

THE FANTASTIC SEASHELL OF THE MIND



The ARCHITECTURE of MARK MILLS

JANEY BENNETT



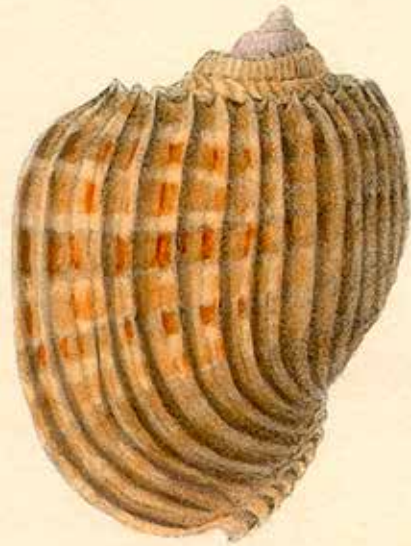
My client is Nature.
—Mark Mills

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*The search for reason ends at the shore of the known;
on the immense expanse beyond it only the ineffable can glide.*

*We do not leave the shore of the known in search of adventure or
suspense or because of the failure of reason to answer our ques-
tions. We sail because our mind is like a fantastic seashell, and
when applying our ear to its lips we hear a perpetual murmur
from the waves beyond the shore.*

—ABRAHAM JOSHUA HESCHEL,
Man is Not Alone, 1951

INTRODUCTION

To live with the daily presence of the ineffable part of our minds—to make time for its needs—is to make a choice (conscious or not) to bypass the comfort of everyone else’s everyday life and devote our energy to some purpose that takes us on a different course. A genius is an outrider, tangential to, but not part of, the world of appearance.

Mark Mills (1921-2007) was an independent architect who, in his 20s, apprenticed to Frank Lloyd Wright and then developed his own design vocabulary. As engineer and architect, he created houses that explored experimental structural ideas. Of the more than 40 houses he designed, most in the Monterey Bay area, sixteen are included in this book.

Mark sought and got the training he needed, in engineering and in architecture, first from the University of Colorado and then from his apprenticeship with Frank Lloyd Wright. He received the archetypal blow of exile from his mentor, an event that pushed him to move beyond what he had learned to what he could discover in his own experimental work. After one project with fellow-Taliesin apprentice Paolo Soleri, Mark practiced architecture alone. His work was recognized and admired by the few who came across it. Some work was published. Clients who knew what they wanted sought him out. But his reluctance to promote his work made Mark Mills a well-kept secret outside his immediate circle.

I interviewed Mark more than twenty years ago, for an article on his work for the *Journal of Taliesin Fellows*, a periodical intended for Frank Lloyd Wright-trained architects. I had a new master’s degree in architecture history, a tape recorder, and time, and my challenge was to try to pull the specifics of his structural ideas out of Mark’s playful way of talking about these buildings. It was clear he was proud of them, but like a parent not wanting to brag about a bright child, he was difficult to pin down. The experience left me knowing there was more of his story to tell, and that I needed to tell it for readers not necessarily trained in architectural engineering.

Schopenhauer said, “Talent hits a target no one else can hit; genius hits a target no one else can see.” Genius is a loaded word. Ansel Adams told Mark he was a genius for his design of the last house in this book. I have wrestled with whether I was comfortable using the word about Mark, and I have come to think he did follow the patterns of genius. He was superbly skilled with the techniques his inventive designs required: he was a fine engineer, and he was able to use that skill to create new forms. He was both smart and naïve, he linked reality and fantasy, he loved what he did, he thought of little else but designing, and he did it with joy.

Taliesin apprentices had the option of living either in apprentice quarters or in tents out in the desert. (They still do.) Mark stayed in a tent his whole four years there. “He [Wright] had a bunch of shepherd tents tucked away, all hung up on rafters down where the diesel engine was. So I think I just—I lived in the desert. I always lived in a shepherd’s tent up on the side of the hill.”

