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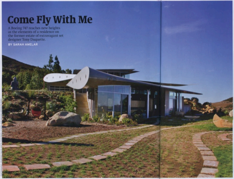
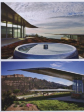
The 747 Wing House | Malibu, California | David Hertz Architects

Come Fly With Me

A Boeing 747 reaches new heights as the elements of a residence on the former estate of extravagant set designer Tony Duquette.

BY SARAH AMELAR





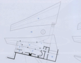
FOUNTAINHEAD a former engine cowling (top right) is now a Zen-like fountain, with an optional flame at its center.

The wing contours (opposite and above right) resonate with the shapes of the Santa Monica Mountains. The architect added long, thin metal strips on the wing tops to disrupt aerodynamic flow and prevent lift.

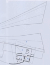
STEP THROUGH the filigreed entry gates, and you've clearly entered another world. High in the Santa Monica Mountains, a driveway descends amid jungly cacti, pink mink and pincushion protea, and fanciful pagodas fashioned from steel drums, cable spools, and vintage power-line insulators. Then, near the path's end, another feat of salvage comes into view: a glassy house crowned by the wings of a Boeing 747.

Amid rugged mountain peaks with distant ocean views, the 55-acre site was once part of "Sortilegium," or "The Empire," the 21-building weekend retreat of Elizabeth ("Beegle") and Tony Duquette, legendary designer of Hollywood sets, costumes, jewelry, and flamboyantly eclectic interiors. A wizard of inventive repurposing, Tony created opulent chandeliers from plastic juice glasses and, on this rustic Malibu terrain, pavilions from stage sets, a junked trailer, and other "found objects"—everything but a 747. In the 1990s, wildfire ravaged the compound, destroying the buildings. Later, the Duquettes died.

Eventually, Francie Rehwald, a retired Mercedes-Benz dealer, purchased 55 of the 150 acres—and just happened to have the original gates in storage (bought, on a whim, at auction years earlier from an unidentified Duquette project). After interviewing a Who's Who of architects, she hired Los Angeles-based David Hertz, who had also been breathing new life into post-

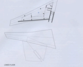


MAIN FLOOR



UPPER FLOOR

1 ENTRY
2 LIVING
3 KITCHEN
4 DINING
5 OFFICE
6 MASTER BED
7 MASTER BATH
8 CLOSET
9 COVERED PATIO
10 COURTYARD
11 ROOF
12 GARAGE



LOWER FLOOR

consumer waste. In 1983, as a 23-year-old, fresh out of SCI-Arc, he created Syndecrete, a lightweight concrete with recycled carpet fibers and aggregates of computer parts, broken glass, chopped-up cassette cases, and other detritus of the material world. But not until he designed Rehwald's house did he salvage an object as monumental as a 747.

On his first site visit, Hertz sketched dramatically cantilevered roofs, gesturing to the landscape (and evoking John Lautner, with whom Hertz had apprenticed). As the roof profiles began to resemble airplane wings, he hit on the idea of creating a house from a partially deconstructed plane. Rehwald had requested an eco-design with "feminine curves," and the 747's voluptuous aero-dynamism sparked his imagination.

Soon, Hertz and Rehwald visited nearby "boneyards": desert "parking lots" for thousands of grounded commercial aircraft. Typically, decommissioned planes get cannibalized for resalable mechanical parts and, ultimately, the metal itself. A new 747 costs at least $250 million, but Rehwald purchased an intact 1970 model for $35,000, the price of scrap.

To carve the 230-foot-long "whale" into transportable parts, four men "filleted" off the fuselage's top half and bisected the 125-foot-long wings. Delivery to the site entailed freeway closures and brief helicopter airlifts (to bypass extremely steep, winding roads). These premanufactured parts, says Hertz, offset the transfer's monetary and carbon costs. His design for a 4,700-square-foot main house—with three tiers stepping down a slope—would integrate wings as roofs over the main living area (the mid-level) and guest quarters (at bottom), with tail stabilizers and dual Ronchamp-ian curves over the master suite, at top.

But first, the project needed to clear 17 government agencies (a two-year process) and pass an officer visit from suspicious Homeland Security personnel, plus FAA requirements (later retracted) for huge, red "X"s on the roofs to deter pilots from calling in a crash.

