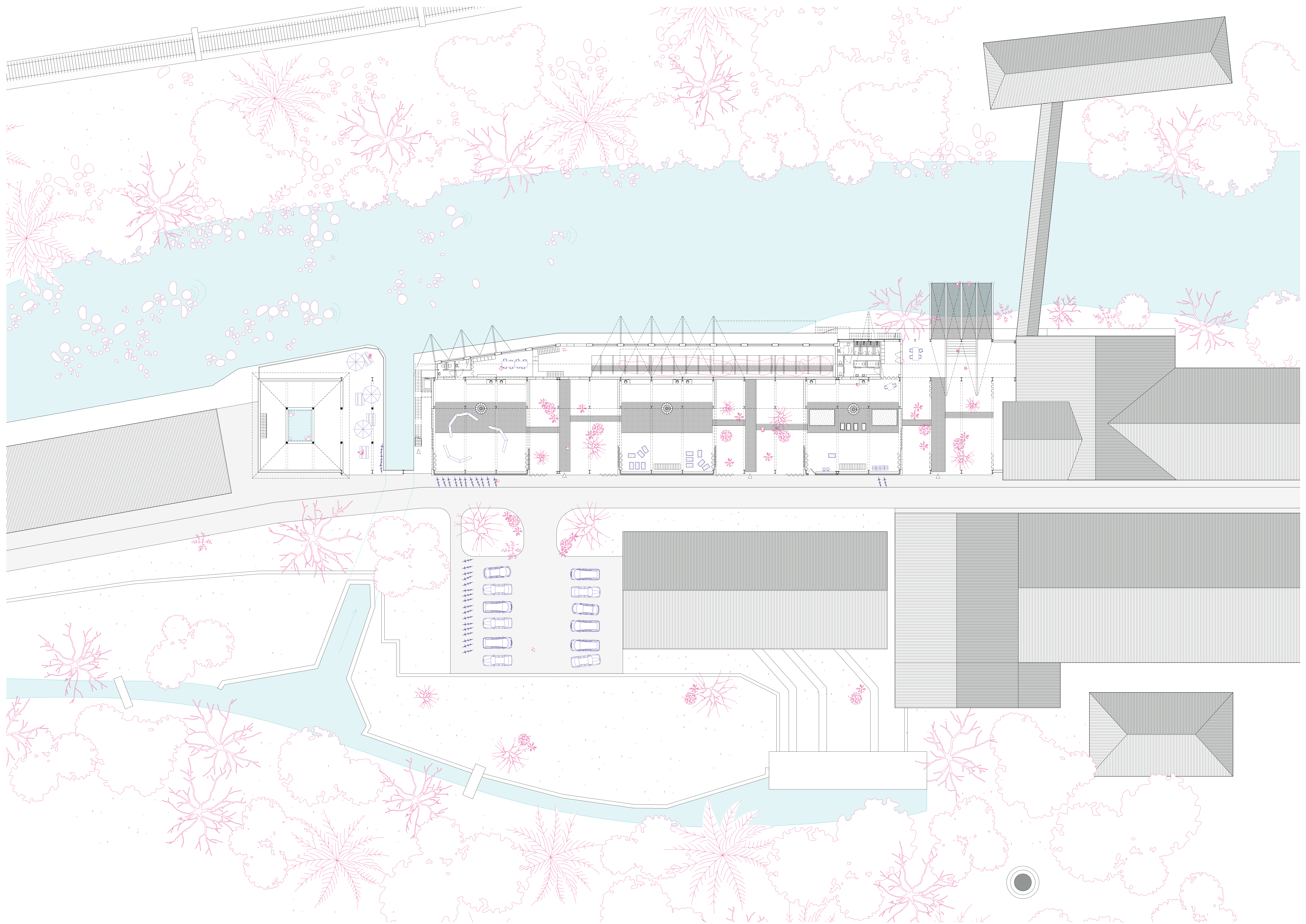


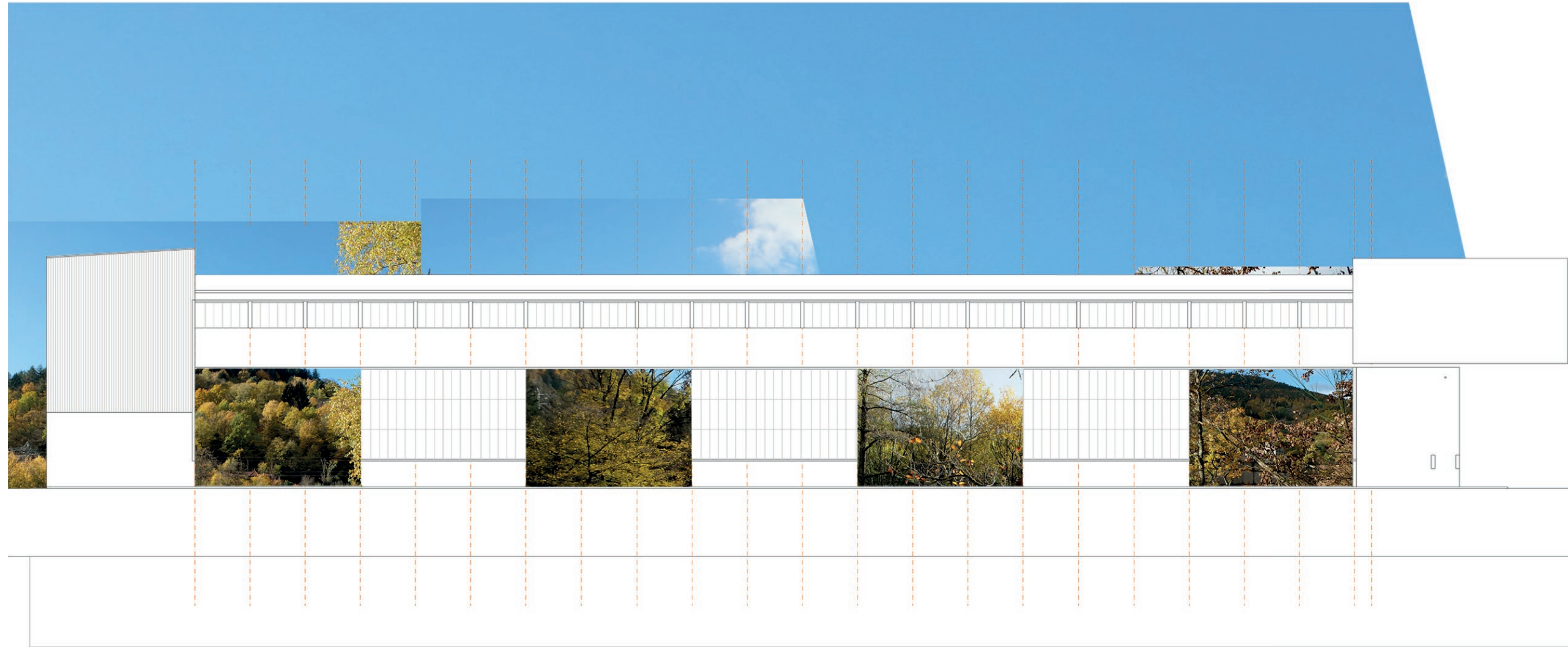
**Paper Trash**  
Amount: Unknown, at least 5 cubicmeters  
Size: Various  
New Use: Insulation Base, Composting Base

