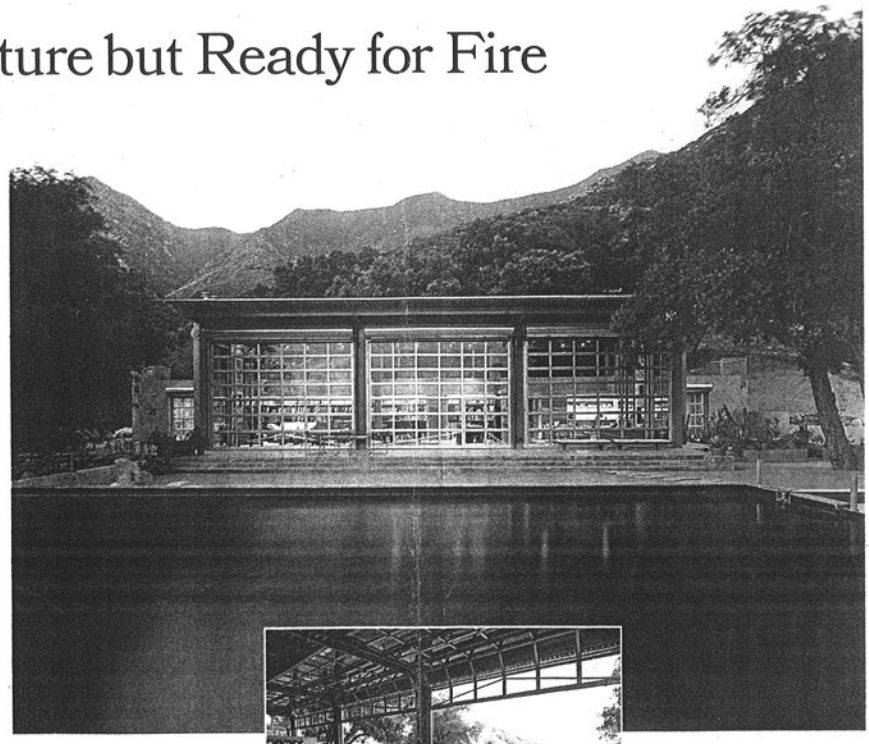
DESIGN NOTEBOOK

Joseph Giovannini

Open to Nature but Ready for Fire



Monica Almeida/The New York Ti

Photographs by Grant Mudford for The New York Times

FIREHOUSE Barton and Vicki Myers's fire-resistant steel house near San Barbara. Center: living room, dining area and kitchen, with bedroom wings When glass front "walls" roll up, nature is the room. Pond is on the roof o a guest house; water spills into a trough that can be a backup reservoir. Right, living room; view of protective shutters that roll down in minutes.

Armored in a steel frame in the California hills.

CARPINTERIA, Calif.

SPLENDOR among the oaks, especially in the secretive canyons winding up into the mountains of Southern California, comes with the sobering caveat of fire — walls of it, superheated and deadly. The house that embraces nature here must also defend itself from her tinderbox.

"There's a Catch-22 to living in these canyons," said the Los Angeles architect Barton Myers, who just completed a fire-resistant steel house here, 10 miles south of Santa Barbara. "Living in paradise gets edgy at times."

Especially after the Malibu and Santa Barbara fires of the last decade, anyone building a house high in the California hills must factor fire prevention into the design, which is already freighted with rules about earthquake resistance, mud slides and energy saving. But how can homes conceived with a heart open to the outdoors abruptly change into closed fortresses when choppers pass overhead telling everybody to evacuate?

Fresh from completing the New Jersey Performing Arts Center in Newark, Mr. Myers was living comfortably in the Hollywood Hills of Los Angeles with his wife, Vicki, in a Spanish-style house once owned by the serial art widow Alma Mahler Gropius Werfel. (Her last husband, Franz Werfel, wrote the novel "Song of Bernadette" in the house.) Summer weeknights, strains of the Los Angeles Philharmonic wafted up from the Hollywood Bowl, but on weekends, rock concerts blasted the couple out of the house and into weekend exile. "The decibel reading equaled the runway at LAX with 747's taking off," said Mr. Myers, a former Air Force pilot.

On one trip, they found a 40-acre patch of storybook heaven for sale in the hills of Carpinteria: rushing stream, stands of centenarian oaks and a distant view of the Pacific, which the afternoon sun can transform into a hypnotic silver platter.

The Myerses had a love of loftlike spaces and the notion of building a house of steel. Inspired by the Case Study house that Charles and Ray Eames built in 1949 in Pacific Palisades, Mr. Myers wanted to erect a steel house from off-the-shelf parts. In Toronto, some 30 years ago, he built a town house for his family from a kit of metal parts; in Carpinteria he wanted to revisit the idea.

Mr. Myers's primary thought was to save the natural beauty he and his wife had come to savor. To reduce the impact of the building, he broke it down into three pavilions: a main house, a guest house and a studio. By not putting the compound in a dominant position at the top of the hill, and by siting the pavilions between trees, he was able to build without felling a single oak.

