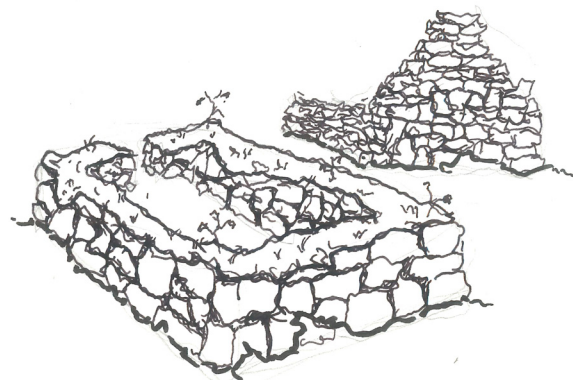


SW3A design journal



“a community of conservation”

Edward Christie

22001859

“A lifelong learning retreat”

COMMONTY - communally held rural
land with multiple uses

the building is an urban commonty - communal, loose fit, a lynchpin
in a wider system of repair, conservation and sociality. Embracing
locals and encouraging tourists to develop a deeper understand-
ing and respect for the rural landscape. Becoming a space for mu-
tual use and participation

lochaber ~~~~~ 3

fort william ~~~~~ 11

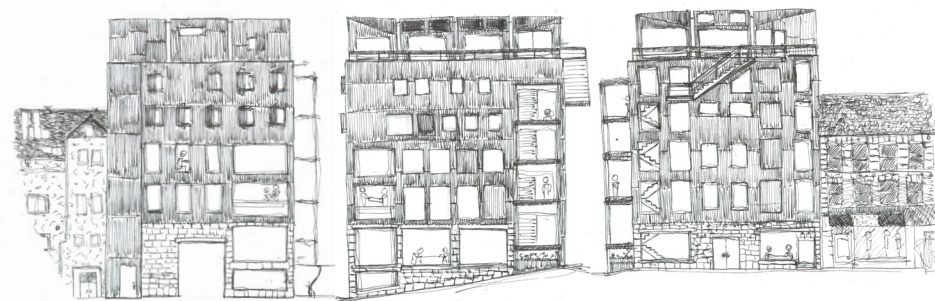
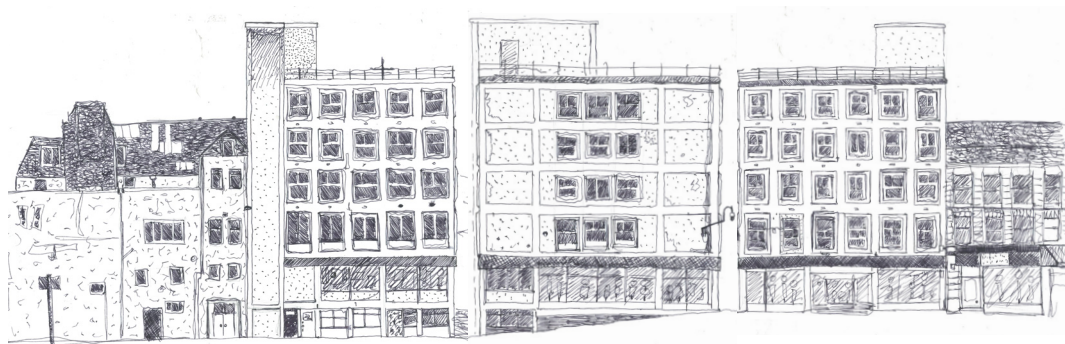
abandoned structures ~~~~~ 18

design ~~~ 26

output ~~~ 41

technologies ~~~~~ 53

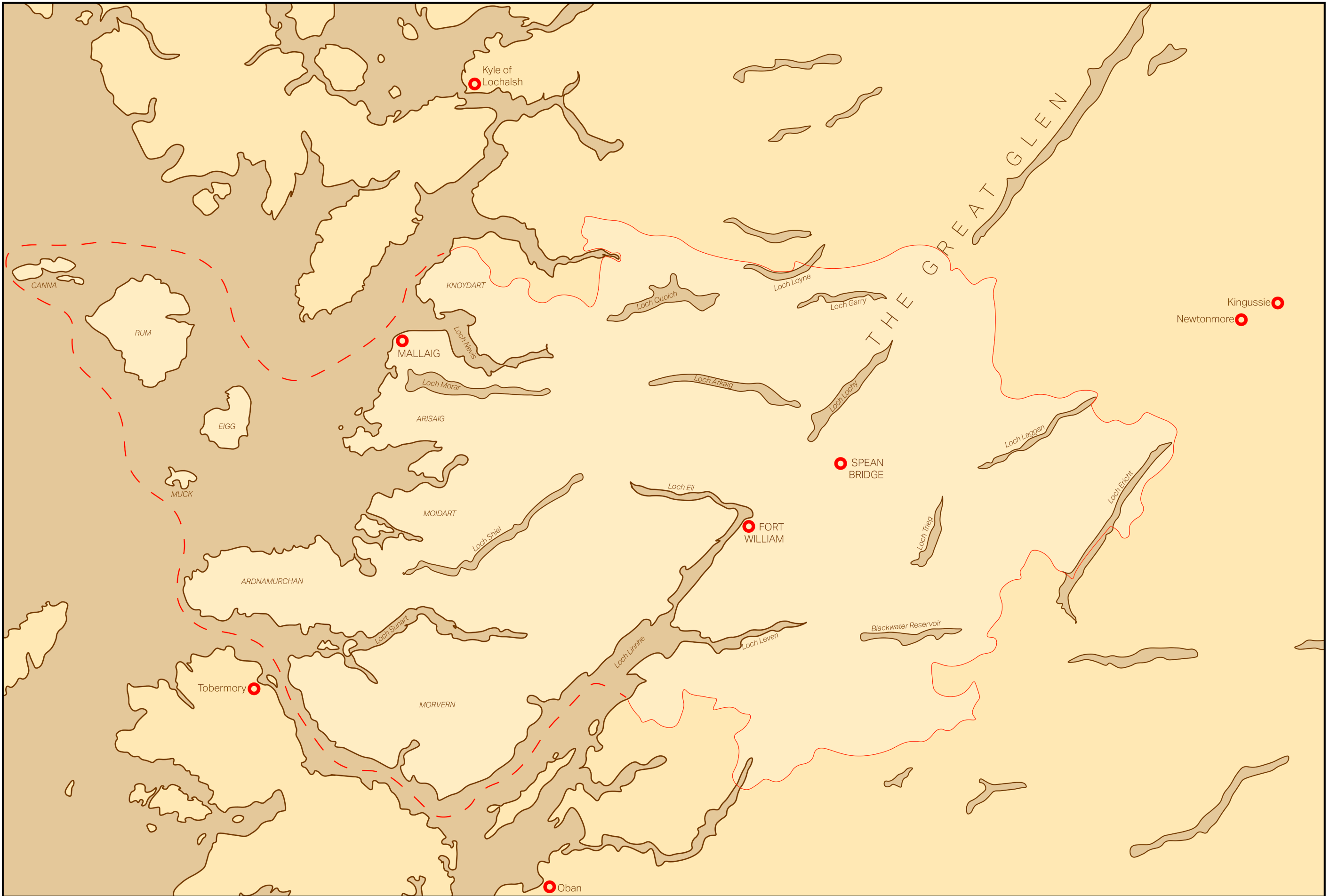
references ~~~~~ 60



Lochaber

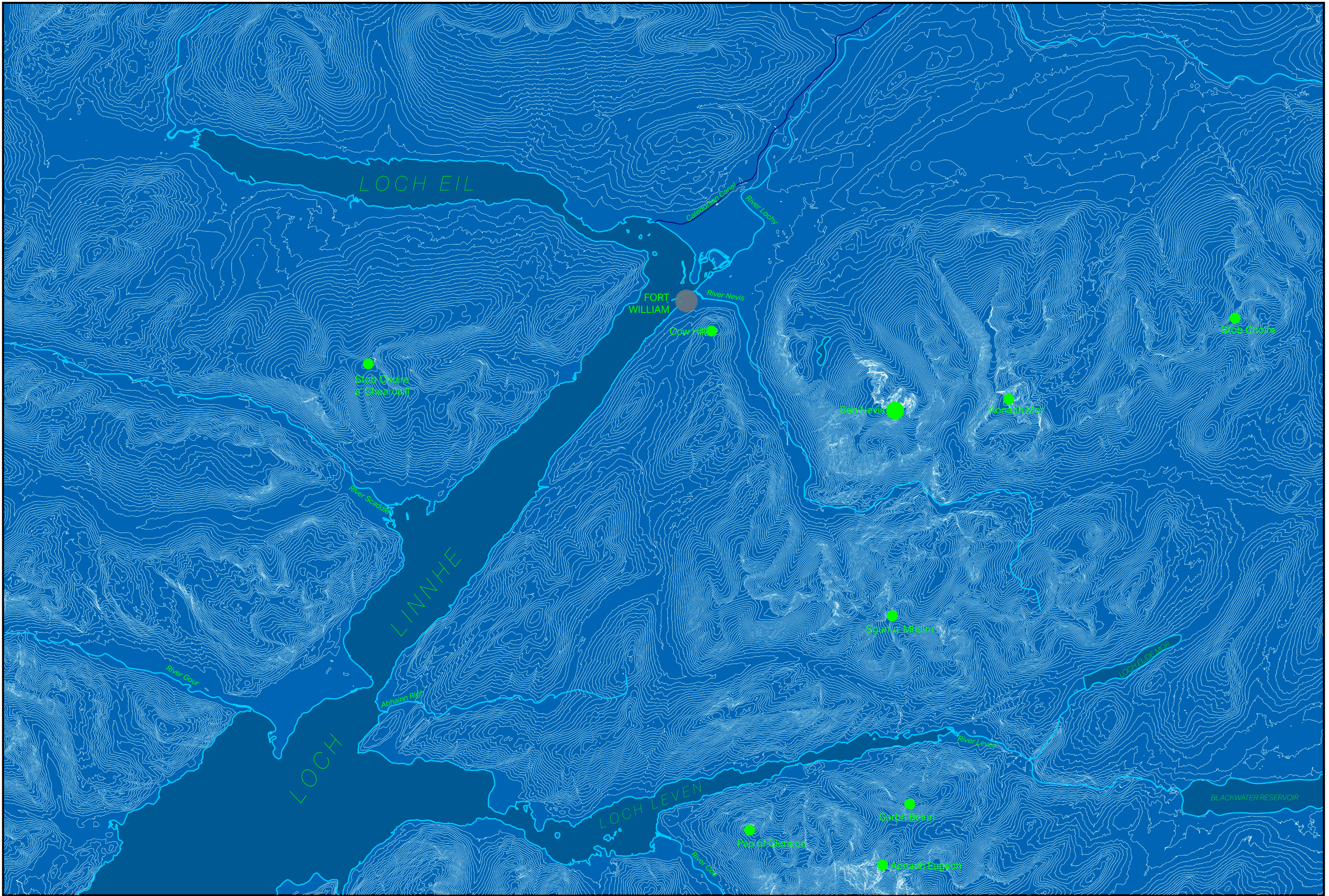


desktop study



0 km 4 km 20 km 40 km

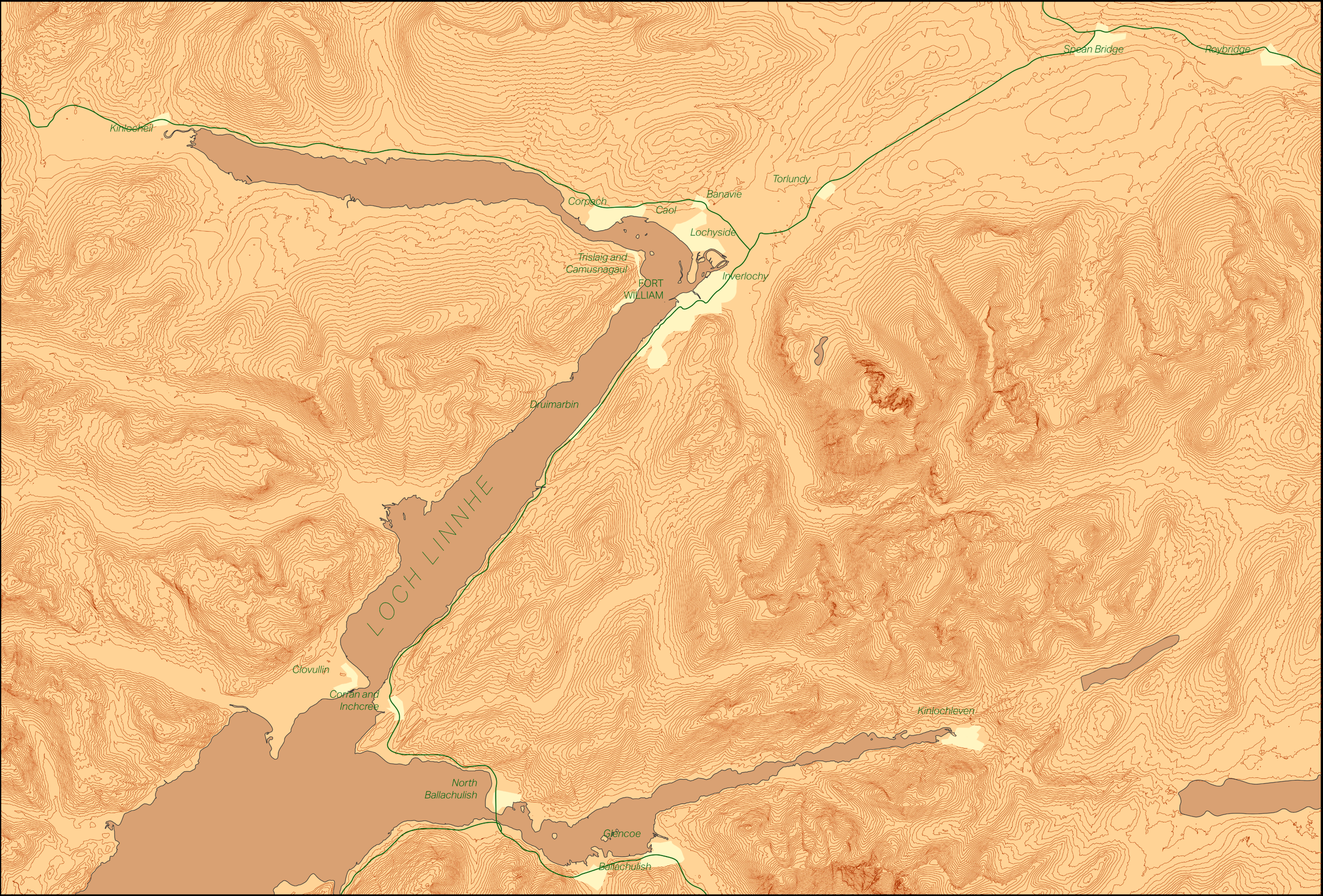
Lochaber
—
1:400,000 on A3



0km 1km 5km 10km

Loch Linnhe Natural Geography

1:100,000 on A3



0km 1km 5km 10km

Loch Linnhe Settlements

1:100,000 on A3

- | | | |
|--------------------------------|-----------------------------|-----------------------------------|
| 1. Fort William - 5,600 | 6. Ballachulish - 620 | 11. Clovullin - <250 |
| 2. Caol & Lochyside - 3,310 | 7. Corran and Inchree - 620 | 12. Druimarbin - <150 |
| 3. Banavie and Corpach - 1,350 | 8. Roybridge - 565 | 13. Trislaig & Camusnagaul - <100 |
| 4. Inverlochy - 945 | 9. Spean Bridge - 550 | 14. Torlundy - 55 |
| 5. Kinlochleven - 760 | 10. Glencoe - 374 | 15. Kinlocheil - <50 |

Rail to Mallaig
A830 to Mallaig
and THE ISLES

B8043 to Loch Lochy

A82 to Inverness and
THE GREAT GLEN

A86 to Kingussie
Rail to Perth and
THE SOUTH

FORT
WILLIAM

Old Nevis

A861 to
Ardnamurchan

B8043 to Morvern

A82 to Oban

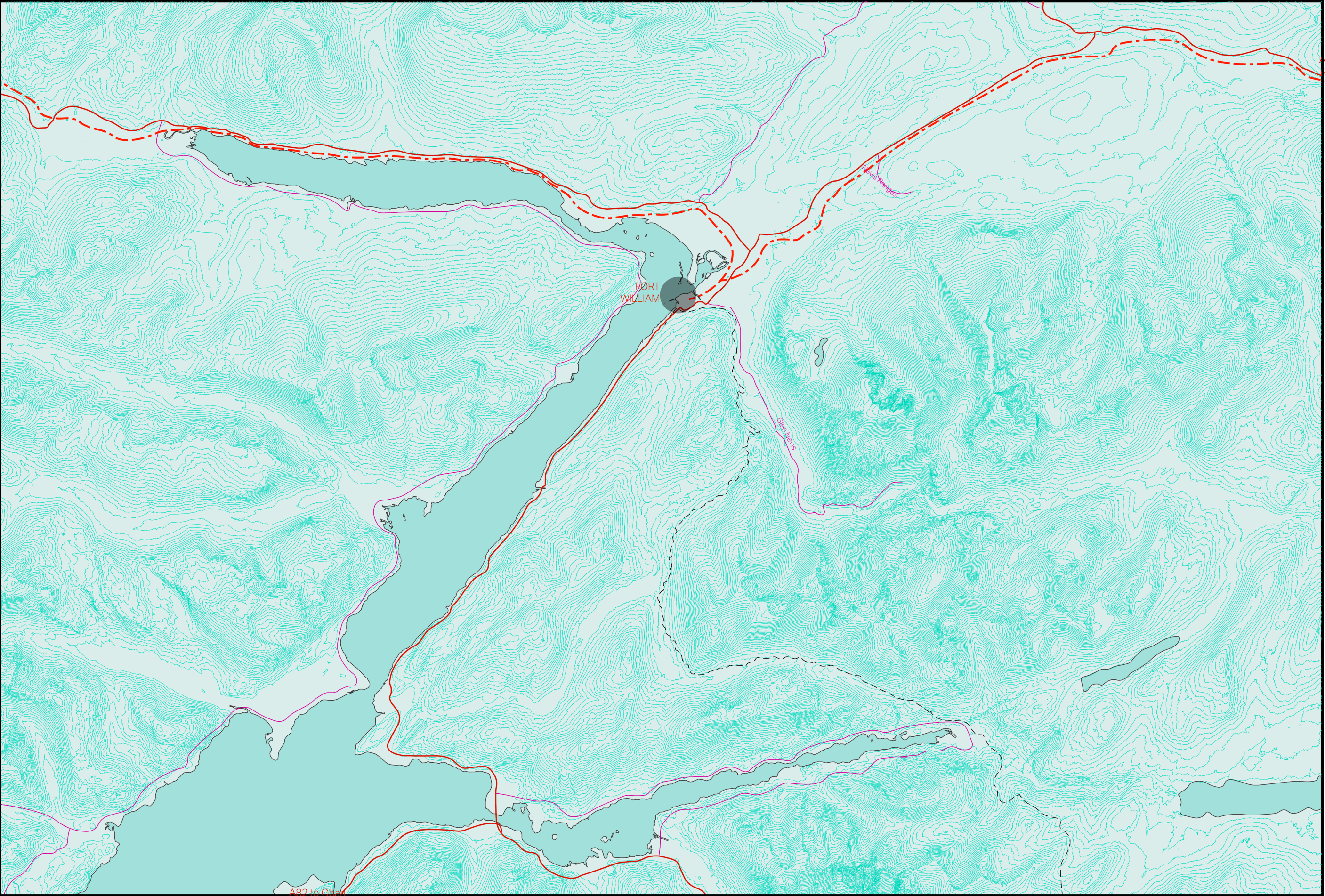
A82 to Glasgow and
THE SOUTH

West Highland Way
to Milngavie

0km 1km 5km 10km

Loch Linnhe Transport Links

1:100,000 on A3





Fort William and Surrounds

1:25000 on A3

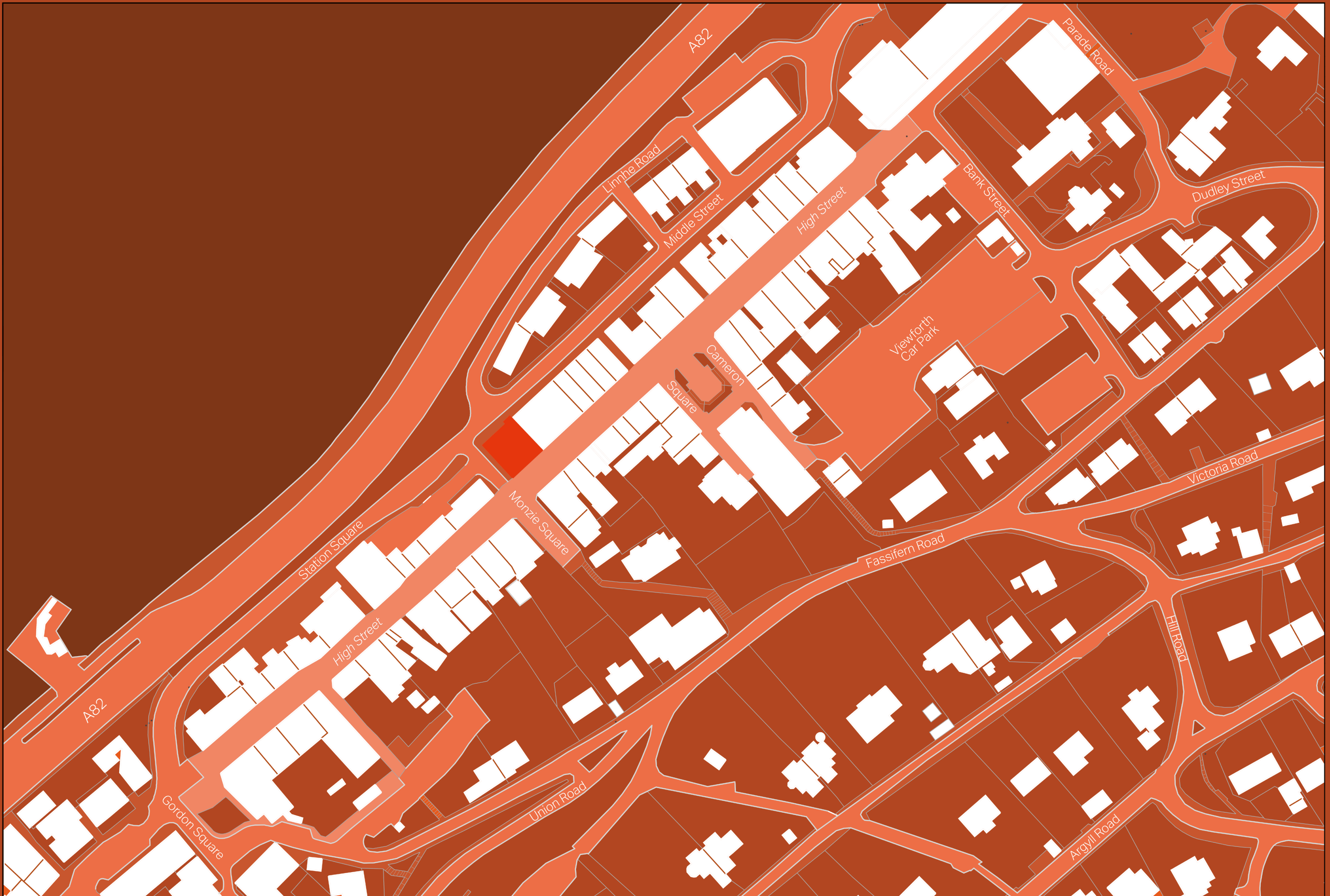


0m 50m 200m 500m

Fort William Town Centre

1:5000 on A3

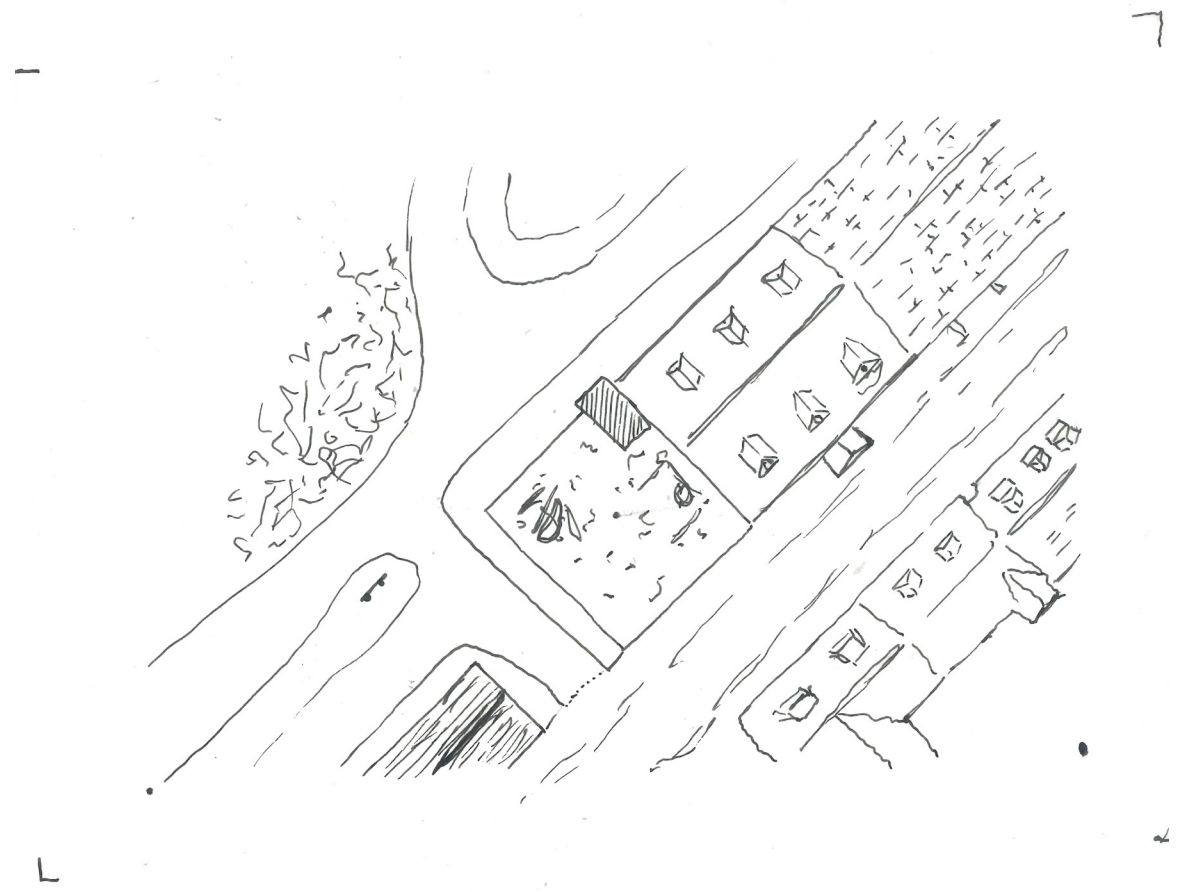
- | | | |
|-------------------------|------------------------------|-----------------------------|
| 1. Lochaber Council | 7. Old Fort | 13. Nevis Centre |
| 2. Camusnagaul Ferry | 8. UHI Campus | 14. Shinty Field |
| 3. West Highland Museum | 9. Morrisons and Bus Station | 15. Lochaber Leisure Centre |
| 4. Highland Cinema | 10. Train Station | 16. Inverlochy Primary |
| 5. Anglican Church | 11. Hospital | 17. Cow Hill Radio Mast |
| 6. CoS Church | 12. Catholic Church | * Site |



