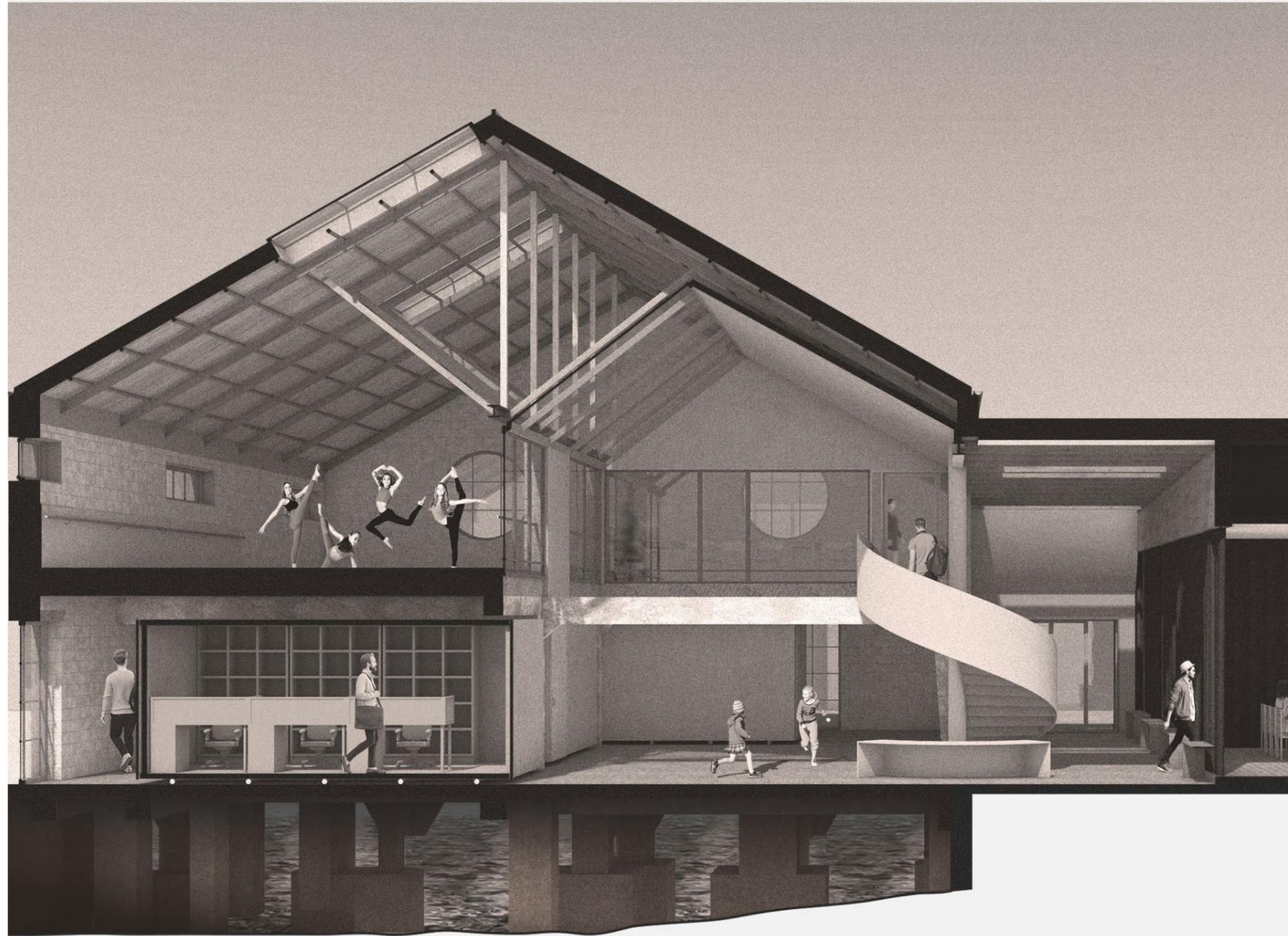


Re-form

Ørnes Harbour | Community Recreation centre

Fredrik Grindstrand Dikvold



An hour and twenty minutes after boarding the boat in Bodø, the captain announces that we are about to arrive. The boat slows down as it passes Teksmøna island, and "Ørnes Two" becomes visible in the horizon. Further into the bay, as you pass the northern tip of Messøya, you can make out the shapes of buildings and "Ørnes One" also becomes visible. Directly parallel to the bow of the boat is an odd-looking building, the captain steers distinctively towards it. After a short while, his intention becomes apparent, on the façade of the building there is a white sign with black capital letters. ØRNES.



Ørnes Harbour | Chosen Building



BODØ

ØRNES

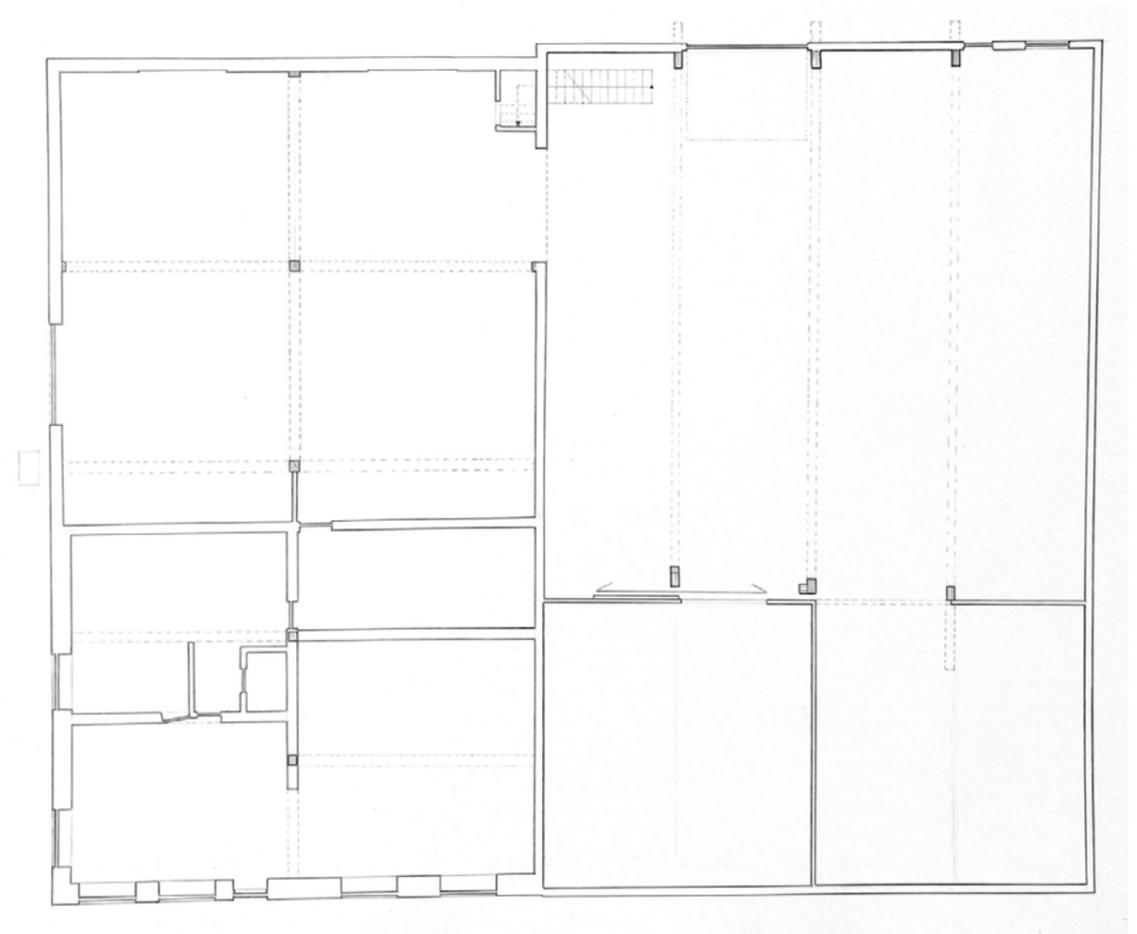
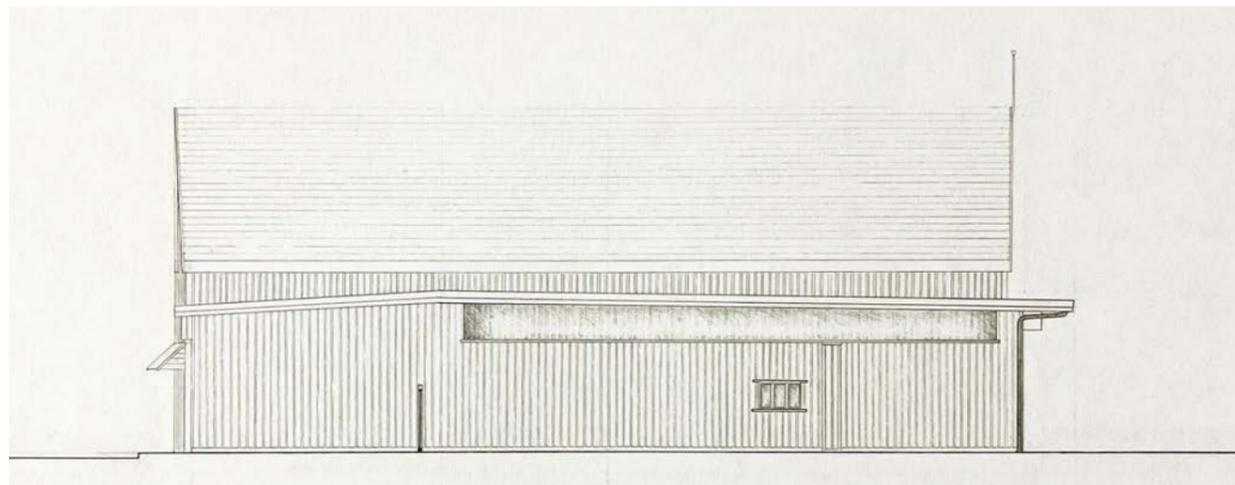
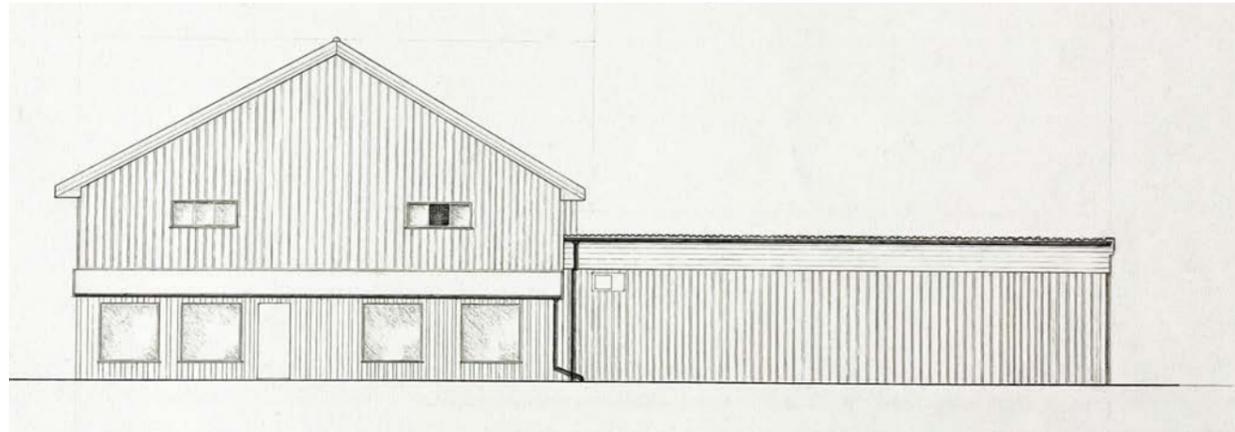
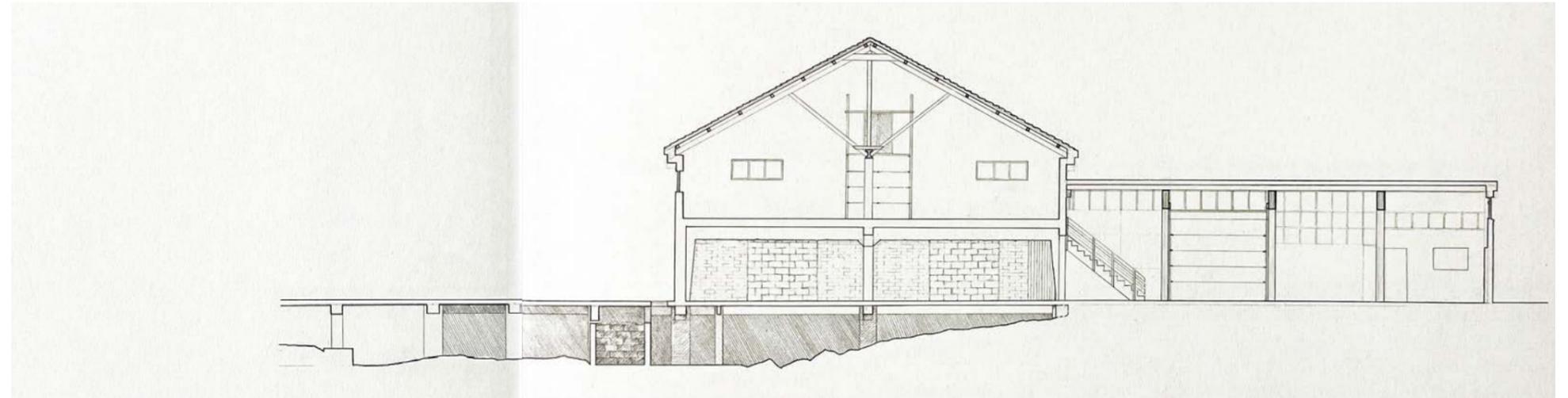
MO I RANA

