

# Toward Liquid Emerald

A Cultural Center for the Japanese Tea Ceremony

Washington, D.C.

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## A Cultural Center for the Japanese Tea Ceremony

Washington, D.C.

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A design thesis submitted to the Graduate Faculty of Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Master of Architecture.

February 8, 2002  
Alexandria, Virginia

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Susan Piedmont-Palladino, Chair

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Paul Emmons

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Marco Frascari

# abstract

What are the layers of interaction between building and user?

Weight?

Time?

Material?

Space?

How do these four elements affect the perception of an architectural figure?

to dad for helping me through my most difficult time.

# acknowledgments

I would first like to thank my Heavenly Father for allowing me the strength and inspiration to make through the most difficult point of my young life.

To my family and friends for your encouraging words. Especially you Mom.

To Charlie and Evan, what can I say. I could not have asked for two finer gentlemen with whom to conclude this journey.

To the faculty and staff of the “Center,” (I have always felt like home here). Thank you for allowing me to experience Japan first hand. You all have made my years here wonderful experience that I will cherish for a life time.

To my Committee thank you for your inspiring and challenging words.

Last and definitely not least in my heart: thank you to all those who lent their support in 11th hour. Jamie, Matt, Greg, Kelly, Heather, Pam, etc.

Everyone needs help putting the monkeys back in the cage.

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# introduction

This project began some 6793 miles east of Alexandria, VA in Yokohama, Japan. While there a fascination was birthed for the Japanese culture. The topic of the tea ceremony was chosen for its beauty and complexity through simplicity. The tea ceremony is about a simple or minimal surrounding, a back drop for complex and poetic motions. It is this ideal that I see as the premise not just for Japanese culture but also for architecture.

It is not about the beverage but how you arrive at it.

There are three names for the tea ceremony, chado, sado, and chanoyu. I have chosen chanoyu which is translated tea + hot water, cha - no - yu.

One of the fundamental questions of present day architecture is that of hanging, the cladding of structure or a frame. The architect at this point must become as the dweller pondering the placement of a picture frame. Notice how the picture frame never rest upon the floor.

When must a wall meet the floor and why does it not hover as present day technology suggests?

What is a wall? A vertical element that creates enclosure. But surely it is more than



Interior of Himeiji Castle



Interior of Residence, Kyoto, Japan

# introduction

that. A wall is a screen that creates enclosure but more importantly distorts or mask some inward function. A wall, as a fabric dependent upon the type of weave, has a certain amount of permeability. The looser the weave the more visible the inward function, the tighter the weave the less visible that function. A window is considered an opening in a wall. Oh, what pain wall must travail? I argue differently, that a wall is both wall and window. A wall is not simply an applied surface with arbitrary cut outs but an animated entity that allows light, air, visibility, and motion in varying degrees.

In ancient Japanese architecture, enclosure was created by the use of screens. Shoji, probably the most commonly known version are wood panels with translucent paper (rice paper) and fusuma are the opaque version of this panel. The panels are movable, set into a sliding track, to allow one to open or close space or opening.

Mass by nature of physics is most happy meeting the earth and remaining in its most solid state. Yet the element, our screens and panels wish to float, being freed from the laws which do not apply. Take nature for example, particles, atoms, molecules move freely about God's universe. Their size, weight, and in some cases singularity allow



# introduction



Garden at Residence, Kyoto, Japan

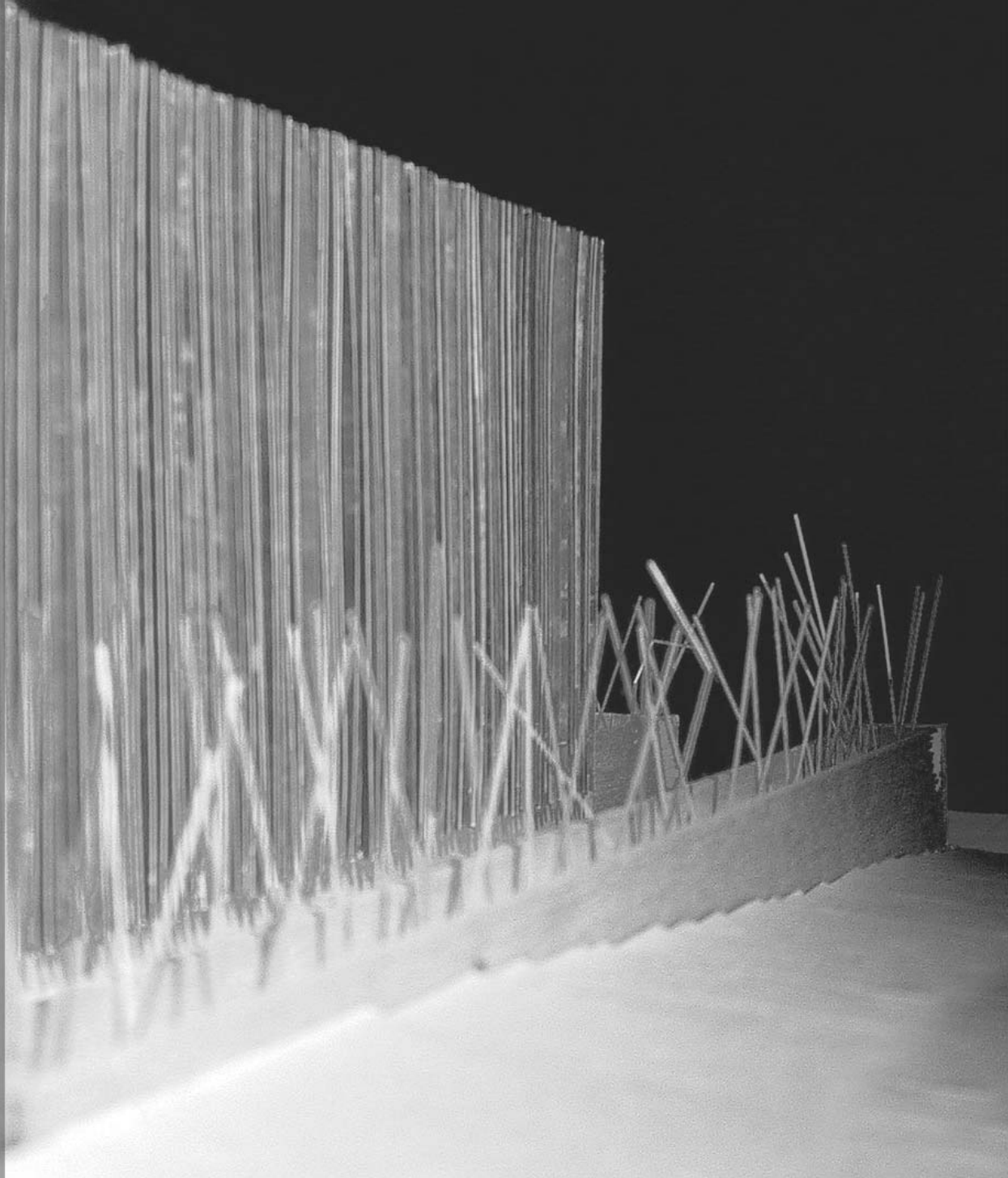
for a certain level of molecular buoyancy.

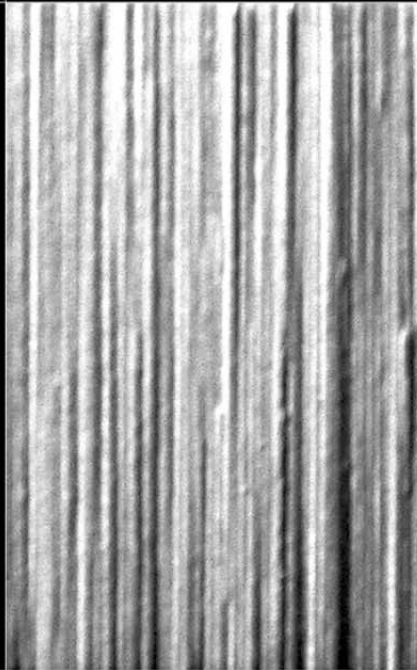
This same molecular buoyancy or representational buoyancy should occur in the architectural. Structure always meets the earth, this is a universal truth. The cloaks that clothe our buildings, however, follow a truth all of its own. Is it not the same ancient question that Semper spoke of in "The Four Elements of Architecture"? The ancients built frames and clothed the frames with carpet like fabrics to create enclosure, dwelling. Even after the solid wall was utilized, the elaborate fabrics were hung to distinguish interior space or cover the openings in "wall".

Why does the "wall" meet the earth?

From wince have such heavy threads come, seeking the comforting caress of Earth as a corps in her grave.

C h a n o y u





“The sun never knew how  
wonderful it was, until it fell  
on the wall of a building.”

-Louis Kahn

# Camellia Sinensis







Camellia Sinensis is the proper name for the tea bush. Yabukita is a variety most commonly used to produce tea, totaling about 80% of tea cultivated in Japan. To a large degree, contrary to the mechanization of the tea industry in other areas of the world, tea is still grown, harvested, and produced on a small scale. Plots are still owned and tended by individual growers. The tea plant has a life for cultivation of thirty to fifty years. It can grow in excess of thirty feet tall but for the ease of harvesting the it is trimmed to a height of

three to five feet. A young plant takes about five to seven years to reach a maturity level at which it will produce a leaf that can be used to make tea.

Harvesting occurs in four stages: Ichibancha or shinbanch meaning new tea, nibancha, sanbancha, and yonbancha. The first harvest, ichibancha, happens around mid April lasting for about three weeks. The second harvest, nibancha, occurs in June lasting about two weeks. This tea is good but not as high a quality as the first flush. The final harvests, sanbanch and yon bancha, are commonly skipped presently. Occurring late July to early October, the leaves have become too coarse and have a considerable lack of flavor. Generally the final two harvests become mulch.

There are three types of tea produced from the same plant: Unfermented, Semi-fermented, and Fully-fermented. From the fermented category is where black teas, most common in the west, are derived. Green teas are of the unfermented category. Fermentation refers to a chemical change (oxidation) that occurs as a leaf dries naturally. The leaf turns a deep brown in color. The unfermented variety is where Matcha, a green tea used for the Japanese tea ceremony, is derived. To make green tea the leaf is subjected to extreme high temperatures immediately after plucking. This process is accomplished by steaming or pan-firing. By steaming or pan-firing the oxidation process is prohibited allowing the leaf to retain its green color and antioxidant nutrients.

# Camellia Sinensis

			
Sencha	Genmaicha	Gyokuro	Matcha
<p>Many factors are involved in shaping the flavor of sencha. The quality of the leaf is the most important. The higher quality the leaf the higher the nutrients. Theanine gives tea its mild sweetness while catechins, the most healthy aspect, provides astringency. Caffeine adds zest to the beverage.</p>	<p>Genmai is popular with people who wish to avoid caffeine. Since the tea in genmai cha is at best medium - grade sencha, which is weakened in content by blending with rice, causing the caffeine content to be quite low.</p>	<p>Gyokuro, or “jeweled dewdrops” is developed from special mountain grown teas. Comparing high - grade gyokuro to high - grade sencha, gyokuro contains more catechin, caffeine, and a significantly higher level of amino acids (the source of its sweetness).</p>	<p>Matcha, the powdered form of unrolled gyokuro contains more catechin, caffeine, and a significantly higher level of amino acids (the source of its sweetness). The frothy beverage made with matcha is central to the Japanese tea ceremony and is usually served with light confection.</p>

Steamed tea has five categories: Sencha, Gyokuro, Tencha (matcha), Bancha, and Tamaryokucha. Tencha and Gyokuro are the highest quality and healthiest of the green tea produced in Japan. Tencha and Gyokuro are covered from ten days to three weeks before plucking. By covering, photosynthesis is prohibited allowing the leaves to achieve a rich dark green color and a higher concentration of nutrients. Tencha and gyokuro differ in that, gyokuro is rolled after steaming much like rolling dough with a rolling pin. This rolling technique crushes the leaves breaking the leaf structure. Tencha is steamed and dried thoroughly after plucking. Unlike other green teas tencha is never ready for consumption after drying is complete, but not until it is ground into a fine talc-like powder and whipped in hot water is it ready. This fine green powder or matcha is a high grade of tea. It is almost exclusively used for the tea ceremony with exceptions for its use in ice cream and confections.

# A Brief History

The earliest knowledge of tea dates back to about 2780 B.C. The Chinese made a brew from the leaves of a common bush (*Camellia sinensis*) that was thought to relieve fatigue. During the Tang Dynasty (618 - 907), Luwuh, a Chinese poet, wrote a treatise named *Chaking* (The Holy Scripture of Tea). This writing, comprised of three volumes and ten chapters, detailed the historical, botanical, and medical foundations of this brew. It also provided wisdom on brewing, cultivating, and even serving the beverage.

The tea that Luwuh refers to is "cake tea". This early form of tea was a brick-like mass of tea leaves that were pressed together. To prepare this mass for drinking, the cake was first broiled and separated over fire, and then the leaves were taken and crushed in a mortar. During the first boil of the water, salt was added, during the second boil, tea was added, and then a ladle of cold water. Then the brew could be consumed.

Tea may have first been imported to Japan during a fifty year period spanning from the year 572 to 622. During this time Zen was being introduced to Japan. Tea was brought back to Japan by monks who went to study Buddhism in China. Tea did not gain much acceptance until 806 when the method of brewing tea was introduced by Kukai, a Japanese priest. Tea slowly faded from the face of Japanese culture at this point. By the 10th century even the medicinal use of tea was discarded.

