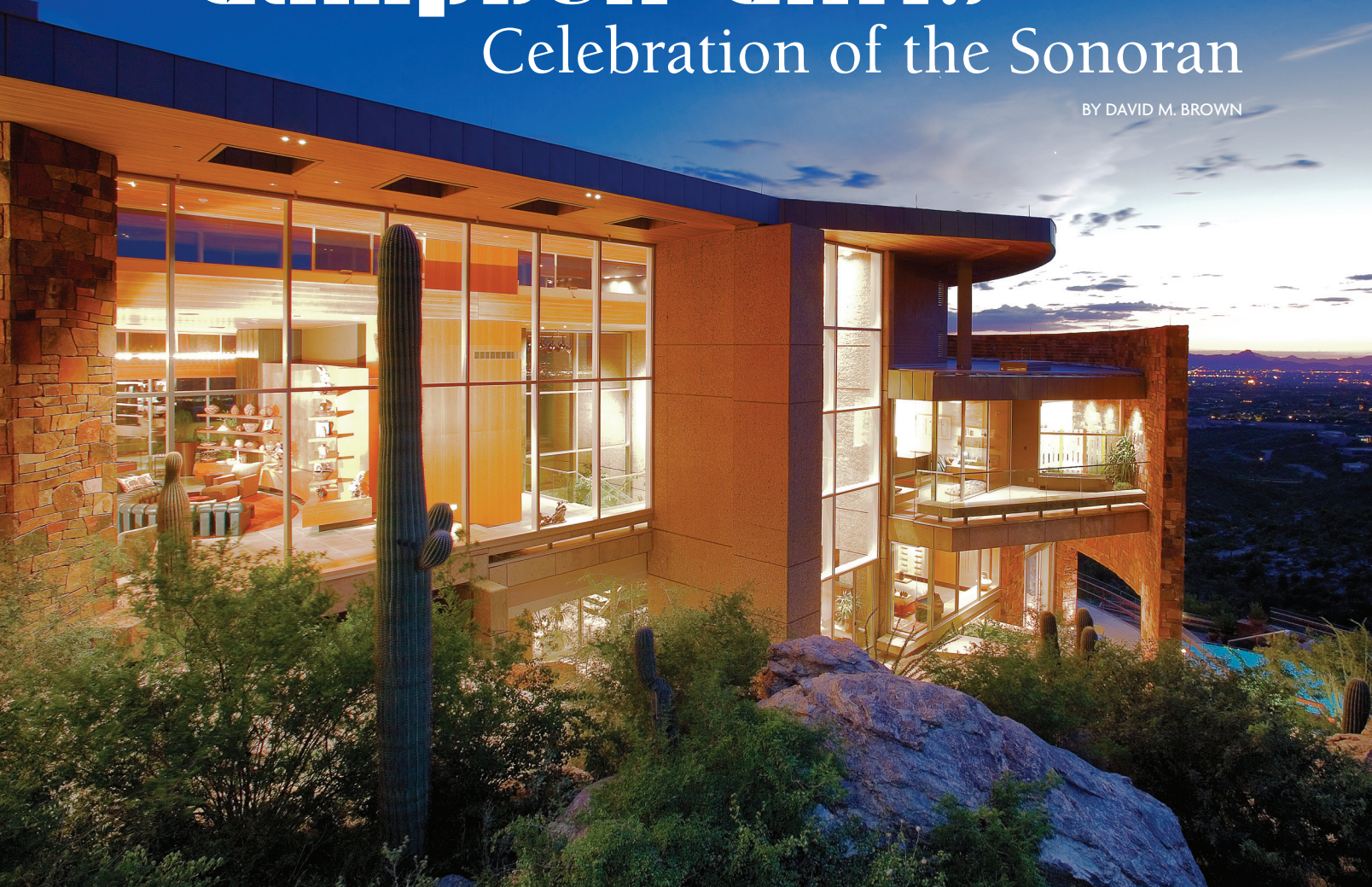


Campbell Cliffs

Celebration of the Sonoran

BY DAVID M. BROWN



At **Campbell Cliffs** in Tucson, soaring windows look up into primeval granite mountains and crags, and 35 skylights open to the heavens above the high Sonoran Desert. Overlooking the city in the exclusive Cobblestone community at 3,200 feet above sea level, the 31,000-square-foot underroof home is suffused with light and infused with the spirit that life should be celebrated.

Even among luxury homes, Campbell Cliffs lists impressive credentials: 24 rooms, including the 2,000-square-foot master bedroom with a two-person jetted tub and a deluxe shower. Additionally, there is a 1,200-square-foot commercial-grade kitchen; a wine cellar that holds 2,200 bottles; a two-level, 750-square-foot gymnasium with a climbing wall; an office wing; a sound proof indoor gun/archery range; a 3,000-square-foot entertainment center; a multilevel pool/spa area; a 65-foot-long corridor art gallery with 13 skylights; a six-car garage with a

charging station for an electric car or golf cart; a guest wing with three bedrooms and three full baths; a fireplace-warmed living room; an outdoor patio and an aerobics workout area.

