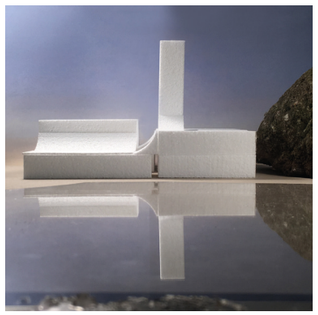
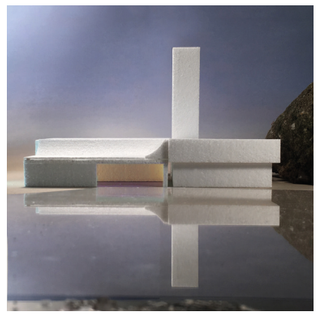
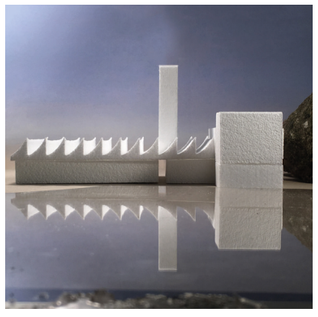
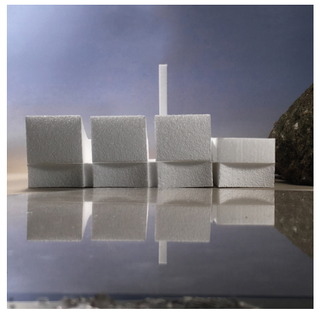
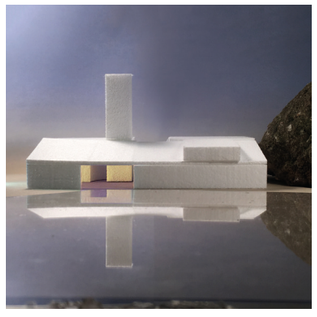
Volume

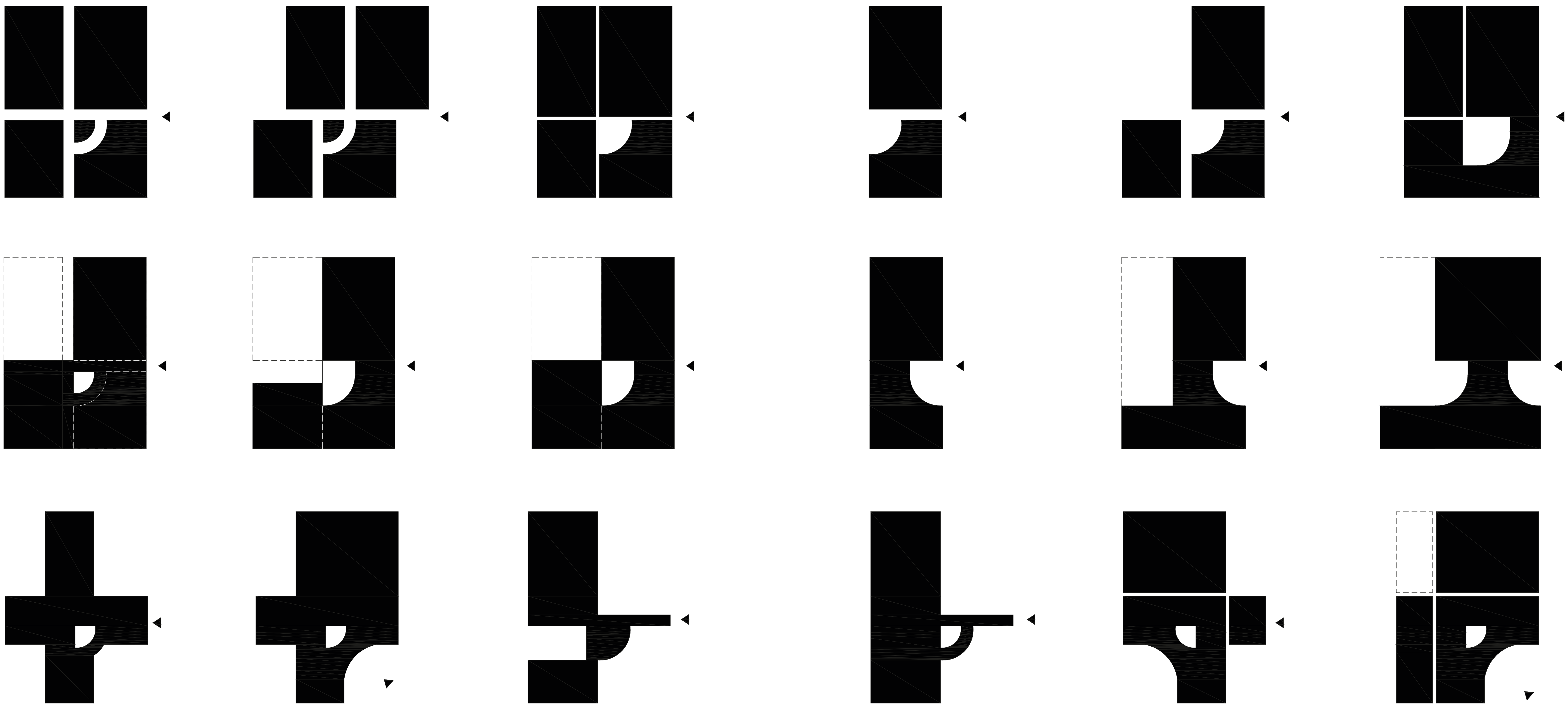



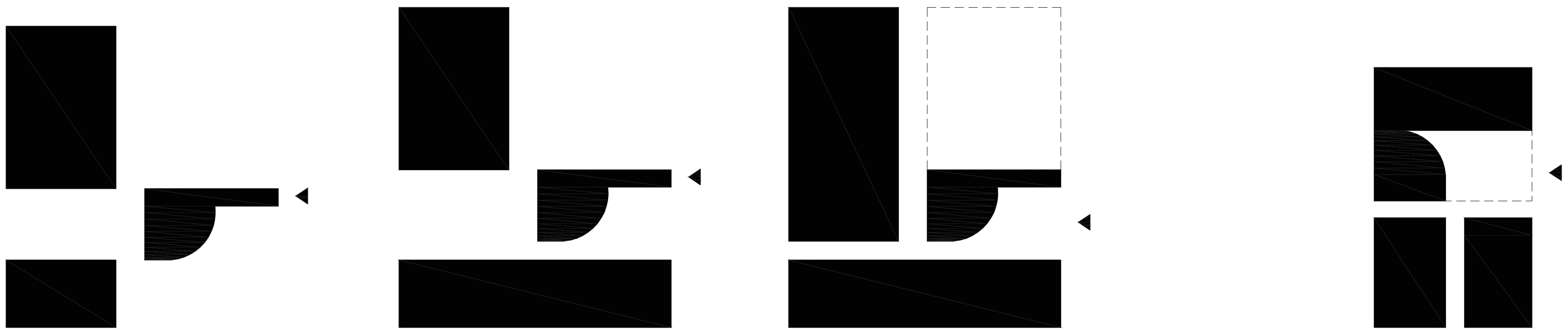



Introduction

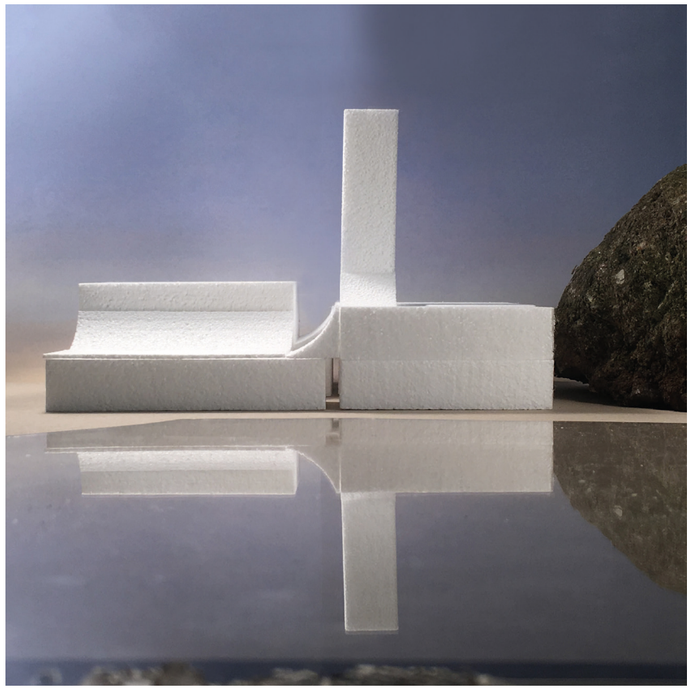
The site provides with some restraints for the building. To test the program on the site and how it adapts with its viewpoints, heights, landscape we did several volume tests were this was investigated. Difference in height, scale, levels, area and volume was tested. It was also a tool for a more coherent design and to implicate the design guidelines that was set before.

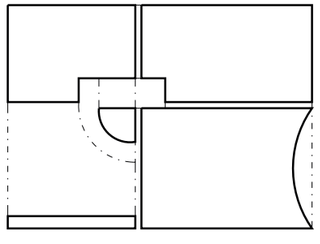




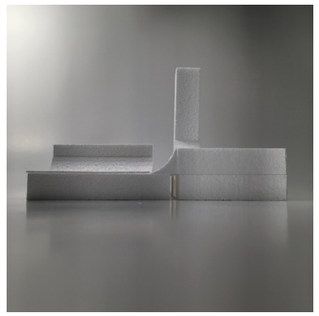
Footprint Sketches

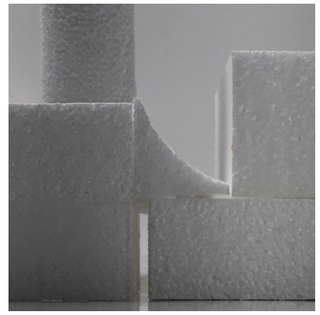
We based the volume models on the sketches seen on these two pages (the footprints are interpretations of the cross-plan). We took the area that the program needed into consideration to get a framework for the volume studies.

