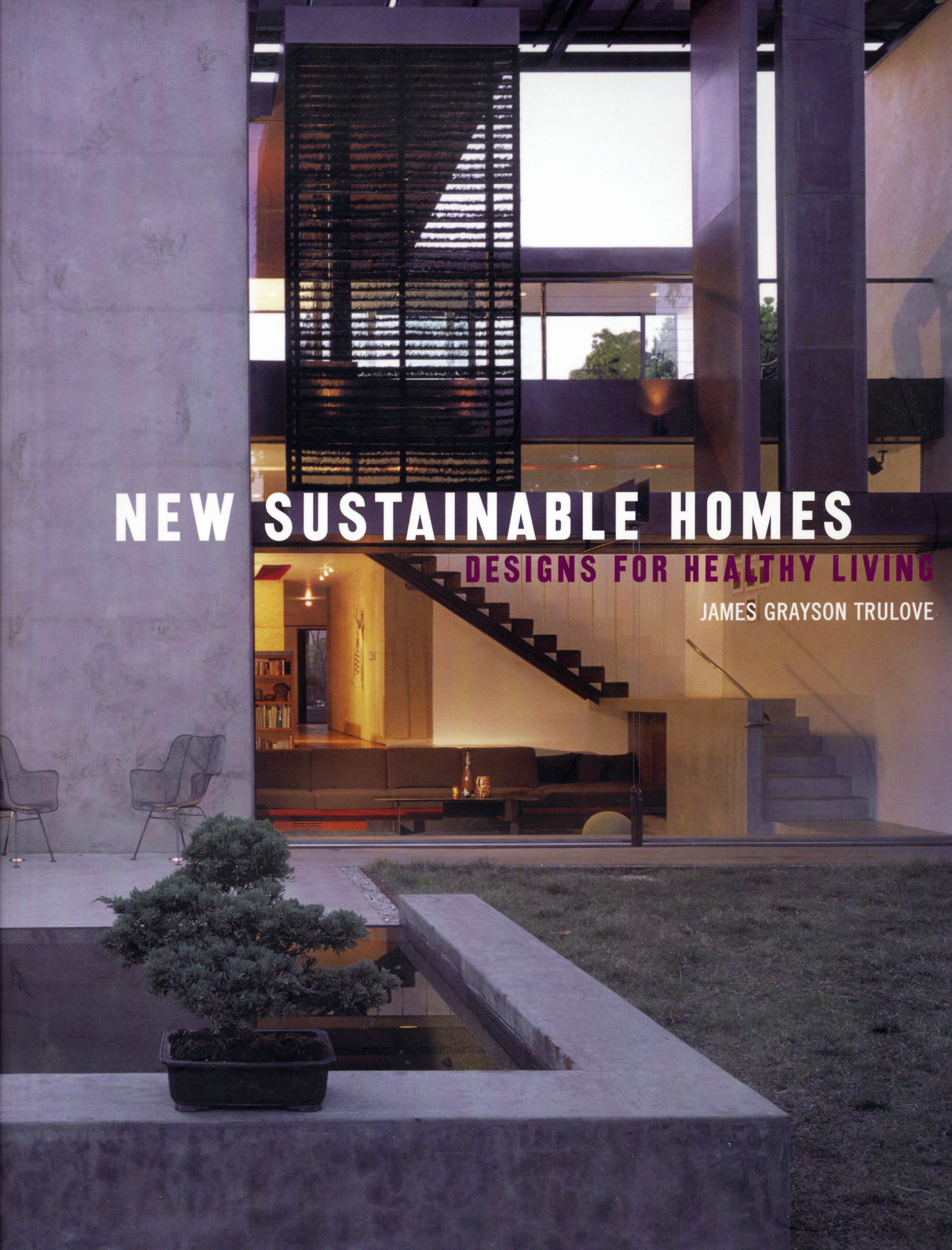


NEW SUSTAINABLE HOMES

DESIGNS FOR HEALTHY LIVING

JAMES GRAYSON TRULOVE

LOCATION • BOSTON, MASSACHUSETTS

ARCHITECT • MARYANN THOMPSON

GEOTHERMAL RESIDENCE

The house is organized on the site to take advantage of the daily path of the sun. The kitchen faces east, while the living room and its terrace face west to take advantage of the setting sun. All rooms receive light on two sides. The combined living room, dining room, and kitchen area receives light on four sides through the use of a clerestory, enabling the sun to always be an ever changing presence in the main body of the house. The house was designed as a series of horizontal planes that terrace along the edge of a south-facing hill above a pond. The arrangement of the guest wing, main living spaces, and bedroom wing, which wrap along the hill's crest, is a response to the topography, solar orientations, and views beyond.

