

P4

Orchard Road

Edward

Sammi

Though drawings and research was completed individually, all knowledge was shared, design was collaborative.

# History



# Historical Spatial Uses



1820's  
private  
gardens



1830's  
private gardens



1860's  
orchard



1870's  
orchard



1890's  
orchard (as part of an industrial  
school)



1900's  
workyard



1940's  
light industry &  
sheds



1980's  
builder's  
yard

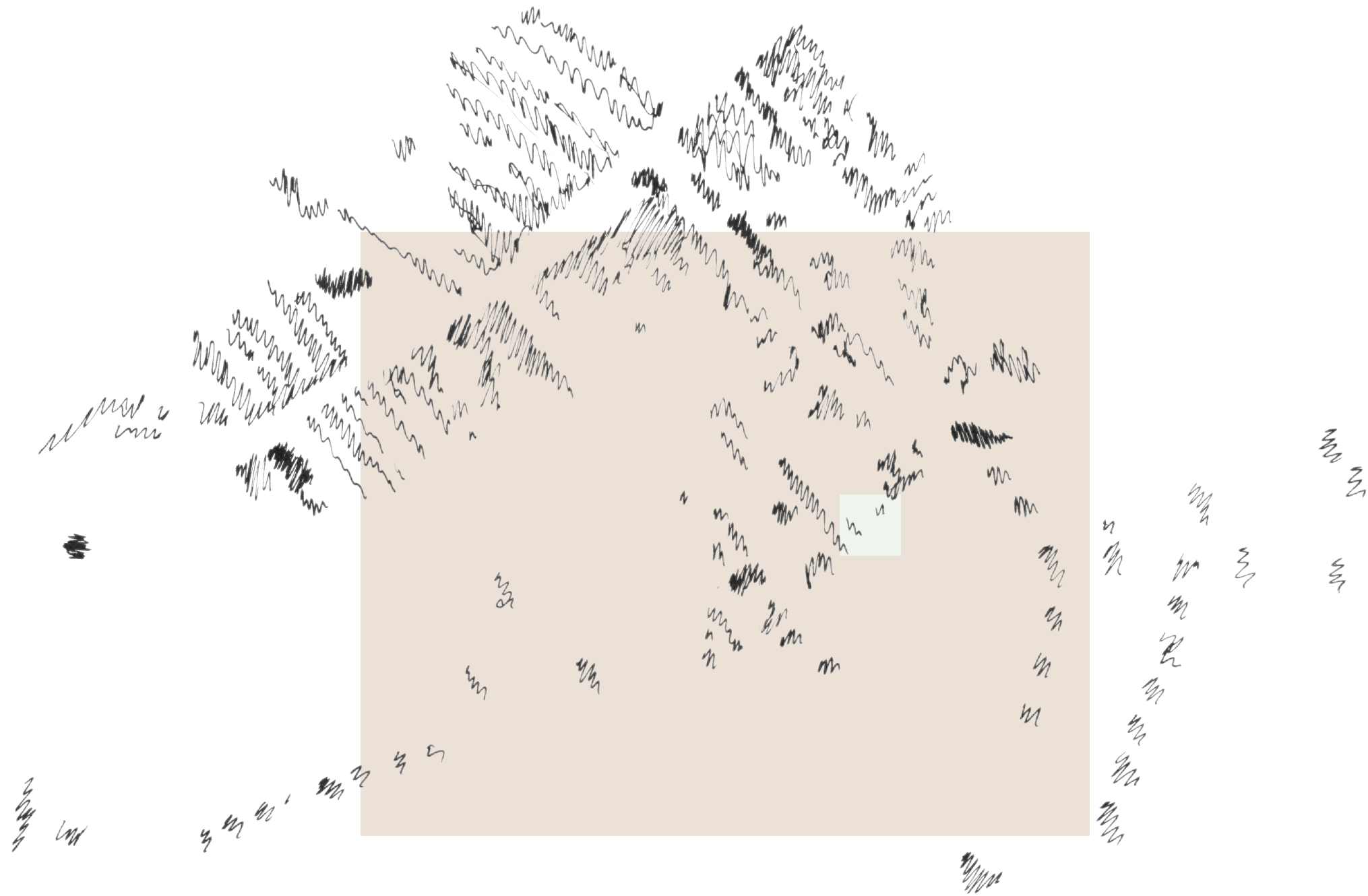
1960's  
builder's  
yard



Orchard rd.

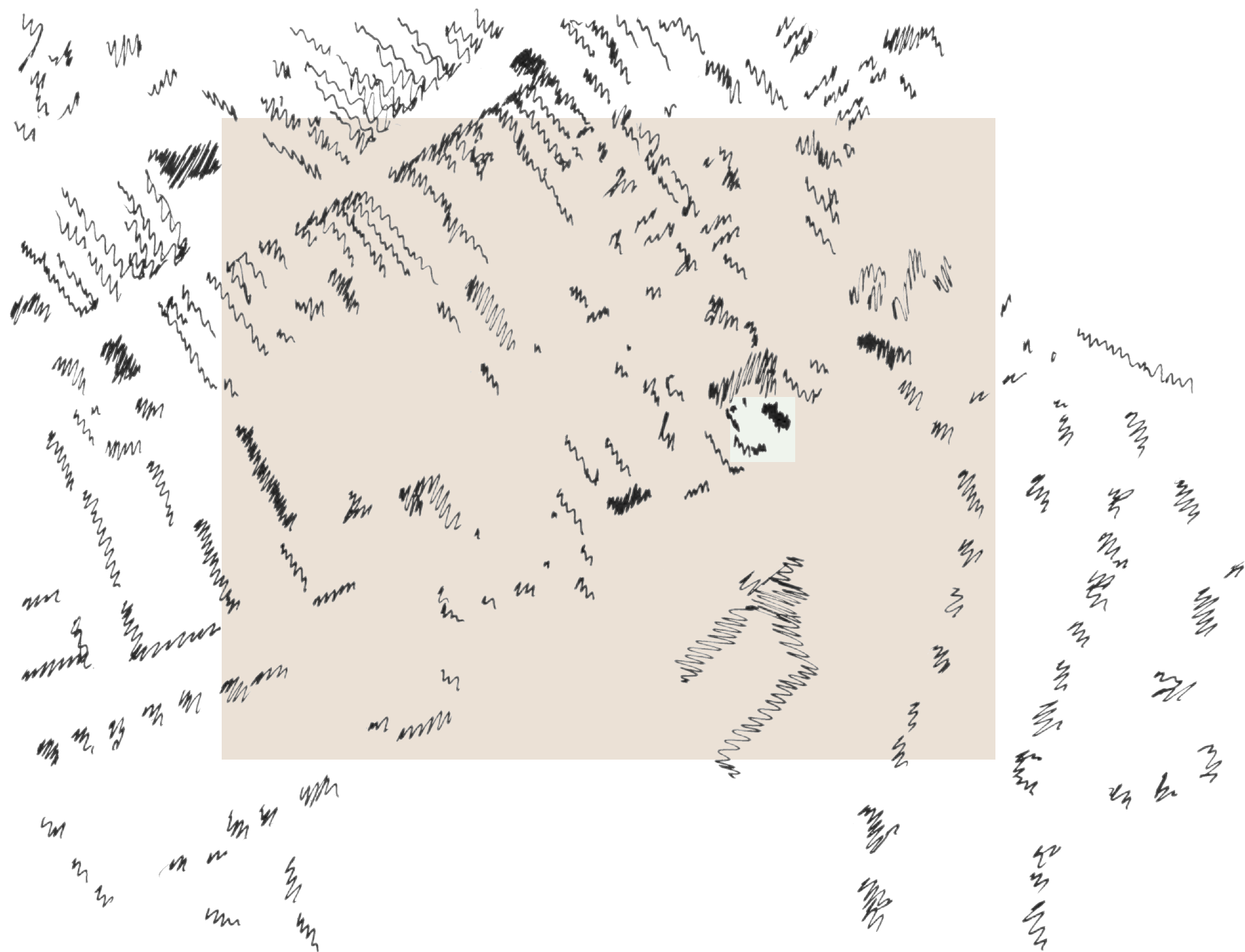


1823  
1:1000

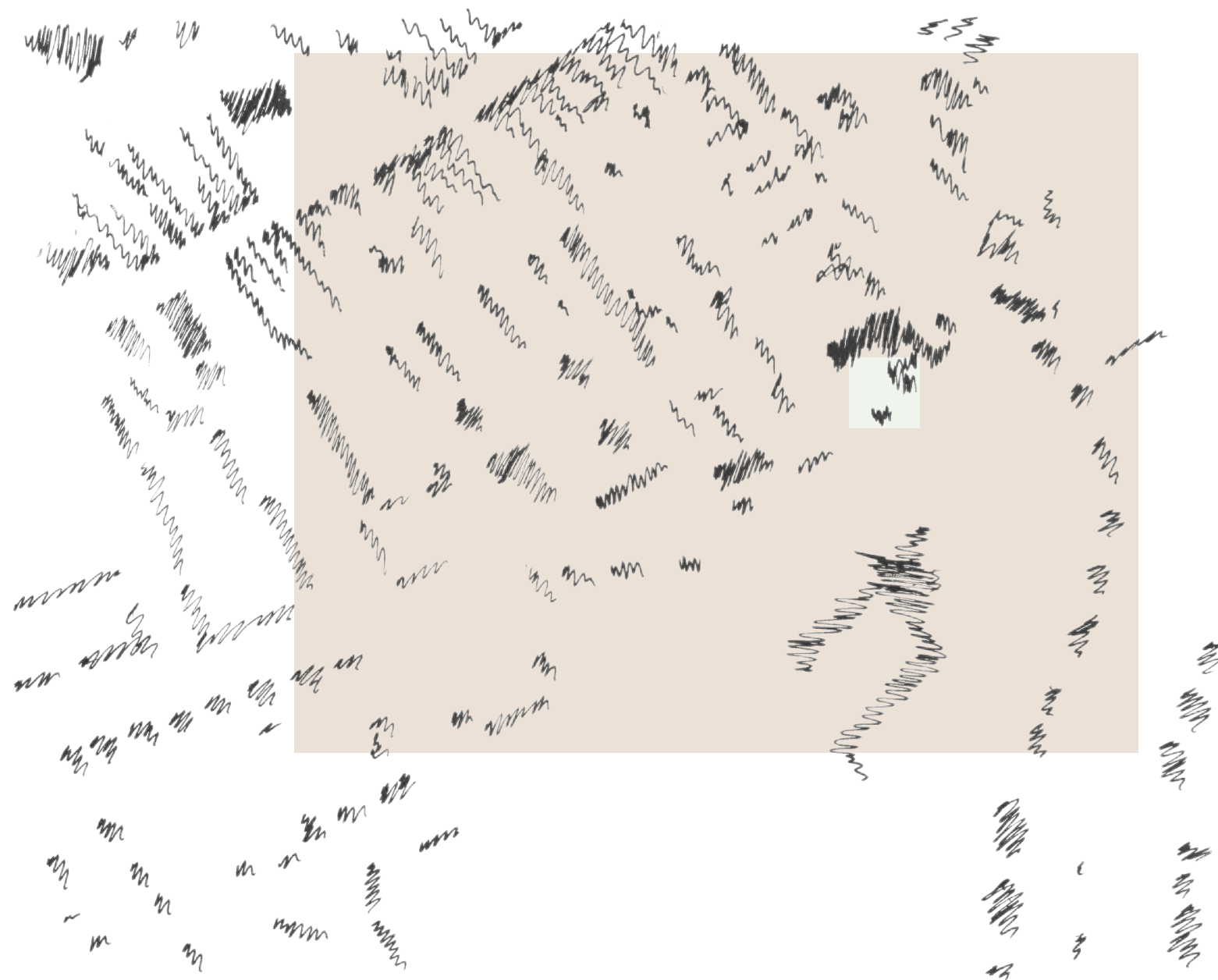


1949  
1:1500

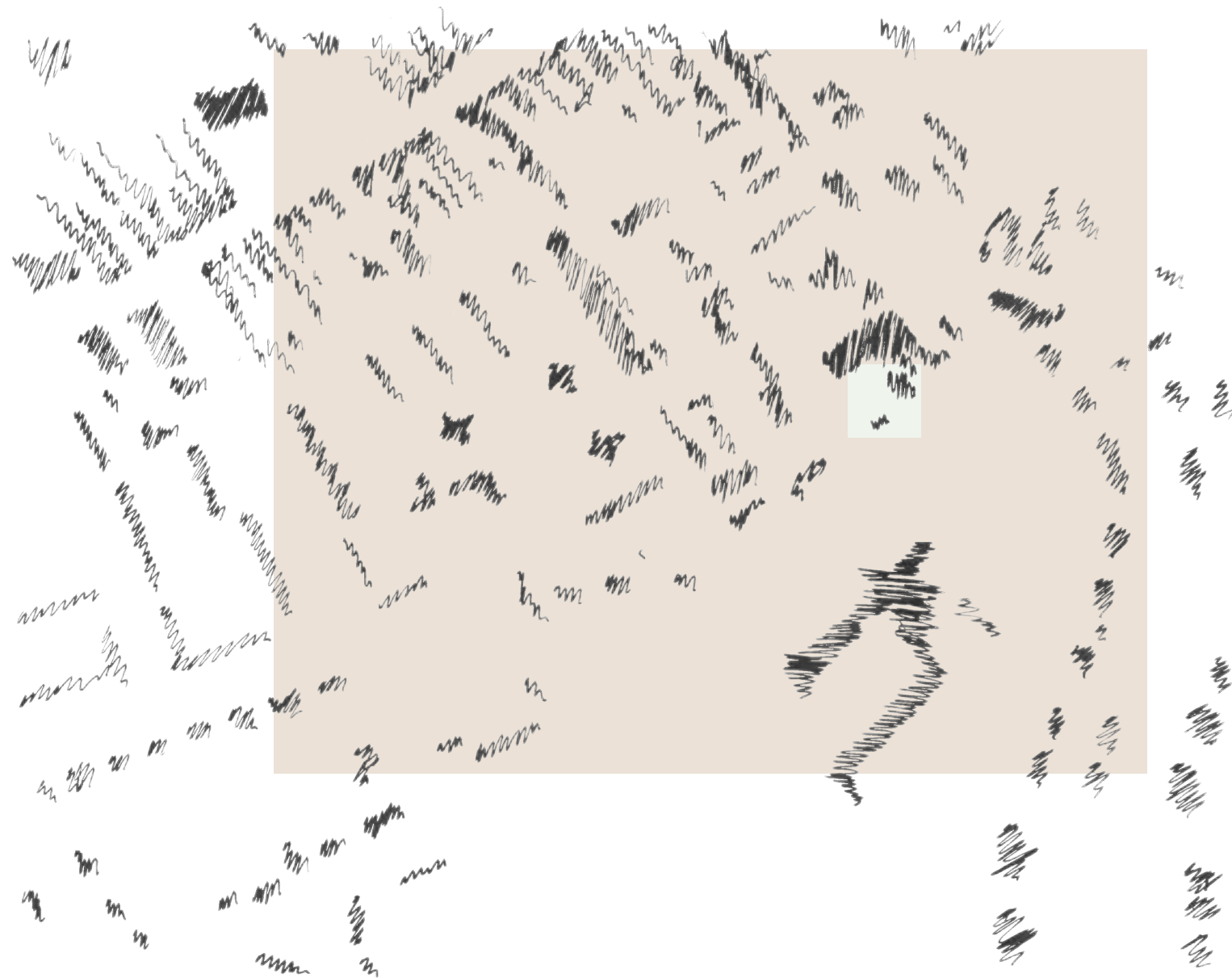




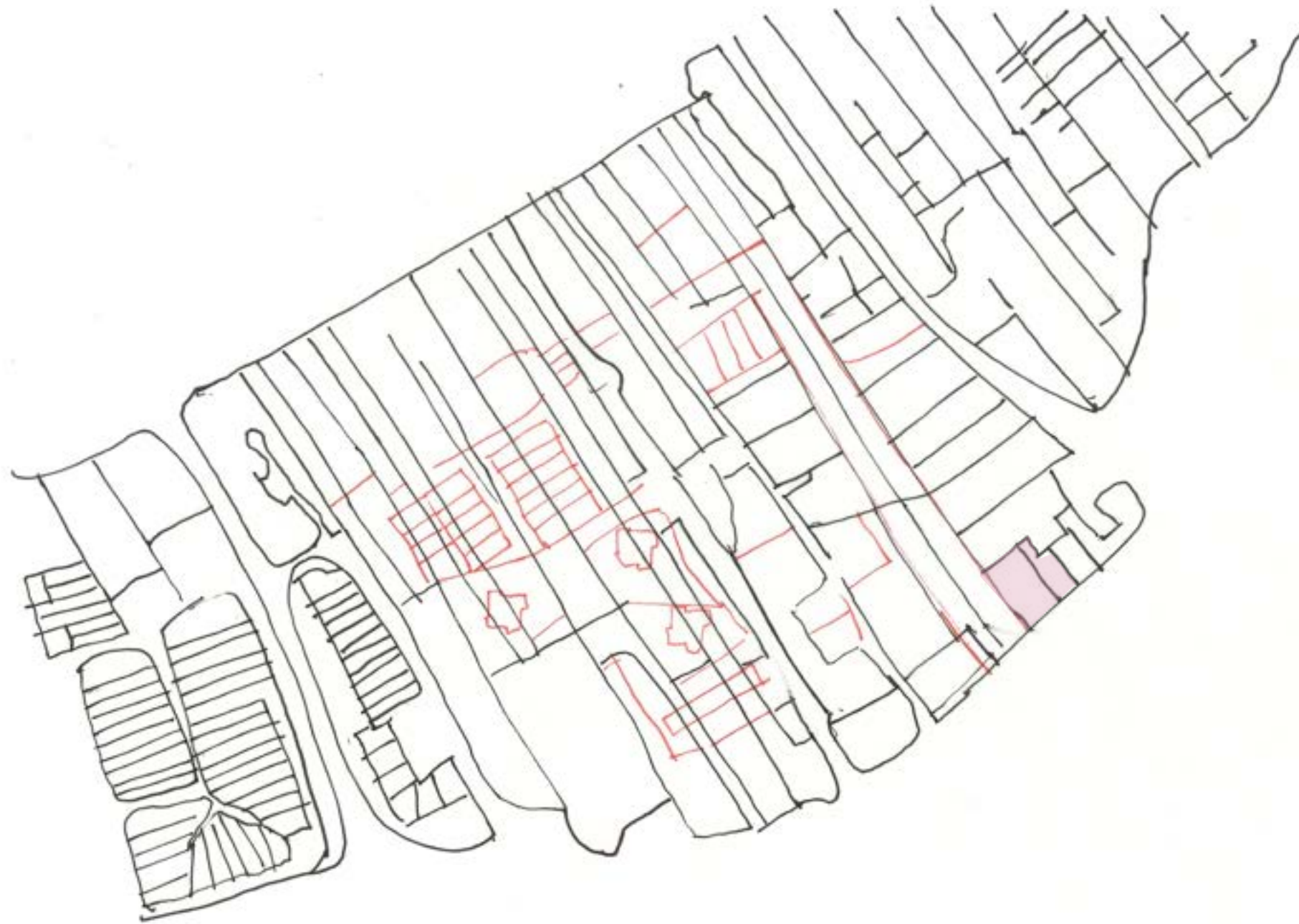
1960  
1:1500



1970  
1:1500



1980  
1:1500



1950/80  
Erosion of formal order.

# Site Analysis







1:5000

1K Radius (15minute walk)



1:2500  
500m Radius





1:1250  
250m Radius



1:625  
125m Radius



1:312.5  
62.5m Radius

P4





#### KEY

- Transport
- Industrial areas
- Historic Town centre
- Green spaces/parks
- Community Services
- Housing
- New Housing developments





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- Transport
- Industrial areas
- Historic Town centre
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Town  
Formal order



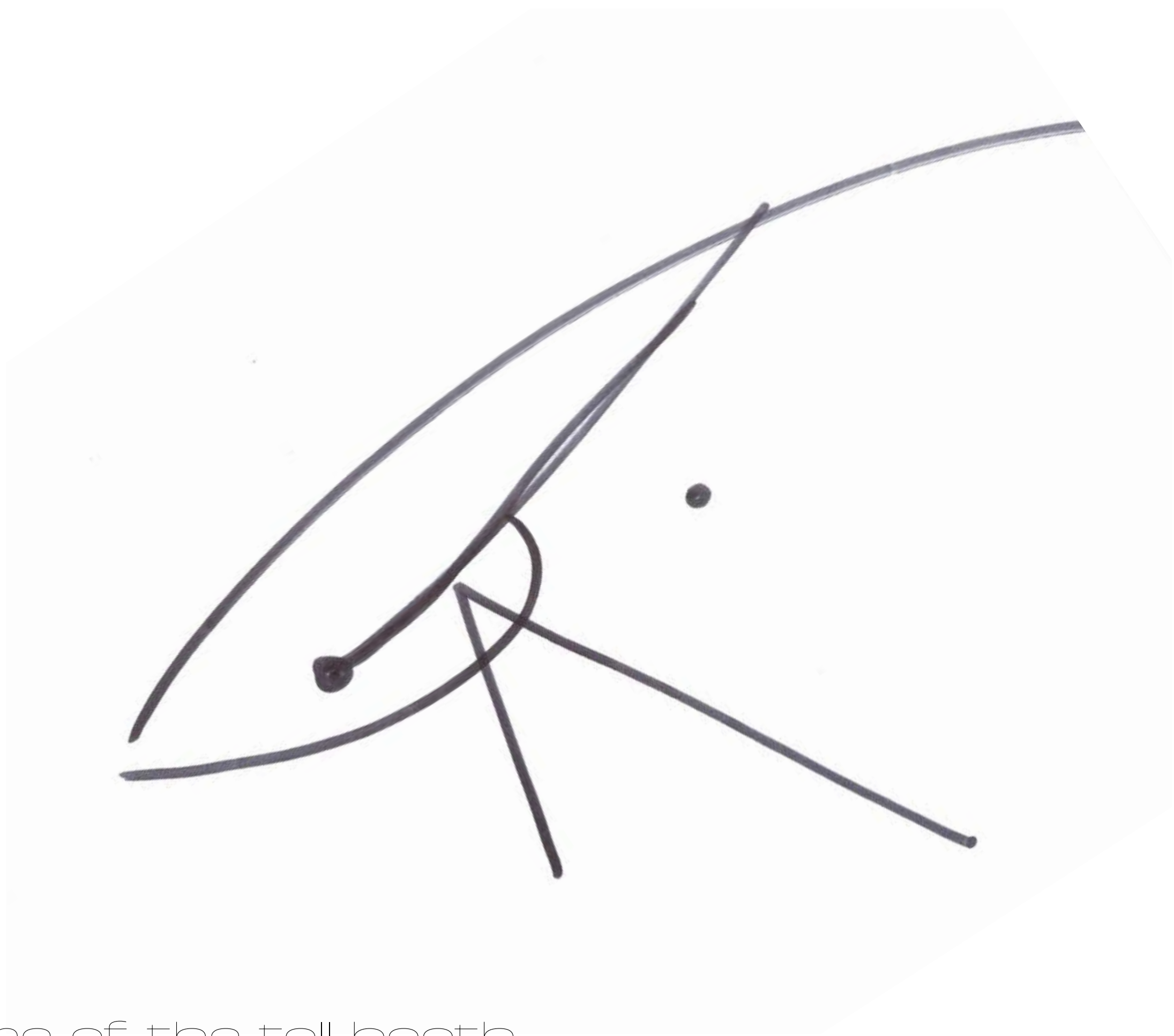


1:7500



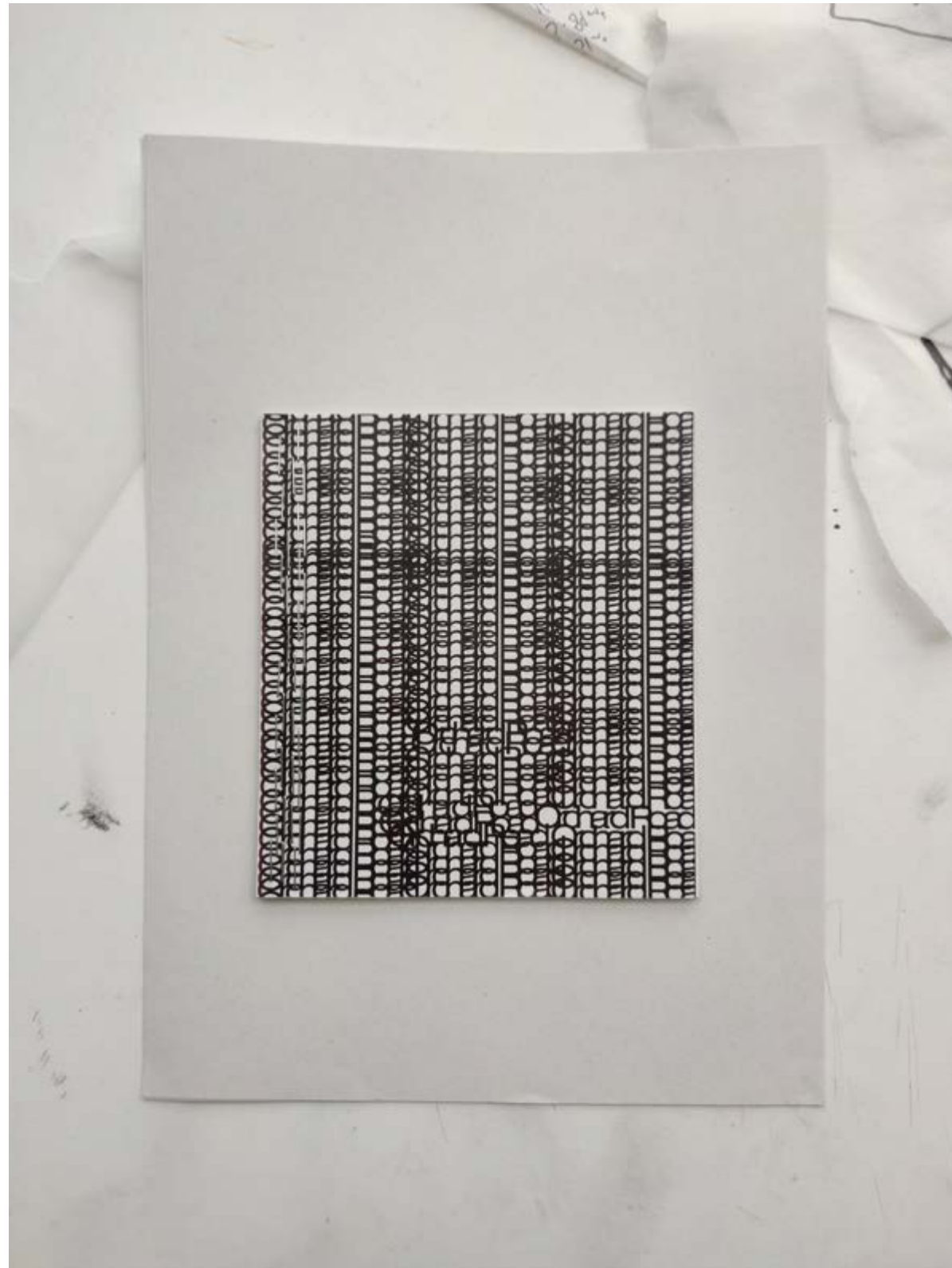
1:7500  
Nodes and Boundaries





Puncture of the toll booth  
Nodes and Boundaries

The Site



Photos compiled  
into a book







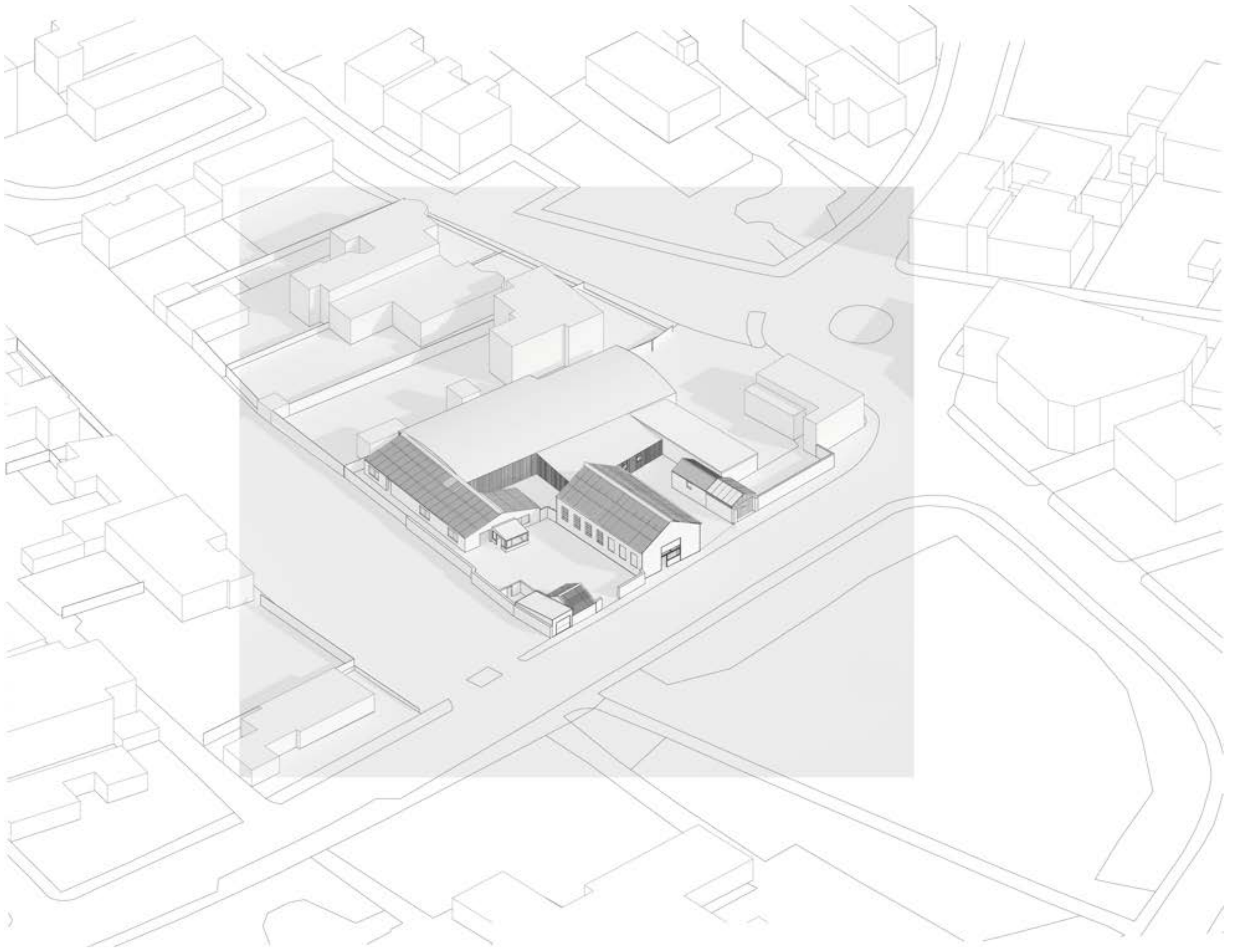


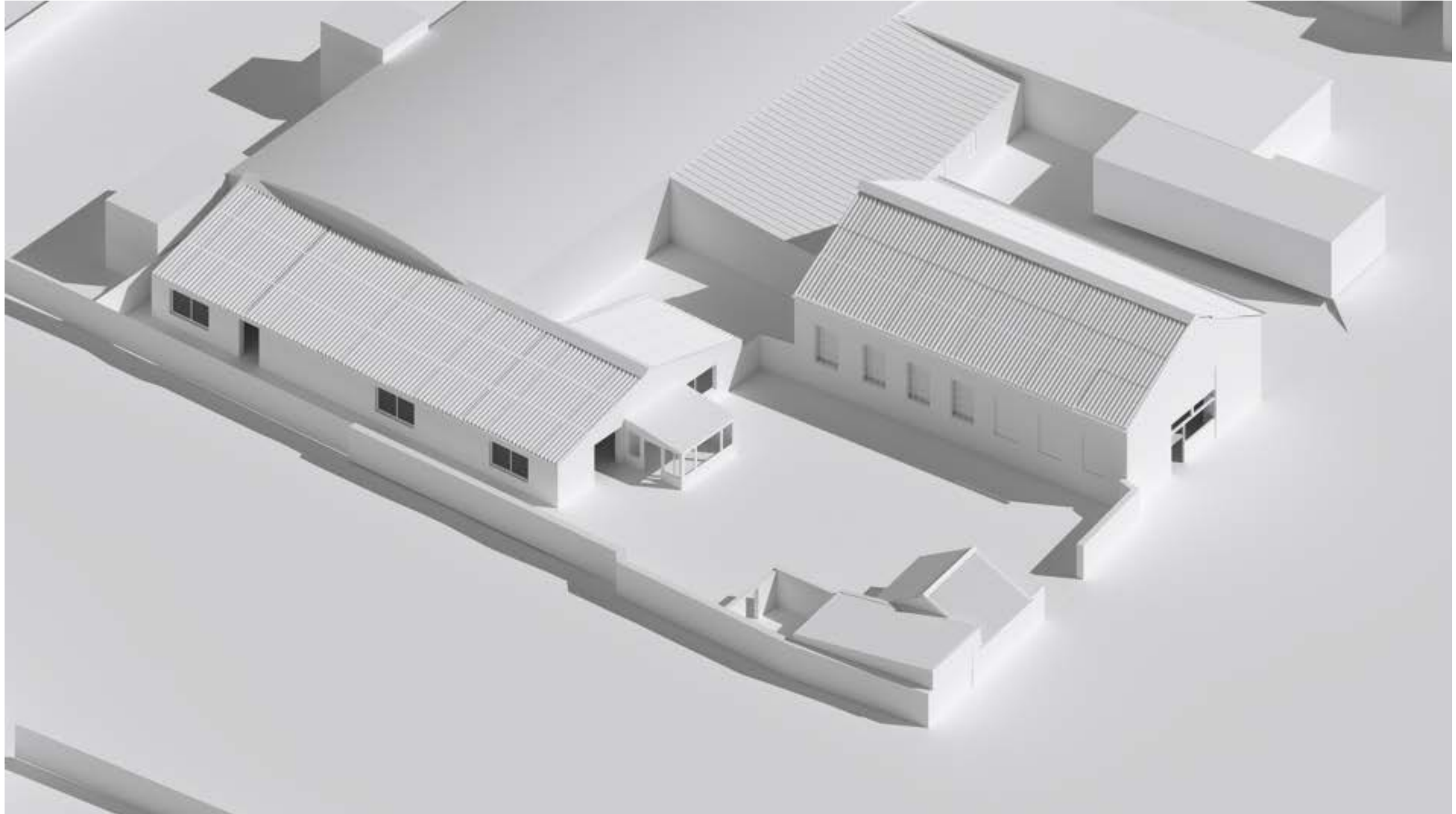












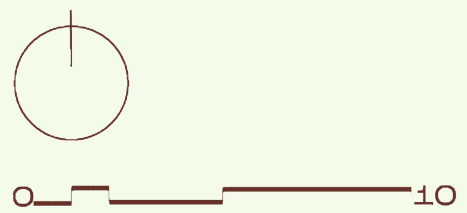


1:100  
Elevation



P4





N

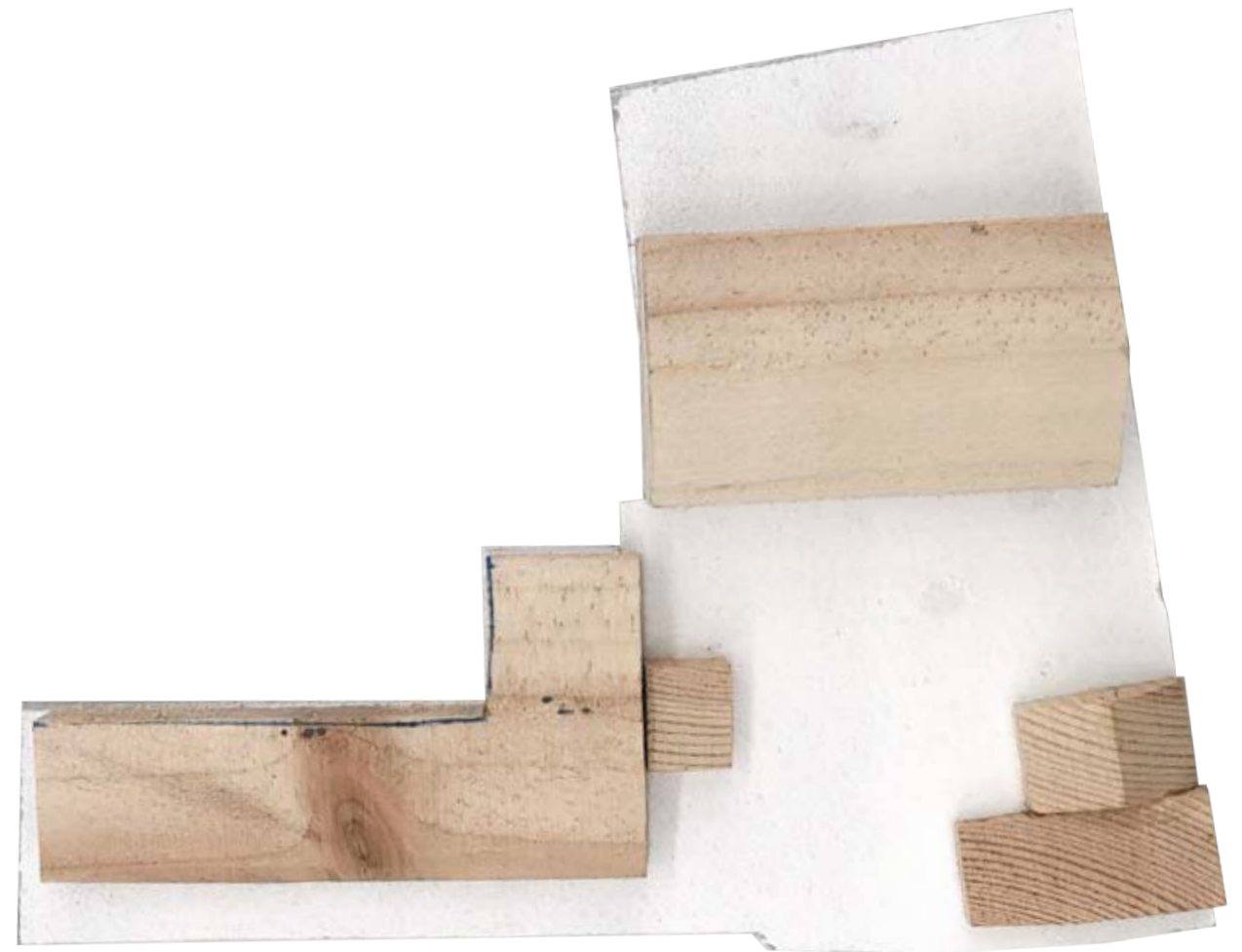
1:200



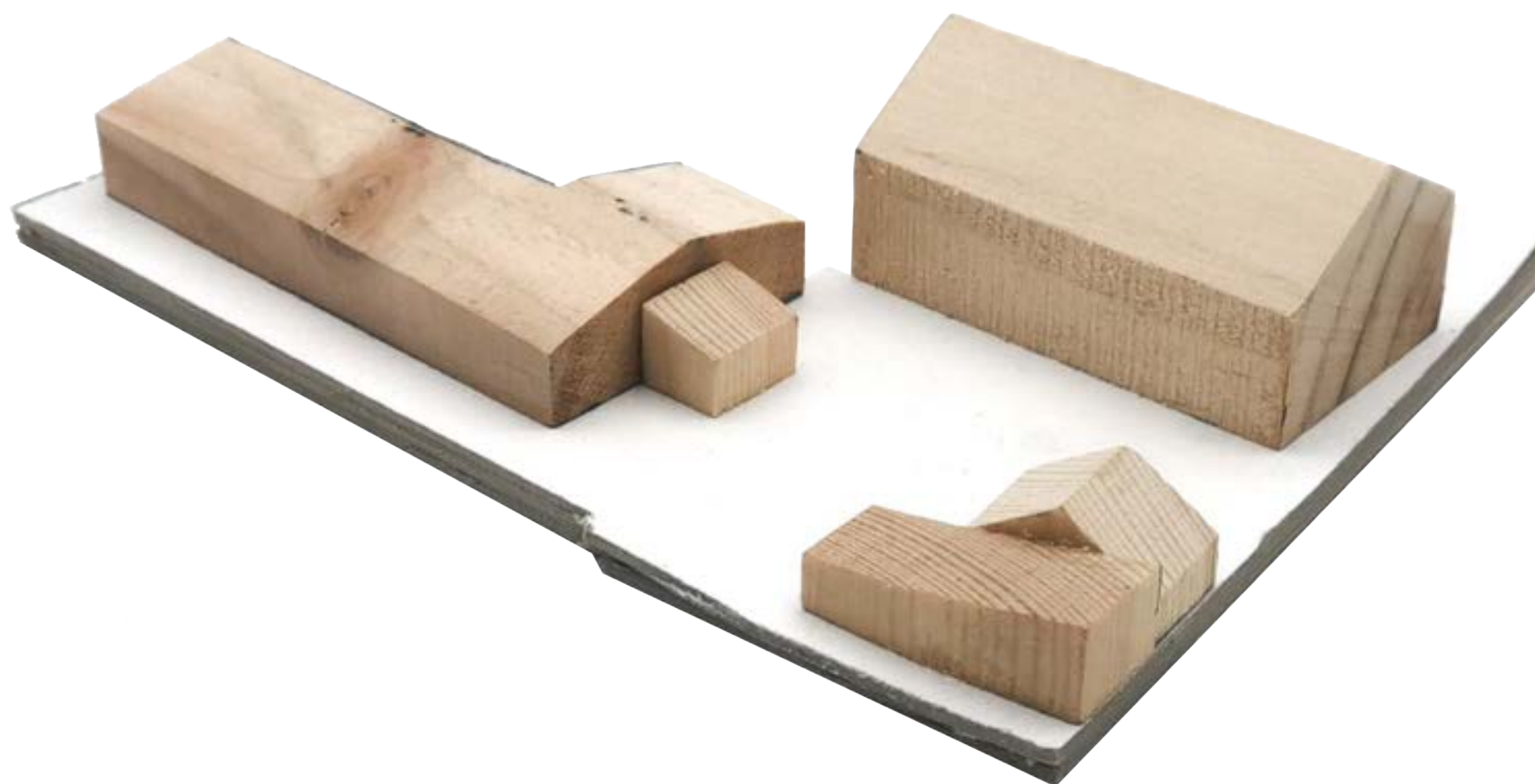








1:200  
Solid Massing



# Early Themes & Readings



## **We Need To Look Further On This.**

Who is this for?

Designed with or for?

How does this look?

Do we need builders?

What if the end users were the builders?

Where is the time for this?

Who are the users, the town?

What then on building?

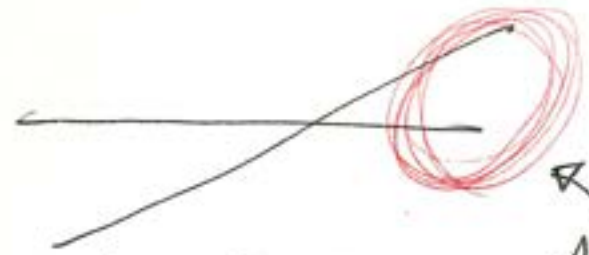
The town - The landscape - The mine

The architect - The Facilitator

The site - The school

All things ~~end~~ change.

Biobased Material



Food Safe Architecture

Bauhaus Earth

what does Biobased  
engineered timber look  
like? Dry Joints keep

Bioregional house?

Design from the ground

Indi Nature

Atelier home

Alternative sources of  
Procurement & engagement

No homogenous mixing of  
Bio & technical nutrients  
(Nuggets)

Mind the town

Global Knowledge & grounded  
in place

Art as a dialogue with place  
& context

Town wide engagement  
with waste

Construction & Process  
as a school for local  
engagement

City ↔ Rural

What Do I want to Do  
where can materials  
come from?

~~Glass~~ Apparatus

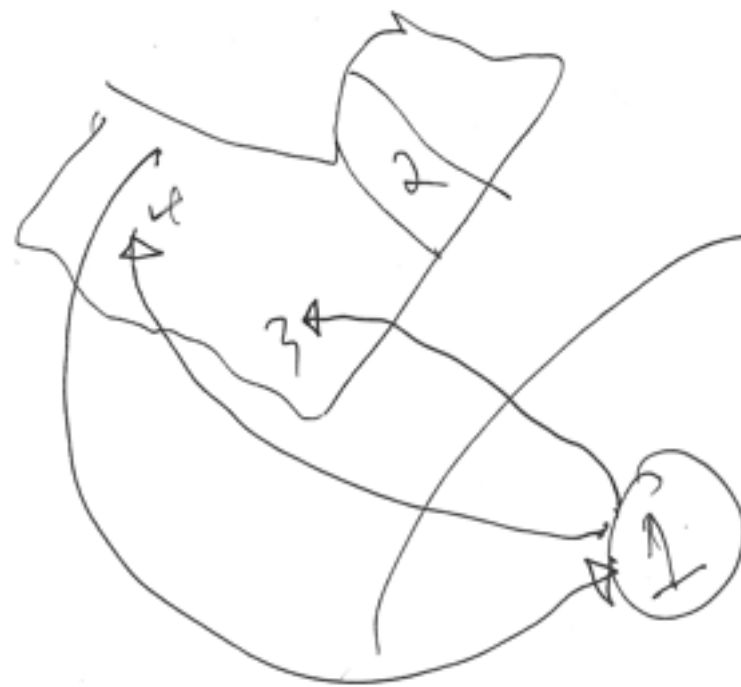
The town walls

as a point of engagement  
& a resource Floor  
Pool

Everything has a cost

embodied emotion

glass hemp straw barley



every type of production contains both Risk & Certainty. It depends at what stage these truths occur & if they determine the whole flow of production.

'is the result predetermined and unalterable once production begins'

teaching is not just about playing the notes but the intonation → ~~feel~~ feel

David Pye

workmanship of certainty

workmanship of Risk

quality is not predetermined	pre defined
Dependent on the judgement of the maker & the <u>care</u>	our codes
	All controlled
	Little fault



This is a square



man's work without division  
of labour → no more working  
on a line in which you never  
experience the jewels of your  
fair tail.

workers  
machine

machine  
workers

Soundness

Comeliness

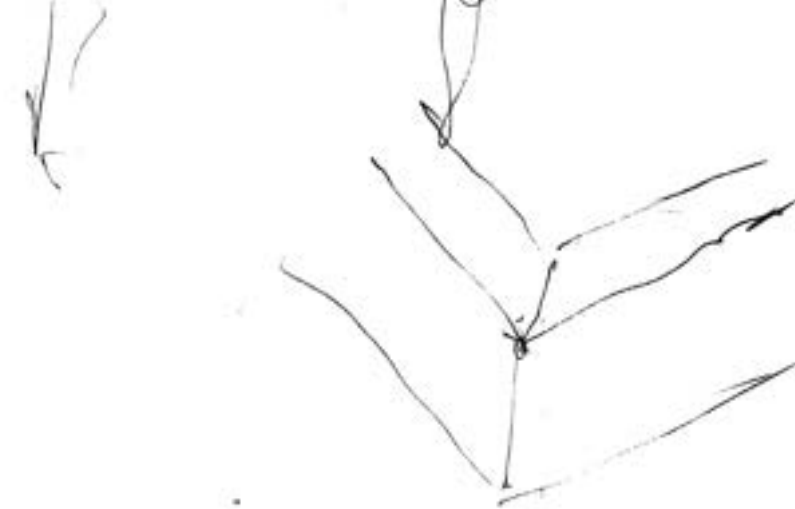
A design is only as good  
as the worker if the design  
is too complex for the worker  
at hand then it is a bad/  
inappropriate design

Communication which  
goes beyond drawing, requiring  
trust & looseness ~~for~~.

Design is ~~at~~ subservient  
to communication

Technology is the extension  
of technique

we exist to thrive ~~for~~  
certain level of chaos



Reid Building - Glasgow



Workmanship of Certainty  
Outcomes are predetermined,  
the process is highly controlled.  
Risks are taken before the act.

19th Cent Stone Wall - Bollington



Workmanship of Risk  
The quality and outcome is  
dependent on the skill and  
judgement of the maker.  
The act is open to change.

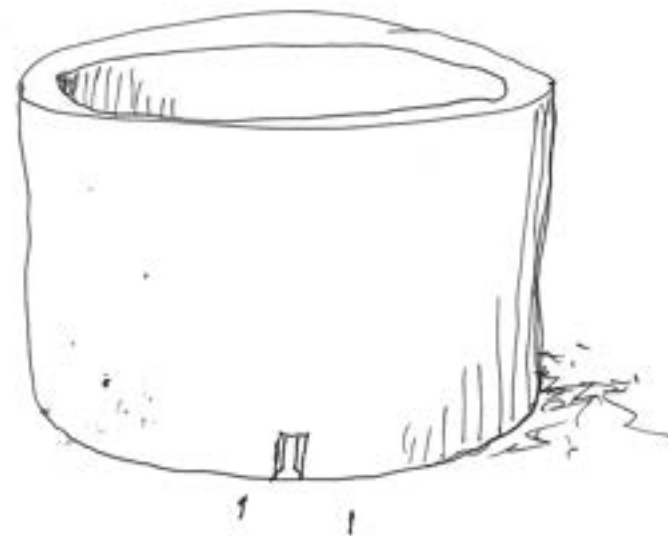
## Material Cultures ↓ Amica Dettl

The power separation provided by a drawing allows a clean hand approach to architecture where holding or experiencing the material material cycles one is working with.

Scottato, Molly, The Bioregional Economy



The separation of worker & object  
production to operator  
Material to be specified not produced  
complex supply chains  
Mask inherent inequalities in the system



Material Cultures  
everything is quantified  
controlled in globalised systems

Quantified knowledge vs  
inherited knowledge  
↓  
easy measurable Scientific, rigid  
↓  
soft complex unfalsifiable  
Culturally rich Based in sense  
experience



Reid Building - Glasgow



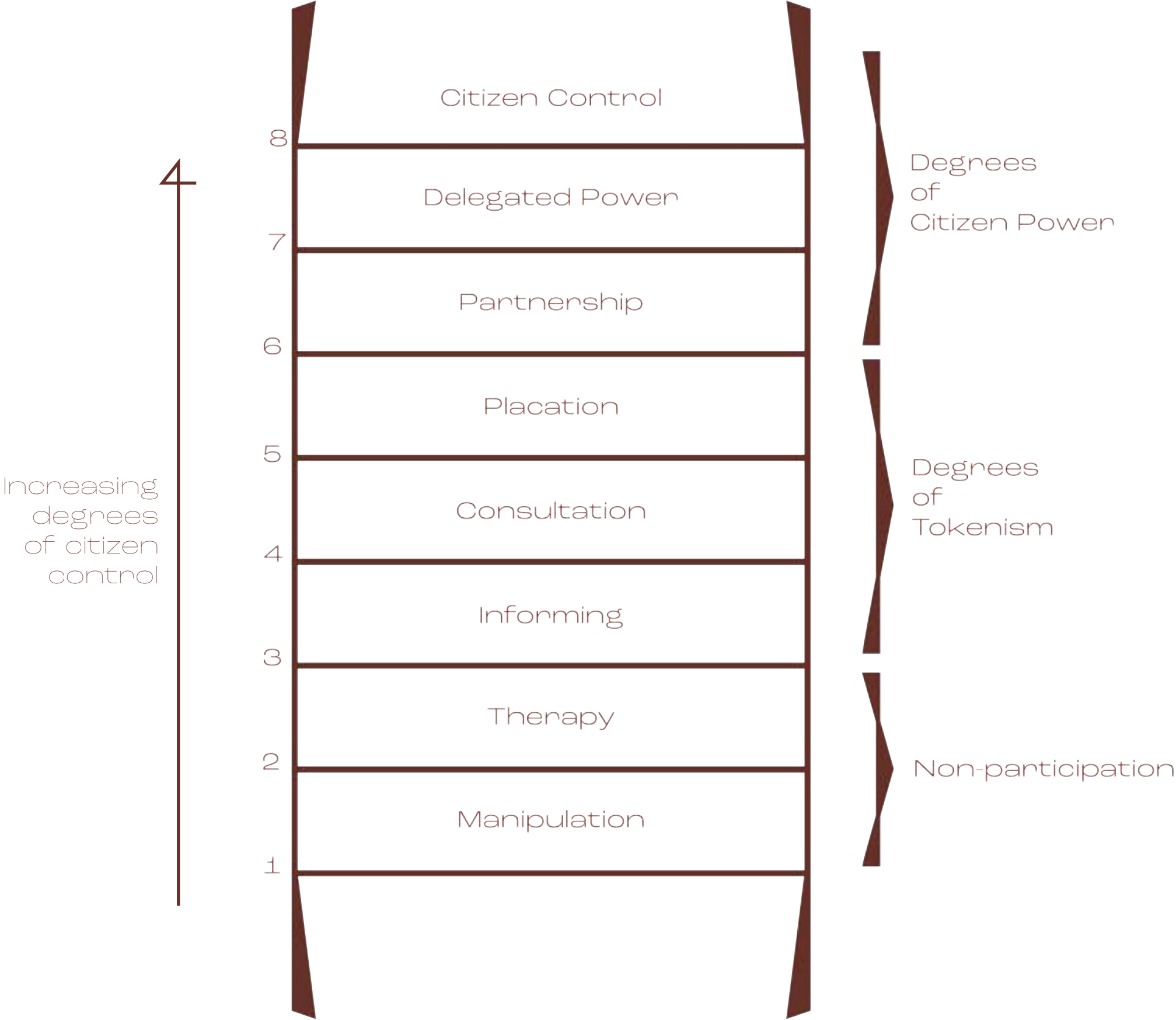
**Quantified Knowledge**  
Construction skills exist within a globalised system, where materials and knowledge can be quantified and controlled.

19th/21st Cent Stone Wall - Bollington



**Inherited knowledge**  
Skills and techniques are based in place and passed down through the generations.

Sherry Arnstein  
Ladder of Citizen  
Participation



What is an artist's studio in a rural community?  
What is an artist's studio in a climate crisis?  
How can an architect work with communities?

Construction and alteration affect communities  
Construction and alteration can be educational  
So, the process is important  
THE PROCESS IS WORTH AN ARCHITECT'S TIME

Forres is rich in untapped material cultures  
The climate crisis demands re-use and innovation  
NEW AND OLD MATERIALS

Rural artists lack funding for large construction  
Creative spaces have the power to engage widely  
Building to learn and create  
ENGAGING FORRES IN CONSTRUCTION



The Town

The Landscape

The Mine

1. “How much does your building weigh Mr Foster?”
2. Know your materials
3. Do not forget CO2
4. Produce Leaner
5. Supply Better
6. What is the Labour cost?
7. Is the price right?
8. Build local material industries
9. Mine the City
10. Maintain or renew, reuse or recycle
11. Designing for non toxicity: “could I eat your furniture, IKEA”
12. Simplify material labels
13. Cross loops
14. Create building component exchanges
15. Imagine a world without waste
16. Match use span
17. Design for disassembly
18. Never demolish always transform
19. Rightsize
20. Embed know-how
21. Make it desirable
22. “If less is more maybe nothing is everything”

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weigh Mr Foster?”

**2. Know your materials**

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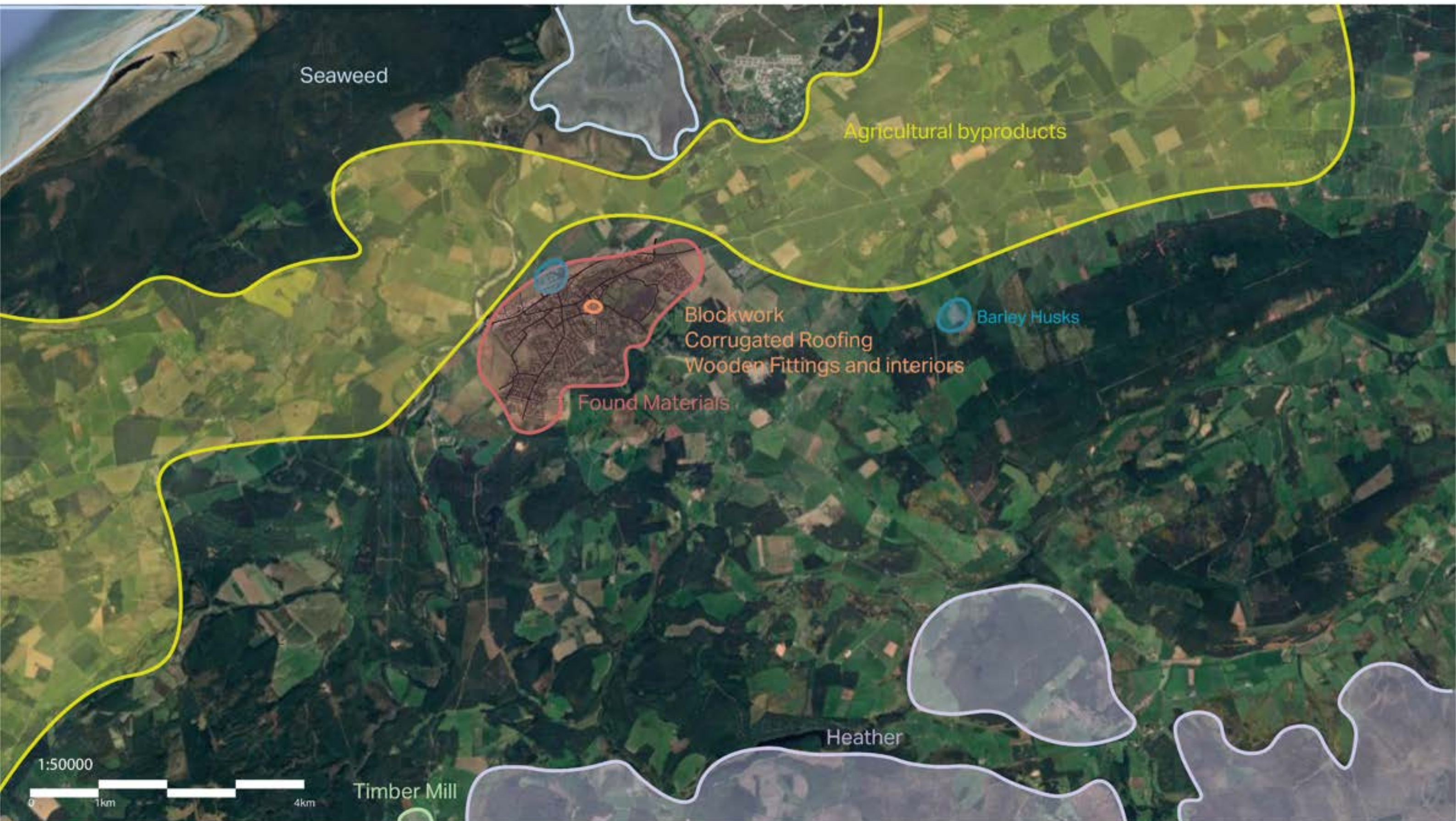
**20. Embed know-how**

**21. Make it desirable**

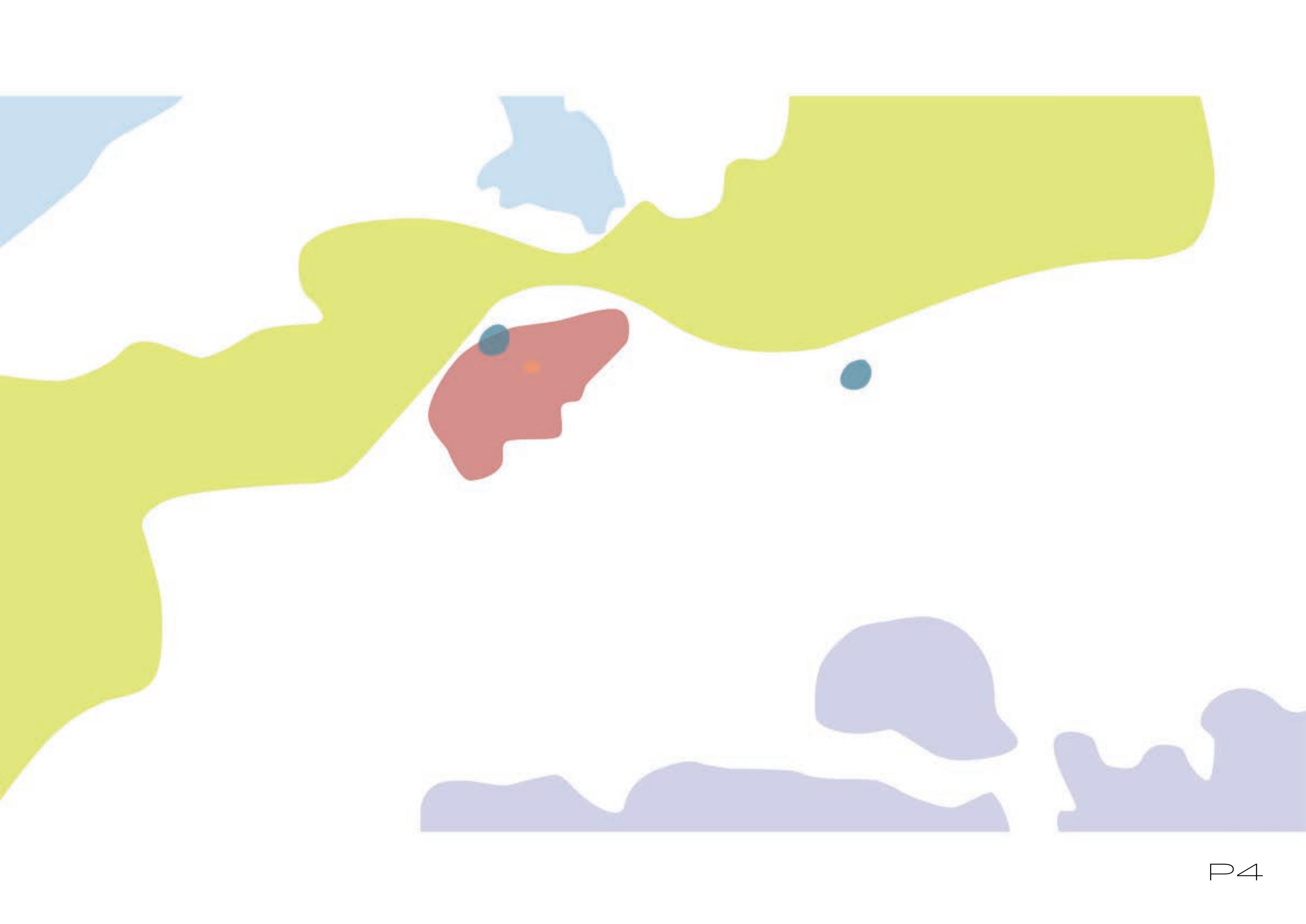
22. “If less is more maybe nothing is  
everything”



## 2. Know your materials







# SEAWEED

## How and where?

Seaweed and seagrass grow in abundance in the Moray Firth, and there are already several aquaculture groups in the area harvesting around 100 tonnes of edible seaweed every year [1]. including one within Forres itself [2]. However, prospects for mass wild harvesting around Findhorn Bay are relatively low, with companies preferring to grow their own through aquaculture farms. Thus, harvesting seaweed en-masse is not suitable for the project either.

Collecting washed-up seaweed, known as “kelping”, has a long history in Scotland, both as a harsh punishing subsistence during the Highland Clearances, and as a way to collect fuel and food in coastal communities [3]. Kelpers would traverse rocky and sandy shores, picking pieces of seaweed into large baskets worn on the back to use as fuel for fires, a simple foodstuff, or to extract chemicals for soapmaking.

This slow, communal effort is one that is well suited to our low-skill, low energy requirements, and can be done in various locations on the shores around Forres, including Findhorn Bay and beach.

## What?

Many species of seaweed can be found on coastal areas around Forres, with varying qualities and levels of usefulness. The main typologies are wracks and thongweed, kelps, mats, and seagrasses.

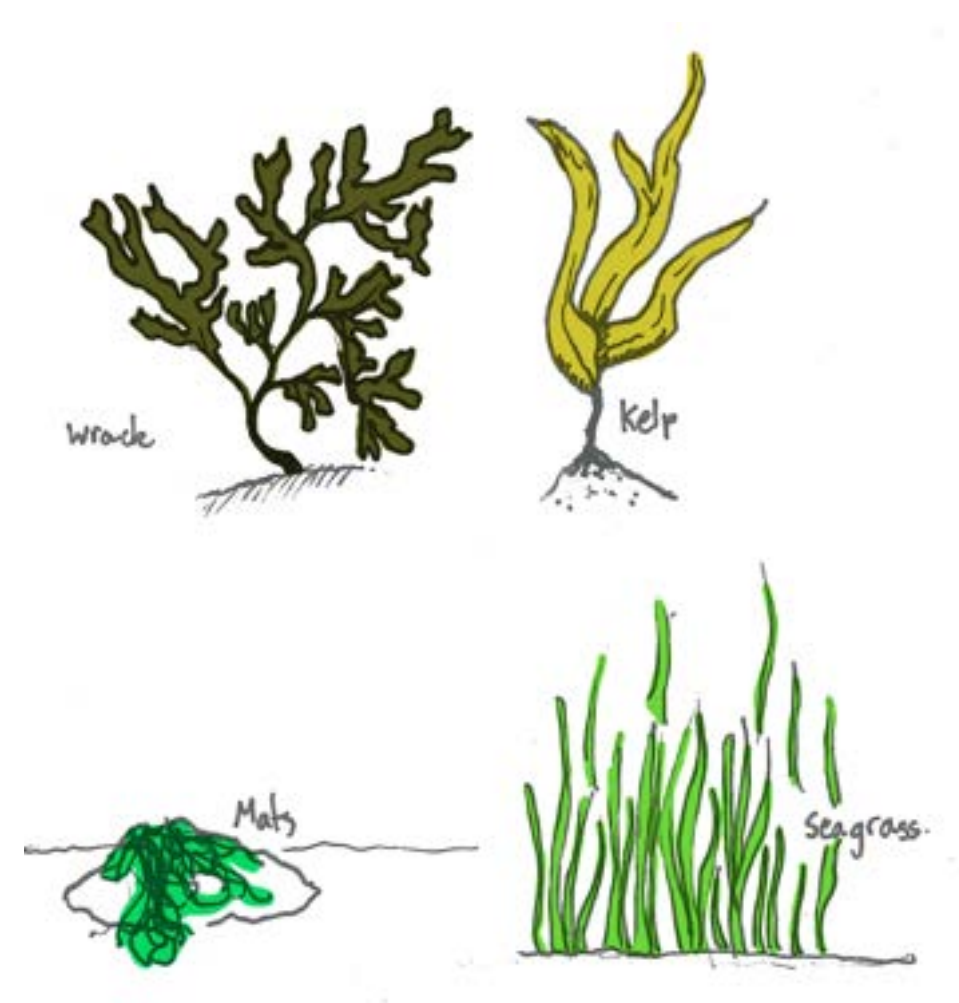
**Wracks:** The most common, typical form of seaweed, they are many fronded intertidal species that often grow characteristic bladders that help them float. They could be difficult to use in thatching due to their complex form and short length but could be of use in insulation-as the most commonly found seaweed in the area, this is an important type to experiment on.

**Kelps:** Kelp is a large, underwater form of seaweed that grows long, thick ribbonlike structures which could have a lot of use in construction due to their uniformity and thickness, however as they grow below the low tide, they are only occasionally washed up on beaches and thus would be generally difficult to harvest in appropriate amounts for the project.

**Mats:** These dense algal blooms grow on rocks and intertidal rockpools. Although they are widely available, they do not have much applicability for construction due to their fragile, slimy nature and small size.

**Seagrasses:** Seagrasses are long, thin plants closer to meadow grasses than seaweed. They grow on shallow muddy coasts, like Findhorn Bay, although the extent in that area is unknown. Worldwide, these are the seaweeds that have most been used in architecture, like in the Laeso and Shandong thatched houses [6&7], or in modern developments such as Kathryn Larsen’s seaweed paneling [4] or Vandkunsten Architect’s Architectural Seaweed Project [8]. Inasmuch, they are an avenue to explore, but seagrass habitats are extremely ecologically important and diminishing due to human encroachment and climate change, so any research/use must be conducted accordingly carefully.

Seaweed must be dried to varying extents before use, as well as treated for its unpleasant smell. To clean and de-odourise, a bath in 5% lemon juice can be used [9]. The seaweed should then be left to dry, to what extent needs to be determined. The bulk of research will come into the various uses for seaweed in this state, whether it is used as thatch cladding, as demonstrated by precedence, or in another, innovative way.