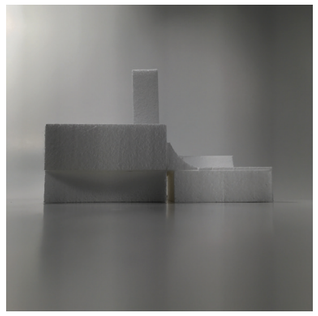


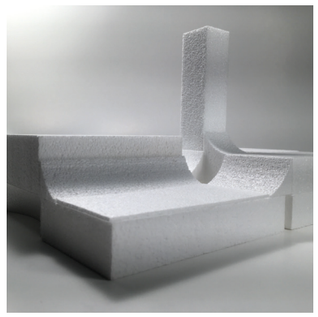


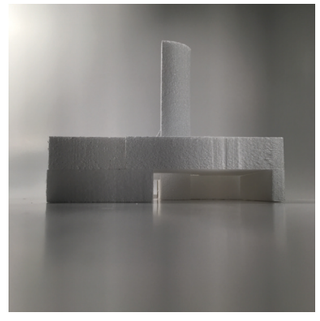
A: 1 290 m2 + 315 m2 (outdoor)

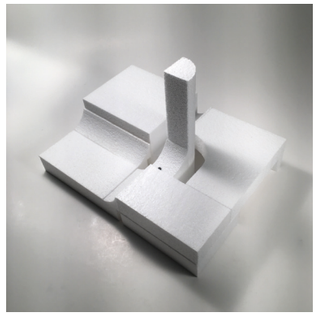


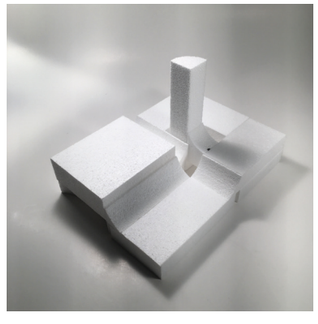


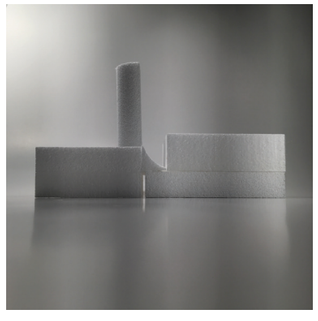


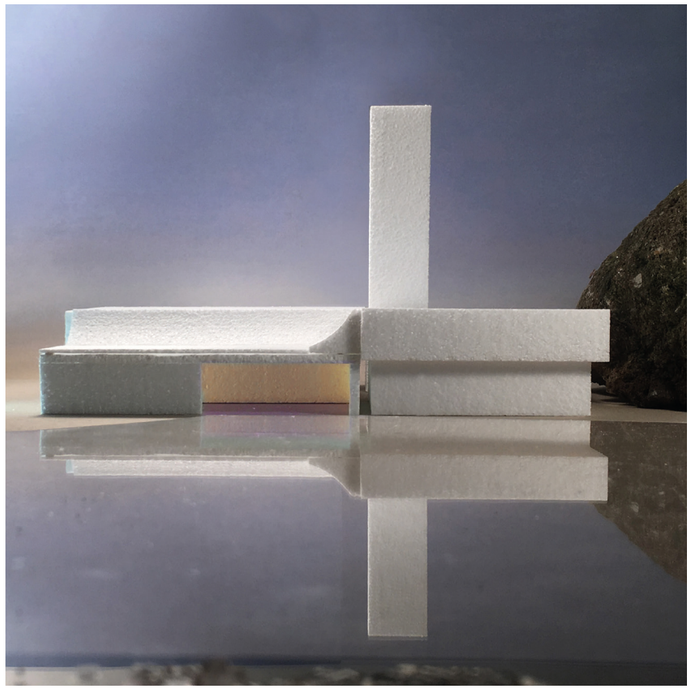


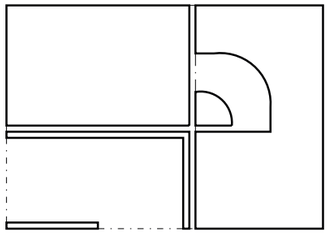




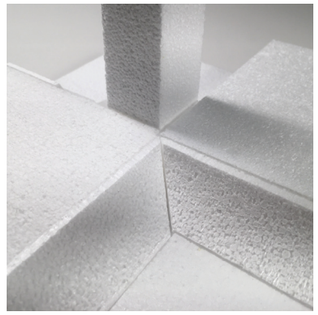


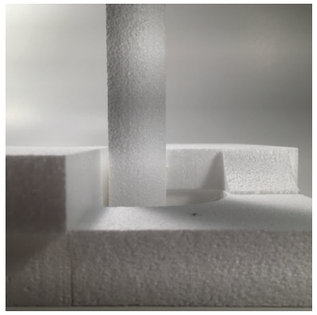


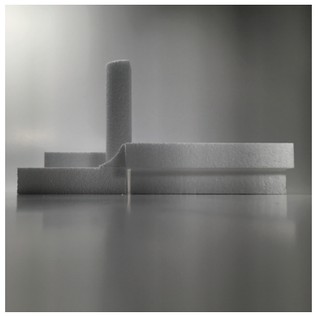


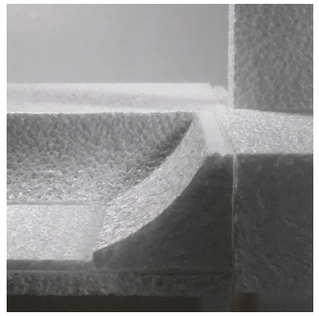


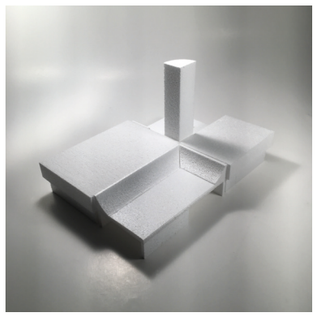
B: 1 225 m2 + 460 m2 (outdoor)

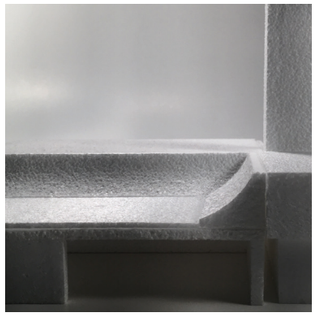


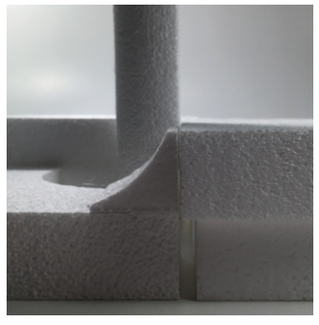


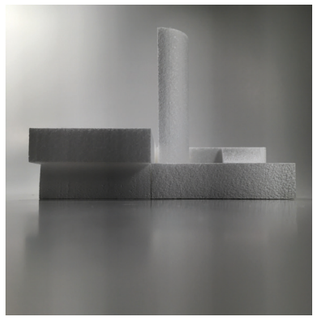


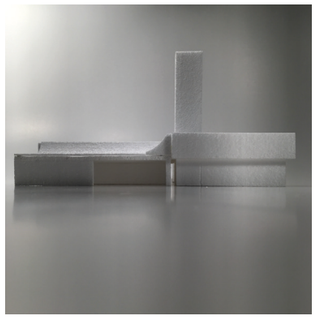


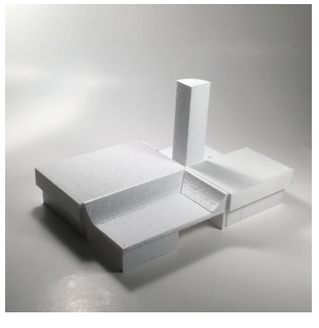


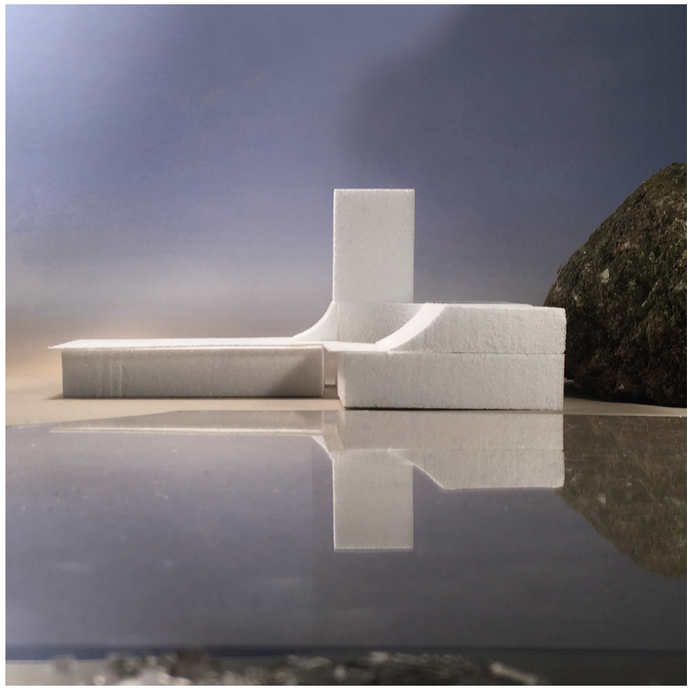


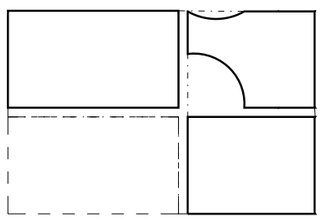




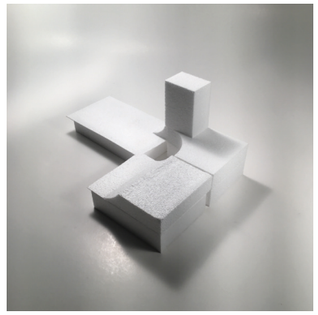


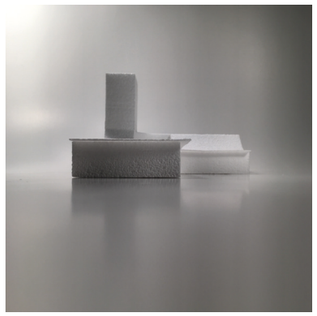


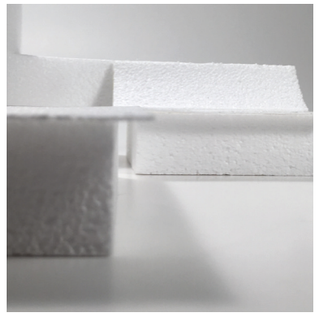


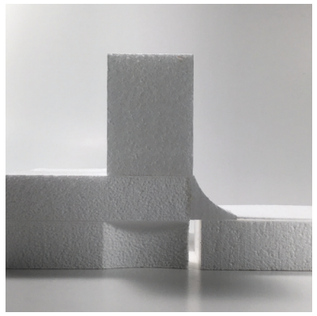


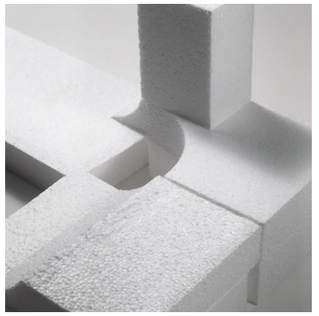
C: 1 020 m2 + 440 m2 (outdoor)