0m 10m 25m 100m

Location Plan

1:1250 on A3



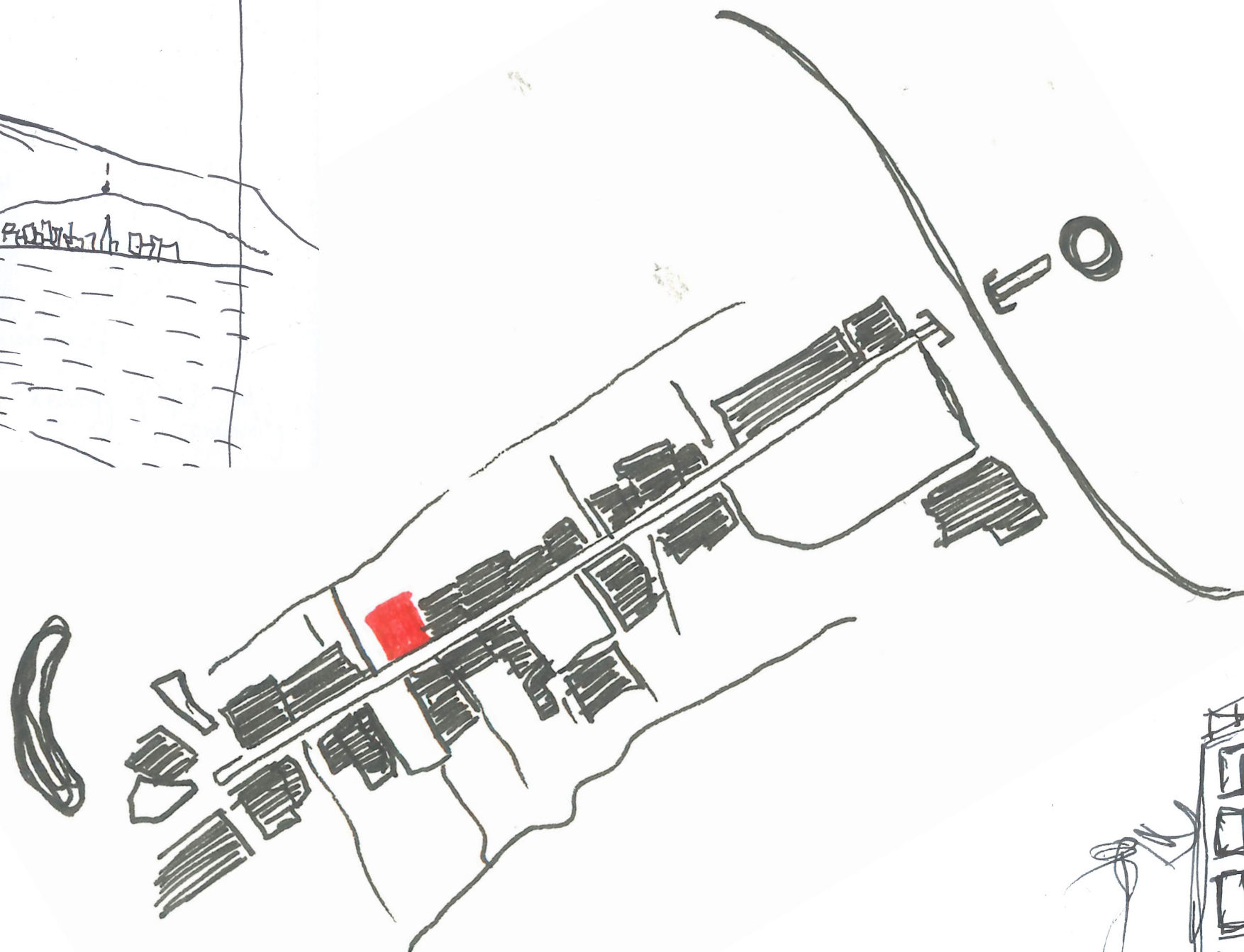
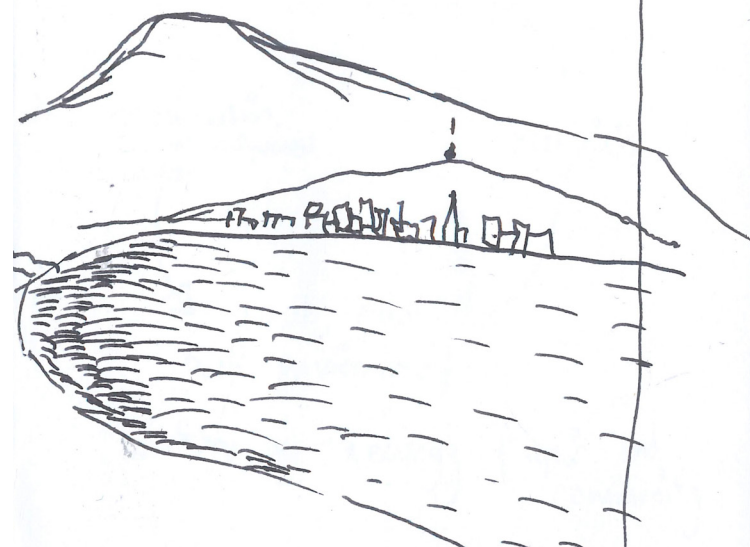
Fort William



*research
trip*

a town on a hill
near a loch
surrounded by mountains

Sketch impressions





Communication & Signage *in Fort William*

SITE

*Mairi Macintyre and
Ossians Hotel*

*an existing
building*



from High Street (on foot)



from Middle Street (by car)



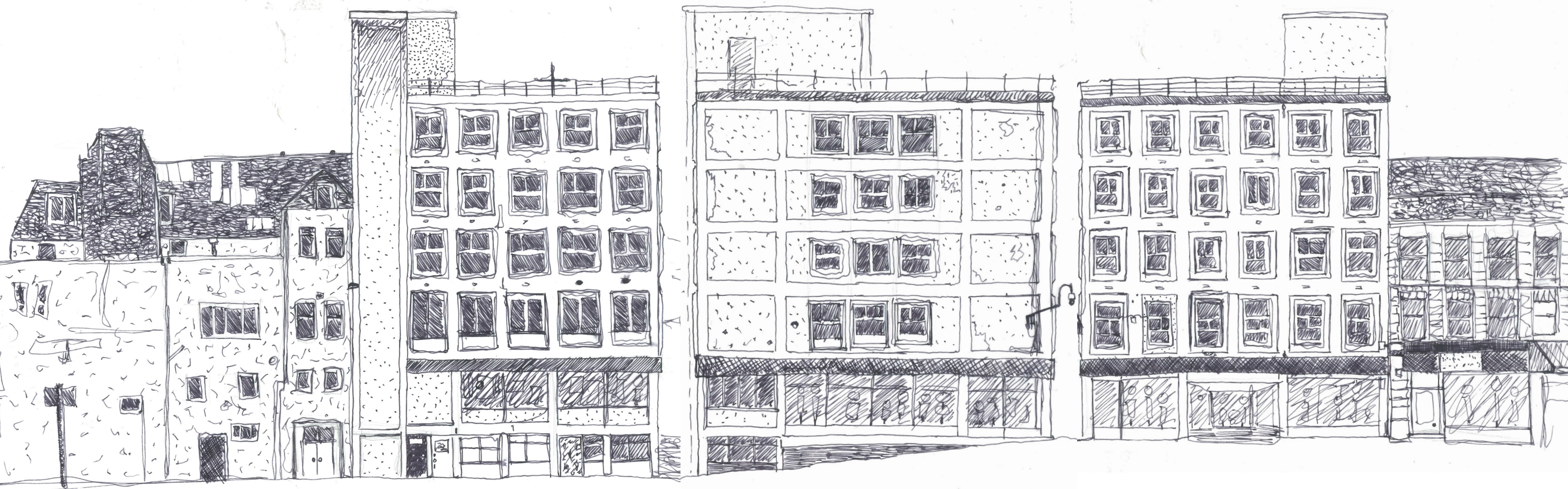
from A82 (just passing through)



*an existing
building*



*an existing
building*





Footfall and traffic around site
on 10/10/2024 from 10.45am to 11.15am
1:200 on A3

Abandoned Structures

material
s



harvest
ing



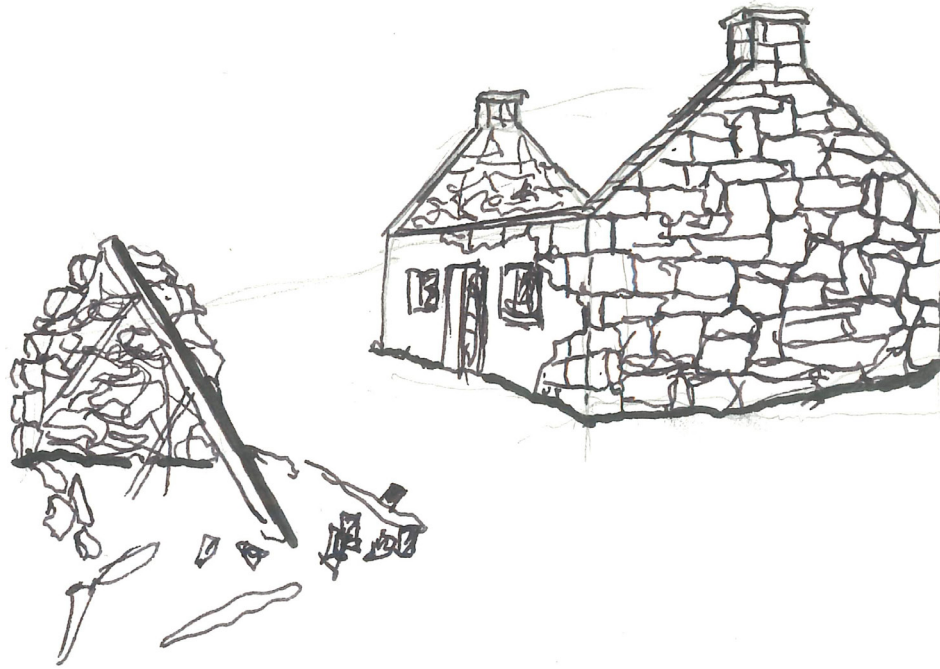
0 km 4 km 20 km 40 km

Lochaber Disused Settlements

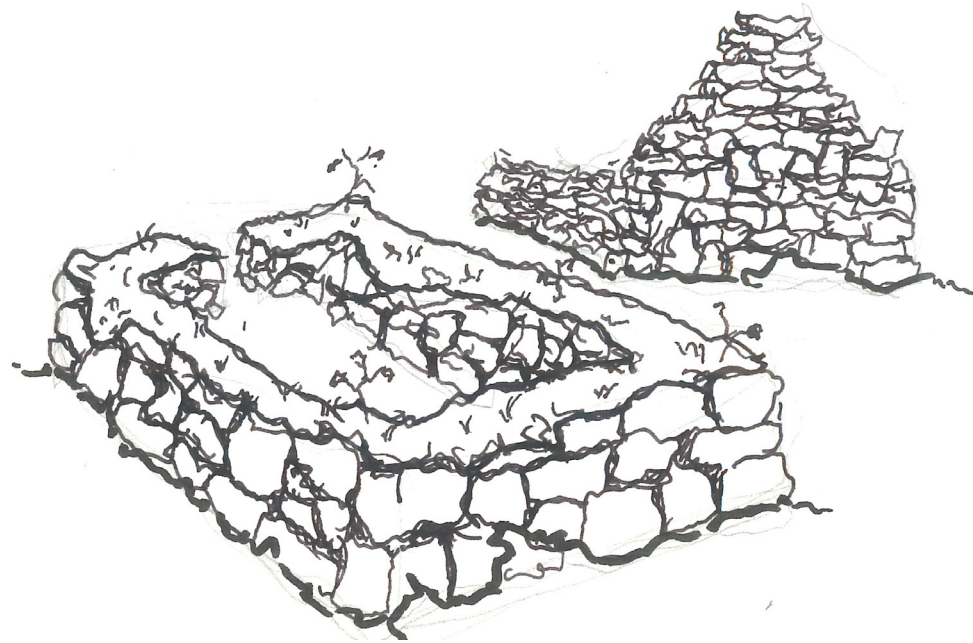
1:400,000 on A3

- Existing Settlement
- Cleared Village
- Abandoned Township Structures
- Derelict Farm Structures

Typologies

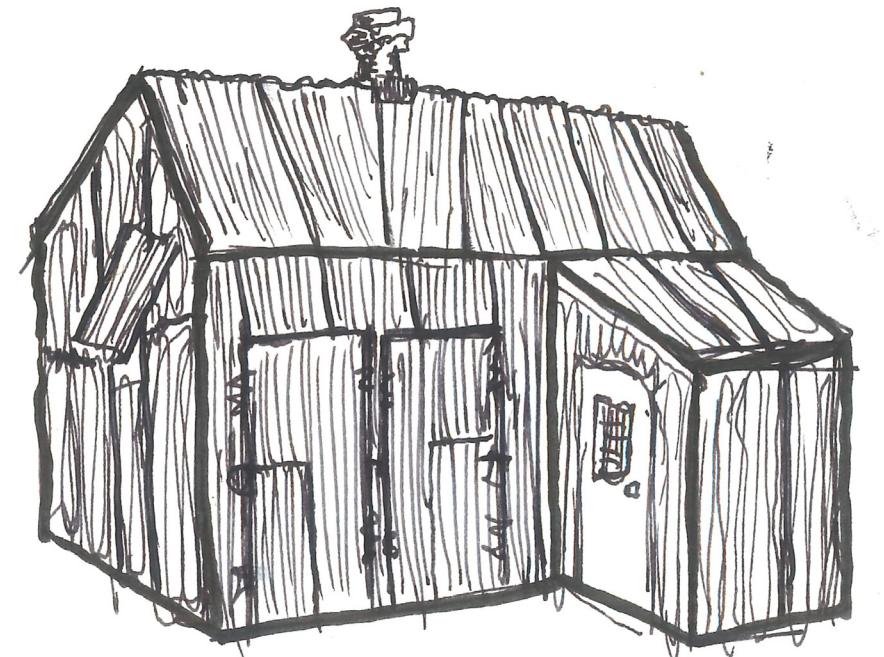


*Abandoned Township
Cottage*



Cleared Blackhouse

Tin Shed

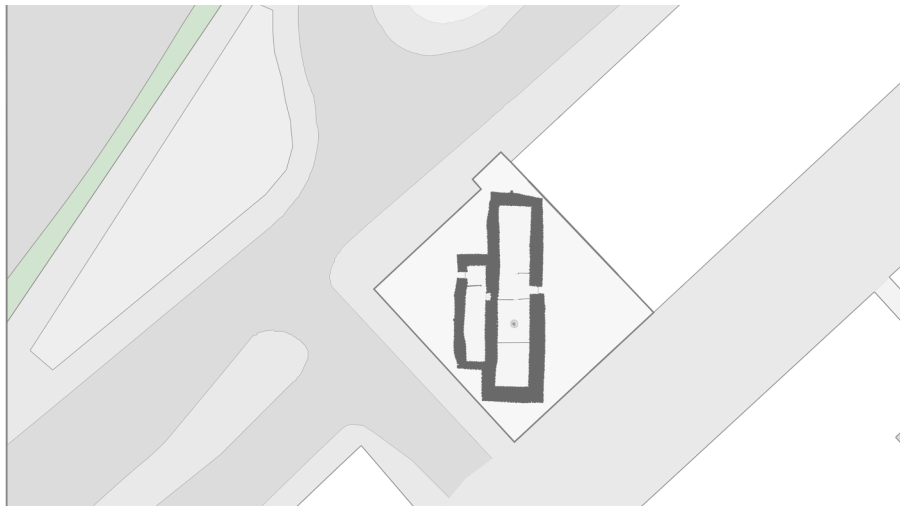


Cleared Blackhouse

Time Period: Early 19th Century and earlier

Primary Locations: Remote areas of Lochaber, especially Ardnamurchan and Morvern

Primary Materials: Granitic undressed rock, occasional reclaimed timber, turf

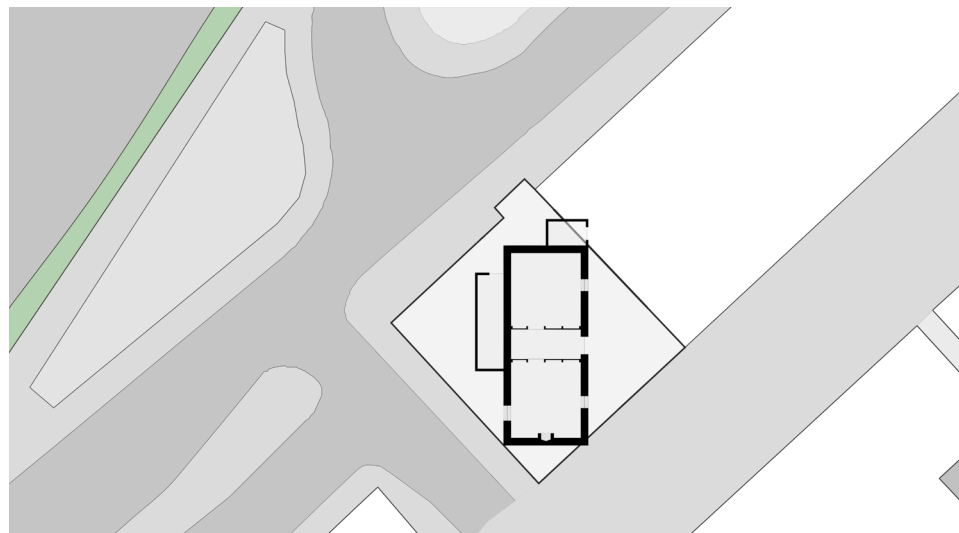


Abandoned Township Cottage

Time Period: Mid 19th Century - 1930's

Primary Locations: Scattered around modern settlements with whole villages across Lochaber

Primary Materials: Lightly dressed stone, slate tiles, timber

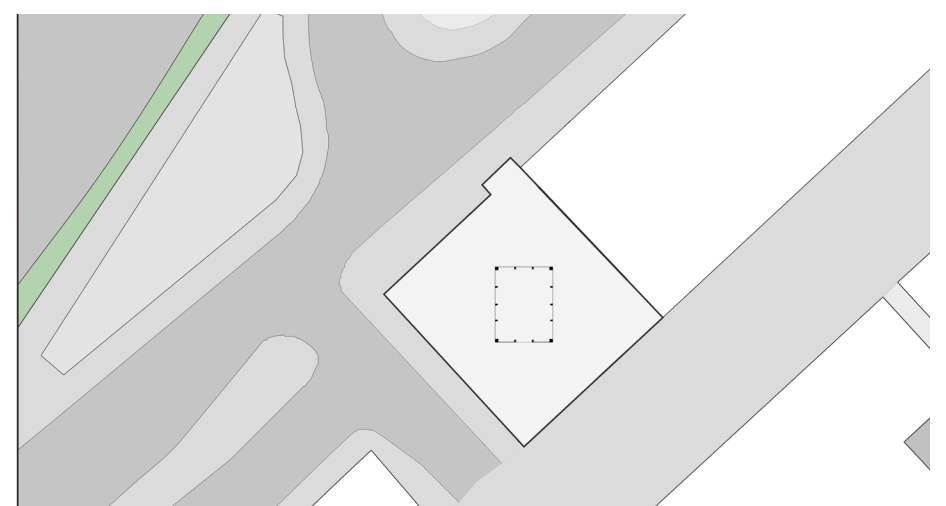


Tin Shed

Time Period: Early 20th Century - Current Day

Primary locations: Villages and farmland across Lochaber

Primary Materials: Corrugated iron, Timber boarding and posts, Fittings



Precedent *Closed for Maintenance, Faroe Islands*



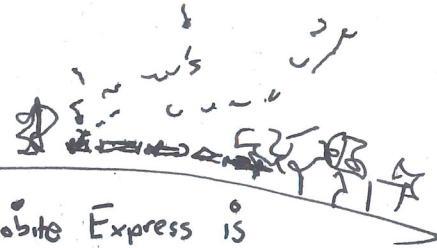
Closed for Maintenance is an annual project in which international tourists volunteer to carry out maintenance and repair of landscapes, way-finding, and paths across the Faroe Islands. The project spans a long weekend, in which most attractions on the islands are closed. Faroese experts spend several months before assessing conditions across the archipelago and choosing the sites that would have the most impact.

The project socialises tourism by taking the strain off of locals for a weekend and actively working to conserve not only the tourist attractions, but the landscape itself. “Voluntourists” gain a connection to place and landscape that they otherwise would not have, and are empowered by having a positive rather than detrimental impact on the islands. It builds a positive connection between locals and tourists that respects culture, people and landscape.



What to avoid

Against Stupid Tourism

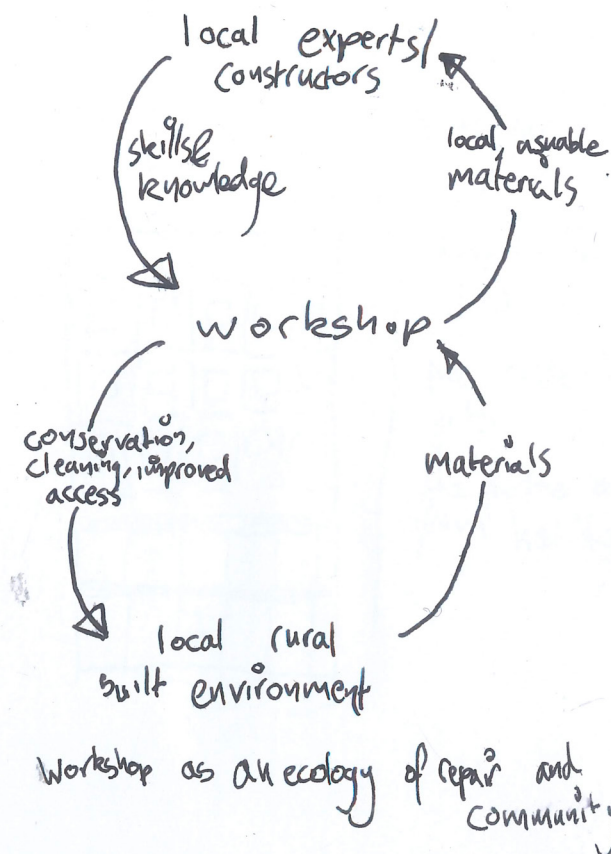


The Jacobite Express is
a shortbread tin for a Grandma
a 5 minute scene in a 20 year old movie
a Stop and Go quick fix of tartan culture on
your way elsewhere

The Jacobite Express is not
public transport for locals in need
an opportunity for learning about the actual
Jacobite Period
a way to see ~~and~~ the actual rural
Scotland
a tourism based on respect and curiosity

A potential solution

Cycles from the local to the workshop



Workshop Requirements

open space

heavy materials

direct road access

comfort - it's the only space for the work!

heavy tooling

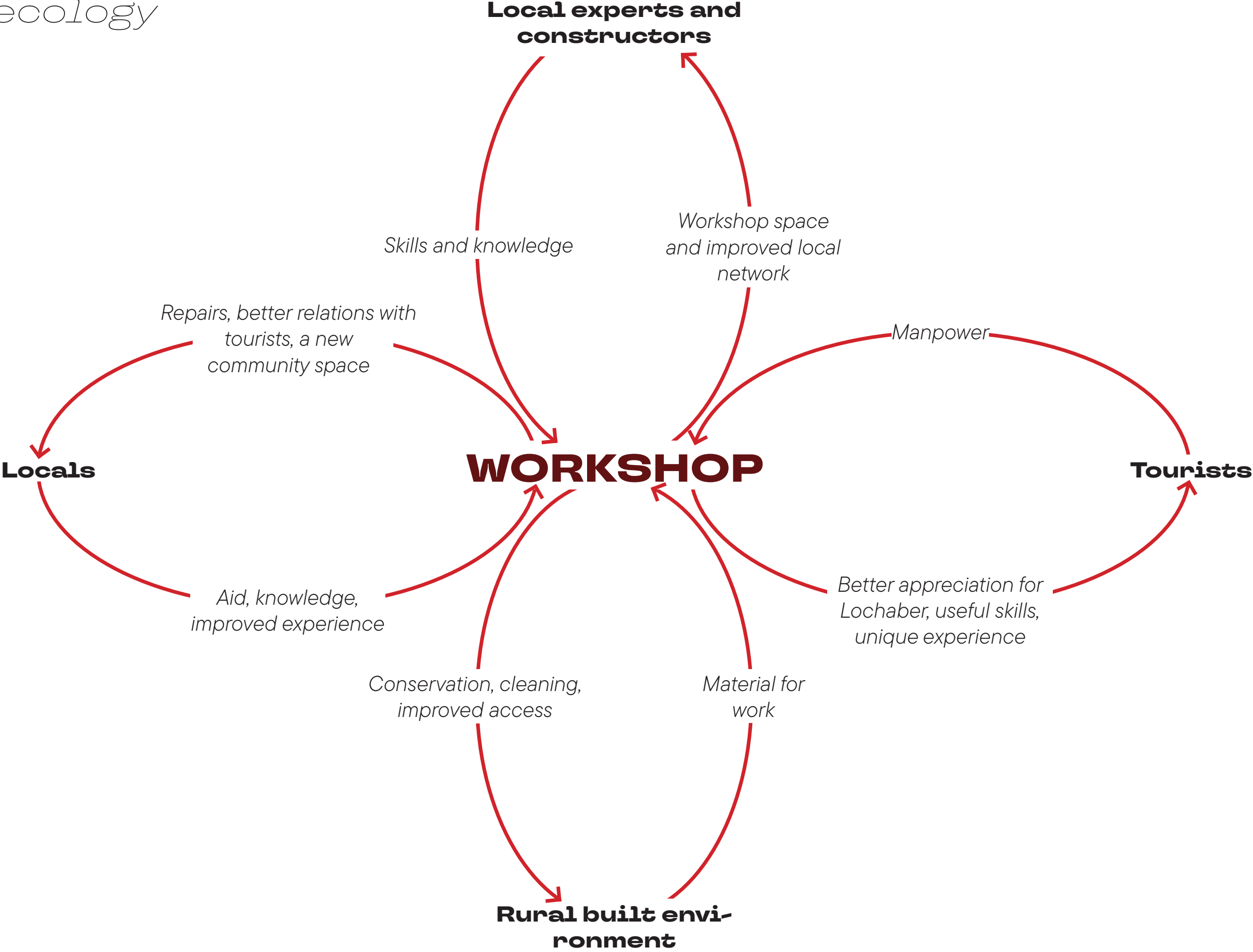
space for education / deep induction

~~not~~ inclusive space

Intelligent^{tech} interlink between wshop and living

Can it build itself?
soundproofing

the workshop as
an ecology



Process

Scouting

The search for material sources begins by consulting historic maps, community knowledge and with the West Highland Museum to ascertain any historic importance, before going into the field to visit and find out if conservation is necessary, and what form it should take.