## References to be found In the Bibliography

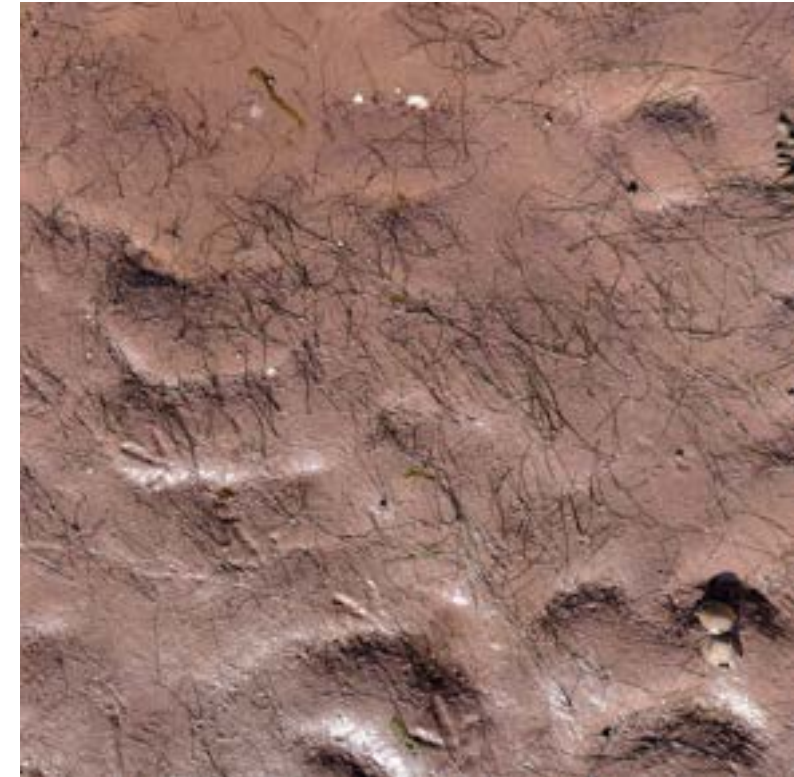


# Primary Research

Excursion to gather seagrass  
from Hunterston Sands



Though maps were reliable, Sadly upon arrival there was little seagrass to be found. we travelled further down the coast to find some kelp after foraging we realised that kelp would be untenable in our design due to both its physical qualities and its challenging environment (unlike heather)



Seagrass  
:(at the start of the season):



Kelp





# HEATHER

## Where and How?

The land around Fornes is largely taken with agriculture -there is little in the way of wild spaces where heather might grow. However, further south there is much estate land and wild hill moorland where heather grows in abundance. Land here is managed by a variety of land trusts, as well as much of it being held in common. Heather needs to be managed to promote growth, protect certain habitats and help avoid fires. The current most popular method of heather management is by controlled burn [1], a process which, although effective, is an energy and skill intensive method, and releases much of the plant's captured carbon back into the atmosphere.

Although burns have always been popular, they used to be much less common when heather was a more widely used material; much of what is now burned was harvested and used. For our purposes, heather should be harvested by hand and pulled up by the roots or severed at the base, depending on the heather's size. This allows for the most space to encourage new growth whilst keeping some roots in place to maintain the integrity of the topsoil, which can often crumble and be stripped on precarious hillsides. The material

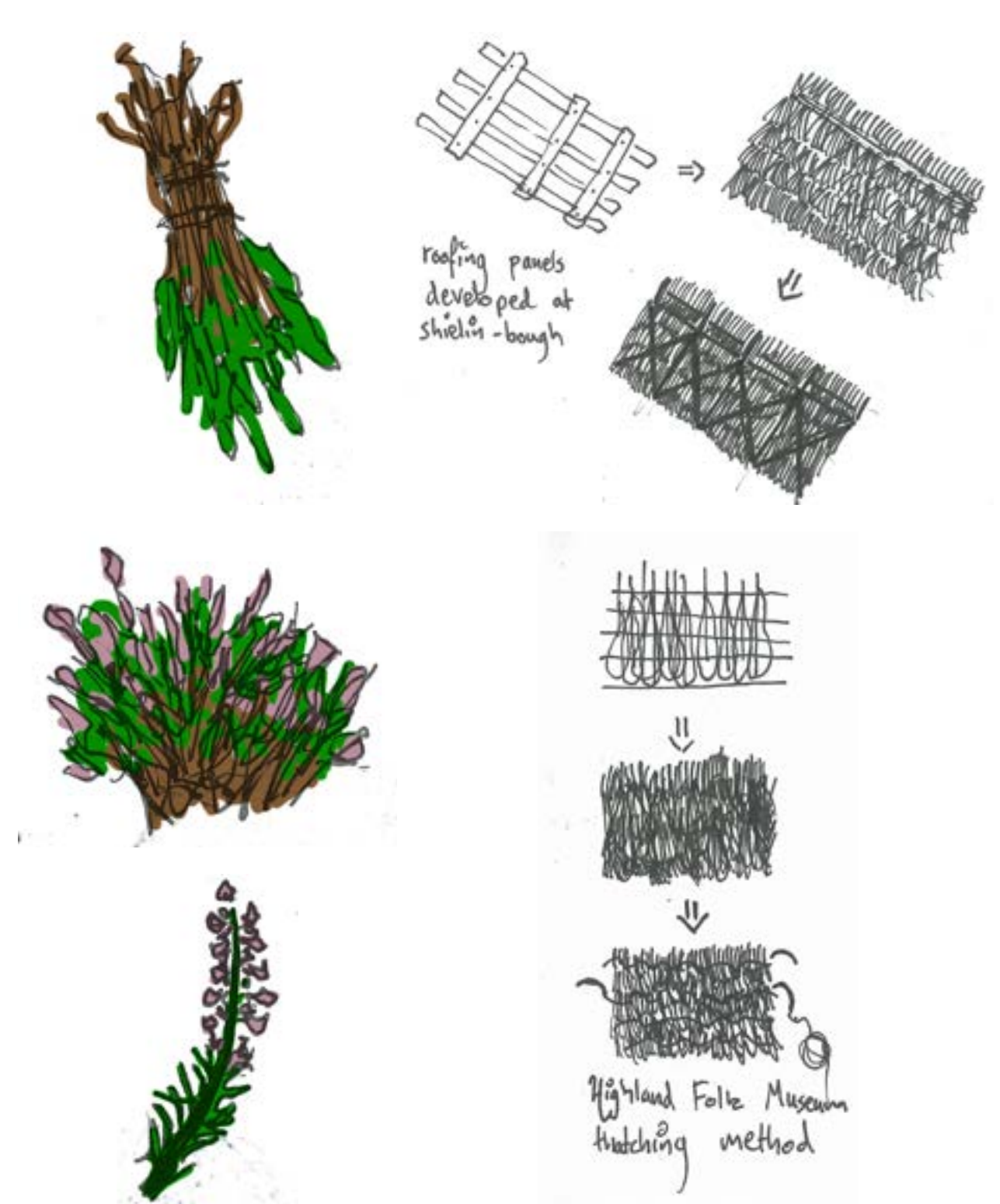
Heather, *Calluna Vulgaris*, is a flowering plant which grows in abundance on exposed, acidic soils such as those found across Scottish uplands [2]. It has wiry, wooded stems and small, coarse buds, with small pink flowers in late summer. The plant grows thick, sprawling and knotted, and can reach lengths of up to 90cm when harvested by the roots. This thick, long nature makes it a good material for thatch and light insulation, as with layers it can become fairly waterproof and windproof. It is an incredibly absorbent material that takes in carbon even once in use as thatch, whilst remaining highly breathable (houses with heather thatch roofs did not require chimneys or openings for their fires).

Heather is a material that likes to loop and interlink with itself and other materials, and can form a dense, secure matrix if packed tightly. This tight "mat" of material is what gives it its insulative properties, and makes it so suitable for cladding, even on steeply pitched roofs, as it can cling to itself.

## Methods?

Heather has a long history of use as vernacular in Scotland and North England [4], in many different varieties and using many methods, from more complex, skilled work using broom underthatch and threading, as employed by the Highland Folk Museum [5], to much simpler techniques weighting heather bundles down with turf, as used across Northumberland [6]. Additionally, I have experience with the material through the Shielin-bough project [7], wherein we co-designed a simple thatching system that relied on friction-fit and a wooden lattice, which created a simple framework which students without prior experience could create a cladding wall of heather, as well as modular roofing panels. This design meets our low-skill axiom, but made extensive use of timber, which could be seen as wasteful. Further developing a similar system which is less energy intensive/more flexible is necessary. Sourcing material for physical experimentation could prove difficult and we already have strong precedent, so perhaps heather is less necessary to physically research and experiment with.

## References to be found In the Bibliography





# AGRI WASTE

## Farming and whiskey production

### Where and how?

Speyside has long had a tradition of whiskey production; though distilleries are more abundant around Elgin and Keith Benromach Distillery is less than a kilometre north of orchard road. In Scotland the whiskey industry as a whole produces around 4m tonnes of waste and byproducts but it is already making positive moves regarding the environment. Pot ale can be used to feed salmon farms. Draff (solely barley in Benromach's case) predominantly ends up being used as livestock feed. The spent grains from this process could be incorporated into red bricks for greater thermal insulation and strength [1]. More research into how it could be incorporated into cobs alongside straw still needs to be conducted.

Much of the agricultural land surrounding Forres is wheat and barley for the whiskey industry, making straw an ideal material to be used and explored within this project. This could be in a similar fashion to heather and seaweed in thatch or as insulation, be it in panels [2] or bales[3]. At present the straw is predominantly used as bedding for farm animals or composted; could there be another step in this cycle?

### Methods?

#### What could we try?

Straw can be used in a manner of ways in the wall build up. In the form of bales it can either be used as a load bearing material or infill within a frame, a small bale (900mm x 375mm x 450mm) weighs 20-25kg and can easily be handled in construction with little risk. Much of straw bale construction requires little upskilling and could easily be done as a matter of self build. The challenge with straw construction is protecting it from the weather, this could be achieved with deep canopies and lime mortar to create a breathable but airtight layer with few thermal bridges. The question that arises from this is around the adaptability of the space and one's ability to drill into the walls; separate panels may be required if the straw is on the internal side of the structure. When no longer required in the structure, the lime mortar could be broken off and recycled, little/ no steel is necessary in the construction so the bales could be composted or used as bedding for farm animals. Another use of straw would be incorporating it into bricks (alongside the whiskey husks) to decrease the strength to weight ratio.

With regards to what we could try comes the tricky question of procurement. Straw is very seasonal and we sadly could not directly engage with the harvesting process which begins in late August, alternative streams of procurement need to be explored further.

### References to be found In the Bibliography

# RECYCLING IN MORAY

**GLASS** - MKD32 Ltd in Leith

**CARDBOARD/PAPER** - SAICA NATUR, Kirkcaldy who send it to UPM Newsprint Mill in Wales for recycling, primarily into newsprint.

**TEXTILE** - All textile banks at Moray Council recycling points are operated by A1 Ltd, who grades all textiles and shoes before transferring them to their plant in Glasgow. A lot of textiles go to Africa & India for 're-use', or are either shredded to re-use the fibres in new textiles or used as rags for the cleaning and engineering sector.  
(Technical/bio nightmare)

**PLASTIC** - SAICA NATUR in Kirkcaldy and then sold on to a reprocessor within Scotland.

**Distant and immaterial, people lose connection with the possibilities of their waste.**



Difficult to collect  
Ecological concerns  
Hard to use



Hard to specify for  
incorporate into  
social / operational aspects  
of the project



widely available locally  
precedent in self-build  
multiple uses



grows in abundance  
historical precedent  
in region  
community harvesting



# Heather Developed



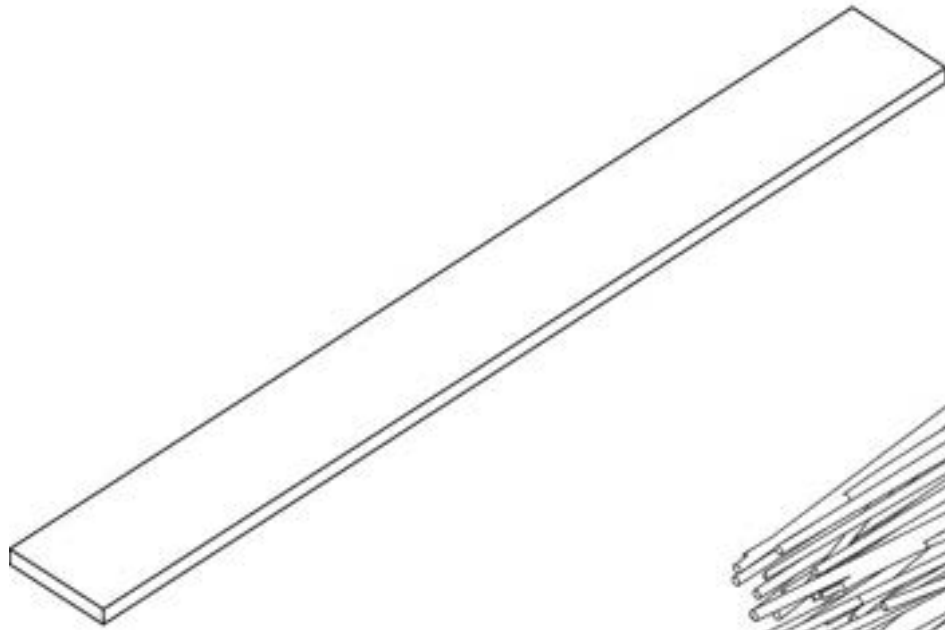
Heather Venacular  
Leanach cottage  
18th century  
image source

<https://www.bbc.com/travel/article/20180904-leanach-cottage-18th-century-scotland>

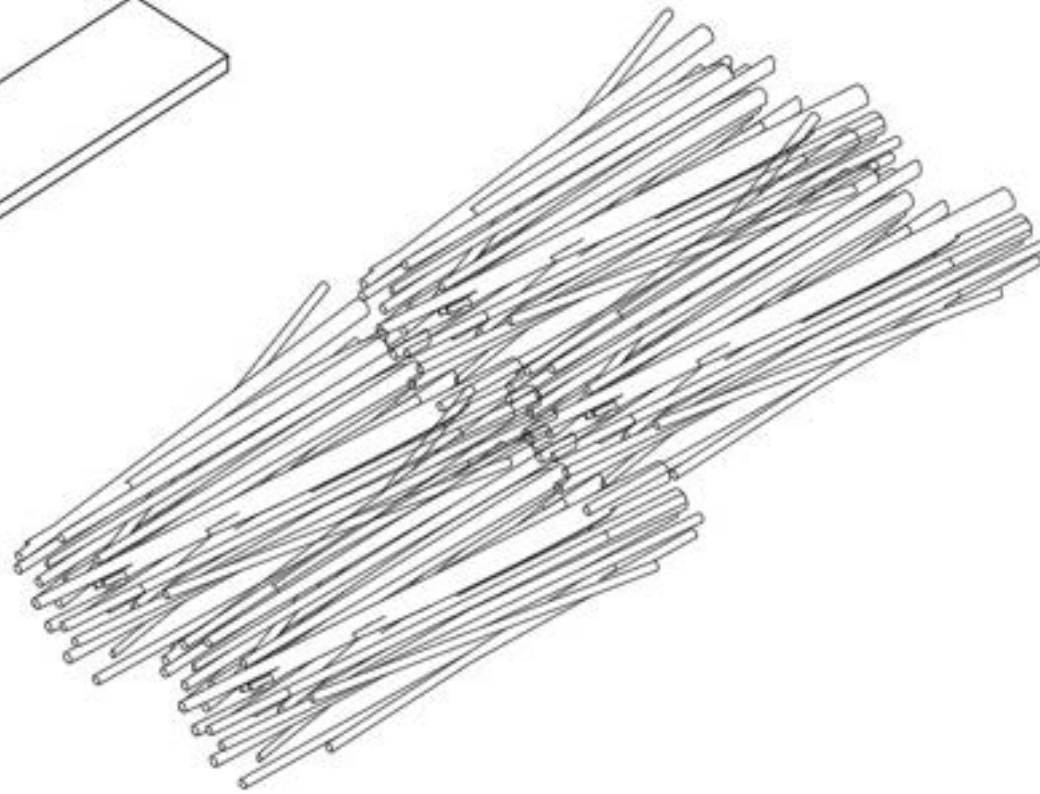
Heather Panel  
MK1  
(Hands on tests)



# Heather Panel Mk2



wooden board



Heather



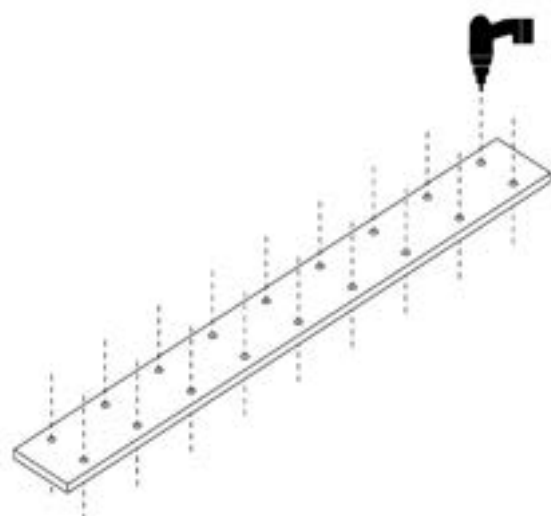
Rope



1.



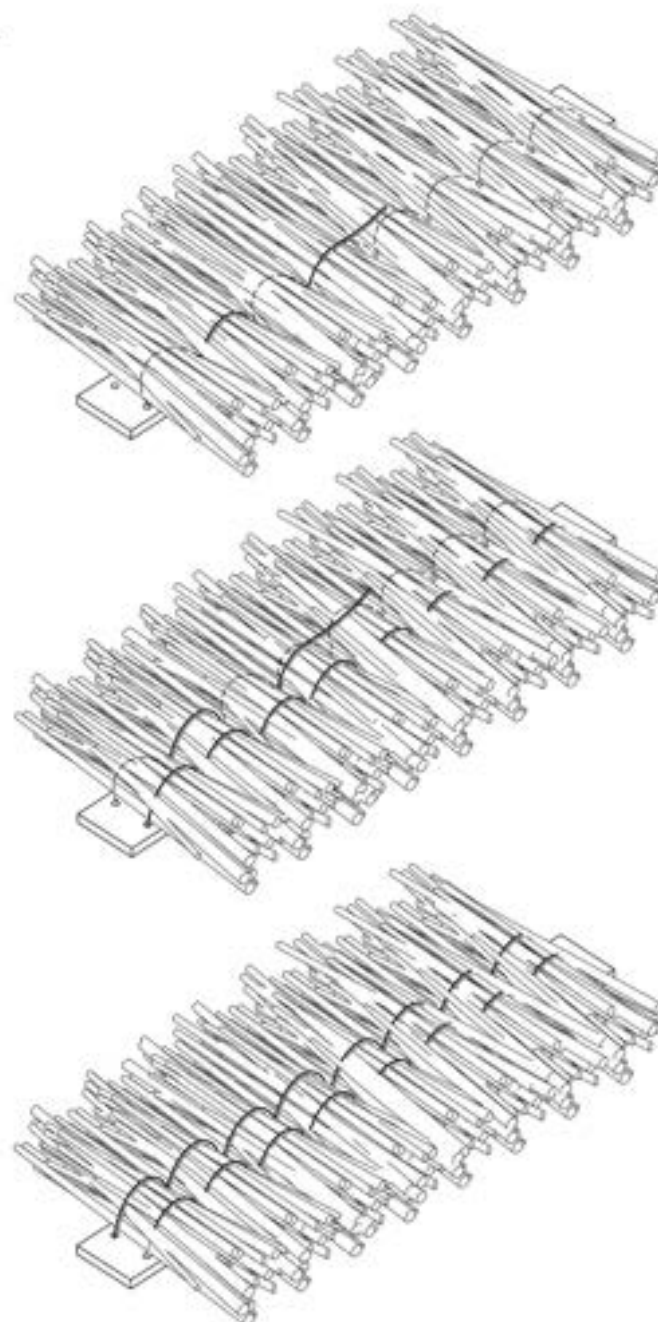
2.



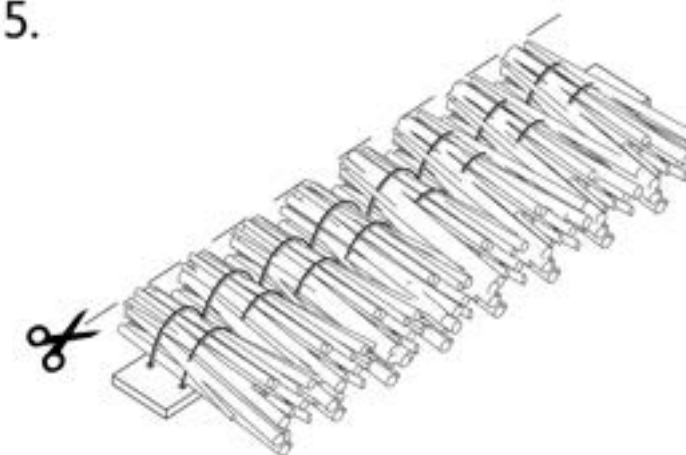
3.



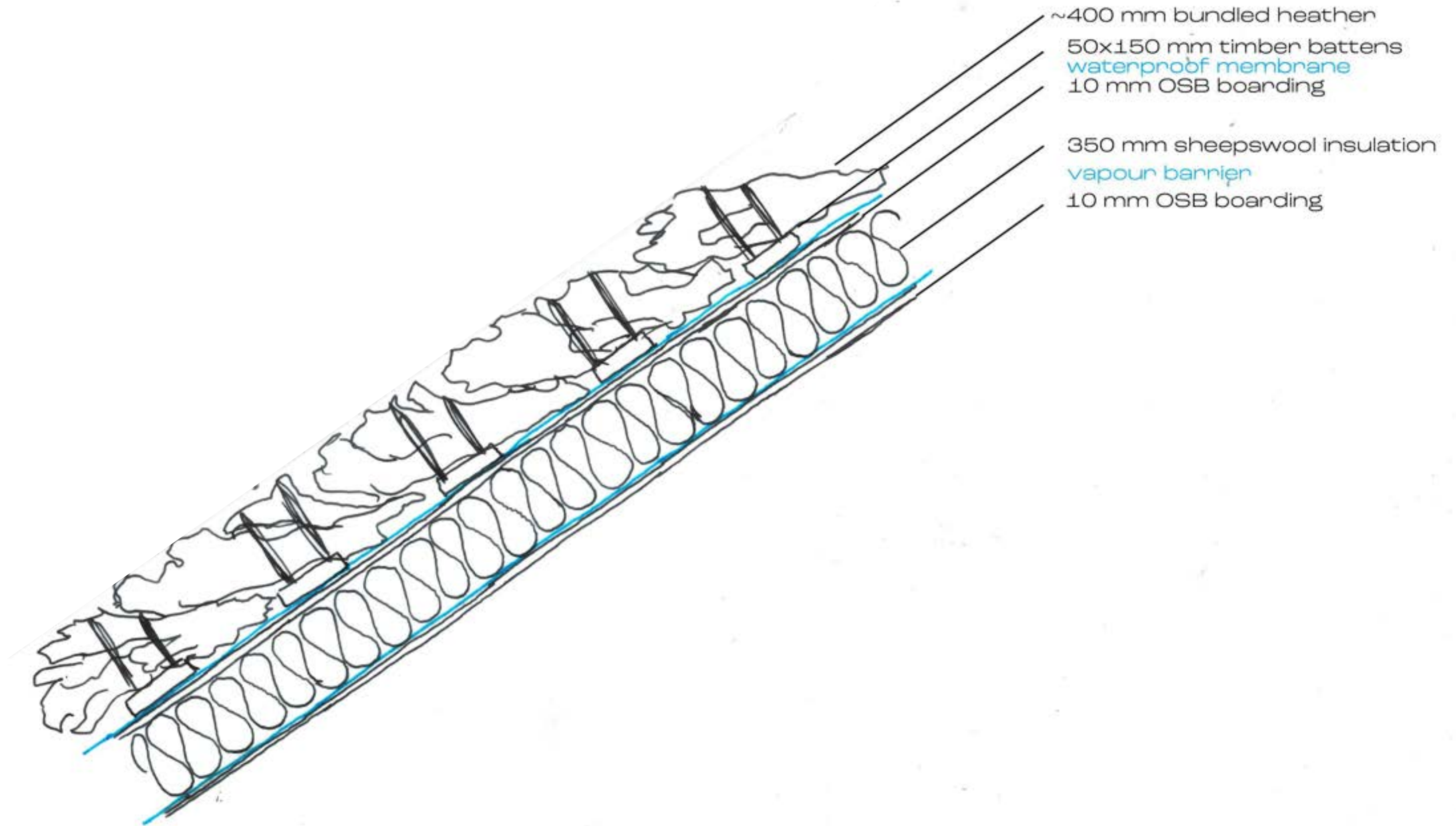
4.



5.

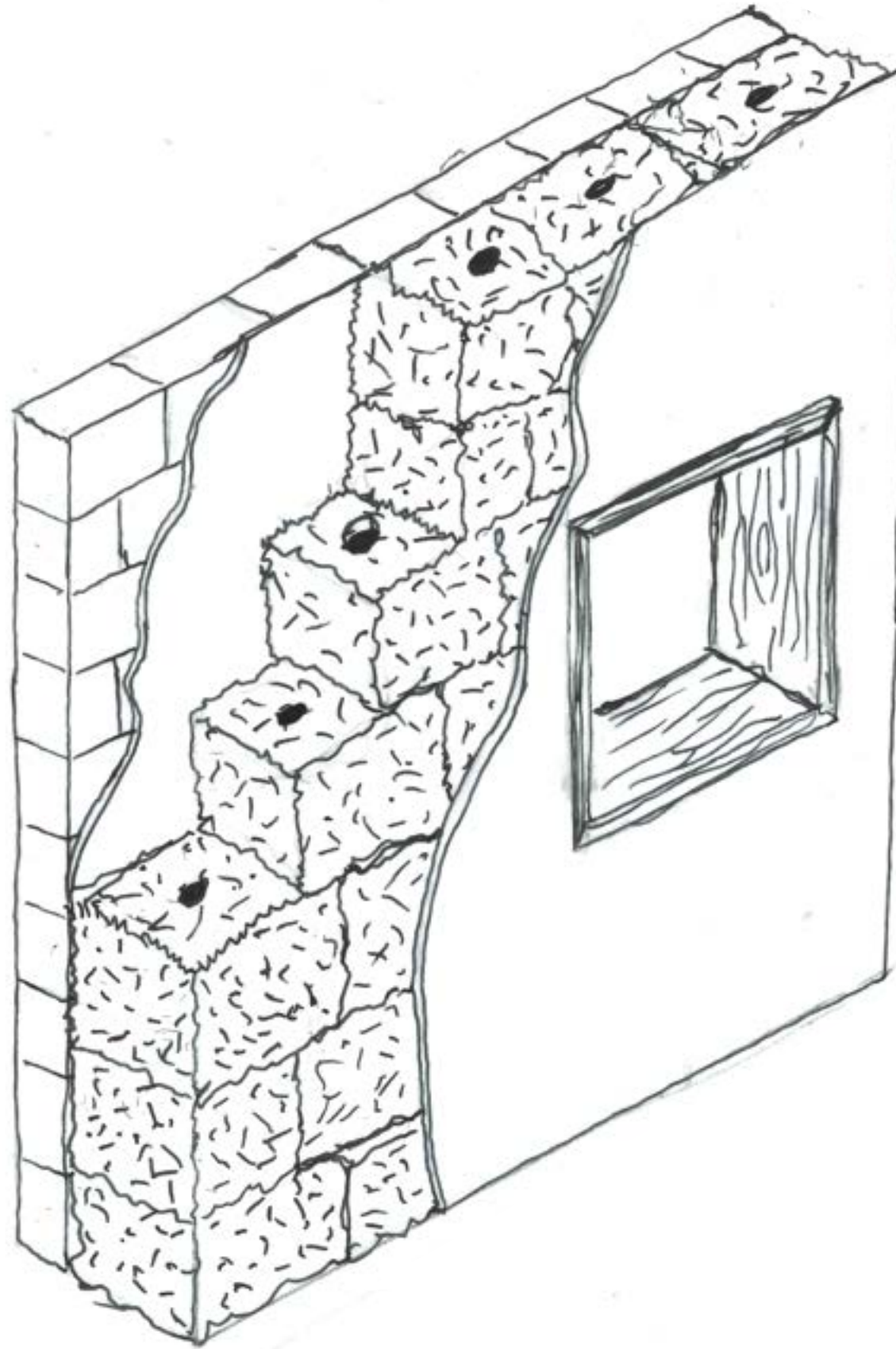


# Heather Roof Buildup



Approximate roof U value = 0.11 w/m<sup>2</sup>k  
[under EnerPHit roofing limits]

# Straw Bale Wall Buildup



## Wall Buildup

Concrete blockwork (existing)

Thick lime plaster

~300mm straw bales

(Timber pins)

Lime render

(Timber boarding for openings)

Approximate wall U value = 0.151 w/m<sup>2</sup>K  
[slightly over EnerPHit wall limits]



## 9. Mine the City

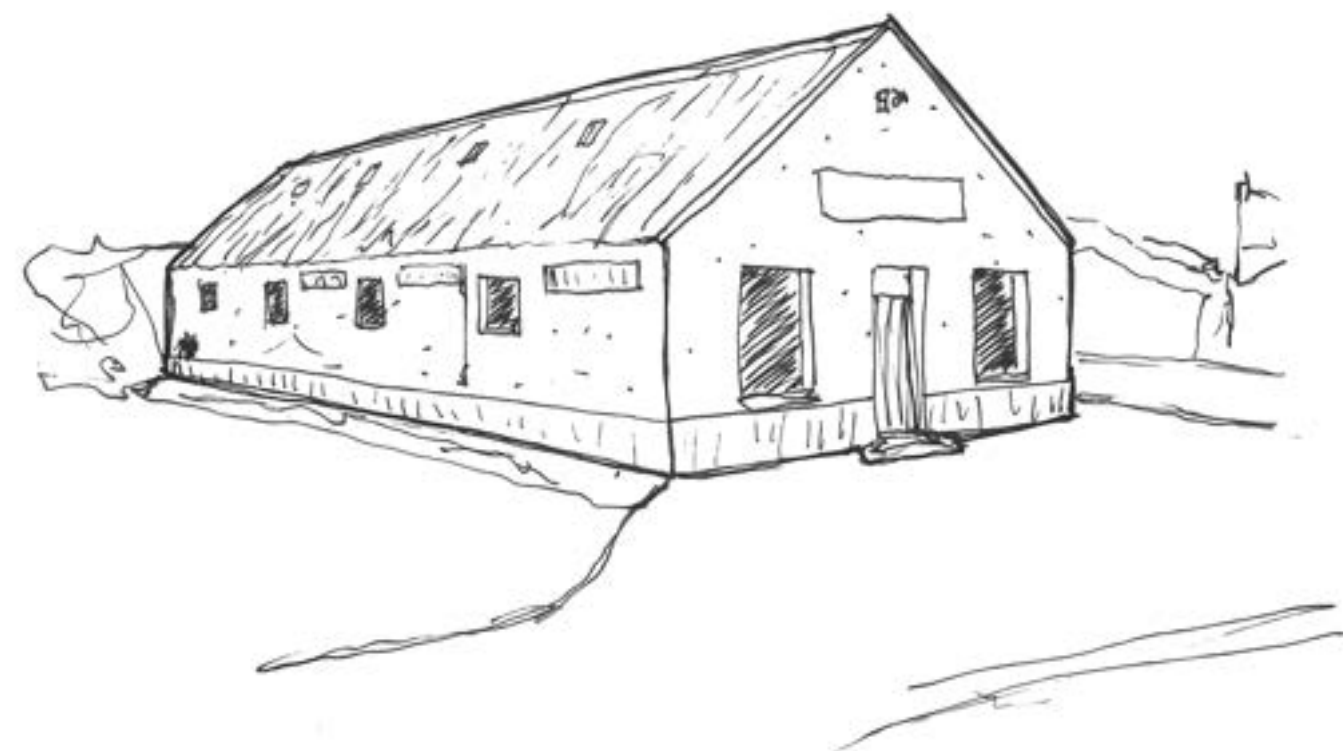
(Derelict buildings as  
mines or destinations  
for material from the  
Exchange)







57°36'31.09"N 3°36'58.42"W

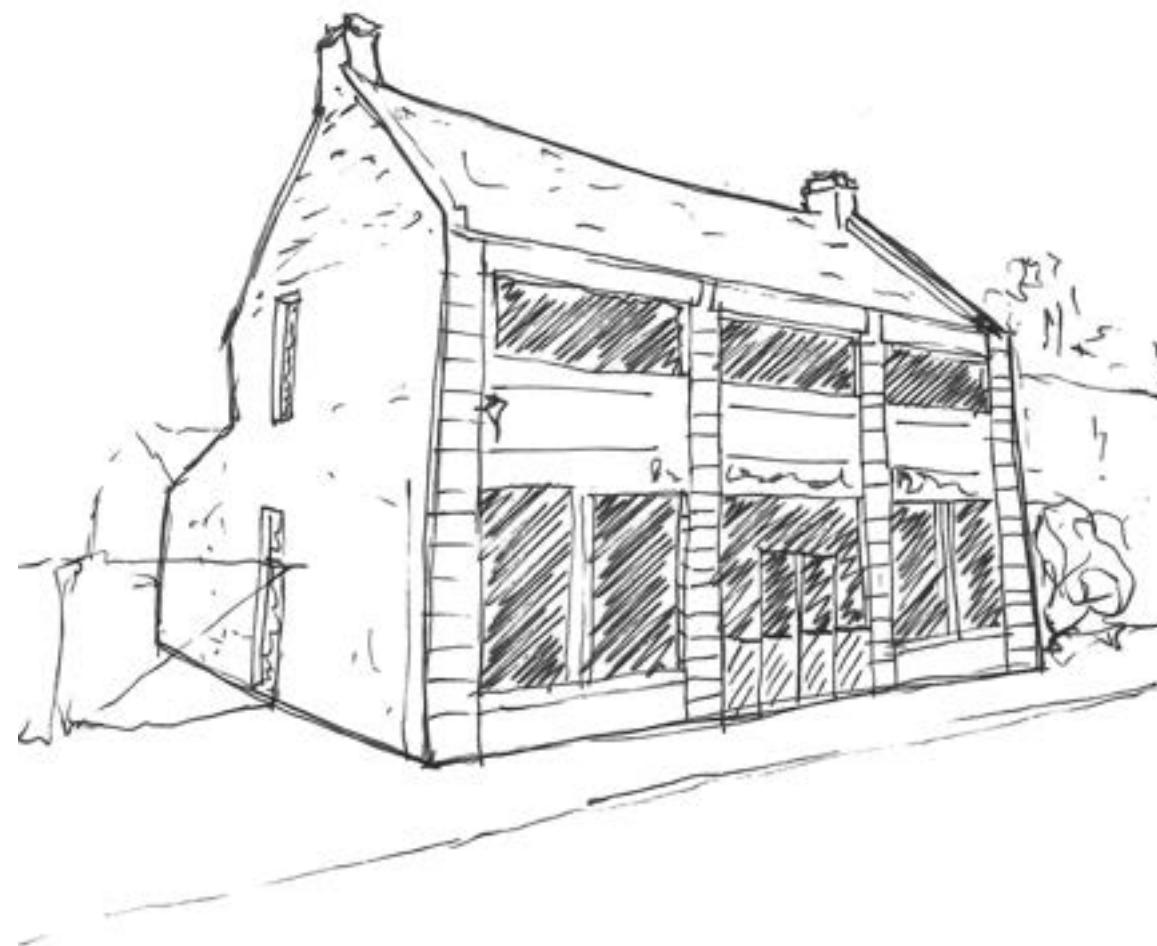


57°36'31.17"N 3°37'17.48"W





57°36'32.85"N 3°37'25.57"W



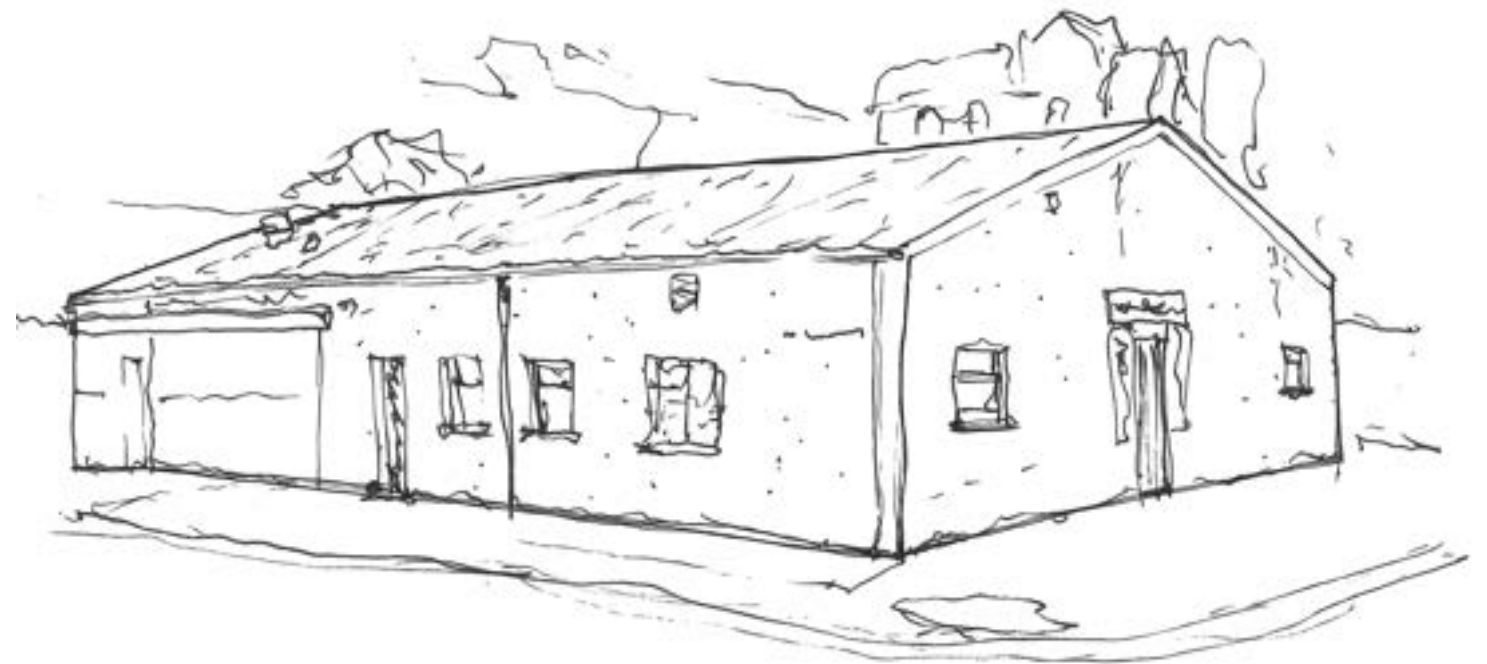
57°36'28.59"N 3°37'12.08"W







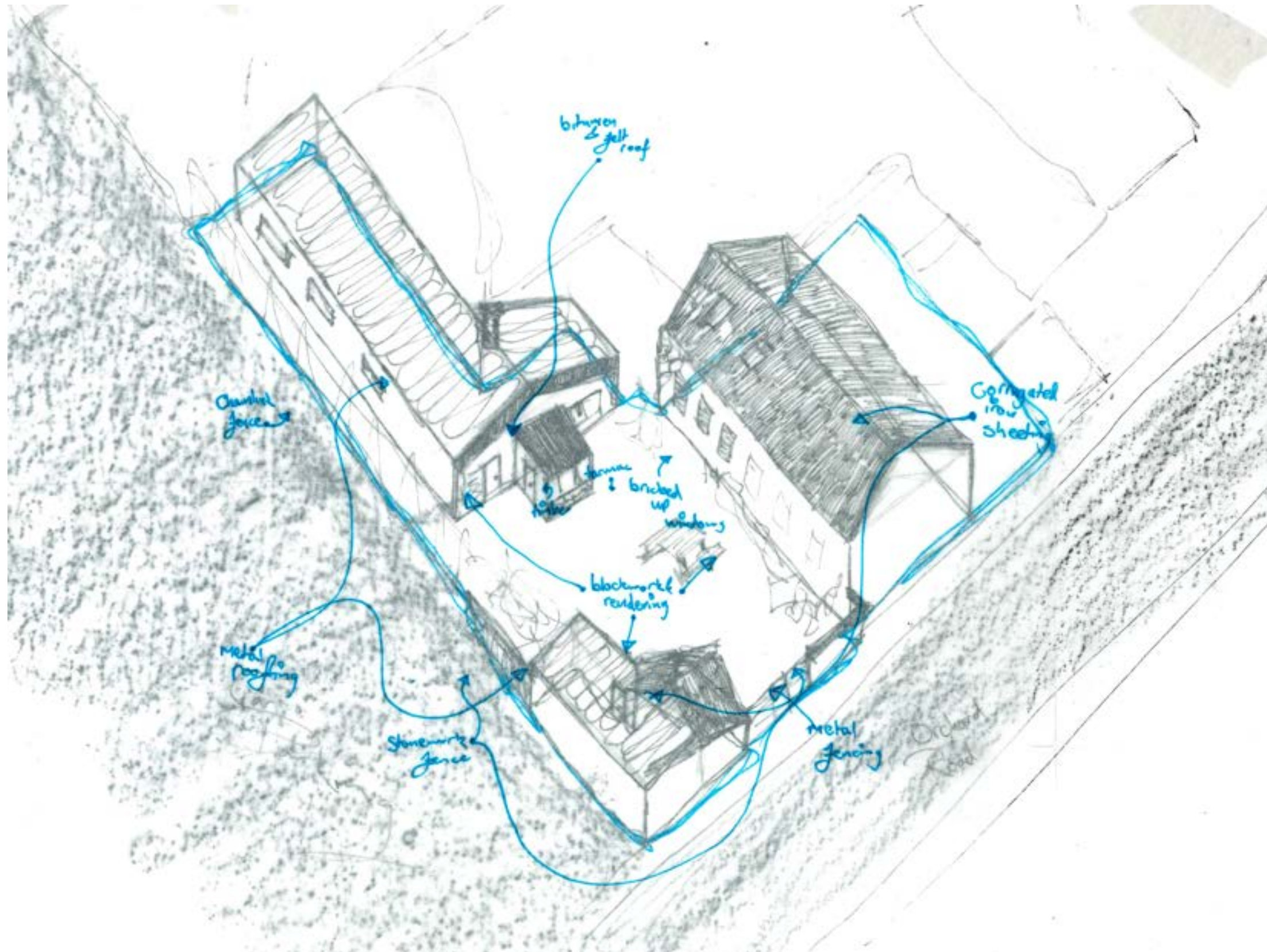
57°36'39.38"N 3°36'53.17"W



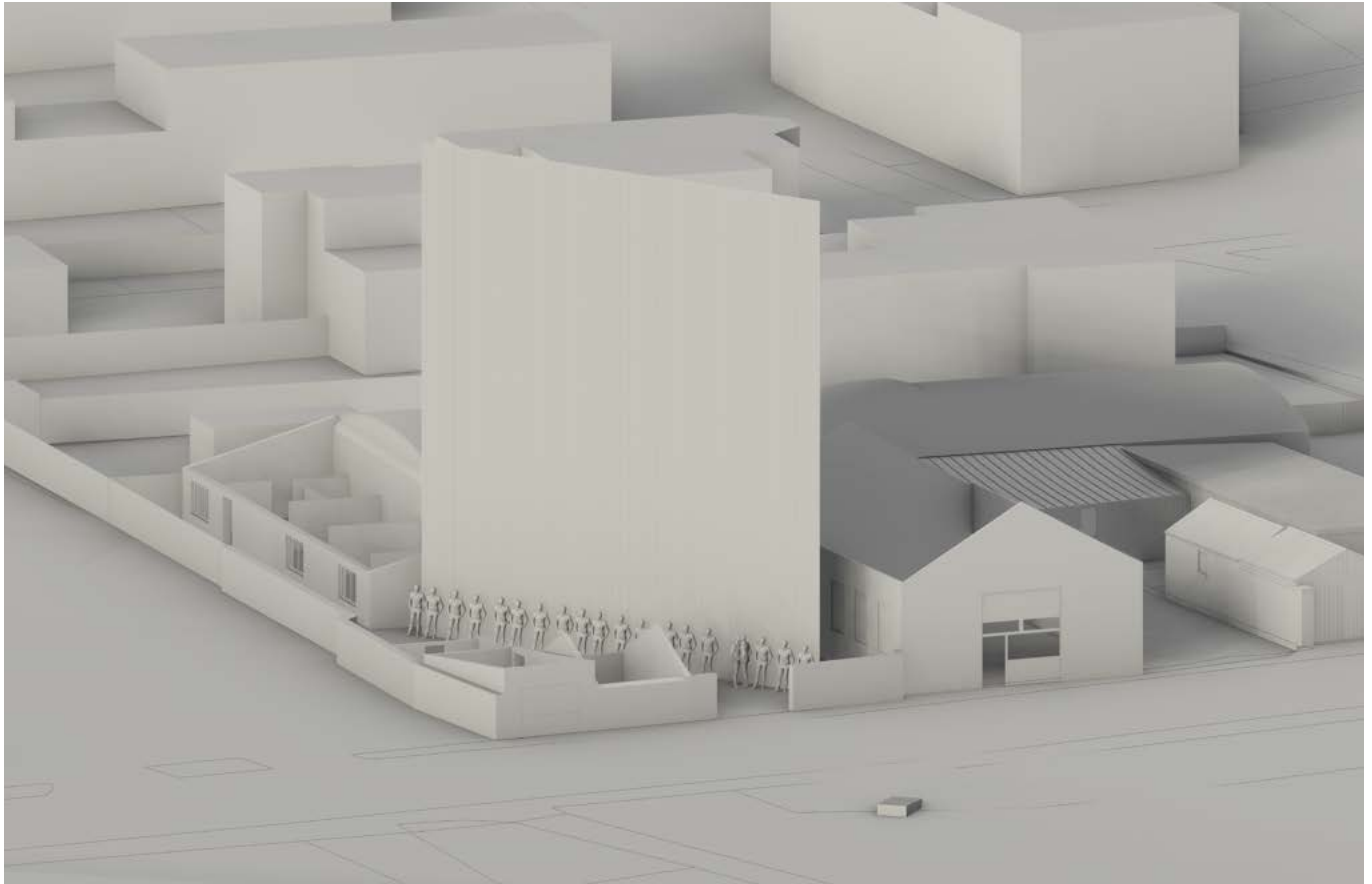
57°36'36.93"N 3°36'57.84"W



10. Maintain or renew,  
reuse or recycle

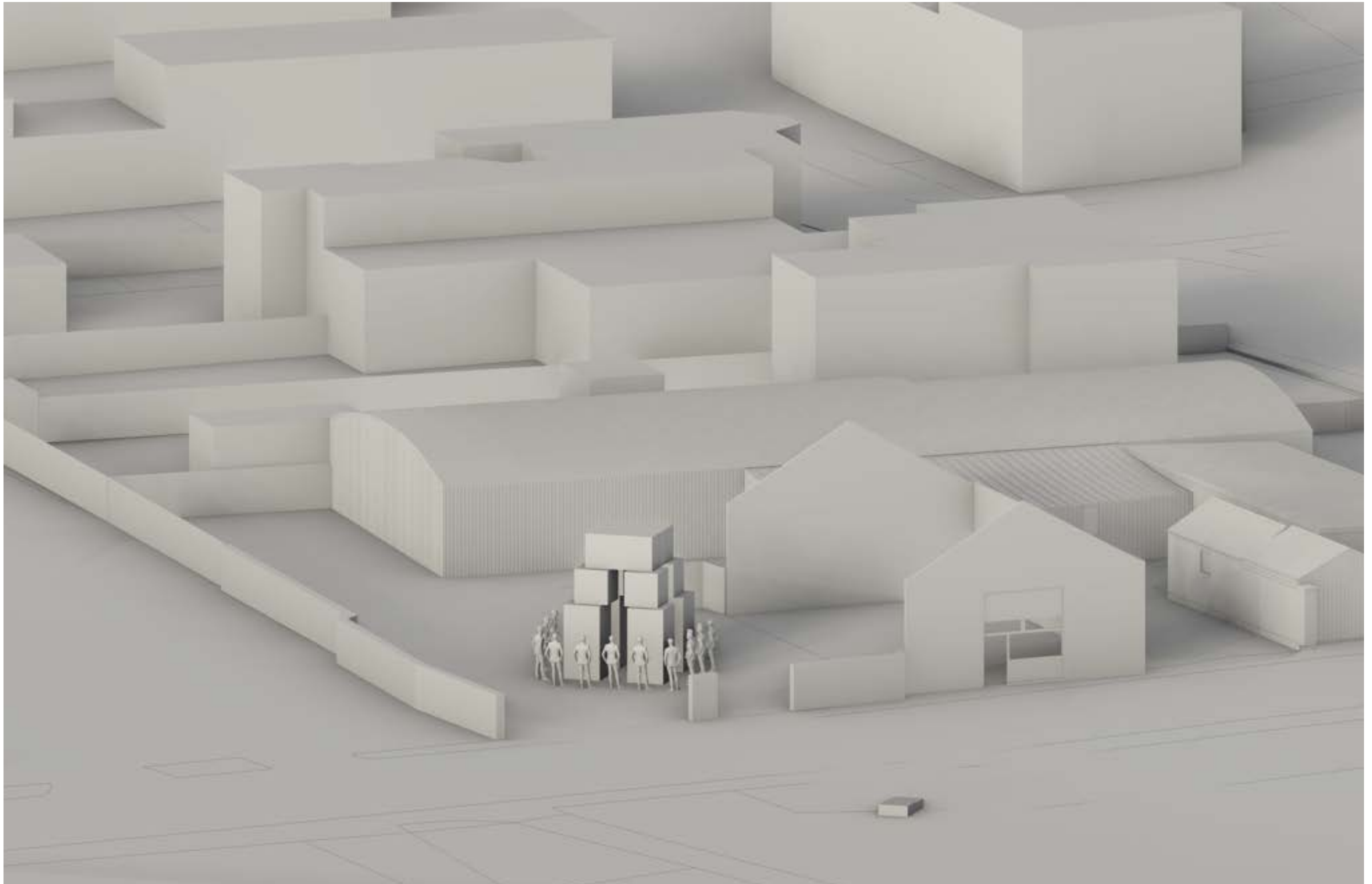






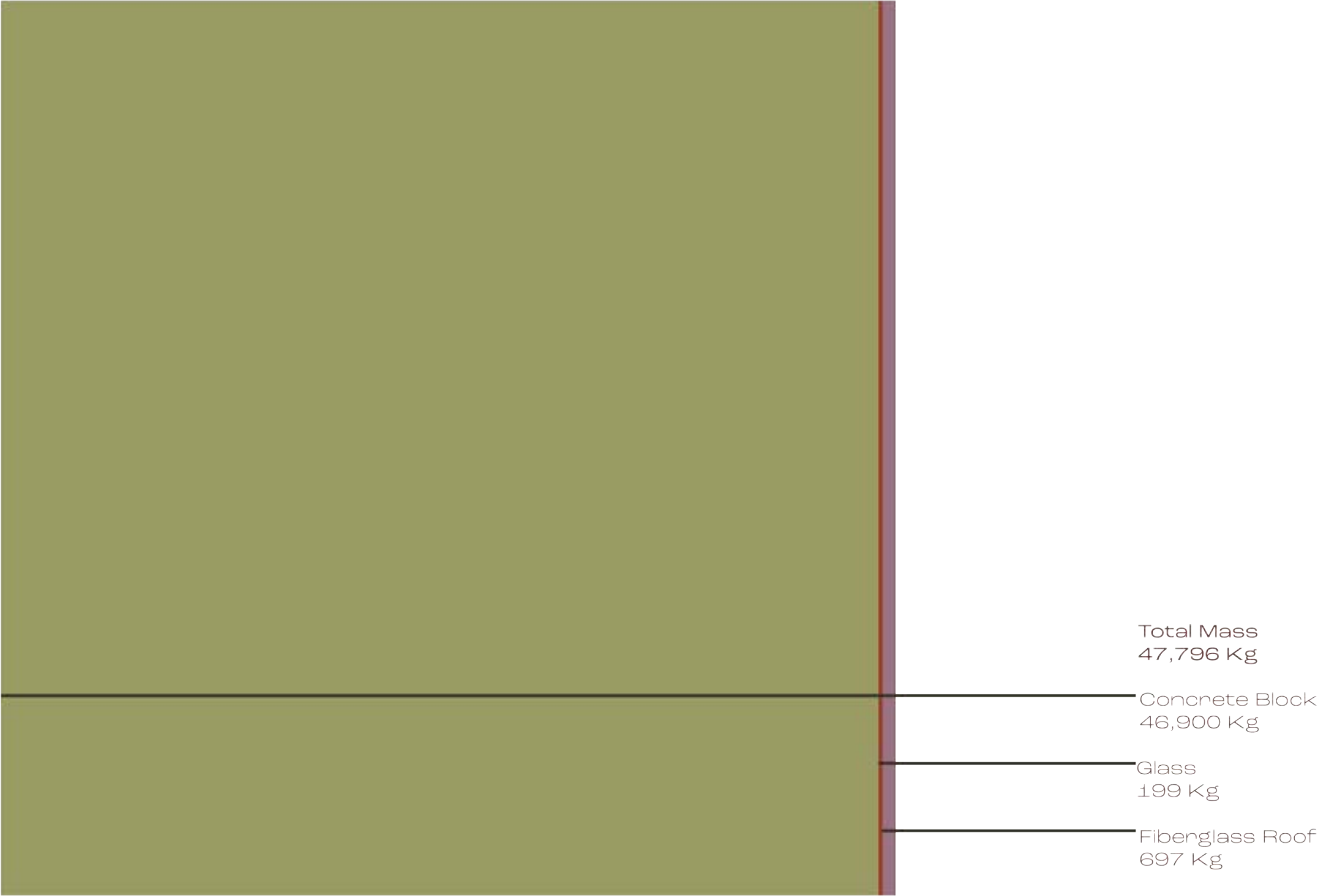
Area of corrugated roofing

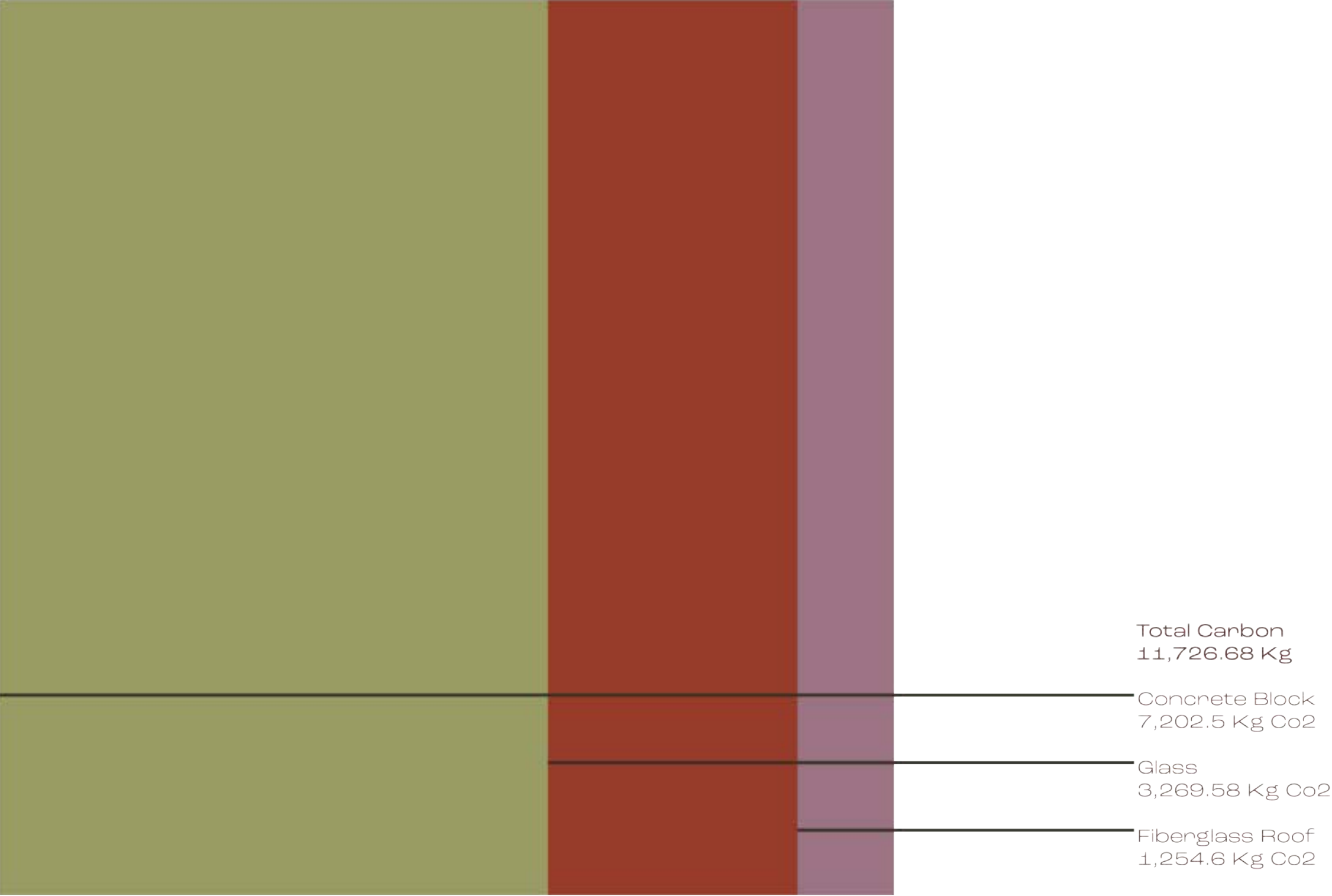




Volume of concrete blockwork

Carbon Counting







The Site

The School

Self-build is engaging the artists in their space

Self-build is engaging directly with materials and their cycles

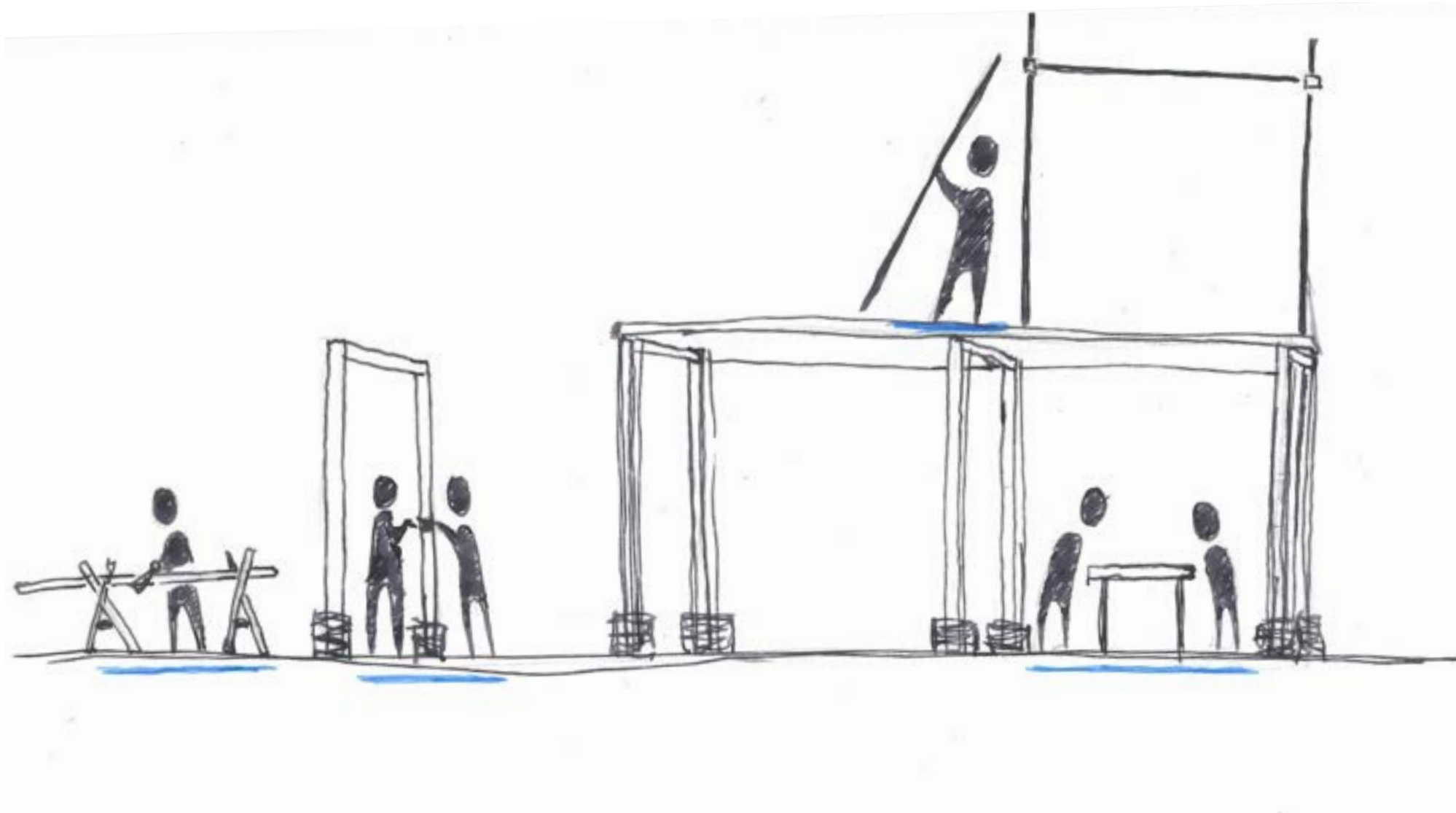
Users are their own spatial specialists – they know what is needed for them more than anyone else, and so they can set spatial goals. Architects can help to achieve spatial goals through co-design with users. Could builders help to achieve spatial goals through co-construction?

Self-build improves spatial outcomes, user investment in space, and artist's work outside of the project.

Self-build is circulating and passing-on of skills that penetrate beyond the built environment into the creative practice of artists.

Of course self build is a hard commitment, it would require the artist time both to learn new skills and implement them. Unlike many people who self build an artist is constantly engaged with creative practice, the building is not the end goal of the new skills; they would remain in a constant state of development.

# Pavilion Construction



## Skills learned

basic joinery  
timber frame construction  
scaffolding  
collaborative construction

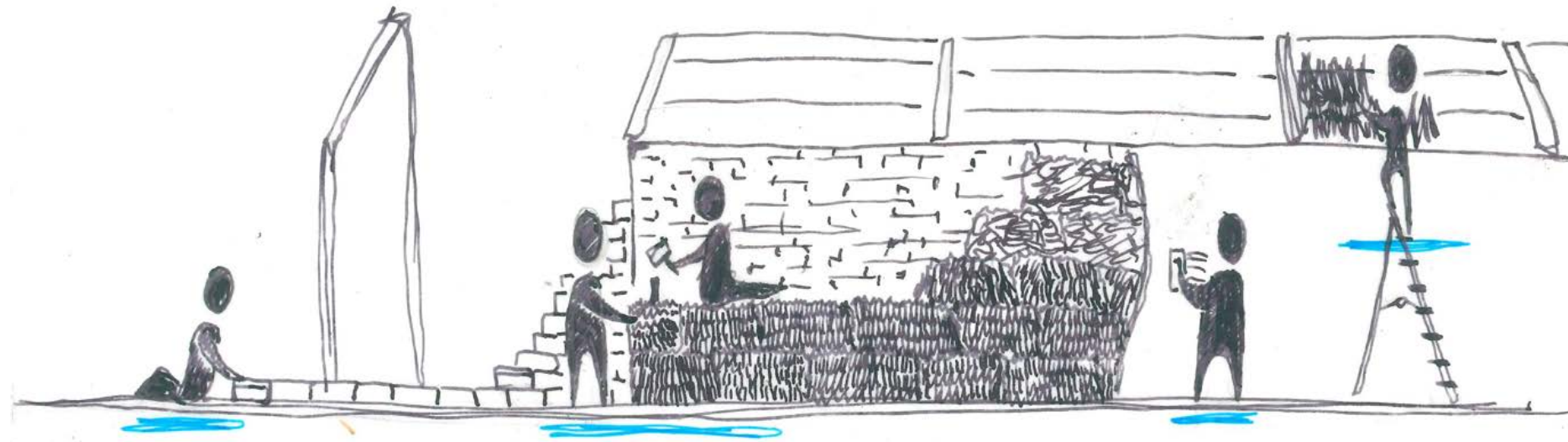


# Demounting



Skills learned  
demounting  
material organising  
learning the materials and site

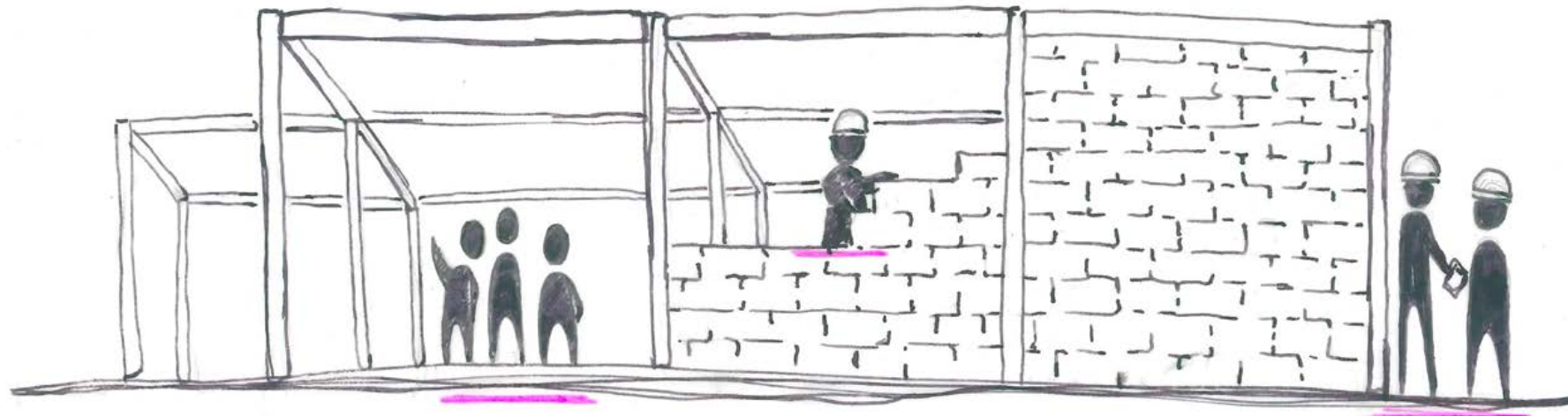
# Material Exchange Studios



## Skills learned

block wall construction  
straw bale construction  
heather foraging and thatching  
detailing

# Final Workshop

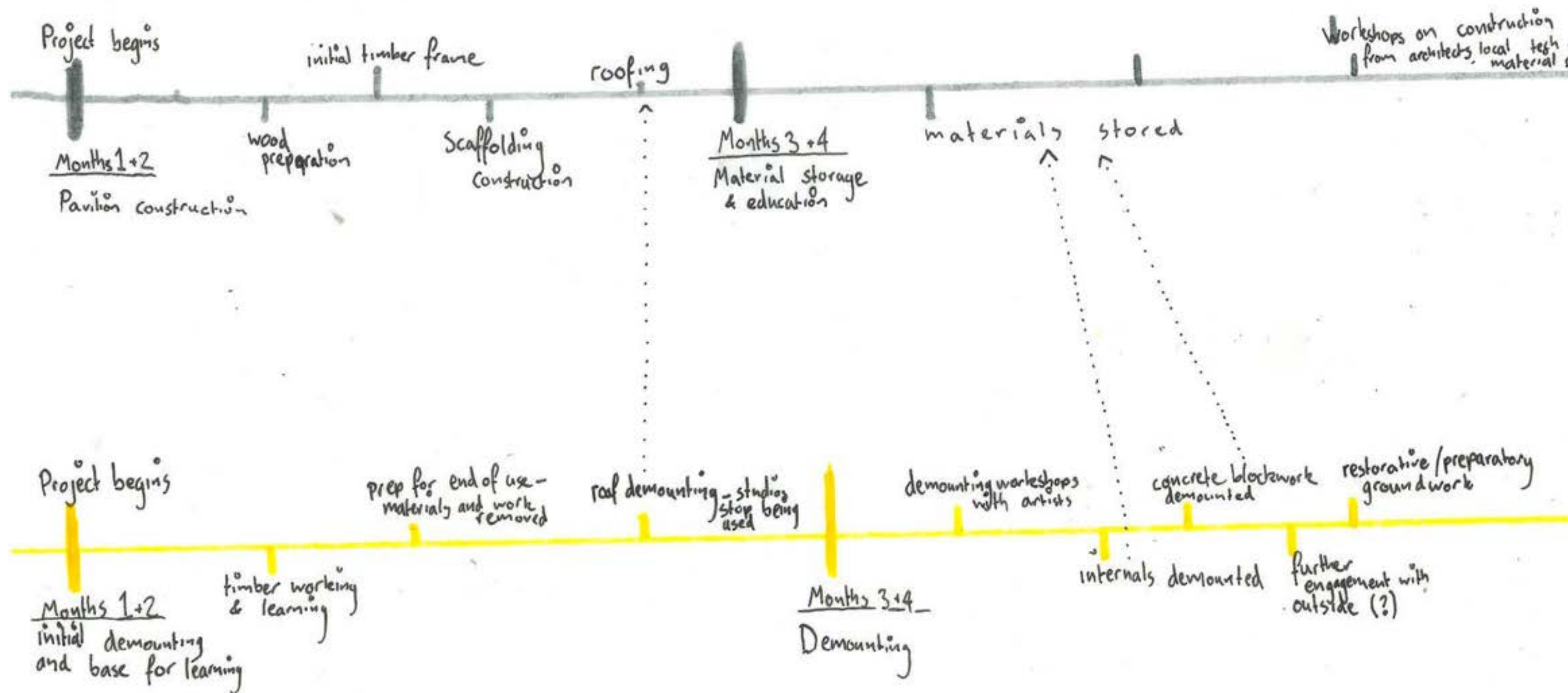


Skills learned  
frame wall construction  
spatial Design  
construction co-ordination



# Construction Order

North of the road (studios)  
 South of the road (pavilion)



PS on construction  
architects, local tech college,  
material suppliers(?)

