

PULSE JET JET

A perpetual living system

TYPOL_054

Residential (subject to growth)

STATEMENT

Are the principles and guidelines of modularity sufficient to accommodate a community and yield a city?

CITY

A very dense area, larger than a town



TOWN

A thickly populated area, larger than a village



VILLAGE

The collective of small communities



COMMUNITY

Locally inhabited by a group, sharing common interests, perceived as distinct

JUSTIFICATION

Cut cost (prefab)

Cut time (prefab)

Cut waste (prefab)

low initial use of land

Promote pedestrian life style (walkability)

Futurist and architect Antonio Sant'Elia once said, "Things will endure less than us, every generation must build its own city."

CONCEPT

~~Create city using modules~~

~~Create neighborhood~~

Create MODULE (what is a module?)

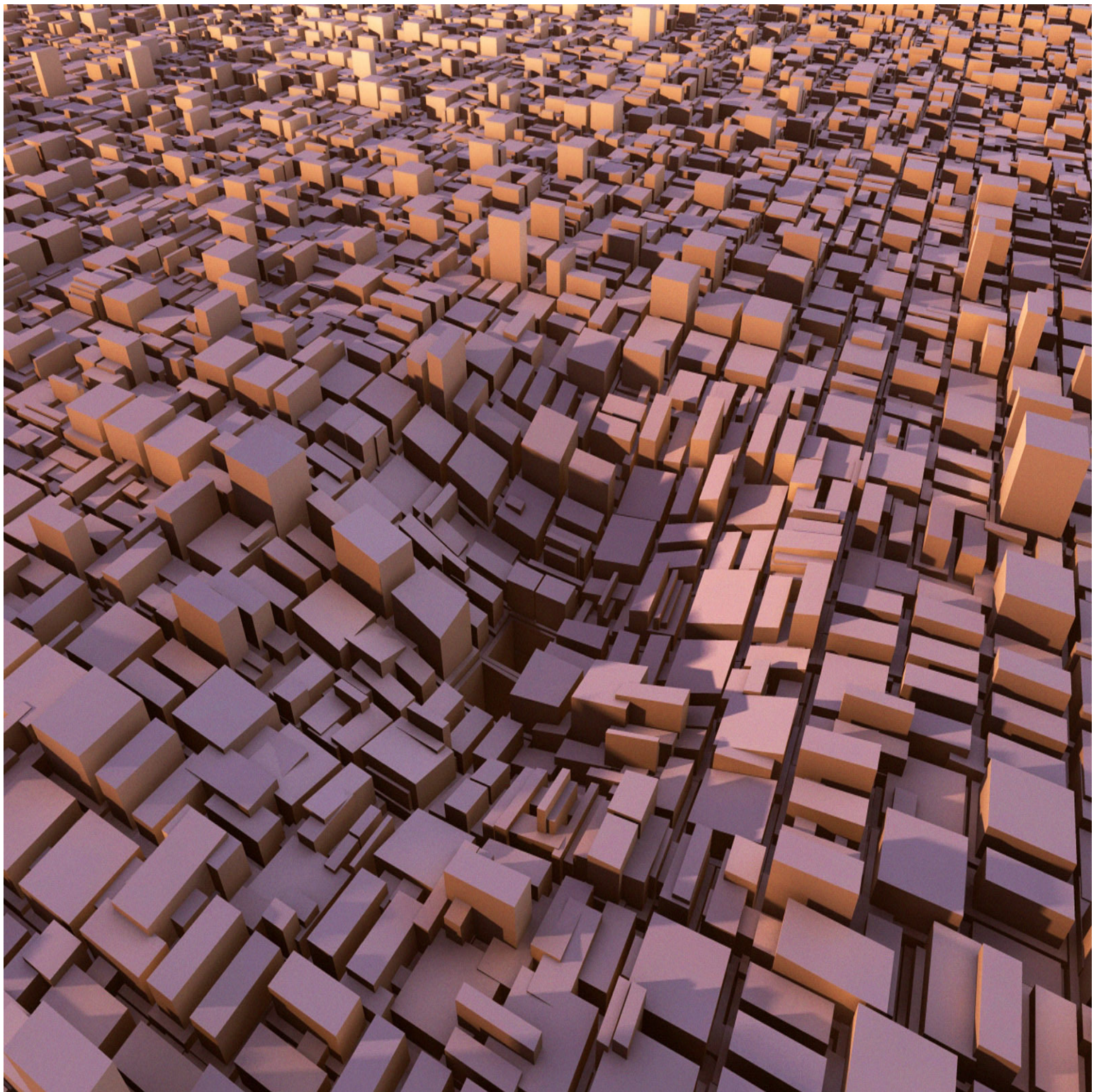
Prefabrication

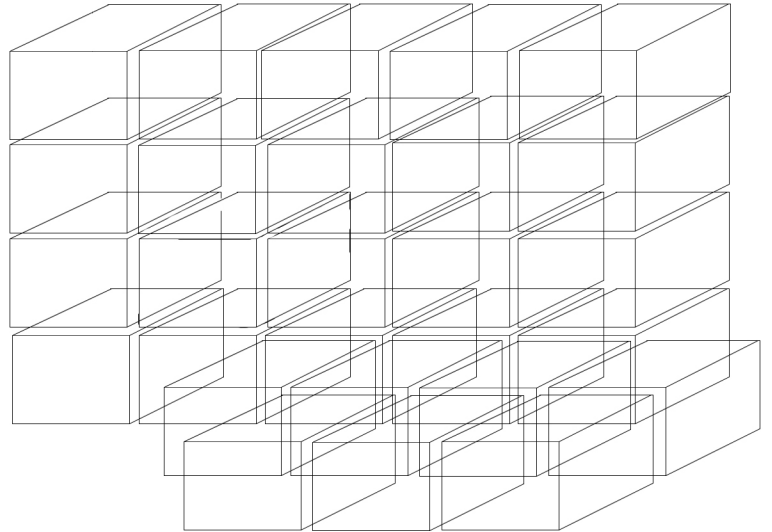
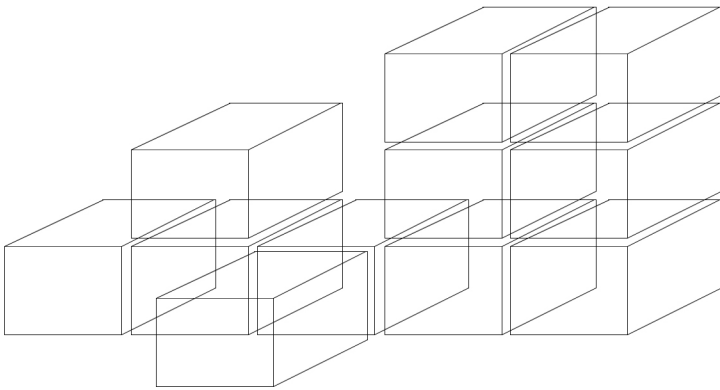
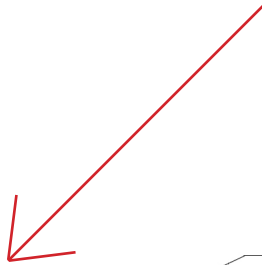
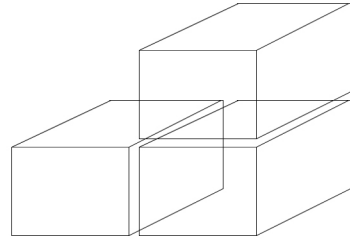
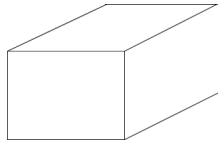
CONCEPT

MODULAR: Designed with standardized units or dimensions, as for easy assembly and repair or flexible arrangement and use

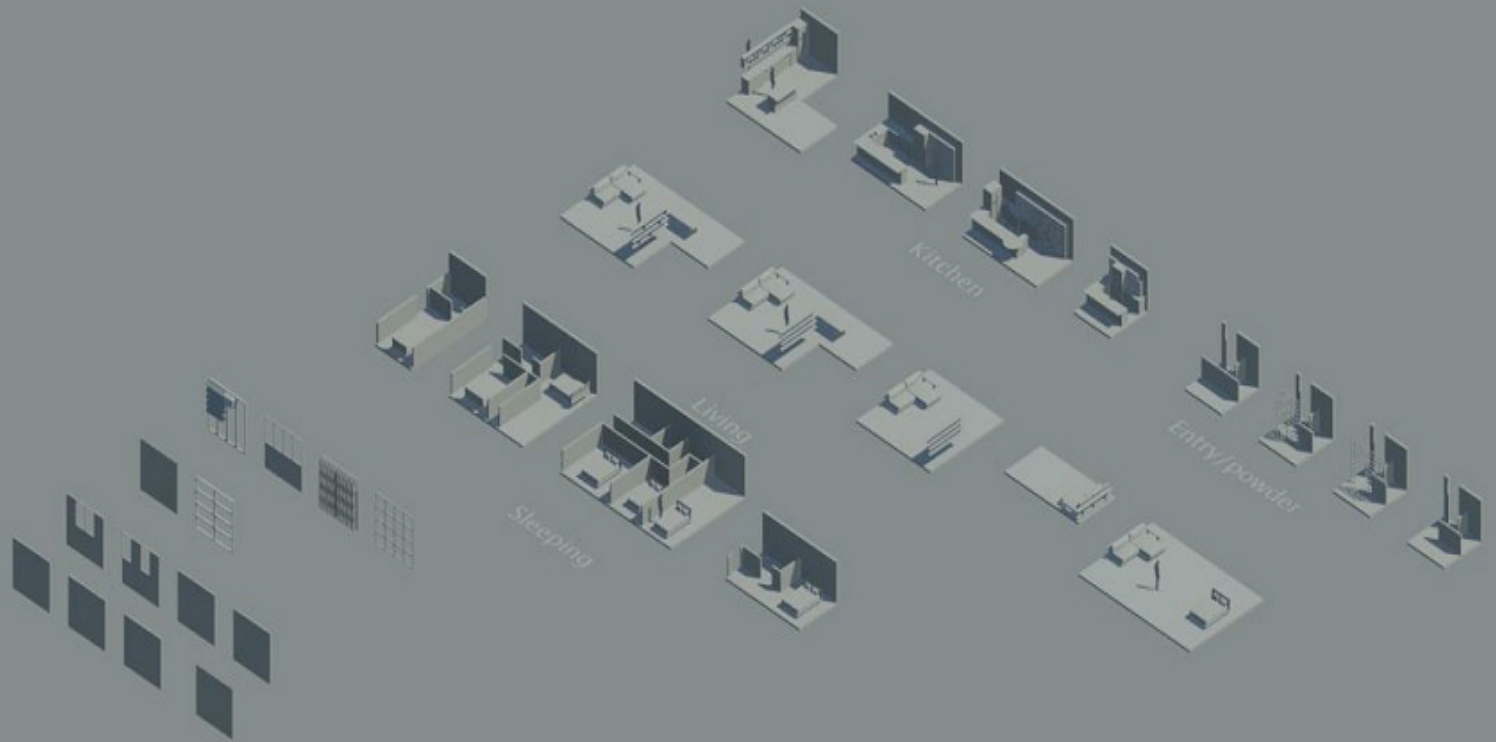
MODULAR DESIGN: Approach that subdivides a system into smaller parts (modules) that can be independently created and then used in different systems to drive multiple functionalities

