

XIAO WINERY

A Residence and Vineyard in Blacksburg

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MASTER OF ARCHITECTURE IN ARCHITECTURE

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Abstract: Xiao Winery

Xiaowan Yang

I focused my thesis on making an architecture of translucency and transparency that creates a veil between the interior and exterior environment. It has a presence while remaining permeable. I feel that the form of the architecture should not stand out, but should function as a framework for enhancing the surrounding environment which is the most attractive exhibition.

I chose a winery to be my project to fulfill this idea. Wineries are the places where people enjoy the vineyard, and get away from the city. Also, a winery is unlike other types of buildings that have a simple function. When you go to a winery, you don't just go to taste wine. You go for the whole experience. From the moment you arrive at the site, you see the grapes and begin to see the process of how wine is made. When you go inside, you see the machinery and the barrels, and finally you taste the wine. So the design of the winery goes beyond being just a room to taste wine in. It tells a story.

Acknowledgements

Much thanks to my committee member for your patience, guidance and motivation for the past year. I learned so much from you and I feel so lucky to have you as my committee members. Bill, Clive and Patrick, I thank you so much.

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Special thanks to Herman: mi studiomate , mi profesor de Inglés , y mi mejor amigo. Gracias por estar siempre ahí. Usted es uno de mi persona favorita en el mundo.

I love you all!

I am so happy I finally did it!

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Erasing Architecture



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Erasing Architecture

“In traditional Japanese architecture building elements are very small: wood, rice paper, and sometimes stone. Usually there is space in between those elements to allow for natural breezes. I apply these methods in my own architecture in designing modern buildings. I think it is hard to appreciate tactile qualities of materials if they appear as masses. If materials are broken into particles they become more vivid and transient, like rainbows. At times they appear as objects, but with the change of light they disperse like clouds and dissolve like mist. To prevent an object from appearing, that is to erase architecture. We must reverse our form of perception. Instead of looking at architecture from the outside, we must look at the environment from inside out.”

Kengo Kuma



kengo kuma <nasu history museum>

'Erasing' Architecture-Thomas Phifer

“In brilliant daylight, the Salt Point House has an ethereal presence as elusive and weightless as a mirage, its edges seemingly dissolving into the surrounding forested landscape....the architecture achieves these poetic qualities with a modest palette of ordinary materials and simple volumes. ”

Thomas Phifer, “Salt Point House”, Thomas Phifer and Partners, 2010.



Thomas Phifer <Salt Point House>

Boundary between inside and outside

“.....A fantastic business, this. The way architecture takes a bit of the globe and constructs a tiny box of it. And suddenly there is an interior and an exterior. One can be inside or outside. Brilliant! And that means equally brilliant!- this thresholds, crossings, the tiny loop-hole door, the almost imperceptible transition between the inside and the outside, an incredible sense of place, an unbelievable feeling of concentration when we suddenly become aware of being enclosed, of something enveloping us, keeping us together, holding us-whether we be many or single.

.....And what sort of statement do I want to make publicly? Buildings always say something to a street or the square. They can say to the square: I am really glad to be situated on this square.”

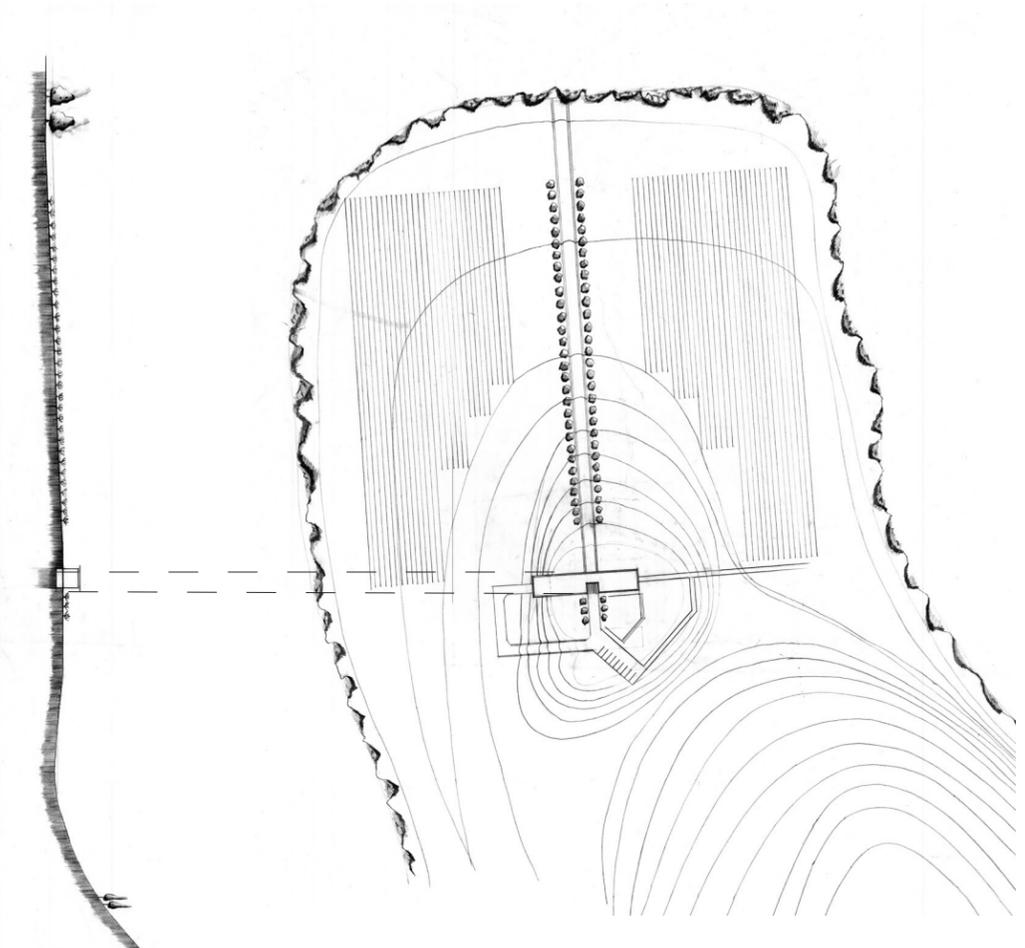
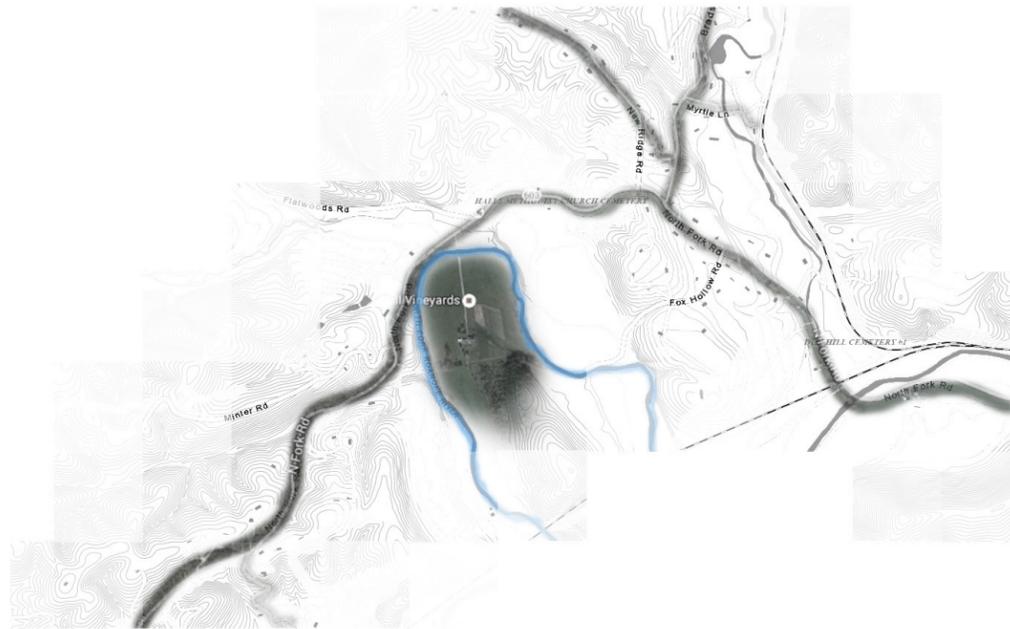
Peter Zumthor, Atmosphere, 2006.



