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Starship to Oceania

By: © 2010 Steve Callahan
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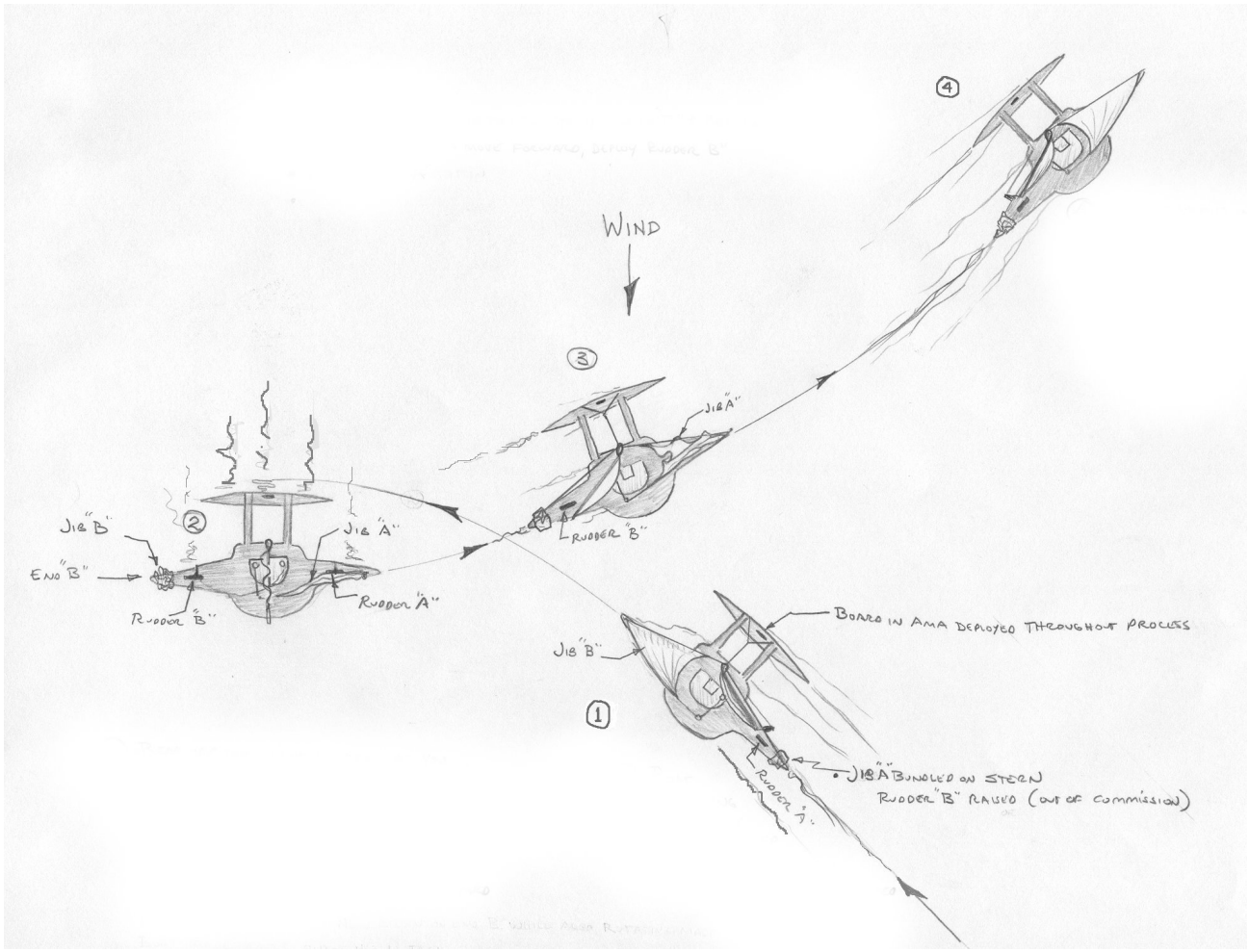
An oddball boat on a passage to paradise transforms a quest for destinations into the joy of the voyage itself.

"It's a freak show," mutters Russell Brown as dock strollers gawk at his 36-foot proa. "I've never seen anything like this," says one. "I wouldn't be caught dead sailing in that thing," intones another with a sneer. "What happened to the other outrigger?" queries a confounded sailor who thinks *Jzerro* is a deformed trimaran born with two heads and just one ama (float or outrigger) stretching out from the main hull.

