Knowledge Through Making

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Eric Einstein

MASTER OF ARCHITECTURE

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Wood Timber

Model making

Detail

Construction

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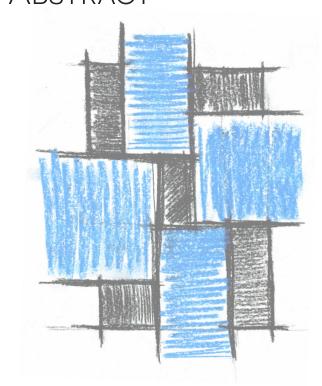
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December 18, 2014 Blacksburg, VA

KNOWLEDGE THROUGH MAKING ABSTRACT

Perhaps the quintessential project for an architect is the design of a house. This thesis takes the approach of designing a house by way of a unique construction method. Influenced by the strickbau, or woven wood, method of stacking timber most commonly seen in the Swiss chalet, the project explores materials and details to address the limitations of the strickbau method of construction. The centerpiece of the project is a robust model, which acts as an analogue to the actual construction method.

Eric Einstein



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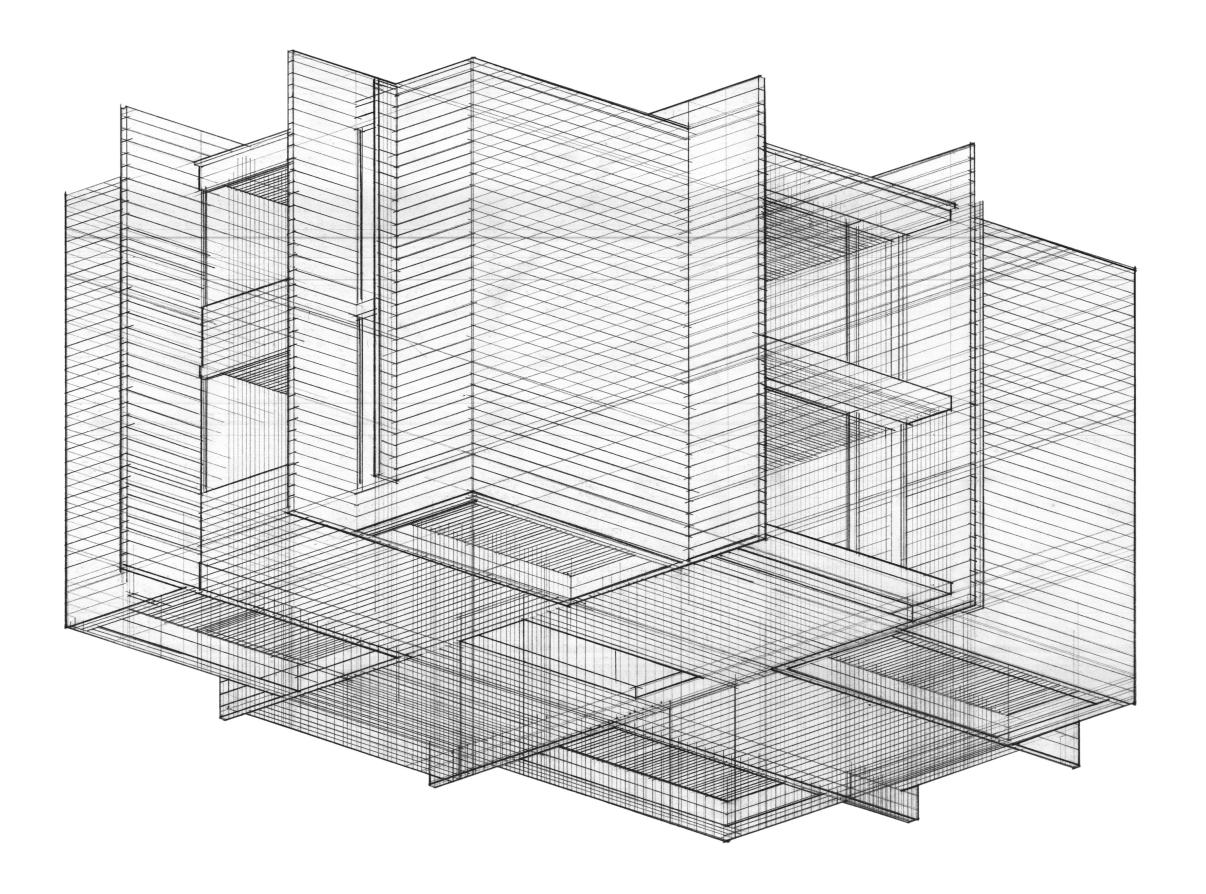
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INTRODUCTION

How does the wall meet the floor? How do windows meet walls? How do two walls meet? These are the types of questions that are the most fundamental for the architect. This thesis seeks to explore these questions through the media of drawing and model making.

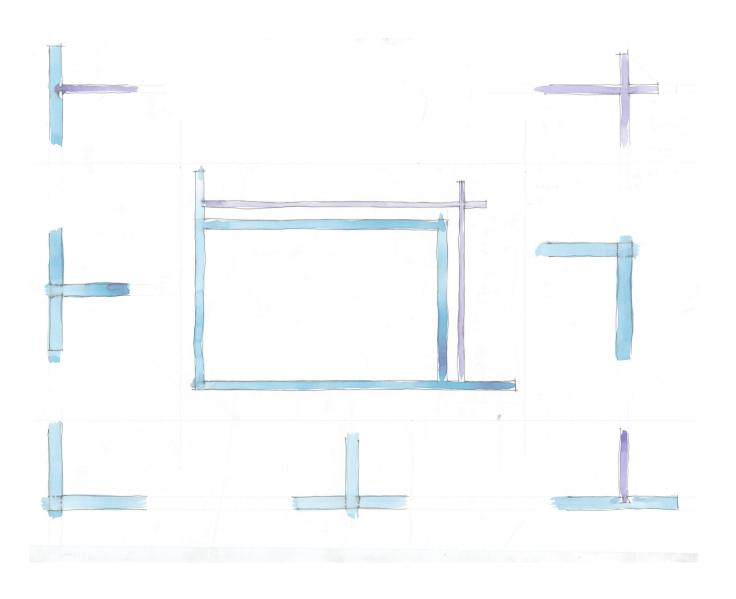
"Ideas articulated by the arts are painterly, sculptural, musical, theatrical, cinematic and architectural embodied propositions, conceived and expressed through the inherent medium and artistic logic of the particular art form in dialectical process with its own history and traditions...All significant architecture is a result of serious thinking, or rather, of a distinct way of thinking through the medium of architecture."

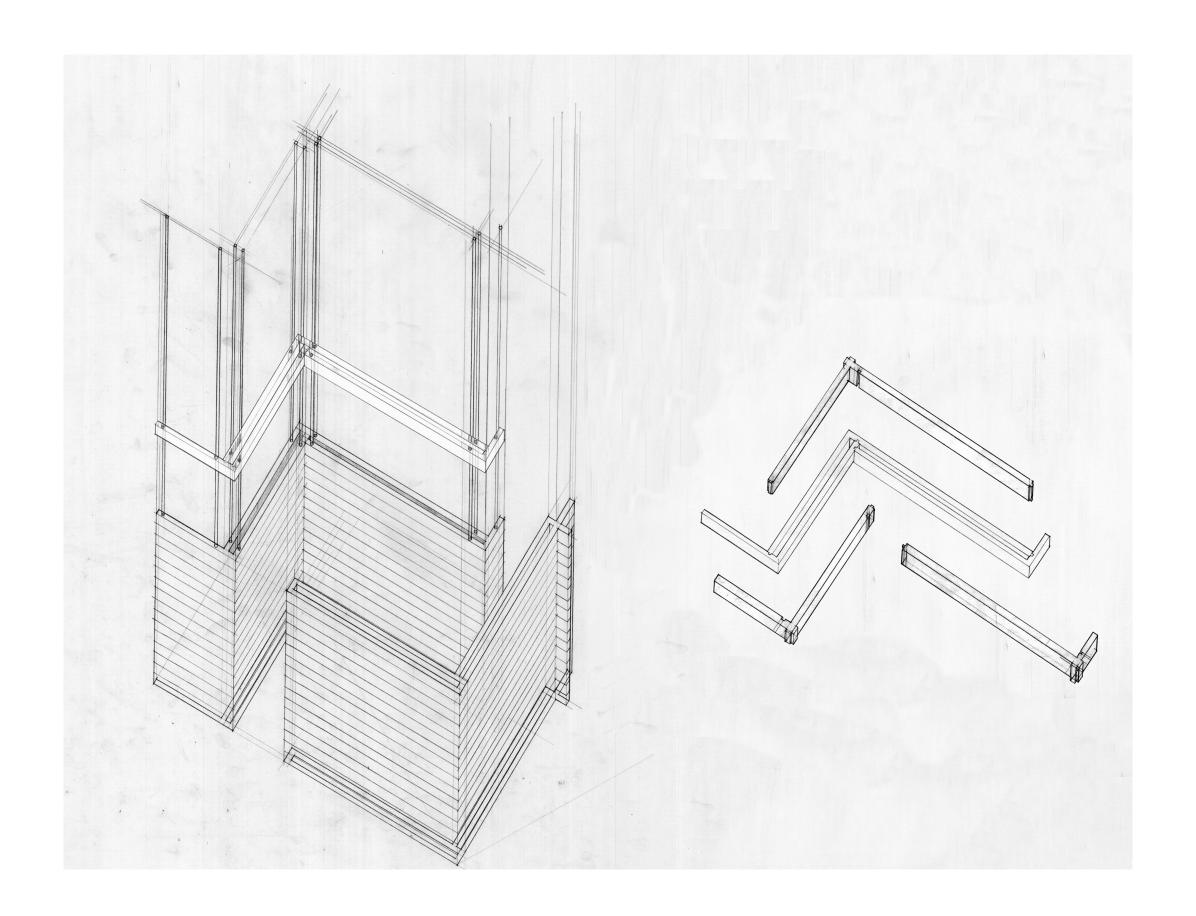
-Juhani Pallasmaa The Embodied Image 106-107