Peter Zumthor <Roman Ruins>

Xiao Winery-the study of permeable presence

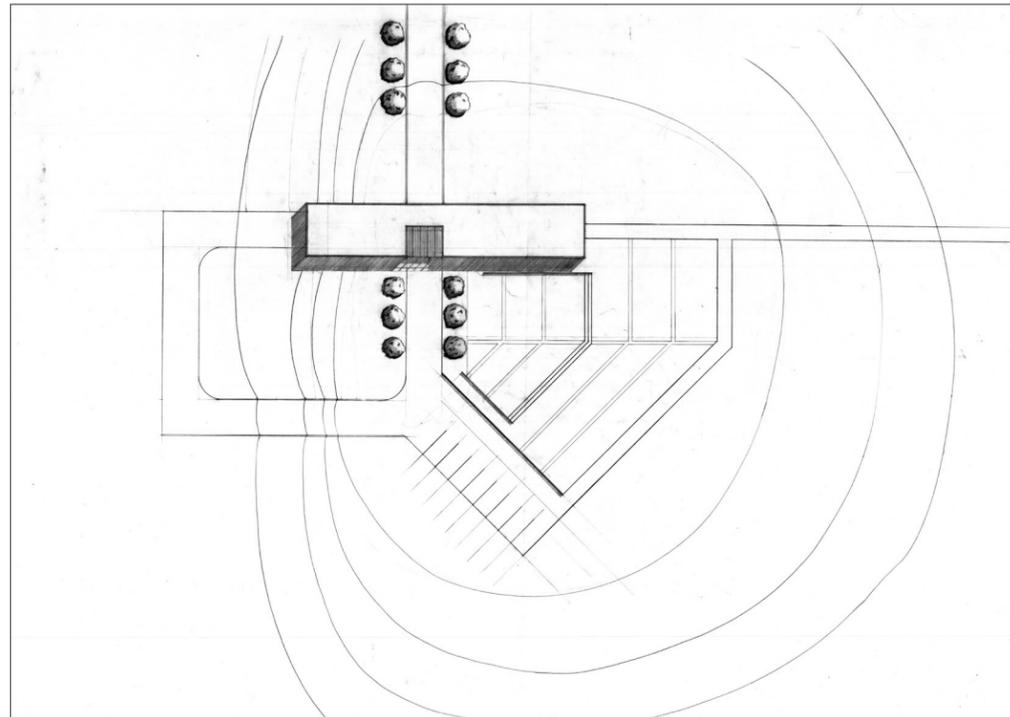




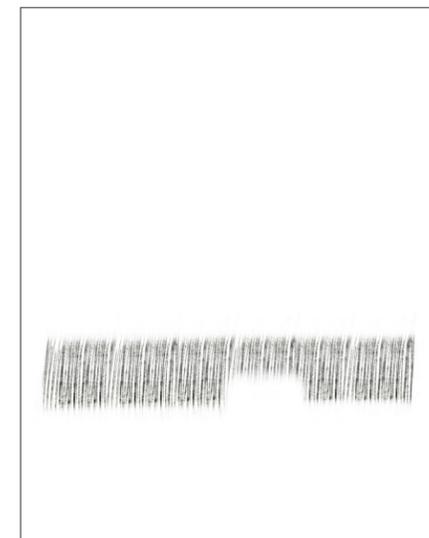
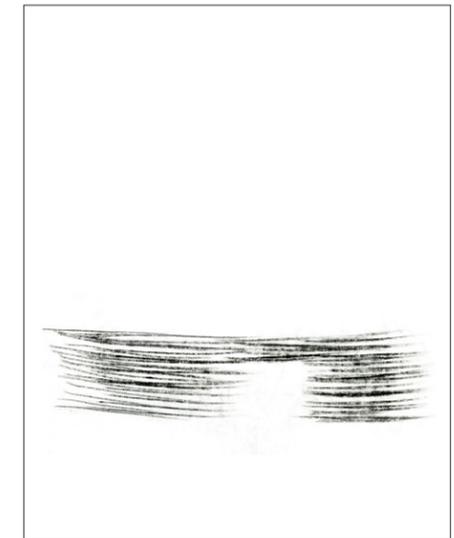
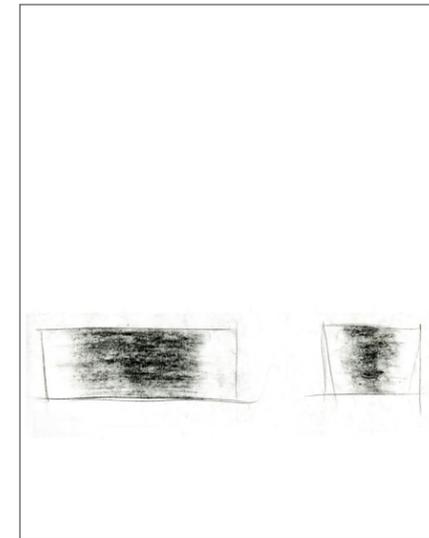
I chose this site located at Blacksburg, 30 minutes away from Virginia Tech. It is hidden from the big town. The site is an open space surrounded by trees and river. When I first got to this place, this straight road attracted to me a lot. I was thinking maybe I should do something on the road, but not at the end of road. So I let the building stand on the road with a path through the building, with the building site perpendicular to the road.



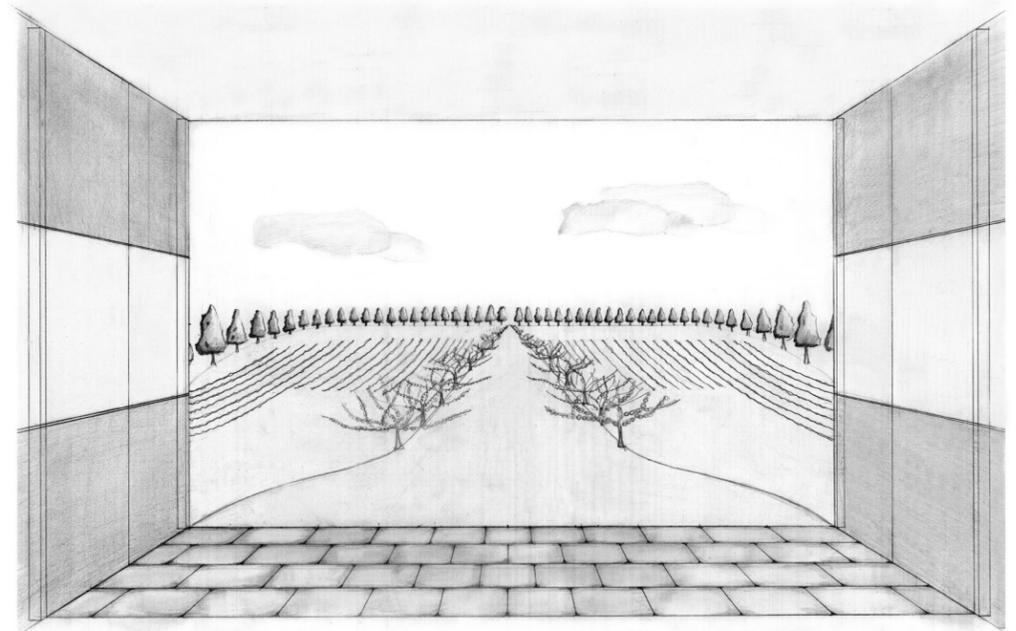
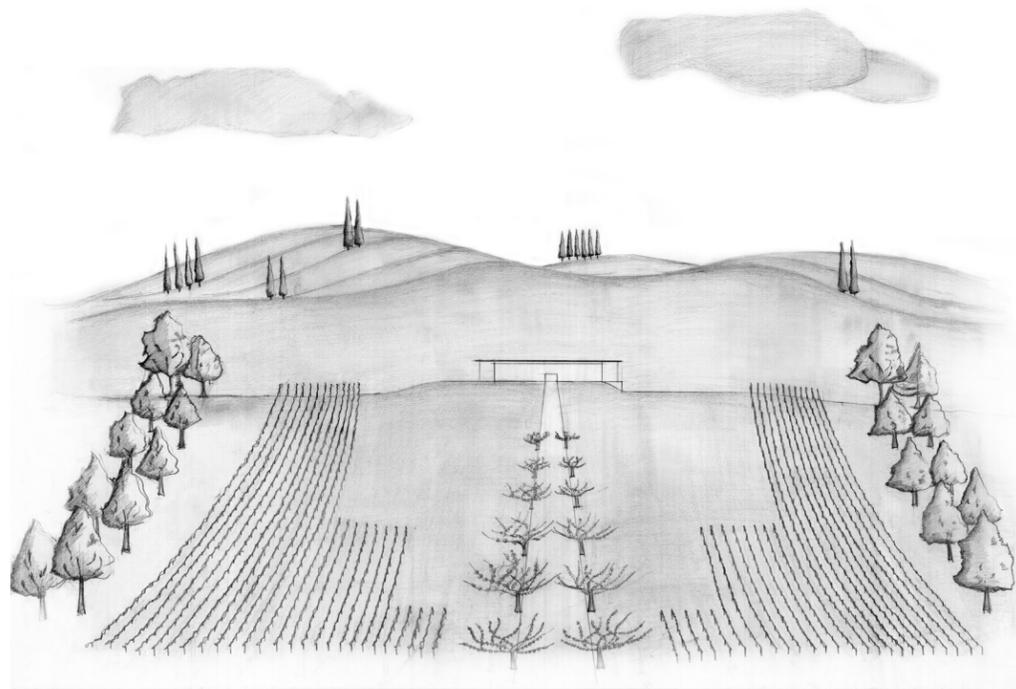
The photos from current site

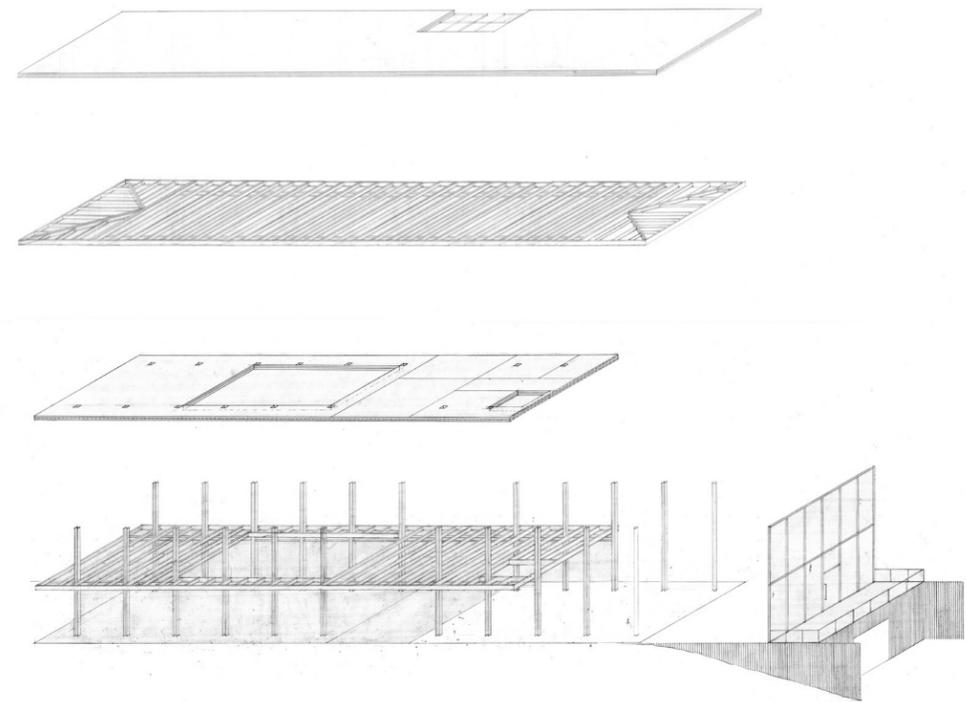
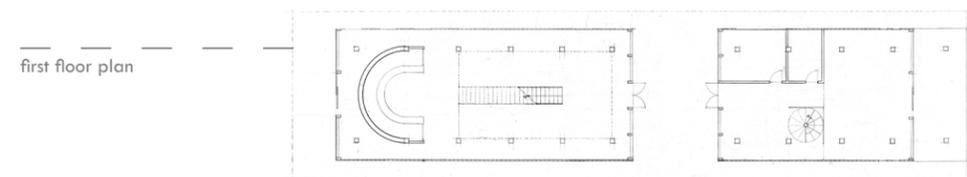
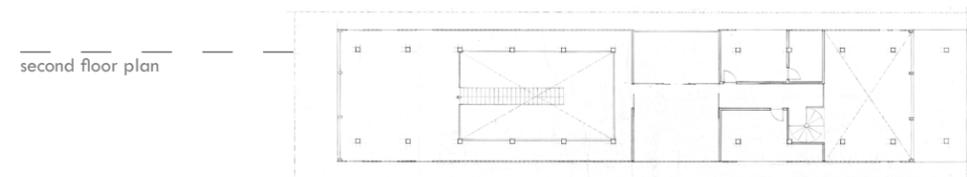
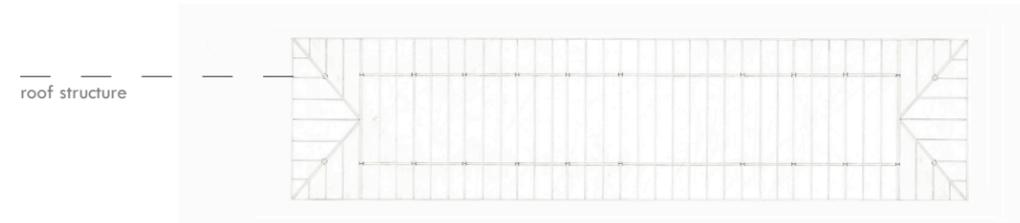
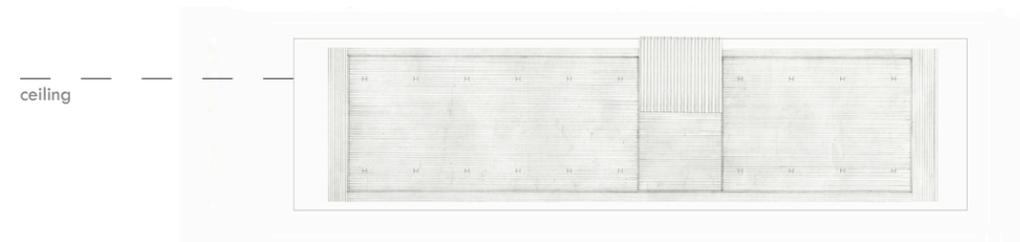
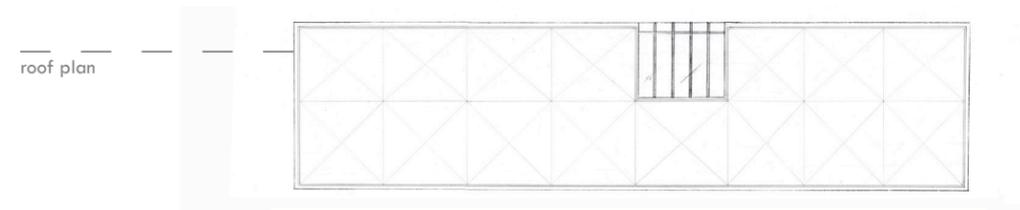