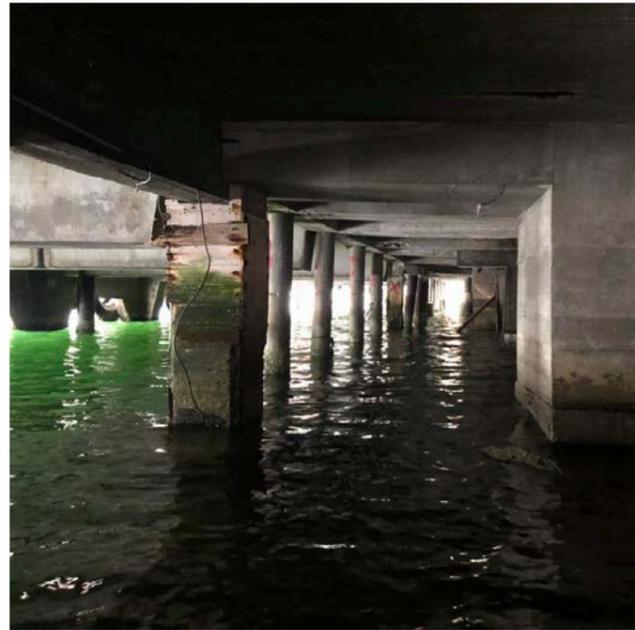
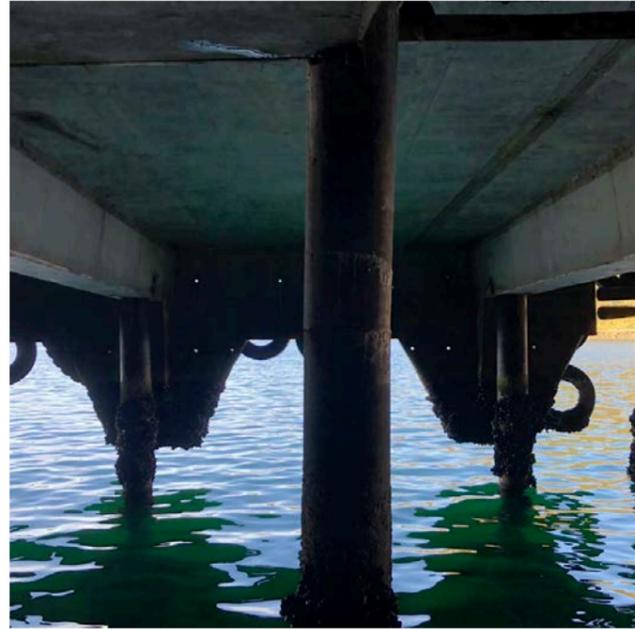
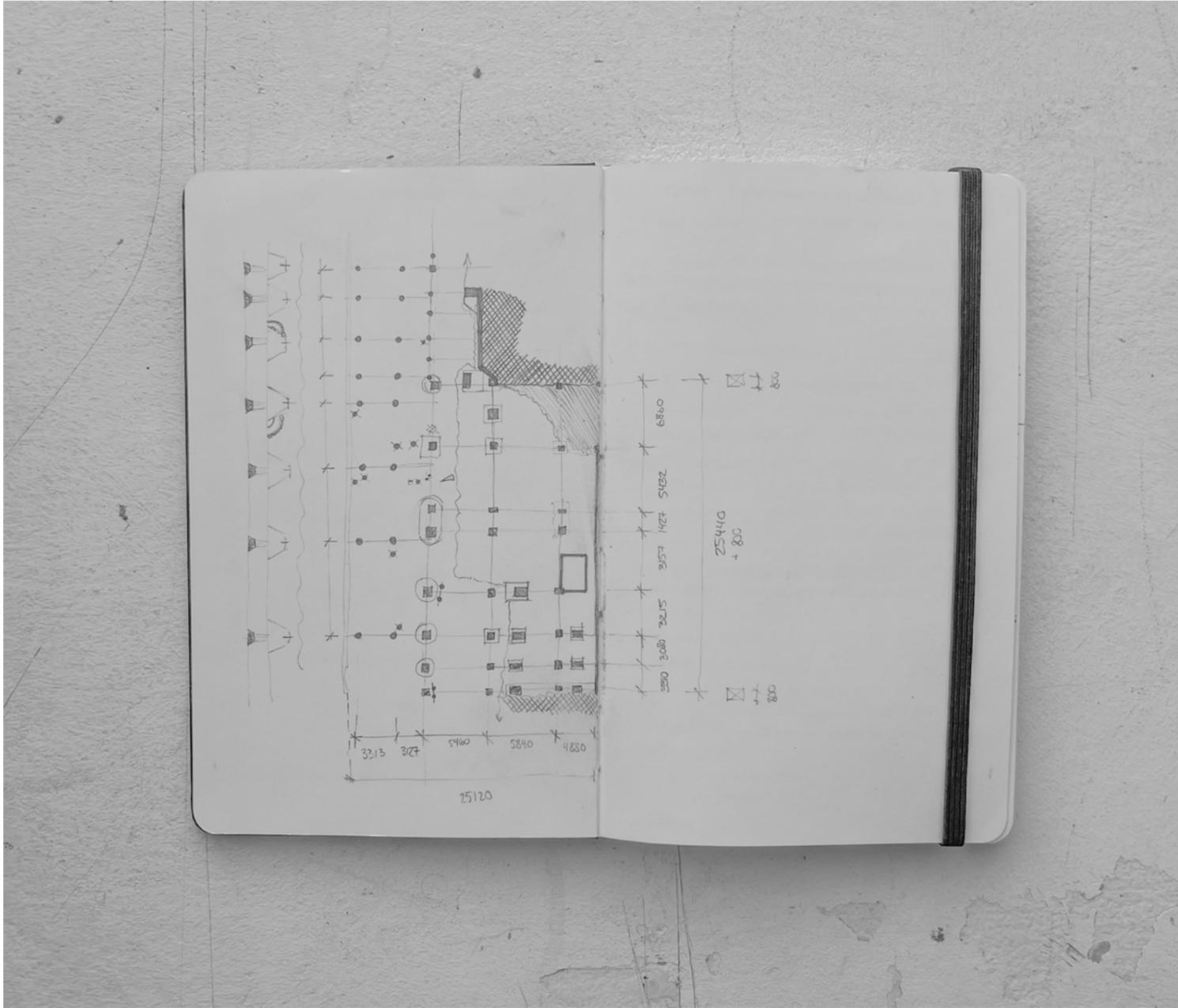


1:250



Site Model | Existing Situation





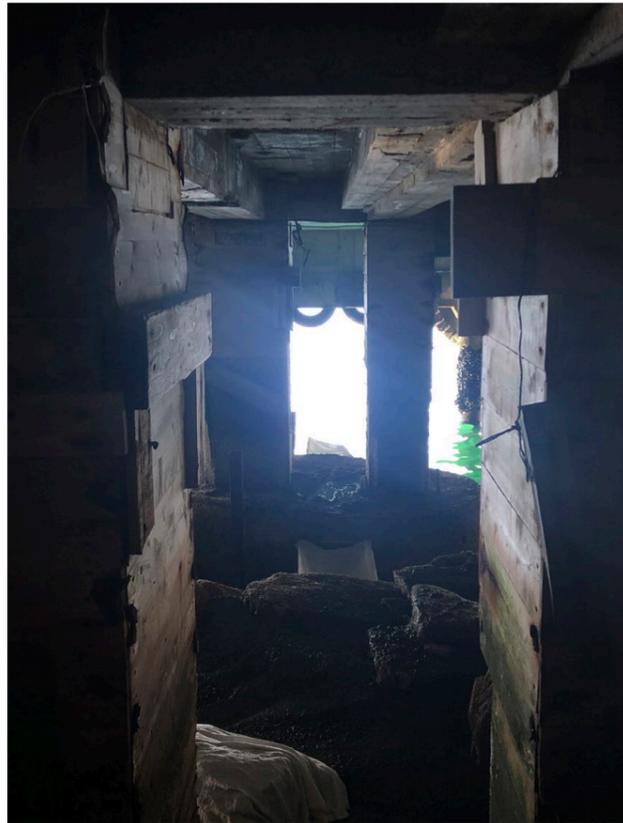
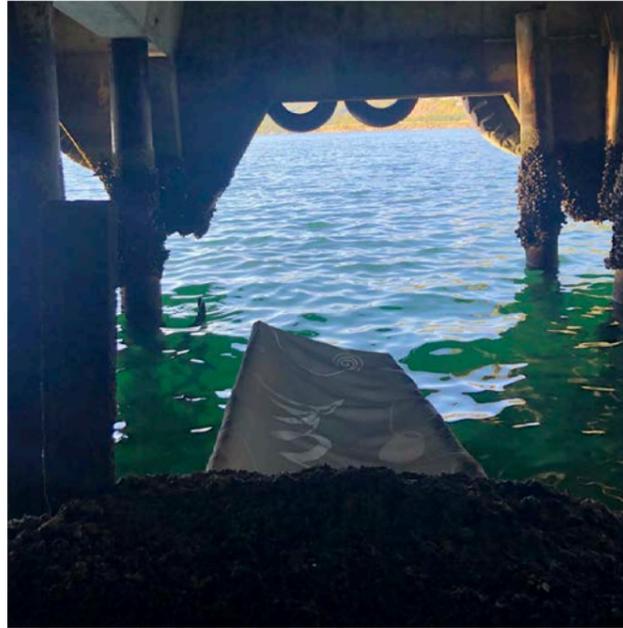


Existing Exterior | Materiality

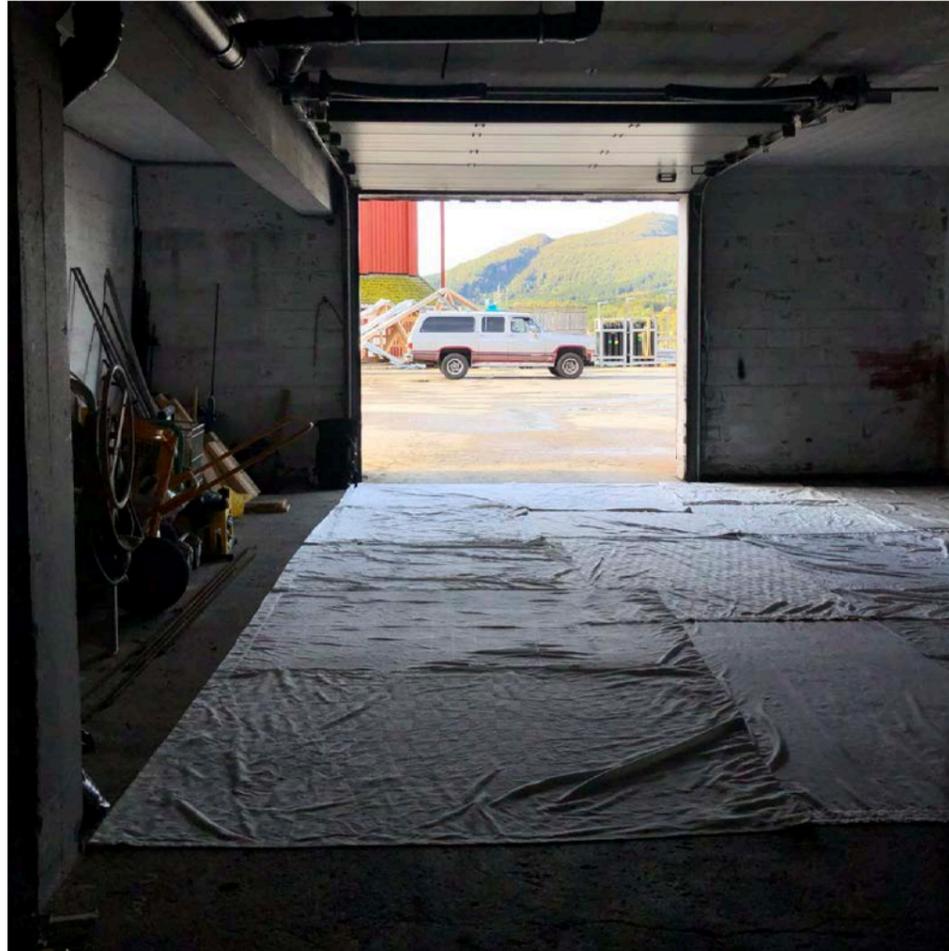


Existing Interior | Three Distinctive Spaces





Tectonic Exercise | Establish New Path



Urbanization. Many rural Norwegian towns struggle with a population decline. The younger generation look towards the cities, due to youthful eagerness to explore and the opportunities cities can provide. These opportunities can be career growth, personal development, greater acceptance of diversity, and a wider option of recreational activities. While many remain in their hometowns, modern societal changes have lowered the overall birth-rate substantially. As a result, there are more deaths than births. The municipality wishes to turn the decline around, or at best, delay it.