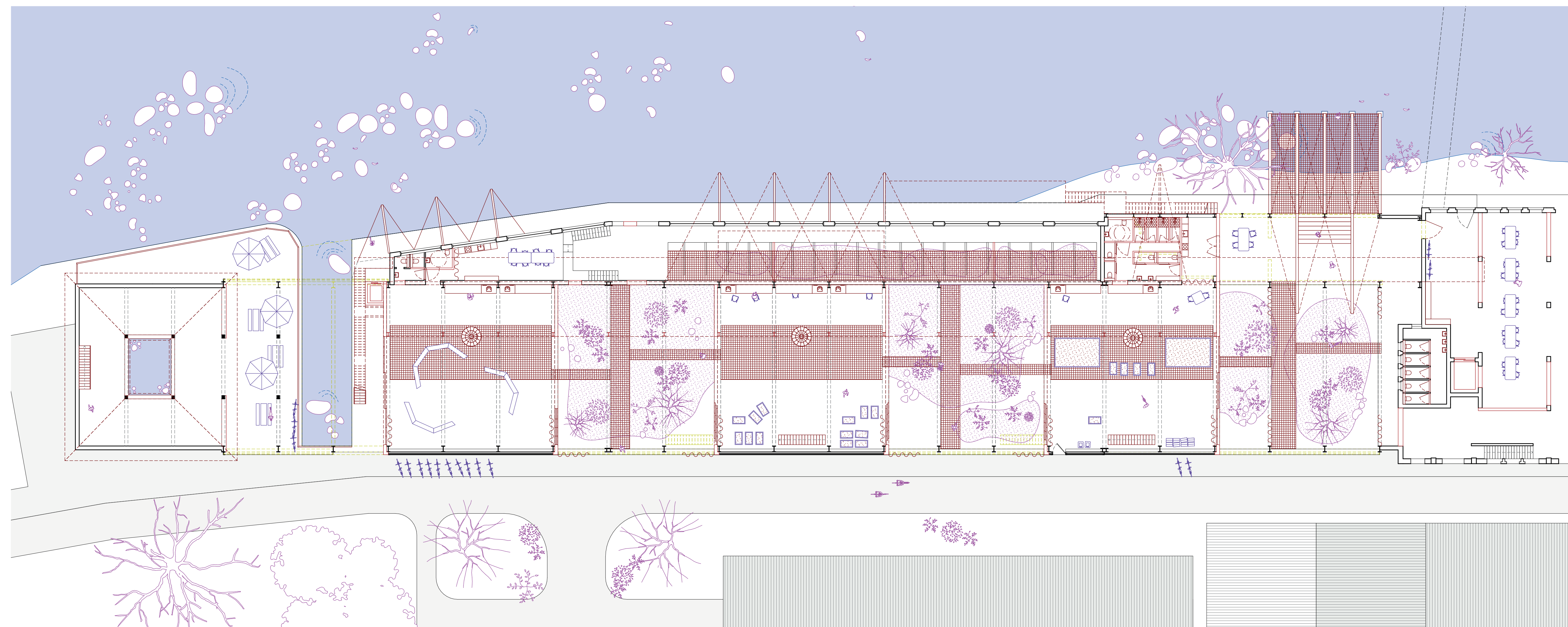
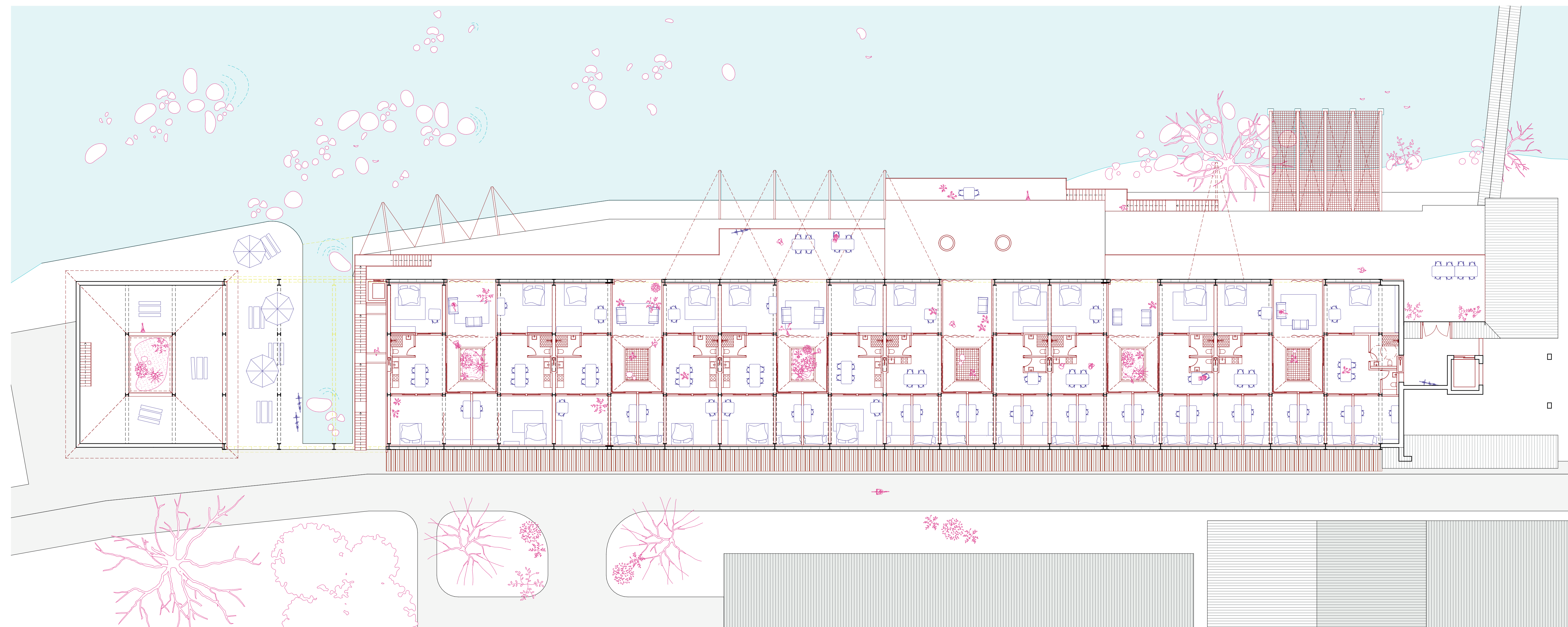