Visitors would drive through the building, turn left to the parking space, and walk through the backyard to the building. Worker who drive trucks with equipment will also drive through the building and turn right, to the other side of the building, going to the underground level. These drawings show how I graded the site to have runoff flow away from the building.



These diagrams are the first sketches that I want for the character of the building. It should be translucent, have vertical or horizontal lines to make it elegant and light and disappear. I think a lot about what material to use. I don't want clear glass because that will provide no privacy. Then I chose channel glass. Channel glass is a material that you can't see through completely, but when you get close, you can feel a little bit what is happening inside or outside.

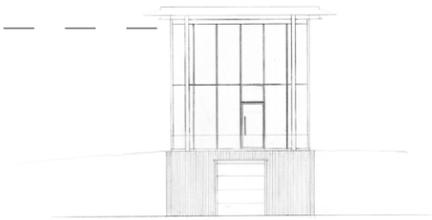




structure of roof and floor

For the function of the building, I divided it into two parts. The left side is the winery, while the right side is residential. Underground is the place for barrels and equipment. For the winery part, the first floor is a bar, and an exhibition of different wine types. The second floor is a wine tasting place. People could go down stairs to the barrel storage and equipment place. The structure is made of steel columns, one layer of steel beams, and light-gauge steel on top of the steel beams. There are three layers in the roof: the ceiling, the outside wood ceiling, and the plane of the steel roof structure.

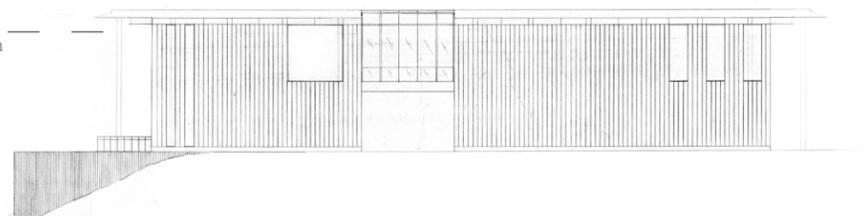
west elevation



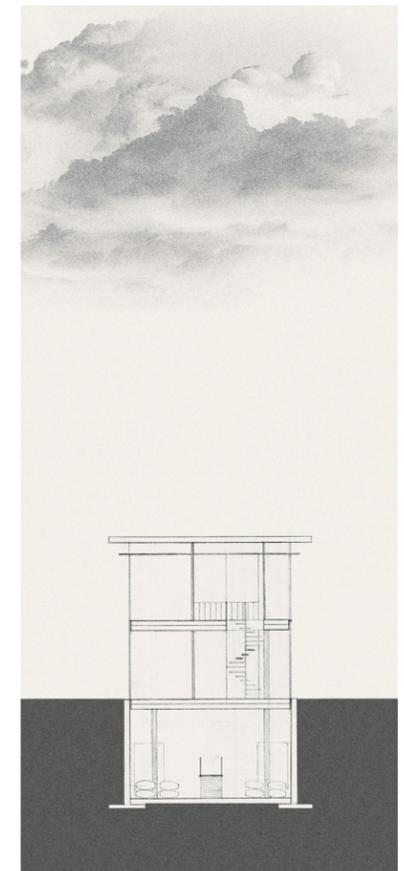
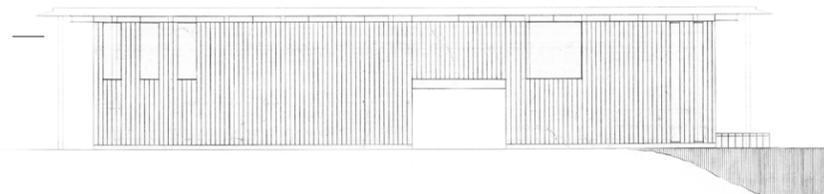
east elevation

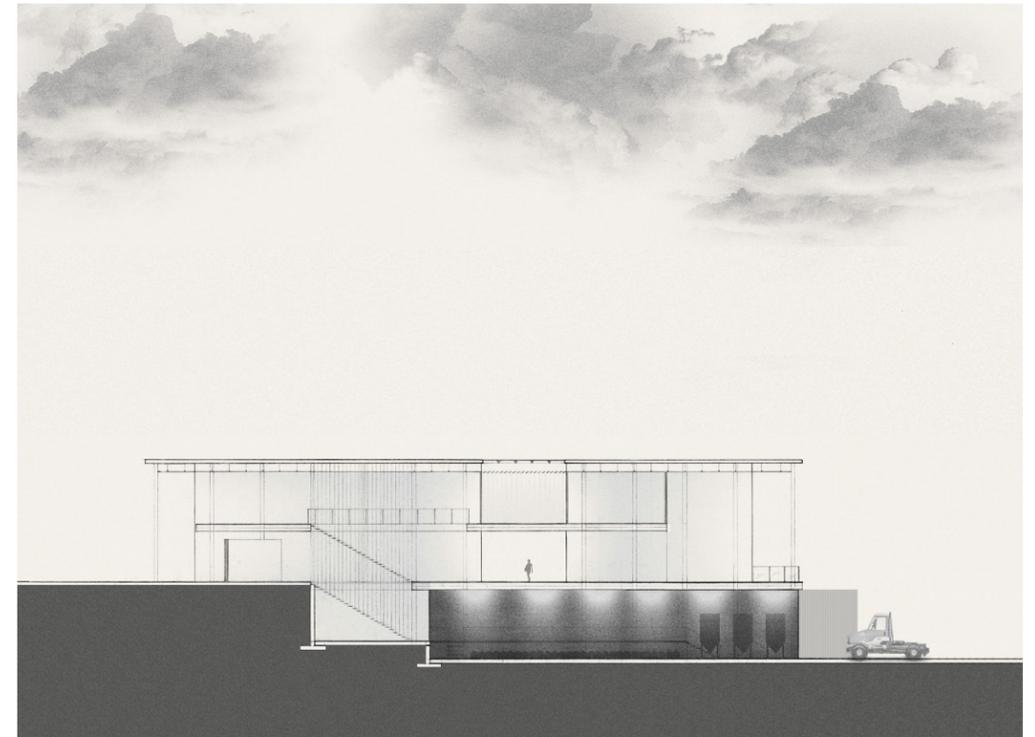
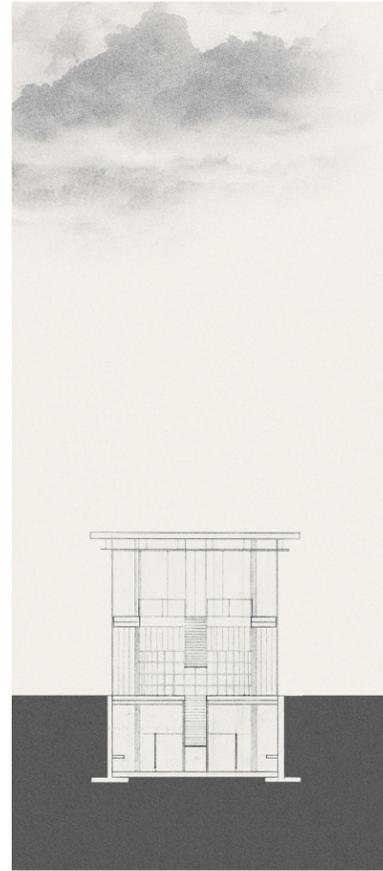