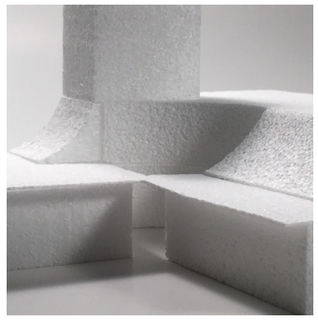


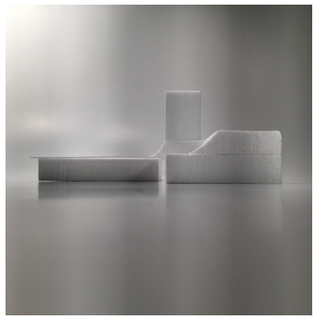


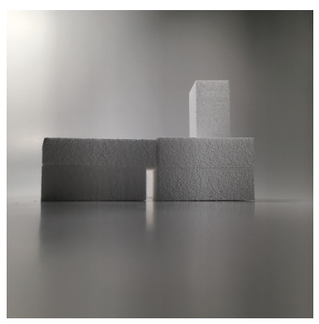


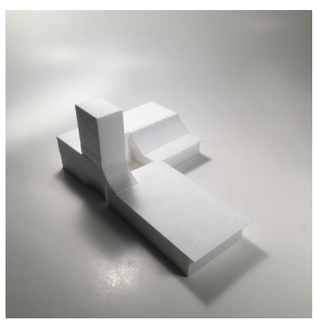


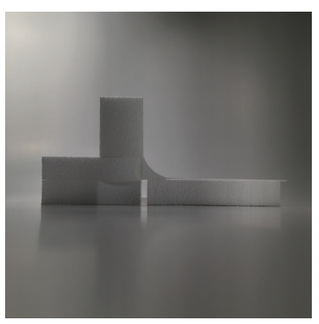


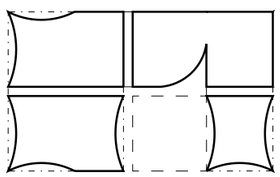




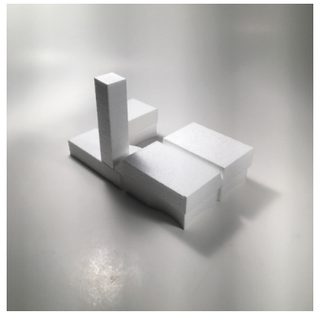


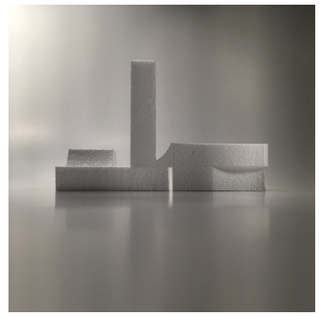


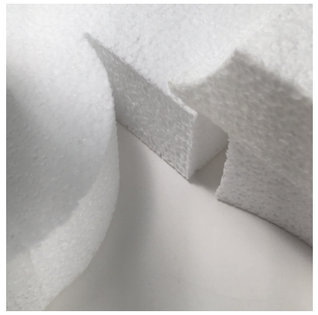


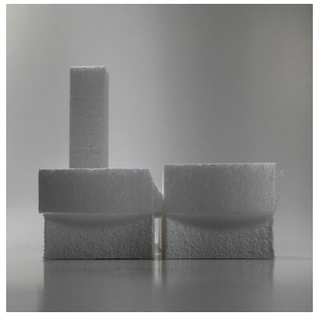


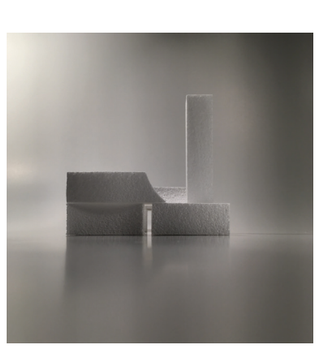
D: 775 m2 + 150 m2 (outdoor)

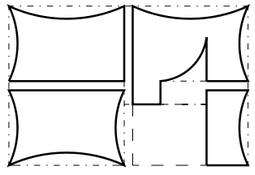




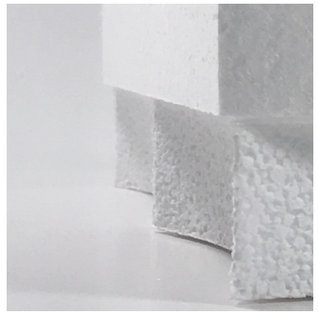


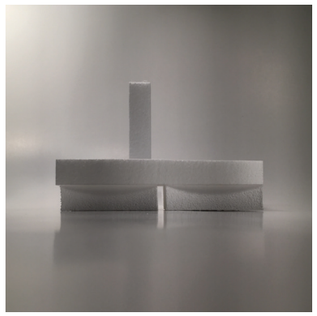


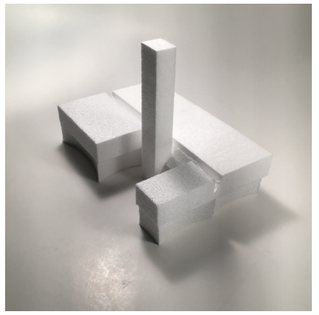


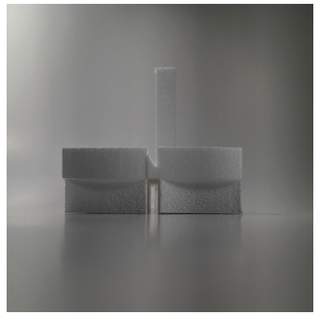


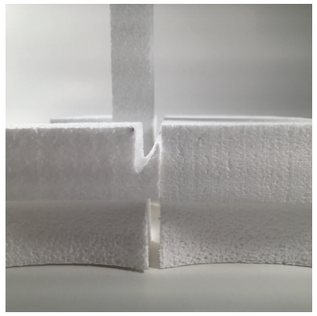
E: 640 m2 + 120 m2 (outdoor)