My main research question is not focused on directly pivoting the population graph, because the population will continue to fall until it reaches a stable point, a point related to contemporary

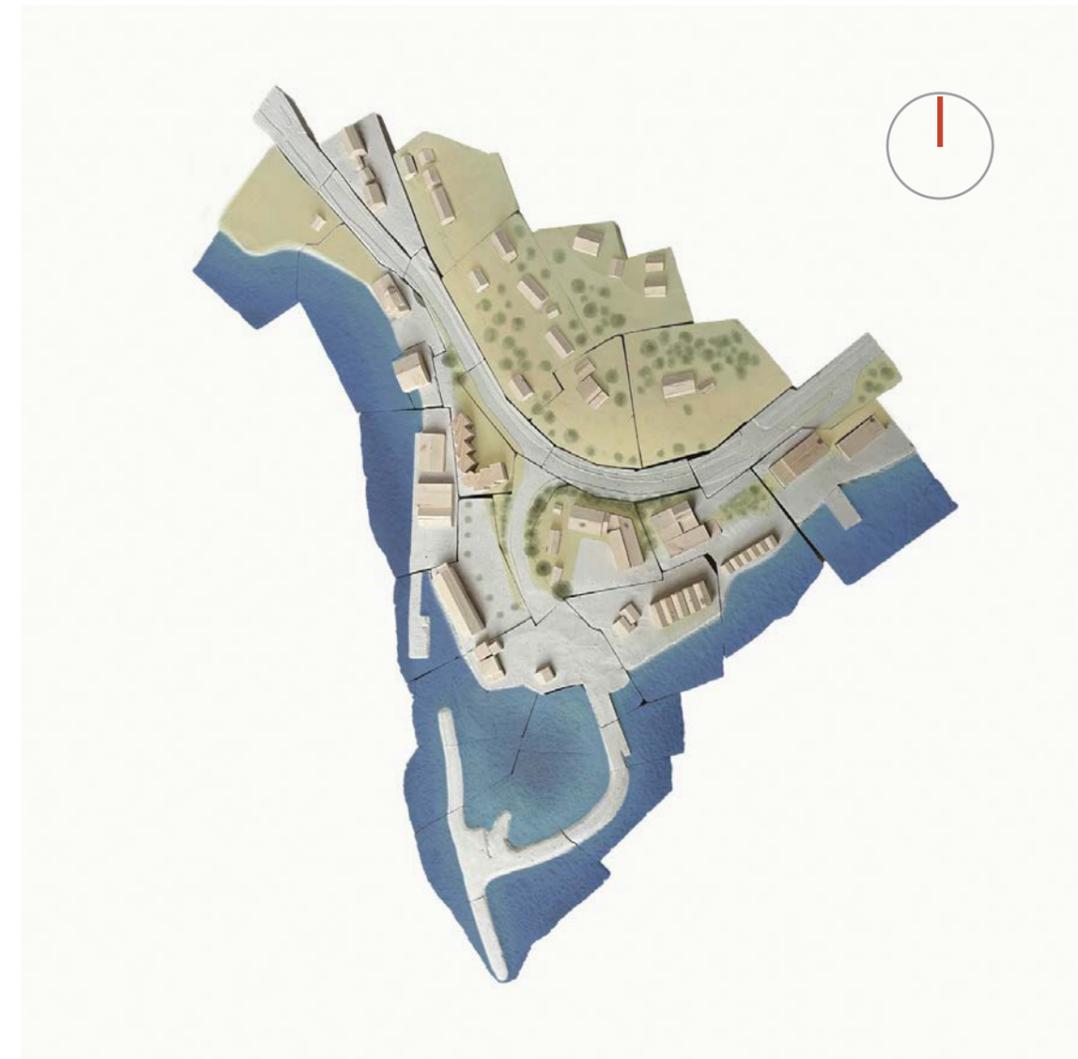
birth-rates. Rather, my question is trying to discern reasons for staying in Ørnes, and reasons to come back after many years away.

I chose to work with Ørnes Harbour, because it is the first impression of the town if you come by sea. Travelling by boat to Bodø (the nearest city), is the most common way of long distance travel.

Ørnes Harbour is in a way “the doorstep” into Ørnes.

Arriving Ørnes, it is the first impression of the town, and it can be a positive reminder of home for those who leave. It is also the only building in direct communication with the “Hurtigruten”, a tourist ship that have connected rural places through centuries.

Hopefully, re-forming this building can act as a seed to revitalize the community, and create a arena for community driven recreational activities that can improve social belonging.



Ørnes | One

Connections | Sea



Connections | Land



Focus area



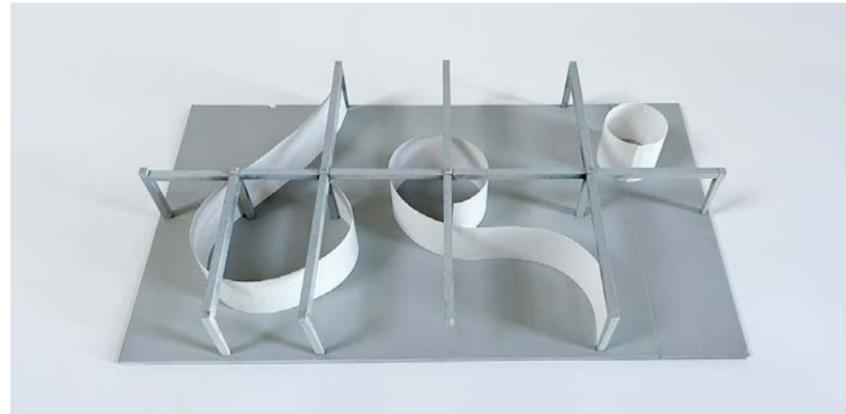
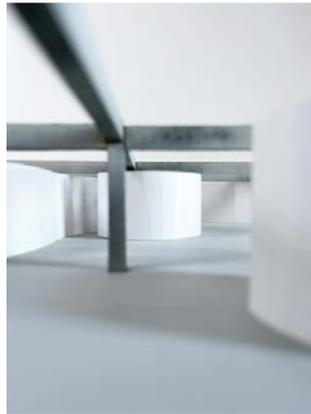
Site

Possible new connections?

Combined



A series of tectonic incisions into the first floor. In the process, new spatial volumes are created throughout the building.





Tectonic Incisions. The selection of photographs is showing the most successful incisions. (right) Removing a section off the northern roof at the treshold where the structures meet. The cut ends at the glulam structural beam. (middle) Cutting out a rectangle out of the first floor, and tearing down the wall towards the northern structure, in line with the cut-out floor slab in the first floor. (left) Establish a new source of natural light into the southern building roof, guided by the rafters and purlins.

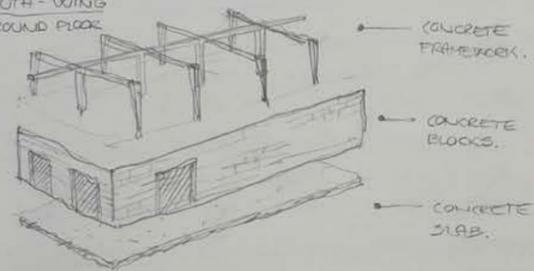
Establish a set of rules. Incisions are carefully executed within the confines of the established grid or system set by the original structure. For example, the concrete columns forms a grid of multiple rectangles, and so the incisions should be made as a rectangle with columns at every corner. The system of the timber roof structure allows for several possible incisions and additions.



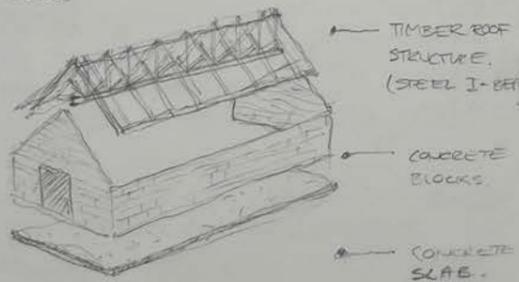
STRUCTURAL MODEL

HOW TO BUILD:

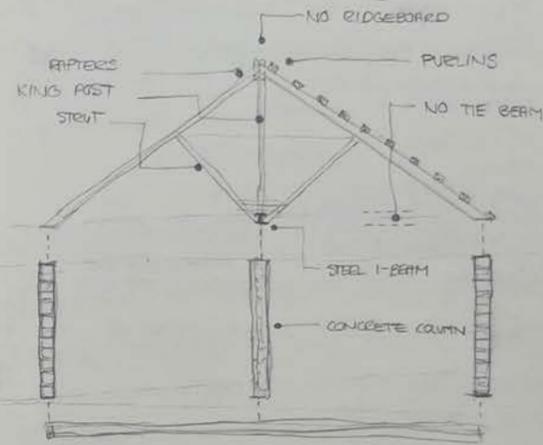
SOUTH-WING
GROUND FLOOR



SOUTH-WING
1ST FLOOR

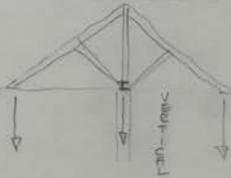


BASE:
• MATERIAL?

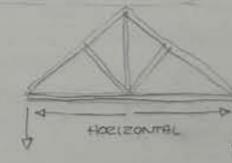


THE TIMBER ROOF STRUCTURE IS NOT FULLY A TRUSS, INSTEAD OF USING A TIE BEAM TO DIRECT LOADS TOWARDS ITS ENDS, IT USES A MIDDLE COLUMN, CREATING THREE VERTICAL LOADPATHS.

ORNS HARBOUR

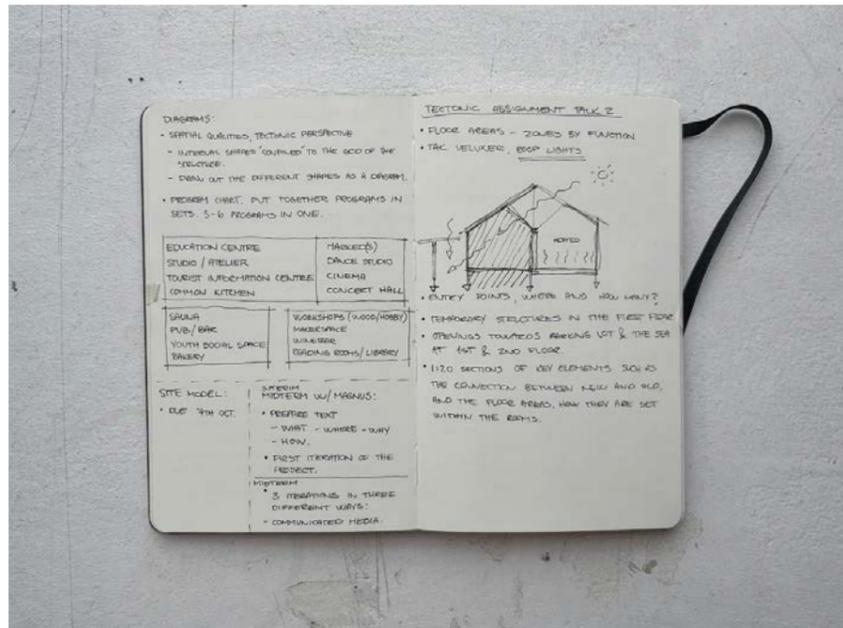


QUEENPOST



A decision is made to strictly follow the established volumes outlined by the roof-structure. By confirming to this method, a series of volumes can be created within the building, without appearing more prominent than the roof.

