

# TARI-ANN

*A close collaboration*

by Melissa Wood

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**O**n August 15 last year, a 48' shallow-draft motor-sailer named TARI-ANN slid down a marine railway and into Nova Scotia's Gold River. In the water, her likeness was remarkably similar to a sketch drawn by her owner and co-designer, Tom Goodwin, well before the project took shape.

TARI-ANN looks like a vintage boat, but she is, in fact, an entirely new, original design—a modern boat that harks back to old ways. “There are a whole pile of lines going on,” said Laurie McGowan, describing the boat’s shape. McGowan worked with Goodwin on the design. “The trick is to get them to blend somehow, to make it look pleasing. I never aim for trendy. I think we aimed for a timeless look.”

But the design alone doesn't quite explain TARI-ANN's classic appearance. Tern Boatworks, her builder, was committed to meticulous attention to the smallest details. Indeed, it was the close collaboration of the designers and builder that made the TARI-ANN project a success.

## The Co-Designers

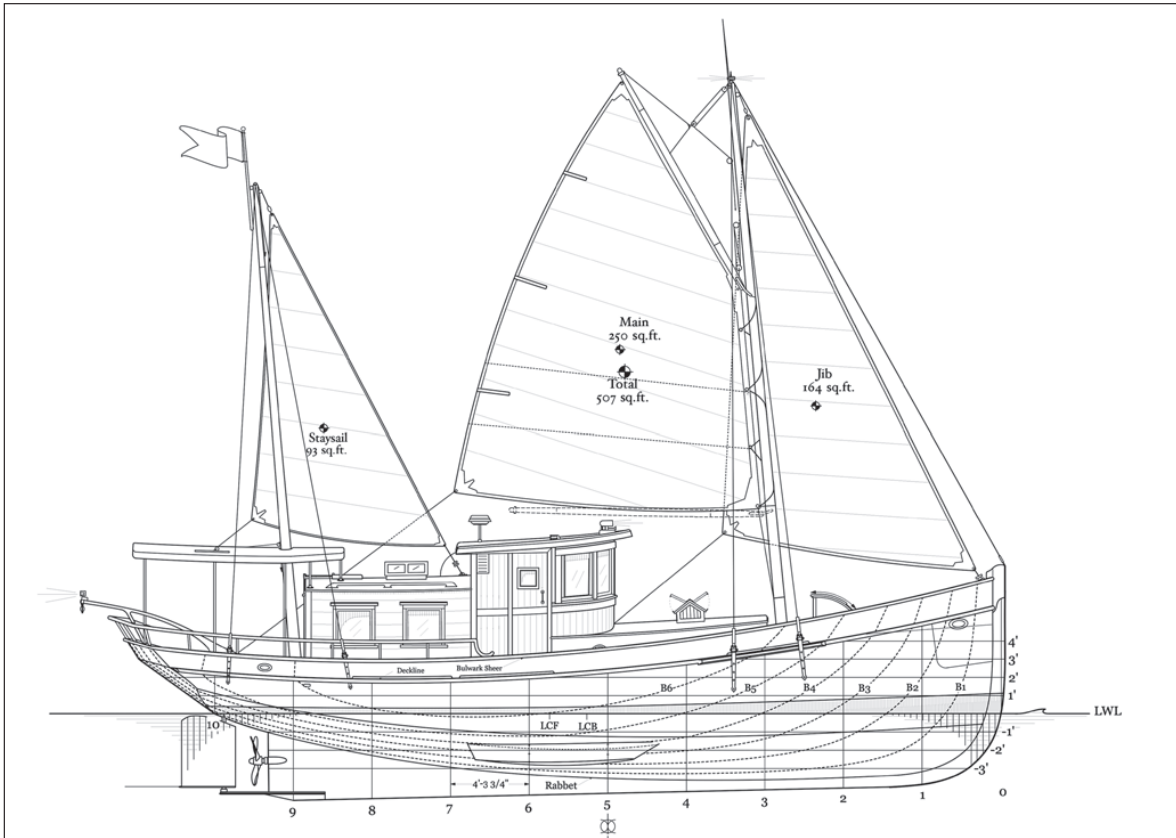
TARI-ANN is Tom Goodwin's third boat built in Nova Scotia. He hired Covey Island Boatworks in Lunenburg for the first two, which were a Bahamian sloop and a solar-electric ketch. For the ketch, Goodwin, an artist, musician, and seaplane pilot who lives in the Bahamas, sent the builders a watercolor of the boat he wanted—a gaff ketch based on a hard-chined schooner designed by Edward A. Stinson in 1890. Though Goodwin's artwork is rich in detail, Covey Island needed actual lines and dimensions, as well. The yard's then-owner, John Steele, called McGowan to ask him to be her designer.