Nautical Fusion

Jzerro is no sideshow horror, though. Her lineage spans millennia. The critics, unbelievers, and merely befuddled forget that centuries before European sailors stopped hugging coastlines to keep from falling off the edge of the earth, South Sea islanders had explored and settled the entire Pacific Basin sailing double-hulled canoes (catamarans) and proas.

Shunting A Pacific Proa



1. Proa on starboard tack with Jib "B" raised, and rudder on same end lifted. Jib "A" is rolled on stern and rudder on that end (aft) is deployed. Crew bears off . . .

2. As they ease the mainsail and drop the jib until the boat is beam onto the wind and the mainsail is completely feathered into the wind. The crew also raises what was the aft rudder and deploys what was forward rudder during this movement. As the boat slowly slips sideways, they bundle and secure Jib B, then raise Jib A and begin to sheet in both the mainsail and jib.

3. As the boat accelerates, the crew continues to sheet jib and mainsail and point up onto a close reach until . . .

4. Boat is close hauled on port tack

Proas do not tack like “conventional” boats. They change ends or "shunt," so each end is identical and carries a rudder. Pacific or "flying" proas like *Jzerro* always hold their amas to weather. It may appear odd, but viewed without western ethnocentric preconceptions, *Jzerro* becomes the archetypical distance-cruising machine, as elegantly sculpted and free-spirited as the shearwaters of the open sea.

On ancient proas, numerous crew were needed to shift the rig and steering oar during a shunt and balance sail forces using their weight. To face the challenges of modern shorthanded sailing, Dick Newick created *Cheers* and the Atlantic-style proa with two equal sized hulls--like a catamaran but with all the accommodation in the weather hull. *Cheers* finished an impressive third in the 1968 singlehanded transatlantic race, but several of her offspring capsized. With initial righting moments even greater than catamarans, these modern hybrids could be driven very hard, but if caught aback, they found themselves overwhelmingly overpowered.

Brown, however, was hooked by the counter-intuitive wisdom of flying proas. When caught aback, their amas rest to leeward, providing nearly endless reserve stability. And although they normally sail with less initial stability than other craft, they alone slide down a spiral that minimizes sailing forces and resistance. Monohulls, and even catamarans and trimarans climb the opposite ramp, developing not only enormous power but also structural loads. Their voluminous hulls and heavier structures increase resistance, so require more power. *Jzerro*’s stiletto hulls so easily slice the sea that she employs a sail plan smaller than that on a 28-foot cruising trimaran I used to own. Her mast height only roughly equals her length, a rarity among today’s boats. And though *Jzerro* has been clocked reaching consistently at well over 20 knots, after tens of thousands of miles and gales to 55 knots, Brown’s boats retain a perfect safety record.

Since he built his first plywood 30-footer for $400 24 years ago, Russ Brown hasn’t been out to prove anything or convert anybody. He retreats from those in the tiny and eclectic but passionate proa circles who call him guru, and he shuns publicity as enthusiastically as he avoids those who hurl inane epithets. He’s built four proas only because he believes they offer the most boat for the money--with "most" contingent more on speed than comfort. He is the first to admit that proas are unique, complex beasts that require compromises and special handling unacceptable to most sailors. "It’s really a ridiculous boat," he says, humbly. That alone is enough to make me fall in love with it.

Ground Control to Major Dumb

Last spring, I got the call: "Do you think you might want to help me sail *Jzerro* out to Tahiti?"

"Gee, Russell I just don't know," I lied, the nostalgic childhood memories of a televised schooner breezing through "Adventures in Paradise" elbowing pragmatic analysis off the couch. Any rational caution was bound and gagged by heartstrings that had been tuned since adolescent late-night readings of Melville, Hyerdahl, Graham, and the Hiscocks. And had youthful romanticism not prevailed, I could always rely upon adult rationalization. I'd fantasized about crossing an ocean in a proa since my first attraction to the breed and Brown in 1975 when Russell's 30-foot plywood box was nipping the heels of goliath leaders in a long-distance Caribbean race. As I met designers and builders, sketched dream proas, and even built a small one myself, offshore waters beckoned. With no success, I had tried to convince Russell that sailing his second proa, *Kauri*, across the Atlantic was a good idea. Now, finally, he was offering to take his new boat to the heart of its multi-millennial roots. French Polynesia, the icon of the cruising life, was on the phone asking for a date and I wasn't about to say no.

