





BERMUDIAN CANVAS BROUGHT BACK TO LIFE

Think bermudan rig started in the 1920s? Think again. This August *Spirit of Bermuda*, a new boat inspired by a painting dated 1831, took to the water. *Robin Lloyd* was on board, and here he tells the story of how a boat imitated art to teach school kids about the maritime pride of their island nation.



Poster of the painting, up for the two-year build at Rockport Marine

Preparing to drive through Rockport to reach the launch site

Early that morning the fog had begun to roll into the tiny harbor of Rockport, cloaking the small fleet of lobster boats and classic wooden sailboats with a moist mantle of mist. My gaze drifted over the fog-blanketed harbor until I spotted the three-masted schooner tied up to the dock of Rockport Marine. The generous sweep of the deck, the loose fitted rope stays and the prominent 26ft (7.9m) long bowsprit identified her as a boat from another era. She had a black hull and the masts were sharply raked back. She looked like an old boat, but the tall carbon fibre masts and the roller-furling jib suggested that she was also modern.

This was the day slated for the boat's inspection. With the fog cutting visibility it wasn't the best day for sea trials. A busy scrum of engine mechanics, navigation electronics experts and maritime inspectors clambered on board to join the crew for a full day of testing the engine and the sail rig to see if the boat was seaworthy. The boat's name was *Spirit of Bermuda* and her captain and the warm-blooded Bermudian crew were itching to head south to her new home in Bermuda before the cold weather of a New England fall kicked in. I'd been following the progress of the boat's construction at this small boatyard on the mid-coast of Maine for more than a year. An opportunity to see how this boat sailed was an exciting, climactic moment for me.

Oil painting

What had drawn me to this project originally was a poster of a stunning oil painting of a boat which had been hung outside the Rockport boatyard for months, advertising the yard's latest venture. In the painting, a three-masted schooner is shown sailing full tilt, beating into Port Royal, Jamaica, at one point a key naval centre for the British in the Caribbean. The ship is clearly a British Naval vessel as it is flying the colors of the Royal Navy. In the foreground two black fishermen are in a dory hooking turtles, an indication that this was sometime after

slavery was banned in Jamaica in the early 19th century. This activity was illegal on the island before emancipation. The painting is in fact from the 1830s, by British artist John Lynn, and the builders of the boat were Bermudian.

I immediately wanted to know why someone would build a boat from an oil painting. The answer lies in the boat's historically unusual sail plans. What is so unique about the painting is that it depicts an early 19th century boat with modern triangular sails; no gaff-rigged or square sails as were common at the time for both small and large ships. To my astonishment I learned that this may have been one of the first examples of what we now call the bermudan rig on a large boat with more than one mast – Bermudians had used triangular sails on smaller boats before this.

“To my astonishment I learned that this boat may be the first example of bermudan rig”

From the outset of this project, showcasing the bermudan rig was one of the primary goals of the two Bermudians who first promoted this idea about 10 years ago. Malcolm Kirkland and Alan Burland wanted to build a school ship that would teach young Bermudians about life at sea and about their maritime history. In the 18th and 19th centuries, Bermuda was a boatbuilding centre, producing some of the most versatile small ships in the world. It was a crossroads between North America, England and the sugar colonies in the West Indies, and as a result was crawling with sailors. Kirkland and Burland wanted to build a Bermudian flagship to advertise the island's nautical heritage and this oil painting which they saw in a book called the *Glory of Sail*, fired their imaginations.

Their research showed that the boat was a British Naval dispatch vessel or patrol boat. In the 1820s, the British Navy had commissioned Bermudian shipwrights to build a number of these three-masted vessels. They were known for their rakish

masts and low slung bowsprits. They were called ‘Bermudians’ or ‘Ballyhoo’ schooners, named after the local Bermudian garfish that is hard to spot and hard to catch. These boats were fast, particularly to windward, making them good patrol boats to keep an eye out for privateers. Some even went as far afield as Africa to chase speedy Baltimore clippers that were often used in the slave trade.