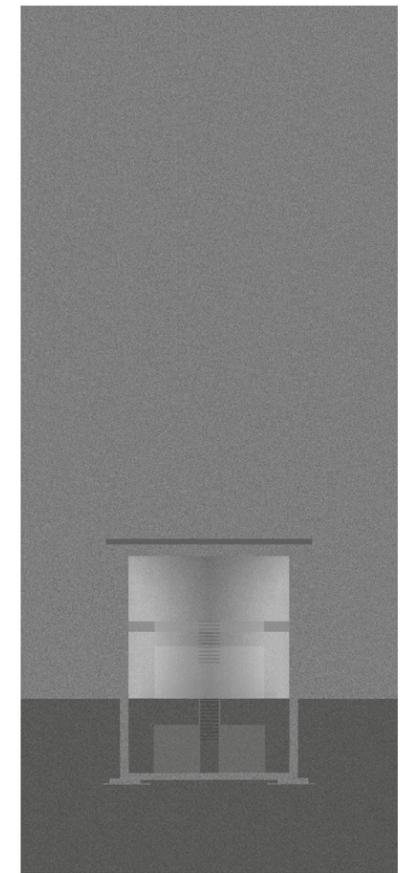
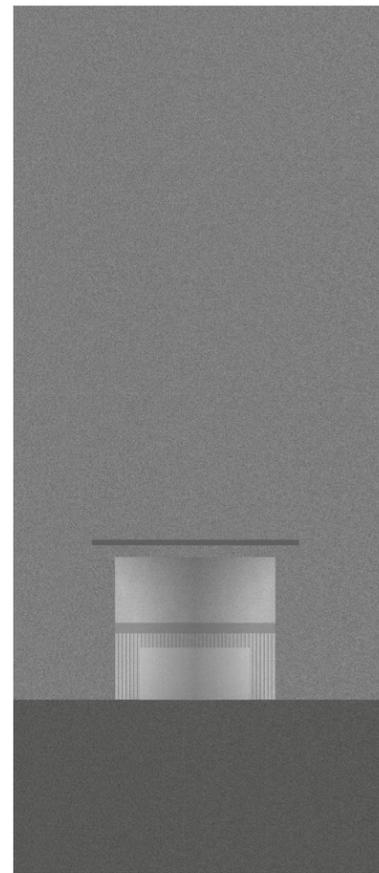
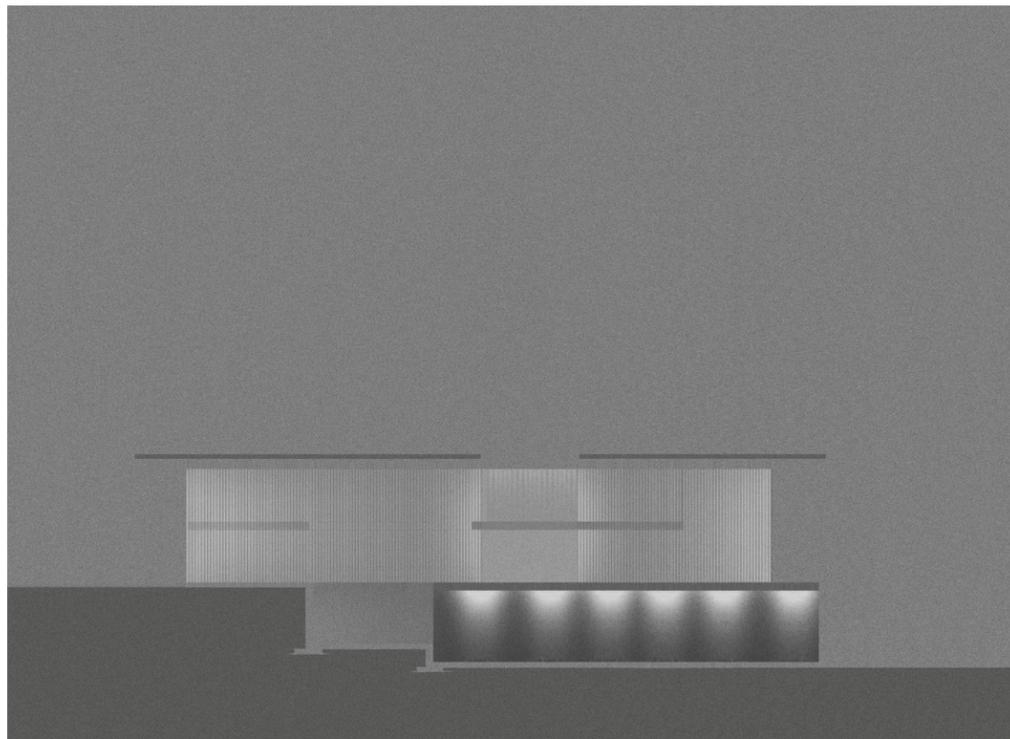
south elevation

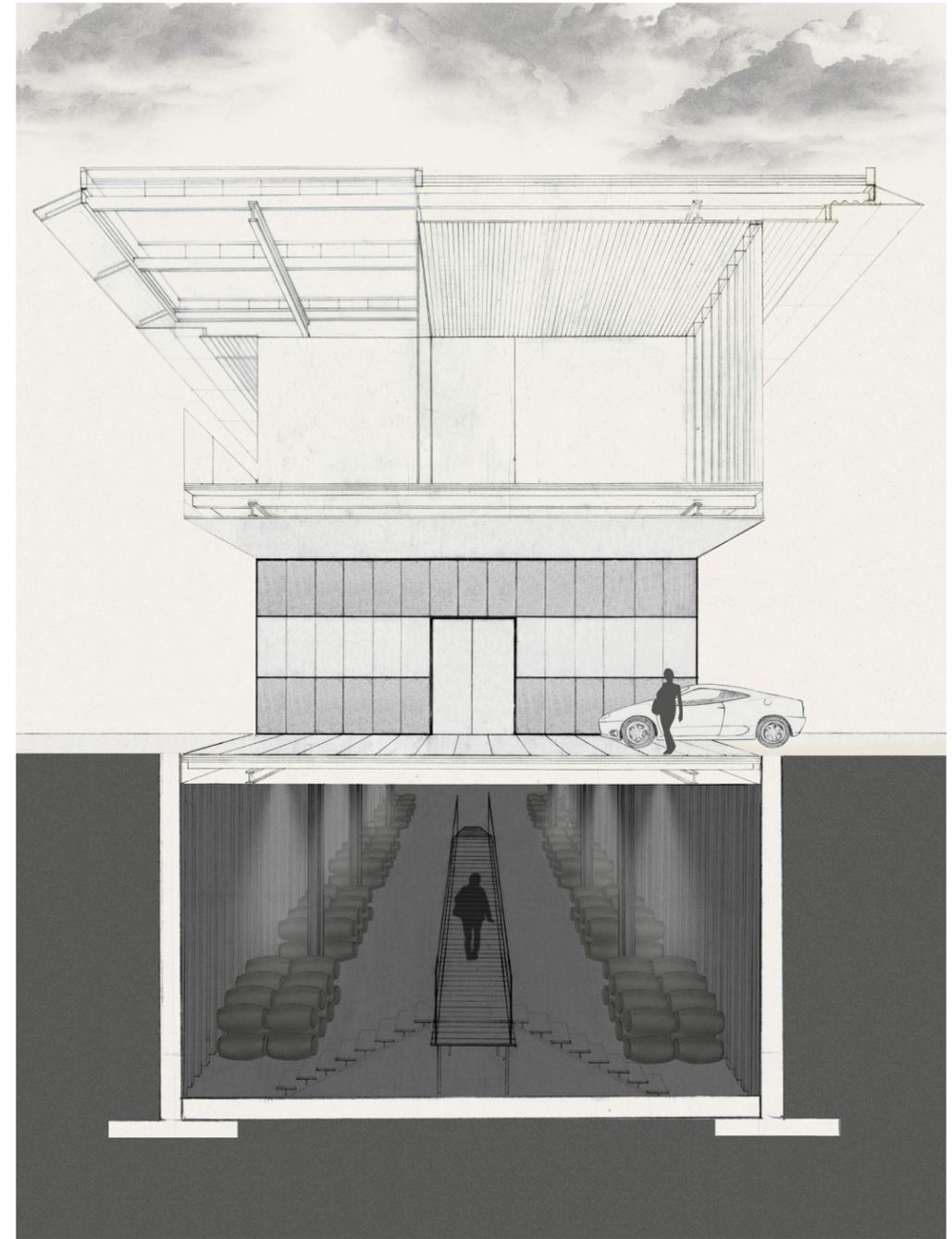
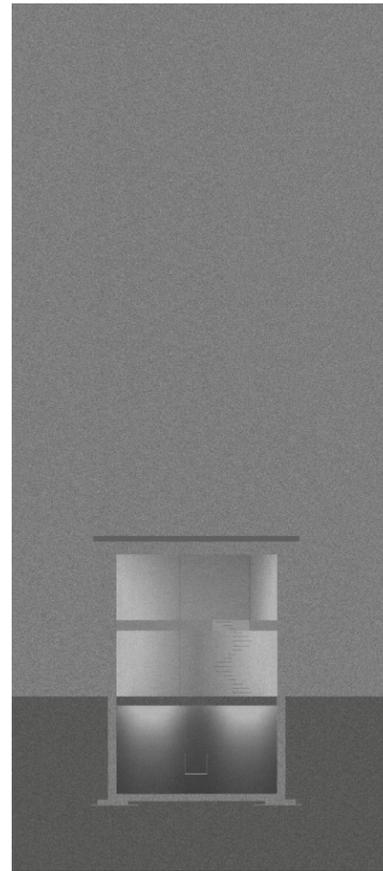
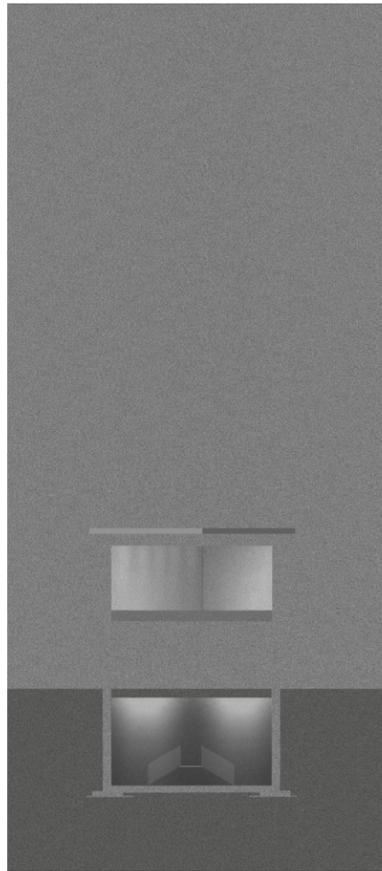


