

Taylor House

Frank Harmon

“Like a sea hawk’s nest overlooking the sea”—that was the way industrial designer Jim Taylor described the vacation house he and his wife, Janice, wanted to build on Scotland Cay, one of the exotic Abacos Islands in the Bahamas.

A bird’s nest is an extraordinary concept for a vacation house, but Scotland Cay—an island of coral sands, azure skies, beautiful forests, and unforgettable sunsets, located about two hundred miles east of Miami Beach—is an extraordinary destination. “Living on Scotland Cay is like pitching a tent in paradise,” Janice once said.

Yet paradise has its peril. For all its beauty, the Cay is fraught with challenges. Scorpions, swarms of mosquitoes, and the extremely toxic leaves on the poison-wood tree lurk within its lush forest. And on any given day, an offshore breeze can transform into a brutal storm within twenty minutes. Scotland Cay is also burdened by its lack of fresh water, which means rain water must be collected for drinking, cooking and bathing. In addition, all food and building materials must be brought to the island by boat. “Life at times gets edgy,” Janice said.

Yet none of this deterred the Taylors—especially Jim, who made a career of meeting challenges and of redesigning objects of daily living. In 1970, he designed the first bar code reading machine. In 1978, he invented a special

scalpel for throat surgery. And in his primary residence in Raleigh, North Carolina, he created rooms that could be moved on air cushions! Scotland Cay was just another opportunity to redesign. Only this time, Jim and Janice would be redesigning their way of life.

The Taylors’ vacation house is one of about sixty homes that dot the mile-long island, along with a small harbor, an airstrip, and a lagoon surrounded by palm trees. Their property is located on a coral ridge about thirty feet above the ocean. To the west is the Sea of Abaco. A dense thatch of mahogany and gumbo limbo trees covers the site. Jim wanted his house “to rise up out of the trees.”

When Jim used the bird’s nest analogy back in 1996, I remembered a phoebe’s nest I’d discovered in a creek culvert near my home in Greensboro, North Carolina, when I was a child. Phoebes are graceful birds about the size of a sparrow. A pair of them had built a nest out of moss and twigs on a ledge near the top of this dark, cave-like culvert. The nest was secure and protected by the culvert’s “roof”—the mouth of the cave—yet it remained light and open to the sky. As an architect, I believe the nest and the cave are perfect metaphors for a house. The nest suggests openness, independence, and a certain lack of permanence, while the cave offers security and a “connectedness” to the earth.

These thoughts crossed my mind as I studied the Taylor’s site, noting its openness to the sky and its obvious need for security against violent weather. To rise above the trees, the house needed to be three stories high, with the living room and the terraces situated on the upper level above the trees. This would give the Taylors access to summer breezes and to a dramatic 360-degree view. It also would place their main living quarters above the mosquito-infested forest. The ground and second floors would be more sheltered and cave-like, composed of stucco-finished concrete block reinforced with steel bars. (Concrete block with a stucco finish is standard residential construction in the Bahamas.)

To cover the top floor living spaces, I envisioned a large, wooden roof that would provide shade in fine weather and shed rain during storms—much like an umbrella. Yet the Taylors would need to collect rain water, so I decided to invert the “umbrella” and direct the water through a six-inch diameter steel pipe in the center of the house, delivering it to two, eight thousand-gallon cisterns on the ground floor. This roof shape would also help to funnel summer breezes through the house.

Once I’d designed the roof and the third-floor spaces, the rest of the house fell into place. I located the master bedroom and guest rooms on the middle floor, together with a balcony and screened “sleeping porch.” On the



ground floor, the cisterns would share space with Jim’s workshop.

Even though my design was based on Jim’s vision, he and Janice were truly surprised when they saw the first conceptual model. This house



was unlike anything they'd expected, they said—especially the “inverted umbrella” roof. They were cautiously enthusiastic. Clearly, Jim wanted to work through the design himself. So he built a larger cardboard model of the house himself and, in March, 1996, he

and Janice took the model to the site, where they observed it for two weeks. Soon they realized that the large roof would shade the main terrace on the top floor in the summer yet allow the sun to bathe the terrace and the house in the winter.



