

THE TIME OF NATURE:

A Retreat in Northern California

by

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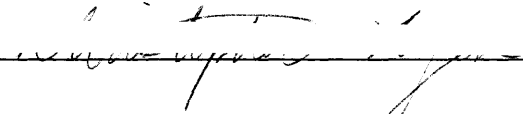
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Christopher McTee Lyon

Submitted to the Department of Architecture on May 13, 1988  
in partial fulfillment of the requirements for the Degree  
of Master of Architecture

ABSTRACT

This design thesis explores the relationship between building and the natural environment. The design and site, a retreat in a wild area of the California coast, were chosen to provide ample engagement of this theme.

The design concept is to design a retreat whose architecture is inspired by rhythms of time in nature. The site, Sinkyone Wilderness Park, provides a diverse landscape with several specific sites that are dominated by temporal rhythms in nature. Four such sites have been chosen: 1. The Redwood Grove, temporal rhythm is long, the trees are two thousand years old and insulate the micro-climate under the forest canopy from seasonal changes; 2. The Sea Cliff, temporal rhythm is the periodicity of the tides; 3. The Hilltop, temporal rhythm is dominated by the yearly changes in the sky and heavens; 4. The fault-line Rift Valley, a micro-climate of high seasonal response in foliage and animal life.

The retreat occupies all four sites. A guest stays a few nights at each. Although each retreat fragment has been designed to respond to its micro-environment, the experience of the whole is to accentuate a way of being in and looking at the landscape that is consistent, and is based on the initial design concept.

The retreat's function is divided programatically into two basic divisions; chapel or meditation spaces, and the sleeping and eating spaces. The chapel spaces have responded most directly to the sites' temporal nature, capturing in their focus the unique quality about the site. The dwelling spaces, though architecturally linked to the chapel space, play off of the intense focus of the chapel space by accentuating the act of habitation and dwelling on that site.

The four retreat dwellings are explored in site models and the development of the designs. A narrative that leads one through the site will give an experience of the retreat.

Thesis Supervisor: Bill Hubbard, Jr.

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#### ACKNOWLEDGEMENTS

I dedicate this thesis to my loving wife,  
Kim Ruoff Lyon, the light of my life.

I extend my deepest thanks to my family and  
friends for their support and guidance throughout  
my years at M.I.T.

TABLE OF CONTENTS

Abstract .....	1
Introduction: The Concept of the Retreat .....	4
The Design of the Retreat:	
The Redwood Grove .....	26
The Sea Cliff .....	36
The Hilltop .....	51
The Rift Valley .....	64
Footnotes .....	76
Bibliography .....	77





Gray Weather

It is true that, older than man  
    and ages to outlast him, the Pacific surf  
Still cheerfully pounds the worn granite drum;  
But there's no storm; and the birds are still,  
    no song; no kind of excess;  
Nothing that shines, nothing is dark;  
There is neither joy nor grief nor a person,  
    the sun's tooth sheathed in a cloud,  
And life has no more desire than a stone.  
The stormy conditions of time and change  
    are all abrogated, the essential  
Violences of survival, pleasure,  
Love, wrath and pain, and the curious desire  
    of knowing, all perfectly suspended.  
In the cloudy light, in the timeless quietness,  
One explores deeper than the nerves  
    or heart of nature, the womb or soul,  
To the bone, the careless white bone, the excellence.

Robinson Jeffers  
The Double Axe<sup>1</sup>



## THE CONCEPT OF THE RETREAT

I conceived of a retreat where people from our modern culture would come to return to a state of reciprocal grace with the landscape, seeing the landscape not as real estate, another man's property, a commodity for use and depletion, or a sealed reserve, but to see the landscape as an extension of ourselves, of our beings, and so in some way being a crucible for the mystery of our existence. Barry Lopez captures the two positions well in Arctic Dreams:

One of our long-lived cultural differences with the Eskimo has been over whether to accept the land as it is or to exert the will to change it into something else. The great task of life for the traditional Eskimo is still to achieve congruence with a reality that is already given. The given reality, the real landscape, is "horror within magnificance, absurdity within intelligibility, suffering within joy", in the words of Albert Schweitzer.<sup>2</sup>



In my attempt to create an architecture which will prompt our inquiry into our own condition and into our relation with nature, I have used two broad themes:

1. The rhythms of time in nature.
2. The fundamental nature of dwelling and inhabitation.

The wish to live in an environment, to dwell in it, is a primordial cue from our senses that there is a constructive relationship to be entered into. The Sinkyone Wilderness in northern California has supported Indian cultures in self-sufficiency since times unknown, and this richness is felt when one is there.

I feel that if I wish to derive an architecture based upon a metaphysic of rhythms of time in nature, then a comfortable beginning to that architecture can be through the concepts and forms of dwelling in that landscape. This is a common ground understood more or less by all people, and can introduce people to an architectural experience based on nature that may be unpenetrable or incomprehensible to them otherwise. The temporal aspects of dwelling, with its cycles of human biorhythms, can be used to generate or reflect other temporal rhythms found in nature.



The Sinkyone Wilderness and the adjacent King Mountain Range are considered the last true wilderness areas of California's coast. The landscape is rugged: ridge to valley elevation changes are up to three thousand feet, and mountain slopes frequently exceed the normal thirty-three degrees for talus.

The Sinkyone Wilderness (3,500 acres) is a hidden landscape. On a coastline where almost unbroken mountain slopes descend into the sea, and where there are few and small beaches, suddenly occurs a unique stretch of seven miles of black sand beaches, low sea cliffs, and hay fields above the beach. As the mountain slopes rise behind the hay field, they are forested in fir and Redwood. The very rugged topography inland protects Sinkyone from that direction.

Coming to this landscape is a joy and a surprise. It is unexpected in its lush diversity. Traveling through the rough interior jeep roads and dark forests, one arrives at Skinkyone to feel cut off from the world, from time.





Camping in the Sinkyone Wilderness over a stormy period of last January, we began to decompose the landscape in our minds until a map had distilled itself. The Sinkyone Wilderness is a landscape of natural diversity between very distinct realms of micro-climate and micro-environment. The way that these have evolved in time, and in their relation to each other has given the landscape geomorphic events that are mysterious and seem to be very much about rhythms of time in nature. As I will explain, it is in the overlaps and collisions of these micro-environments that one feels compelled. There is something to find.



Albert Einstein said that the concept of movement and spatial extension may come before a concept of time in our recognition of our environment.<sup>3</sup> The architectural concept of a retreat often finds its expression in meditation spaces, points to which one reflects on oneself and upon the landscape framed.

I have proposed for the Sinkyone Retreat not one retreat complex or dwelling, but rather a cycle of dwelling fragments. Visiting the retreat one would spend a few days and nights at each dwelling. This notion of fragmentation comes from the study of the land, with its diverse anatomy (which I will explain next) and from the idea that if time in nature is to be emphasized, then that must include motion through the landscape. Completing the cycle of retreat fragments one engages the landscape, is made aware of the overlaps between realms, and develops an imagined retreat which is a collective of the four pieces.



I have found four sites within the Sinkyone Wilderness landscape which represent places to be, to dwell, to linger. These are places one is drawn to, and they all can be embodied by their own distinct natural temporal rhythms.

1. The Redwood Grove:

An insulated environment from seasonal change by the height and density of the forest. Two thousand year old trees impart a timeless quality. Light is always filtered.

2. The Black Sand Beaches and Sea Cliffs:

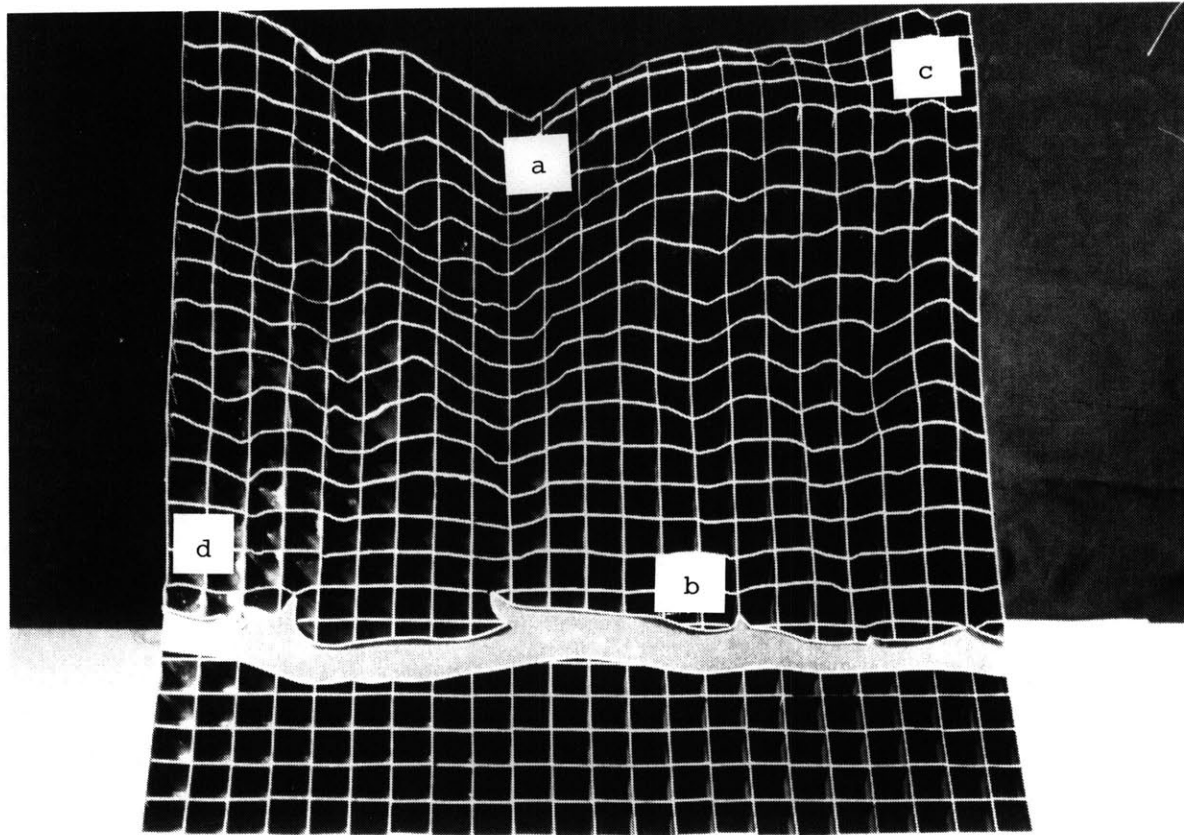
Between the ocean and the hayfields above, a realm of surf and tides, storms and fog, an overlap between the rhythms of the sea and the land.

3. The Hilltops:

The only place at Sinkyone where one can watch the sun set and rise. The place of the sky and stars, of far views. The site of the largest scale and of the cycles of the heavens.

4. The Rift Valley:

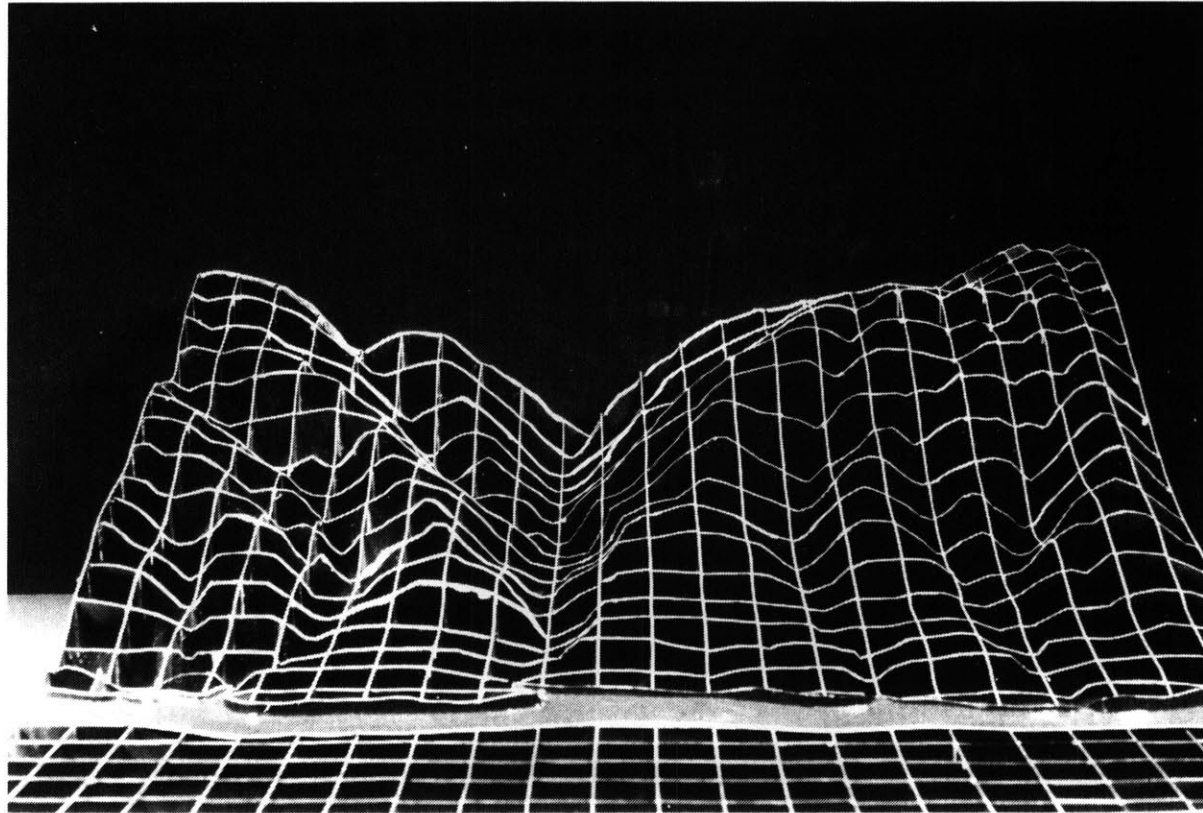
These unique rift-valleys are fault lines that are sinking. Ponds and beautiful seasonal micro-climates have developed in the valleys. The fresh water ponds are used by migratory birds. The whole valley has a garden-like feeling. Wildflowers are plentiful. Here the seasonal change of tree foliage, of plants and animals, are the strong temporal rhythm.



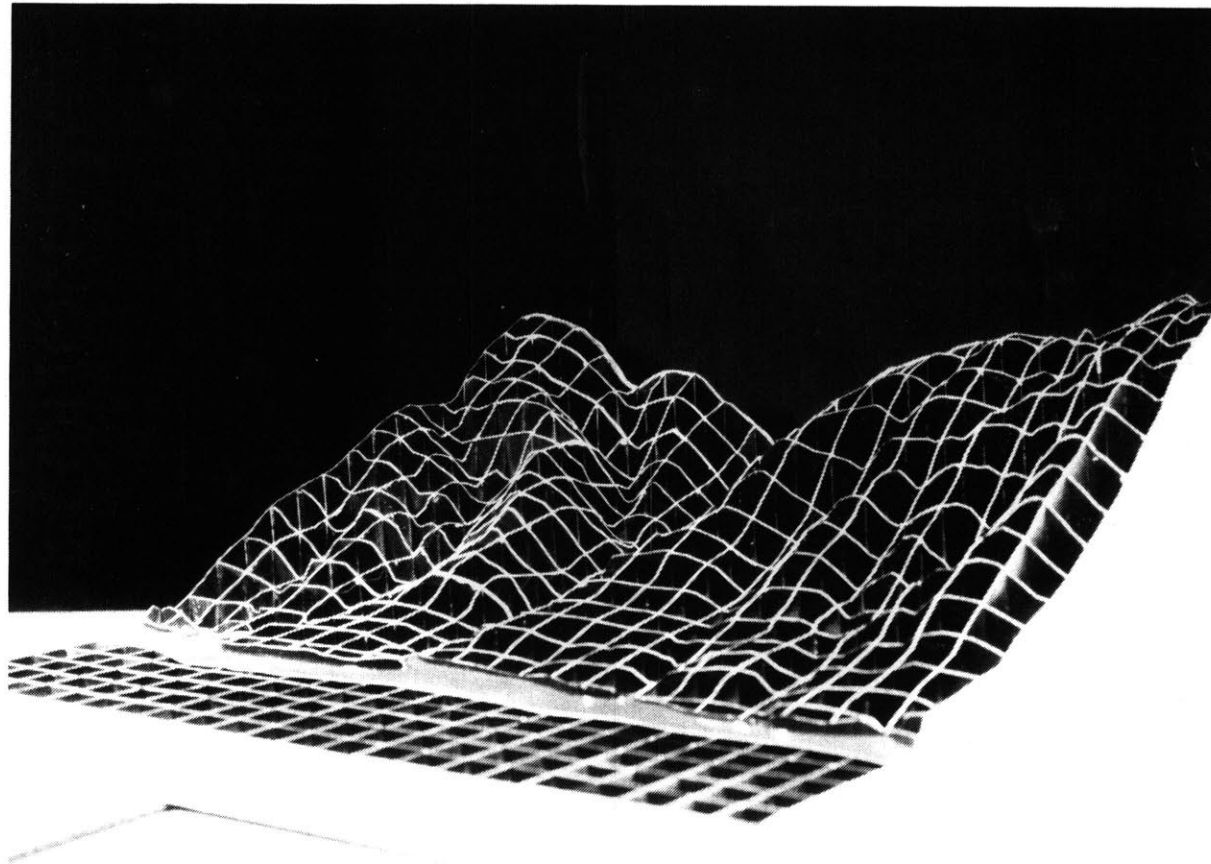
- a. Redwood Grove
- b. Sea Cliff
- c. Hilltop
- d. Rift Valley

SITE MODEL 1 square= 200'





SITE MODEL 1 square= 200'



SITE MODEL 1 square= 200'



Walking the short hikes between the retreats, one passes through the landscape to arrive at the new retreat, where one is introduced, through orchestration of the path and the retreat architecture to the dominant temporal rhythm of that site. The use of architectural movement, of approach and entry, of reintroduction back into the landscape one has just left but in a new way, are all elements that are used to dramatic effect. Each retreat fragment is a new gate into the environment. Each retreat fragment has a form that involves dwelling spaces and a chapel or meditation space. Movement through the meditation space becomes an important expressive gesture. The meditation space, in its intention of aiming its vision strongly to highlight the prime natural rhythm of the site, becomes a gateway. The dwelling spaces are linked formally to the dominant temporal rhythm, but are involved as well with good dwelling; issues of weather protection, sunlight and seasonal flexibility.