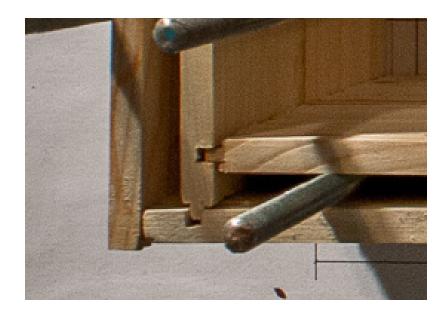
CONSTRUCTING ORDER

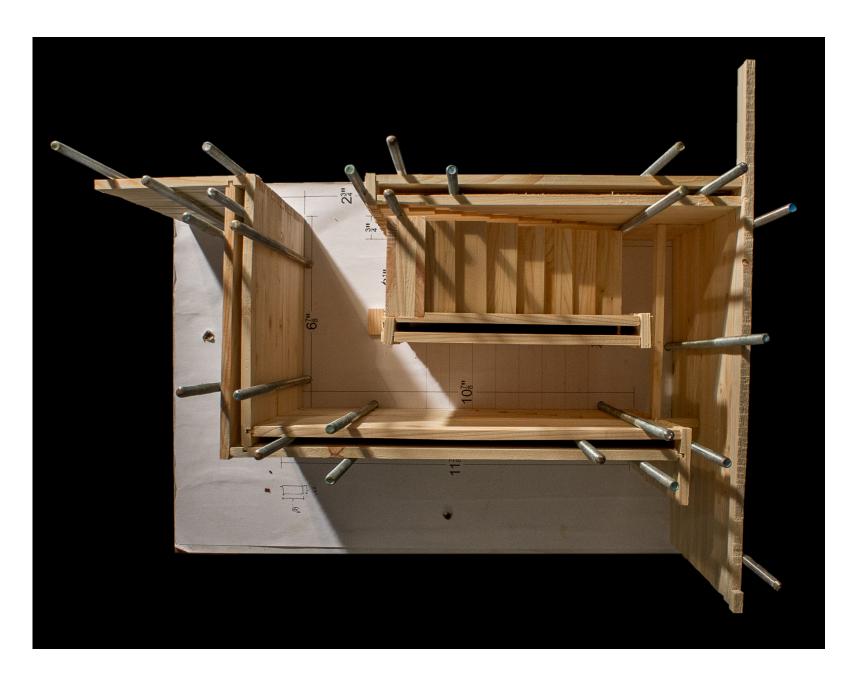
It is impossible to say whether the detail allows for the overall form, or the overall form demands a certain detail. All architecture must act in this way; the relationship of parts to whole is not linear, but dynamic and aims for a symbiotic balance. The order of the house is revealed by a complementary relationship between the joining details of structural members and the overall form.

