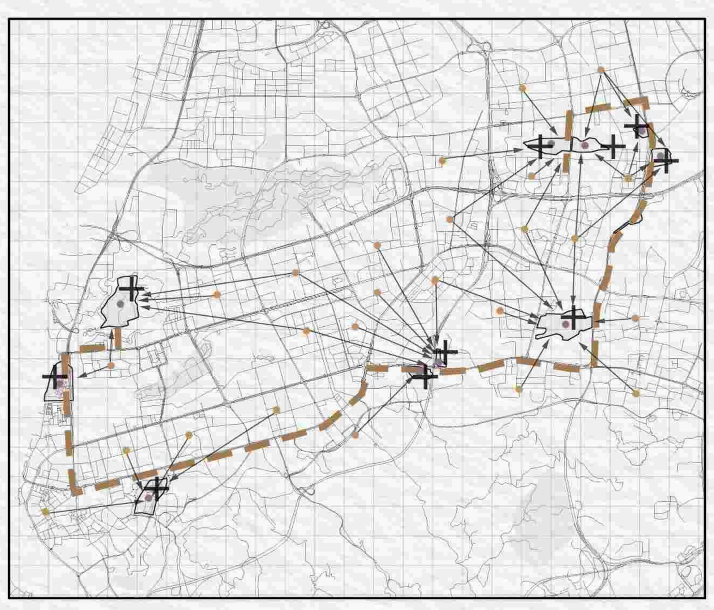
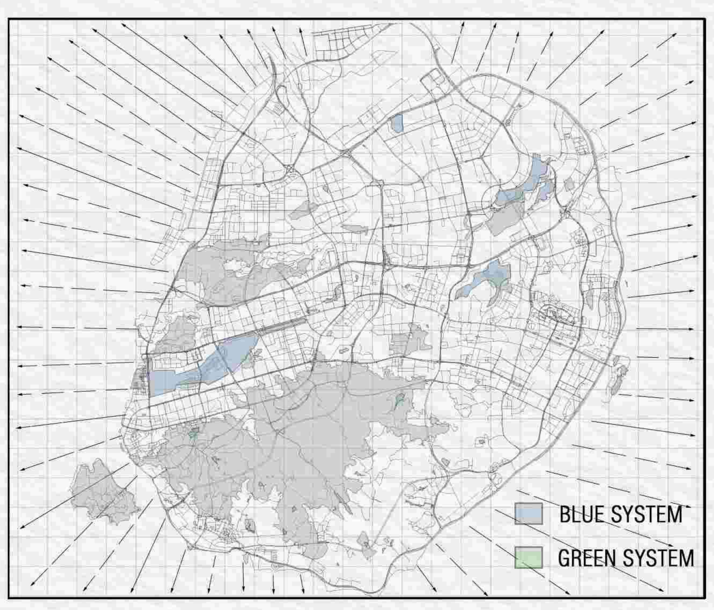
“SELF-PROCESSING BAZAAR FOR URBAN CLEAN-UP” PROJECT

MODULAR COMBINATIONS AND ANALYSIS



SITE SELECTION ANALYSIS



ELEMENT ANALYSIS

ISSUES AND CONCLUSIONS OF THE LOCATION ANALYSIS

As the largest tourist city in China, the high volume of tourist movement has resulted in Xiamen having one of the few cities with the highest amount of waste in China, and this project wanted to explore the impact that the integration of waste into people's lives has had on their lives. The site analysis analysed the locations of 88 existing formal waste recycling plants in Siming and Huli districts, and found that there is a pattern in the distribution of these different sizes of waste recycling plants, with private recycling plants, government-run recycling plants and community recycling points corresponding to each other. The study also analysed the direction of waste disposal and made assumptions.

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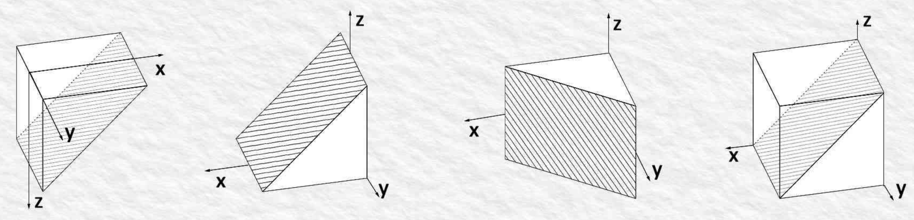
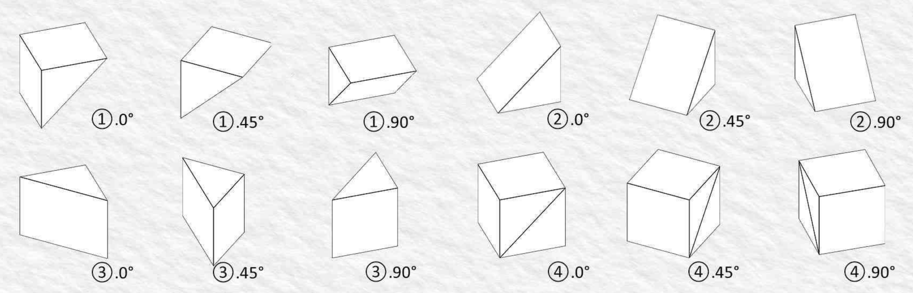
01 VARIATIONS ON A TRIGONAL PRISM

In studying the form of the trigonal prism, I have found that all the variations of the trigonal form can be grouped into four categories, based on where the slant appears, as the slant appears on the XY axis, the slant appears on the XZ axis, the slant appears on the YZ axis and the two slants intersect.