Months 5-12  
Storage & base

Community  
activation for  
heather gathering

Material  
source  
for main  
construction

begin moving materials  
into library

Festival program  
finalisation

Festival  
marketing

Months 12-13  
Festival



Pavilion  
is mo.  
and exp

road closure  
and studios  
opening

an

ative/preparatory  
work

with

Months 5-12  
Main construction

Timber frame  
for materials  
library

Heather  
roof

Thatch

New timber  
structural elements

Thatch roofing

Months 12-13  
Festival

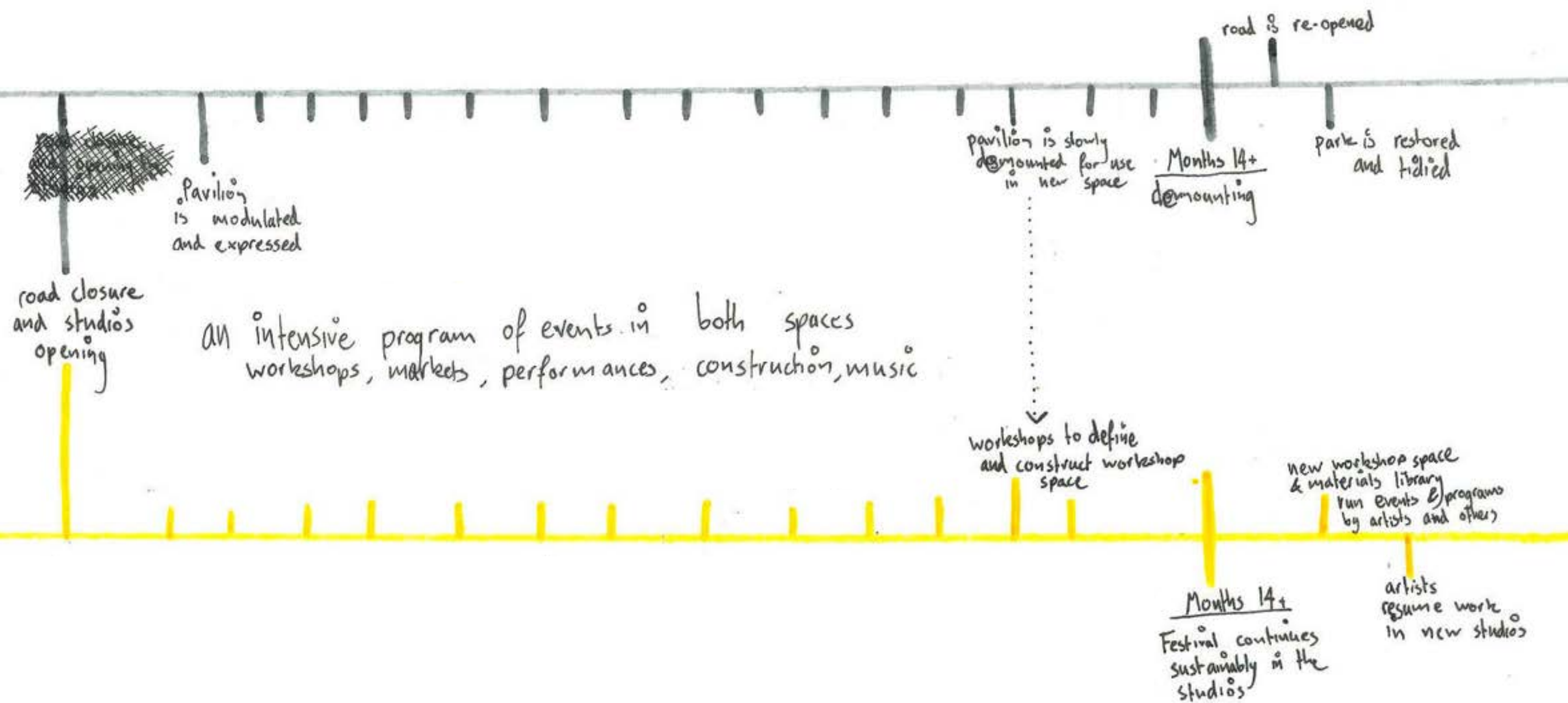
blockwork & straw  
walls

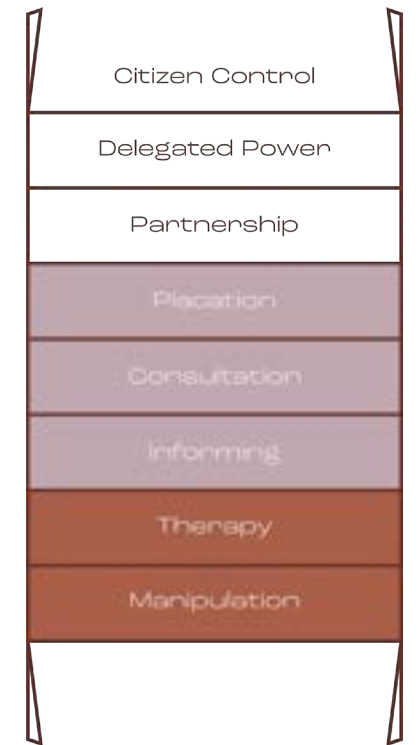
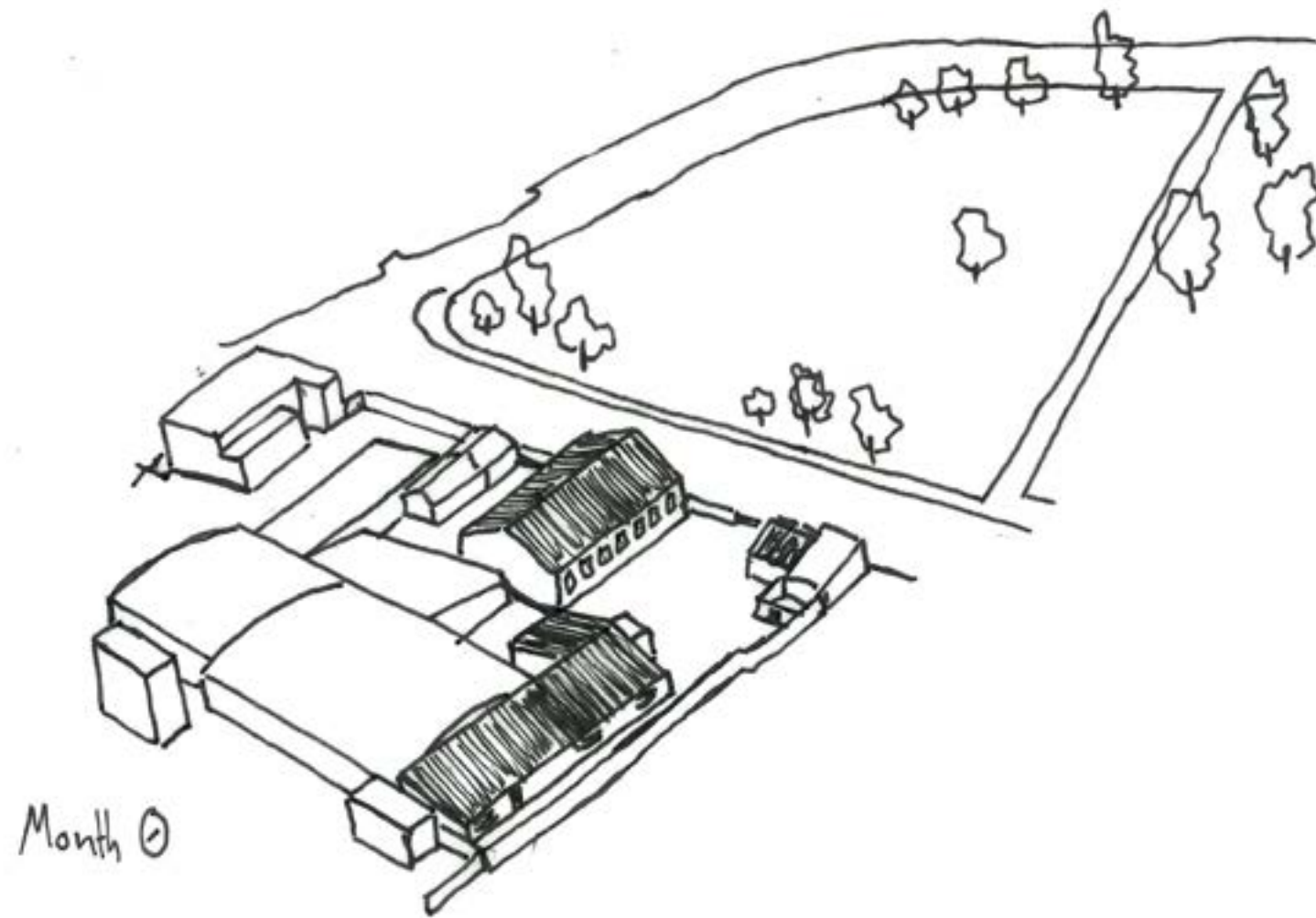
Dismantling of  
necessary parts of  
bikeshed (into materials  
library)

blockwork  
and straw  
walls

internal finishing  
and alterations







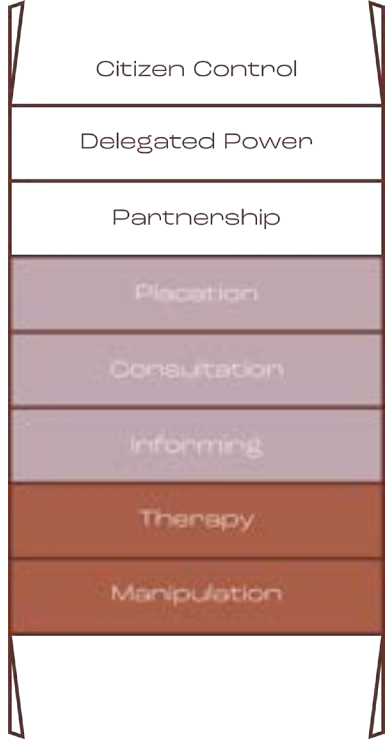
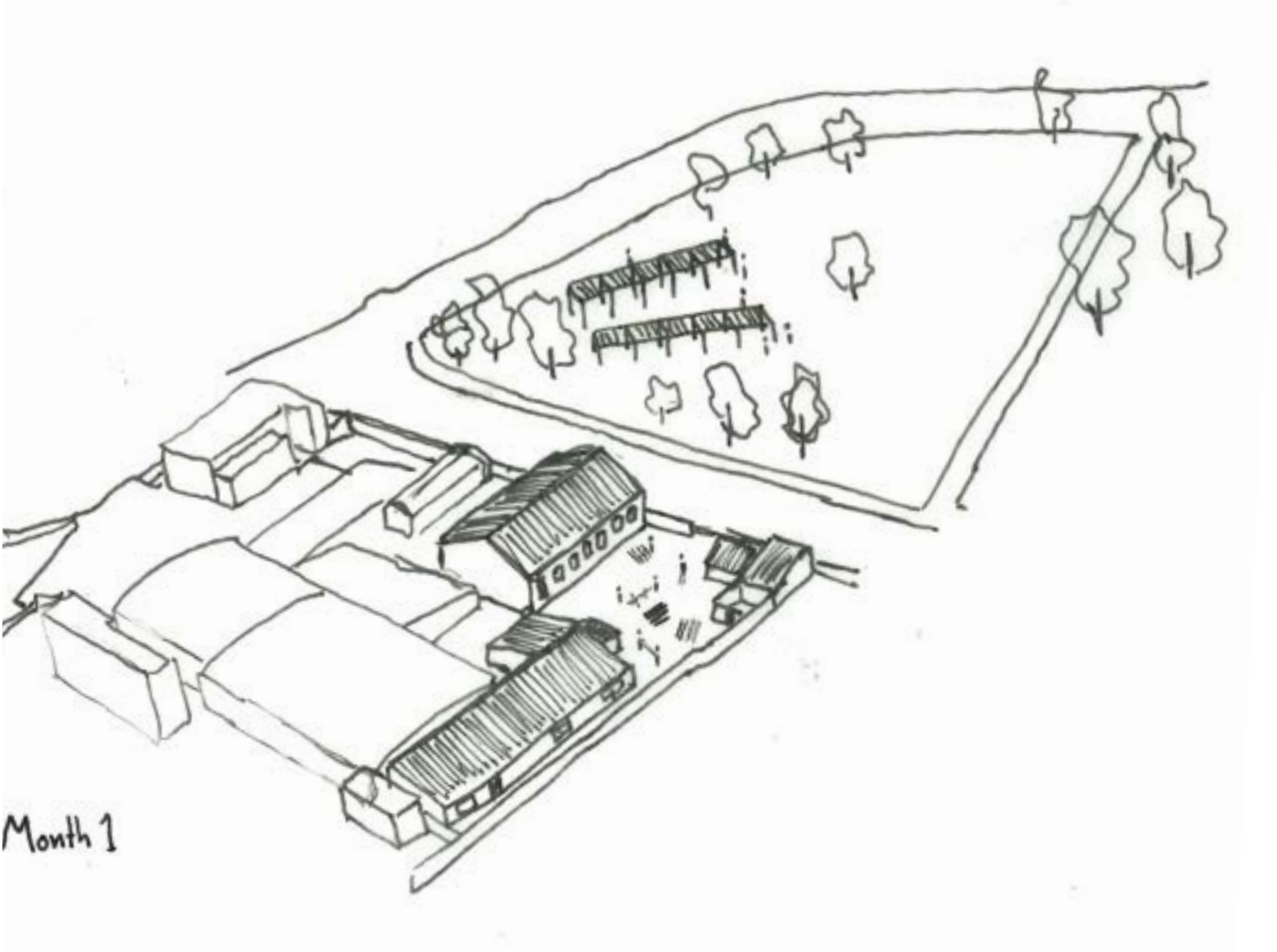
Pavillion  
constructed

Studio      Material  
Demounted   Exchange

Studios  
Complete

Festival !!!

Demount  
Reconstruct



Pavillion  
constructed

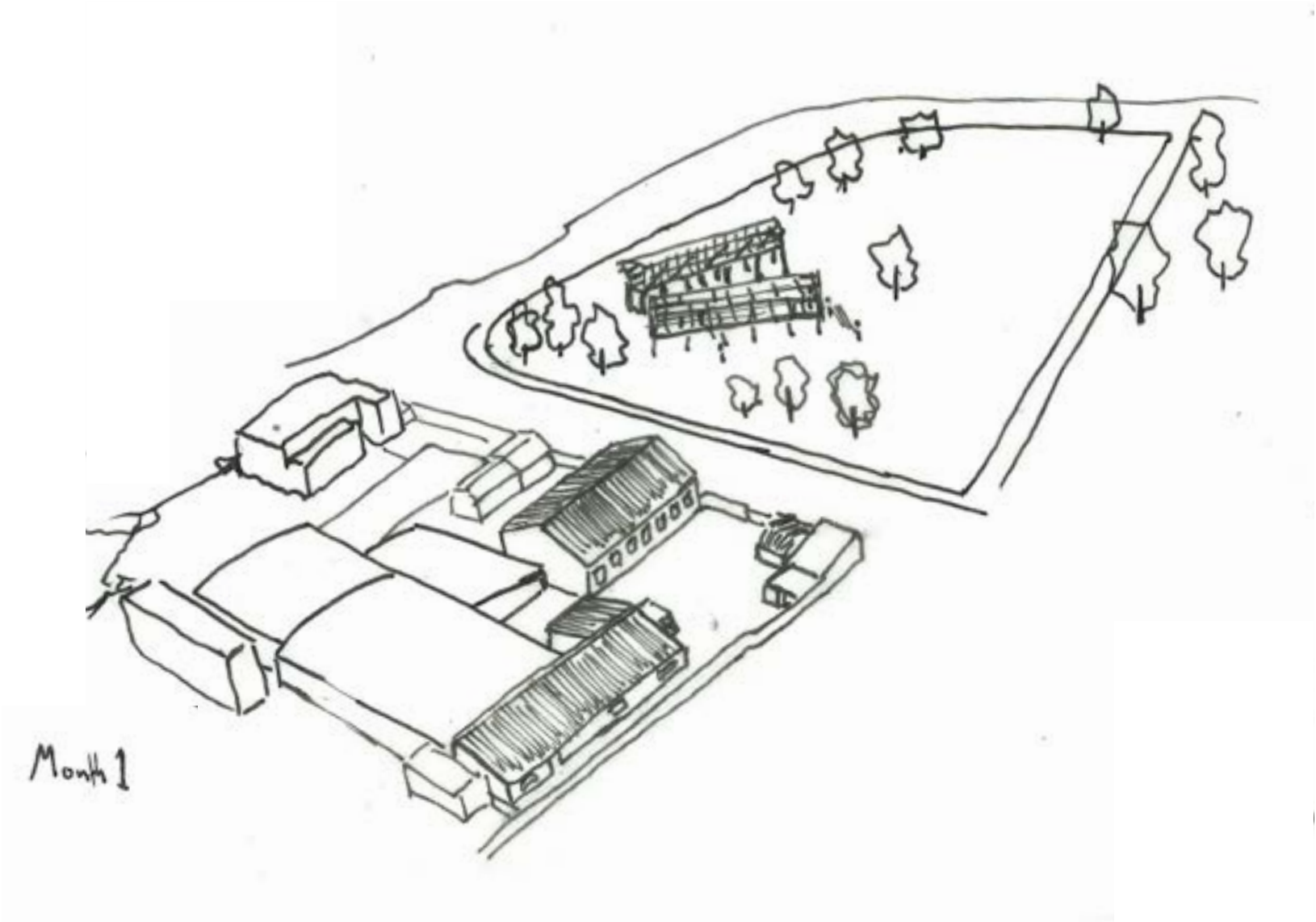
Studio  
Demounted

Material  
Exchange

Studios  
Complete

Festival !!!

Demount  
Reconstruct



Pavillion  
constructed

Studio  
Demounted

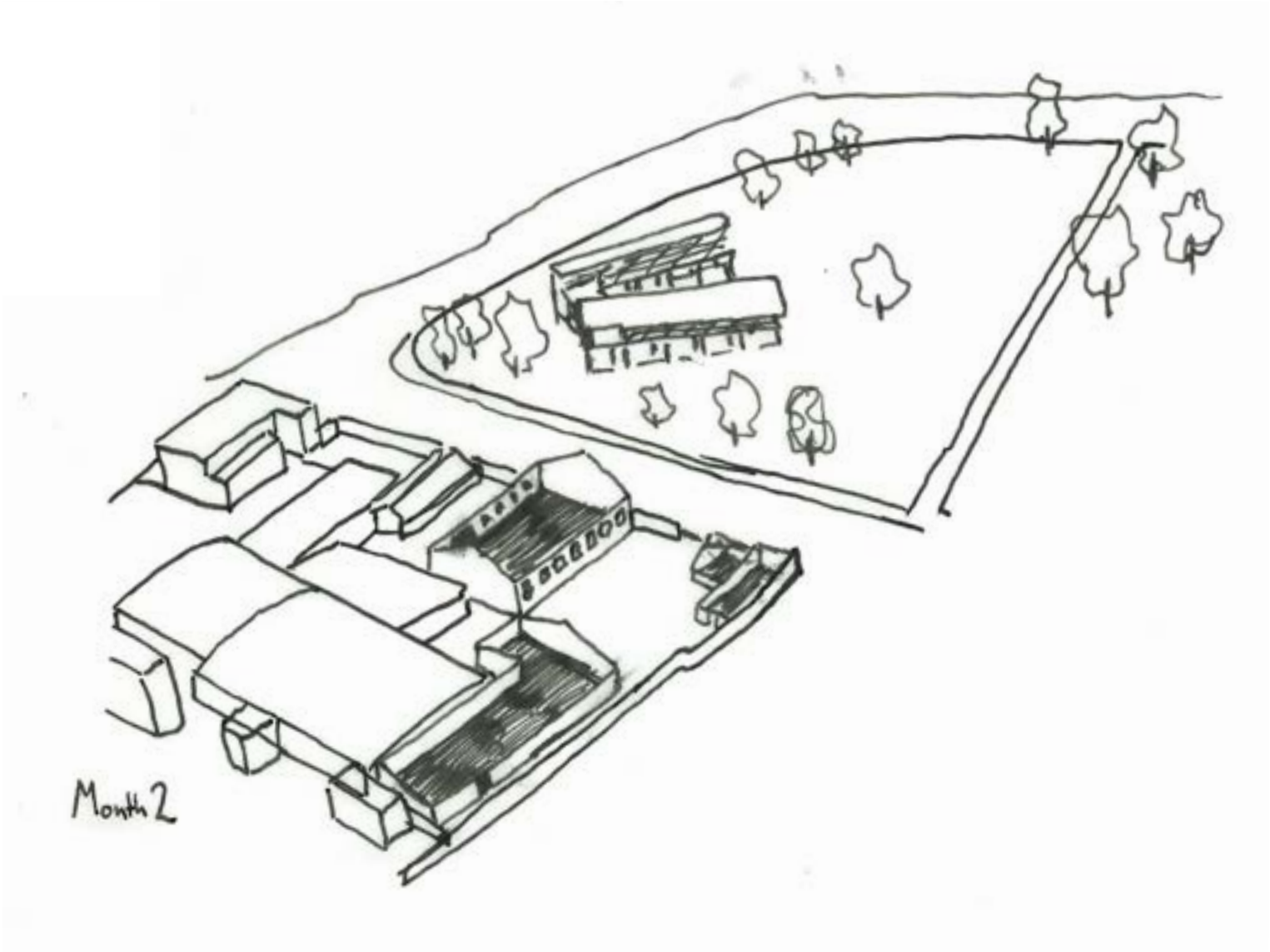
Material  
Exchange

Studios  
Complete

Festival !!!

Demount  
Reconstruct





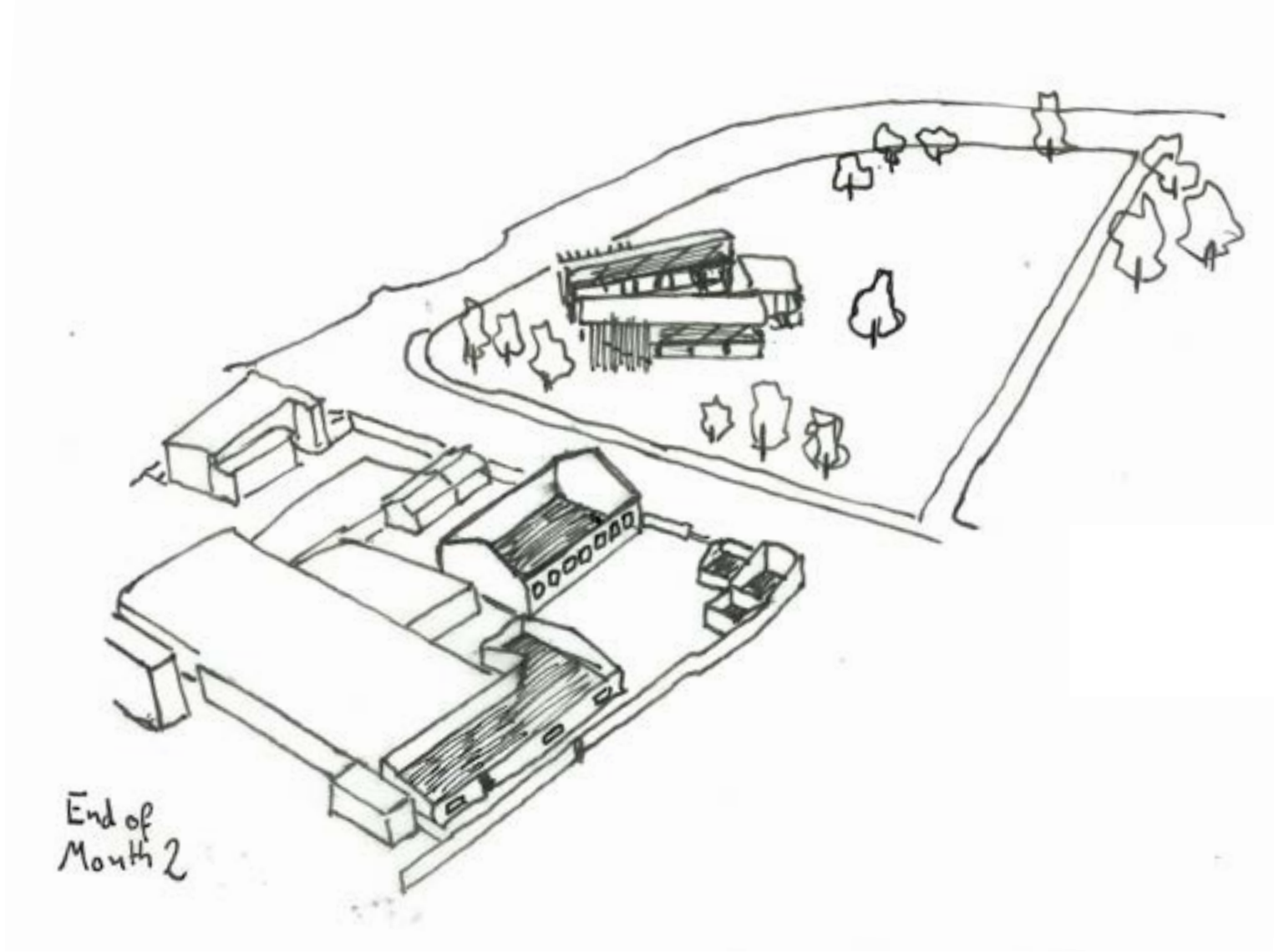
Pavillion  
constructed

Studio  
Demounted  
Material  
Exchange

Studios  
Complete

Festival !!!

Demount  
Reconstruct



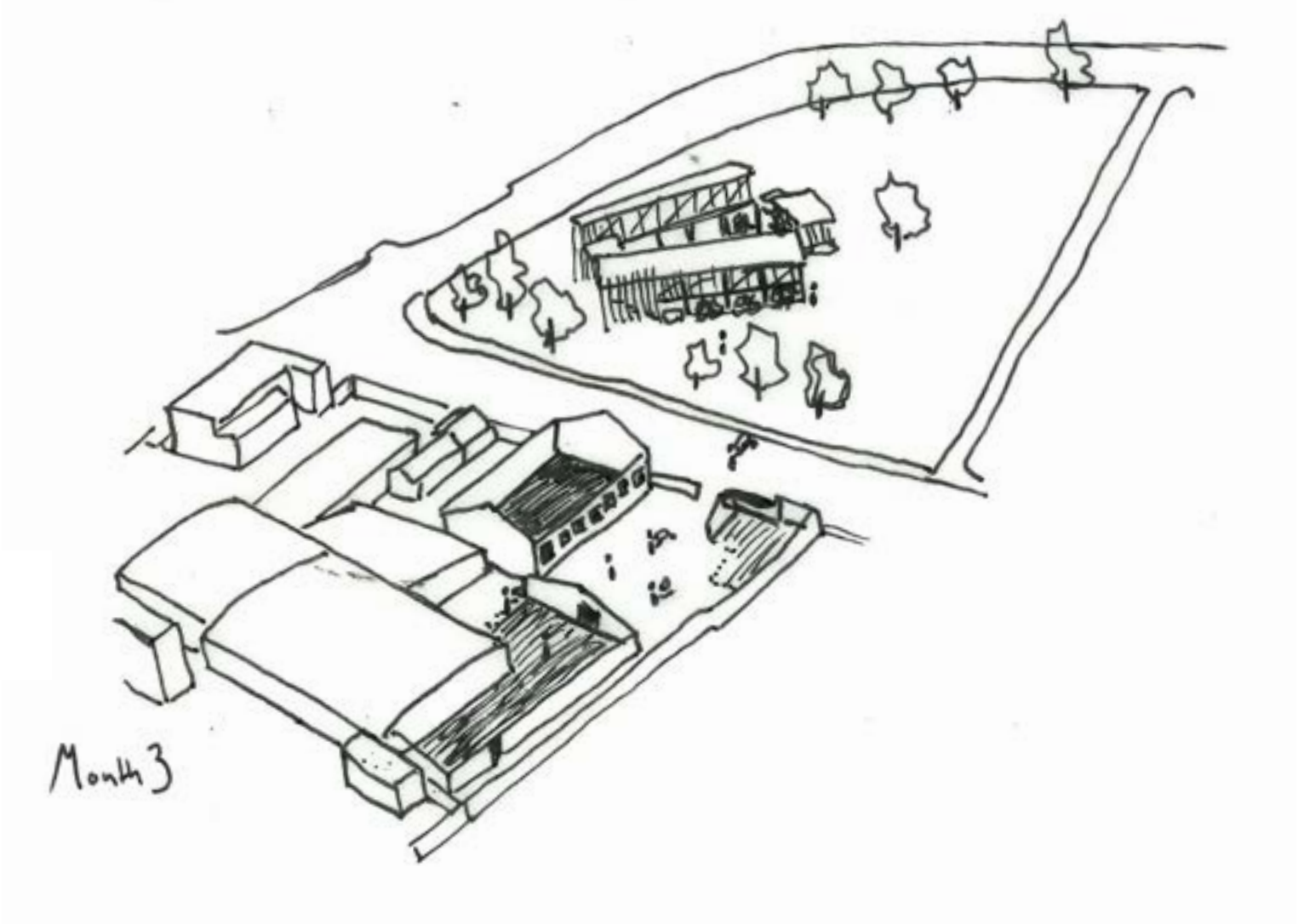
Pavillion  
constructed

Studio      Material  
Demounted   Exchange

Studios  
Complete

Festival !!!

Demount  
Reconstruct



Citizen Control
Delegated Power
Partnership
Placation
Consultation
Informing
Therapy
Manipulation

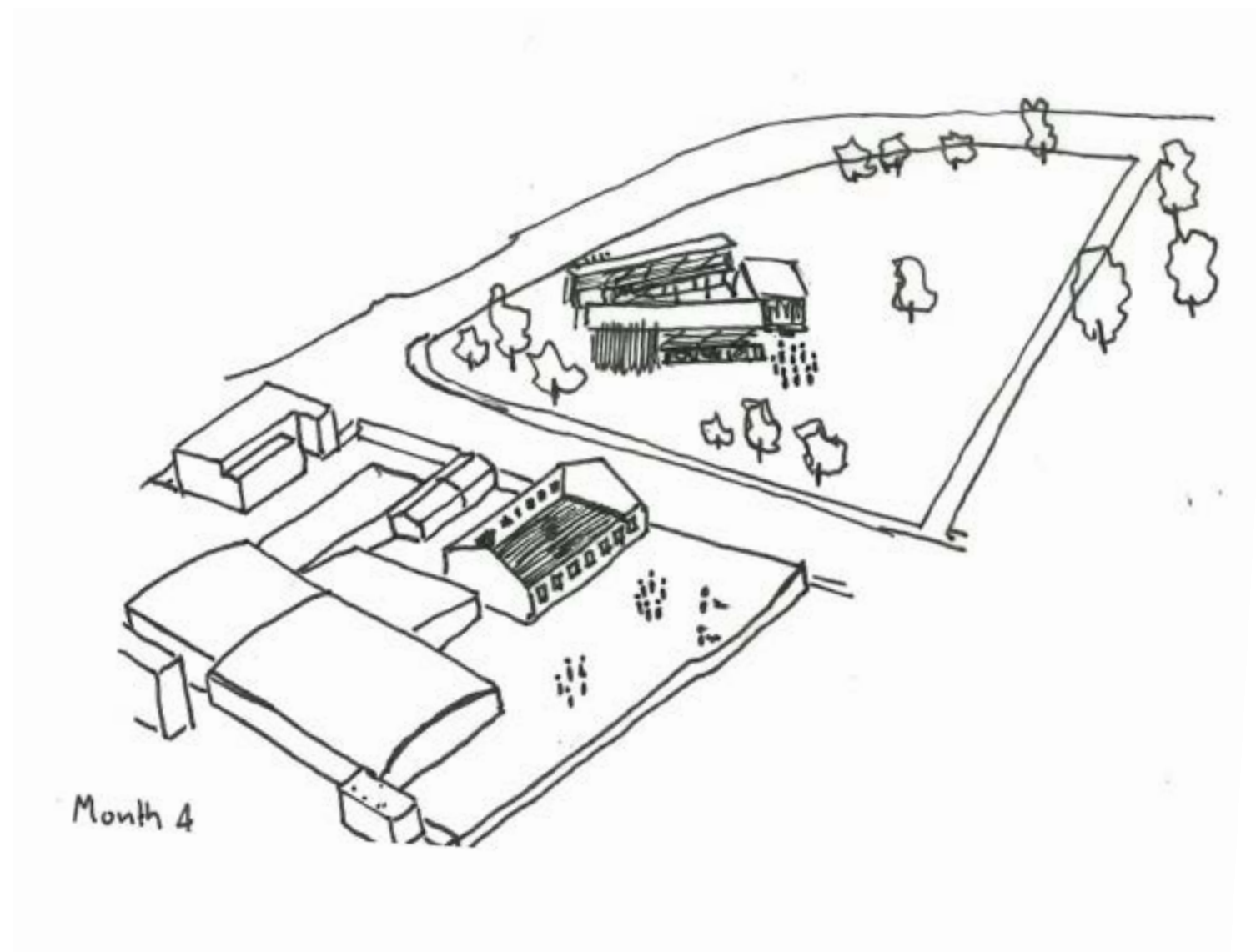
Pavillion  
constructed

Studio      Material  
Demounted   Exchange

Studios  
Complete

Festival !!!

Demount  
Reconstruct



Pavillion  
constructed

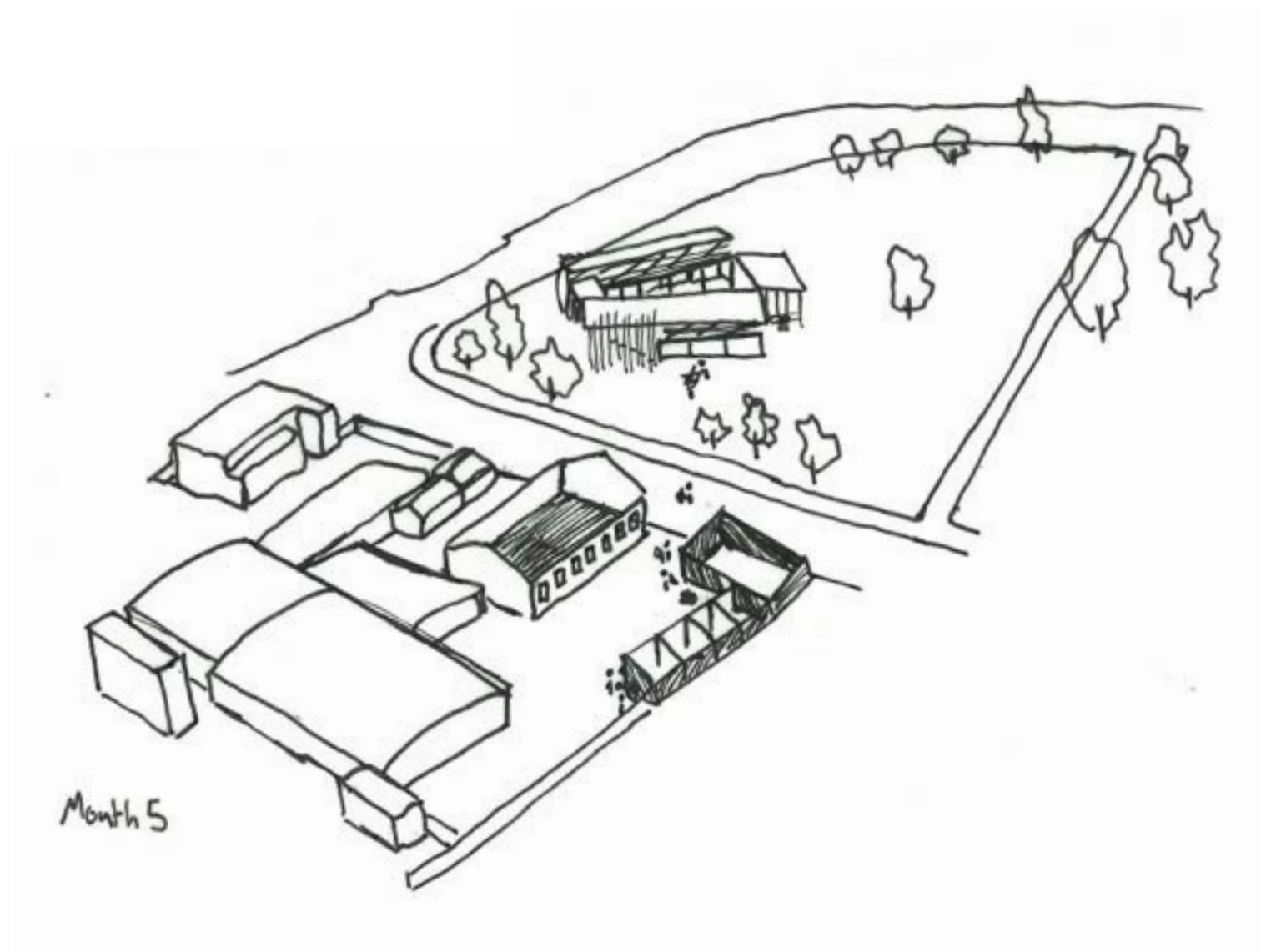
Studio  
Demounted      Material  
Exchange

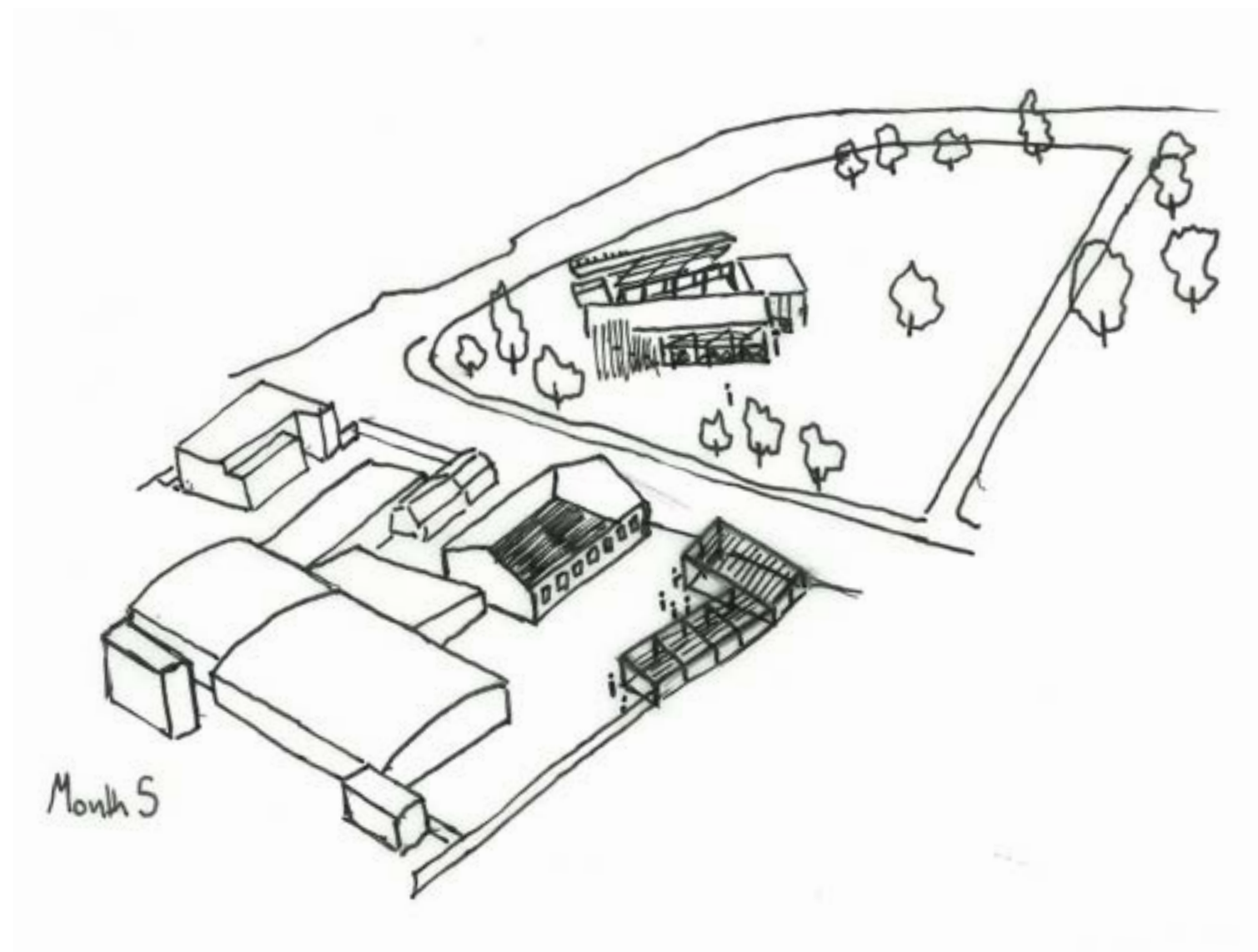
Studios  
Complete

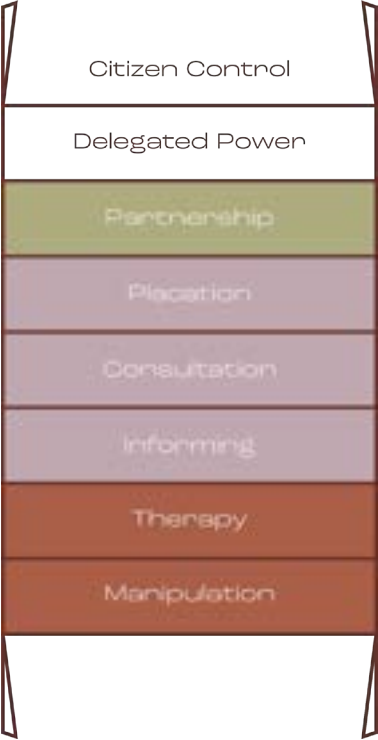
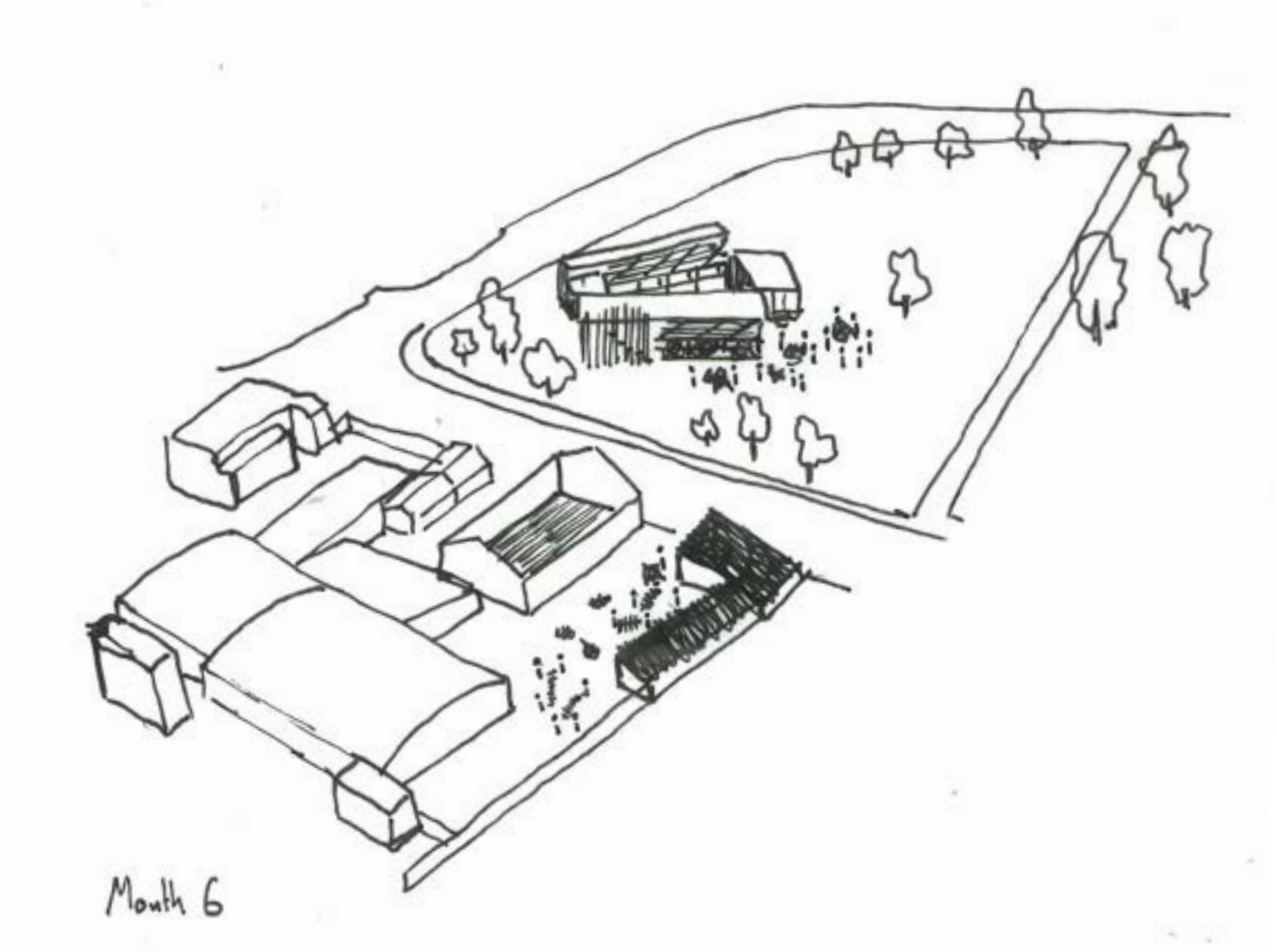
Festival !!!

Demount  
Reconstruct









Pavillion  
constructed

Studio  
Demounted

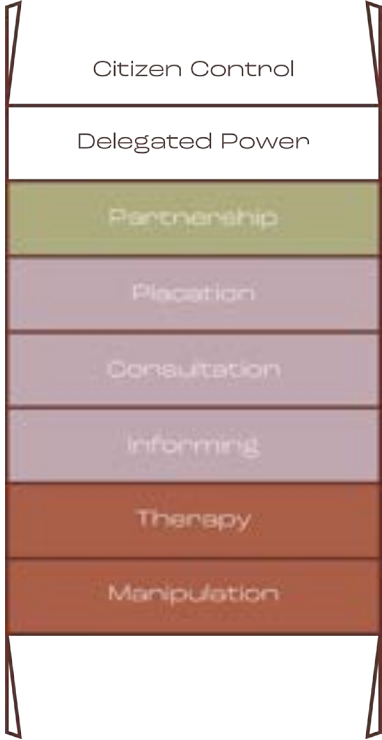
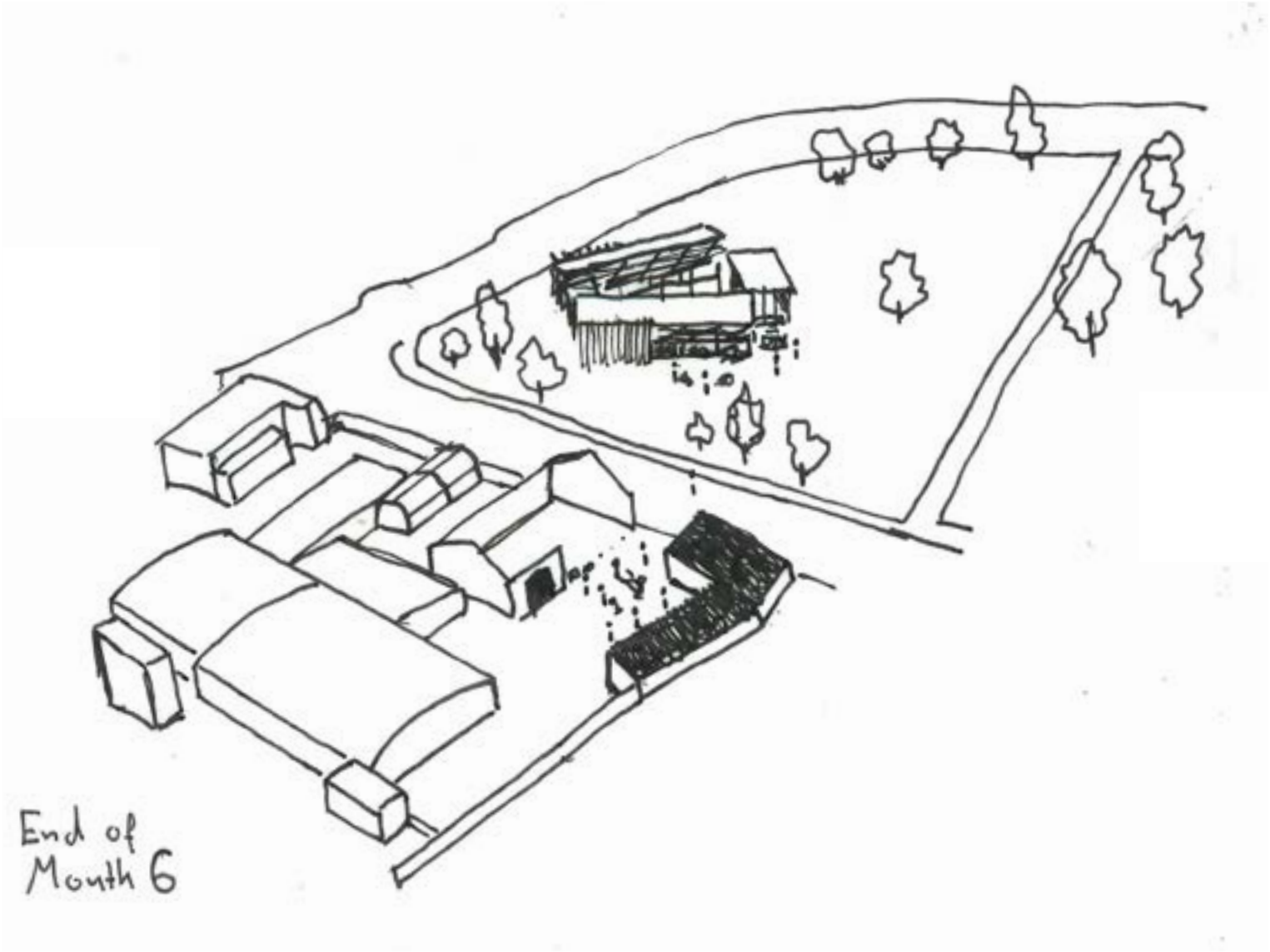
Material  
Exchange



Studios  
Complete

Festival !!!

Demount  
Reconstruct



Pavillion  
constructed

Studio  
Demounted

Material  
Exchange

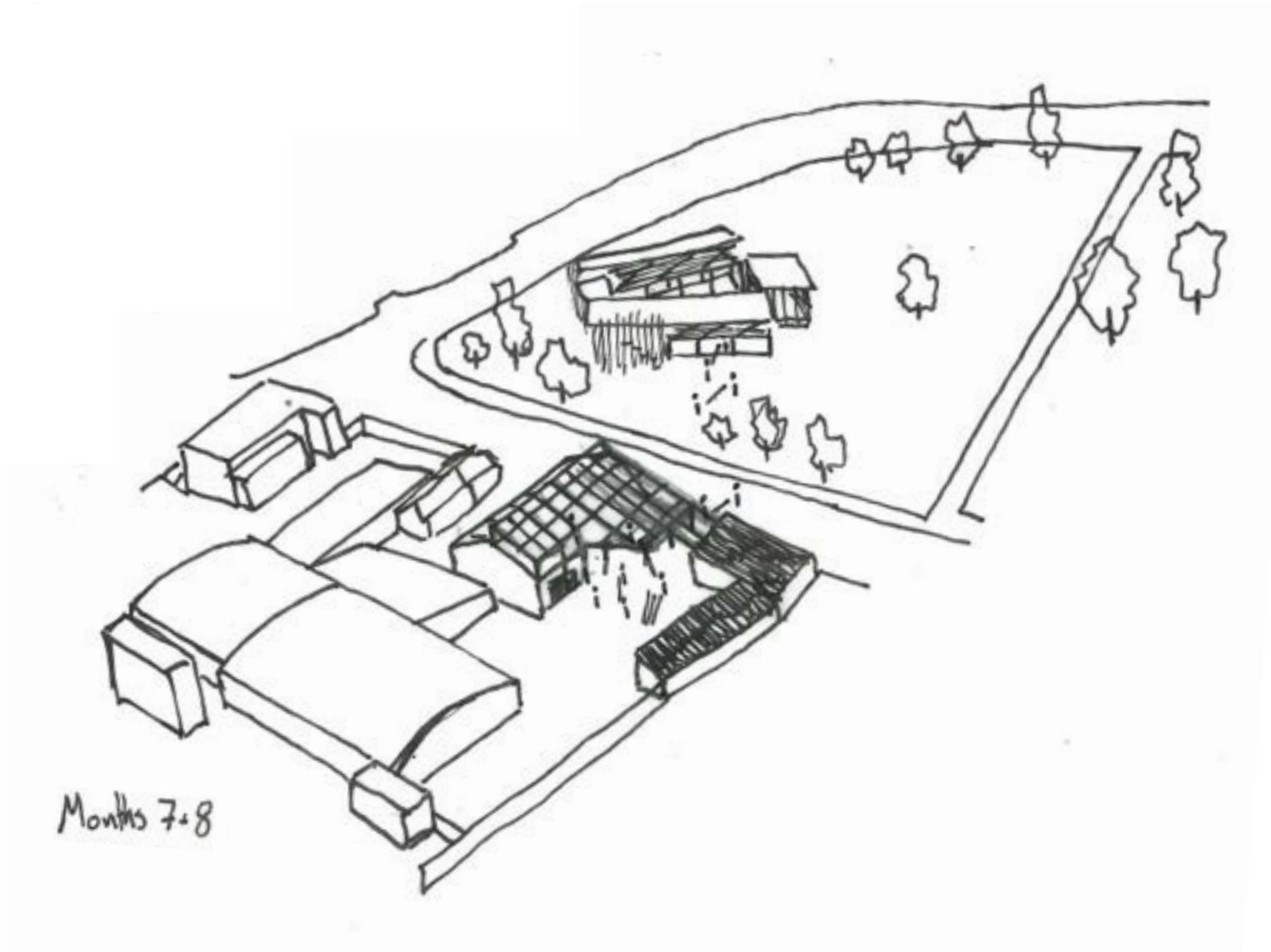


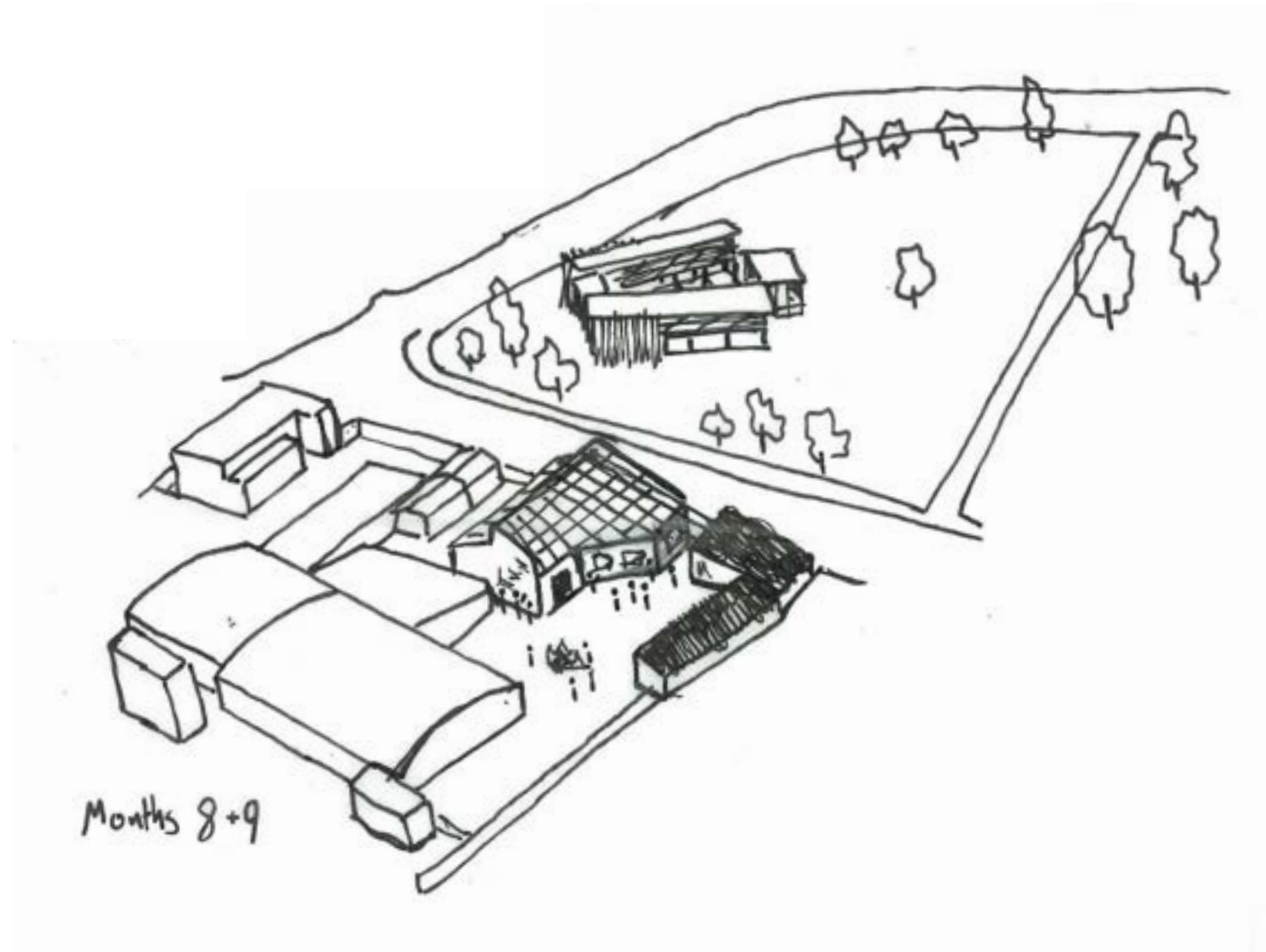
Studios  
Complete

Festival !!!

Demount  
Reconstruct







Pavillion  
constructed

Studio  
Demounted

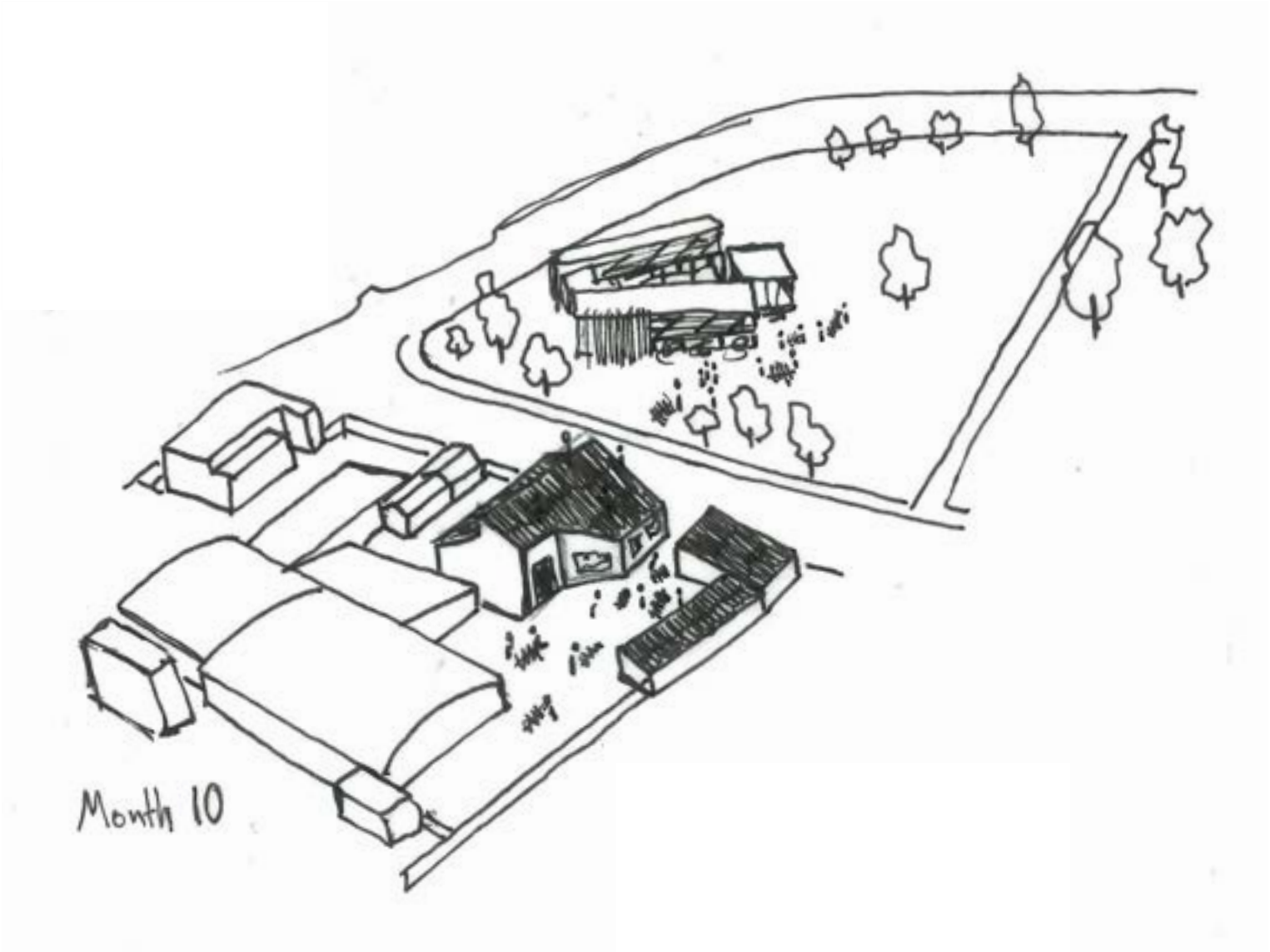
Material  
Exchange



Studios  
Complete

Festival !!!

Demount  
Reconstruct



Pavillion  
constructed

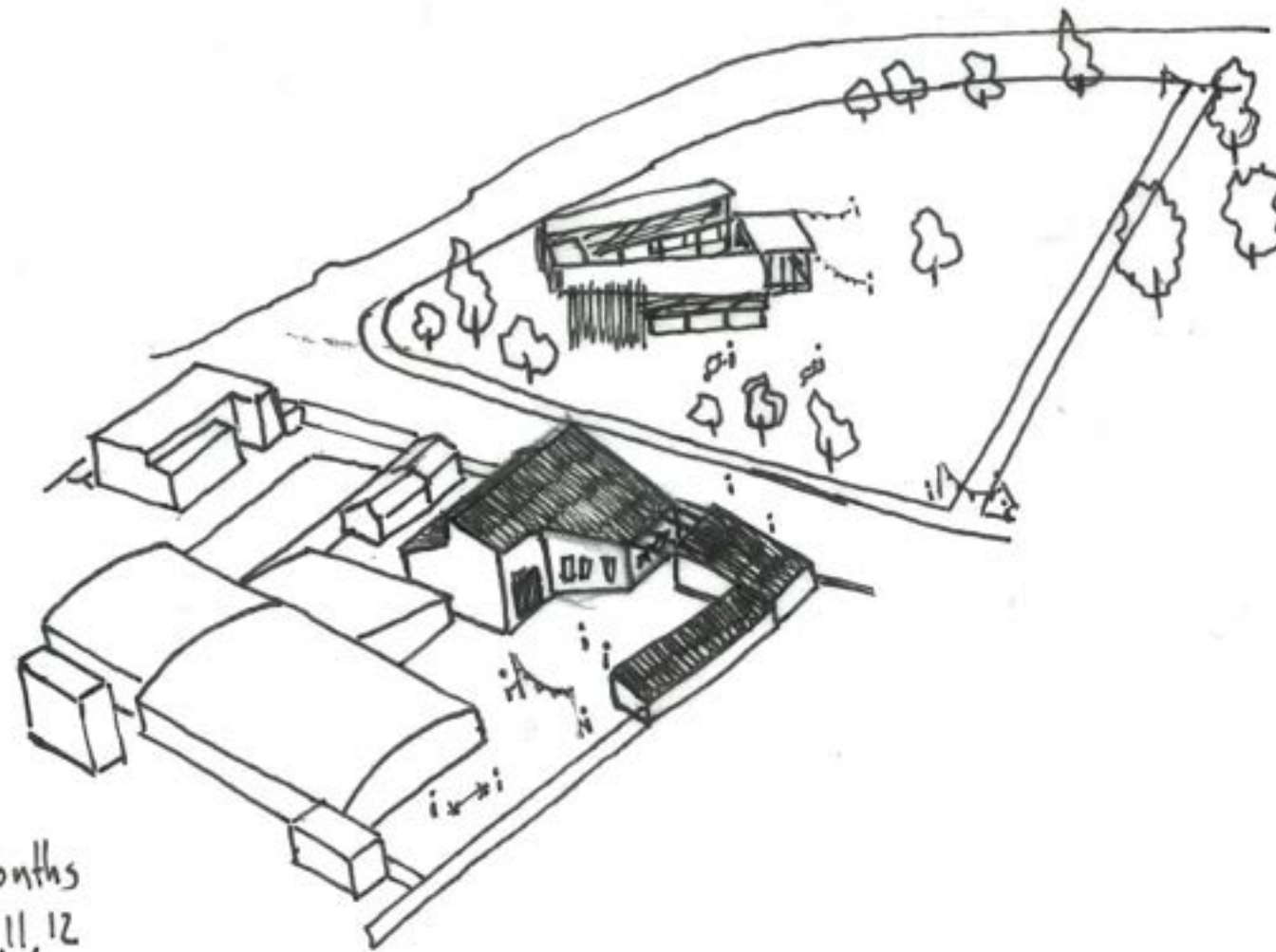
Studio  
Demounted

Material  
Exchange

Studios  
Complete

Festival !!!