Lost in Space

Russell required no convoluted reasoning: "I just want to go sailing and give boat rides," he says. So on 7 June 2000, we grab a last shoreside coffee and head out under the Golden Gate Bridge, past a sea lion flinging his salmon dinner about, and into the Pacific.

It is a false start. The day delivers light headwinds, so we beat down the coast, practicing our shunts. First, drop the jib and ease the main to stop the boat. Then raise the rudder, bundle and secure the jib, and unroll the jib on the other end. Back in the cockpit, we sheet the boom to what was the bow, now stern, drop the new rudder, raise the jib, and zoom off on the opposite tack. Confusion is natural as bow becomes stern and what was starboard becomes port. Critics who are always wondering if we are coming or going also note how slow and complicated a shunt appears, but all happens under complete and peaceful control. The boat also offers maneuverability unimaginable to conventional monohull sailors. Some years back, Russell sailed his previous proa, *Kauri*, into harbor to pick my wife and I up. Open-jawed bystanders waved arms, screamed and nearly dove for safety as a T-boning of the dock at double-digit knots

appeared imminent. But *Kauri* stopped on a sand dollar, we stepped leisurely upon her bow, and within seconds *Kauri* roared away in reverse. Using both rudders, Russell can even crab his boats nearly sideways.

In Half Moon Bay just south of Frisco, barking sea lions serenade us to sleep. Next morning, a light rain and 15- to 20-knot westerlies throw us into the unknown. Power reaching off the coast, I find the "trick," if there is one, is to sail *Jzerro* always underpowered, but not by much. Keep your hand on the throttle. Push the boat to reduce drag, raising the ama but not completely free of the sea. I'm surprised by *Jzerro*'s stability. Even close reaching in 20 knots of wind, she does not want to fly her hull except as it leaps off of wave tops. When the ama begs to fly too often, we pinch up, spill or reduce sail, or throw some weight into the ama. With a beam greater than a comparable catamaran, shifting weights is even more effective. We can pump 500 pounds of water ballast into the ama if need be, but it never is. Instead, we add an anchor or extra water jug to its lockers. More often we remove weight. An overballasted ama rides heavily and, after leaping off a crest, slams back into the waves, wracking and shaking the whole boat.

As we tune ballast, sails and our steering to suit the smallest variations in breeze and every passing wave, *Jzerro* thanks us by accelerating from eight to 12+ knots. The apparent wind shifts so wildly that we steer to the call of the sails and terrain rather than command of a compass. Waltzing around lumps and keeping her level or pitched downward magically puts the pedal to the metal, while stuffing her bow into the back of a hill jams on the brakes. When not steering we often take our favorite (and the only relatively dry) seat on the stern to watch *Jzerro* jitterbug across the big beam sea. Spray flies. Occasionally, a "thumper" wave pops the side of the 3,500-pound craft with a loud crack and a lurch. If gusts or aberrant waves launch the ama towards a

heavenbound summit, her saucerlike "pod" cabin, which makes *Jzerro* look as if ET has landed on a curvaceous Polynesian canoe, smacks the sea to lend a back-up righting hand. I hope it will always prove substantial enough.

Above the tumult and noise, wheeling Pacific albatross escort us from new-age Californian waters into the timeless oceanic world. We hope our next stop is the Marquesas, 3,000 miles to the SSE, but despite countless notable interisland passages by flying proas, it appears that only two others have ever made an "ocean crossing" of several thousand miles. Both were about 70-feet long, and one disintegrated at sea. Is our attempt on a 36 footer idiotically risky? I reassure myself that she's already bashed her way from Port Townsend, Washington, to Baha and back to Frisco, and that Russell and I both have logged substantial offshore miles. Still, I half-expect a robot to rise from the pod's hatch with waving arms: "Danger, danger Will Robinson!"

The Incredible Being of Lightness

By day we drive. At night, we flip on the autobuddy and drop the main. At a slow six-to-eight knots, *Jzerro* calms enough for us to snag some sleep. We dream of warmer, smoother trade winds 300 to 500 miles south. For five days, at first across westerly and then down northerly eight-to-twelve-foot seas, we drive her at, perhaps, 60 percent of her capacity. We run mostly under jib alone until the wind veers north, then under double jibs with one tacked out to the bow of the ama. We can carry this asymmetrical, proa-style wing-and-wing setup almost up to a beam reach. Even under much reduced sail, we average 180 to 200 miles a day.