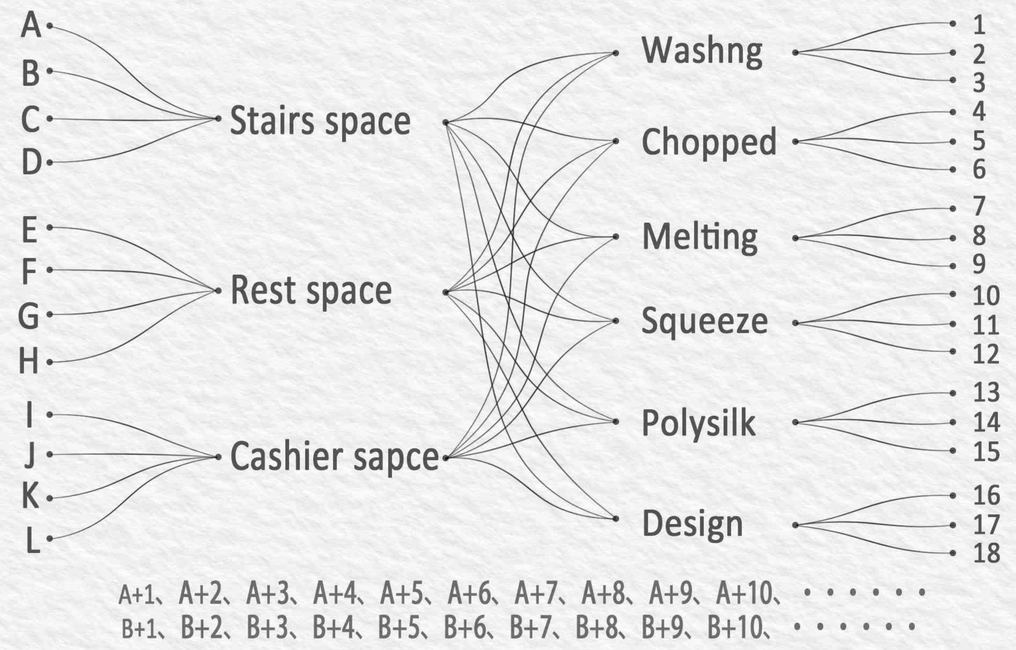


Each module changes according to the angle of rotation of the XYZ axis, i.e. the four forms can cover all variations of the orthotriangular prism.



02 THE CONCEPT OF "COMBINATION"

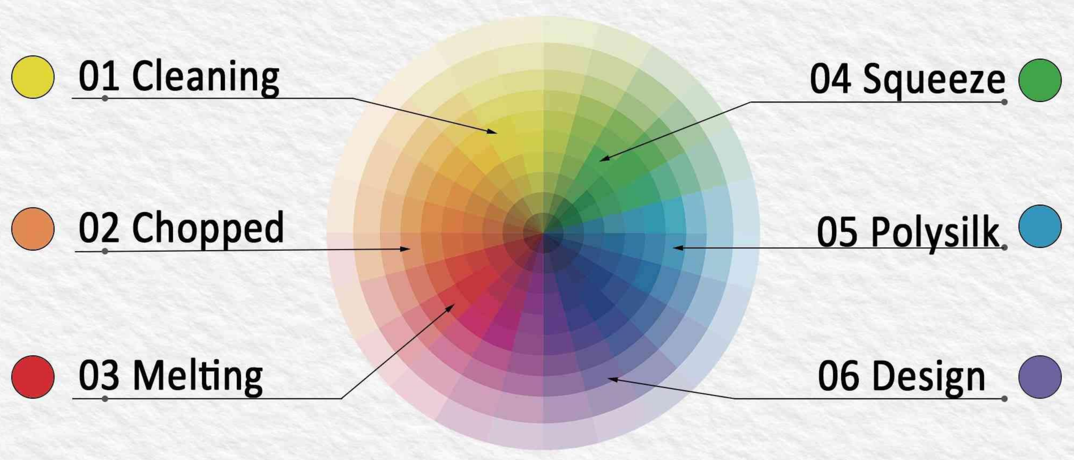
In researching the combination of modules, I found that a combination of multiples of 2 maximises the functionality of the space and makes more sense than a combination of multiples of 1. I divided the space types into functional spaces that represent the treatment process and public spaces that represent people's lives, and fused them as the base "2" of the combination, ultimately using the base "2" as a constituent element of the space to achieve the goal of integrating the waste treatment process into people's lives. The ultimate goal is to integrate the waste disposal process into people's lives by making the "2" a component of the space.