Demount  
Reconstruct



Months  
10, 11, 12



Pavillion  
constructed

Studio  
Demounted

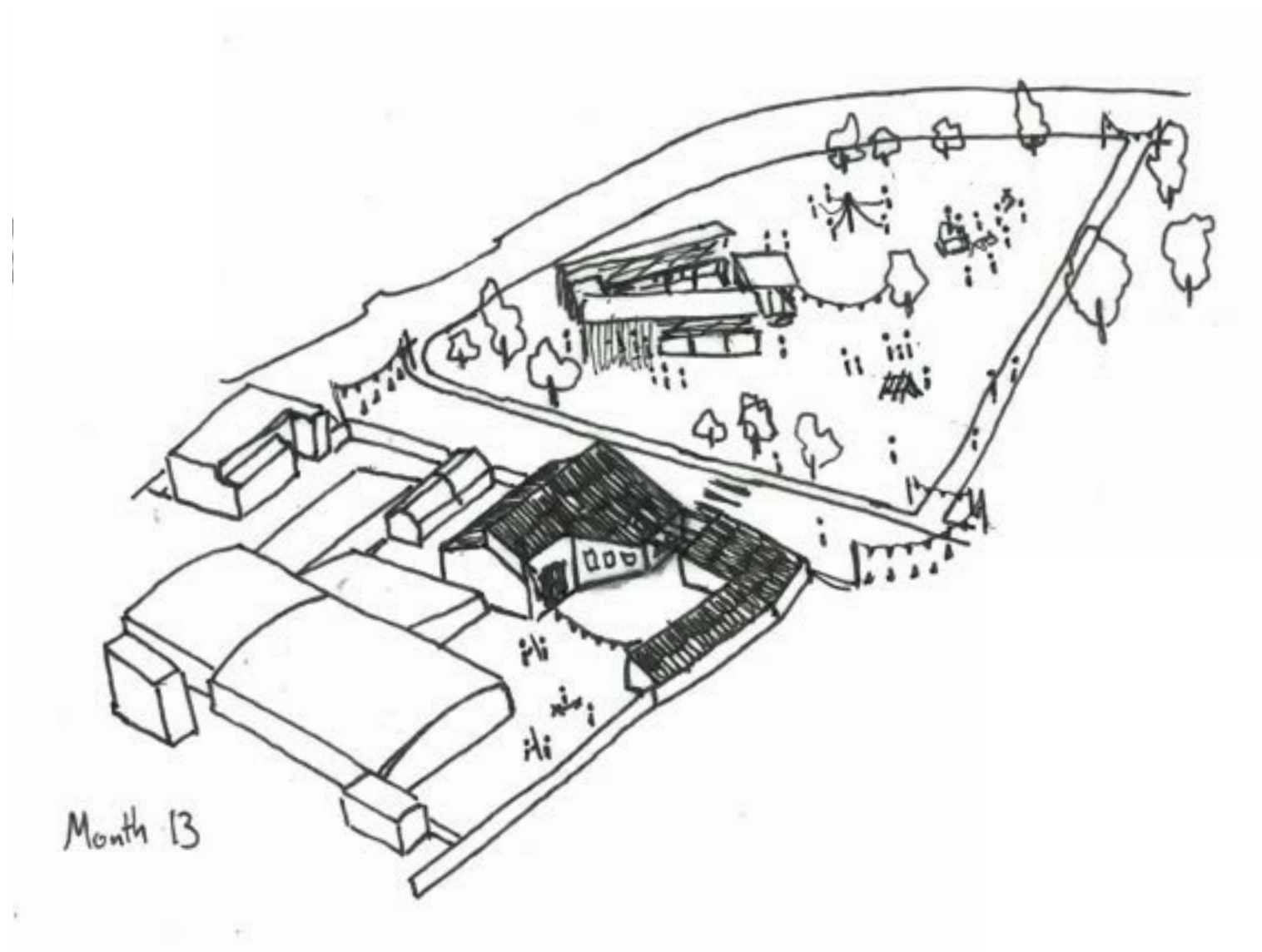
Material  
Exchange

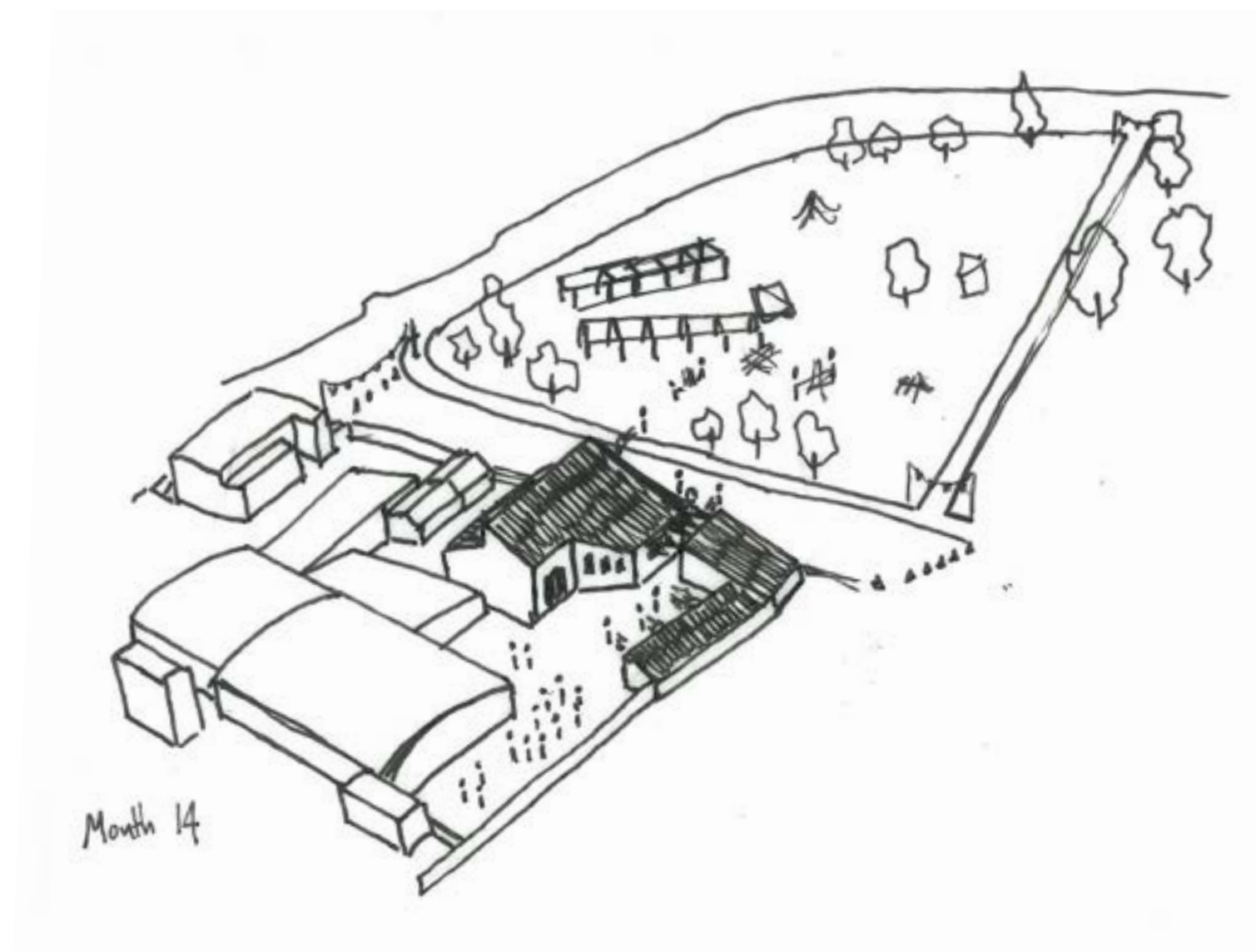
Studios  
Complete

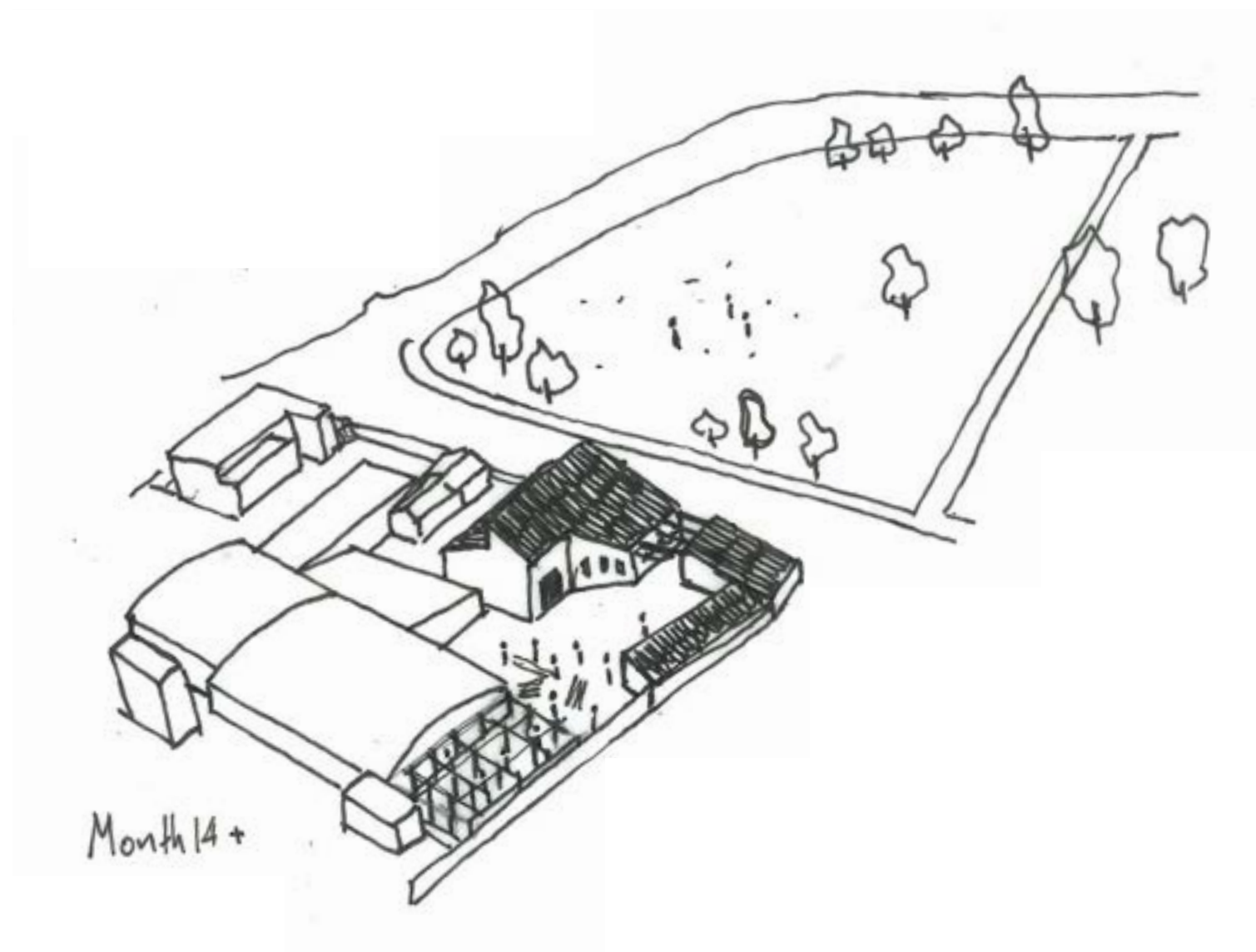
Festival !!!

Demount  
Reconstruct









Pavillion



## A question of Bricolage

The fundamental characteristic of bricolage is that it is bound by place, using what is at hand. In the case of Robinson, this connection to place and resource is not by choice but out of survival. On the 20th of November 23 The UN Environmental Program released its emissions gap report stating we are not presently on track to meet the Paris Agreement. As a society are we not in a similar position to Robinson? Could bricolage as a mode of thought help us achieve our climate goals?

Evolution does not create perfection but remains open to change. The results are based on limited resources and time, creating coexistent solutions with other species. It is context sensitive, integrative, valuing dynamism and diversity. It is born out of bricolage.

The pavilion embraces change existing in a permanent state of flux, providing a base for construction and a neutral space in which the artists can learn many of the skills required for the construction of the studios. Its materiality is bound by place using only locally sourced timber and old tyres from the neighbouring garage. Once it has served its purpose during the construction process, it then becomes the centrepiece of a festival celebrating and re-embedding the bioregional economy in Forres.

For Strauss the materials involved in bricolage are a “pre-constrained” compromise between the means and the idea. In the case of the pavilion the position of constraint is shifted; here materials are instead defined by future events, becoming a spatial proposal for the workshop and education space.

1.

2. Know your materials

3.

4.

5.

6.

7.

**8. Build local material industries**

9. Mine the City

10. Maintain or renew, reuse or  
recycle

11. Designing for non toxicity: “could  
I eat your furniture, IKEA”

12.

**13. Cross loops**

14. Create building component  
exchanges

**15. Imagine a world without waste**

16.

**17. Design for disassembly**

18.

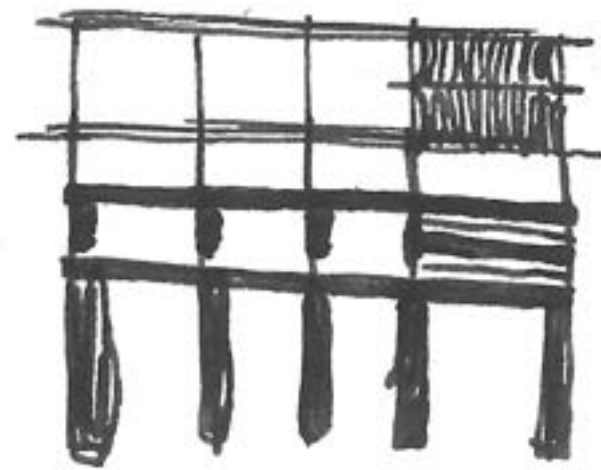
19.

**20. Embeded know-how**

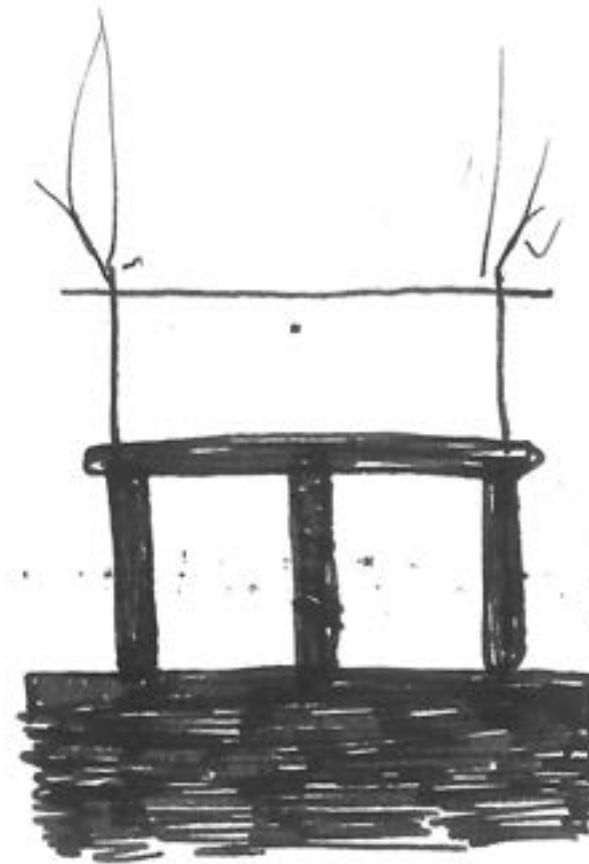
**21. Make it desirable**

22.

**MK1**

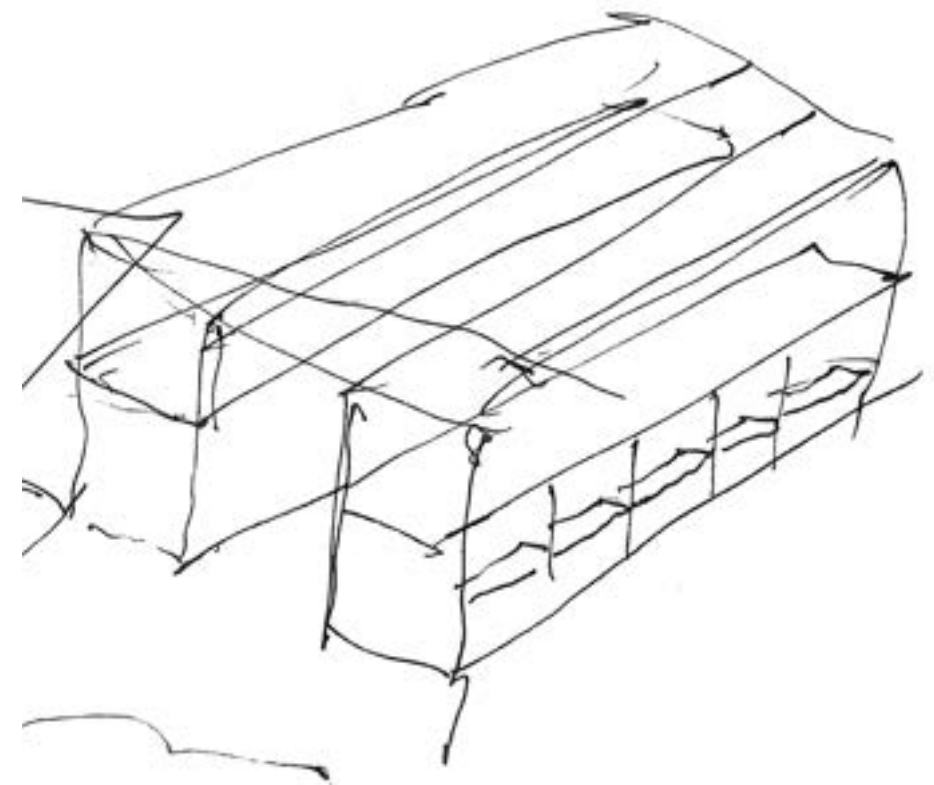
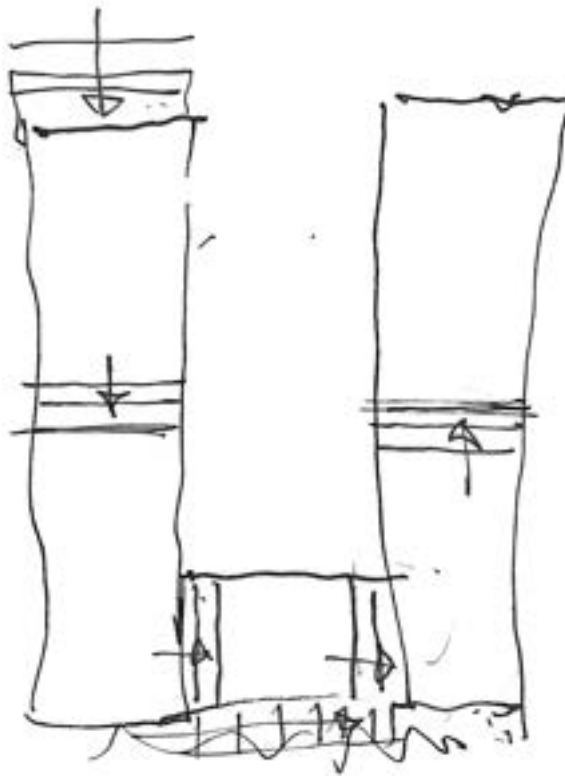
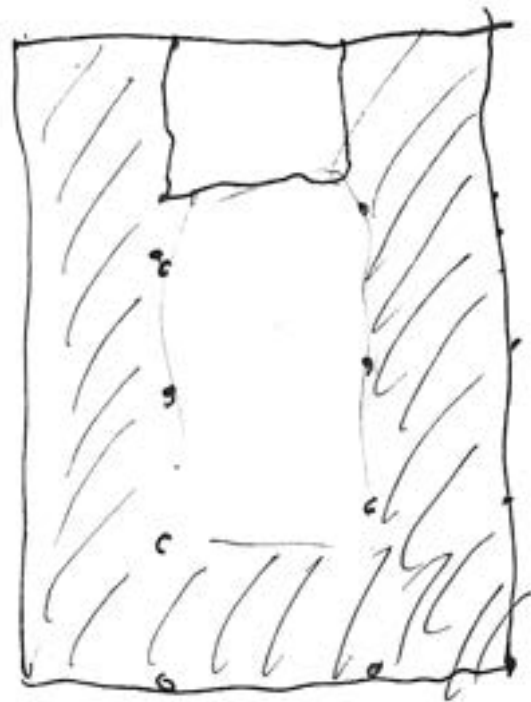


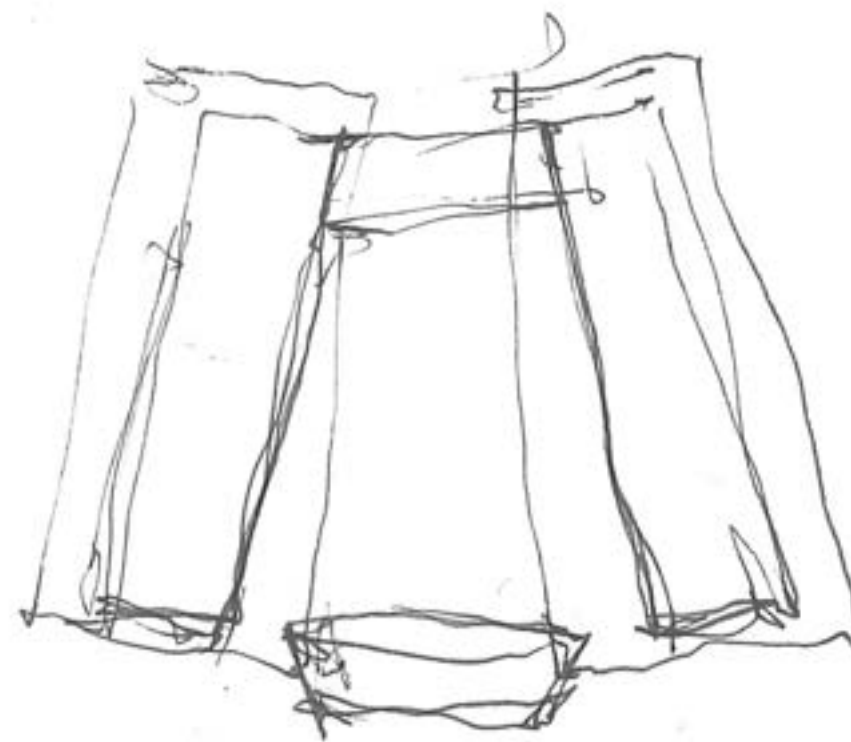
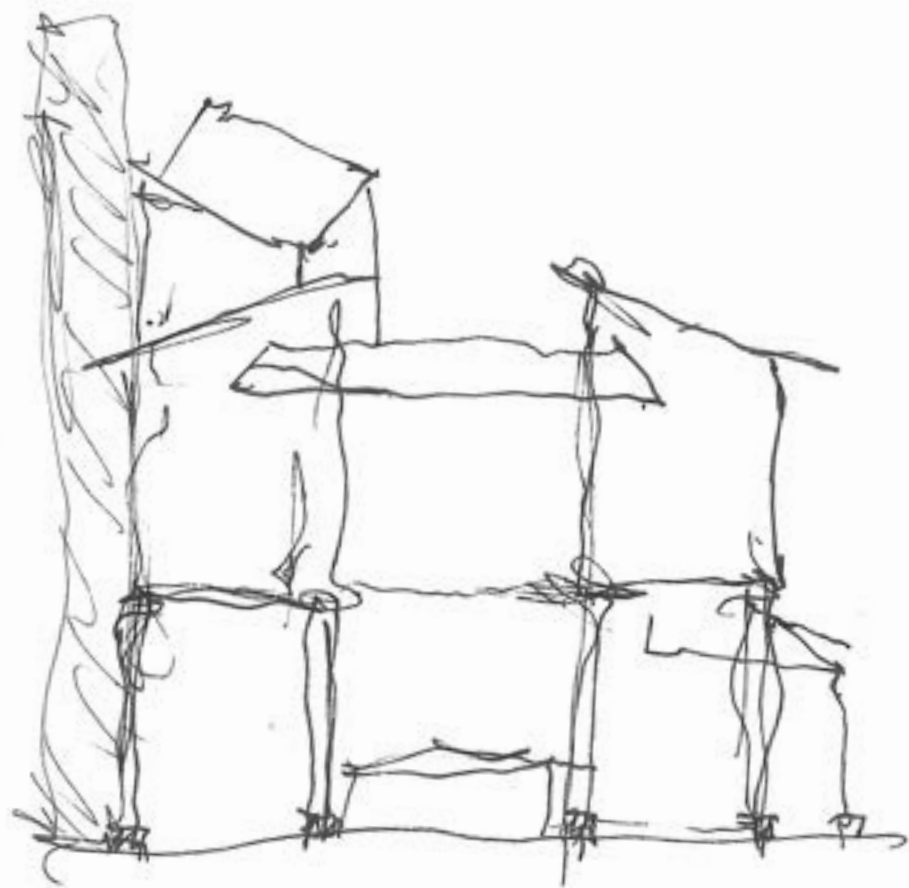
A structure  
that rises  
up



A structure  
that dissolves  
into air









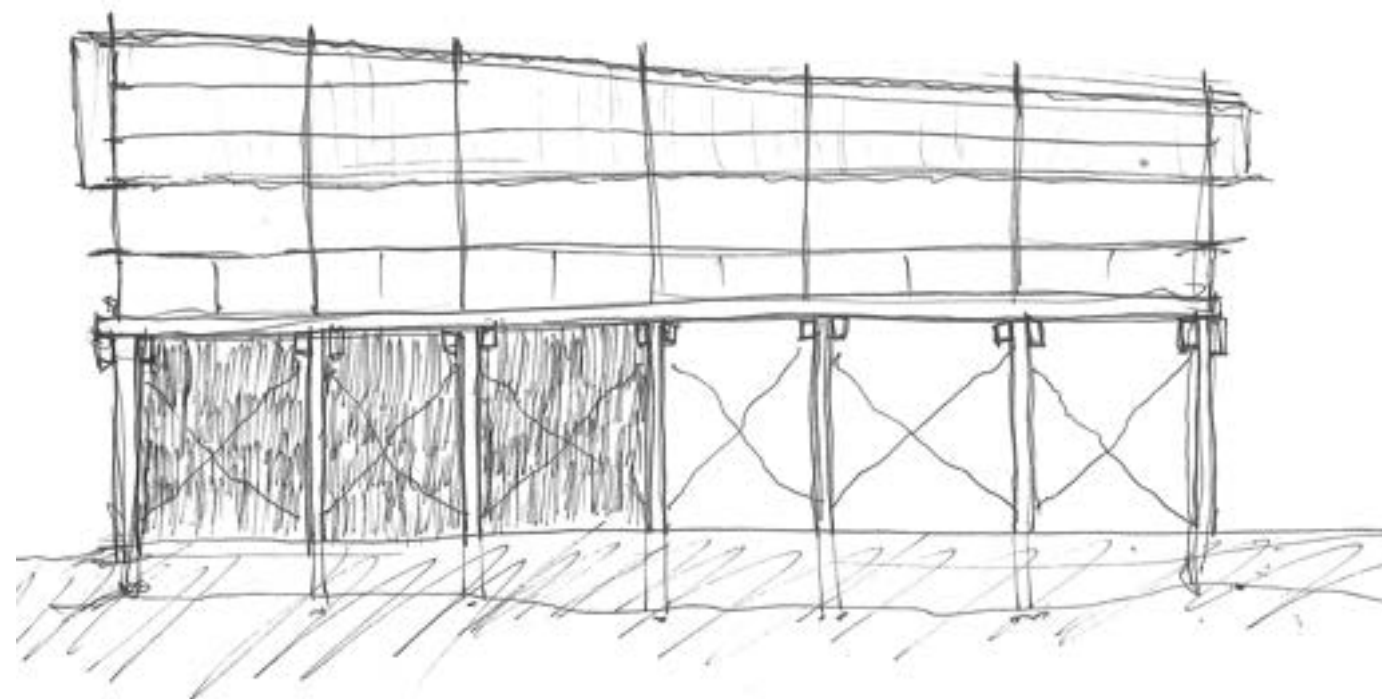
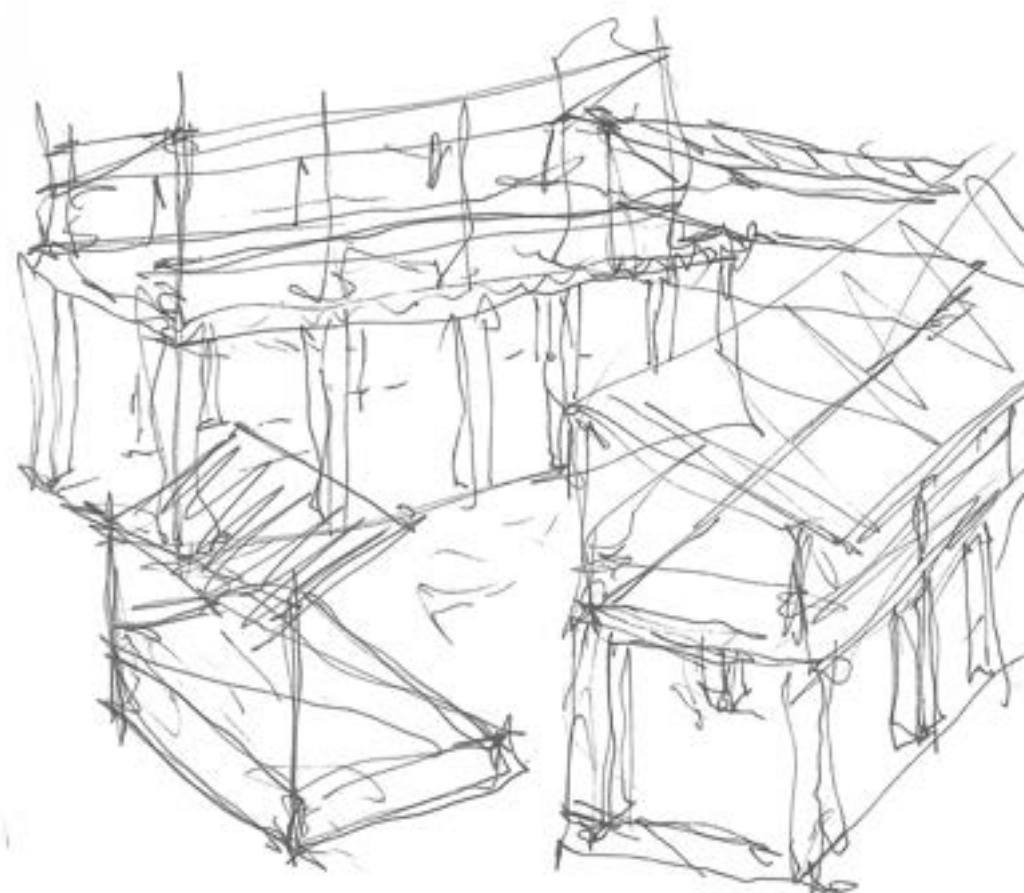
Uses:

Market  
 Concert venue  
 theatre  
 school  
 base of operations  
 Workshop

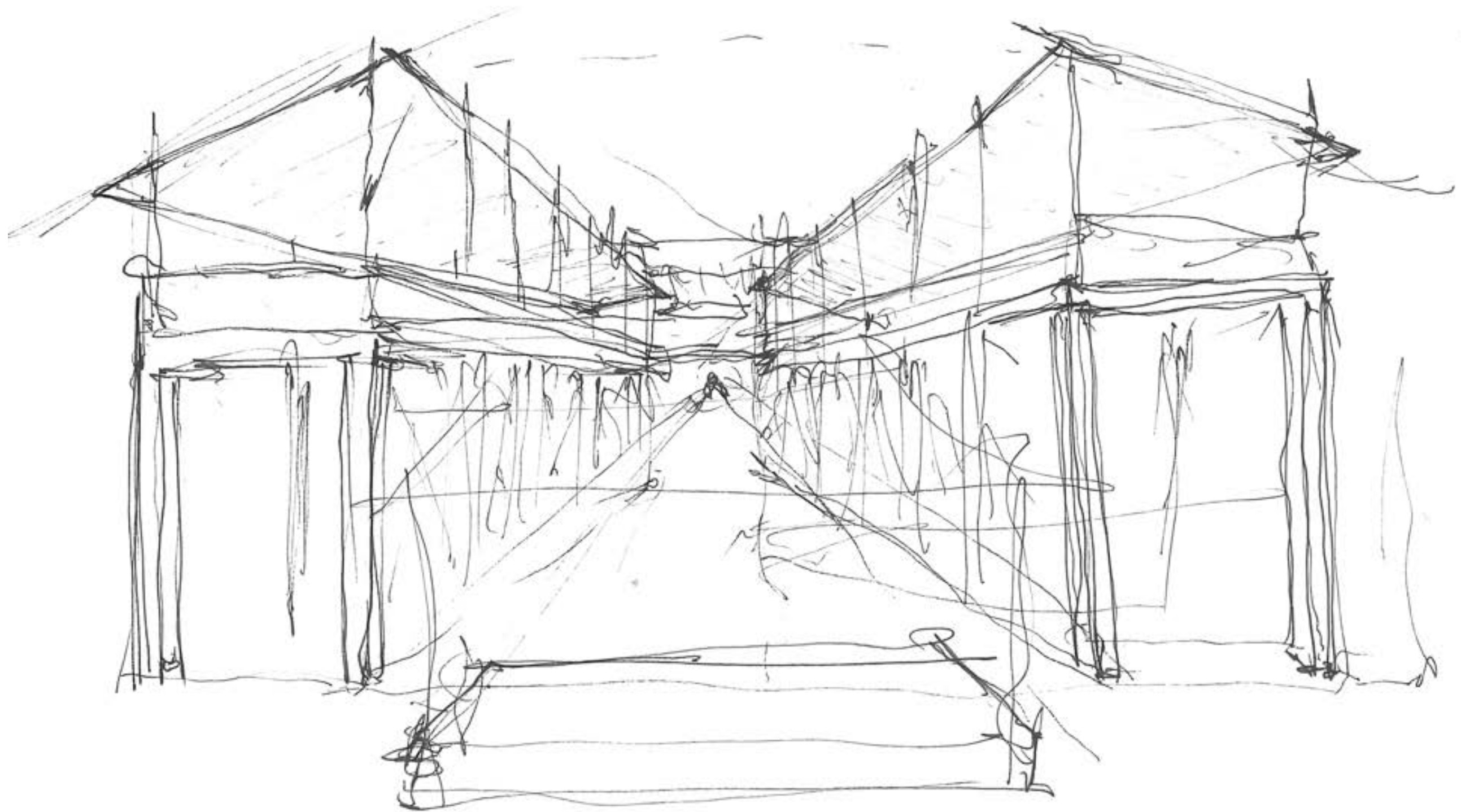


Uses:

Education  
 Exhibitions  
 Workshop





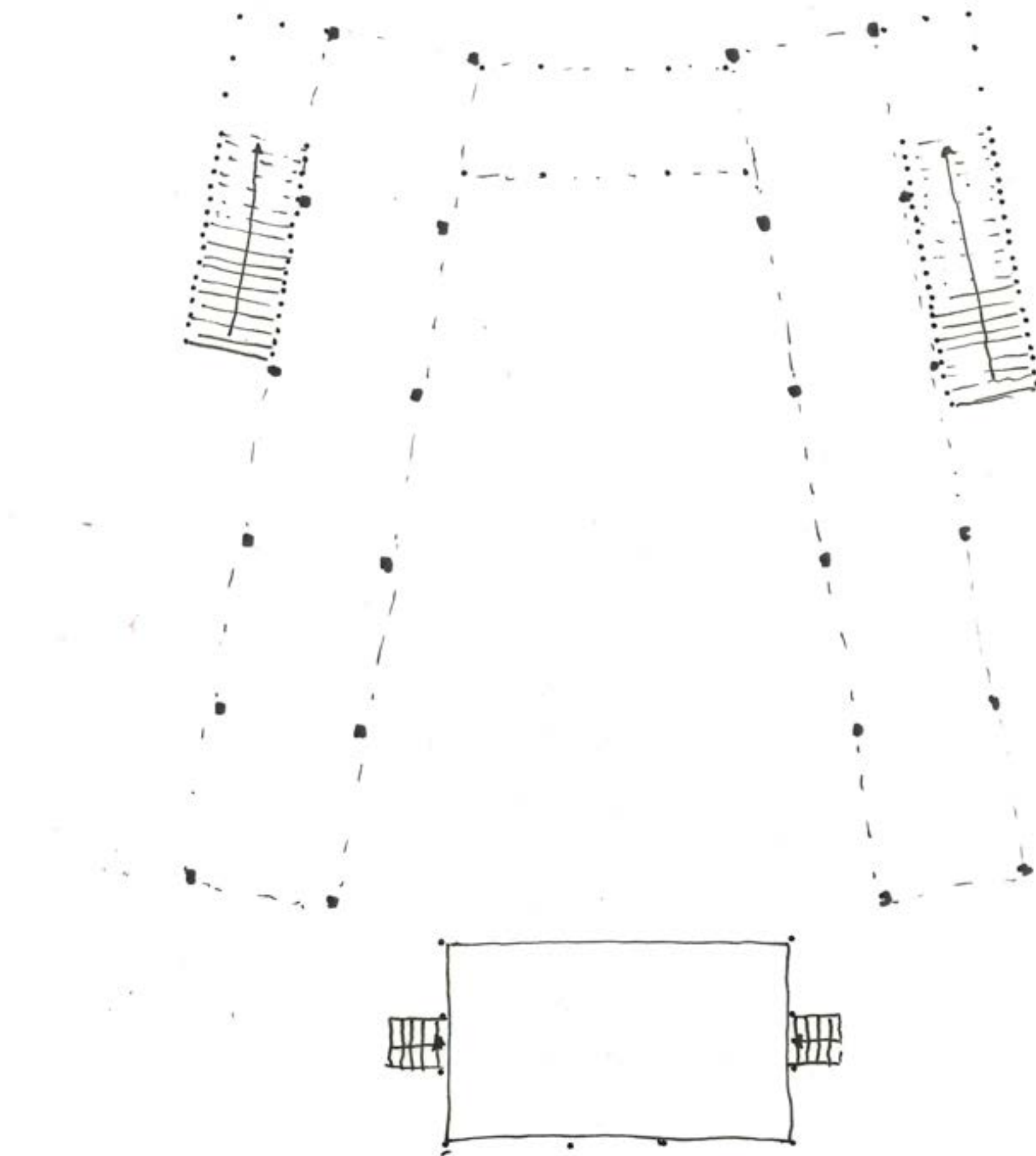




1:500

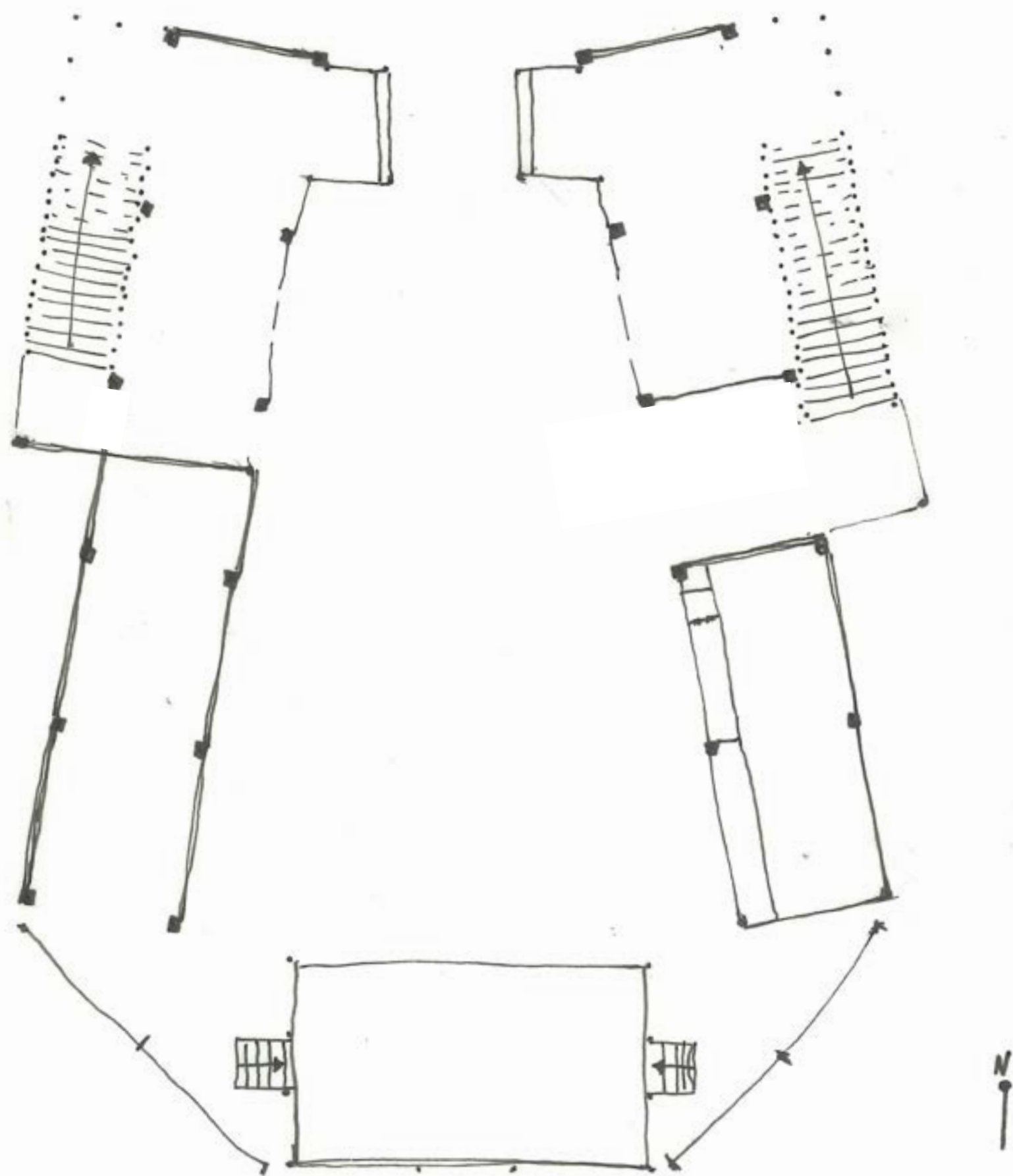
P4

Different manners of  
inhabiting.