Extraction

Extraction is community and resident led, requiring lots of manpower from visitors and local stakeholders to remove mass quantities of varied material by hand to transportation. Material will need to be carefully surveyed and labelled to allow for preservation and reconstructive practices.

Transportation

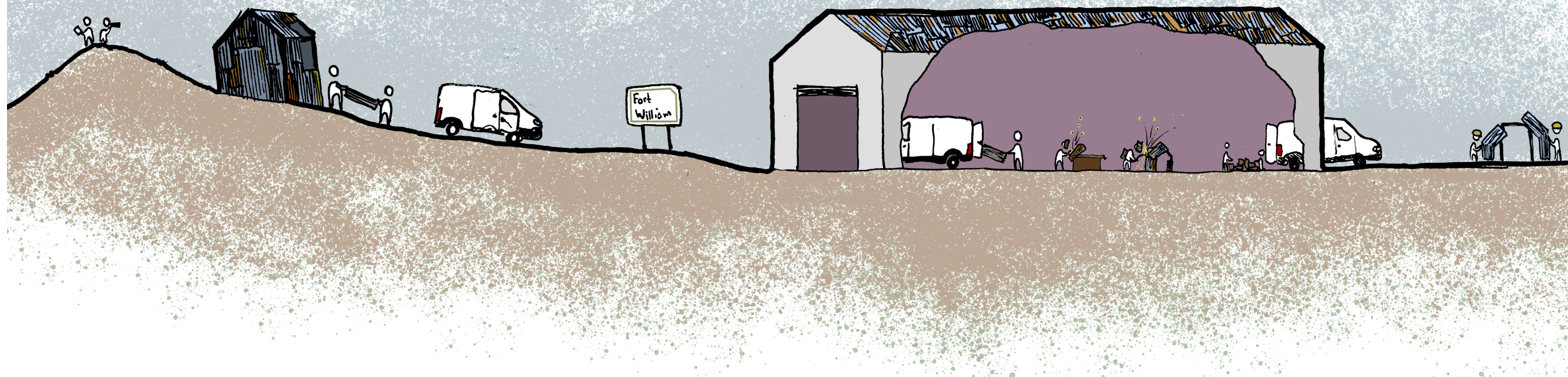
Material is transported by electric vans suitable for sub-50 mile journeys over occasionally rugged terrain. The van is received by a team at the workshop to catalogue and organise materials.

Processing

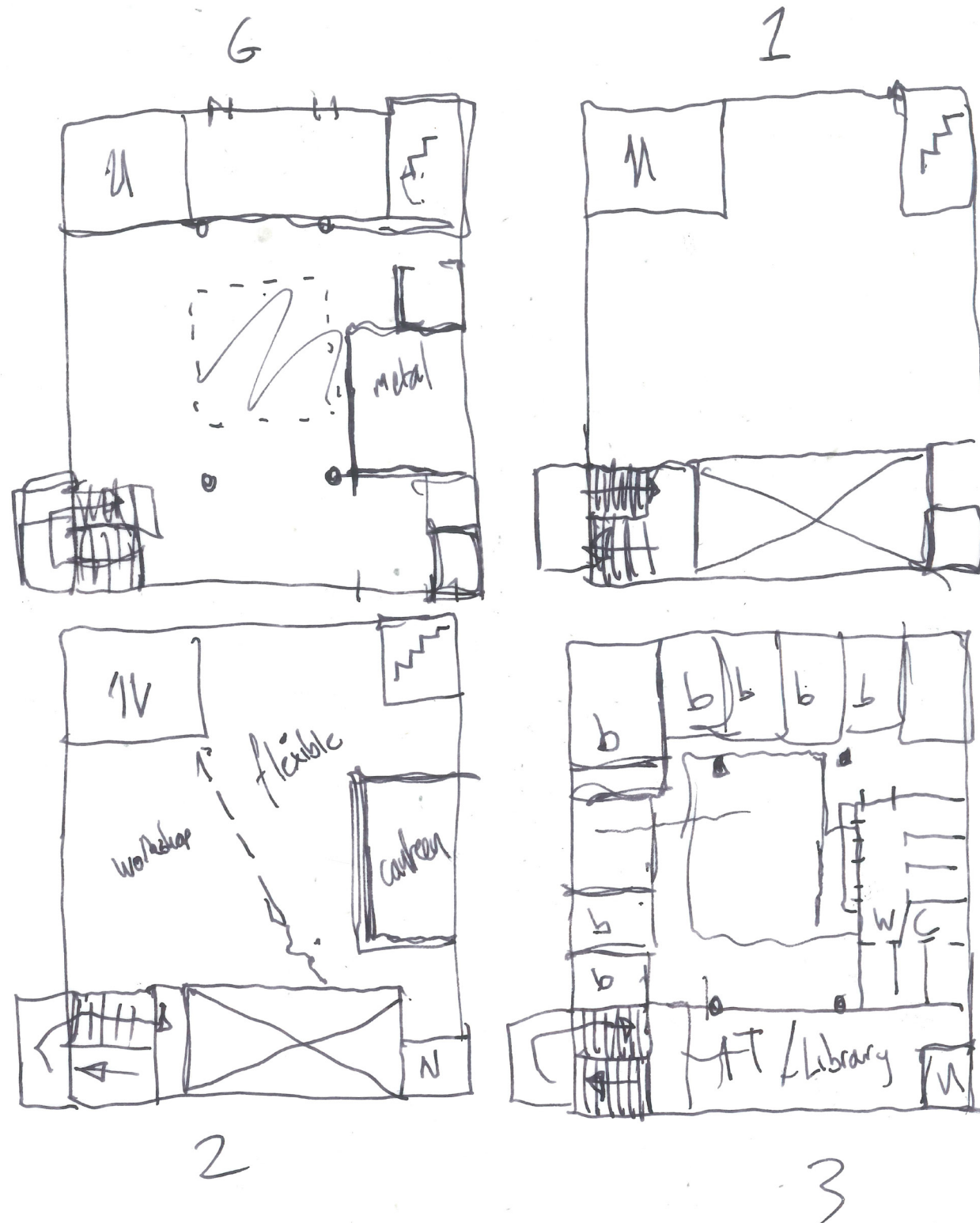
The material is varied in typology, use, and origin, and so the workshop has a broad set of tools and equipment to process materials. Local craftspeople, workers in the construction industry, and tutors in construction and fabrication from UHI Fort William are all consulted for their expertise when necessary. Material is repaired, refinished or cleaned to suit the needs of each site.

Usage

Materials are returned to site and re-assembled. Site work involves cleaning and repairing the immediate surrounds to return it to its natural form. The workshop's flexibility also allows for smaller projects and tasks brought to it from the community to be completed, making the space a place of positive and constructive interaction between residents and tourists.



Design



*iterative
process*

CONTRAST

Commonly

The interior is an urban commonly.

Commonly - communally held rural land with multiple pastoral uses. One of the backbones of old Highland rural life

Rural into the town
Simple Materials in Complex forms

Historic programme vs. hi-tech jockies

Spatial Design is not contrasting

The Building's programme is
Complex - use **TRANSPARENCY**
MATERIALITY
SYMBOLISM
to make the programme
legible

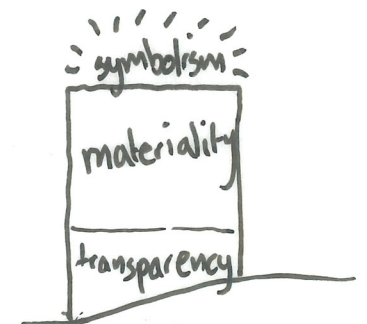
Leading Ideas

interior commonly (open and shared)

bringing the rural into the town

show the programme -

- **TRANSPARENCY** - **MATERIALITY** - **SYMBOLISM**

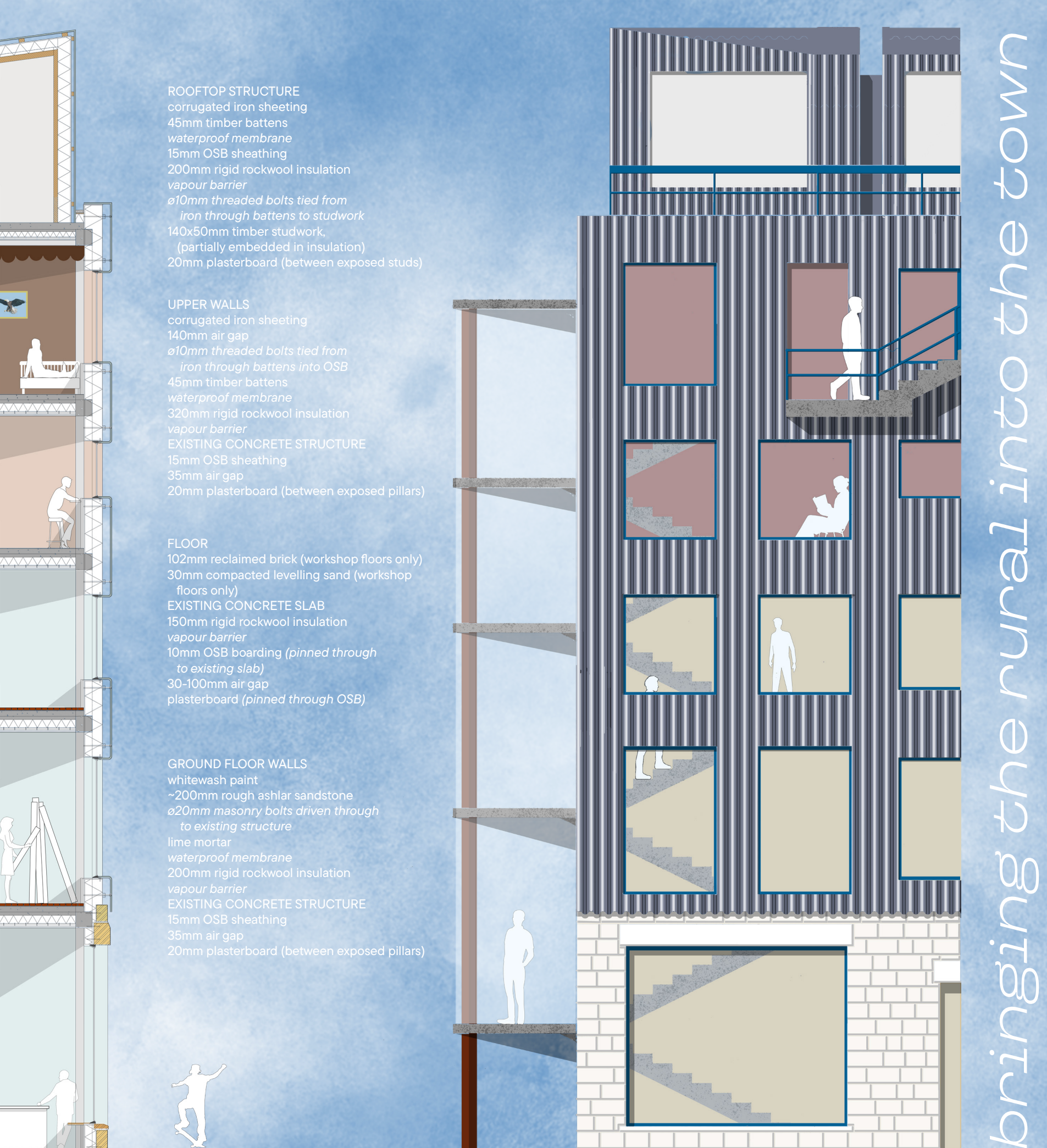


bringing the rural into the town



going to the rural for inspiration





ROOFTOP STRUCTURE
corrugated iron sheeting
45mm timber battens
waterproof membrane
15mm OSB sheathing
200mm rigid rockwool insulation
vapour barrier
ø10mm threaded bolts tied from
iron through battens to studwork
140x50mm timber studwork,
(partially embedded in insulation)
20mm plasterboard (between exposed studs)

UPPER WALLS
corrugated iron sheeting
140mm air gap
ø10mm threaded bolts tied from
iron through battens into OSB
45mm timber battens
waterproof membrane
320mm rigid rockwool insulation
vapour barrier
EXISTING CONCRETE STRUCTURE
15mm OSB sheathing
35mm air gap
20mm plasterboard (between exposed pillars)

FLOOR
102mm reclaimed brick (workshop floors only)
30mm compacted levelling sand (workshop
floors only)
EXISTING CONCRETE SLAB
150mm rigid rockwool insulation
vapour barrier
10mm OSB boarding (pinned through
to existing slab)
30-100mm air gap
plasterboard (pinned through OSB)

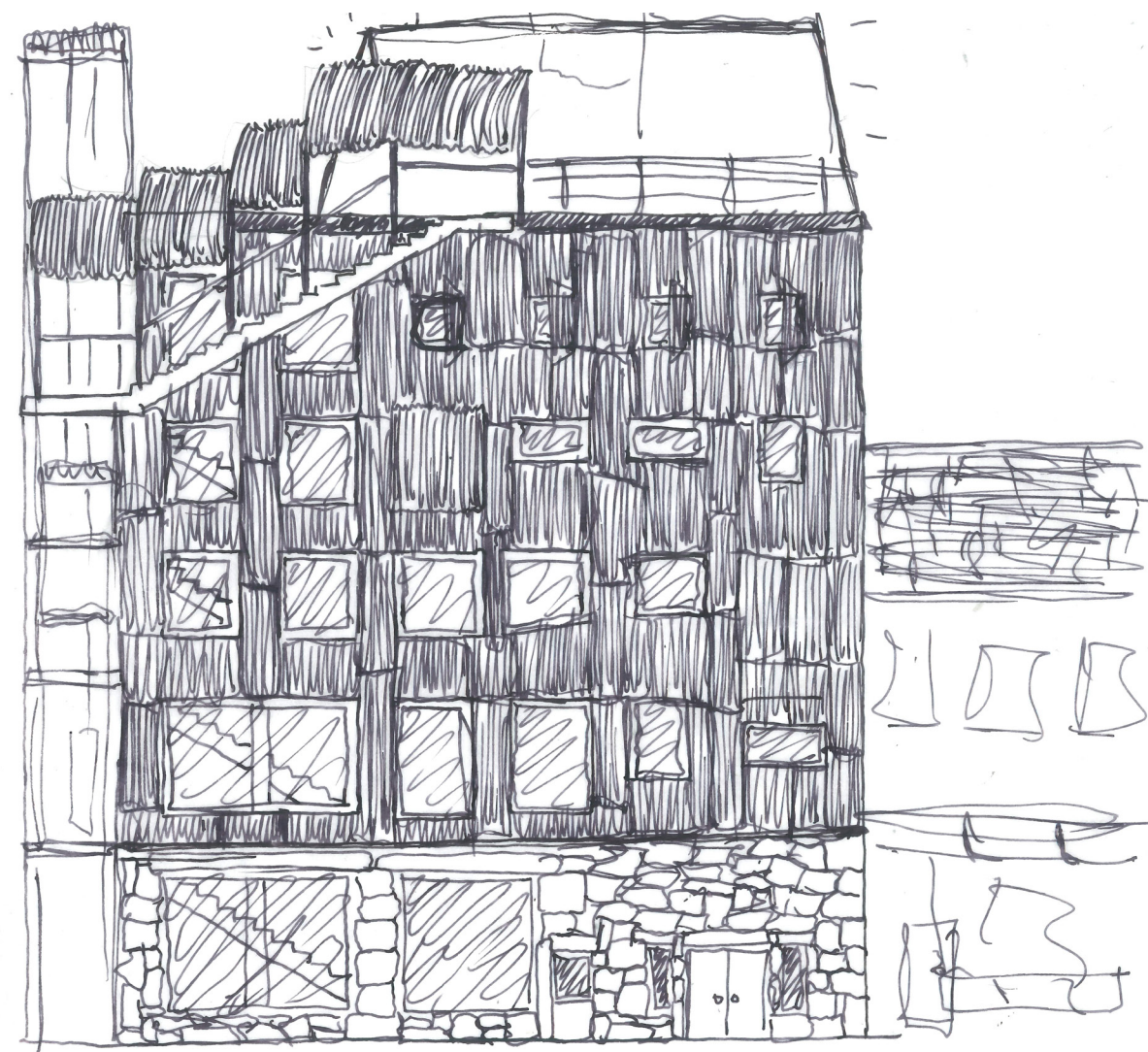
GROUND FLOOR WALLS
whitewash paint
~200mm rough ashlar sandstone
ø20mm masonry bolts driven through
to existing structure
lime mortar
waterproof membrane
200mm rigid rockwool insulation
vapour barrier
EXISTING CONCRETE STRUCTURE
15mm OSB sheathing
35mm air gap
20mm plasterboard (between exposed pillars)

bringing the rural into the town

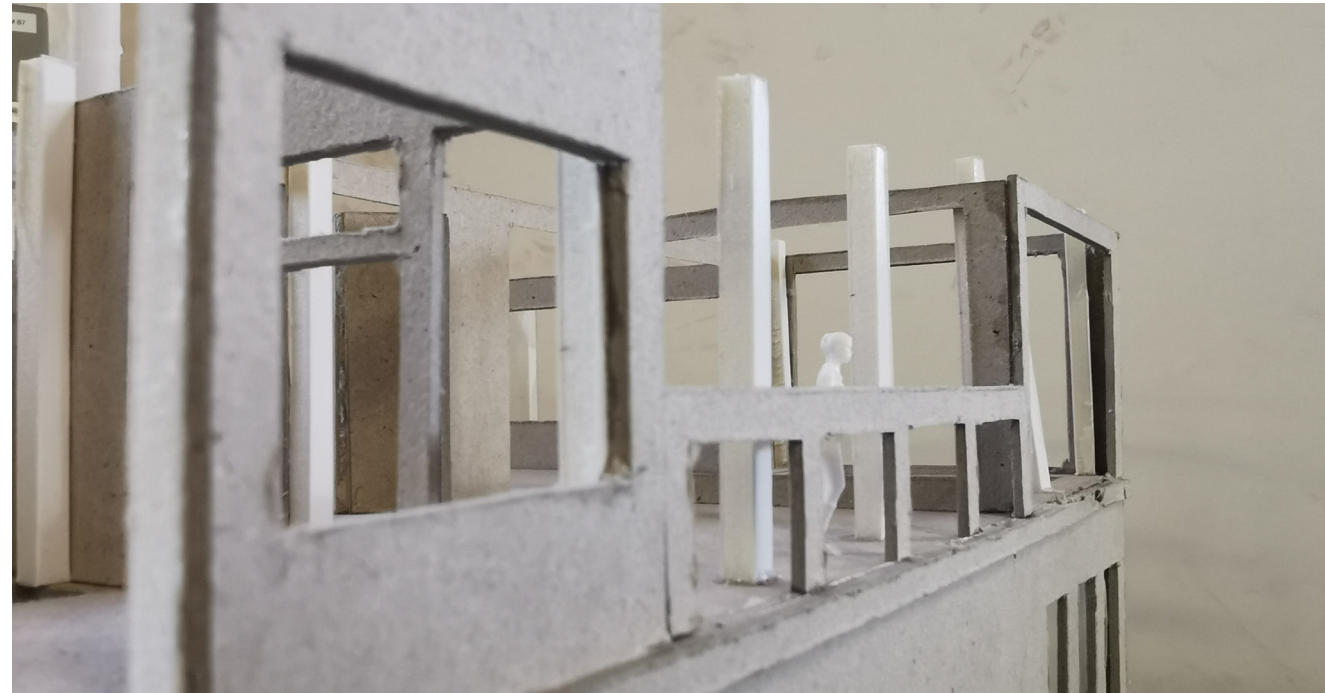
Materials

after a weekend spent in rural Lochaber, I developed a basic material palette - reclaimed corrugated iron and whitewashed stone. Corrugated iron is THE most typical material for rural Scotland, and is frequently used as a roofing material in the Highlands. It was and is used as a replacement roof to traditional thatches on old blackhouses, crofts, and farmhouses. This symbolism as a material that sits above much older structures felt appropriate to the deep retrofit project. Although reclaimed, it will be cleaned and polished - I don't want the building to look like a shoddy facsimile of a barn, but to bring images of the rural into a new context.

When paired with whitewashed roughly cut stone it creates not only a solid, strong base for a lightweight material but further connotations of layers of history, new over old over older. It advertises both structural history and internal programme.