Recalling that initial project with Steele, McGowan said, “He said, ‘Would you be interested? I've got some information. See what you can do with that. I finished it the next morning and sent it out.’ Steele's call came “out of the blue,” said McGowan, who believes Steele got his name from an email he sent to fellow members of the Nova Scotia Boatbuilding Association.

That was 2006, and McGowan, who writes this

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**Above**—The newly launched power cruiser TARI-ANN was designed and built in Nova Scotia for a Bahamas-based owner and is inspired by a vintage workboat type from Chesapeake Bay.



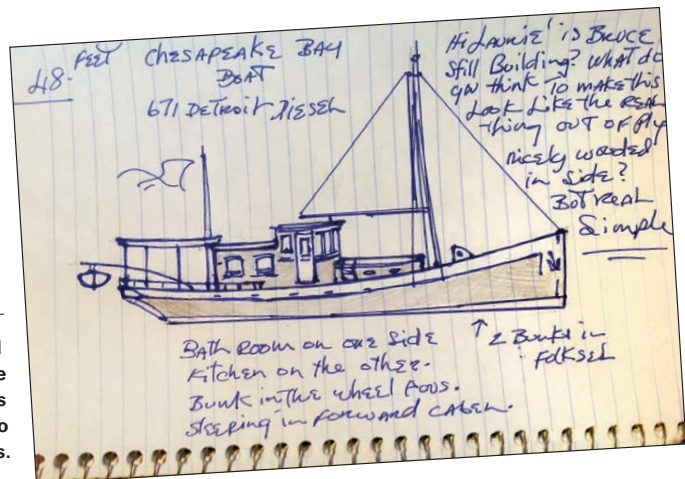
Designer Laurie McGowan derived TARI-ANN's shapely hull from the oyster buy boats of the Chesapeake Bay region. These capacious, easily driven boats were used to purchase the catches of oyster tongers and transport them to wholesale markets.

magazine's Sketchbook department (see sidebar, page 36), had been a yacht designer for five years, working out of his home office in the Annapolis Valley. Though he had initially wanted to design sailboats, he could then only find work designing robust commercial fiberglass fishing boats. That's because boatbuilders in Nova Scotia primarily serve a lobster fishery so successful that potential buyers currently have to wait three to four years for a new boat.

McGowan modeled the design in TouchCAD, a program that allows him to quickly "sculpt" a design as a 3D model and send it to clients in pictures and movies. McGowan said he finds the program highly intuitive in expressing his designs. "TouchCAD allows the user to work directly on the surface, and not be removed—or away from it by the virtual splines found in most programs, so you can do things like unfold

compound curves into 2D panels or fabric [for sails] really well," he said.

Goodwin's watercolor and McGowan's interpretation of it resulted in the 27' solar-electric ketch CZARINA (see WB No. 198), which Covey Island built in its signature construction method of wood strip and epoxy. When she was completed, Goodwin took her



Owner Tom Goodwin, an artist, collaborated with Laurie McGowan on TARI-ANN's design. He sketched the outboard profile as well as numerous details; McGowan turned these concepts into buildable drawings.

home to the Bahamas, and he stayed in touch with McGowan. Goodwin would send updates on CZARINA, and for years the two shared details of boats they admired. Goodwin illustrated these details in sketches that he forwarded to McGowan. "He's got a really good eye," said McGowan.

Goodwin was especially drawn to the traditional yet simple workboat form and details of classic oyster buy

boats. These vessels were so-named because they purchased oyster catches from tongers and dredge fishermen working the flats of the Chesapeake Bay region before bridges spanned the Bay and its tributaries after World War II. They hauled all manner of freight and were rigged to sail before internal combustion was a reliable means of propulsion—though they retained vestigial rigs throughout their working history. They

## Laurie McGowan and Sketchbook

When he was growing up, Laurie McGowan was fascinated with boats, and pored over the works of British designers available at his local library in London, Ontario. He was born in Québec, but the family moved to California and then Ontario, following his father's work as a physicist. He learned to sail in a Mirror Dinghy, a kit boat his mother built.