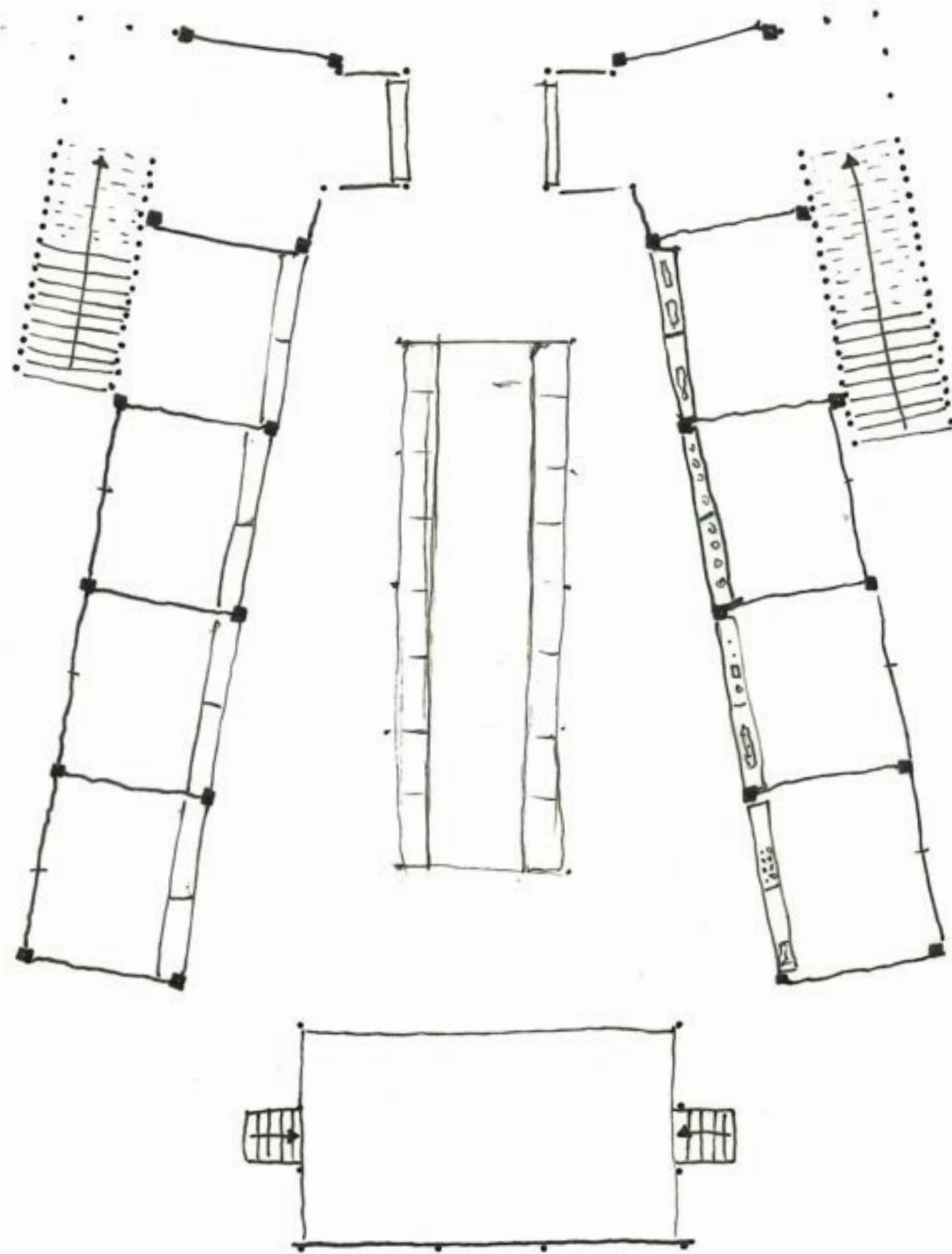
1:100

P4

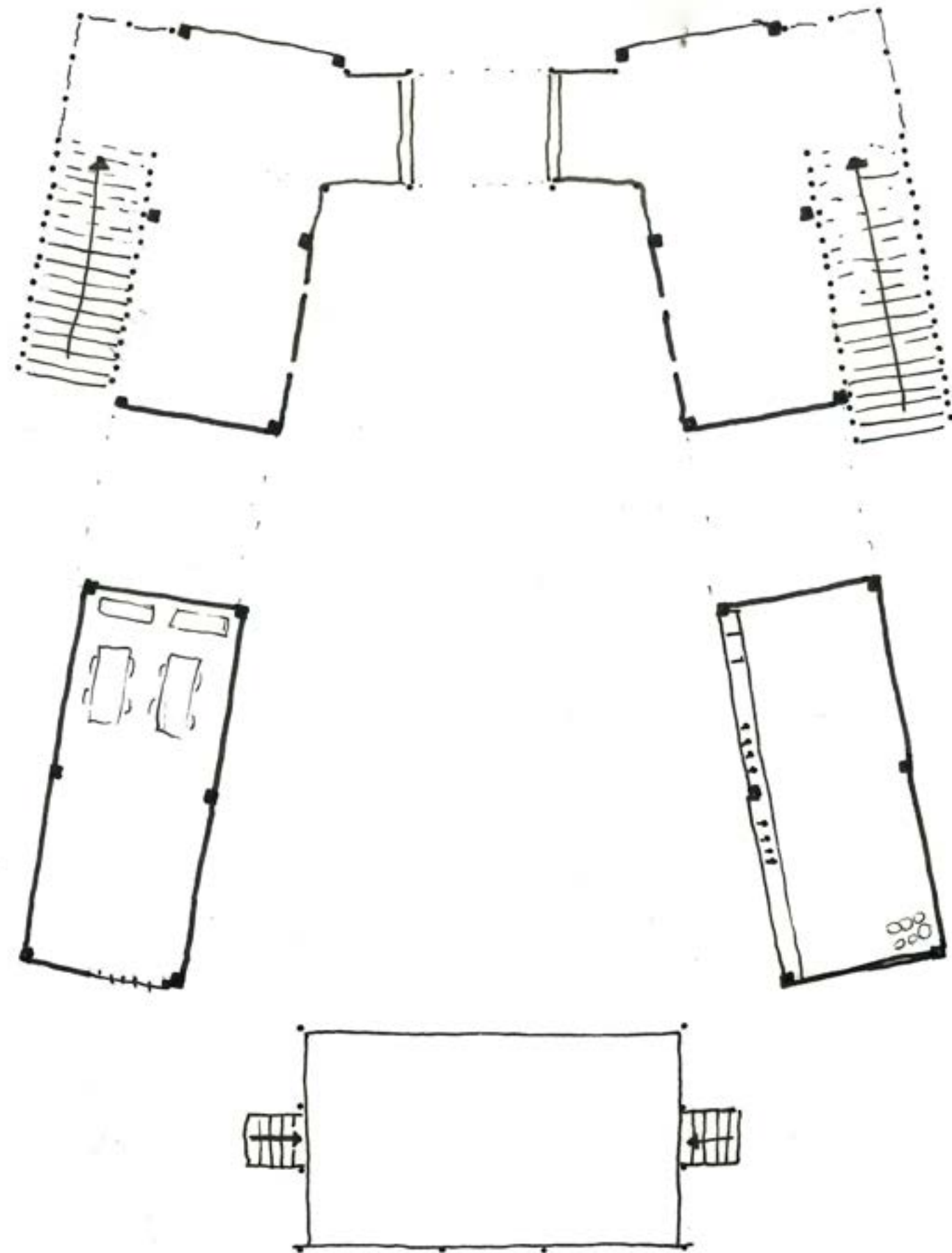


Paid Event  
1:100

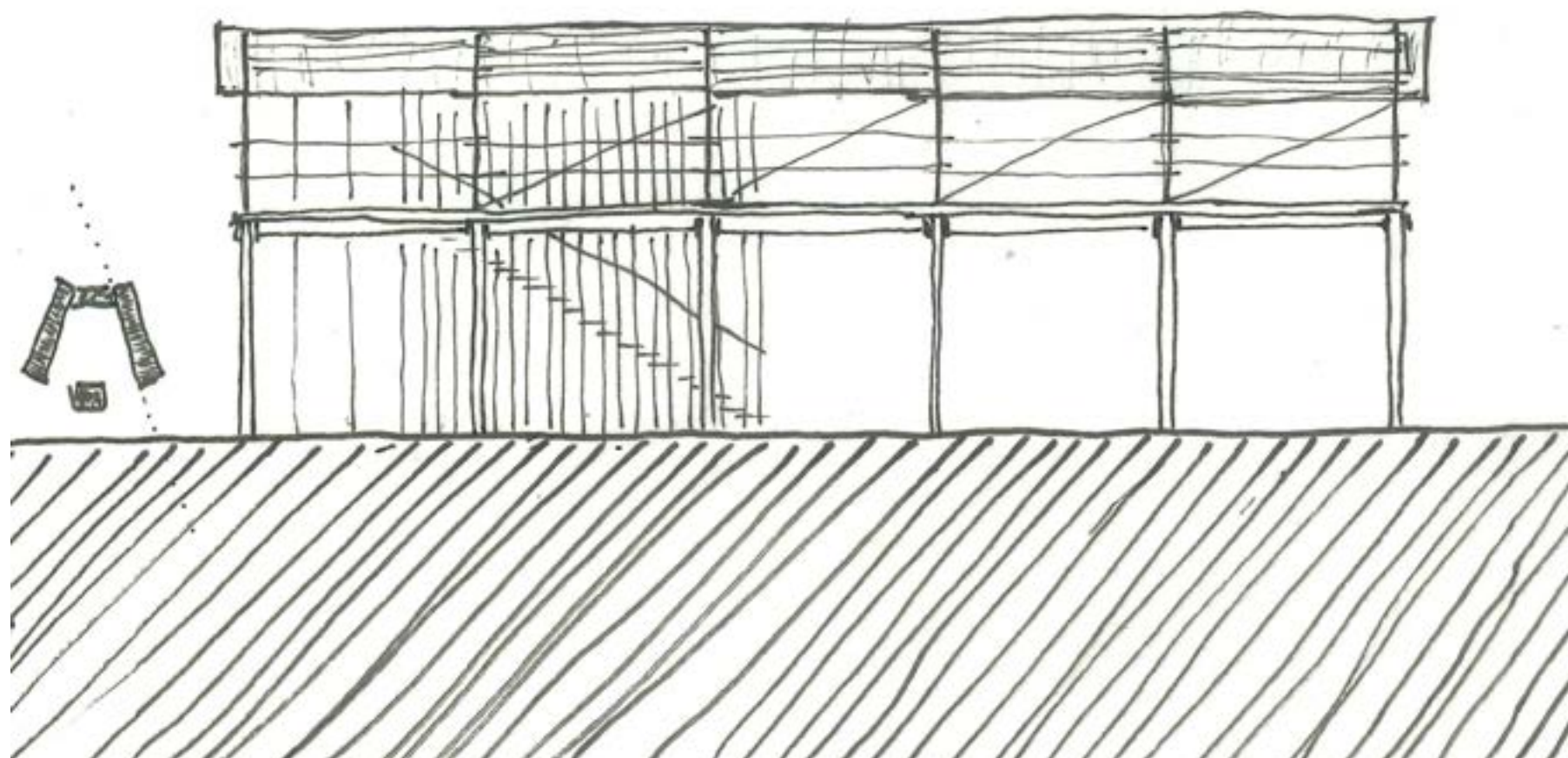


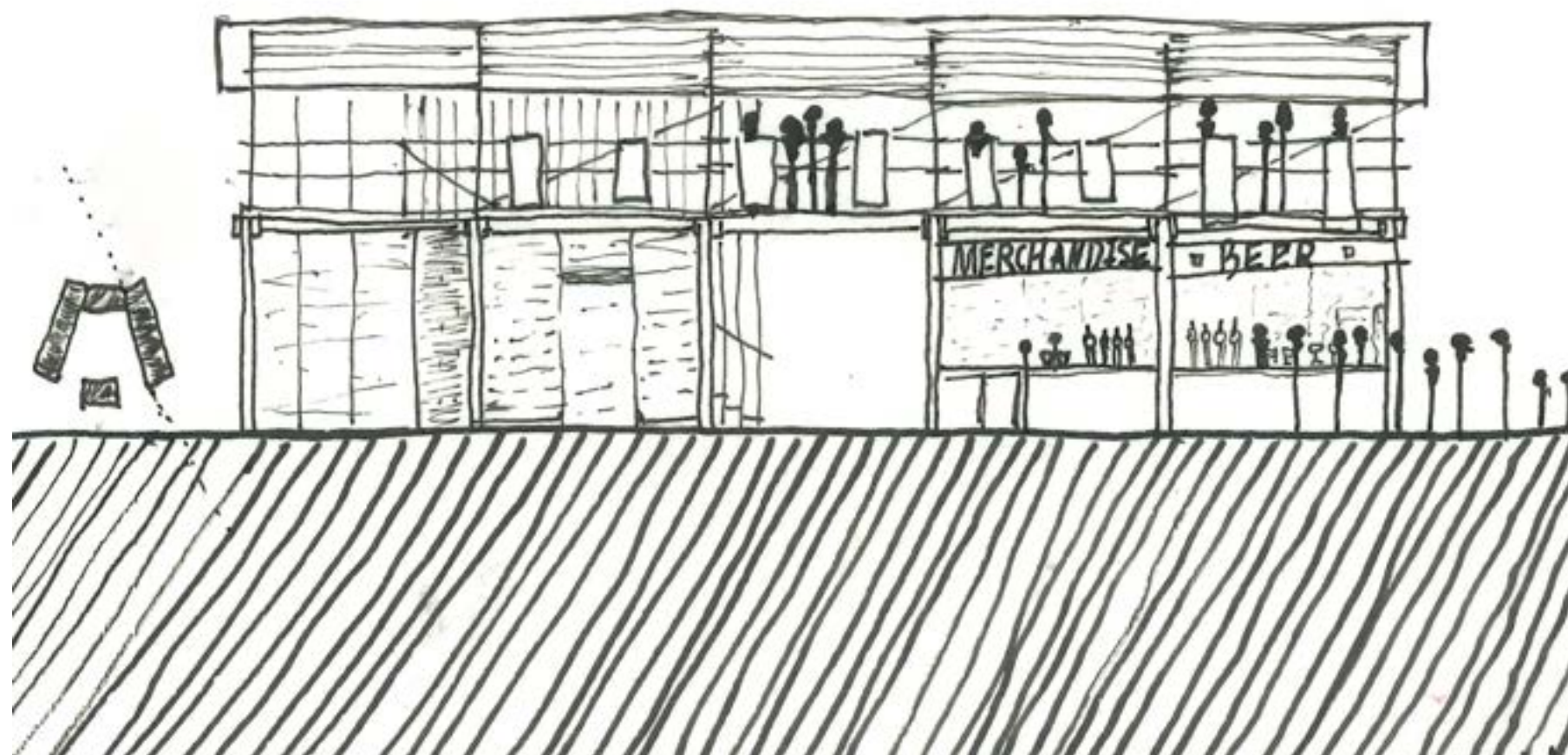


Market  
1:100

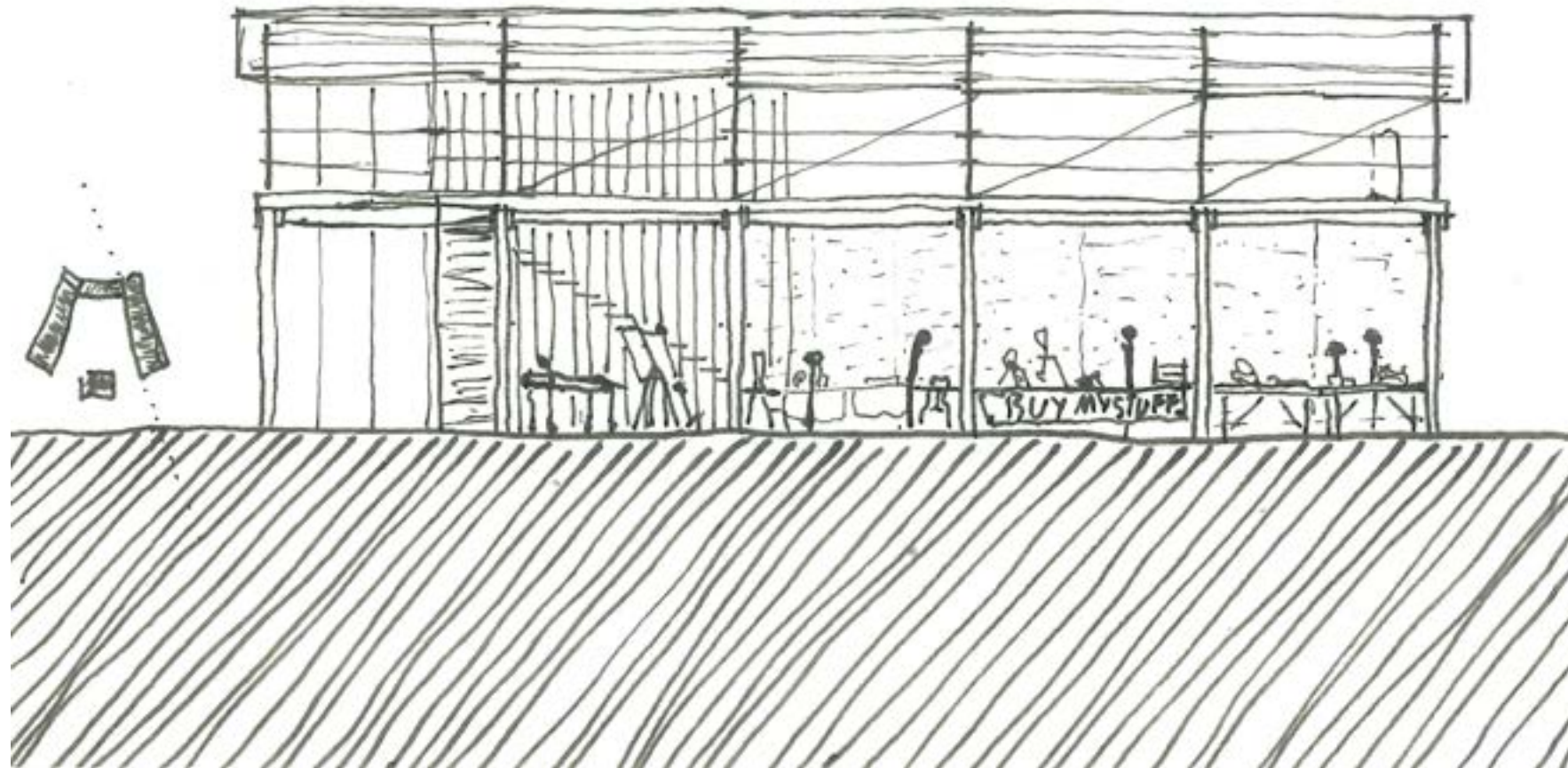


Unpaid Event  
1:100

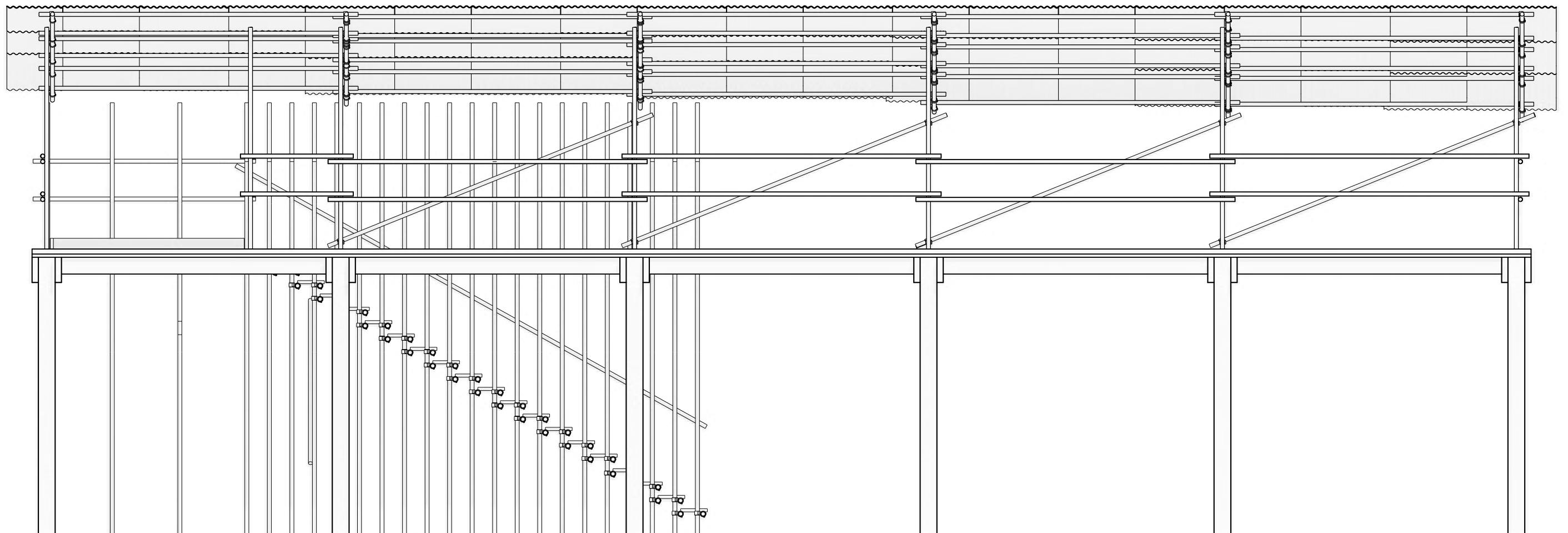




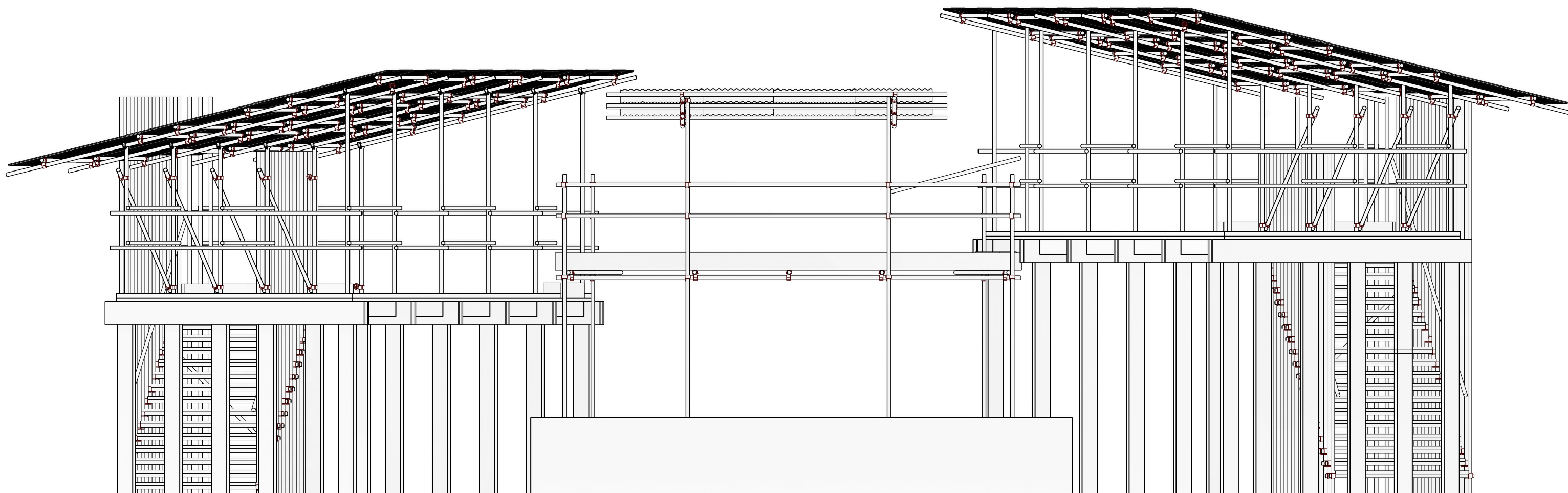




Market  
1:100

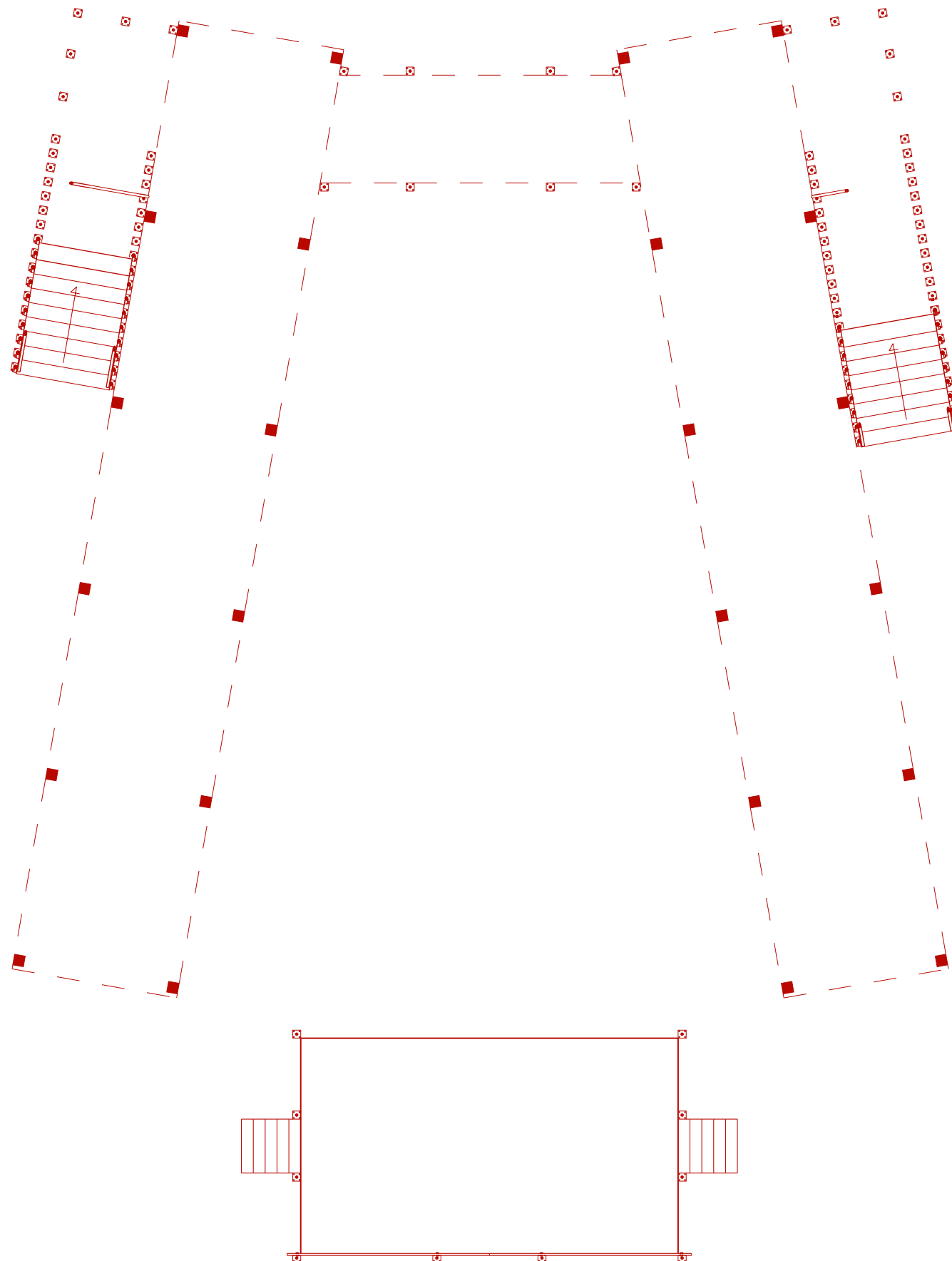


1:50  
SE Elevation

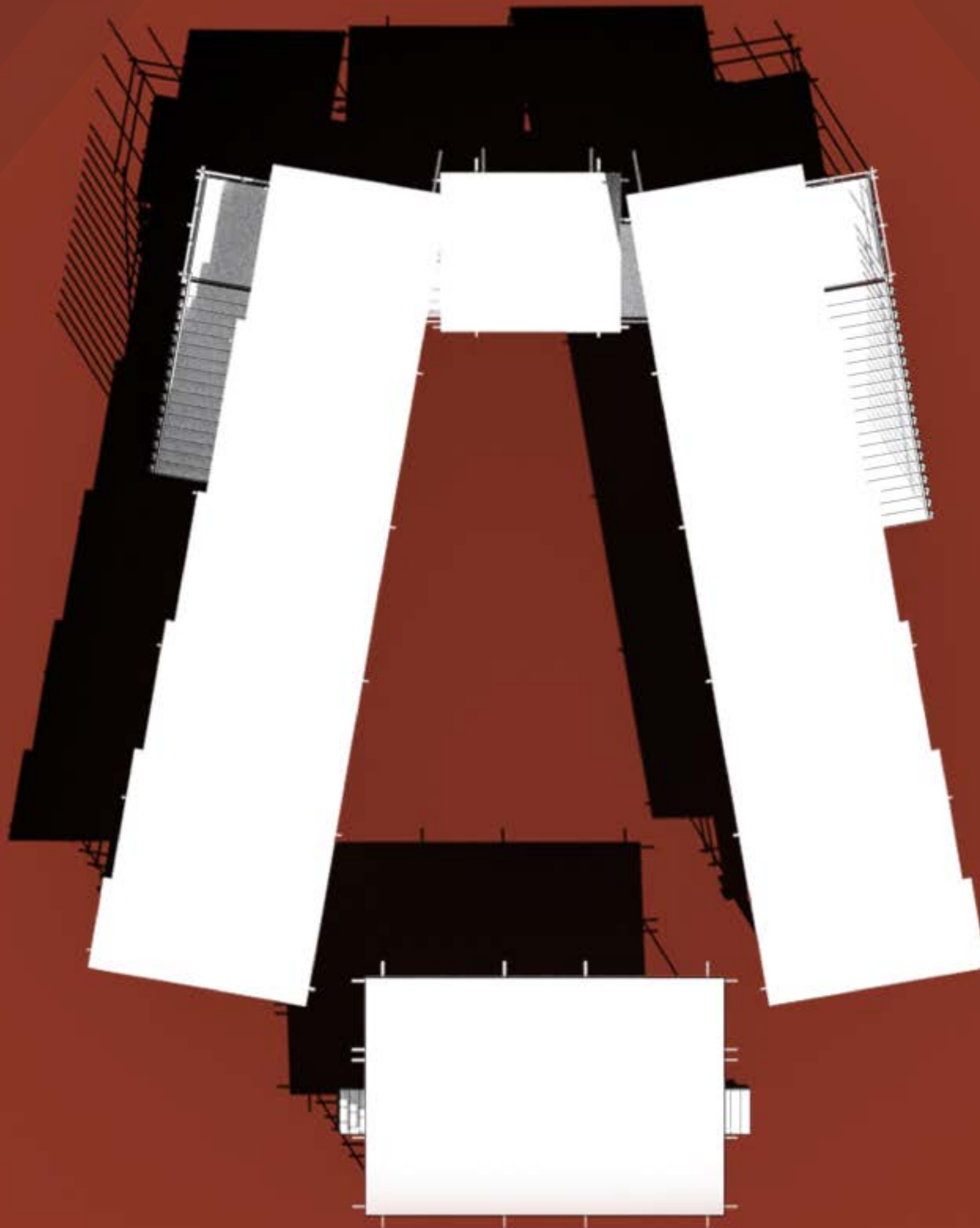


1:50  
S Elevation

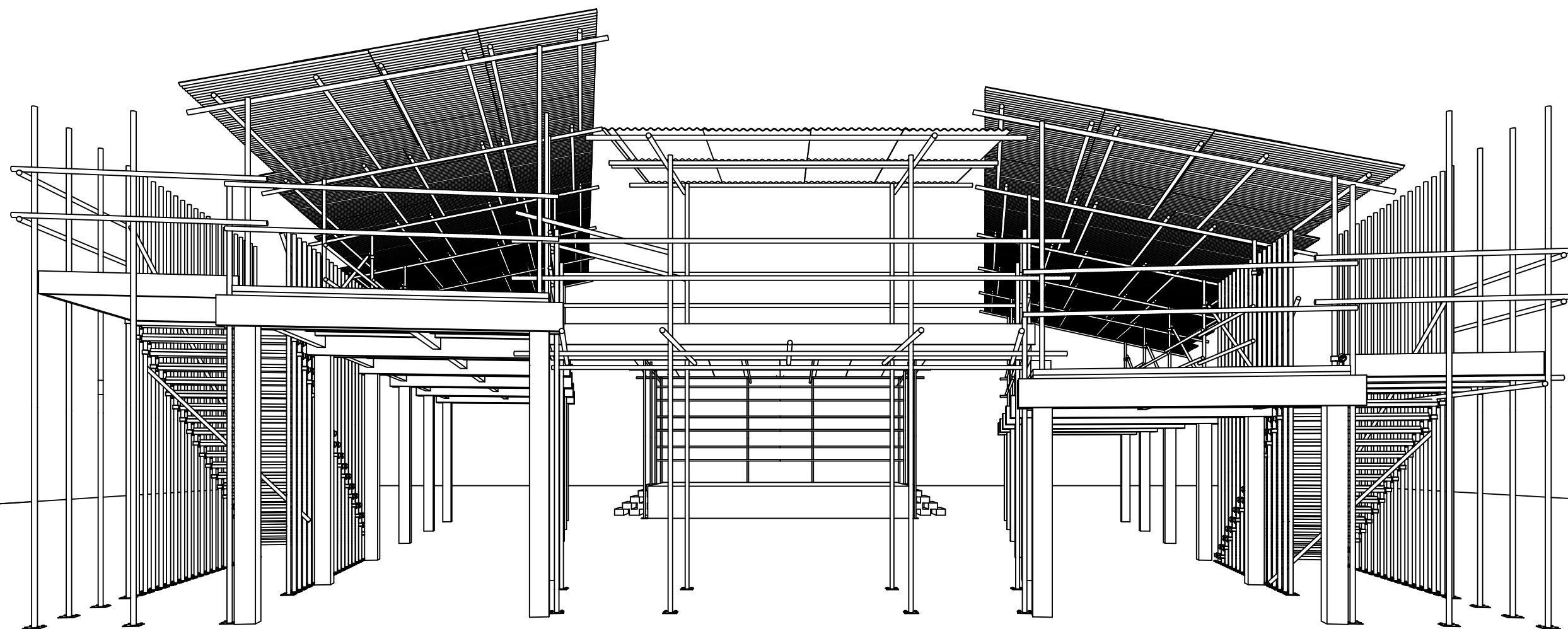
1:100  
G Floor Plan

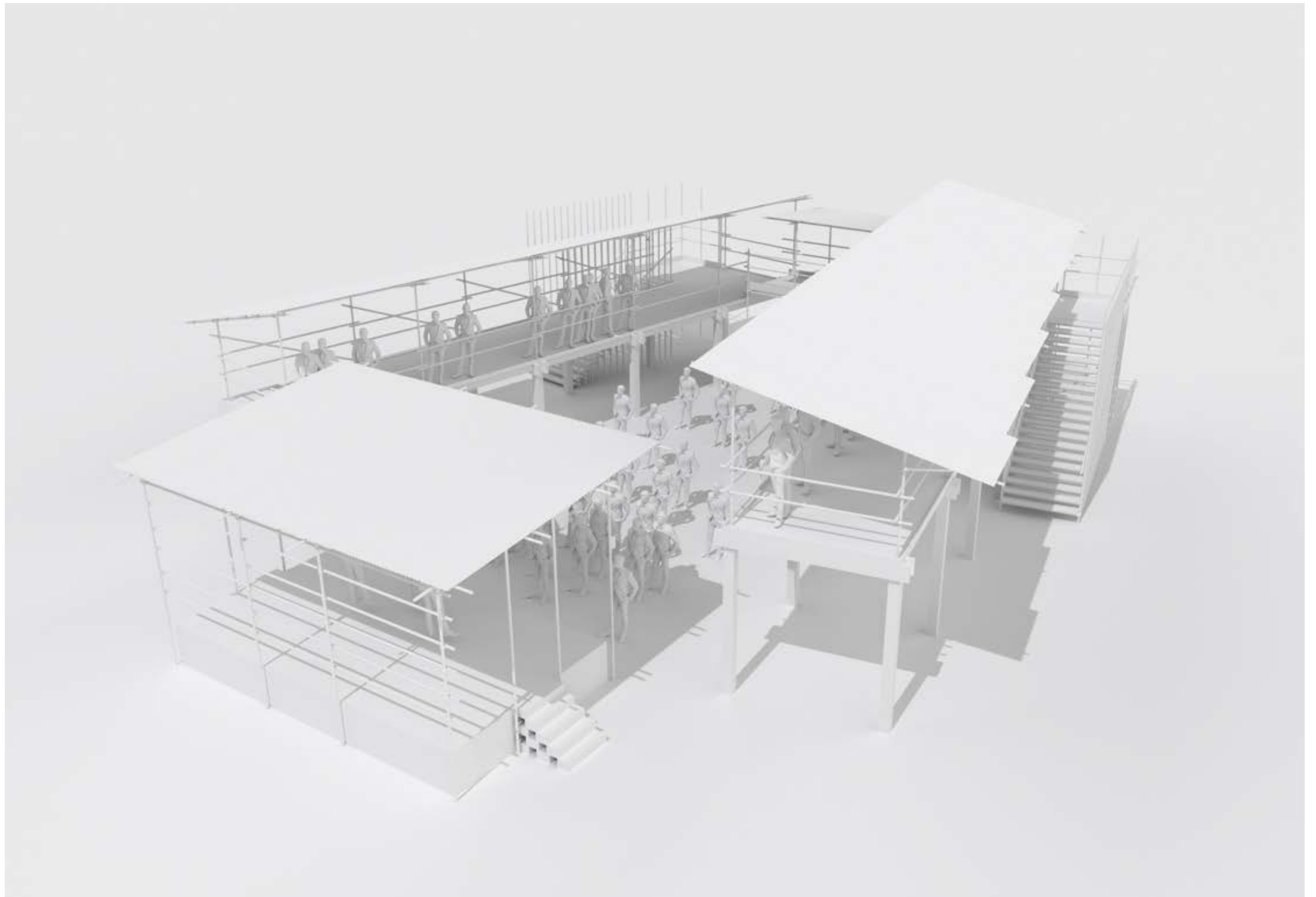


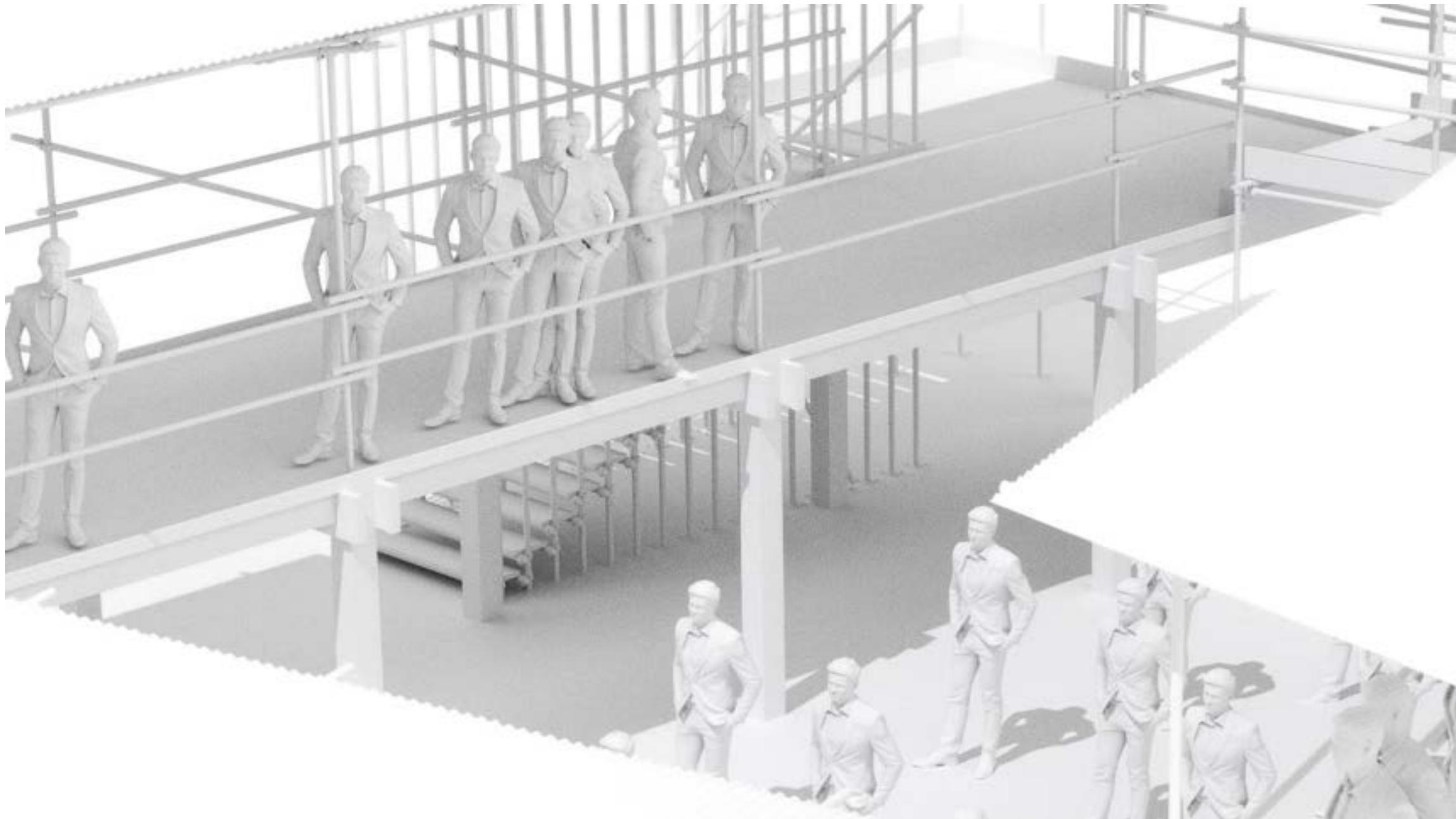




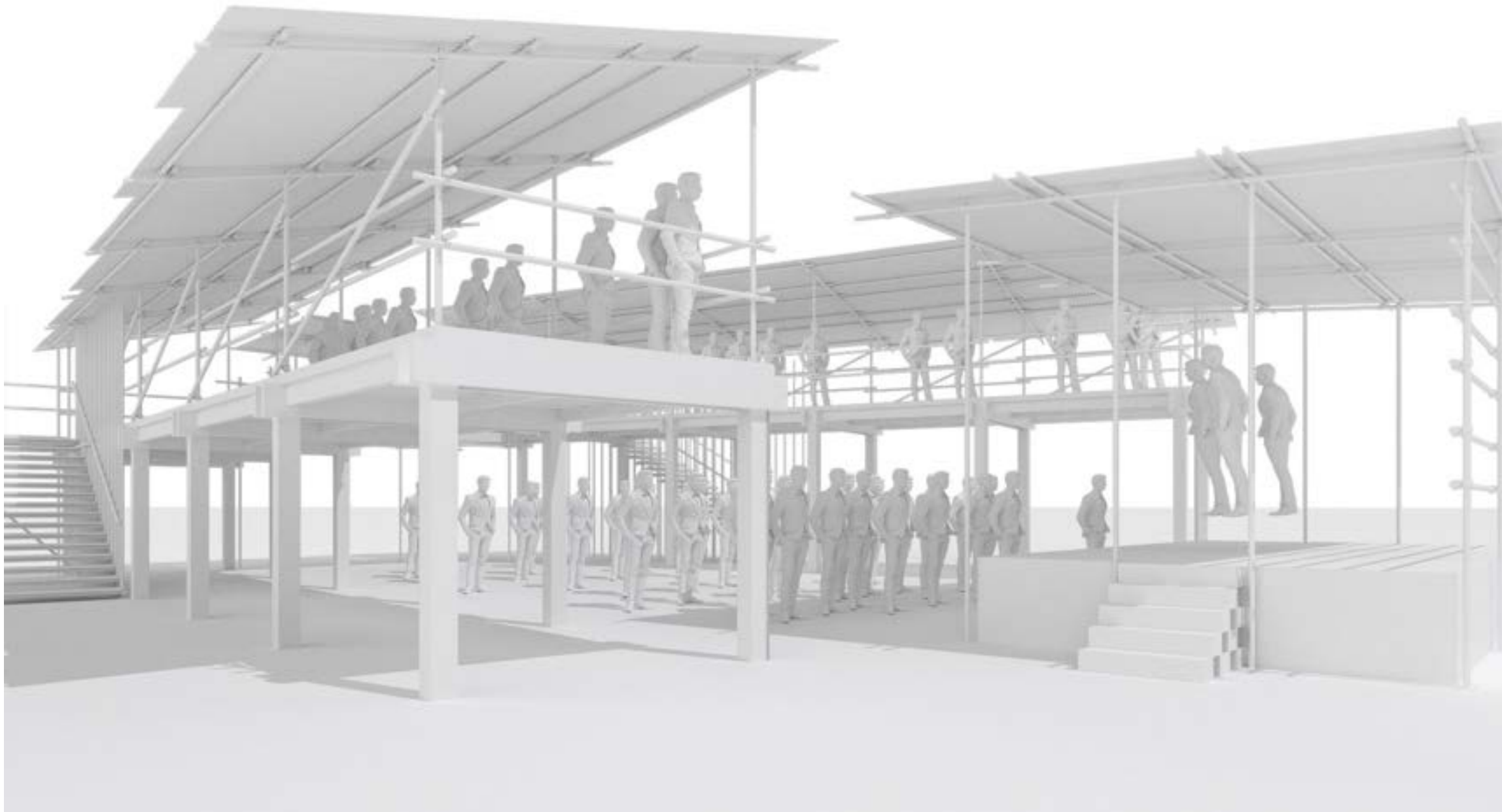
1:100  
Roof Plan

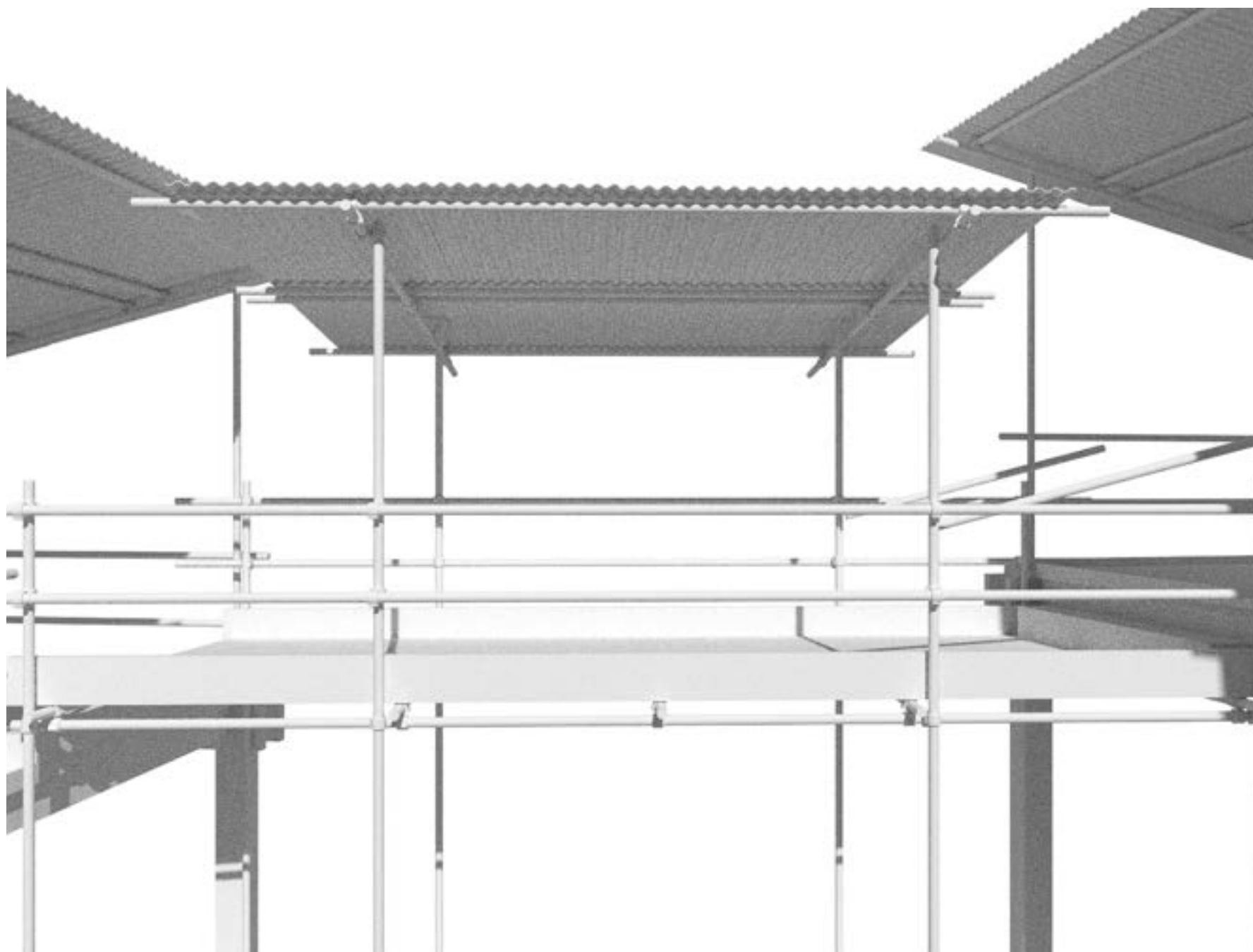




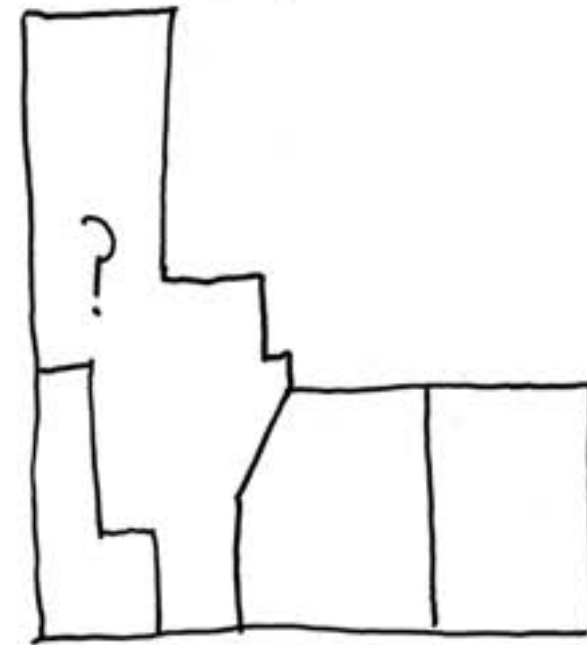
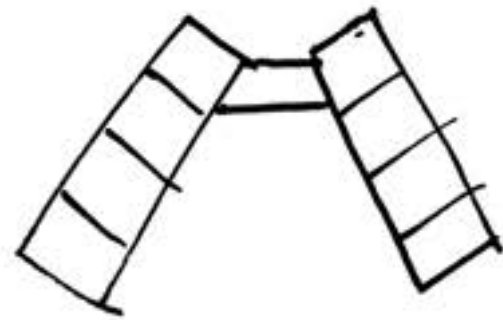






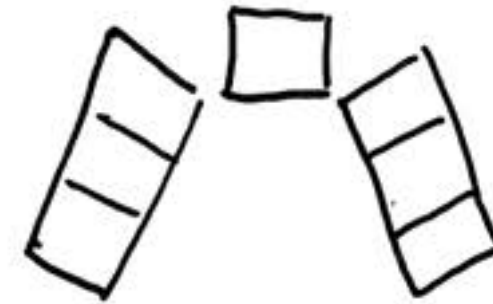
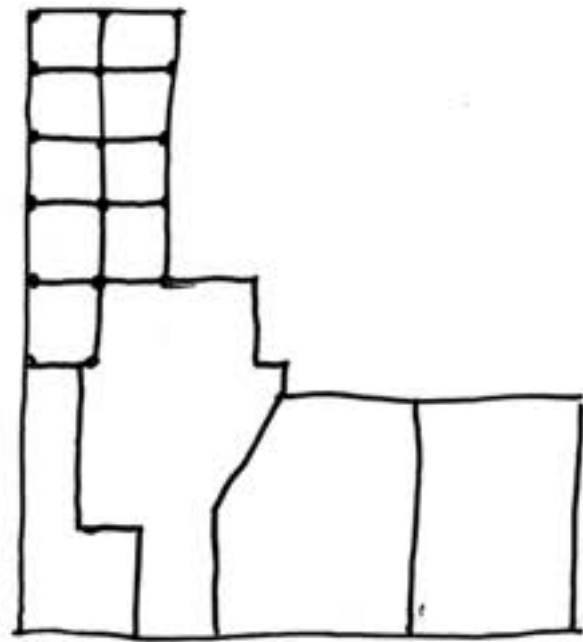


MK2



MK1 designed without clear second life;  
no reason for its scale and dimensions in  
relation to the site



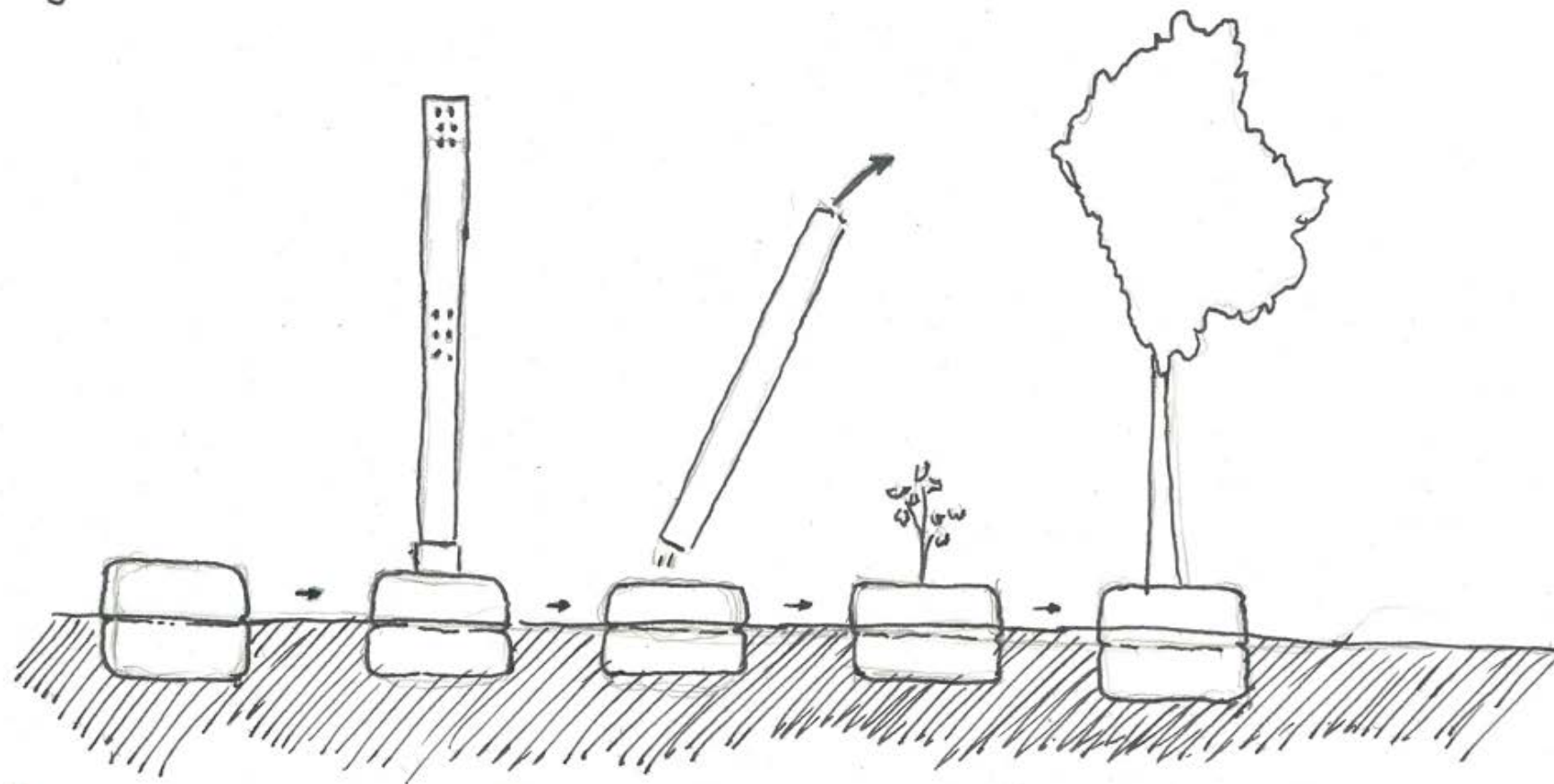


MK2's dimensions are defined by its second life, the two are one.

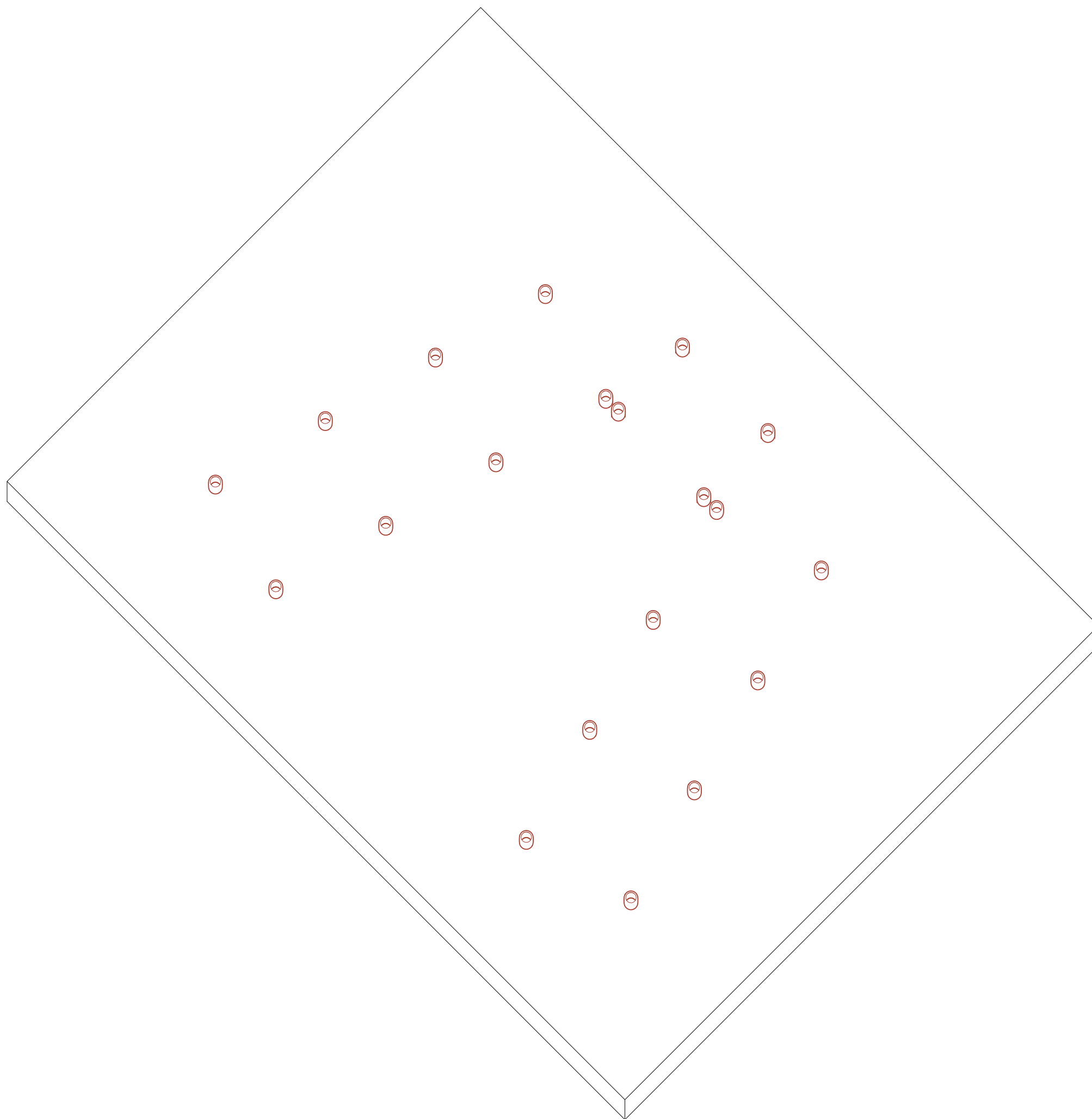


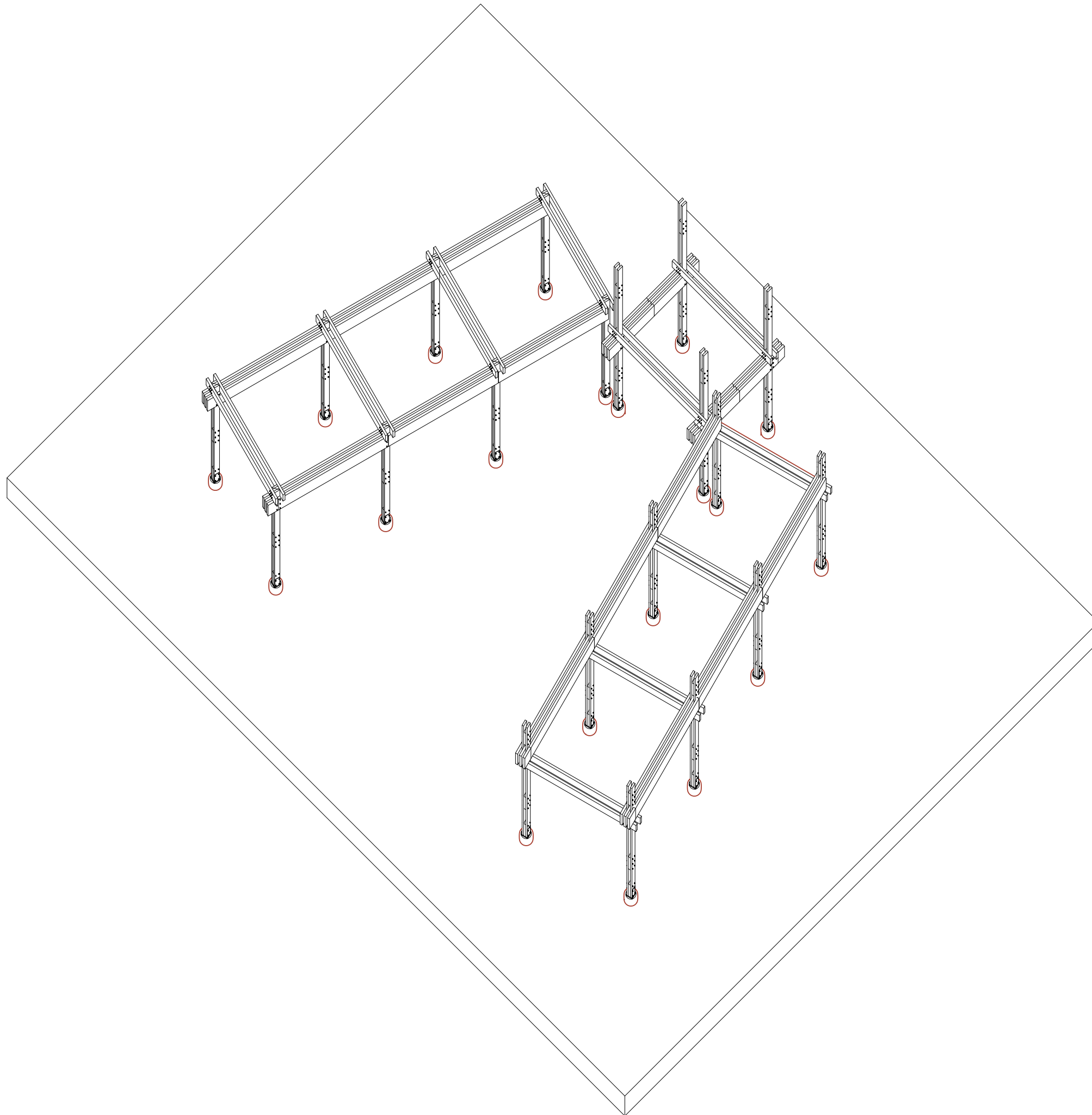


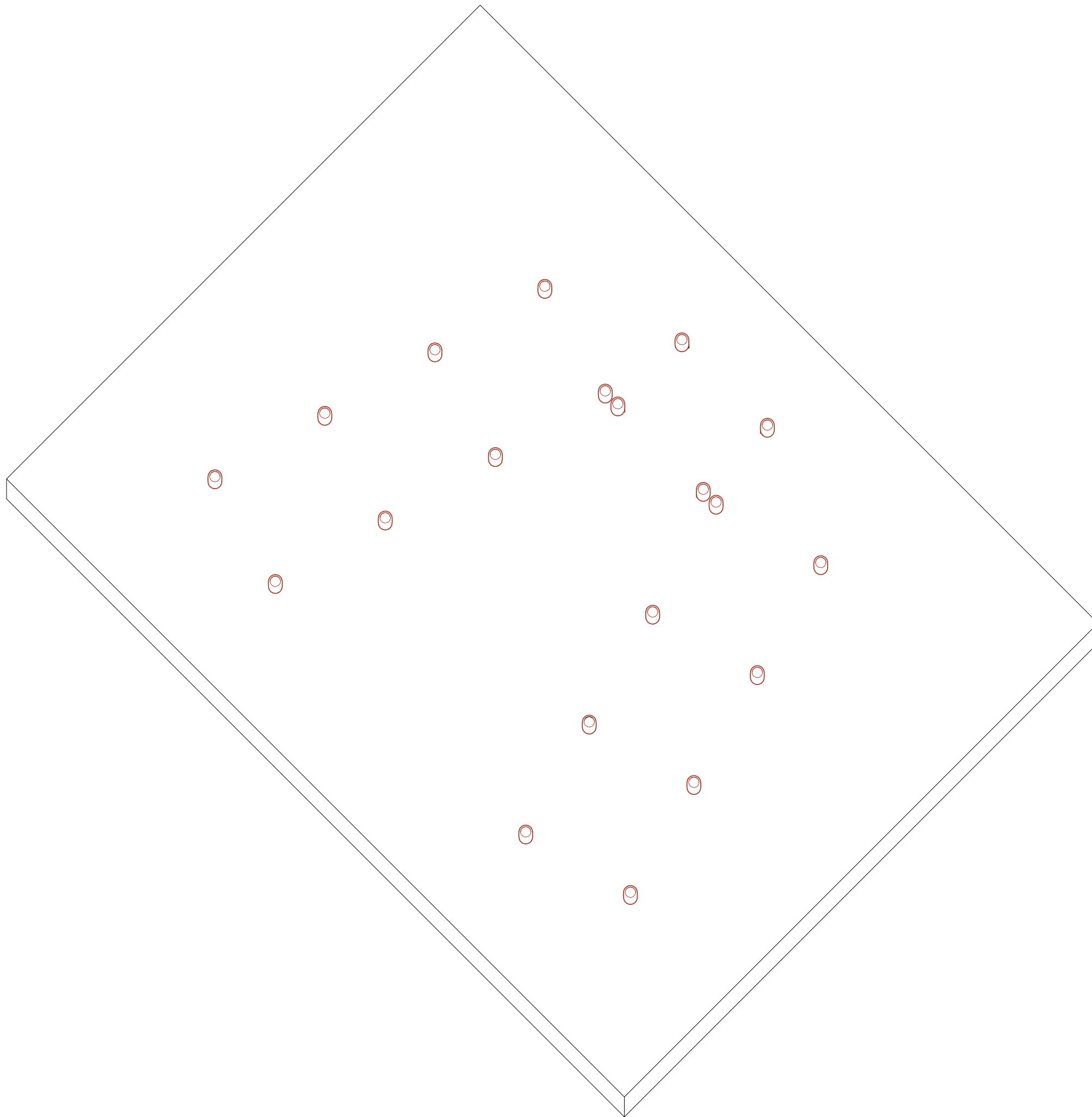
Touch the ground lightly  
Leave the park better than we found it  
Cycles of renewal and materials





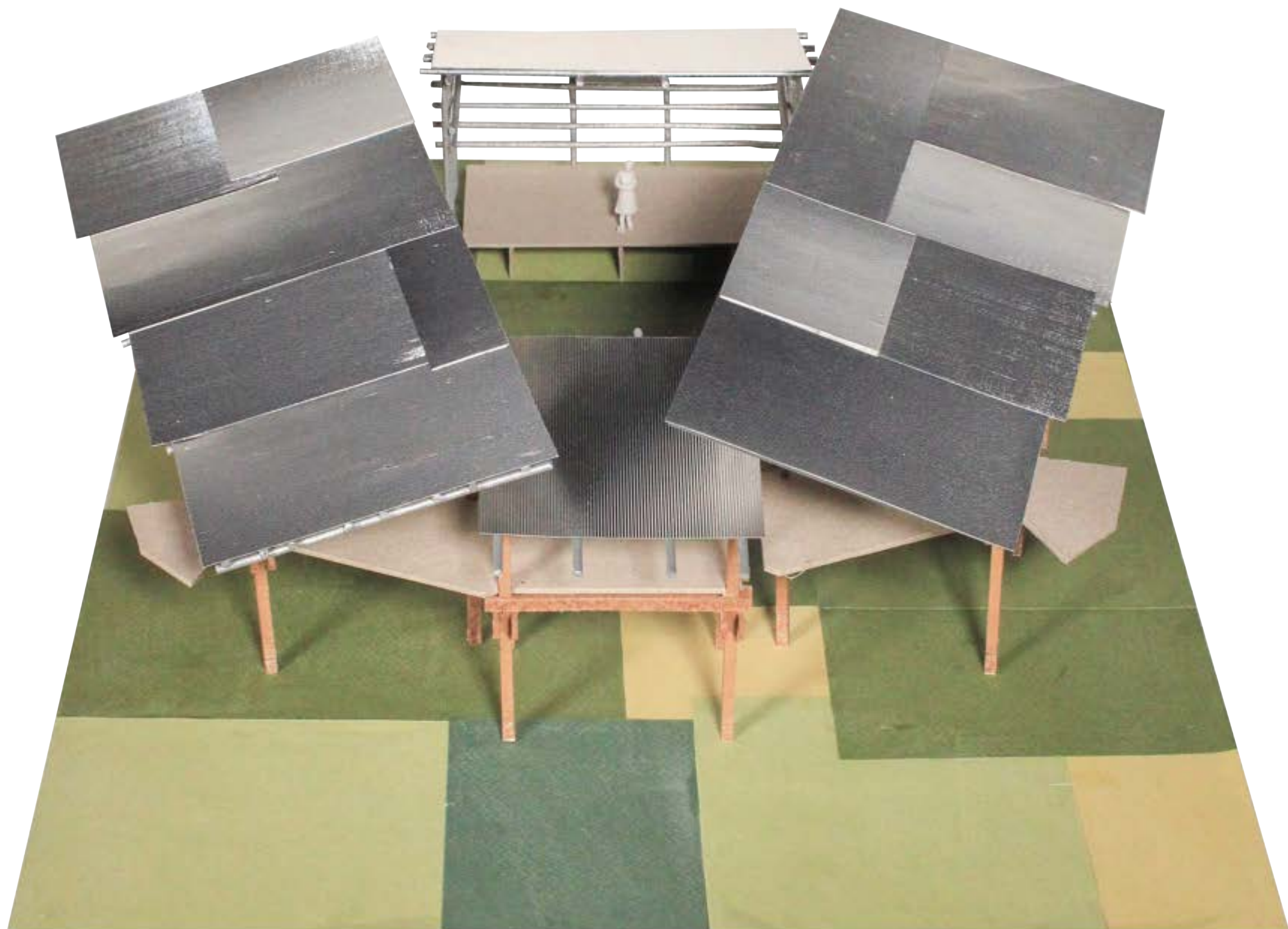






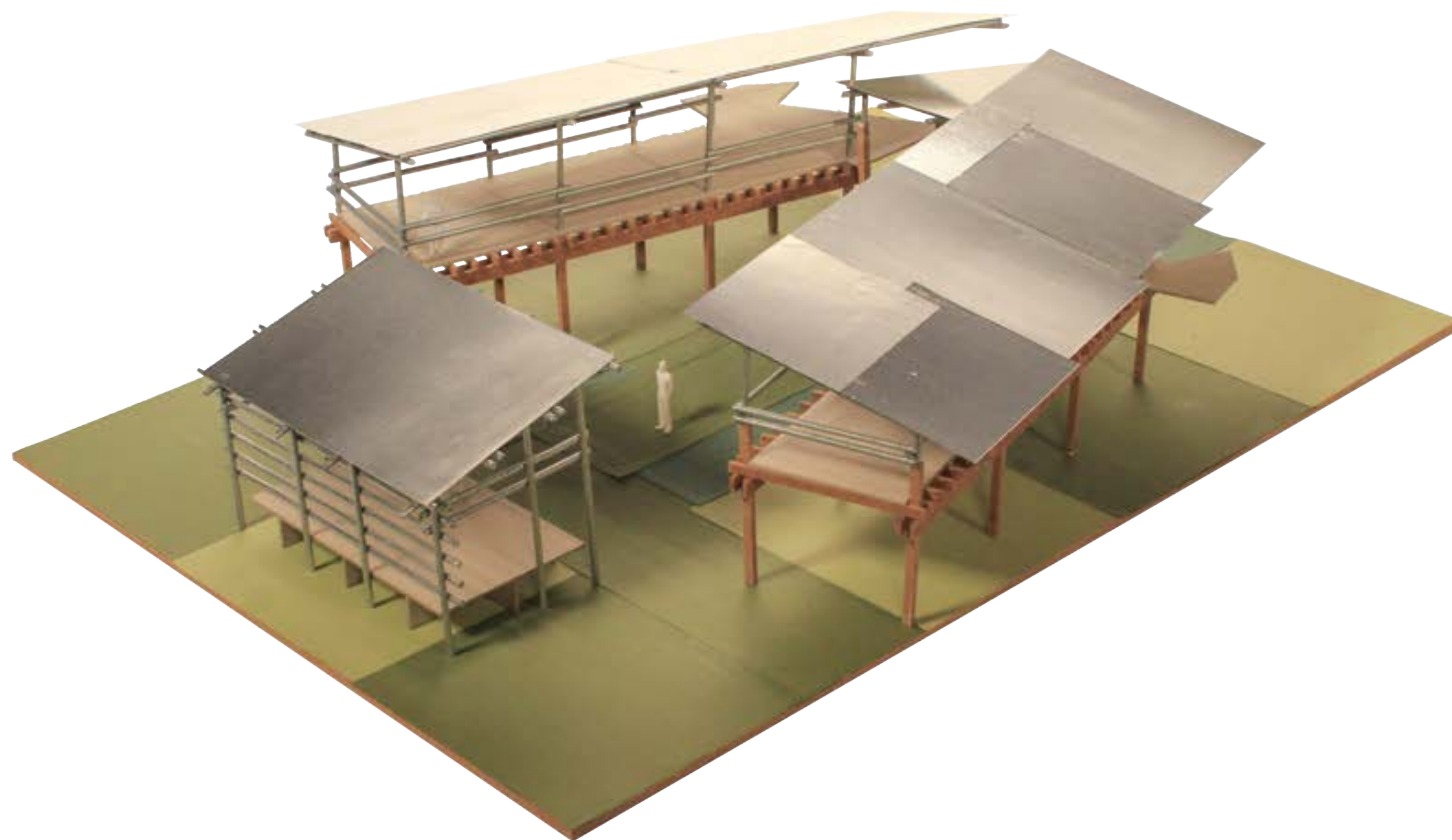






1:50  
Model

P4



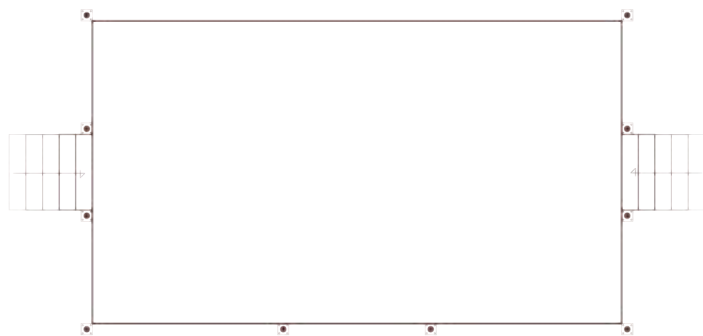
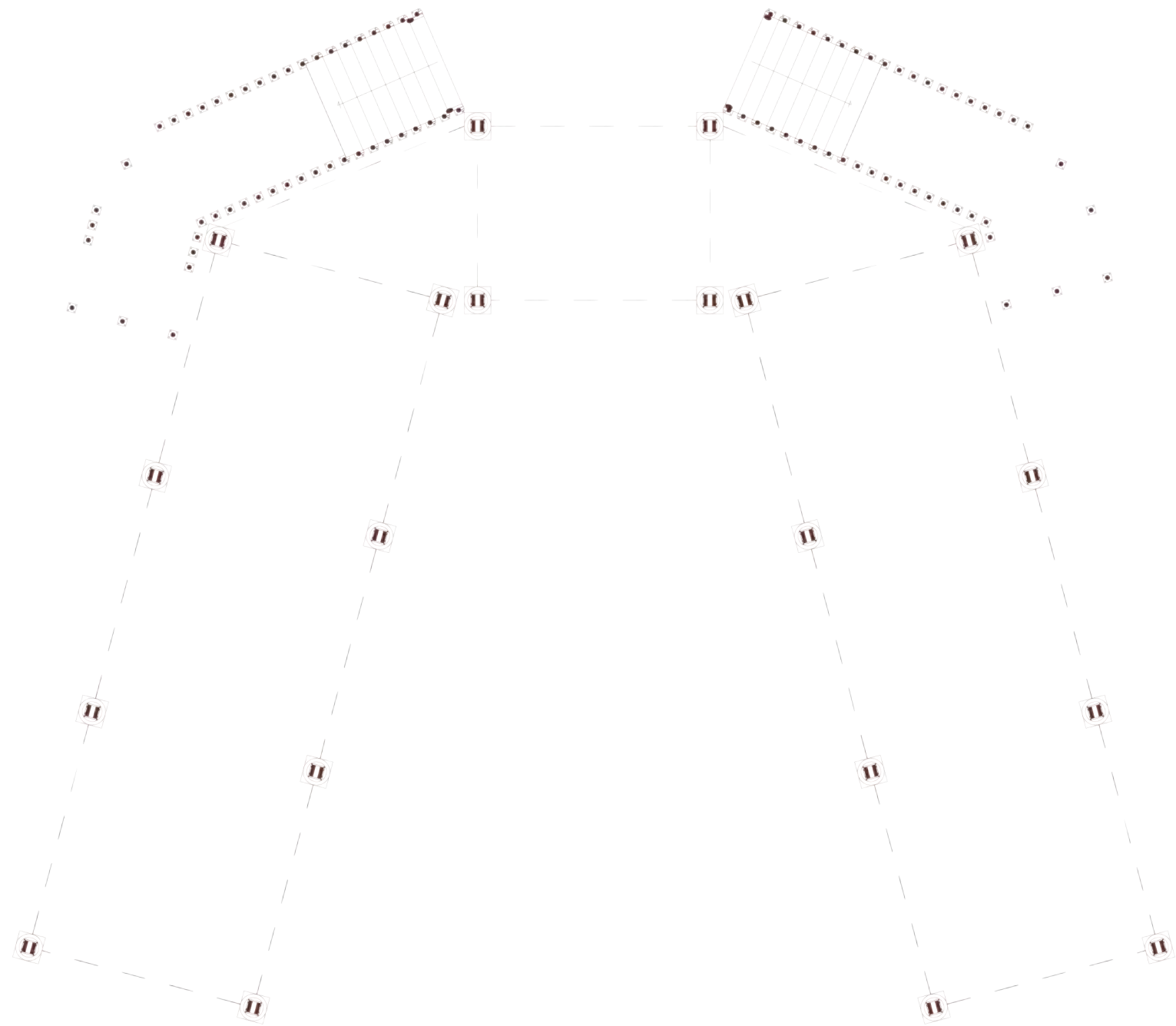




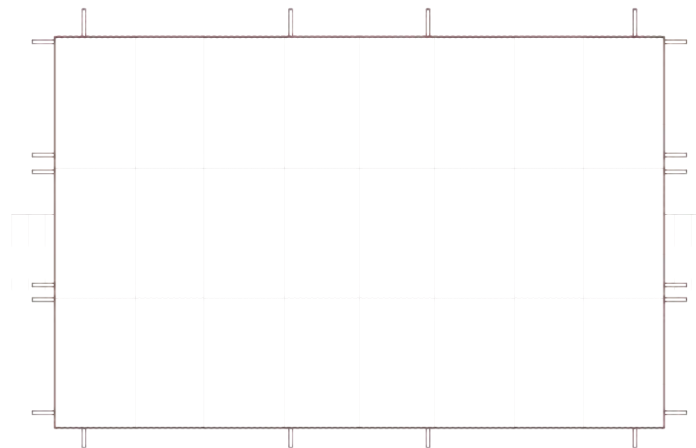
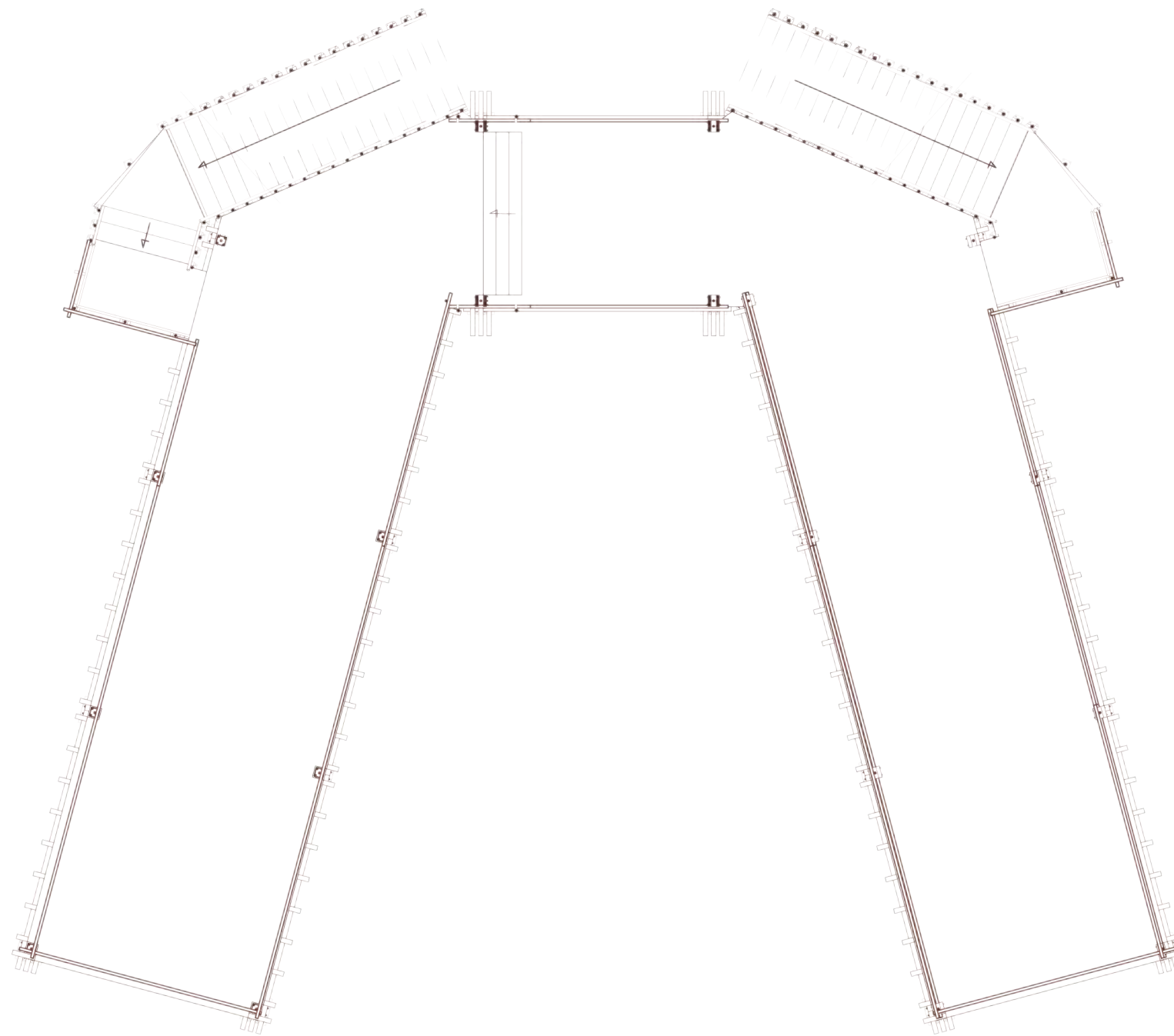




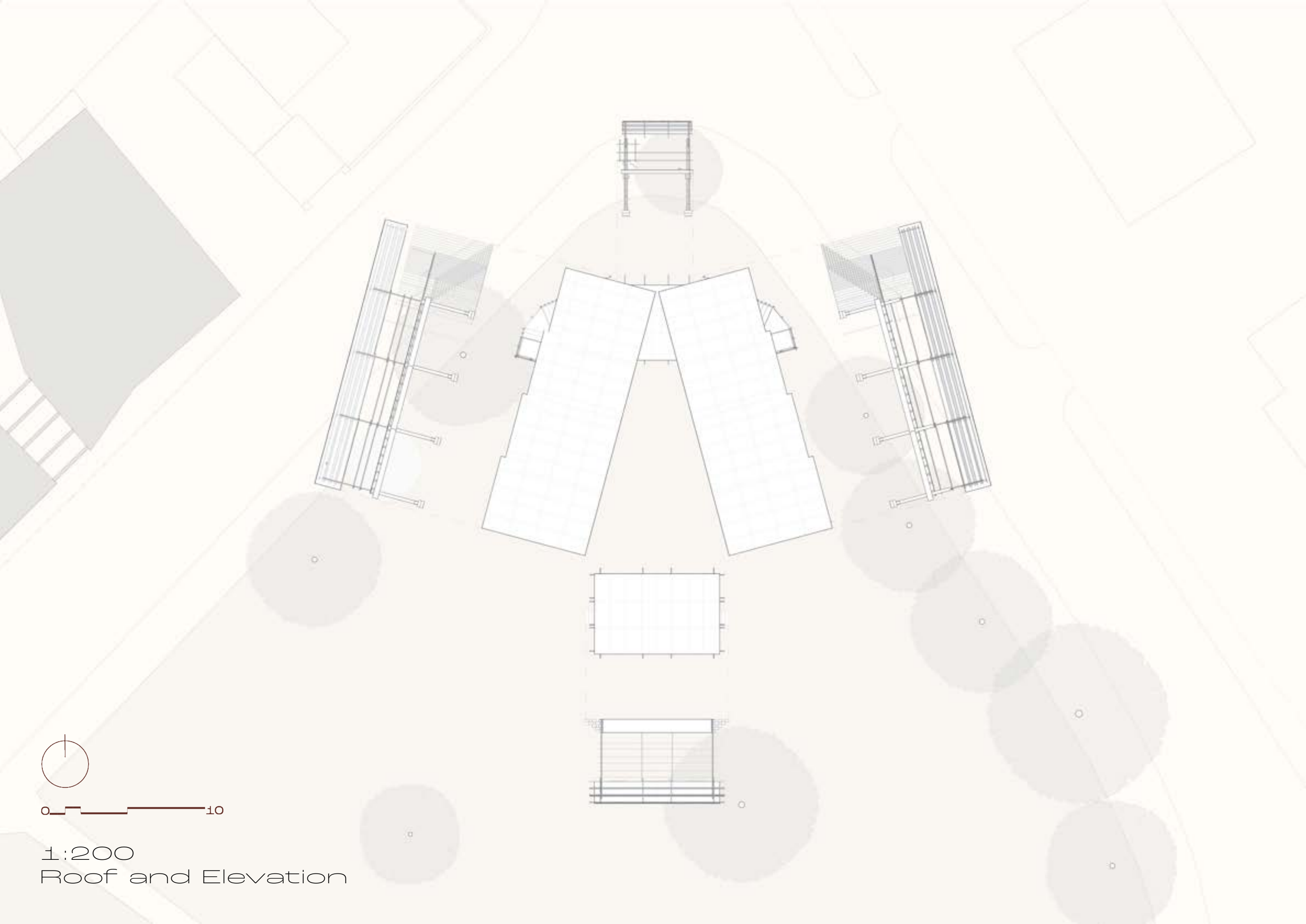




1:100  
G Floor Plan



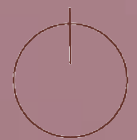
1:100  
2nd Floor Plan



0 10

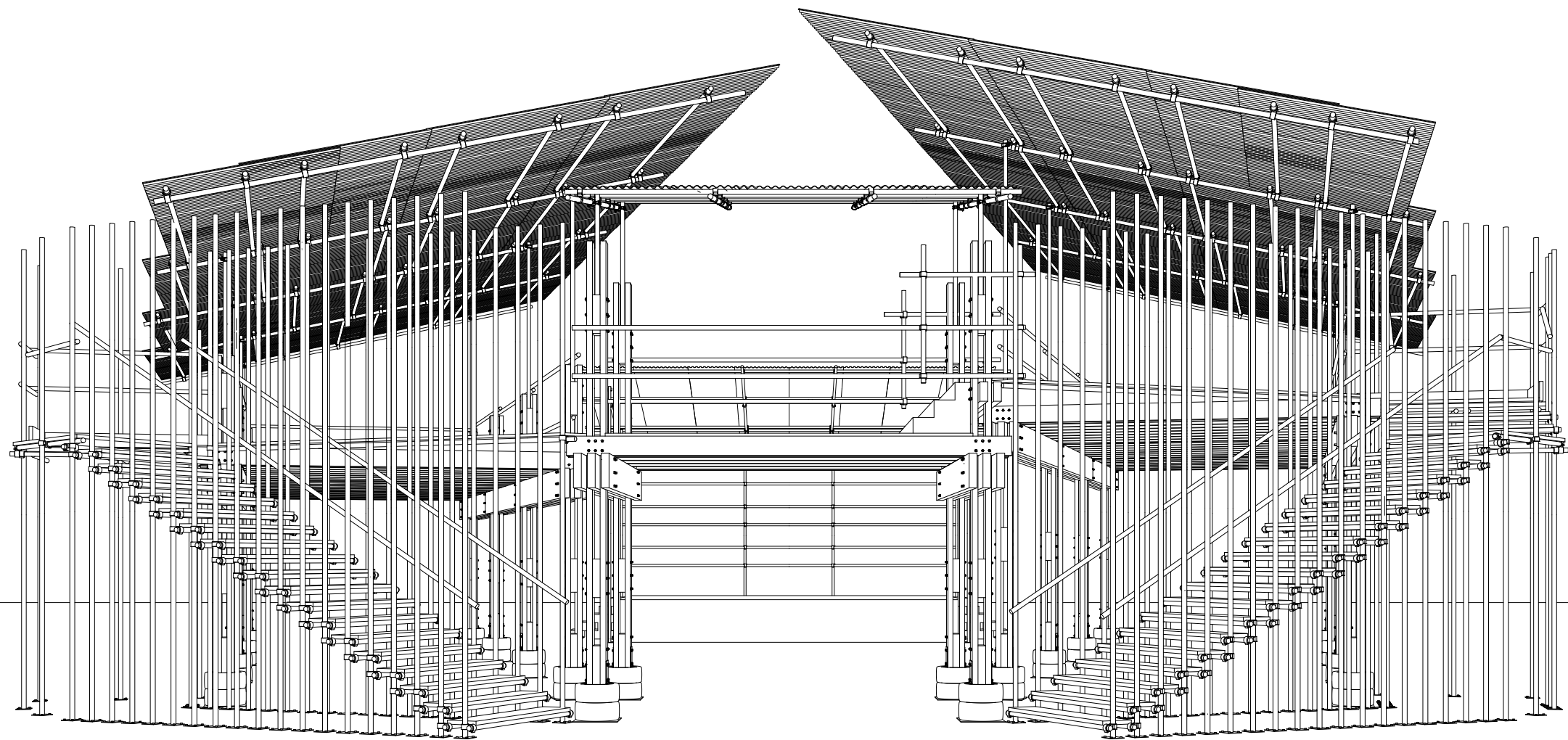
1:200  
Roof and Elevation

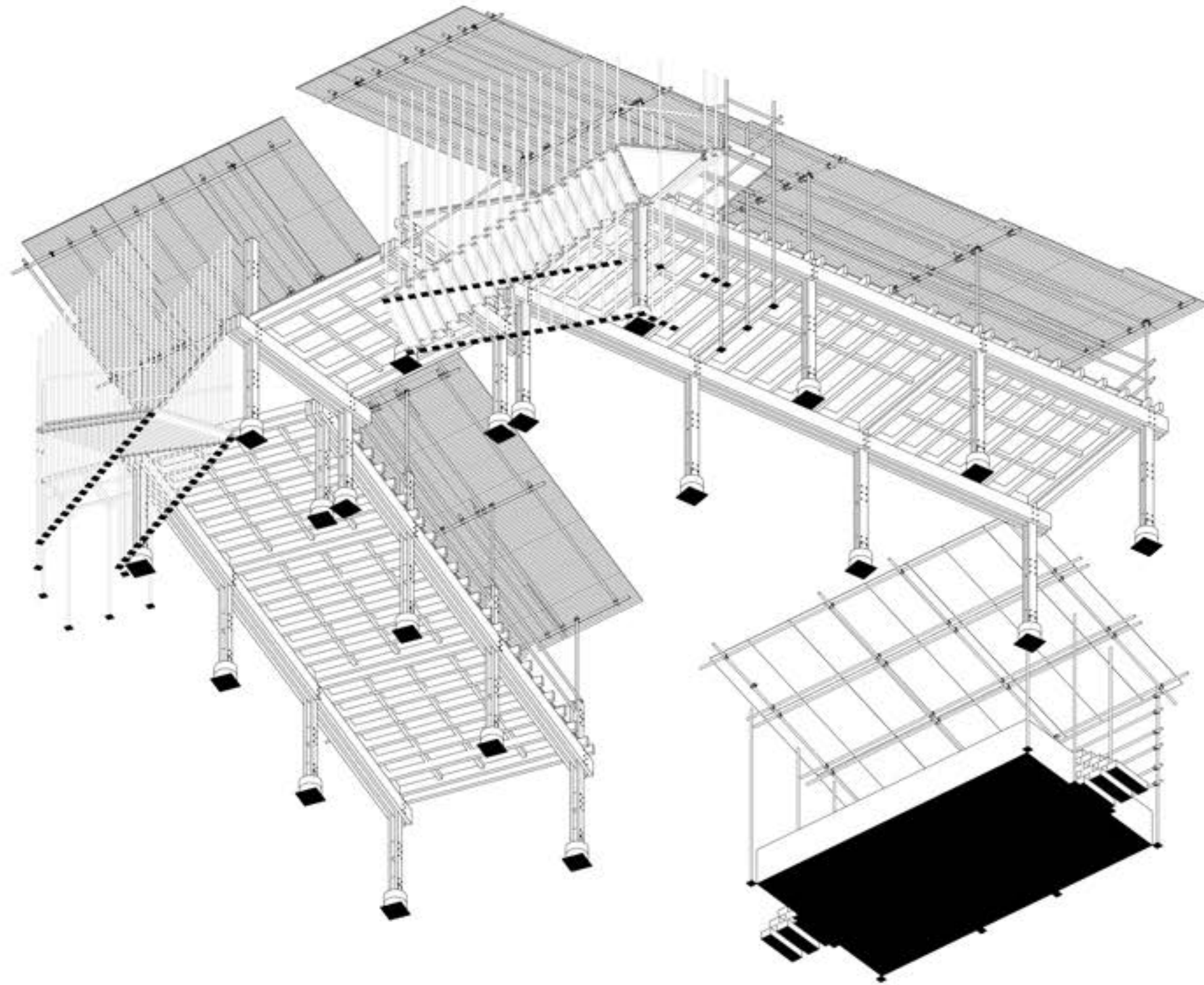


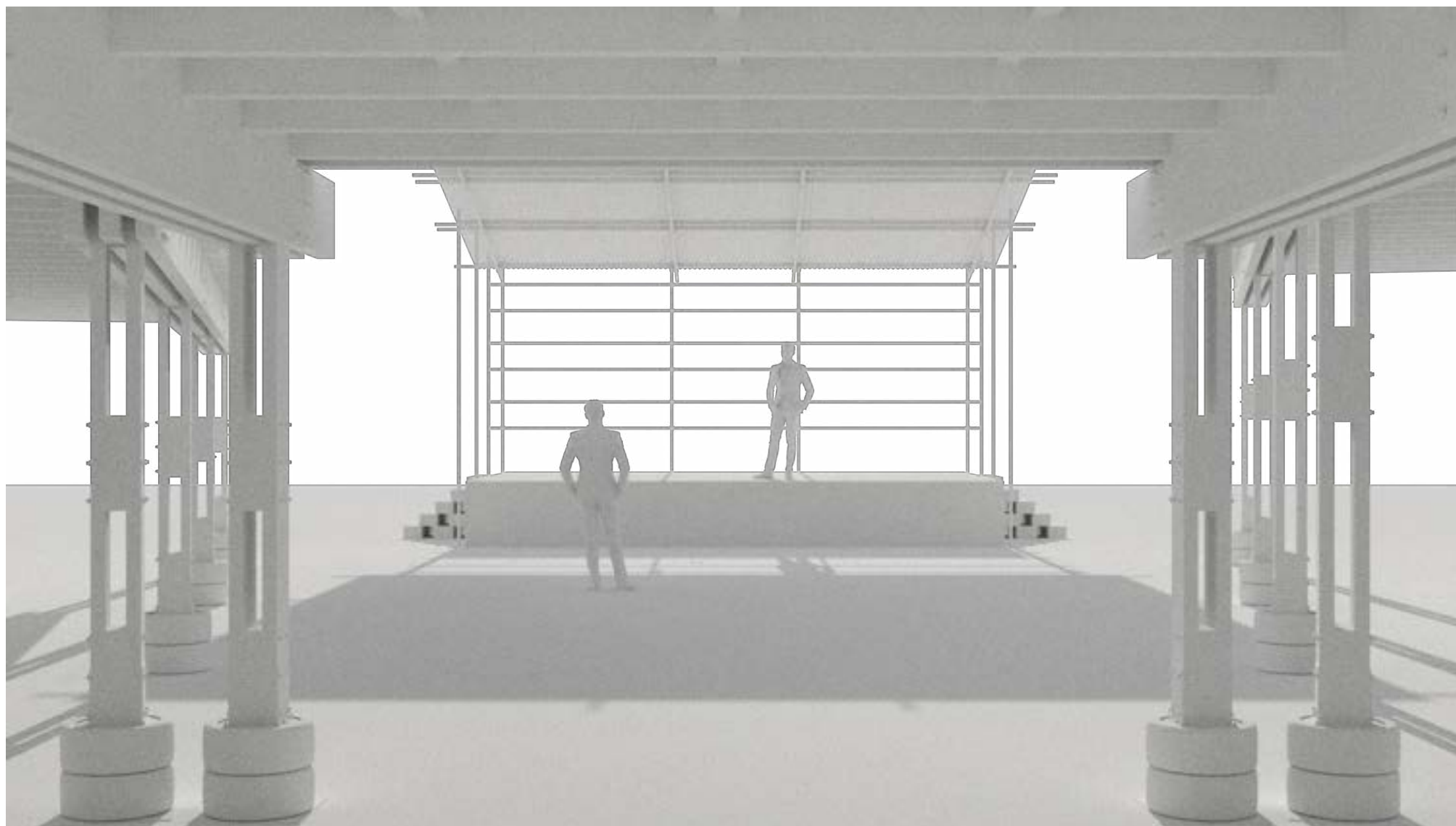


0 50

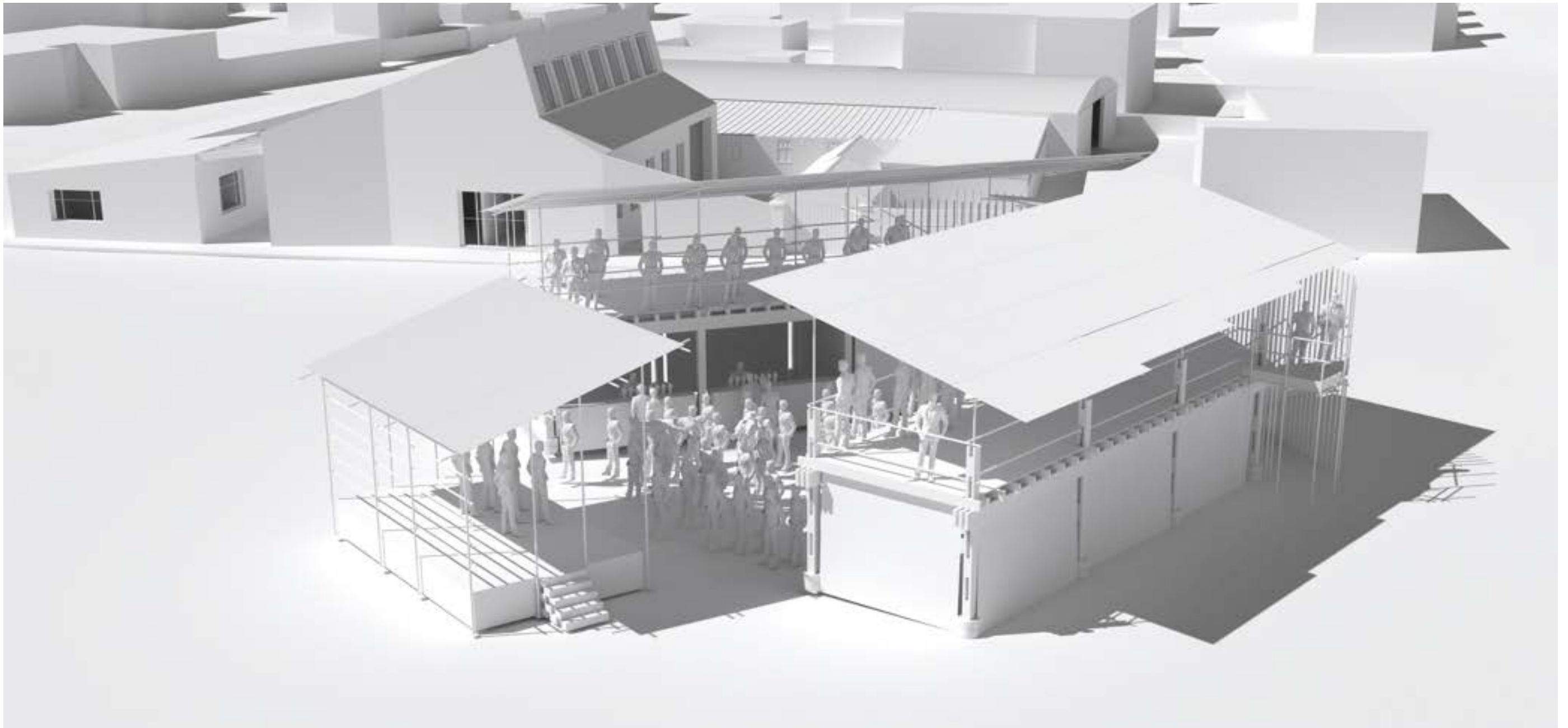
1:500

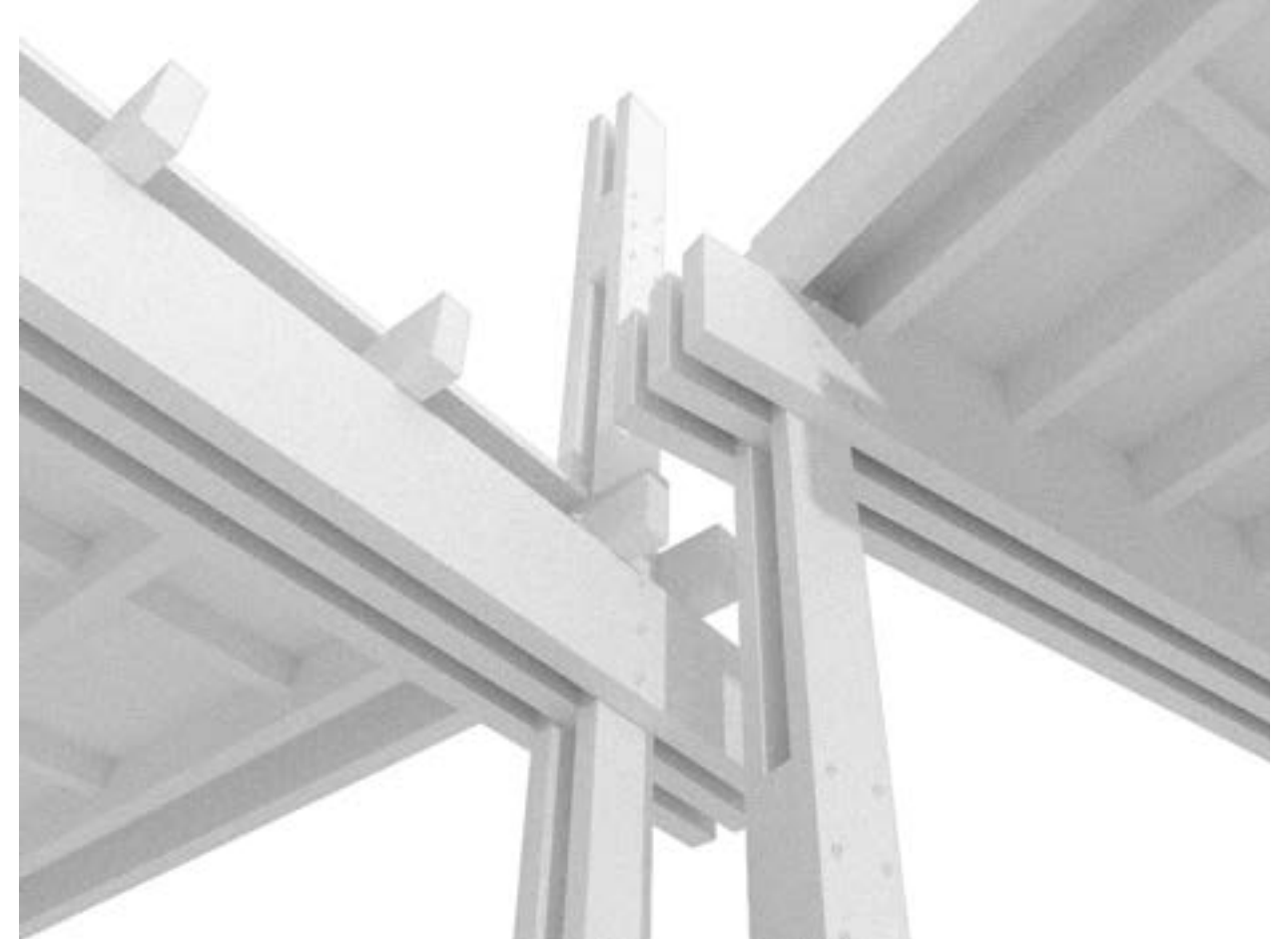




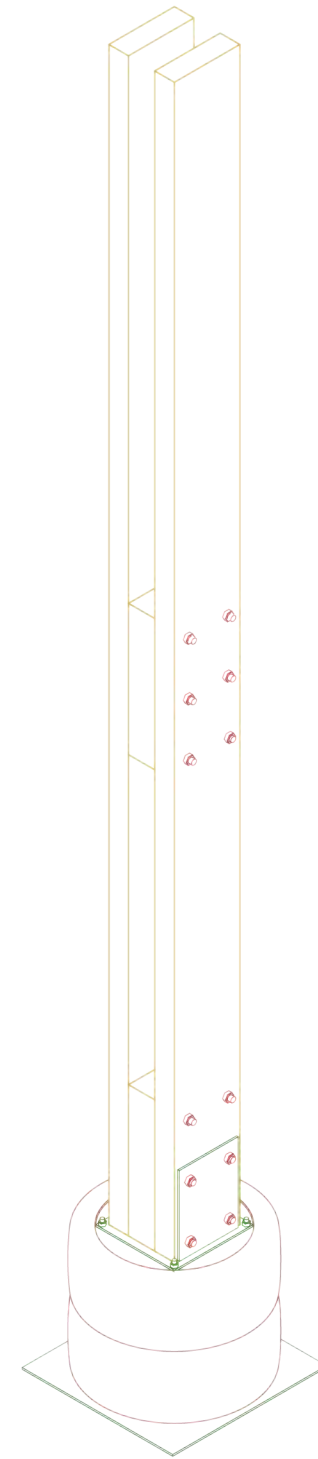
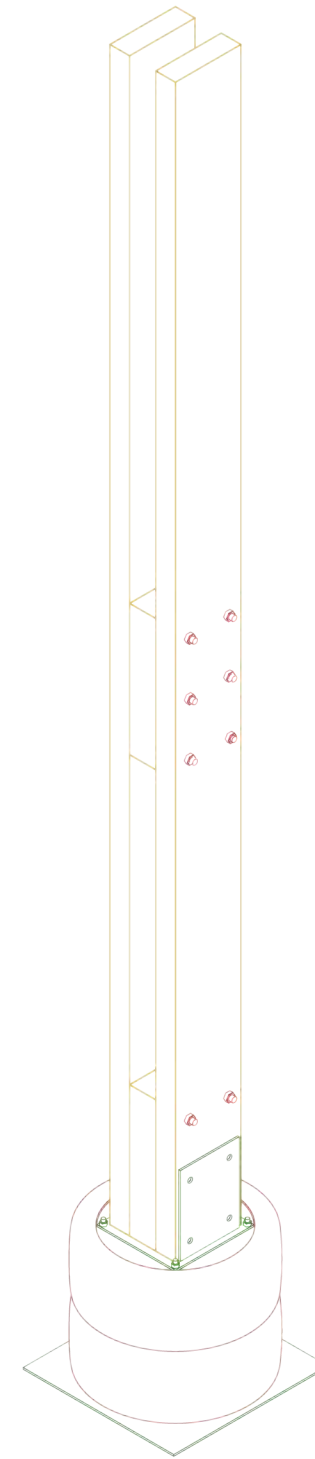
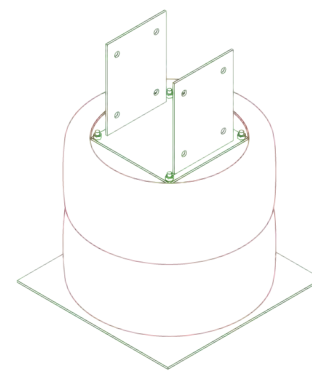
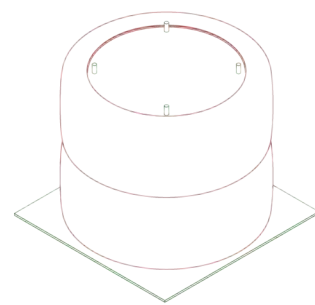
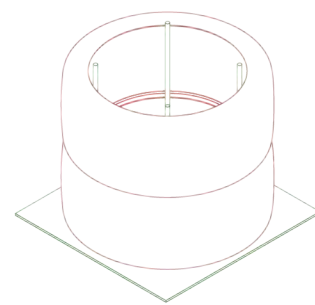
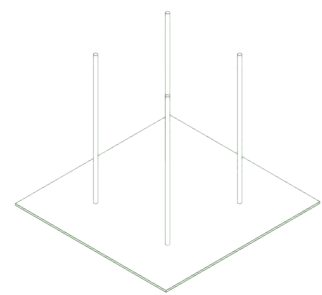