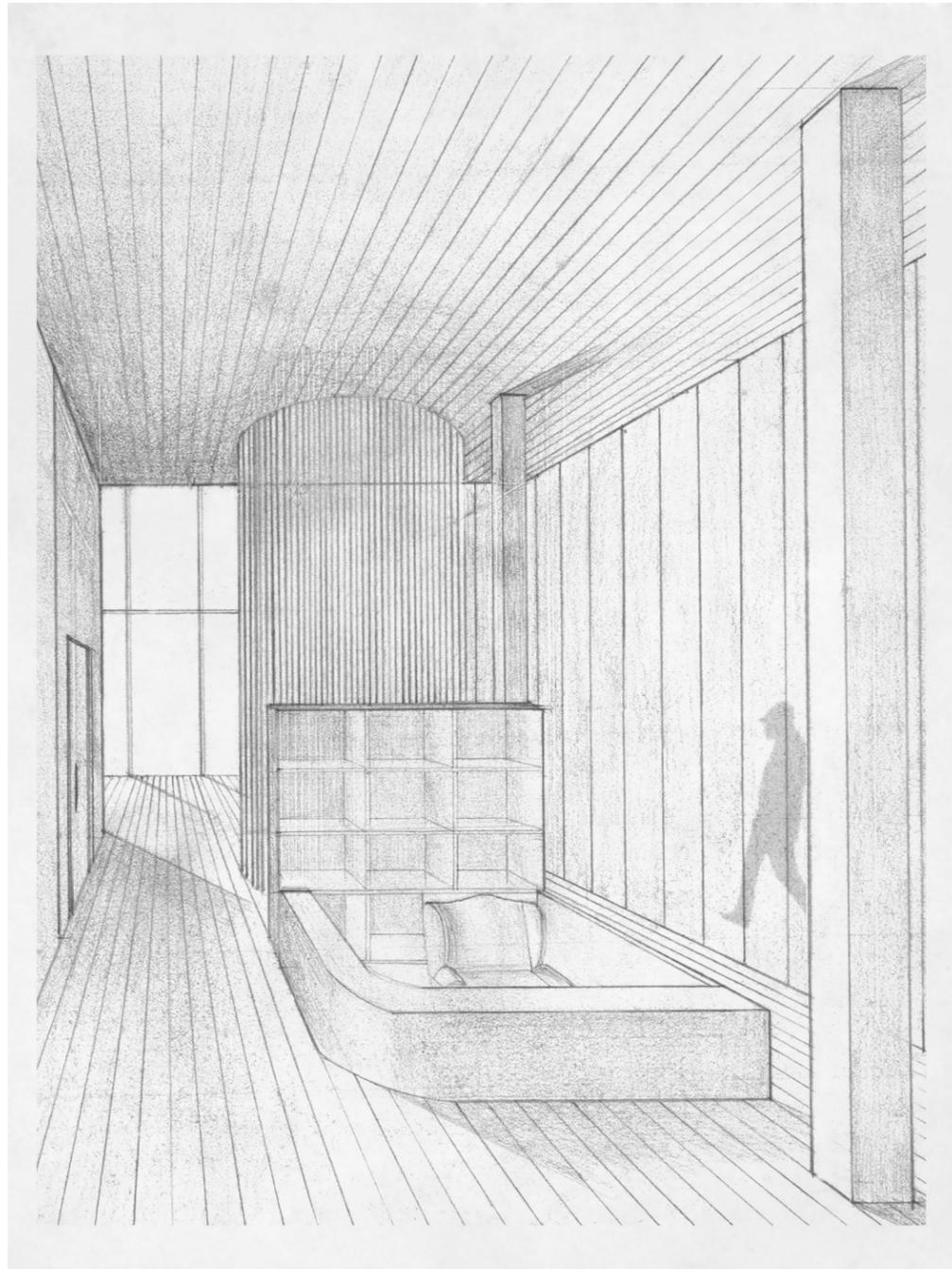
north elevation



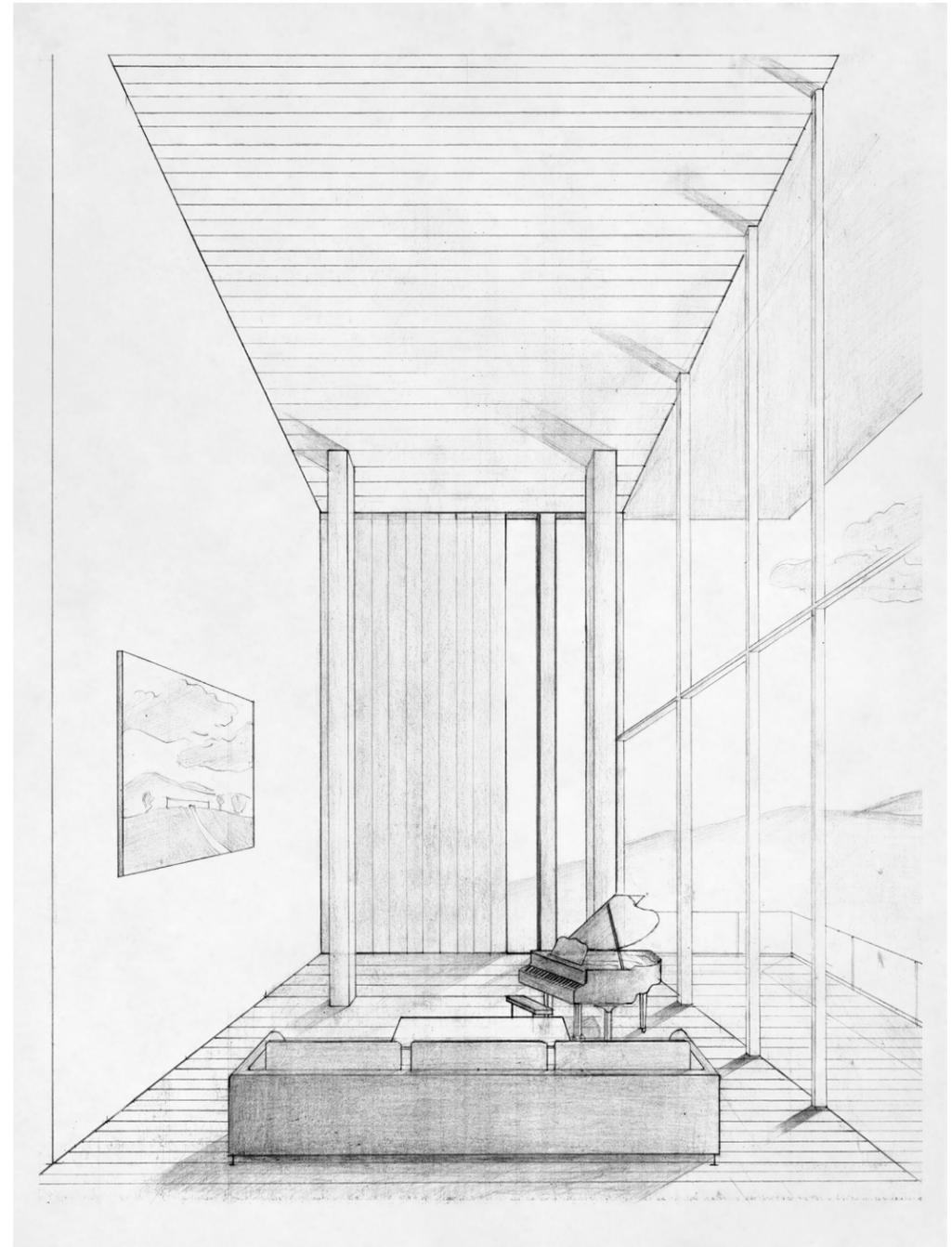
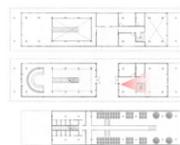






