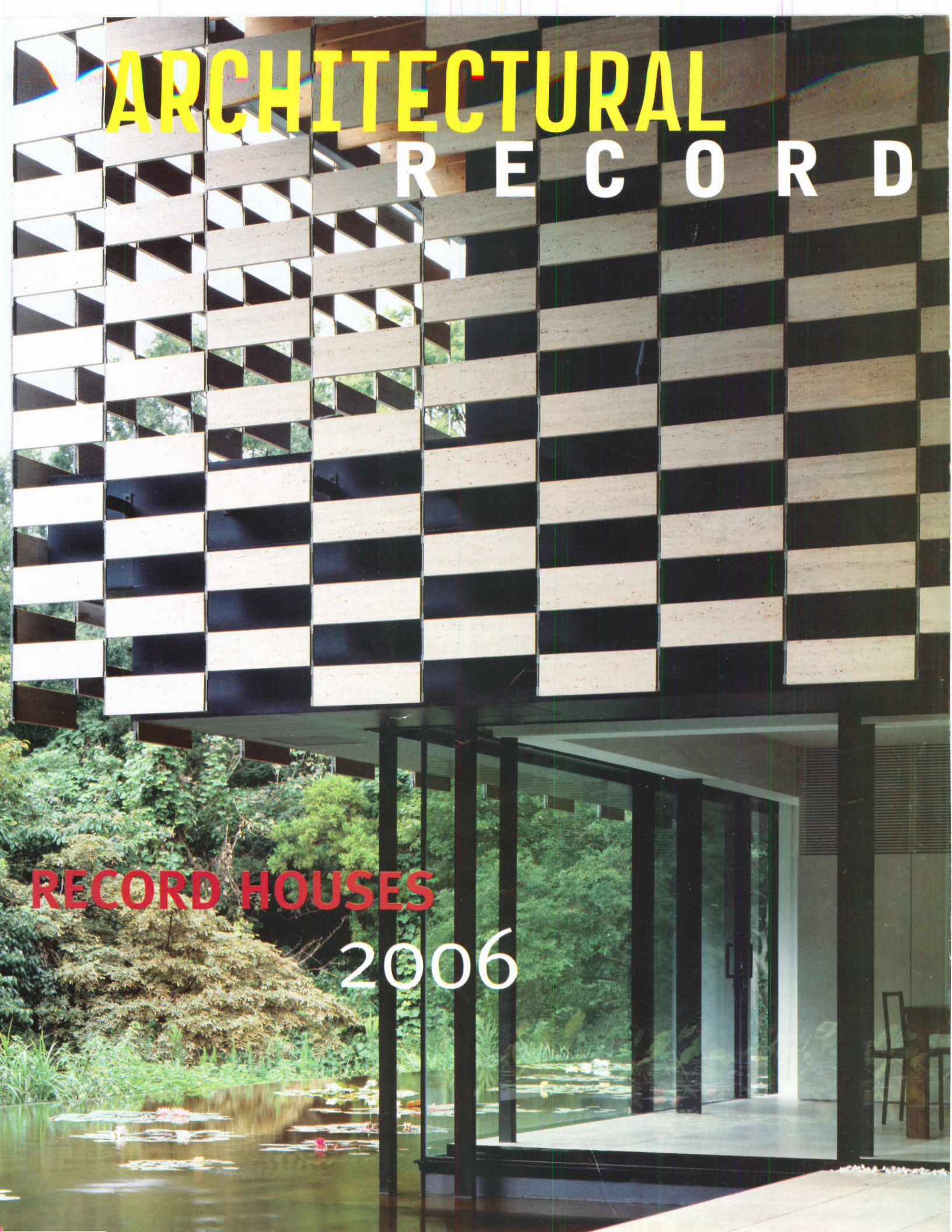


ARCHITECTURAL RECORD

RECORD HOUSES
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The house's north facade incorporates mullions and floor slabs into a jazzy composition reminiscent of Mondrian and Mies. Rubber wraps the chimney at the north-west corner.





With the **NEW** **ENGLAND HOUSE**, clad in black rubber and cedar, **Office dA** reinvents the cube

By Fred Bernstein

Twenty-five years have passed since the Rubik's Cube was a marketing meteor, but as a metaphor, it still has force for Monica Ponce de Leon. Each year, at Harvard's Graduate School of Design (GSD), she teaches a studio named for the maddening puzzle, which offers an important lesson: When a volume's exterior is truly linked to its interior, getting the outside right may require tireless manipulation of the inside.