The interior is characterized by multiple planes of light entering into the house at a variety of levels. While the roof and floor planes establish the design parameters, the subtle articulations in the walls and windows provide close connections to the landscape and to the path of the sun.

SUSTAINABLE FEATURES:

The north façade is more insular, while the south façade opens the house to the site and the sun.

All rooms in the house receive cross-ventilation.

Large overhanging trellises modulate and dapple the intense summer sun —from the west and the south—at the living room and master bedrooms, while allowing the winter sun in.

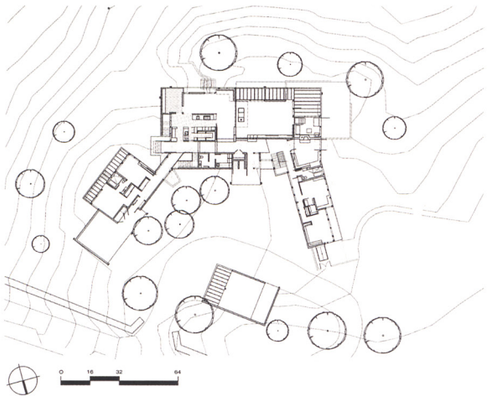
Both the heating and the cooling systems are geothermal.

Sustainably harvested Honduran mahogany was used on the exterior and on the second-level floors.

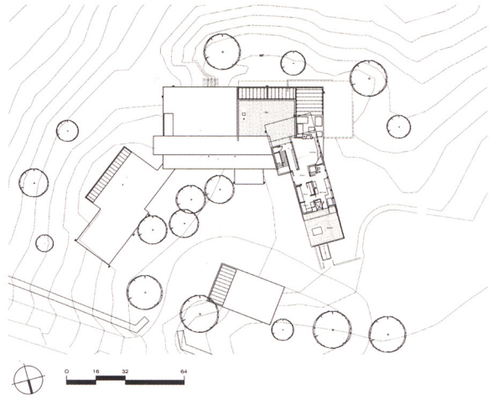
Reclaimed quartersawn white oak was used for the first-level floors.