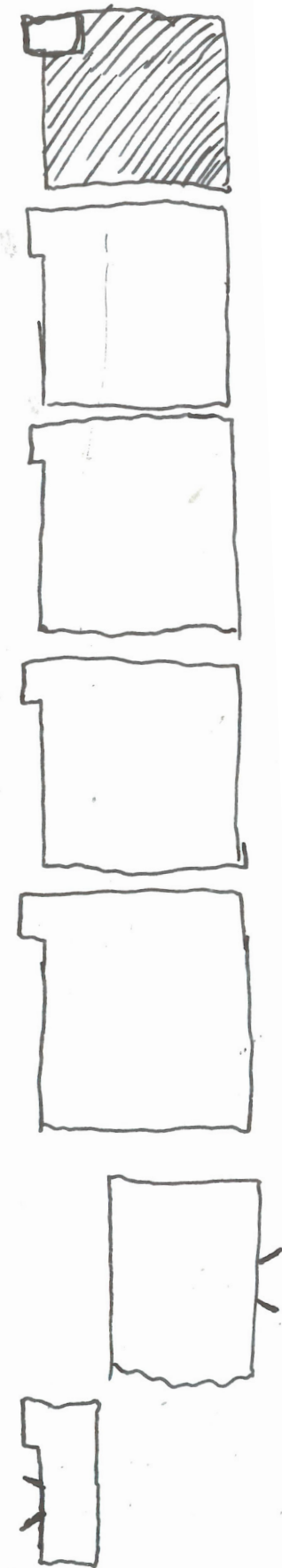
Organising the Space



*first 1:50
workshop model*



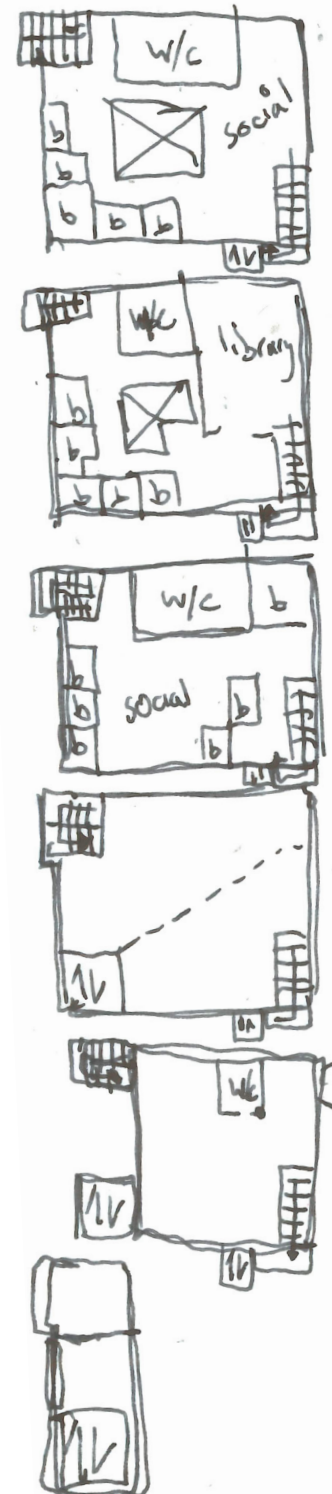
Organising the Space



initial idea



first revision



Learning from failures:

circulation

show the frame

more space for workshops

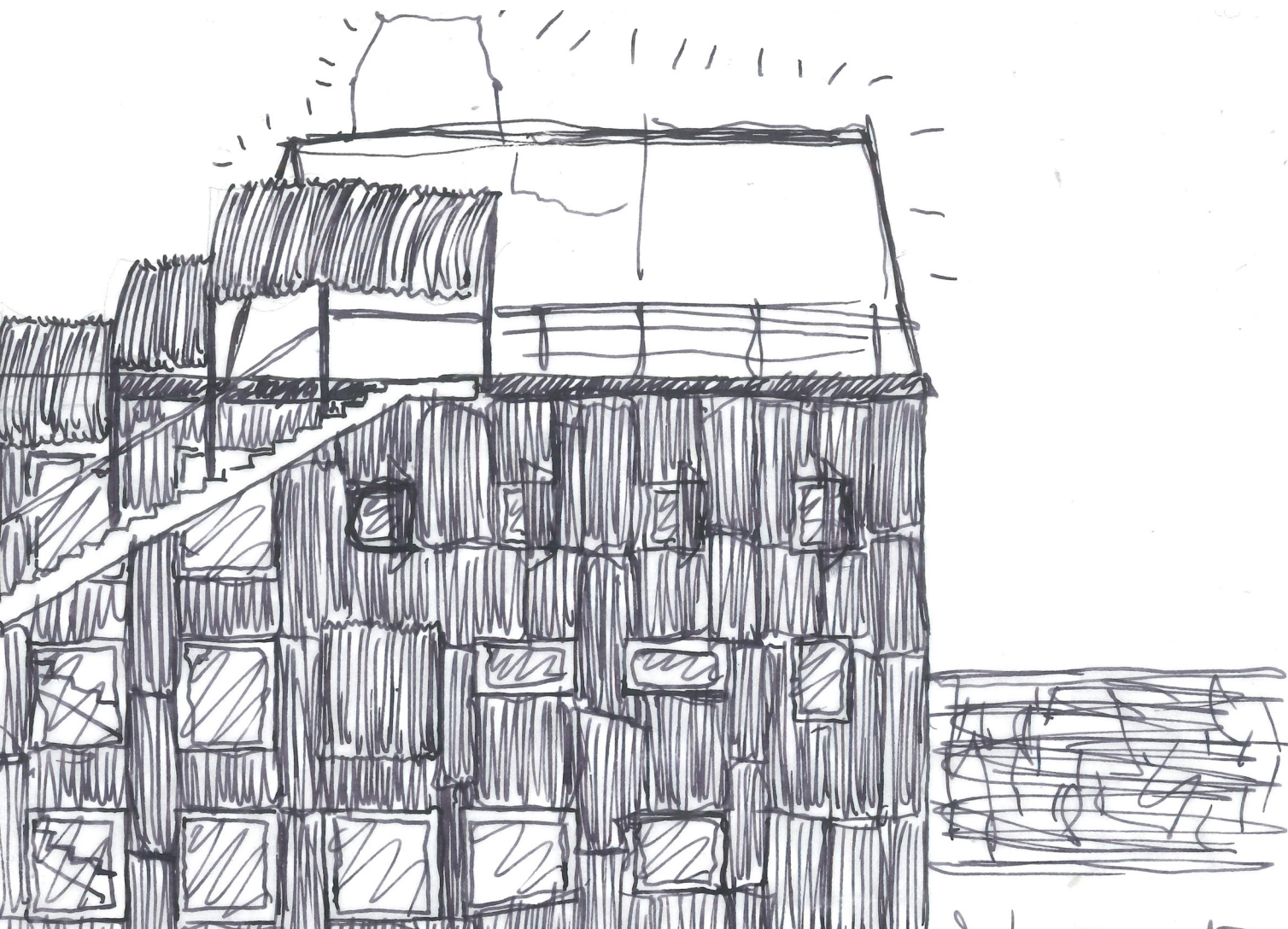
*consider the structure from the
ground and from perspective*

going up

what are the symbols?



- materials
- rural form
- construction
- Search/Survey



going up

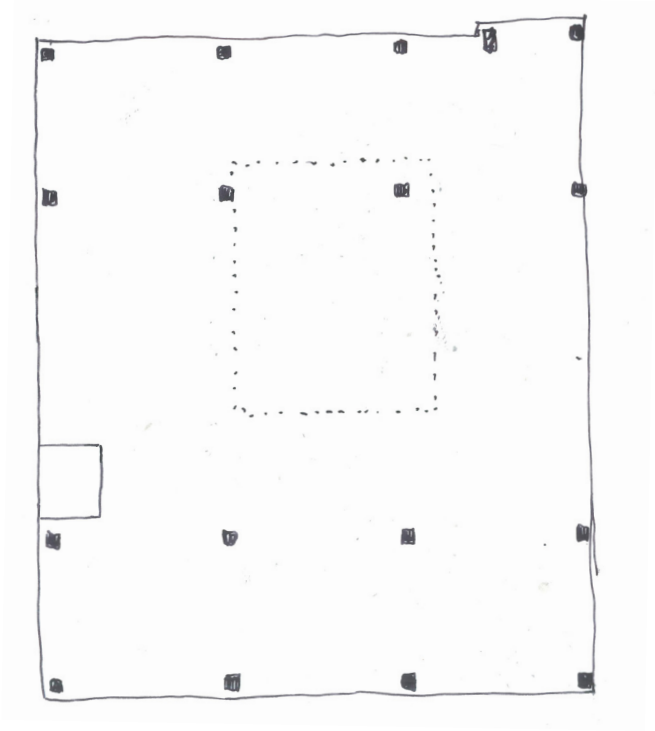
Can the roof be a pure representation of environmental strategy?

A 4th funnel? *

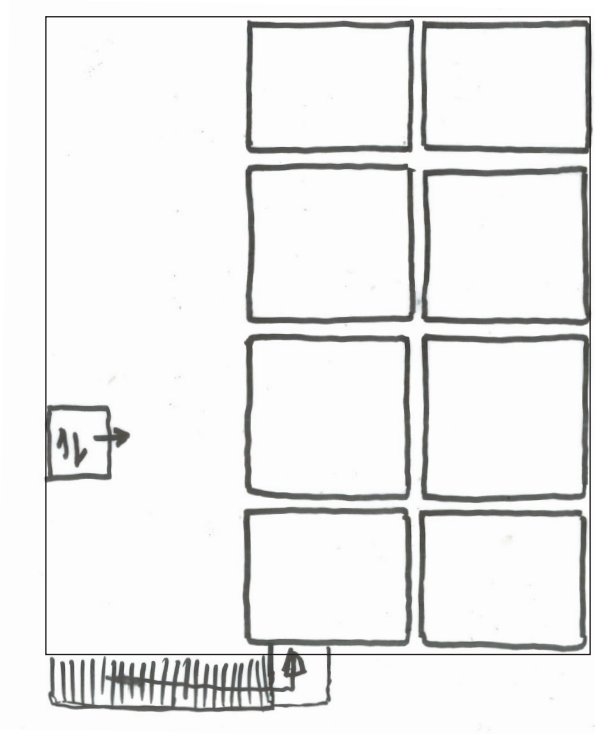
A search tower?

A lookout? *

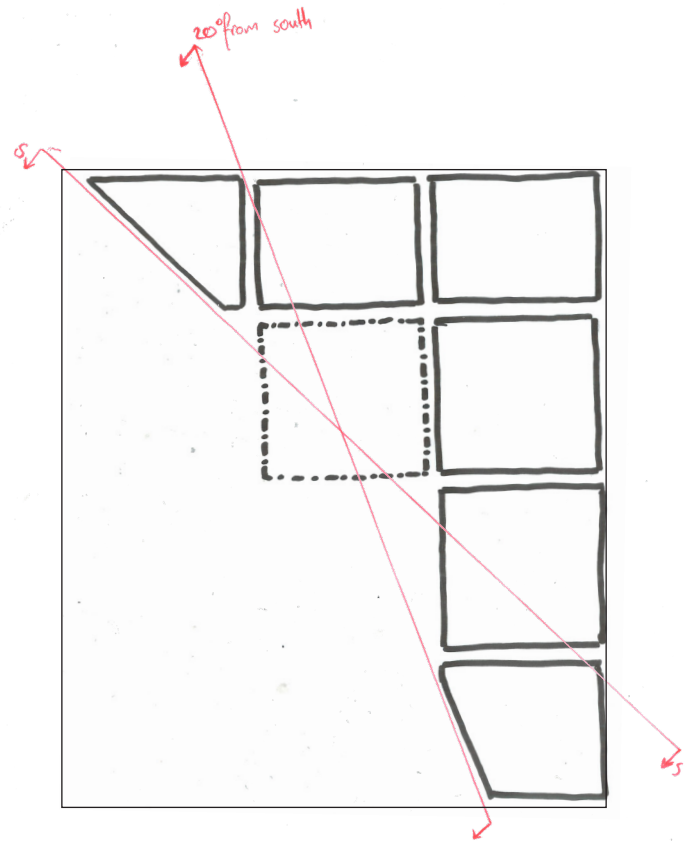
going up



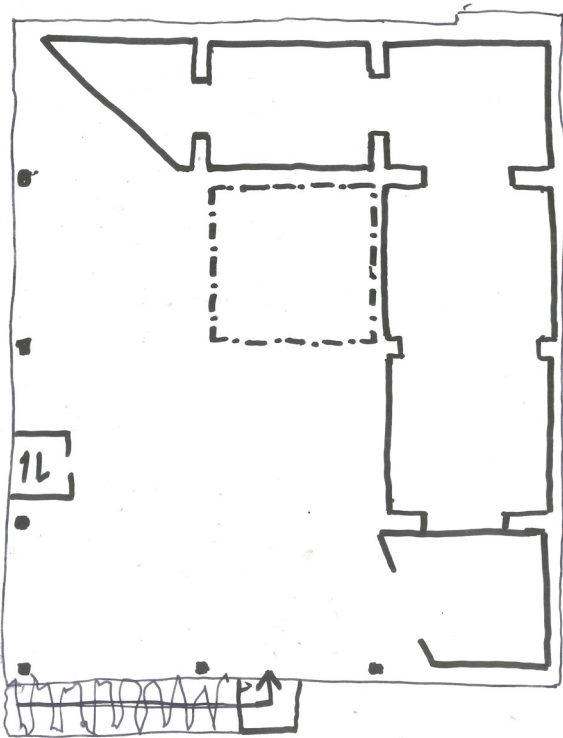
the underlying grid



the grid inverted into massing

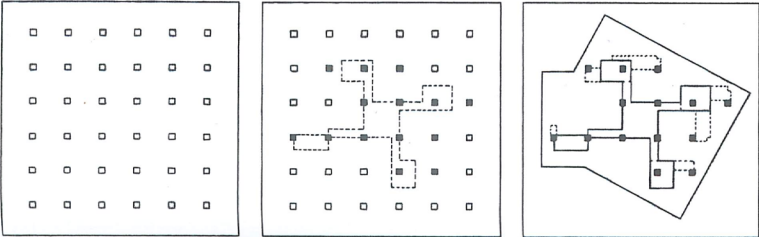


modulating for function
(facing south)



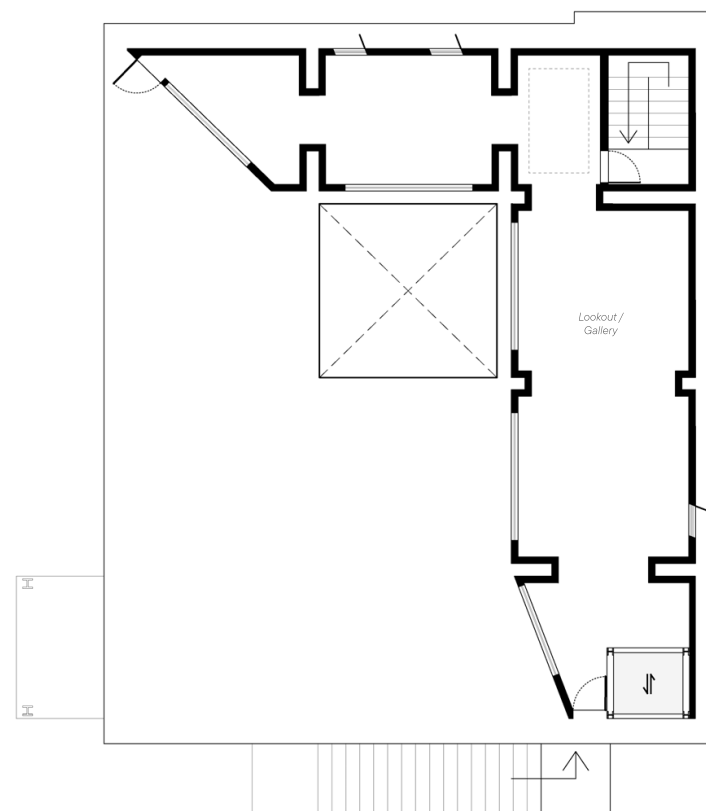
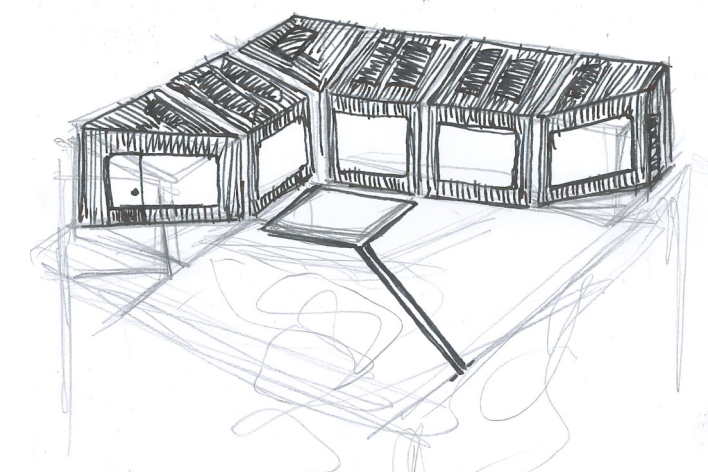
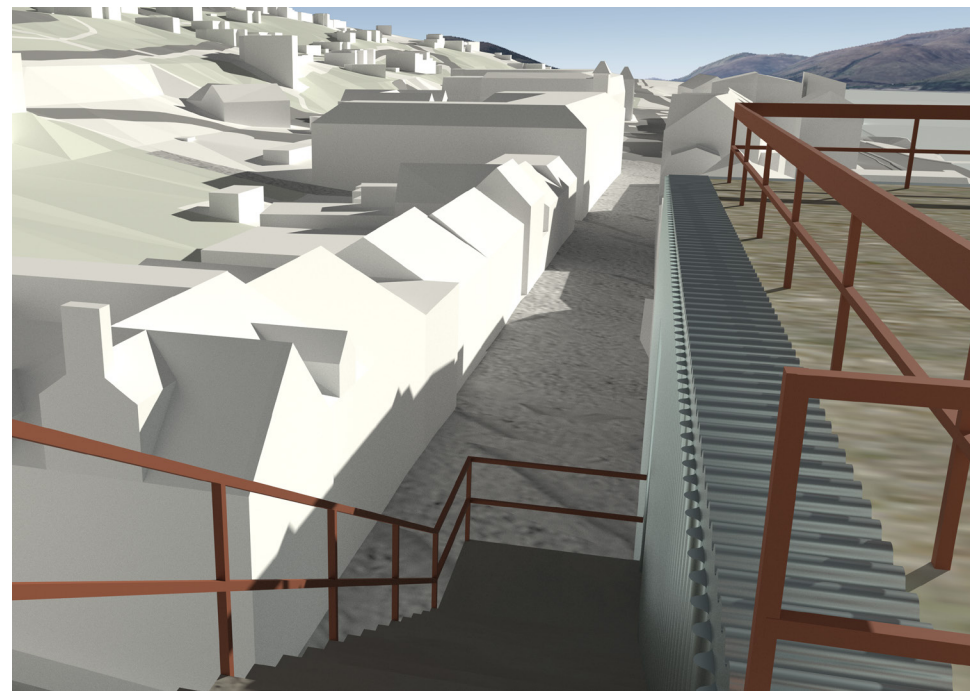
becoming a space