Understandably, Jim wanted assurance that the roof would withstand hurricane-force winds. To that end, structural engineer Greg Sullivan developed a roof skeleton that was strong enough to resist 120 m.p.h. winds. Four steel beams would tie

the roof to four reinforced concrete columns and the columns would tie the roof to the foundations—like chin straps on a hat. Wood joists projecting from the steel beams would create a cantilevered roof, clad in marine plywood. As much as possible, we

would use standard materials, but the steel would be imported from Miami.

Jim hired Ivar Unhjem, a contractor on nearby Abaco, to build the house. Unhjem had been an engineer on a Norwegian cruise ship before starting his construction company. The nautical lines of the Taylor house appealed to him and the complicated roof—central to the concept—inspired him. “We’ll winch it up like a lifeboat,” he said.

At this point, Vinny Petrarca, an intern in our office, volunteered to go to the Bahamas to oversee the roof’s construction. To prepare for the trip, Vinny first went to his parents’ house in Charlotte, North Carolina, where he and his father built a mock-up of one of the frames of the roof. He then flew to the Bahamas and lived on Scotland Cay for six weeks, working with Jim Taylor and Ivar Unhjem’s crew of local labor. Since cranes weren’t available, Vinny and ten local men built and installed the roof trusses by hand. By August the house was weather tight, though unfinished.

Jim and Janice fell in love with the house as they watched it rise up out of the trees. At sunrise, their bedroom terrace glowed orange. Soon, the Taylors decided to spend all their time on the island, nurturing the house to completion. Detailing the kitchen and the bathrooms appealed to Jim’s inventive nature.

To secure the house’s many open spaces against storms, Jim and I spent several weeks working on methods that resulted in a diagrammed system of flaps, shutters, and rolling doors. Vinny returned to the island the following summer to design and build them. Like an apprentice at Taliesin, he finished the house on site. “The Taylor house was crafted to its place,” he said.

I visited the house a couple of times during construction. I’d sit on the terrace making sketches of railings

while Jim built kitchen cabinets in his workshop and Janice planted mango trees and orchids. At night, we’d eat lobsters caught in the lagoon below.

In September, 1998, Jim began to have severe headaches. In December, he was diagnosed with brain cancer. In an emergency airlift, Jim was flown to Durham, North Carolina, to Duke Hospital where, on December 23, he underwent an operation to remove a tumor. When I visited him the day after surgery, the first thing he said to me was, “Frank, we’re going to finish our house.” After convalescing for a few weeks in Raleigh, he and Janice flew back to the Bahamas.

In September, 1999, Hurricane Floyd approached the Bahamas on a dead path for Scotland Cay. Winds exceeded 150 m.p.h., making it the worst storm to strike the Bahamas in over fifty years. Jim and Janice hastily closed up the house and returned to Raleigh, where we waited for news. Finally, on the third day after the storm, a friend of the Taylors’ flew over the island and radioed back that the house was intact.

The next day, Vinny, Janice, and I flew to the Abacos, along with contractor David Ballard. The island was devastated. Many houses had been completely destroyed. And as we approached the Taylors’ house through the defoliated forest, we could see that something was wrong on the top floor. The storm had blown out one of the shutters.

Inside, we found CDs, books, papers, shattered chairs, and kitchen pans thrown together in a morass. Except for the blown-out shutter and one broken piece of glass, however, the house was remarkably undamaged. And the cistern was full of fresh water! As a result, the Taylors were able to supply water for several days to neighbors who’d lost their gutters.

Jim died a month later, knowing that his dream house—his “bird’s nest”—had

survived. Soon afterwards, Janice decided to move to the island permanently. So we designed new panels and shutters using aluminum tubing and stainless steel with half-inch-thick Plexiglas skin. In August, 2000, we installed new doors. Shortly thereafter, a tropical storm blew through Scotland Cay with 50 m.p.h. winds and several inches of rain. According to Janice Taylor, the house came through unscathed.

Design Team:

Frank Harmon—Design Principal; Quan Banh—Design and Construction Documents; Vinny Petrarca—Design and Design-Build; Jim Taylor—Industrial Design; Janice Hocking Taylor—Interior Design