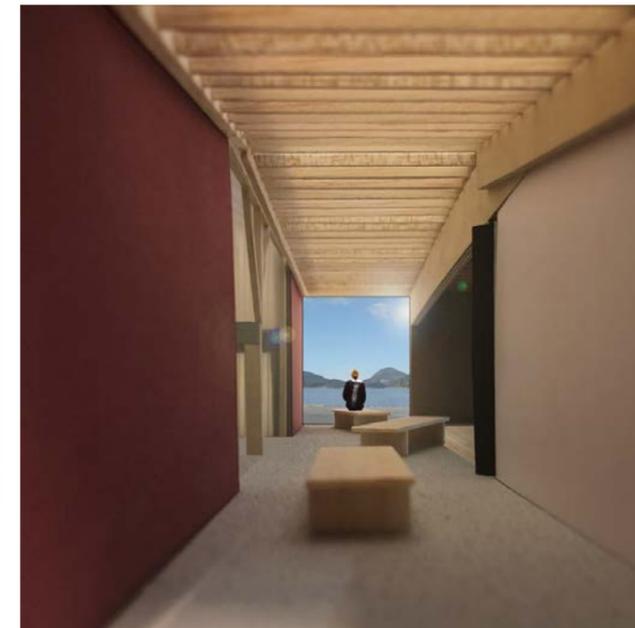
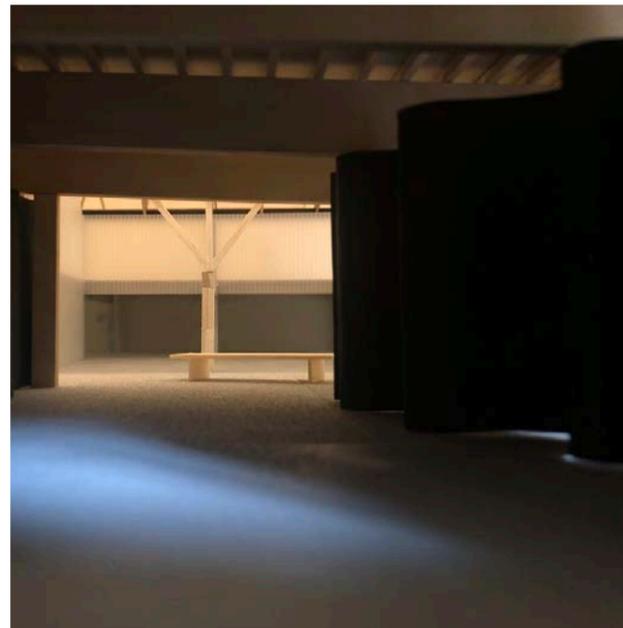
Light as a material. Informed by the added zones, a concept for conditioned/ unconditioned spaces and the intensity of light emerges.



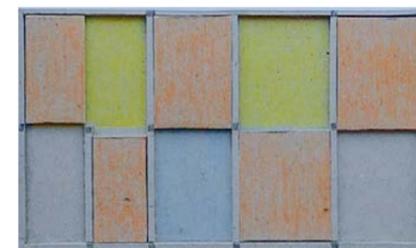
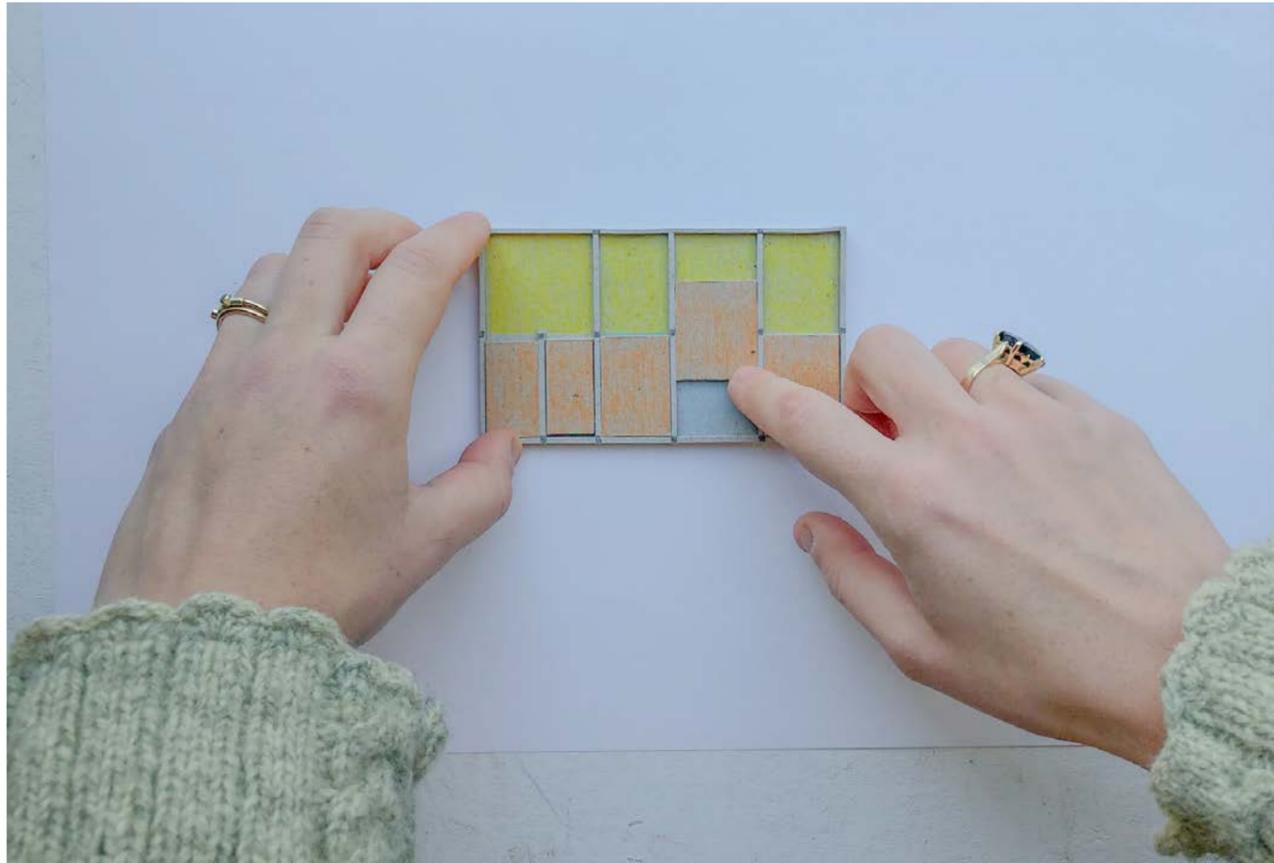
Social Strategy. To change Ørnes Harbour from its current secluded social position into a positive benefactor for the local community. The positive change will arise through compelling spaces that can accommodate multiple programs.

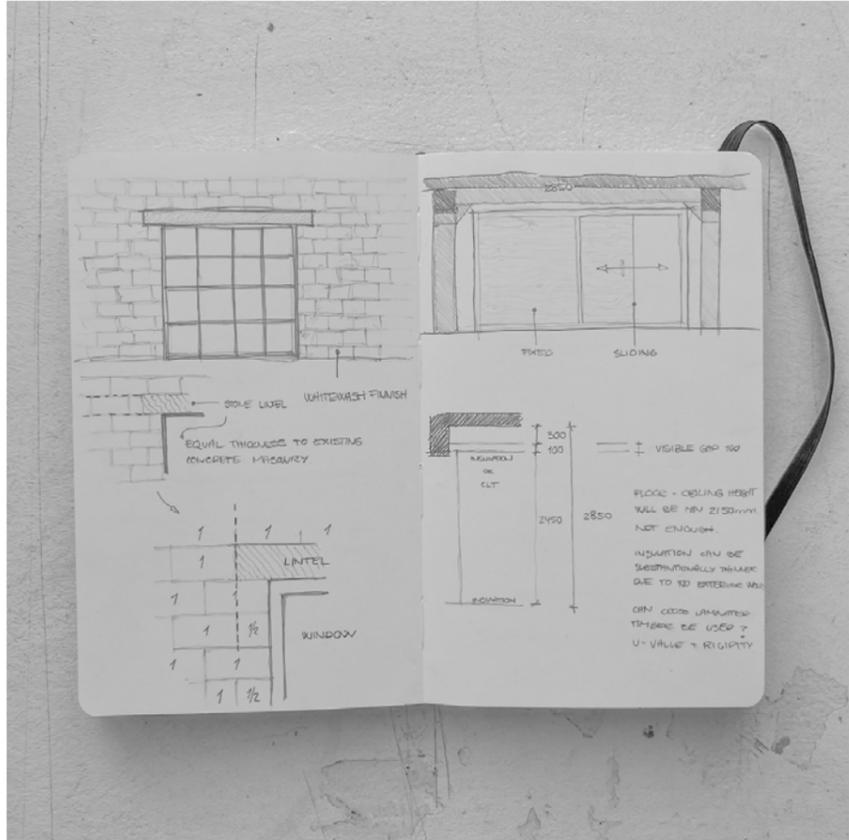
The programs will cover a range of intensities, such as high intensity sports and concerts, to low intensity reading and socializing spaces such as a community kitchen with long tables. The aim is to create a vibrant building that can appeal to the whole community, across all ages, social standing and interests.

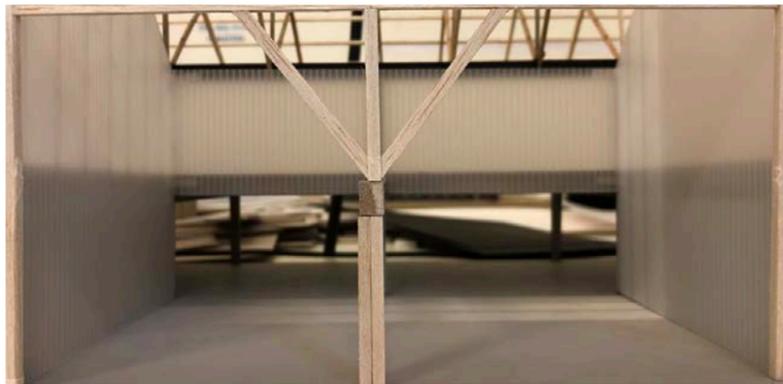
A part of the strategy is to create easily modifiable spaces, through the aid of curtains and movable rooms that aren't locked in place.