A corporation was formed, called the Bermuda Sloop Foundation, a group comprised of shipbuilding experts, experienced sailors, historians and educators. The boat they chose to build was clearly a schooner, but in Lynn's time it would have been called a Royal Navy ‘sloop of war’. As a result, they kept the name Bermuda Sloop Foundation. With the concept in hand the foundation approached Bill Langan of Langan Design Associates and asked him to design the ship that was in John Lynn's old painting. Langan had been with Sparkman & Stephens for 19 years. He had just done a school ship design, and he'd had previous experience drawing modern interpretations of traditional boats; he was a logical choice. The problem was Langan had little to go on. There were no known plans of this ship and nothing in the Admiralty records.

Safety first

The demands and requirement for school ships helped focus the project. The boat would be less than 24m (80ft) on the waterline and safety would be a primary concern. The boat would have to be extremely stable. Watertight bulkheads were mandatory. But the Foundation also wanted authenticity, and insisted on a wooden boat – after all, this was to be Bermuda's flagship. The painting by Lynn showed an unusual rig, five sails, all but one without a boom, and heavy loose fitted rope stays tied down to the deck. The mizzen boom was attached to the starboard side of the mast with ropes and pulleys. No wishbone; certainly not the most efficient way to attach the boom to



The transom was made out of Bermudian cedar donated by Bermudians



Launching: scores of Bermudians and mid-coast locals came to watch



A foggy 13 August was the date set for the maiden voyage



Captain Chris Blake gives his orders from beside the helmsman



Manually intensive – lots of hand-over-hand work for the crew



Her mizzen boom is attached to mast with ropes and blocks



The Bermuda foundation wanted a bowsprit – albeit a carbon one

the mast. Bill Langan's challenge was to make the boat pretty much the way John Lynn had painted it, but also to make sure it was seaworthy.

To meet that double requirement, the foundation chose a small boatyard on mid-coast Maine called Rockport Marine. They'd had past experience building traditional wooden ships including a Baltimore clipper and a replica of one of John Smith's ships that came across the Atlantic in the early 1600s. There was never any question that the boat would have a wooden hull, but Taylor Allen of Rockport Marine convinced the foundation to do a cold-moulded wooden hull, no less than 3in (7.6cm) thick to meet American Bureau of Shipping standards. This type of hull made of Douglas fir with an outer layer of mahogany would be extremely strong and need less maintenance.

Historical authenticity

That double requirement of historical authenticity and safety were on my mind as I scrambled on board. The ship's captain gave the order to fire up the huge 385 horsepower Caterpillar engine and the big boat began to nudge its way out of the crowded harbor into the wall of fog that awaited us. My eyes looked down at the teak decks and then swept forward. The boat is an impressive 84ft 8in (25.8m) on deck with a beam of 23ft 3in (7.1m). The three carbon fibre masts seemed to me like huge, old-growth timber masts, too big for me to encircle with my arms. The foundation had decided on carbon fibre masts and bowsprit for strength and lightness – the boat's displacement is over 100 tons. I watched with trepidation as the long bowsprit swept across smaller lobster boats tied to their moorings, but soon we were all clear and in the channel headed out into foggy Penobscot Bay.

The boat has three doghouse hatches made out of teak, a feature that does not appear in the painting. There are large beautifully varnished pinrails made from angelique around each mast with an array

of wooden belaying pins. Langan had stayed true to the painting with loose fitted heavy rope stays for each mast, but he'd gone with heavy duty chainplates that were cut out of $\frac{3}{4}$ in (19mm) bronze and were fastened to the outside of the hull. Like the painting there were no spreaders, no backstay and four of the five sails had no booms, but unlike the painting this boat had four large bronze winches adjacent to the cockpit coamings to pull in the foresail and mainsail sheets. The two foresails were tended to up on the forward deck.