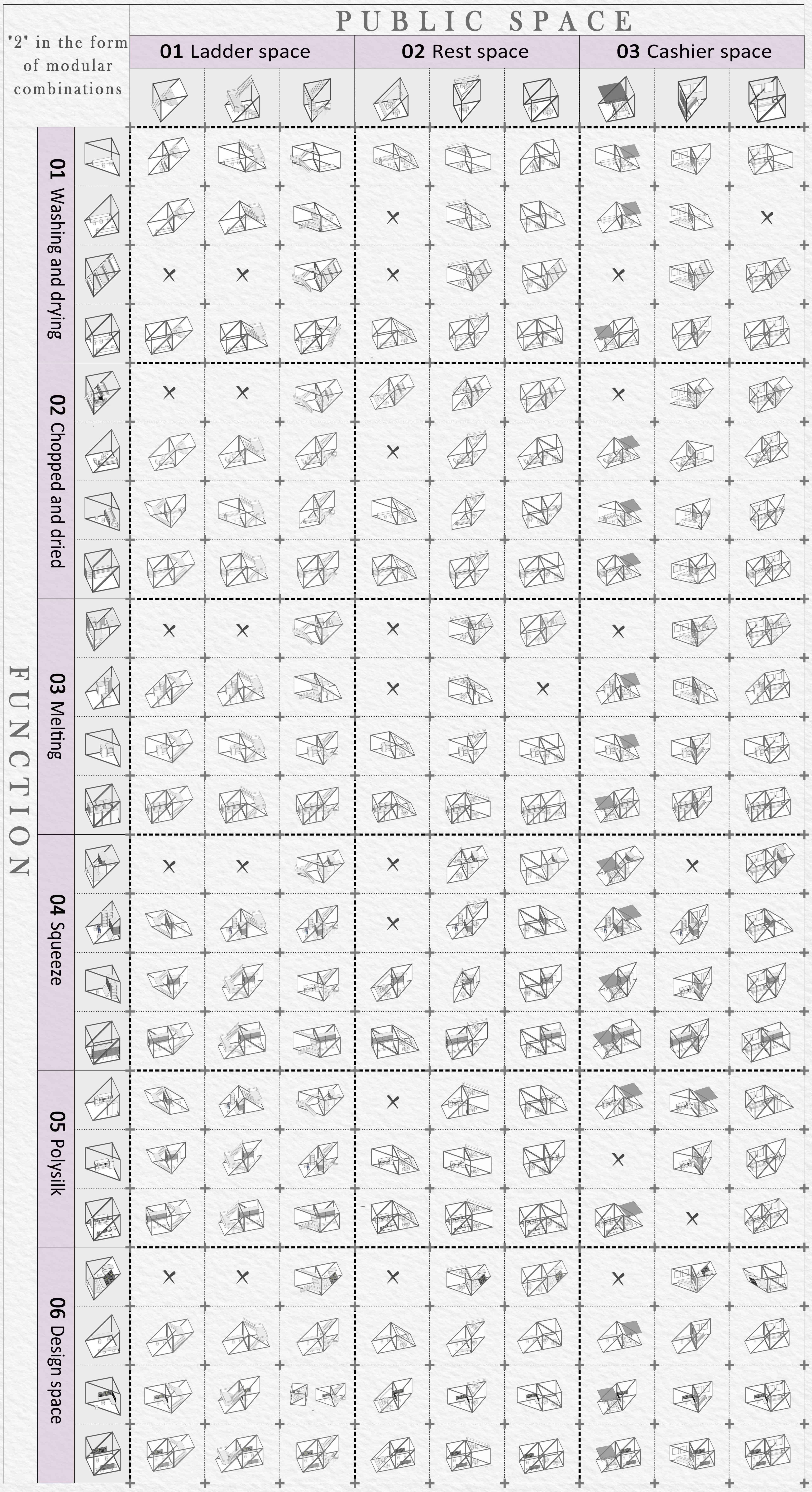


03 COLOUR AND MATERIAL OF MODULE

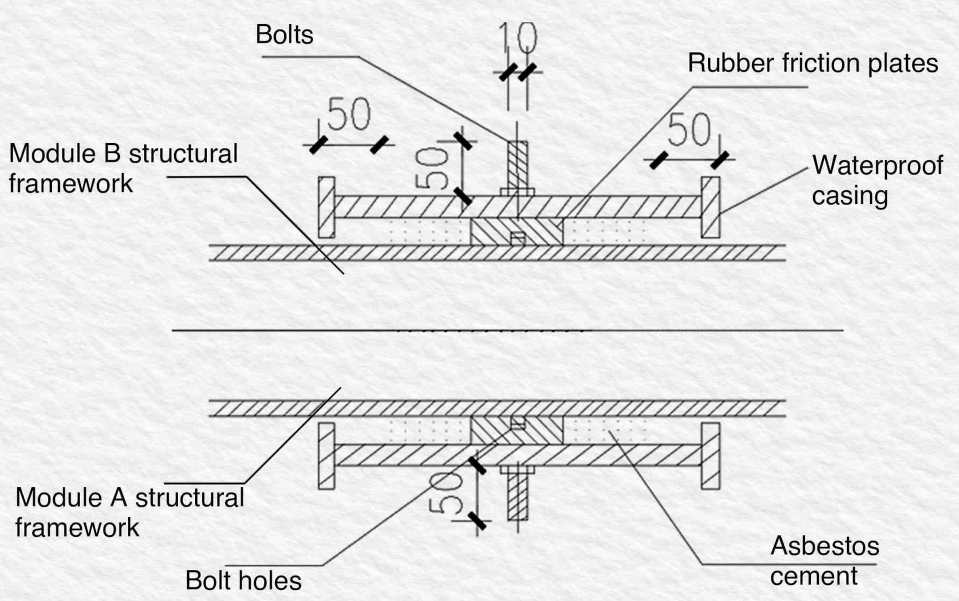
Redbud (Facades etc.)
Origin: Suitable for cultivation in all parts of China, north and south.
Attributes: fine structure, hardness and density, strong corrosion resistance and toughness.