PROGRAM
PUZZLE
BOX

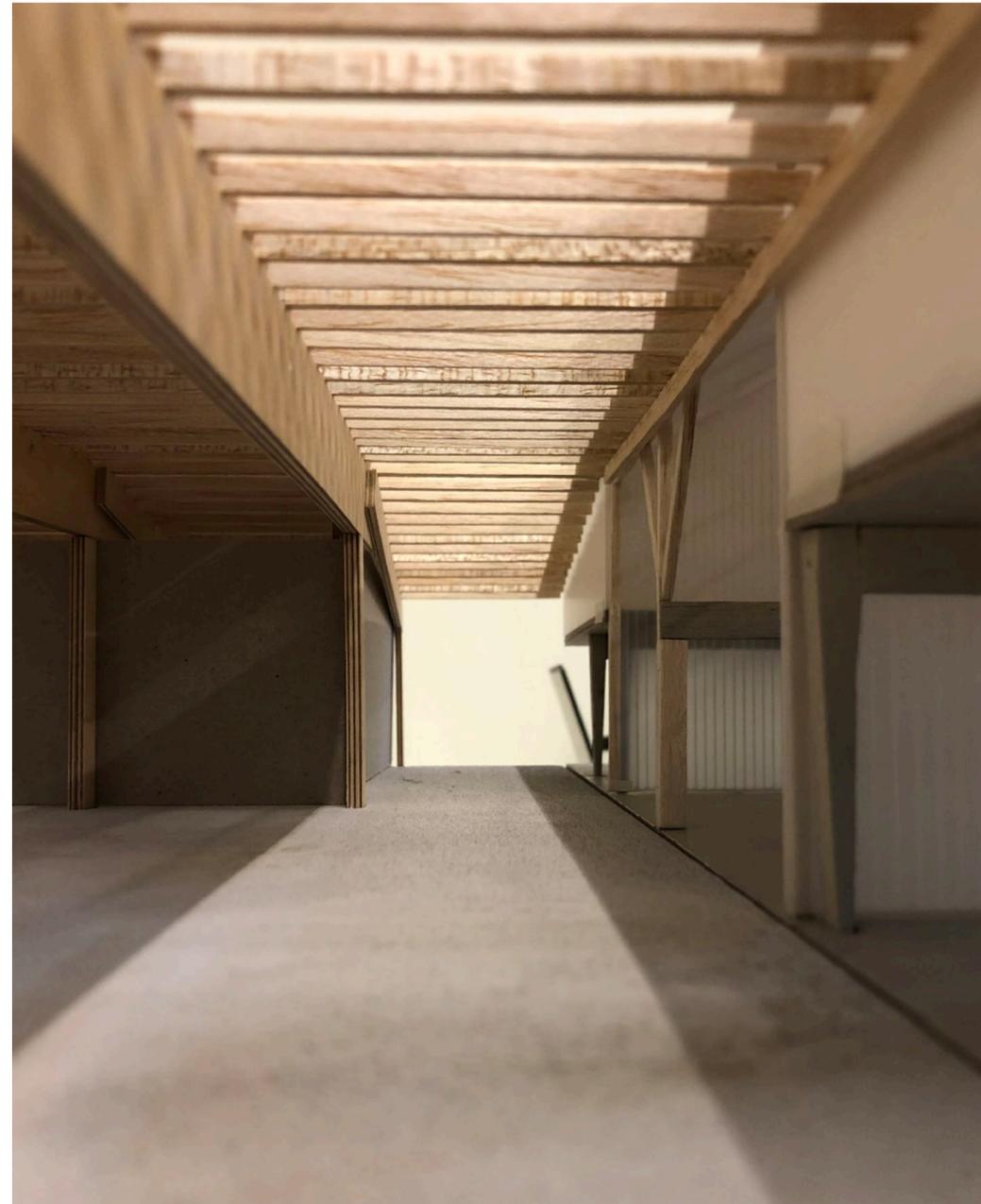


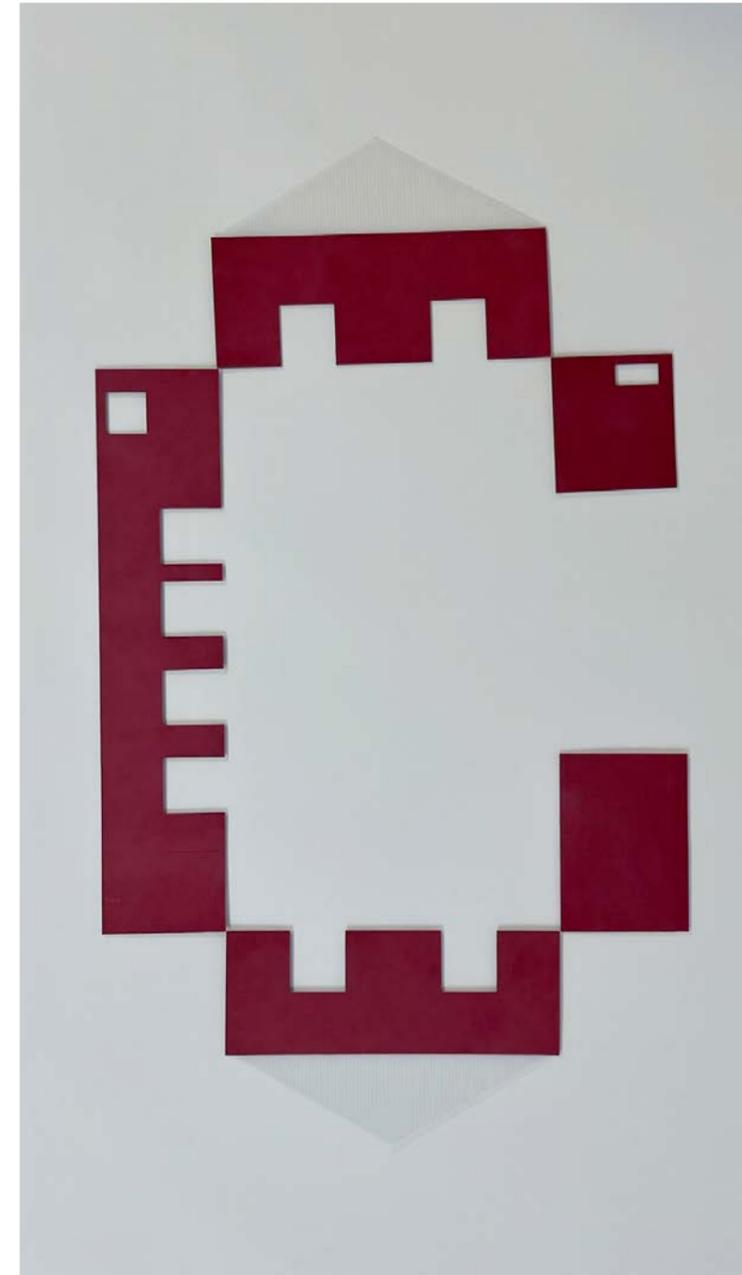
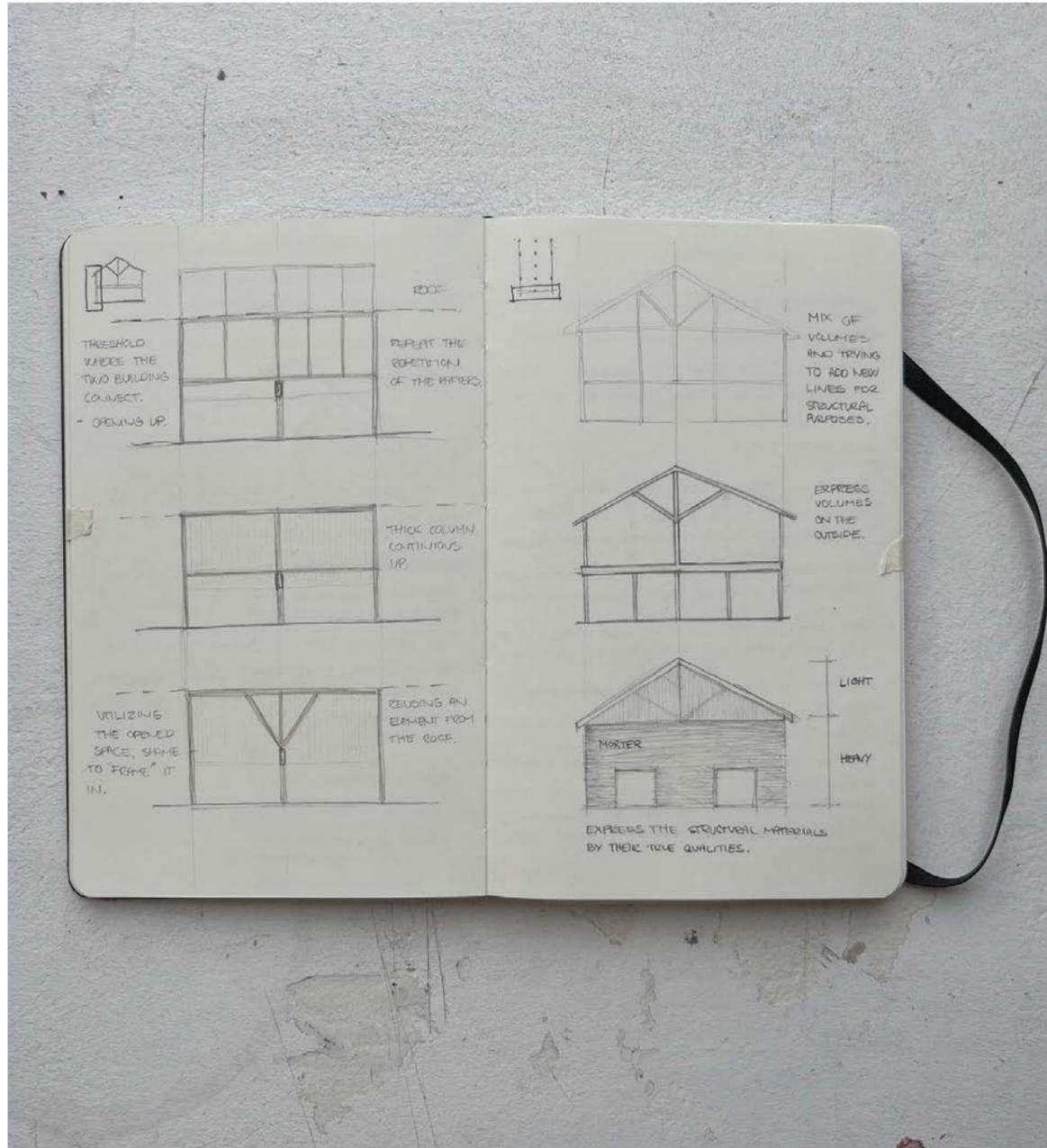


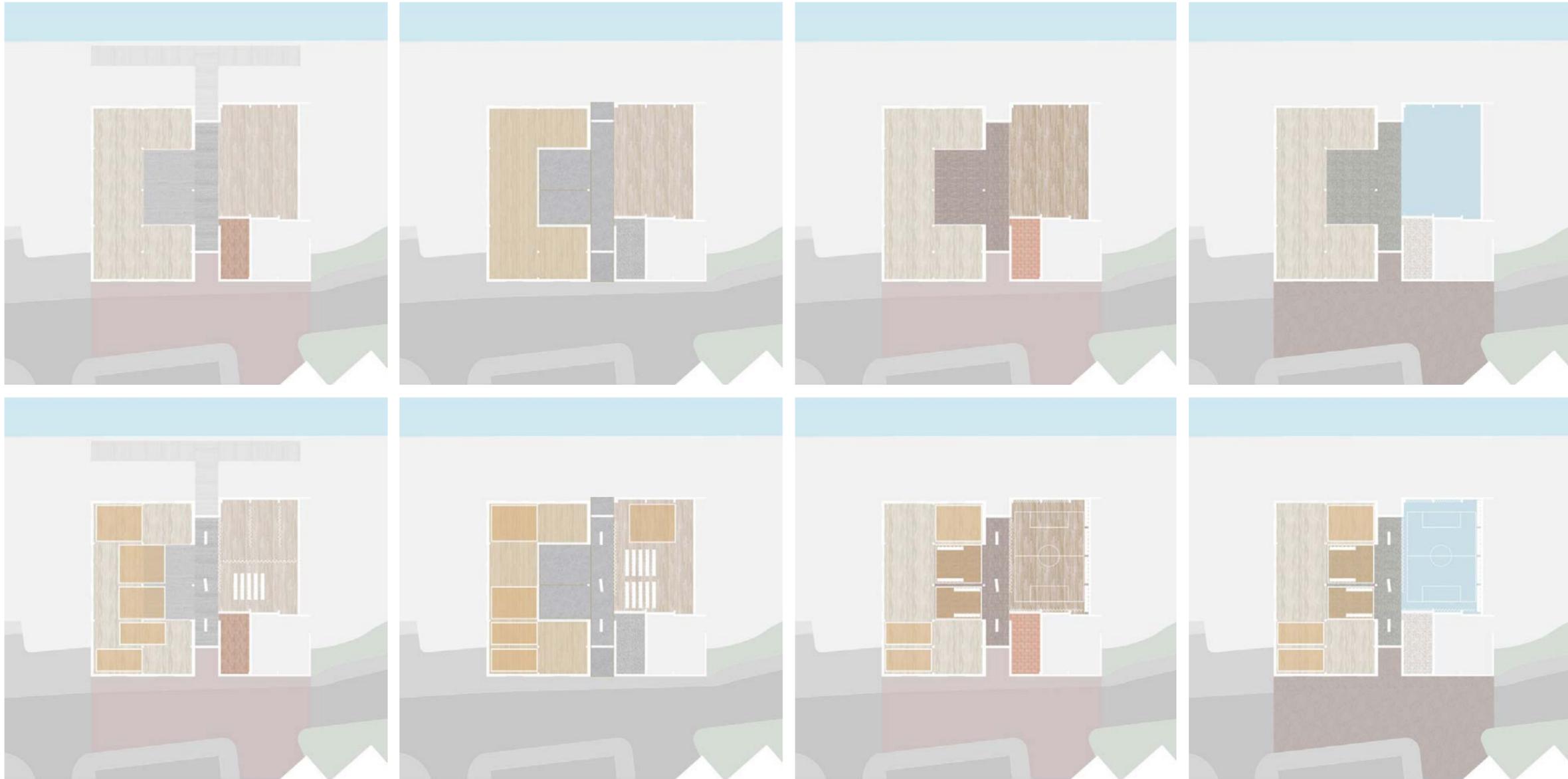


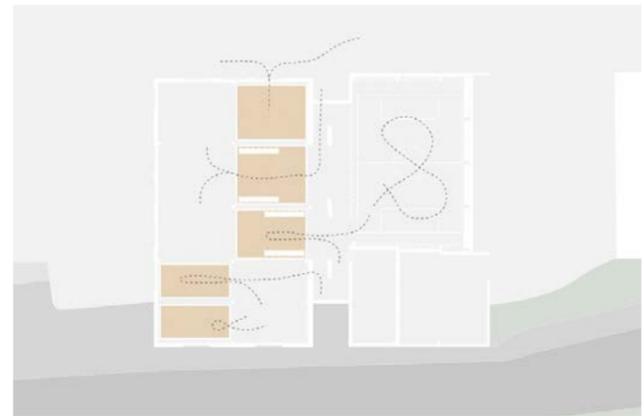
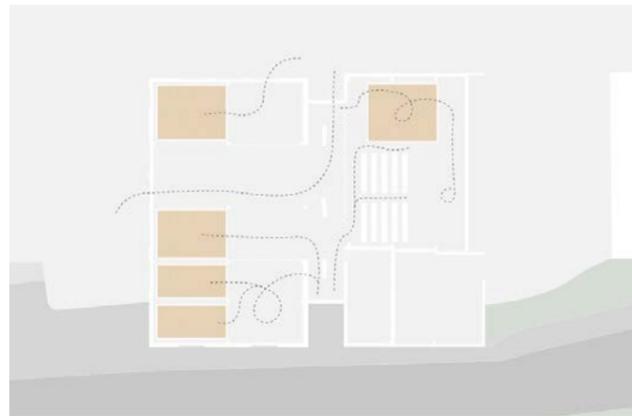
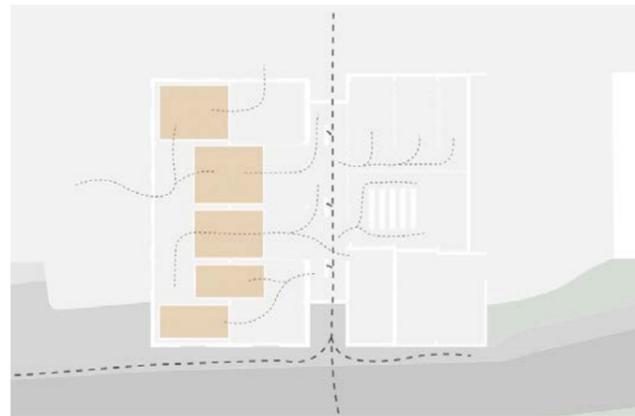
Threshold. The central column and ceiling is the threshold of the two buildings. The idea is to create an atrium within the southern building. The atrium is confined to the grid established by the ground floor and the triangular shape in the roof structure. The atrium is set at the northern boundary of the southern building, opening into the northern building, consequently removing the load-bearing wall. Both the southern pitched – and northern roof are resting on the wall. Therefore, the central column is important as it will have to

assume the purpose of the wall. The moment where the existing roof and the inserted structure connect. The inserted atrium structure's direct or indirect relationship with the roof. The walls of the atrium are wedged on the inside of the cut-out rectangle on the first floor, this gives the new structure borrowed rigidity. A direct connection with the roof could be to continue the wall to the point of contact with the roof structure, leaving no open gap. An indirect connection could be to leave a visible gap to emphasise the difference of new and old.

