



Accessible Sustainability

GSA promotes guilt-free, planet-focused modern living in Barbados

It isn't often that designers have an architect as a client, but this was the case for Barefoot Leaf, a contemporary Caribbean beach house located on a narrow, challenging site in St. Lucy, Barbados.

Our Architect Client wanted a house built with sustainability in mind; the construction of which should only impact the site in minimal ways. Our client also desired to showcase local craftsmen. This matched the design philosophy of the GSA design team, and a great collaborative pairing was born.

Aiming for minimal disruption, GSA assigned the levels of the house to mimic the existing topography of the site. This had the added advantage of preserving existing breathtaking cliff views. The site was well-treed along the cliff edge, and the objective was to maintain as much of the existing vegetation as was possible, especially the large breadfruit tree that inspired the name of the house. Views would be framed by greenery, and, from the sea, the house itself would almost disappear; only tantalising glimpses would be visible through the vegetation.

In keeping with sustainable goals, the material selection was simplified and kept as local as possible:

- Barbados coral stone accents
- Close boarded ceilings from local architectural design vernacular
- Caribbean-styled louvred doors and windows
- Polished concrete floors

- No glass used in any fenestration

Thermal comfort and passive cooling were major considerations in the design, and the following objectives were achieved:

- Hot air rises and exits through staircase clerestory windows
- Push-out louvre windows allow airflow to the living spaces
- The garage was designed with slatted movable enclosures to allow security and natural ventilation
- Upper bedrooms were positioned to capture the prevailing winds
- Both fixed and operable large louvred door openings optimise the movement of air

As space was at a premium, many sliding and pocket doors were utilised throughout the home. One of the largest doors is a 12 foot tall, bi-parting sliding door, which opens onto a small courtyard. This double height door is fully louvred and allows good airflow. The other major opening separates the main indoor and outdoor living spaces. It is also fully louvred, and slides away into a pocketed wall to open up the two areas. Other doors of special mention are the reclaimed teak entry doors, where both pockets and pivots are employed.

Our client was very interested in supporting Barbadian artisans, so locally crafted handmade tiles were installed in the bathrooms and local coral render was applied on accent walls. The house's name plate was cut

out of solid coral stone, and an exterior wall was restored in this material, as well. The main stair features natural jatoba treads and risers with contrasting stringers. The handrails and metal work were also locally supplied.

Beach access is an important component of the site, and a stepped landscaped path was included for easy maintenance. The beach shower was finished with local tiles and includes a bespoke copper shower-head with exposed plumbing.

Words From our Client:

"My experience in architecture for the past 30 years has been mostly in the realm of large commercial and institutional buildings. A beach house in Barbados was unfamiliar territory for me - and rather daunting. Christian, Laura and the GSA team made it easy.

From a sustainability perspective, of course reduction of operational energy use was a significant concern, but so too was local content. One could argue having as much local material and craftsmanship as possible is a good proxy for embodied carbon but we were simply determined to have a house that was, to the greatest extent possible, rooted in Barbados."



(246) 425-1356
studio@gsabb.com
www.gsabb.com

