THE SUN KISSED LESSONS OF CASA KIMBALL

This five-star resort demonstrates how island limitations are no barrier to great design.



Casa Kimball is a showcase of addition by subtraction.

The 20,000 square foot private beach house and eight-suite rental villa demonstrates what's possible with material limitations. Or better put, it shows how to take maximum advantage of what is available to construct a luxury Caribbean resort that some experts rank among the world's finest.

Situated on an unspoiled point of land on the northern coast of the Dominican Republic, the project tested a design team led by Jasmit Singh Rangr, principal of Rangr Studio, an award-winning Berkeley, Calif.-based architectural design firm.

DISCOVERY PHASE

Rangr recalls his early days on the project. "I didn't put pen to paper for at least three site visits. We spent those early visits walking the site and assessing material availability and local construction talent. What was the microclimate like? The prevailing winds? The topography? We gathered and mentally filed away all these variables. At design time you can confidently proceed because you know exactly what assets you have to work with."

The coastal beauty of the site also posed a challenge. The project would be the first construction of any kind on the property, which offers a commanding 180-degree view of the ocean. "The constant silent refrain was, 'Don't mess this site up," Rangr says.

NO STEEL. NO WOOD. NO PROBLEM.

The remote island location also presented material and logistical difficulties. Among them: No steel. No wood. Nothing imported on a significant scale, which might make it vulnerable to corruption delays and expense, a fact of island life.

One key material was available: ready mix concrete. However, even that wasn't without challenges. "The nearest ready-mix plant was a 90-minute drive away and the nearest high-strength concrete facility even further than that," Rangr says.

WELCOME LIMITATIONS

Rangr was unfazed. "Limitations are really helpful. Constraints are great. We knew right away we were going to build with concrete. I believe the biggest piece of readily available lumber were 2x8s. You're not going to create expansive ocean-facing spans with that. I knew with the type of concrete available we could form spans of eight meters and extend cantilevers three meters, using plywood forms and bamboo scaffolding," he says.



Photo credit: Paul Warchol

The other material asset was native compressed coral, which the island is made of. Coral cladding became the primary finishing material of Casa Kimball.

ENVIRONMENTAL RESPECT

Rangr's design incorporates principles of modernism, guided by a philosophy that pays respect to "... the environmental conditions of the site. Environment directs the architectural elements," Rangr observes. "It should heighten the experience of that environment and reduce energy expenditures by minimizing cooling and heating through passive conservation techniques. For example, Casa Kimball is equipped with split-system air conditioning as a competitive measure. The fact is, "... nobody uses the system. I expected that to be the case," Rangr explains.

Rangr says Casa Kimball "... couldn't exist without concrete.

PORTABLE. VERSATILE. ENDURING.

"You're able to transport it in a liquid state and from any way you want. They don't teach material logistics in architectural school. Erecting steel, for example, may require a crane that's

BUILD WITH STRENGTH



Photo credit: Jasmit Rangr

blocked by a stand of trees. With concrete, forming a 40-foot beam on-site isn't a problem. Concrete has many logistical advantages."

Today Casa Kimball attracts A-list celebrities, wedding parties, and corporate leadership meetings. There are many attractions, including a 47-meter-long infinity pool and walkways to the ocean.

"It's easy to lose yourself at Casa Kimball," says Rangr. "The interaction of air and water is magical."

Addition by subtraction? At this sun-blessed location, logistical flexibility and architectural ingenuity means multiplication by subtraction.

To learn more, visit BuildWithStrength.com

Project Name: Casa Kimball Location: Cabrera, Dominican Republic Architect: Rangr Studio

Client/Owner: Spencer Kimball Project Types: Residential/ Hospitality Project Scope: New Construction Size: 20,000 sq. feet Year Completed: 2008 Design Team: Jasmit Singh Rangr, Eivind Karlsen, Elizabeth Beecherl, Josh Weiselberg

Consultants: General Contractor: Roland Roger Widman

Engineers: Sixto Romano, Hector Diaz



Photo credit: Paul Warchol