A shepherd’s tent had a pyramidal canvas roof that connected directly to a low foundation tall enough to deter snakes. That connection of roof to foundation, with no wall between, showed up later in two of Mark’s houses.

Living on one’s own in a tent in the desert and building things that may never have been built before, with tools that could have been used hundreds of

years earlier, in a community of people who ate and breathed architecture, especially the architectural ideas of the master, Frank Lloyd Wright, with weekly formal dinners, and concerts, and talks about spiritual and philosophical ideas connected with Gurdjieff and others, must have been intense: a life both monastic and very public. Such a life could be addictive. Some people who came as apprentices in Mark’s time at Taliesin found life there so compelling they never left.

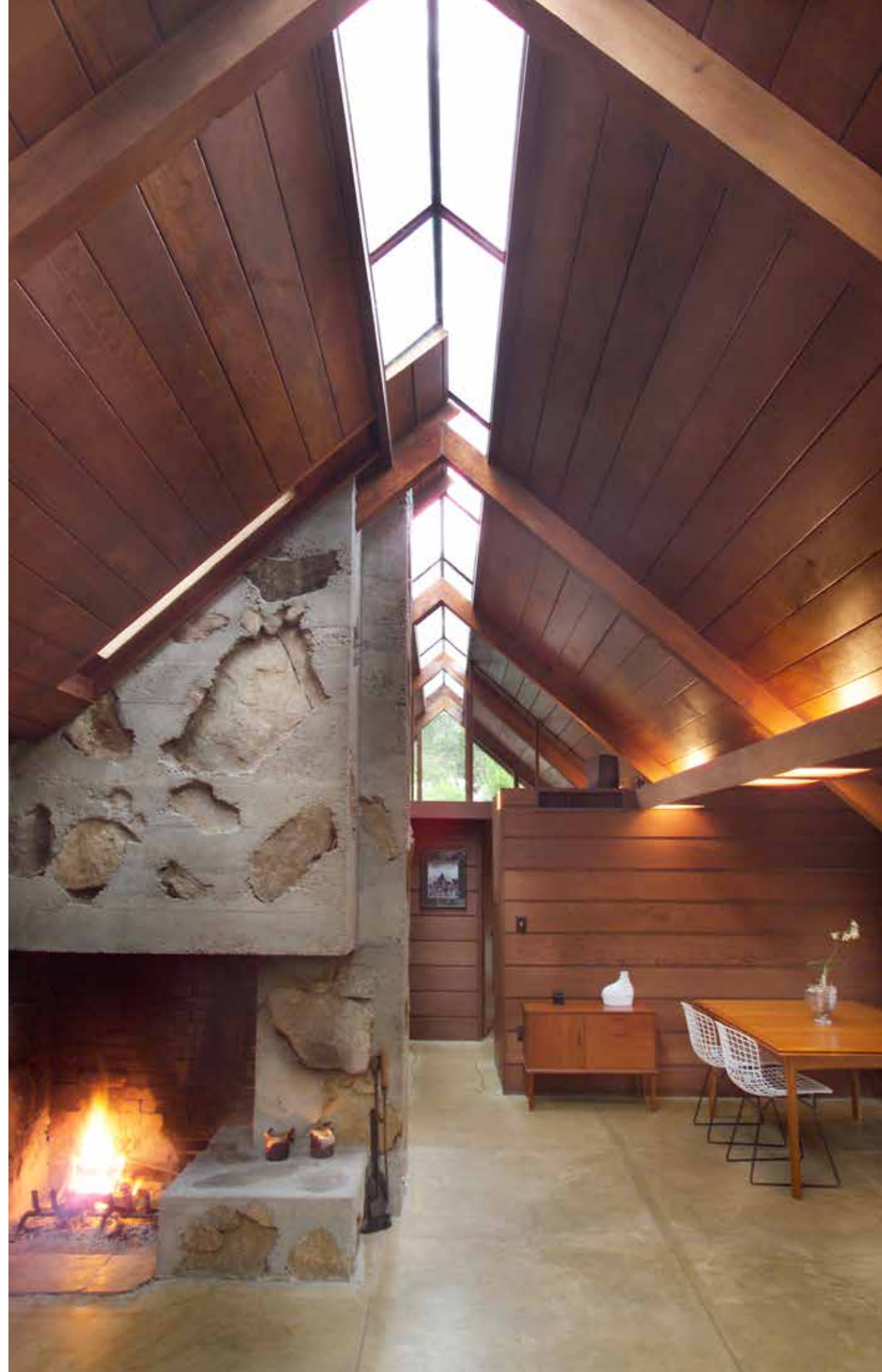
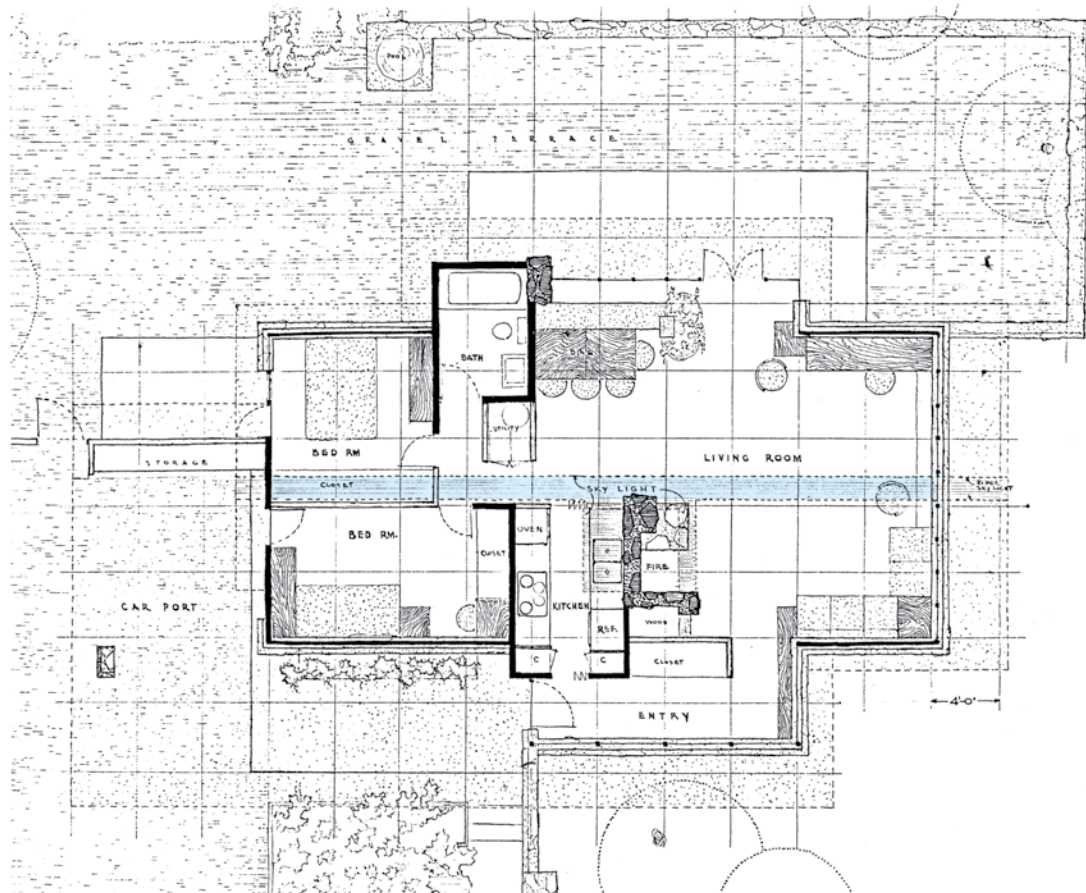


This Kodachrome image from 1946 shows the Taliesin buildings running low to the desert floor in the background beyond Mark’s tent and a saguaro cactus. The grounds of Taliesin West look much the same today.