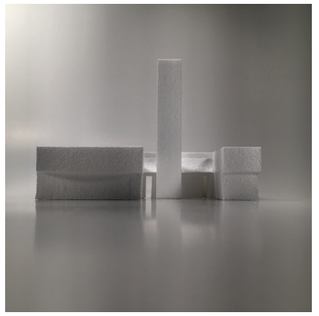


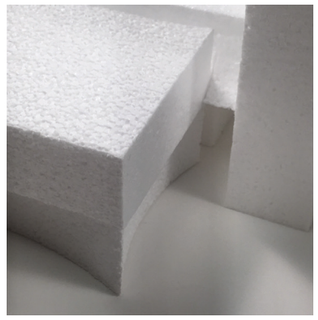


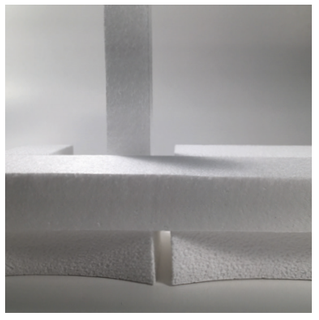


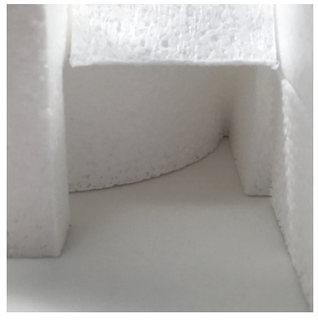


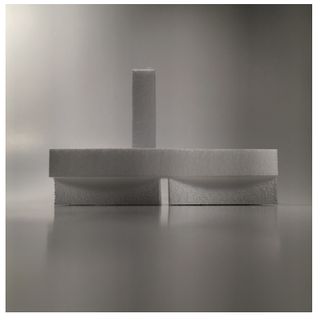


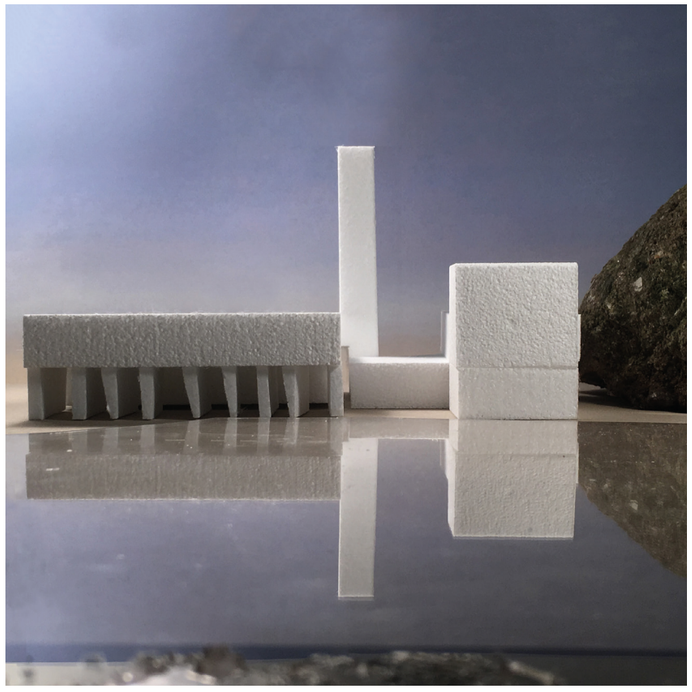


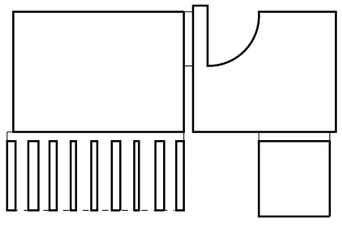




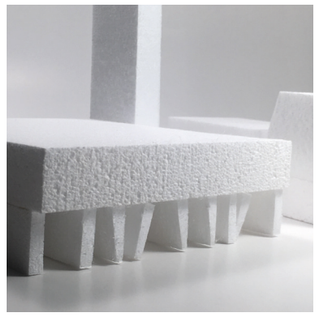


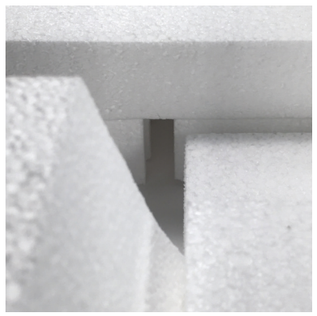


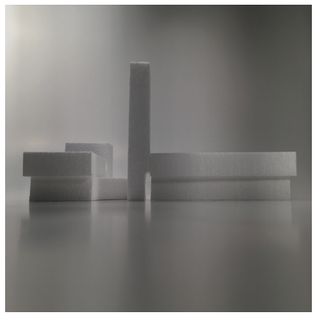


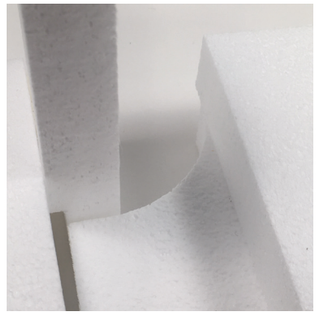


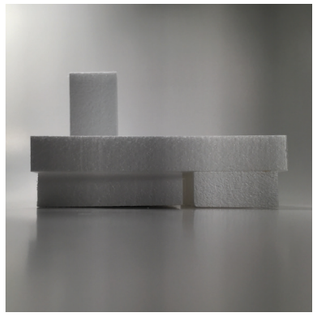
F: 1 080 m2 + 500 m2 (outdoor)

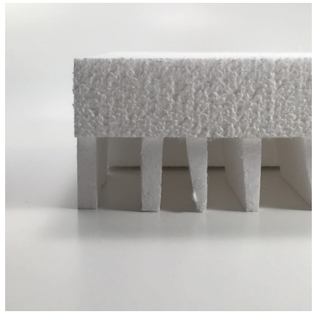


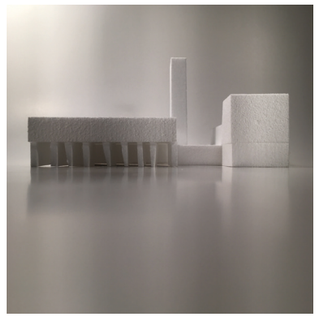


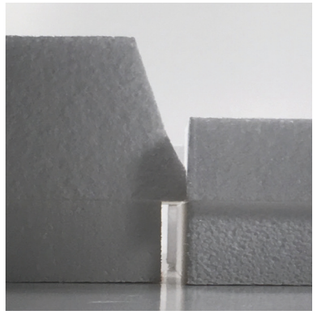


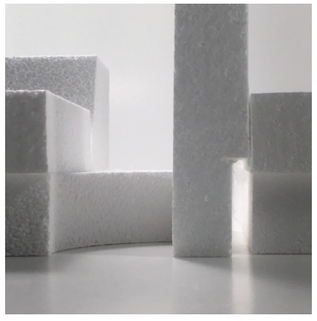


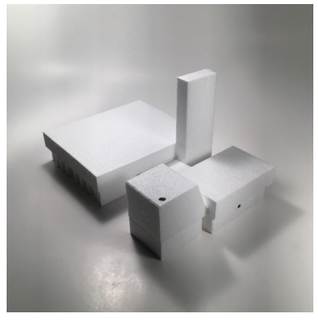


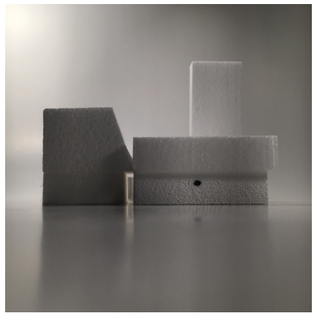


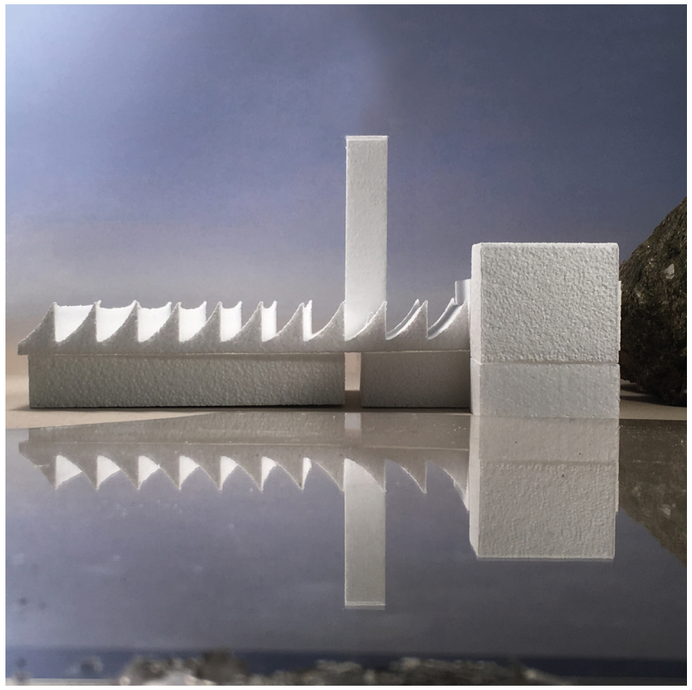


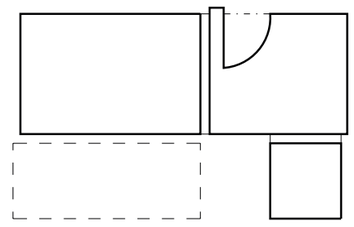




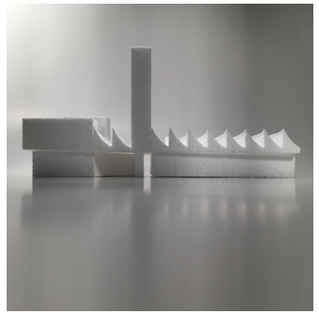


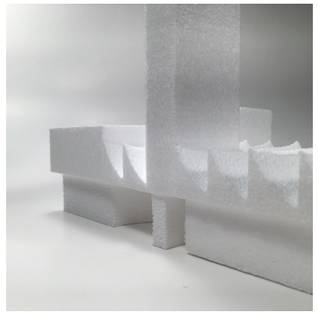


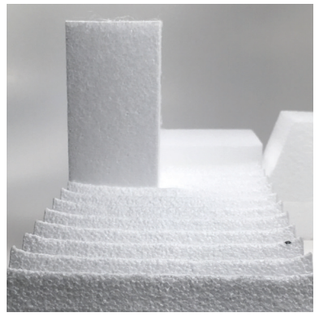


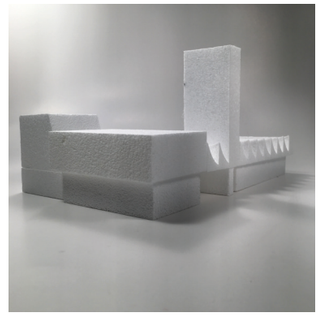


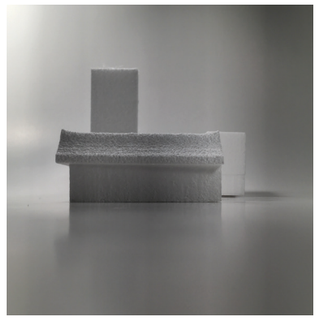
G: 1 100 m2 + 500 m2 (outdoor)