Wandering through the lush hayfields and along the beaches of Sinkyone, there are places one is drawn to, destinations in the landscape. These have been for me the four sites that have been chosen for the retreat fragments. In between these singular places, or realms, is the ground of the landscape. The plain of the hayfields, the steeply rising forested slopes, act as landscape that one passes through to arrive at the beach or hilltop. It is in contrast to this ground that the hilltop or beach-cliff become dramatic edges between different environments. One is aware of two or more sets of plants, landforms, animals, and one is charged by the collision or overlap. It is a full environment. There is diversity here for the imagination. There is a mystery to the discovery that one is suddenly in an environment discordant with the one you just left.

In the cycle of the retreat fragments, in the movement through the larger site and the arrival at the retreat fragments, the landscape is in reciprocal support of the architecture. To capture a diverse natural metaphysics of temporal rhythms in architecture, the landscape is part of the architecture.

## THE DESIGN OF THE RETREAT:

### The Redwood Grove

If we follow up the small brooks that flow from the mountains down to the beach, we come to the deep, narrow valleys that harbor grooves of redwood trees. Contained as they are by the steep landscape, these groves are singular little realms in the Sinkyone Wilderness. To be in such a place is to be in an interior environment. The trees are so tall and their trunks are so extensive that they insulate us overhead and create a wall around us. It is very quiet inside this realm. Small brooks laugh their way down through pools and falls. Giant clumps of ferns as high as a person abound. The feeling of being in the grove is to rest there. Great strength and peace and quiet abound there. The redwood trees are two thousand years old. Things change slowly under the redwoods. Timelessness pervades.



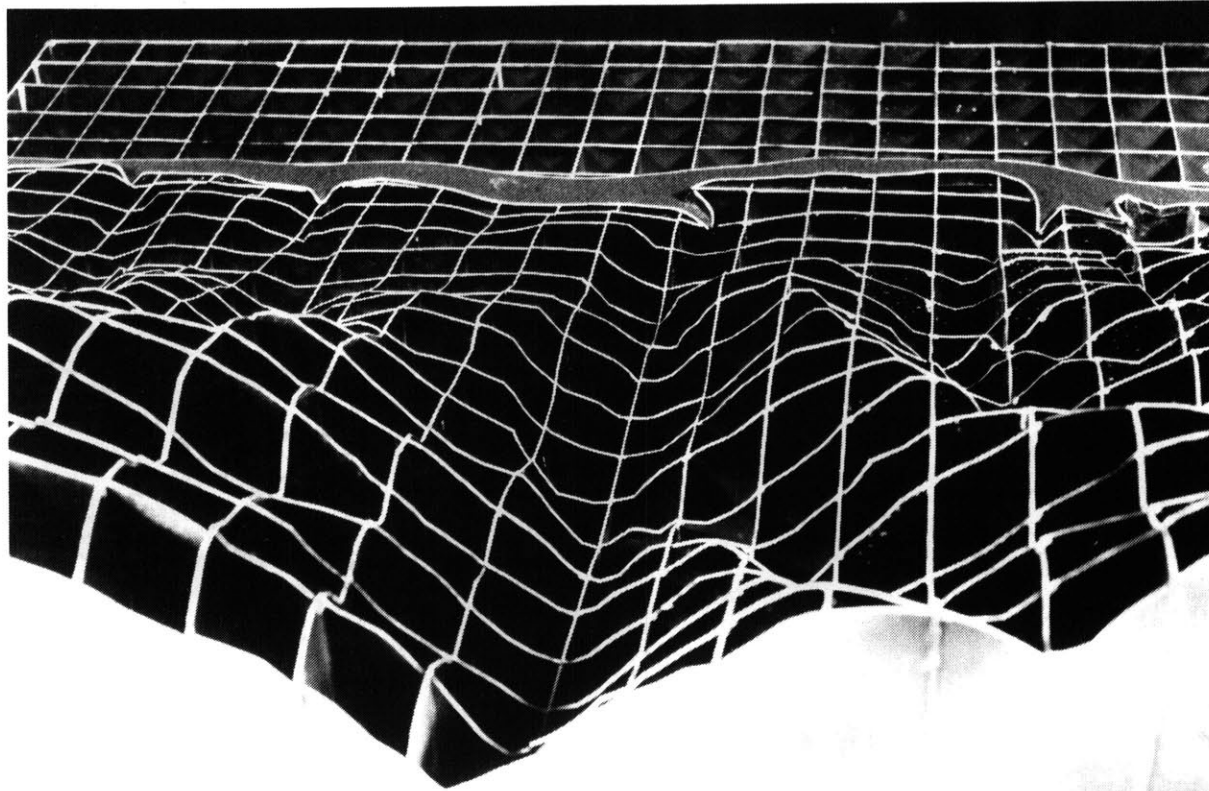


Walking up the redwood valley, one can hardly see the retreat around the twelve-foot diameter trunks. Before arriving, one enters onto an elevated boardwalk three hundred feet long which leads up to the porch of the retreat. The elevated walk's length is also the height of the tallest redwood trees, but it is a dimension lost to our sensory awareness, for we rarely can size up the real height of the trees. In this environment of vertical columns, it seems to deepen our awareness of the size of the place to have some translation of the dominate vertical direction into the horizontal. It gives us two things with tension between them, instead of a one-dimensional field of columns.

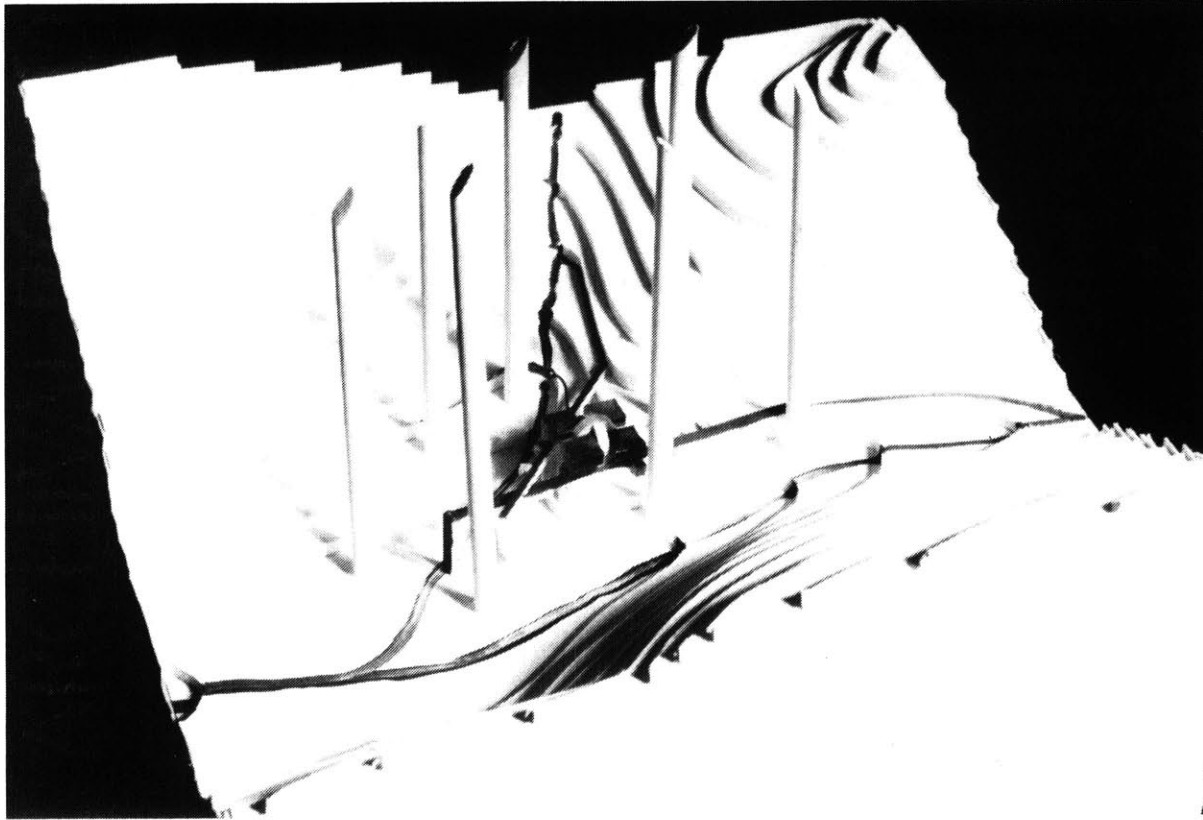
The Redwood Grove Retreat is an emotive response to the uniqueness of its environment. The trees are the architecture, we must find a way to be and dwell in between their trunks without building redundant structure.

The chapel space focuses on the forest and its timeless quality. A smooth, grass lined concavity, elevated above the forest floor, is the form of the chapel. We are outside, but under the trees. It is a simple place of quiet meditation. One lies back on the grass and contemplates the trees soaring overhead on all sides.

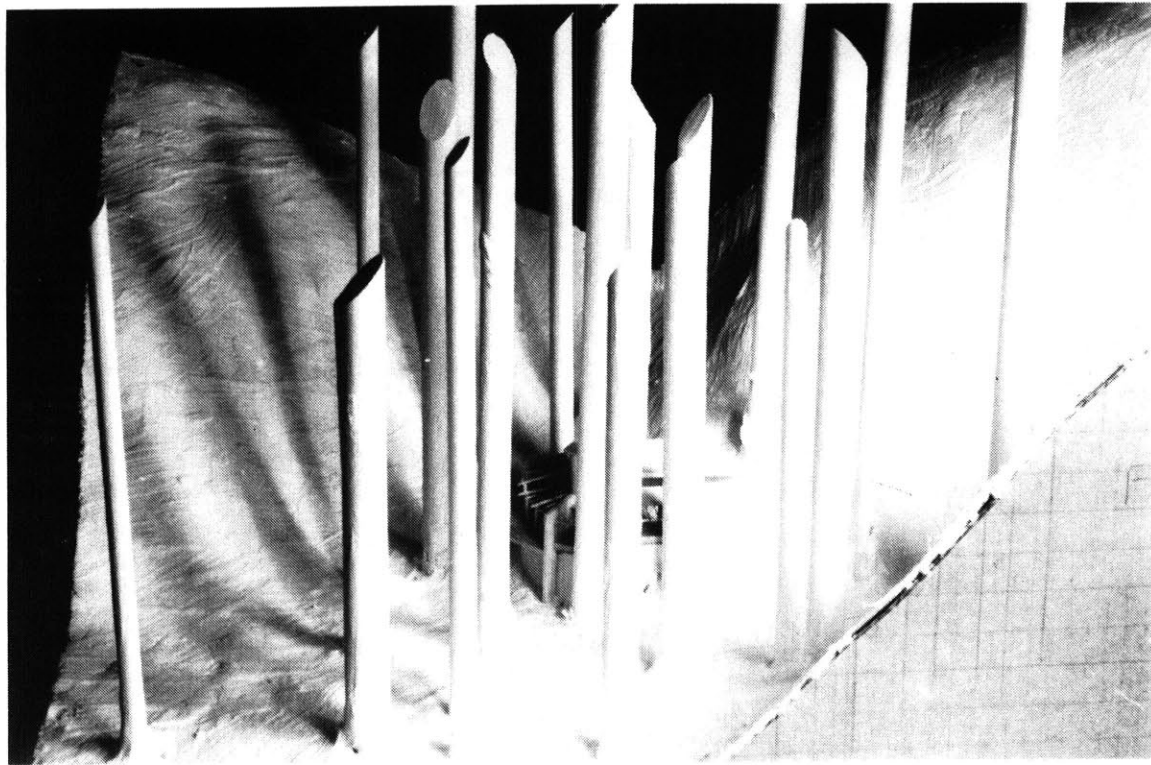
Beneath the open-roof chapel are the retreat dwellings. These are arranged U-shaped around the concrete bastion which supports the weight of the roof chapel. In this double-high space are eating and communal spaces and sleeping lofts. Through the curtain wall glazing, one is always in the forest, with one's back to the cave.