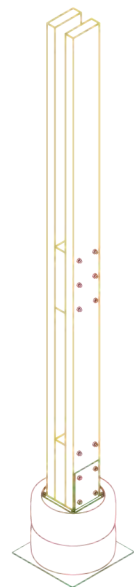
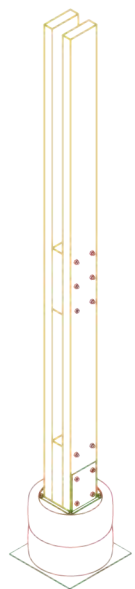




# Portal Construction

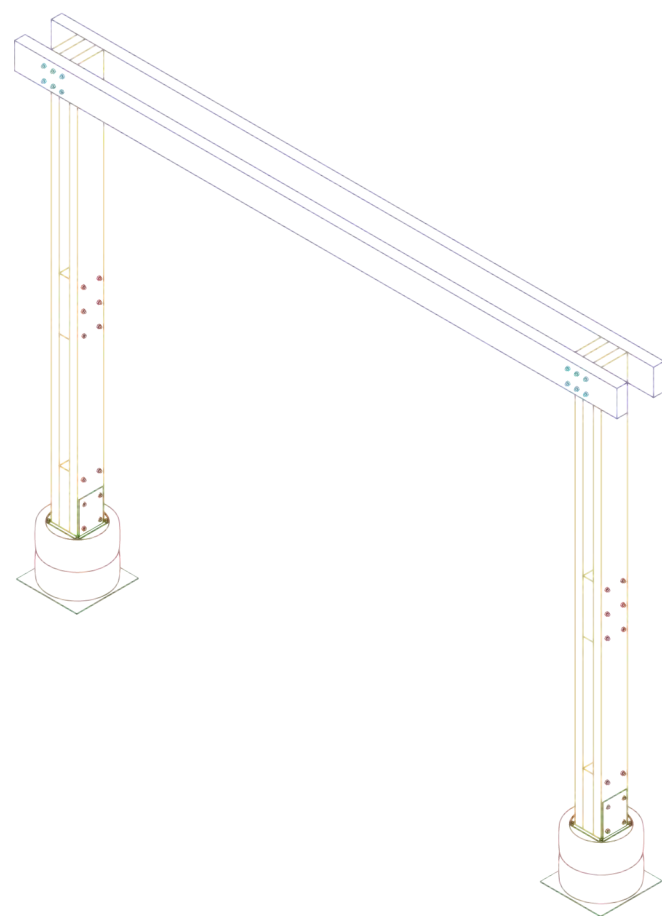






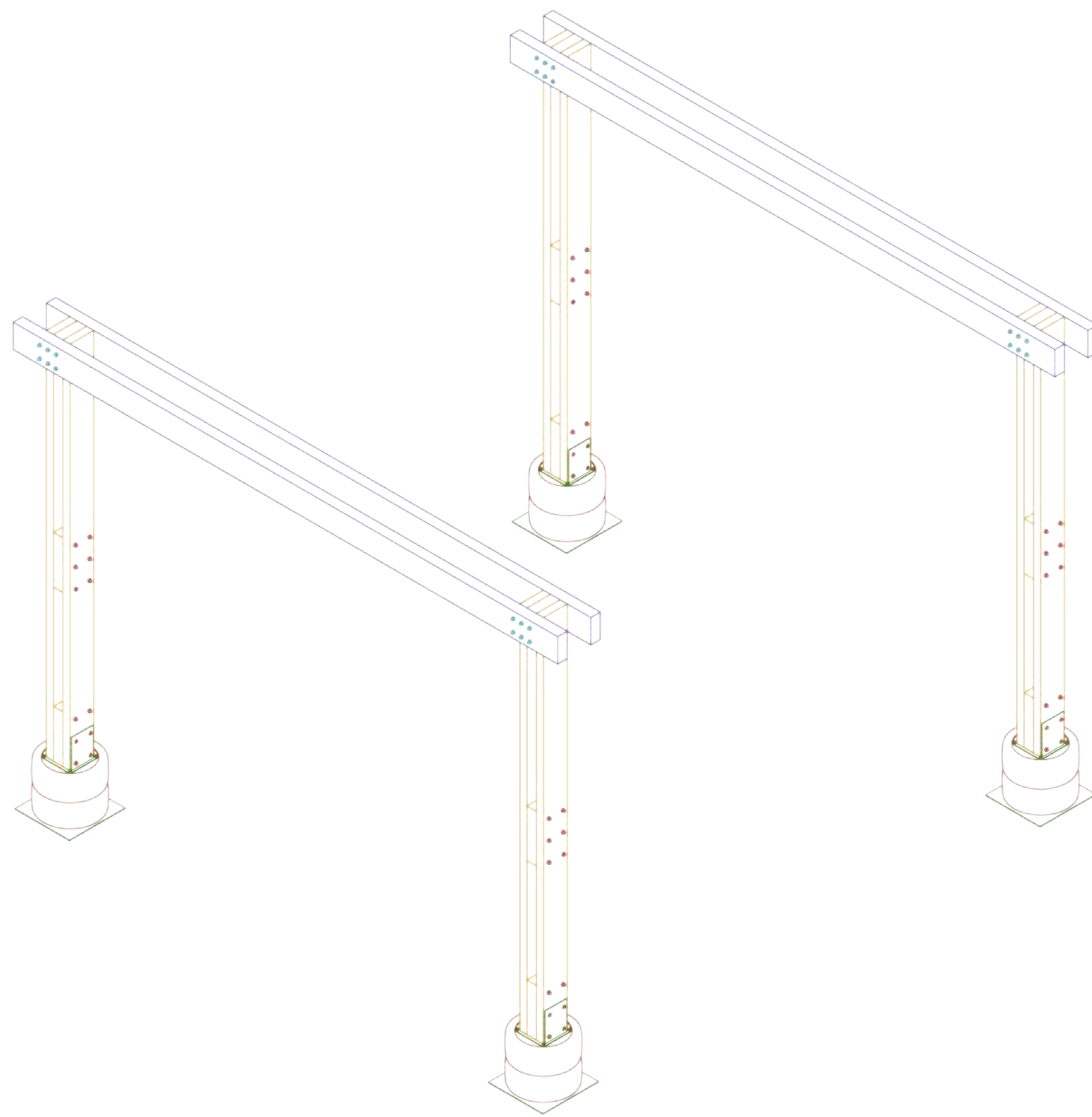
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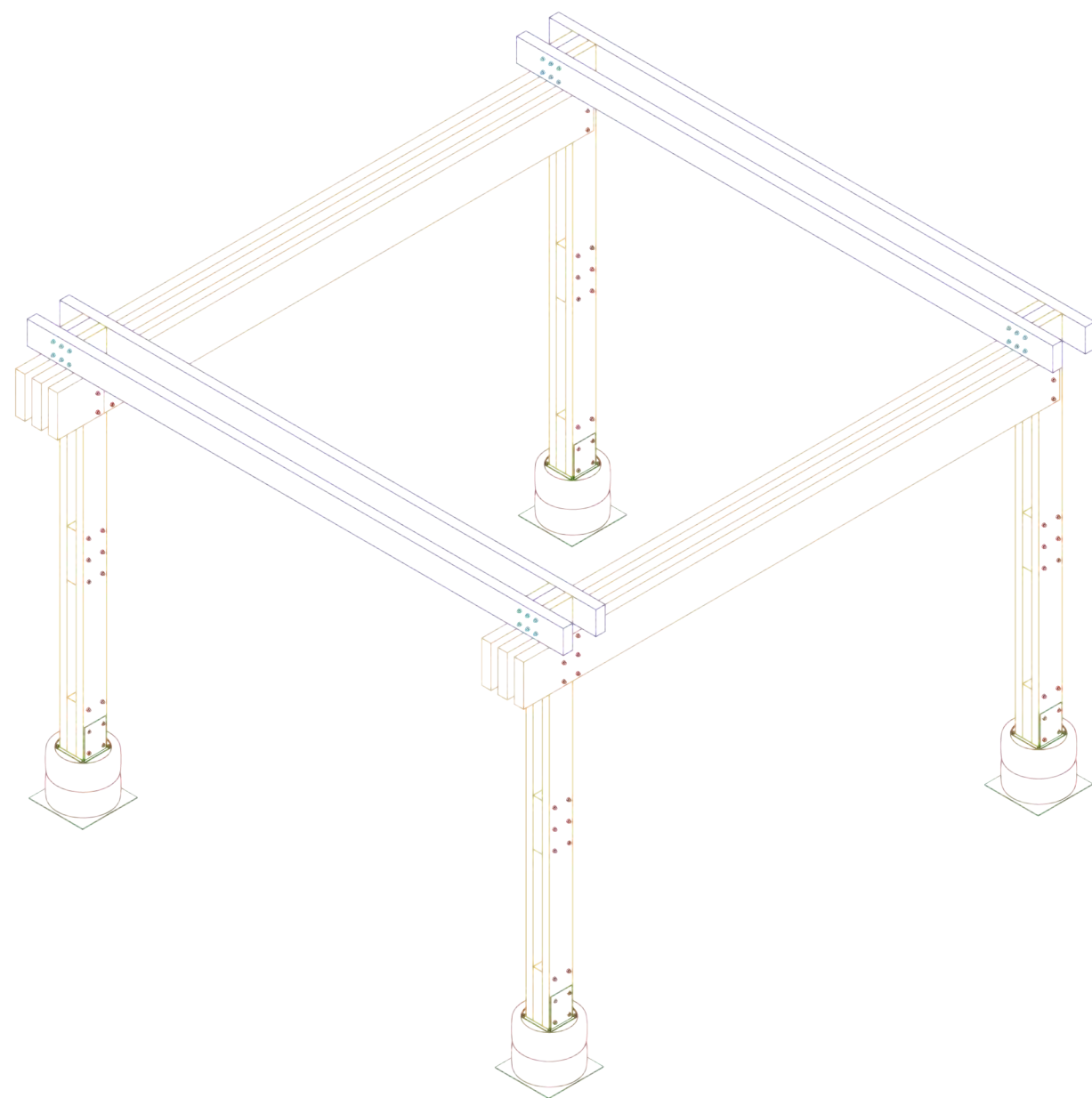
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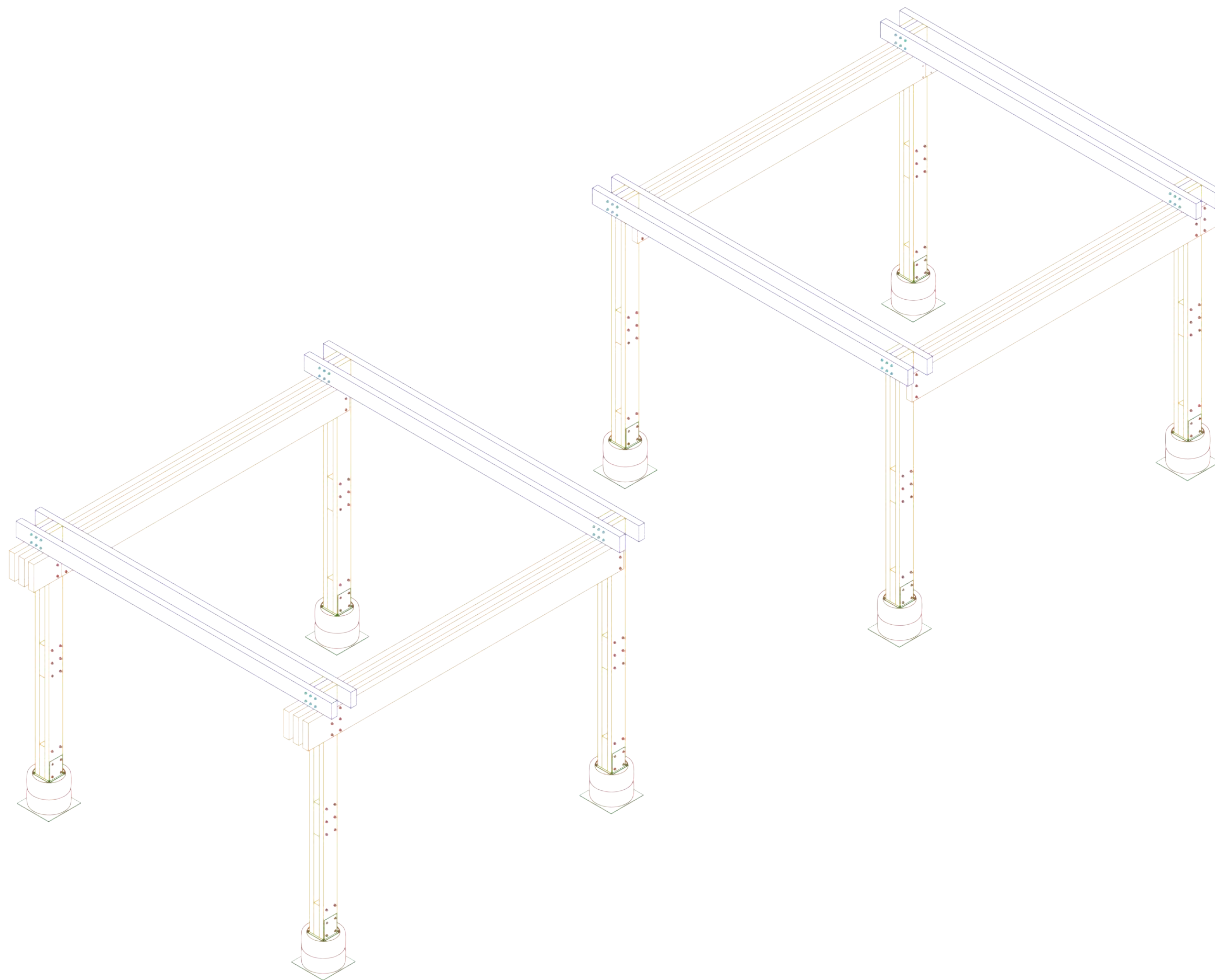


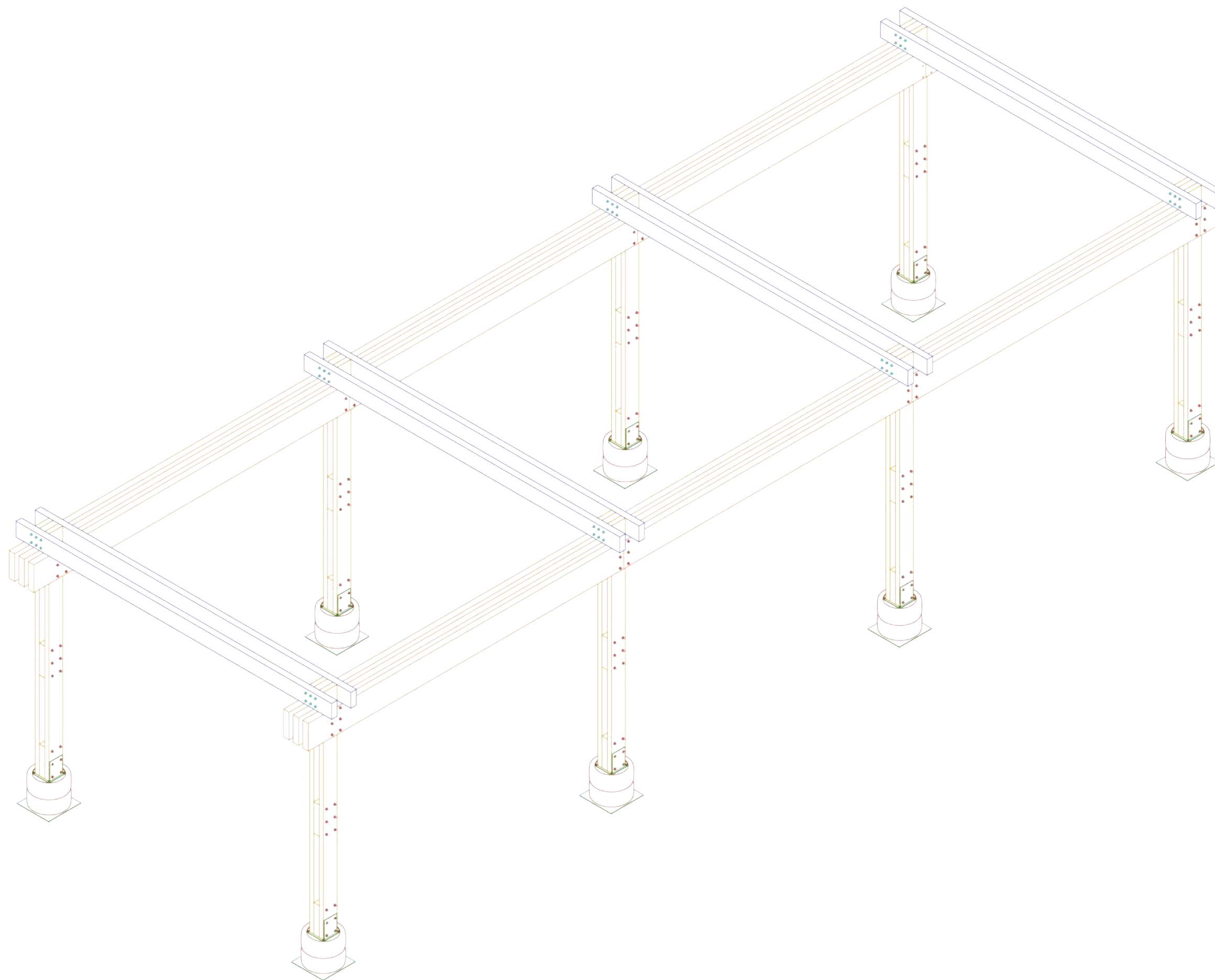
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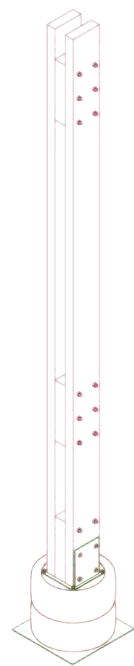
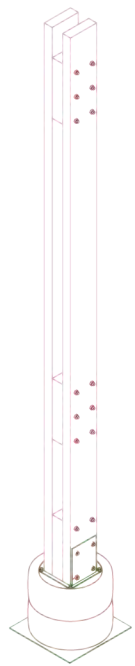
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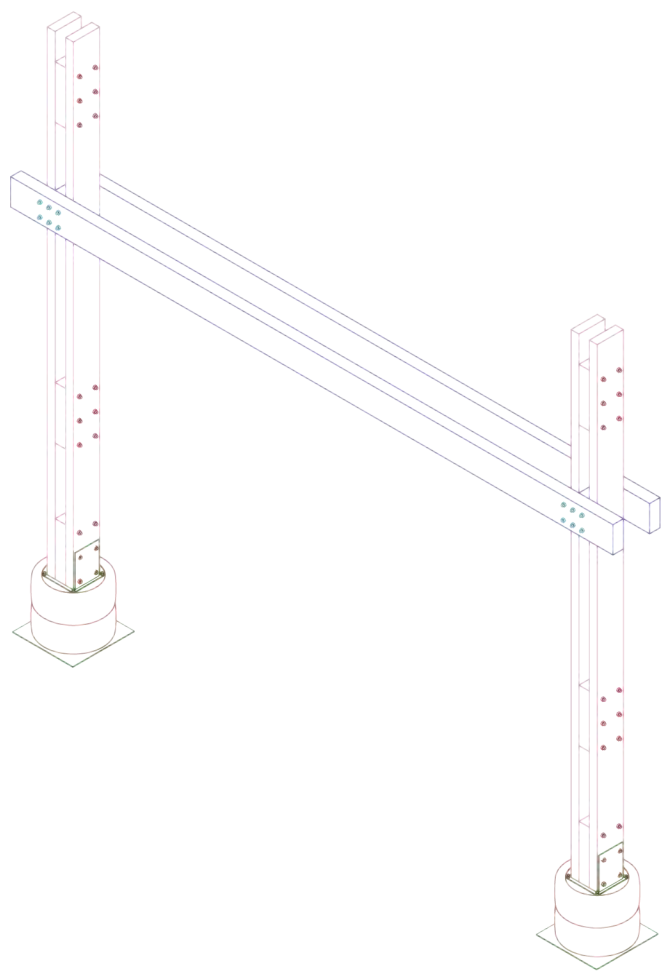






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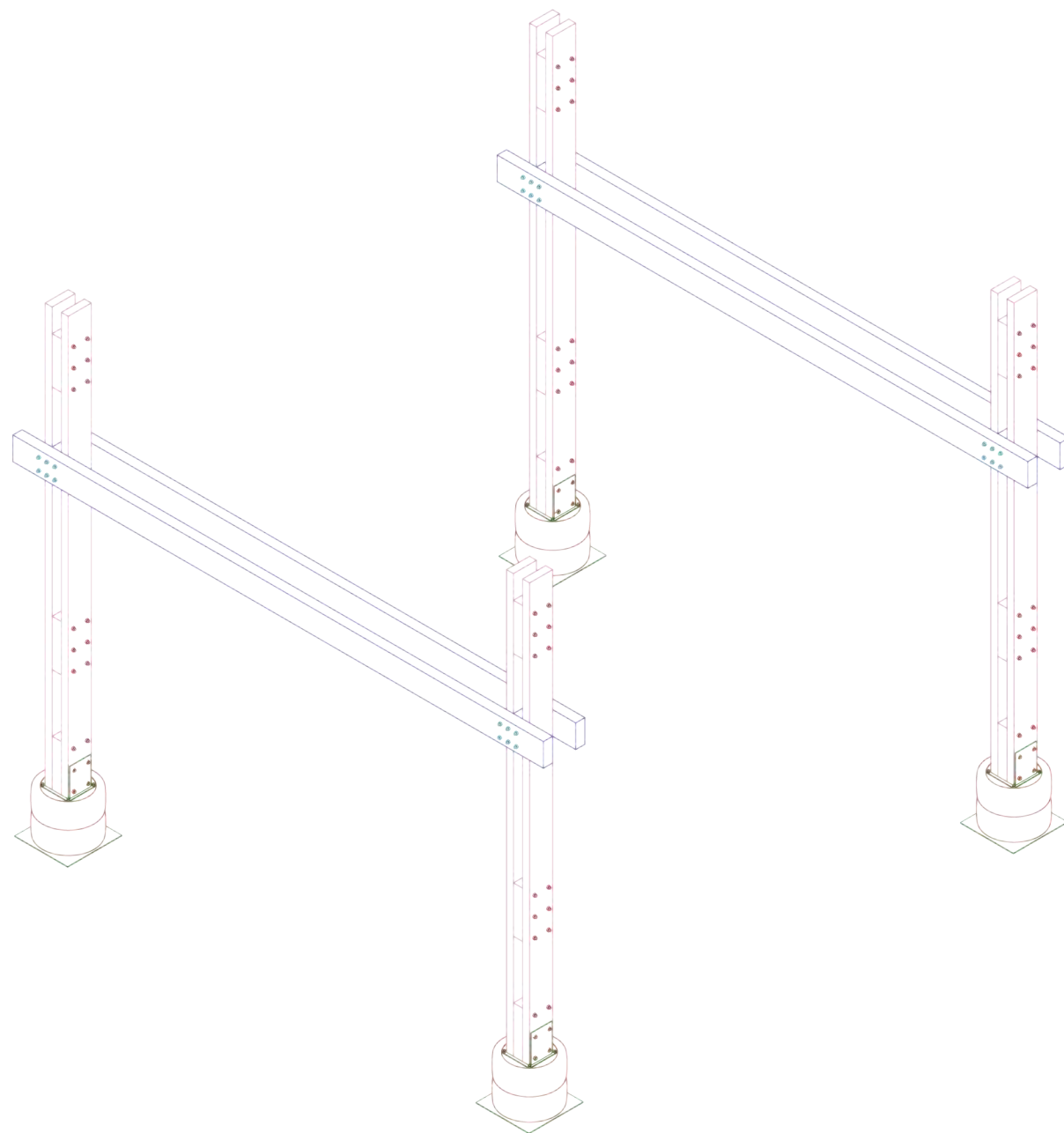
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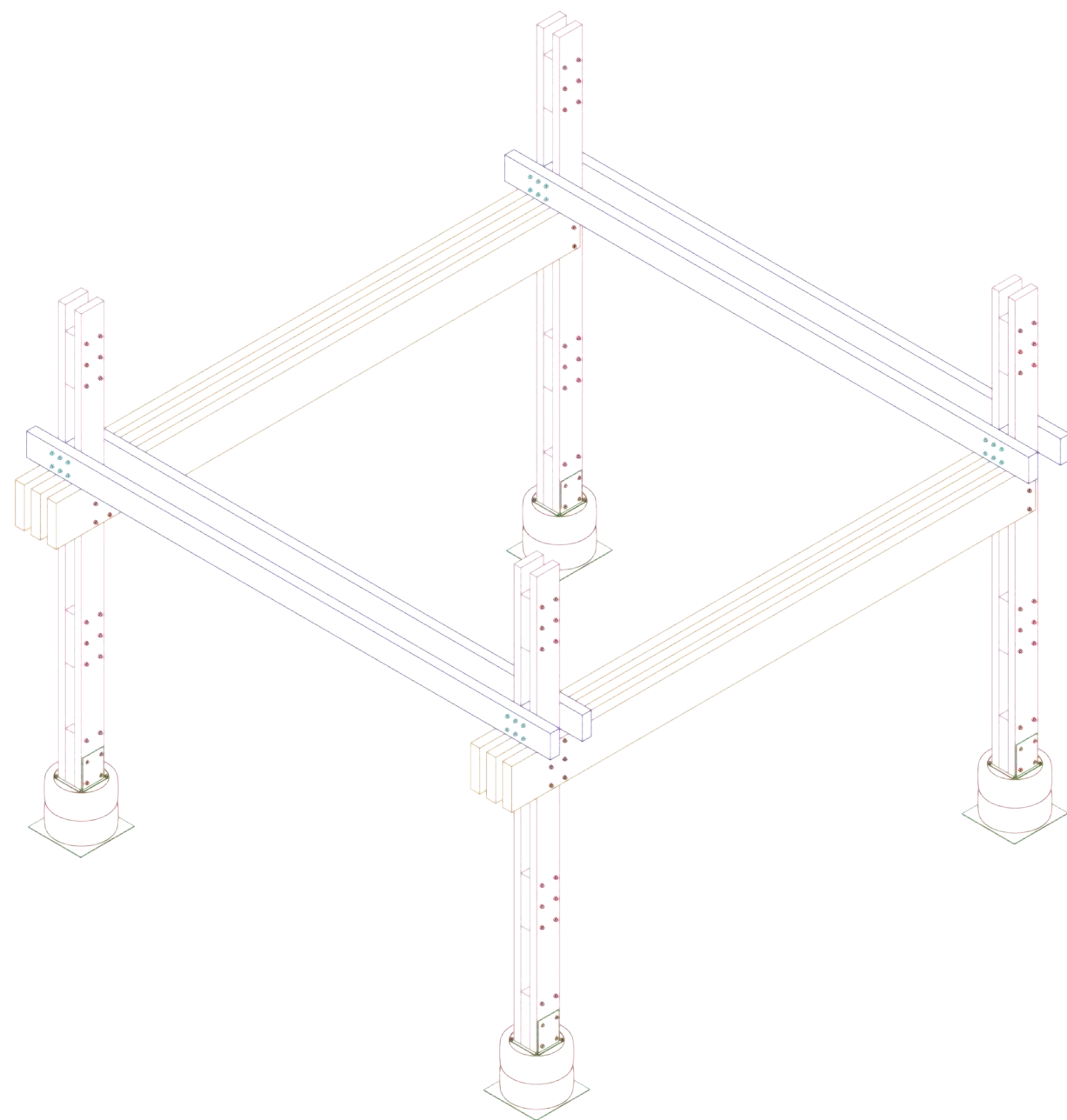


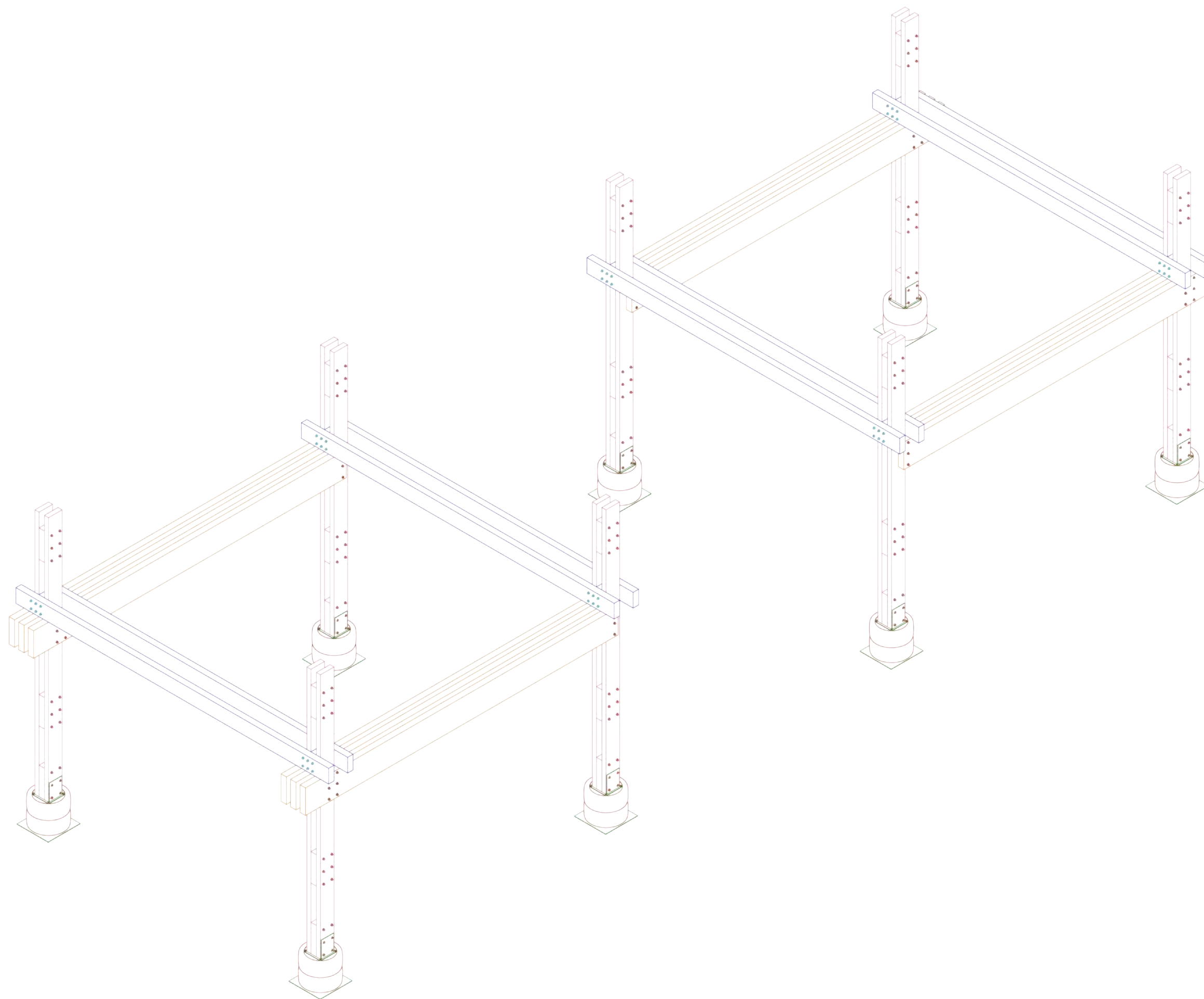
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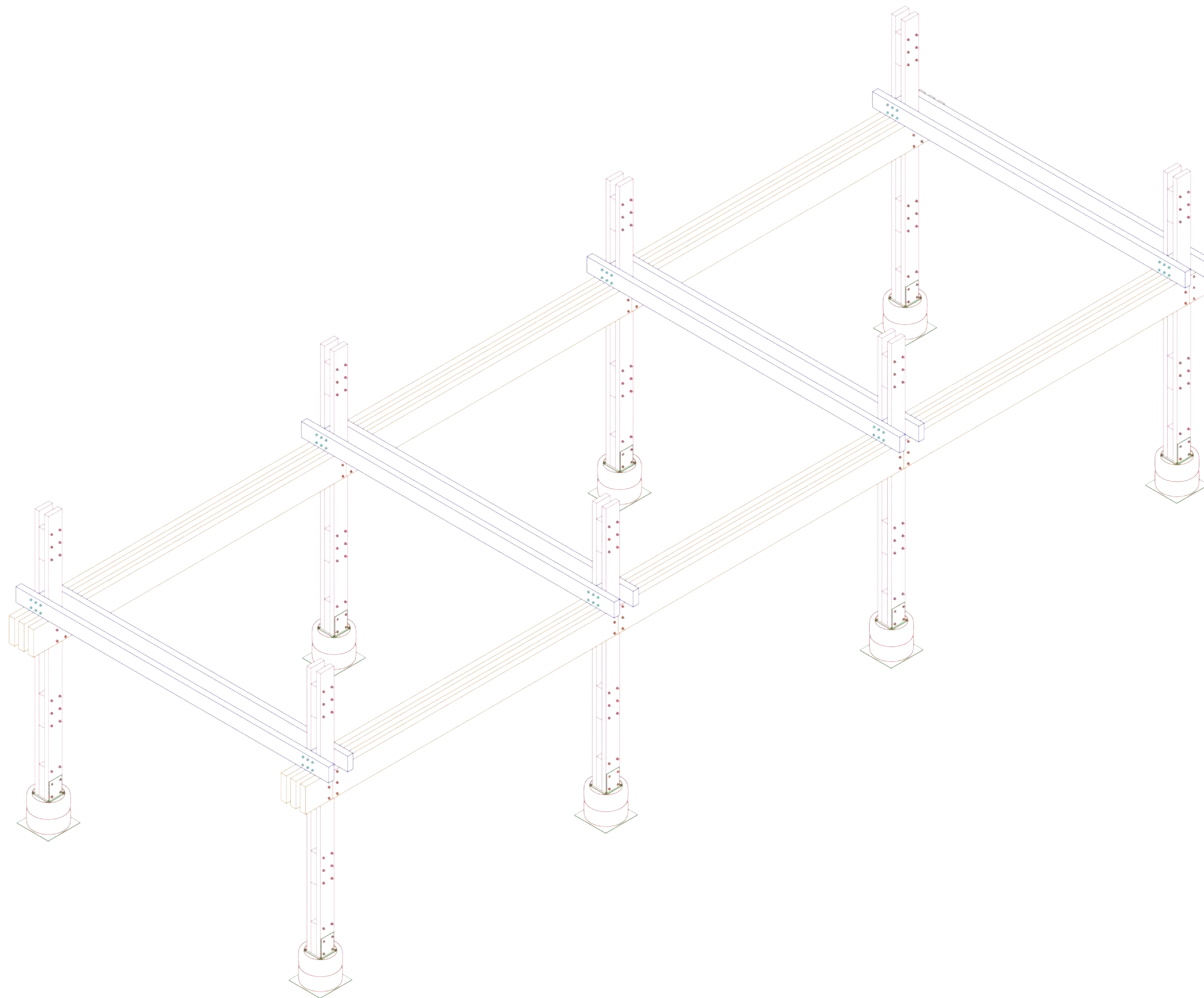






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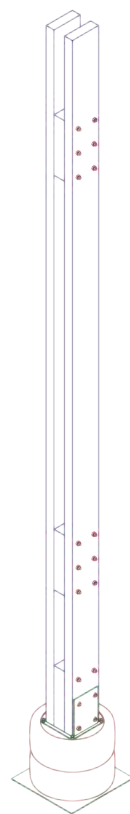
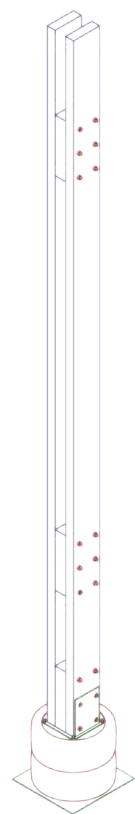
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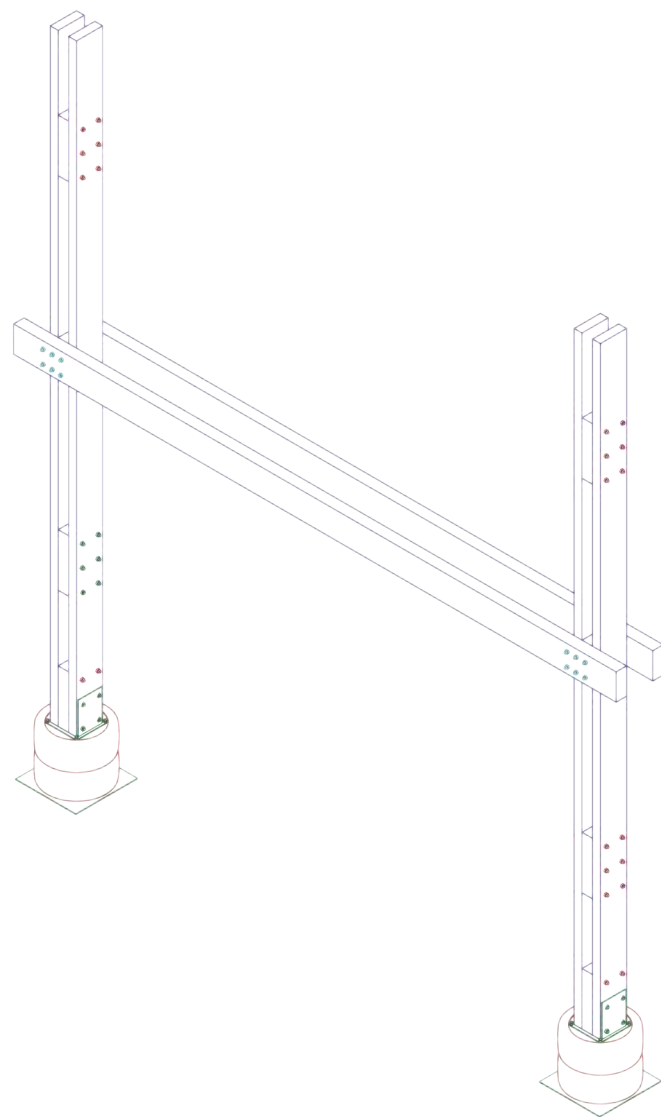


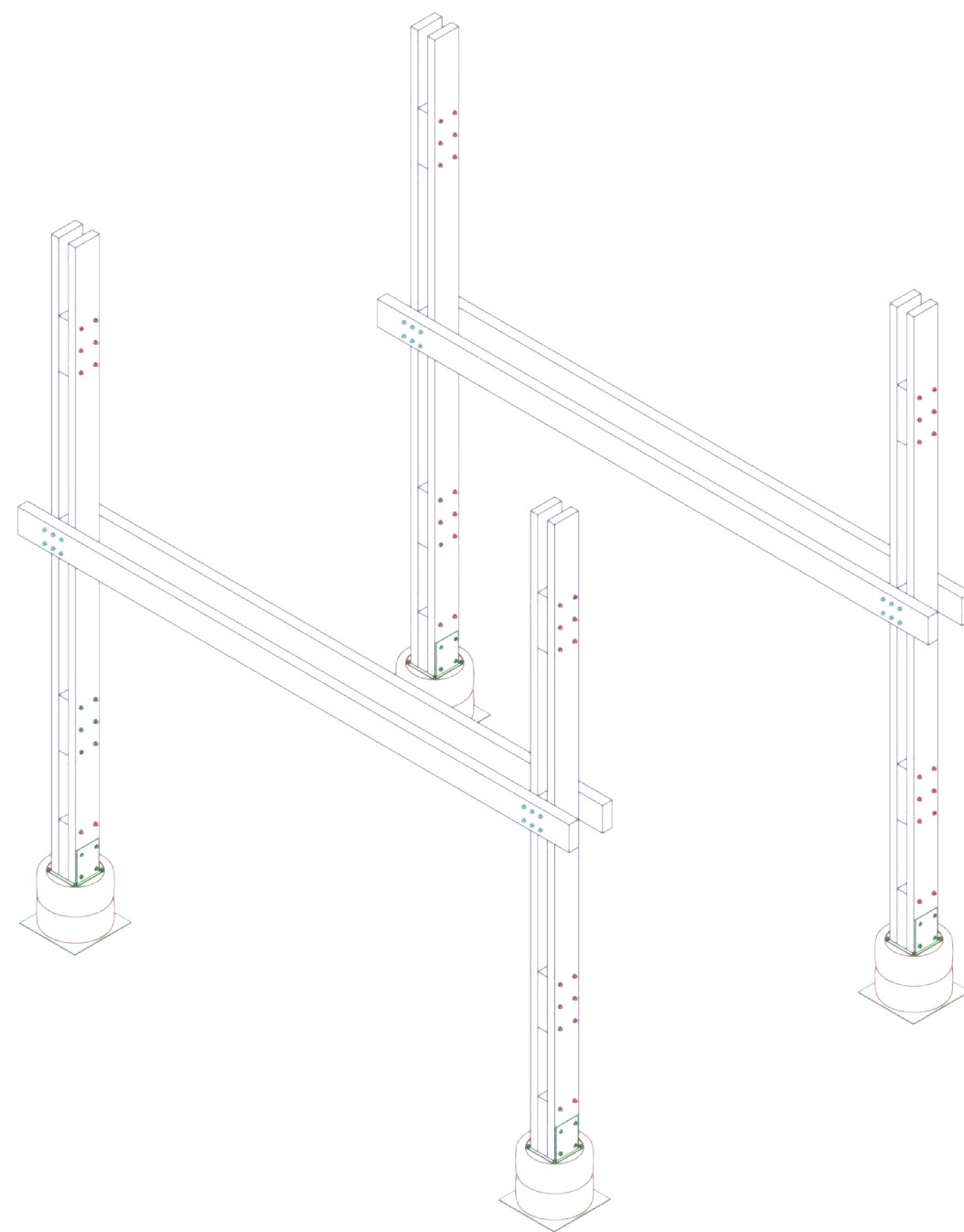
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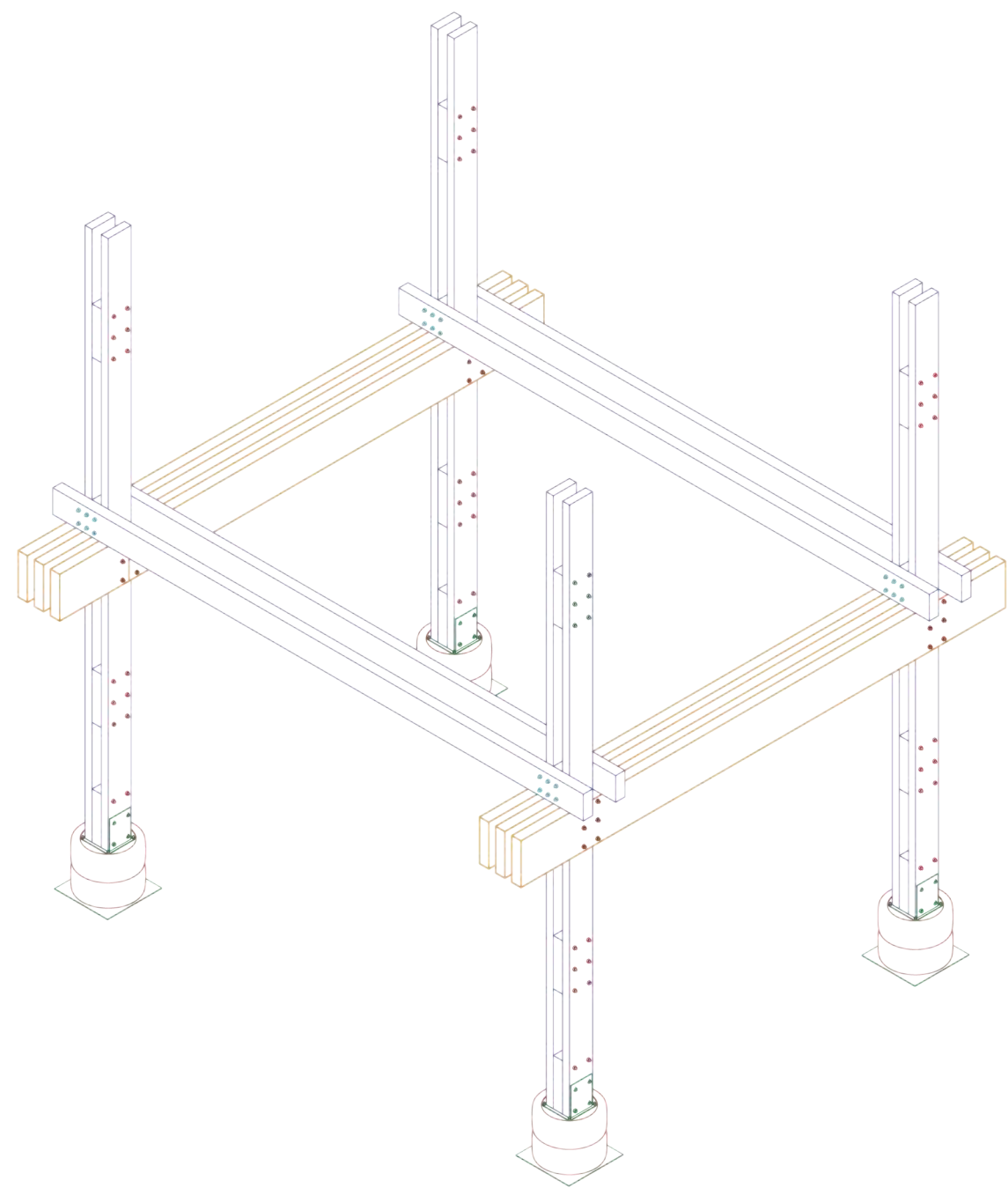
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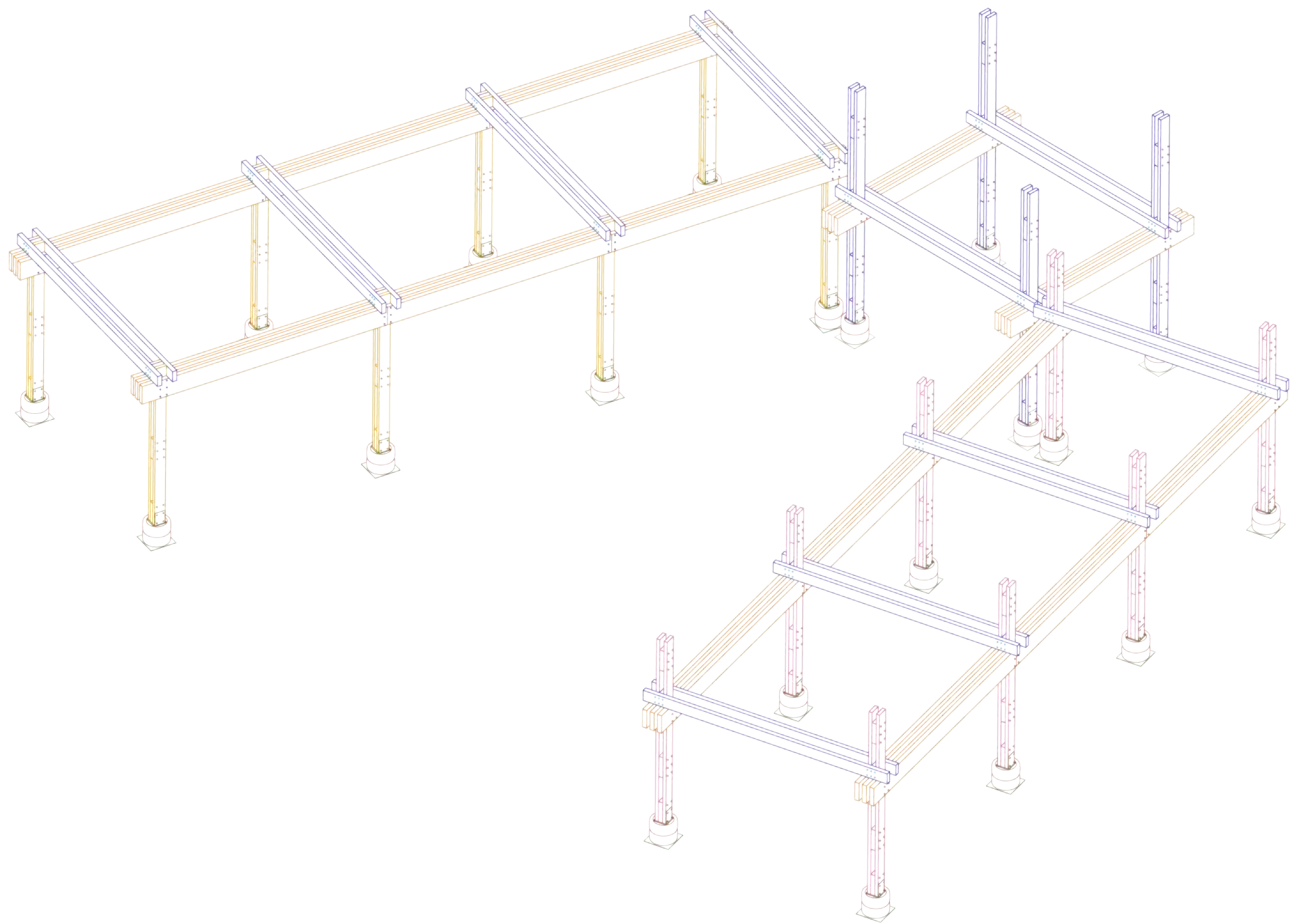








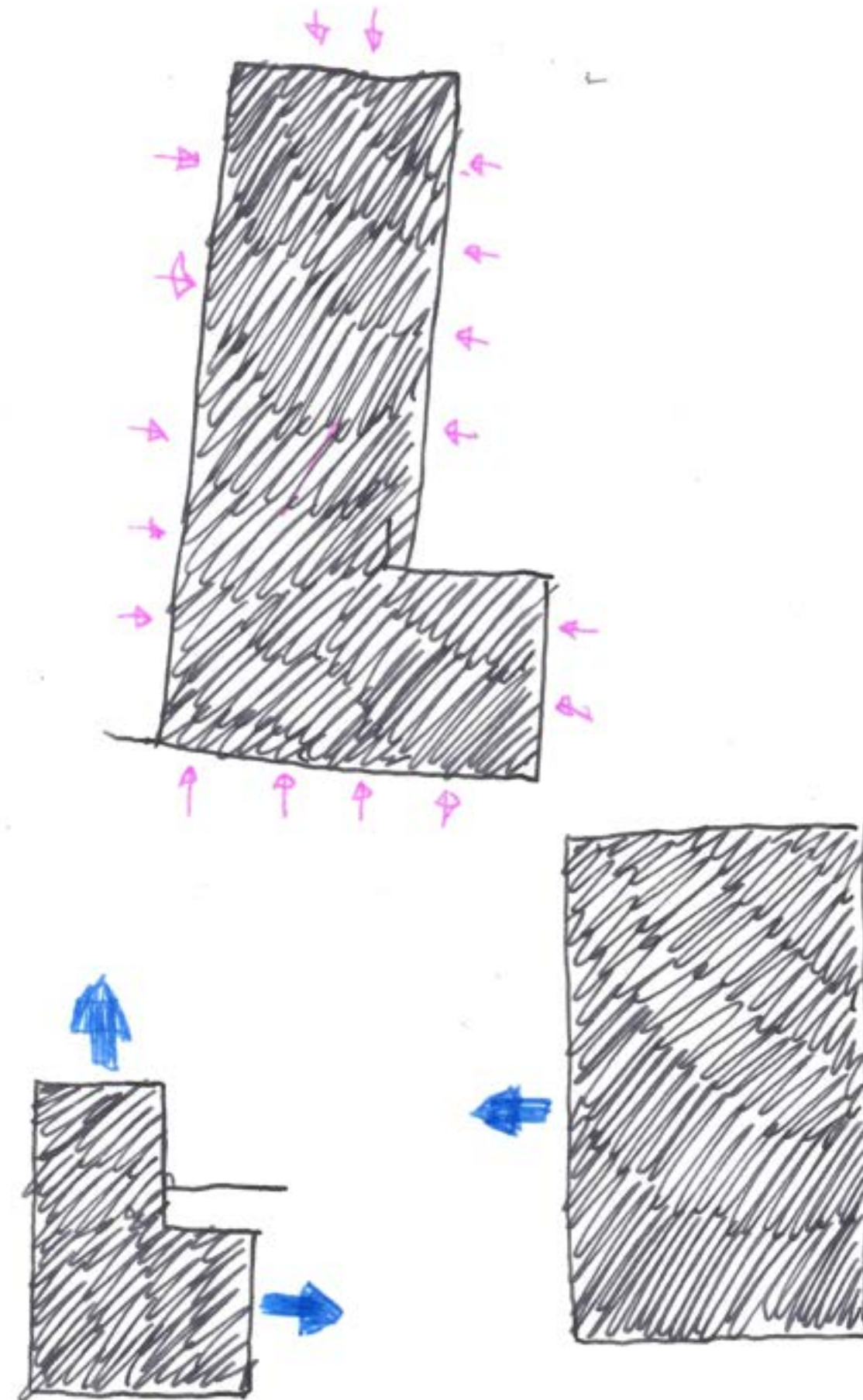


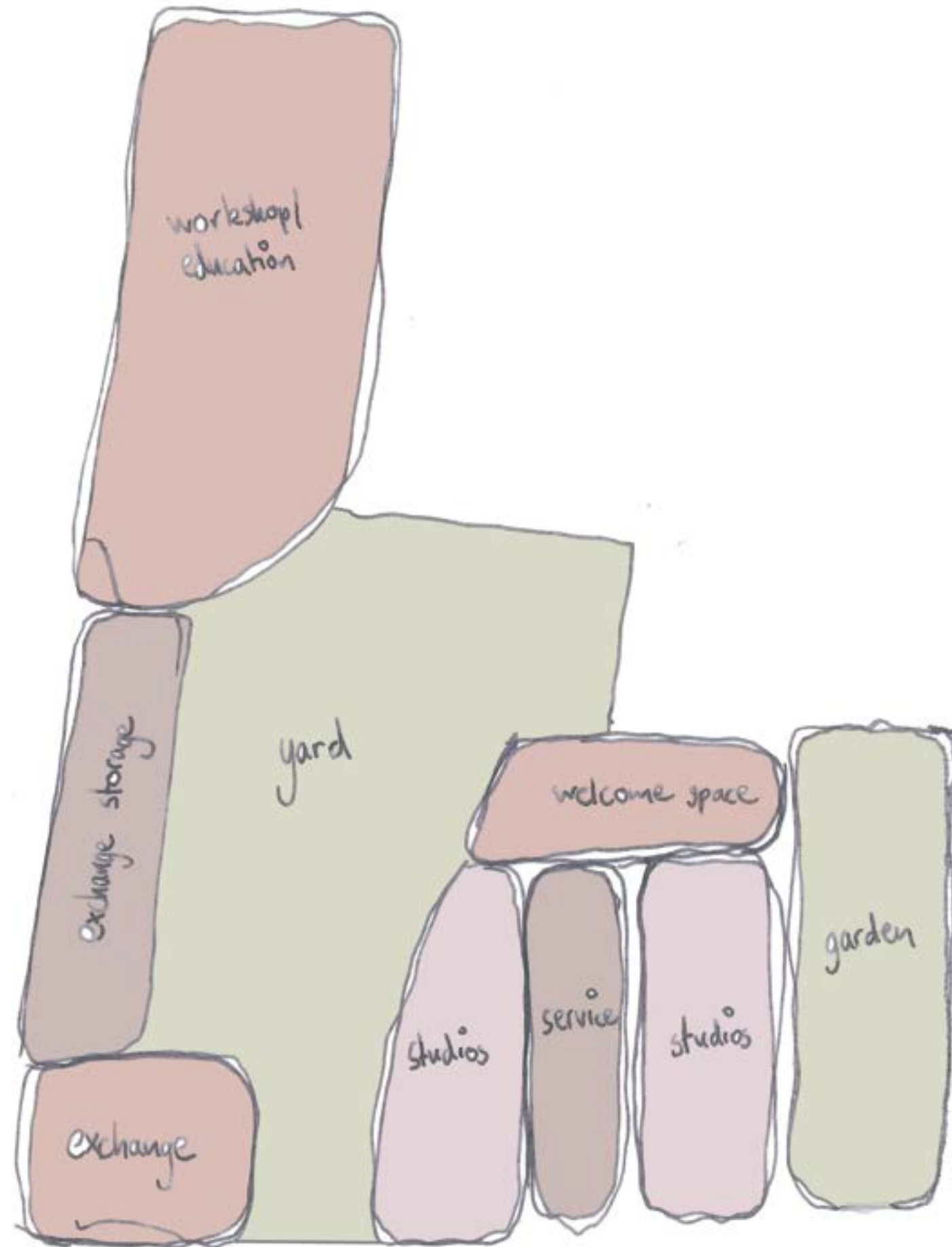


# The Move



Within The  
Boundaries



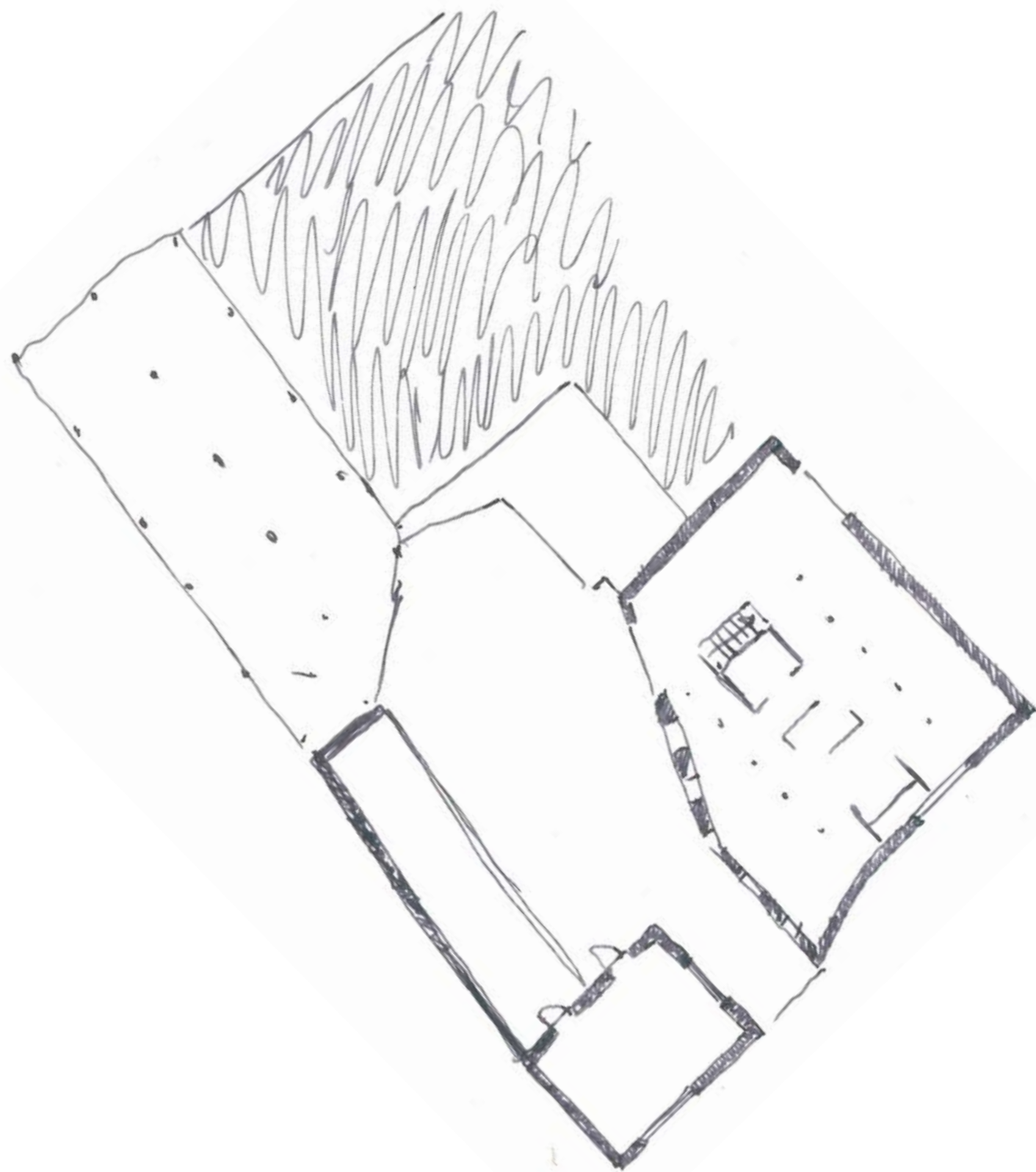






1:200 Development

P4



1:200

P4

# Material Exchange

1.

**2. Know your materials**

3.