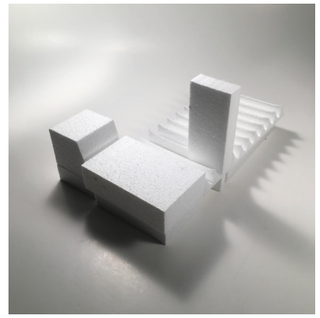


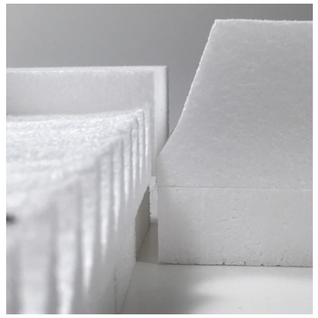


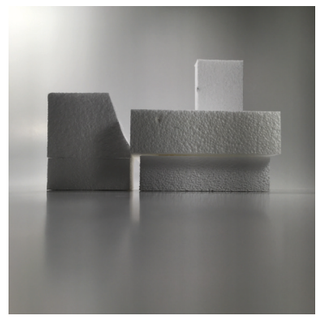


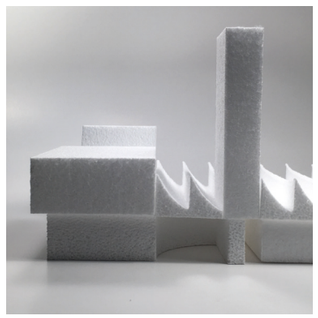


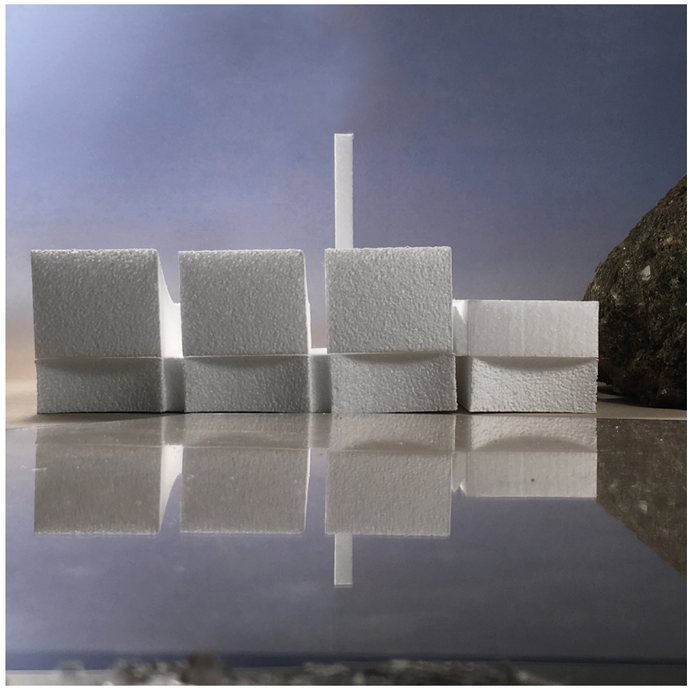


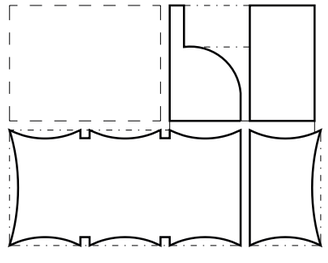




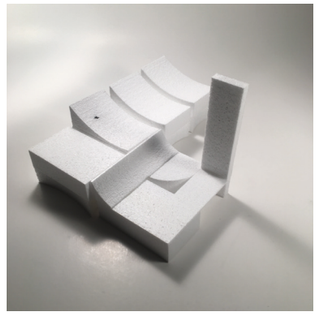


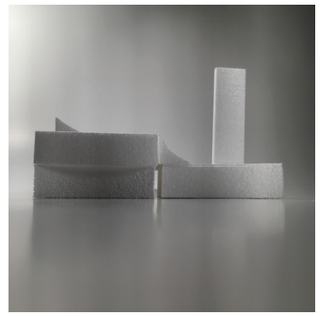


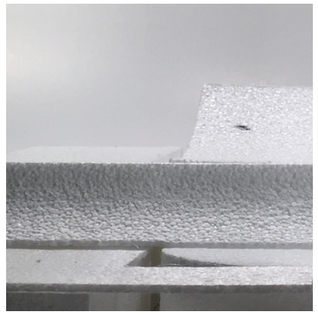


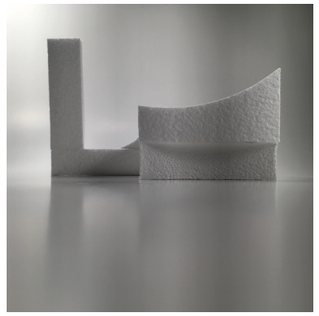


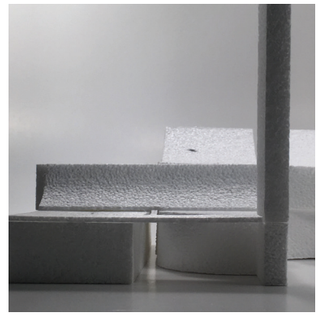
H: 1 150 m2 + 460 m2 (outdoor)

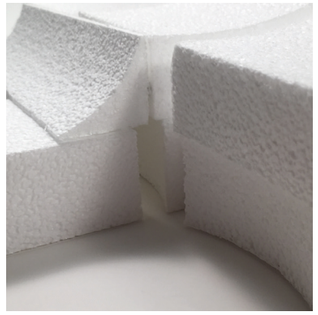


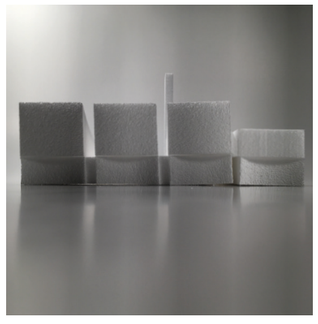


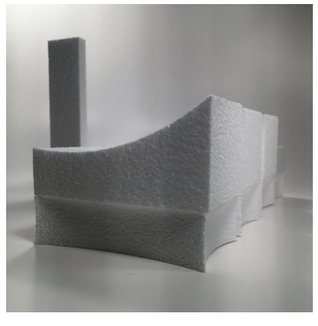


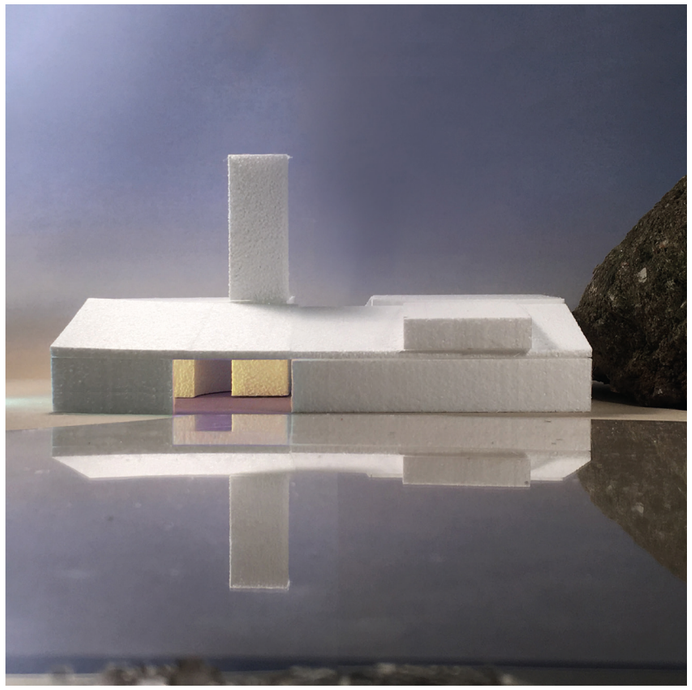


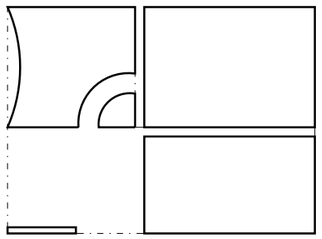




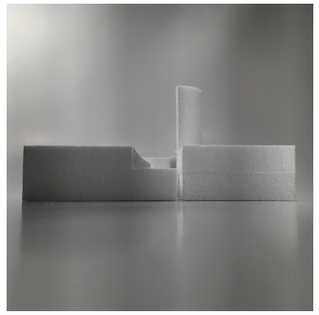


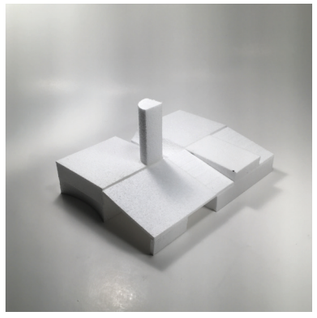


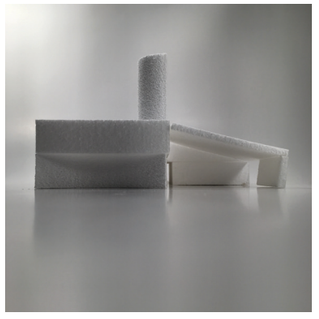


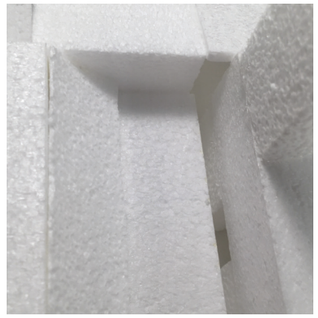


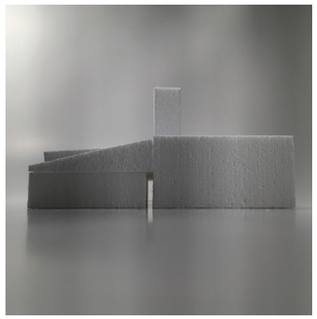
I: 1 320 m2 + 350 m2 (outdoor)

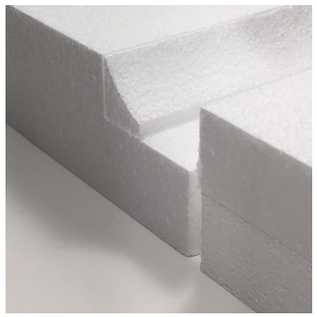


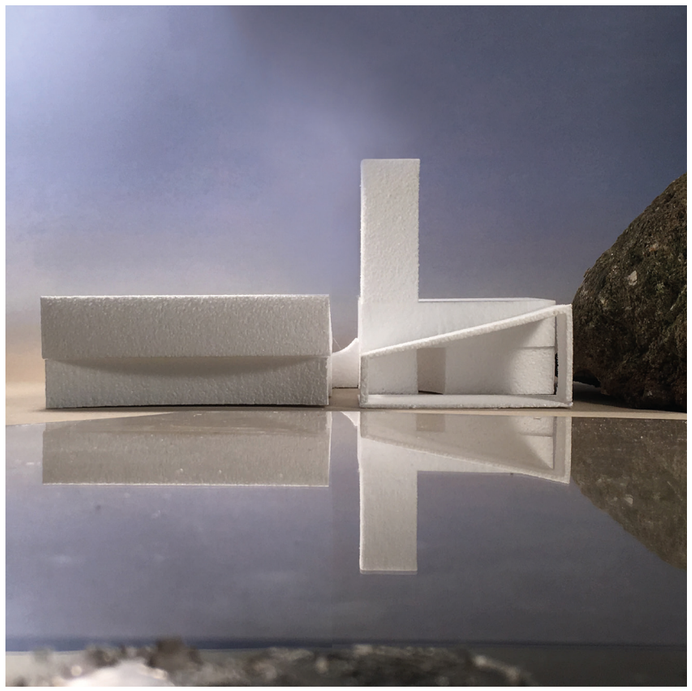


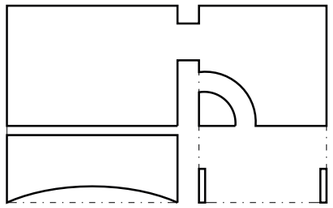




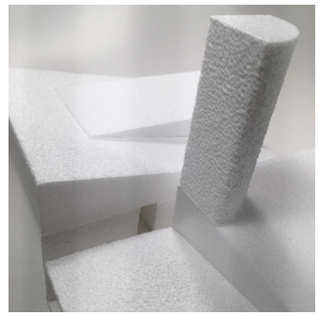


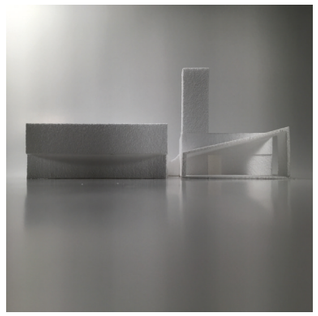


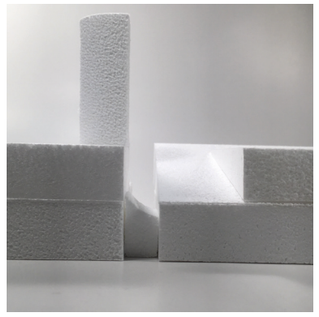


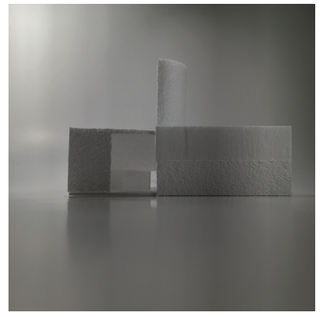


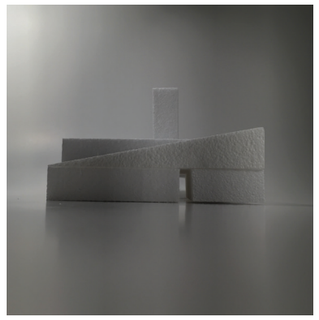
J: 1 190 m2 + 260 m2 (outdoor)