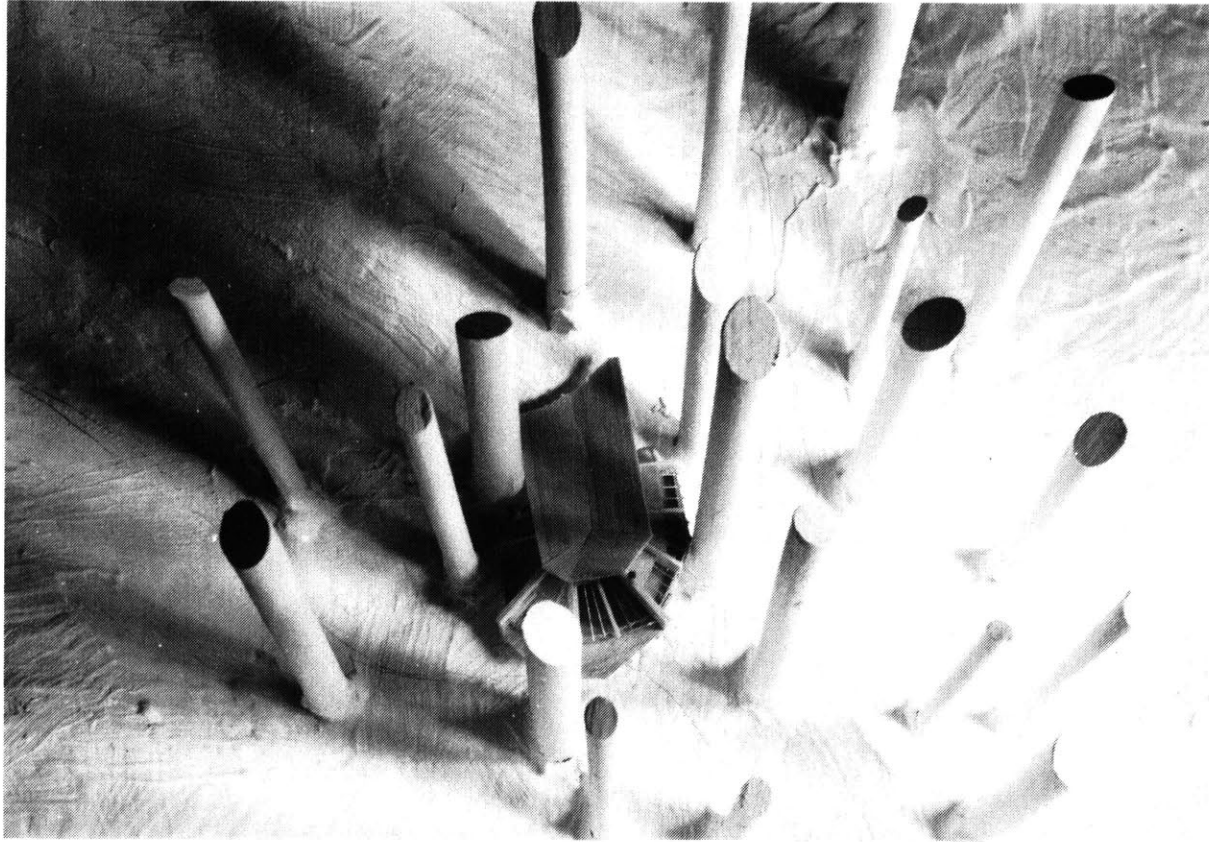
REDWOOD GROVE site model



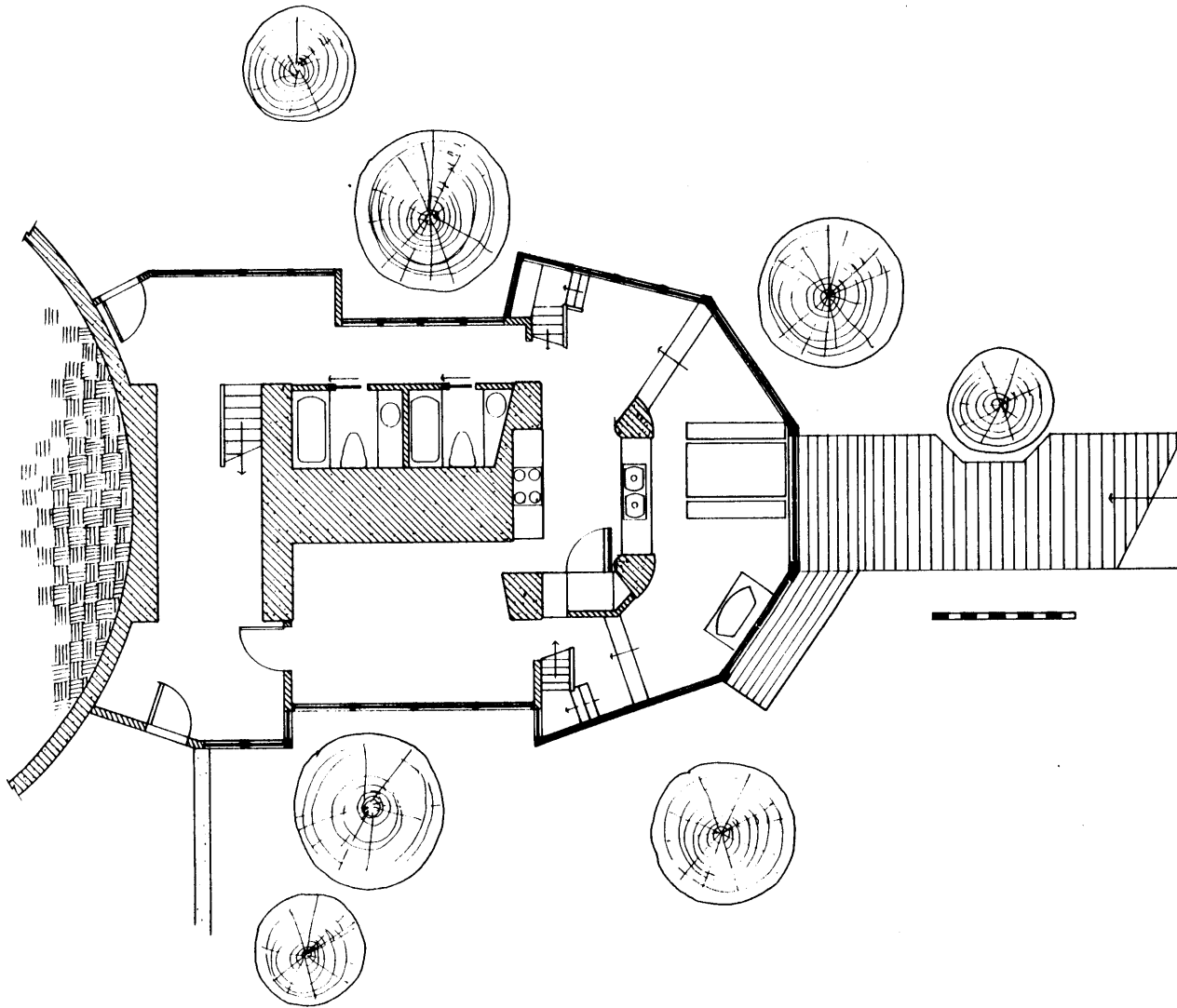
REDWOOD GROVE model:conceptual



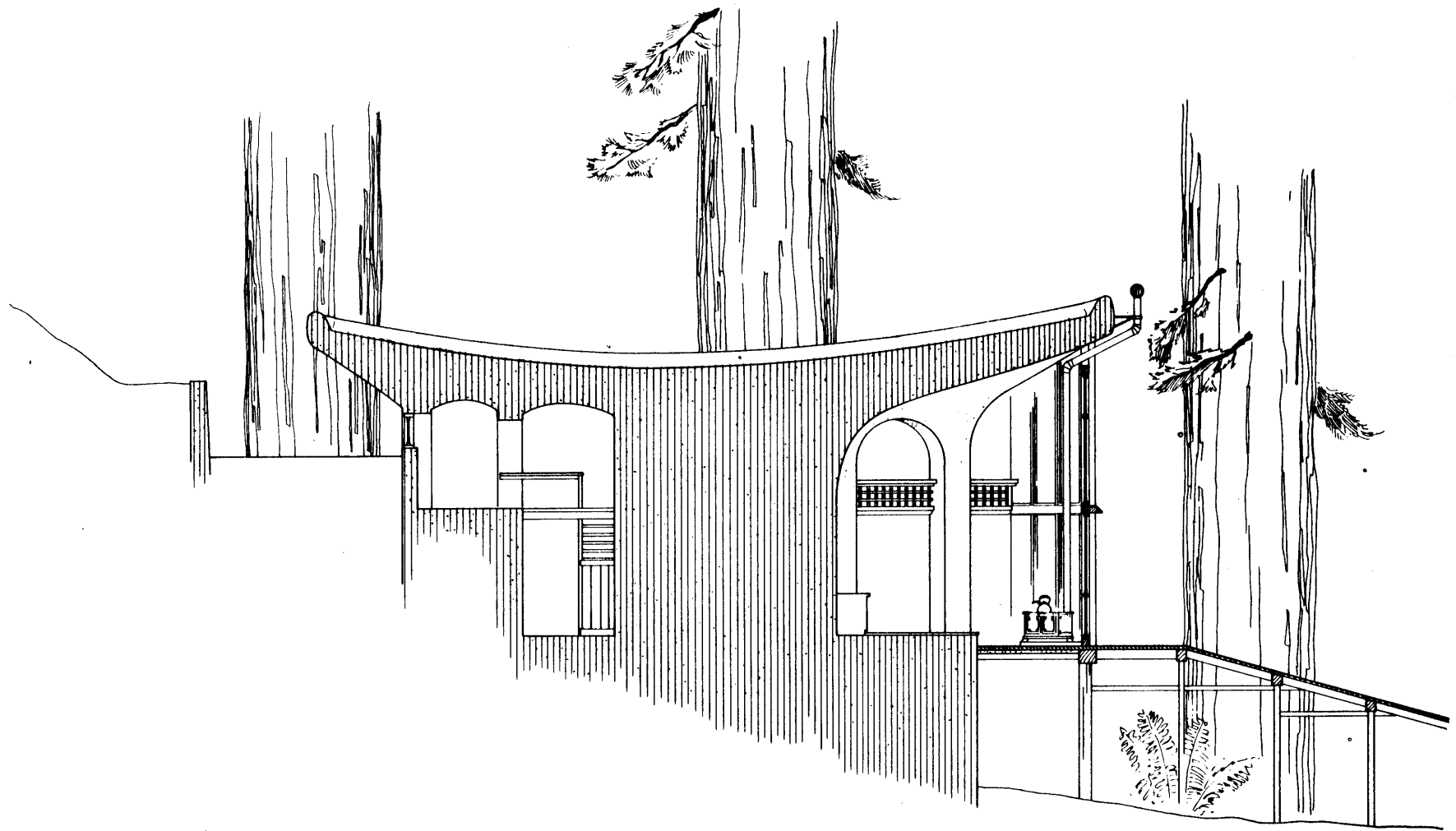
REDWOOD GROVE model



REDWOOD GROVE model



REDWOOD GROVE plan



REDWOOD GROVE section



THE DESIGN OF THE RETREAT:

The Sea Cliff

For seven miles, between Bear Harbor and Whale Gulch, lies the black sand beach of Sinkyone. It is a realm contained by the sea cliffs and the surf. The regular streams that tumble down their ravines into the sea afford the only access to the beach. It is a curiosity that the deer come down to the beach in the early morning and walk along the surf. There is nothing that they can eat on the beach. Perhaps they visit the surf for the joy of it.

Here, in this almost formally bound environment of the sea cliff beach and surf, is the second retreat site. It is chosen to focus on the rhythms of the ocean and the surf, of tides and storms. Tides are never the same twice, their periodicity is a far more complex overlap of cycles than commonly realized. Waves themselves come in sets, with lulls between. The retreat will engage these patterns and rhythms, as well as the weather of the ocean.

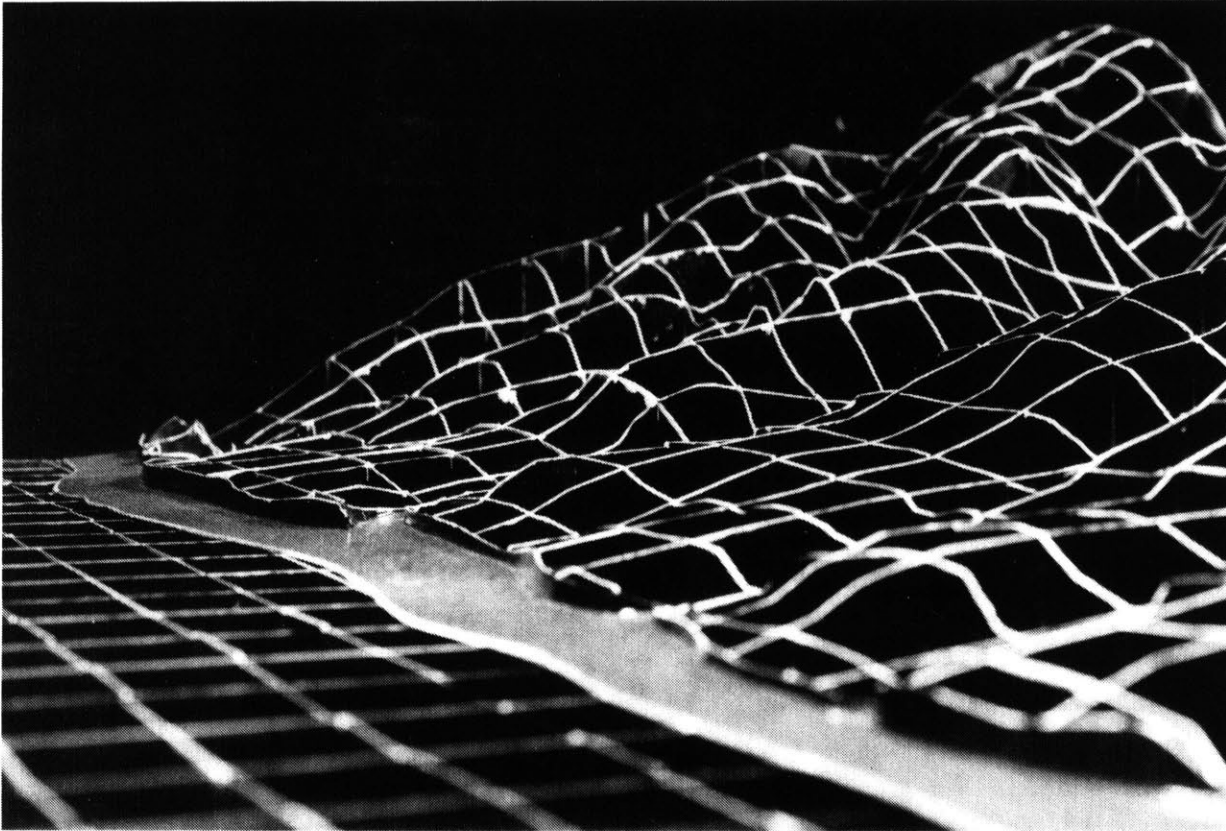


The dimension of the beach is one hundred feet wide and seven miles long, with a sea cliff from twenty to one hundred feet high. It is hard to imagine broaching any such linear landscape with a structure. The retreat is proposed to be excavated into the sea cliff itself, and to be terraced below the top of the cliff, so that the roof line is horizontal to the hayfield above. The retreat will then be within the beach environment, but will avoid the functional problem of building in the surf, and the design problem of truncating the natural beach.

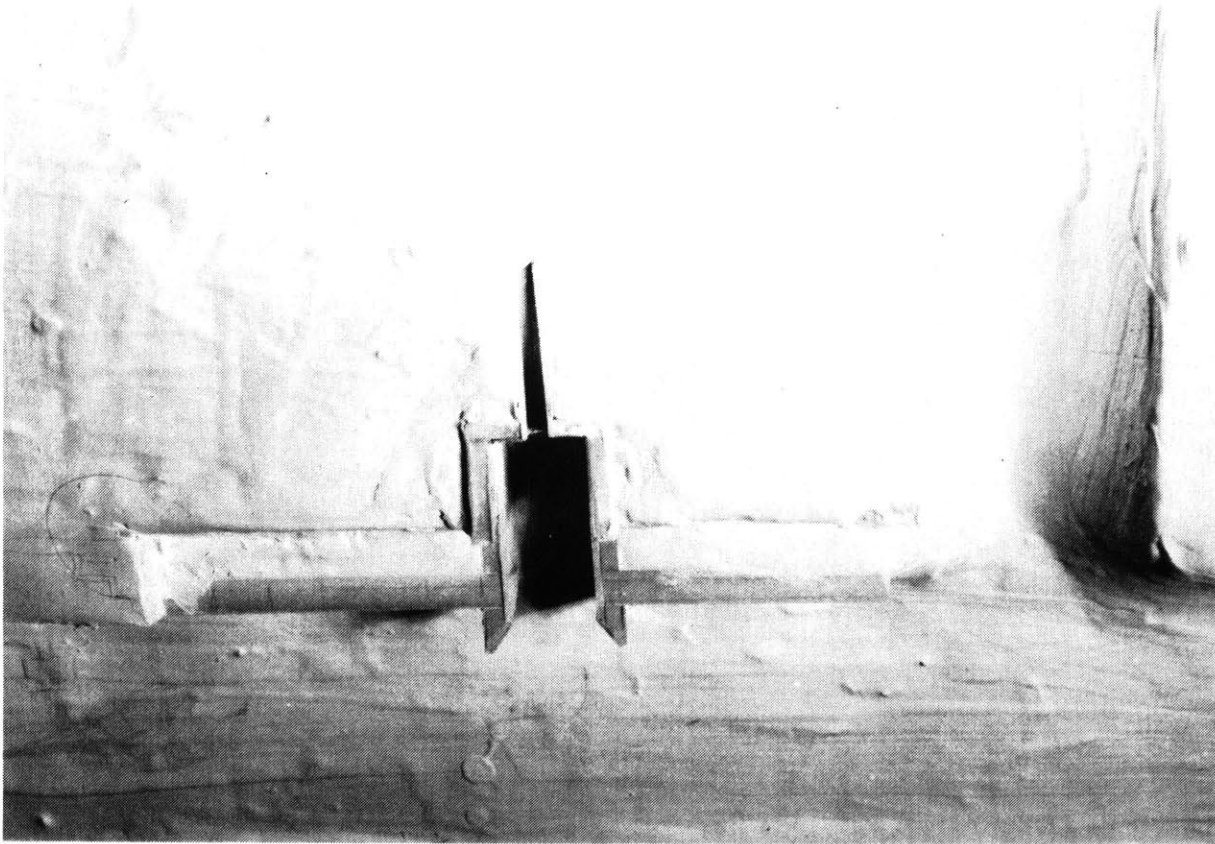
The feeling of inhabitation in such an exposed site is one of protection. Storms lash in, huge waves reach to the base of the cliff, the pounding of the surf is sometimes quiet, but other times violent. To sleep and relax here requires insulation from the elements and solidity of structure.

Strolling down through the hayfield, one approaches the sea cliff retreat on a path. A simple roof is visible, but is low on the ground, not blocking the view of the ocean. Approaching further, one is lead down a long ramp that runs down under the roof. Walking down this ramp, we discover ourselves in a sculpted chasm that scoops down to the beach. The chasm suggests the shape of one giant wave that crashed into the cliff and carved its form in a single stroke.