Ponce de Leon and Nader Tehrani, her GSD colleague and partner in the Boston firm Office dA, have created a house that demonstrates that challenge. The typical American approach to home design, in which each new space adds a new volume, held no appeal for them. "This house," says Ponce de Leon, "is the opposite of sprawl." That, and the desire to get the two-bedroom, 2,600-square-foot interior up high enough to give the owners treetop views, resulted in a nearly cubic building.

But there is nothing simple about this cube, which twists and turns in plan and section in an almost dizzying profusion of material and formal explorations. Tehrani and Ponce de Leon, who have been working together since they partnered on their GSD thesis in 1991, consider their projects built essays. In this case, the clients, a young couple, set the bar high: Collectors of contemporary art, they imagined their land as a place

Fred Bernstein contributes to The New York Times and many design publications.

Project: *New England House*

Architect: *Office dA—Monica Ponce de Leon, Nader Tehrani, principals; Hamad Al-Sultan, Tali Buchler, Albert Garcia, AIA, Kristen Giannattasio, Lisa Huang, Elise, Shelley, design team*

Interior designer: *Manuel de Santaren*

Engineers: *Bill Bishop (structural); Foresight Land Services (civil); Sun Engineers (mechanical); Johnson Engineering (plumbing); Race Mountain Tree Services (landscape)*

In contrast to the windowed north facade with the rubber-clad chimney at its west end, the east elevation has cedar siding, a material chosen to evoke the architectural vernacular of local farms.



for site-specific artworks, of which the Office dA building, a weekend house, would be the first.

On the site, extending over more than 30 acres in western New England, half a dozen old farm structures already stood around an oval “village green.” Tehrani and Ponce de Leon wanted the house to mine—as well as undermine—local building traditions. For the east elevation, which visitors see from the driveway, and the south facade, which they pass on their way to the front door, the architects chose shiplap and board-and-batten siding, materials that, Tehrani suggests, “emerge from the language of the farm.” The more private north and west facades, however, were free to speak languages of the architects’ own invention.

Of course, even the two “contextual” facades are full of surprises. The three-story building’s east side, deftly camouflaging a trio of garage doors, is largely opaque, but with a bulge (containing the interior stairway) that looks as if a seismic shift had created it. The south facade’s horizontal siding turns a corner onto this vertically clad east elevation—one of several instances when the house’s architectural effects overlap. At the upper level, the south elevation bends loosely around the three parts

THE OWNERS IMAGINED THEIR LAND AS A PLACE FOR SITE-SPECIFIC ARTWORKS—STARTING WITH THE HOUSE BY OFFICE dA.

of a bathroom—the bathtub, sink, and toilet—perhaps in homage to the idea that form could simply follow function.

On the north side, where the view out is the most private—directly into the woods—the architects created a window system that combines mullions and exposed floor slabs in a jazzy composition reminiscent of both Mondrian and Mies.

The west elevation, sheathed in black-rubber roofing, isn’t reminiscent of much at all. In more typical applications of this rubber, says Tehrani, “you’d just heat it up and glue it together; the seams end up where they end up.” But he and Ponce de Leon investigated ways to extract precision from a material that is synonymous with imprecision. To create tailored openings for vertical slit windows, the fabricators, using digitally produced templates, cut the sheets, stretched them over metal struts, and folded the material back onto itself before securing it with rivets.

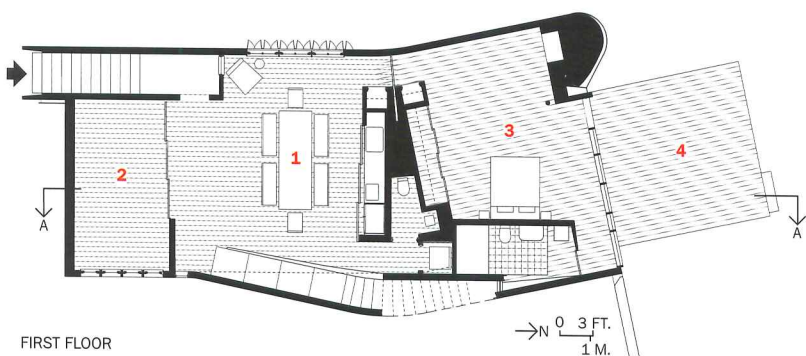
Inside, too, Office dA avoided domestic clichés. Much of the