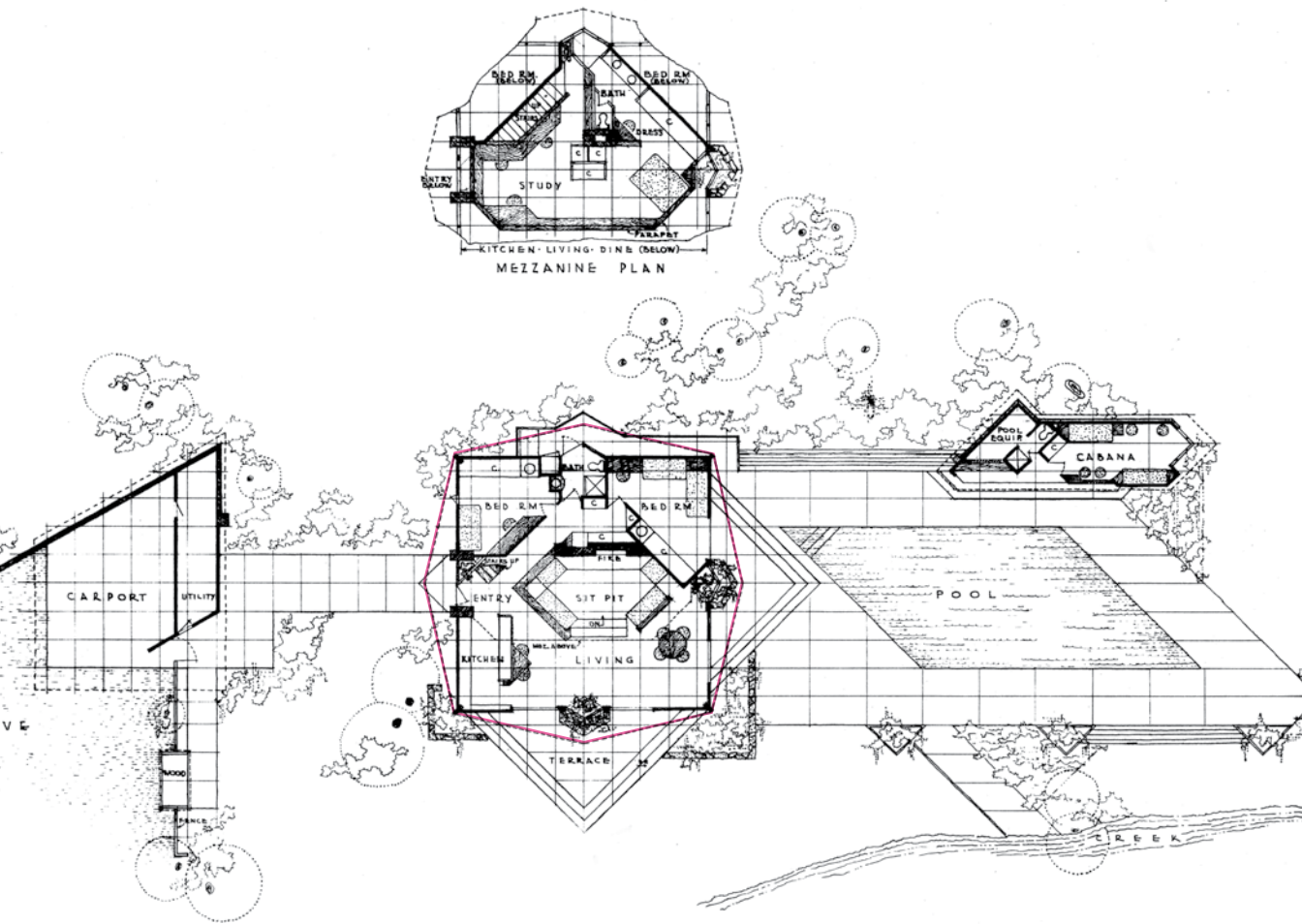
THE A-FRAME

At first glance it looks like a simple redwood cottage, but Mark's first house for Mrs. Walker broke a few rules, like removing the center ridge beam of the gable roof and bringing in light with a skylight the length of the building.