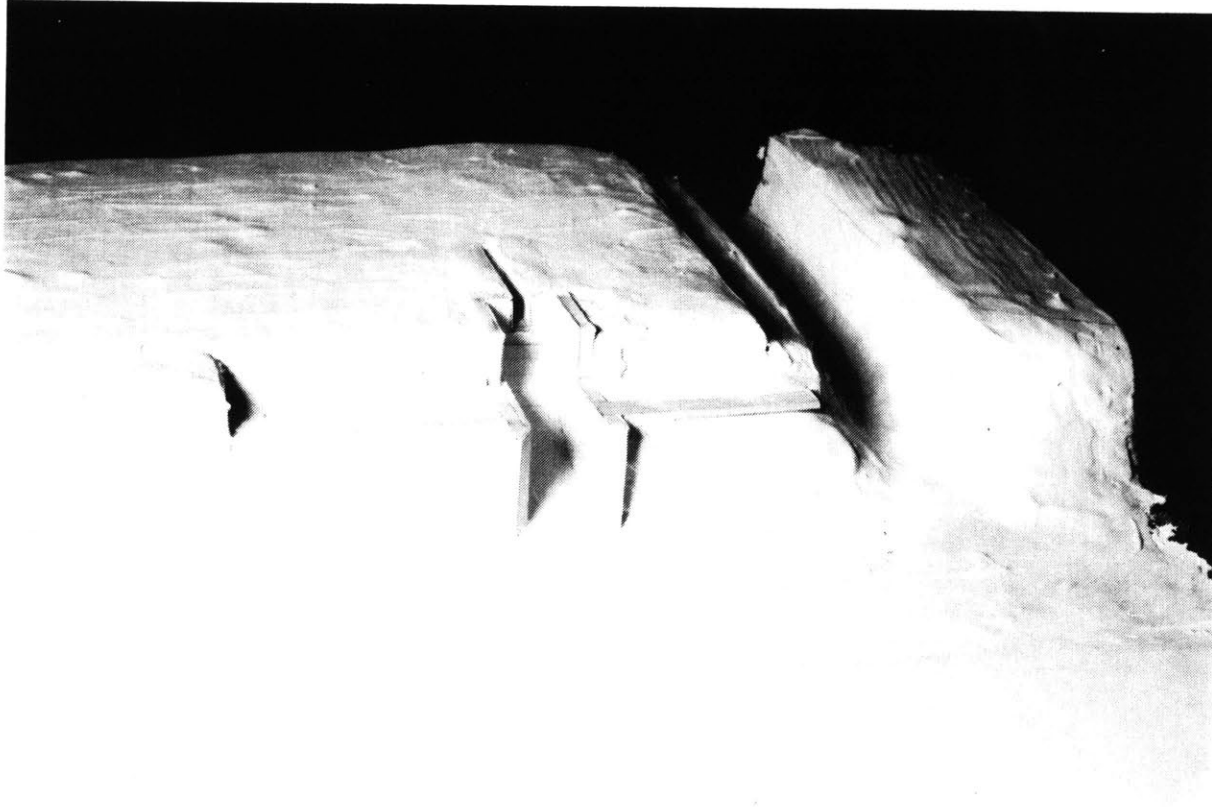
Within this gulf of the retreat are suspended walkways leading up, down, and tying longitudinally the two wings of the retreat together. The path up leads to the chapel space: a platform projected out and above the beach and supported by two massive plywood shear walls. The platform extends out from the cliff edge to provide viewing up and down the beach, rather than simply one hundred eighty degrees. The inhabitations are sleeping chambers between concrete shear walls perpendicular to the beach. They are floored in massive timbers which will reverberate with the surf, as the floors are hollow underneath. One passes through the chasm to go from table to bed, thus incorporating the chapel into the life of the retreat.



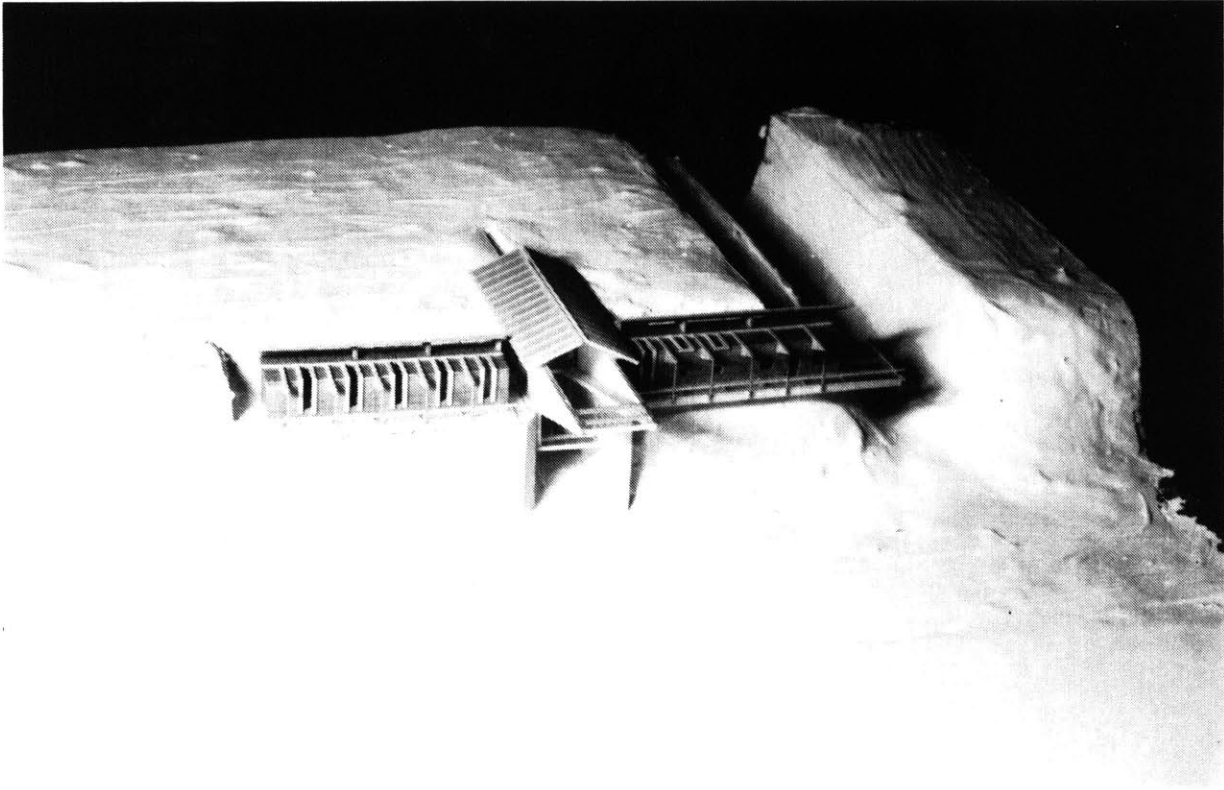
SEA CLIFF site model



SEA CLIFF model

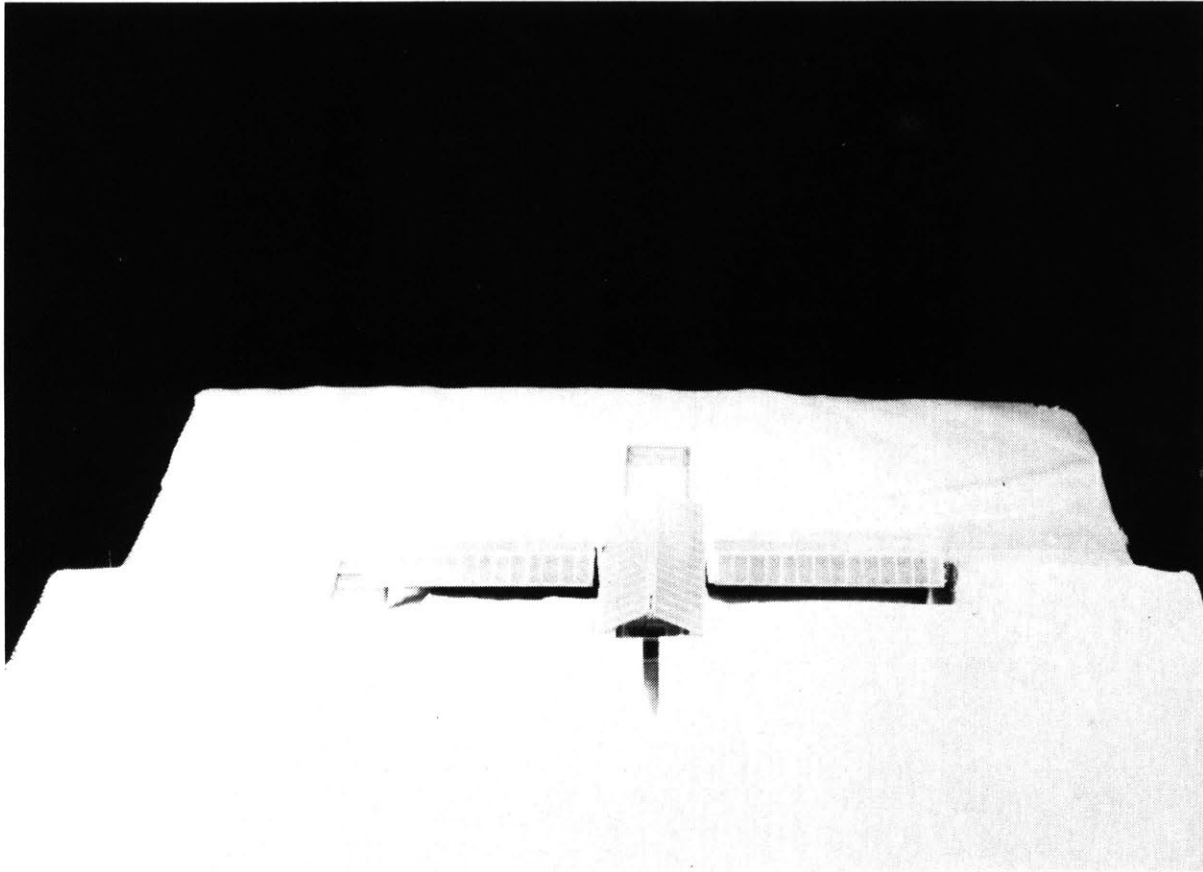


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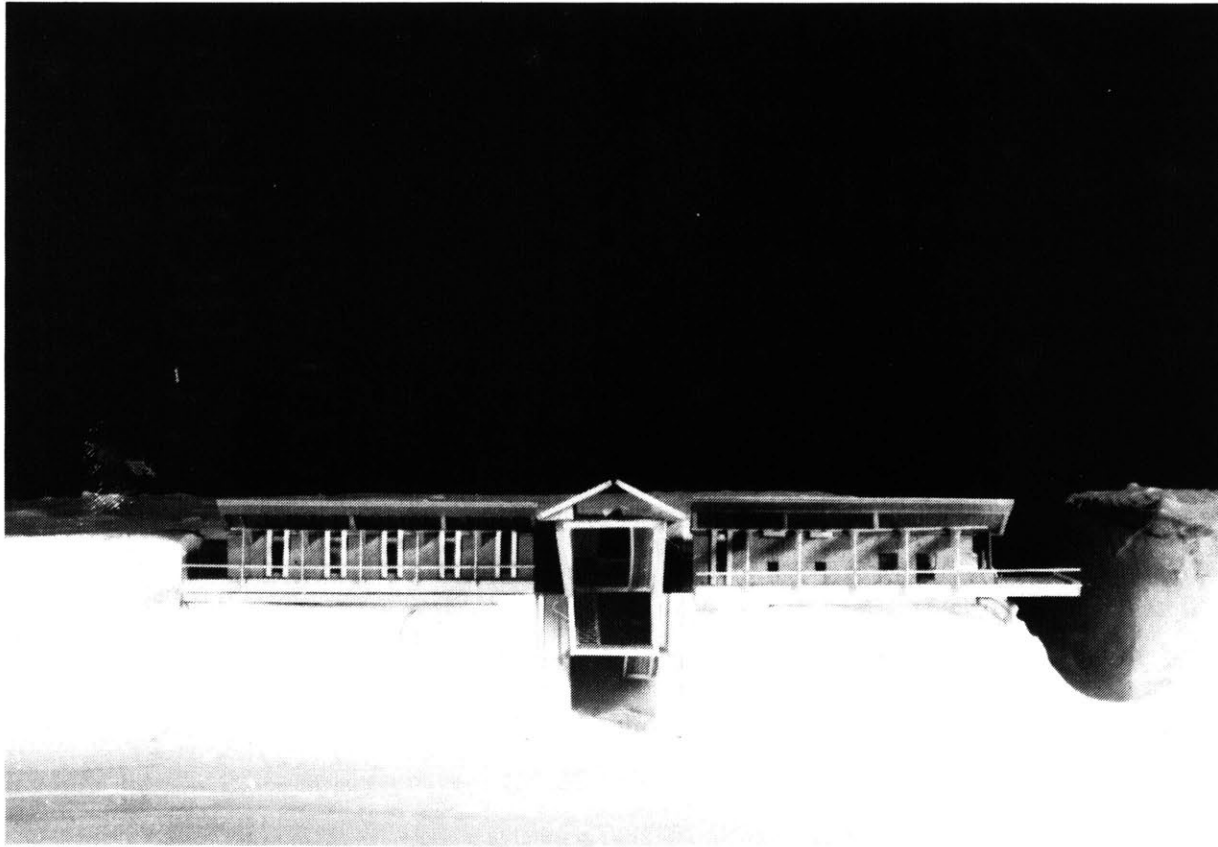


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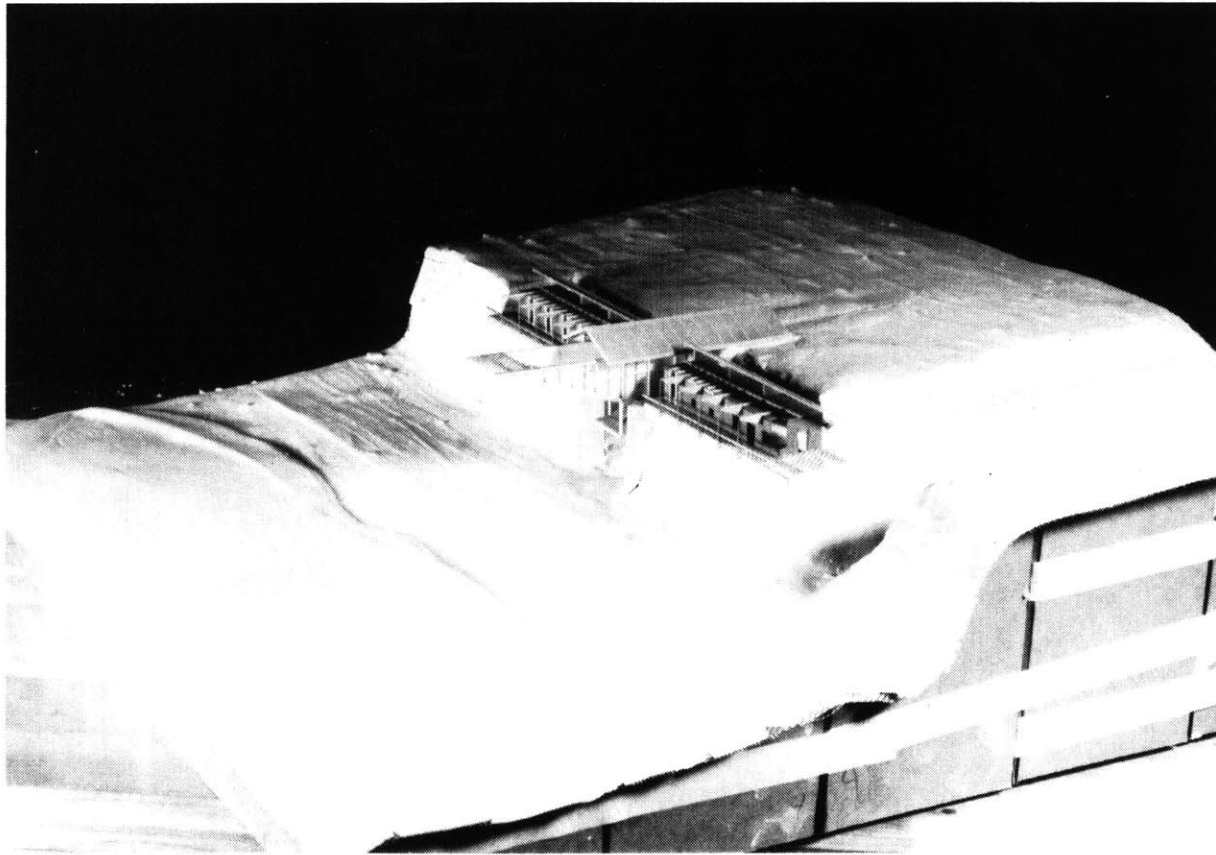




