The Disaster Artist

AS CLIMATE CHANGE STRAINS L.A.'S RESOURCES, AND ENTIRE NEIGHBORHOODS ARE RAZED BY CATASTROPHIC FIRES, ARCHITECT DAVID HERTZ IS BUILDING HOMES THAT EMBRACE THE INEVITABLE.

O MANY, David Hertz is best known as the green architect who designed the Californication house where David Duchovny's character worked through midlife issues against a minimalist, night-lit swimming pool bordered by floor-to-ceiling glass walls. Hertz raised his three (now adult) children in the home and sold it for $14.6 million in 2017. Later that year the architect, famous for designing streamlined sanctuaries for clients such as Julia Louis-Dreyfus and Mercedes-Benz dealership heiress Francie Rehwald, embarked on a seemingly quixotic project.

"I was interested in how I could make point-of-use atmospheric water stations," Hertz says. "In L.A. our water comes from almost 1,000 miles away. Nineteen percent of California's energy is used to pump water here." Turning air into water might sound like a mystic endeavor, but existing technology enabled Hertz to assemble a water-making machine fueled entirely by solar panels on the studio roof. "I made a bottle-filling station in the alley and gave the water away to the homeless," he says. "I gave them refillable bottles. This is about the democratization of water, not the commodification of it."

Water creation is a relatively new endeavor for the 59-year-old architect and L.A. native, who has spent more than half his life designing adventurous, environmentally conscious buildings. Less famous than Venice's other resident designer, Frank Gehry, Hertz has spent much of his career focused on making buildings more sustainable, starting...
with building materials. He's a founding member of the U.S. Green Building Council, the inventor of Syndercrete, an environmentally responsible alternative to concrete, and the creator of some of the city's most daring acts of adaptive reuse: In 2011 he reimagined a scrapyard-bound Boeing 747 into a striking hilltop home in Malibu, the Wing House.

Today Venice Beach drinking fountains are back on, and Hertz's alley tank creates more than 150 gallons of water per day, enough to irrigate 80 urban farm boxes used by nonprofit Community Healing Gardens to provide fresh produce to local families. "There is six times more water in vapor form than in all the rivers on the planet," Hertz says. "Every time you look up in the sky, in the clouds, that's water. Why should corporations take water from the ground, put it in a plastic bottle, and sell it to us at huge profits when we have more plastic than plankton in our oceans?"

But dry drinking fountains are not the only environmental problems that Hertz has set out to conquer. Less than 40 miles from his Venice studio, his Malibu ranch, a 57-acre estate formerly owned by legendary Hollywood set designer Tony Duquette, sits on the front lines of California's increasingly destructive fire-and-flood cycles. In 2018 the Woolsey fire came within 100 yards of the property, now called Skysource Ranch, where Duquette's original sets from The King and I dot the scrub-covered land. Hertz knew the towering red pagodas on the property were convenient kindling—all dried wood and intricate carving—with lots of surface area to attract stray embers—so he covered them in fire retardant and rid the ranch of juniper bushes, referred to as "gasoline plants" by firefighters. What he didn't anticipate was that his house would become base camp for the California Department of Forestry and Fire Protection, which not only monitored Woolsey's progress from its elevated vantage point but also relied on its water supply and storage. "Our pool became very effective as a resilience hub; they drained it three times," Hertz says.

While Skysource escaped ruin, Paramount Ranch, the 2,700-acre Agoura Hills Old West movie town revitalized by Hertz's grandfather in the 1950s, was completely lost. Included in the destruction were guest books inscribed by actors who had filmed there, including John Wayne and Will Rogers.

"I learned a lot from Woolsey," Hertz says. Now he's applying those lessons to a series of projects in Malibu and Ventura where the inevitability of wildfires informs every design decision: His post-Woolsey homes have no eaves or attics and are set on slab foundations. "Raised foundations and attics have venting, which is a primary opportunity for ember infusion," says
Hertz, who adds that wood decks and fences only provide fuel for wildfires. But scaling back ornamentation isn’t much of an aesthetic pivot for Hertz, who was already building on slab foundations and extending wood-free flooring from inside to out.

Hertz is also transforming another iconic California home feature—the swimming pool—into a potential weapon against wildfire. “We’re now designing pools with less obstruction over the pool; we make them deeper and wider to become a water source during fire,” he says. “We’re also now thinking in terms of making them accessible to the fire department. That access can mean saving your home.”

Like the point-of-use alley water system, Hertz is razor focused on what he calls “resilient design,” ways to make homes more autonomous. “When we get a red flag warning, utilities are now cutting off the power, and that will be at least 24 hours. This is the perfect example of resilience. We need to be prepared for power off. So do you get a generator and fill it with diesel fossil fuel with its risk of ignition, or do you just want to use batteries, which the state will pay for in a rebate?”

Hertz employs other fire-suppression systems, including ground sprinklers that can be activated remotely. He’s even designing metal-lined, subterranean rooms to store art and other valuables as mandatory evacuations become part of the new normal.

The architect tests many of his ideas at Skysource, where he’s experimenting with a system that deploys phosphate fertilizer, the chemical retardant dropped from planes, via above-ground pipes. Under the eaves of the original 1922 lodge cabin constructed partly out of highly combustible railroad ties, Hertz installed sprinklers that will spray windows, wood, and the perimeter of the home during a fire.

Skysource is also where Hertz and his wife, photographer Laura Doss-Hertz, are addressing global water scarcity. In 2018 the couple won the Water Abundance XPRIZE, sponsored by India’s Tata Group and Australian Aid. The challenge: make 2,000 liters of water in 24 hours from the air using 100 percent renewable energy. Unlike the water-making at his studio, where solar couldn’t generate enough energy for such a large output, Hertz and Doss-Hertz created WEDEW (wood-to-energy deployed water), which runs on wood or agricultural waste that, when heated, has ten times the power of solar.

“One of the single-largest crises we will face is water scarcity,” Hertz says. “The UN says that demand for water will outstrip supply by 40 percent for 2030. We intend to deploy the WEDEW all over the world, to places where women walk miles for water, to island nations that are all diesel-based economies.” At Skysource, Hertz’s WEDEW provides water for his home as well as 500 recently planted coffee trees.

“When I built the Californication house in 1995, it was a lab for sustainability: natural ventilation, sustainable building materials, solar, radiant heating. Now my work is focused on how we respond from one disaster after another—to record-breaking temperature events, to fire, to flood. ‘Resilience’ is the operative word.”