The captain of the ship, Chris Blake, never wavered from his position at the helmsman's side, giving orders to stress the engine so as to detect any problems. Blake, a man with a serious but kindly demeanor, is a veteran ship's captain with more than 30 years in sail training on square-rigged ships all over the world. His last assignment was master of the replica of Cook's *Endeavour*. The first mate and chief officer, Sarah Robinson, a 27-year-old originally from Wales, also came from *Endeavour* and has a background of nearly 10 years of sail training.

After two hours of engine testing, Blake gave the order I was waiting to hear.

"Stand by, jib and foresail".

Sarah repeated the orders up in the bow and a team of six young Bermudians began

"Like a gangly young race horse when it first realises how fast it is, the boat accelerated."

raising the two sails. There were no winches to help raise the sails, just blocks mounted on the deck. This was a lot of sail to pull up by hand, and the crew was beginning to learn that lesson with their backs straining, pulling in unison.

"Ready on the mizzen. Ready on the main."

Two more teams rushed to their places and began hauling up the huge sails. The main mast is 93ft (28.4m) and the mizzen 67ft (20.4m) above the deck. I watched two teams of crewmembers struggle to

coordinate their efforts, and it seemed clear that this is a ship well designed to teach teamwork.

The fog had lifted somewhat so our visibility was now about 440 yards (400m). As the sails went up the boat began slowly to increase speed, then suddenly accelerated. Like a gangly young thoroughbred race horse when it first realises how fast its legs can go, the boat picked up momentum. We had all the sails up now in a light 9-knot breeze and the boat was bowling along at more than 6 knots.

The captain turned to me and beamed. "Not too bad – you realise we haven't touched the wheel. She's sailing herself."

Making her first tack

There are rocks all over these waters so before too long the captain gave the order to tack to keep us out in the open bay. I watched as he gave the orders to backwind the two headsails, finally giving Sarah the go ahead to let them go as the boat's bowsprit swung over. We'd made our first tack. As I looked at the crew grinding in the foremast and mainsail sheets with the two large bronze winches back in the cockpit area, I thought to myself that this is like sailing a boat with two large genoas amidships; this is one big windsurfer with a lot of sail.

I turned to speak with one of the Bermudian sailors on board, retired tugboat pilot Peter Simons, who volunteered to help with the sail back to Bermuda. We spoke about the young people on board, a mixture of black and white Bermudians mostly under 21. The intention is to target Bermuda's 4,800 young people, between the ages of 14 and 20. Under the sail programme envisioned, middle school students will go on a five-day learning expedition on the boat.

Another black Bermudian instructor on board, Odwin Berkeley was even more optimistic about the sail programme.

"Once we get the kids on board," Berkeley said, we'll be able to pull together blacks and whites. On the ocean they will have to depend on each other."



Lessons in navigation will form part of the curriculum on board



Four bronze winches control the foresail and mainsail sheets



Interior trim work was all made out of donated Bermudian cedar.



The foundation hopes to encourage young people to learn about their maritime history – irrespective of colour or background



“This is like sailing a boat with two large genoas amidships; this is one big windsurfer with a lot of sail.”

That sense of pulling blacks and whites together at sea resonated with me. I'd grown up in the Caribbean and been taught to sail by a West Indian captain who'd been sailing on trading schooners since he was 11. The result is that I learned how to sail with a West Indian accent. “No skylawkin', mon.” “Bring she up high. You let de boat fall off”. Those were the type of instructions I got. It looked to me like Captain Blake might follow more strict naval etiquette.

The launching

At the launching of the boat several weeks earlier in mid-August, dozens of Bermudians of both ethnicities had shown up in Rockport. Even some Government officials were there including the Mayor of Hamilton and the Minister of Education. The Bermudian Government has picked up \$1 million of the project's cost which is estimated to be \$6 million. The rest of the money has been raised from donations. Chairman of the Foundation, Alan Burland, said there have been hundreds of sponsors including one Bermudian woman who put off \$1,000 of urgent dental work to donate that money to the project. Amid all the hubub and excitement, I spoke with one of the directors of the foundation, Ralph Richardson, a black Bermudian and Rear Commodore of the Royal Bermuda Yacht Club.