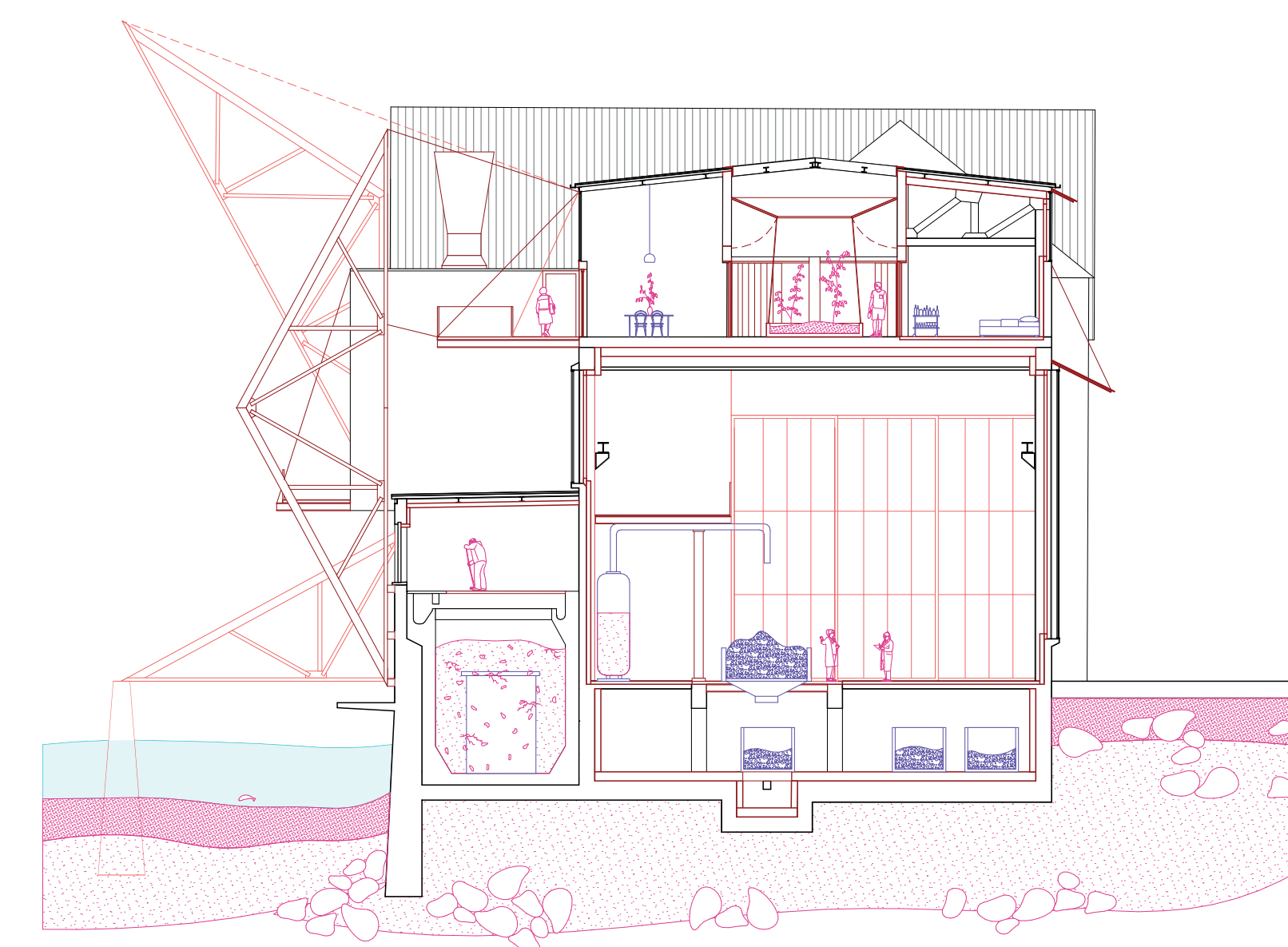
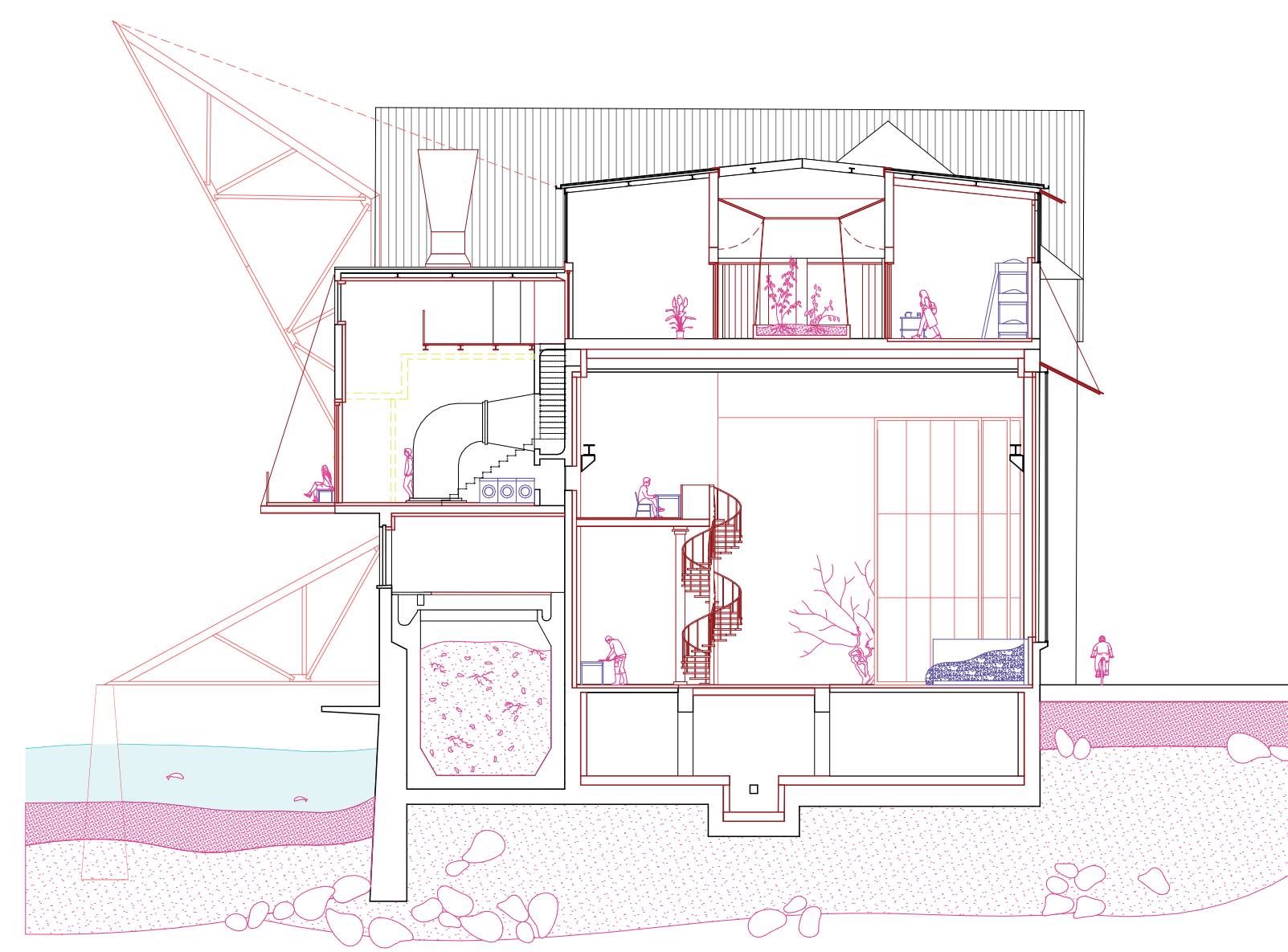
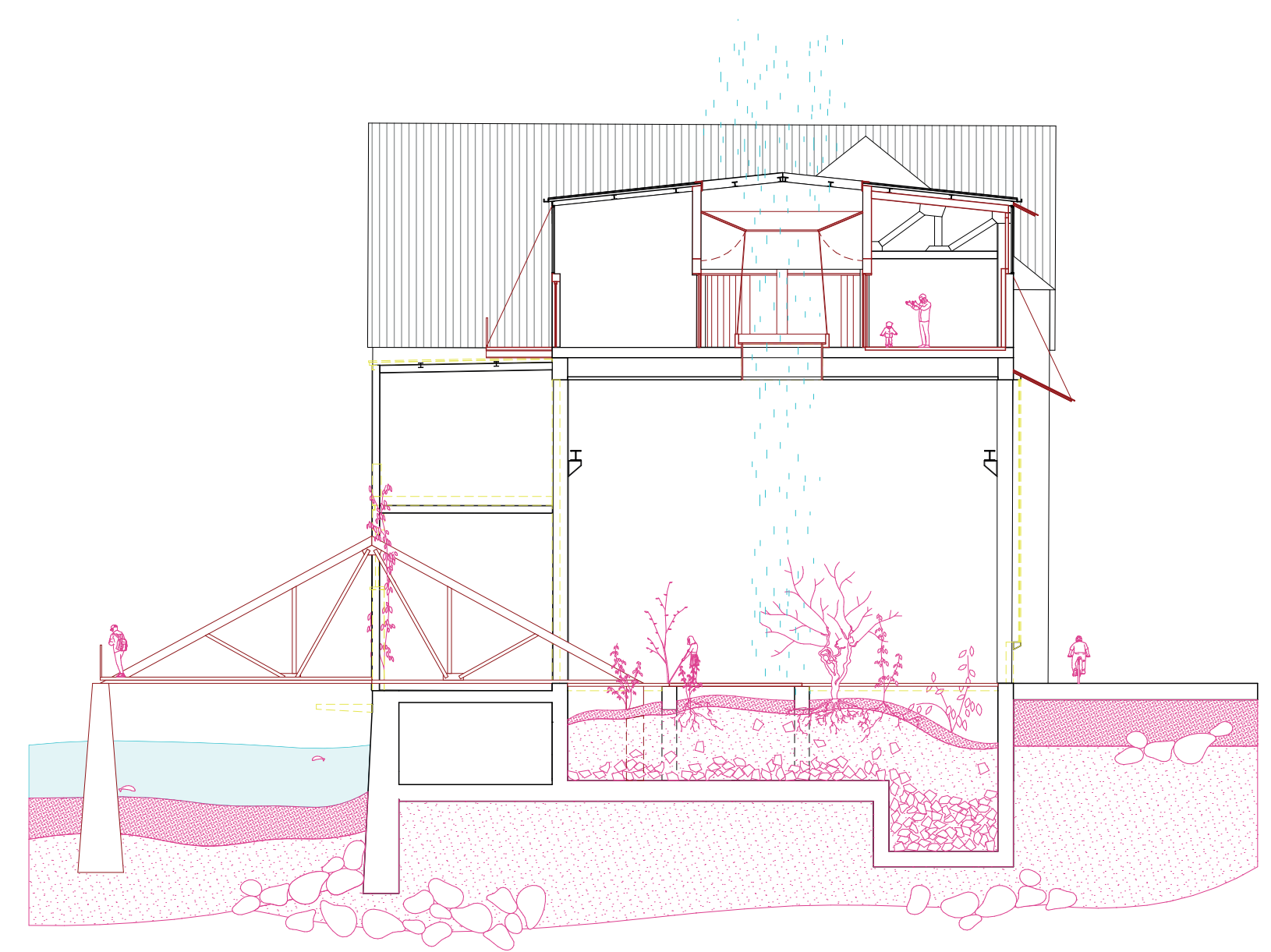
**Furniture**  
Amount: Unknown, various types found on site (chairs, tables, shelves)  
Size: Various  
New Use: Furniture, Composting Base