Often, the slowly overtaking rollers raise *Jzerro* to perch upon their sharp precipices. Looking down into chasms, I hold my breath, waiting for *Jzerro* to dive headlong into the depths of the Pacific, but she merely nods, then rockets onward. Her well-flared bow never buries but cleaves great fans of white water out of the cobalt sea. She overtakes waves, hurtles over their backs, eventually losing speed and resting, waiting for the next big lift. As she exceeds 10 knots, the

rudder hums like a gigantic, manic bee, then jumps an octave as she rockets past about 13, and finally seems to surpass the speed of sound entirely, becoming eerily quiet, except for the whistle of wind, splash of bow wave and hiss of a geyser erupting aft. She feels suddenly free of the ocean, as if gliding over it, magic enhanced when I sit on the stern and watch her flying-saucer pod and long cross arms waft over the ocean.

We always keep an active watch. At these speeds, we can cut a ship's distance by a mile every couple minutes. Also, as designers are apt, Russell constantly wonders what might break. Our greatest danger, I learn, is not shipping, structural problems or even capsize. We will see but two ships for the next 3,000 miles, and Russell is to composite construction what Michelangelo was to marble. And should we ever flip, *Jzerro* will float like a bobber. Her only real Achilles heel is her mast, which sits beside the cockpit about six feet from the main hull's centerline. One shroud led out to the ama supports normal heeling loads quite well, but if we're caught aback only the two fore/back stays that splay out at shallow angles to the bow and stern support the rig. A jibing mains'l in a breeze will blow the stick away.* So when running almost dead downwind, we usually strike the main, leaving it's square head stuck up into the wind to serve as an early-warning windsock.

Sensors at Maximum Range

When the northerlies finally start to abate, we begin to enjoy sitting over the net between the hulls on a comfy, fabric-covered bench that Russell calls "the barco-lounger." Disturbed only by the occasional splash, my mind remains half on my surrounds while half turns to Hornblower, who feels like "Prometheus stealing fire from the gods" as his brig thrashes forward in a gale. He muses upon how weak, mortal man, by "virtue of the brain inside his fragile skull" is able to bend the "primitive powers that had ruled earth and water since the creation" to his will. Standing on the ama with my feet just a foot above the sea, I, too, marvel at man's creative capacity, but *Jzerro* and the island culture that created her is the antithesis of what is European. We do not voyage hunkered down, surrounded by heaps of worldly things in a big boat that battles nature with as

much heft and strength as it can muster. Instead, we sail minimally, bending to every subtle change in *nature's* will, happily tiptoeing down the path of least resistance. Only this voyaging philosophy could have honed the senses and memories of the great Pacific navigators who crisscrossed the Pacific without instruments or charts. They logged in their cranial hard drives which stars set over which isles at different times of year, and what each bird and wave shape indicated about proximity of land, movement of weather and strength of currents.

For our comfort, safety and joy we, too, rely upon what Alvah Simon has called "natural literacy." Even with my limited vocabulary, I feel increasingly linked to the ancient wisdom and common sense of the Pacific people. It is a joy to sail without speedo, log, windspeed, or depth sounder. We closely estimate the speed of the boat and wind simply by looking at the water. Like our Ppalu forebears, we become tuned to every nuance of wind and wave. Swells fall into identifiable patterns that record weather past and warn of weather coming. Clouds forecast the dance steps of close-approaching breezes. We do not miss electronic charts, fridge or VCR. I'm enchanted by our snug cabin and the beauty of Jzerro's ribs, spine and skin, all composed of that superb, high-tech unidirectional fiber called wood.

Like our vessel, we fuse the modern with the ancient, however. *Jzerro*'s wood is laminated with epoxy. Her hull is sheathed in fiberglass. Custom carbon fiber poles, hinges, brackets and other nicknacks bejewel every nook. GPS confirms our position and speed. A single-sideband receiver now forewarns of tropical depression Bud who whirls away to our east-southeast.

"Bud?" I wonder. "What's next, Corky and Digger?" Friendly nicknames entice intimacy no more than Bruiser or Crash would, so along with tracking the tropical convergence zone, I plot a range of scenarios for Bud, from likely to worst case. Russell is apprehensive. We're only at 20 degrees north, the top of the 600-mile-wide hurricane belt. But I feel that *Jzerro*'s performance envelope, which can match windspeed, opens up a wide array of tactical options. As long as we are prudent and keep *Jzerro* moving, I am convinced she can outpace the scoundrel Bud and any of his crony pals.