In addition to the skylight down the center, the house was unusual in that, exactly as in his Taliesin tent, Mark brought the roof down to the three-foot foundation, with no actual wall. The foundation is just above the level of the bed in this bedroom, supplying a ledge for a clock and reading light. The skylight is seen from every part of the house.



AN A-FRAME MEETS A DOME.



Glued laminated timber was used as far back as 1844. As ancient giant trees began to be used up, smaller material from second- and third-growth forests was glued together to equal the size and strength of the disappearing resource, at a greatly reduced cost. Called glulams, they were improved over the years. By Mark's time, they could be custom-made to any size. And, better than nature's straight trees, glulams could be manufactured in curves, sliding the faces of the wooden leaves past one another and clamping them til the glue between the layers hardened.

Having spent his early years making complex structures out of straight lumber, of course Mark would move on to glulams. And he would push the limit of what glulams were thought to be able to do.



Mark described the house under construction in this photograph: "You know these things that go over the cake at a picnic—have got some metal on them? That's what this is. These are glulam arches that go across like this: round. And then coming off, there's a ridge and these are gables." The gables were the leftover of the client's initial request. He wanted an A-frame. Mark thought A-frames were too dark to live in. He thought of an intersection of two A-frames. And then he thought of adding the glulams, half-circle ones, crossing the square formed by the four equal gables. "You've got a warped surface. So here's a curved surface with laminated ceiling coming down onto a ridge which is a straight line, so there's a warped surface in here. And these are 2x3 re-sawn Douglas fir and so you have little edges in addition to the texture."

The house footprint is a square, thirty-six feet on a side. The diagonal glulams are semicircular arches, 6x16 beams, eighteen feet tall at their intersection.

Both levels are embraced by the roof, yet the view from each level is quite different. Mark never referred to ceilings. His structures have roofs, inside and out.