CREDITS

ARCHITECT: David Randall Hertz, partner in charge; Lucas Goethe, project manager

ENGINEERS: NG Civil (civil); C.W. Howe Partners (structural); Monterey Energy Group (m/e/p)

CONSULTANTS: Grover Hollingsworth (geotechnical); Aaron Landsworth (landscape)

CLIENT: Francie Rehwald

SIZE: 5,175 square feet

COMPLETION DATE: October 2011

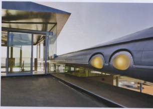
SOURCES

LIGHTING: BK Lighting (exterior)

GLASS: Crystal Clear Glass (skylights, curtain wall)

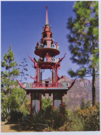
HARDWARE: Emtek (locksets)

PLUMBING: Toto



PHOTOGRAPHY: © SARA JANE BOYERS (TOP, FAR RIGHT); COURTESY DAVID HERTZ (RIGHT)

CABIN FEVER Aluminum sheeting, with circular vents, caps the wings' severed ends (top). A three-window stretch of 747 fuselage (above) forms a whimsical pass-through from the kitchen to the client's study. The house's base is concrete, cast into the hillside (left), but the wings appear to float above a clerestory to the south (right) and floor-to-ceiling glazing to the north.



SALVAGING SHANGRI-LA Many of the Duquettes' fanciful pagodas, fashioned from steel oil drums and other cast-offs, survived the fire. Though some were toppled or scarred, Hertz recreated the original entry procession.

Today, those wings, with their tips cantilevered out 45 feet, seem to float. Hertz set them above floor-to-ceiling, low-e glass walls, facing north and west, and a long clerestory upslope, to the south. You can look diagonally right through the house, across the valley.

"We thought of the plane as Native Americans considered the buffalo, using every part of it," Hertz says. Aside from the stabilizers and wings—now retrofitted with LEDs in lieu of landing lights and access ports—the house actually integrates very little of the body, only a swatch of fuselage. The remaining "carcass" awaits future on-site phases, including a meditation pavilion from the jet's upended nose and outbuildings from its body.

Beyond the thrill, and sustainable ambitions, of reusing a jumbo jet, the design succeeds most where it resonates with the landscape's heroic horizontality—and where salvage is most transformed, as in the whimsical kitchen pass-through (a three-window stretch of fuselage) or the engine cowling reborn as a Zen fountain/fire pit.

Though Hertz's idiom is clean-lined Modernism, and Duquette's exuberant mod Baroque, their work resonates with an affinity for repurposing. As toppled pagodas turned up across the property, Hertz restored the original entry procession. "It's been an adventure," says Rehwald, who often shares the property with guests. "I keep finding more 'archeology'—all sorts of shards and treasures." ■

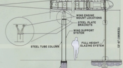
Sarah Amelar is a contributing editor to ARCHITECTURAL RECORD.

A Complex Project Takes Off

In transforming an old jet into a home, how do you even find an available plane? Of the hundreds of commercial aircraft idling in two "parking lots" in the California desert, not every plane is permanently grounded nor necessarily for sale.

Rehwald bought hers via Aviation Warehouse, in nearby Adelanto. Its owner, Mark Thomson, a former corporate-and-stunt pilot, sells flightless "birds" for TV and movies, and often ships planes to Asia for reassembly as restaurants. "Outside the U.S., few places have the maintenance resources and dry climate to fend off corrosion," he explains. Rehwald's 747, originally TWA's, was the 28th off Boeing's assembly line.

Nominally sold for the cost of scrap and market value of the mechanical parts, "the price," he says, "is almost meaningless, a fraction of the real costs. The logistics of moving are everything. And, in this country, it's a long, hard battle for permits and approvals." He usually acquires gutted planes. Before power-sawing a jet into transportable pieces, his crew blocks it up to avert tipping and fills the fuselage with carbon dioxide to prevent fire.

With 747 parts dwarfing a semi-truck, a transfer requires Herculean feats. For Rehwald, precipitous roads were bypassed via Chinook helicopter, at $18,000 per hour.