After graduating from Westlawn Institute of Marine Technology, a yacht design school, at age 22, he made a living sailing, working as a finish carpenter, and diving for sea urchins in the Bay of Fundy before hanging out his shingle as McGowan Marine Design in Mochelle, Nova Scotia, in 2001.

He spent his first five years of practice designing commercial fiberglass fishing boats. Then, in 2006, he was commissioned to design the 27' solar-electric ketch CZARINA. Now, he estimates that his work is about half wood and half fiberglass.

Since 2014, McGowan has written and illustrated this magazine's Sketchbook department, which presents a concept boat based upon a reader inquiry. McGowan was inspired to pursue this department by the "cartoons" the designer Phil Bolger did in the 1980s for the now-defunct *Small Boat Journal*.

"What I liked about the Bolger cartoons was that he always thought outside of the box," McGowan said. One of the first requests was for an update of the C.D. Mower-designed Sound Inter Club sloops, which were popular on Long Island Sound in the 1920s and '30s. He designed AURORA (WB No. 241) by reshaping the underbody and changing the construction to glued-lapstrake plywood to make her affordable for home builders.

So far, five Sketchbook concepts have had their designs brought to completion and have been built or are being built. The most requested has been LOON, an outboard pocket cruiser (see WB No. 244). A couple more designs will soon be built, and three or four have been worked on as final designs. Some have



SHANNON MCGOWAN

Since 2014, yacht designer Laurie McGowan of Annapolis Royal, Nova Scotia, has been developing concept boats for *WoodenBoat's* Sketchbook department (see page 102). Shown here is LOON, an outboard-powered pocket cruiser and the most popular Sketchbook boat to date.

been altered, such as the 16' sloop "13" (WB No. 251), which a builder in Brisbane, Australia, is converting into a foam-and-carbon 21-footer with a Sydney 18 carbon-fiber rig. And PICOTINE (WB No. 263) has become a folding Northern Expedition cruiser—able to fit inside a Twin-Otter airplane. "I never even considered that boats would get built," McGowan said.

Most of the time, McGowan works quickly, but one request was particularly challenging. In 2017, a reader asked if he could design a boat that would serve as a moving platform for youth sail training. If a yacht club is in a busy harbor, for instance, sailing classes could be moved to a quiet bay. The boat needed to fit students, and their dinghies, which had to be launched from the deck. This floating clubhouse also had to be trailerable—and stable with a load of kids aboard.

The stability and reserve buoyancy factors almost stumped him before he came up with PICKUP (WB No. 257). The design includes a school bus-like interior where the instructor can teach on the way to the sailing area. "It took weeks," remembered McGowan. "Normally the boat comes to mind within seconds or a minute. Usually it's fun."

With 28 Sketchbook designs now complete, McGowan said there are two things that have never happened in his time writing the column so far. No one has ever requested a plank-on-frame design, and a woman has never written in. "It's all guys," he said. "I hope that changes."

In their free time, McGowan and his wife, Shannon, who have a 17-year-old son, Aidan, are restoring the 50-year-old wooden trimaran FREYA. —MW



**TARI-ANN takes shape at Tern Boat Works in Gold River, Nova Scotia. Like those of her buy-boat predecessors, her engine is located beneath the pilothouse; the galley is aft of the pilothouse.**

typically measured 40'–90' LOA and had distinctive round-fronted wheelhouses placed aft, above the engine compartment. Because of their good looks and ample crew accommodations, they have, in recent decades, enjoyed new careers as pleasure boats.

Goodwin's brother Mike owned the 84-year-old buy boat YAMACRAW, which he operates hauling freight between islands in the Bahamas. His late brother Patrick had owned IRENE & PEARL, a buy boat built in 1931. McGowan recalls that he and Goodwin "would just discuss them. I never expected it would lead to another design."

But eventually it got serious. Goodwin told McGowan that he was thinking of a Bahamas cruiser based on the John Alden–designed PIONEER, a 54'9" power yacht that was, in turn, based on a diminutive oceangoing tugboat. Though very much an elegant yacht, it shares some features with commercial vessels of the buy boat style, such as the combination of motor and sail power; an open deck; a rounded-front pilothouse with the engine placed underneath; and a lean and slippery hull. It was designed in 1912, and it had a sunken pilothouse and graceful lines. "It looked like something from the '20s," said McGowan. "It had a really nice rounded stern and horseshoe-shaped cockpit aft."