Not until the 12th century did tea return to the stage of Japanese culture. Eisai, a priest, took notice of the extensive use of tea by the Zen Buddhist monks in China. Tea was commonly used among them to aid monks through long periods of meditation. In 1191 Eisai brought seeds back to Japan, later successfully cultivating a grove at the Kozanji Temple in Kyoto. From this time on tea began to be the preferred drink among nobles and the influential. By the 14th century tea had permeated Japanese culture reaching the common ranks as well.



# A Brief History cont.

The twelfth century also was the dawn of "whipped tea". For the preparation of this tea, leaves were ground into a fine talc-like powder and then whipped with a whisk made of split bamboo. This green frothy beverage was then sipped slowly. With this immaculate conception came the birth of the tea ceremony.

The tea ceremony began as a gathering held in a reception room using the special tea utensils from China. Mainly for the displaying of the tea utensils and expensive art of the host, this gathering was originally relegated to the upper-class and merchants of this time. The rooms became more and more lavish as time went on. During his reign as shogun (1536 - 1598), Toyotomi Hideyoshi ordered that a tea room be built with its interior covered with gold foil. This lavish style of tea gather was known as the *shoin cha*.

*Soan cha*, a new form of the tea ceremony, was created by Murata Shuko during the mid to late 1400's. Another name for *soan cha* is "grass-hut tea". This style is the basis for the tea ceremony as it is known today. *Soan cha* is characterized by the austerity of its confines and the simplicity of its utensils. The space used was four and one half tatami in size, or nine by nine feet. The room size cut the immense guest list known in the *shoin* style greatly allowing only a limited number of people. *Soan cha* gradually took over as the preferred style of the tea ceremony largely as a result of the Onin Civil war (1467 - 1477). "Surrounded by death and suffering, people sought beauty and consonance, and the intimate, austere setting of *soan cha* meant that all who attended must be in harmony with one another."

# A Brief History cont.

Later, *soan cha* was renamed by Sen Rikyu, a tea master (1522 - 1591). Rikyu began to call *soan cha wabi cha*, meaning "the tea of quite taste." After Rikyu's death the *diamyo cha* style was instituted by another tea master. This style was created for the feudal lords during the Tokugawa period. Sen Sotan Rikyu's grandson was responsible for carrying on the tradition of the *wabi cha*. After Sotan's retirement his three son's carried on the tradition of tea each creating a school of tea, the Urasenke school, the Omote-senke school, and the Mushanokoji - Senke school, each is still in existence today with schools spanning across the world.

Historically the way of tea was an occurrence only among the men in Japanese society. During the Sino-Japanese War (1894 - 1895) women began to take part in the ceremony. This endeavor was lead by the Grand Tea Master of the Urasenke-school, Ennosai. The Urasenke - school began to teach the war widows of the time and other women also. Eventually, the way of tea spread to Buddhist convents and girls' schools of higher education. The Urasenke - school has a small school in McLean, Virginia taught by a female tea master.



“ I try to avoid expressing myself at all cost.”

-Rick Joy

# site

The site is situated on a corner lot at the corner of 14th Street and V Street in Washington, DC. As a part of the U Street Cordoza area, the site is flanked by residences, small restaurants and various shops, and art galleries. This area is hot bed of activity during to nights and weekends. There are various clubs and social areas that foster a creative nightlife. During the week-ends, a market is held on a parking lot directly adjacent (south) of the site along U Street. Various items such as books, perfumes, and furniture can be found here. The area is a mix of Hispanic, African-American, and European-American.

The intended purpose of this eclectic site is for a Japanese cultural center, specifically aimed at the performing, teaching, and studying of Chanoyu, the Japanese Tea Ceremony.

Although, the program seems atypical for the area or use of the site, the tea ceremony harkens for an inward peace and simplicity, quite the contrast of the "city dweller."

The chosen program was seen as a vehicle to inject another cultural aspect of life's philosophy in to and already diverse section of the District of Columbia. However, architecturally, the aim was to create an ensemble of spaces and elements that reflect inward but acts as a filter between the sacred and the profane.













1.

View of Site



2.

View from site looking west



3.

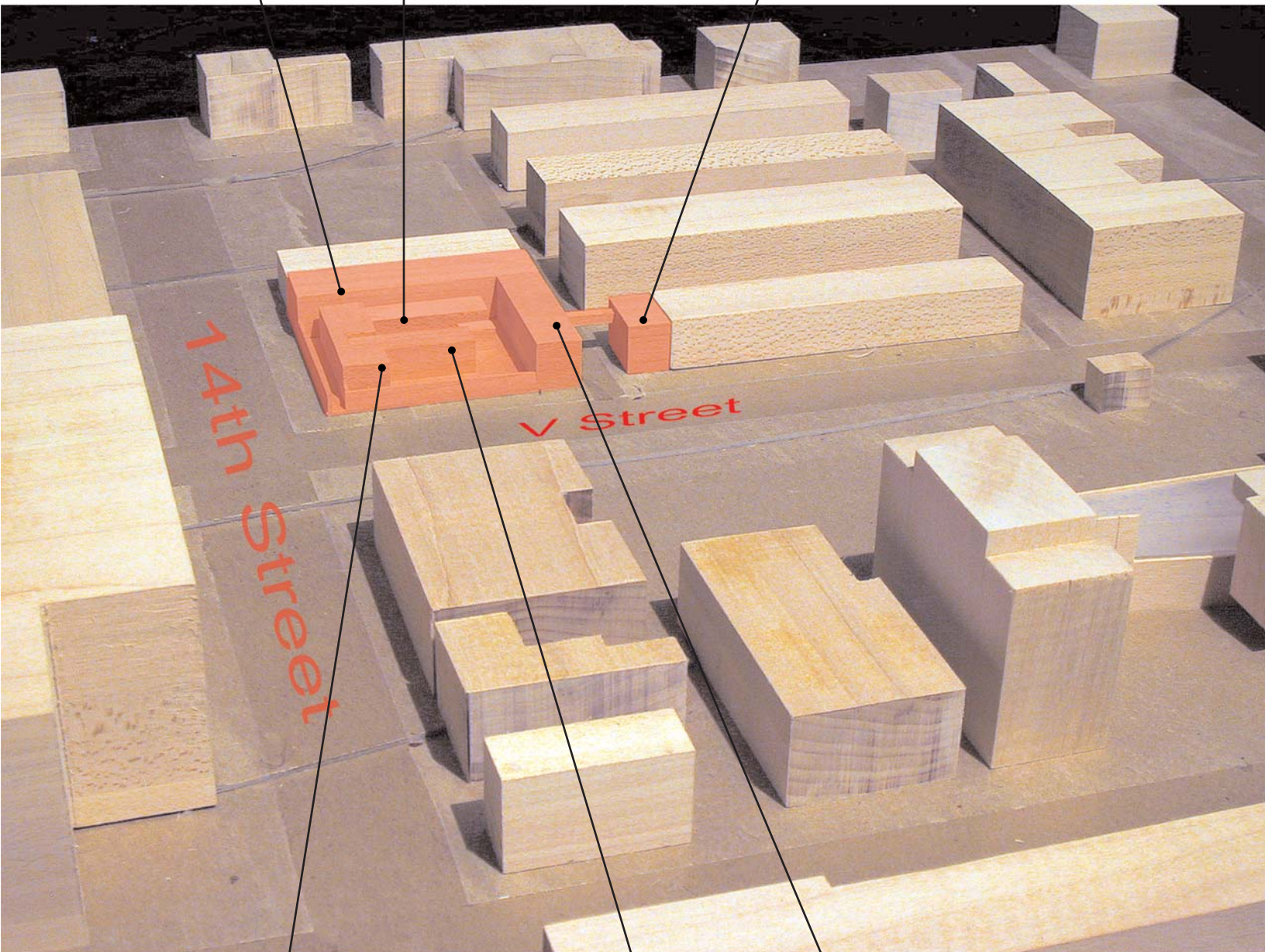
View of south side of site



Proposed educational facility to house classrooms and lab space for the instruction in the various realms of Japanese art (i.e. ceramics, carpentry, writing, etc).

Main entrance and exhibit area.

Proposed extension to existing rowhouses with a bridge connector to the educational facility. This housing component functions as the residence for the caretaker or tea master of the school.



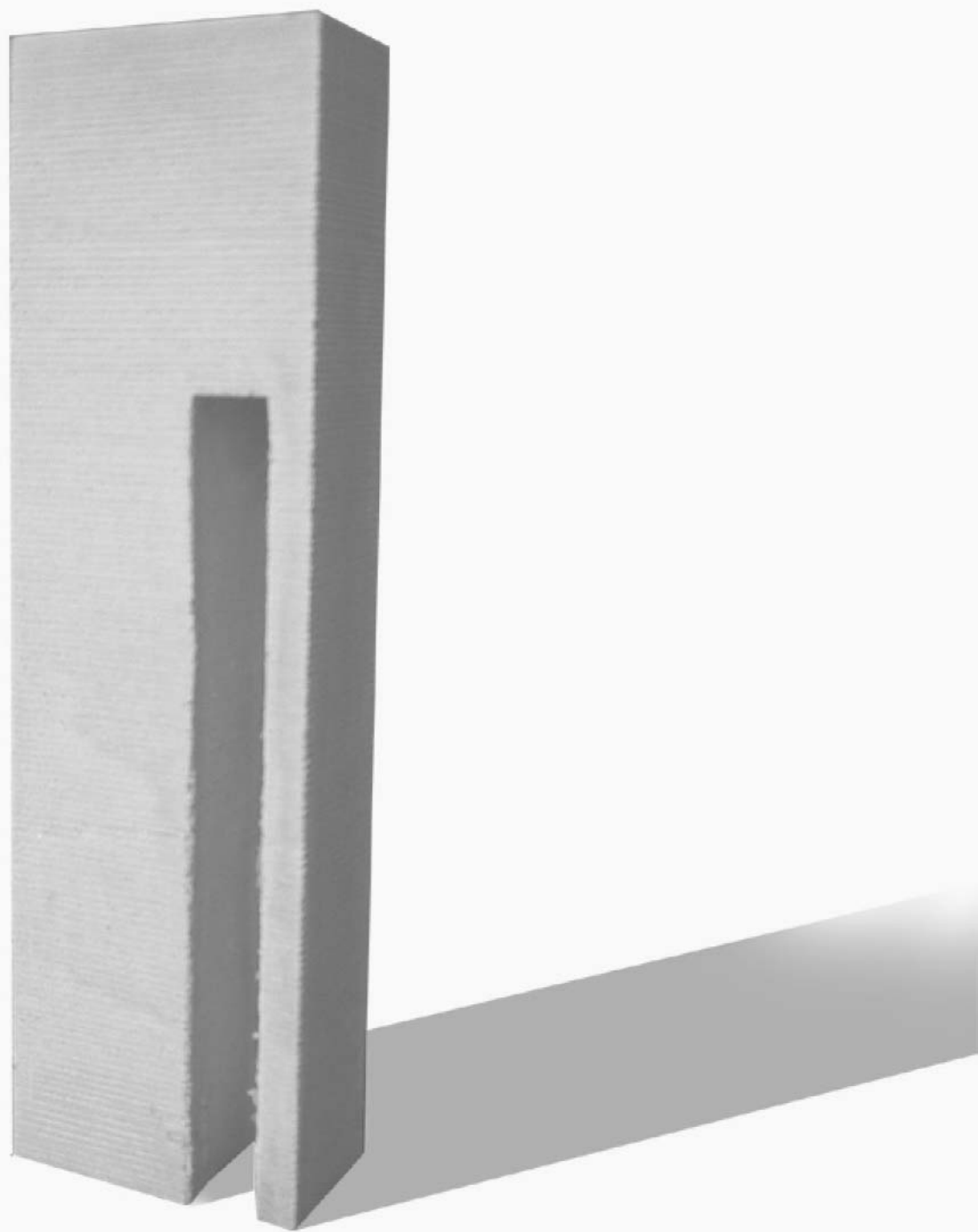
Open air pavilion.

Main component houses space for making tea and teaching of the tea ceremony.

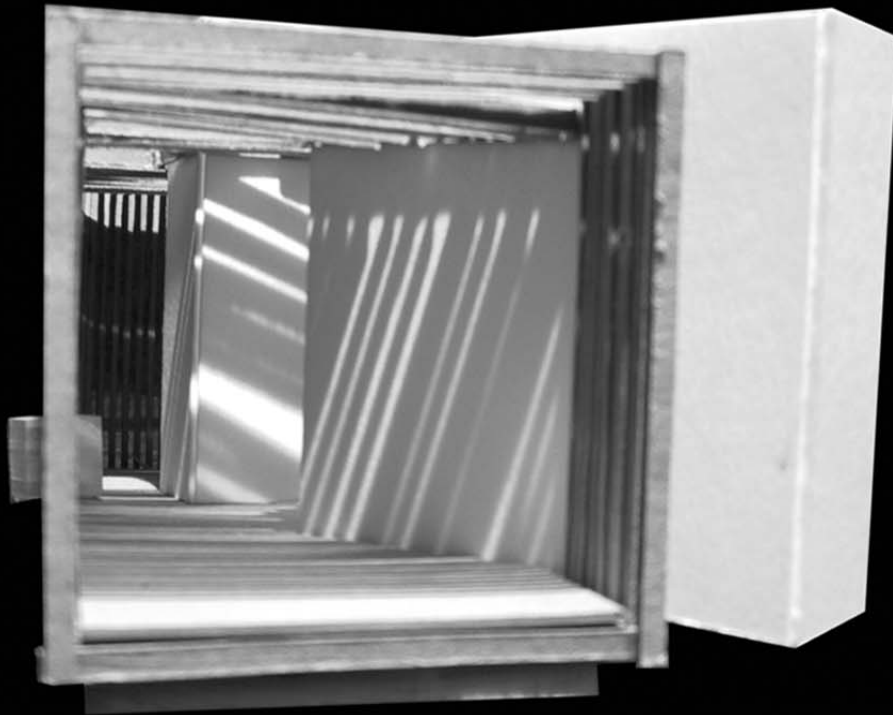
Proposed dormitory component for students enrolled full time learning the way of the tea master. Temporary housing for visiting students and guest of the school.