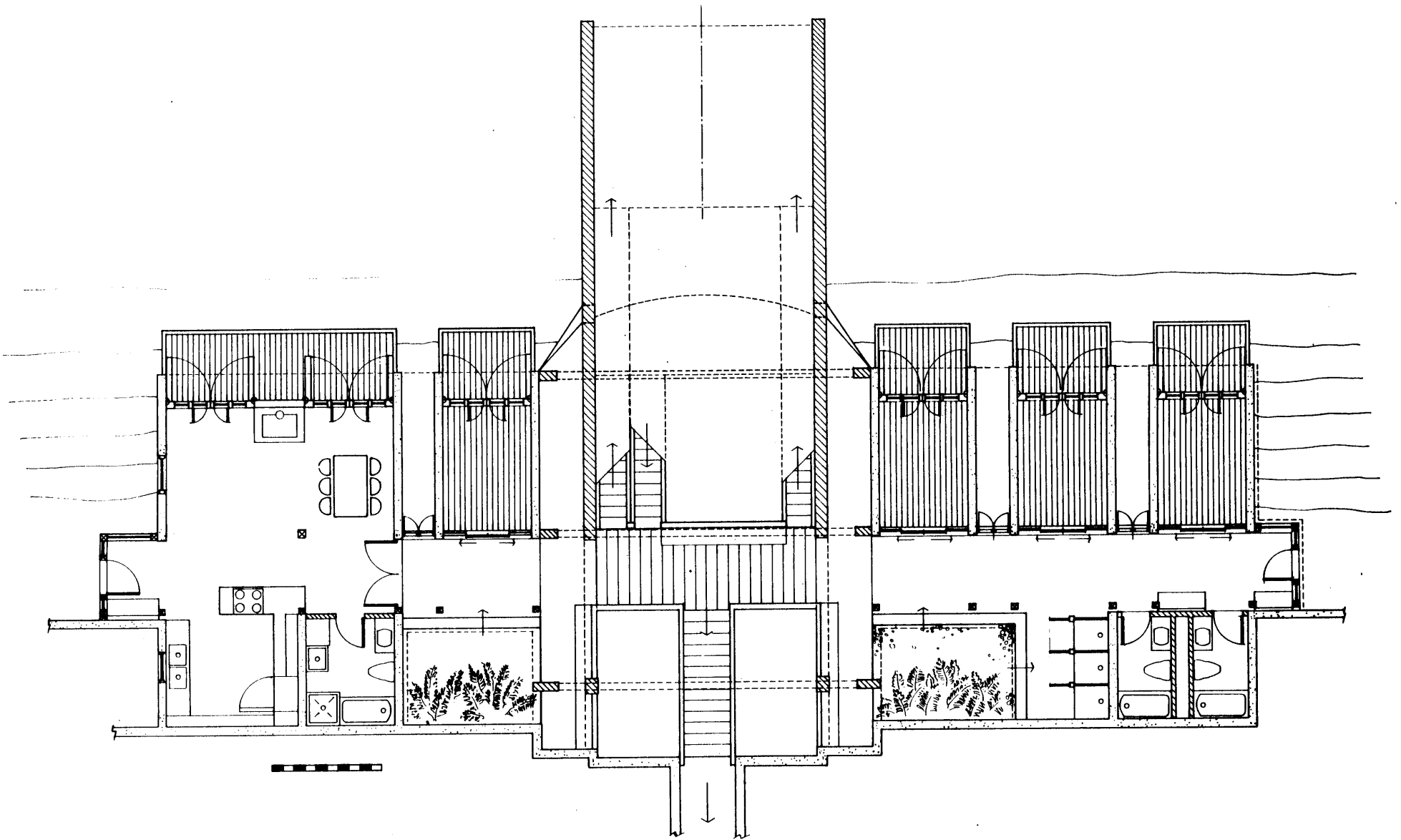
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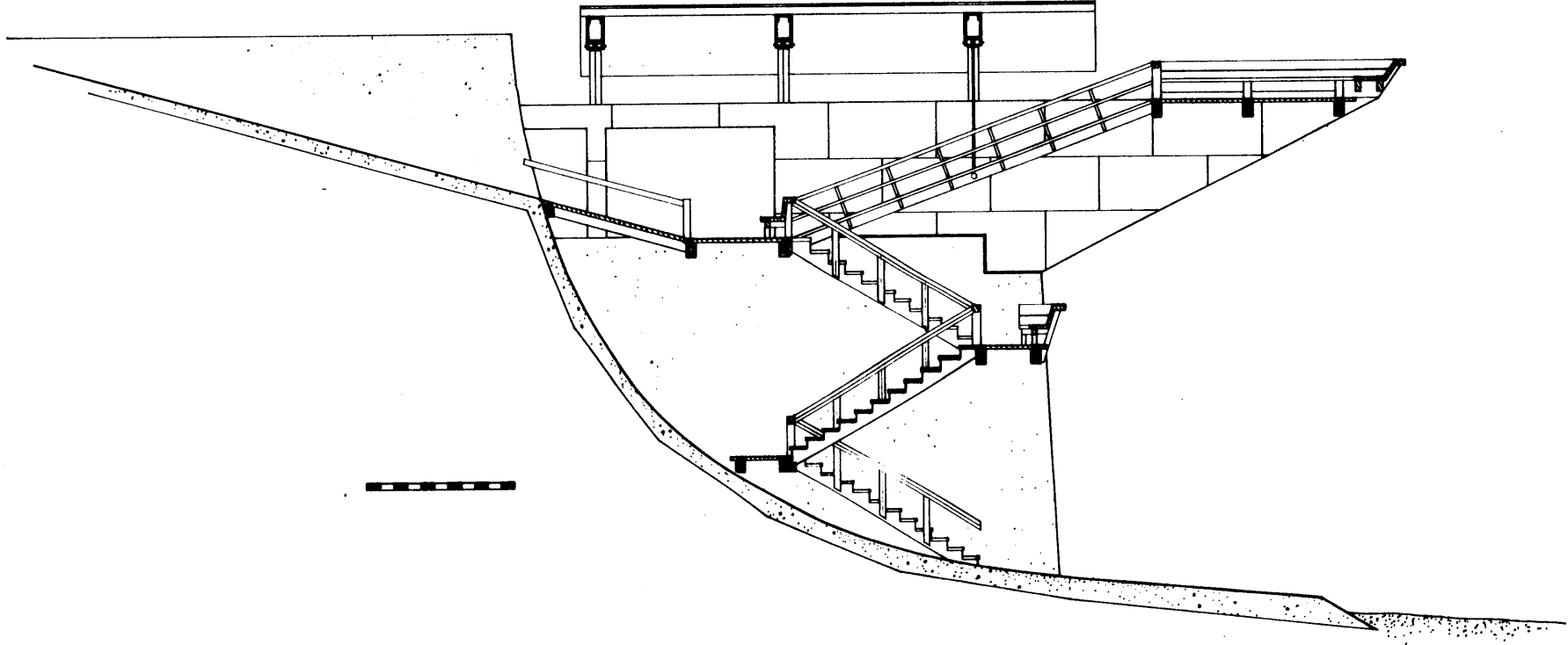
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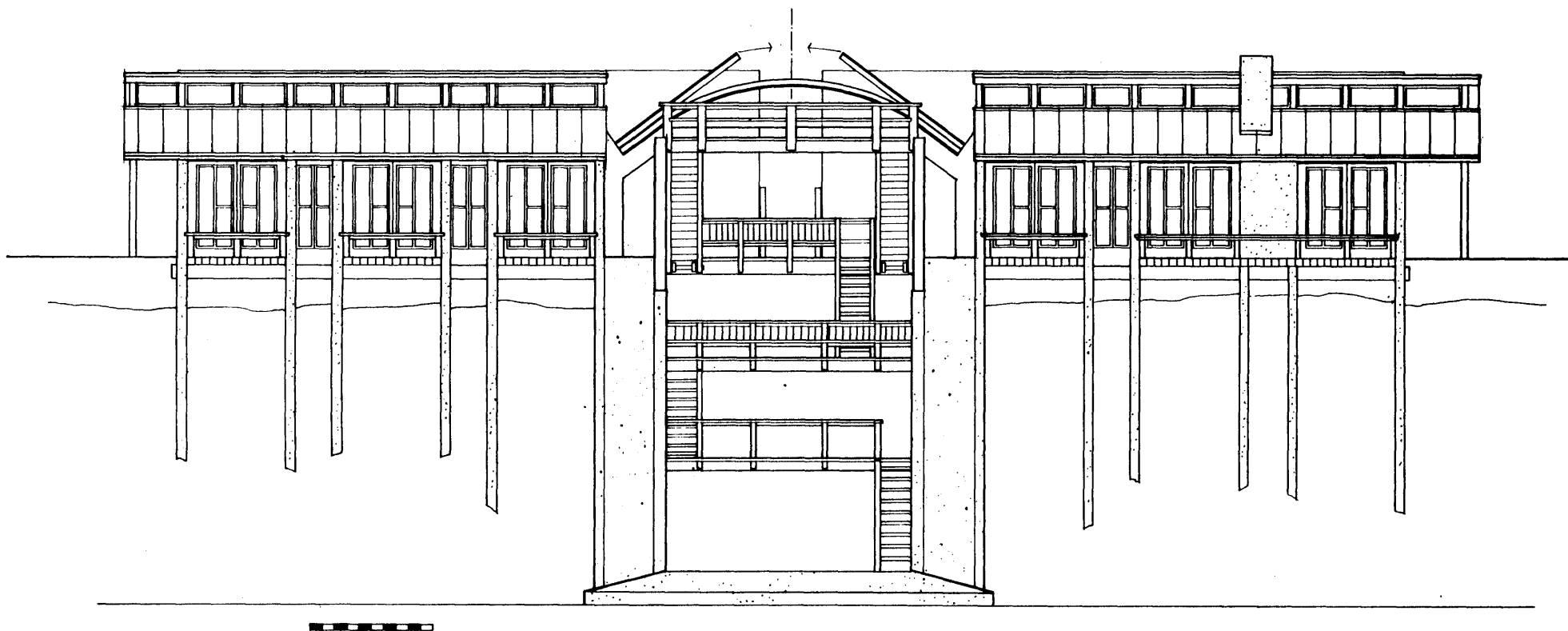
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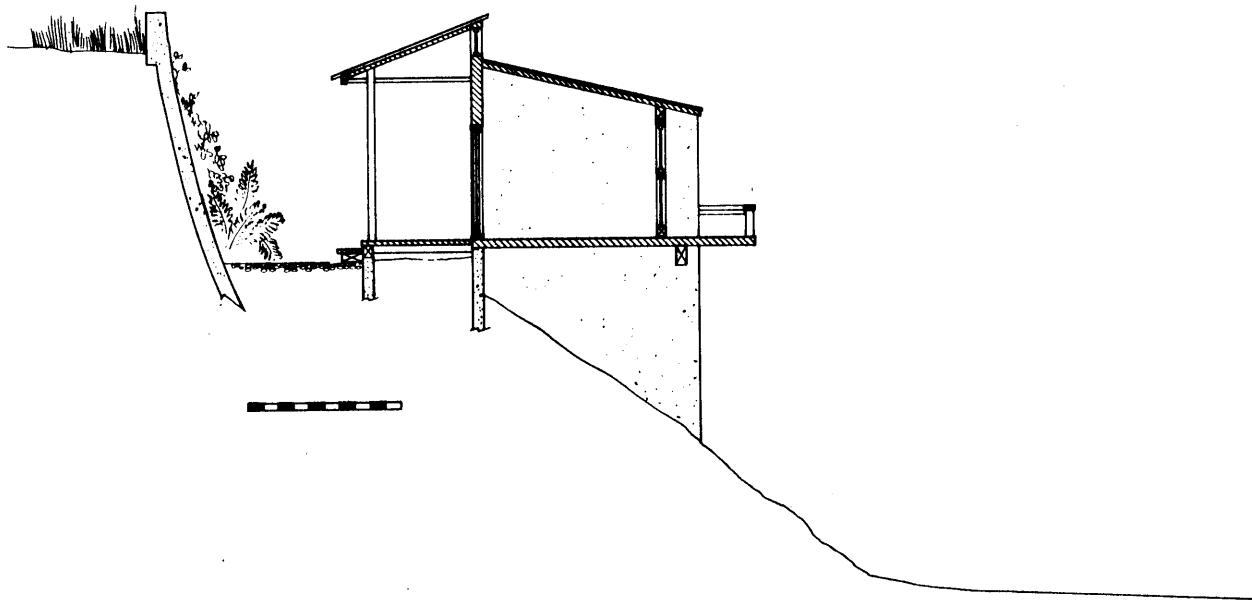
SEA CLIFF plan



SEA CLIFF section



SEA CLIFF elevation



SEA CLIFF section

## THE DESIGN OF THE RETREAT:

### The Hilltop

The hilltops at Sinkyone form a ridge parallel to the ocean and two thousand feet above it. Walking through the hayfields that string along the highest crests, one feels exposed, open to the sky and the horizon on all sides. The Pacific surf booms up faintly from below. The wind never ceases its soft combing of the trees. During the summer months the morning fog blankets the ocean. Tendrils of fog creep up every valley, rising to engulf the hillsides before being burned off by the noon sun. The ocean has many modes from the hilltop, sometimes blue and green, sometimes a heavy slate grey when storm swells are running. The essence of being on the hilltop is to be in the sky, in the weather, to see the sunrise and sunset, the moon rise and set. One is an observer of the land at its largest scale.





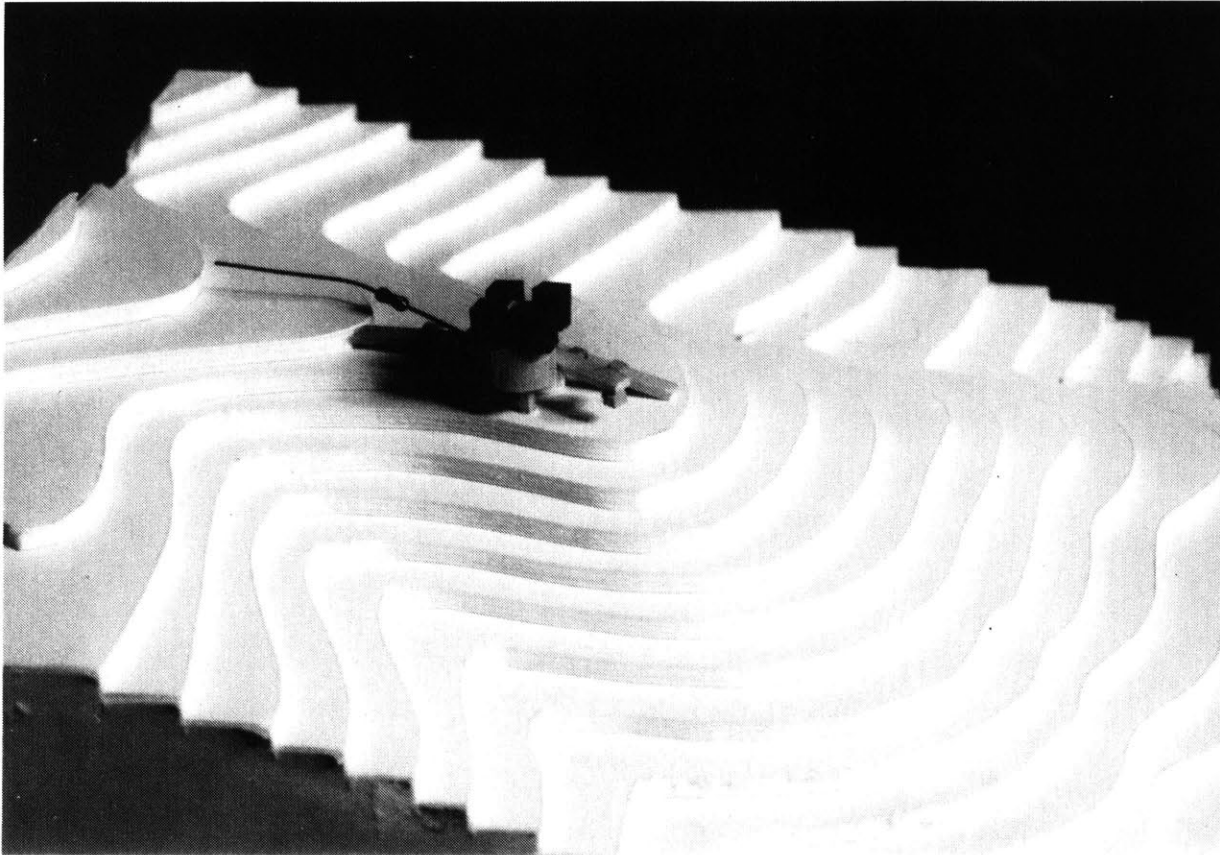
We experience the hilltop retreat first by approaching below the building, on contour with the hillside. We enter into the core chapel space, the central room defined by four huge corner masts. Here our attention is directed up and out the deployable open roof. Internal circulation is upward, ending at the roof deck, completely open three hundred and sixty degrees. The retreat, though providing shelter and warmth, will have an open-air quality because of the open roof. One is ever aware of the sky. This exposure is intended to be reversed during the harsher winter months, when the closure of the roof will give a kiva-like feel to the chapel space. During this cold and rainy season, on this exposed ridge, we welcome being nestled into the hillside.