PHOTOGRAPHER • CHUCK CHOI

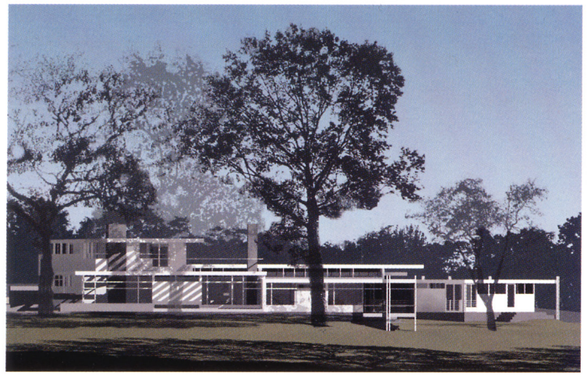
FIRST-FLOOR PLAN



SECOND-FLOOR PLAN

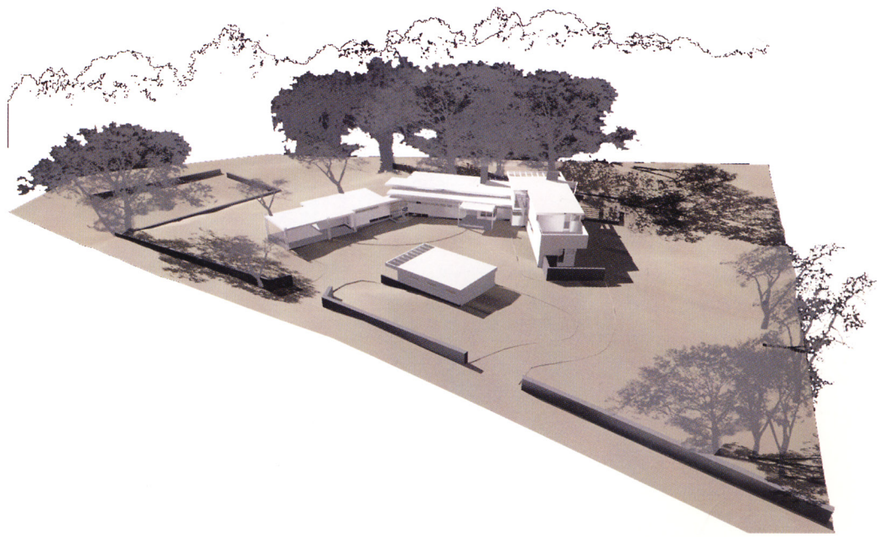


NORTH ELEVATION



PREVIOUS PAGES: The exterior of the house is sheathed in vertical, western red, cedar siding. The house was sited to preserve the large specimen trees on the gently sloping site.
RIGHT: The house was designed so that the interior flows to the outside terraces during the warmer months. The large overhanging western red cedar trellises modulate the summer sun while admitting the lower-angled winter sun's rays.

SITE PLAN



ABOVE: The horizontal planes of the floor and the roof extend beyond the large, glass openings, visually connecting the interior and exterior. RIGHT: From the entry courtyard, the low profile of the house and the selective openings through the façade engage the visitor in a lively game of hide-and-reveal with the views that lie beyond.

ABOVE: Clerestory windows bring light from all sides into the living and dining areas.
RIGHT: Recycled, quartersawn white oak was used for the floor in the living room.

ABOVE: Natural light floods the first-floor living area, where all rooms enjoy cross-ventilation.
LEFT: The master bathroom is finished in Honduran mahogany and opens to an outdoor spa.

ABOVE: Honduran mahogany was also used for the master bedroom floor and all windows were made this wood.
LEFT: A guest bathroom is finished in gray slate and horizontal cedar boards.
FOLLOWING PAGES: A view of the south façade from the pond

LOCATION • SOUTHEASTERN MASSACHUSETTS

ARCHITECT • MARYANN THOMPSON

THE GREEN HOUSE

This simple and refined contemporary residence on a densely wooded lot is surrounded by grand, neocolonial homes in a conventional suburban development. The clients, one an environmental lawyer, wanted an environmentally sensitive and sustainable design executed within a limited budget. The deliberately straightforward scheme—a simple box form adorned with a single trellis and an asymmetrical roofline—is a direct response to the clients, who suggested that the house express the attitude of "benign neglect." It was constructed of low-maintenance and naturally occurring materials, and fits comfortably and unobtrusively within its over-five-acre wooded site.

Within the tight footprint, the 3,000-square-foot residence offers ample public spaces for entertaining and cozy private spaces—all of which are connected, visually or physically, to the existing woodland.

SUSTAINABLE FEATURES:

Solar panels and pellet stoves reduce energy consumption.

Recycled materials for construction and finishing were used when possible, and included reclaimed hardwood cabinets, recycled glass tiles, and a roofing system of recycled tires.

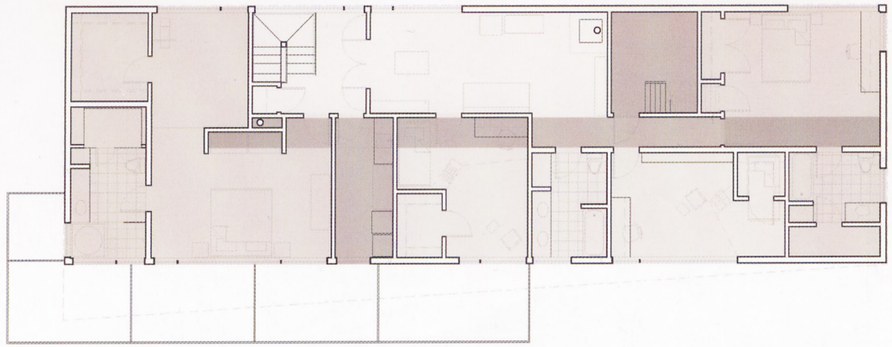
Windows on three sides of the living spaces assure adequate cross-ventilation and eliminate the need for mechanical air-conditioning. In the winter, numerous windows on the southern elevation provide passive solar heating.