reference: grid giving form and allowing for expression

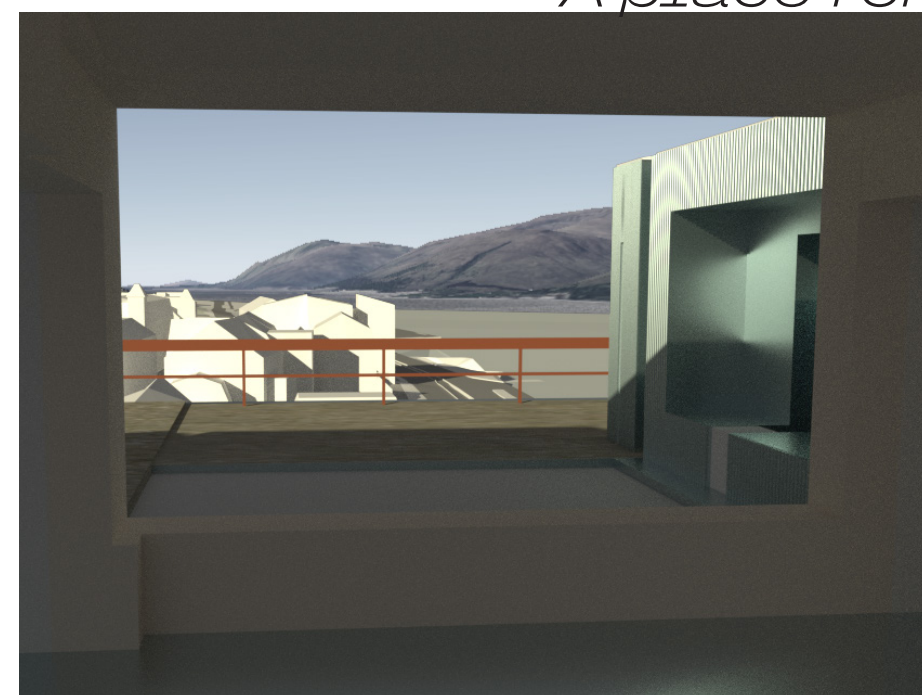


Hertzberger, H. (2014) Architecture and Structuralism

going up

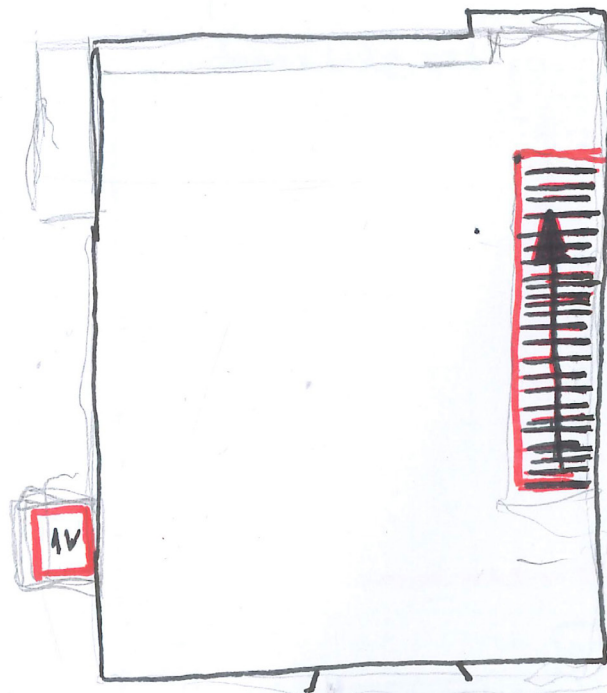


A place for

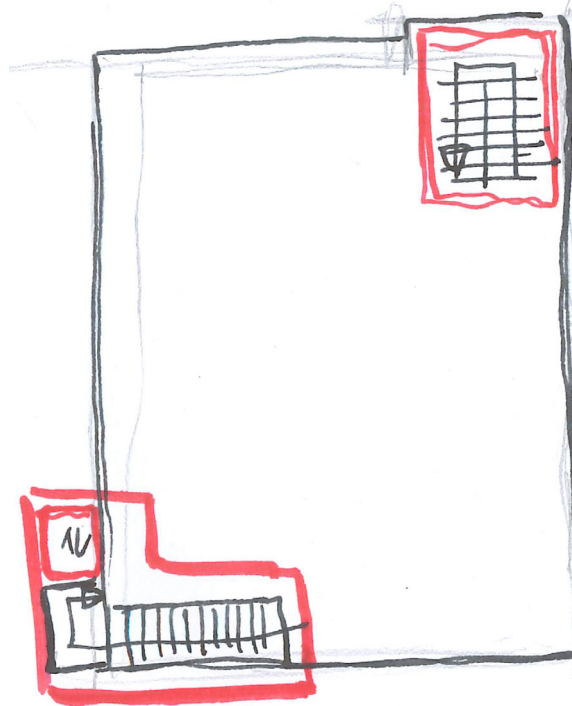


*exhibition
looking
peace
gathering
reflection
meeting
rest*

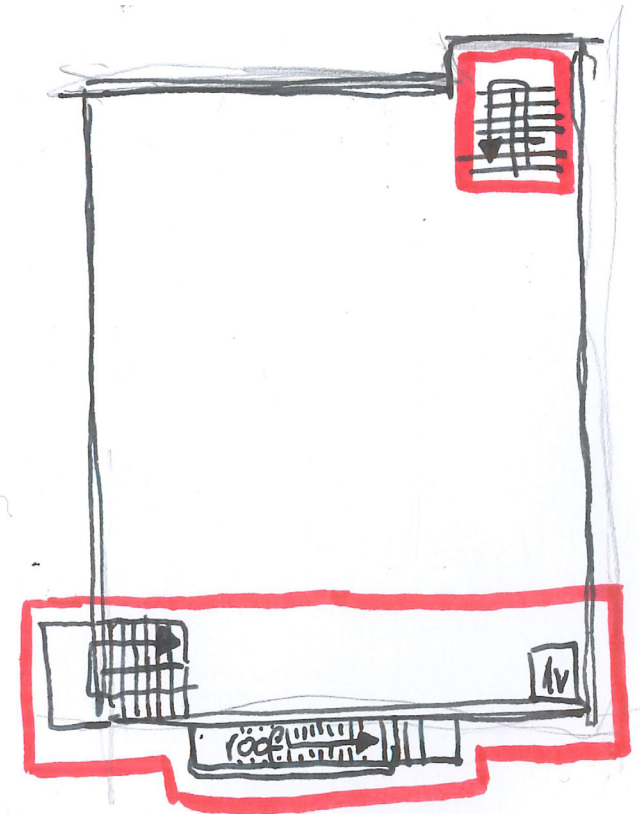
circulation



missing fire escape &
combined circulation core

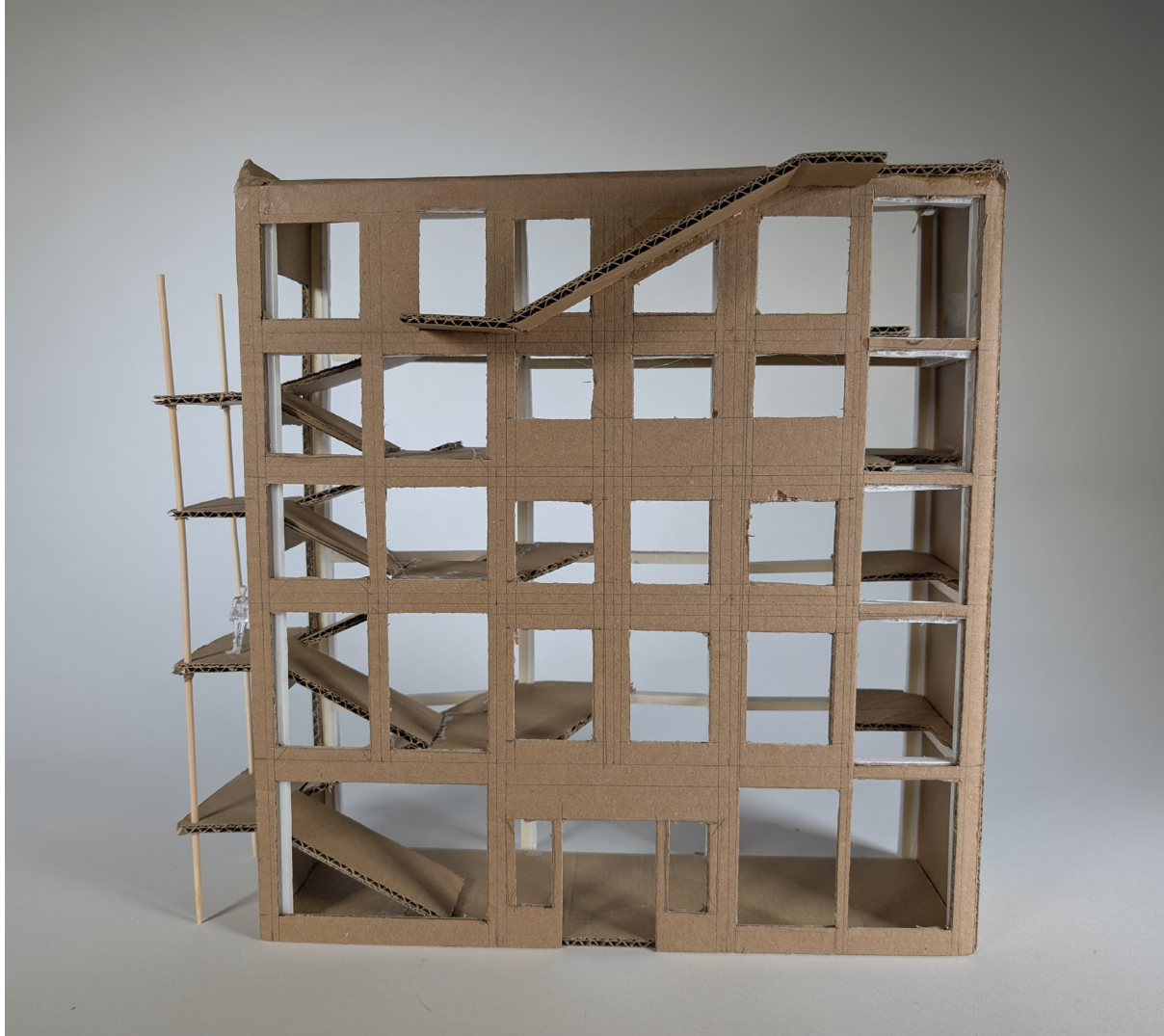


roof access blocks the
south, stairs take up
too much space



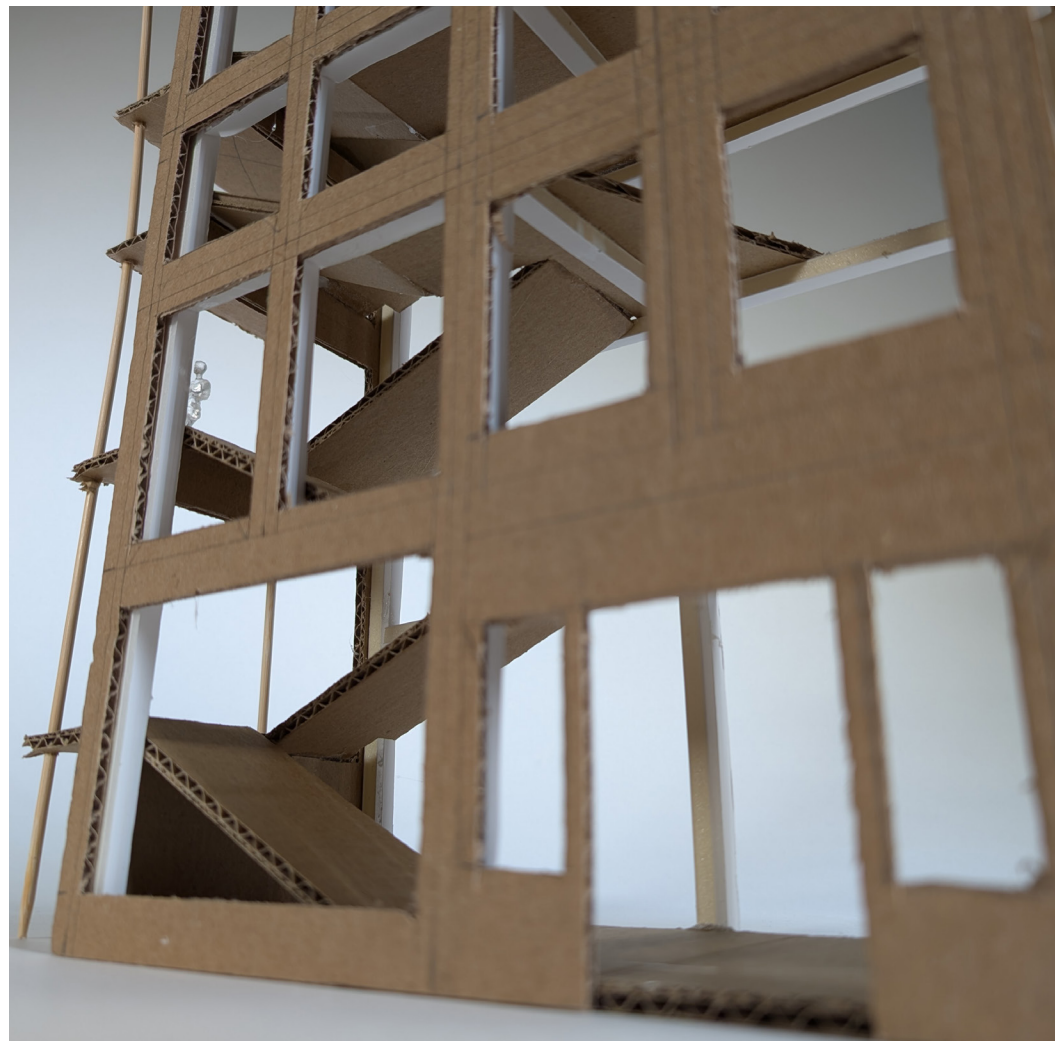
large, public circulation
core taking advantage of
south light. ~~space~~ Separates
public & private well

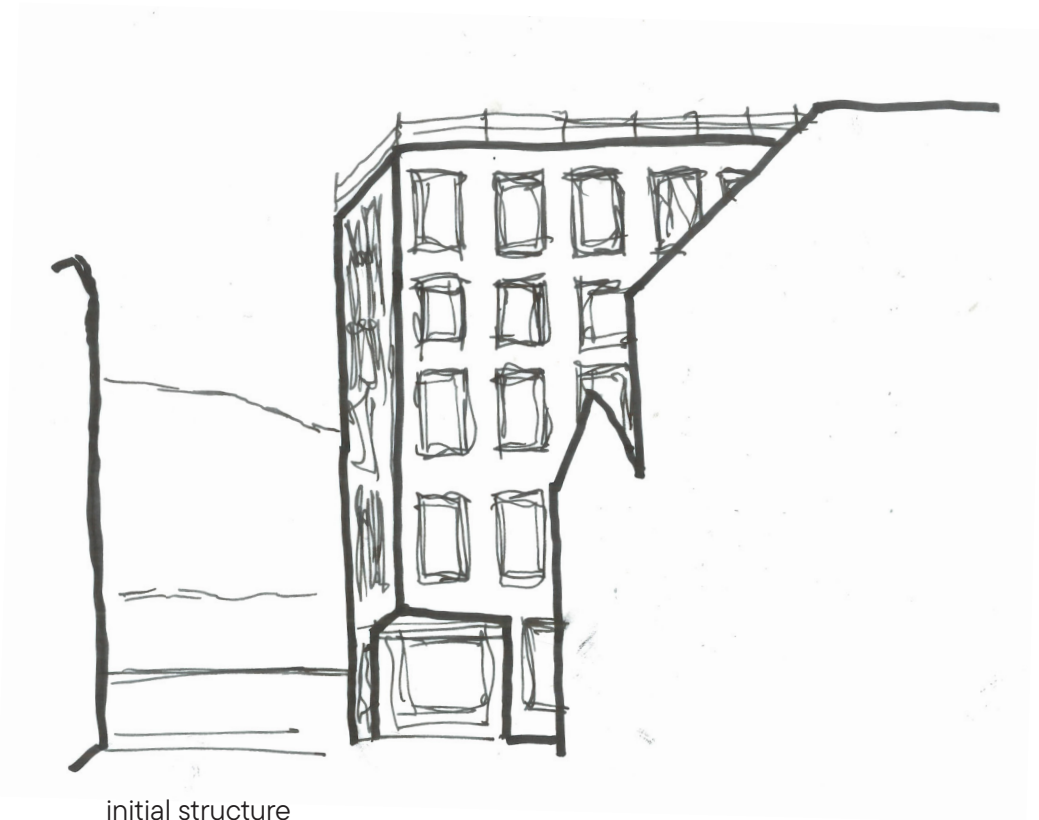
● circulation core



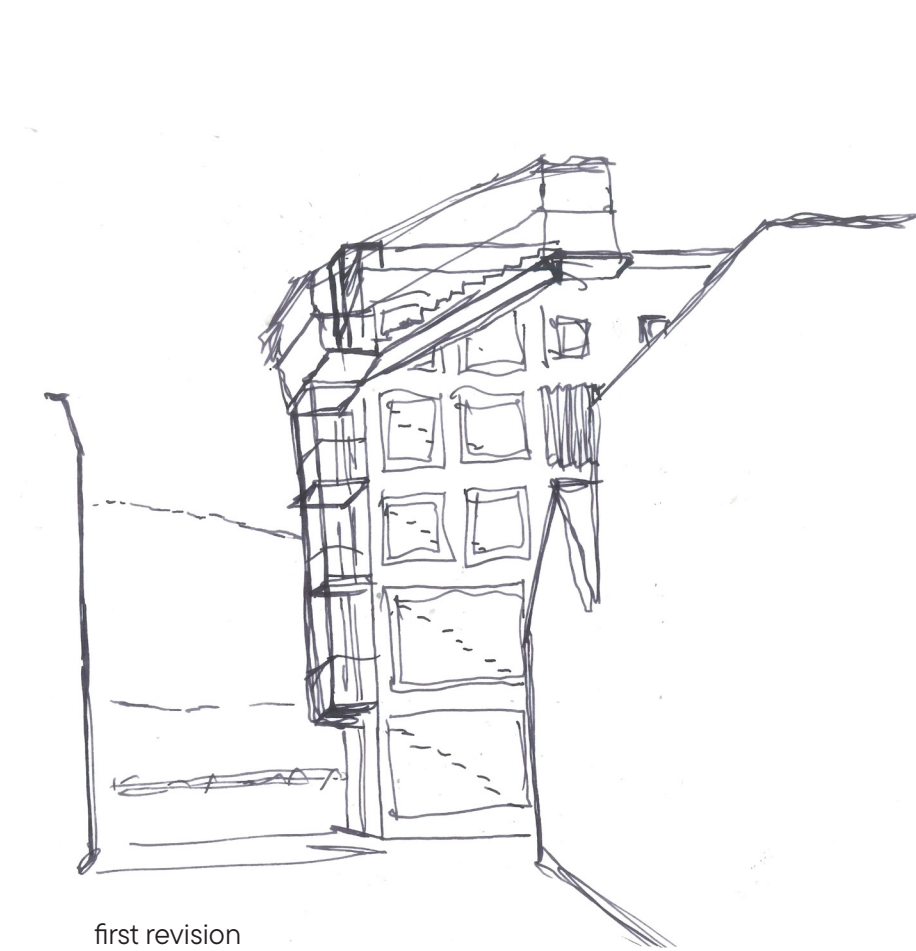
circulation

*1:50 circulation
core model*





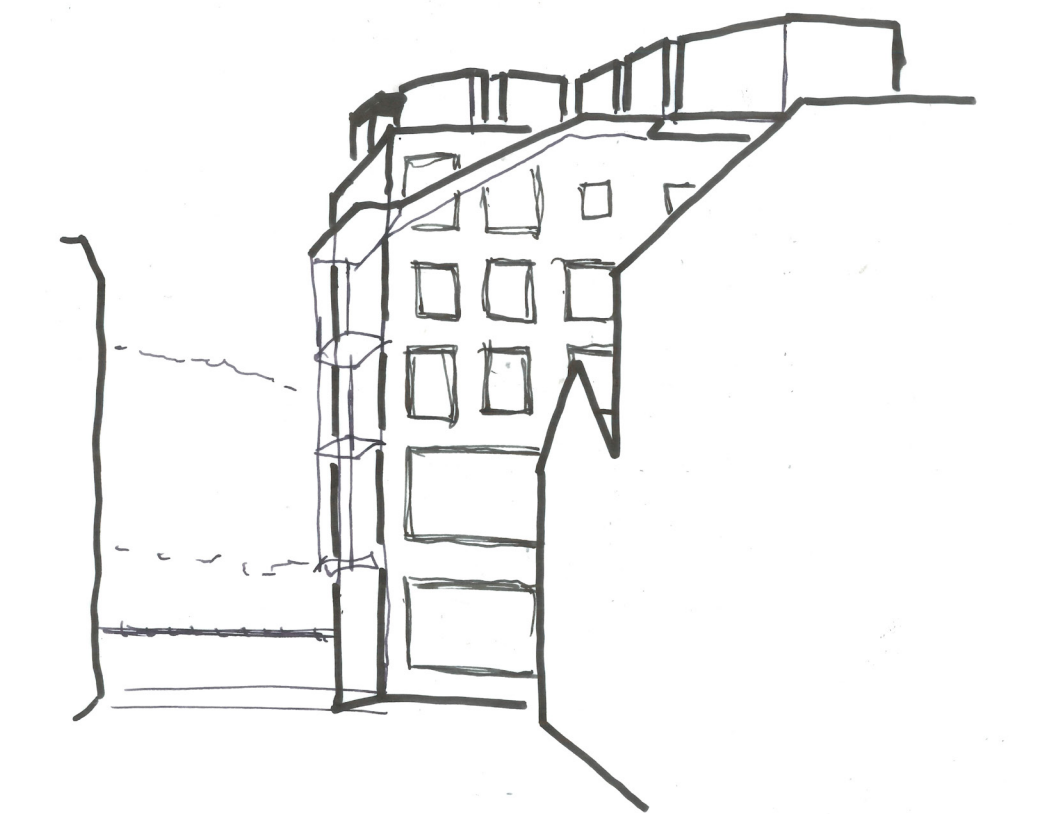
initial structure



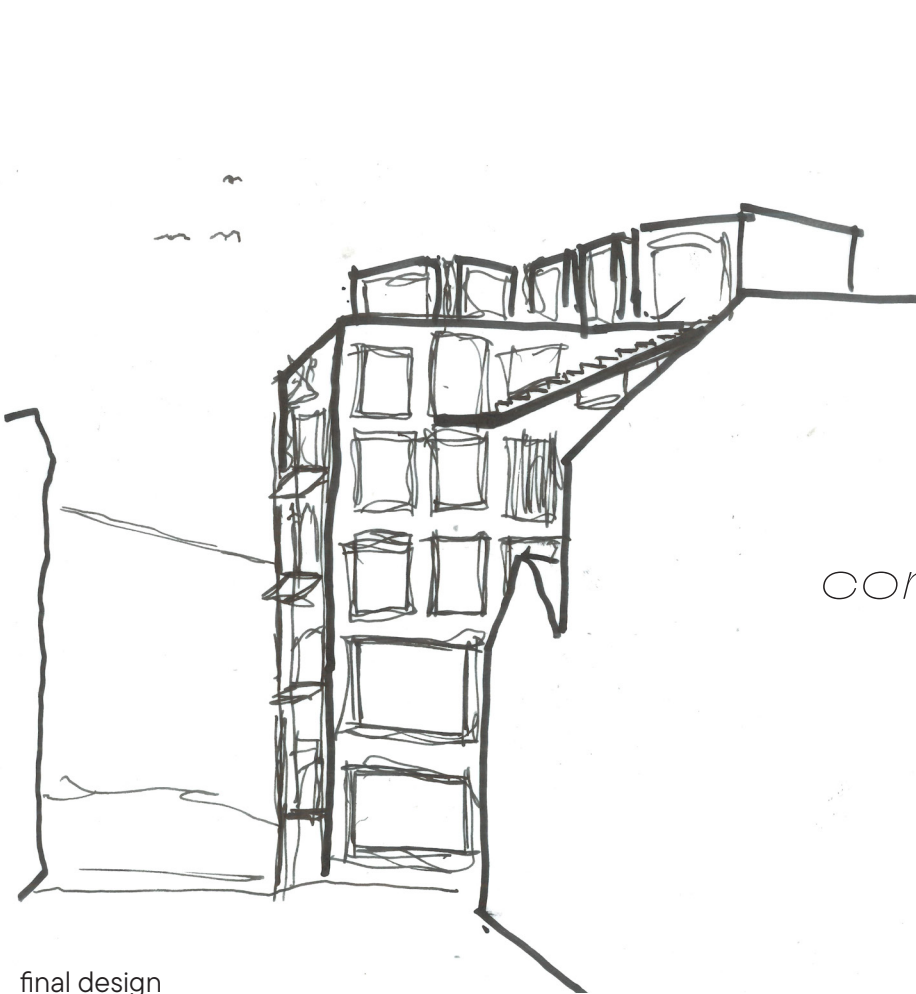
first revision



what's on the roof?



that's on the roof

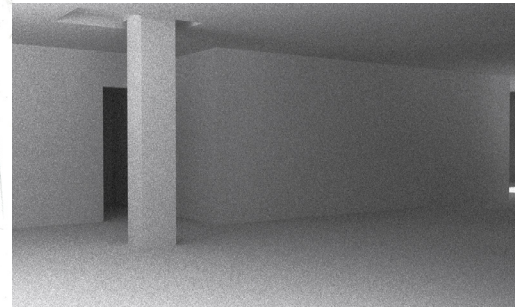
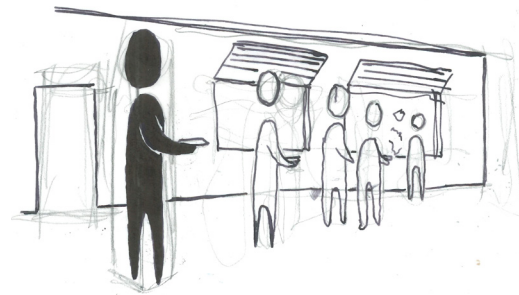
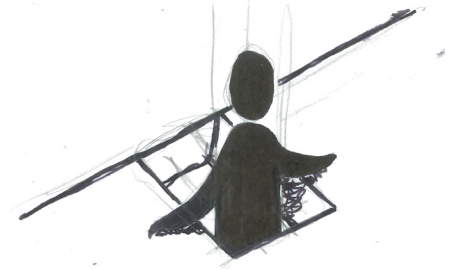
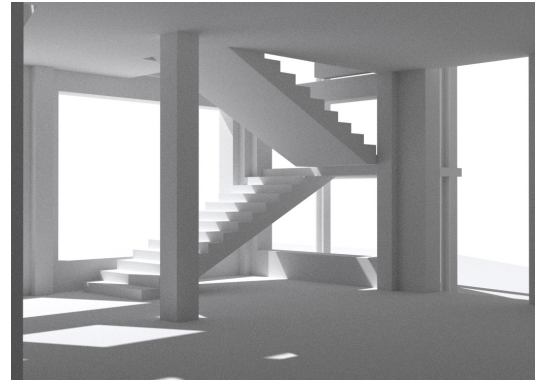
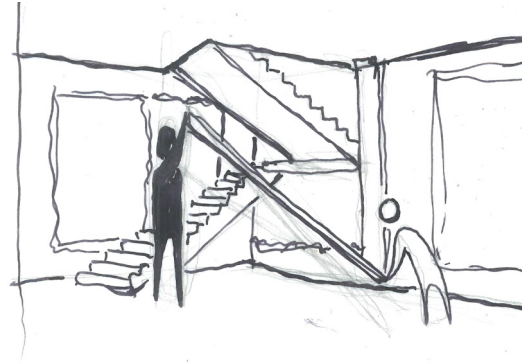
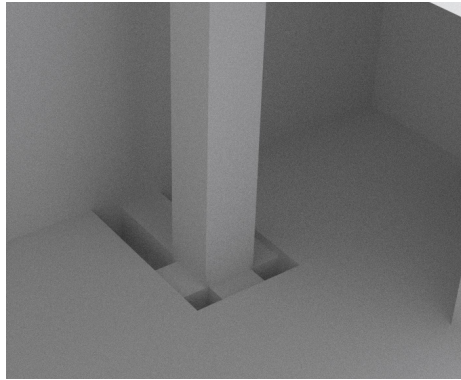


final design

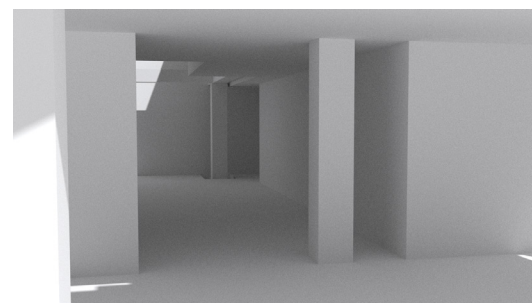
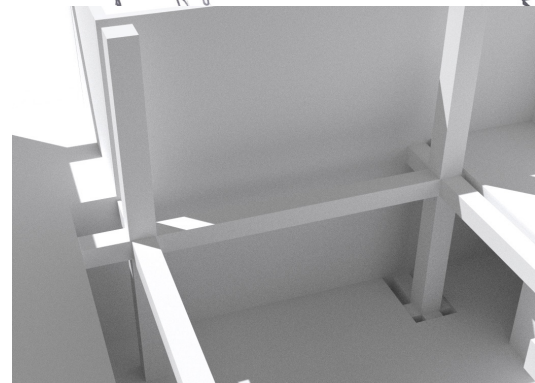
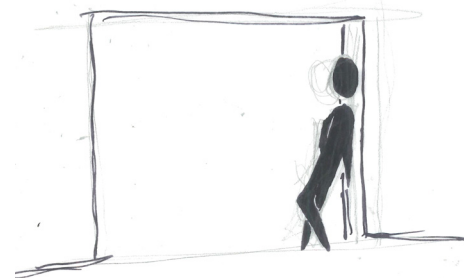
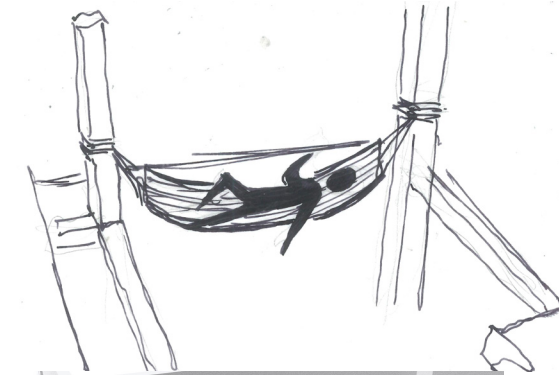
circulation

*consider the structure from the
ground and from perspective*

inhabiting the space - Pillars as People



show the frame

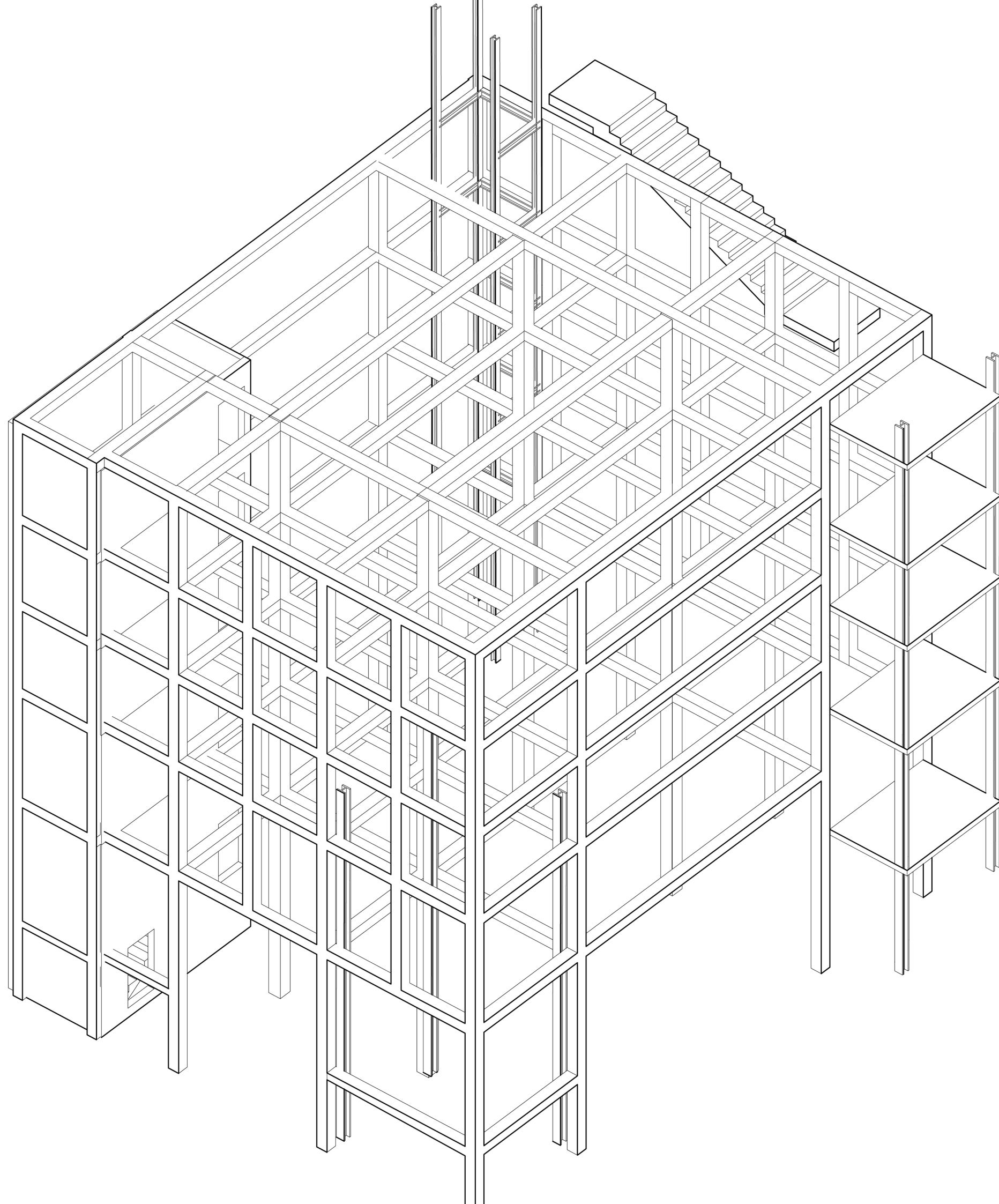


KAZUO SHINOHARA - House on a Curved Road

Japanese architect Kazuo Shinohara's work confronts frame and structure in many ways, and in this home in Tokyo it is presented as a unifying feature of the space, yet somehow also as an almost alien element, deliberately out of scale to the domestic functions of a home. In bedrooms and corridors it abuts and creates unusual, angular spatial configurations and symmetries, but in the three-storey high central space the pillars become monumental cruciforms that give the space form and meaning.

Treating the frame as not just a form-giver but as it's own symbolic entity allowed me to be more bold with arrangement of spaces; if the frame is already adjusting form and spatial organisation across the building, one might as well be honest about it's existence and celebrate it.