Metal (Frames)
Origin: Factory-made
Attributes: good heat resistance, not easily burned; good durability, not easily aged; not easily damaged; good dimensional stability





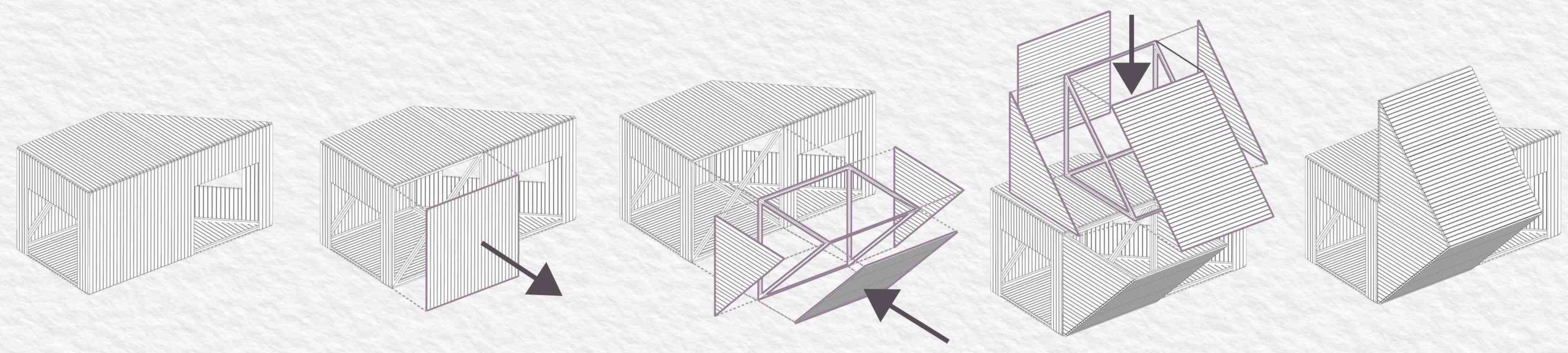
04 COLOUR AND MATERIAL OF MODULE



1:5 FRAME ARTICULATED CONSTRUCTION

The articulation between the frames relies on the more traditional bolting, as the lightness of the material allows for a very stable handling of the frames. The sides of each frame are fixed by 5 bolts, which allow the triangle to be assembled securely.