"Meanwhile, let us have a sip of tea. The afternoon glow is brightening the bamboos, the fountains are bubbling with delight, the sighing of the pines is heard in our kettle. Let us dream of evanescence, and linger in the beautiful foolishness of things."

-Okakura Kakuzo "The Book of Tea"

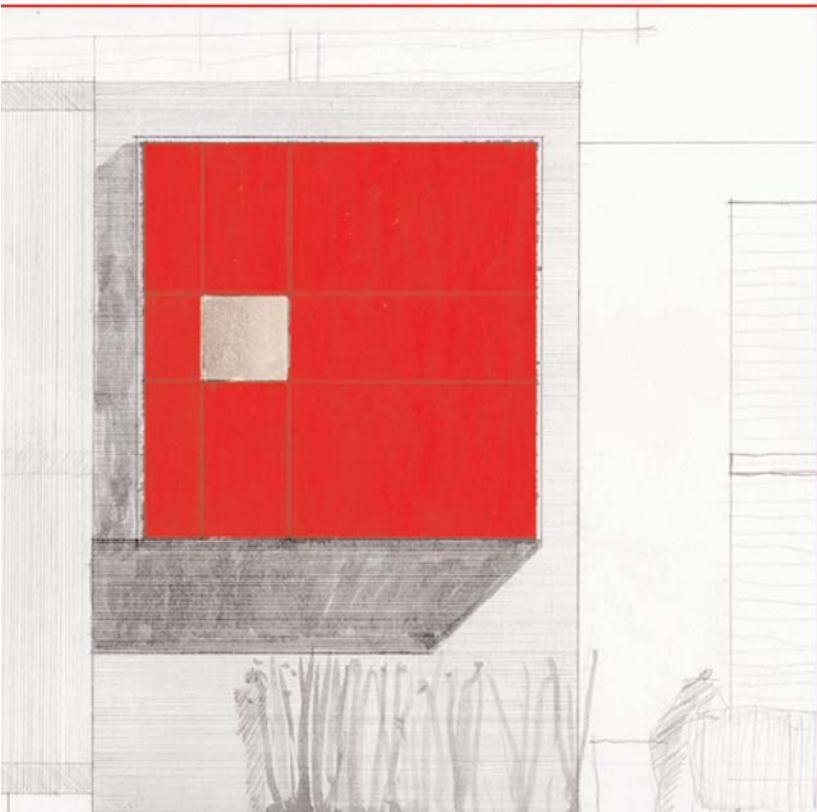
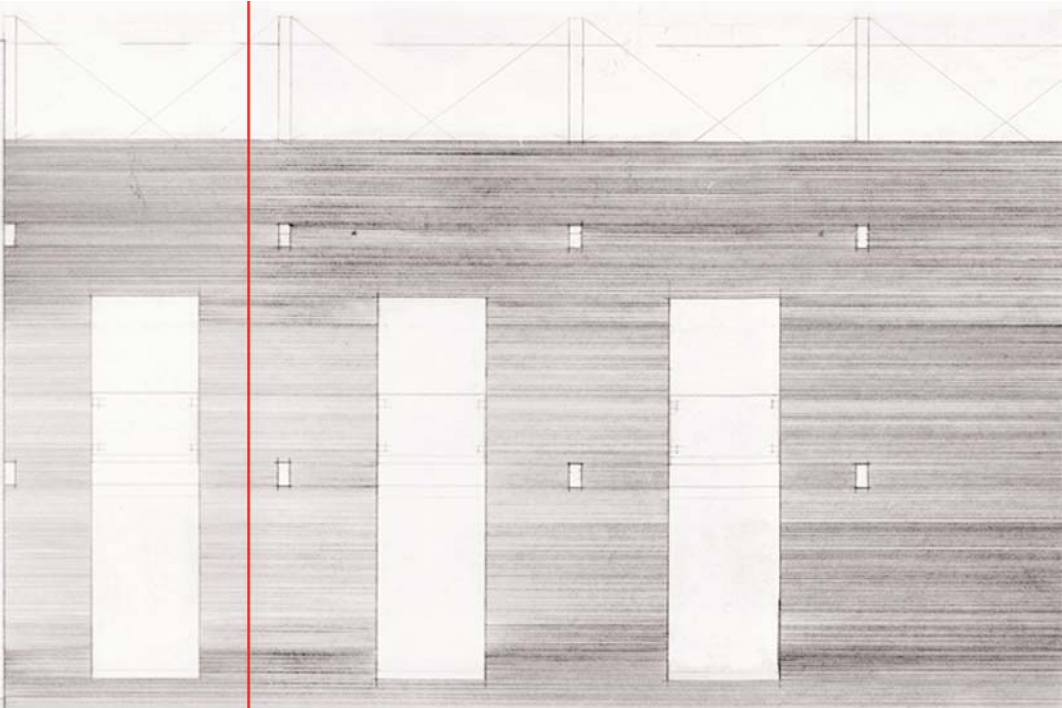
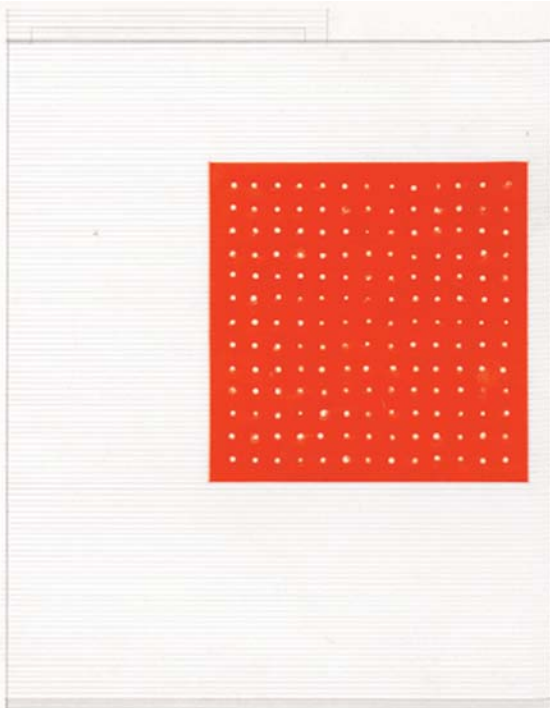


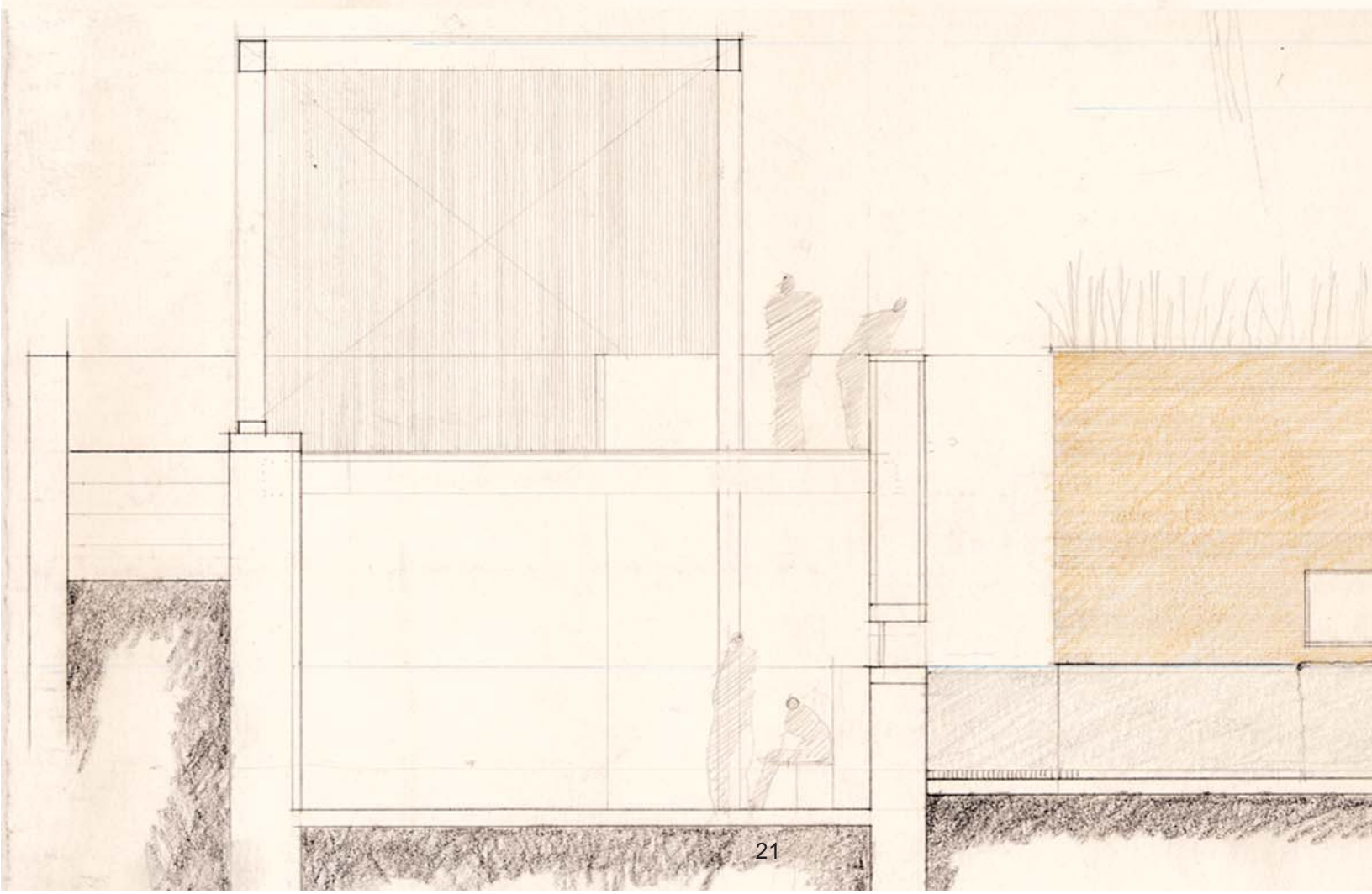
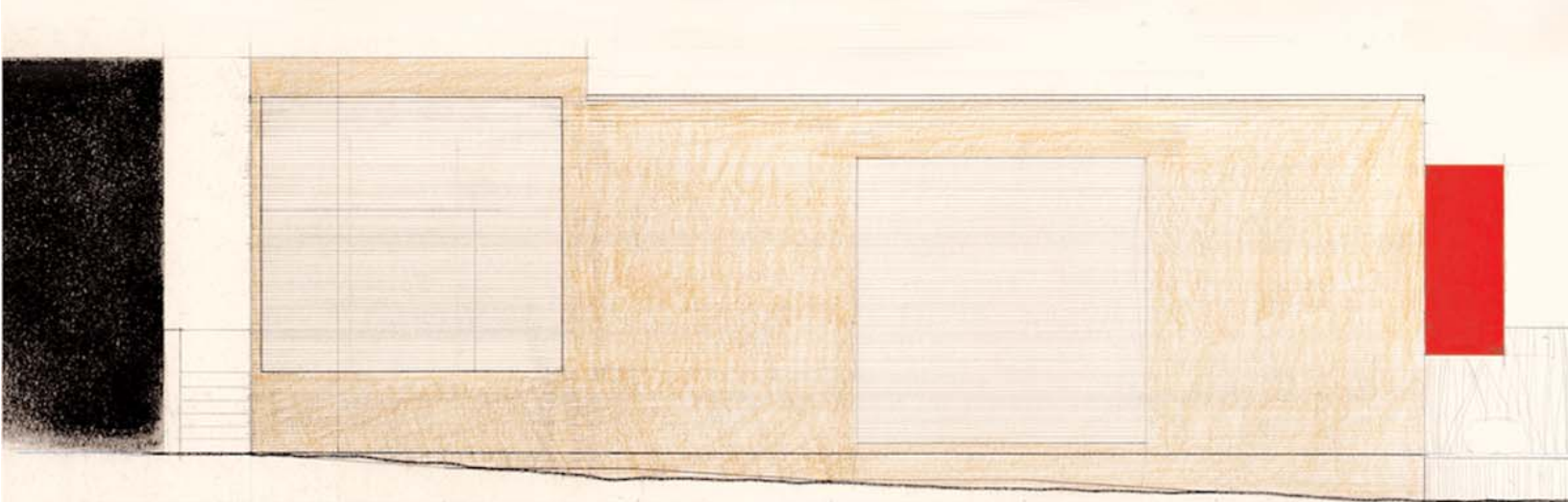