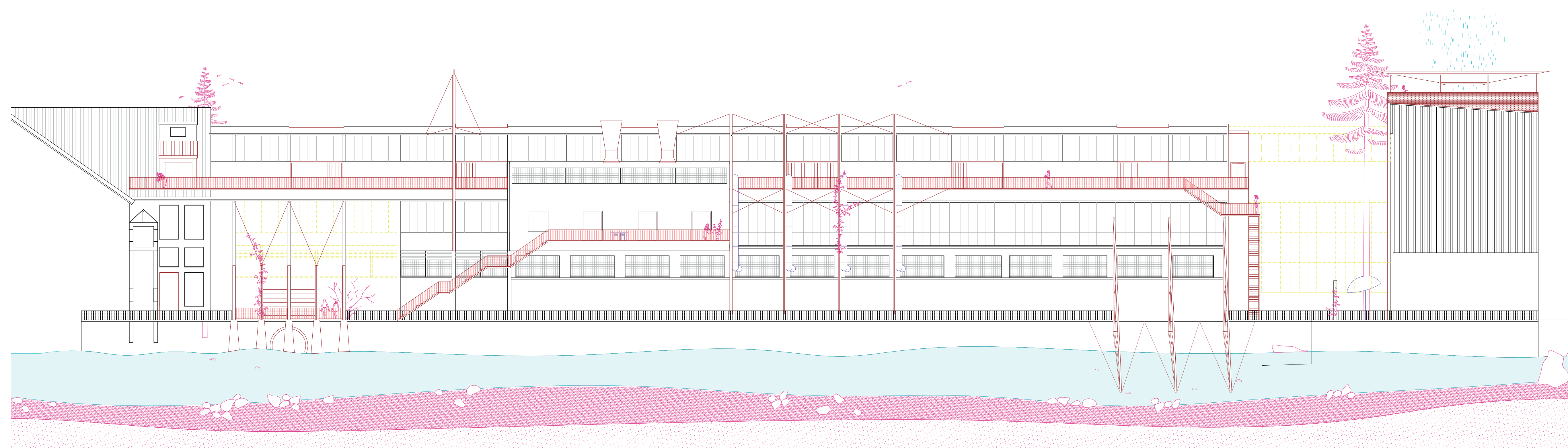


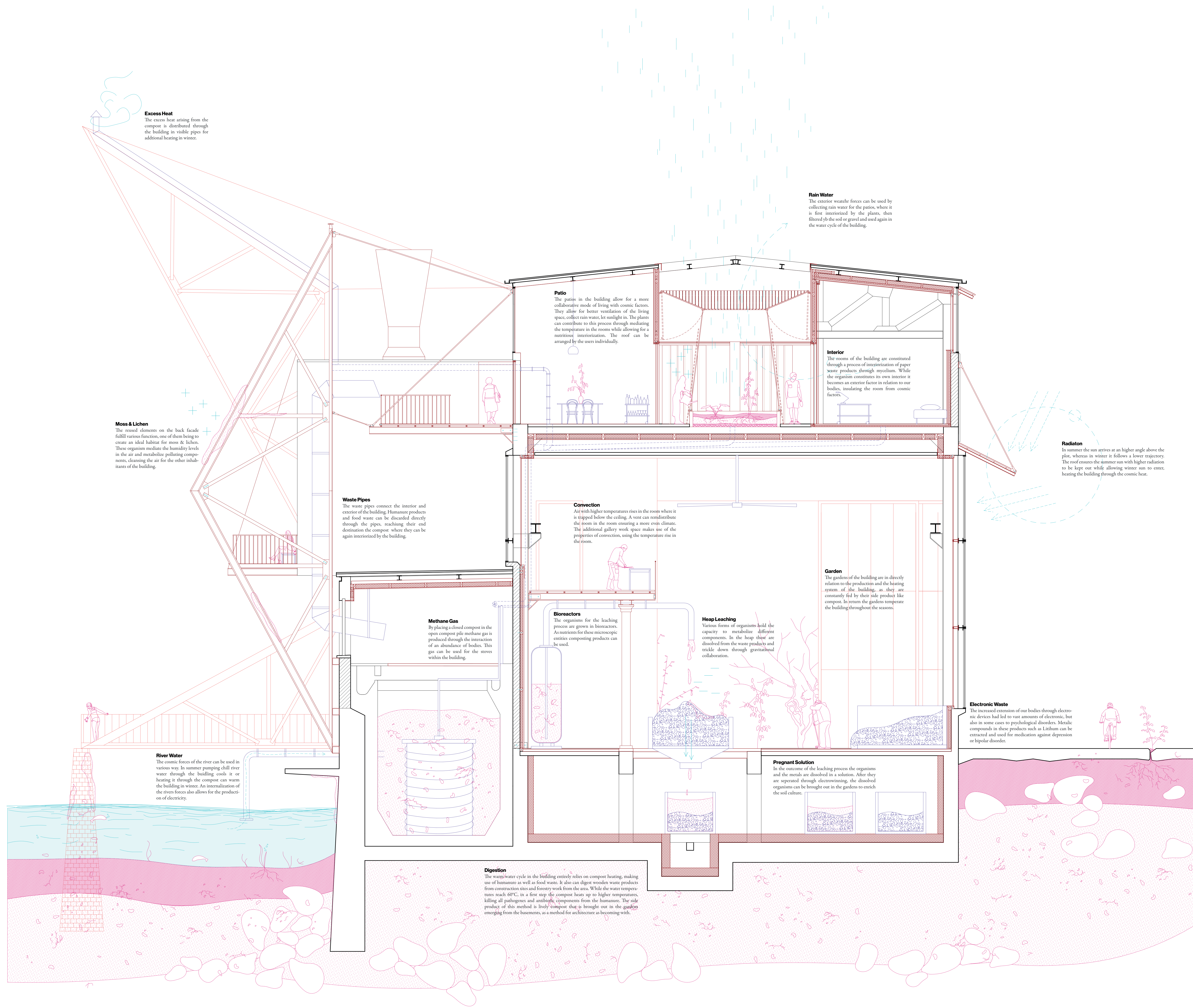












**Excess Heat**  
The excess heat arising from the compost is distributed through the building in visible pipes for additional heating in winter.

**Rain Water**  
The exterior weather forces can be used by collecting rain water for the patio, where it is first intercepted by the plants, then filtered by the soil or gravel and used again in the water cycle of the building.

**Moss & Lichen**  
The reused elements on the back facade fulfill various functions, one of them being to create an ideal habitat for moss & lichen. These organisms moderate the humidity levels in the air and metabolize polluting components, cleaning the air for the other inhabitants of the building.

**Patio**  
The patios in the building allow for a more collaborative mode of living with cosmic factors. They allow for better ventilation of the living space, collect rain water, let sunlight in. The plants can contribute to this process through moderating the temperature in the rooms while allowing for a nutritious interconnection. The roof can be arranged by the users individually.