Grand and Green

Although it may be the Old Pueblo's largest home, Campbell Cliffs incorporates sustainable materials and systems and energy-conscious methodologies. Designed by owner Les Wallach, FAIA, and architect Bob Clements, AIA, LEED AP of Line & Space LLC [named 2009 Arizona American Institute of Architects Sustainable Firm of the Year], this majestic home was named for the adjacent 500-foot-high vertical cliffs in the Coronado National Forest and combines organic features, such as wood, sandstone and granite, with contemporary materials like glass, aluminum, concrete and stainless steel.

Campbell Cliffs stands as part of the foothills, carved into its granite formations so that it belongs "specific to both its time and place," Wallach said.

“Good design should address climate in a responsible way...”



“Les Wallach has created a vernacular for the desert that is environmentally responsible,” said Elizabeth Rosensteel, the Phoenix-based interior designer. “He is tireless in challenging himself to strive toward an architecture that minimizes environmental, physical and visual impact. He is the consummate defender and guardian of the desert environment.”

Ten years ago, in the pre-planning stages, Rosensteel sought out sustainable materials, such as reclaiming rhomboid-shaped logs for tables in the home’s massive great room and acquiring a Varia Ecoresin dining table comprised of about 40 percent pre-consumer recycled resin.

Do Not Disturb

“The process began with a site analysis that included camping on the property with the owner,” Wallach recalled. “When we could find no level clear spot large enough for a small tent, we began to understand some of the issues related to creating a place of this magnitude in such challenging terrain.” Wallach and Clements’ first sustainable practice was to place the home facing south along an east/west axis.

Both the architects and owners insisted that the desert be disturbed as little as possible during the seven and a half years of construction, explained Martha Briggs of Long Realty Company.

“Concern for the natural habitat was at the forefront of construction, as an existing jeep trail was used for the driveway,” Briggs explained. To start, the home site was not mass-graded or scraped — which is the usual procedure for most residential projects. Every salvageable tree and cactus was saved at an onsite nursery, then, many years later, transplanted back onto the property. Other vegetation was protected during construction, including a thriving saguaro only six inches from the structure. Granite boulders were also carefully reset following excavation.

“Everything that could be done to maintain the site as it was has been done,” said one of the owners. “We wanted to bring back the desert and return it as we found it and not harm it.”

Sun Shine, Sun Shade

Siting and site sensitivity was just the beginning of this sustainable endeavor, as the design alone took two and a half years to complete.

“Good design should address climate in a responsible way, so several environmentally appropriate decisions were made during design,” Clements said.

As you walk up to the front entrance, a waterfall feature incorporates an old mica mineshaft that had once attracted prospectors for gold. The shaft is continuously supplied with water from an aquifer 600 feet below that fills two 3,000-gallon water storage tanks that serve as the water supply for the landscape and the fire sprinkler system.



Photography by Thomas Bliss

Daylighting strategies include abundant window walls, clerestory windows and insulated skylights that reduce lighting loads, Clements explained. “West-facing windows in our region are difficult to protect from the sun and are a large source of heat gain; therefore, these walls have no windows.”

Other energy-saving features include 12- to 15-foot overhangs on the south-side patios, protecting the glass from solar heat gain; 8,000 square feet of dual-pane low-e windows, offering the owners and their guests incredible cliff and city lights views. The east half of the house is 15 feet below grade, and the exterior walls are 2-foot-thick poured concrete with stone fascia, topped with 6-inch steel studs with fiberglass batting. On the critical west walls, extra insulation was installed to mitigate heat gain.

The reflective flat roof was the first its kind in the United States, is made of 28-gauge reflective stainless steel lengths, cut, seamed and welded. Although three to four times the cost of a traditional roof, its life is 10 times longer, and sealed so tight that one could plant a garden on top. Another form of stainless steel sits atop the cantilevered roof that shades the home’s entry from the warm sun.

When temperatures rise, a sophisticated HVAC system manages 21 programmable zones within the home, varying no more a half degree zone to zone. Rooms that go unused can be set at a higher temperature for significant energy savings.

As for the surrounding habitat, it is not uncommon for mountain lions, bobcats, javelina and deer to wander up to the home, illustrating their placement as natural as the adjacent outcrops, canyons or washes.

“When it is necessary to disturb our desert, we need to be sure that the end result is something worthy of its splendor,” Briggs noted. “Campbell Cliffs does this magnificently — celebrating its surroundings rather than diminishing them.” ■

To view this home in detail visit campbellcliffs.com or marthabriggs.com.

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