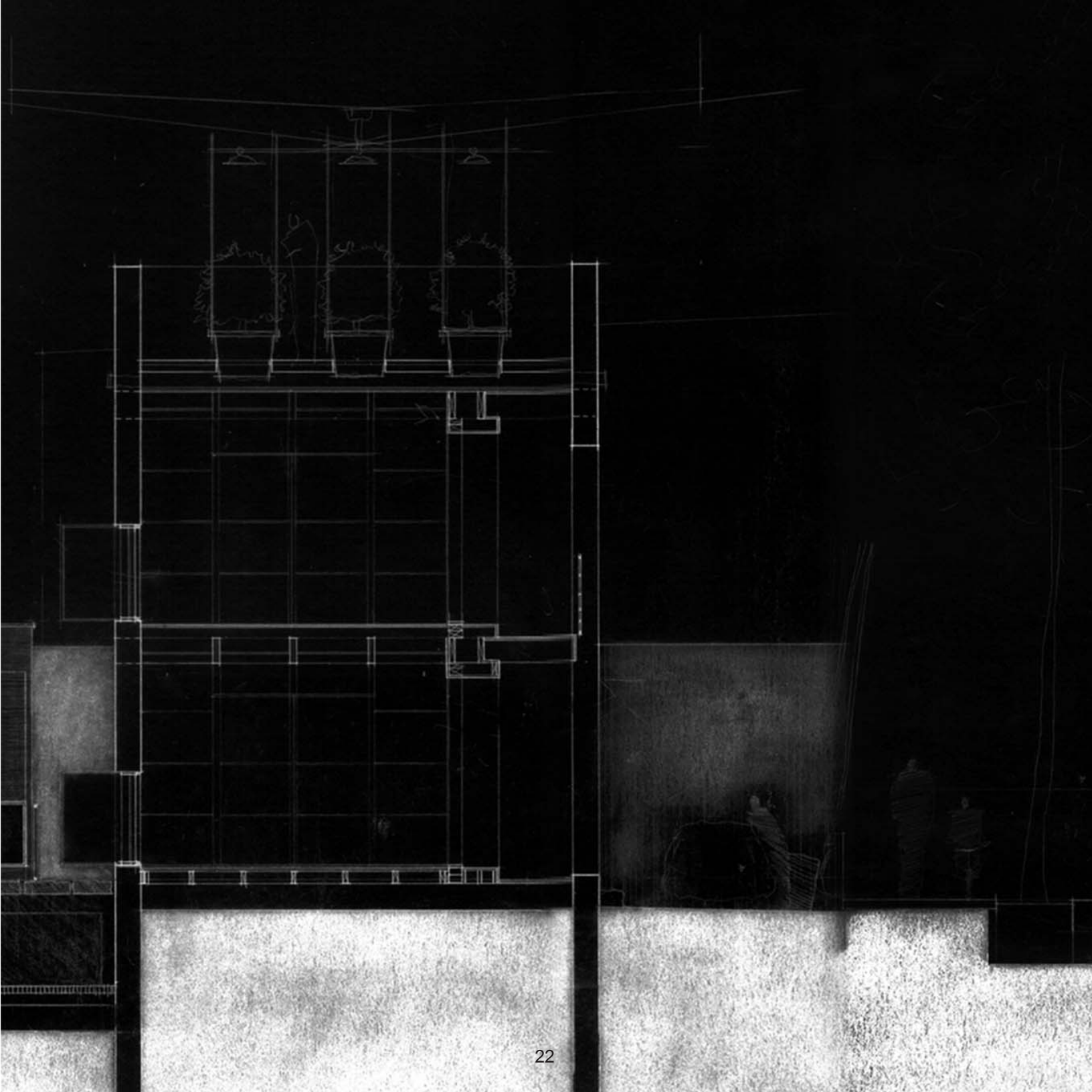
“- though we know perfectly well it is mere shadow, we are overcome with the feeling that in this small corner of the atmosphere there reigns complete and utter silence; that here in darkness immutable tranquility holds sway.”

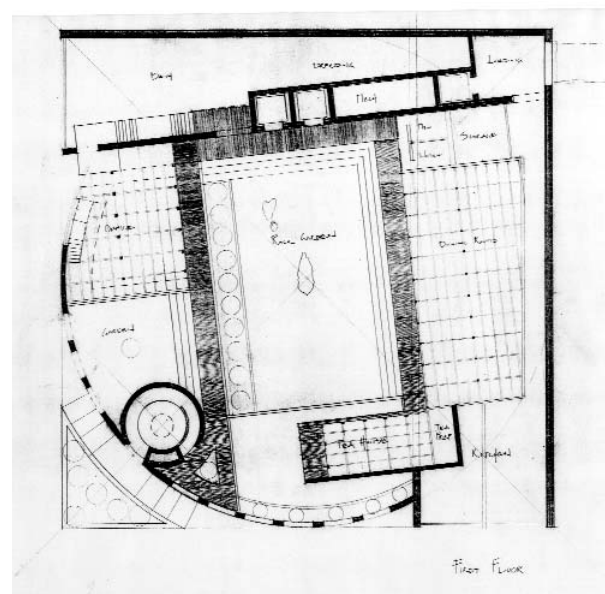
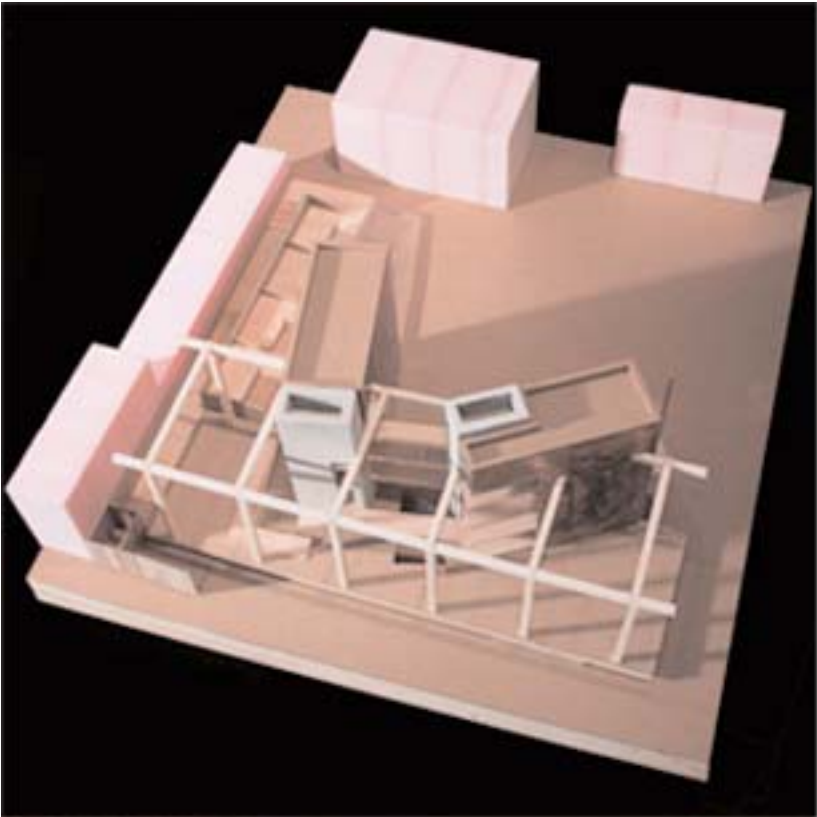
-Jun'ichiro Tanizaki “In Praise of Shadows”

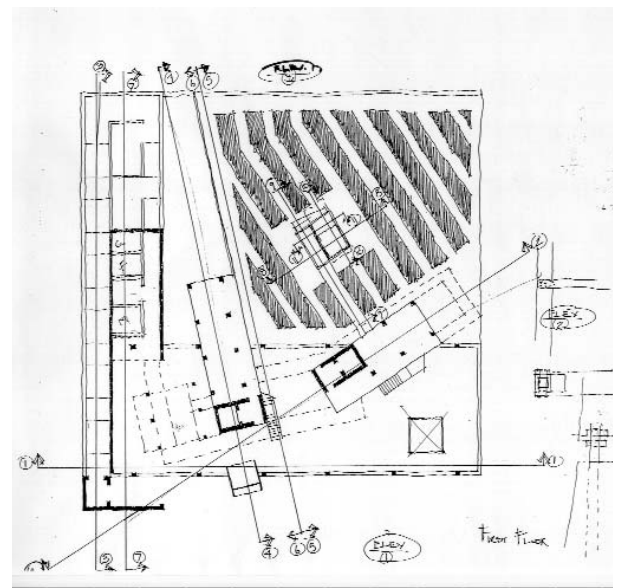
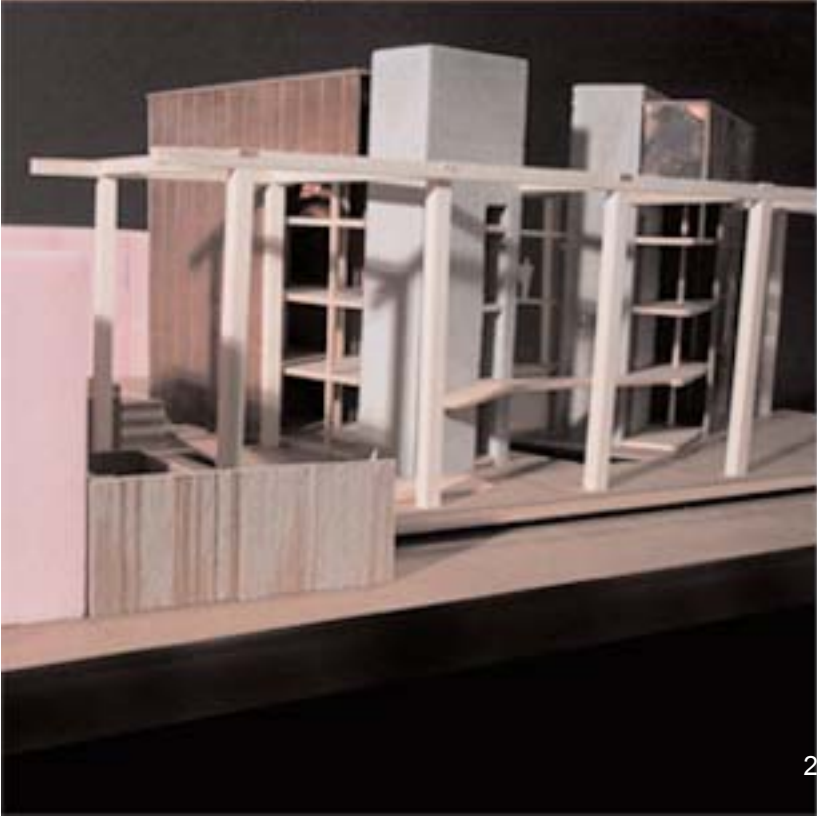
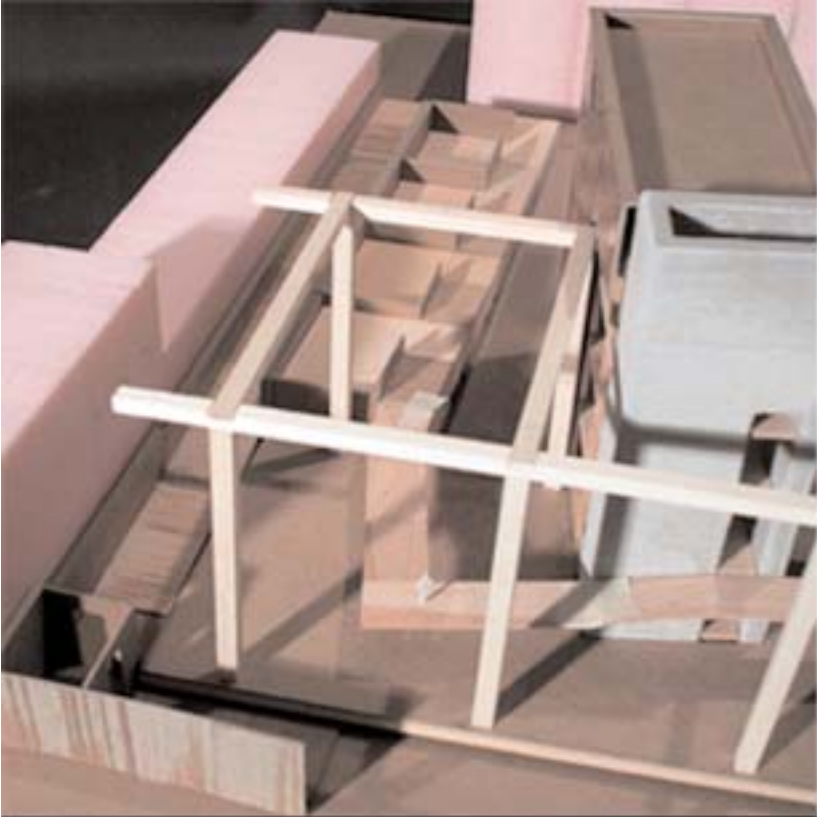