**Interior**  
The rooms of the building are constituted through a process of interconnection of paper waste products through mycelium. While the organisms constitute its own interior it becomes an exterior factor in relation to our bodies, insulating the room from cosmic factors.

**Radiation**  
In summer the sun arrives at an higher angle above the patio, whereas in winter it follows a lower trajectory. The roof ensures the summer sun with higher radiation to be kept out while allowing winter sun to enter, heating the building through the cosmic heat.

**Waste Pipes**  
The waste pipes connect the interior and exterior of the building. Humane products and food waste can be discarded directly through the pipes, reaching their end destination the compost, where they can be again interconnection by the building.

**Convection**  
Air with higher temperatures rises in the room where it is trapped below the ceiling. A vent can redistribute the room in the room ensuring a more even climate. The additional gallery work space makes use of the properties of convection, using the temperature rise in the room.

**Garden**  
The gardens of the building are in directly relation to the production and the heating system of the building, as they are constantly fed by their side product like compost. In return the gardens temperate the building throughout the seasons.

**Methane Gas**  
By placing a closed compost in the open compost pile methane gas is produced through the interaction of an abundance of bodies. This gas can be used for the stoves within the building.

**Bioreactors**  
The organisms for the leaching process are grown in bioreactors. As nutrients for these microscopic entities composting products can be used.

**Heap Leaching**  
Various forms of organisms hold the capacity to metabolize different components. In the heap these are dissolved from the waste products and trickle down through gravitational collaboration.

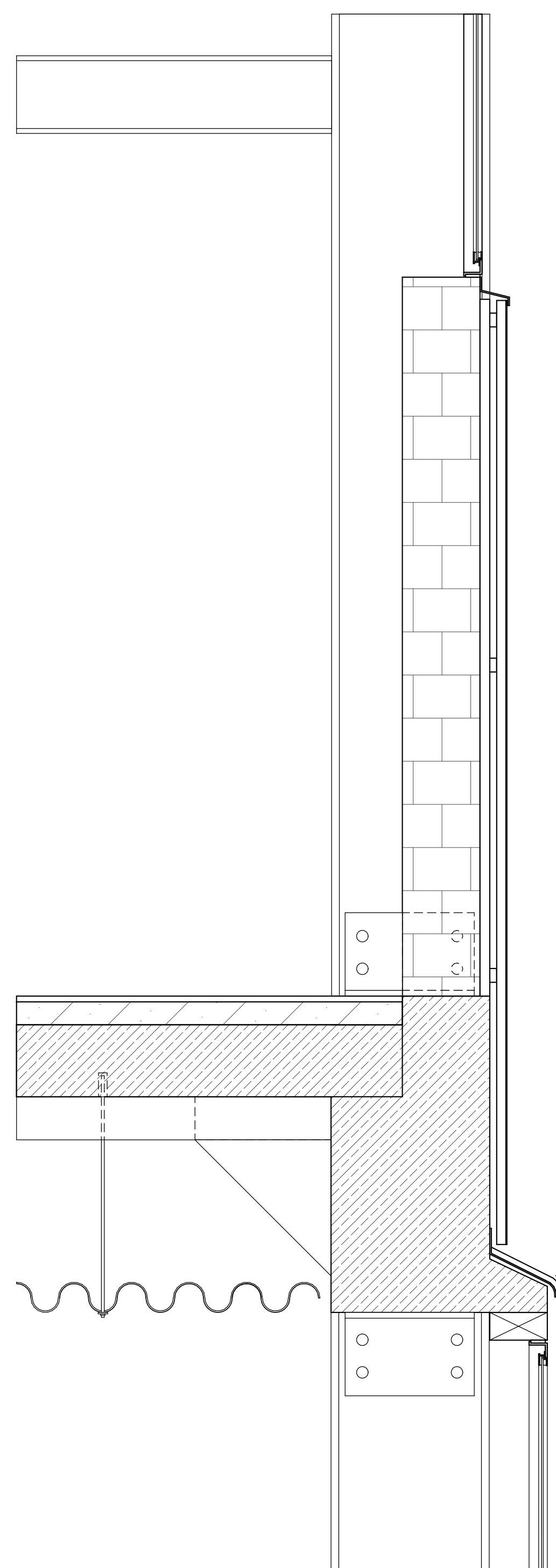
**Electronic Waste**  
The increased extension of our bodies through electronic devices had led to vast amounts of electronic, but also in some cases to psychological disorders. Metallic compounds in these products such as Lithium can be extracted and used for medication against depression or bipolar disorder.

**River Water**  
The cosmic forces of the river can be used in various way. In summer pumping chill river water through the building cools it or heating it through the compost can warm the building in winter. An interconnection of the rivers forces also allows for the production of electricity.

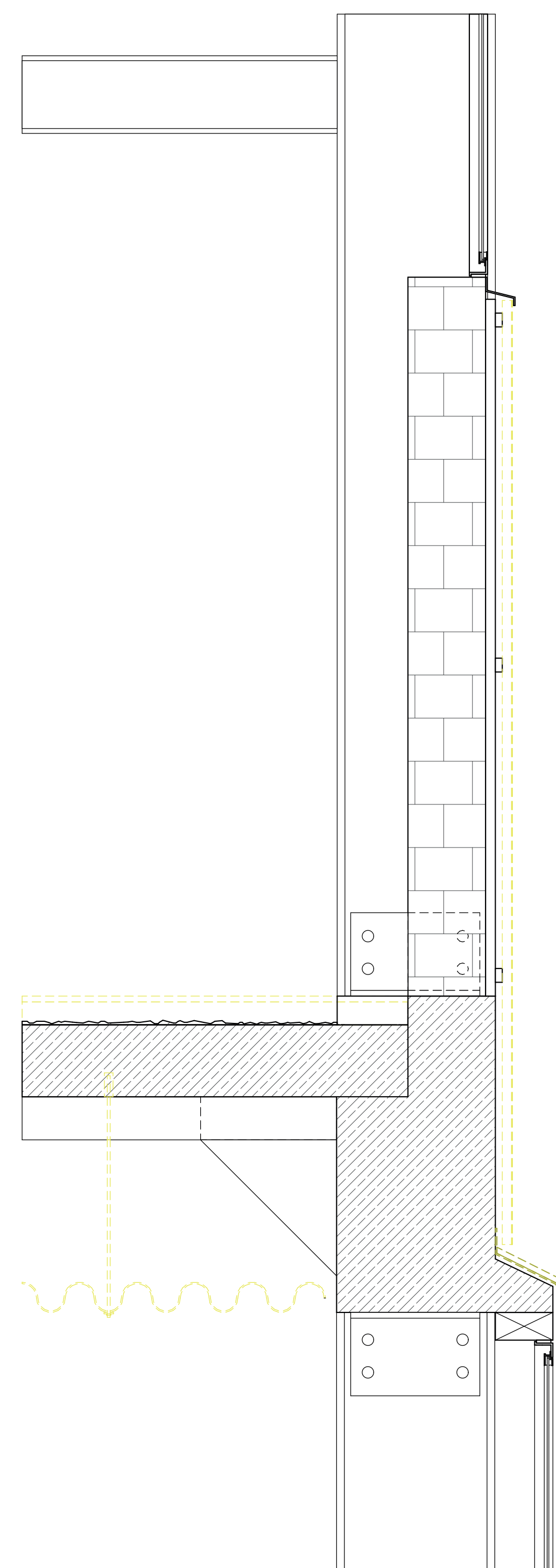
**Pregnant Solution**  
In the outcome of the leaching process the organisms and the metals are dissolved in a solution. After they are separated through electrowinning, the dissolved organisms can be brought out in the gardens to enrich the soil culture.