The movement of the hilltop retreat is along the ridge. This affords southern exposure and ocean view to the dining and chapel spaces. The building grows from the ridge with a heavy concrete foundation. Above this the dwellings, chapel and roof deck are heavy timber with wood-panel infill.

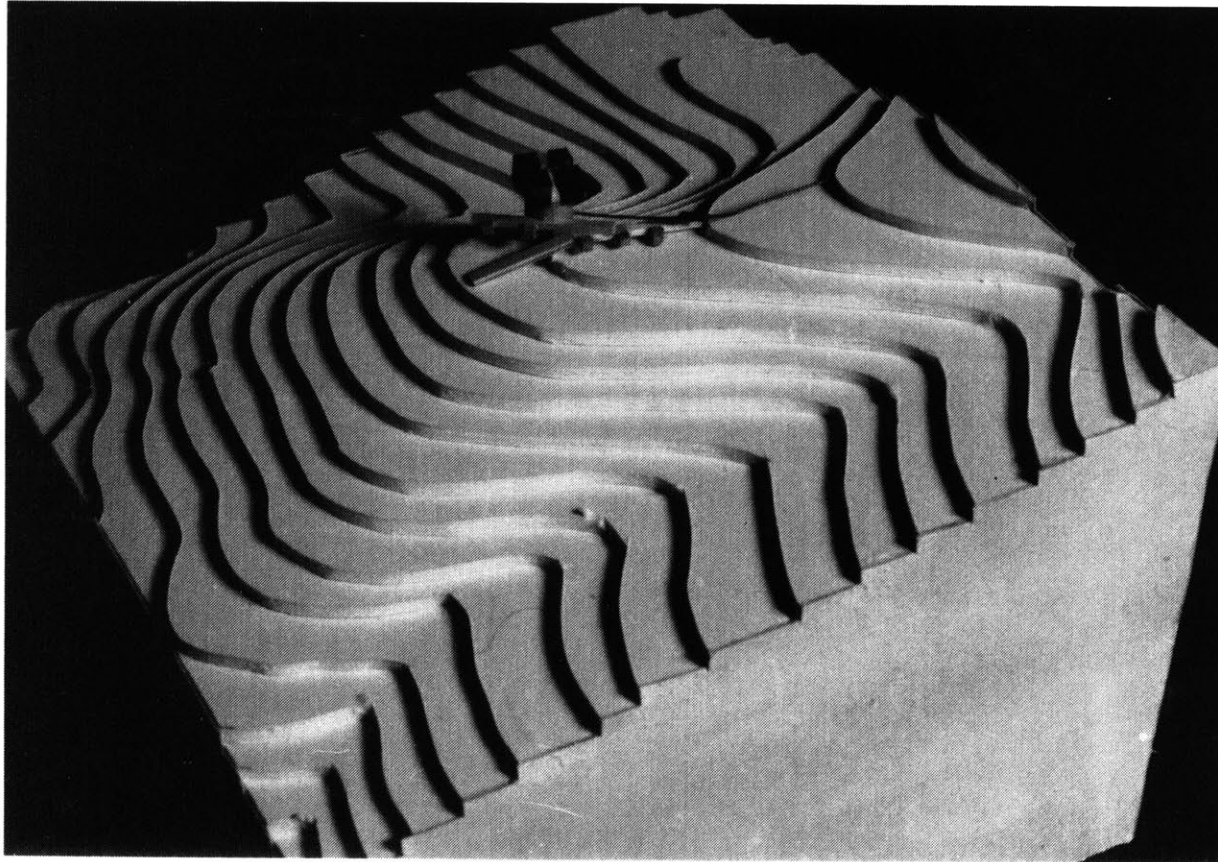
The movement of the chapel space is upward and out. It is grounded three hundred and sixty degrees by its square symmetry. This is intended to draw attention to the full three hundred sixty degree exposure of the site, of its celestial focus in the tracking of sun, moon and stars