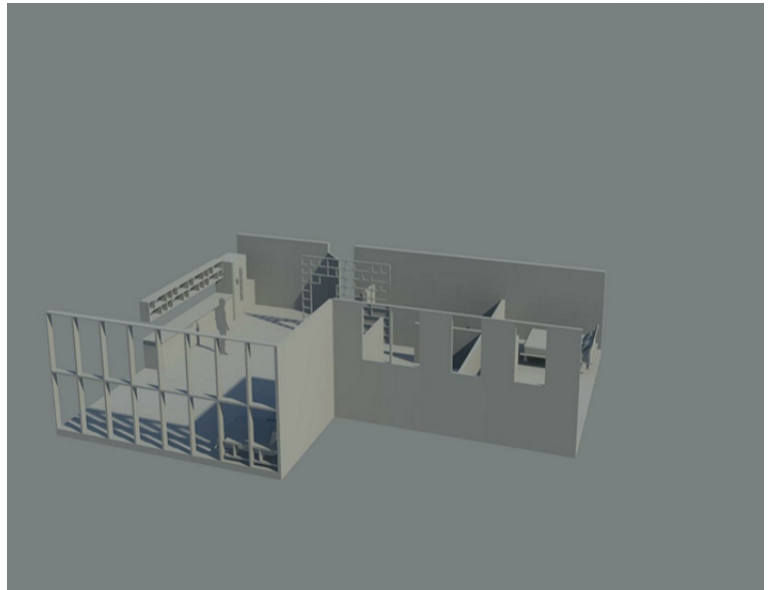
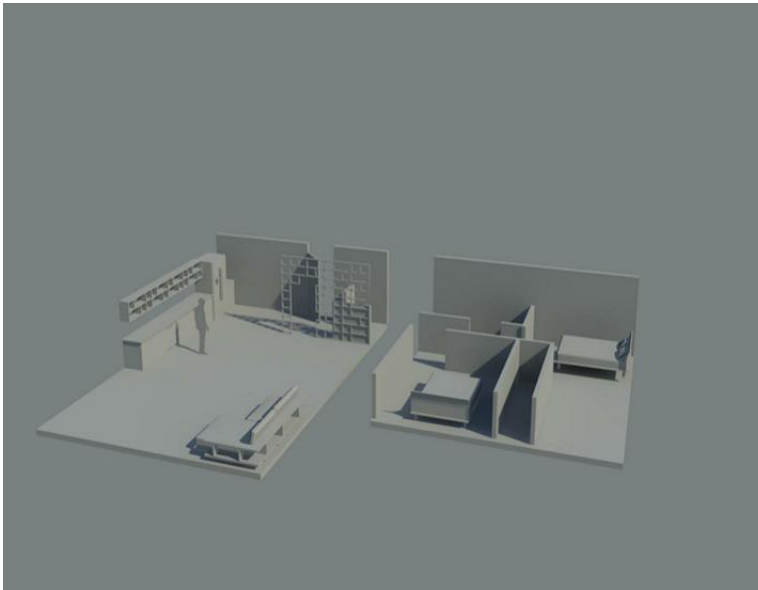
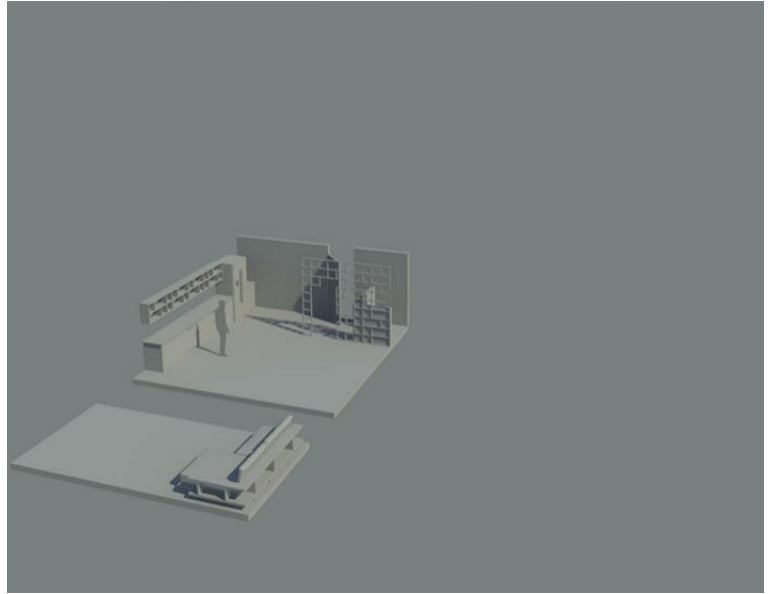
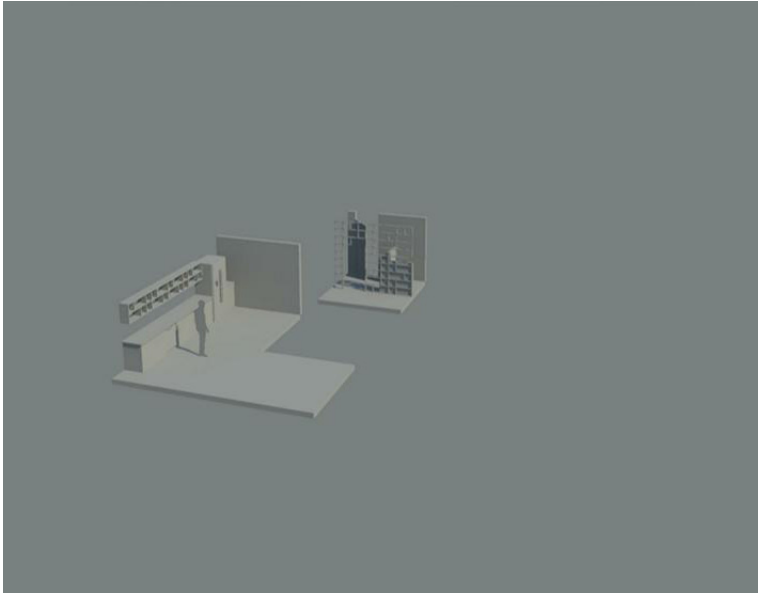
THE MODULE: Unit of space which is occupiable and independent

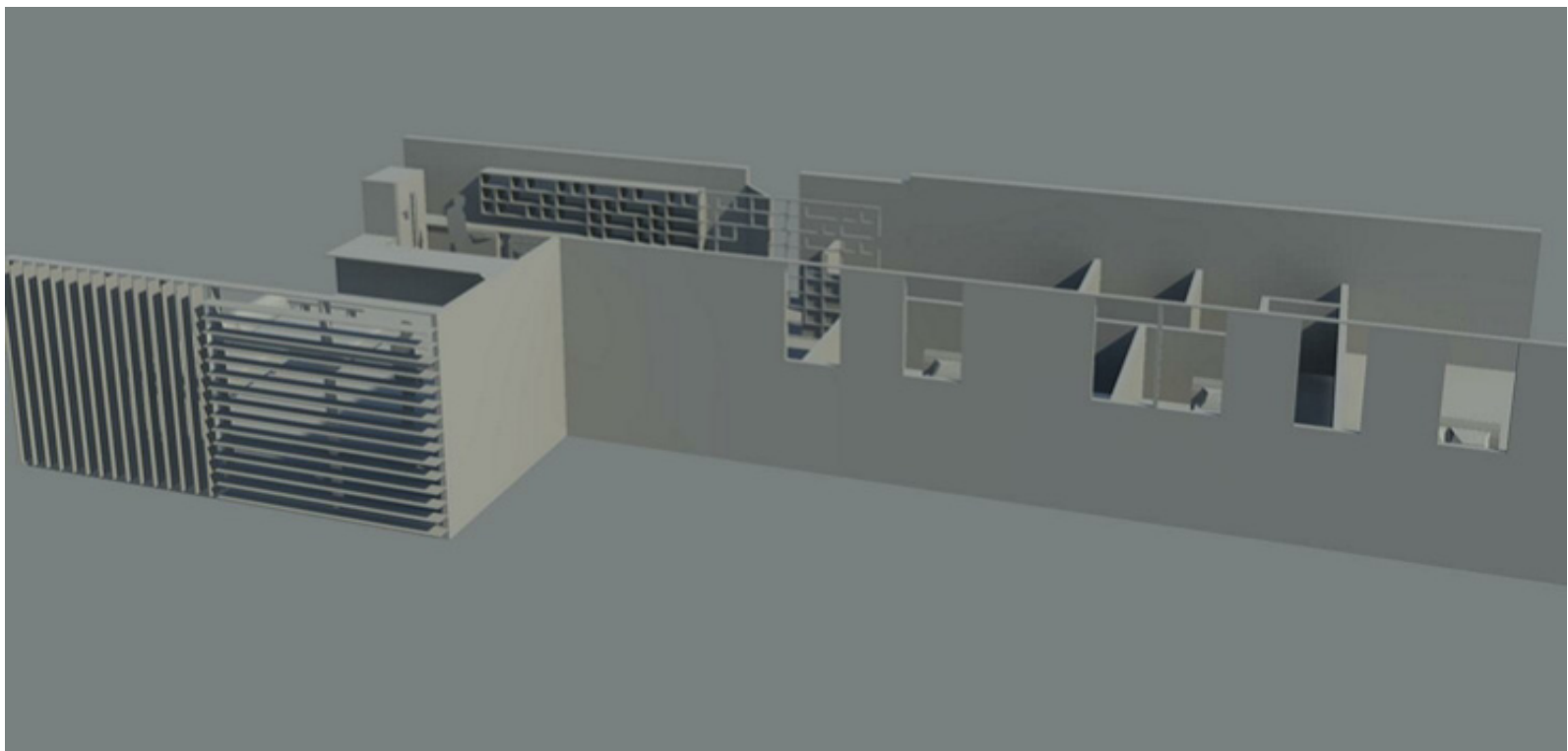
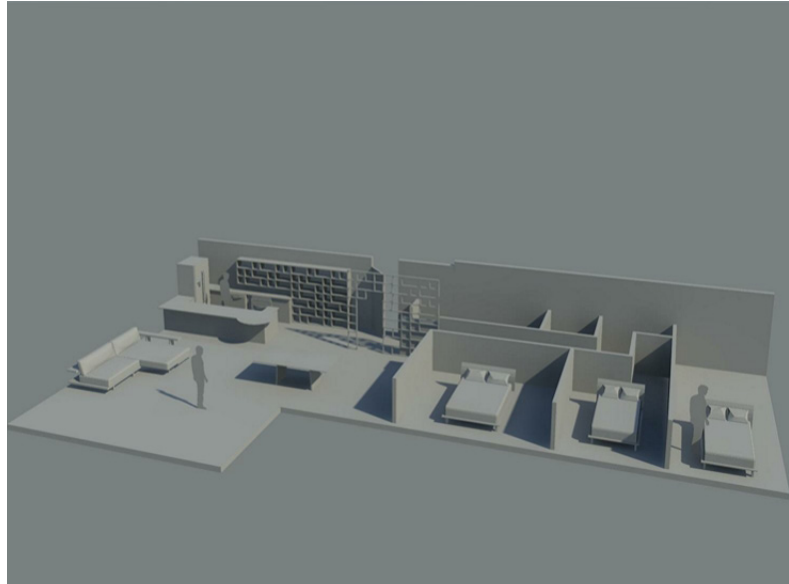
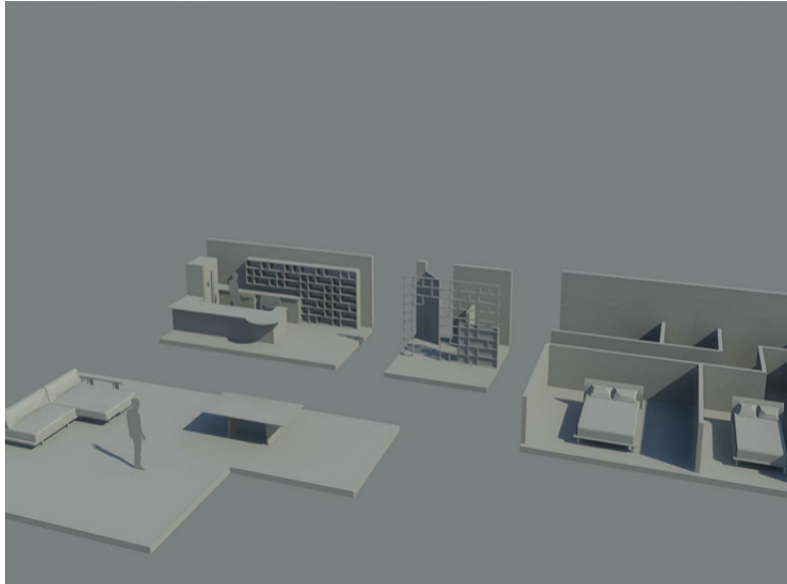