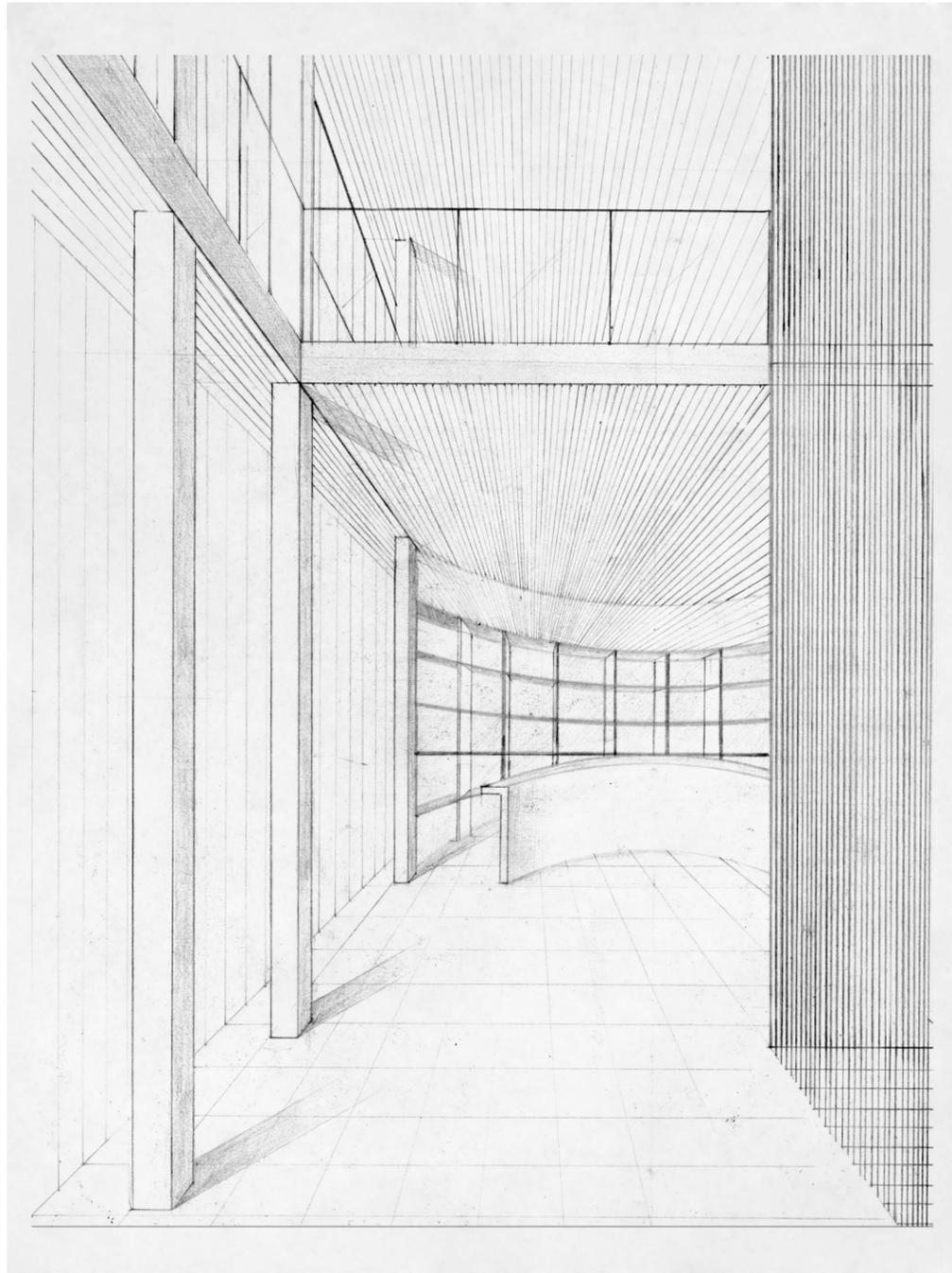


residence

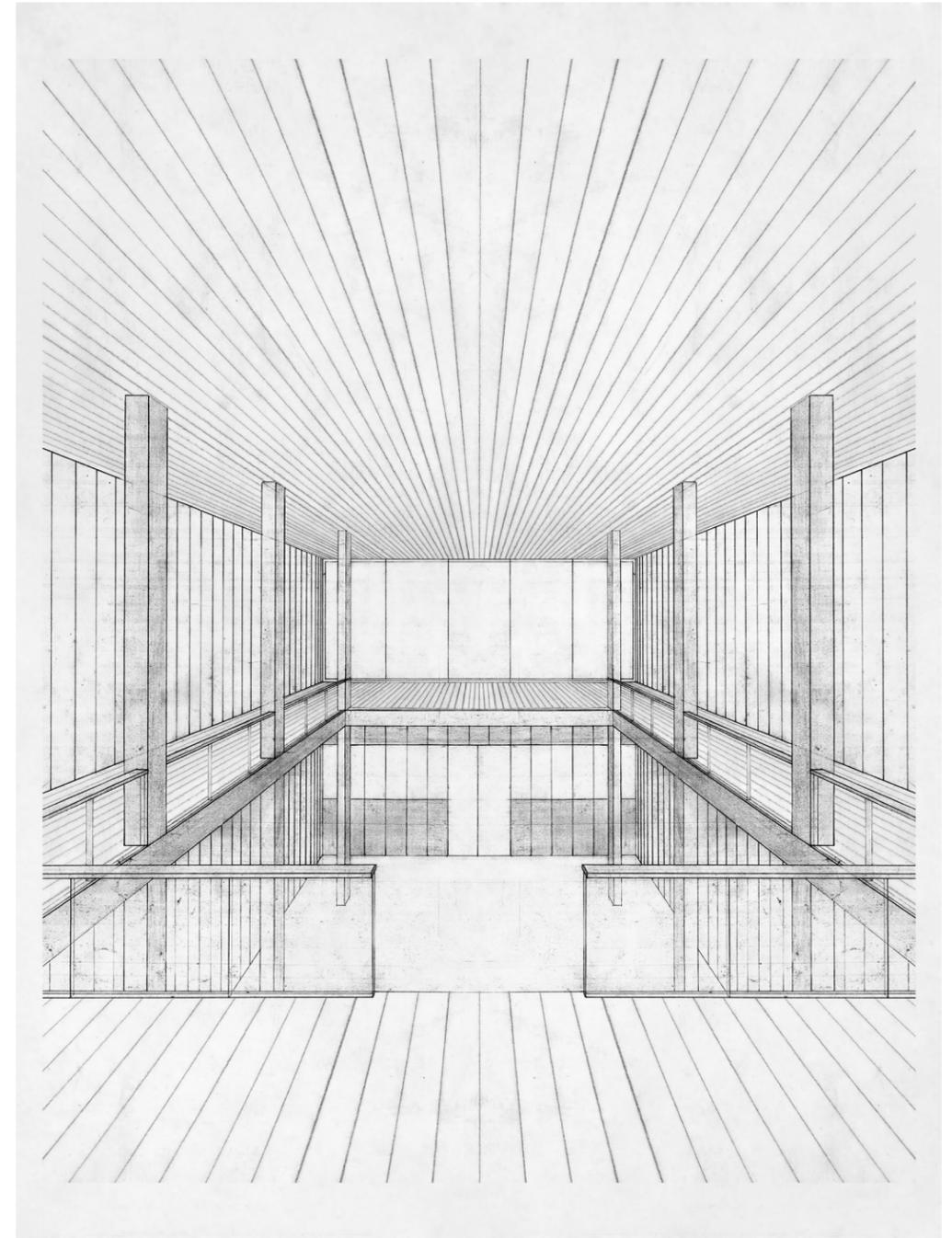


living room

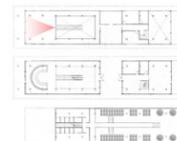


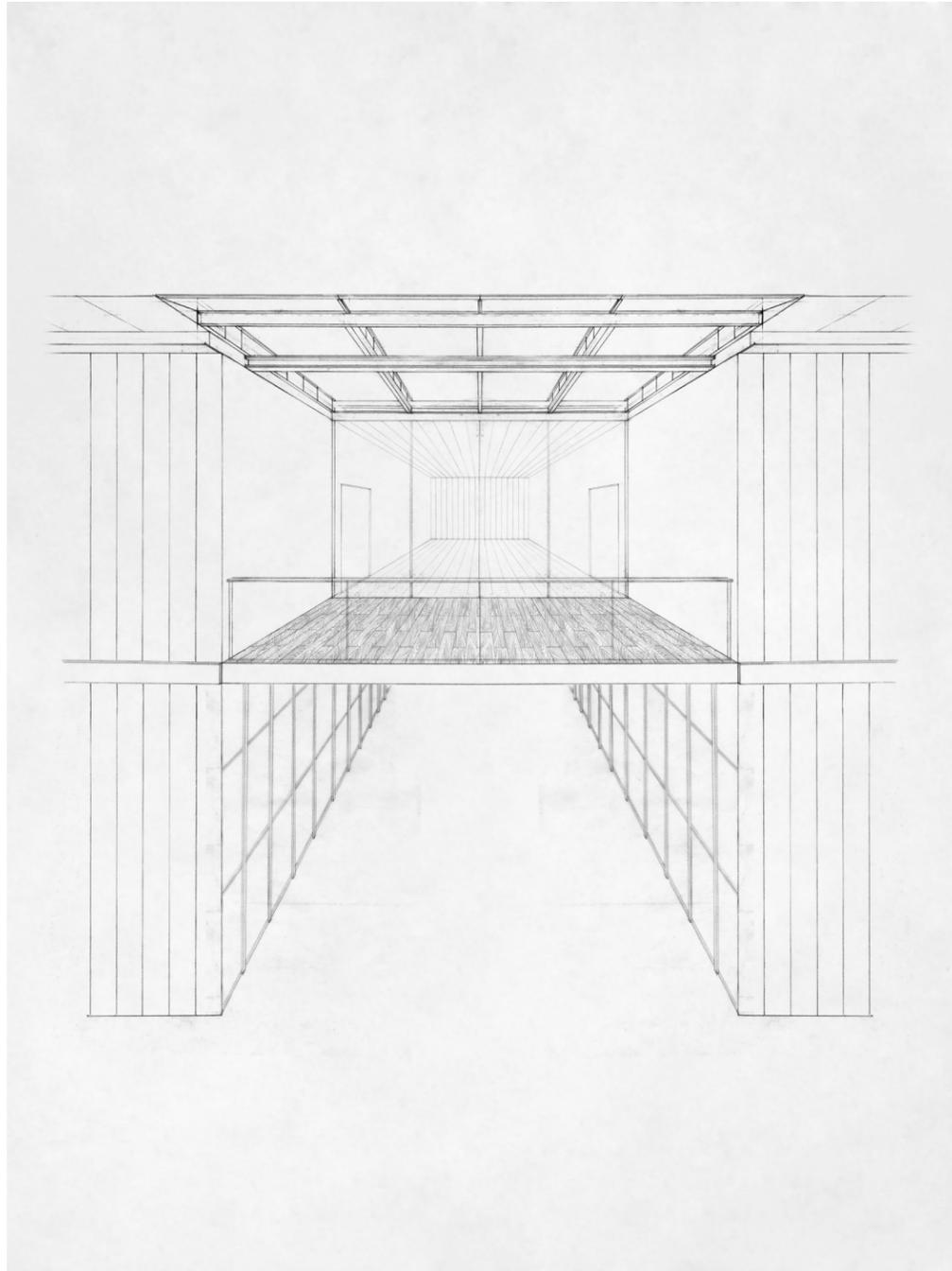


taste room

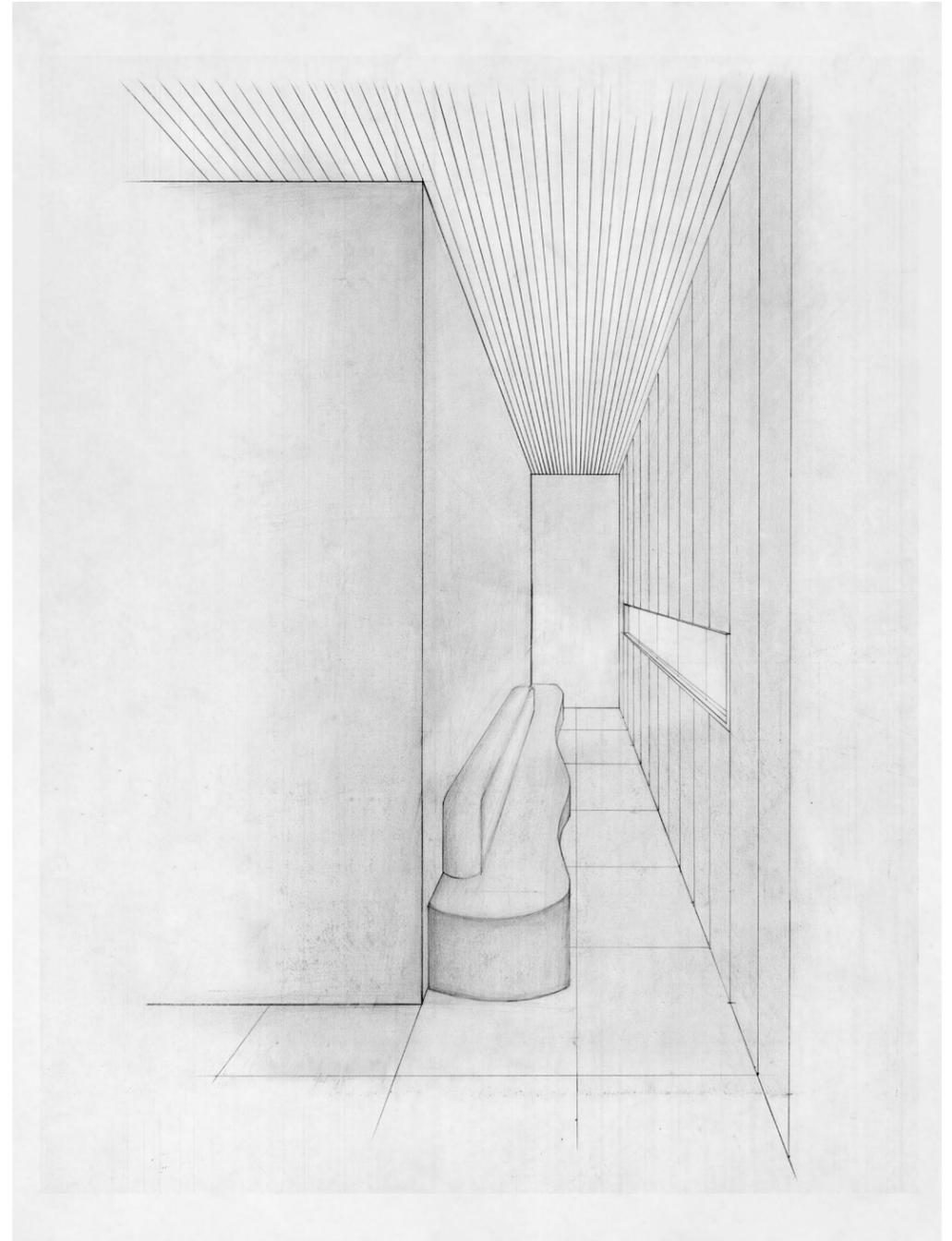
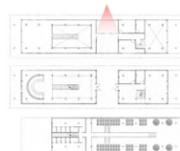