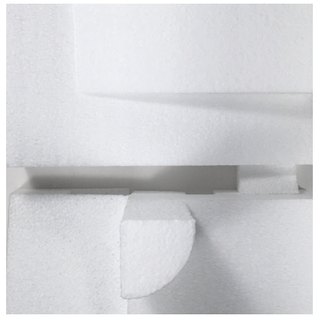


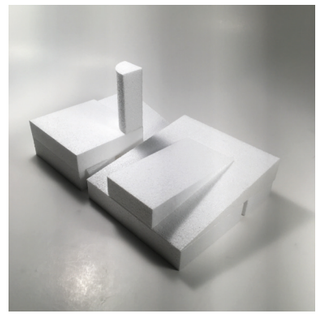


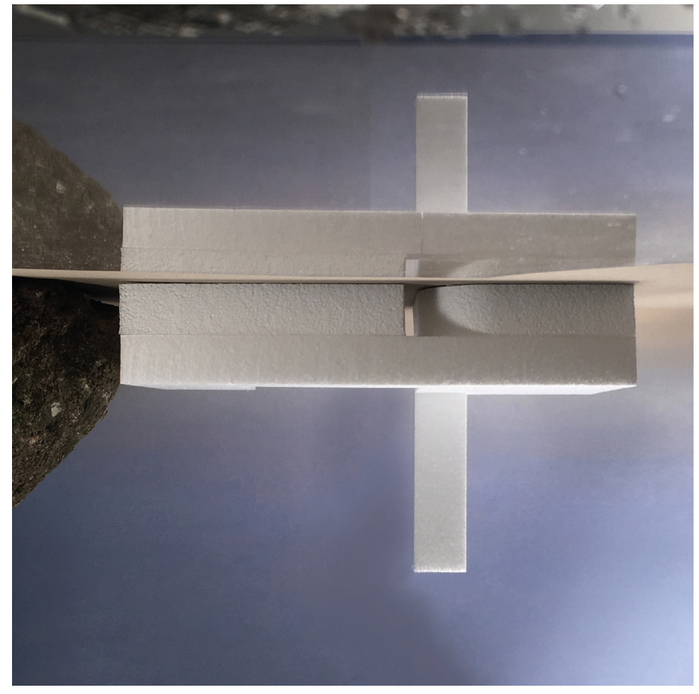


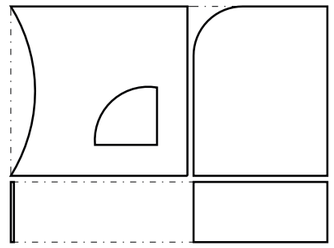




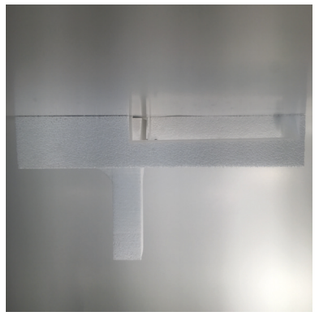


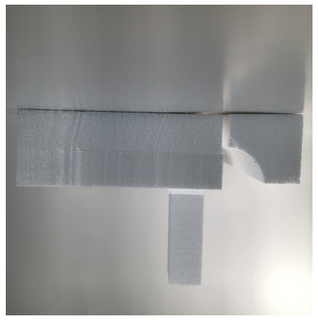


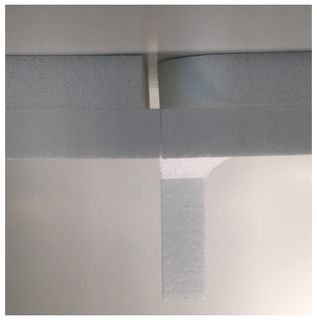


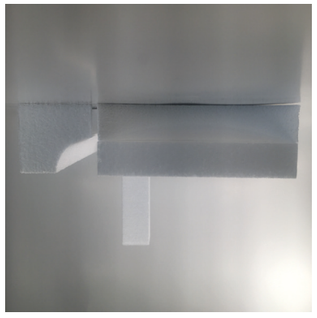


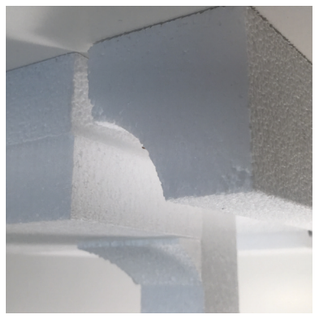
K: 1 450 m2 + 290 m2 (outdoor)

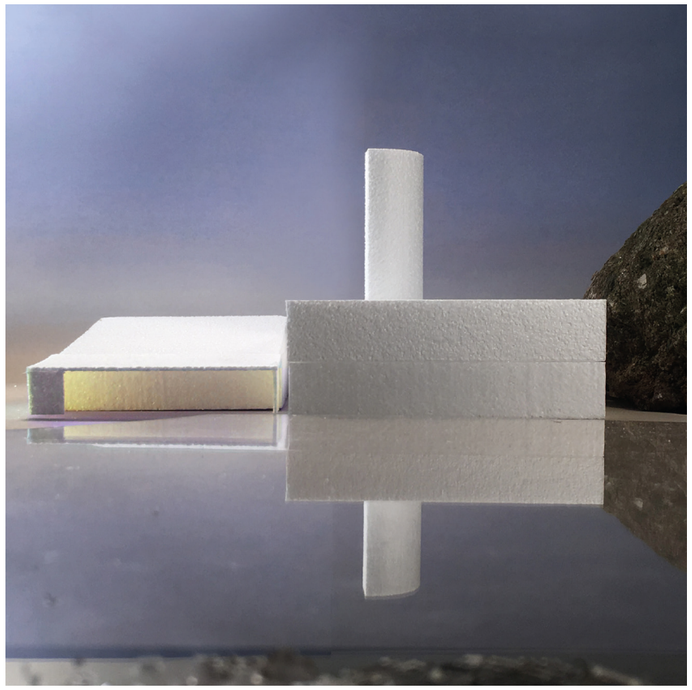


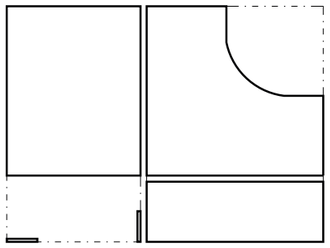




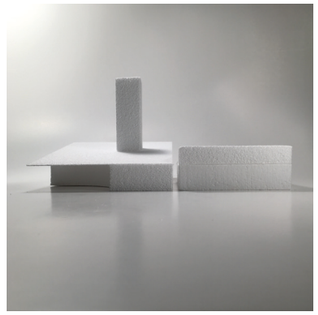


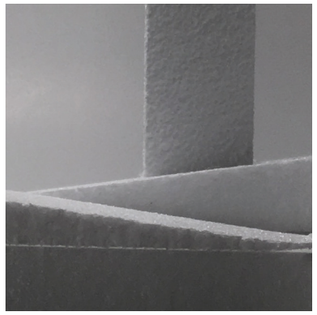


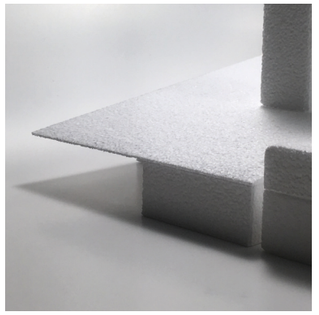


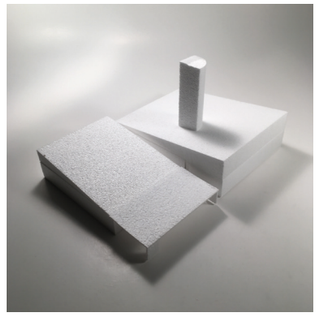


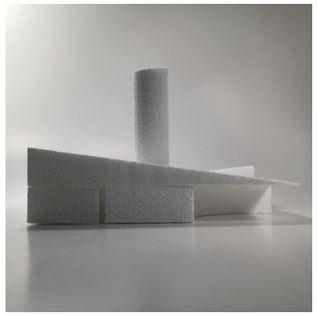
L: 1 450 m2 + 450 m2 (outdoor)