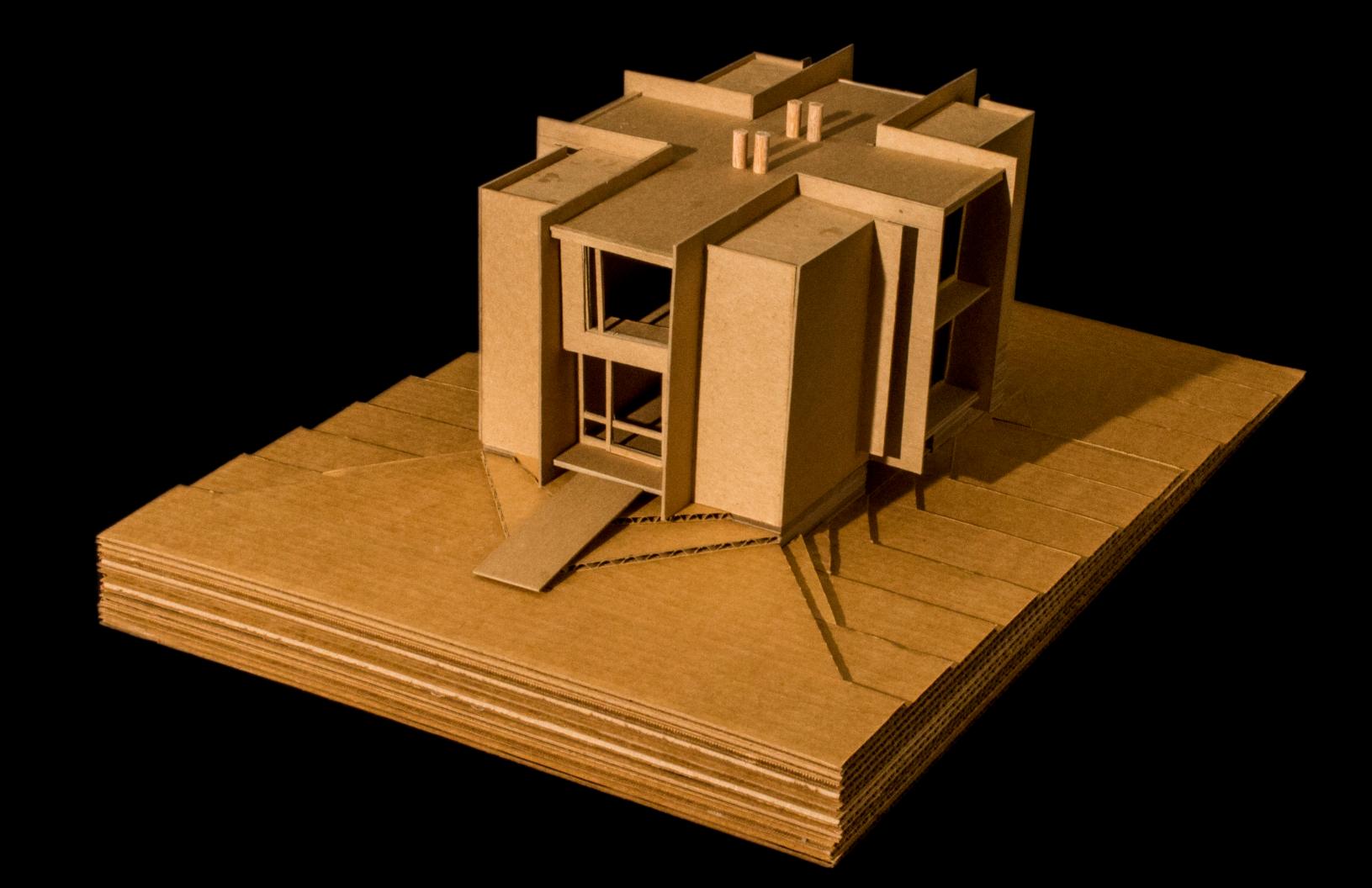


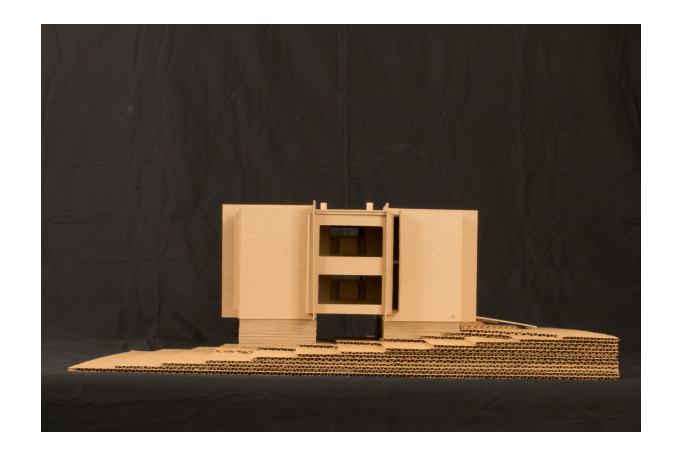




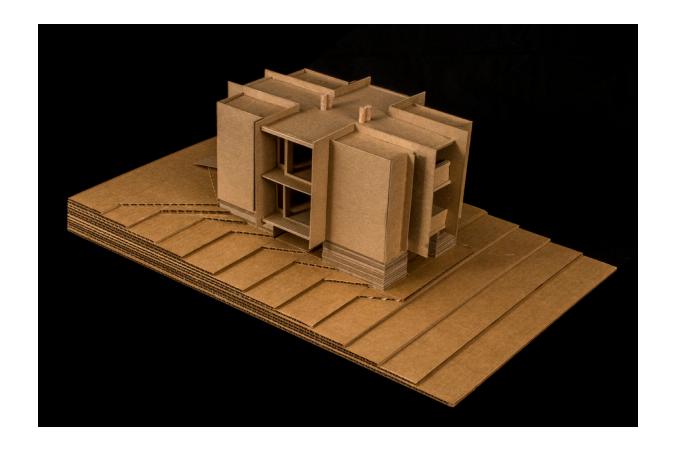




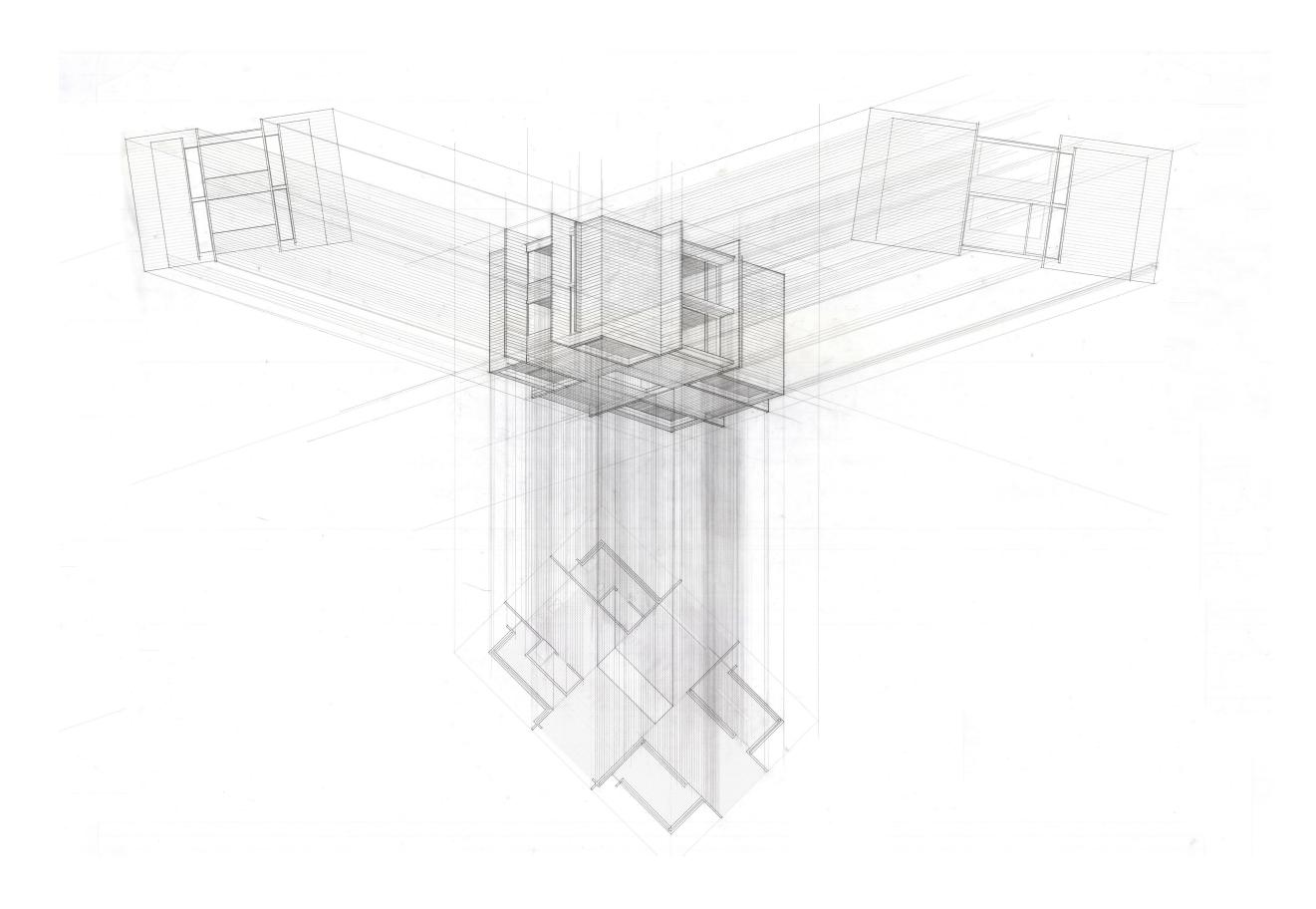


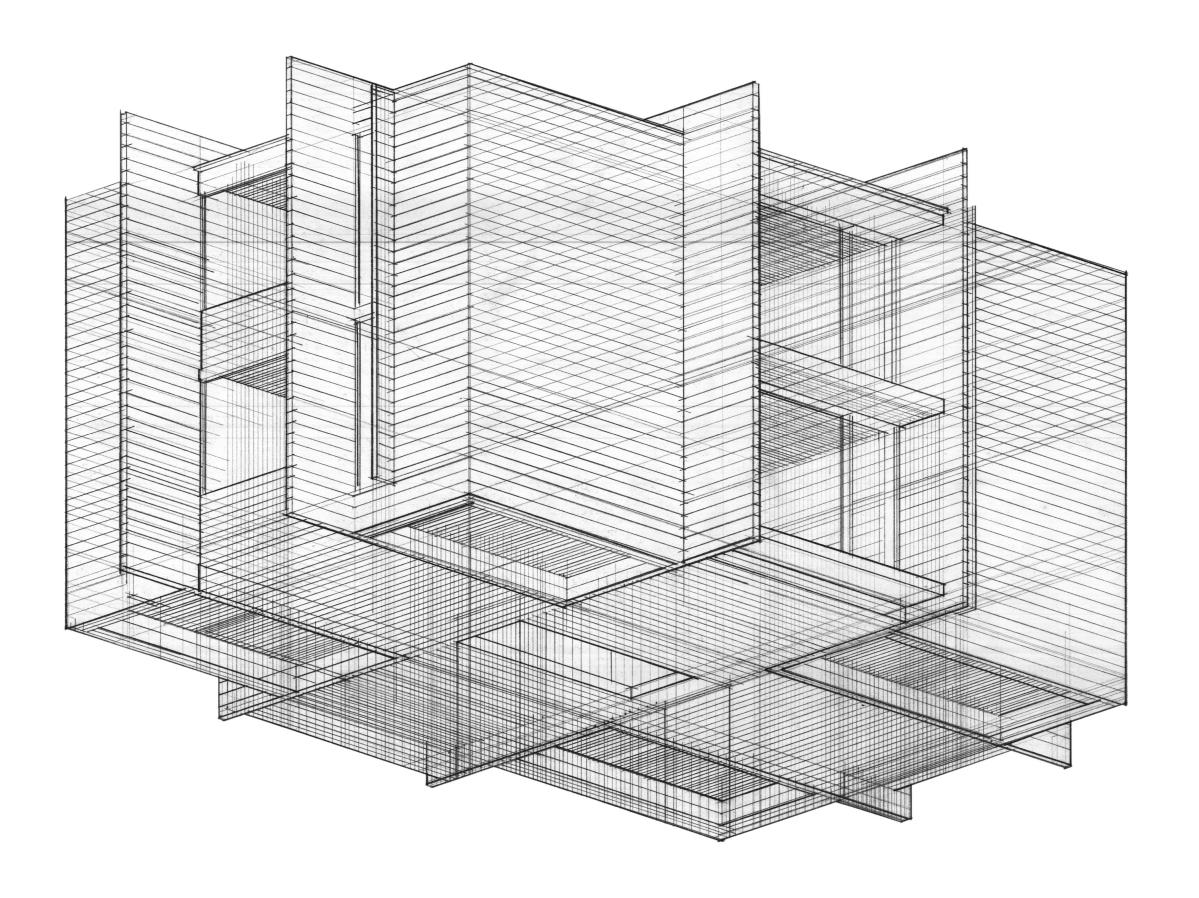






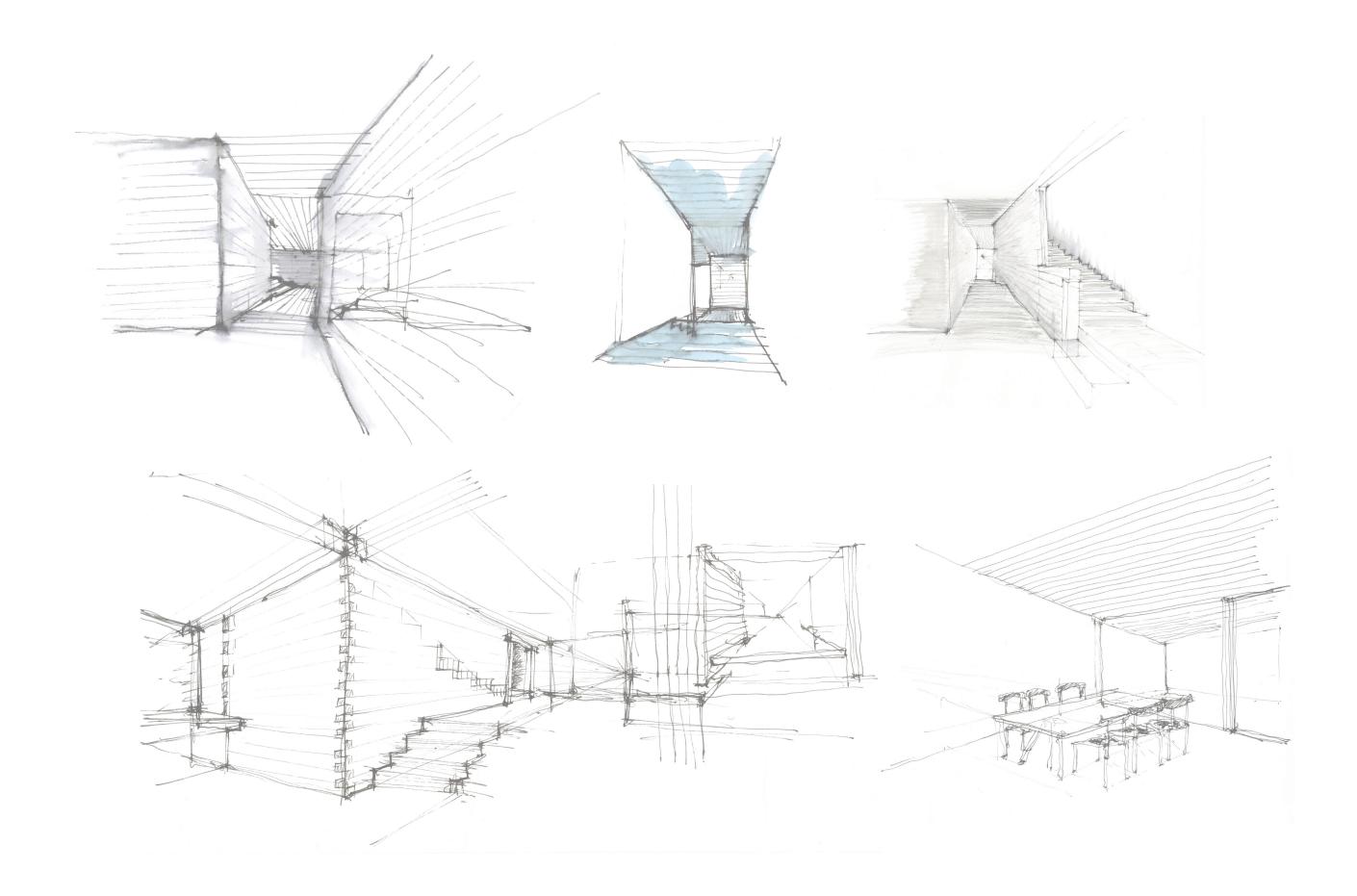


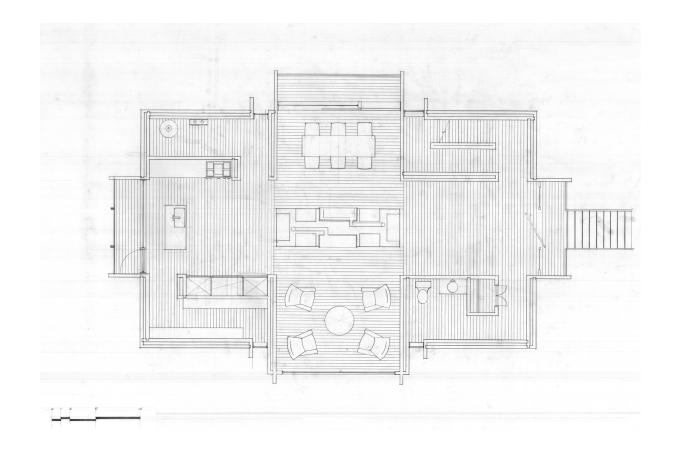