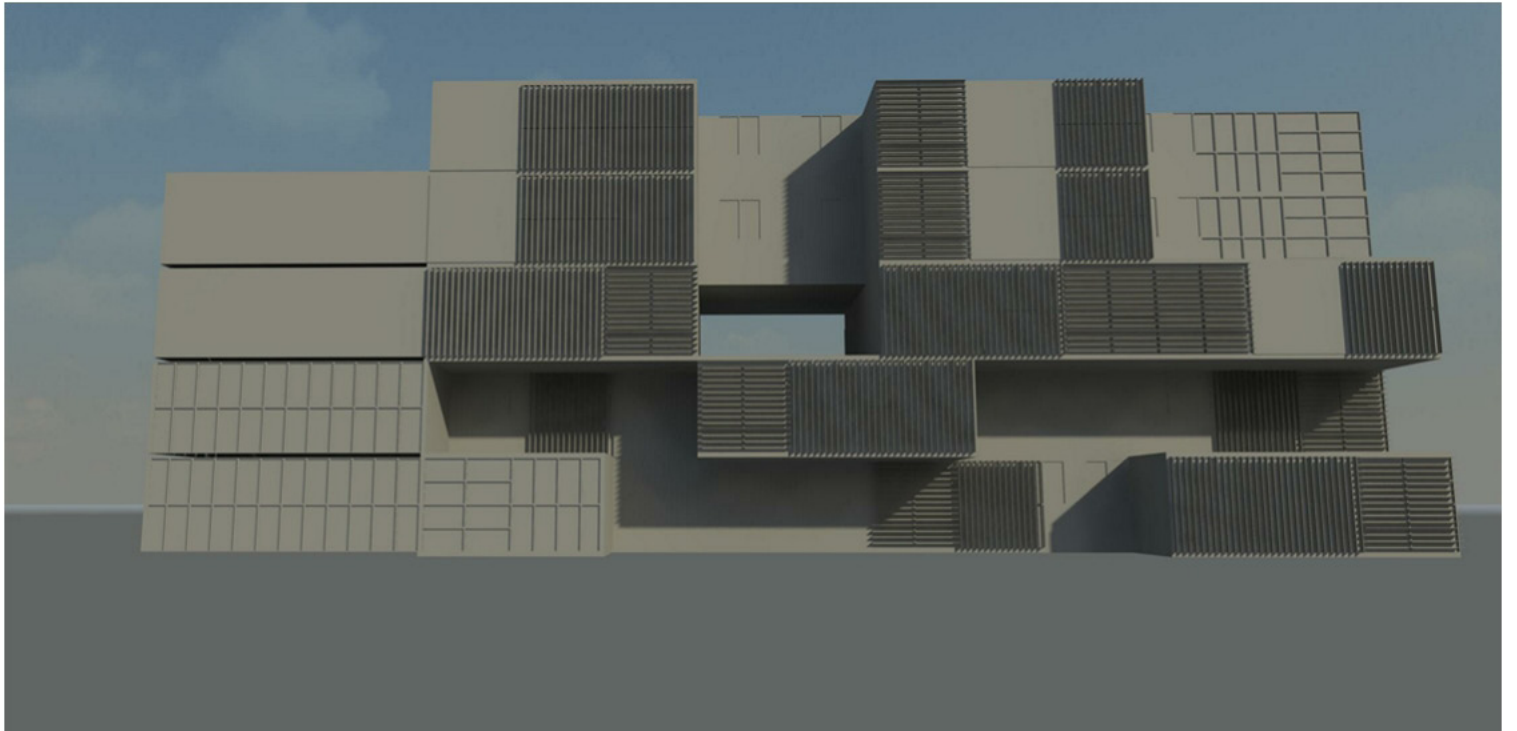


THE DESIGN: Type 1





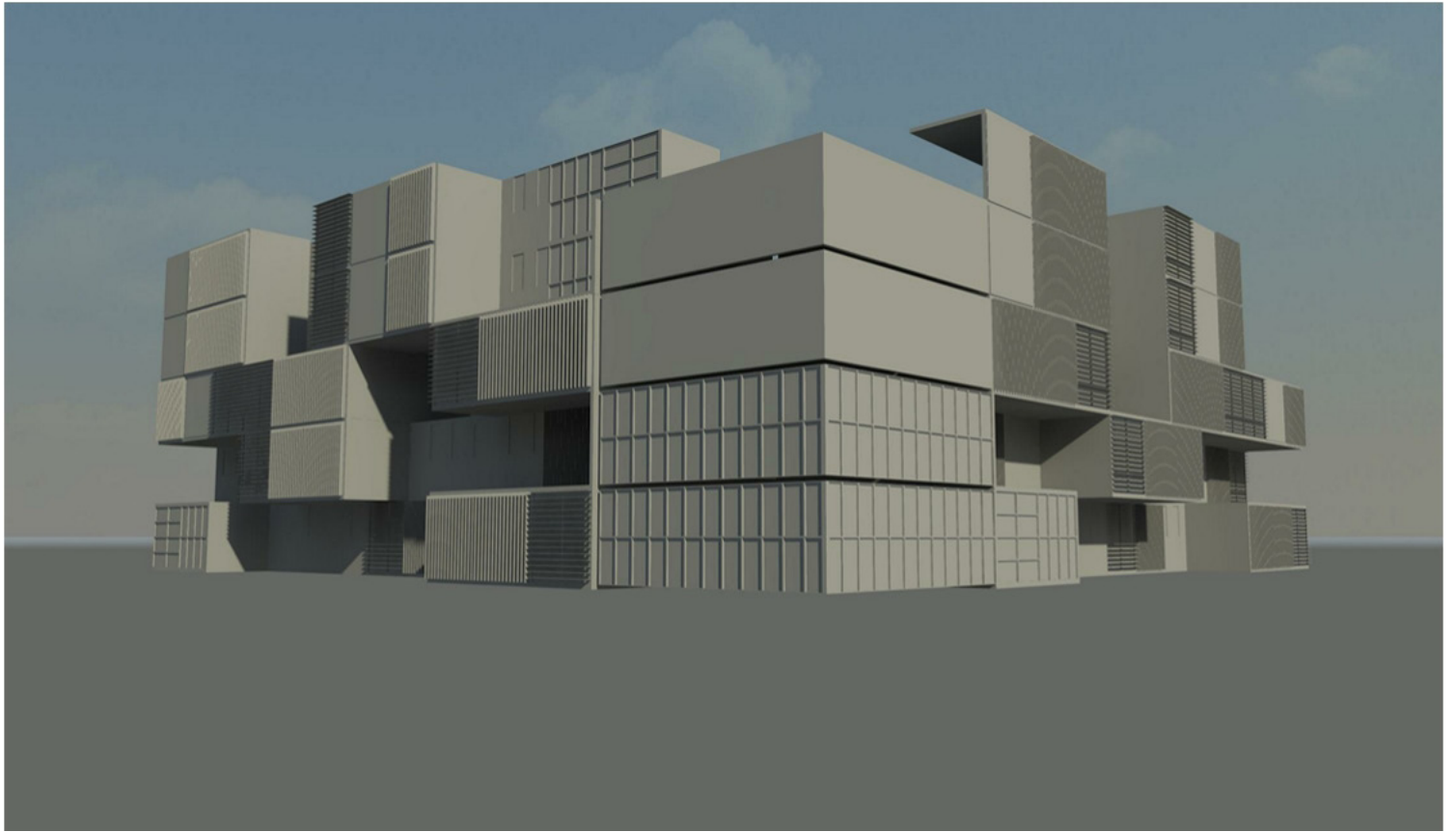




Stacking - Facade



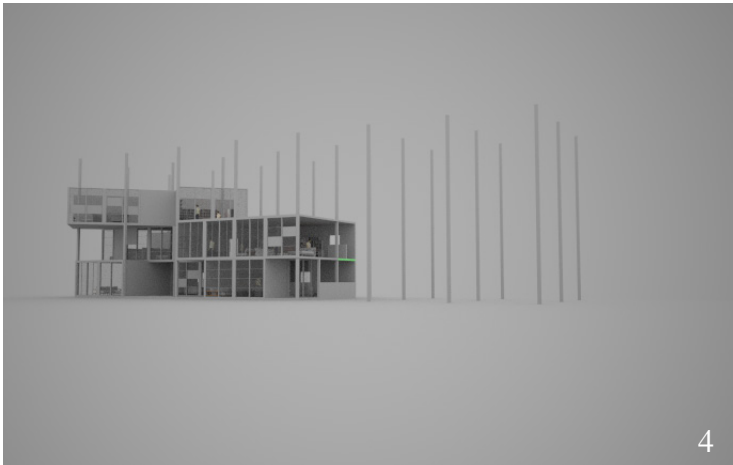
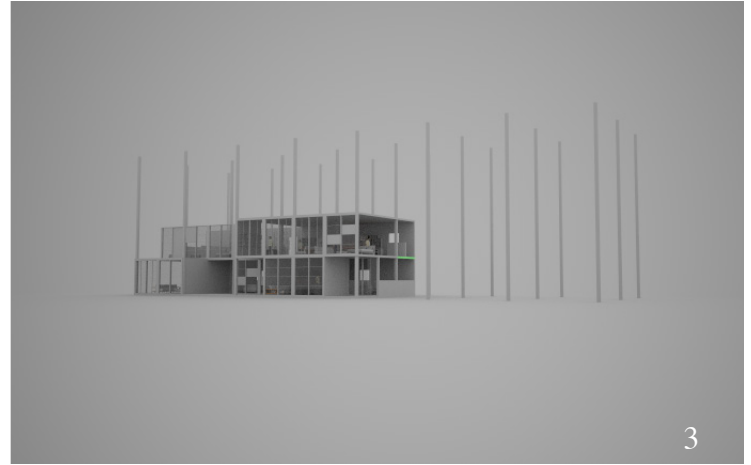
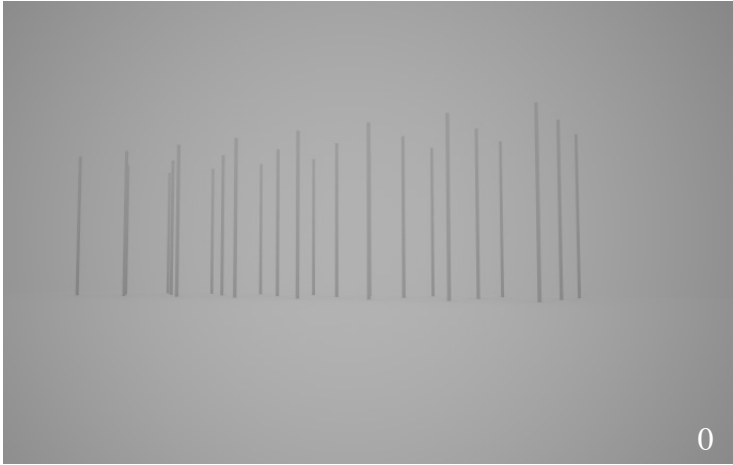
Structure?



More massing investigation



Alternating module typologies



Structure investigation - skeleton?



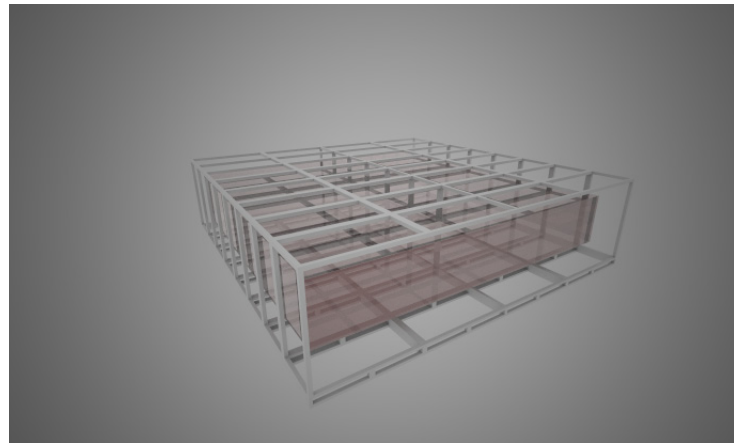
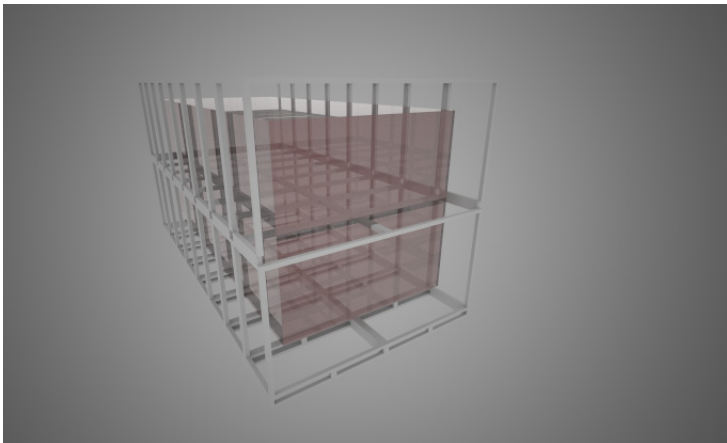
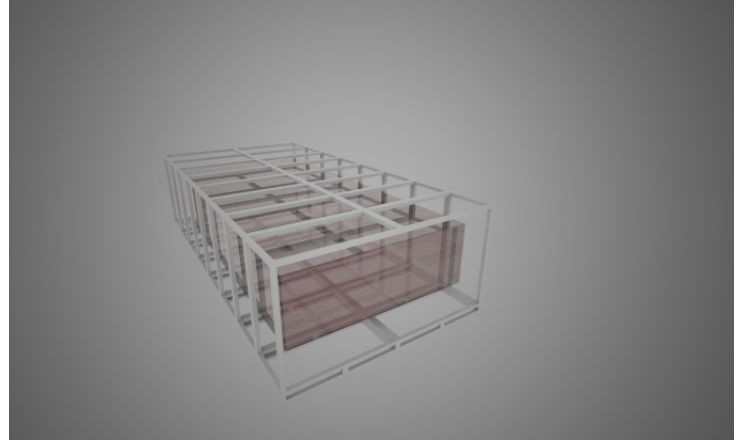
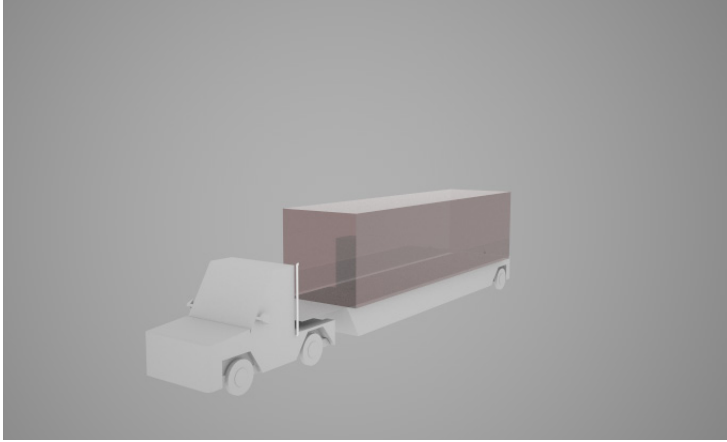
THE NEW DESIGN: what was liked?
what was needed?