An abundance of water on the property allowed Mr. Myers to make the roofs of the pavilions into shallow, gravity-fed ponds that terrace down the hillside. Seen from the flank of the hill, the pools merge visually with the ocean in the distance. (Mr. Myers likens the roofs to the reflecting pools of Persian gardens.) Each roof pool spills into a holding trough, which can be used as a backup reservoir in case of fire. He deepened the long edge of the pond in front of the main house to create a lap pool. "I earned a degree in plumbing on this project," he said.

Just below the edge of each roof the architect has placed long metal tubes containing steel shutters, which roll down over the windows for fire protection (and security). The vast glass front walls themselves roll up like the doors on fire stations. With the doors up, "nature is the room here," Mr. Myers said. The steel shutters can be closed in 5 or 10 minutes into a tight, self-protective steel cocoon, under planes of water.

"Given the horrendous track record of fires here, we're finally getting smarter," he said. Steel made sense to Mr. Myers not only because of its fire resistance but also because it can span wide distances. Those spans give the pavilions almost outdoor dimensions. The voluminous main space, supported on eight columns at the edge of the room, is 60 feet long, 20 feet wide and 17 feet high.

Mr. Myers put the three bedrooms in what he calls a caboose off the main house: a 100-foot run that extends in a line to give two bedrooms an ocean view. Chimneys house heat pumps and fireplace ducts.

The overall effect is a loft walled in glass, and in the two bedrooms with rolling doors, great openness to the outside. Indeed, many creatures, what Mr. Myers calls "the convention of animals," find little difference between outside and in. "I don't mind the rodents," Mrs. Myers said. "I don't like the scorpions so much."

Mr. Myers said he was "not happy about snakes" and is not about to raise the double rolling garage doors, front and back, on the master bedroom at night — mountain lions and coyotes roam these parts.

Steel-frame houses have dotted architectural history since World War II. The conceit espoused by their designers is that they roll off the delivery truck and are assembled in hours, at a reasonable cost and with out fuss. The underlying wish is that they could solve mass housing problems.

The Case-Study architects of the 1950's failed to convince contractors that this was an inexpensive way to build. "It's still difficult to build with industrial components unless you're working with a commercial contractor," Mr. Myers said. The technology is beyond most contractors, especially with today's seismic requirements. Anyone doing a house like this has got to be either rich or clever.

To bring it in at a price he could afford, Mr. Myers had to be clever. Living in an Airstream trailer on site, he served as his own contractor and had a retired construction manager with years of experience of building in steel. Custom houses in the area easily run $200 a square foot. He was able to bring in the 6,000-square-foot shell at $150 a square foot, or about $900,000.

Steel, though it may not burn, does melt in great heat. The Myerses had to think about vegetation as well. With Doug Richardson, a botanist, they cleared the uphill side of the property to make a 200-foot firebreak. In that reclaimed land, they have created a garden of vegetables and fruits, including a small vineyard. It adds up to a small family farm, which somehow seems right for this California house.

On weekends, Mrs. Myers gardens on terraces where olive trees alternate with blood oranges. Tuna cactus and the tenacious, deeply rooted vetiveria grass reduce the fire hazard and help stabilize the hillside.

Avoiding the lush, English-garden landscaping that characterizes estates in nearby Montecito, the Myerses lean instead toward a more Japanese sensibility, especially the serene rock gardens designed by Isamu Noguchi. Mr. Myers used cyclopean boulders to shore up terraces in front of each pavilion. With smaller rocks, he created a curving, low-maintenance stream bed that channels water at the foot of the hillside. He conceived the roof of the garage as a Zen rock garden, and is leaving what he calls "the plaza" in front of the house like an old hacienda courtyard.

"Without any grass, the plain surfaces connect very beautifully to the Santa Barbara stone," he said. "With the houses between the existing oaks, it feels like an older site."

But how does the house behave on a sunny spring afternoon? An eight-foot kitchen wall to one side of the main room subdivides the loft into a large space and a more intimate sitting area. A bar with California wines is lodged in the library wall. Folk figures, hand carved and painted in Mexico, look on from the book shelves. A refectory table in the dining area was once used to serve monks in Canada. Mrs. Myers furnished the house sparsely with country antiques: a magnificent four-poster bed once warmed the steel house in Toronto.

There is a 270-degree panorama here, and all the views are magnificent. With the walls of glass thrown open, the main pavilion becomes a large outdoor room, scaled to nature on one side.

Of the dozen or so well-known steel houses built after World War II, some, like Mies van der Rohe's Farnsworth House outside Chicago, are so rigid that there are few windows to open: Mies kept the facade pure by purging knobs and pulls and widgets. Even the Eames house has only a few sliding doors. The Myerses can slide doors open, fold them up or just pivot them.

"Mine is more like a Japanese house, where you can change all the openings," Mr. Myers said. "In the end, you don't want the building to feel like a machine. You want it to feel like a home."