dwellings

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MISSION STATEMENT

A HOUSE IN SYDNEY COMBATS CLIMATE CHANGE WITH ITS OWN ECOSYSTEM.

The house that architect Clinton Cole designed for his family contains its own partial ecosystem. An underground cistern collects rainwater, which a pump system—powered by solar panels on the facade—carries up to an aquaponics pond on the second floor, where a school of edible silver perch swim. Nutrient-rich water from the pond is then used to irrigate a rooftop fruit and vegetable garden.

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Doors made from FSC-certified wood and custom pivoting windows appear throughout the house, including in the garage (below) and in the living room (right). The sofa is vintage and the Innate coffee table is by Jon Goulder. The painting is by Australian artist Simon DeGroot.

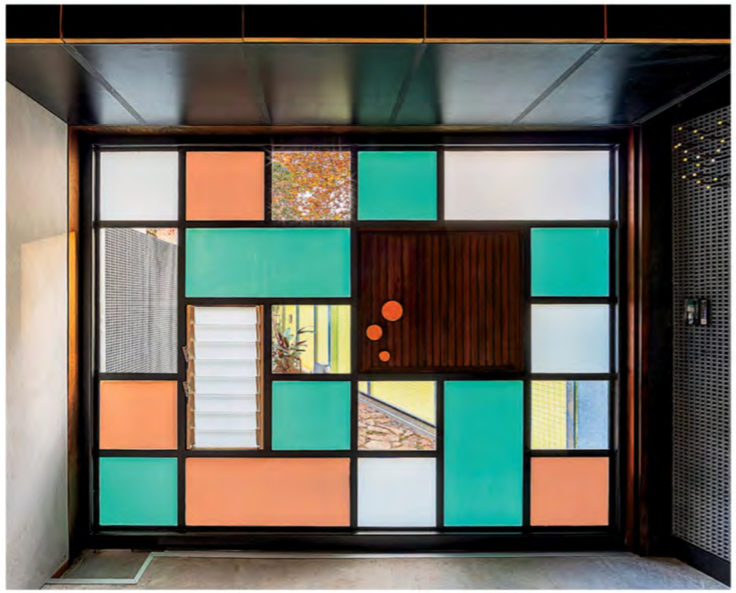

PHOTO: MICHAEL LASSMAN (GARAGE DOOR)

Ask Clinton Cole what drives his architecture practice, and you get a manifesto: "We need an architecture that generates and stores power, an architecture that harvests and recycles water, an architecture that reuses waste," says the founder of CplusC, a design-build firm based in Sydney. "We need an architecture that produces fruits, vegetables, fish, and eggs. We need an architecture where nature and beauty exist symbiotically."

Clinton's passion seems more urgent than ever against the backdrop of one of the worst brushfire seasons on record in Australia. Fittingly, he has designed a new home for himself, his partner, and their three children to be an eye-catching emblem for the cause. The three-level, 1,722-square-foot residence fills a wedge-shaped lot in an inner suburb of Sydney. With greenery spilling out of its facade and a working garden sprouting from the roof, it is a self-consciously verdant presence on an otherwise typical street.

One side of the house combines an existing masonry exterior—protected by local preservation regulations—with a new glass-enclosed steel structure set slightly behind it. Planter beds "float" between the two layers and serve as lateral bracing for the masonry wall. "This interstitial zone provides passive thermal regulation across the upper floors," says Clinton. "The planters provide views of greenery from the inside and cool internal spaces via transpiration [the process in which plant leaves give off water vapor]." Another section of the home's ›

“The house is a machine for sustaining life.”

CLINTON COLE, ARCHITECT AND RESIDENT

A spiral staircase runs through the center of the house, serving as a chimney that pulls cool air up from the ground floor as hot air exits through windows on the top level. The children’s bedroom (opposite) opens to the aquaponics pond. The custom upholstery is from South Pacific Fabrics and the blue pillow is from MissoniHome. On the floor is a Moroccan Boucherouite rug.

facade is covered by photovoltaic panels that feed a battery storage system and tout the house’s use of clean energy.

The roof is constructed of rows of 28-foot planter beds that function structurally as beams and contain soil deep enough to grow fruits and vegetables. The garden is fed by water pumped from an aquaponics fishpond on the second-floor deck. In turn, the native Australian plants and desert grasses planted around the perimeter of the garden filter storm water that drains into the pond below as well as into an underground rainwater harvesting system. The garden acts as a “green top hat,” says Clinton. “I want it to express the benefits of urban rooftop landscaping and gardens to the public.”

The front door—a steel “shroud” set into the concrete facade—leads into a ground floor that contains a living area and home office. A second entrance in ›

Welcome to the Jungle House

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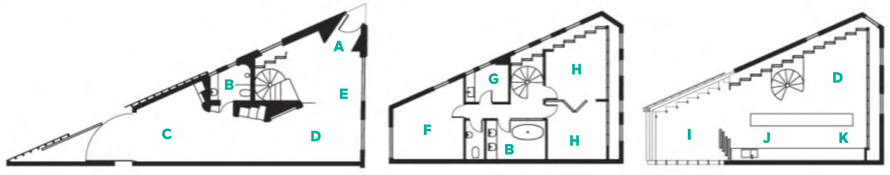
ARCHITECT
CplusC

LOCATION
Sydney, Australia



A Entrance
B Bathroom
C Garage/ Workshop
D Living Area
E Home Office
F Master Bedroom
G Laundry
H Bedroom
I Terrace
J Kitchen
K Dining Area

ILLUSTRATION: LOHNES + WRIGHT

“The house acts as a beacon of sustainability within its community. We want it to present a future model for city living.”

CLINTON COLE

the laneway to the rear of the house leads to a workshop and a garage for an electric car powered by the solar-fed battery system.

Bedrooms, a bathroom, and a laundry occupy the second floor. The kids sleep in bunk beds in one room, where low seating conceals storage space and windows open onto the bubbling aquaponics pond. “We made a deliberate attempt to connect the children directly with their food sources,” says Clinton, referring to both the fish in the pond and the fruits and vegetables on the roof.

The master bedroom is tucked into the narrowest point in the triangular floor plan, and by puzzling the private spaces into the lower levels, Clinton was able to create an open-plan top floor. There, a kitchen and dining area bleed into indoor and outdoor living spaces that have unobstructed views of the city skyline.

Throughout the home, the finishes feature a combination of raw and industrial textures, such as recycled timber flooring and stair treads and a variety of polished and unpolished metals.

The house is a lush, living presence on the Sydney streetscape with its own self-sustaining metabolism. For Clinton, it embodies how we should live now and shows the world how architecture can adapt in the era of climate change. ■

The house incorporates an existing masonry facade (opposite, top), with planters situated between it and the new structure creating a buffer of greenery. Frosted glass lets natural light into a bathroom (opposite, bottom). The garden’s steel planter beds serve as the roof structure over the third floor (this page), which has views of the Sydney skyline.