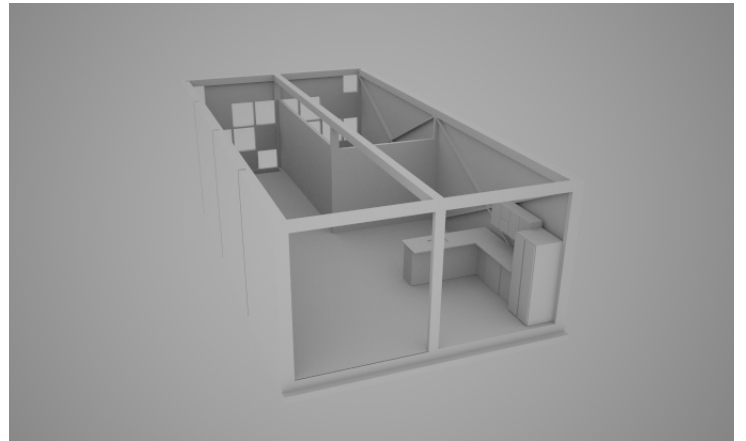
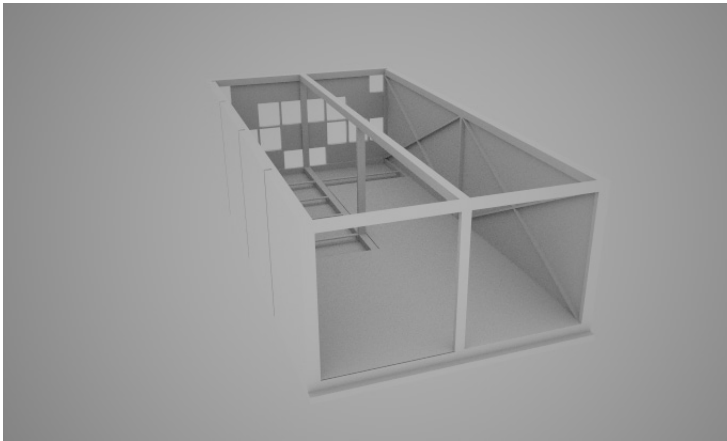
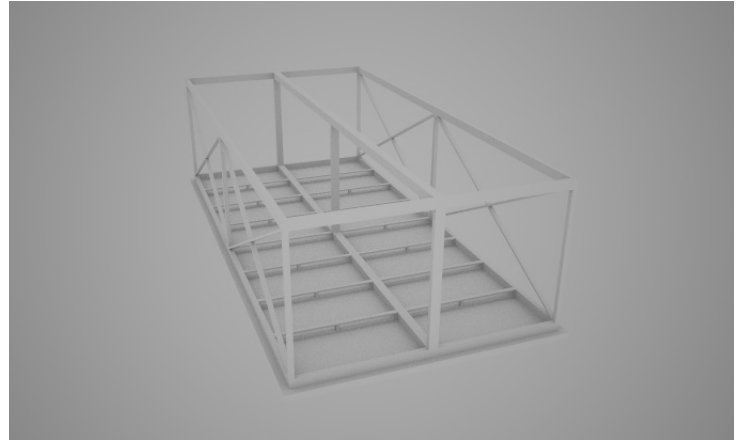
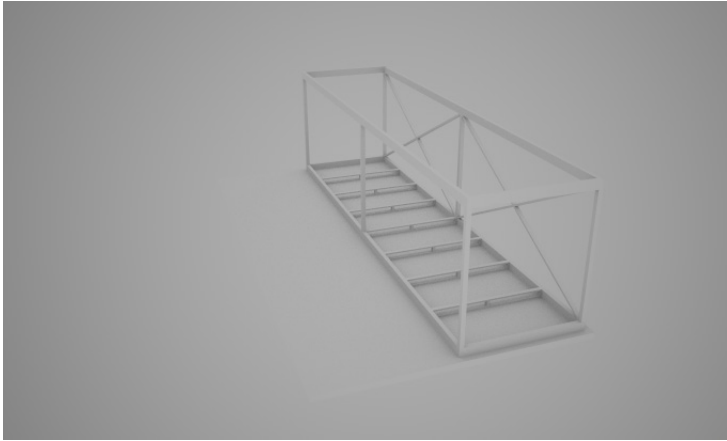
CUSTOMIZABLE: Each owner must have options.

THEORETICALLY "ATTACHABLE": though not structurally, the ways in which units could be attached and manipulated is the basis of my project

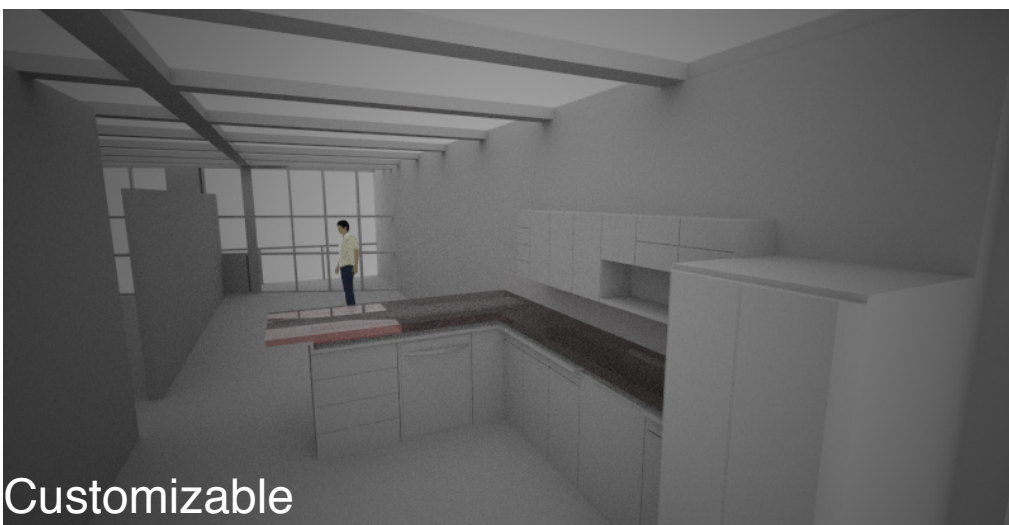
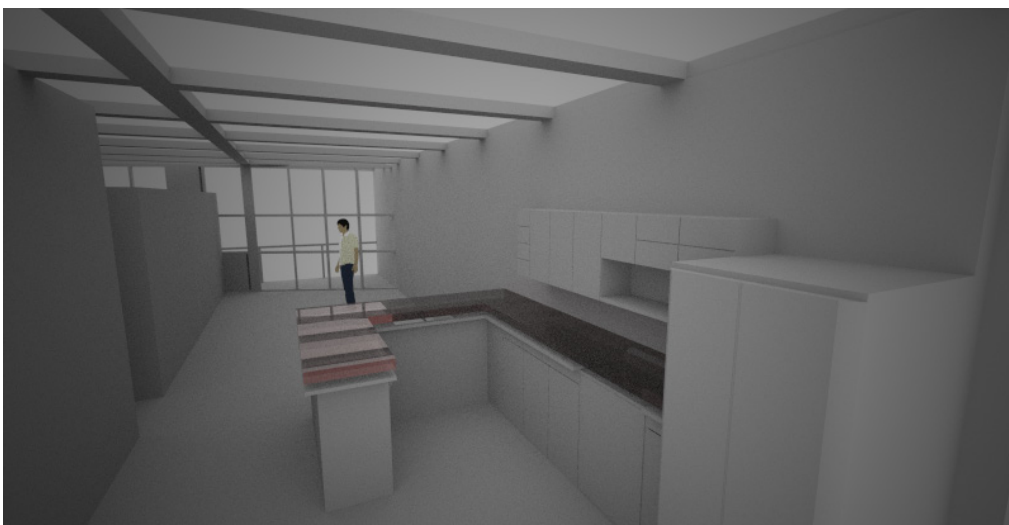
STRUCTURE: A logistical solution was needed to have multiple units able to attach and detach.

MORE PARAMETERS: A need for a single, fixed volume of unit was needed to continue on with a concrete solution.