4.

5.

6.

7.

**8. Build local material industries**

**9. Mine the City**

**10. Maintain or renew, reuse or  
recycle**

11. Designing for non toxicity: “could  
I eat your furniture, IKEA”

12.

**13. Cross loops**

**14. Create building component  
exchanges**

**15. Imagine a world without waste**

16.

**17. Design for disassembly**

18.

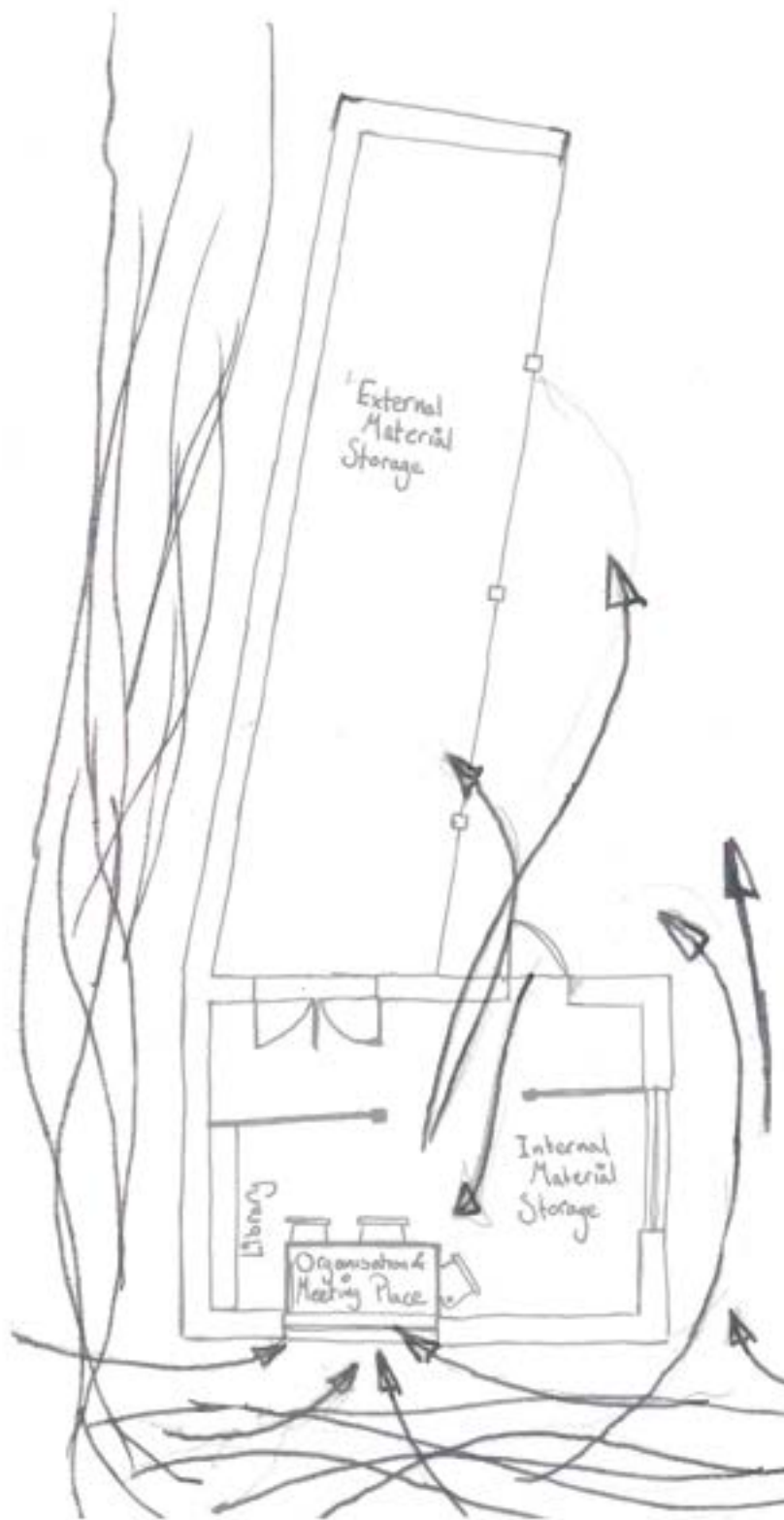
19.

**20. Embed know-how**

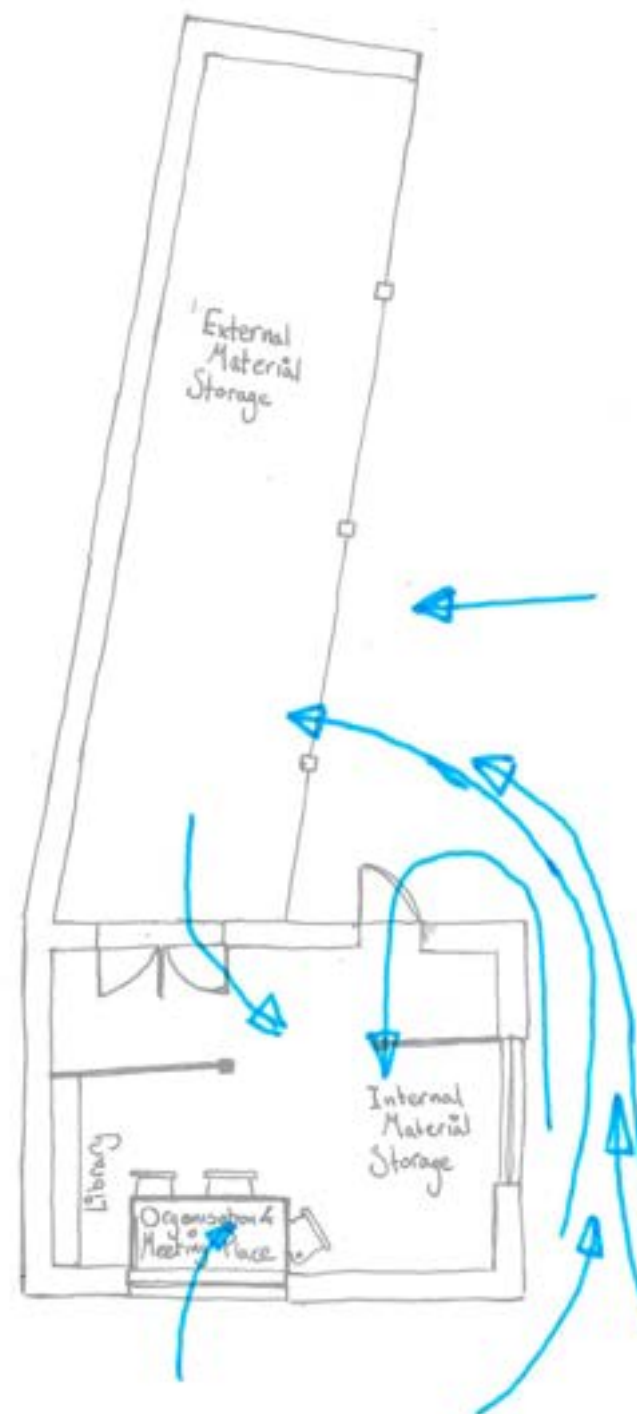
21. Make it desirable

22.

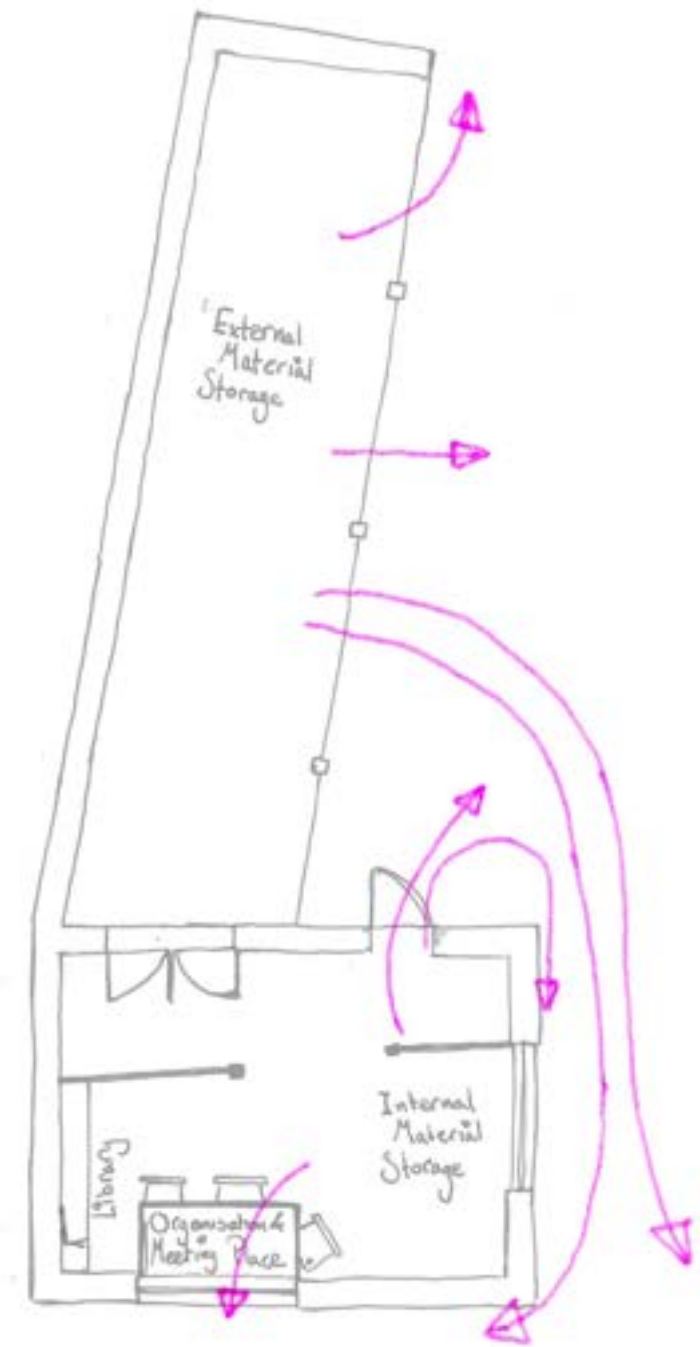




Engaging the public

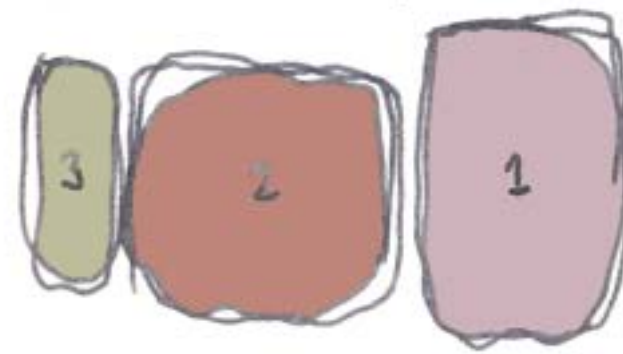
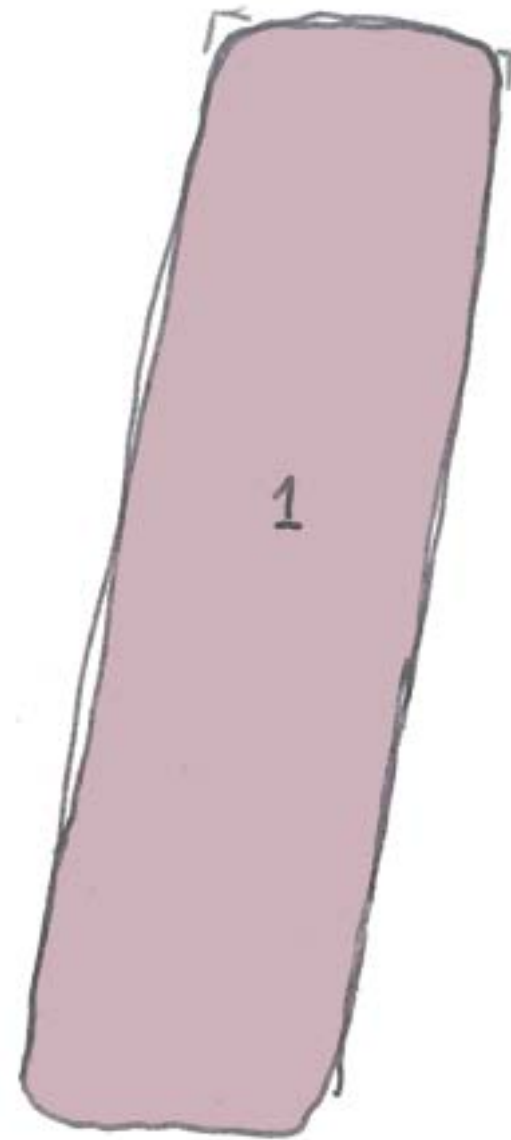


Material Inflow

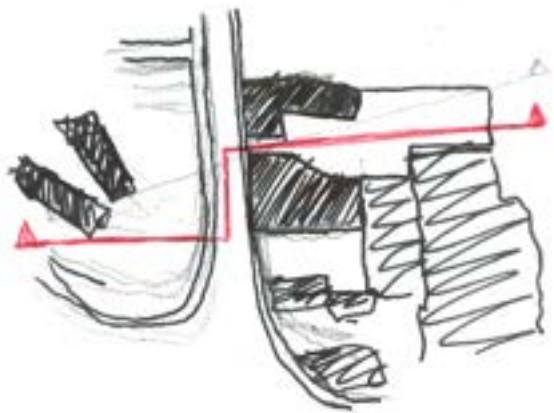
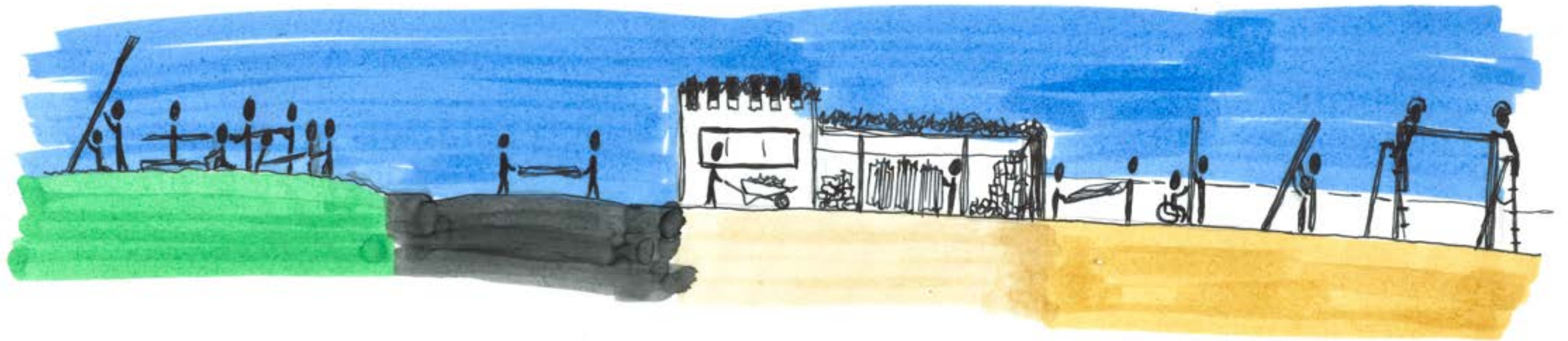


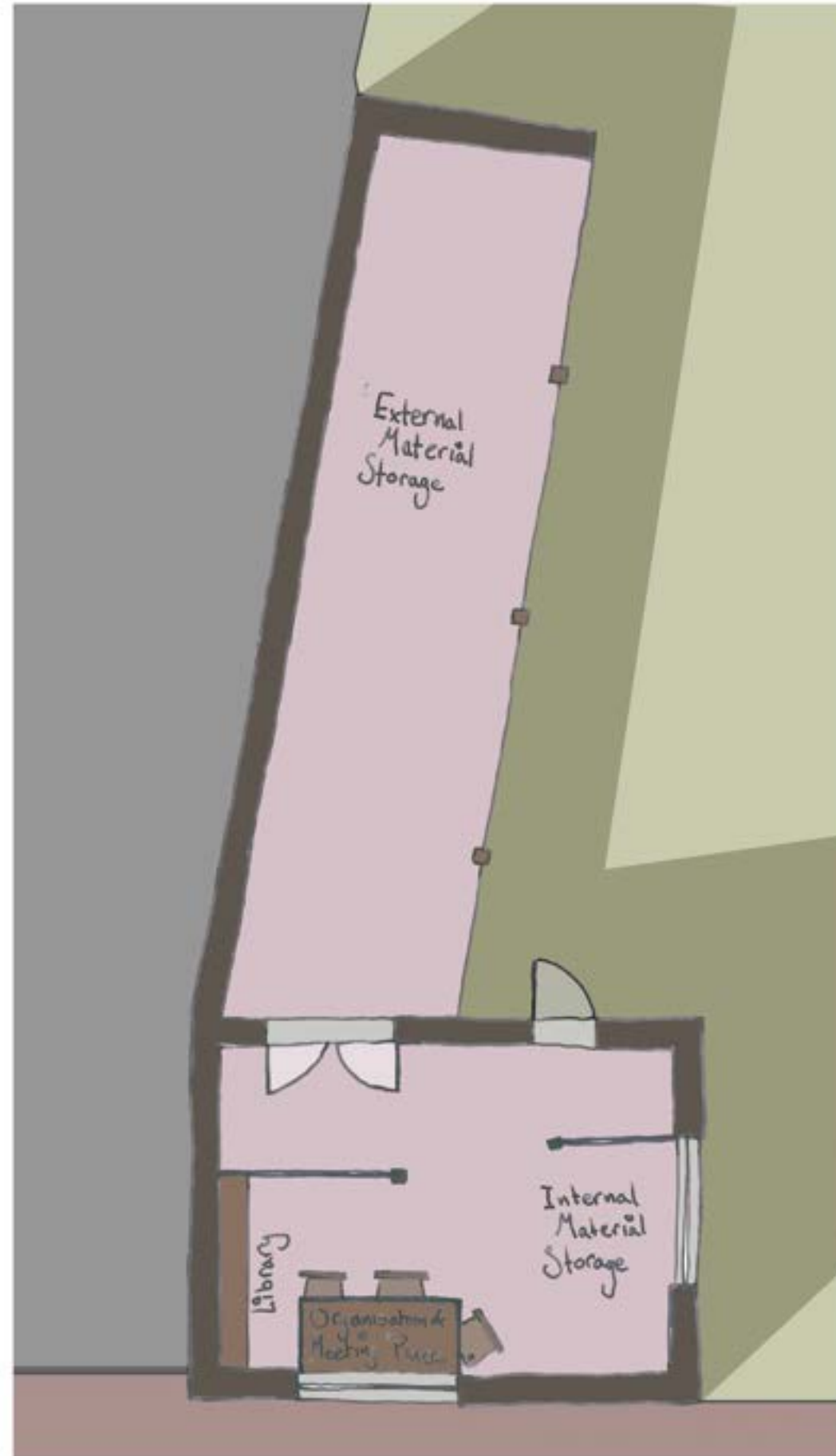
Material Outflow

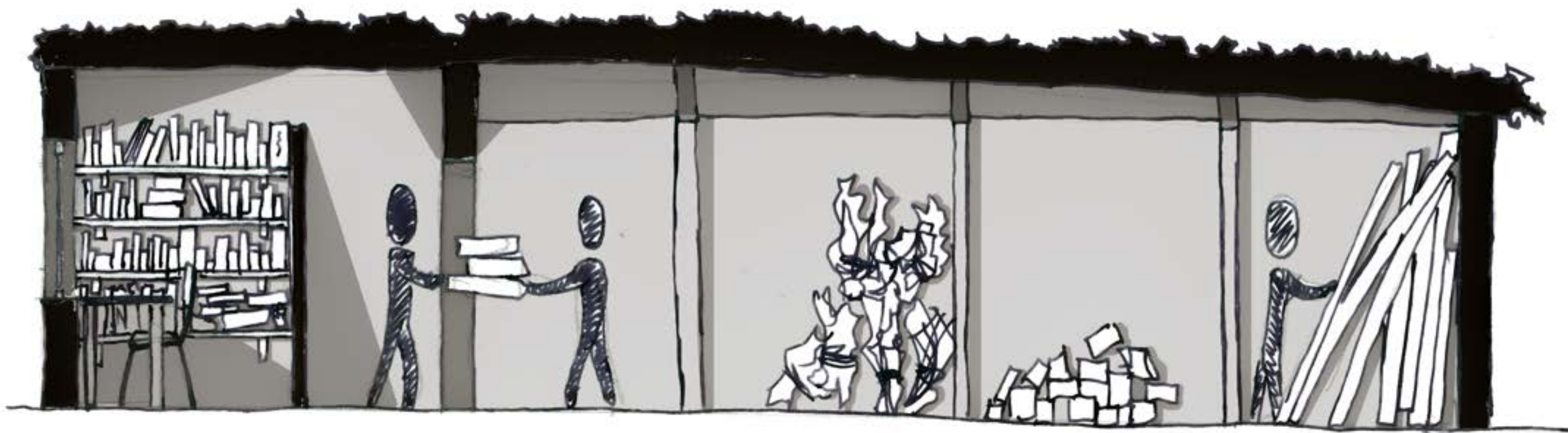




- 1. Storage
- 2. Meeting
- 3. Knowledge















The Studios

1.

**2. Know your materials**

3.

4.

5.

6.

7.

**8. Build local material industries**

**9. Mine the City**

**10. Maintain or renew, reuse or  
recycle**

**11. Designing for non toxicity:  
“could I eat your furniture, IKEA”**

12.

**13. Cross loops**

14. Create building component  
exchanges

**15. Imagine a world without waste**

16.

**17. Design for disassembly**

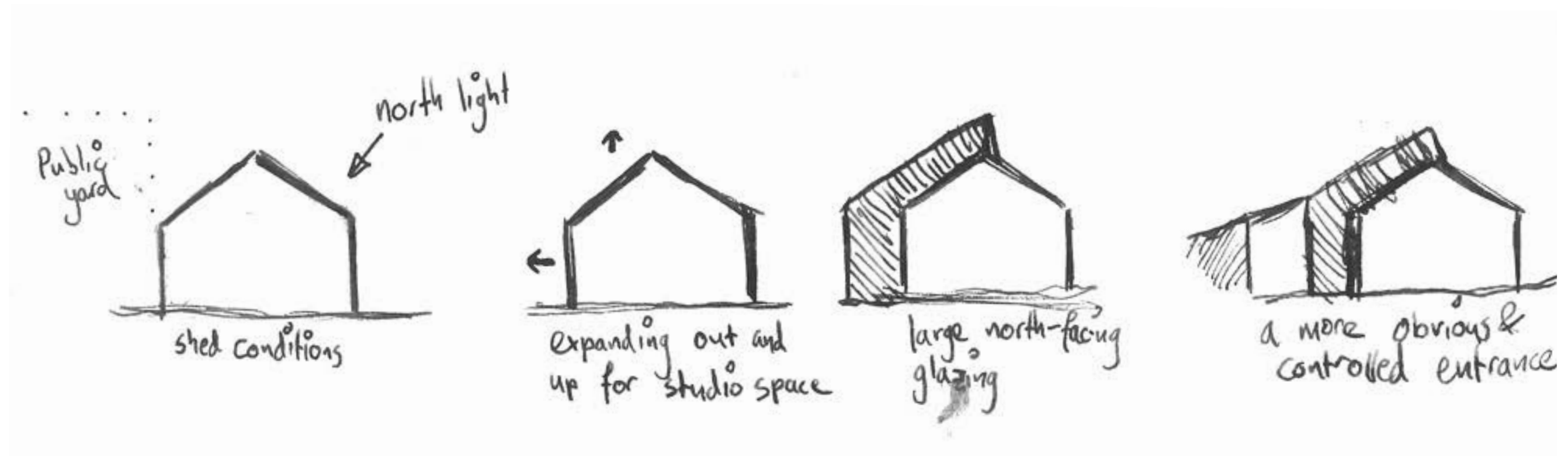
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19.

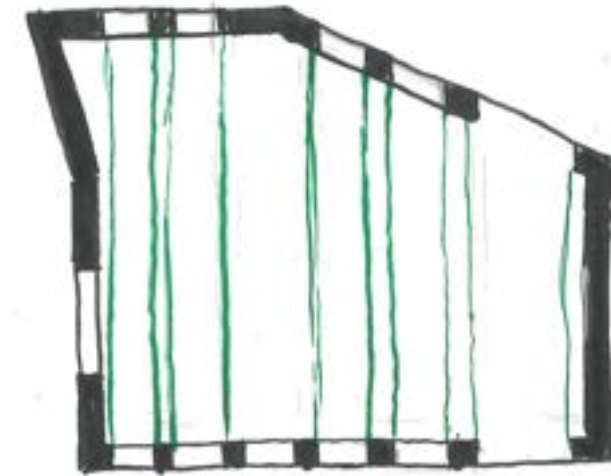
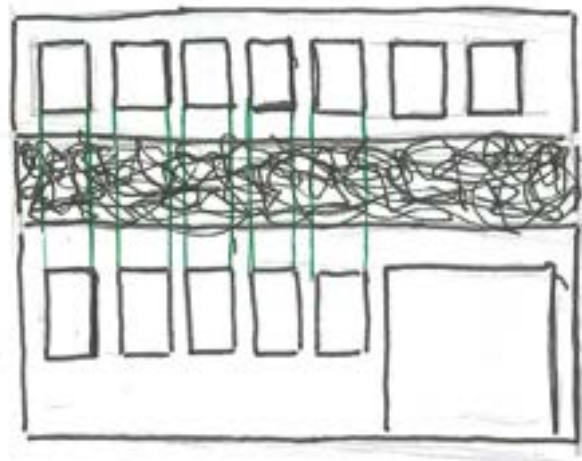
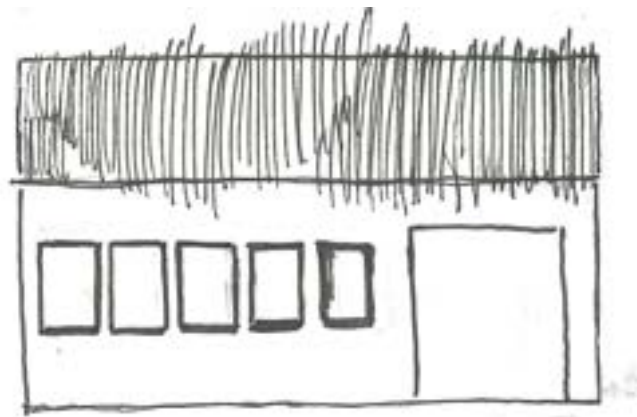
**20. Embedded know-how**

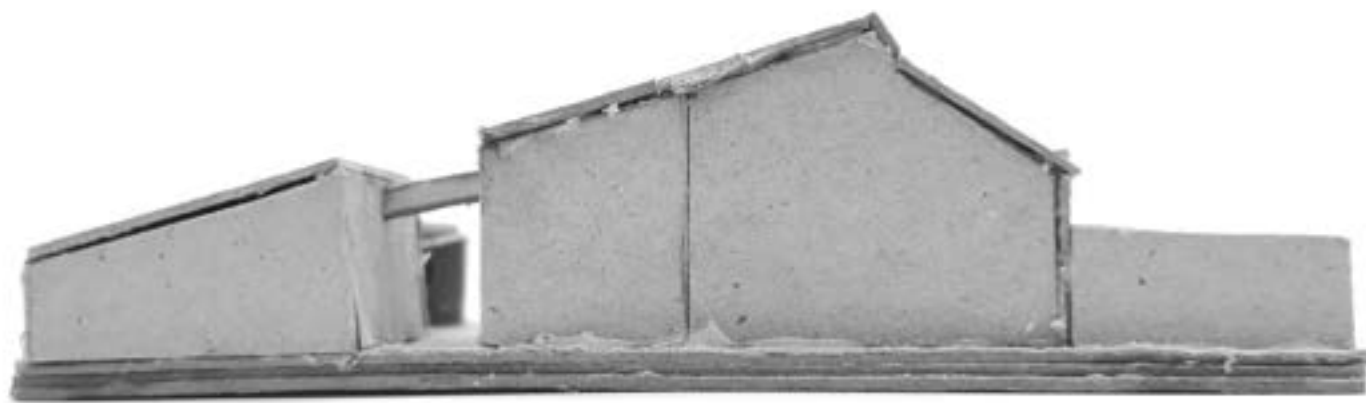
21. Make it desirable

22.

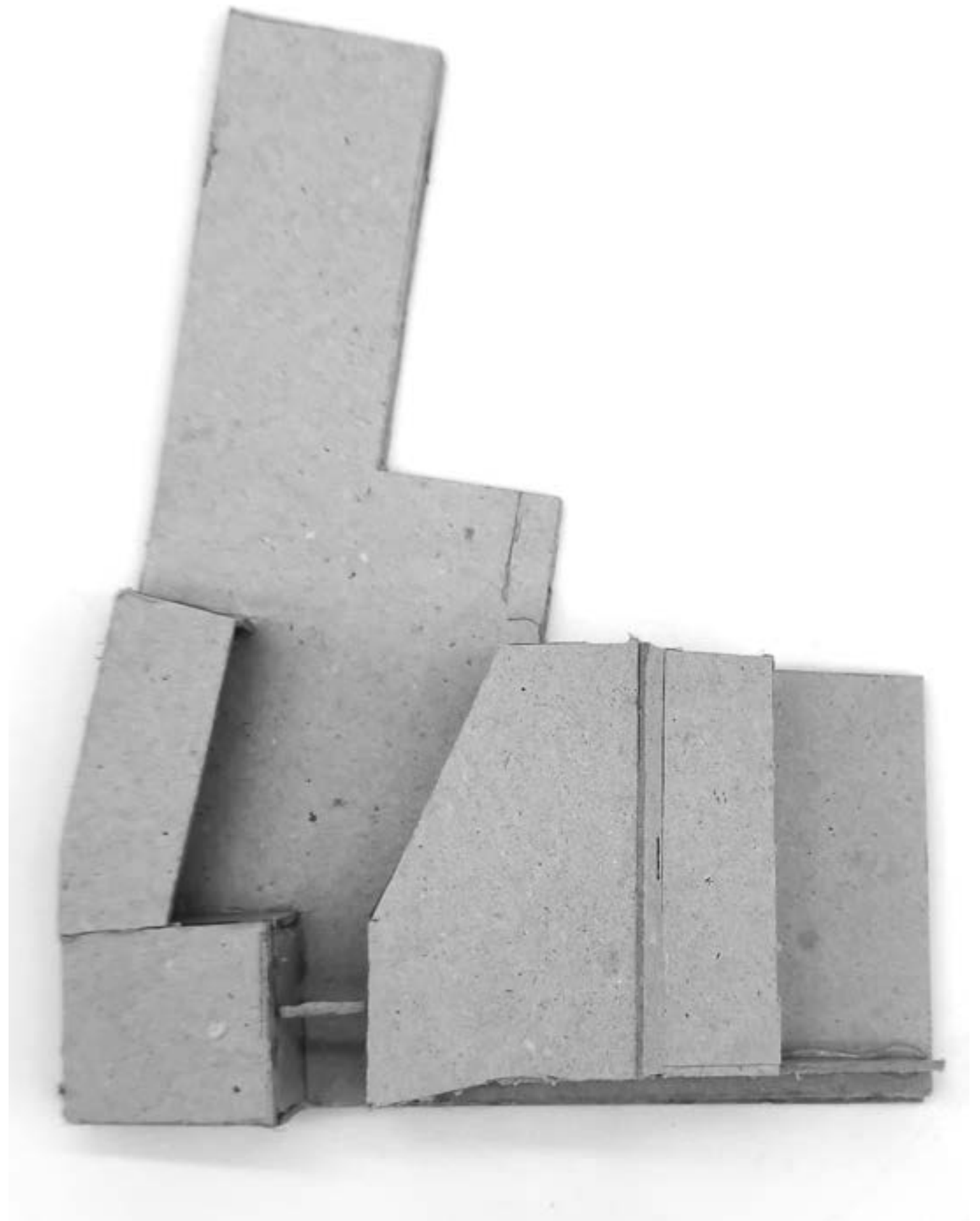


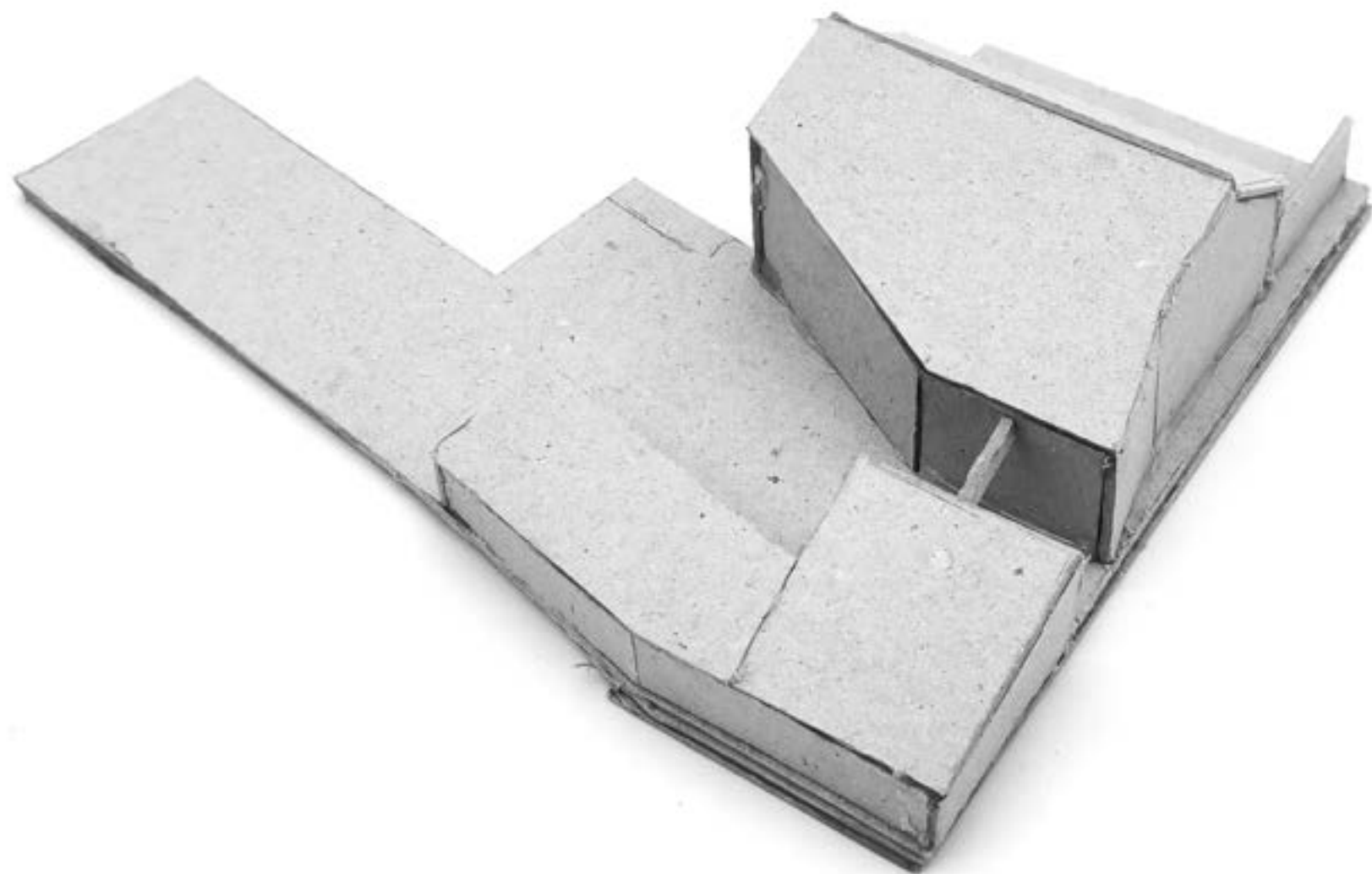






1:200 Massing Model



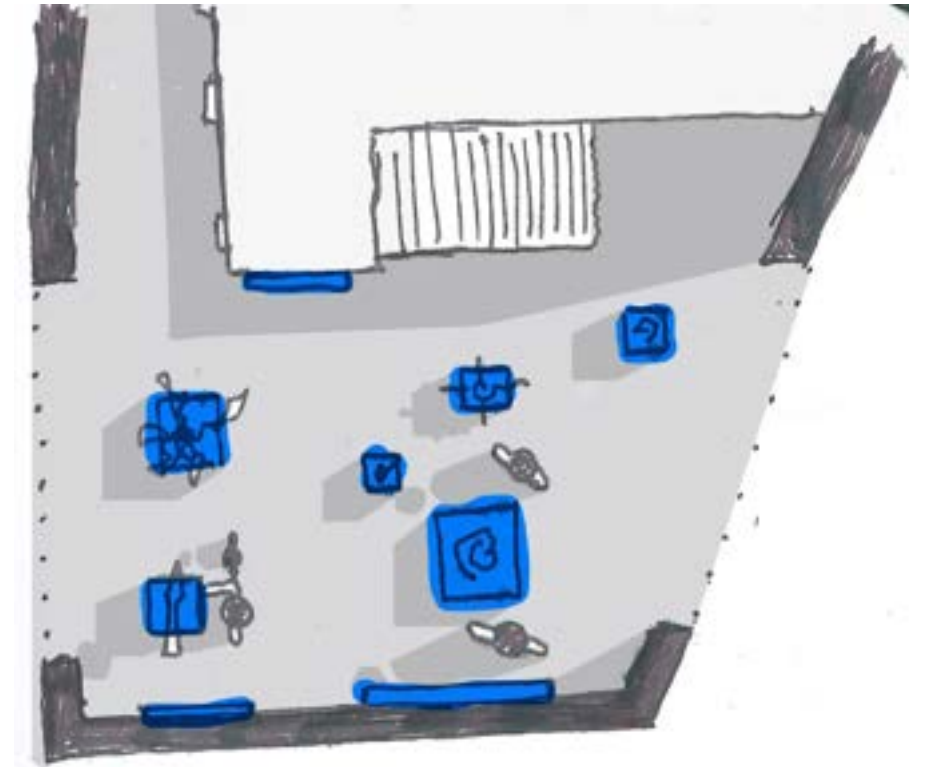
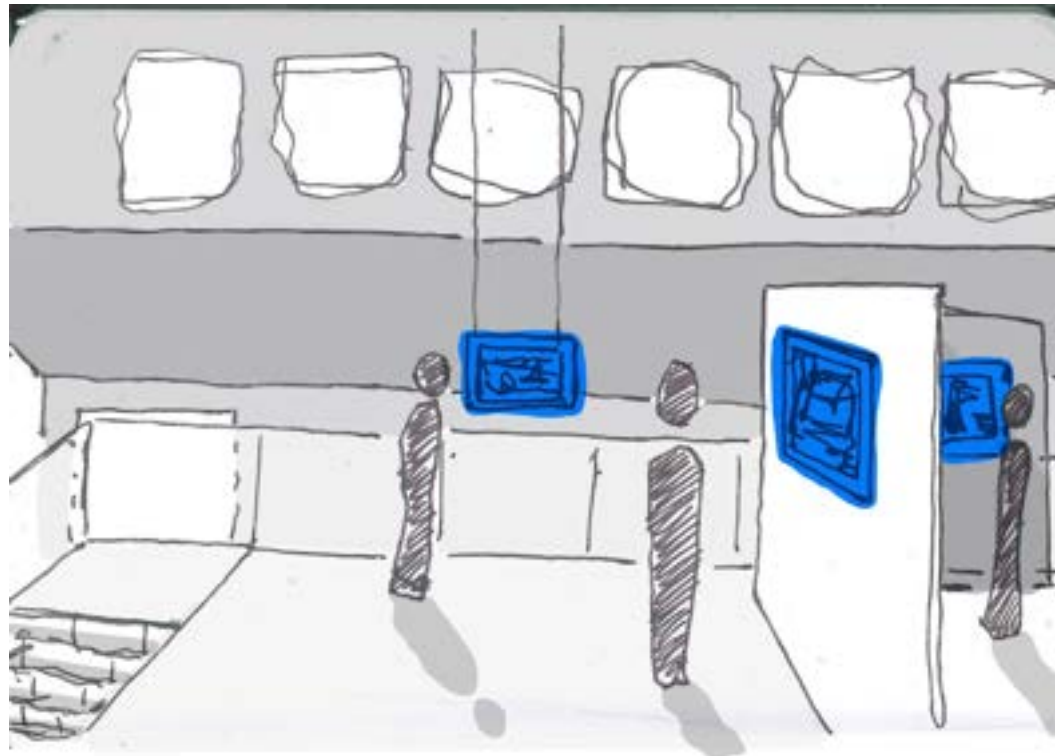
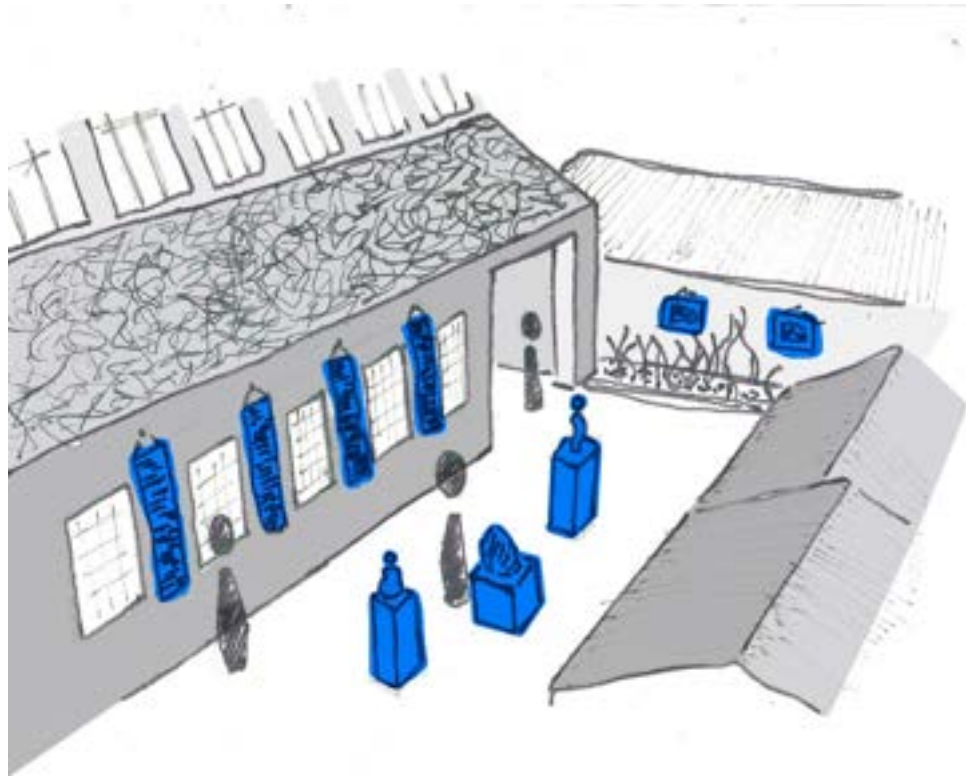


## Exhibiting

Art is most often shown in white cubes of space, hanging alone for sole study and appreciation. This requires large amounts of dedicated space for each piece, as well as a relatively inflexible gallery room.

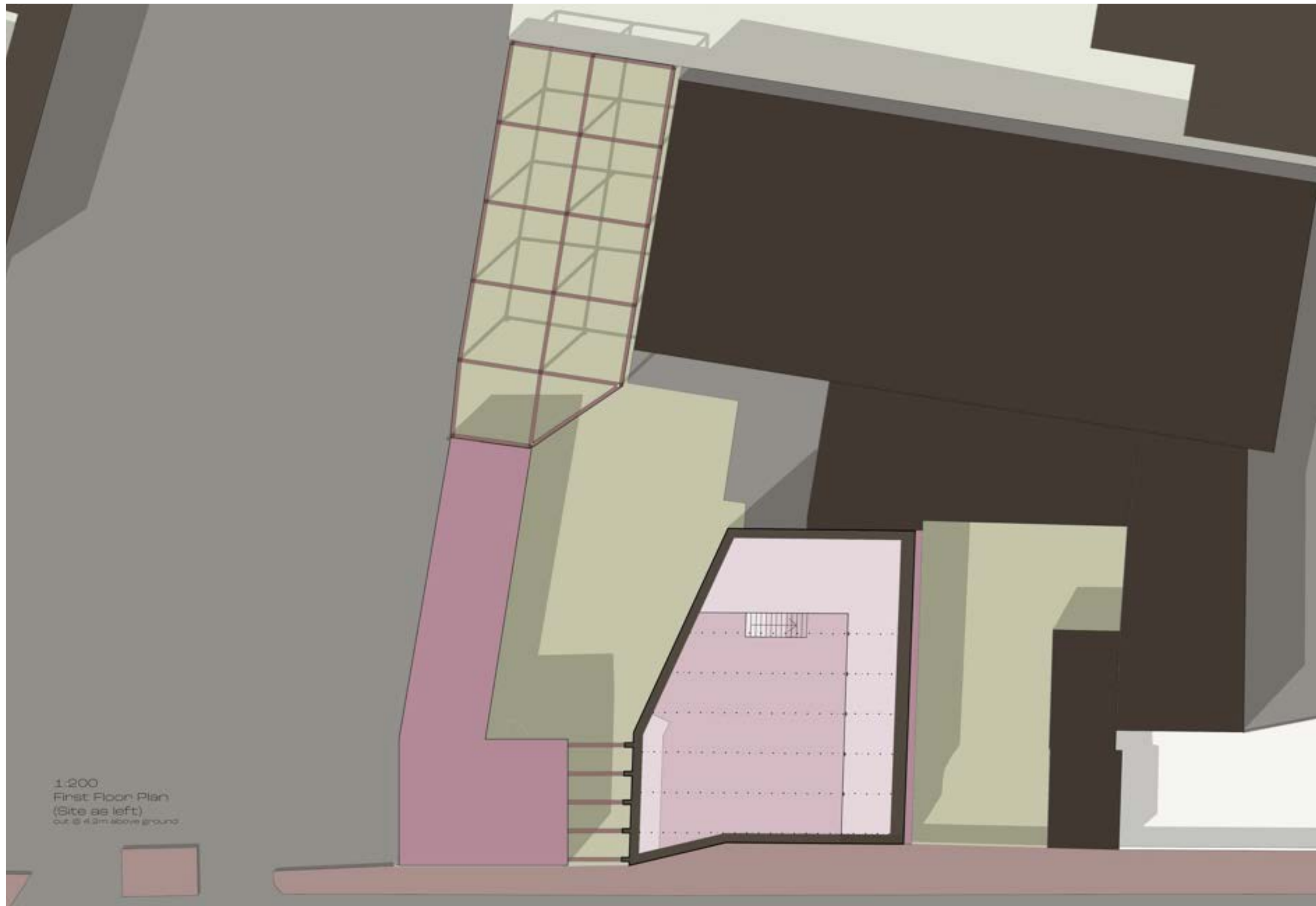
Our studio is predicated on ideas of flexibility and engagement with the wider community. Exhibiting in this space is not sequestered into a corner designated solely for the public: it is integrated into the creative practice of the artists, and occurs all around them.

Most of the spaces in the studio are convenient to convert into exhibiting spaces, rich with the context of creative process and the local materials upon which it is borne.

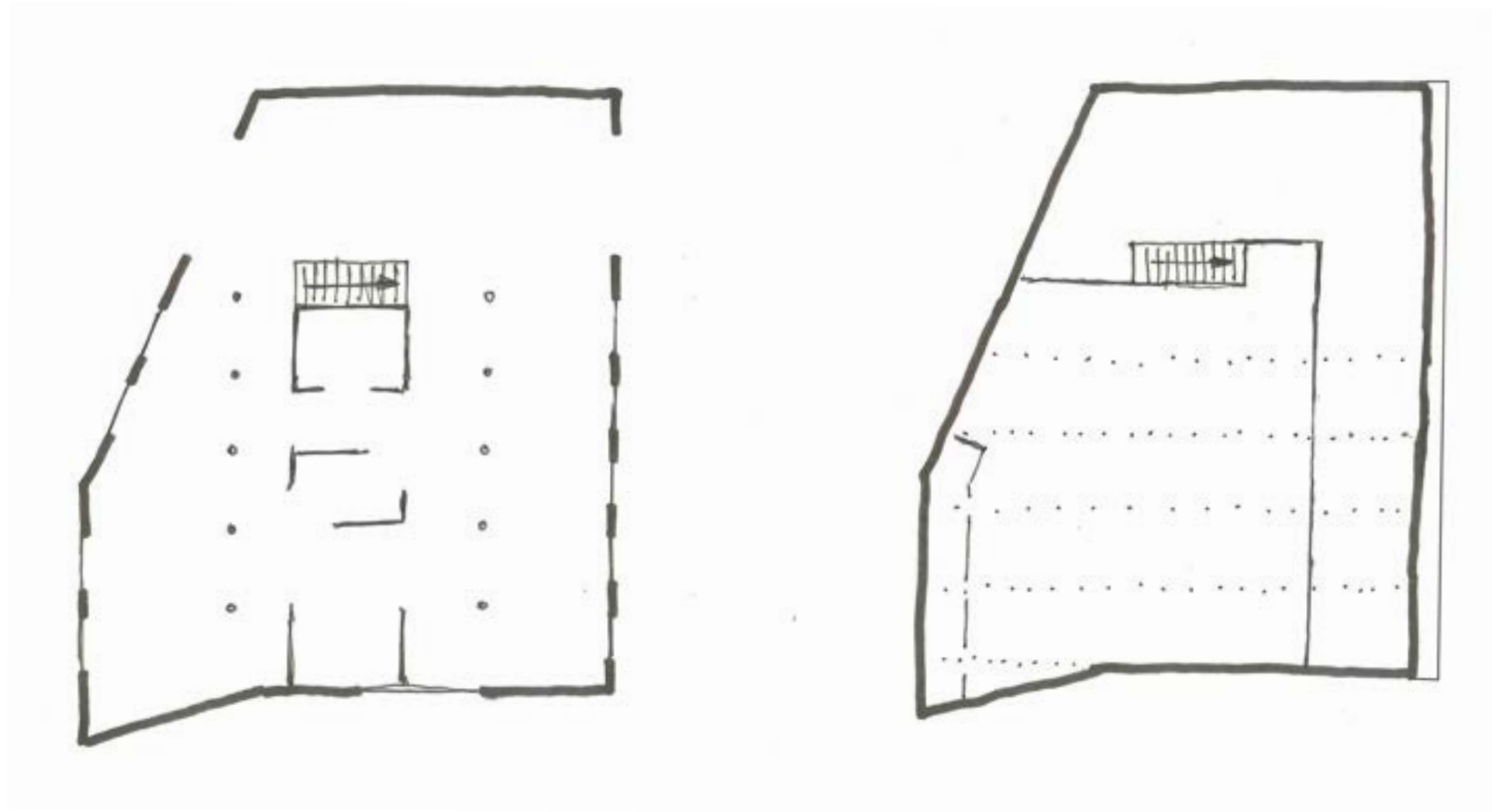




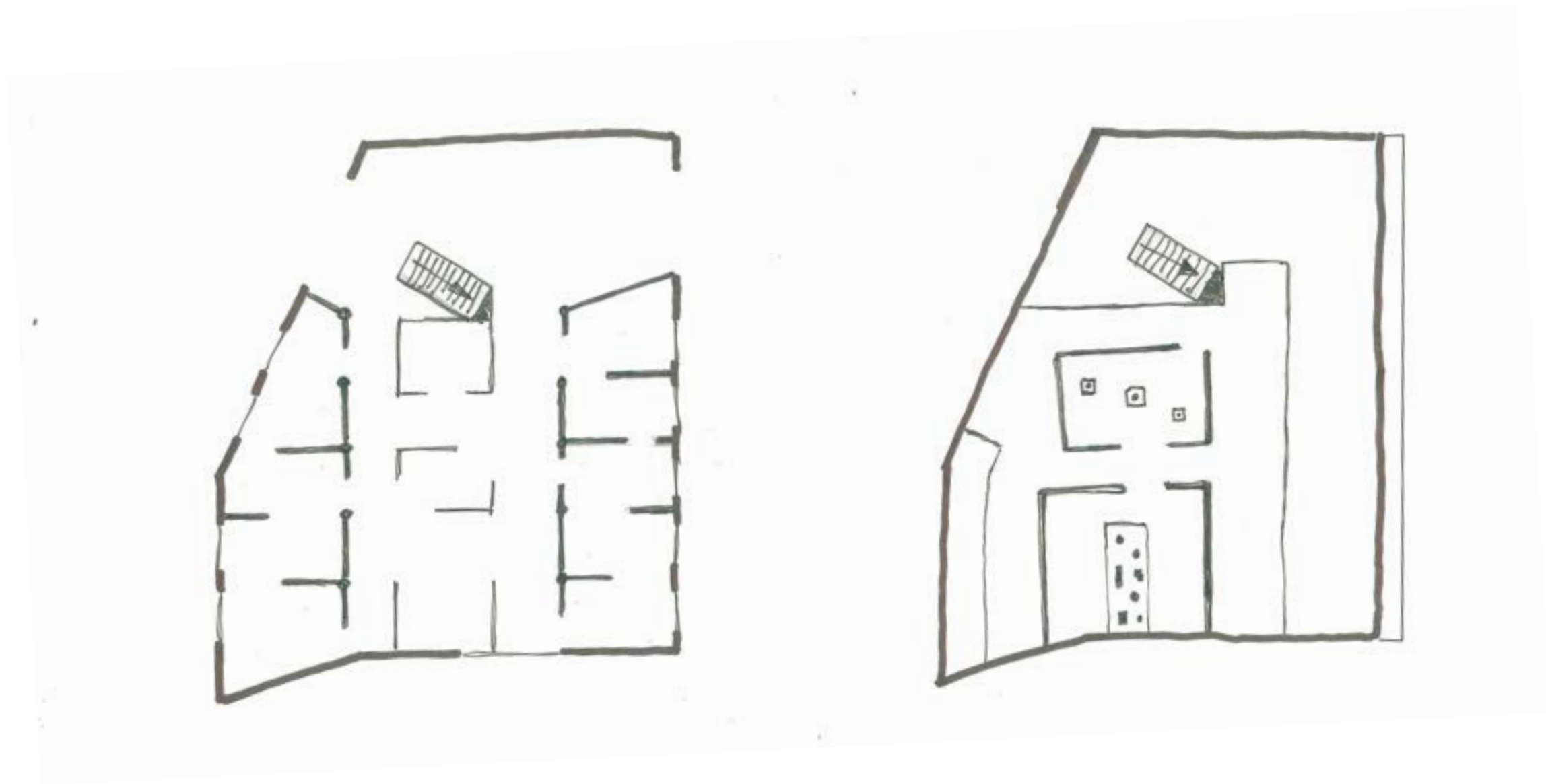




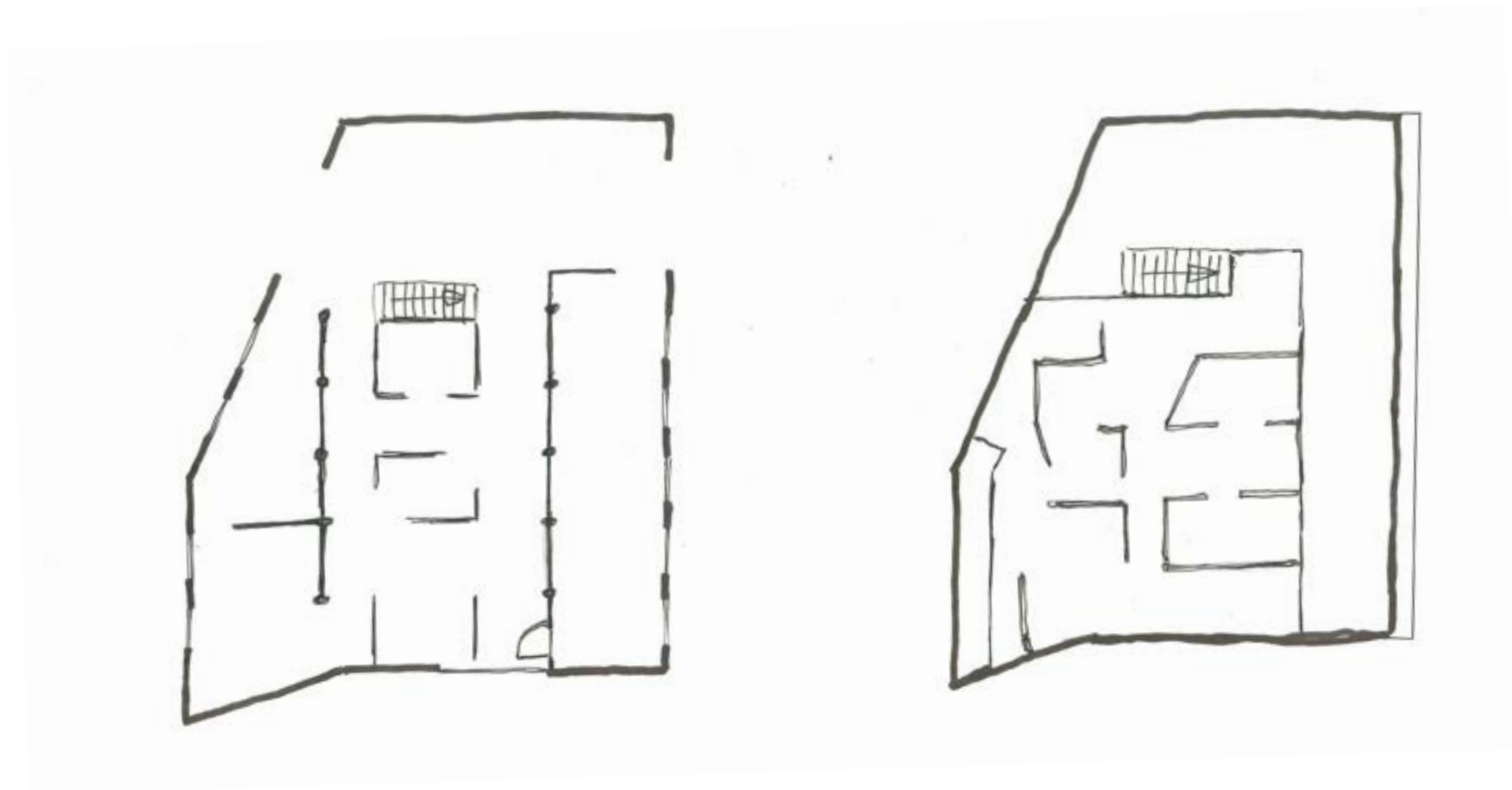
## Possible Arrangements



The studio  
as is

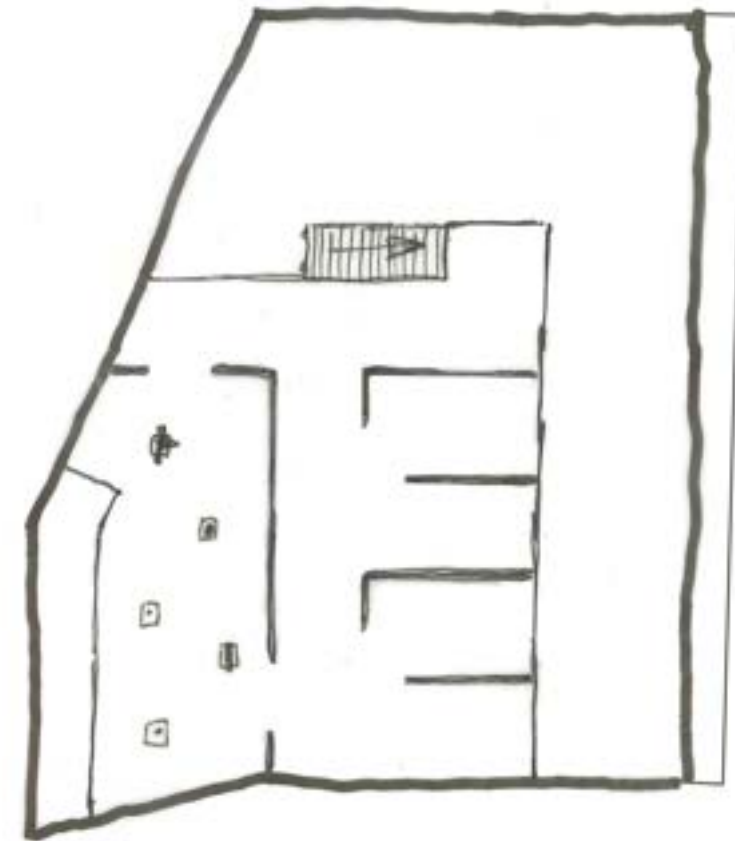
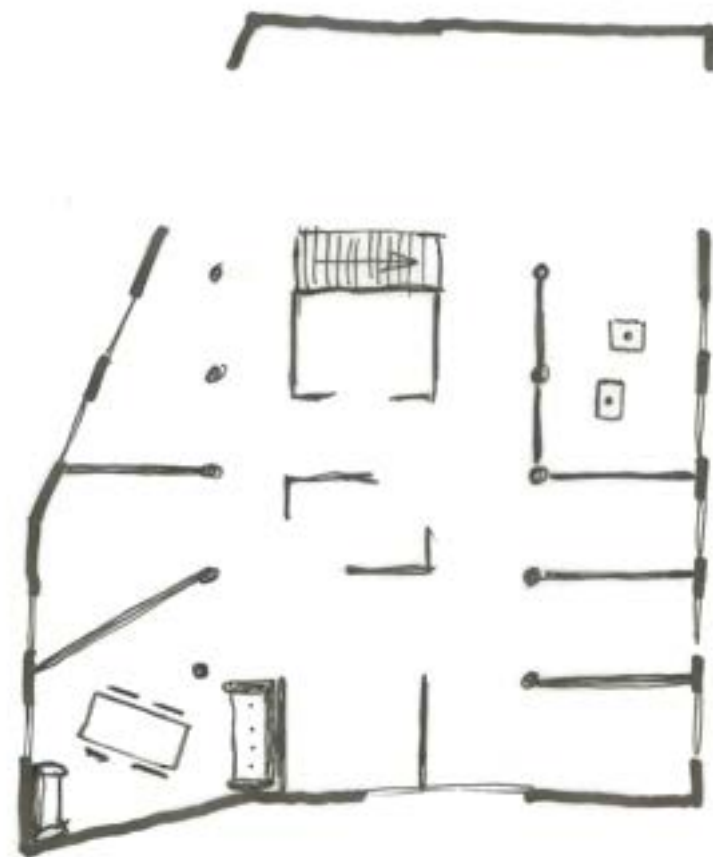