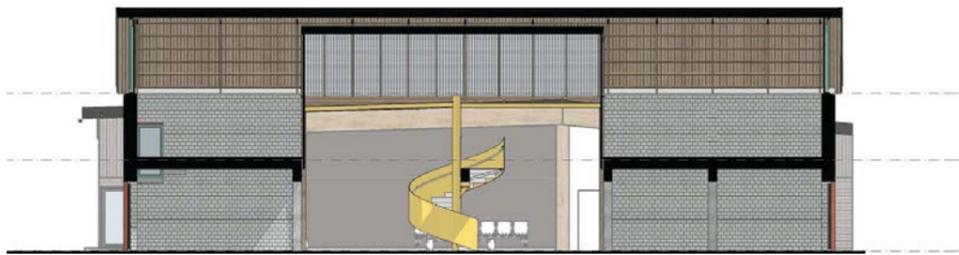








Allow the program to adapt with the rythm of activities



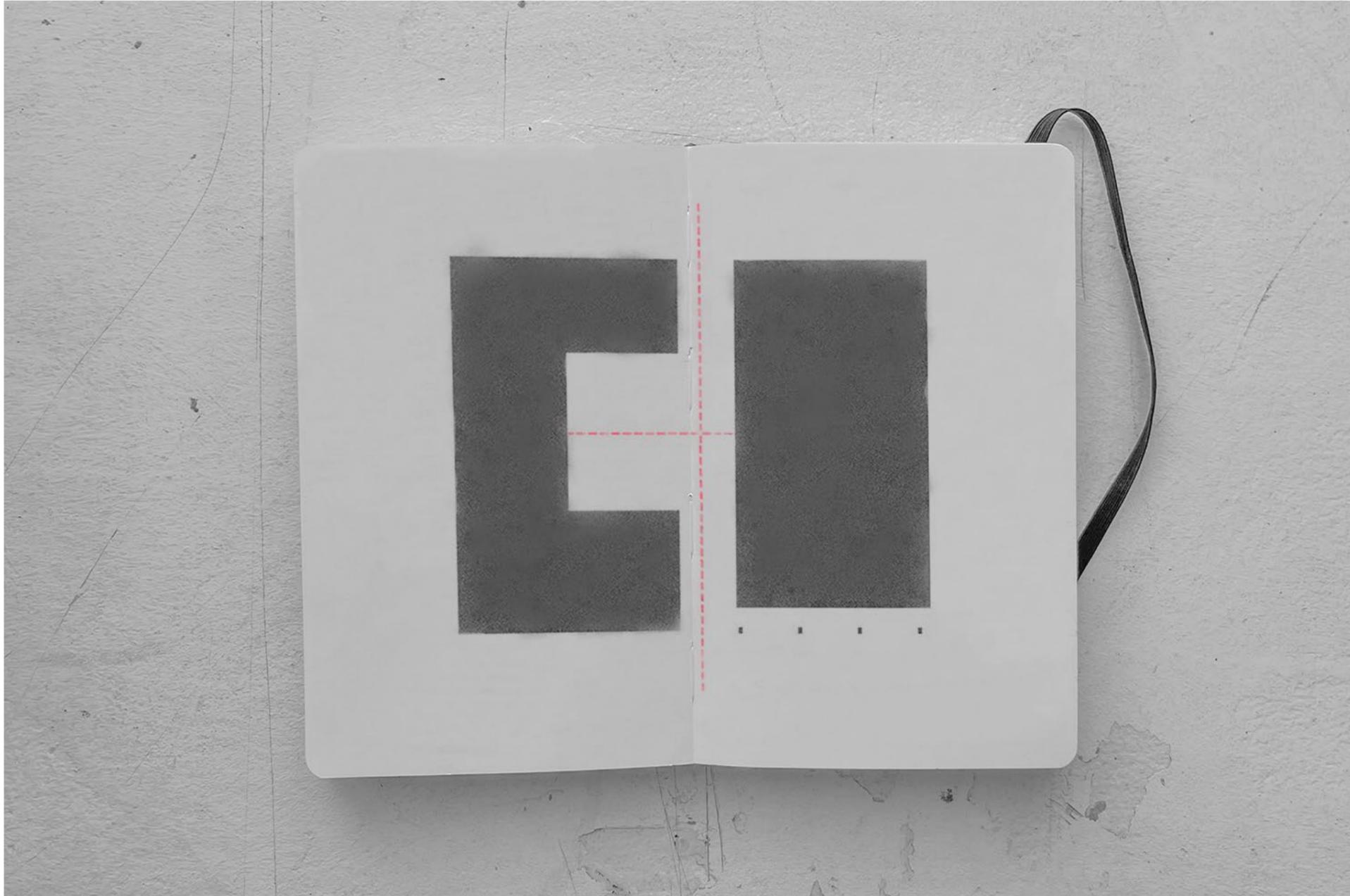


Diagram | Primary Intervention



1:250

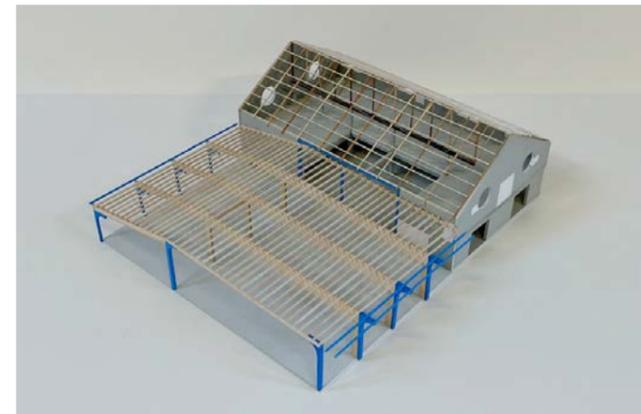




1:50

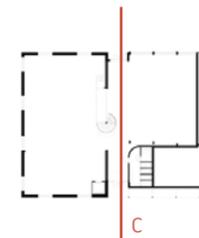
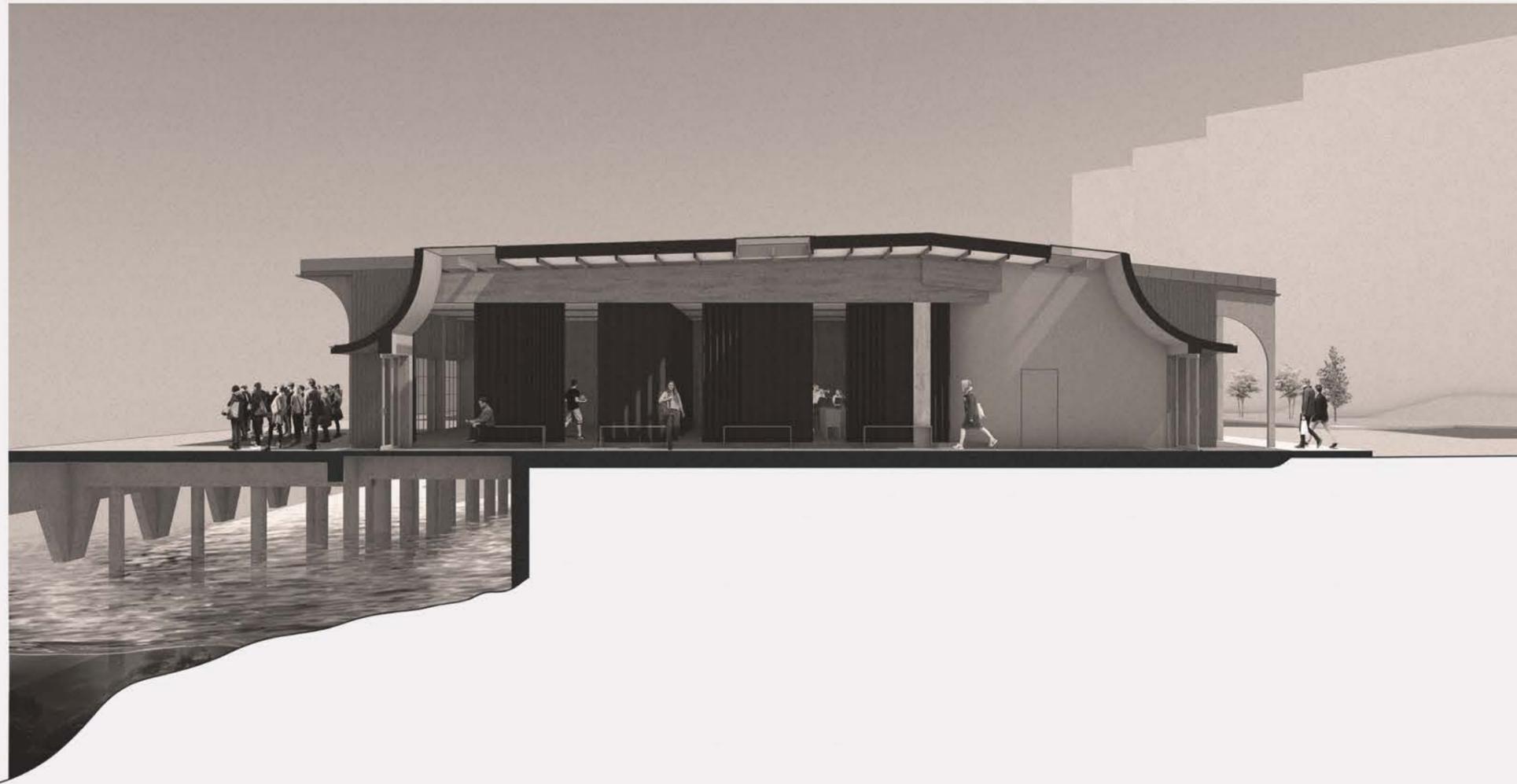
White
Existing openings

