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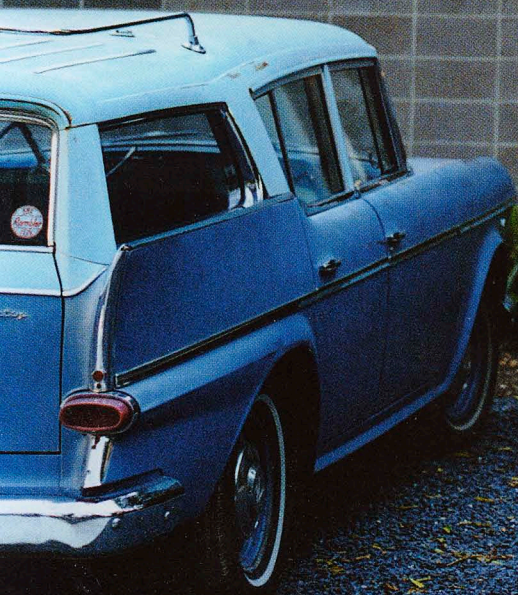
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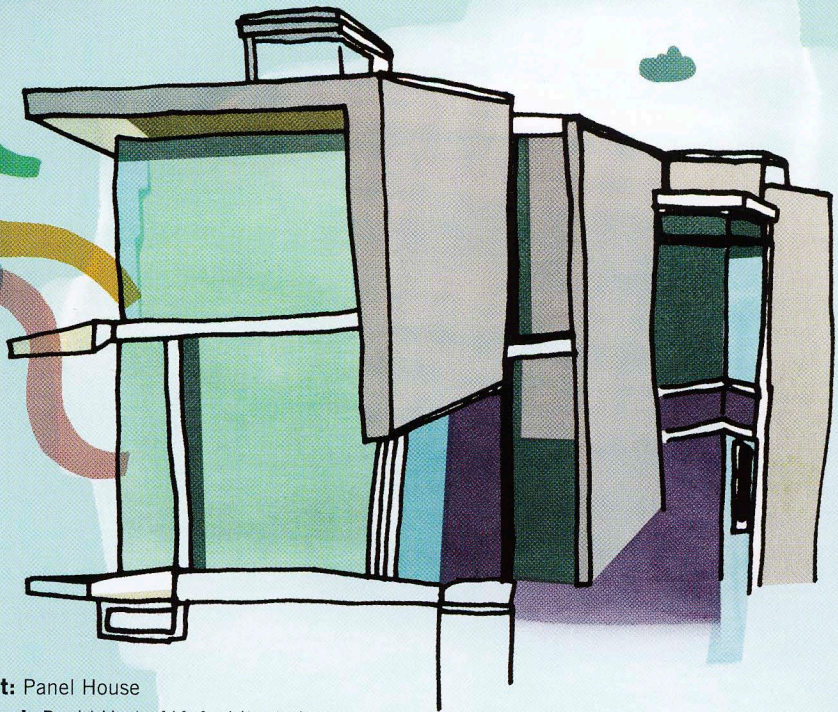


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Project: Panel House

Architect: David Hertz AIA Architects Inc.
Syndesis, Inc.

Location: Venice, California

Taking advantage of Southern California's sunny skies, architect David Hertz ingrained passive solar features in almost every detail of the Panel House for client Thomas Ennis. Because the house is on a narrow 28-by-89-foot lot that sits right on Venice Beach, Hertz was able to construct an entirely clear-span structural system and supplant walls with broad spans of windows. This is most strikingly demonstrated by the enormous 9-by-15-foot window at the front of the house that lowers to the basement on a worm-drive gear system, offering an unobscured view of the beach. Smaller windows sit on manual pivots, allowing occupants to moderate temperature with cooling seaside air. A thermostat-controlled skylight automatically opens throughout the day to release hot air that accumulates in the stairwell.

To insulate the house, as well as dissuade nosy neighbors from looking in through glass walls, Hertz covered the east façade in 3-by-30-inch prefabricated foam panels normally

used for ice storage in the desert. Coated with aluminum on both sides and painted silver, the blocks lightly reflect summer sun and capture the changing colors of the sky.

While passive solar features are integrated throughout the front and sides of the house, the active solar system is confined to the roof. There, sharing space with an infinity pool, 14 south-facing PV panels and an inverter produce 2.3 kilowatts of energy per day, sending free electricity throughout the house if needed, or back into the grid. A thermal solar system boosts the temperature for water before it is sent to the water heater, further saving energy and costs.

"Enough 'free' solar energy falls to earth each day in the form of sunshine to supply current world energy needs for five years," explains Hertz. "And the U.S. consumes a million dollars worth of energy every minute. We need to understand that conservation is the lowest-cost energy we have. Saving energy costs a lot less than finding it." ▶