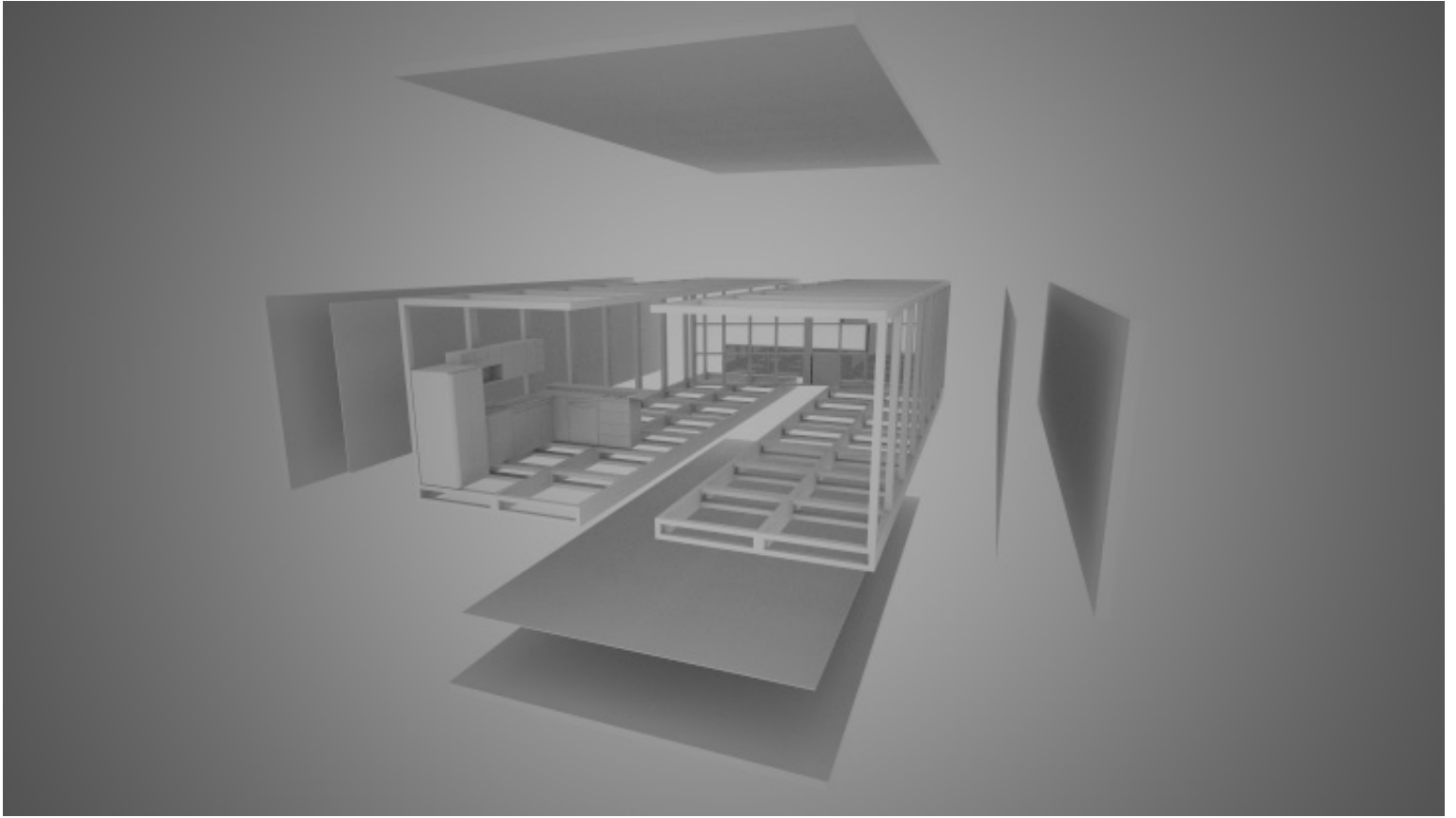




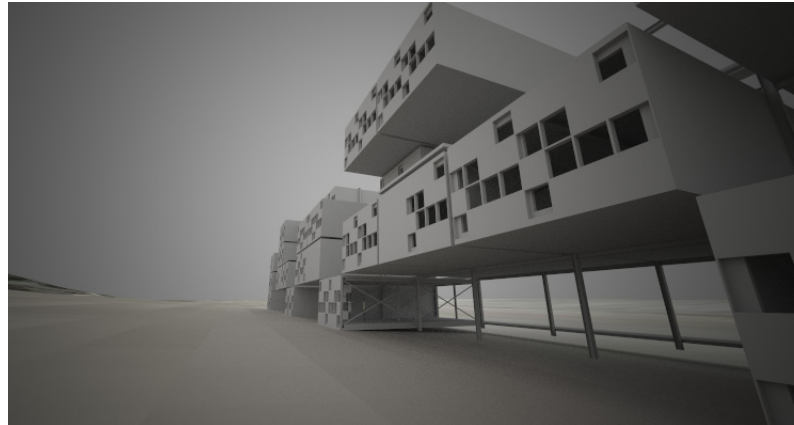
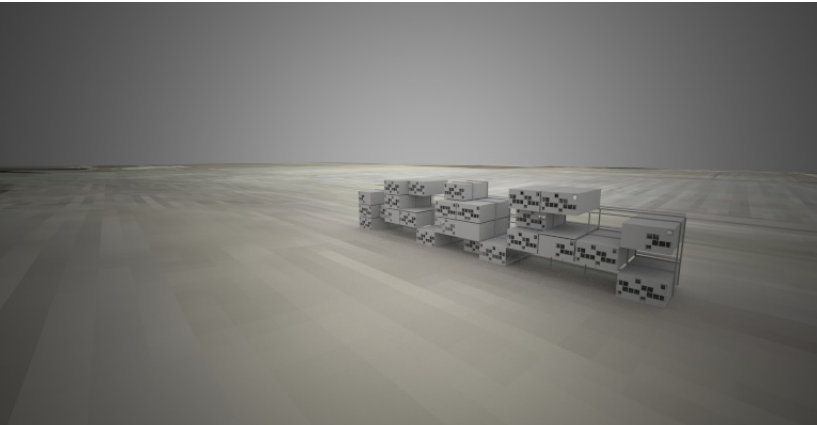
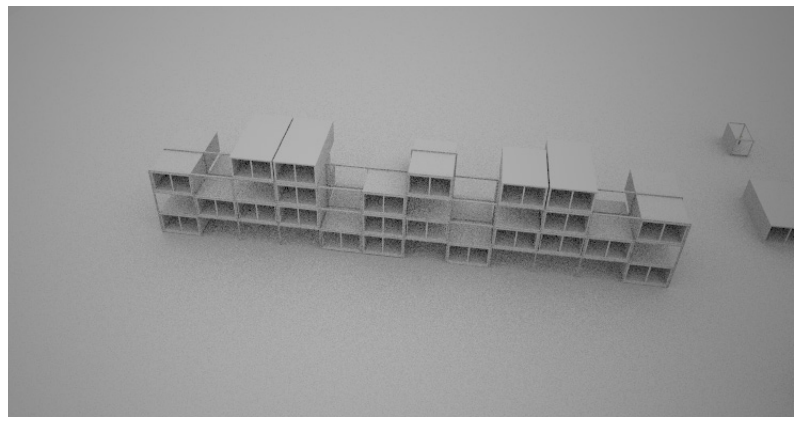
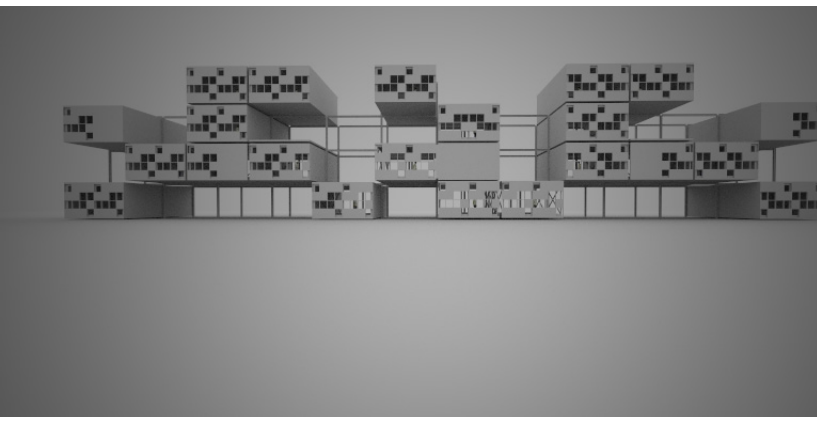
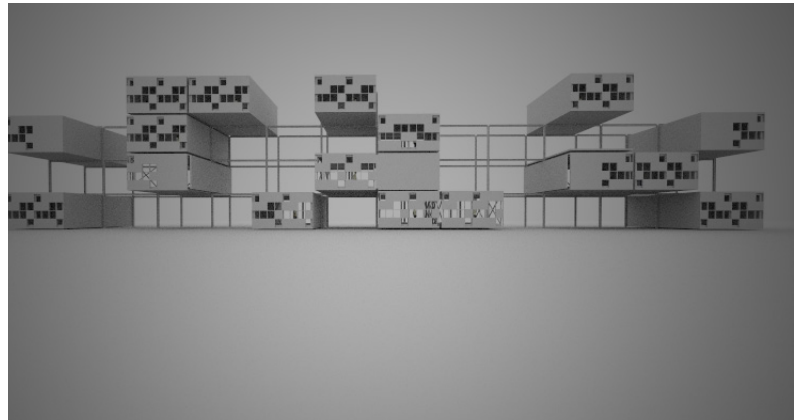
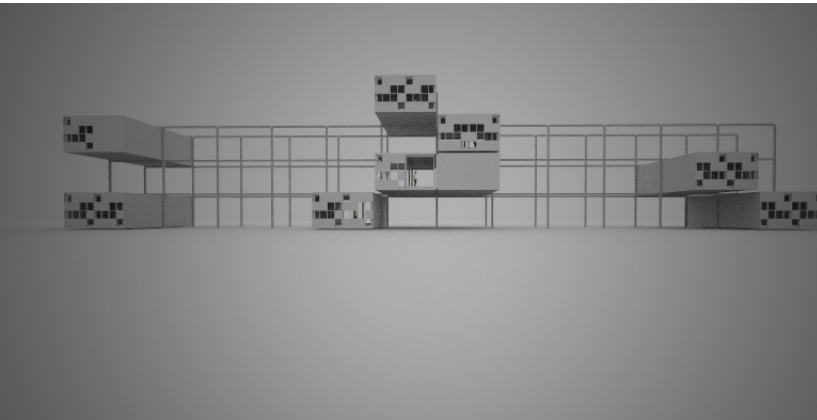
20'-40', roughly 750 sqft living space



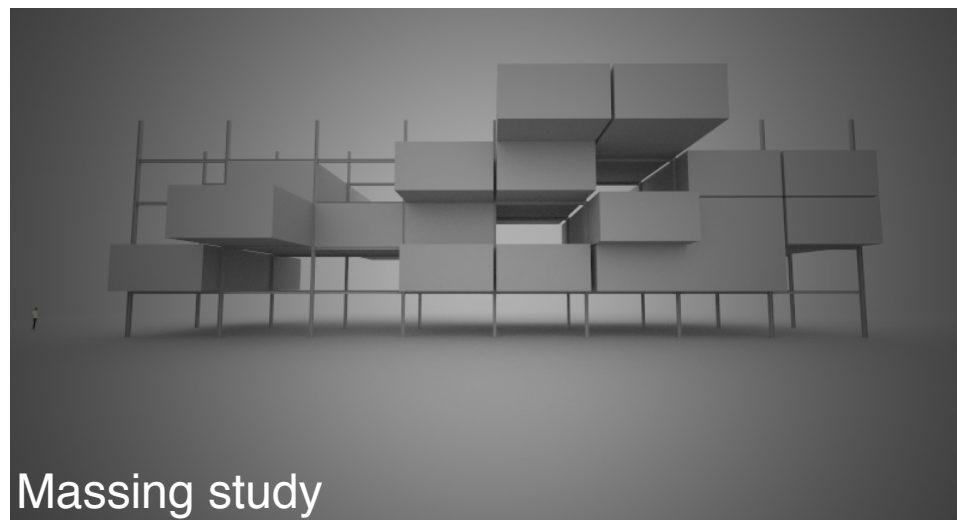
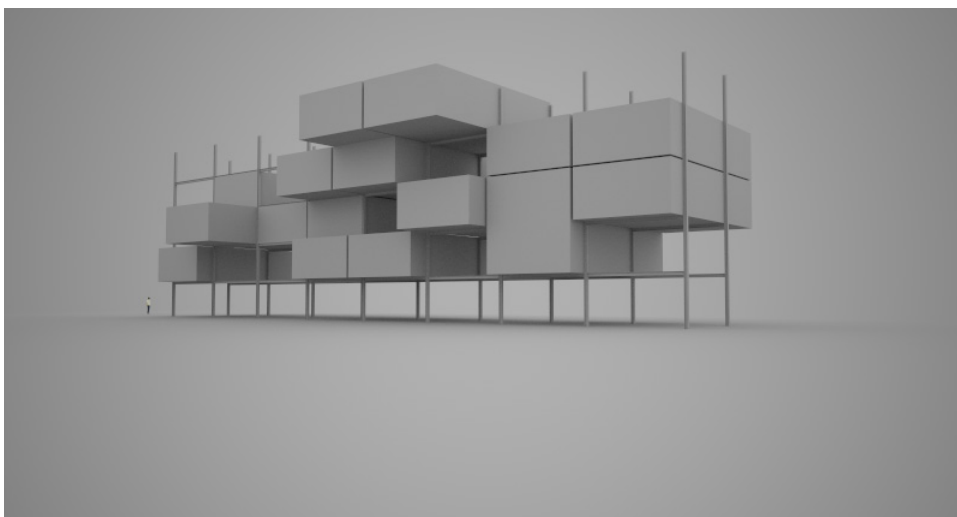
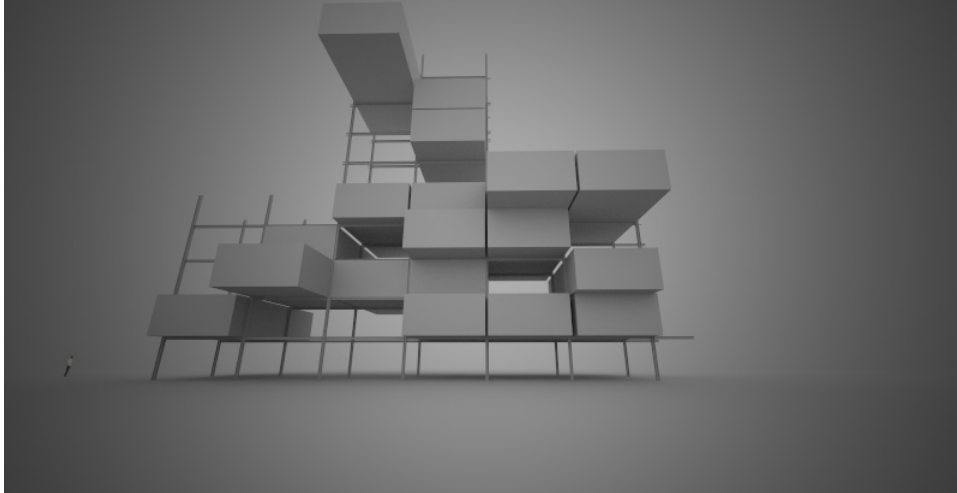
Customizable