McGowan sent Goodwin a 3D model. Discussions then stalled, but the design stayed on Goodwin's mind. About a year and a half later, he sent McGowan a new sketch with elements from both the Alden and the buy boats. On the drawing, Goodwin wrote that it should "look like the real thing"—a Chesapeake Bay buy boat—with a hull built out of plywood, but with a nicely



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finished interior. "But real *simple*," Goodwin wrote. The wheelhouse would be centrally located with her engine underneath, and she would have berths in the forward cabins.

The resulting design has some of PIONEER's elegance but incorporates elements of the classic buy-boat form, including the high stem, deep forefoot, curving sheer, shallow draft, and V bottom. McGowan drew a ketch rig with a total of 507 sq ft of sail. The jib and mizzen are designed to be employed for everyday motorsailing, and the mainsail is intended for long reaches.

Their contract for TARI-ANN was the same as for CZARINA: it wasn't typical. The two spoke on the phone once, McGowan said, and the terms were easily agreed upon.

### A Collaborative Build

Goodwin's influence on TARI-ANN's appearance did not end with an agreed-upon design. He remained closely engaged throughout her build, and he contributed specific ideas about many details.

"[TARI-ANN] is the most collaborative project between boatbuilder, designer, and owner I've ever worked on," said her builder, Bruce Thompson, owner of Tern Boatworks in Chester Basin (see sidebar). The shop is based on the southwestern coast of Nova Scotia, a region that wraps around the bottom third of the province's long peninsula. It has perhaps one of the most varied shorelines in the world,



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**The hull was built over a combination of permanent bulkheads and temporary molds. The robust planking consists of two layers of 12mm okoume plywood and one layer of 9mm okoume, for a total thickness of 33mm (1 1/8"). The hull is further sheathed in two layers of 33-oz biaxial E-glass.**

In late summer 2018, TARI-ANN emerged from the Tern Boatworks shed after 21 months of construction. The building was barely large enough to contain the project, which was Tern's biggest to date.



TERN BOATWORKS



LAURIE MCGOWAN

**Left**—Tern Boatworks proprietor Bruce Thompson takes at the helm of the newly launched TARI-ANN. **Below**—The Tern Boatworks crew lays the deck of the P-class sloop SENECA, which the shop restored.

from the back of his car part time to a rented shop full time, and then to a purpose-built shop at the Gold River Marina in Chester Basin.

His shop has continued to grow by taking on distinctive projects, such as restoring the P-class sloop SENECA and building ENIGMA, the first new wooden International One Design since the 1980s. In 2010, Tern teamed up with Laurie McGowan to build a stylized submarine playground for the Halifax waterfront. The wood-epoxy structure earned widespread attention, even appearing in a 2016 episode of "The Simpsons." And it sparked an ongoing creative collaboration between Tern and McGowan.

—MW

## Tern Boatworks

“I didn’t plan it,” said Bruce Thompson of his founding of Tern Boatworks. “It just kind of happened.” The shop, which employs 12 people and maintains, stores, builds, and repairs wooden and composite boats, has been in business since 2004. Thompson grew up a passionate sailor in Bedford, Nova Scotia, and when he was 16, he built a trimaran in his parents’ garage. When he graduated high school in the mid-1990s, he went to work at Covey Island Boatworks, which was then in Petite Rivière, Nova Scotia—first as a general laborer, then as an apprentice. He also took night classes at Nova Scotia Community College. After five years on that job, he took a break and sailed to Florida, the Bahamas, and Cuba with friends Robby McCallum and Lucas Gilbert.

Upon his return in 2004, he moved to Halifax, where his wife-to-be, Sadie, was in college. He took a job at a local yard but didn’t like its focus on fiberglass. He built a galley on the side, and this led to more woodwork on his own—a spar, a teak deck, an interior—and by 2005 he had transitioned from working



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**TARI-ANN's combined saloon and galley space is bright and cheery, thanks to big windows, painted bulkheads, light-hued cherry accents, and bright fabric.**

ranging from the 60' tides of the Bay of Fundy to an Atlantic coast broken up into thousands of little peninsulas, islands, and inlets. From this shore's well-protected harbors, it's a quick sail to the rich fishing grounds of the Grand Banks. Wooden boat building has a long tradition here.

Construction began in November 2016. Working from McGowan's Mylar patterns, the crew first laid out the laminated bulkheads in two layers of 12mm okoume. TARI-ANN's hull is built of cold-molded plywood glued with epoxy, and, as the largest build yet for Tern, was barely contained in the shop's 25' x 60' main bay (an adjoining smaller bay is 40' x 18'). Fairing was a challenge, said Thompson, as the hull was farther off the ground than what they were used to.