04 THE METHOD OF "GROWTH"



Original form

Take out the wall

Assembly of walls and frames, access to original frames

Similar access to the upper frame

"Growth" complete

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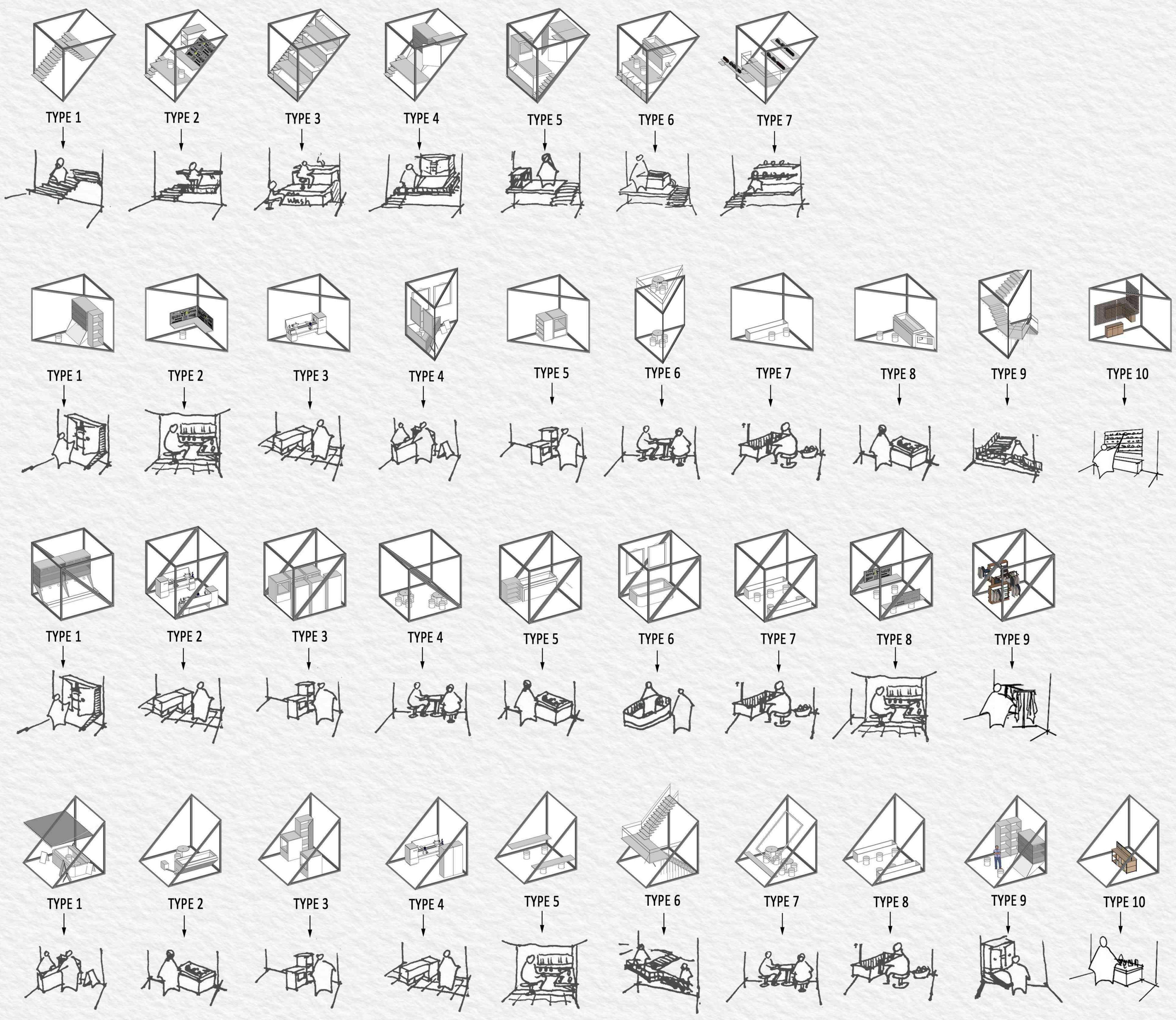
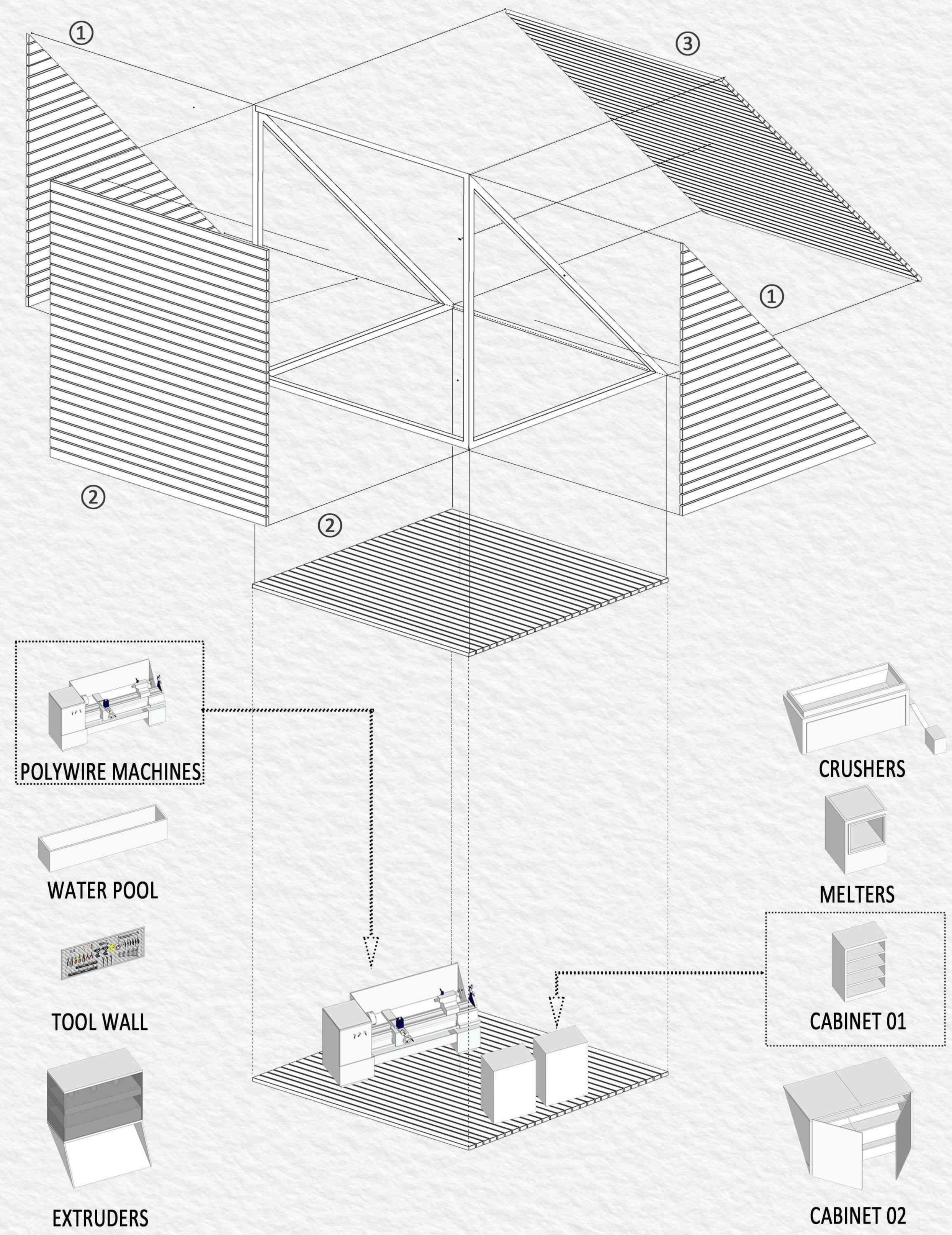
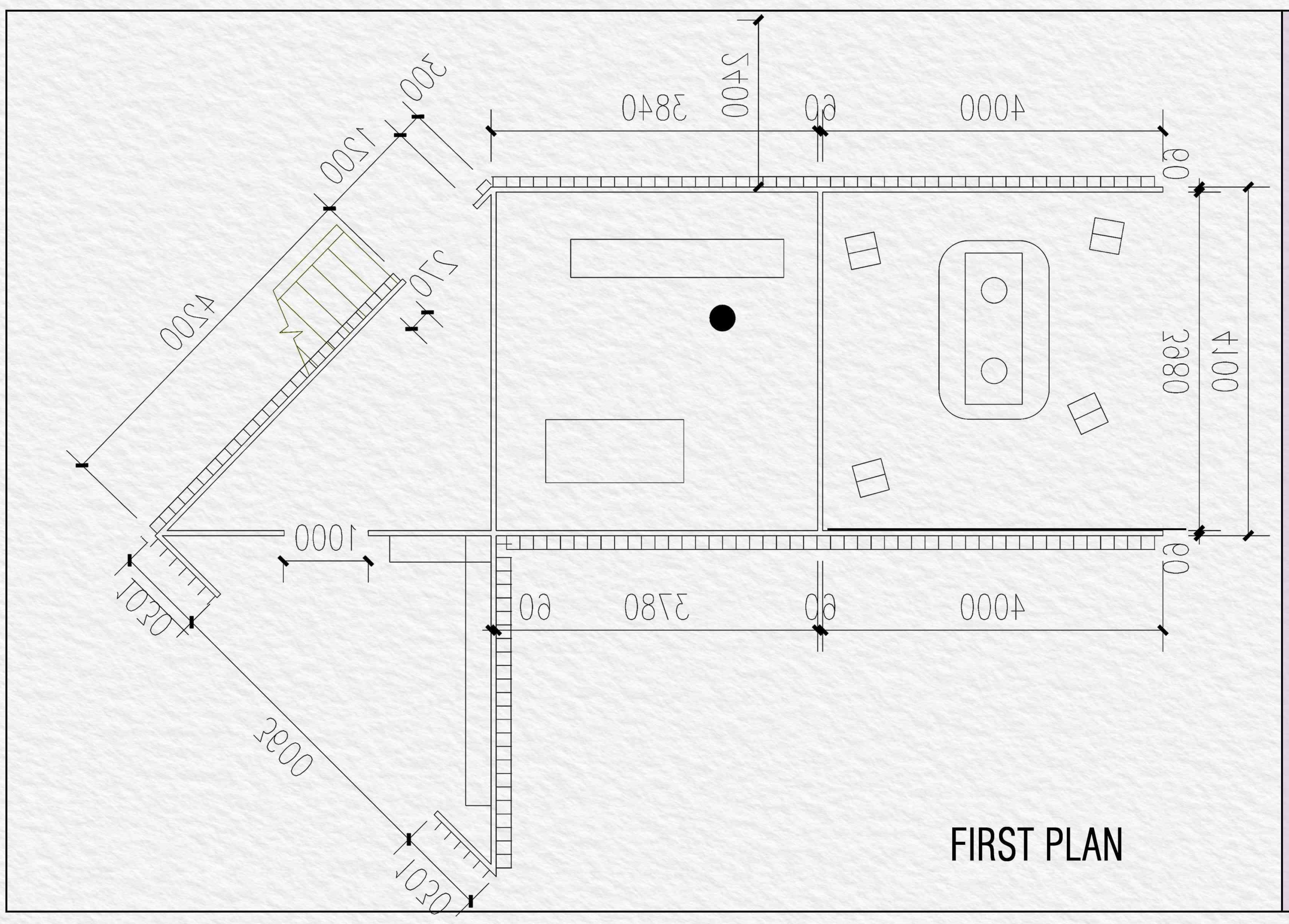
EXPLORING THE SPATIAL PROPERTIES OF MODULES