Parallel Universe

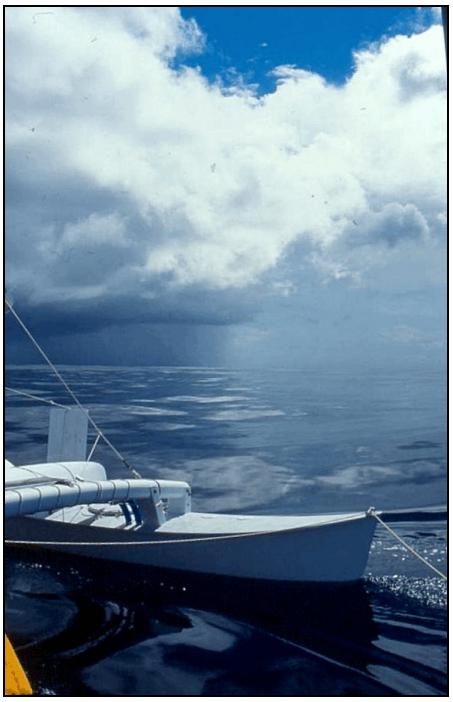
I feel deeply satisfied out here, but dreams envisioned have not reality made. I'm shocked by the paucity of sea life. No whales. No dolphin. And for a week rarely even a bird. Instead of a trip to paradise under Californian sun, we've sailed south of Baha before finding enough warmth to justify T-shirts. Now the northeast trades, too, prove a fantasy. For the next week, as Bud spins into a tropical storm that thankfully saunters north, we find only seemingly endless zephyrs. More than ever, I appreciate what we now call our "wind machine." As *Jzerro*'s diaphanous asymmetrical chute pulls taught, she transforms eight true knots of breeze from the aft quarter into 16 apparent ahead of the beam. In the lightest breaths, we steer a shark's fin course, heading up to heat up the boat by building apparent wind, then bearing off to balance the best course with maintaining speed and keeping the still significant undulating swell from collapsing the chute. We tack downwind, with boards separated by up to 90 degrees, in a day slipping through 180 miles of water to cover 120 over the ground. It is slow going by our standards, but a wallowing heavy monohull would be lucky to capture three knots.

Though I miss the wildlife, I am loving this shipless sea. "We're in space, man!" declares Russell. "We must be a thousand miles from anywhere." Indeed. Men seem but distant memories. Yet as starship *Jzerro* traverses this ocean wilderness as remote as any extraterrestrial heaven, I feel strangely close to the epicenter of reality. Perched upon our flying saucer, we barely touch the earth yet we remain as in touch as a person can. We devour books, music, conversation, and simple but delicious meals. Even my cubby "mole-hole" bunk offers the warmth of varnished wood and snug security. On deck, as jazz emanates from below, we gape at fiery sunsets highlighting now-distant cloud empires. In the star-strewn nights, a near-full moon glows through our spinnaker, which billows and rustles in the light northerlies. What peace.

We tend to the boat's and one another's needs effortlessly, keeping long, loosely scheduled watches. At night, Russell usually

remains on deck from about 8 to early AM. With time to really relax, I drift easily into dreamland rather than feeling pressure to quickly fall asleep because I must arise again in just a couple hours. My 2 to 8AM shift provides time to read and ponder our world and those who've paved our way. I marvel at how often, relying only upon stone-aged technology and boats largely open to the elements, the ancient canoe voyagers reached their far-flung destinations. Some survived storms by flooding their canoes, just sitting there and taking it. How many sailed further off into oblivion, though, never reaching an island? *Jzerro* runs downwind, splitting the ocean like some giant predator. Frightened flocks of flying fish take to the sky, their strong aroma hanging in the air as we pass. I imagine the voyagers of Oceania stopping to set nets, living off the Pacific. Despite *Jzerro*'s speed potential, we often slow and even park. Relinquishing our usual hurry to get somewhere, we are becoming more like ocean dwellers than travelers.