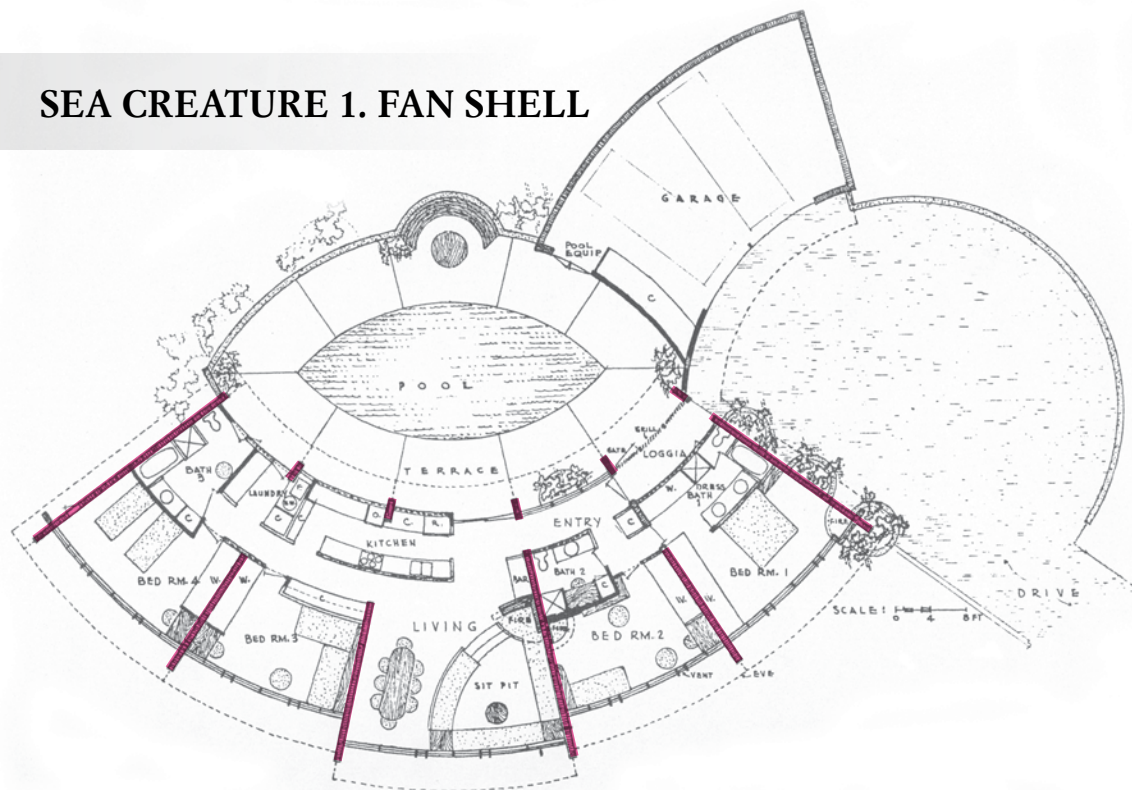




The beams pass through the living areas and define the spaces. They remind us that the house is hanging from them.



SEA CREATURE 1. FAN SHELL



At first, this house looks like another of Mark's plans based on circles and radials. Four bedrooms flank a living room and all five rooms face outward. An almond-shaped swimming pool is sheltered at the core of the plan. It looks like pure geometry, until you add the vaulted ceiling, which suddenly transforms the house into a scallop shell, nestled in the iceplant-covered sand dunes.

The house was designed for a stretch of dunes and rocky shoreline known as Fan Shell Beach on the Seventeen Mile Drive in Pebble Beach.



Mark took the name of the beach as his clue to the solution of the house's design. Every room looks out across the sand dunes to an expansive view of the ocean beyond. It's a calm view, unlike the other two ocean sites Mark built on. The building stretches wide, as the sea does.