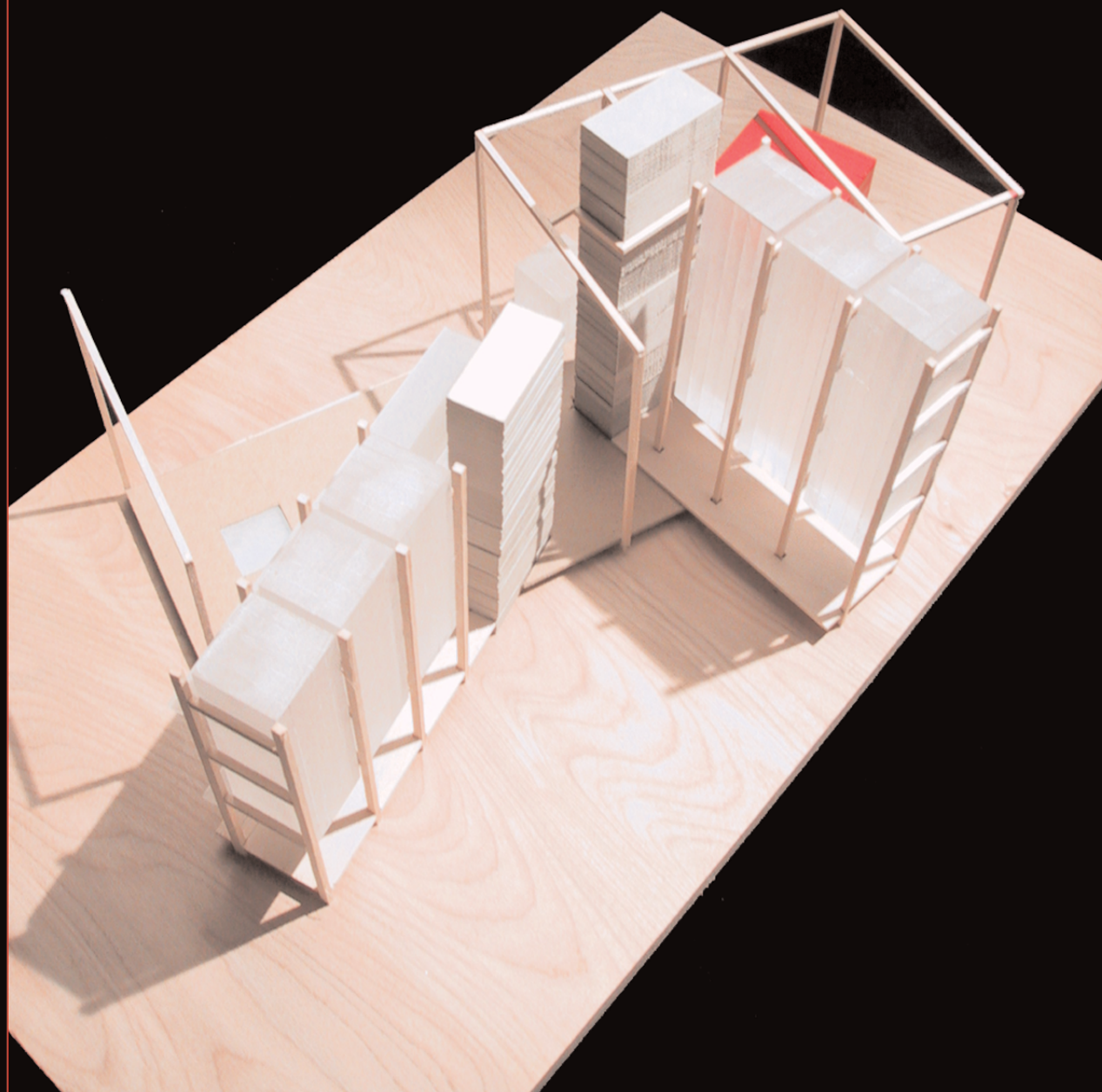








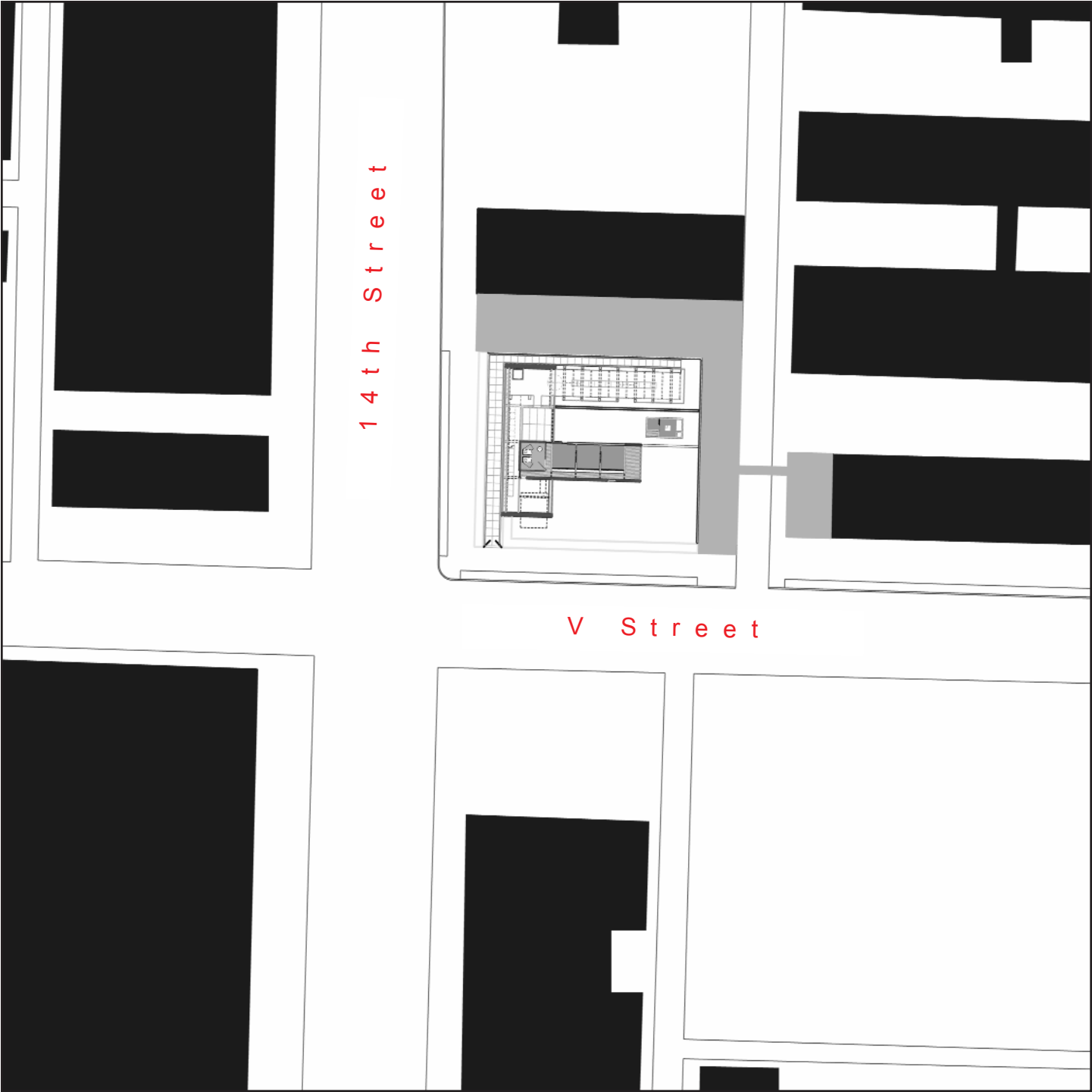


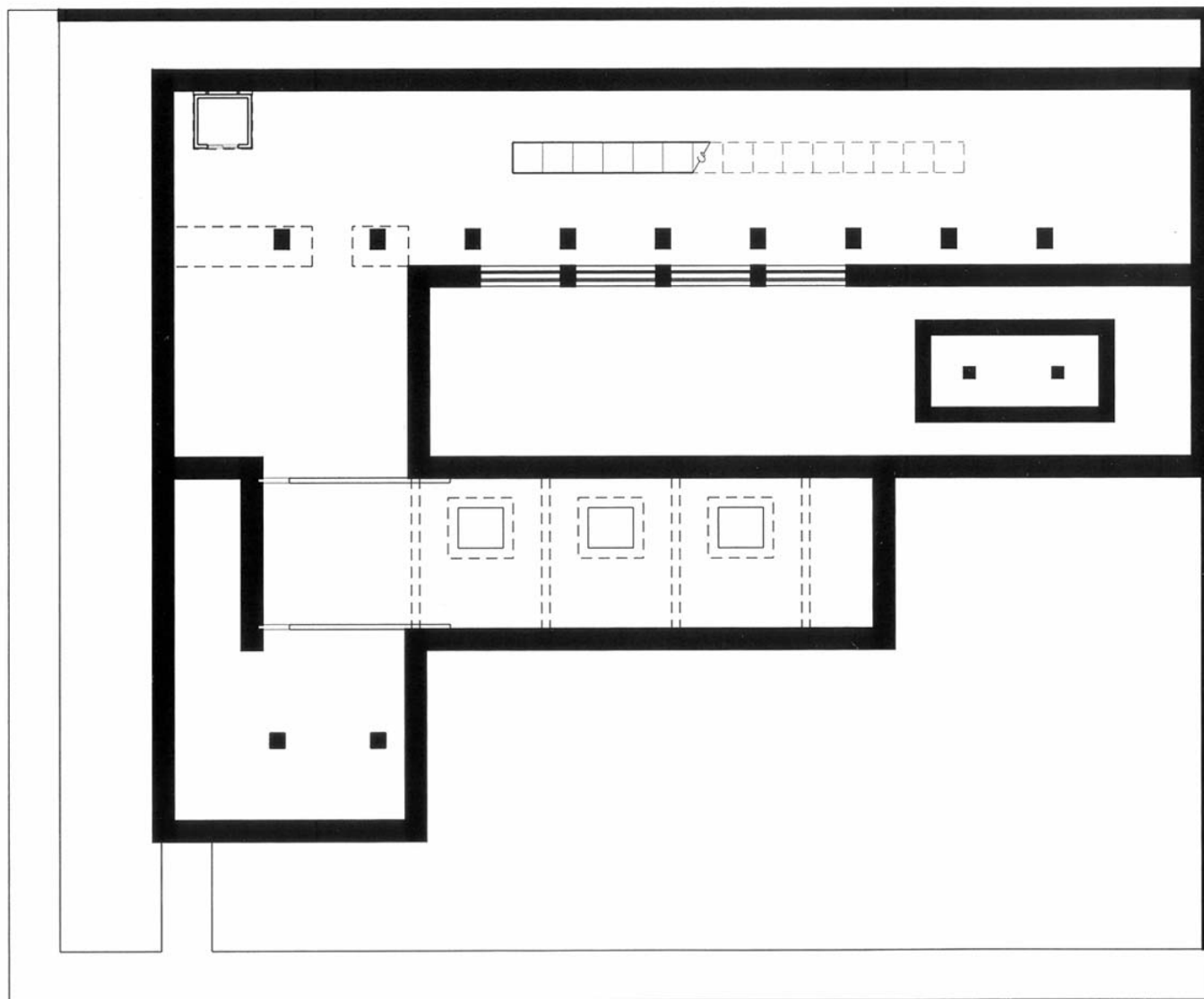


“The first cup moistens my lips and throat, the second cup breaks my loneliness, the third cup searches my barren entrail but to find therein some five thousand volumes of odd ideographs. The fourth cup raises a slight perspiration,- all the wrong of life passes away through my pores. At the fifth cup I am purified; the sixth cup calls me to the realms of the immortals. The seventh cup - ah, but I could take no more! I only feel the breath of cool wind the rises in my sleeves. Where is Horaisan (Elysium)? Let me ride on this sweet breeze and waft away thither.”

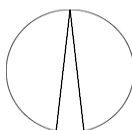
-Lu Tung (Chinese poet during T'ang Dynasty) "Tea-Drinking"



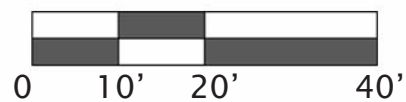


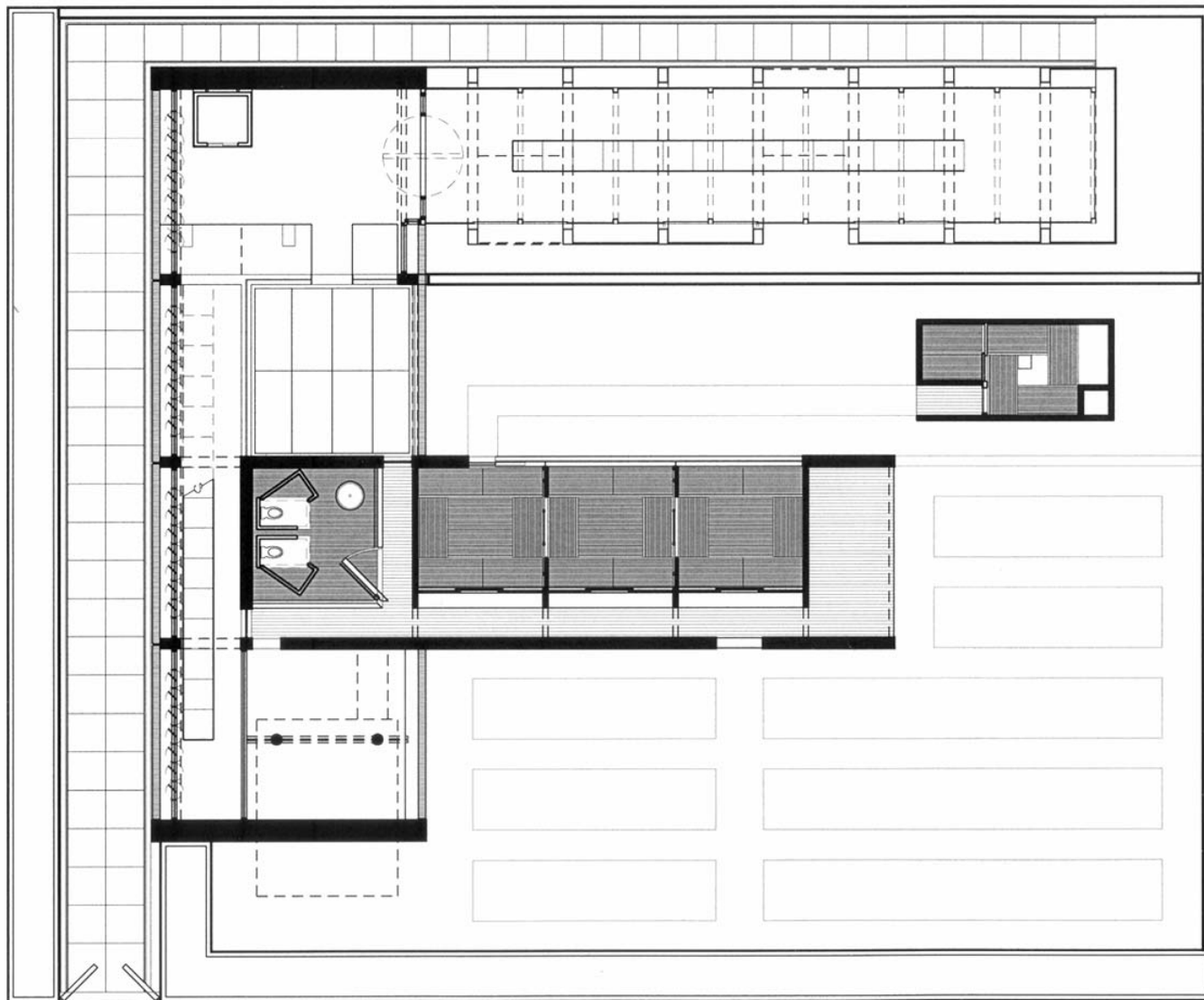


LOWER LEVEL

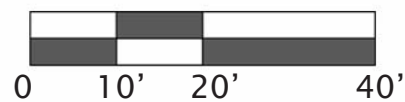
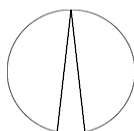