No human theater surpasses our oceanic stage. Living simply, stripping the voyage and life to its bare essentials, casts a zenlike magical spell. I devour the now. Turquoise waters split sunlight into stars. Ruby spinnaker cloth floats and shimmers. Snowy curves meet their undulating reflections. Glowing lacy clouds drape the heavens. At night, Scorpio and the Southern Cross now wheel. Within this kaleidoscope of marvels, it is a rare moment not to find beauty before my eyes, and I feel warmed with humility and wonder.



Shields Up

When we near the doldrums, the sky is so clear that the distant ramparts of towering cumulus sixty to a hundred miles away stand sharply defined. Slowly, upon flat gunmetal waters, we glide into corridors between the lofty cauliflowers. From their flat grey bottoms, gigantic stove pipes of rain descend all around us. Gardens of rainbows sprout. And the birds are back--shearwaters, petrels, boobies and longtails, circling us as if they've located a long lost cousin.

By the next morning, increasingly meandering squalls and the seas have grown. We drive until soaked, then heave to under a huge black cow to indulge in a generous shower, nap and meal. For the next three days we lunge across confused gigantic chop. Freight trains of "permasqualls" stream from the south, sucking in clouds from all around. Fierce headwinds often shift 30 to 90 degrees at the drop of a watch cap. Despite the extreme motion of our battle and slop, Jzerro climbs efficiently to weather, making eight knots and tacking in 90 degrees. Finally breaking free at a few degrees north, I watch fascinated, if depressed, as herds of cumulus that ride the southerly trades ram into the backs of the permasqualls. Thick cloud backs up southward so quickly that we seem unable to outrace it. Just as I have concluded that the doldrums and Pacific are mythical names and that we are doomed to forever beat to Polynesia under brooding skies, blue delivers a sun to set. Exhausted, we park the boat for the night in eight to twelve-foot seas.

Warp Speed

Over the coming days, finally able to lay our course for the first time in 600 miles, we slowly find freer, if still strong, wind and better organized, if still large, waves. Russell says it feels like taking a pony that has been stuck in the barn for a week out for a good romp. We log a hundred miles in eight hours. We ease off at night but drive during daylight, running down the old northerly swell while cutting across the new southeasterly seas until the right combo sends us off

to play with a pat on the rear. We bear off, pick our way down big slopes with moving moguls, and keep the apparent wind abeam and driving. At times it feels as if the whole world runs downhill. We whoop and holler, "Yee Haw! Go pony!" She lopes and canters, then gallops off at up to 18 knots, according to our GPS, averaging 10 to 12. Facing forward and yanking or pushing her whipstaff reigns even feels like riding a pygmy pony. I offer sour irritations of "Goin' to Tahiti soon; goin' to be a proa-boat tycoon . . ." (apologies Frank Zappa) and that old Nancy Sinatra tune: "These boats are made for surfin' and that's just what they'll do; one of these days this boat is goin' to surf all over you."

At the equator, a testy Neptune catches the whiff of a polliwog, so pulls us over and jumps aboard, accompanied by his sidekicks Squirt the squid and Hopalong the seahorse. He scolds the crew for having complained about headwinds, calms and bumpy seas, all required to make the ocean work, after all. "Being a God ain't all it's cracked up to be," he whines. Seems he tires of compromising with Aeolus and other ditsy deities who want to throw their own weight around. All those cruisers throwing crap in the water and bitching about whatever conditions they have doesn't make life any easier. Upon the unsuspecting Russell, he heaps a healthy dose of galley slime that we've been tossing his way. Russ thinks the whole Line ceremony is barbaric and stupid, but his new eau du compost rids us of the polliwog stink, and after baths, a toast, a meal and sunset, we two shellbacks set sail for a sweet-smelling final leg of our journey.