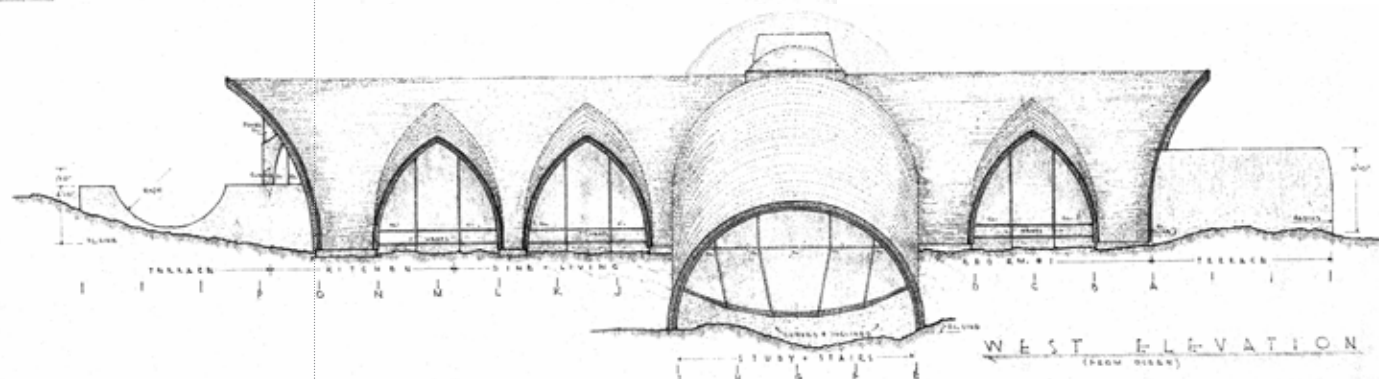
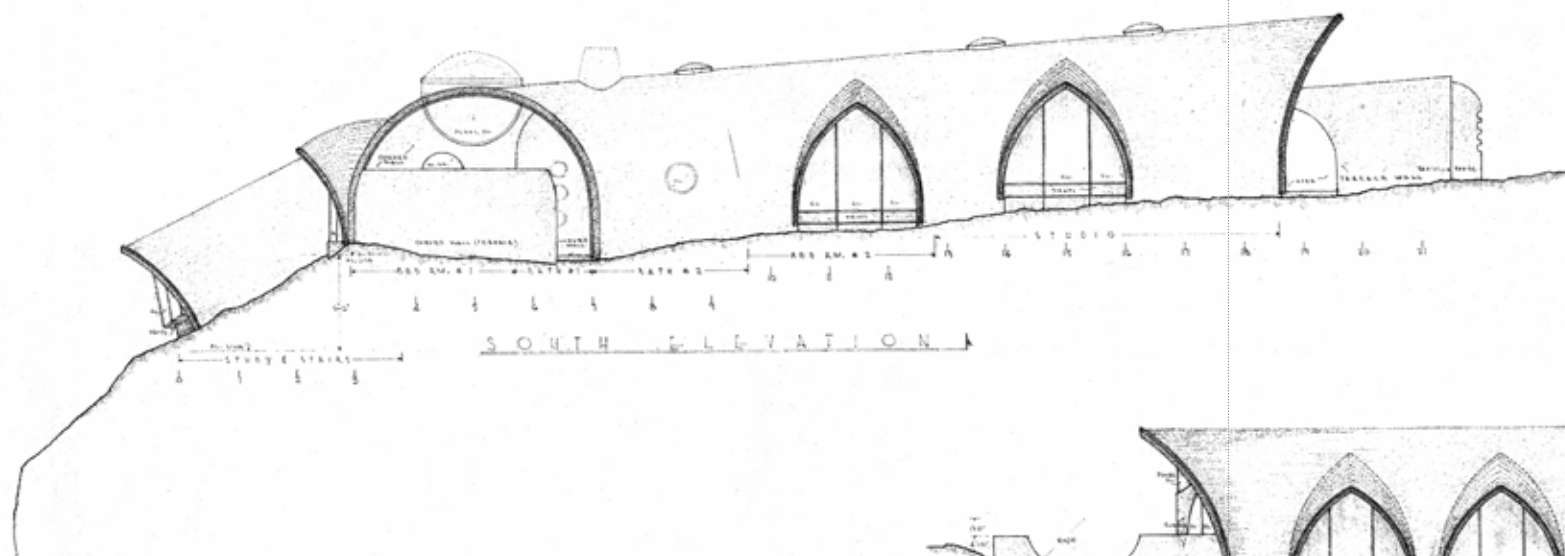


The radiating walls go up directly on the dune. The surrounding houses are built on deep-sunk huge caissons. Mark determined that the house sitting directly on fine-grained silica sand would ride out an earthquake without caissons.



In fact, in case of earthquake, the fine sand would handle a jolt better than a more solid foundation. Mark said, "The sand wasn't a problem there. As long as it was contained, it had good bearing."





ELEVATIONS - S.W.
SHEET No. 3.

M A R K M I L L S A R C H I T E C T F O R M R S . J U N G H A S S Y A N K E E P O I N T D R . C A R M E L R I V I E R A C A R M E L , C A L I F . F L A N D E R S D R I V E C A R M E L , C A L I F .

The developer of the tracts on Yankee Point refused to let Mrs. Haas go ahead with her house. Mark's account: "So when it came to this house, nobody wanted it there because it was not fitting in with anything else. So, and the owner was very dogmatic about wanting it so she went to an attorney and finally, well, she was difficult, so they finally put her on the low man on the totem pole in the firm, and he was very smart and he said, 'Well'—none of the others asked this question—'where is your deed? Let me read your deed!' So these were one of the few lots [the developer] had forgotten to write into the deed about this architectural control. He didn't have any hold on it, so that's how that got through, just by sheer good luck."



Ansel Adams was a close friend of Mark's. When Mark showed him the plans for the Haas house, Adams wrote a letter saying it was "magnificent in several domains—concept in relation to site, relationship of the round and pointed arch, a certain magic of space which I feel but cannot verbalize upon, and a sense of flow and direction to the elemental facts of the rocks and surf towards which the structure is oriented." He ends by saying, "I wish I could live in it!! I think you are an authentic genius! People are fearful of genius because they have seldom experienced the direct, creative contact therewith!! Hat-boxes are safe—for hats!!"