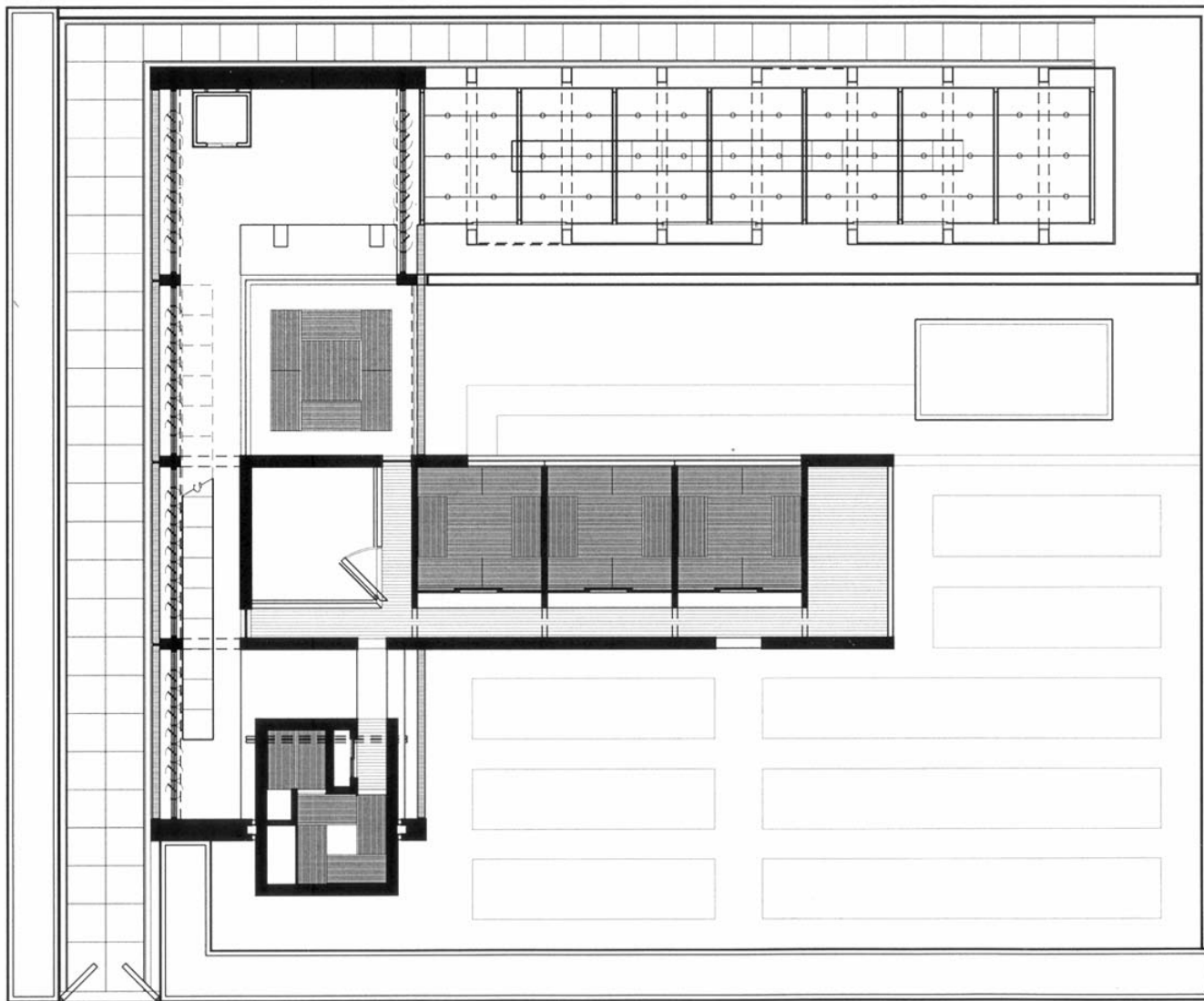
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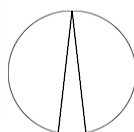


ENTRY LEVEL

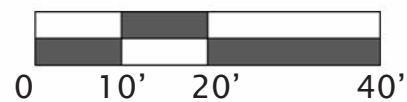




SECOND LEVEL



30

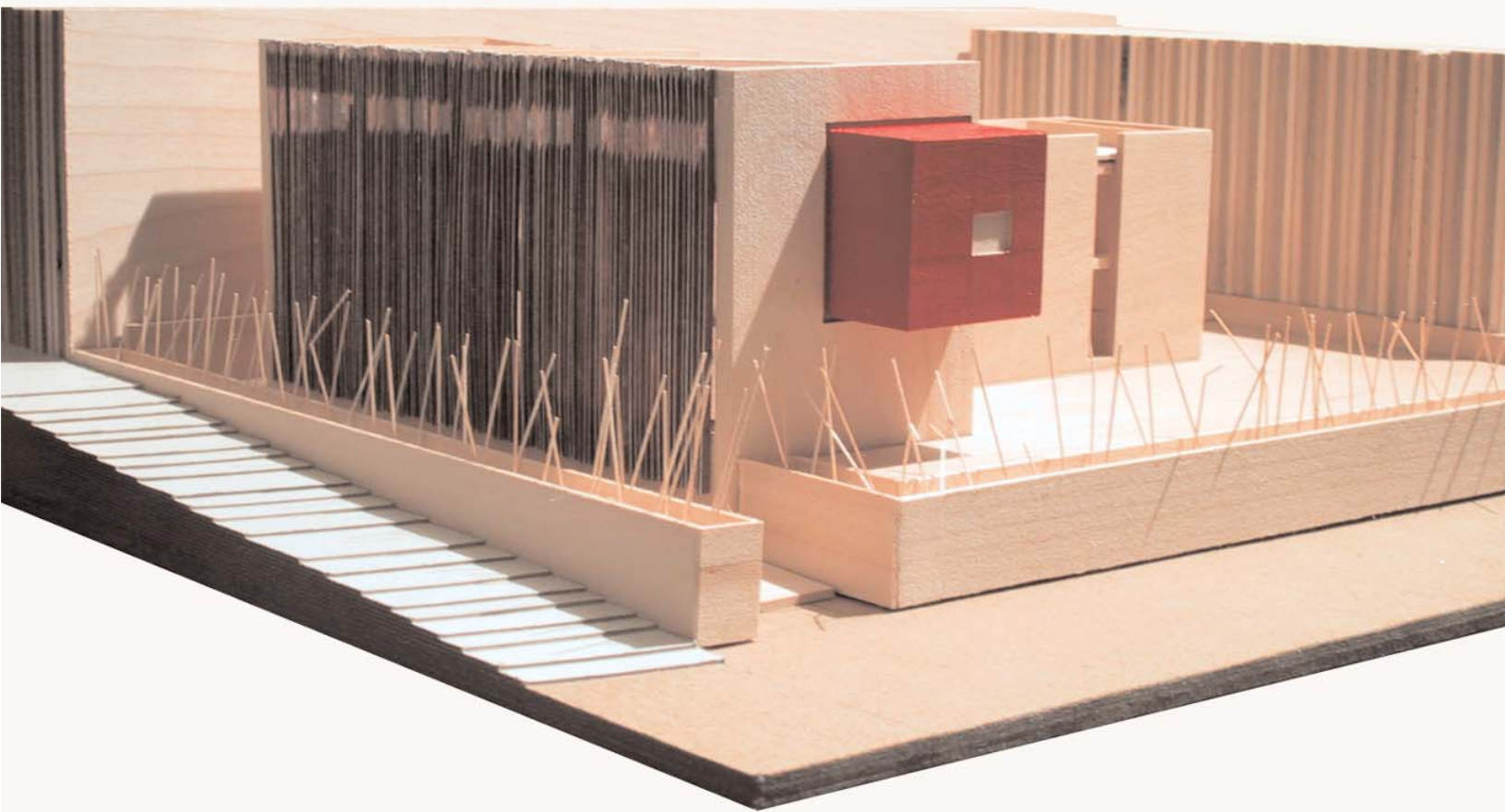


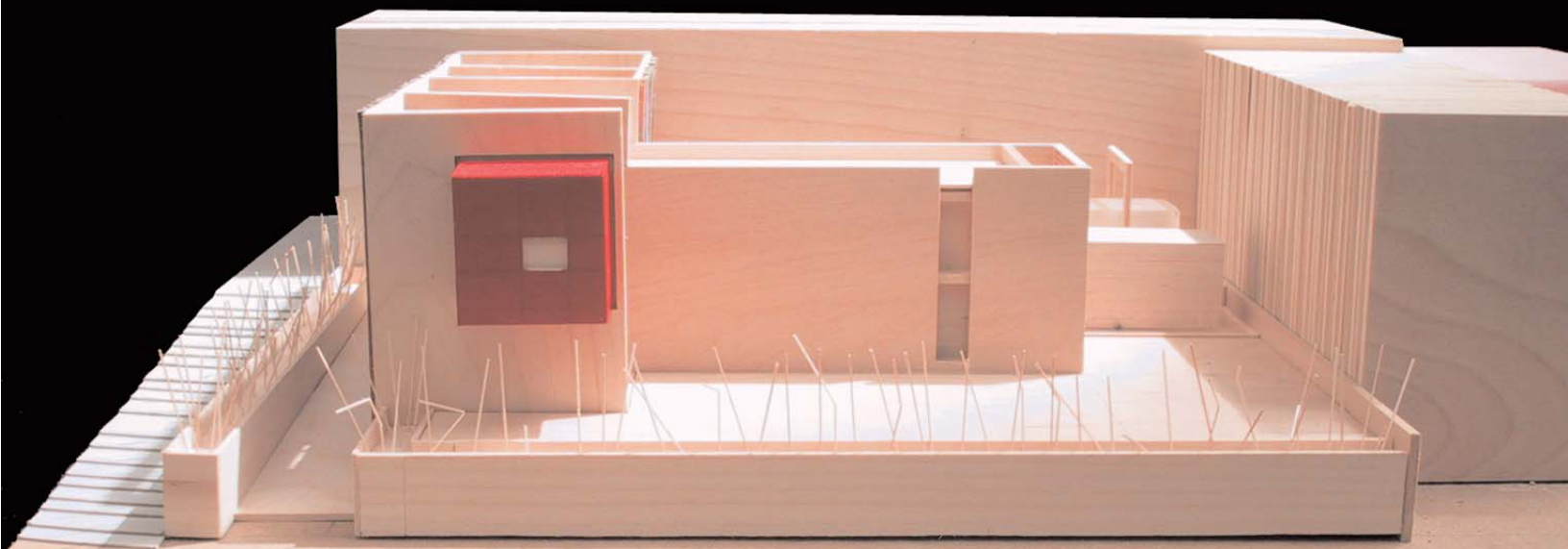
What then shall we choose? Weight or lightness?... That is the question. The only certainty is: the lightness/weight opposition is the most mysterious, most ambiguous of all.