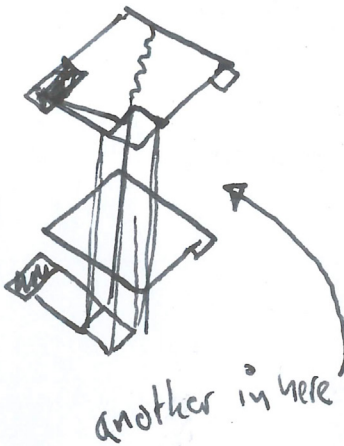
show the frame

More Workshop space is needed -
but what form should it take

— loose fit

— less intense

— CONNECTED



— SECOND — overflow, divided between
work and life



— FIRST — connected, open, where
theory & research meet practice



— GROUND — Entrance, loading,
intense work



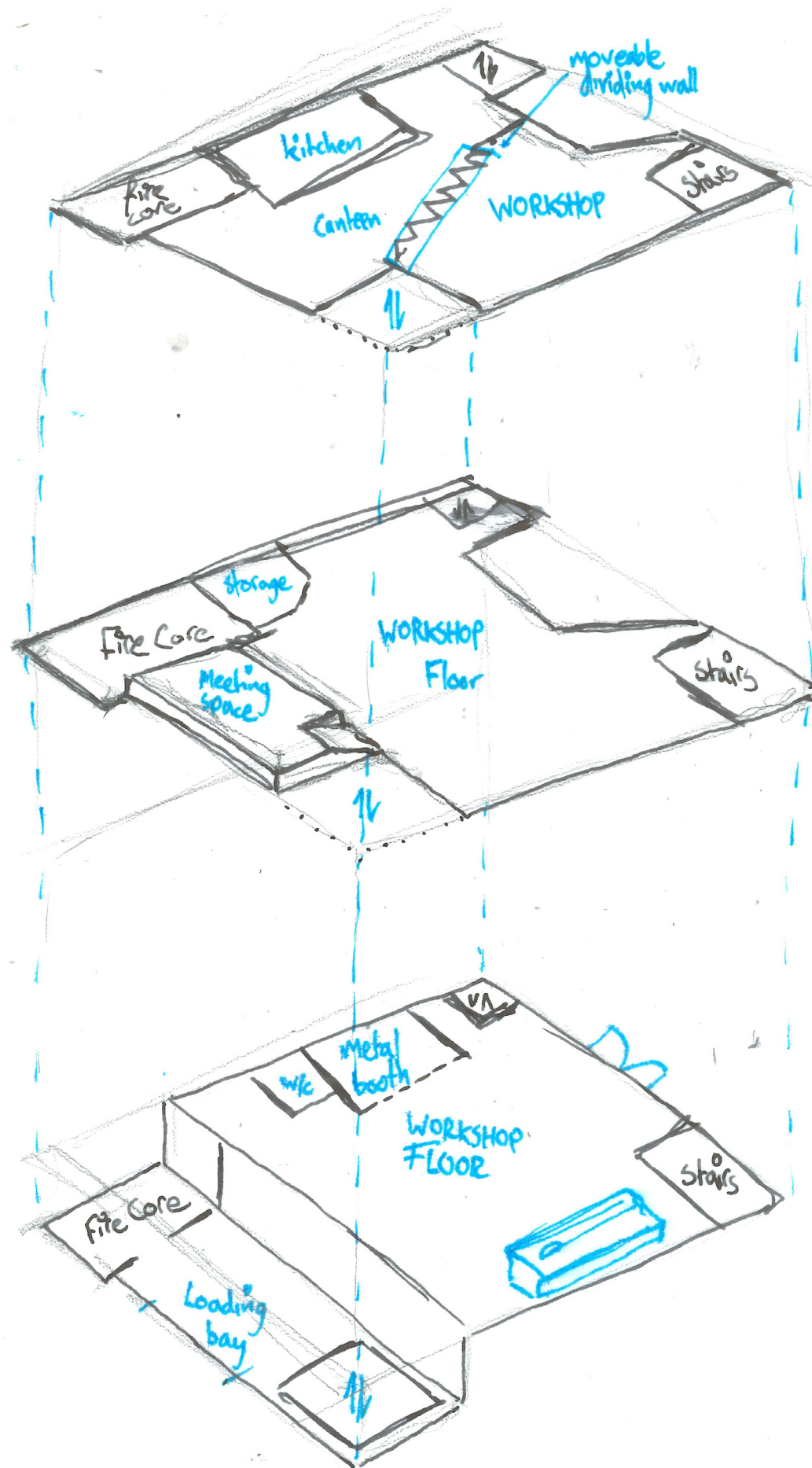
precedents:

second - Riversdale Art Centre, Glenn Murcutt et al. - an artists residence and workshop, the central hall is a flexible space for meals, group work and music recitals

first - Studio Mumbai office - an extremely flexible architecture office with space for research, computer work and large scale model making and prototyping

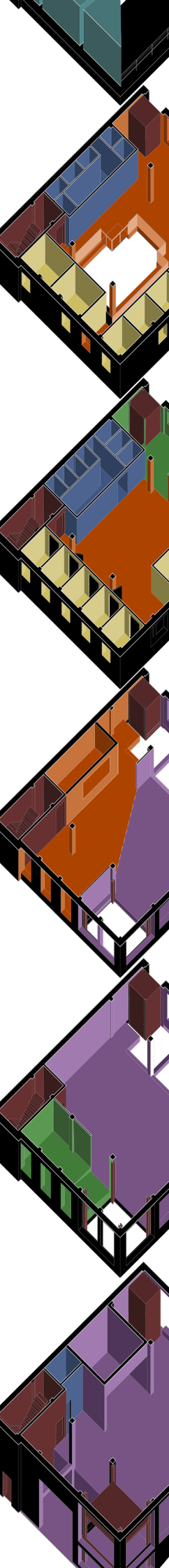
ground - Blackhorse Studios, ASSEMBLE
A public workshop which handles a huge variety of both light and heavy crafts, as needed by it's public userbase

more space for workshops



more space for workshops

Outputs





glen finnan

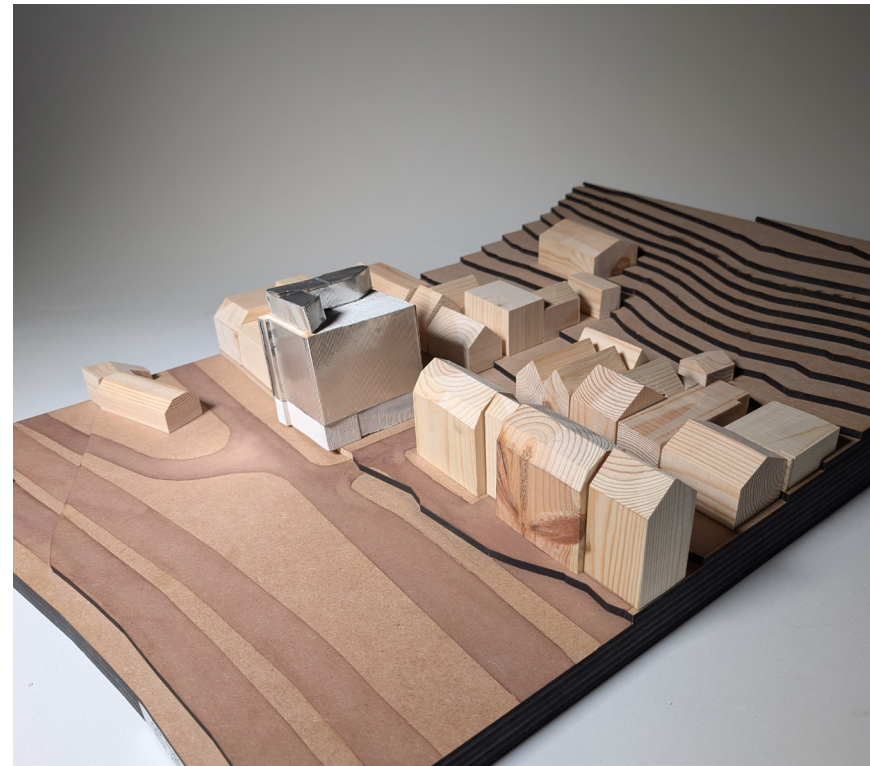
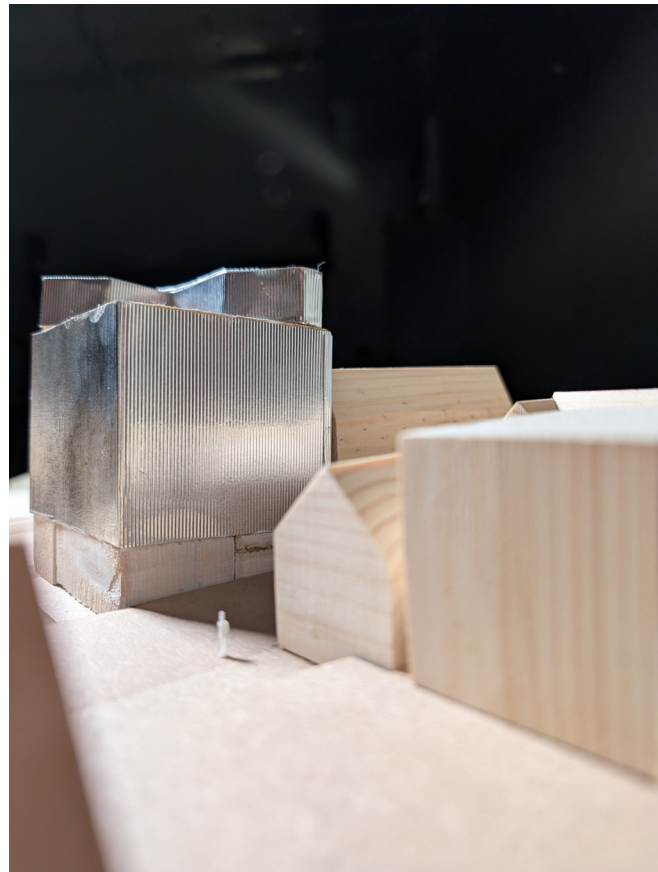
loch

site

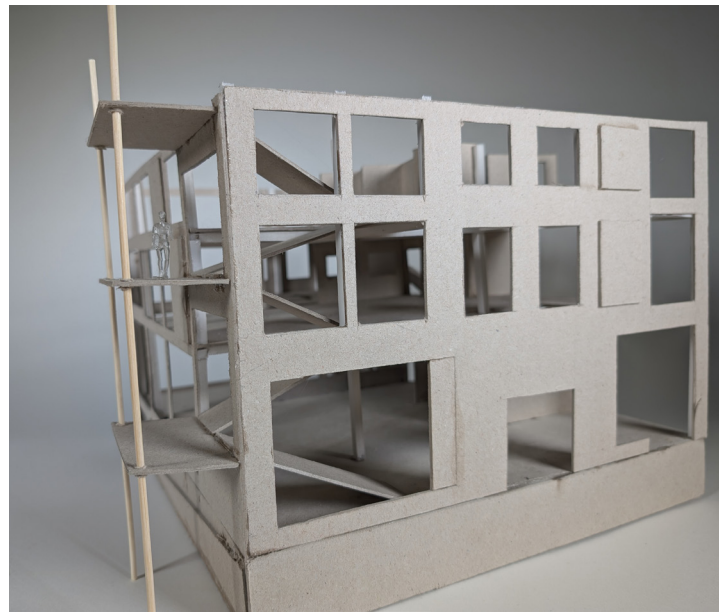
hill

ardnamurchan

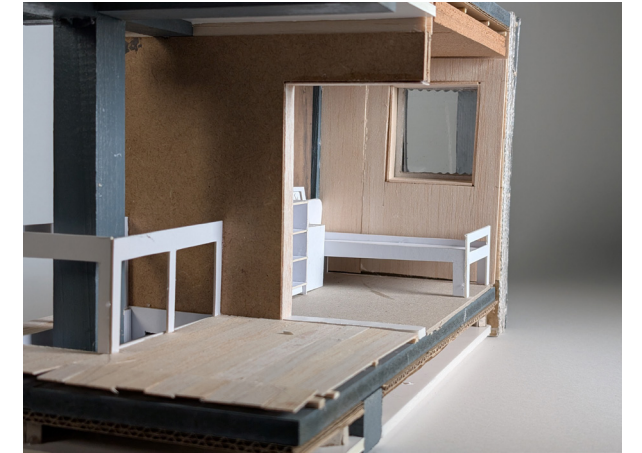
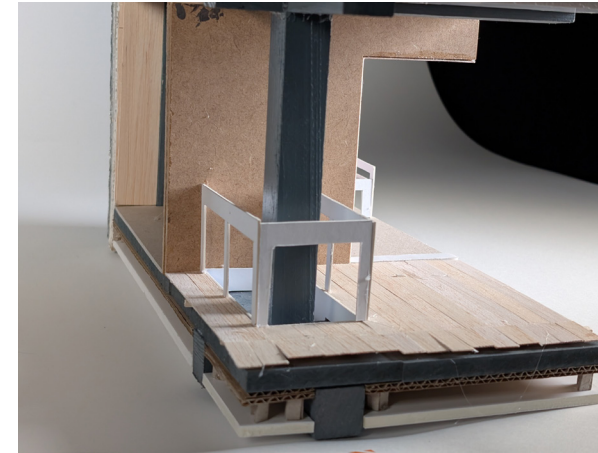
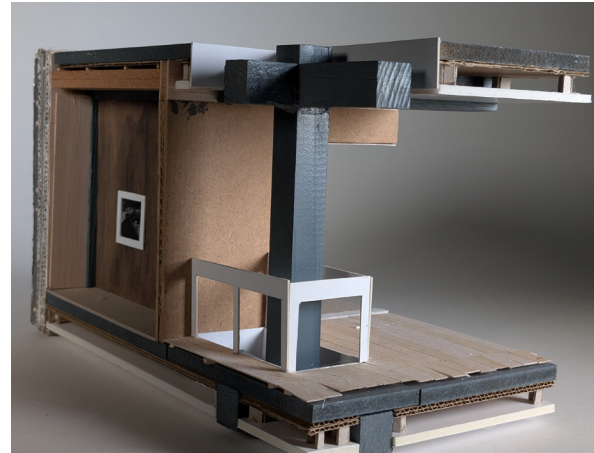
1:200 massing model



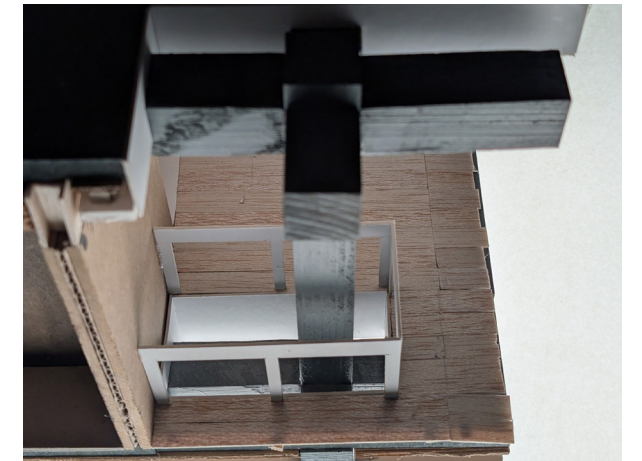
*on a site model by ELIZA KEAY, LAURA PALEY
and DANIEL GALLAGHER*



1:50
workshop
model

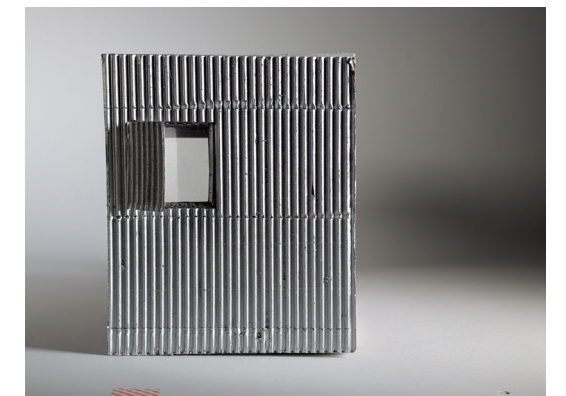
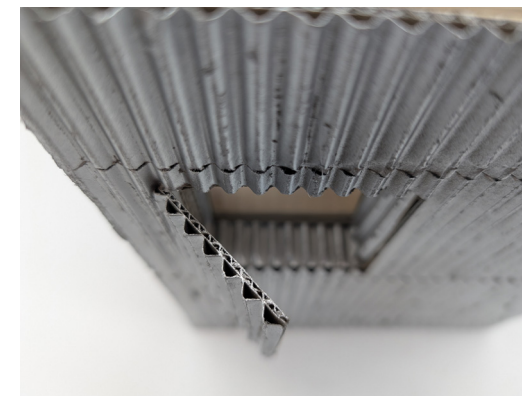


*1:15
“slice”
model*

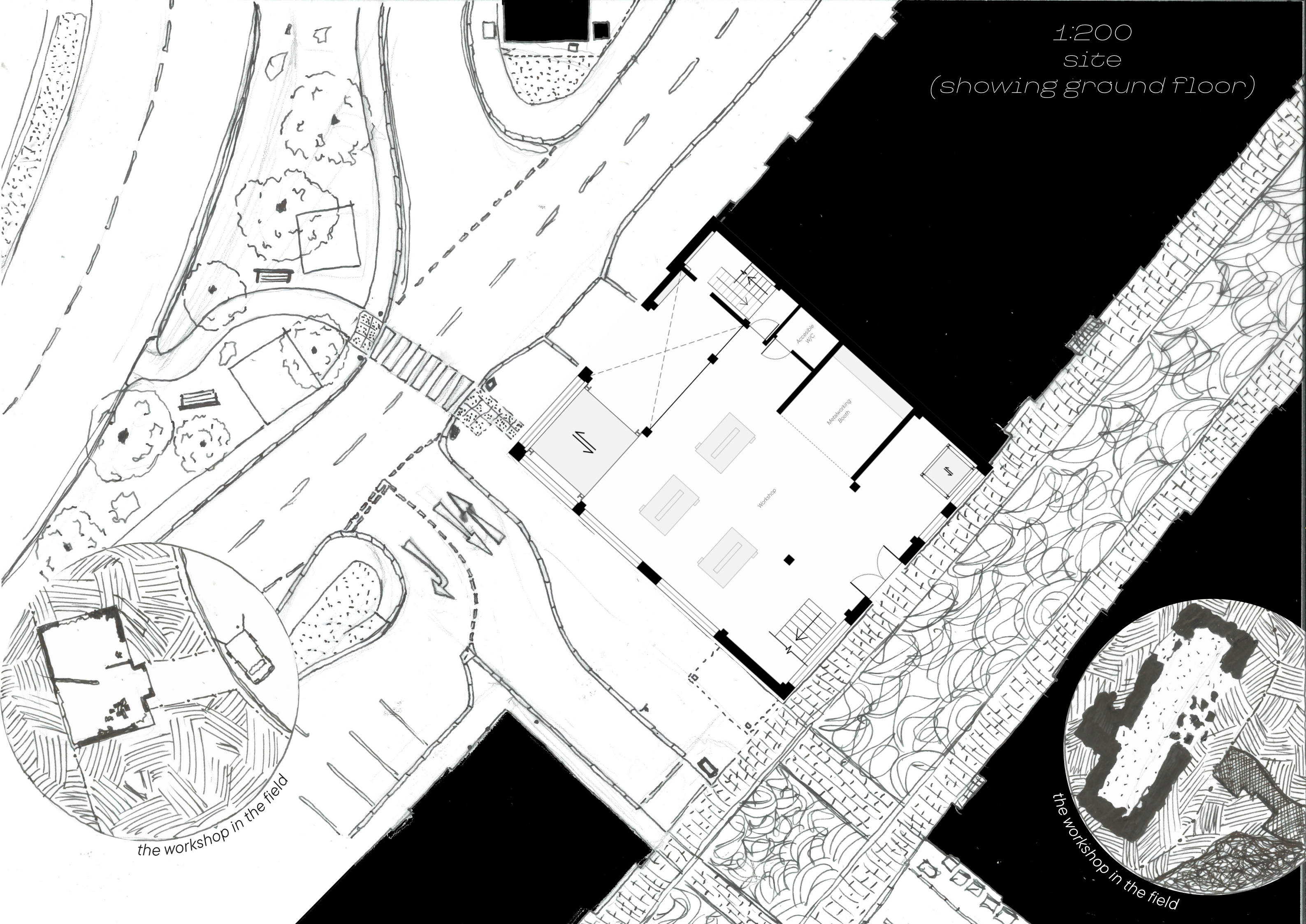


Bedrooms are single, compact nooks, shelters from the busy social and work spaces. Materials used are natural and comforting such as varnished CLT walls and cork ceiling panels (which also act as thermal massing). Windows offer tightly chosen views of Loch Linnhe. On the northwest facade they are sheltered by baffles to direct more natural light into the space.

The frame passes through a small void that connects to the canteen. The void allows light and some sound to penetrate, keeping the spaces linked without intruding on either. The frame dangles through three floors, a pillar seemingly hanging from a cruciform suspended in the void above. No longer just a support, the old fabric inhabits the new in exciting ways.

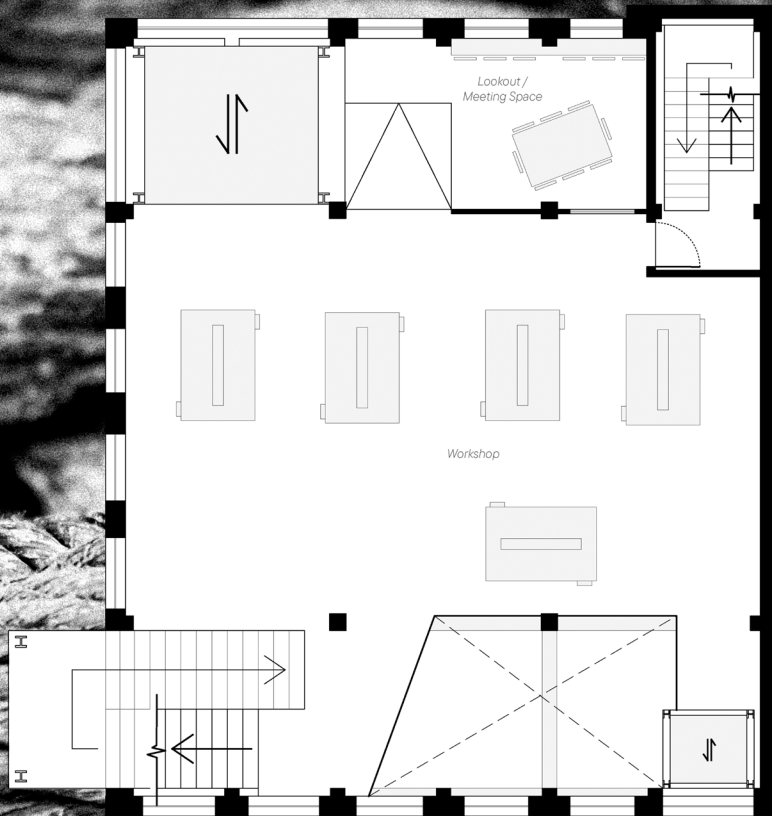


1:200
site
(showing ground floor)