**Digestion**  
The sewage cycle in the building entirely relies on compost heating, making use of humane as well as food waste. It also can digest wooden waste products from construction sites and forestry work from the area. While the water temperatures reach 60°C, in a first step the compost heats up to higher temperatures, killing all pathogens and antibiotic components from the humane. The side product of this method is lively compost that is brought out in the gardens emerging from the basements, as a method for architecture as becoming with.

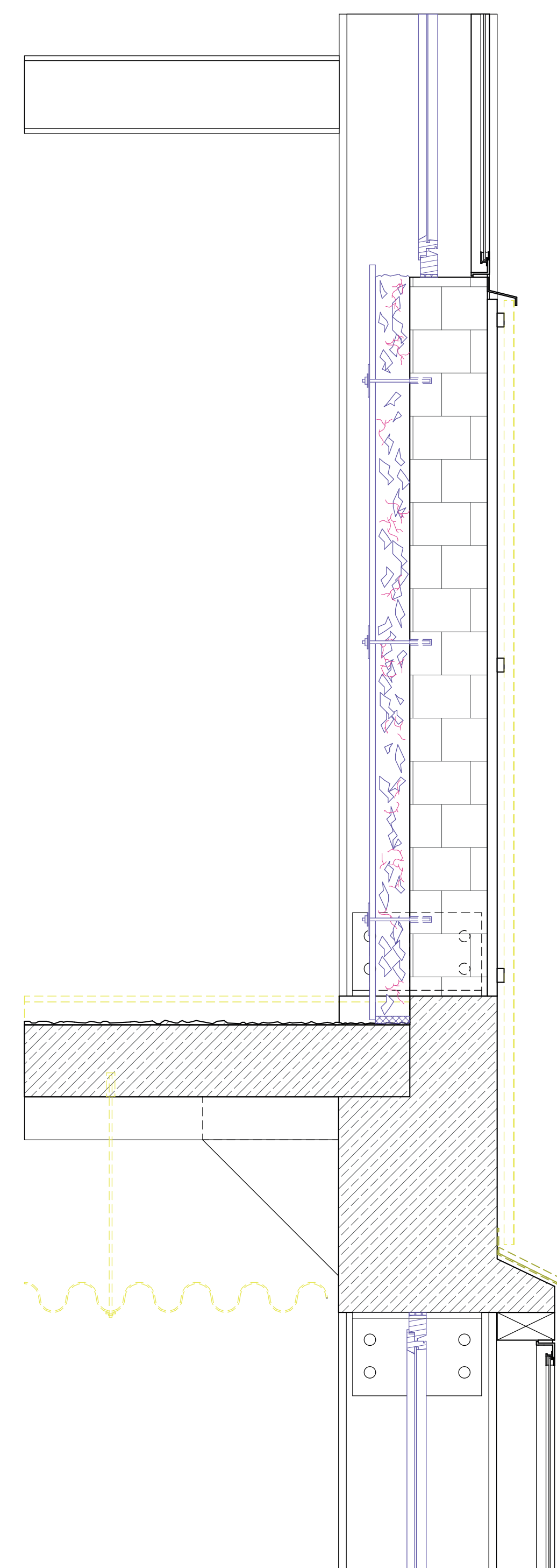




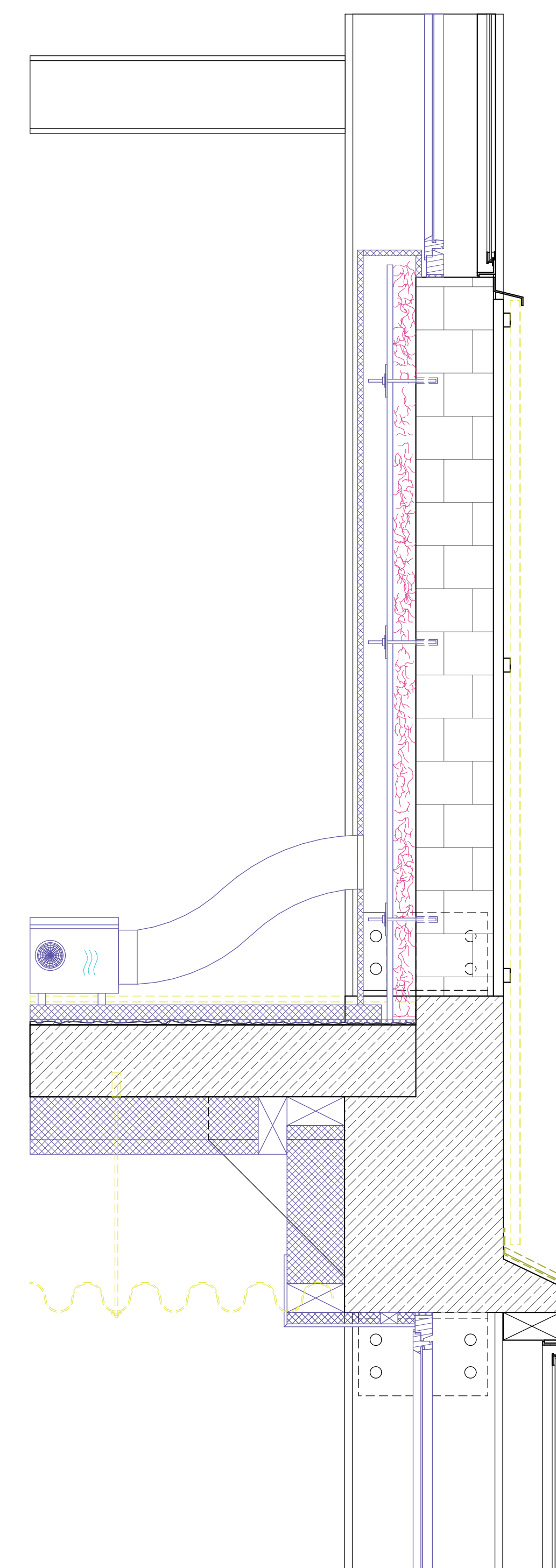
**Step 1**  
The existing structure is evaluated and critical joints and points of construction are noted. The main challenge here is to install a second plane of windows and insulating the upper brick wall to make the former storage space inhabitable, while achieving the goal reusing most materials from the site, remediating their function in a process of architecture in becoming.