Blue
New structural components





Connection | Proposed Main Entrance



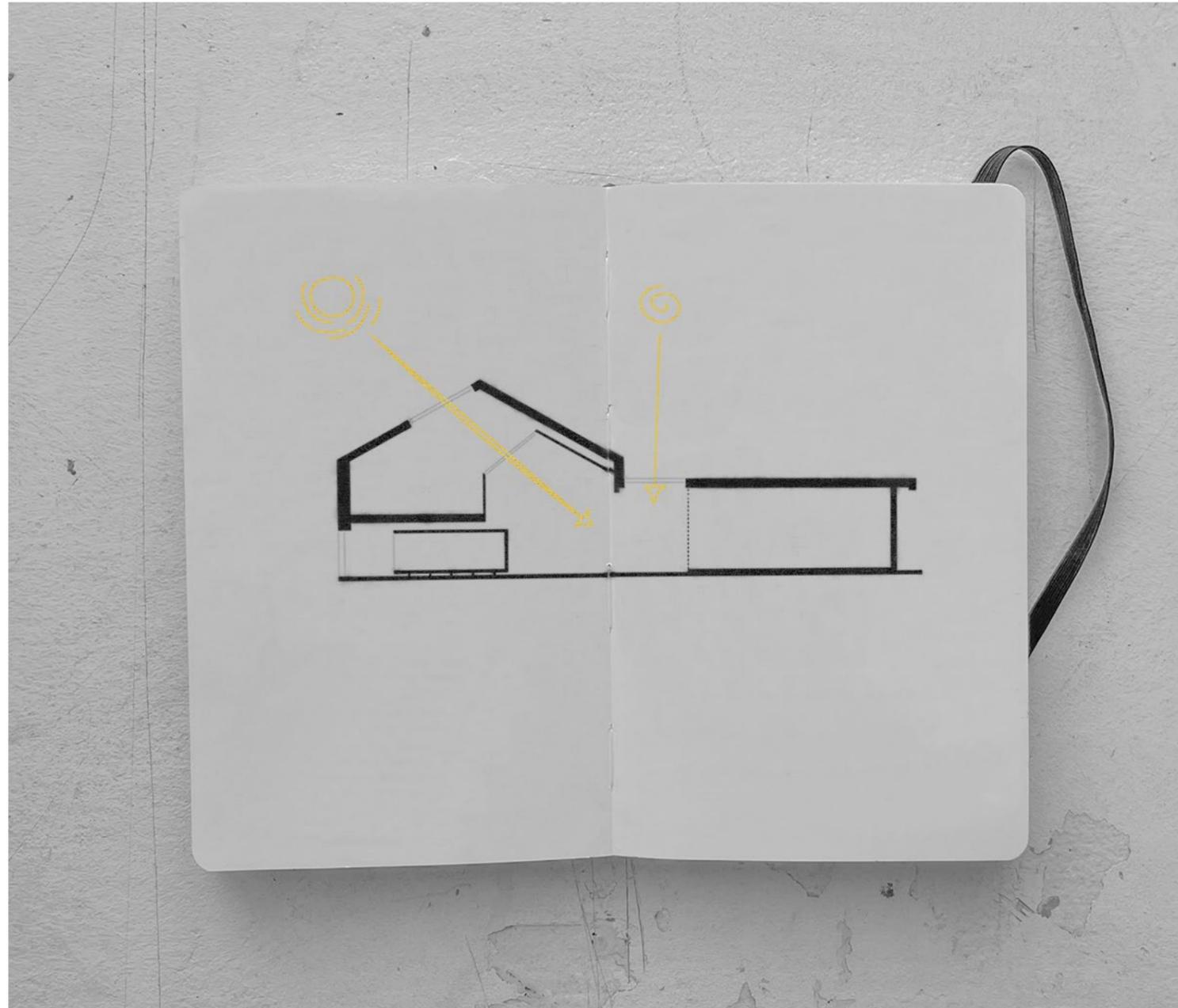
Ørnes
Harbour Activity Center

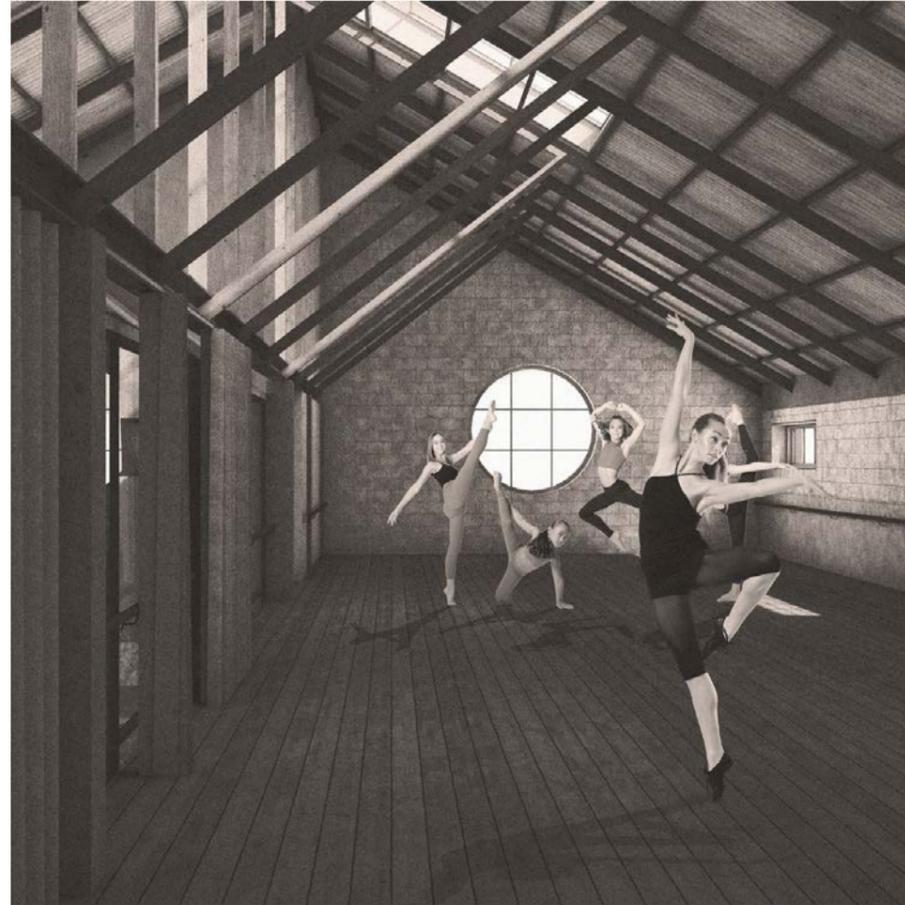
Section C

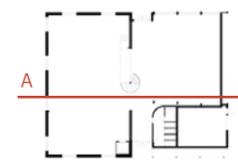
A2 | 1:100

Afternoon (left)

Midday (centre)





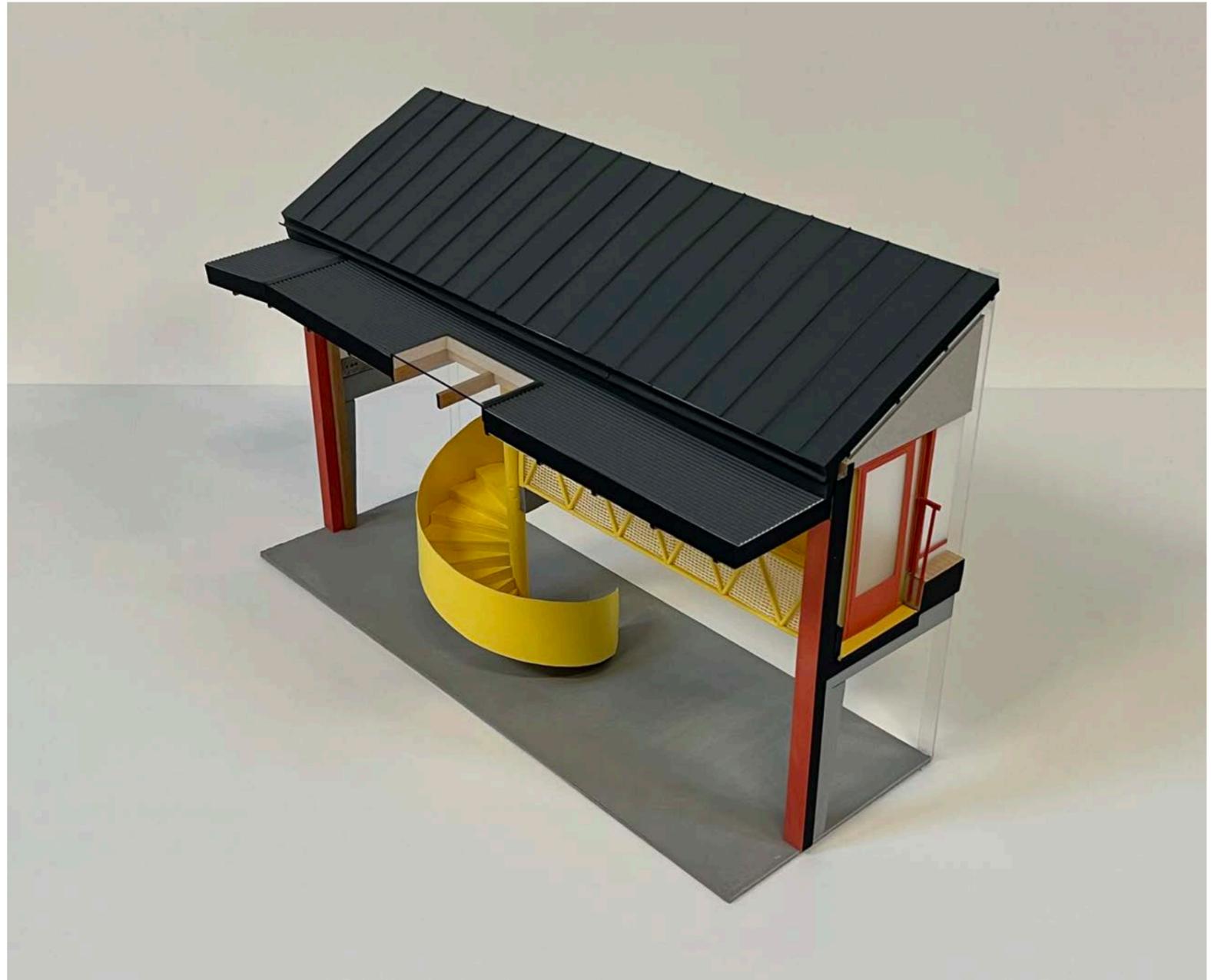


Ørnes
Harbour Activity Center

Section A

A2 | 1:100





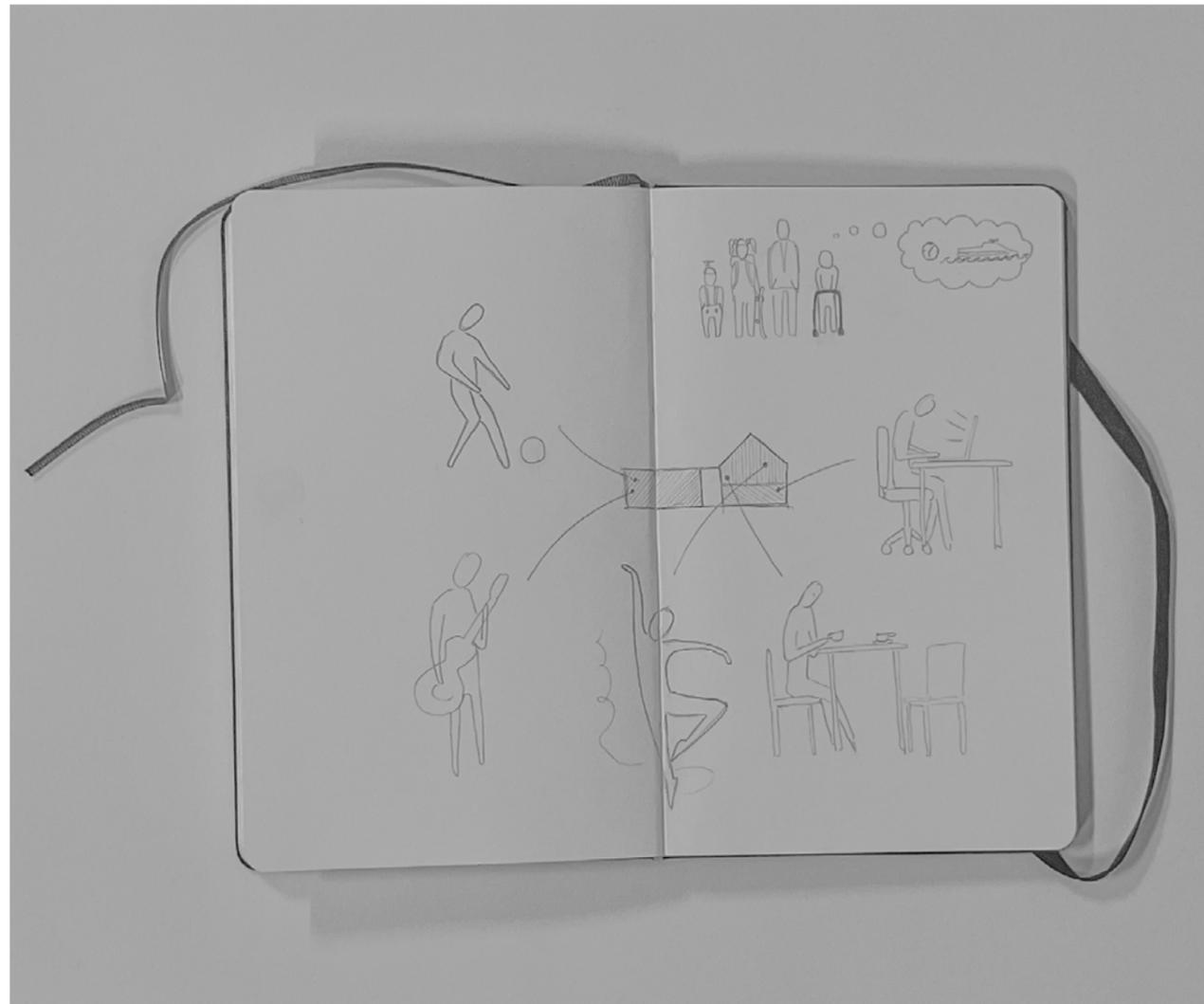
1:20. The main protagonist of the project is the central spiral staircase. Because of the central placement, it remains visible throughout the building. Colour theory, implemented by a vibrant yellow is meant to enhance the energy in the room, encouraging users to traverse the steps, hence connecting the spaces and users.

Strategy to counter Urbanization. The main strategy is to create an arena for everyone to enjoy with a future goal that the interaction between groups of different ages, interests and social standing can happen in one building. Knitting the society further together.

Ørnes and the surrounding towns have many recreational activities, but they are far apart, and when they take place, they are often specialized for certain age groups.