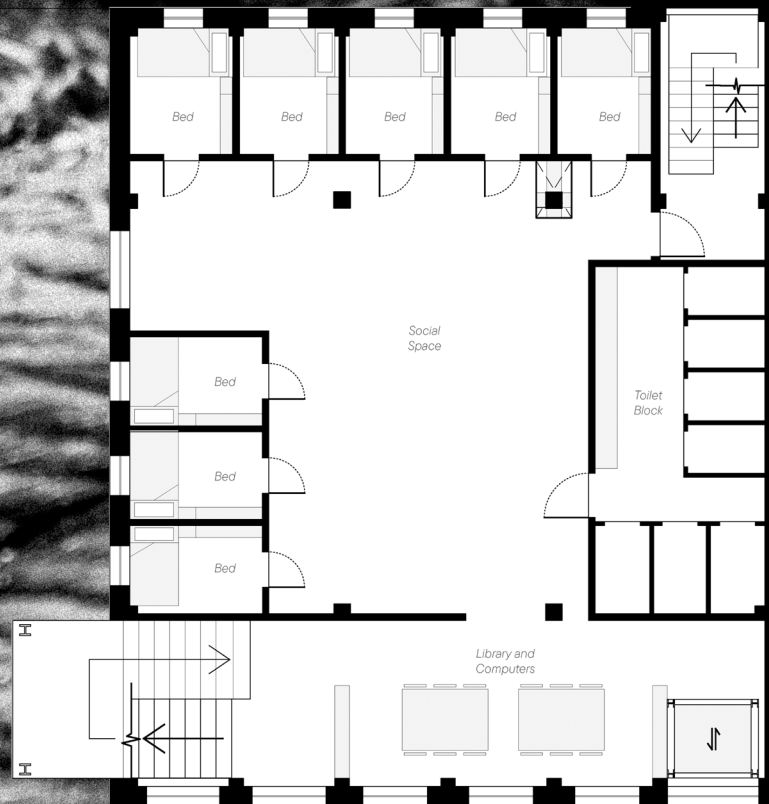


the workshop in the field

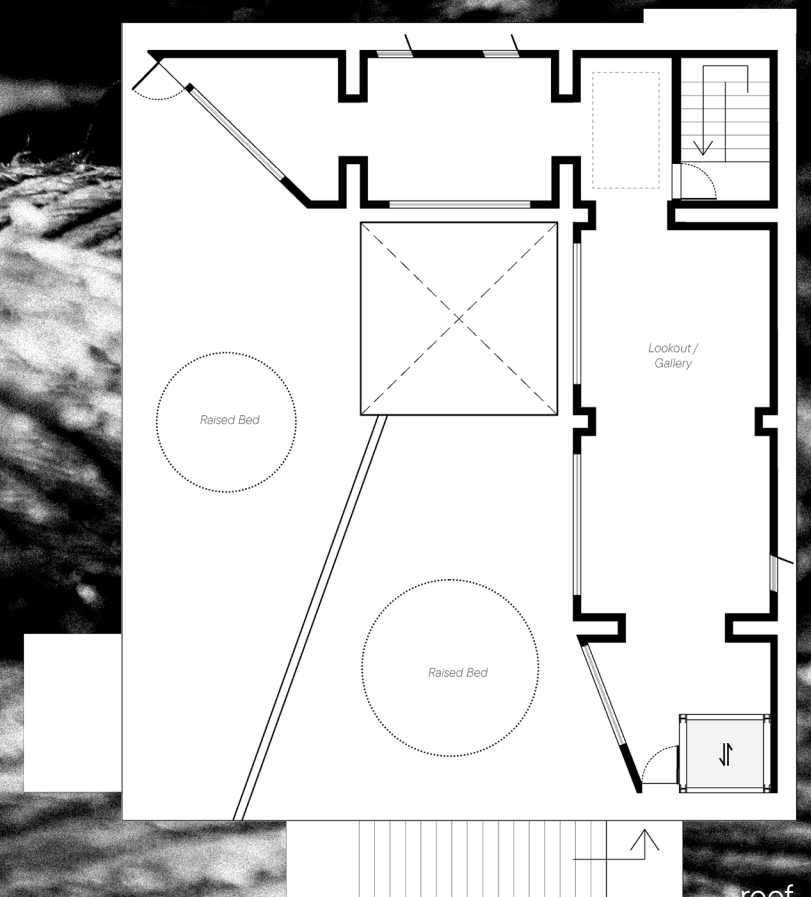
the workshop in the field



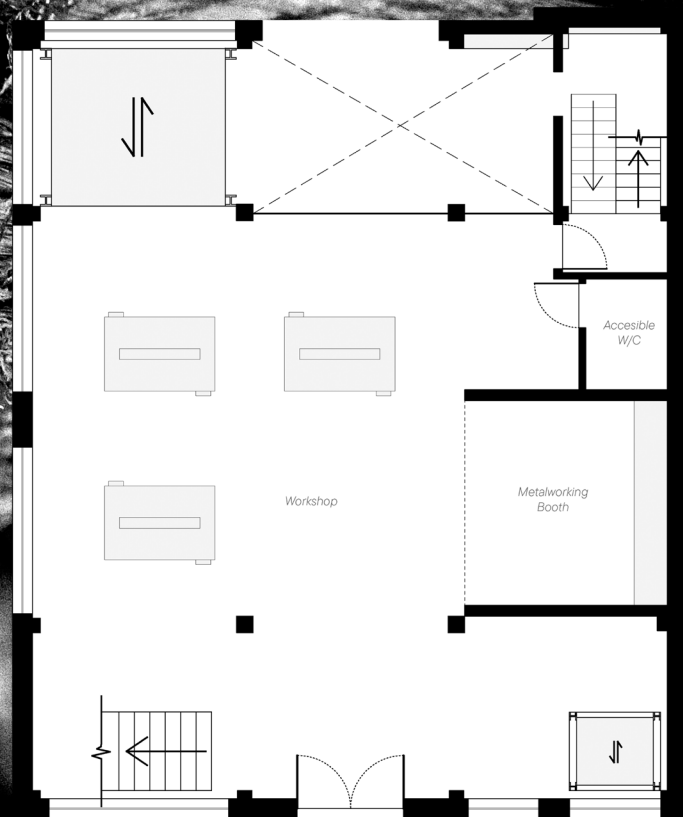
first



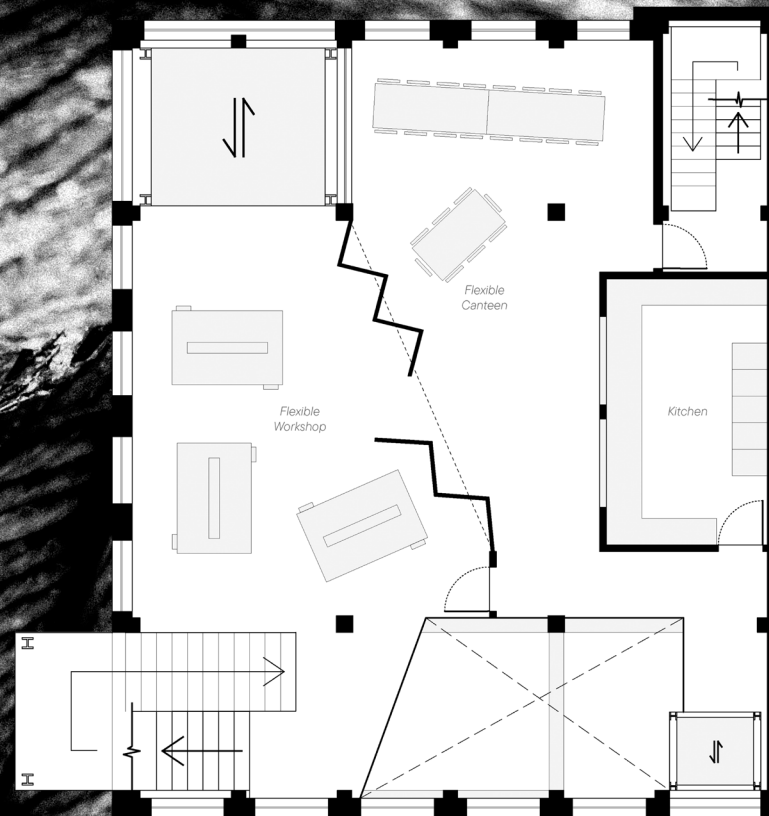
third



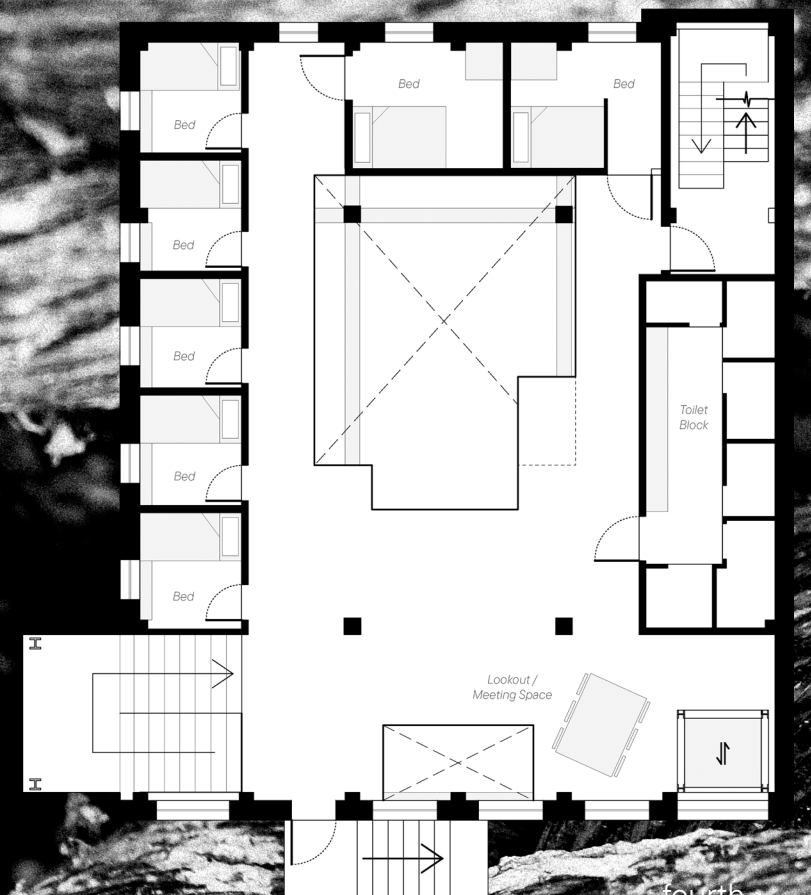
roof



ground



second

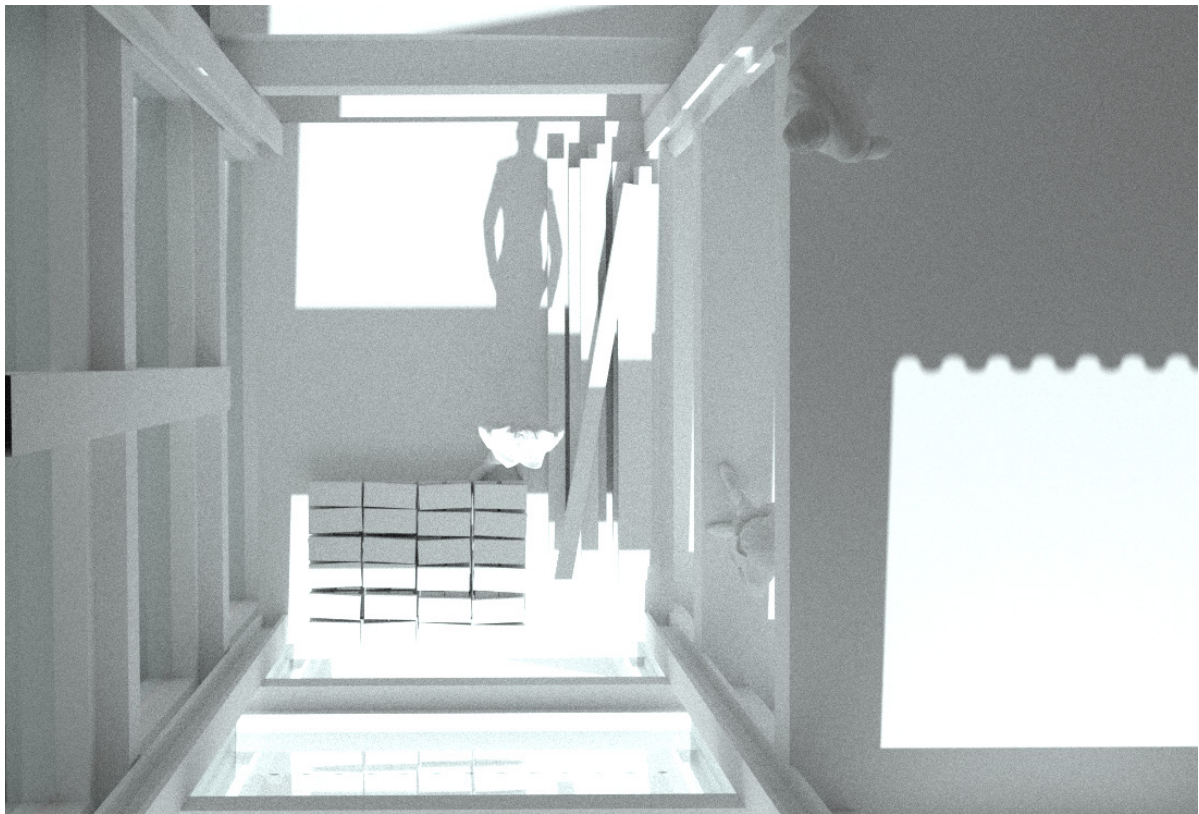


fourth

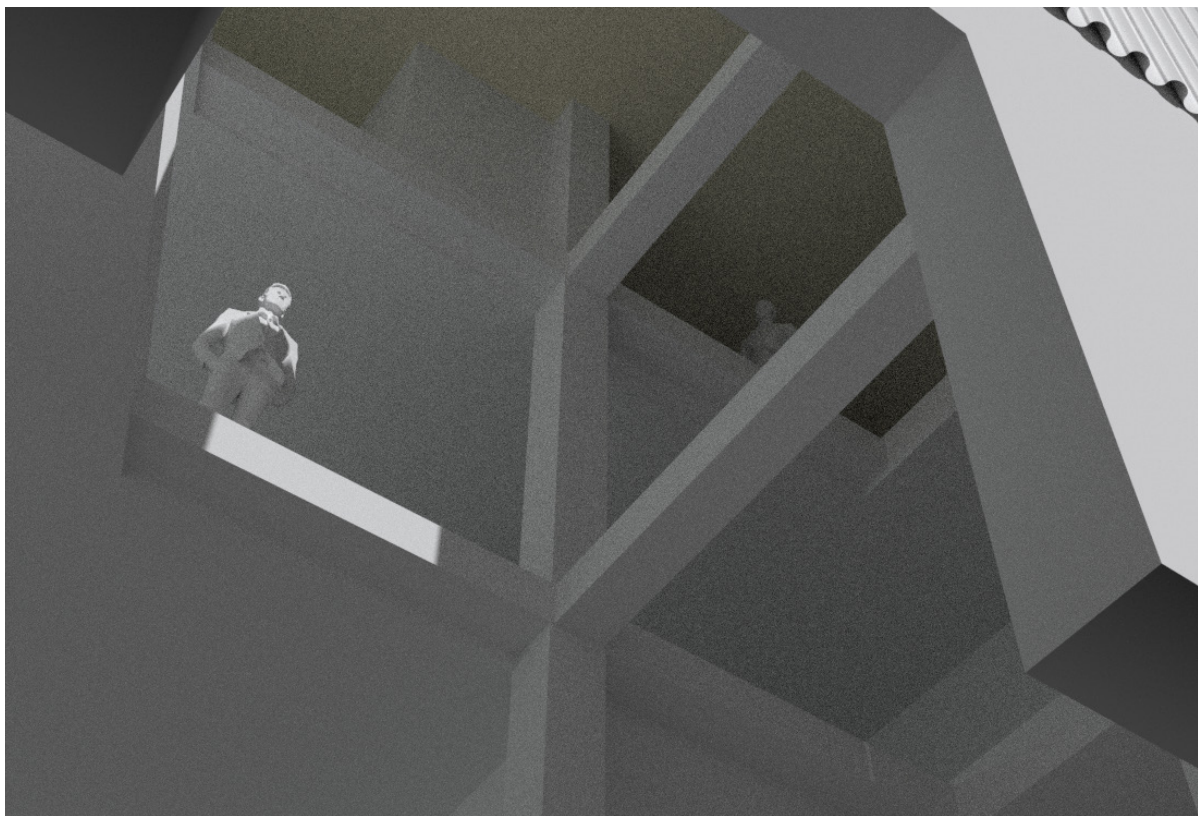


lower ground

1:200



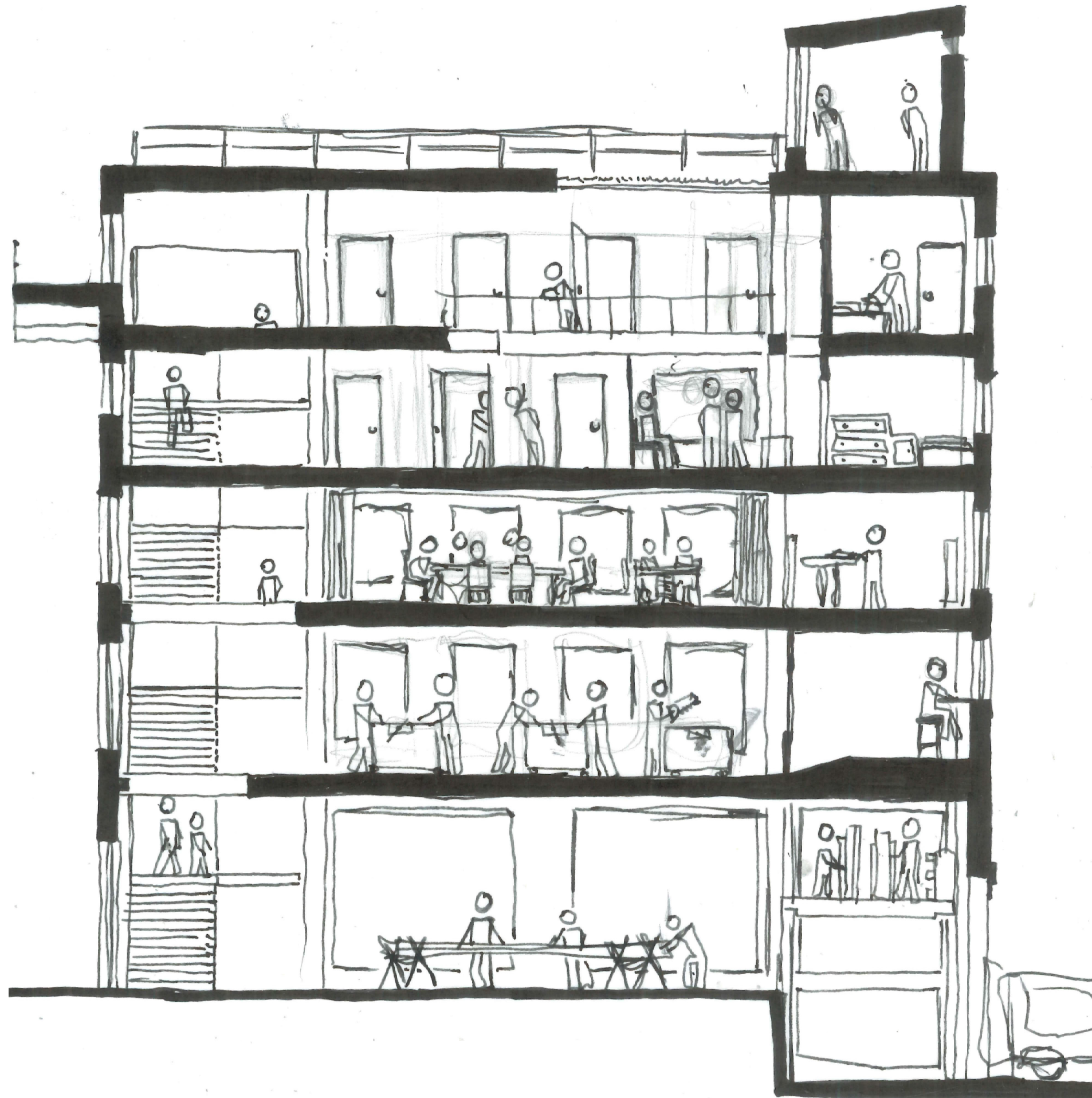
renders of site



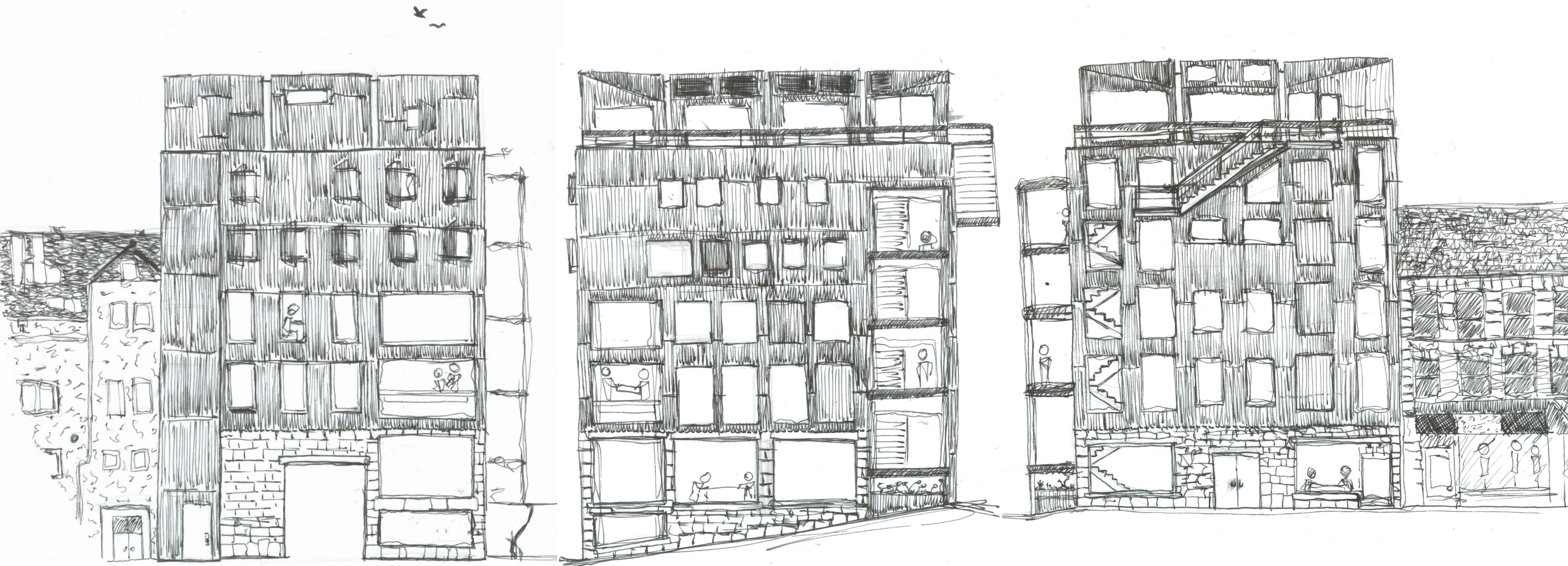
1:100 section facing northwest

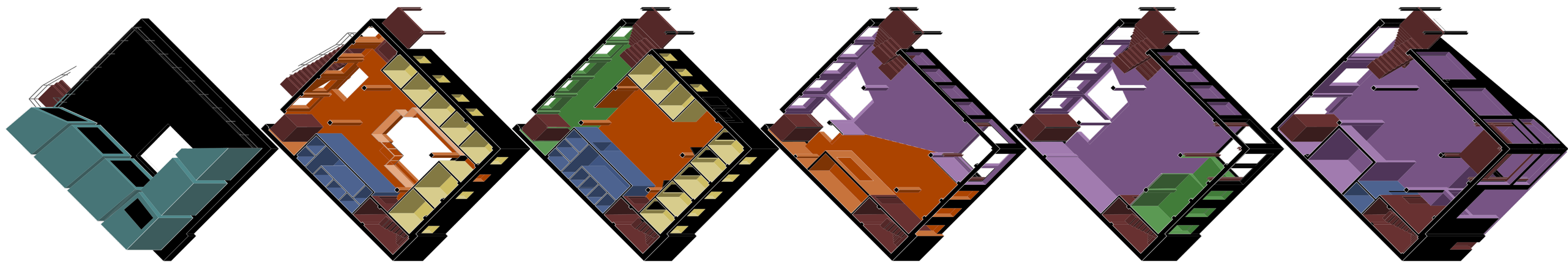


1:100 section facing southwest



1:200

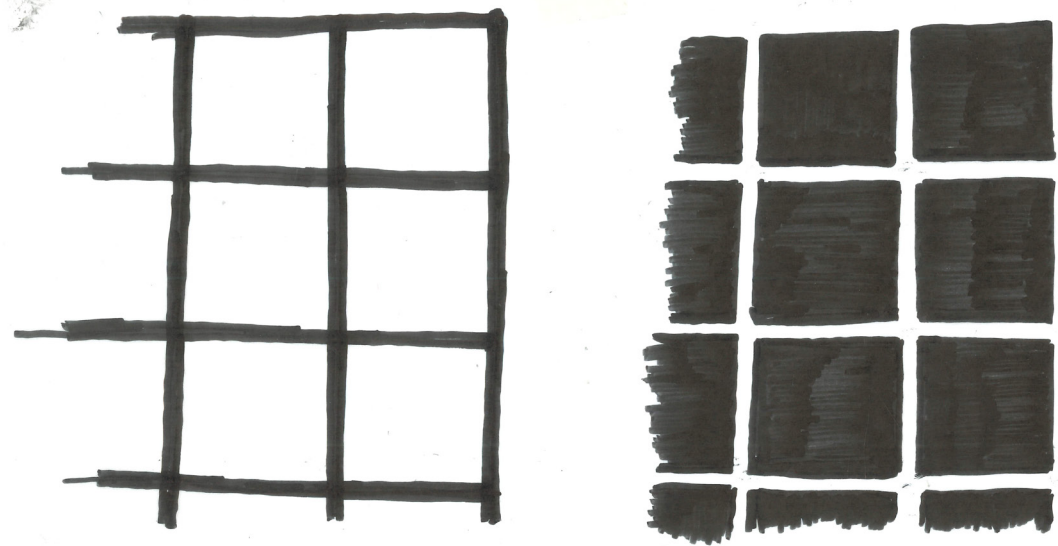




axonometric
axonometric

- workshop
- circulation
- facilities
- research/library
- social space
- bedrooms
- reflection/exhibition