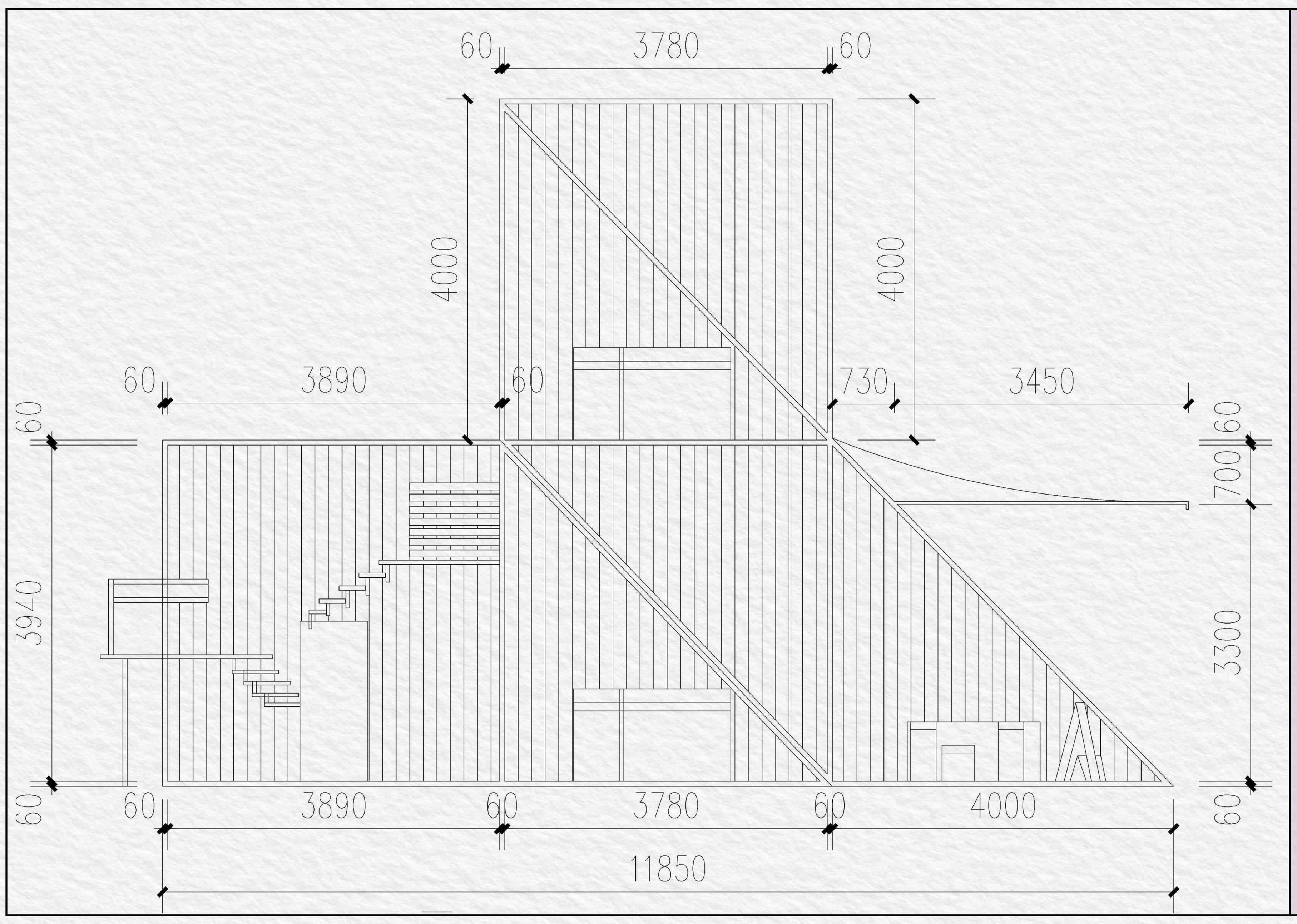
For the prefabricated assembly of the modules, the project intends to use metal frames with wooden panels as the main material of the building. The wood panels are chosen to be applied to the face of the panels according to the spatial requirements and the need for combination.