taste room





outside balcony



hallway of bedroom

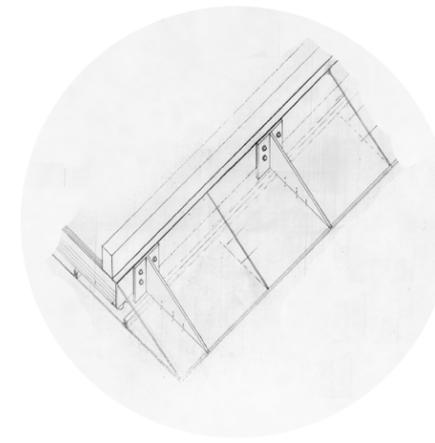
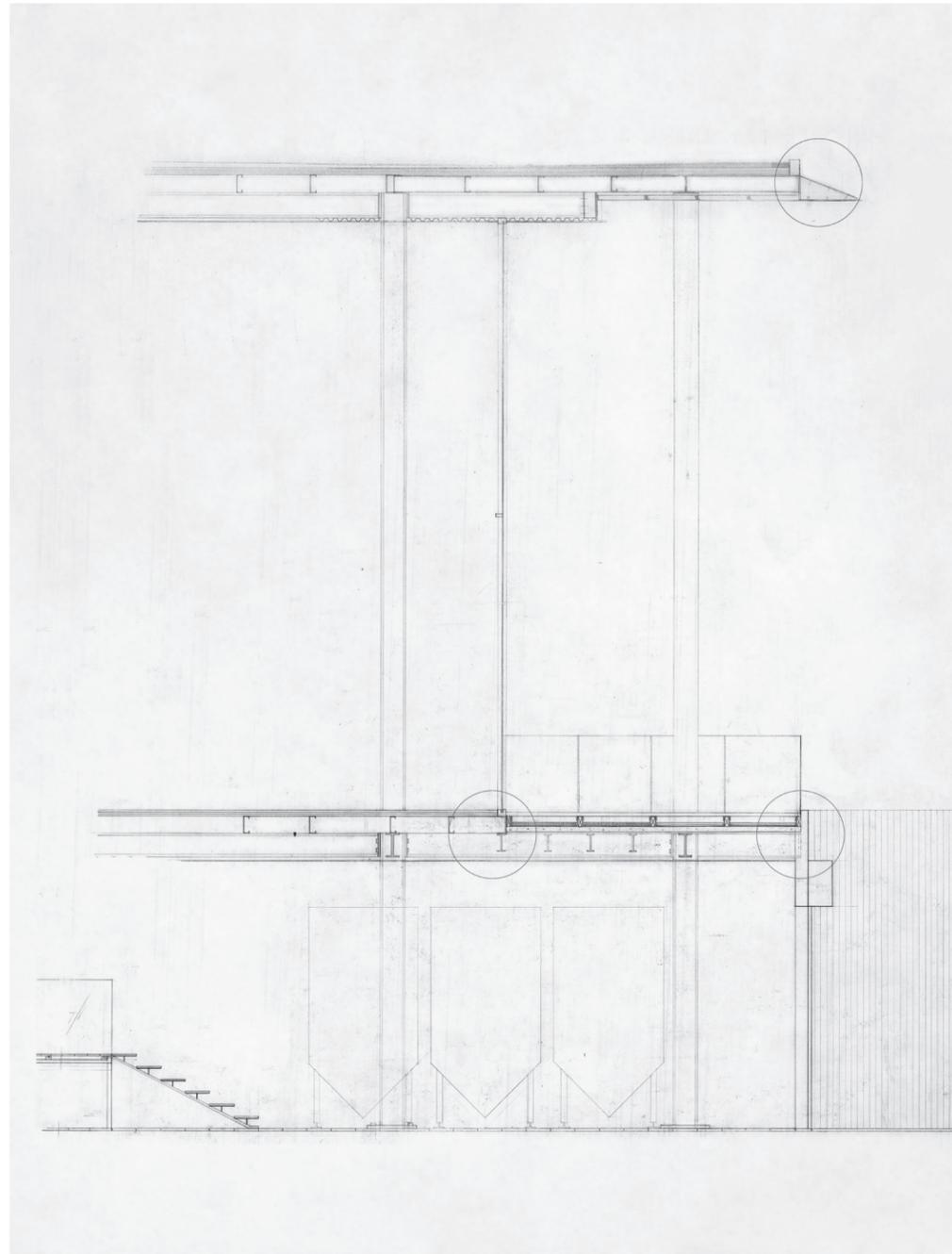




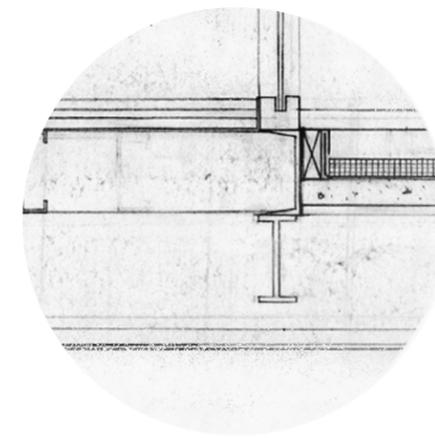
Above and on the following page are a series of models of vignettes: some moments of the bar, the wine tasting space, and the residence. The upper part of the building is very light and bright, like white wine, while the underground is dark, like red wine. They also represent the kinds of wine being made here.



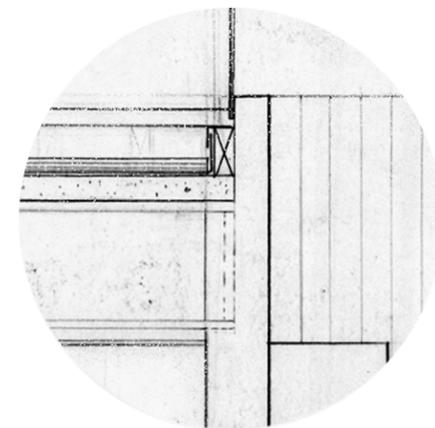
Above is the barrel storage and wine machinery place. People could walk on the bridge to enjoy looking at the barrels on both sides. It is a quite dark space, which is opposite to the bright space above ground. It is a space for people to enjoy the process of wine making, and relax for a little bit.



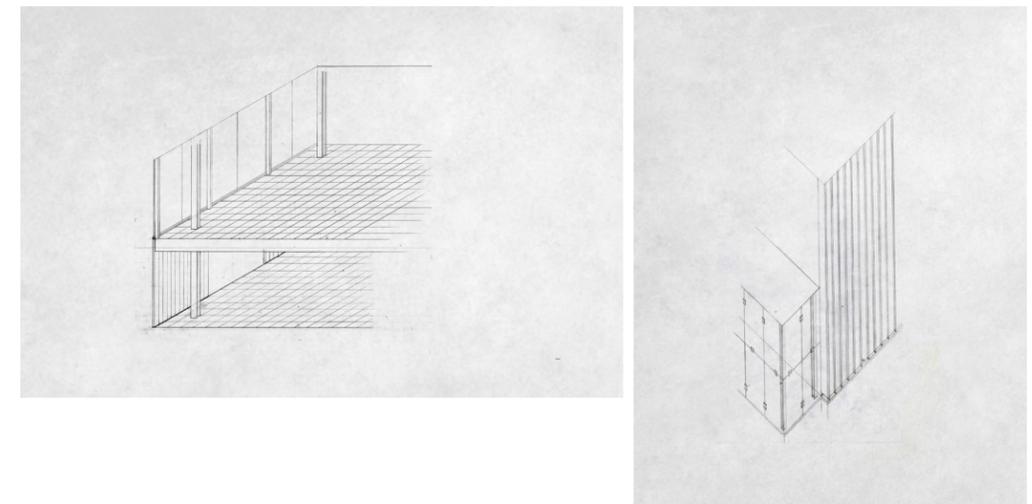
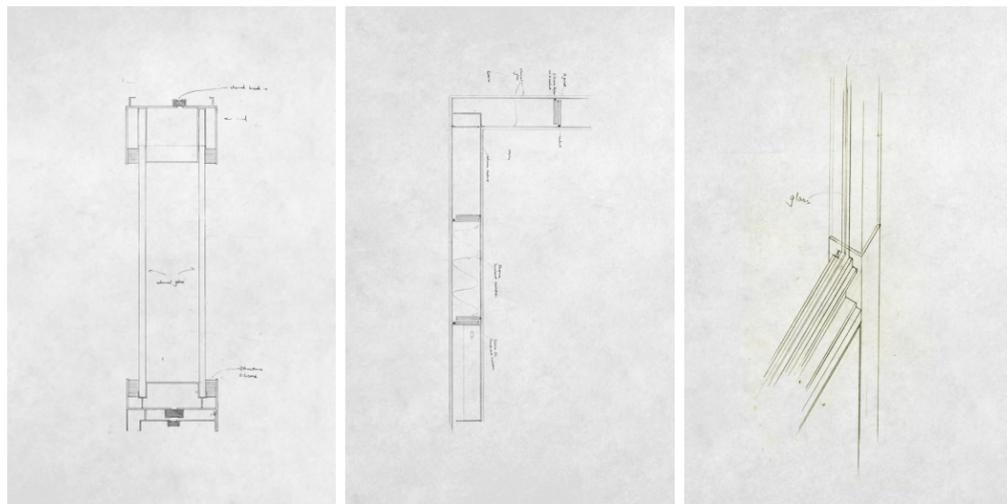
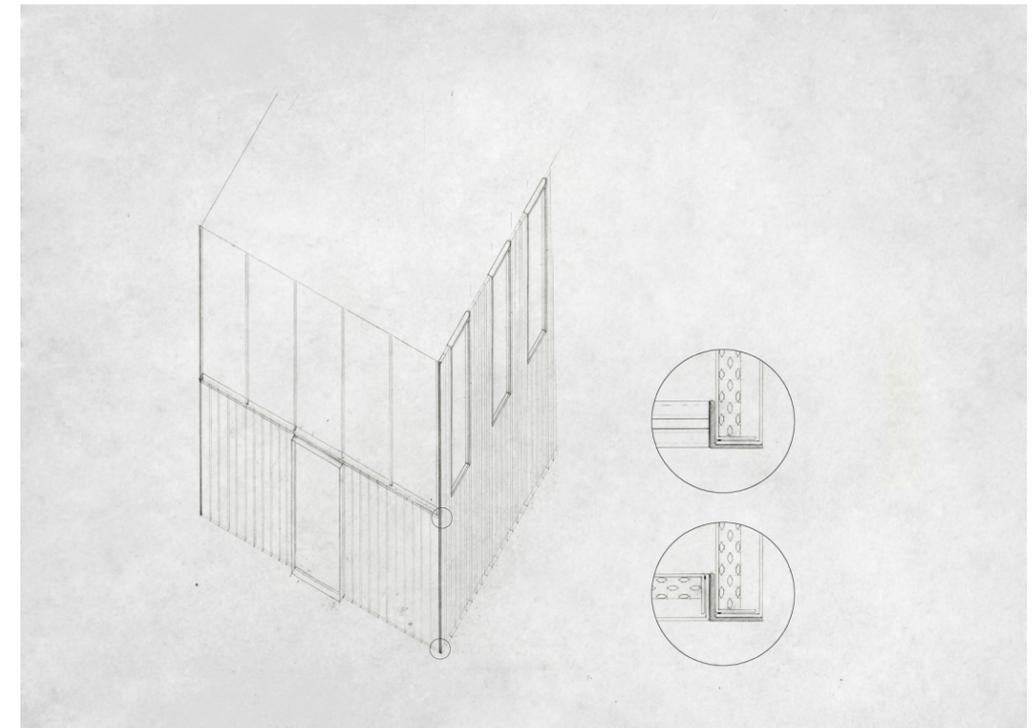
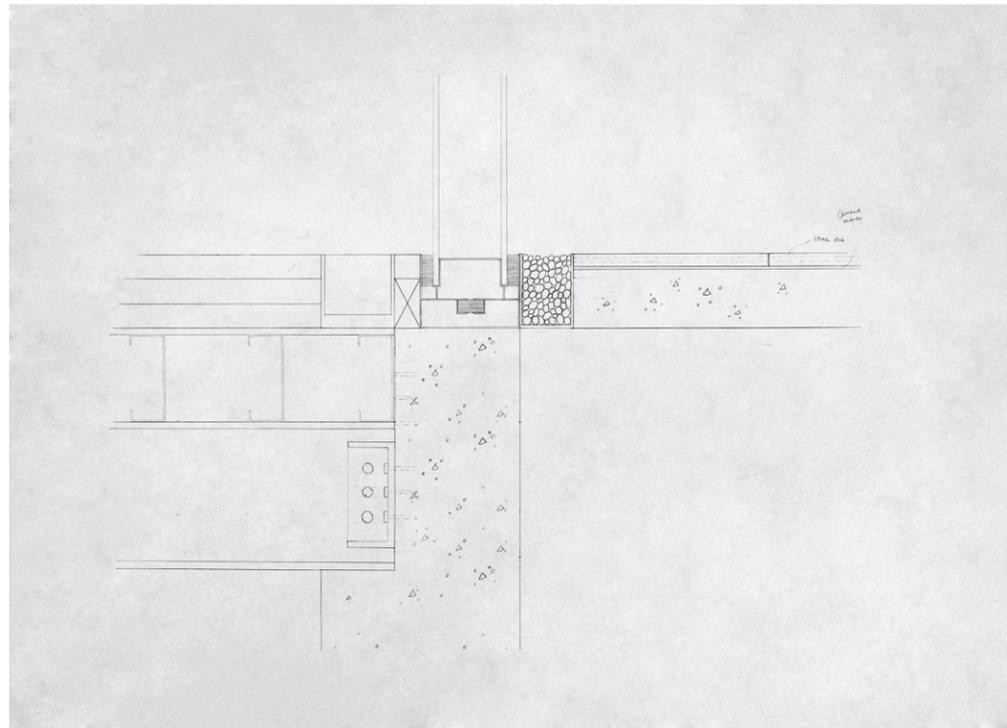
roof structure