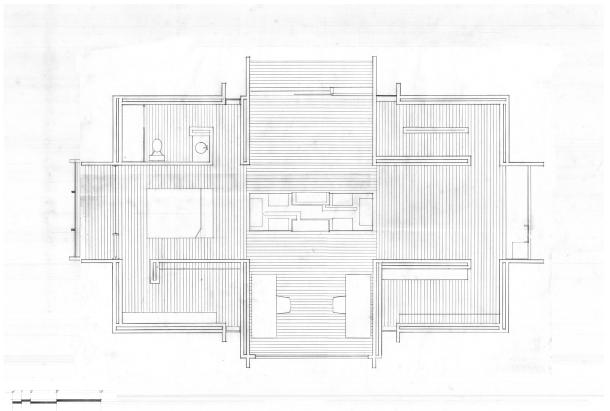


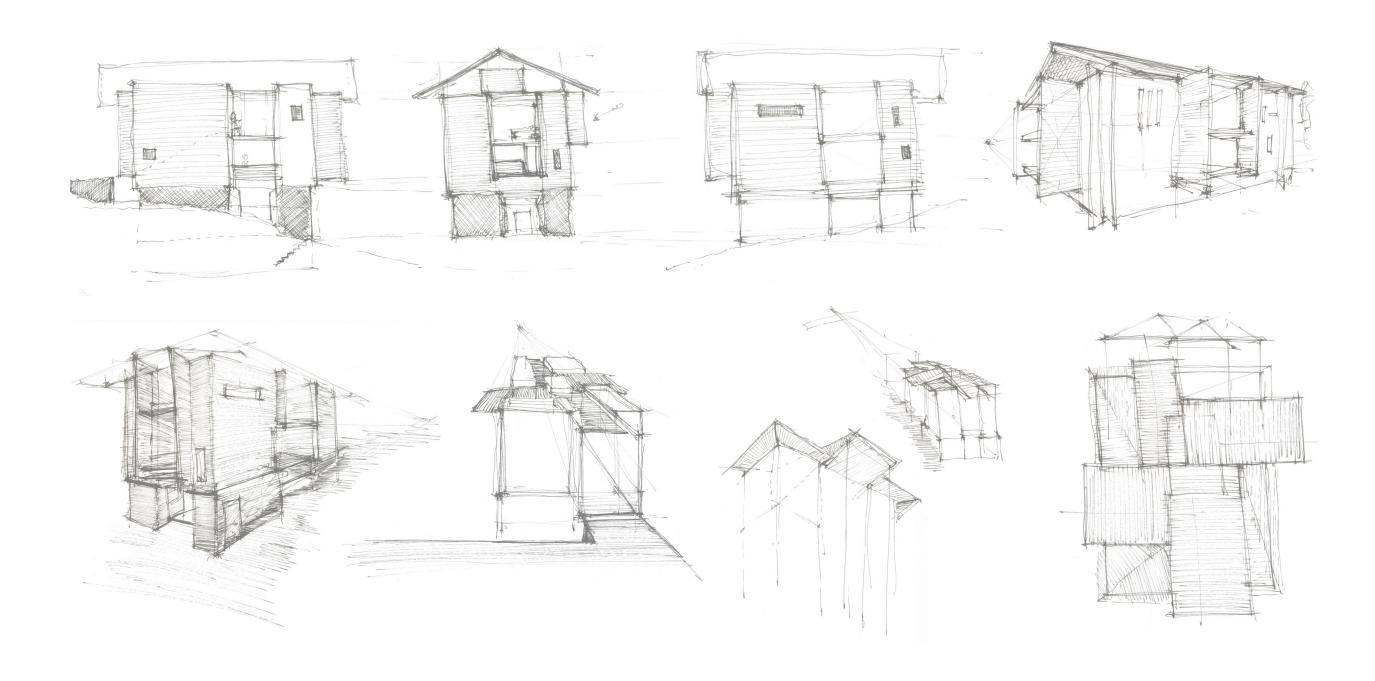
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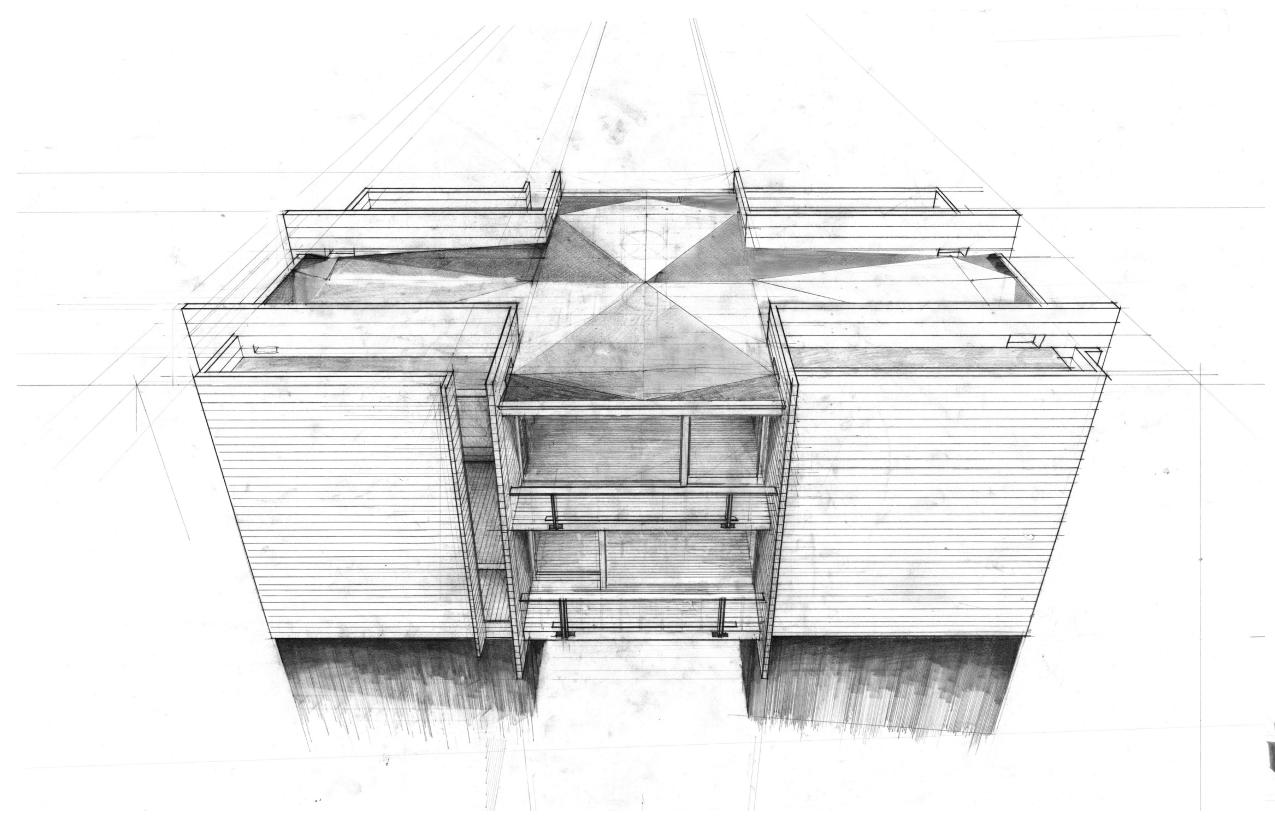
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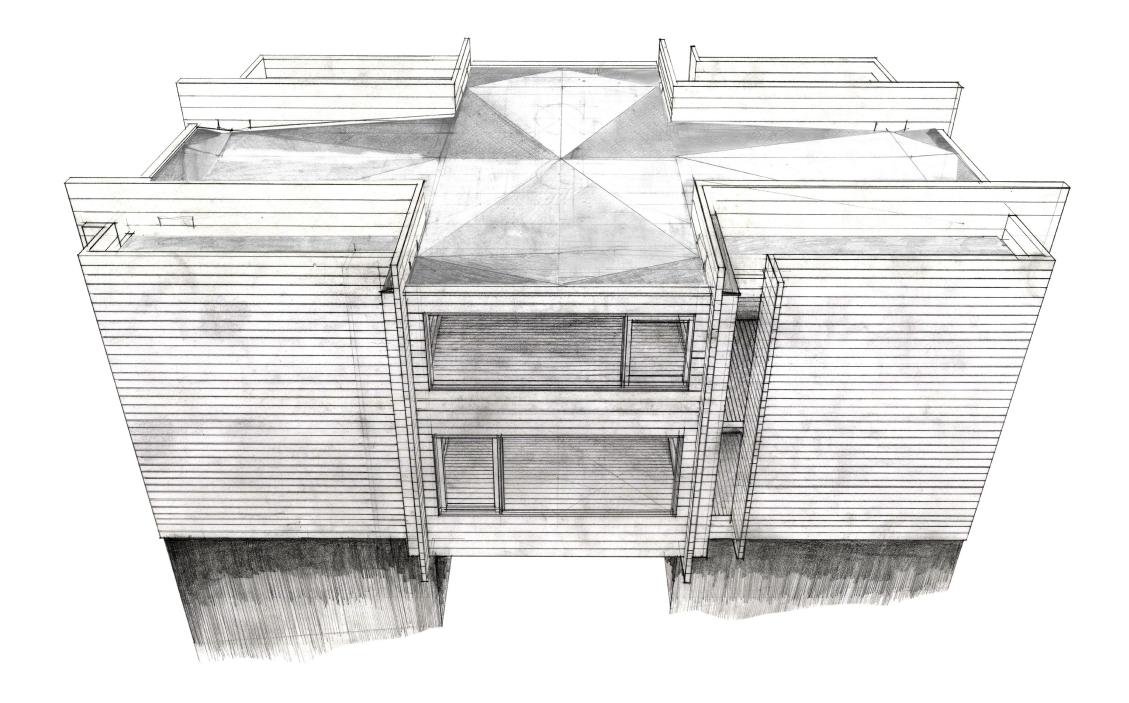