-Milan Kundera

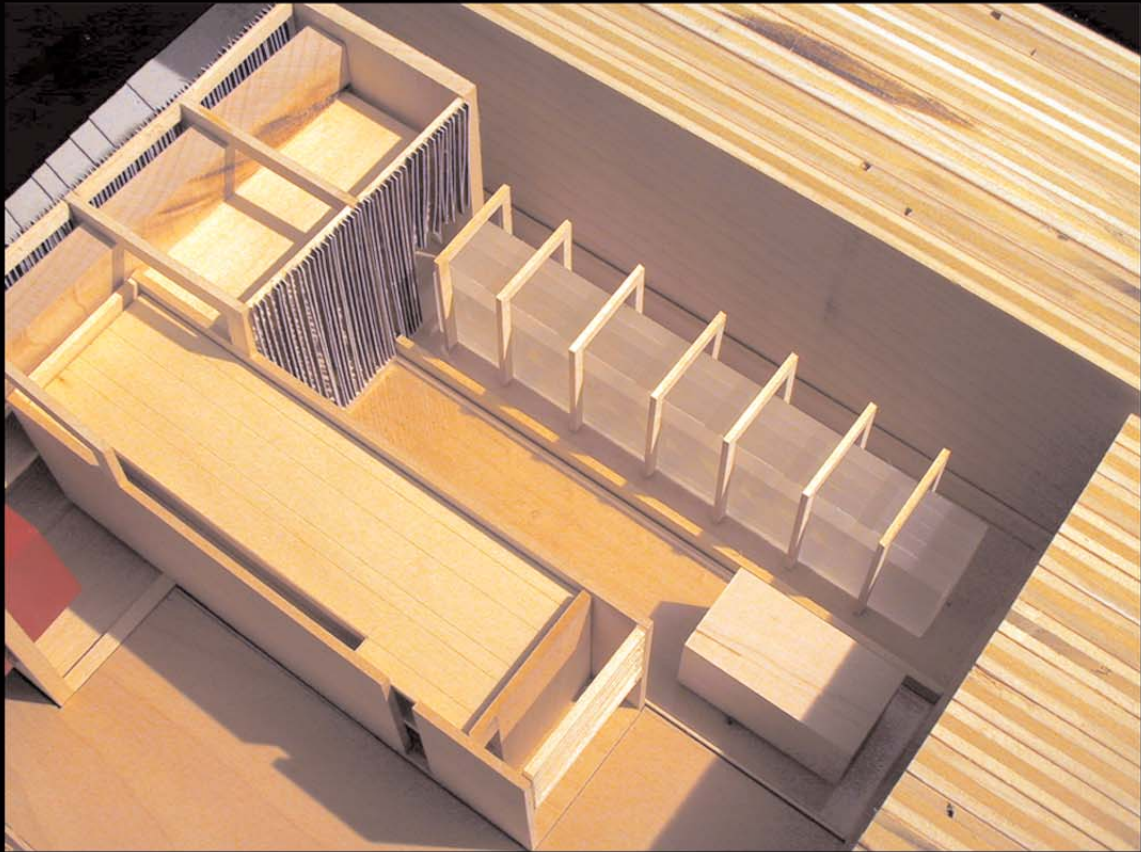


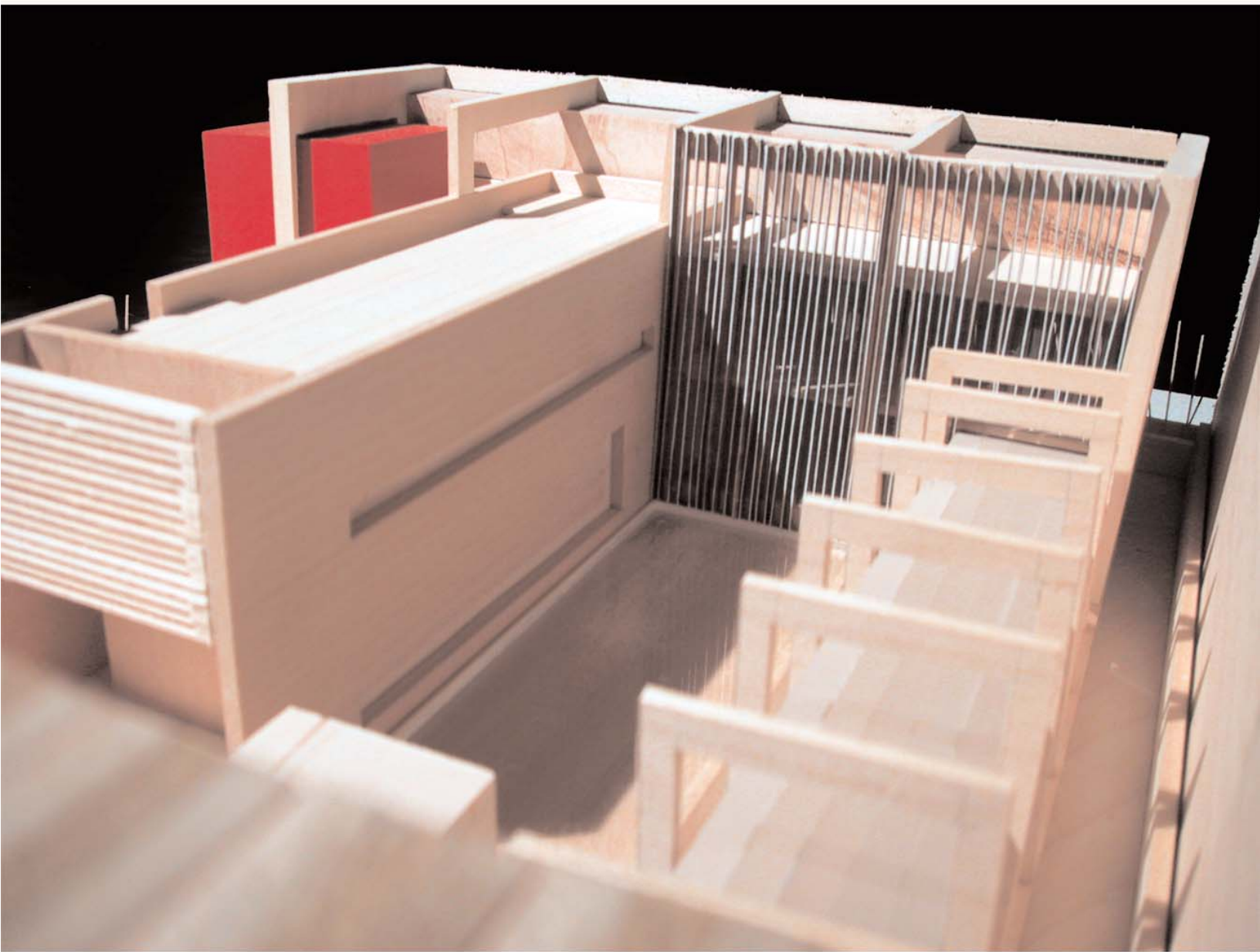




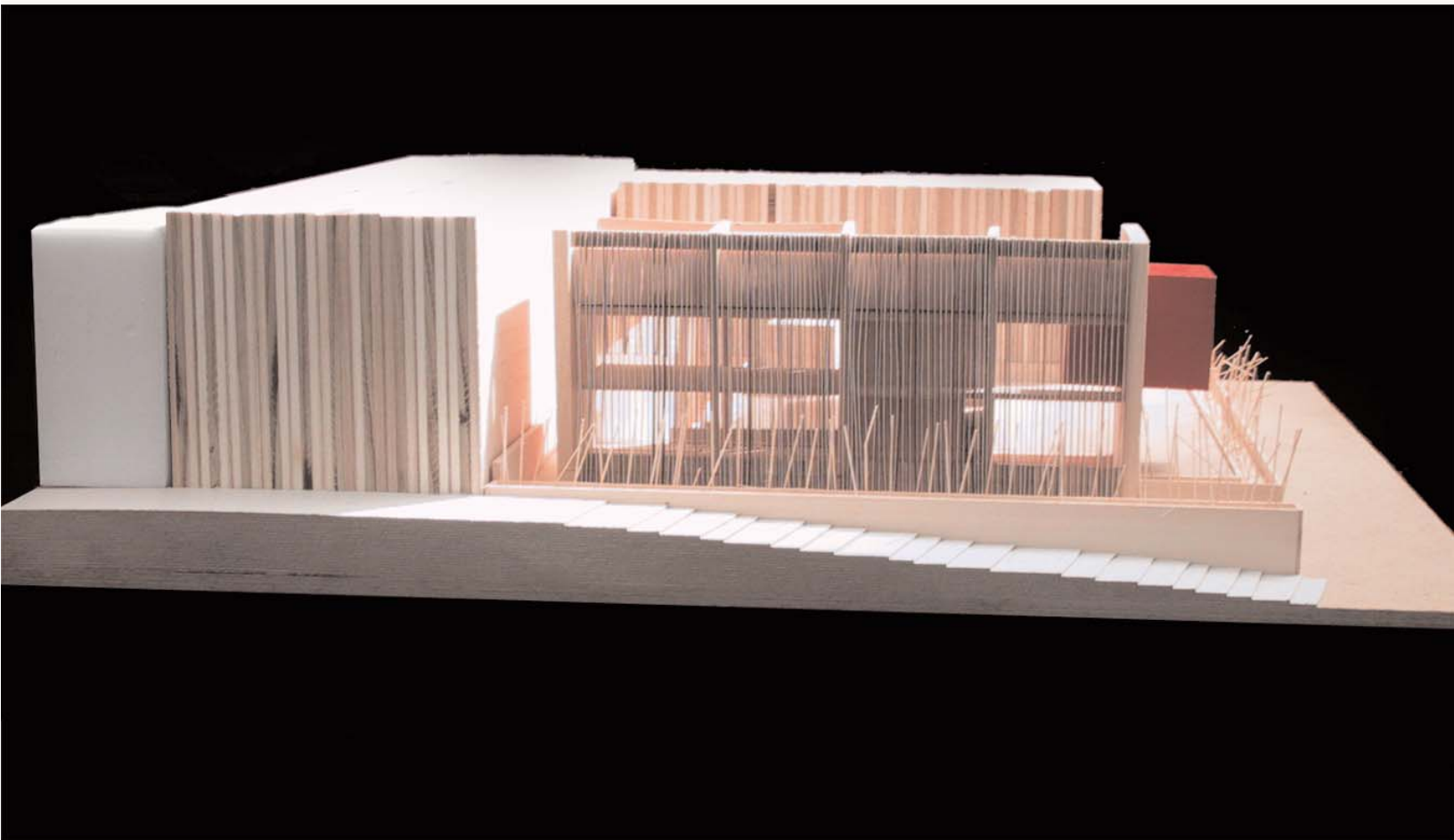


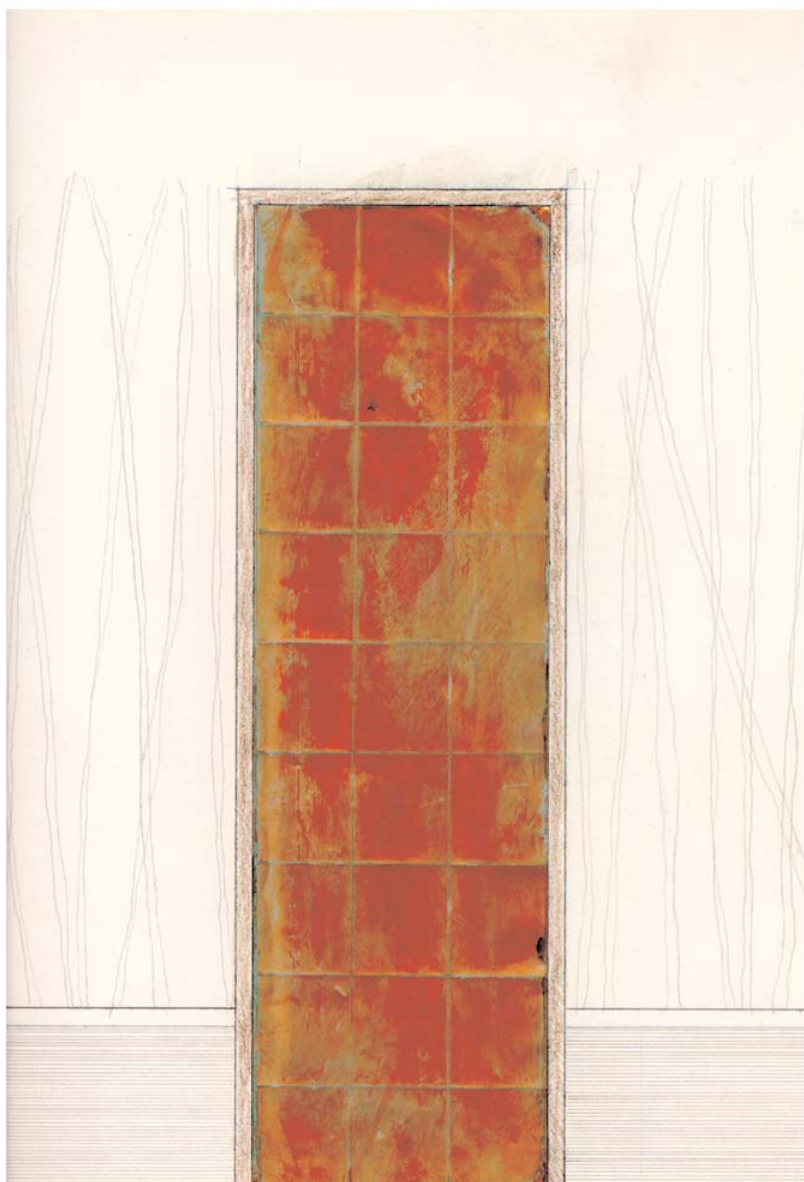






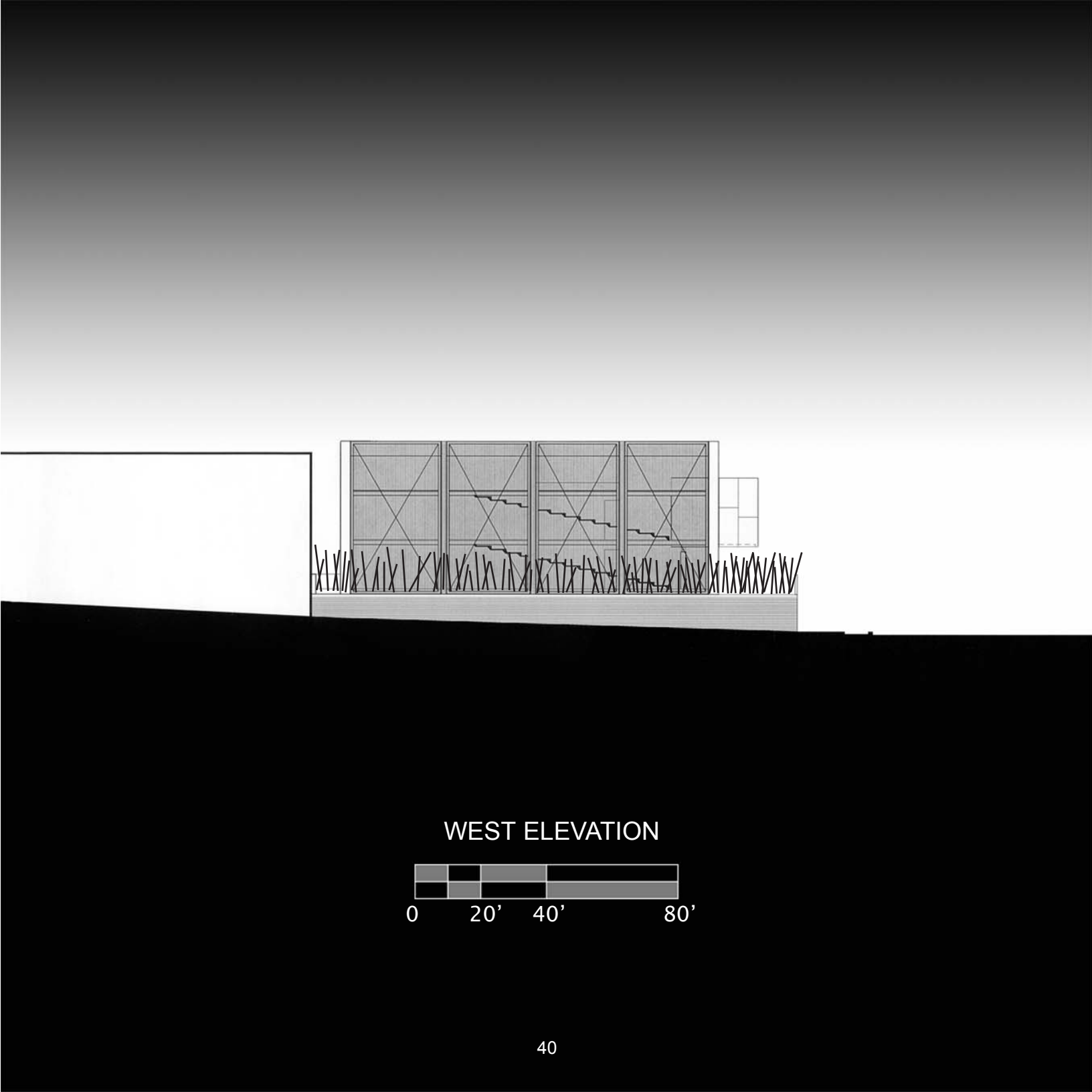




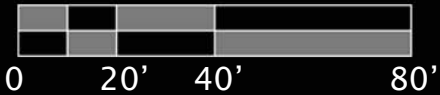


“If you give people nothingness, they can ponder about what can be achieved from that nothingness.”

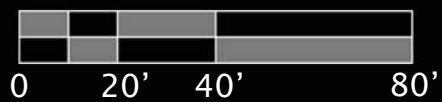
-Tadao Ando



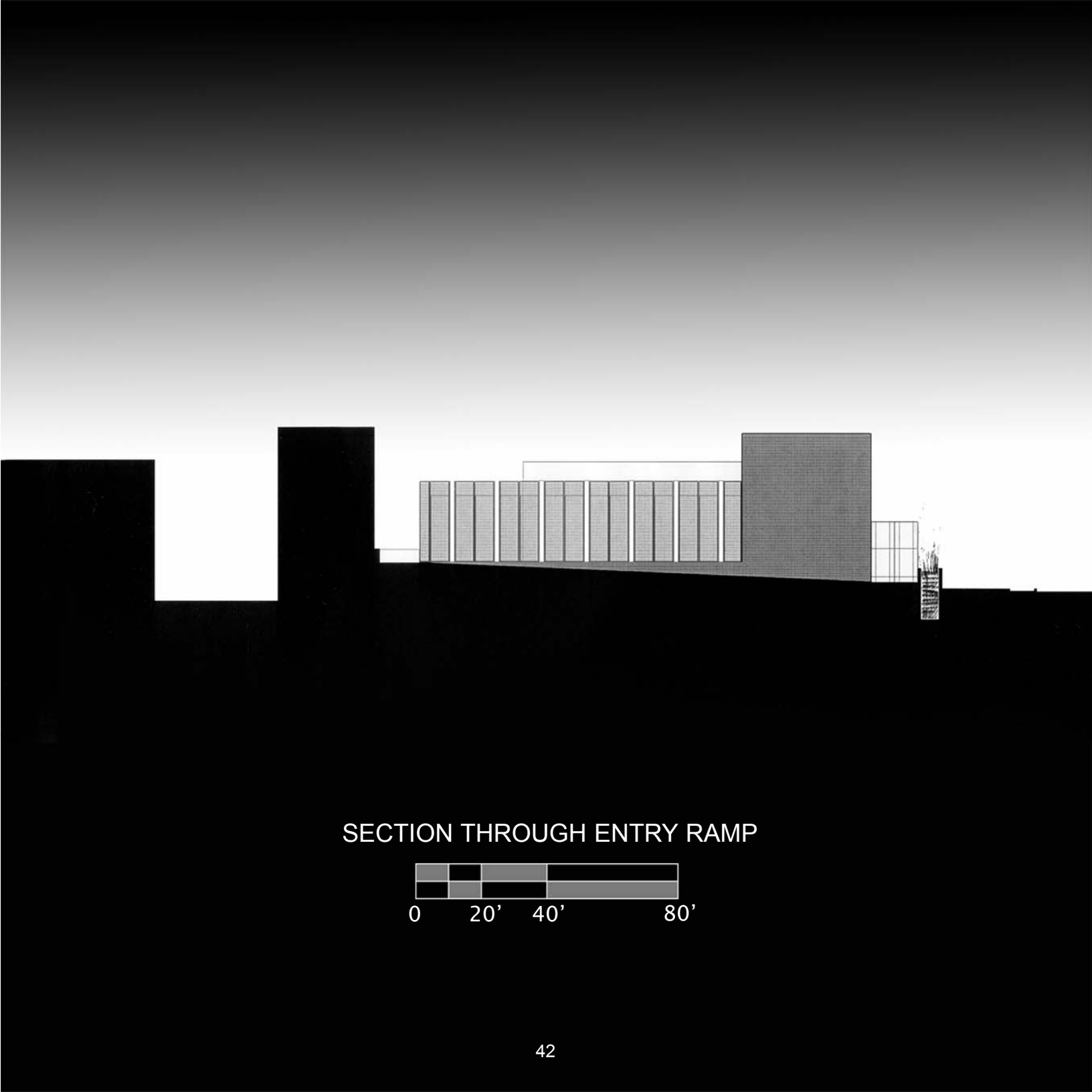
WEST ELEVATION



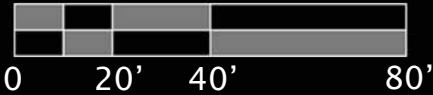
## SOUTH ELEVATION

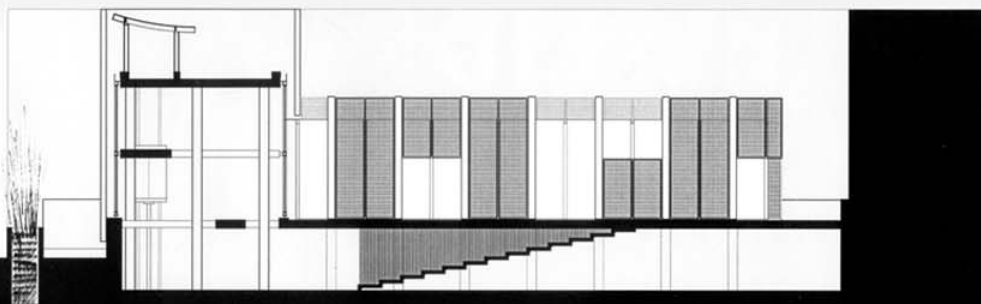




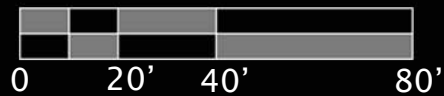


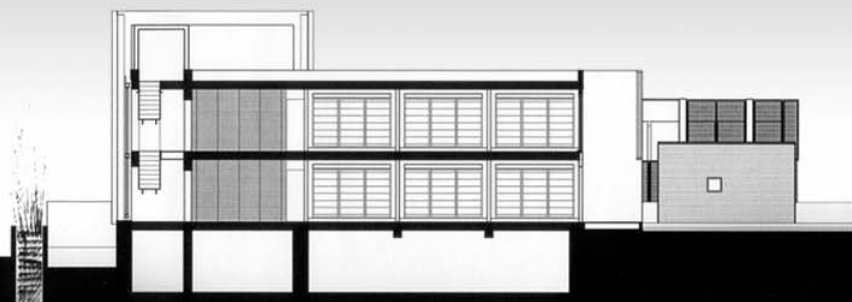
SECTION THROUGH ENTRY RAMP



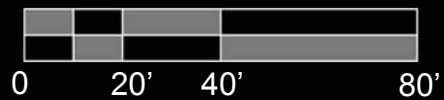


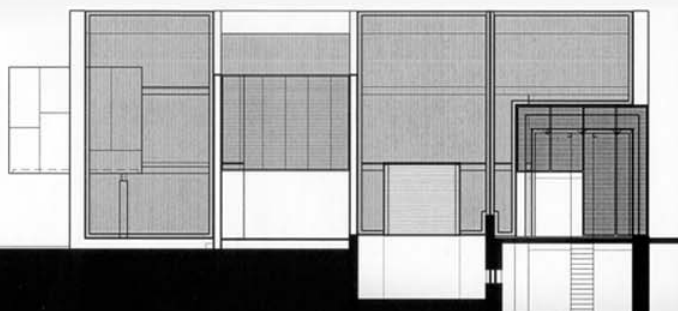
SECTION THROUGH GALLERY TERRACE



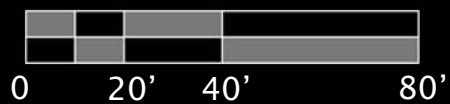