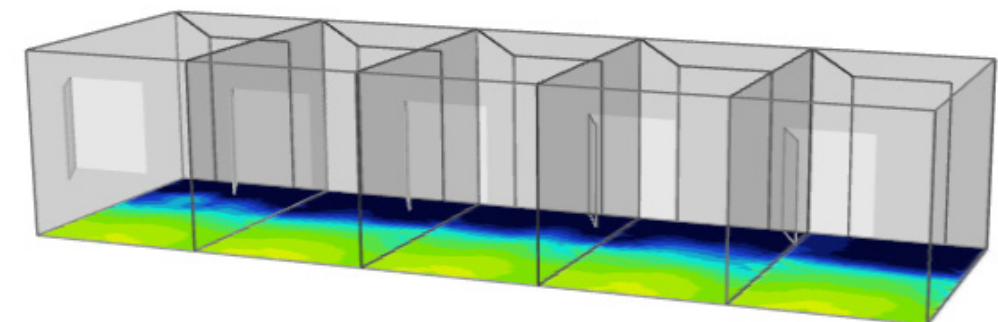
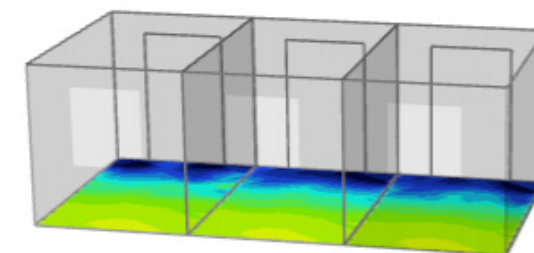
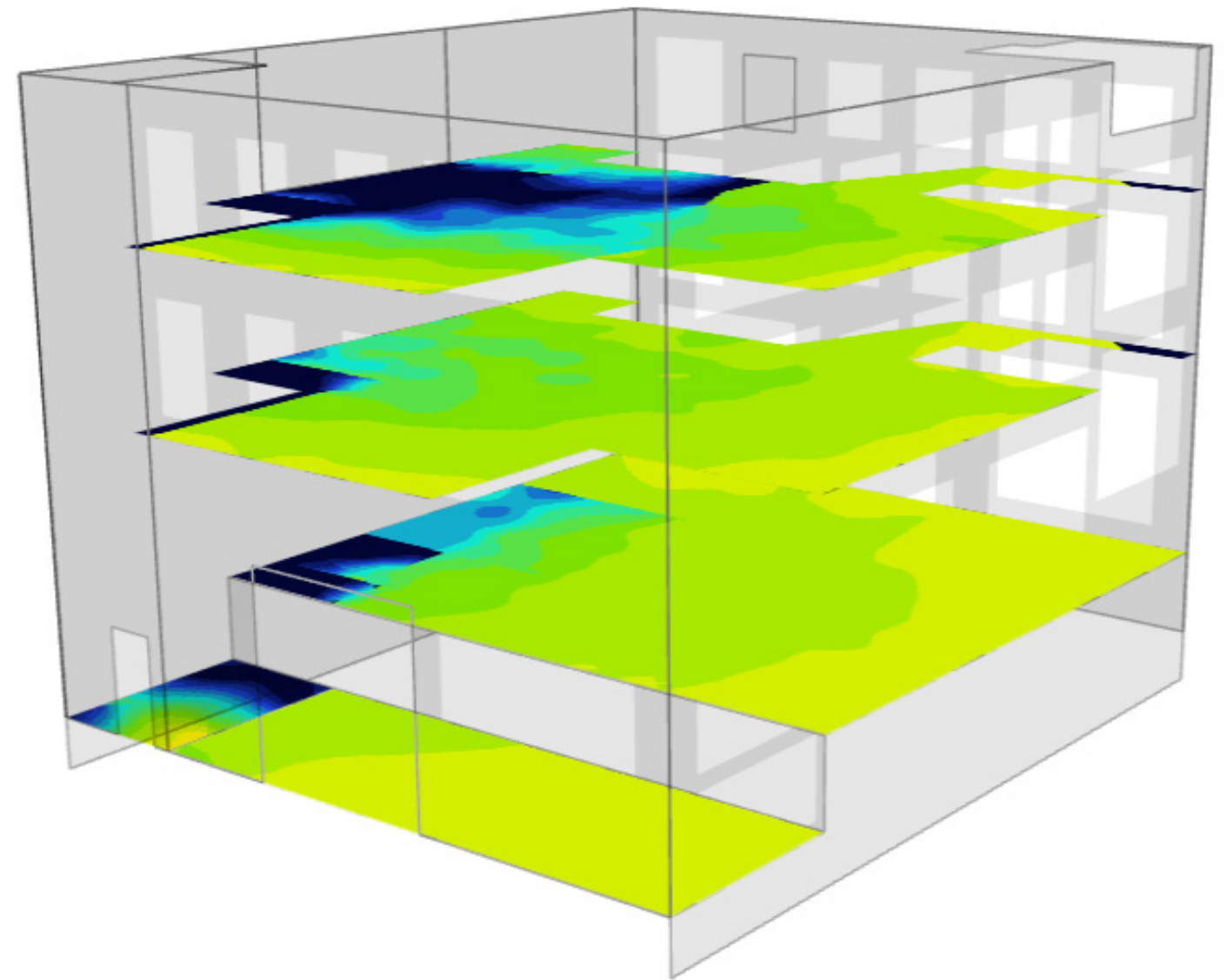
Technologies



*excerpts
from AT*

Sefaira analysis of workshop and bedrooms

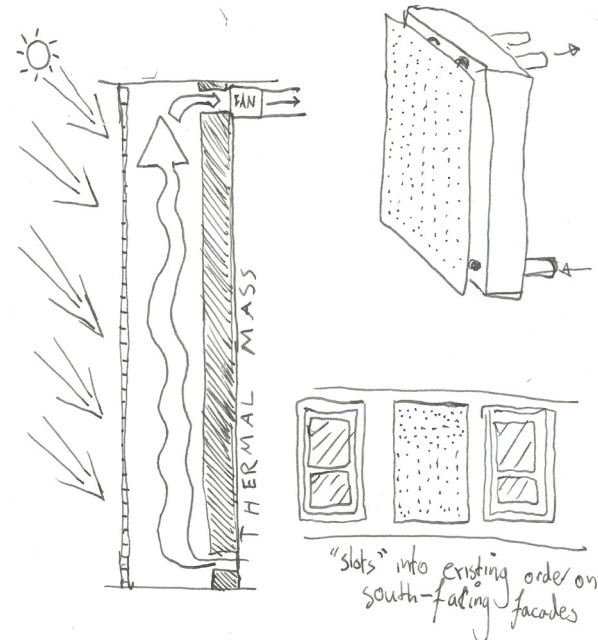
Sefaira simulation of key spaces (workshop, north and south facing bedroom) indicate a suitable level of daylighting in work spaces and bedrooms, even those facing north due to the employment of window baffles to reflect light into the spaces. Areas of underlighting include bathroom spaces and the fire core, which is to be expected due to their programme and the building's deep profile.



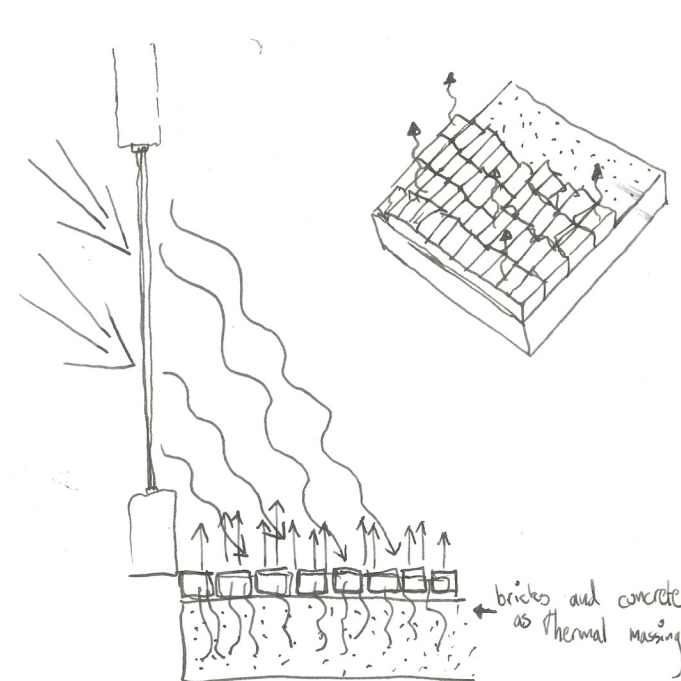
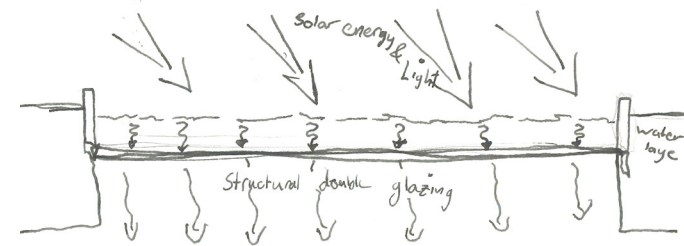
Percentage of occupied hours where illuminance is at least 28 footcandles, measured at 0.85 meters above the floor plate.



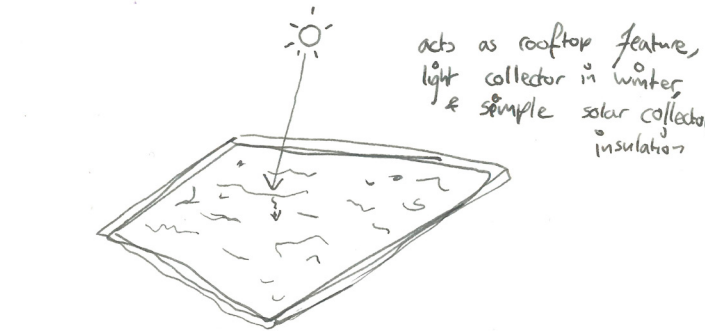
passive heating and ventilation strategies



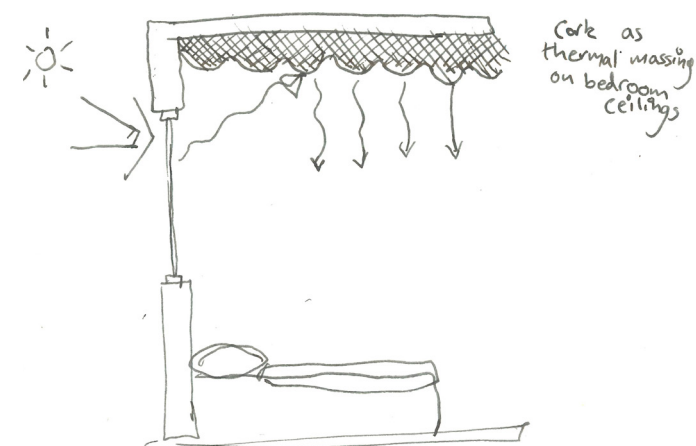
solar energy collectors



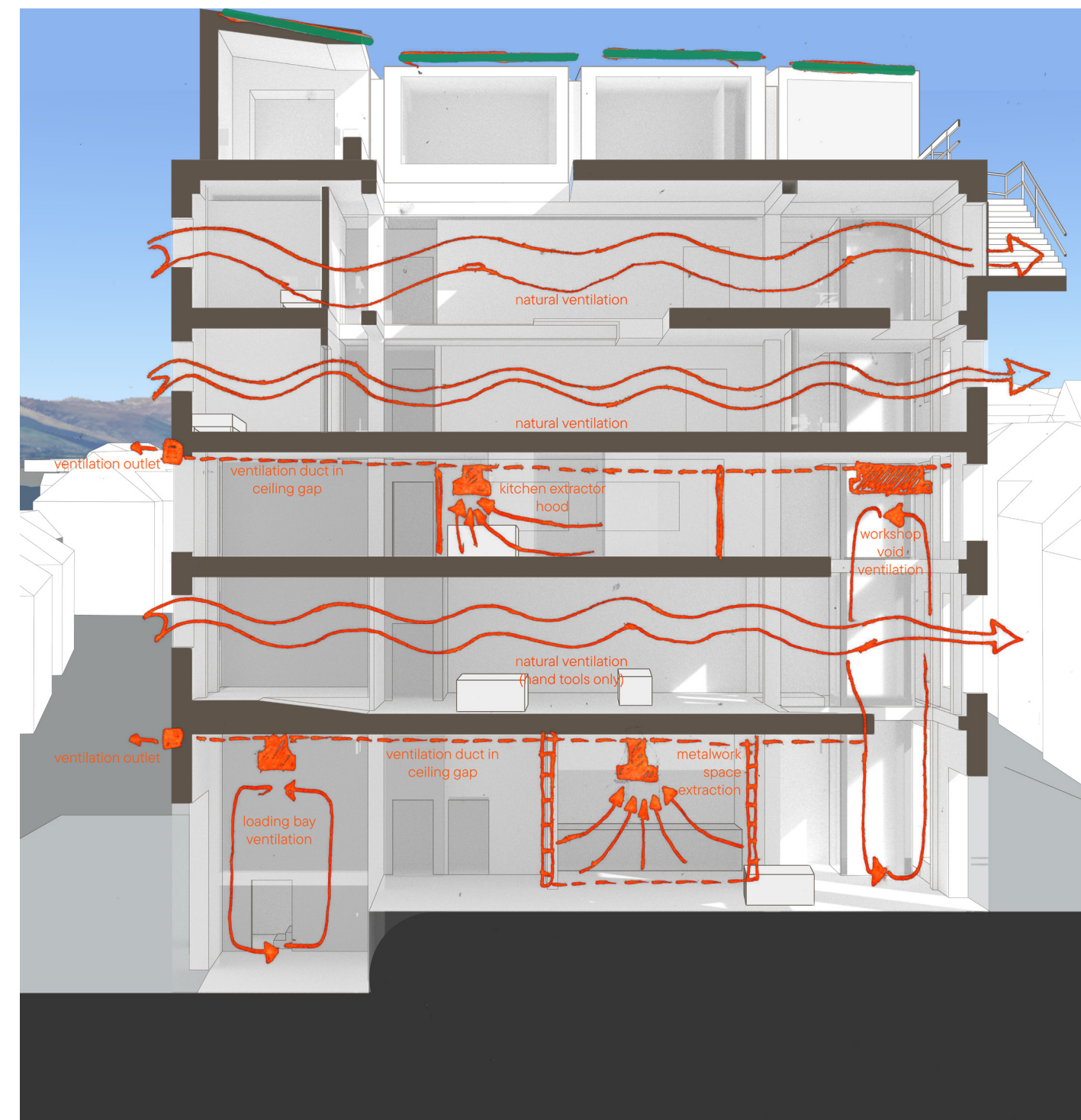
workshop thermal mass



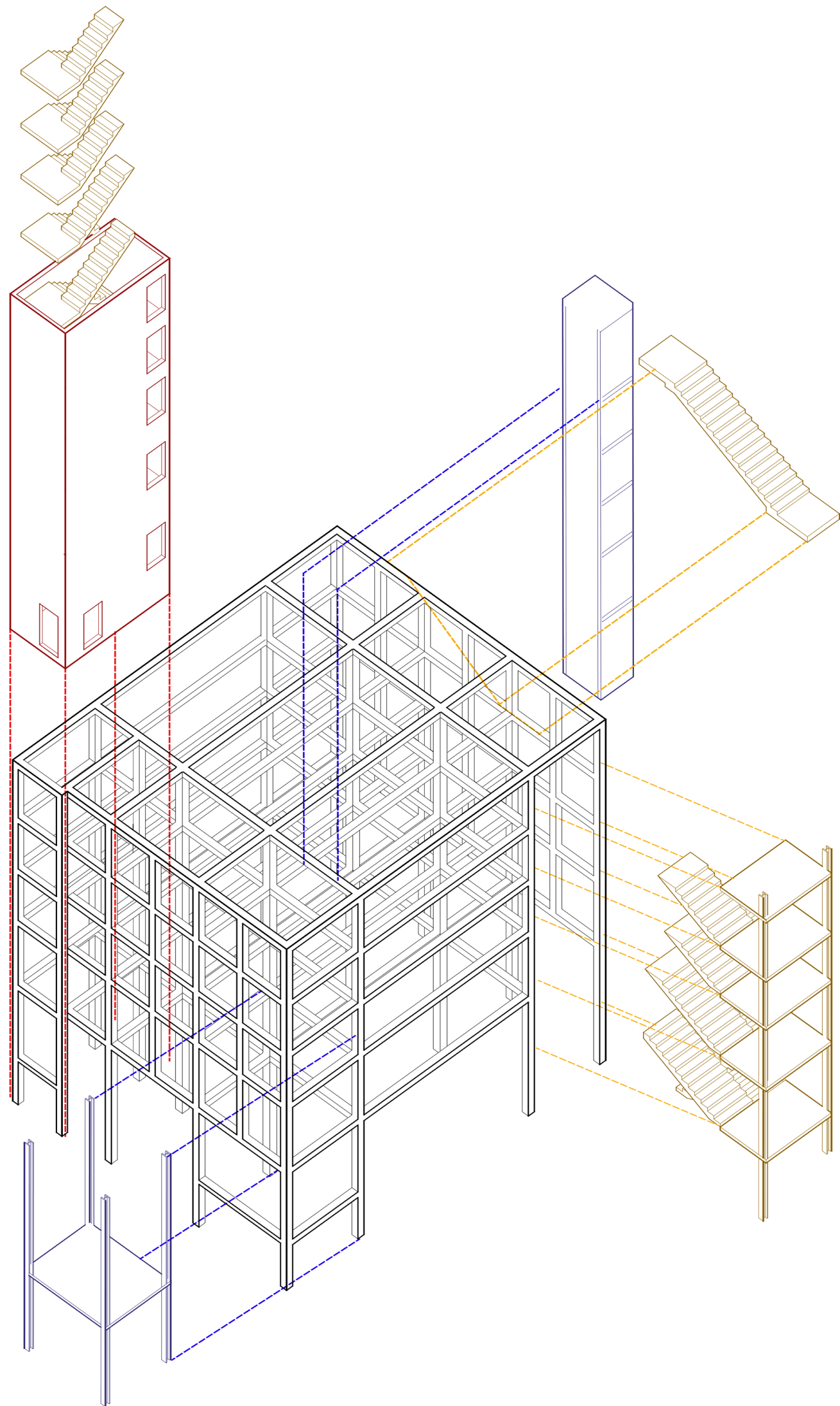
rooftop refracting pool



bedroom thermal mass

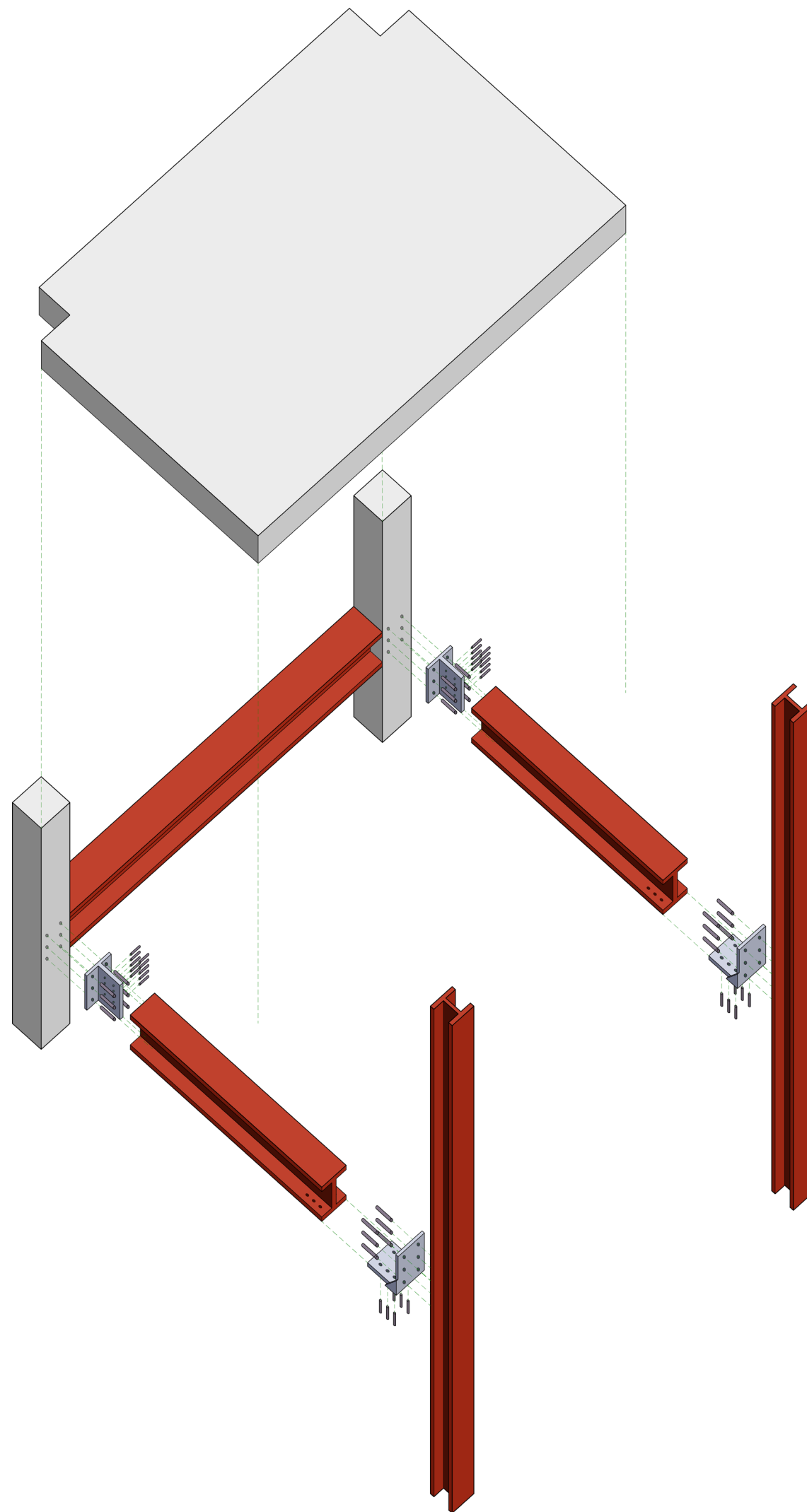


structural analysis
isometric

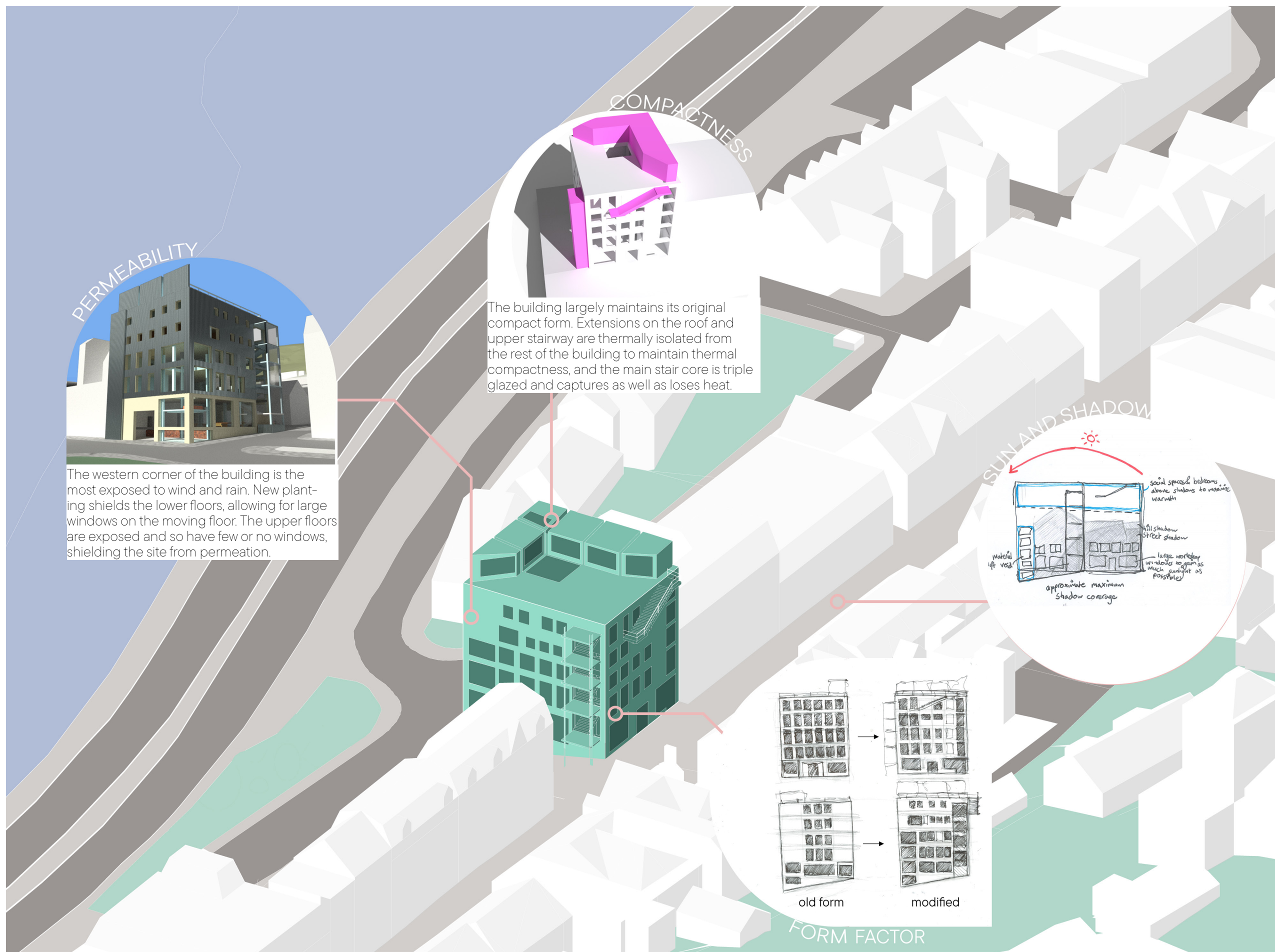


- Existing Structure: Precast concrete grid, circa 1960's, formed of columns, beams, and hangers for facade on upper floors. Retained and celebrated where possible.
- Fire Core: In situ cast concrete surrounding fire escape stairwell, rated for fire safety and stability.
- Lift and Moving Floor: Steel and glass frame supporting active, moving loads and equipment at varying frequencies.
- Main Stairwell: Precast concrete floor slabs supported by existing frame and steel piles, touching ground lightly.
- Top Stair: Lightweight steel and concrete construction cantilevered from existing frame.

isometric of connection

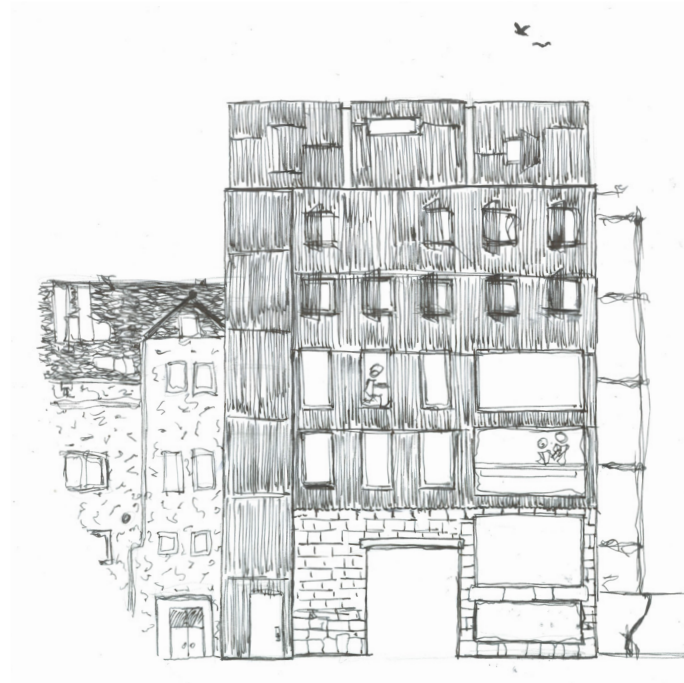


main stairwell to
concrete frame



site response diagram

COMMONTY - communally held rural
land with multiple uses



the building is an urban commonty - communal, loose fit, a lynchpin
in a wider system of repair, conservation and sociality. Embracing
locals and encouraging tourists to develop a deeper understand-
ing and respect for the rural landscape. Becoming a space for mu-
tual use and participation



references

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various Glenn Murcutt buildings, especially Riversdale Art Centre

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various Kazuo Shinohara homes, especially House on a Curved Road

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