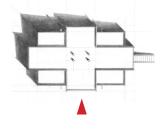


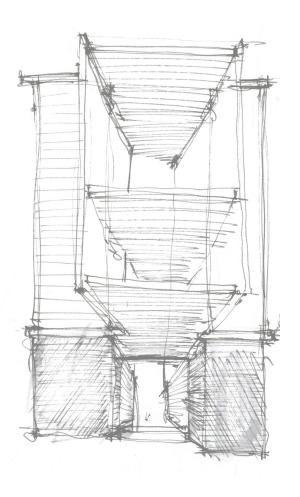


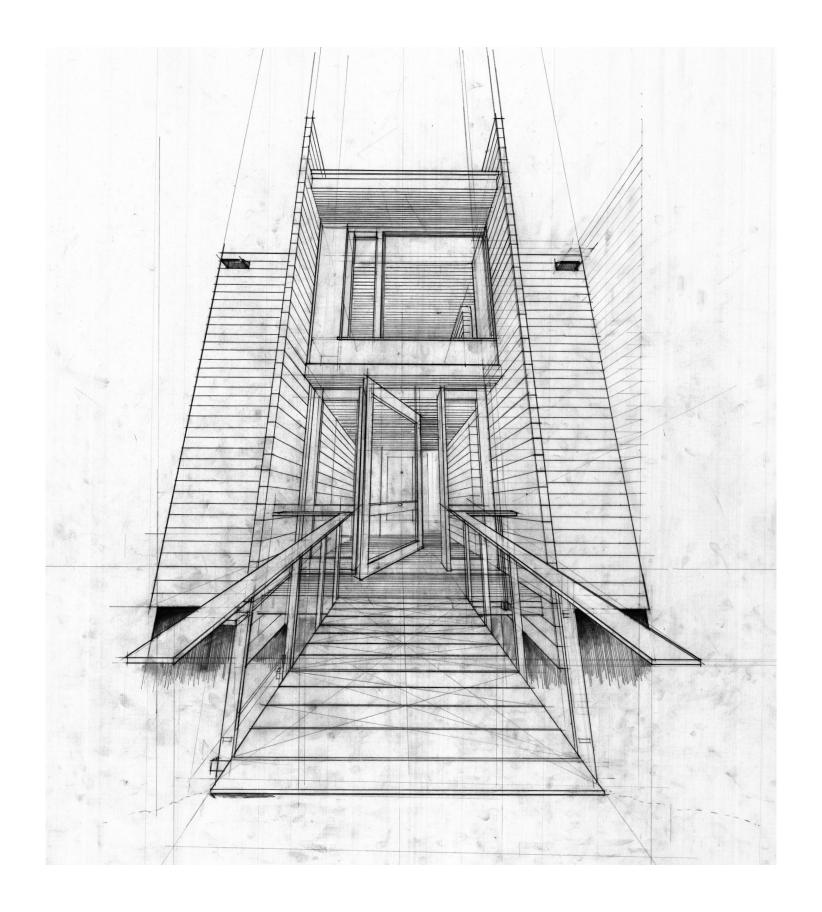


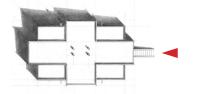




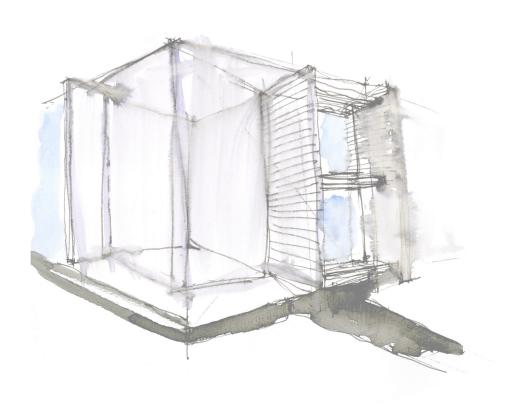


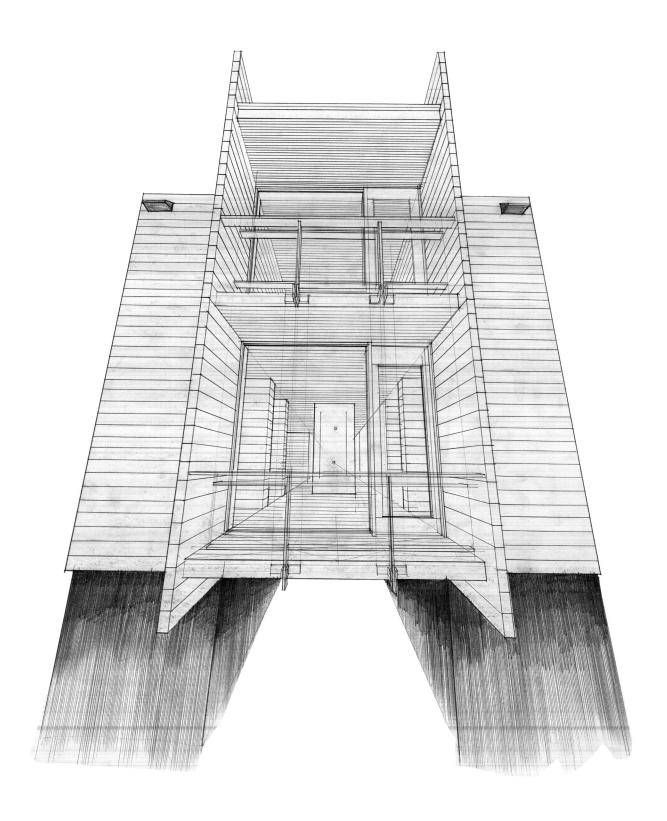


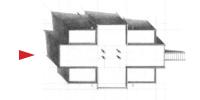


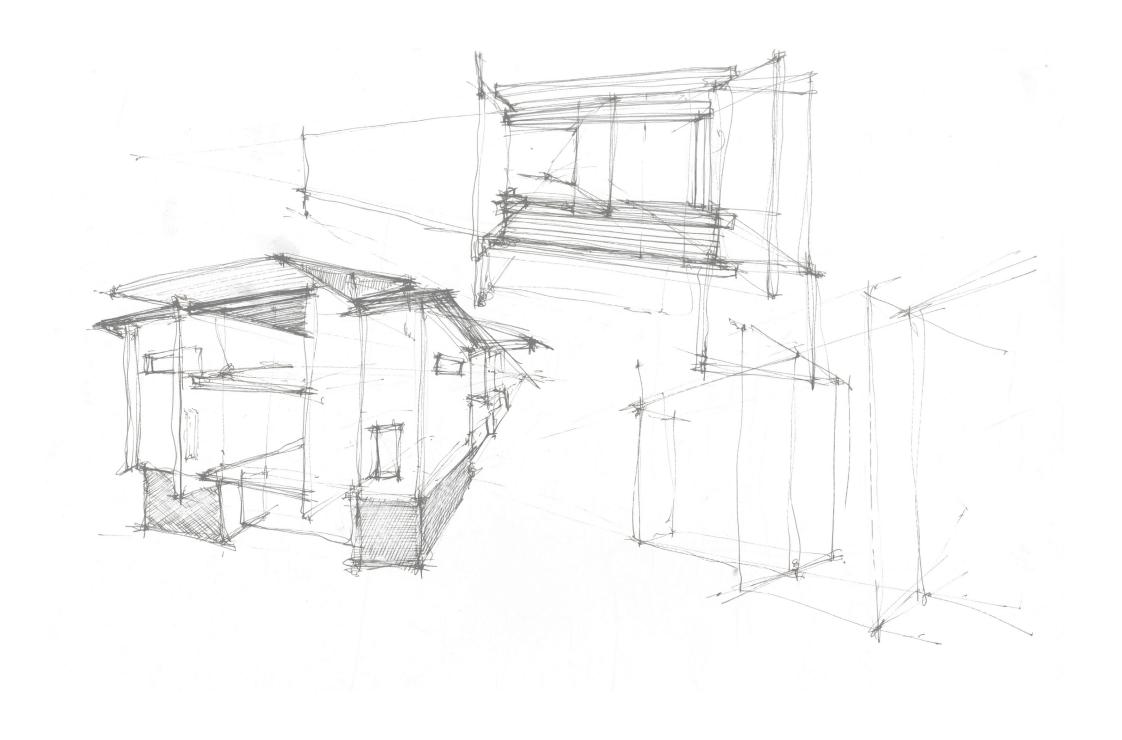


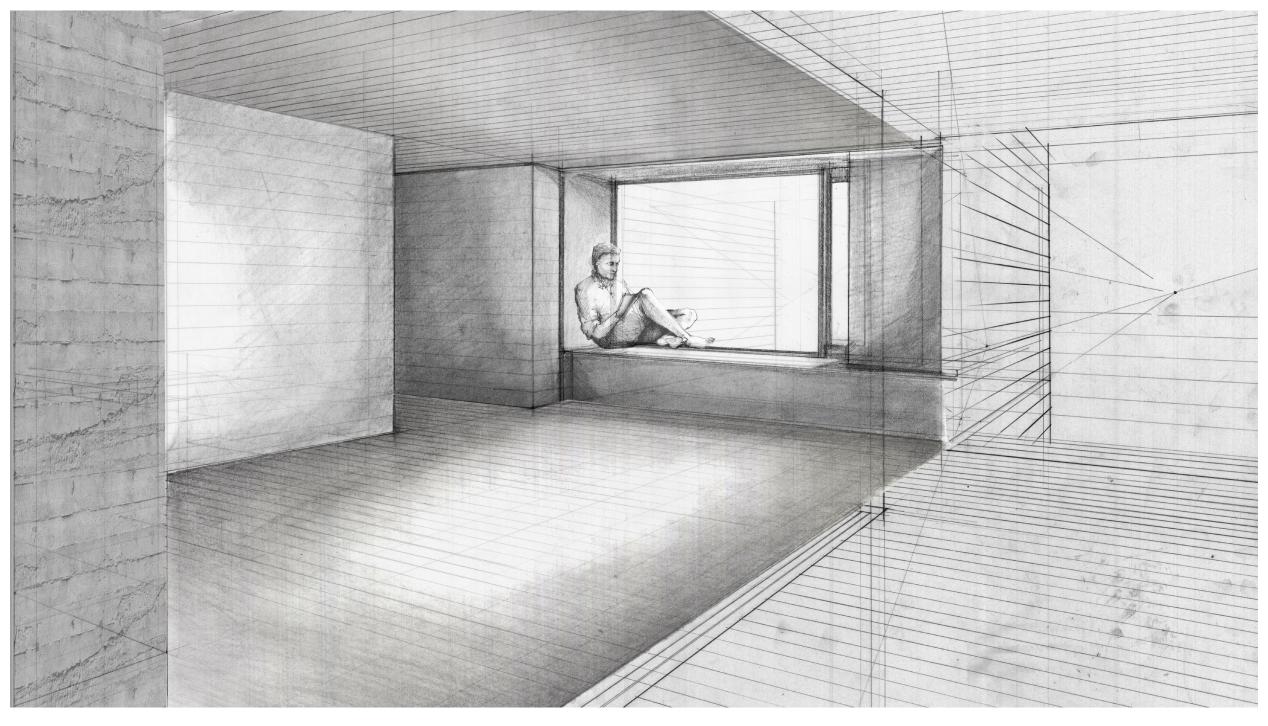
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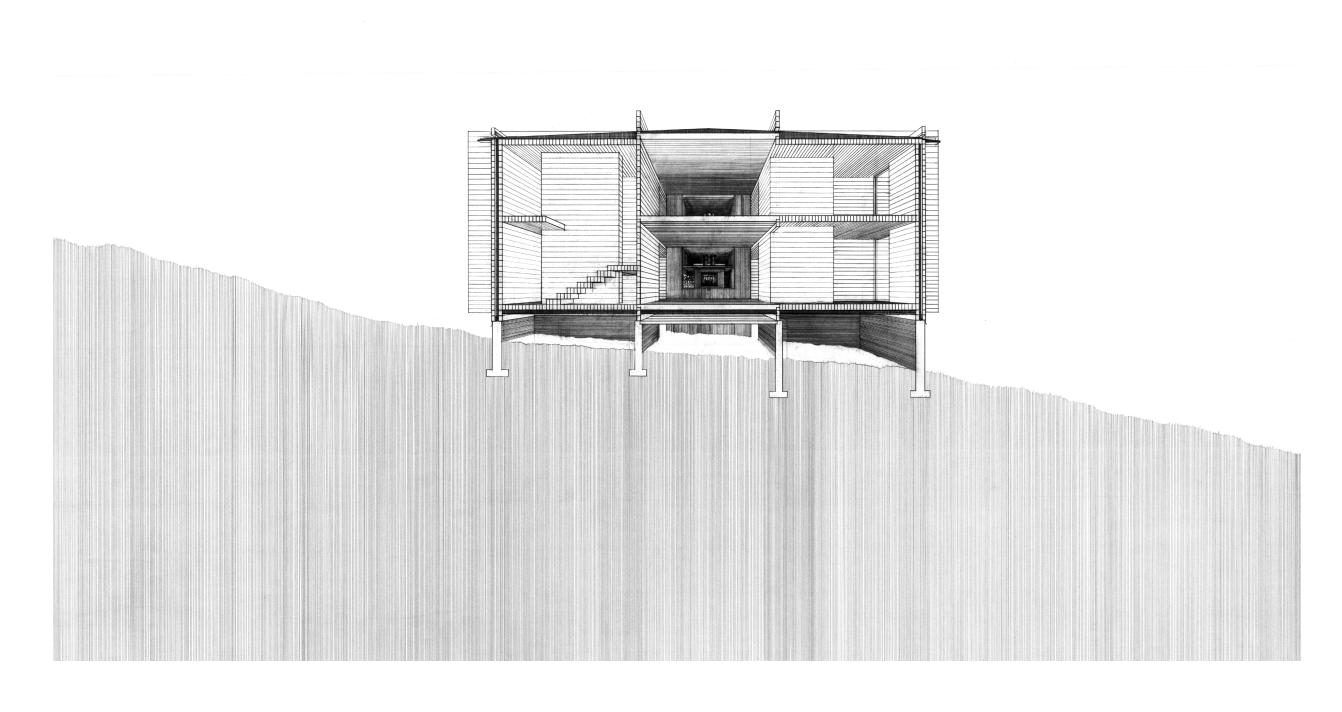