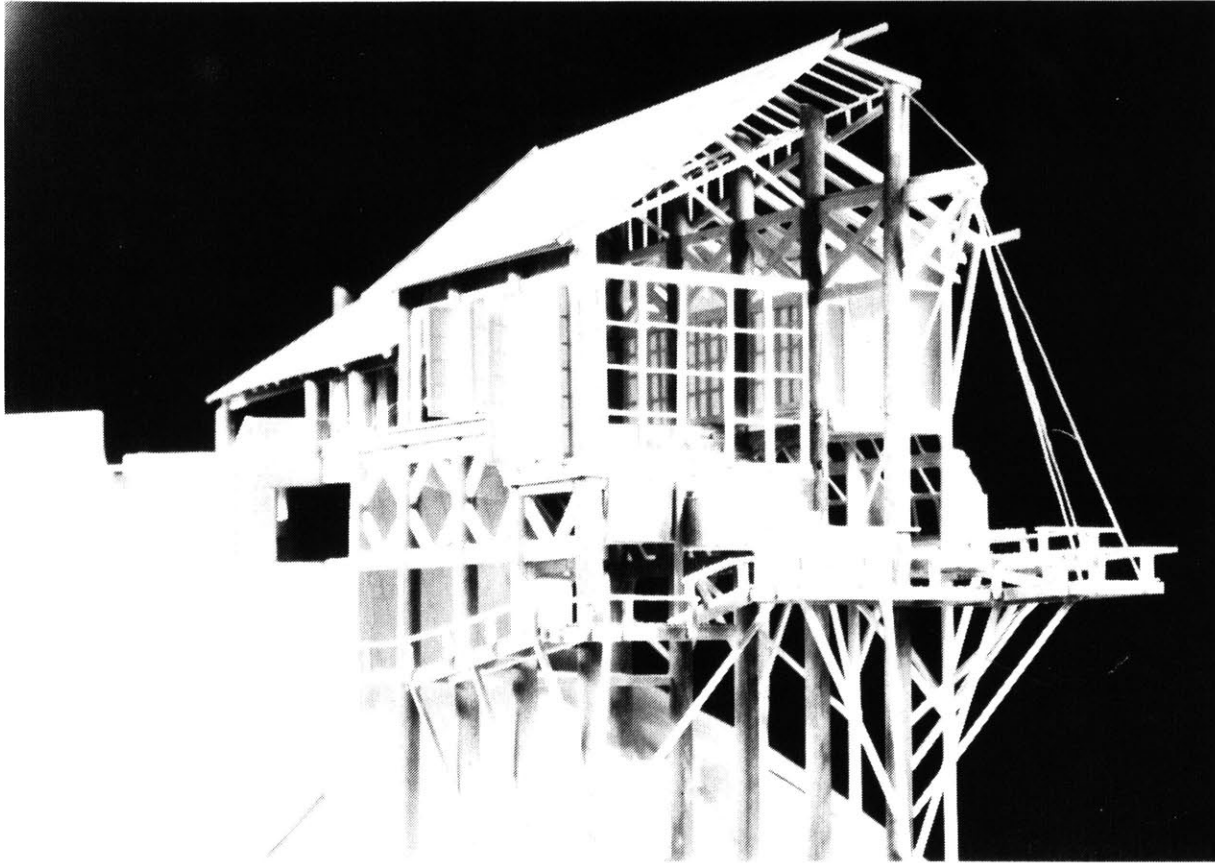
HILLTOP model



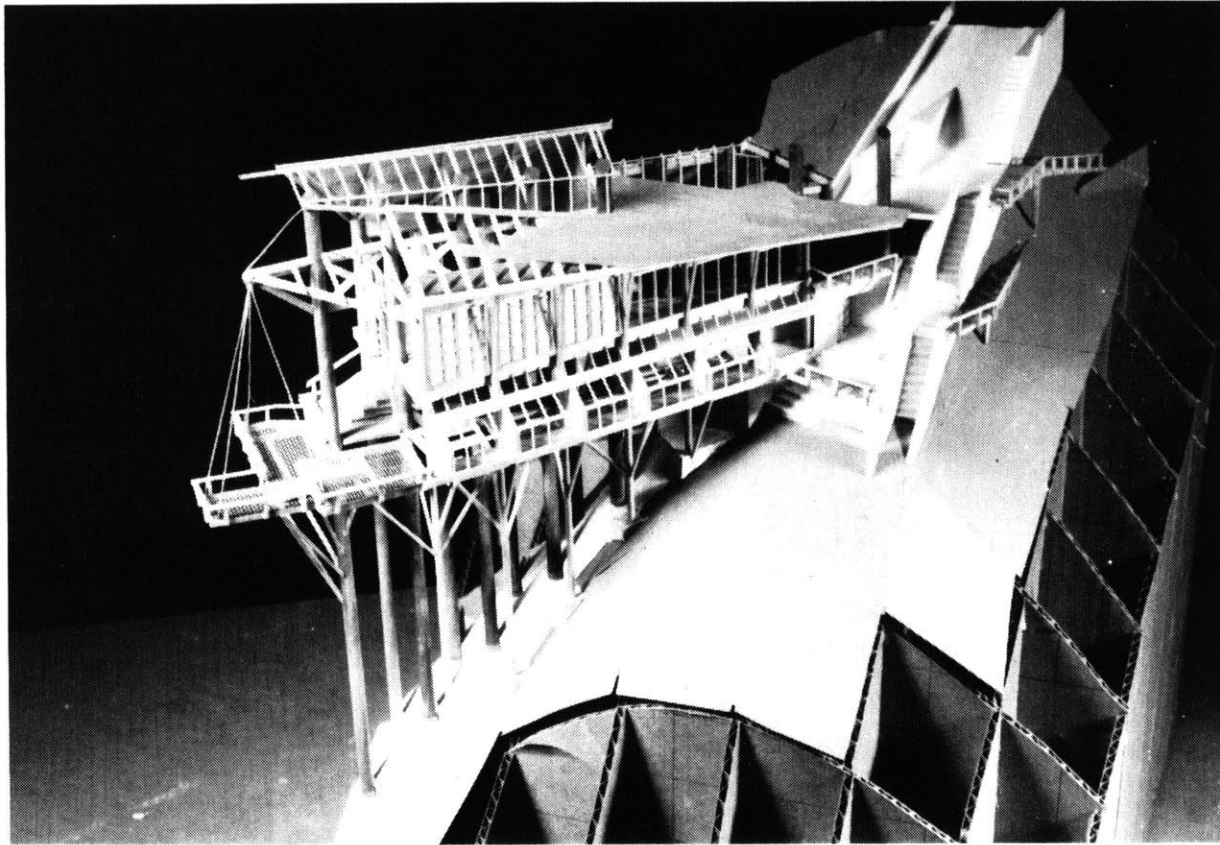
HILLTOP model:conceptual



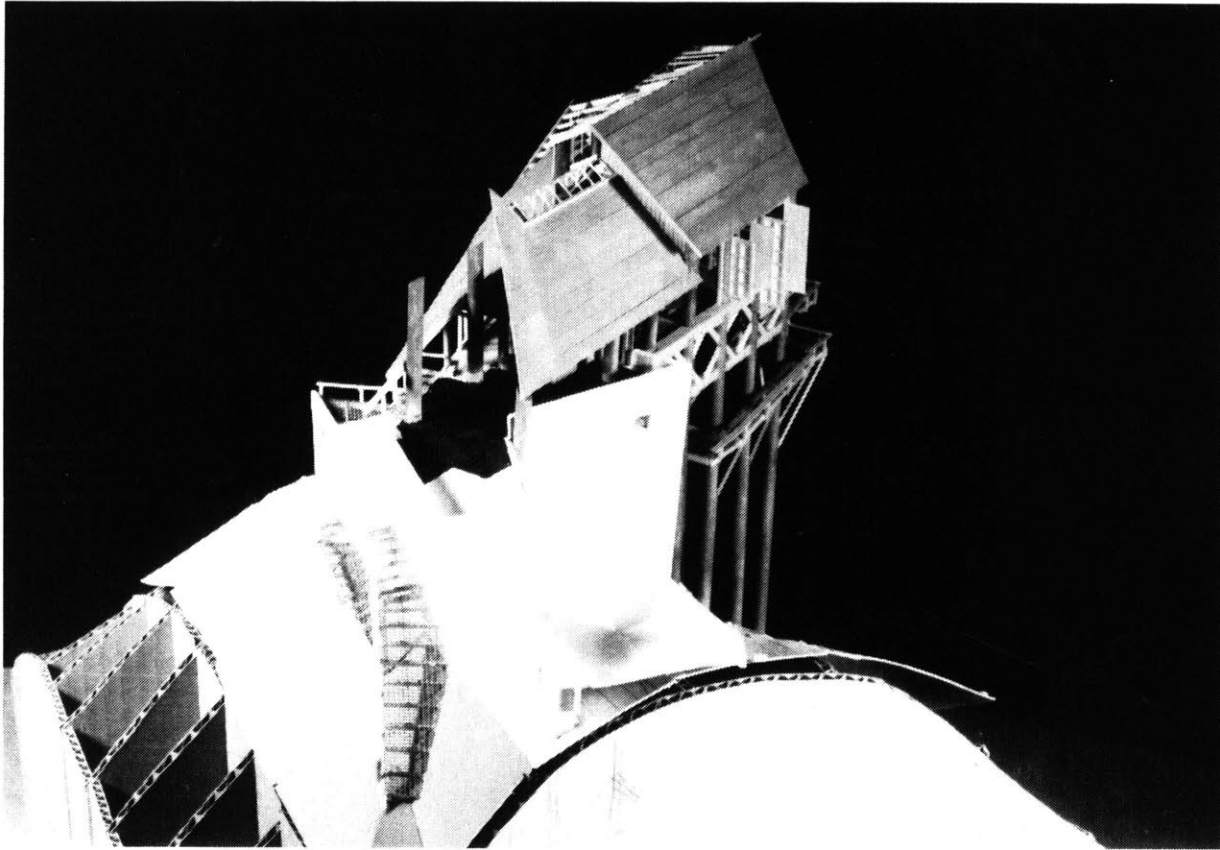
HILLTOP model:conceptual



HILLTOP model



HILLTOP model

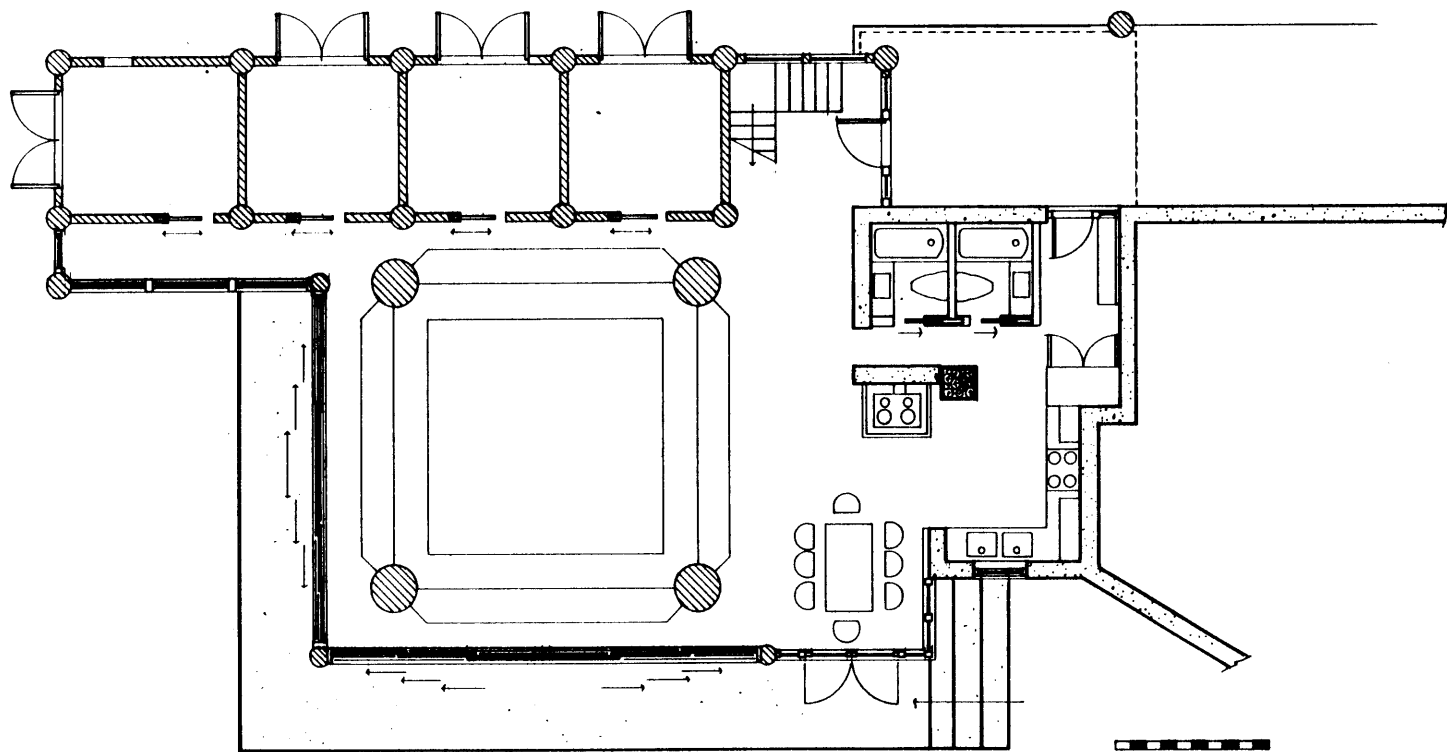


HILLTOP model

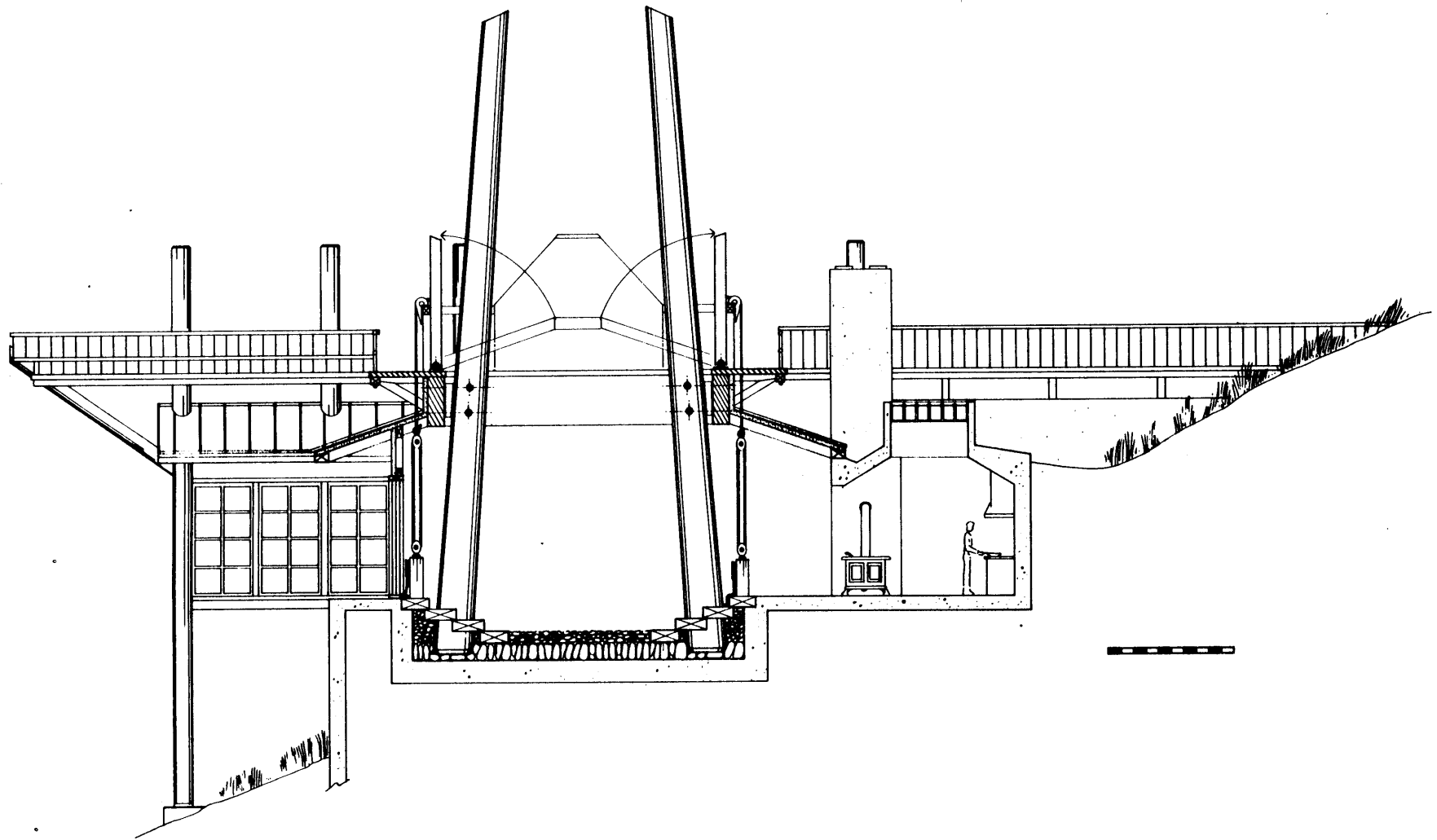




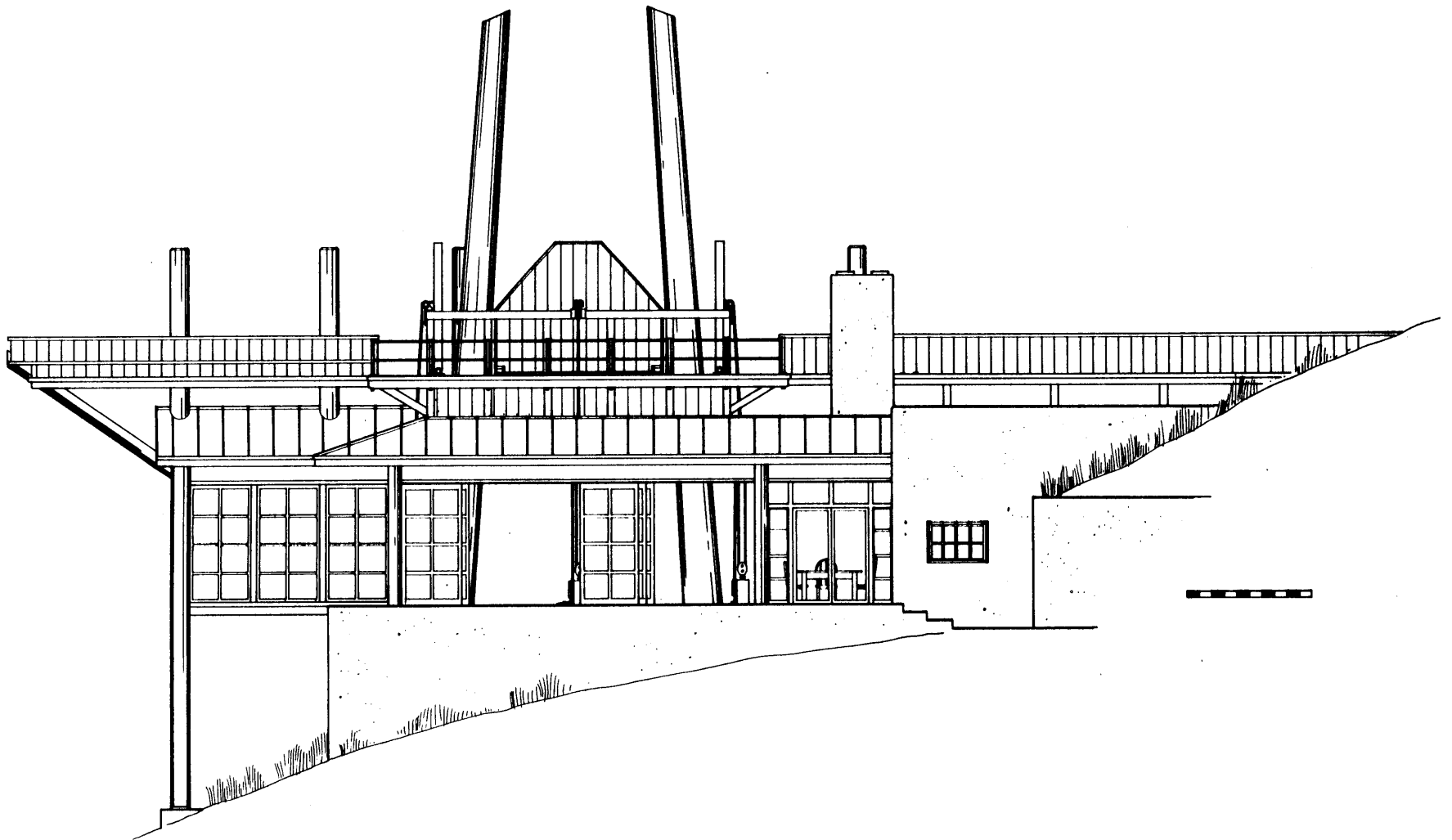
HILLTOP model



HILLTOP plan



HILLTOP section



HILLTOP elevation

## THE DESIGN OF THE RETREAT:

### The Rift Valley

Walking along the sea cliffs through fields of hay, one can see far along the coast to the north and south. The hayfields are broken by the small ravines pouring their fresh brooks into the sea. There is a rhythm between fields and periodic ravines, with their micro-climate forests of madrone, aspen, beech, eucalyptus, and many other trees. Looking away across these fields blowing in the wind, beyond successive swells of the landscape, like frozen waves, one is struck by a peculiar landscape.

A very sharp ridge, with an edge for its crest, runs parallel to the beach, and shelters a valley behind it from the ocean. These unique valleys are geographically known as sink-pond rift valleys. They lie atop major fault lines, and show the rapid rising of the seaward ridge and the sinking of the valley floor.



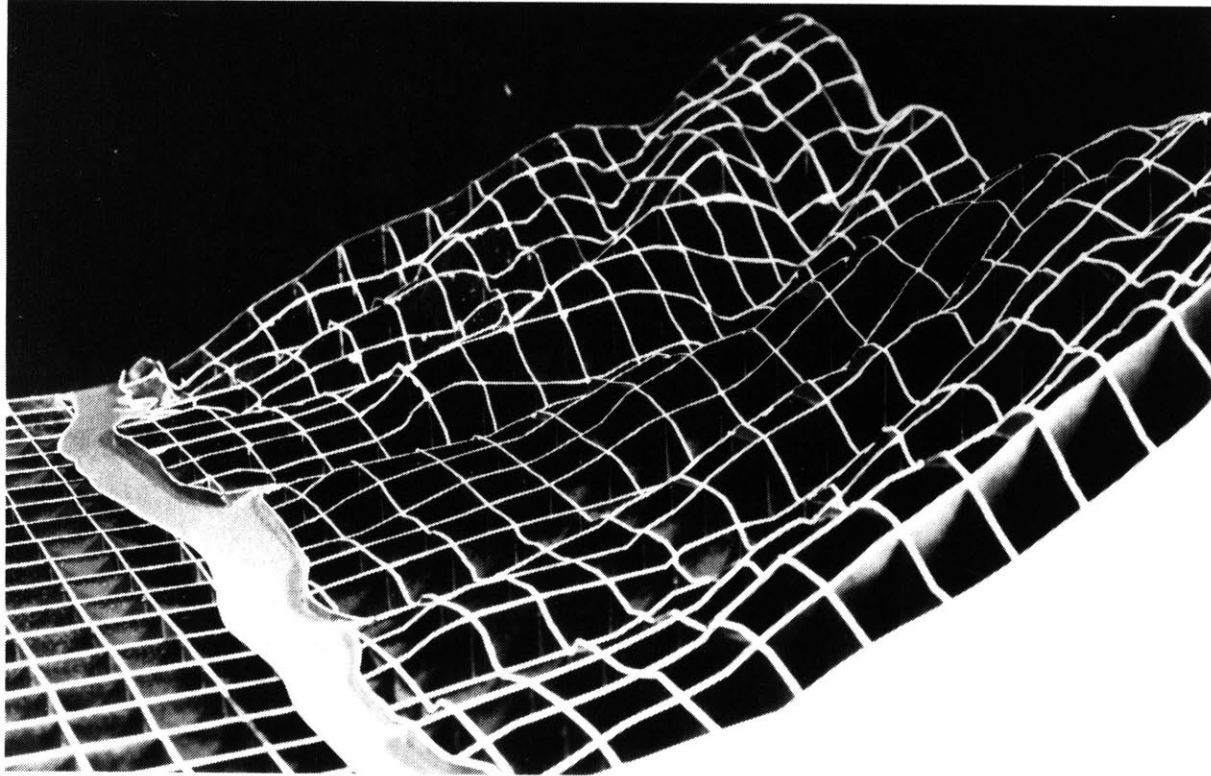
We approach the rift valley through the fields. Because we are higher than it, the valley remains hidden until we begin to descend down through the trees to gain the valley floor. Once there we are cut off, insulated within the realm of micro-climate just as we were in the redwood grove. Although we are separated from the Pacific Ocean by a ridge of rock a few hundred feet thick, we cannot hear or feel the sea.

The valley in spring blooms with wild flowers. The aspen groves become a brilliant light green. Ducks and geese nest with cranes and herons on the ponds and marshes along the valley. The rift valley micro-climate is one of the most seasonal at Sinkyone, in its cycles of plant and animal life. This is its uniqueness, along with its sheltered, insulated nature. It is a garden, but with no gardener in attendance.

Building in the rift valley is difficult because it is such a close environment. The valley is only a few hundred feet wide and a third of a mile long. Its flora and fauna are so beautifully composed it is hard to conceive of a way to inhabit such a place.

The retreat is designed to capture the seasonal changes in the valley. A bridge links the dwelling pods on the seaward side with the kitchen and dining area on the mainland side. The valley floor is marshy, with a stream in the middle and a pond at each end. The act of crossing the valley on a bridge, a bridge that allows pause and stopping along its length, will immerse one in the entire valley as not possible simply on footpaths. The sleeping pods are elevated in the trees, enveloped in the change of seasonal foliage. Thus the bridge becomes the chapel, and in the act of dwelling one is drawn through it in daily routines.