Large upstairs  
exhibition

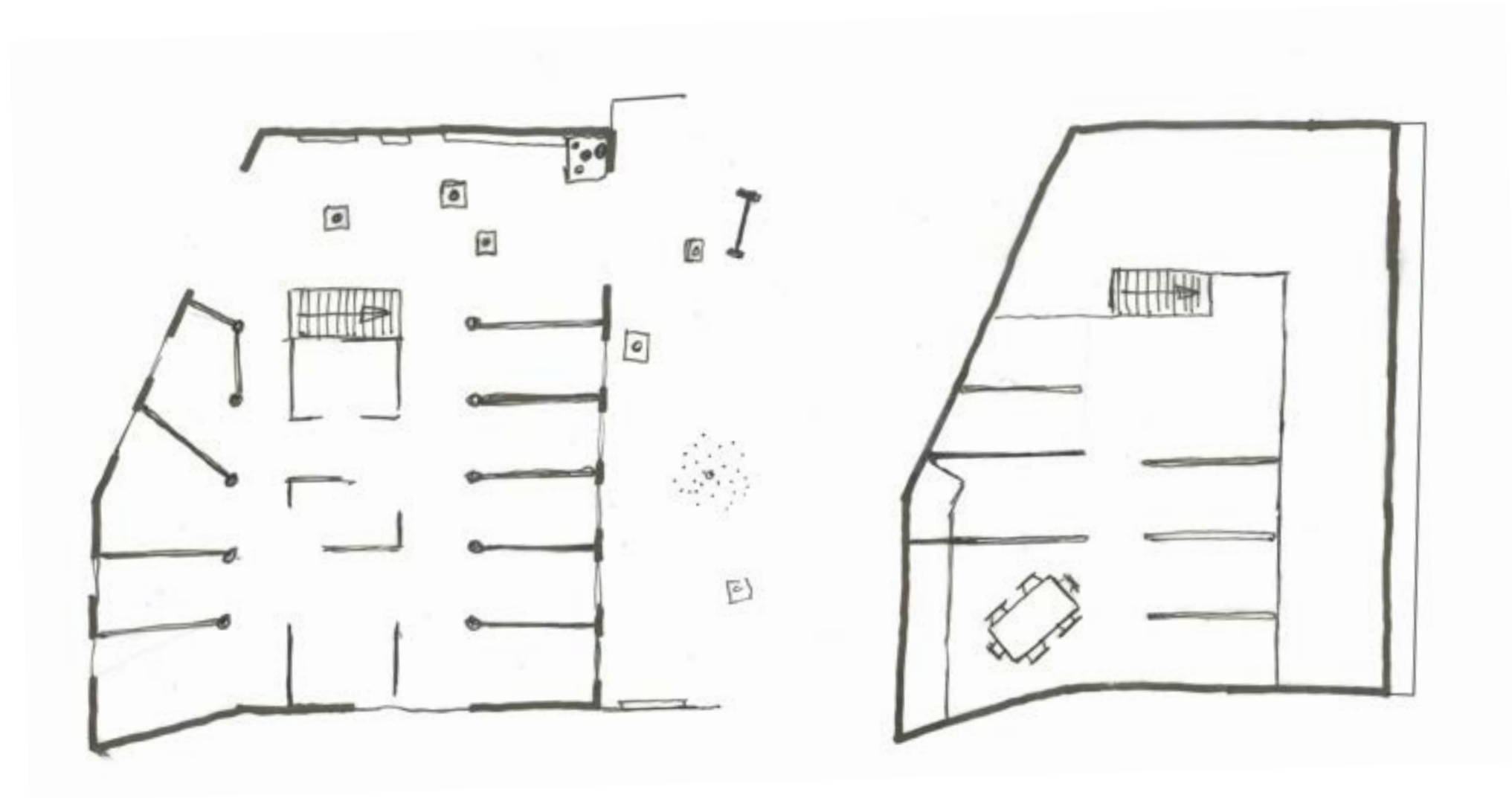


Accessible  
downstairs  
exhibition

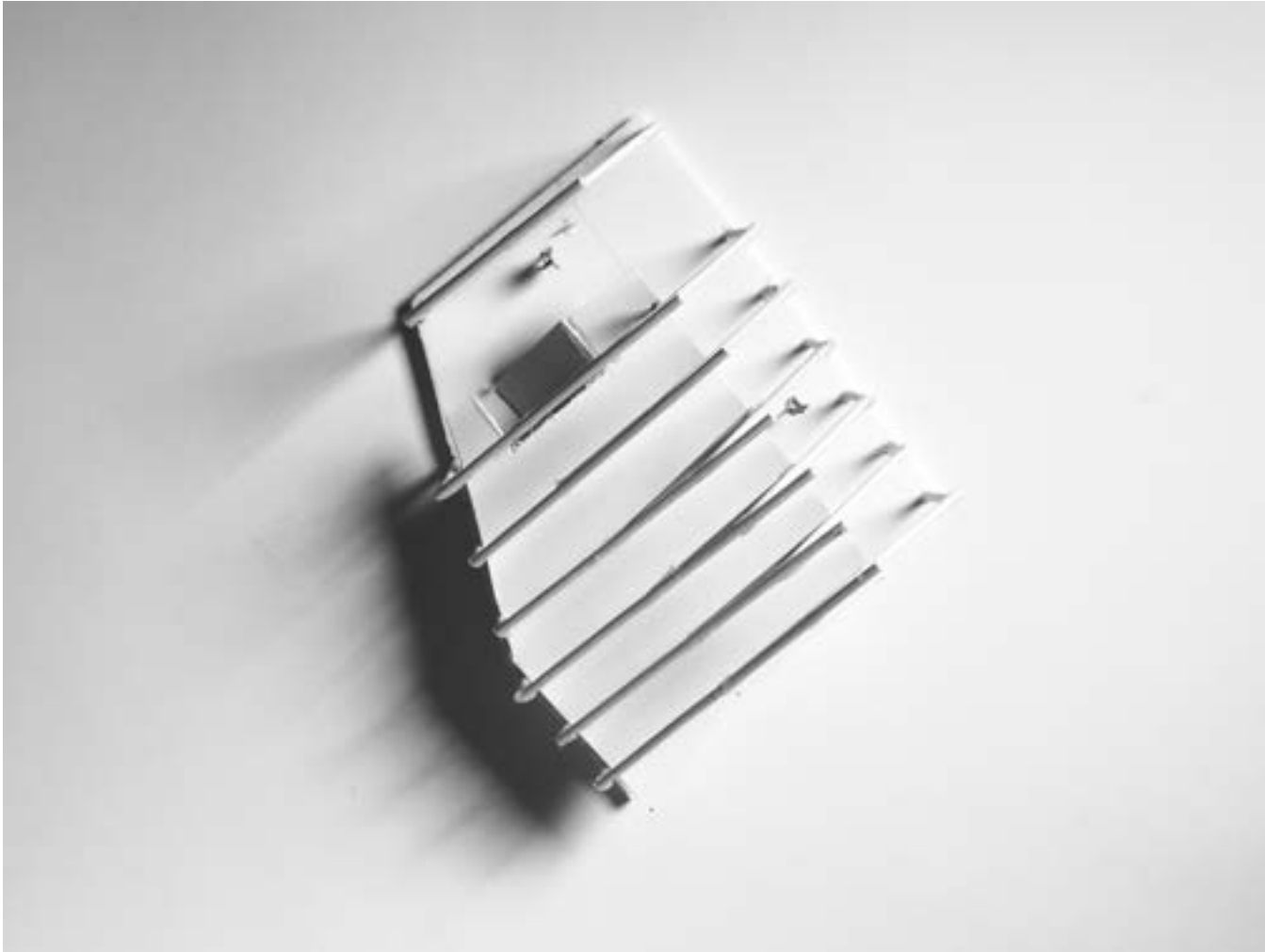


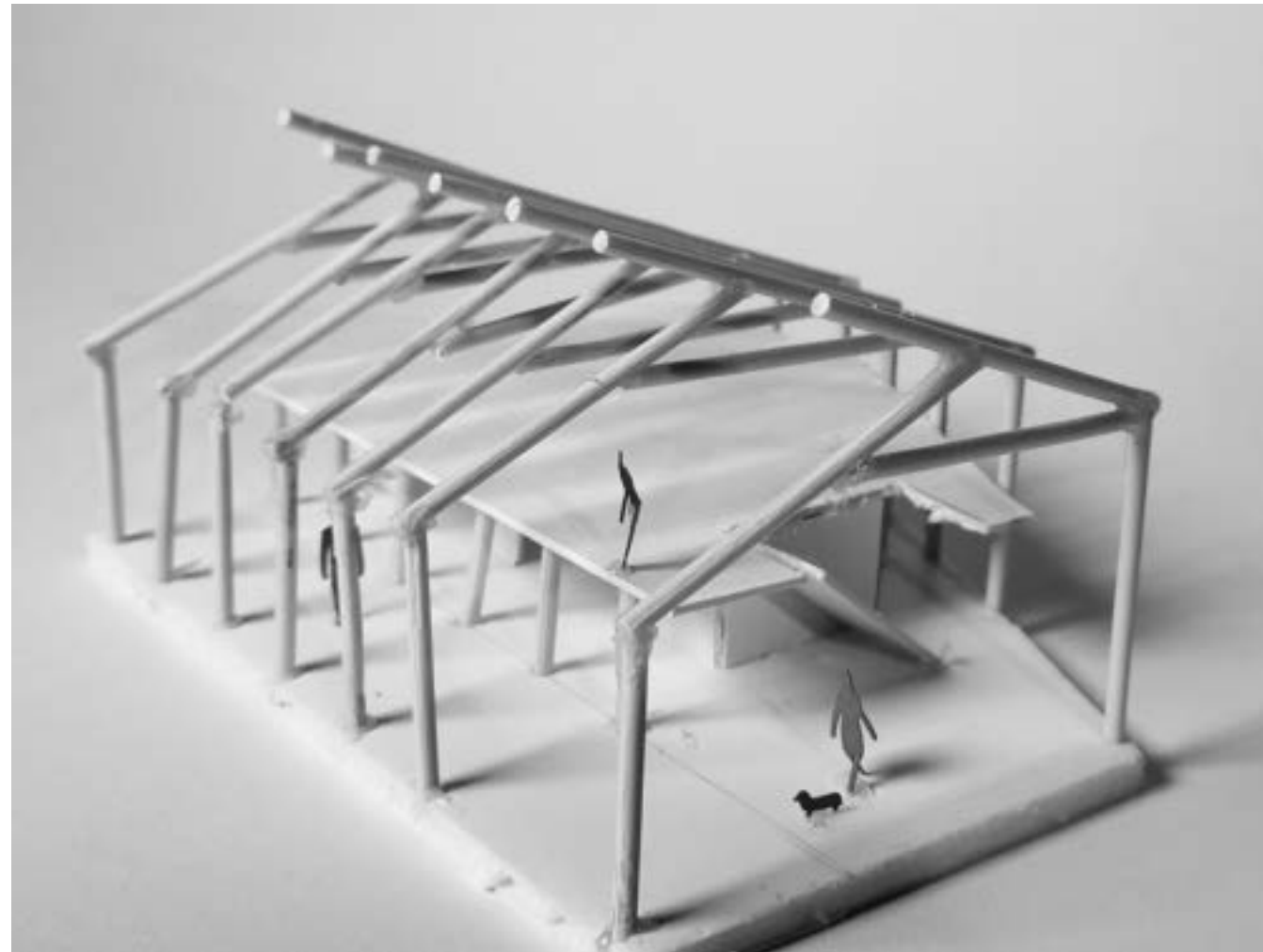


“open studios”  
mixed working  
and showcase

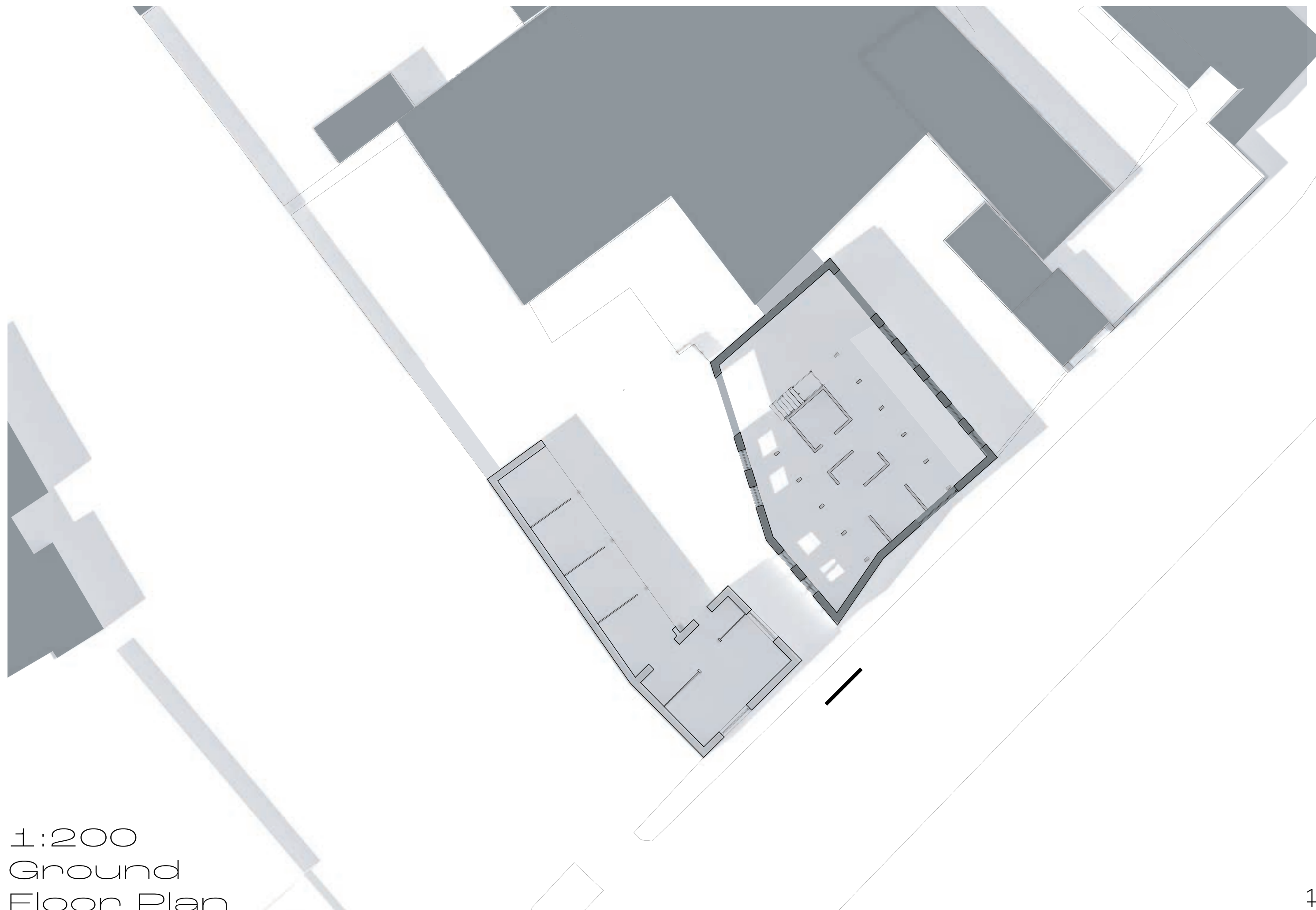


atrium/ garden  
exhibition and  
seperate studios



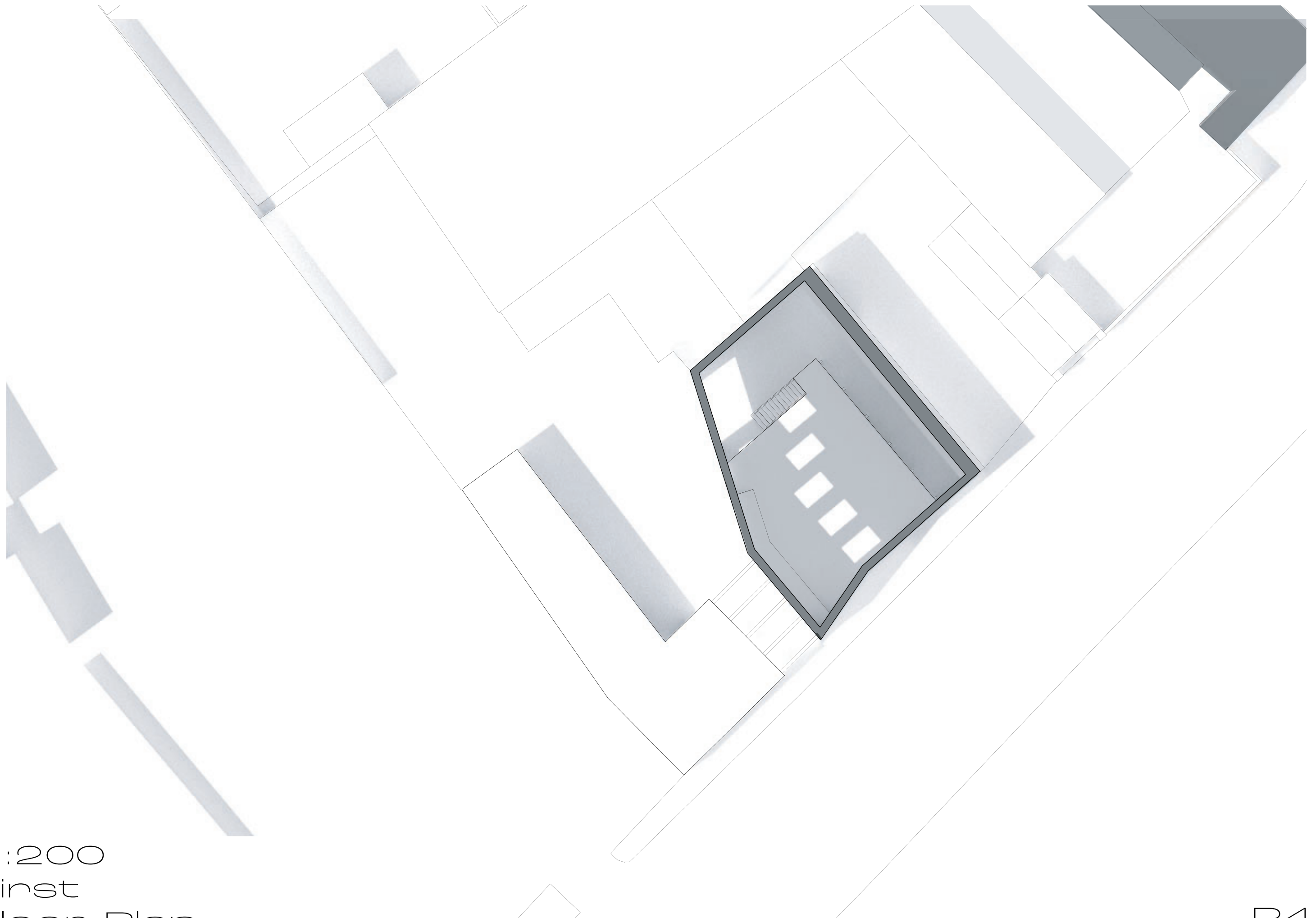


1:100 Frame Model

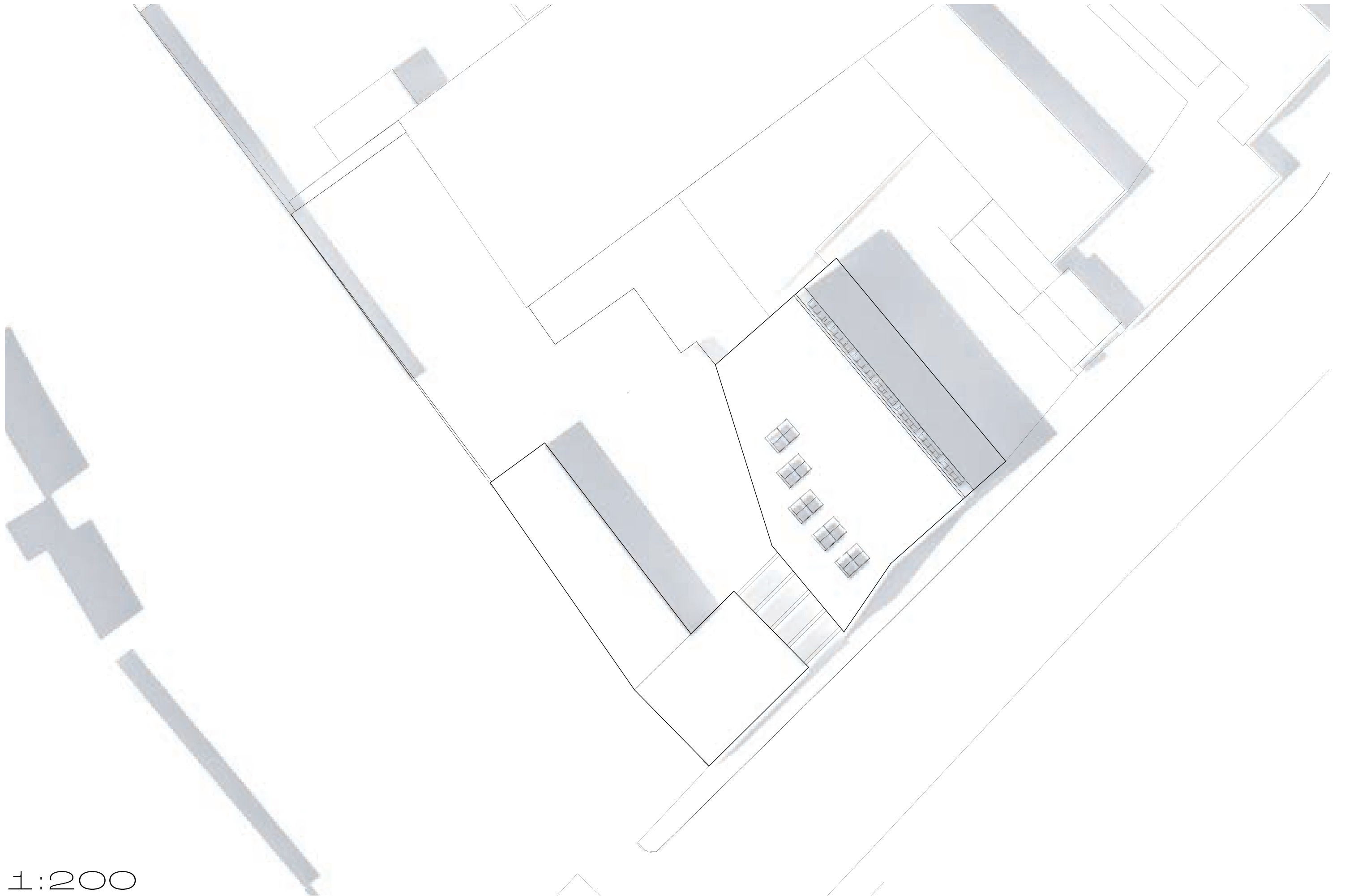


1:200  
Ground  
Floor Plan



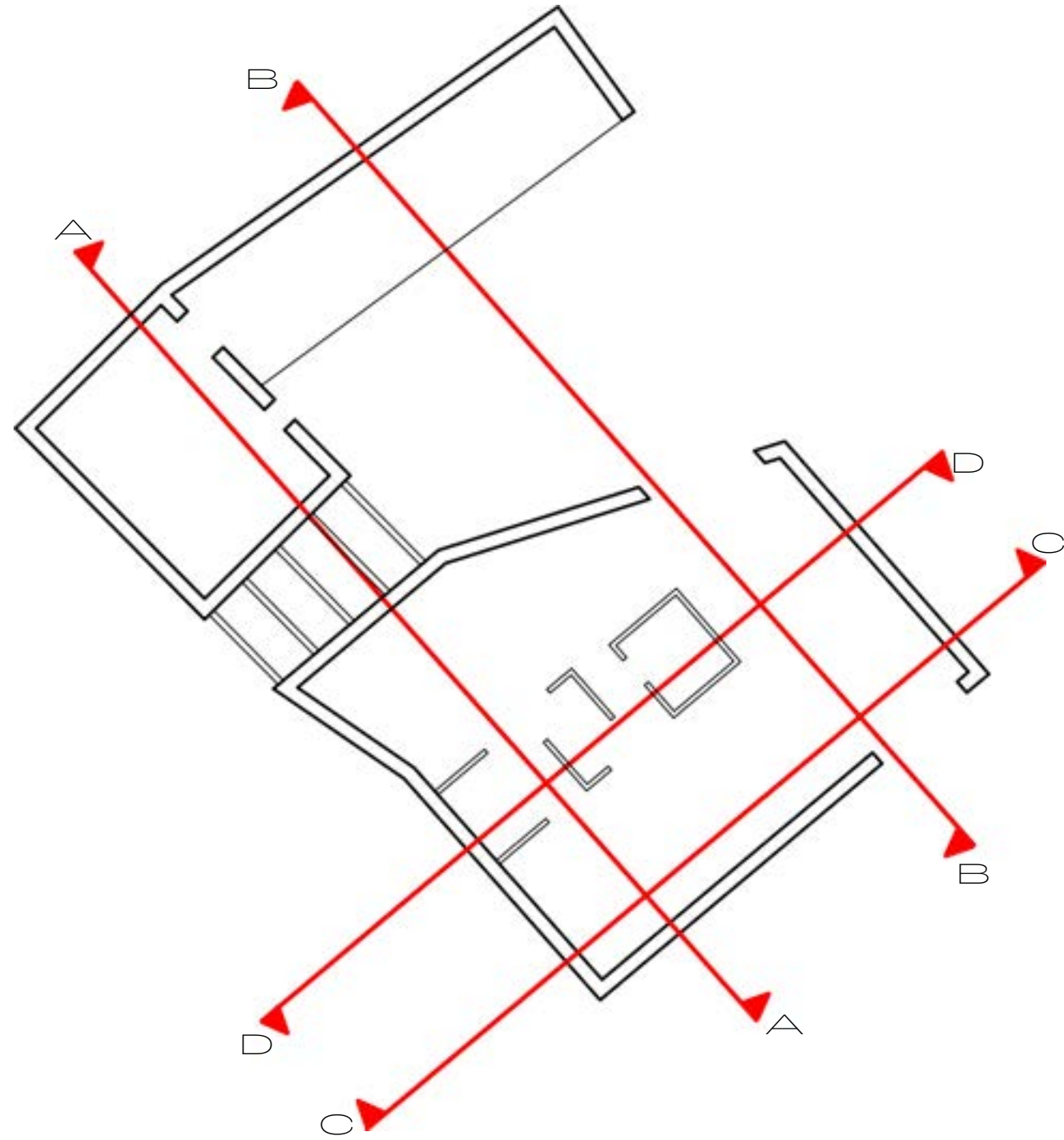


1:200  
First  
Floor Plan



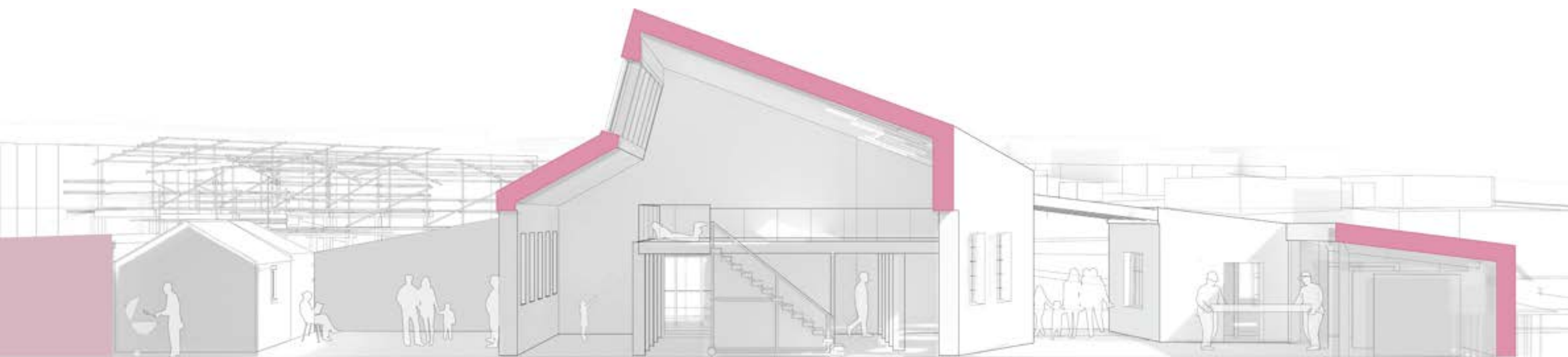
1:200  
Roof Plan

P4







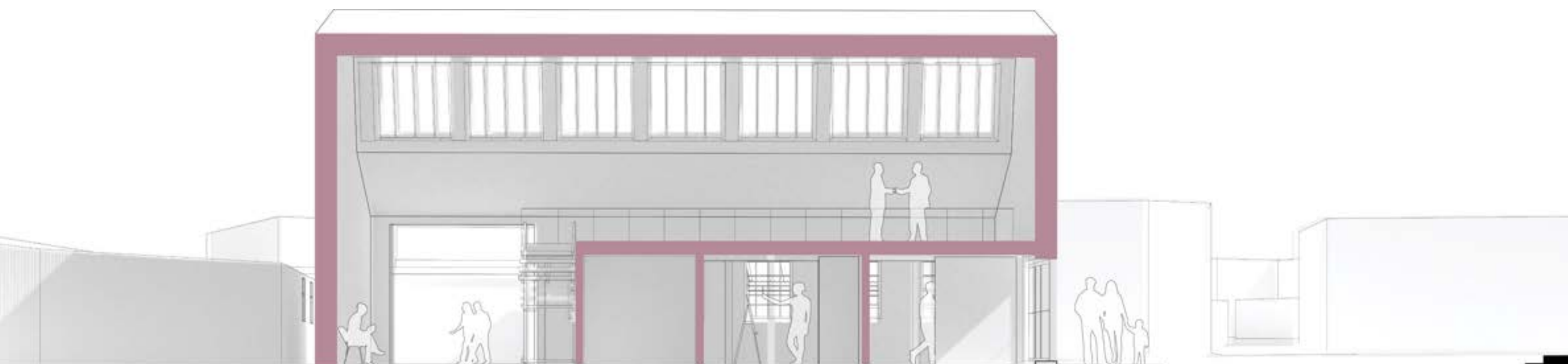


1:100  
Section B-B



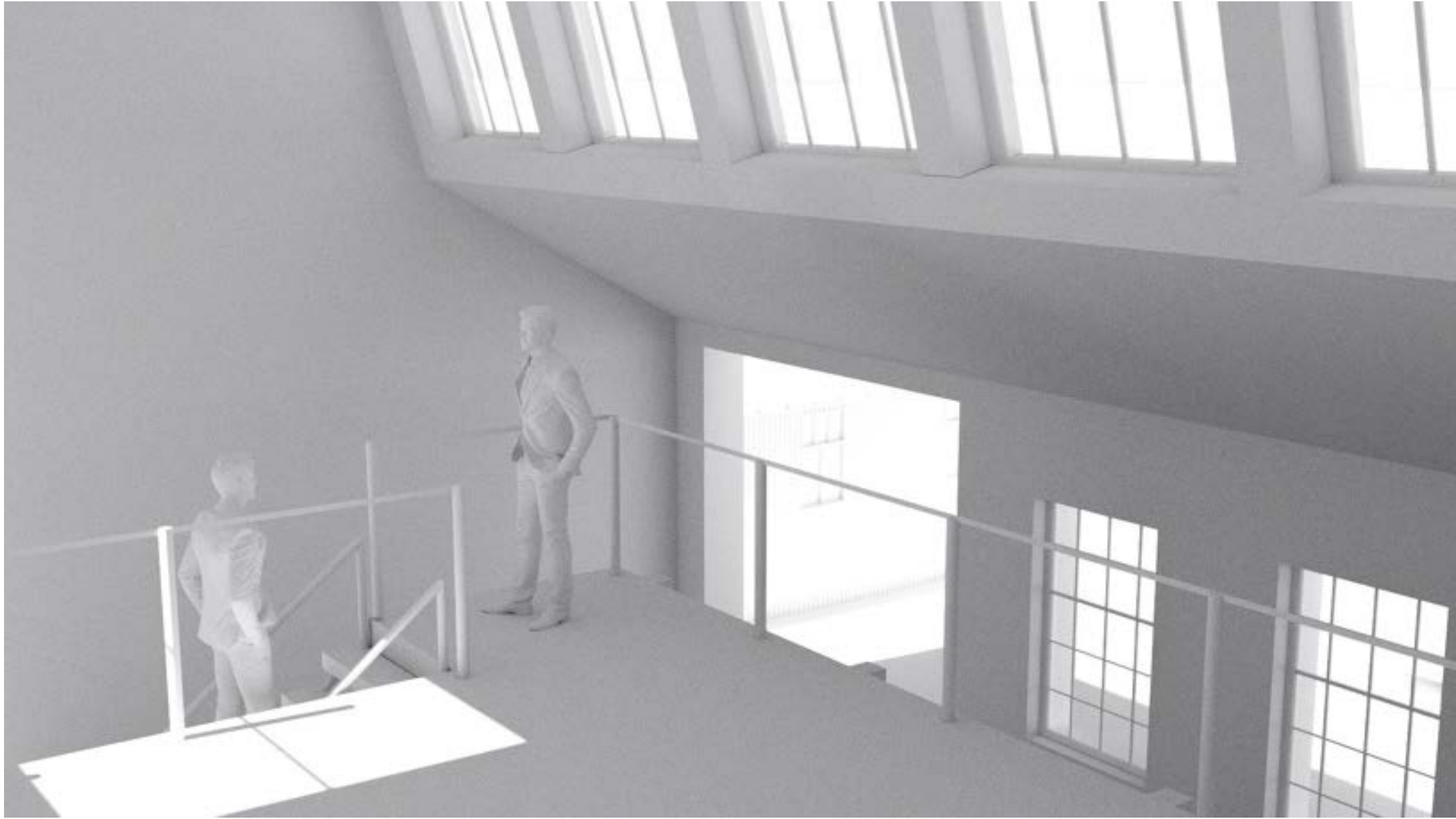


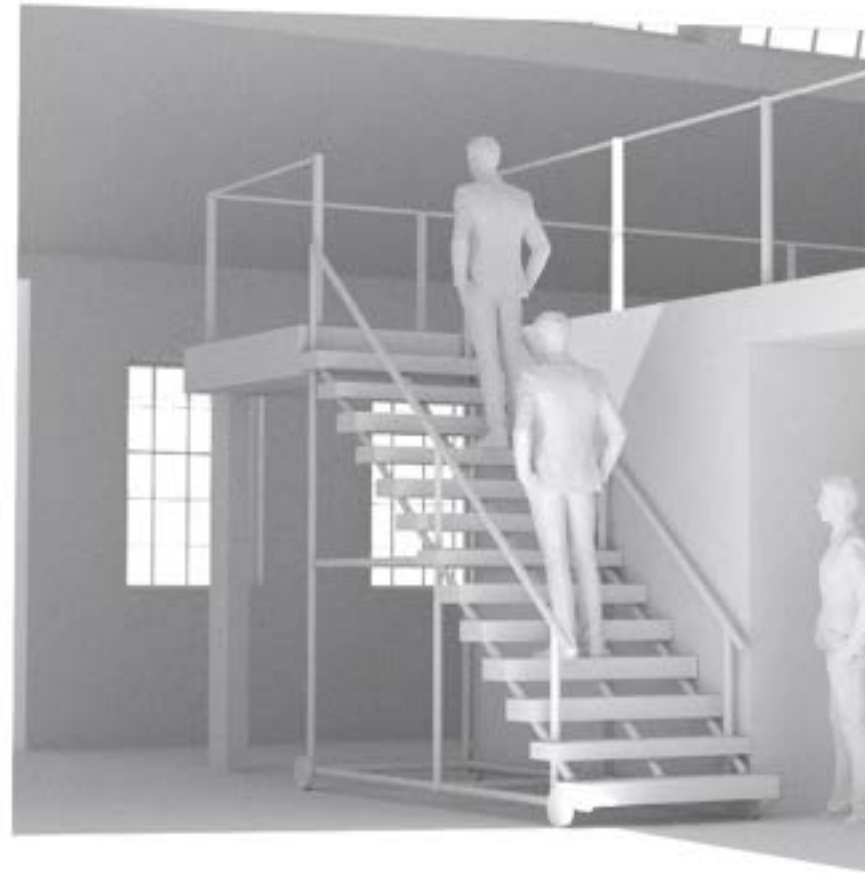
1:100  
Section C-C



1:100  
Section D-D











Festival

1.

2. Know your materials

3.

4.

5.

6.

7.

**8. Build local material industries**

9. Mine the City

10. Maintain or renew, reuse or  
recycle

11. Designing for non toxicity: “could  
I eat your furniture, IKEA”

12.

**13. Cross loops**

14. Create building component  
exchanges

**15. Imagine a world without waste**

16.

17. Design for disassembly

18.

19.

**20. Embeded know-how**

**21. Make it desirable**

22.

## REUSE – ENGAGEMENT – EDUCATION

To build 'greener' is not enough, without a cultural foundation, new material cultures will struggle to take root. The festival is an announcement of a possible new future for material and construction based within the bioregional economy; an open invitation to come and join in. It aims to convert the short-term, targeted "sustainable" design of the studios project into a larger scale paradigm shift.

The pavilion at the end of its first life, but not ready to move to its second: it still needs the town, an audience, its ultimate users. To engage the whole town in materials and construction, art and learning, and leave its first site, the park, better than it was found. Not to mention, it needs the bodies and brains to reconstruct and convert it.

We propose a festival: a celebration of the new artists' space, of new and old materials through the material exchange, of local culture and crafts, of community and its ability to come together to build and self-improve.



# A WEEK AT THE FESTIVAL

\* \* \* \* \* IN THE PARK \* \* \* \* \* IN THE STUDIOS \* \* \* \* \*

**OPEN** **STUDIO**

Come visit the new  
*Orchard Road Studios!*  
Learn about the  
*Material Exchange!*  
See the temporary  
*Sculpture Park!*  
ALL DAY MONDAY

**OPEN MIC NIGHT**

Forres' best independent  
artists take the *NEW*  
*PAVILION STAGE*,  
Tuesday evening from 5.30  
til' sundown

**CONCRETE BRICKS  
AND KIDS**

LIKE LEGO, BUT BIGGER!

A fun workshop for children to  
learn hands-on about building  
the Material Exchange  
11.30am-1.30pm

**MACBETH**

Catch up Open Weekend  
The Pavilion Stage  
Free Tickets available online

Admit One

**Timber structuring**

Come and learn about building  
with wood with local sawmill  
Lagle Timber.

**THE MATERIAL EXCHANGE**  
11am-4.30pm, Thursday

**FOOD and  
FARMERS**  
Market

**FRIDAY**  
10am-4pm

in and around *THE PAVILION*

**ART  
WORKSHOPS**

Artist-organised painting  
and sculpture classes

All day Friday in  
**ORCHARD ROAD STUDIOS**

Heather Foraging

Meet 10 am on Saturday at  
**THE MATERIAL EXCHANGE**,  
then head for the hills!

**Local Maker Market**

SATURDAY AT THE PAVILION  
10AM-1PM

**Forres Folk Musicians  
and the High School Band**

All day on the Pavilion Stage

**Workshop**

Have your say in the future  
of the festival and the new  
community workshop and  
learning space -  
The Pavilion, 3pm Sunday

**Forum**

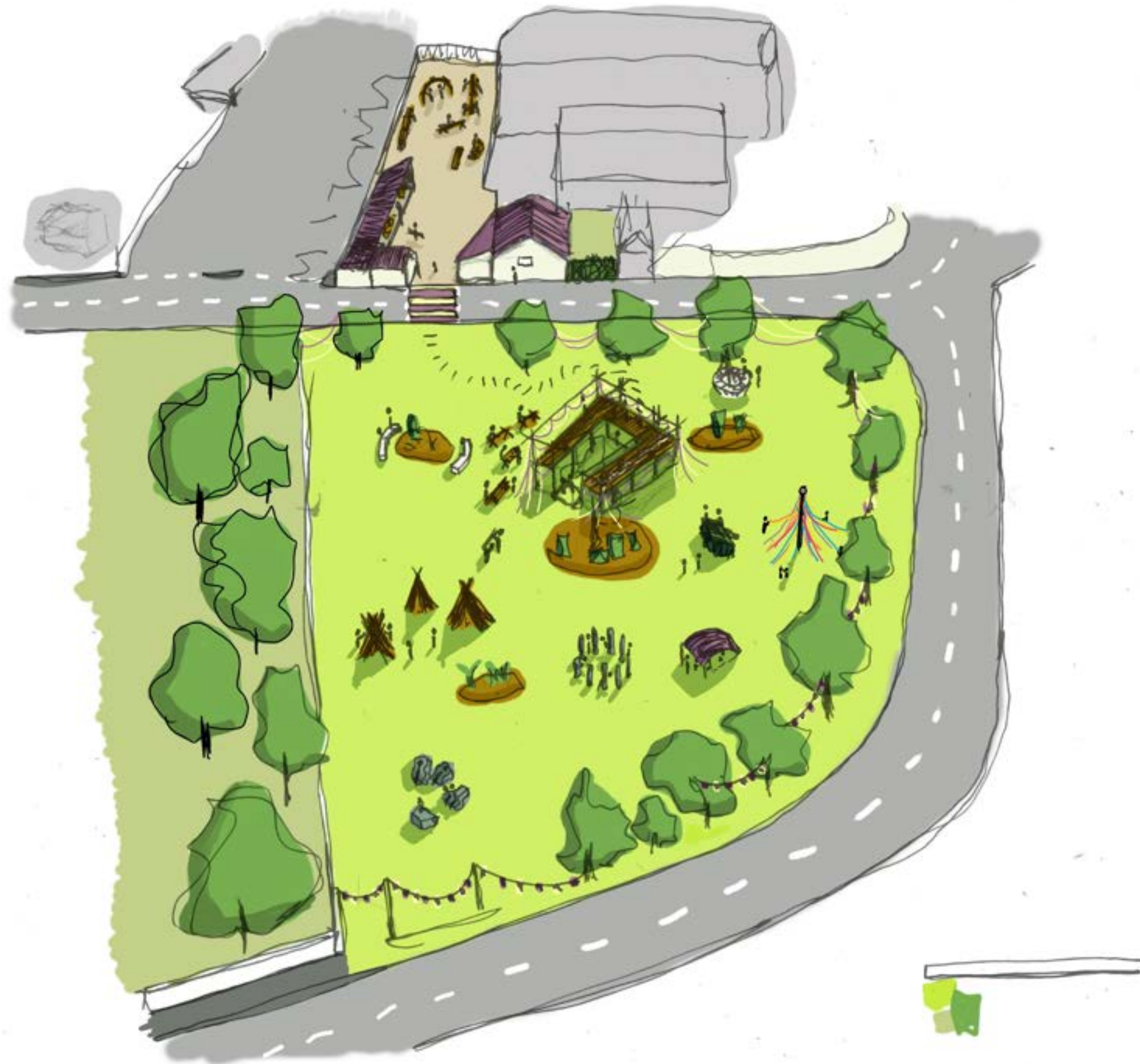
Performing on the  
Pavilion Stage...

**CHER!**

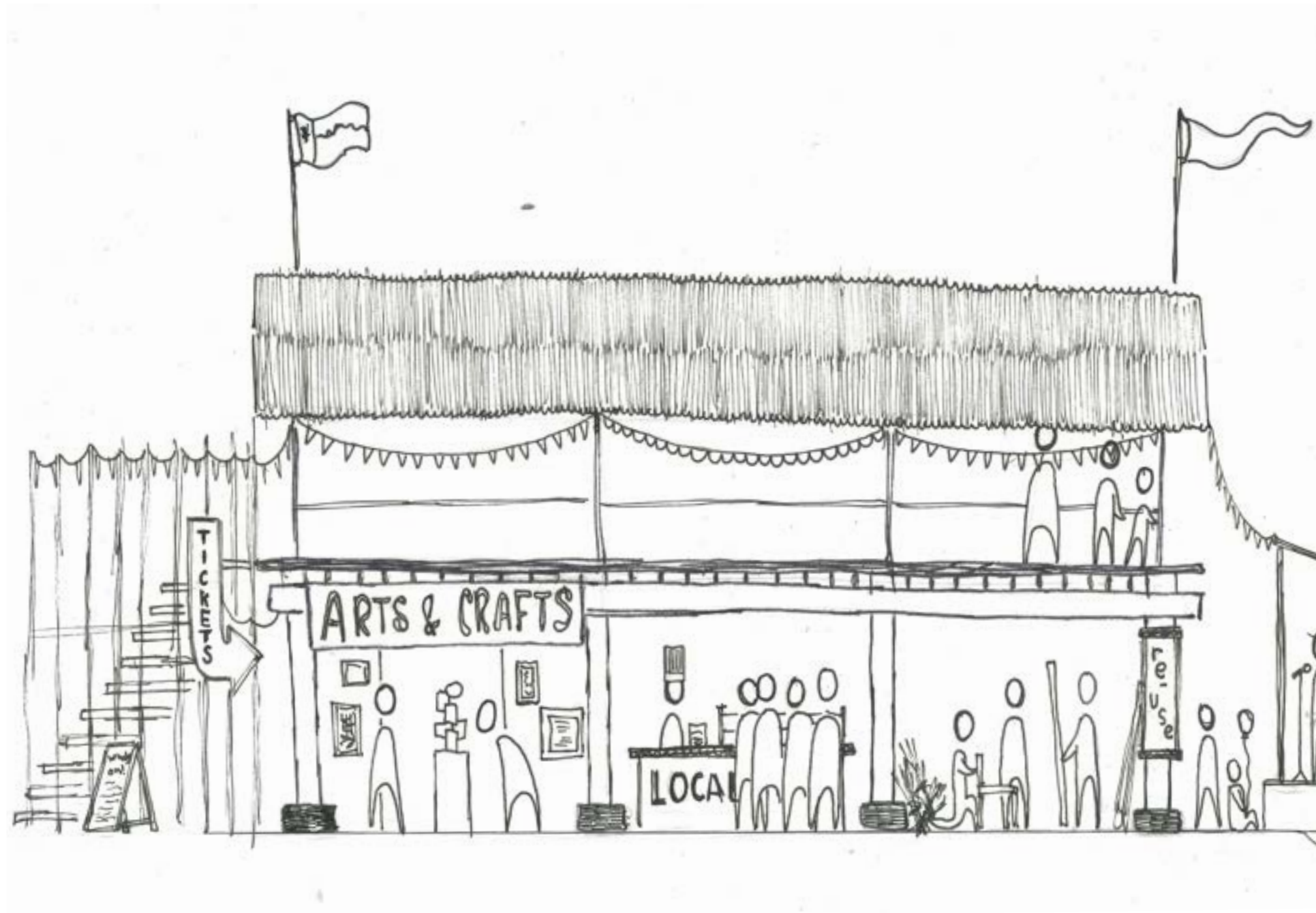
Sunday, 7pm

~ ~ ~ ~ ~ Construction ~ ~ ~ ~ ~ Performance ~ ~ ~ ~ ~ Art ~ ~ ~ ~ ~ Culture ~ ~ ~ ~ ~





The festival park

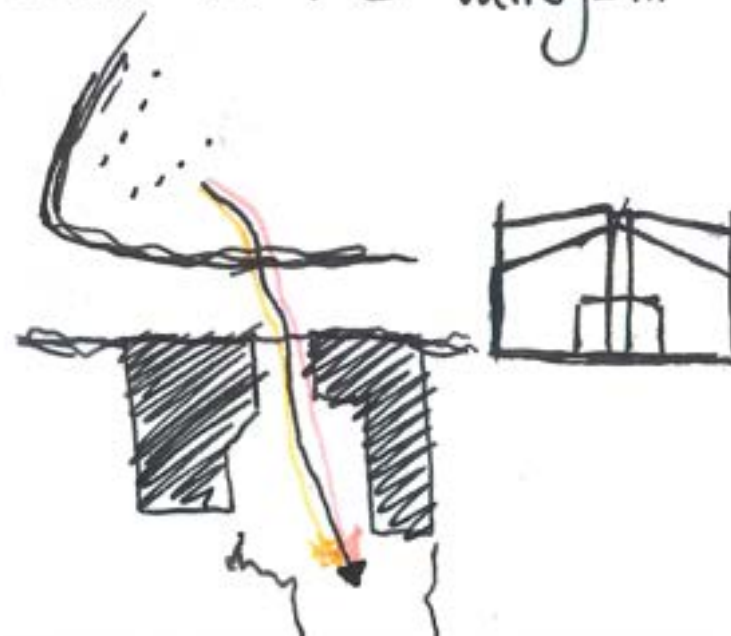


Artist market during  
the festival

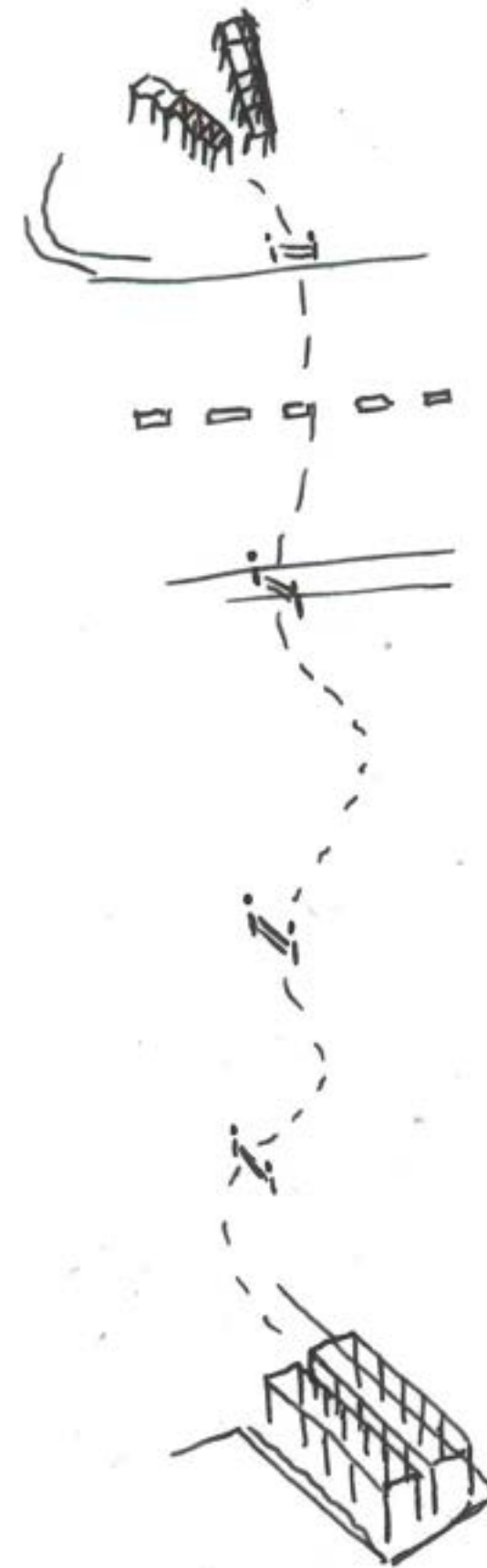
# Education/ Workshop



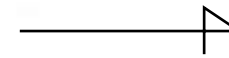
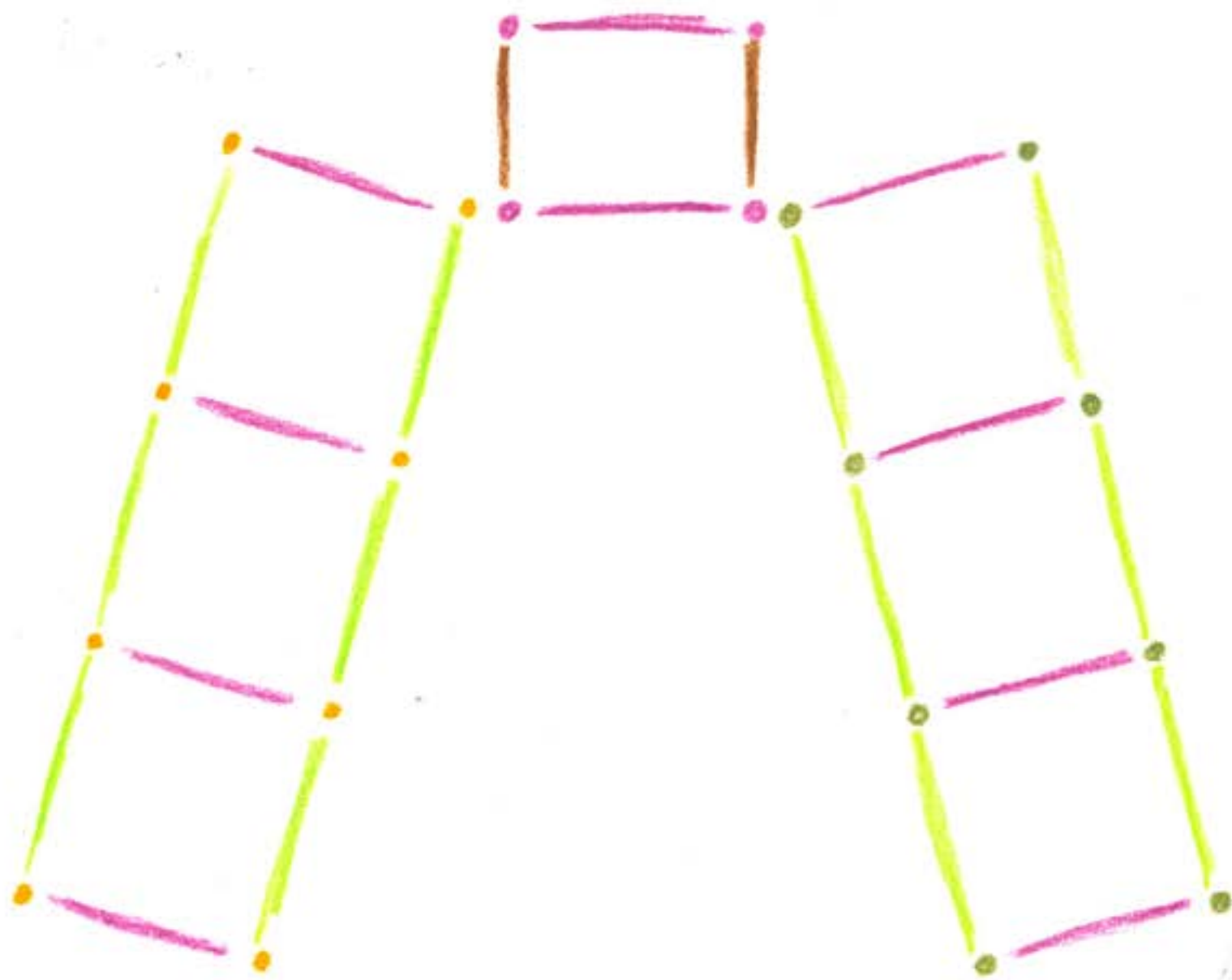
In autumn, farmers would take the roofs off of their summer pasture huts, and carry them down to their winter homes in the valleys...



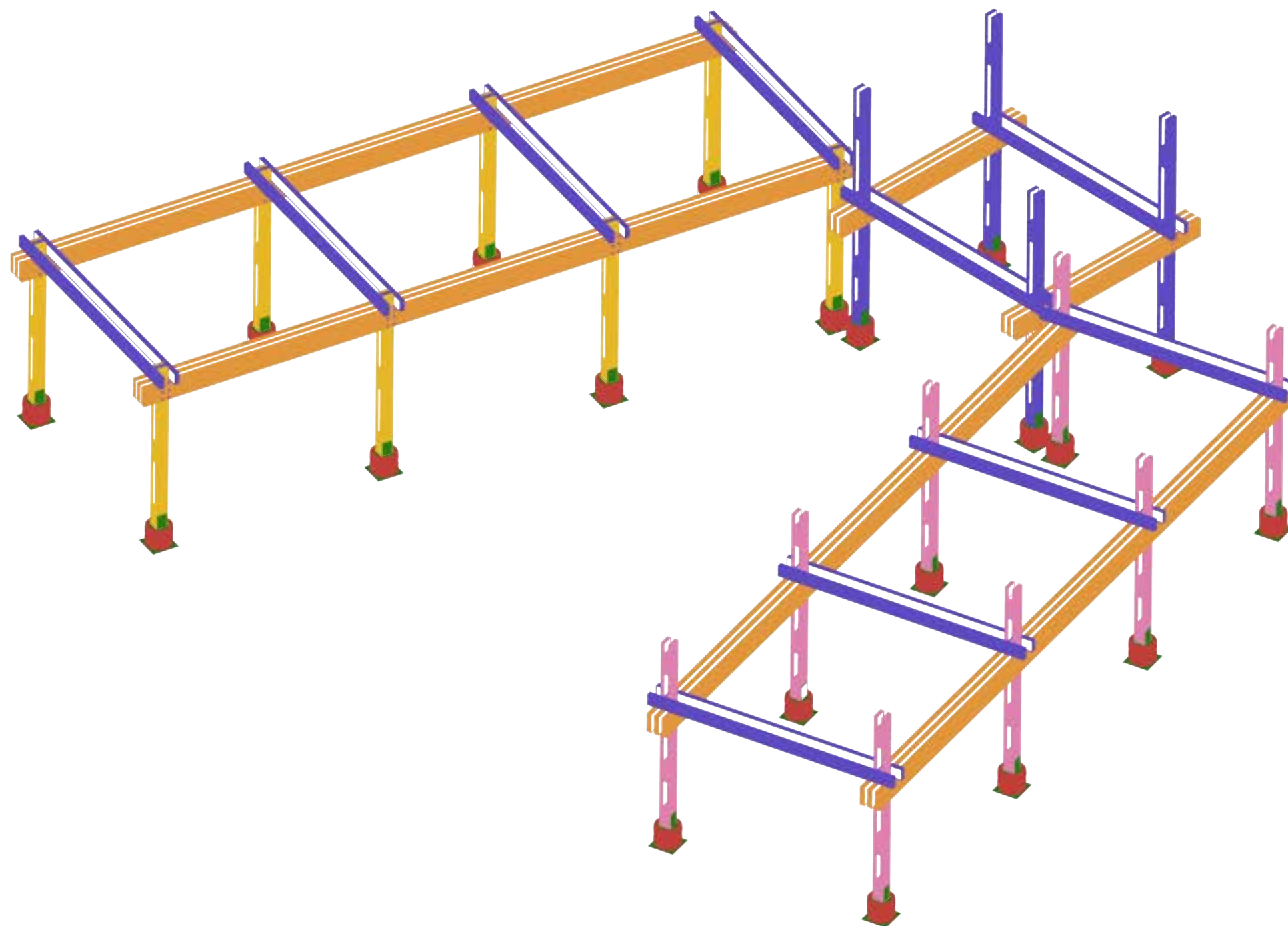


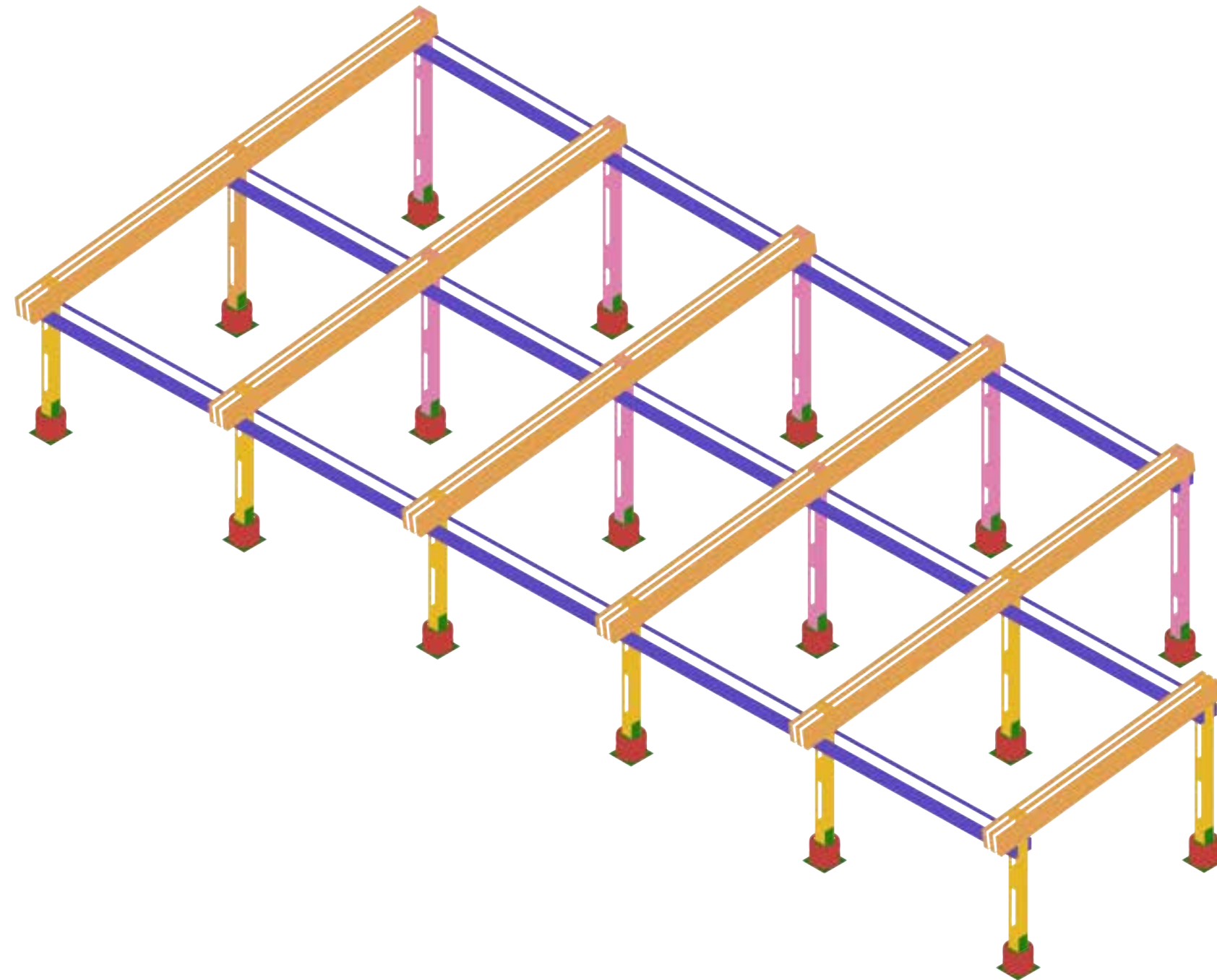




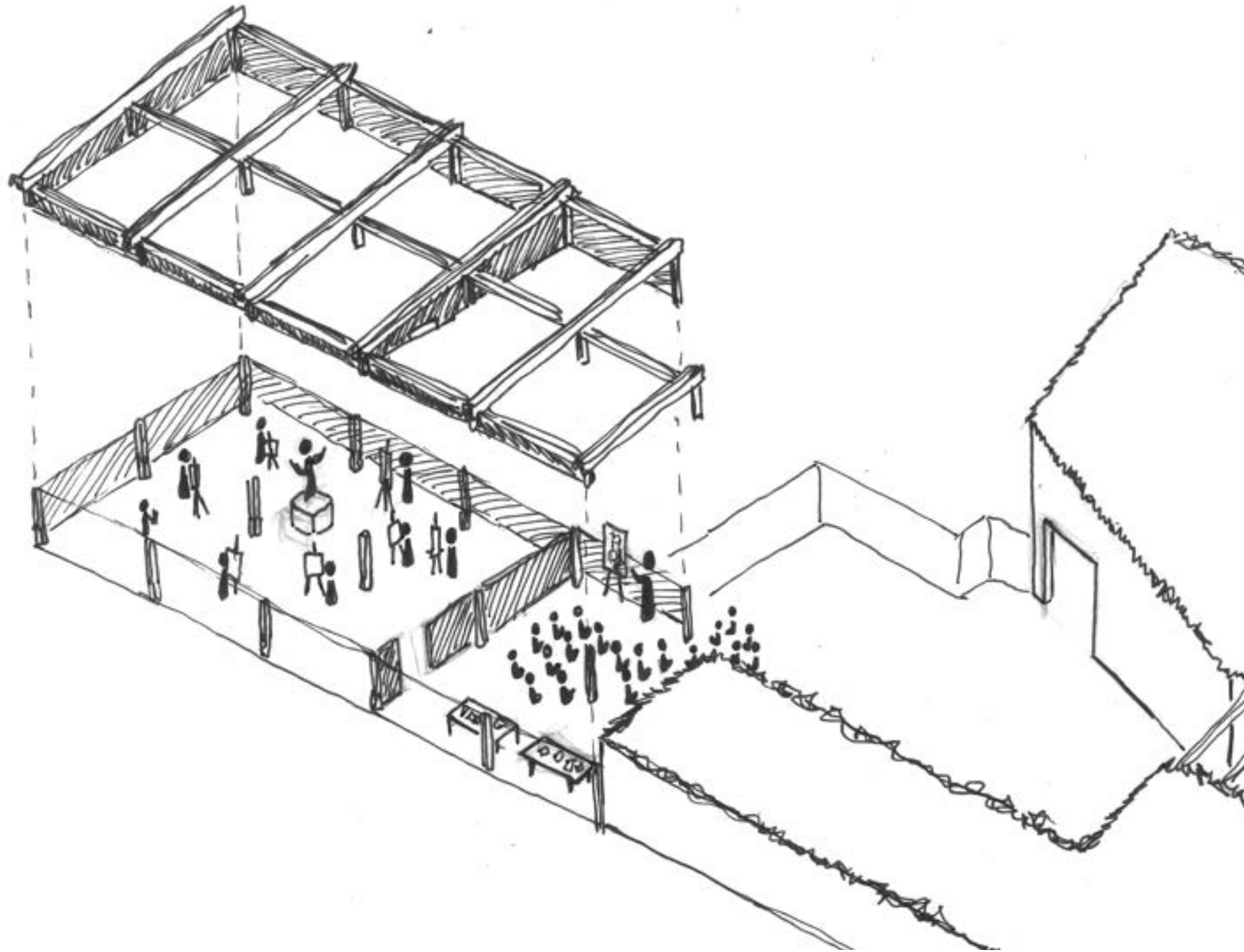


Pavilion beams and columns translated  
into the education/ workshop space

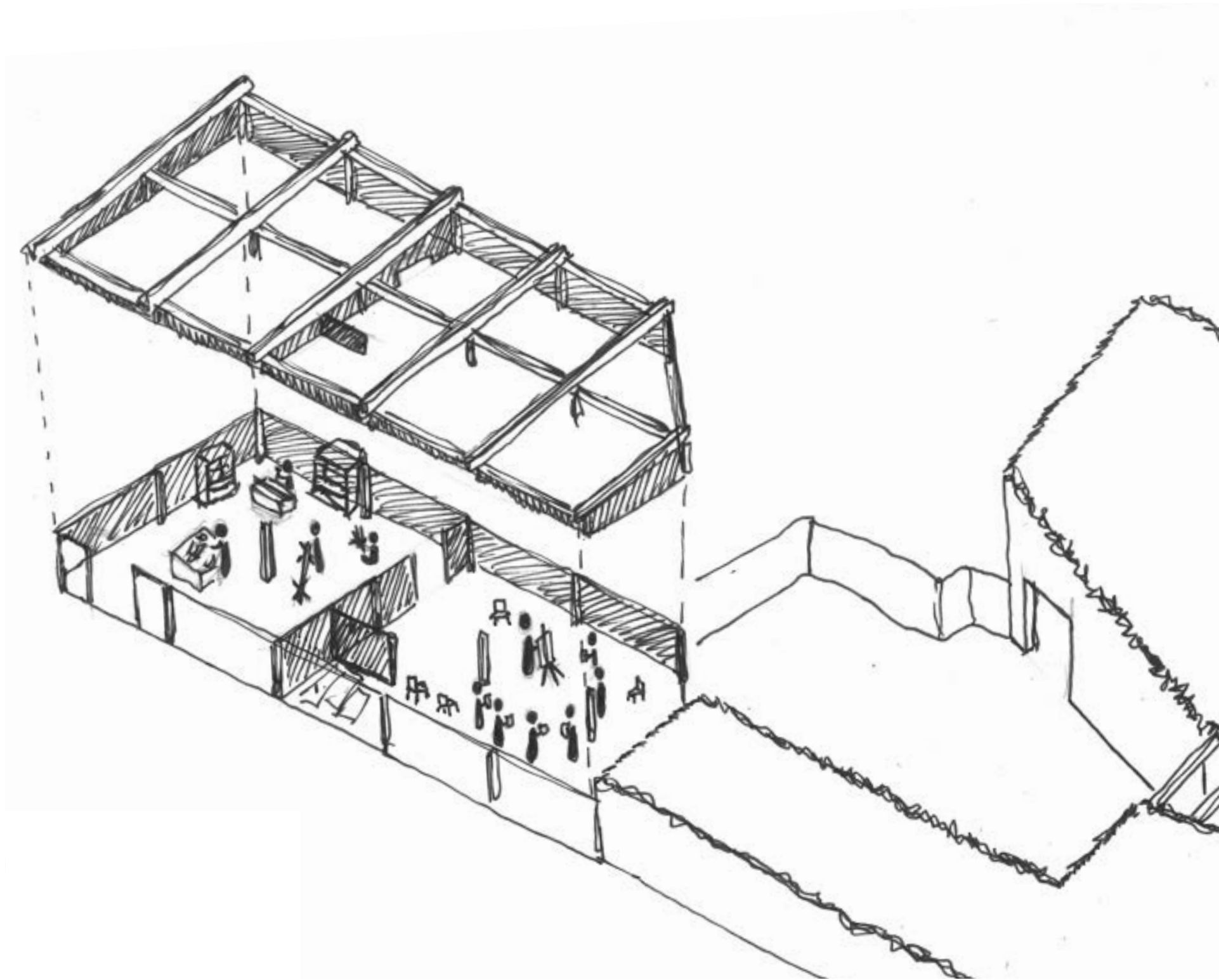




## Possible Arrangements

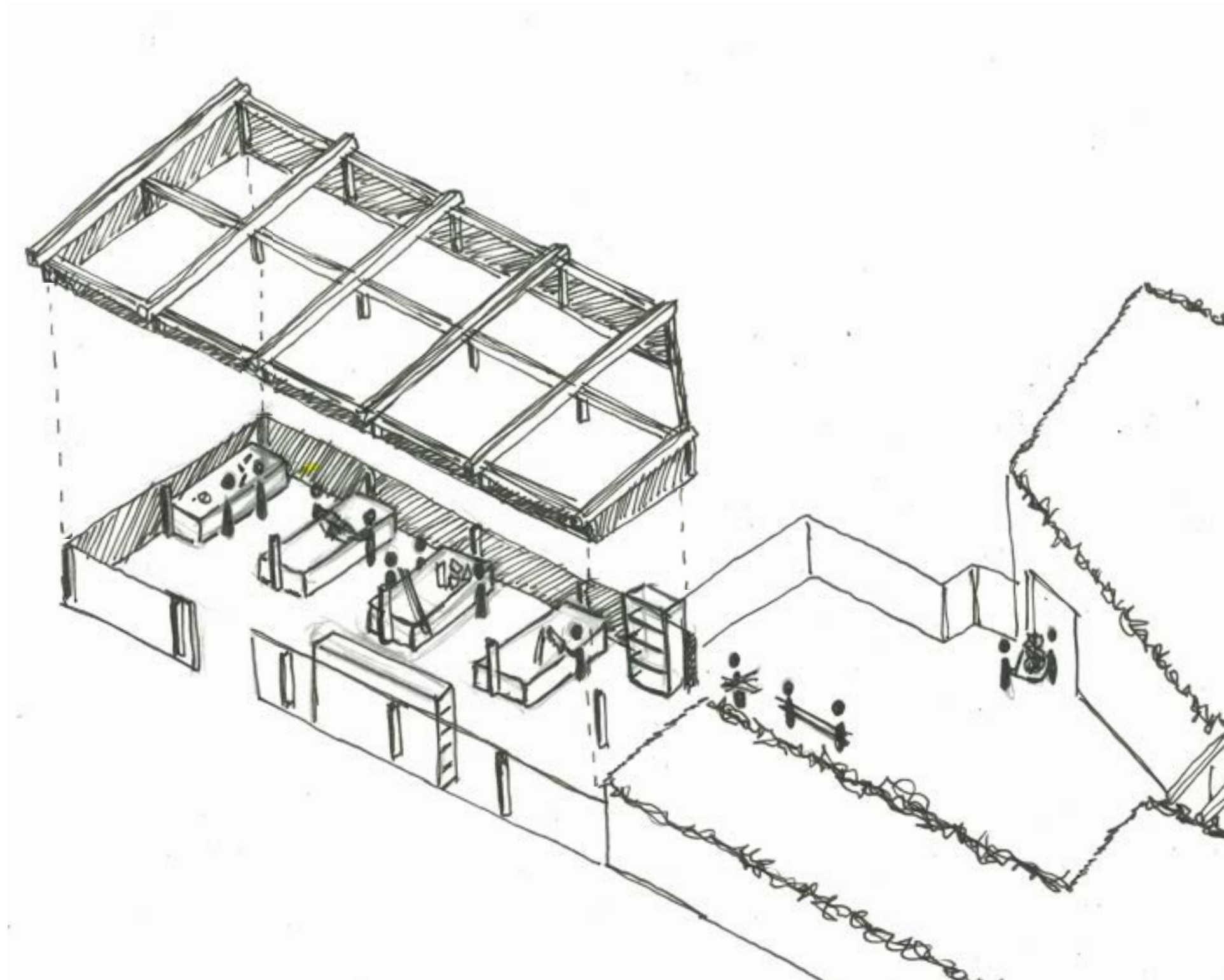


School painting classes

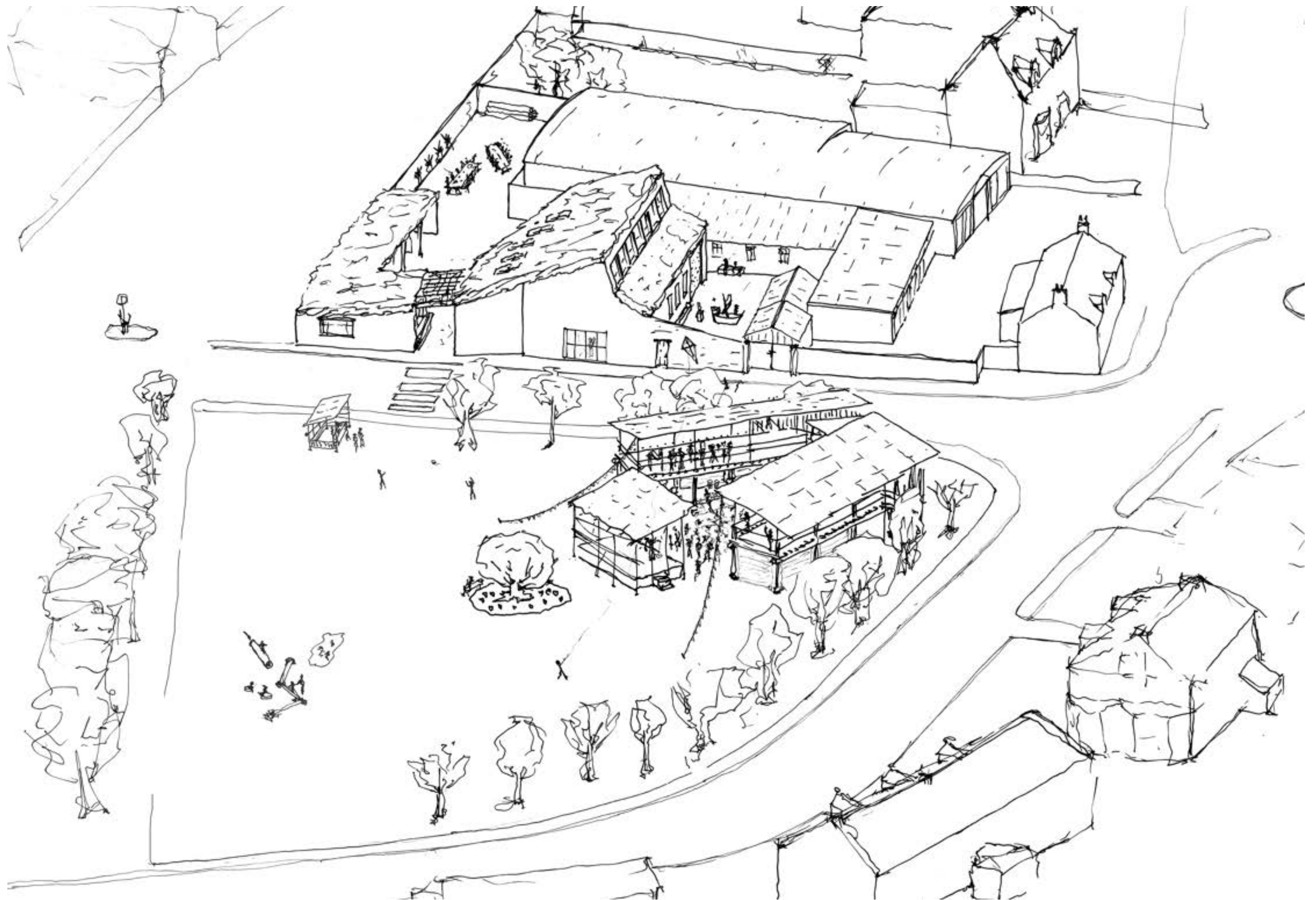


Mixed Art &  
Construction workshop





Open Craft and  
Construction Workshop



# Material Research

## References

### Seaweed

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