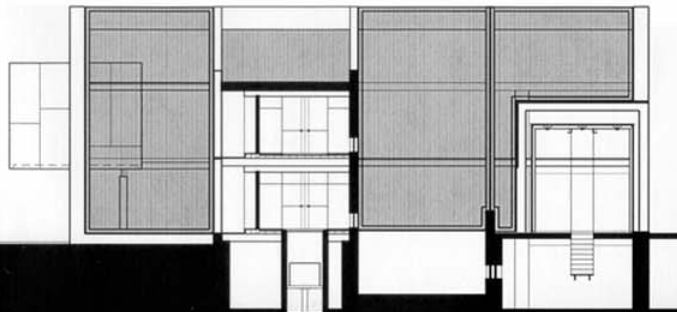
SECTION THROUGH MAIN BODY LOOKING NORTH





SECTION THROUGH ENTRY TERRACE LOOKING WEST

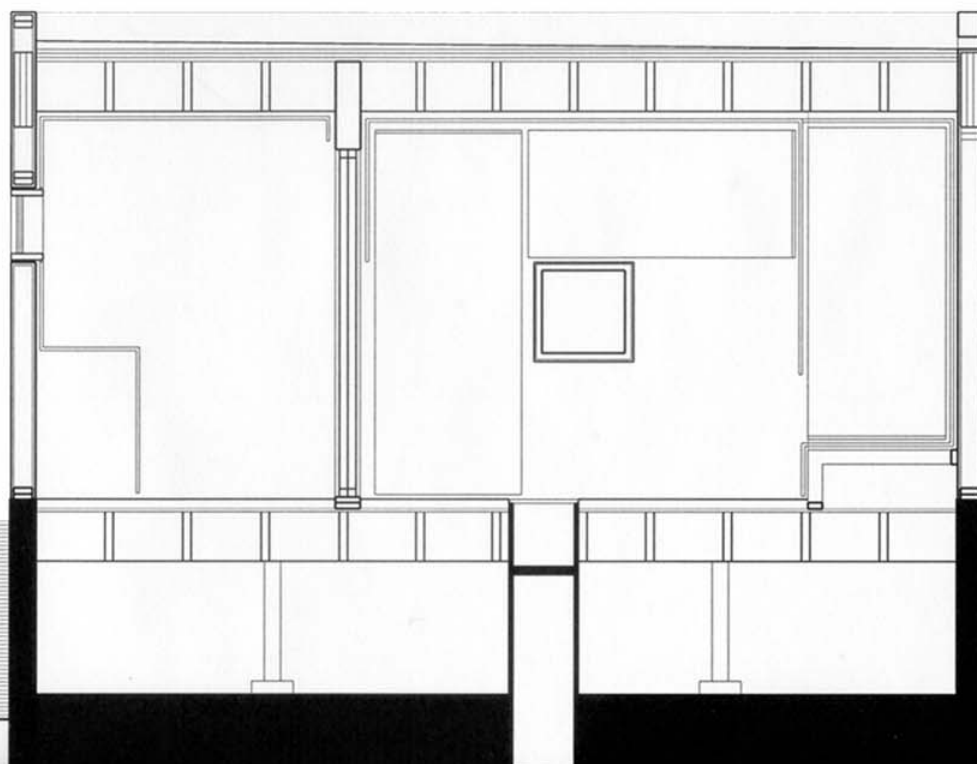




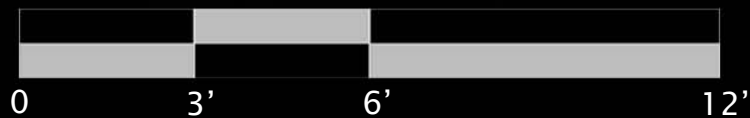
SECTION THROUGH GALLERY LOOKING WEST







SECTION THROUGH EXTERIOR TEA HOUSE



# conclusion

take shojiru  
oku kara omoi  
nikko oduru

# conclusion

From the depths of thought,  
bamboo springs,  
to dance in the sunlight.

F  
U  
J  
I  
  
S  
A  
N

Yametaki

Nagisa



3776 METERS

DESMOND HALL

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# notes/credits

Unless otherwise noted, photographs and work are by author.

## Quotes

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- p. 12      Rick Joy/Casa Jax" Architecture May 2002. p. 96
- p. 19.29      Kakuzo, Okakura. The Book of Tea. p.17, 26-27
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