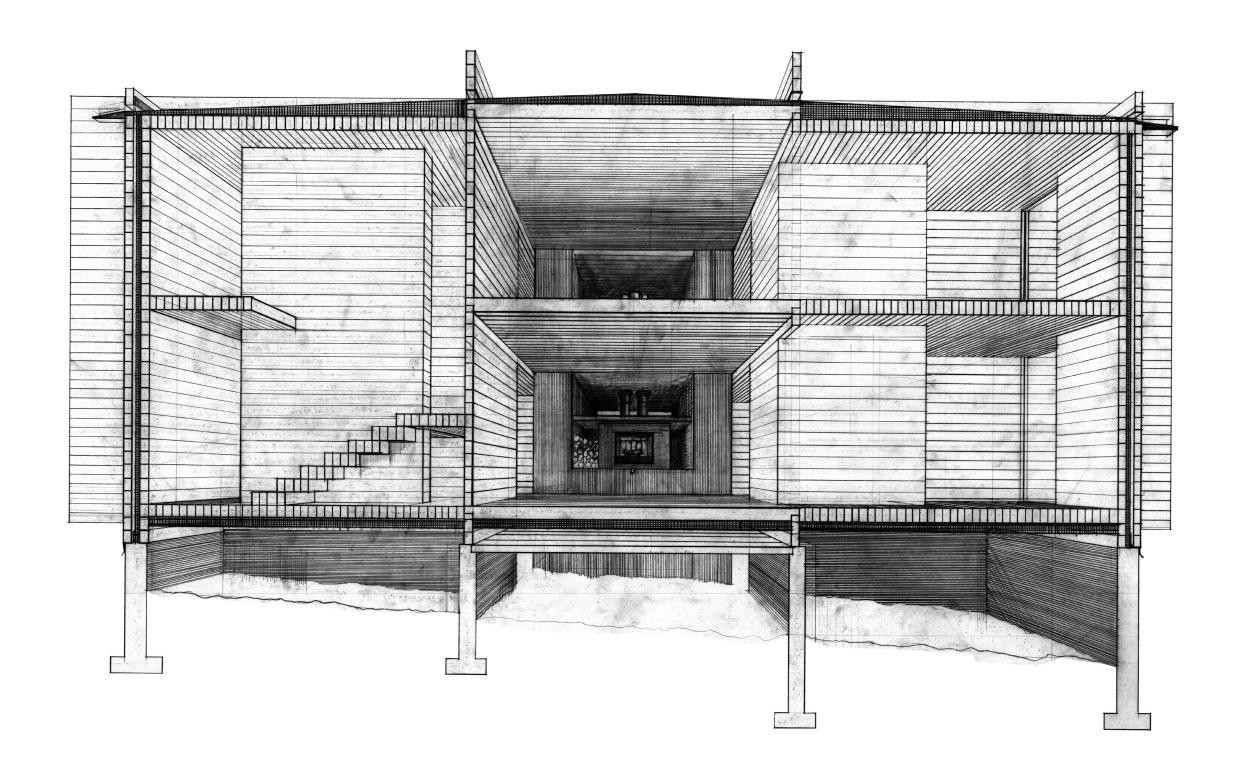


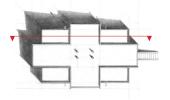


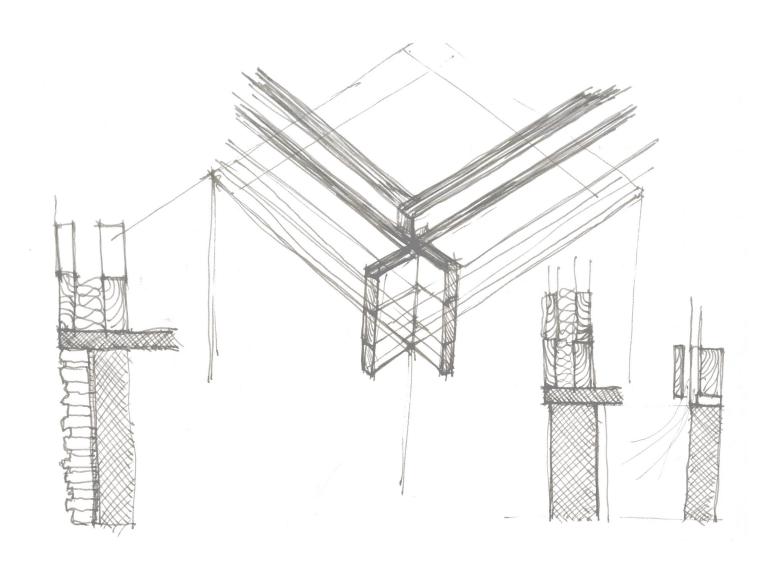
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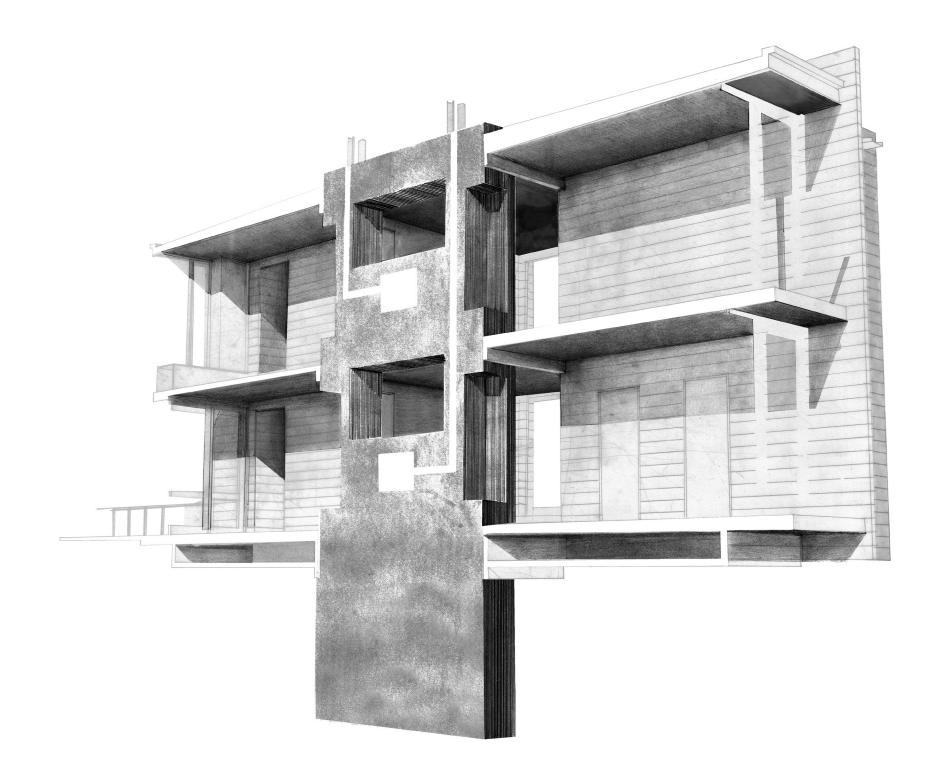


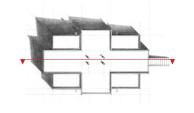
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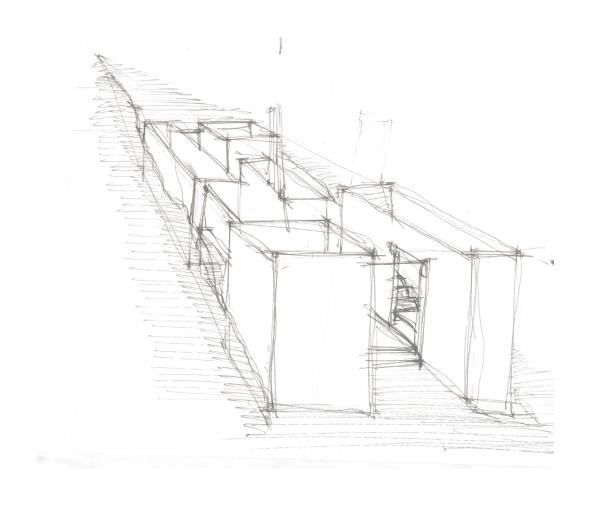