ARCHITECTURAL DRAWINGS (IN SOME COMBINATION FORM)

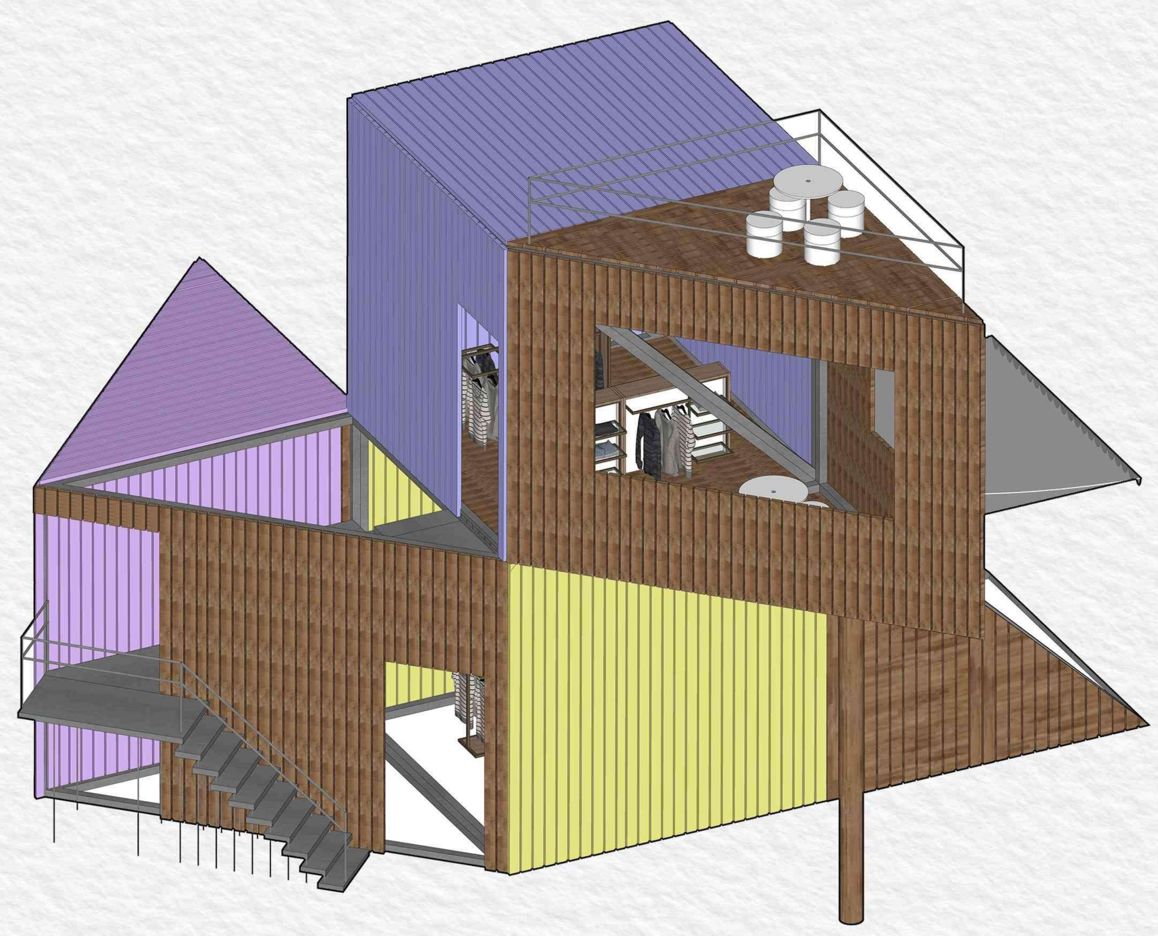


1:50 PLAN(OPTIONAL COMBINATION FORM)



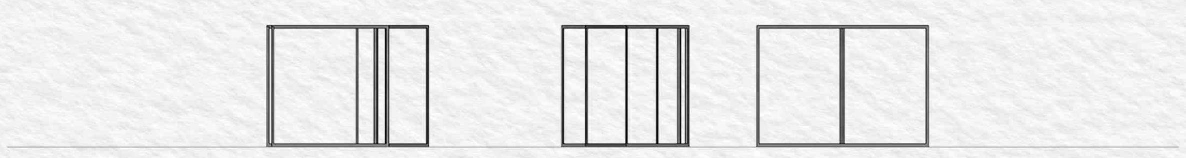
1:50 SECTION(OPTIONAL COMBINATION FORM)

SOME COMBINATION FORM

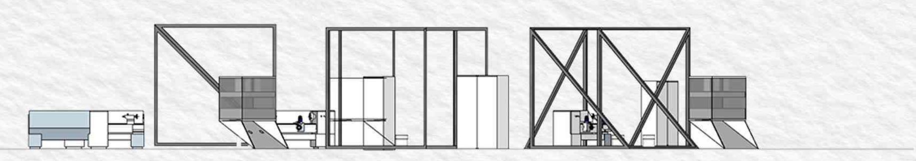


ELEVATION CHANGE

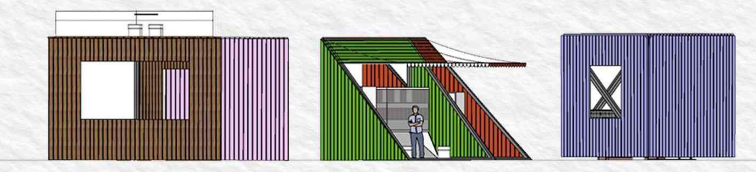
Stage 1: Polymerisation of waste (frame - membrane)



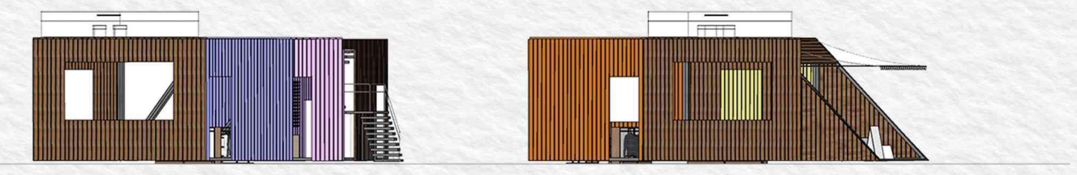
Stage 1: Prefabricated machine handling and modular space planning



Stage 3: Spatial formation



Stage 4: Combination of functional and public spaces for fabrication



Stage 1: Converting the space into a shop to sell crafted items, more combinations

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MODELS AND RENDERINGS SHOWN

RENDERING OF THE SCENE

MODEL ASSEMBLAGE FORMS AND PREFABRICATED FURNITURE

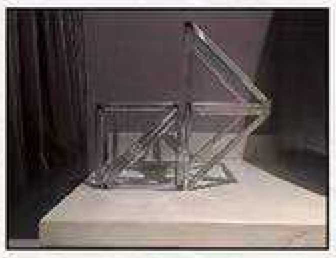
PREFABRICATED FURNITURE MODELS

COMBINED FORM MODEL

MORPHOLOGY 1

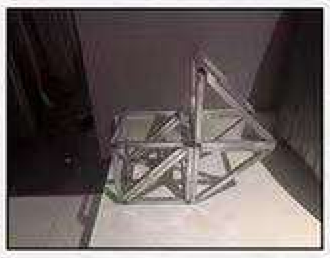
MORPHOLOGY 2

MORPHOLOGY 3



MORPHOLOGY 4

MORPHOLOGY 5



MORPHOLOGY 6

MODELLING.

The overall use of a welded iron frame to show the connection of the model, the reason for this is that the material of the frame of the building itself is iron, which ensures stability and at the same time allows the stability of the iron combination to be better seen.