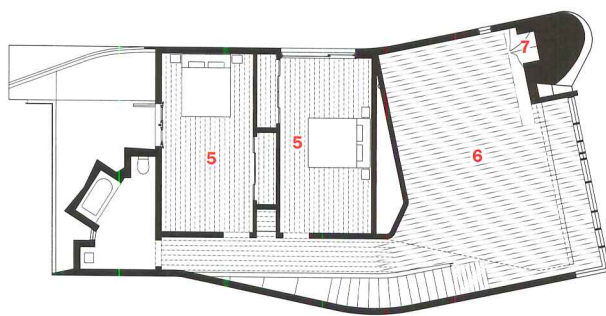
Windows resembling gills (top and above) bring daylight into the dining area. Entry is via

an outdoor stair rising between the cedar south facade and rubber west one (above).

1. Kitchen/dining
2. Playroom
3. Master bedroom
4. Porch
5. Bedroom
6. Living room
7. Fireplace



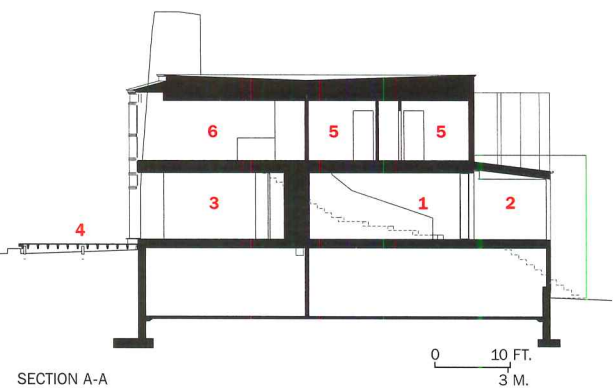
FIRST FLOOR



SECOND FLOOR




The east facade (above and right) camouflages garage doors. The bulge contains a clerestory-lit interior stair. Where the south facade's horizontal cladding turns a corner (above), it overlaps the east elevation's vertical siding.



1. Kitchen/dining
2. Playroom
3. Master bedroom
4. Porch
5. Bedroom
6. Living room

Ascending from the second to the third level, the stair follows a dramatic curve, with its walls tilting inward, "carving away headroom as you no longer need it," says Ponce de Leon.





Mahogany lines the curving stair wall, and walnut covers the floors. The steps hang from structural wooden posts, which become mullions as they pass through the clerestory.

In its proportions and overlap of vertical and horizontal patterns, the mahogany fireplace surround (below and right) suggests a microcosm of the house's southeast corner. The living room's synco-pated composition of fixed and operable windows (right) faces north, into the woods. Manuel de Santaren and Carolina Tress-Balsbaugh collaborated on the interior design.



ground floor is relegated to the garage, but the architects didn't permit anything as simple as a door from there to, say, a mudroom. The entry is via an outdoor stairway, where the cedar south facade and rubber west one peel apart, creating a slit that suggests a journey to the center of the earth. The walls bracketing the stairs tilt in, "carving away headroom as you no longer need it," says Ponce de Leon, explaining one of the moves that show the careful tailoring of plan and section. Making additional references to the facades, many of the interior elements (some created in collaboration with Boston designers Manuel de Santaren and Carolina Tress-Balsbaugh) seem to bring exterior components inside. A mahogany fireplace surround, for example, suggests, in its composition and overlap of vertical and horizontal patterns, a microcosm of the house's southeast corner. Inflected by the exterior cladding, some of the windows look through horizontal wood slats, while others are pinched by bands of rubber.

And the stairway, which leads from the second to the third floor, includes treads and risers that are rarely uniform. That's because this flight bows out from the east facade, mimicking the curves of the village green and placing the stair, as the architects say, "conceptually outside the building." With nothing supporting the steps from underneath, these elements hang from wooden posts, which double as mullions where they pass through clerestory windows. It is a structural tour-de-force.

Not a tour the architects are likely to take a second time. And now that they know how to whip rubber into shape, Tehrani and Ponce de Leon (whose current projects include an apartment building in Boston) have no immediate plans to attempt it again. After all, they have new puzzles to solve. Rubik—himself a professor of architecture—would approve. ■



Sources

Curtain wall: *Duratherm*

Rubber cladding: *Firestone*

Windows: *Marvin; Duratherm; Lou Boxer (custom)*

Paints and stains: *Benjamin Moore*

Lighting controls: *Lutron*

Tile: *Dal-Tile; American Stone;*

Discover Tile

Hardware: *Baldwin; Rocky Mountain; Richard Wilcox*

For more information on this project, go to Projects at www.archrecord.com.