Construction

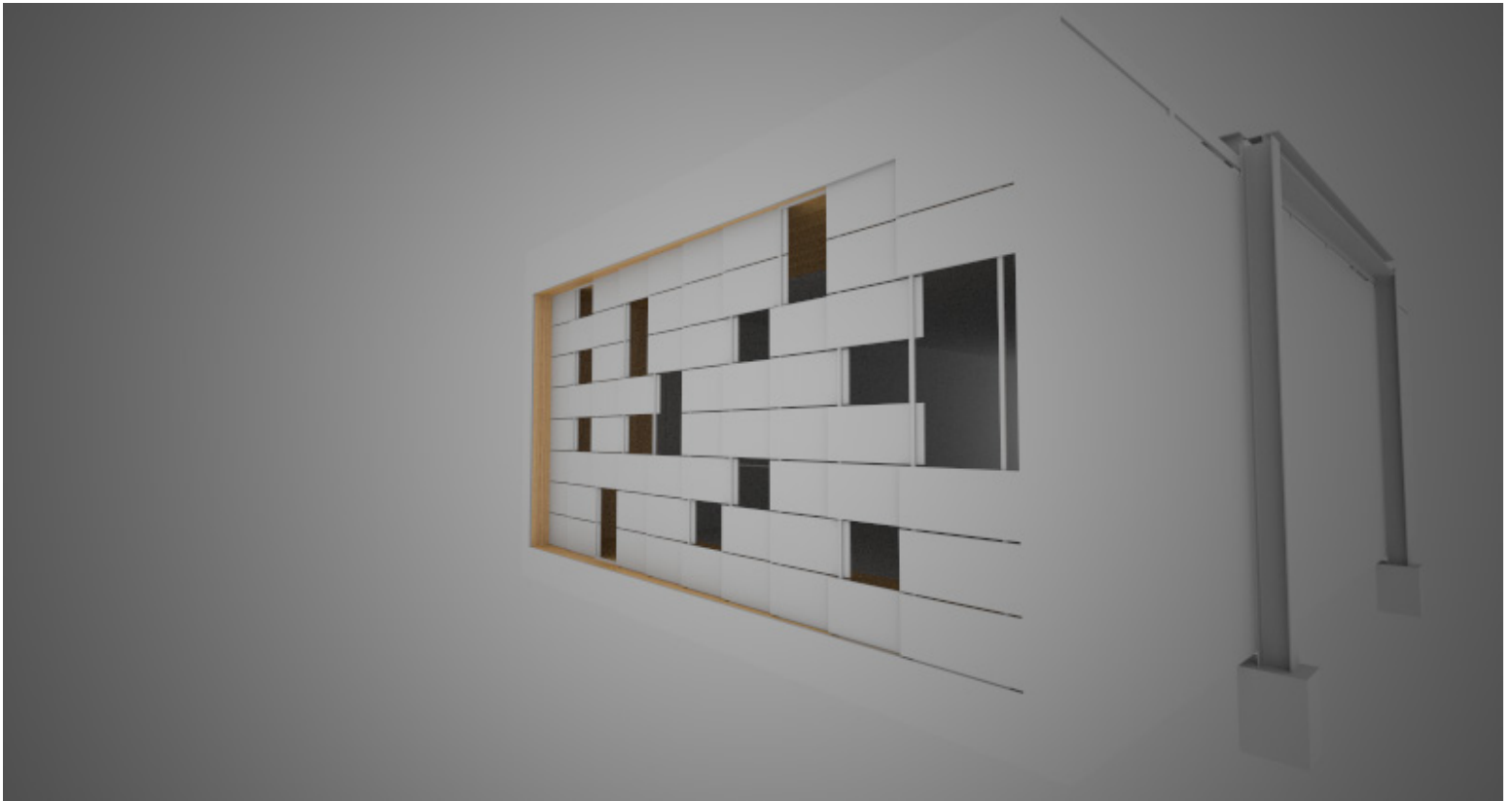


Massing study

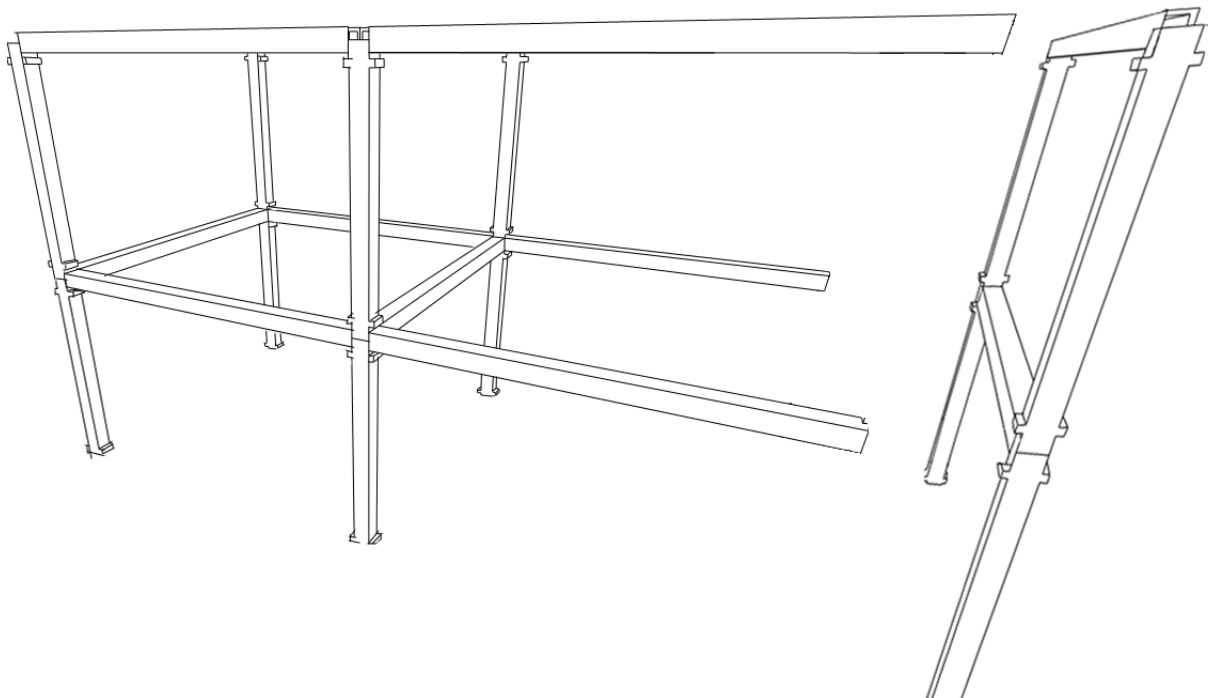
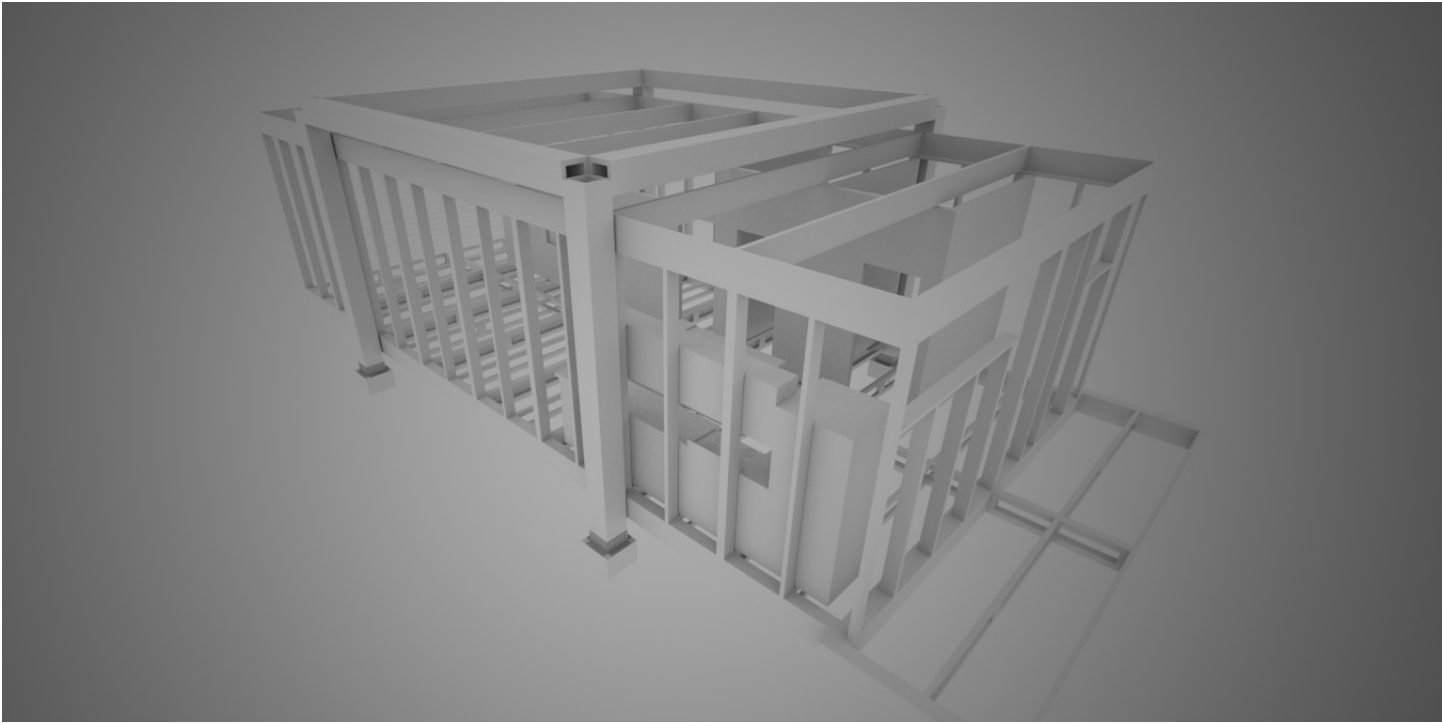


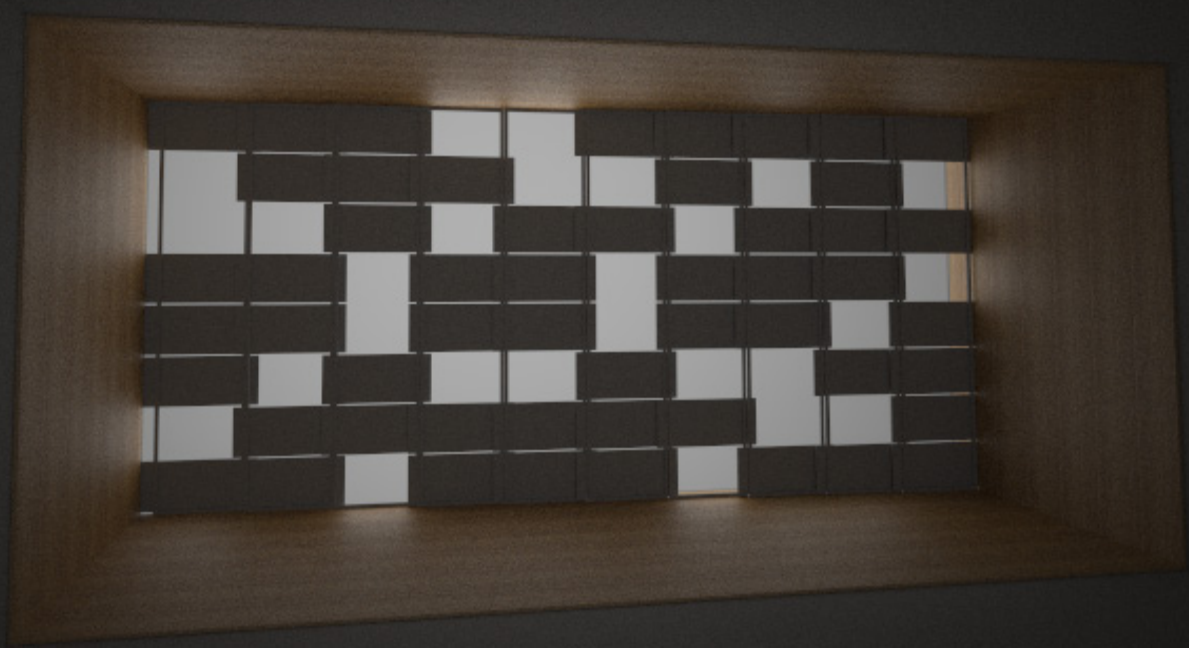
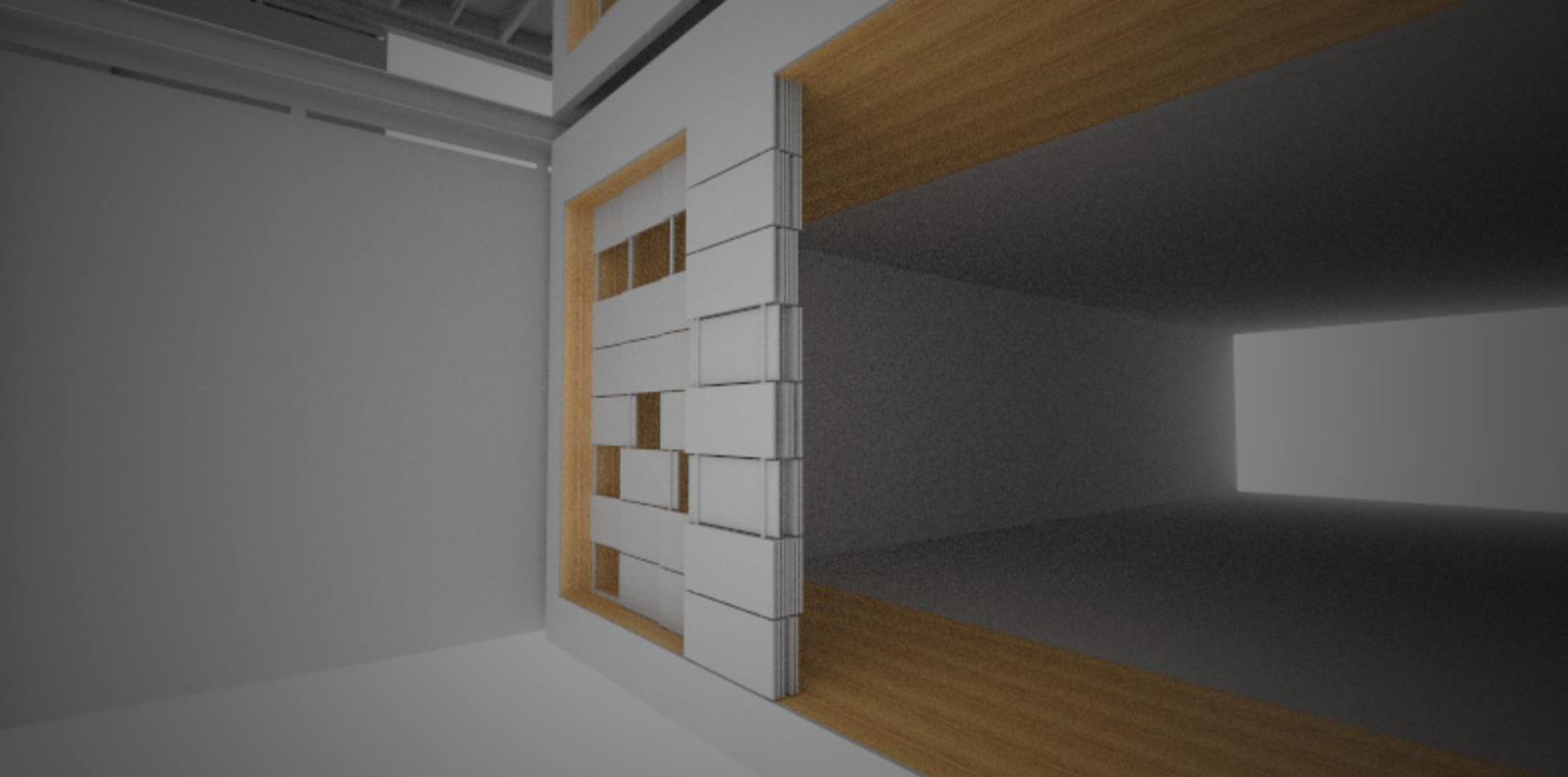
Massing study