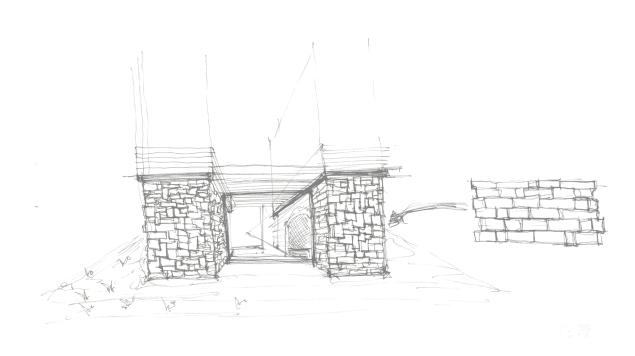


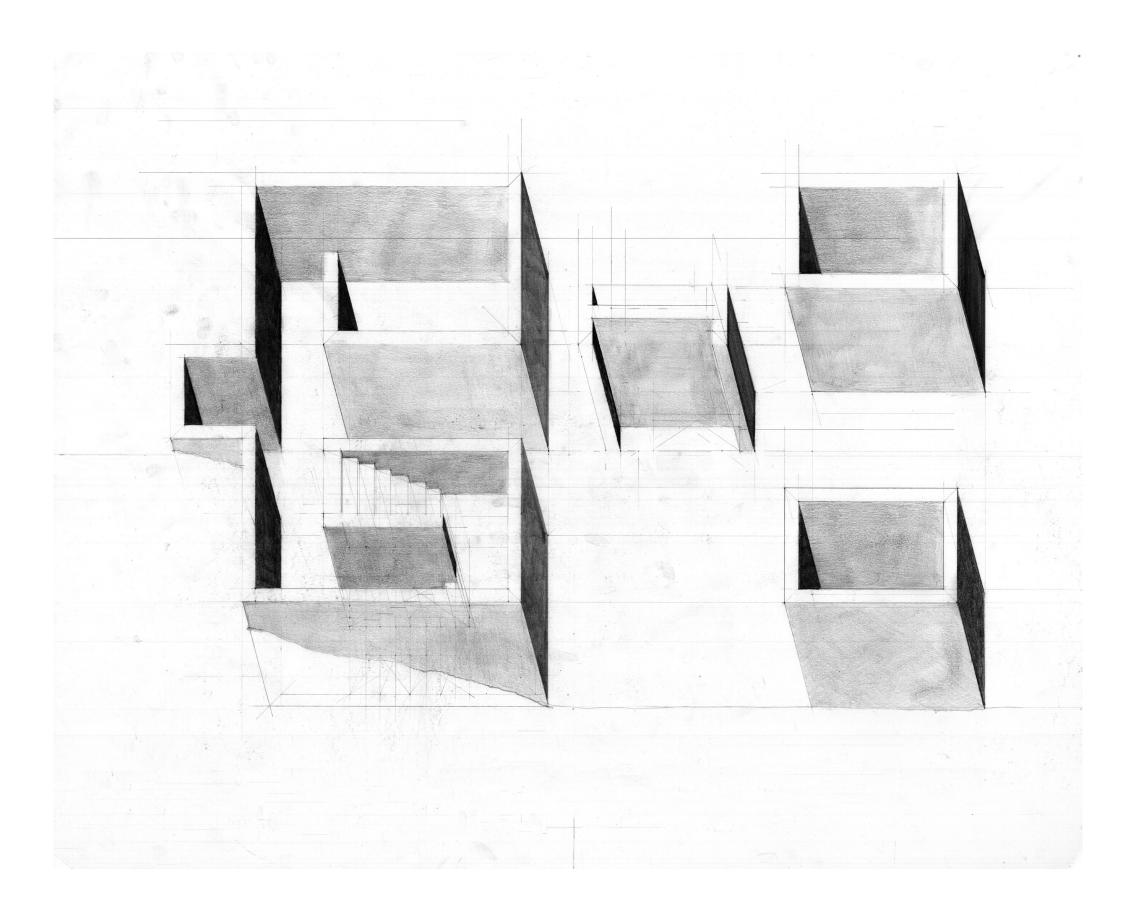








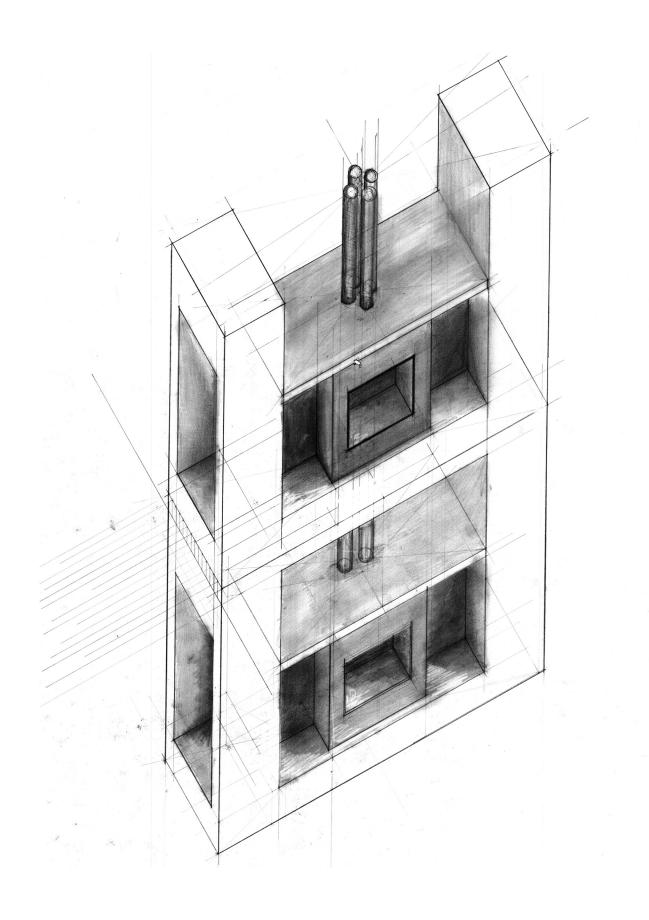




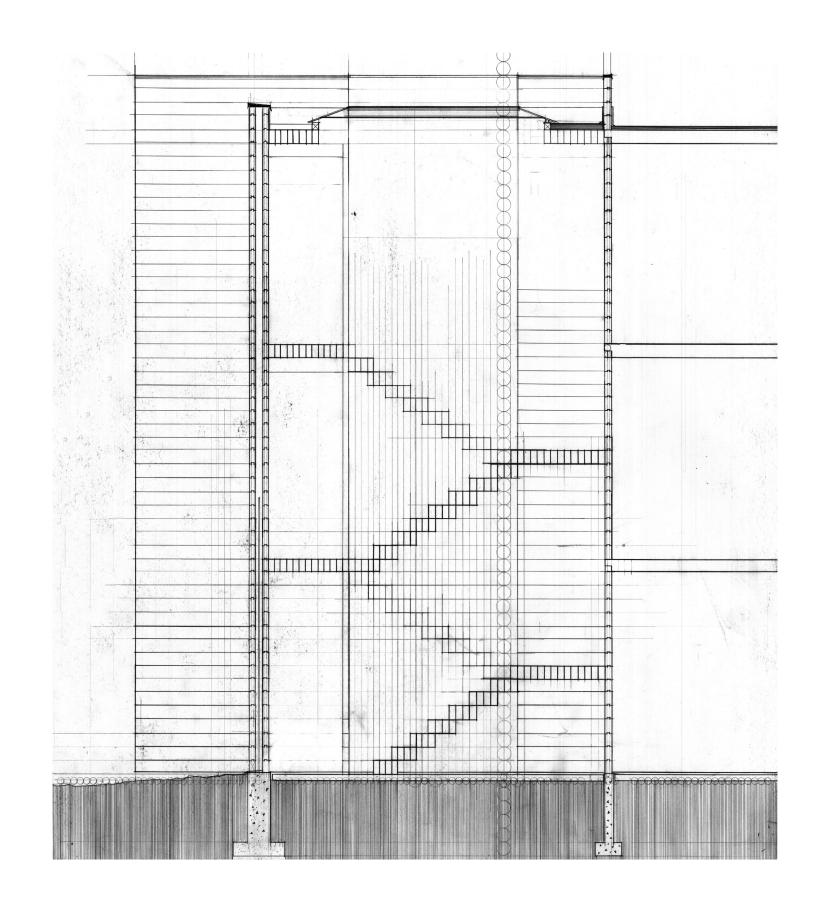
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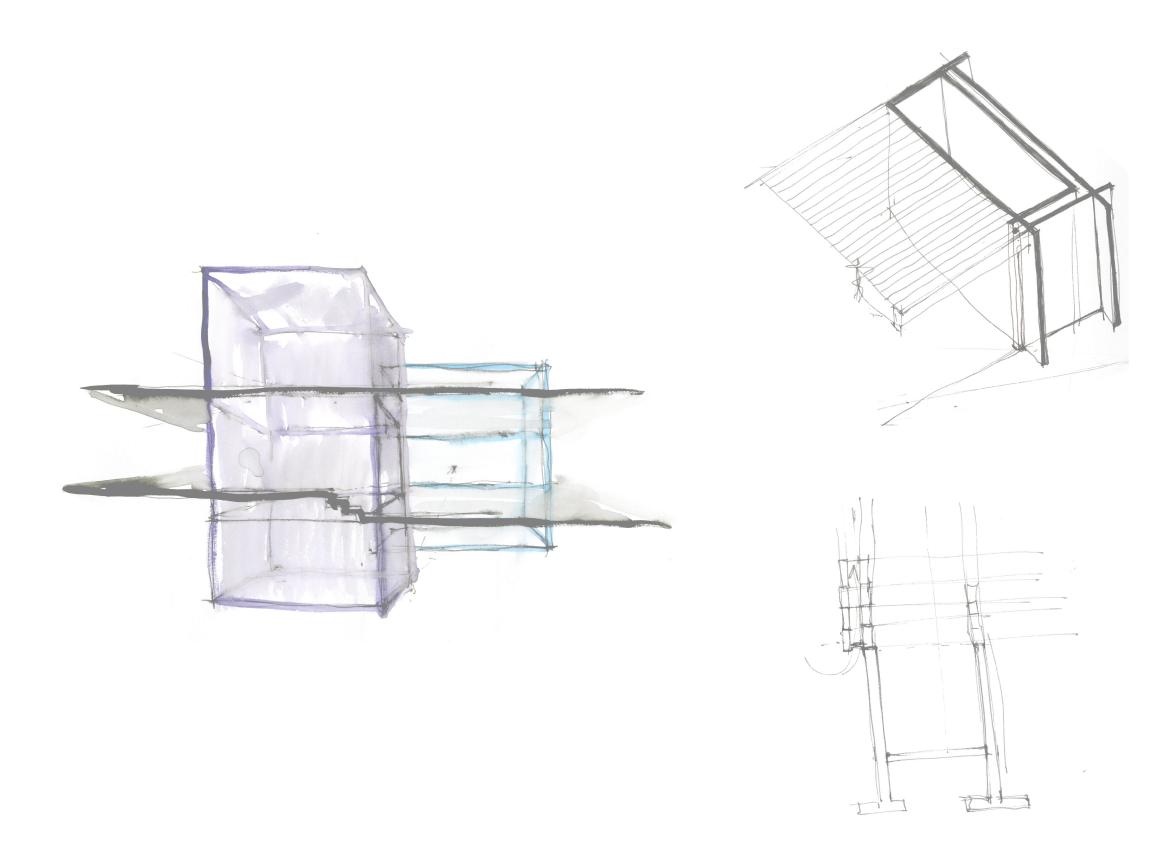
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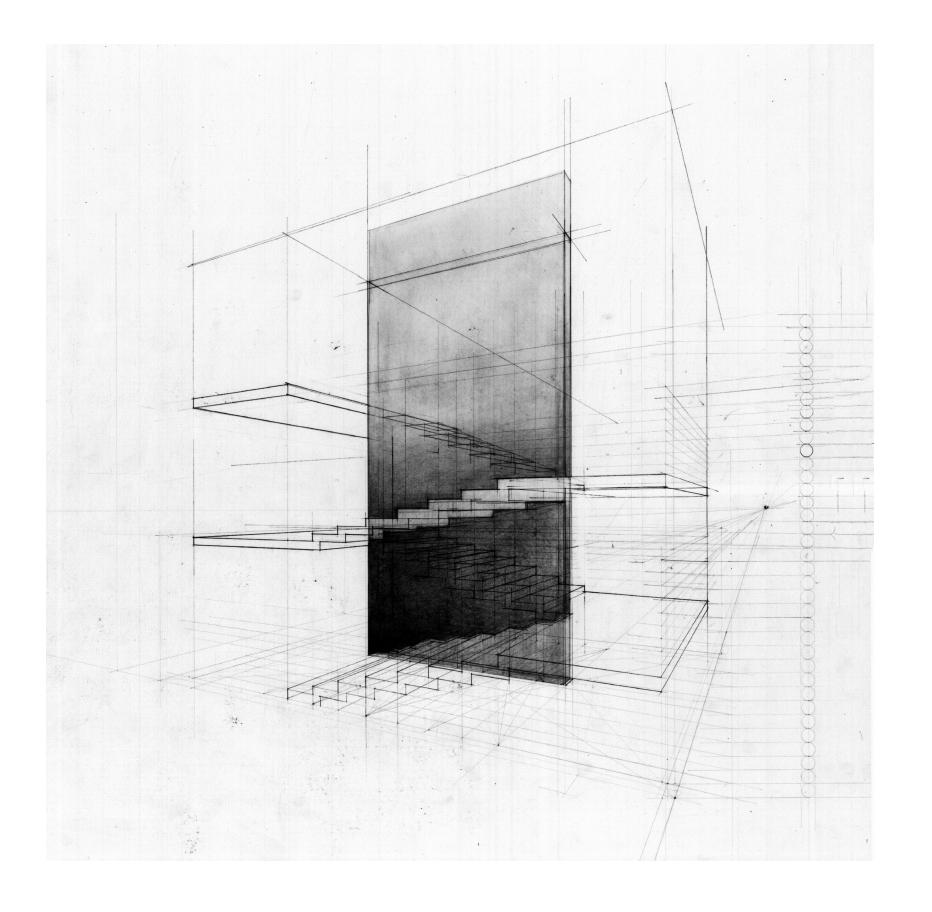