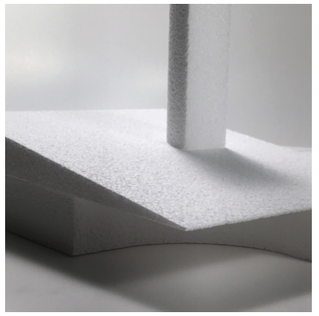


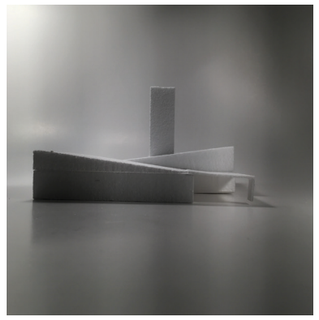


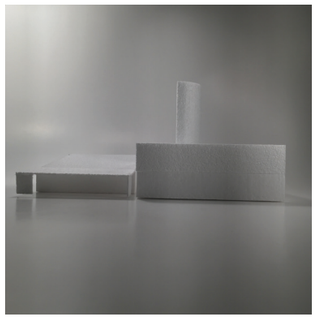


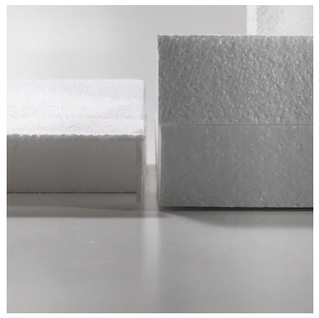


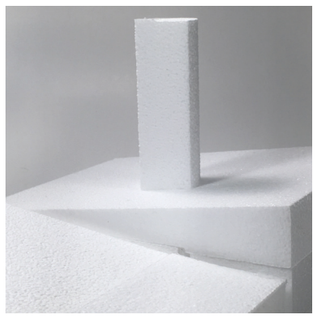


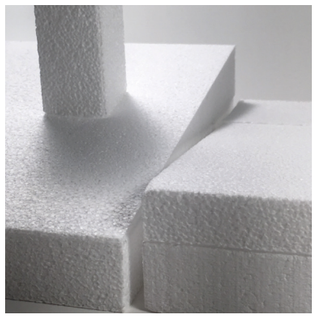




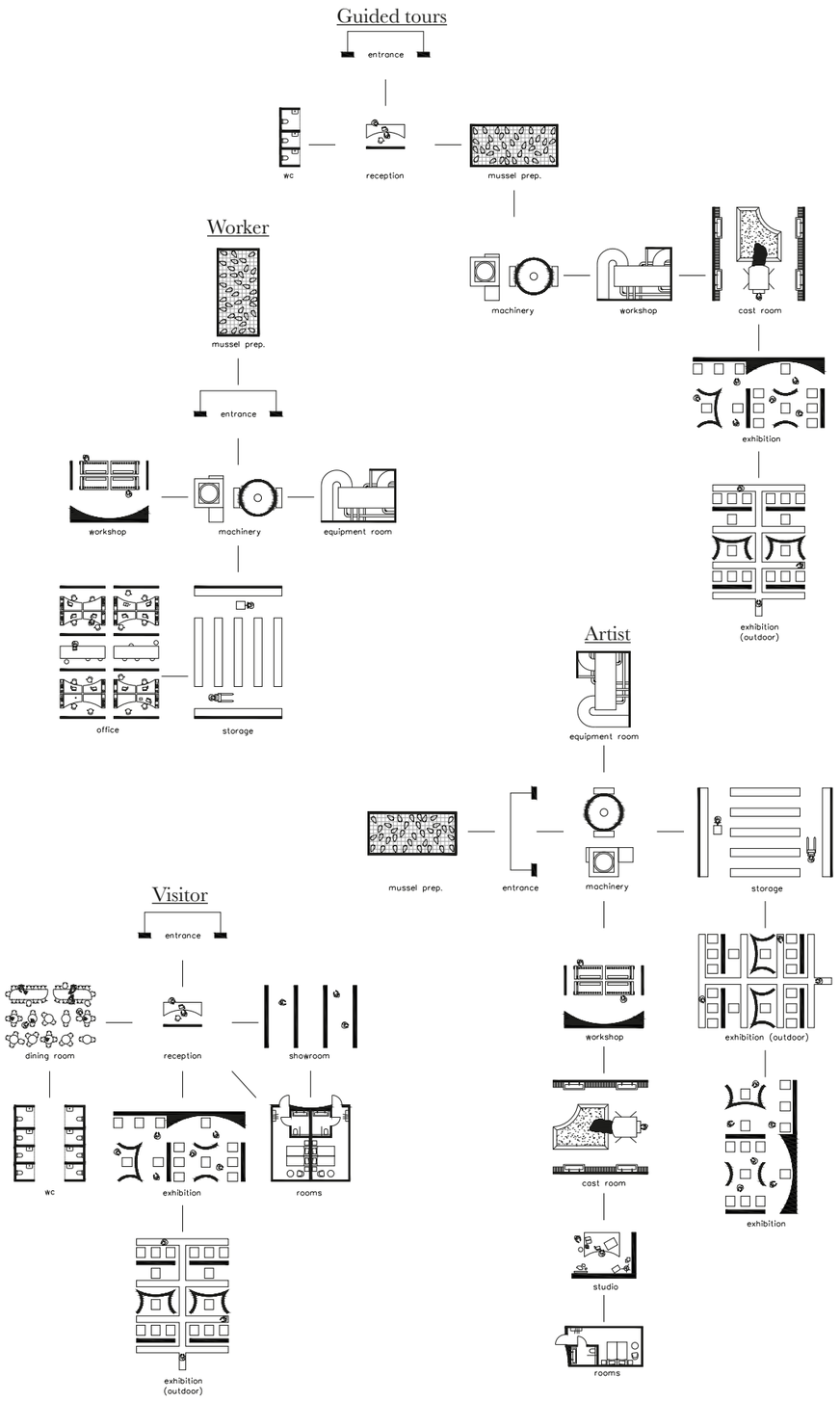








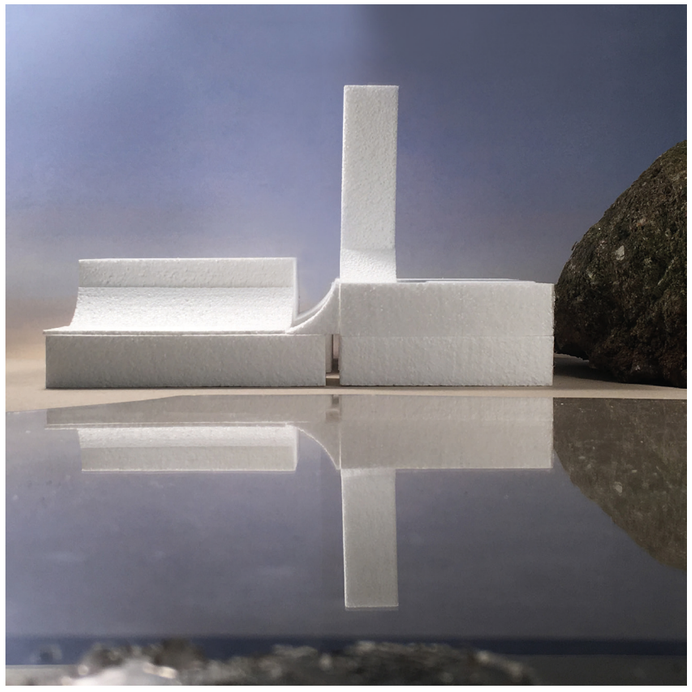
FLOW CHART

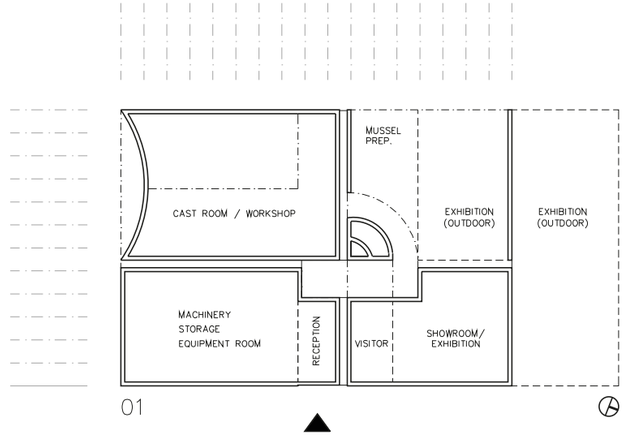


About

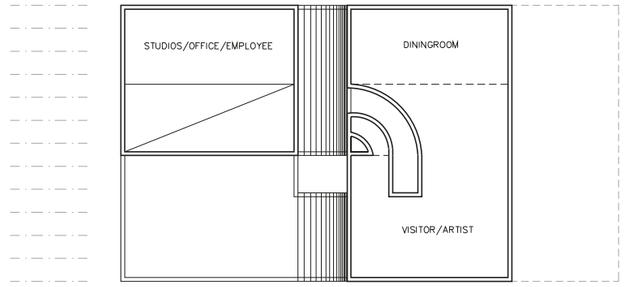
We started with a list of essential rooms in the building, based upon our own process including the initial sketches to the final casting.
To further understand the logistic within the building we did different flow-charts of different users that will occur.
We then used these flowcharts and some of the guidelines as base for initial sketches of plans. Selected plans were chosen, based on their relation to the program and guidelines, for volume test.
Chosen volumes were then crash-tested with the programs applied to the footprint, giving basic, reasonable layout of the plans.

A: CRASH TEST (on chosen volumes)