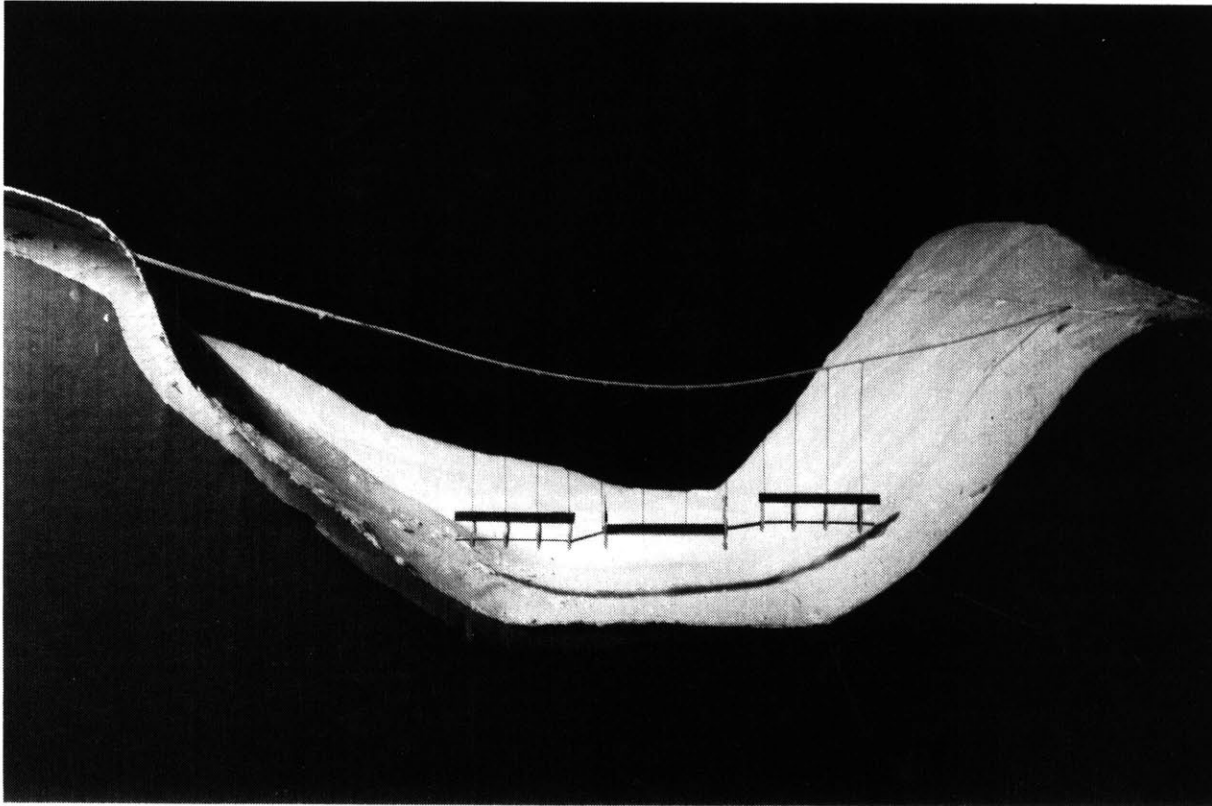




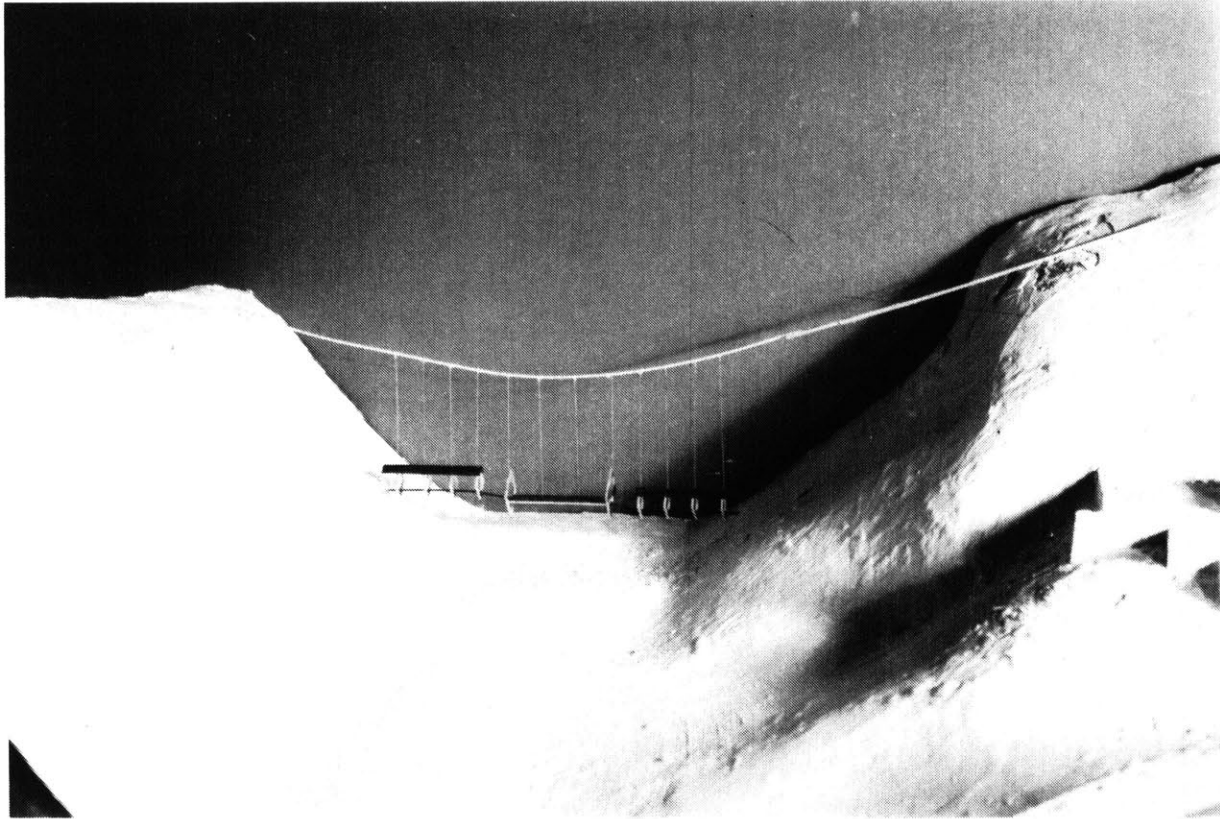
RIFT VALLEY site model



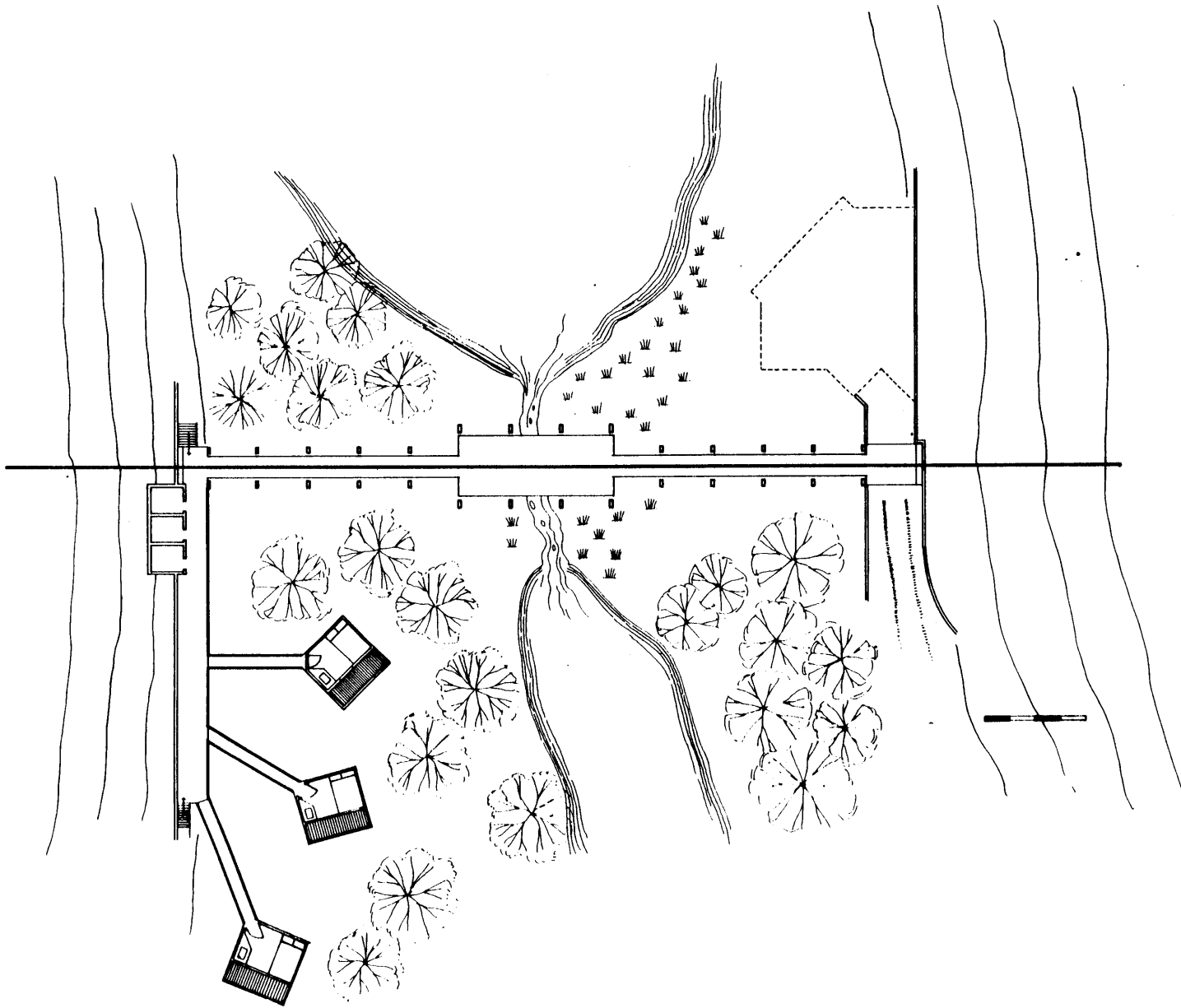
RIFT VALLEY model:conceptual



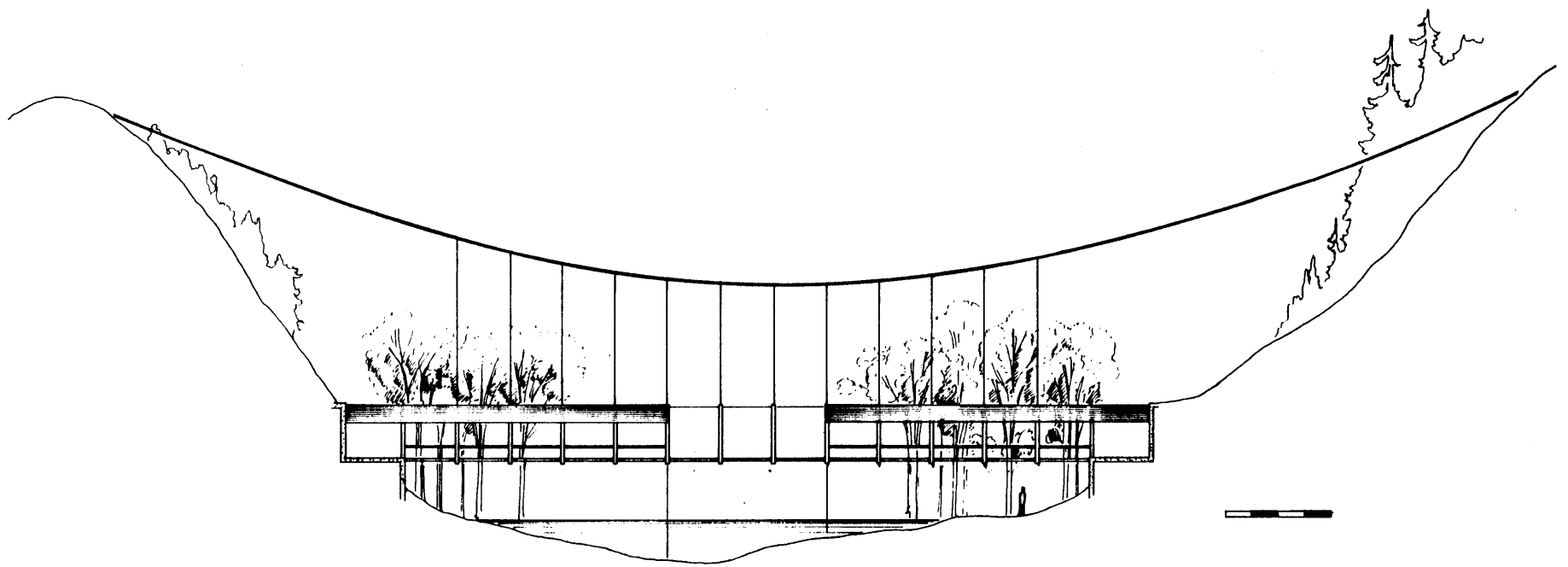
RIFT VALLEY model:bridge



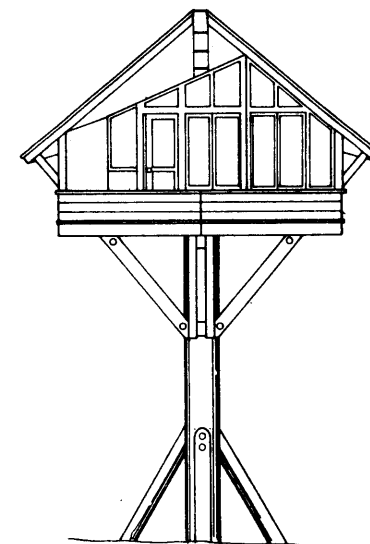
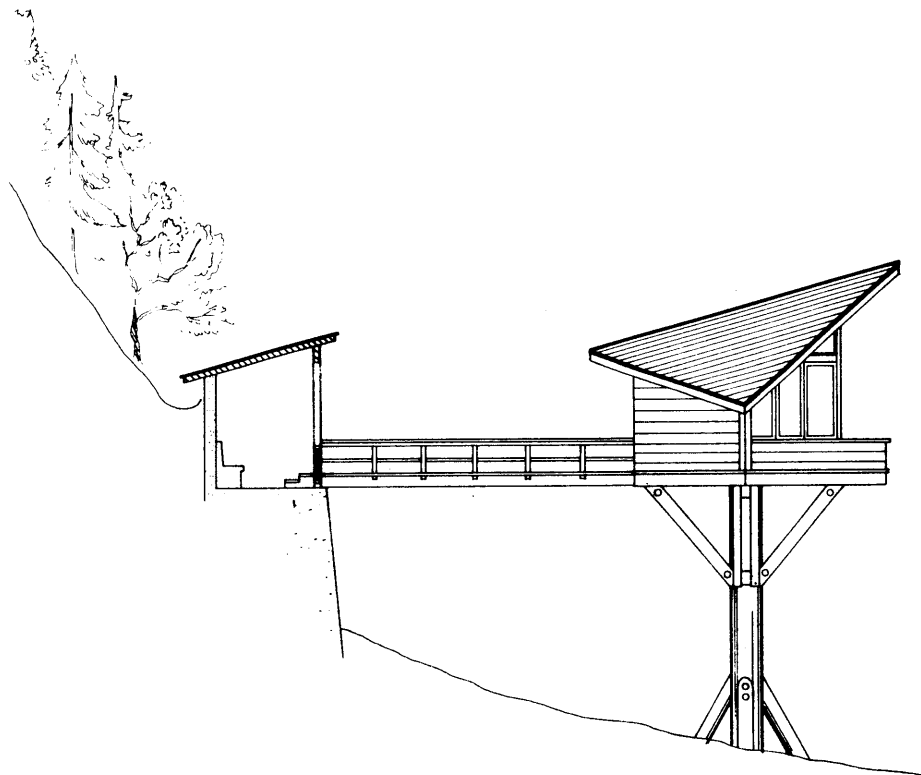
RIFT VALLEY model:bridge



RIFT VALLEY plan



RIFT VALLEY elevation



RIFT VALLEY elevation

The Peace of Wild Things

When despair for the world grows in me  
and I wake in the night at the least sound  
in fear of what my life and my children's lives may be,  
I go and lie down where the wood drake  
rests in his beauty on the water, and the great heron feeds.  
I come into the peace of wild things  
who do not tax their lives with forethought  
of grief. I come into the presence of still water.  
And I feel above me the day-blind stars  
waiting with their light. For a time  
I rest in the grace of the world, and am free.

Wendell Berry  
Collected Poems<sup>4</sup>



FOOTNOTES

1. Jeffers, Robinson. The Double Axe and other Poems. New York: Liveright Publishing Corp., 1977. p. 122.
2. Lopez, Barry. Arctic Dreams. New York: Charles Scribner's Sons, 1986. p. 368
3. Einstein, Albert. Relativity, the Special and General Theory: A Popular Exposition. London, Great Britain: Methuen Press, 1920. p. 116.
4. Berry, Wendell. Collected Poems. San Francisco: North Point Press, 1985. p.240

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2. Bullock, Wynn. Wynn Bullock. Millerton, N.Y.: Aperture, Inc., 1976.
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4. Flood, Raymond and Lockwood, Michael, ed. The Nature of Time. Oxford, Great Britain: Blackwell Ltd., 1986.
5. Jeffers, Robinson. The Double Axe and Other Poems. New York: Liveright Pub.Co., 1977.
6. Lopez, Barry. Arctic Dreams. New York: Charles Scribner's Sons, 1986.
7. Lopez, Barry. Crossing Open Ground. New York: Charles Scribner's Sons, 1978.
8. Muir, John. Travels in Alaska. Boston: Houghton Mifflin Co., 1915.
9. Nerlich, Graham. The Shape of Space. Cambridge, Great Britain: Cambridge University Press, 1976.
10. Van Fraassen, Bas C. An Introduction to the Philosophy of Time and Space. New York: Random House, 1970.
11. Maddow, Ben, ed. Edward Weston: Fifty Years. Millerton, N.Y.: Aperture, Inc., 1973.
12. Whitehead, Alfred North. An Enquiry Concerning the Principles of Natural Knowledge. Cambridge, Great Britain: Cambridge University Press, 1925.