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Goodwin's vision of "real simple" doesn't mean plain or easy but rather subtle and not too ostentatious. To get the wheelhouse windows and trim to work visually, the builders first laid them out in tape and sent photos to Goodwin. "After three or four tries, we got it," said Thompson. That was a typical interaction during TARI-ANN's 21-month build. Throughout that time, designer, builder, and owner maintained a running dialogue of the fine details. "We would come upon a detail that needed to be worked out," said McGowan. "I'd model it in 3D, Tom would come back with a hand drawing, then Bruce would come back with a hand drawing, and say, 'What do you think of this?'"

McGowan said that the central placement of the wheelhouse, with the engine underneath, kept the majority of the weights amidships, making it possible to manage other weight placements relatively easily.

Goodwin is an experienced sailor with definite ideas about what he wanted his home on the water to be. The interior is finished in cherry. He included custom touches such as a built-in desk with a swing-out stool in the main forward cabin that replicates the desk he has at home. In the wheelhouse, curved pocket windows slide down into hidden draining boxes.

He also continued to incorporate elements from Chesapeake Bay buy boats. At first the shape at the rail opening was too dainty for Goodwin; he asked that it be changed to match the one on the YAMACRAW. TARI-ANN's helm layout exactly matches the one on his brother's boat as well.

**Above left**—The galley has plenty of work space and the conveniences of a shore-based kitchen: a propane-fueled stove and oven, a refrigerator and freezer, ample storage, and toe space beneath the lockers. The vents in the backsplash are for heating and air conditioning.

**Bottom left**—The finished forward stateroom looks remarkably similar to Goodwin's early sketch of the space.

TARI-ANN is powered by a rebuilt Detroit 4-71 diesel engine, and she made 8.7 knots at 2,000 rpm on sea trials. At this writing, the propeller was receiving an additional 2" of pitch, which should add a knot to that cruising speed.

*Inset*—TARI-ANN is named for owner Goodwin's late sister.

Goodwin wanted the systems simple, for the sake of repairability. The engine is a rebuilt Detroit 4-71 diesel. There is an autopilot, inverter, generator, and solar panel. And there is an AirHead composting toilet and freshwater shower. "A lot of the sole is removable to access everything," said Thompson. "I think it's always good to be able to get a motor out of a boat. Tom was on the same page."

Machinist Lucas Gilbert, a member of the construction crew, worked with Goodwin on TARI-ANN's custom hardware. His machine shop, New Dublin Ship Fittings in New Cumberland, specializes in marine hardware. Tern also sourced some pieces, such as the lights, from Toplicht, a retailer of classic marine hardware in Germany.

Gilbert said Goodwin would hand him sketches, sometimes drawn on the backs of cardboard boxes, and say, "Look, Lucas, something like this."


"That man has a pretty keen eye. He had input on everything," said Gilbert. "I just need to make sure if I change something it's at least as strong as what Laurie designed."

### Setting Sail

TARI-ANN, named for Goodwin's late sister, had completed her sea trials by mid-September. The boat behaves very well: she is stable with a good motion and, thanks to a winged rudder, turns surprisingly well, considering the long keel.

McGowan had forecast that TARI-ANN, at 2,000 rpm, would make 9.7 knots, which is 1 knot over the theoretical hull speed. The boat topped out 8.7 knots but,

he said, "the engine wasn't taxed at all." The mechanic noted that the 28" x 30" four-bladed propeller could stand another 2" of pitch. This will be done, and McGowan anticipates that the change will bring the speed up to his projection. He also notes, however, that the performance curve did not factor in the boat's bilge keels, which he thinks add "about half a knot of drag," although he also believes the bilge keels "cancel out the trough, as there isn't much of one or a bow wave, which is interesting." He notes the "regular-sized stern wave that follows the angle of the transom quite happily."

McGowan's conservative estimate on fuel consumption is that she burns 7 gallons per hour, yielding a range of 575 nautical miles. "That's straight motoring," he said. Motorsailing would improve the range. 

*Melissa Wood is a freelance writer based in Portland, Maine, and Lunenburg, Nova Scotia. Find more of her work at [www.melissafwood.wordpress.com](http://www.melissafwood.wordpress.com).*

**The curved windows in the pilothouse are opened by being lowered into pockets, Pullman-car style.**