The changeable floor plan of the building will allow for a diverse selection of activities to happen all at once, creating the possibility for an entire family to spend their recreational hours there.

The activities are not limited to the ones that are shown as examples, rather the established layout aims to encourage wide use.



Waiting room. The daily arrivals and departures of Hurtigbåten can contribute to exposure of the other activities within the building.





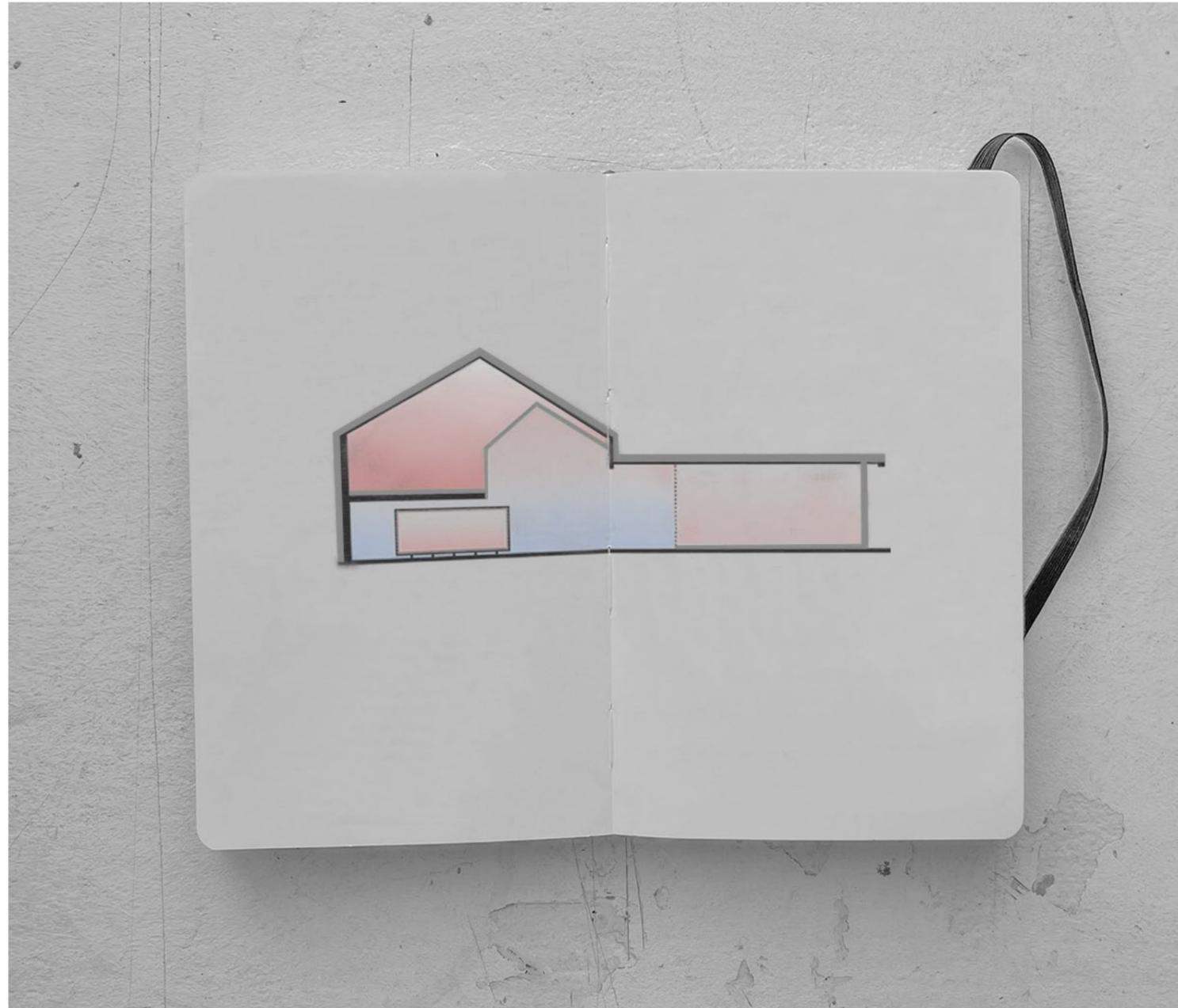
Exterior Situation | Hurtigruten arrives

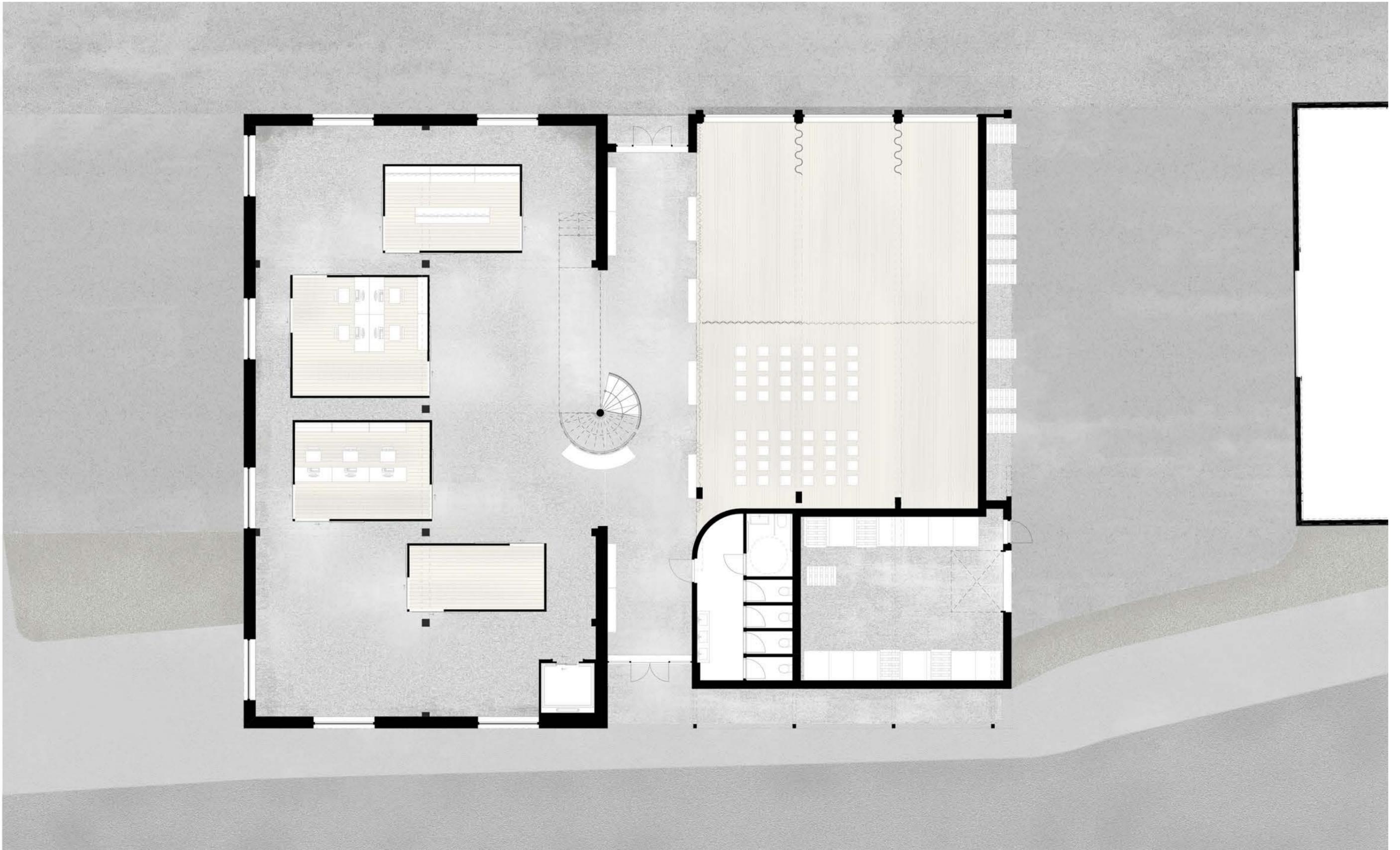
Concert and Sports Hall (right):
Mechanically heated, obstructed by curtain

Centre Atrium (middle):
Non-Insulated floor - mechanically heated when necessary.

Multiple Use boxes:
Mechanically heated, CLT structure.

Studio Hall (upstairs)
Fully Insulated and mechanically heated.





Ørnes
Harbour Activity Center

Ground floor plan

A2 | 1:100



Ørnes
Harbour Activity Center

First floor plan

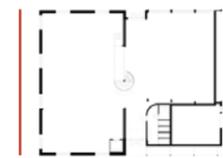
A2 | 1:100



Ørnes
Harbour Building

South Elevation

A2 | 1:100



Ørnes
Harbour Activity Center

South Elevation

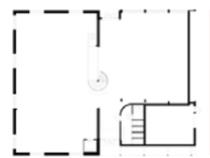
A2 | 1:100

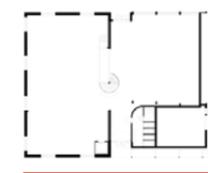


Ørnes
Harbour Activity Center

North Elevation

A2 | 1:100

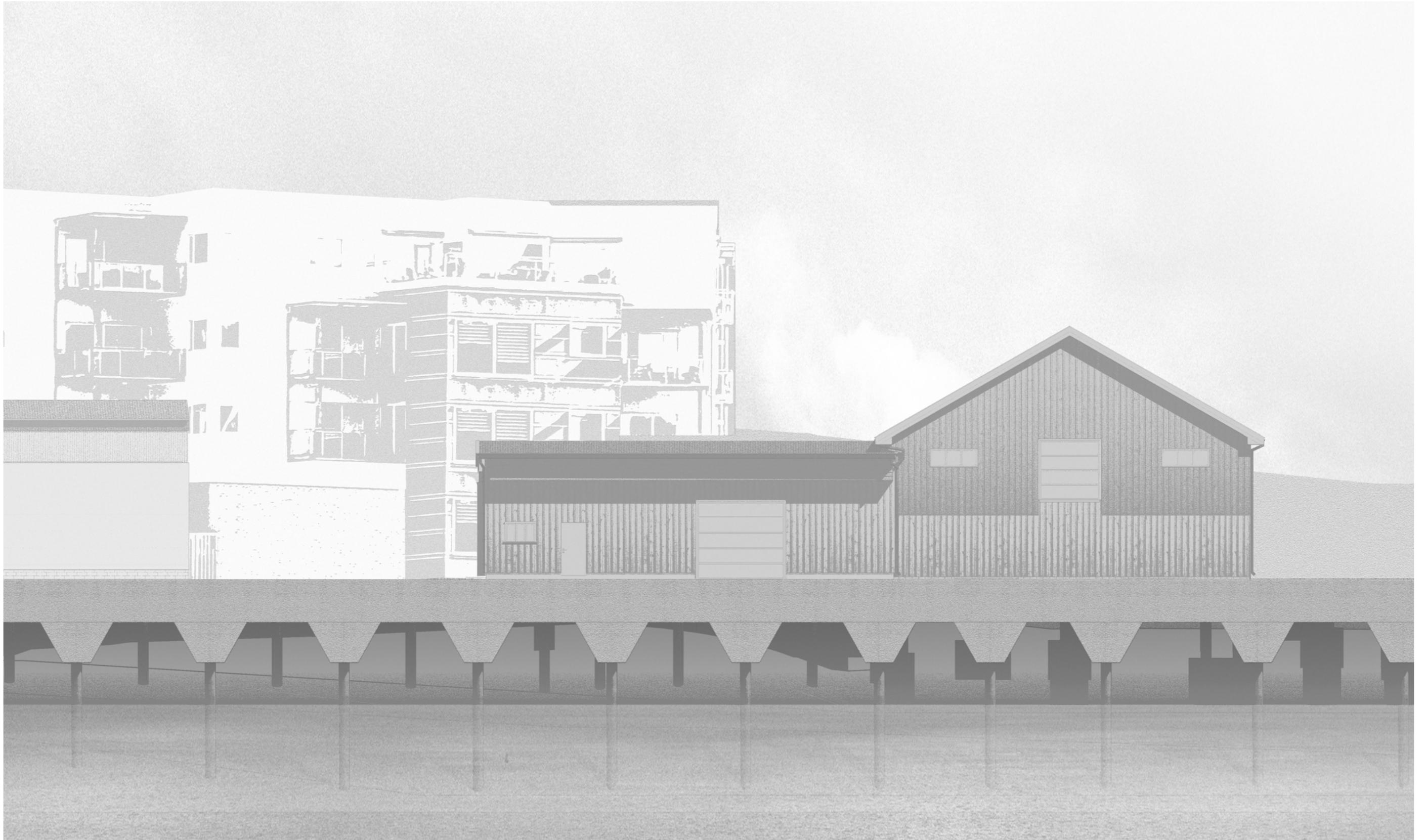




Ørnes
Harbour Activity Center

East Elevation

A2 | 1:100



Ørnes
Harbour Building

West Elevation

A2 | 1:100