Tradition of skills

He told me about the maritime traditions for black Bermudians during slavery. He explained how different slavery in Bermuda was from other areas of the Caribbean. In the 17th and 18th centuries, the colonials learned that agriculture didn't work on the island so they turned to the sea and to ship-building. As a result slaves developed tremendous skills both in building, and sailing, ships.

“Back in the 18th century,” Richardson told me, “ships were a great equaliser between white Bermudians and black Bermudians.”

“In 1712 the British Government had mandated that 80 to 90 per cent of all Bermudian ships be manned by blacks for there were so few whites on the island.”

I began to understand that part of the appeal of this boat project was directed at black Bermudians to instill pride in their heritage. Bermuda has a population of 65 thousand, two thirds of whom are black. A large percentage of the younger generation is dropping out of high school with no diploma, creating a huge potential problem for Bermuda in the future.

At the dinner party after the launching, I spoke with Malcolm Kirkland, the Executive Director of the Bermuda Sloop Foundation. He wants to see this boat give black and white youth in Bermuda an interest in their past and hope for the future. Before the ship's construction began, people were asked to donate local island cedar and the foundation collected 37 logs that were sent up to Maine.

The use of cedar was important symbolically. In the 17th and 18th centuries

“Ships were a great equaliser between white Bermudians and black Bermudians”

Bermuda was famous for its cedar. The wood was much more resistant to sea worm than oak and it was also lightweight. Malcolm reminded me that light was fast. The local cedar allowed Bermudian shipwrights to build larger, faster vessels than those built on the American mainland.

Rockport Marine was able to mill the donated cedar to form *Spirit of Bermuda's* helm and transom, with its wonderful reddish glow. Below, most of the cabinet doors, tables and trim are also of Bermudian cedar. In the centre of the boat is a spacious galley with three beautifully crafted Bermudian cedar tables that will do double duty as the dining area as well as the instructional area. The cedar was used for the cabinets in the galley, in heads, and for trim around the 12 sea berths stacked in the forward section.

As I walked aft to the engine room and nav station I looked up at the deck beams, all Douglas fir. The knees are made from roots of the Hackmatack, a tree native to Maine's wetlands.

I spoke with the chef, a black Bermudian called Curtis Azhar who was cooking up a lunch of chicken fried rice. He told me that more than 30 people would be sailing down to Bermuda so he would be doing two separate sittings for each meal. He will be one of the on-board instructors teaching young people how to cook at sea.

I poked my head up the companionway to see what was going on. The foggy conditions had cleared leaving the weather sunny but cold, with a brisk Canadian wind blowing down from the northwest at 18 to 20 knots. The captain ordered all sails raised, and the boat quickly responded, moving more like a freight train than a sailboat. This is what we'd all been waiting for. I stood at the stern rail watching the helmsman wrestle with a much less tender helm than the other day. The boat's speed varied from 8 to 12 knots, depending on how close we sailed to the wind and there was hardly any heel as she ploughed steadily through the water. The only mishap occurred when the jib halyard came loose, and the sail had to be brought down, but it didn't stop the sea trial. The boat clipped along at 9 to 10 knots without the jib.

I thought back to my interview with Bill Langan. I'd asked him months ago how he thought the boat would sail, given the unusual rig.

He'd said, “With no booms they should be able to short tack quickly”. Then he added jokingly, “but I don't really have a clue how the boat will sail. They're just going to have to go out and try things”

That's exactly what Captain Blake and his crew were doing: putting a design from another century back into operation and in so doing bringing a painter's canvas back to life. The only difference was that the mountains in the background were off the coast of Maine and not the Caribbean, but this would soon change.