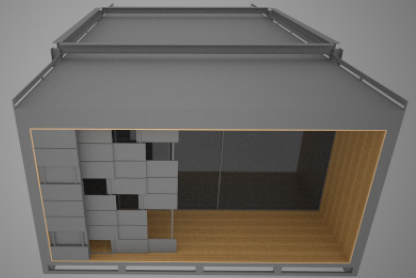
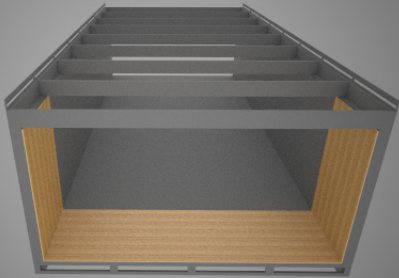
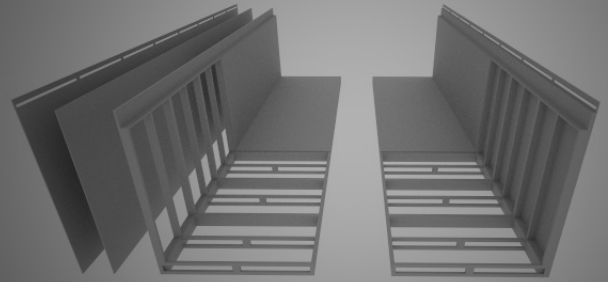
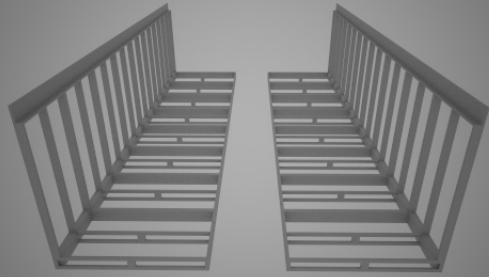
EXOSKELETON



The exoskeleton

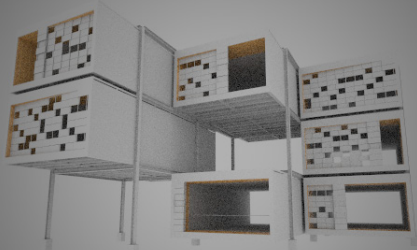
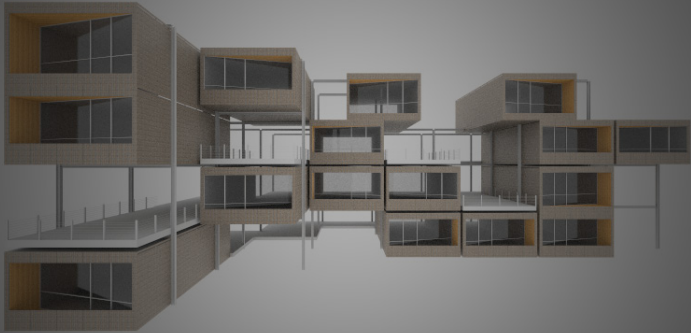
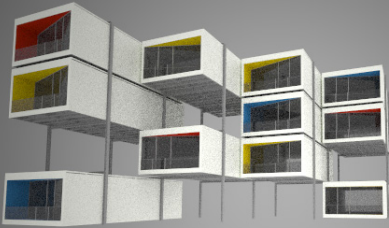




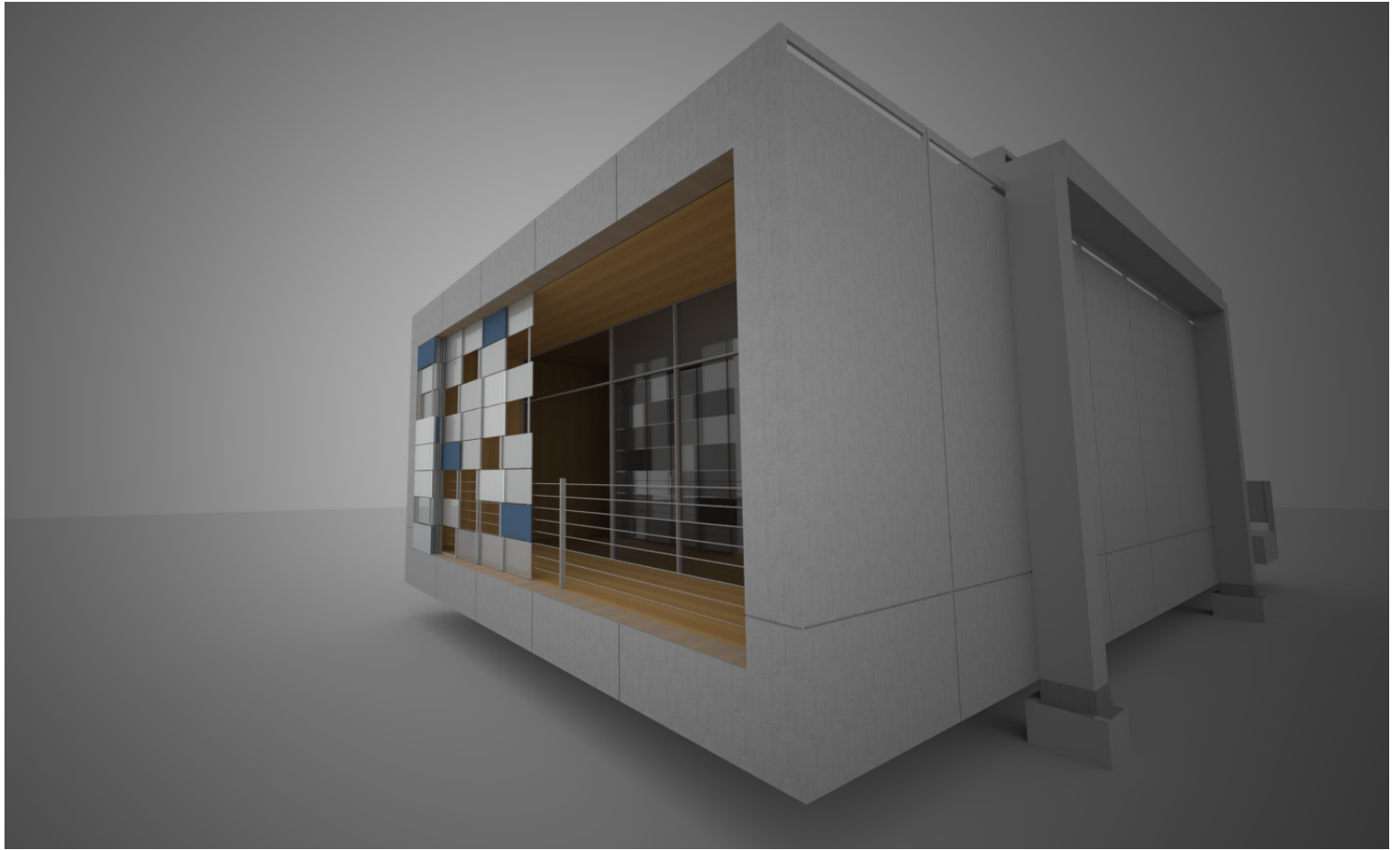




1br, studio



FINAL DESIGN



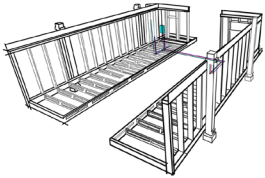






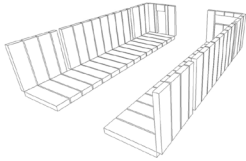
BUILD

PREFAB + SITE CONSTRUCTION



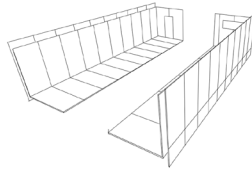
FRAME/UTILITIES

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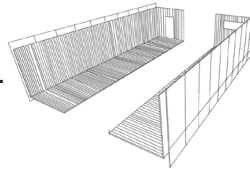
INSULATION

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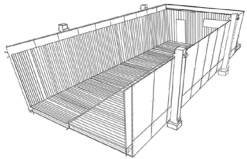
SHEATHING

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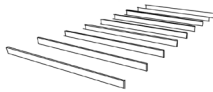
FINISHES

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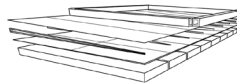
PREFAB ASSEMBLY

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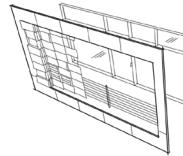
BEAMS

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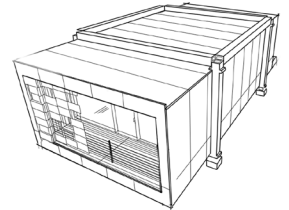


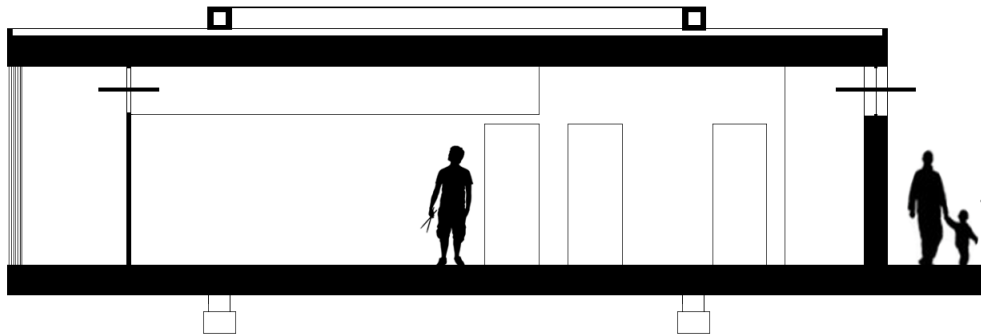
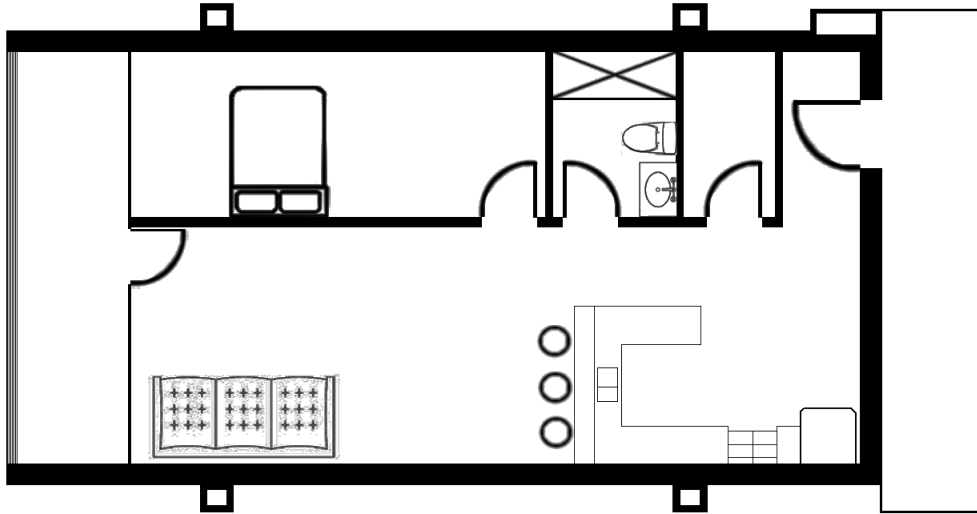
ROOF ASSEMBLY