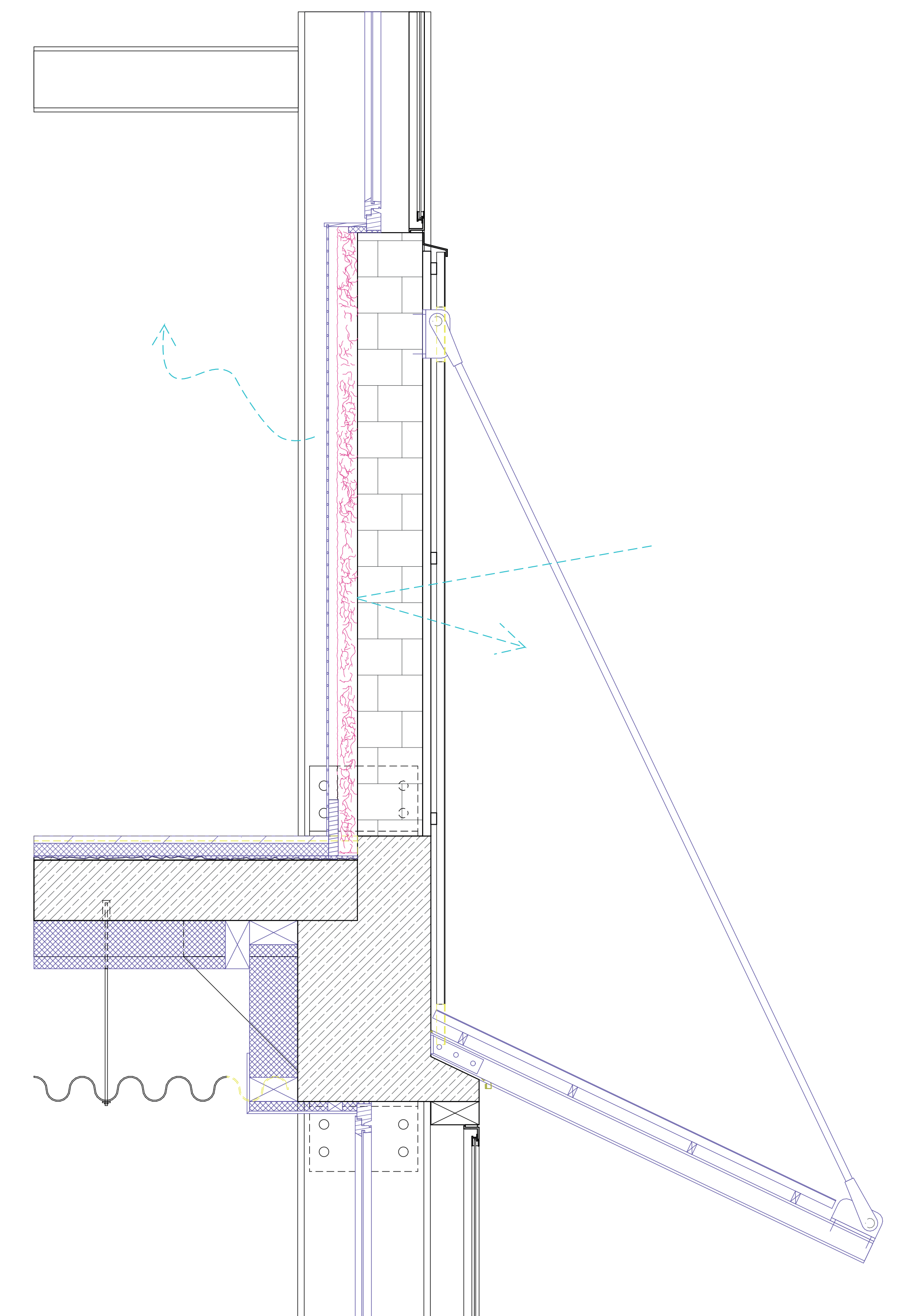
**Step 2**  
Parts of the construction are taken away to make space for the new elements. The interior and exterior cladding are cleaned and stored to be used again, surpassing their memory further in the building.



**Step 3**  
After installing a second plane of glazing made from the old windows of the ruin garden, metal bolts are installed holding a plywood board in place with a gap of approx. 12cm. This gap is filled with substrate made from paper trash or wooden building parts from the ruin garden and mycelium is injected. It is a starting point for a process of becoming where memories are surpassed, enhancing new ways of being.



**Step 4**  
While the lower floor is cladded with insulation, the mycelium metabolizes the memory of the paper trash or wood as they are interiorized by the body of the fungus after 5 days up until 2 weeks. After this process is complete and the memories have fully gone through this metamorphosis, the body structure of the fungus is pressed and the thickness of the layer decreased by 30-35% by fastening the bolts. To stagnate any further growth of the fungus and prevent spore spreading, the layer is dried out and heated in a mold by a construction site heater. This process again blurs the boundary between living and non-living, memory and body.



**Step 5**  
After the drying process is completed, the floor is installed and the mycelium layer is cladded with a transparent foil on the inside and a grid that was harvested on the site. The grid allows for a flexible use on the inside, while revealing and emphasizing the structure of the mycelium to the interior. The interior structure of the fungus now protects the building against the exterior forces heat or low temperature, while remediating the humidity in the rooms. The layer of mycelium now holds the intensive capacity of a thermal conductivity as low as 0,03 W/mK. In a final step the roof is installed and all claddings are brought back into their initial position.