Final Approach

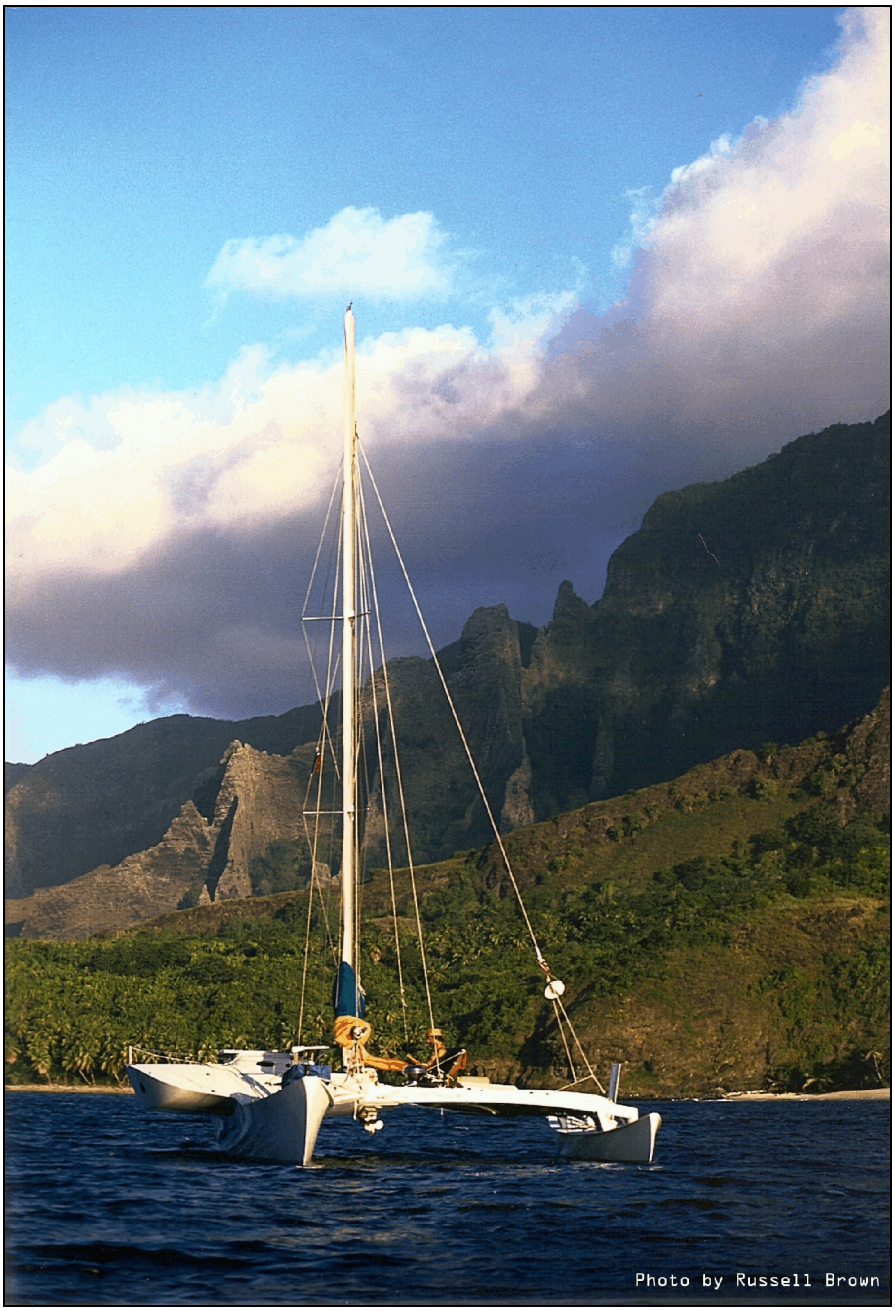
Sail Ho! Next afternoon, Russell spots our first white triangle since leaving California. When it becomes clear that she will not catch us until after dark, we park, raise the crew on the VHF, and plan a rendezvous with the French designed, built and crewed 60 footer. When she

slashes over the swells close by, we excitedly take photos of one another. Despite the welcomed human contact, I am in no hurry to reach port.

For one more day we perch upon the back of our huge seabird, weaving and swooping with our shearwater brethren that glide down wave canyons, run across our bows, then wheel around us. At dusk, a squadron of big flying fish leaps from a rolling wave back. The fish bank downwind across the setting sun, outstretching their shimmering wings like translucent ocean butterflies. The momentary image is burned forever in my mind's eye. It is heartwarming to share wonders with companions, but I now feel blessed, as if chosen, to witness such miracles alone.

Dawn of June 28 reveals the hazy lumps of the Marquesas, exactly where they are supposed to be (and according to our GPS just over a mile away from where our charts plot them). As if to complement my ambivalence about our journey's end, the wind lightens, allowing us to savor this last act. A frigate snags a leaping fish right out of the air. Cloud-scraping, rust volcanic spires emerge from jade forests.