The asymmetrical roofline of the southern elevation shields the upstairs bedrooms against intense summer sun.

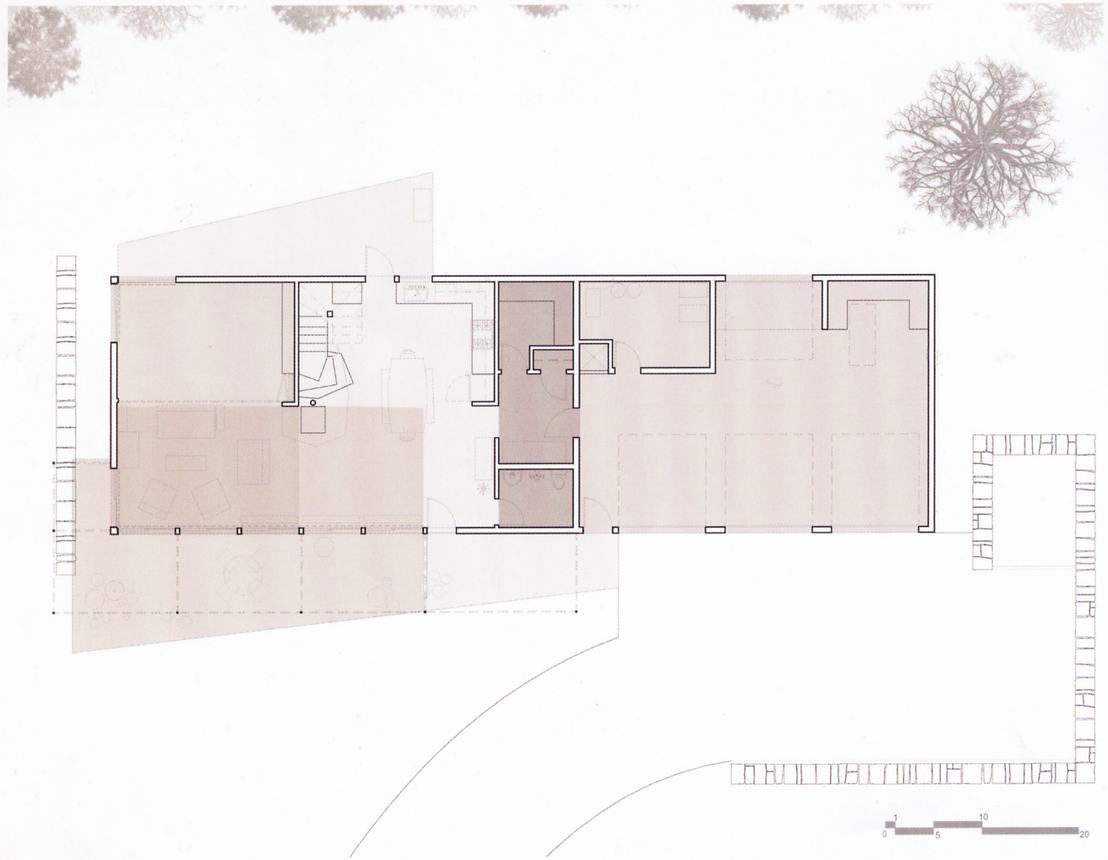
A trellis provides shade without obstructing light.

PHOTOGRAPHER • CHUCK MEYER

SECOND FLOOR PLAN



FIRST FLOOR PLAN



PREVIOUS PAGES: Sliding doors adjacent to the living and dining spaces preserve unobstructed views of the landscape and promote an indoor/outdoor lifestyle. The asymmetrical roofline shades the patio at mid-day and screens the main living spaces against harsh light. The exterior building materials include Hardy Plank siding, a sustainable composite.

SITE PLAN

LEFT: An expanse of sliding doors on the south elevation invite sunlight, warmth, and ample ventilation into the body of the scheme.
ABOVE: The L-shaped living and dining area opens to the landscape on four sides through sliding doors. The sun's movement throughout the day creates ever-changing light patterns across the concrete floor. The partition door, at right, creates a sound proof media and music room without a permananet enclosure.
FOLLOWING PAGES: At night, the house appears to hover just above the landscape. The exterior light fixtures, approved by the International Dark-Sky Association, are down lights which do not contribute to night time light pollution.