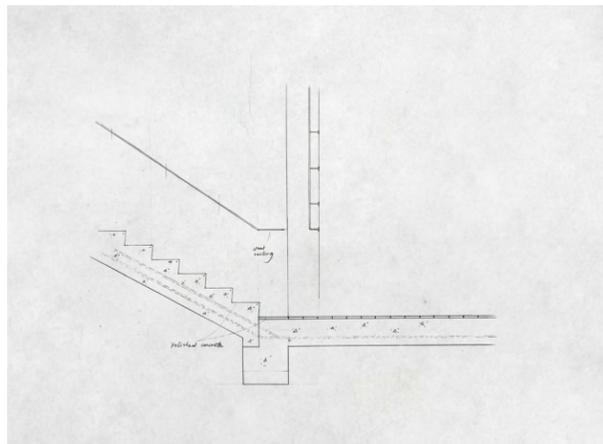
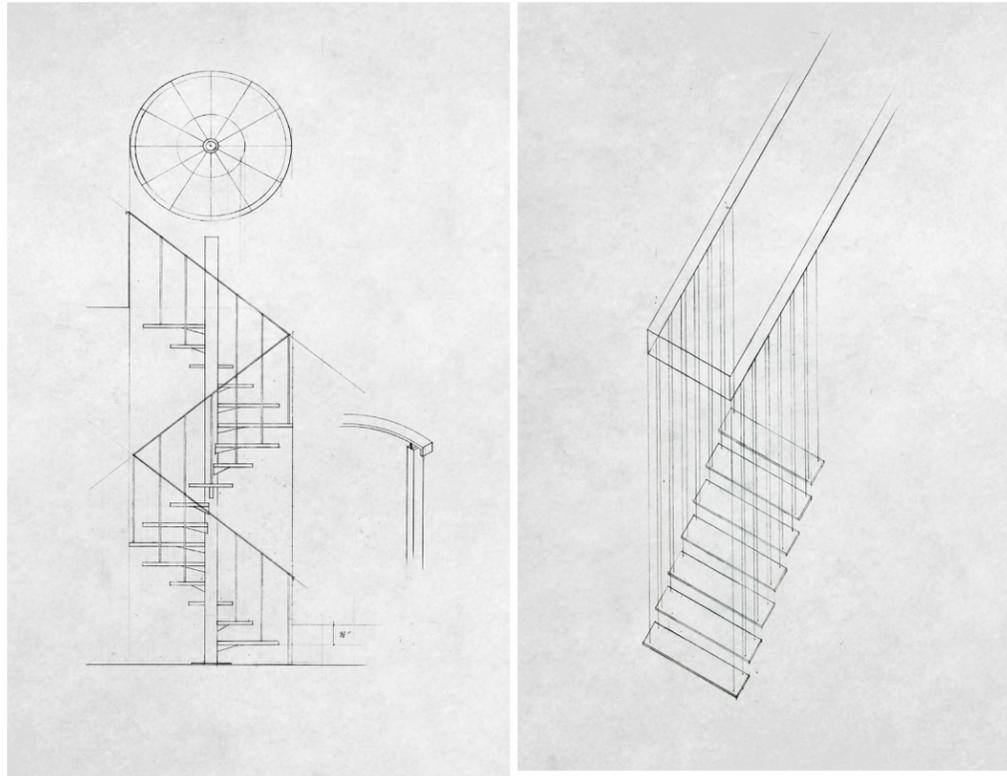
how glass meets floor and the thermal break between interior and exterior



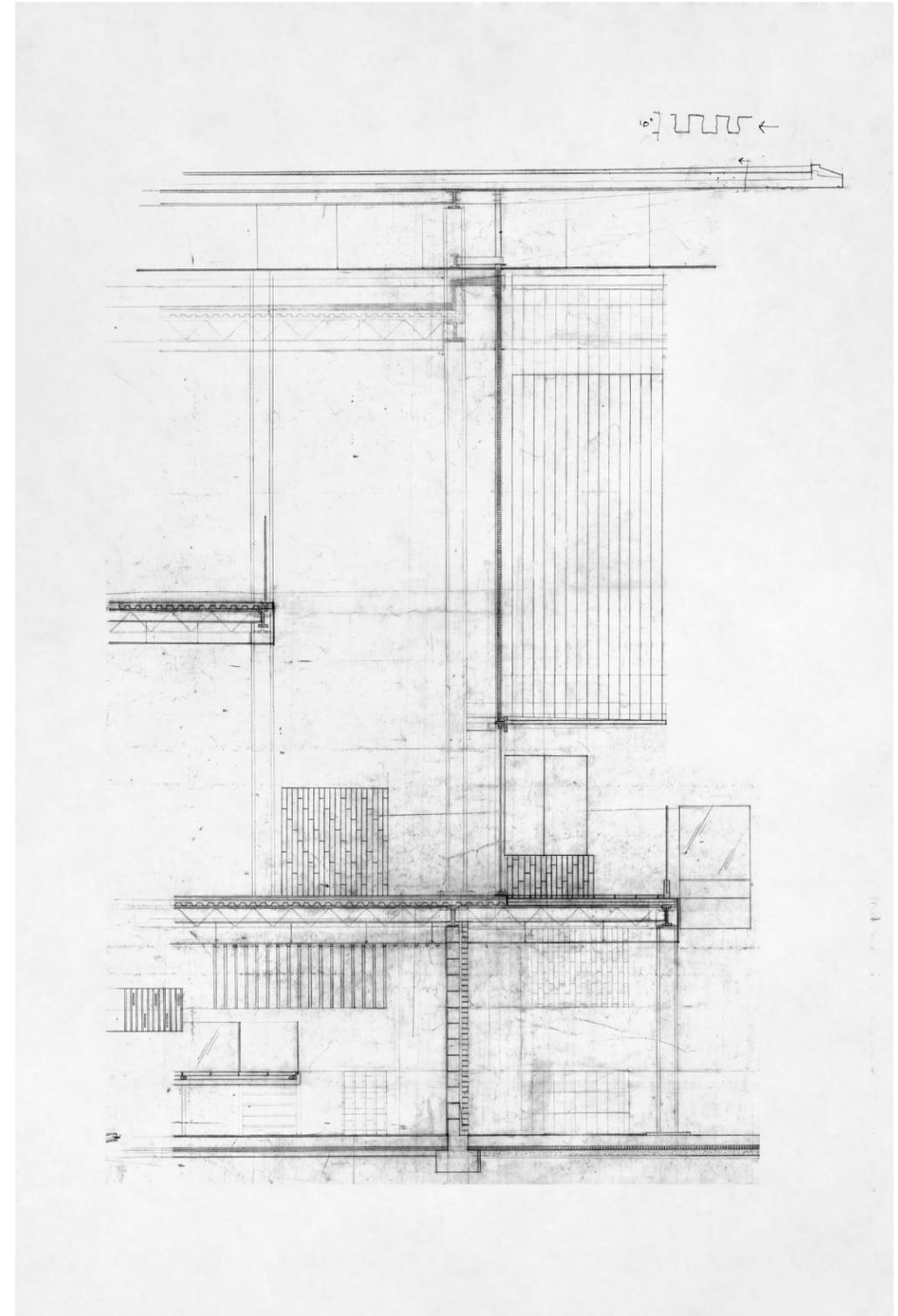
details of balcony



Above are the details of the channel glass, showing how the channel glass meets the ground, the thermal insulation in the channel glass, and how the channel glass panels are connected to each other. When the channel glass meets the ground, I don't want people to see the frame, so I want the frame in the ground. The resulting connection is very pure and simple.



Above are the designs of all the stairs of the building. In the tasting room there is a hanging stair held by cables, which is very light. In the residence, there is a wood spiral stair. And for the stairs from first floor to underground, there is a concrete stair with a steel railing, which is heavy and dark.



“You could say that my aim is ‘to recover the place’. The place is a result of nature and time; this is the most important aspect. I think my architecture is some kind of frame of nature. With it, we can experience nature more deeply and more intimately. Transparency is a characteristic of Japanese architecture; I try to use light and natural materials to get a new kind of transparency.”

Kengo Kuma