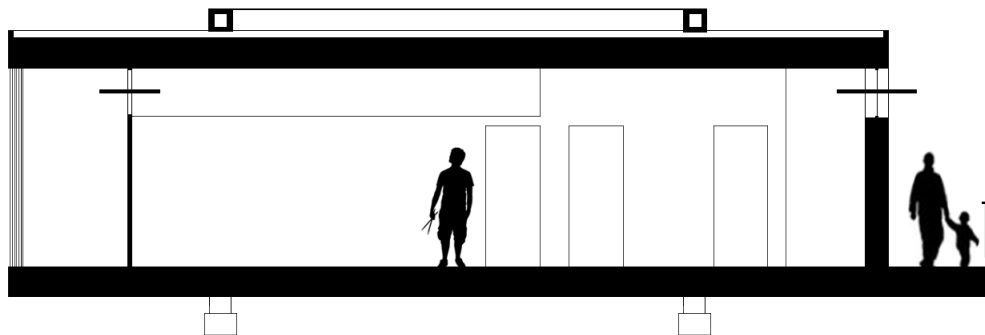
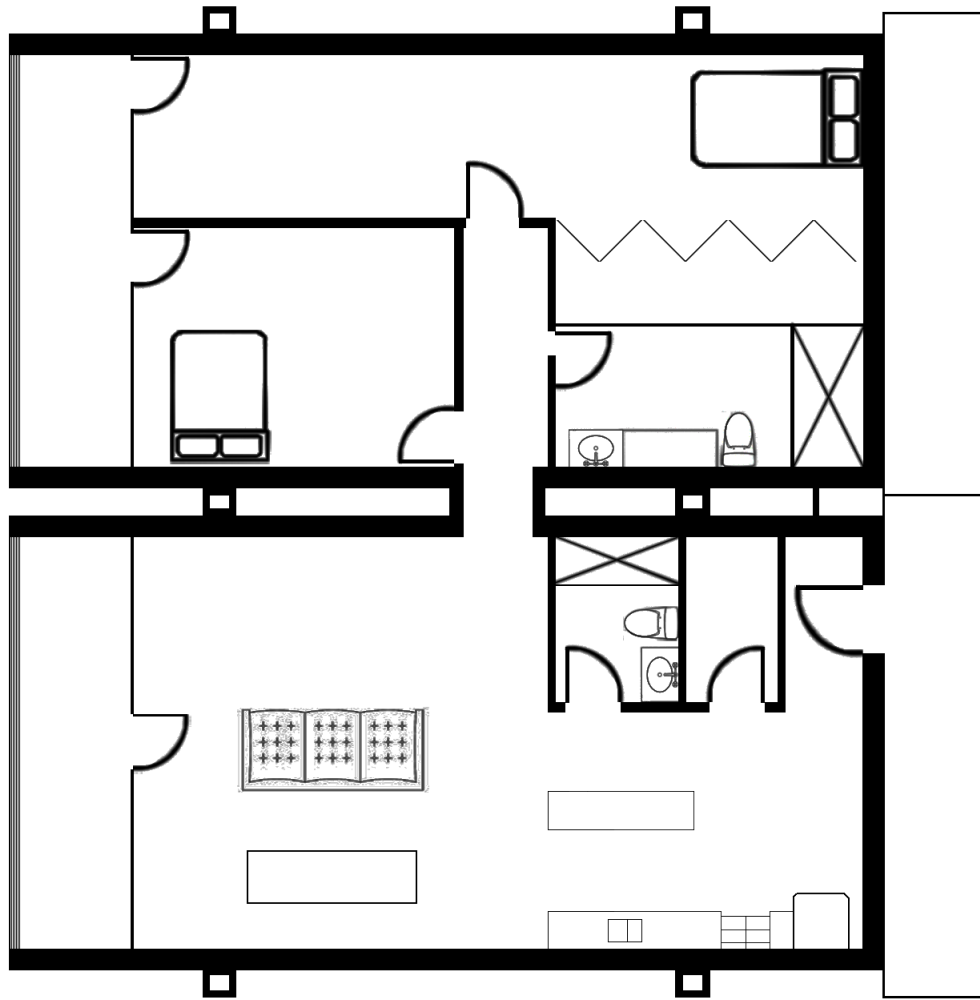
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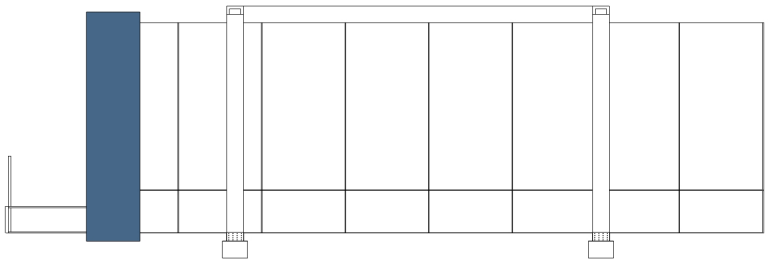
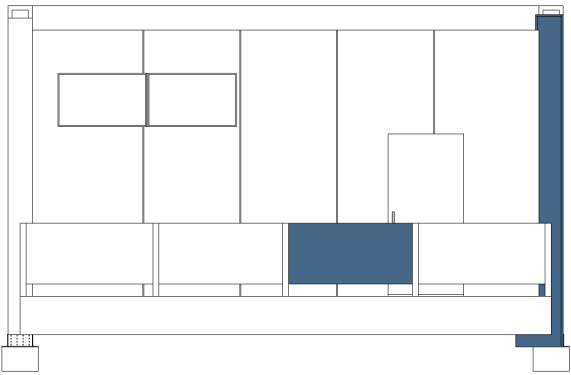
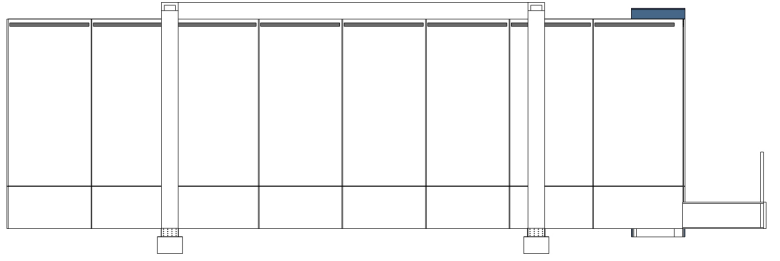
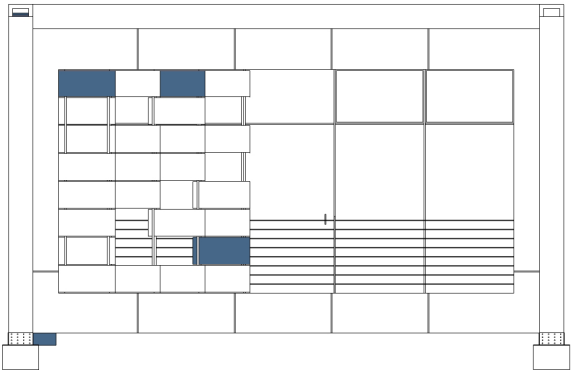


FRONT FACADE

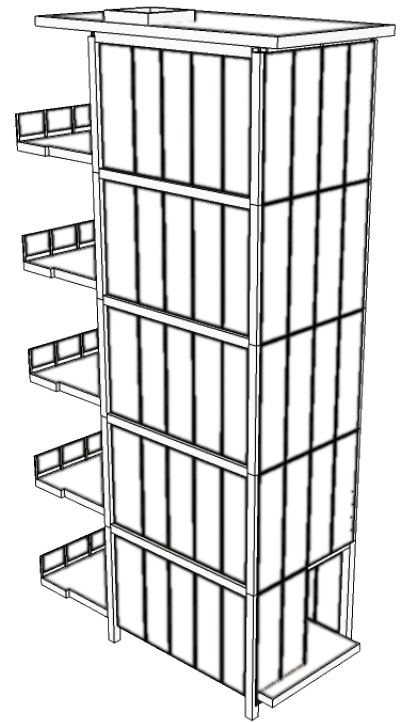
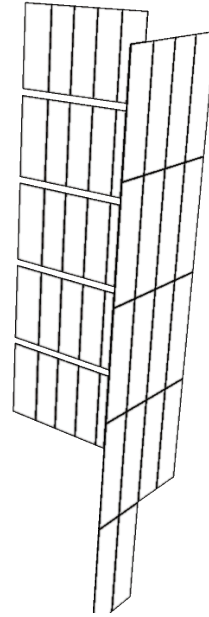
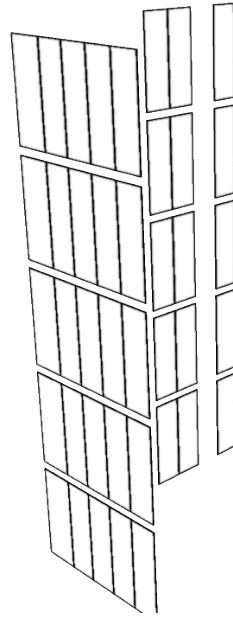
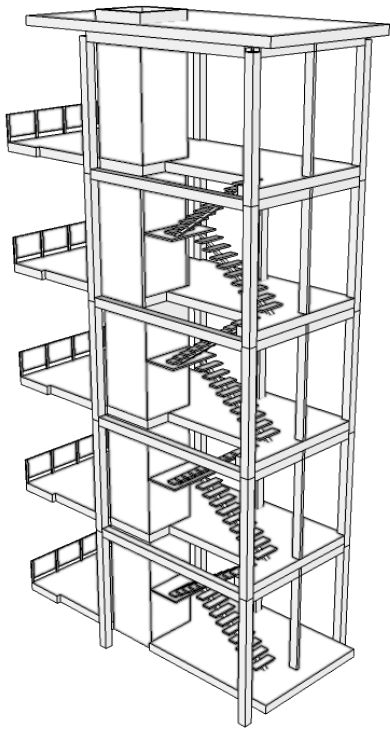




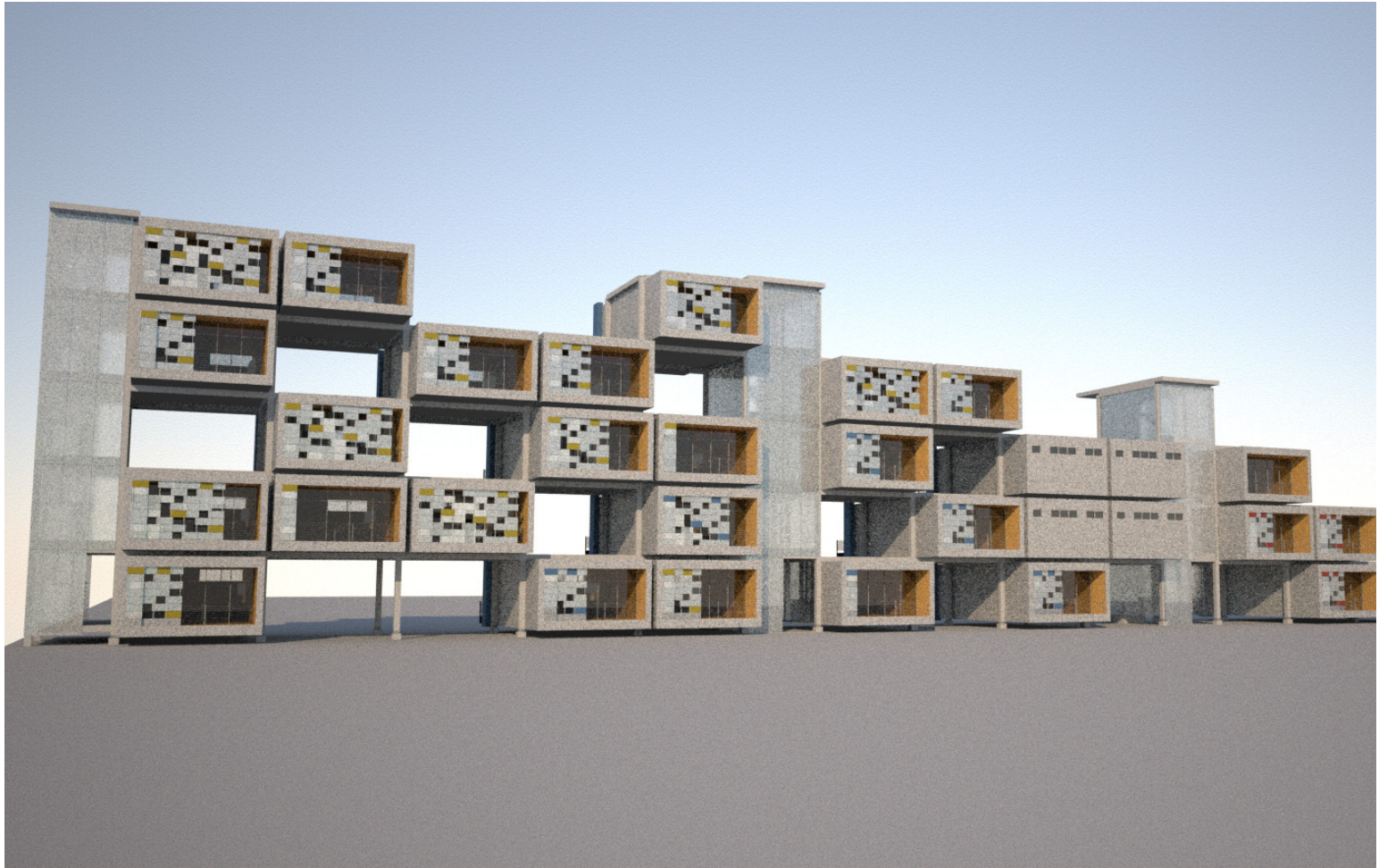




COROLLATION







RESULTS

POPULATE



RELOCATE





INTEGRATE

