gb&d
GREEN BUILDING & DESIGN
SEPTEMBER+OCTOBER 2019

JOBBER'S NEXT-GENERATION SOFTWARE SAVES TIME & MONEY
P. 12

INSIDE LG'S VRF HVAC SYSTEMS
P. 26

THE BENEFITS OF ALUMINUM WINDOWS & DOORS
P. 66

DESIGNING FOR DISCOVERY

ZGF SETS A NEW BAR FOR SUSTAINABILITY

ARIZONA STATE UNIVERSITY'S BIODESIGN INSTITUTE C
P. 48

In This Issue

September+October 2019
Volume 10, Issue 58
gb&d

Stepping Up

This house in Mexico City from architecture firm Taller Paralelo is full of light and interesting nooks.

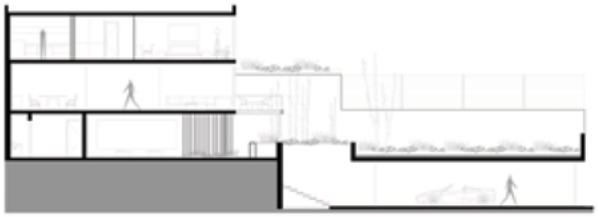
PAGE 60

Stepping Up

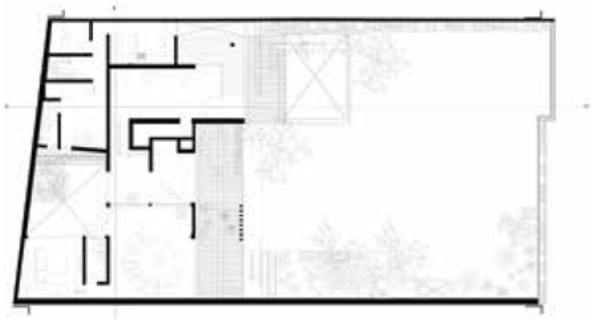
A 1960s house comes back to life with modern, minimalist decor and environmentally friendly features.

BY **JESSICA ZUNIGA** PHOTOS BY **RAFAEL GAMO**

Courtyard In the entry courtyard, a floating staircase ascends over a pool of water. Natural light shines through the open space, casting shadows in the water below. Like so much of the house, the space is filled with art—reminiscent of a gallery.



Longitudinal Section



First Level

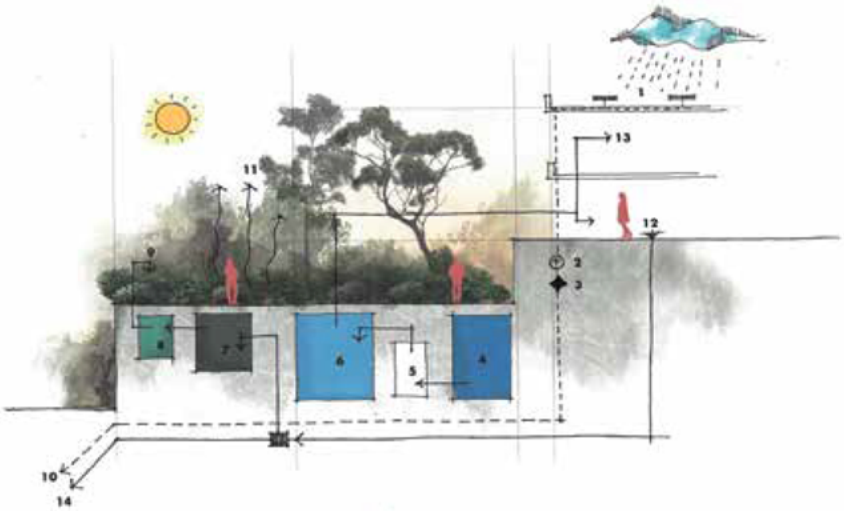
Most architects will tell you, it's easiest to start with a blank slate. Fortunately **Mikel Merodio** doesn't shy away from a challenge, and he knows good bones when he sees them—like at this circa 1960s home, the Cachai House project, in Mexico City. "Taking advantage of an existing structure makes it a little more interesting," says Merodio, the founding partner and director of architecture firm **Taller Paralelo**. Using what they already had also meant producing a lot less waste.

Merodio and his team utilized the existing layout to preserve the original structure and stay true to the split level design with three staggered floors connected via short staircases. Merodio says the atypical design was challenging but rewarding as the team managed the relationships between the spaces. The house is designed with the client's big family in mind, as every communal room can be used as a guest room. You'll also find terraces on every level, bringing to life the client's dream of connecting with the outdoors. Merodio and his team also designed a multi-use space that's unattached to the house—a totally independent apartment designed to benefit guests who may be less mobile and unable to navigate the main house with its many staircases.

Mexico City's rainy season is taken full advantage of in this home, as rainwater is collected for all of the house's potable needs. During the drier period, additional reserves can last another month. The irrigation system itself uses treated water and doesn't use potable water from the system any time of year. The owners knew they wanted their home to be as self-sufficient as possible, and they managed to avoid using city water for at least half of the year.

As architecture continues to be a booming, innovative industry in Mexico City, Merodio says technologies that utilize renewable resources are becoming more affordable and accessible to homeowners. He says he and his team always emphasize the importance of finding environmentally friendly solutions in their projects.

Interior Patio The house makes the most of its southern orientation, using solar energy and incorporating cool areas like the courtyard.

Project: Cachai House
Location: Mexico City
Completion: 2018
Site Area: 770 square meters
Architect: Taller Paralelo
Structural Engineering: Cafel
Lighting: G-Tech
Landscape: Alux
Rain Harvesting: SPL
Water Treatment: TIM
Solar Energy: Solar City

Wooden Facades A mix of materials works together to balance the minimalist aesthetic in the home. Exterior walls are primarily white, and exposed concrete elements create a neutral palette. Textured tiles embellish the rooftop terrace, and a black steel staircase runs through the center of the house. Accent walls, skylights, and wooden louvres bring warmth.