The walls were formed with 3/8 plywood (the window forms were especially challenging), onto which Mark laid 3/8e steel rebar.



The building clings to its fragile cliff, never rising more than fourteen feet from ground level. The house looks at risk, slipping over its edge. (Fifty years later, it has never moved.)

Originally, it was surrounded by native wild grasses which moved with the wind and gave it an object-in-nature sense. Mrs. Haas owned the lot to the south, and no one had built on the other side yet, so the house stood alone on its windswept promontory.









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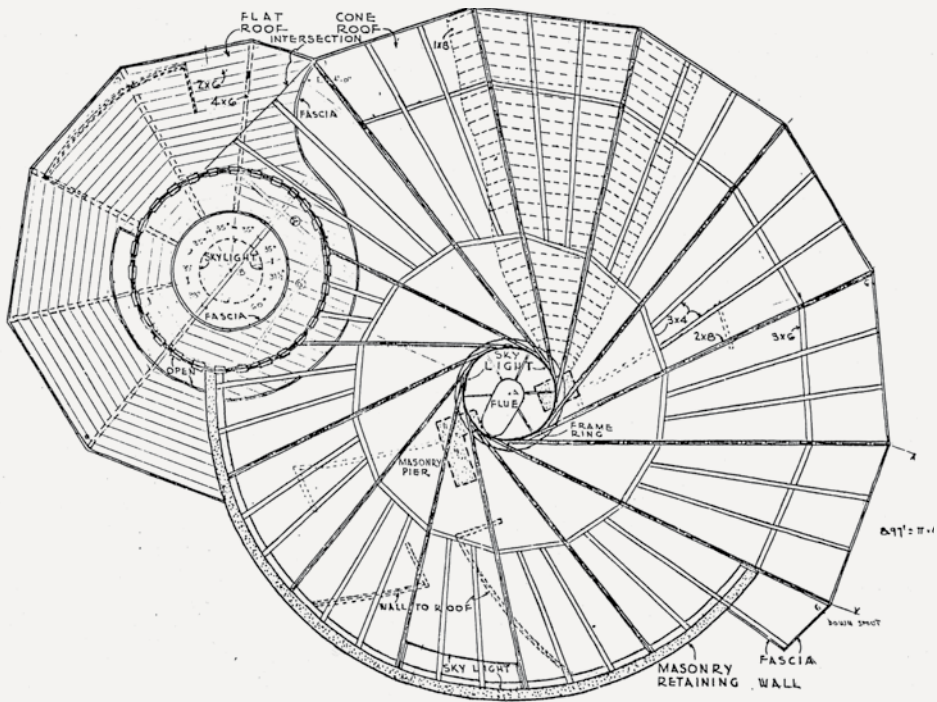
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FROM 1944 TO 1948, MARK MILLS apprenticed to Frank Lloyd Wright. When he heard Wright say that seashells are nature's perfect architecture, Mark made that idea the foundation of his life's work. As seashells change their forms to meet the needs of their inhabitants, so Mark designed structural roof systems that sheltered the homes and were spectacularly beautiful.

Mills designed before the time of computers. All his calculations were with a slide rule and his drawings were in pencil. His work combines solutions to puzzles of gravity and connectors, of form and site, of volumes and light. He makes brilliant use of wood, glass, and stone—and concrete. Mark loved concrete.

Mark Mills often said, "My client is Nature," and he meant it. He always tried to use local materials and, where possible, recyclable manufactured pieces. He used roof elements manufactured for Safeway stores and sold as salvage; he covered hot-mopped roofs with crushed walnut shells; and several of his homes were made using timbers from a recycled nineteenth century redwood bridge from the San Francisco area.

Mark worked alone. He never promoted his work. His clients found him somehow, and a number of them still live in their Mills houses 50+ years later.