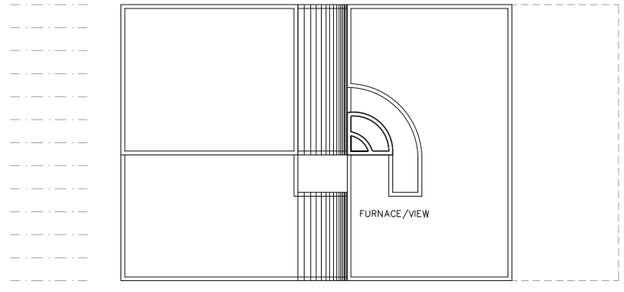




01



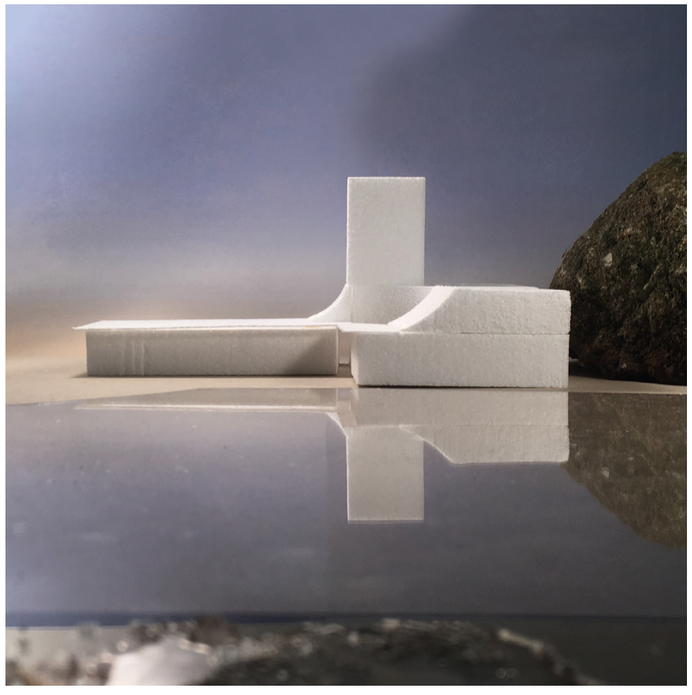
02



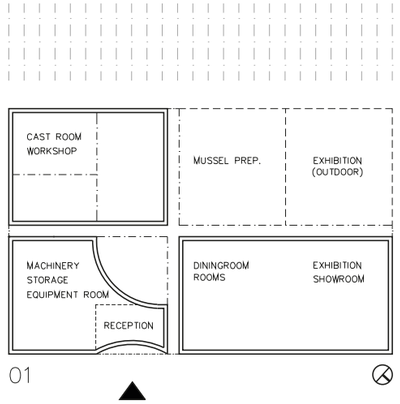
ROOF/ FURNACE/VIEW

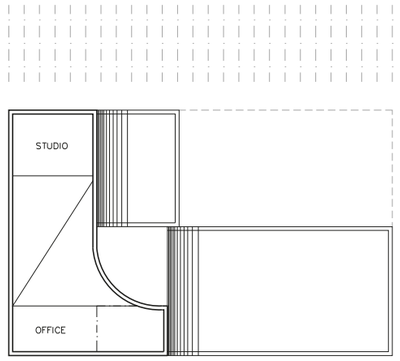
ORIENTATION

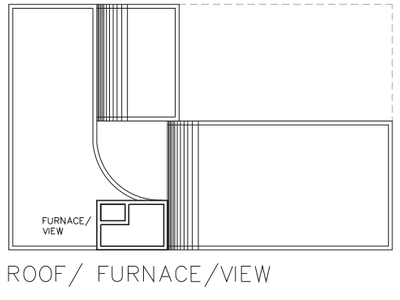
C: CRASH TEST (on chosen volumes)



C

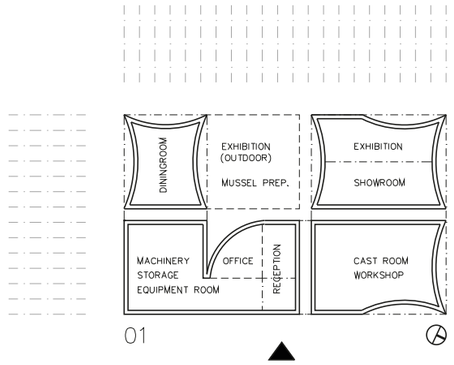




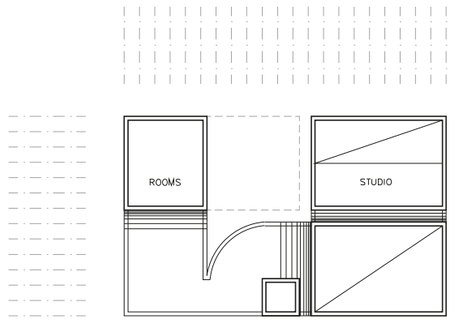


D: CRASH TEST (on chosen volumes)

D



01



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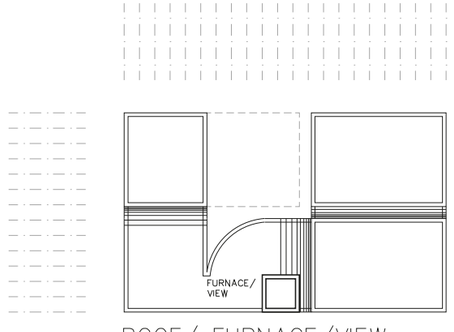
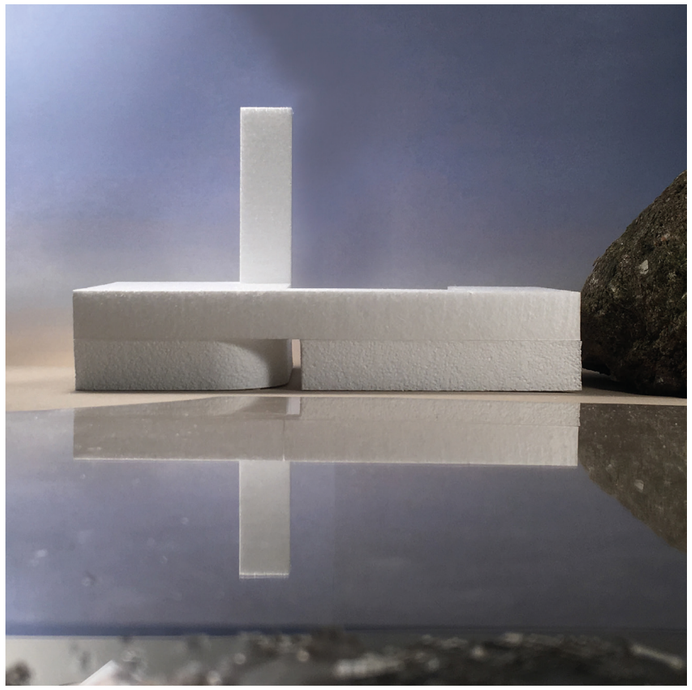


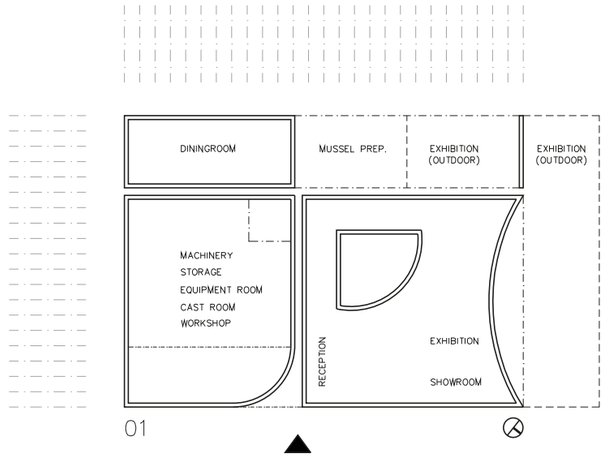
ROOF/ FURNACE/VIEW

ORIENTATION

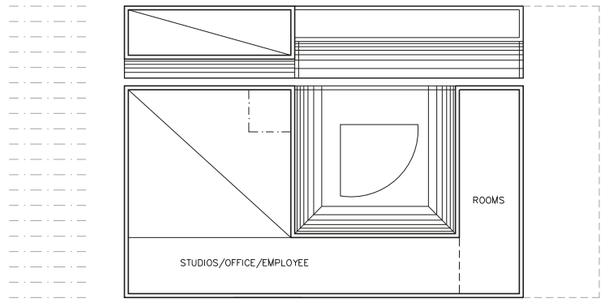
K: CRASH TEST (on chosen volumes)



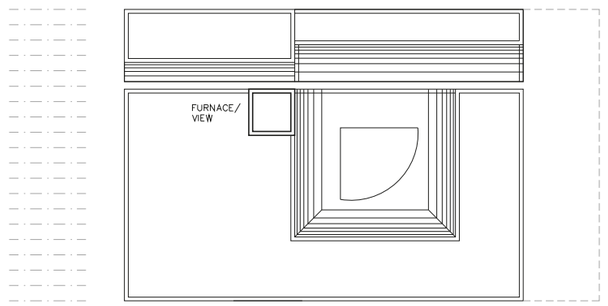
K



01

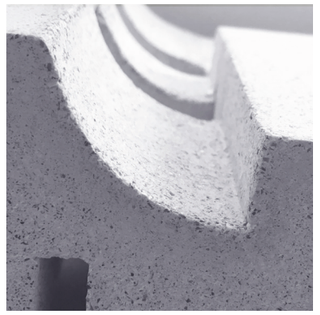


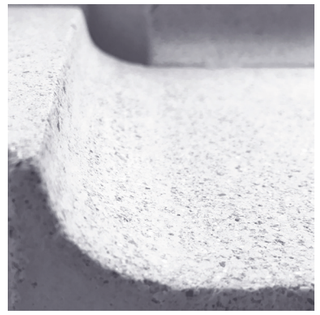
02

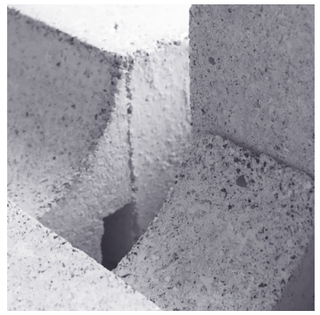


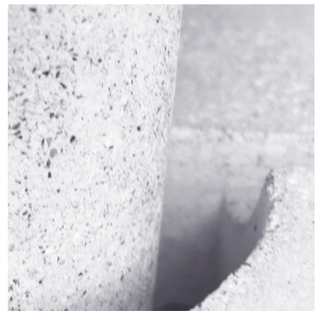
ROOF/ FURNACE/VIEW

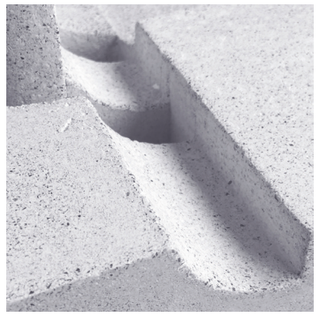
ORIENTATION

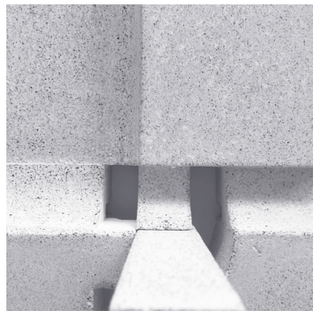












Reflection

The volume studies gave us a coherent design approach for the large scale in the project. The set scale (1:200) was purely meant for testing the volume, with that in mind some of the volumes needed an explanation for where the perforations in the wall is needed. There was also the aspect of facade material where some of the façades needed a difference in the material to highlight some parts of the design guidelines.
Though we chose four (A, C, D, K) models to investigate further in plan and in the end chose one (A) for the final design proposal we took elements that we found throughout the volume-process and incubated them in the final design.
The design proposal included some tweaking to the chosen volume and some adjustments due to the landscape, placement of windows and materiality.