Finally, we pass the bay where Melville lived with cannibals and drop our hook where he jumped ship. From a viewpoint consumed by furthest, fastest, biggest, and first, we've accomplished little—a 20-day passage averaging 150 miles a day–but our only casualties are a masthead lightbulb, a stove sparker, a bucket, and a halyard, and I've come to love this ocean-going canoe. Not unlike the starships of a sci-fi world, she has proven spectacularly suited to explore both our outer and inner spaces. In this era of carbon-copy cars and cookie-cutter boats only differentiable by extraordinarily trained eyes, *Jzerro* is a refreshingly unique poem in motion, a personal reflection of how one chooses to see the world. Russell once told me he was glad to grow up playing with the sea rather then fearing it. *Jzerro* has certainly proved herself the perfect swing set whether you're arcing high and fast between the past and the future or taking the time to stop and smell the flying fish.



Epilog: Following the writing of this article, I accompanied Russell to Tahiti. From there, *Jzerro* continued on to Australia, becoming either the first or second flying proa to cross an ocean, and certainly the smallest by far. Russell then crossed the infamous Tasman Sea a second time and finally shipped *Jzerro* back to his home in Port Townsend, Washington.

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Recommended Reading: *We the Navigators*, by Dr. David Lewis is a technical chronicle about the navigational techniques of the peoples of Oceania. *The Last Navigator* by Stephen D. Thomas also reveals Pacific navigation techniques as well as cultural observations. Canoes of Oceania by Alfred C. Haddon and James Hornell is the "Bible" that details all types of traditional Pacific craft.

***Author's note: Proa designer Rob Denny has been highly critical of this article and Russell Brown's proas, concluding that Russ' boats are wet, don't go upwind, are subject to capsize, that we *had* to constantly steer and shift weights, that we had a miserable time on this voyage, and that this article has done more to damage the development of proas than anything ever. I truly hope the latter is not the case. I *know* the former are not. I feel Denny's conclusions, based on tiny excerpts, often portions of sentences, and taken completely out of context, are for all intents and purposes, all dead wrong, and usually contradict not only my actual sentiments but also sound marine engineering principles and the actual history of proas, especially the accomplishments of Brown and his proas. At this date (September 2011), I find no proof of his conclusions about the superiority of his designs, either through competition with other boats or offshore passages. I also fail to see how any reasonable reader can conclude from this piece that Russ and I had a miserable time. Quite the opposite: This voyage remains one of the best, most fun, and most enlightening of my life, and I will always be grateful to Russell for including me.**

I have debated Denny's comments in detail, now posted on forums and blogs. Please see Wingo.com for my replies to "Denny's Inquisition." That said, I am far from a perfect writer, and I should never have written, "A gybing mains'l in a breeze will blow the stick away." At worst, I should have written ". . . might blow the stick away," and better, "As with most boats, a gybing mains'l in a *big* breeze like this *might* blow the stick away." This would have made clearer my sentiments about my initial worries about our greatest risks as we set off on this adventure on this unusual boat not really designed for offshore work, and on a voyage no one had ever accomplished. In the folksy and candid voice I used for this piece, as I would at sea on any boat, "a breeze" means quite a bit more than a fair wind, as I believe any reasonable person can intuit from the accompanying description of the eight-to-twelve foot seas it generated, which I and many fellow sailors would refer to normally when sailing as "a bit lumpy" although bigger than most coastal sailors ever experience. The worst-case scenario of losing the stick reflected my conservative concerns at the time and general approach of prioritizing any possible failures onboard. Proas aside, not many ton and a half boats have crossed the Pacific. Also, sailing downwind in big seas and stiff winds should give sailors aboard just about any kind of vessel cause for worry about losing a stick in an unintentional gybe. At no time have I written or even implied that *Jzerro* would definitively lose her stick in milder conditions in a gybe, nor lose it if caught aback in any weather, as Mr. Denny has repeatedly claimed.

In the final analysis, we need not have worried of course. *Jzerro* later lay ahull the "wrong" way, with mast to windward, and did not suffer. She also has been found with sails aback, and even sailed that way, more than once with no problem. In fact, only Brown's first proa *Jzero*, built when he was 14 for $400 with used Star mast, ever lost its stick, and that was due to a collision with flotsam and subsequent damage to the boat's connective structure. The splayed fore/back stays on Brown's proas provide support much like swept-back shrouds on a monohull; they may not provide the ideal support to keep a headstay straight for optimal upwind work, but they do support the mast enough to keep it on deck.