Model Making as an Analogue TO BUILDING

The architect knows through making. Perhaps the most important struggle in this thesis was developing a way of model making that is an analogue to the actual constructive method. From choosing the wood, milling the members, making the joints and ultimately assembling it, every action was meant to correlate to the actual building. Measurements and proportions were loosely determined before the model making began. However, the act of making brings knowledge of how materials should be used, how members should come together and ultimately what the project becomes.

Verum esse ipsum factum - the true itself is made.

- Giambattista Vico



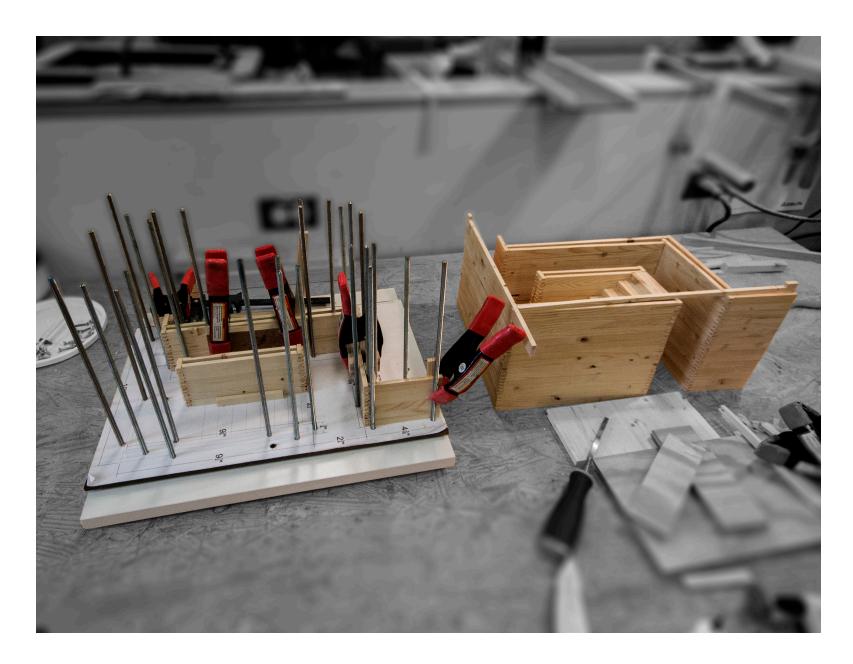
DRYING STACK



Wood Preparation

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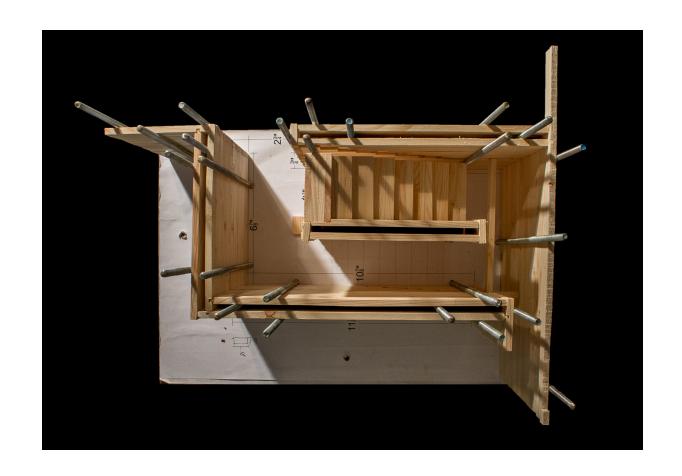




MODEL MAKING PROCESS









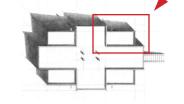




Model Separation Reveal







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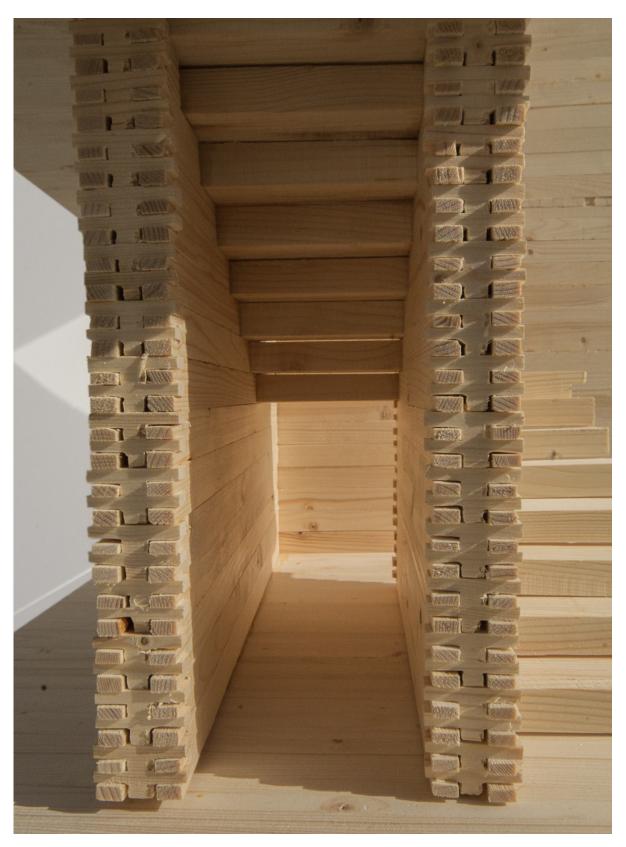












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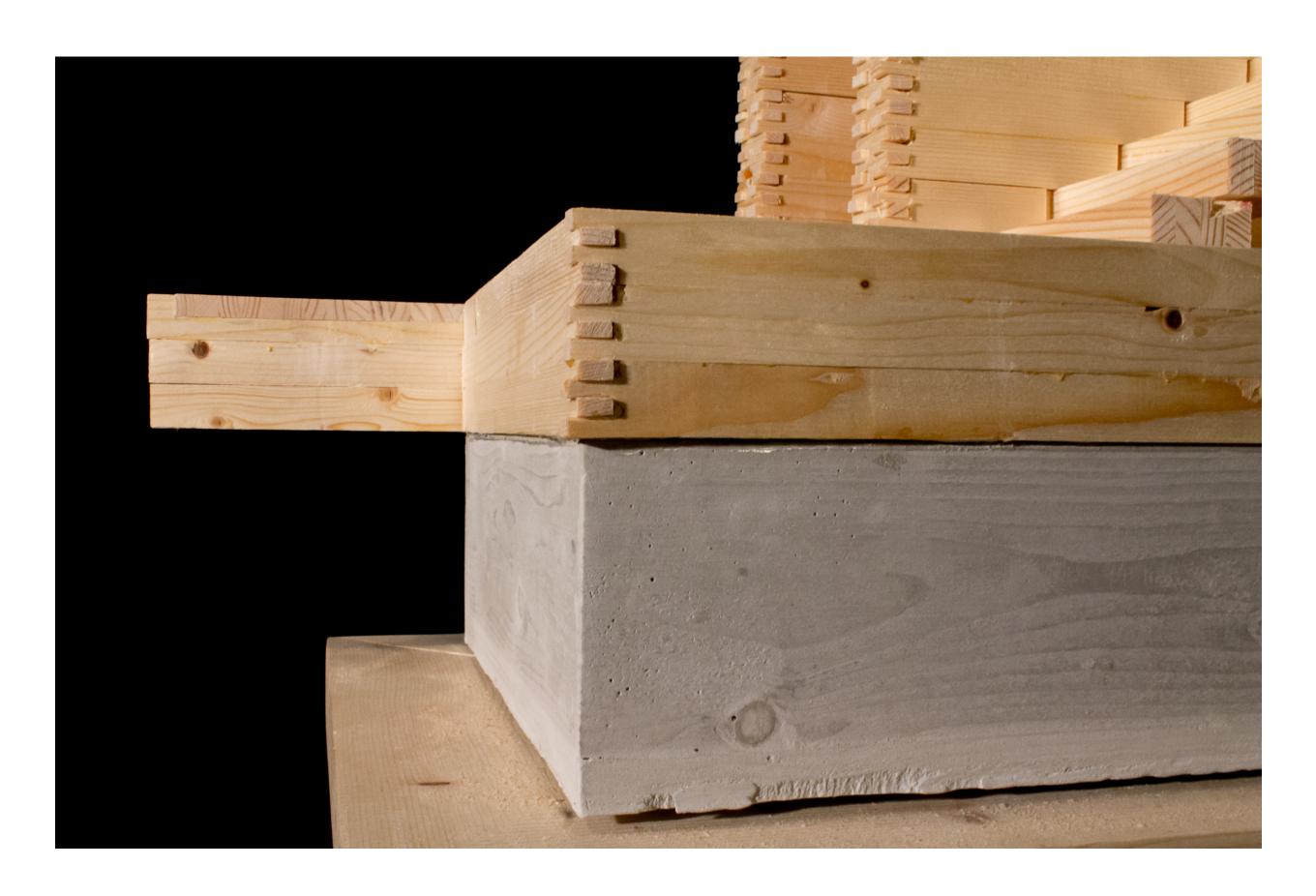






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