



Circus minimus – much adventure, little drama – Part II

Carol Cronin continues her look back at the extraordinary life of a very extraordinary ‘yachtsman’... though such a plain description does not begin to touch the sides

Decades of continuous improvement

An unattributed quote in the book that Bill Mattison’s daughter Lynn produced for him puts the whole sport of iceboating into perspective. ‘It has been rumoured that iceboating is 75 per cent building them, 10 per cent talking about them, 10 per cent waiting around on the ice for the right conditions and five per cent actually sailing them.’ And her father enjoyed all of it.

Bill believed in ‘building for the average’, because the ice and winter weather changed so quickly that a winning iceboat needed to perform well in all conditions. He also believed in evolution rather than revolution, and though each *Honeybucket* he built always included remarkable new

innovations, most are hard to distinguish – unless, of course, you are an iceboater.

Mattison’s designs started with a carved half-inch to the foot model, the same method used by Nathanael Herreshoff and other traditional yacht designers (and the same scale as the circus that he built). In 1964 *Honeybucket V* helped Bill win his first Triple Crown Trophy, awarded to the skipper with the best finishes in the three biggest regattas of the year. A newspaper called the boat ‘one of the most envied and widely desired iceboats ever built...’

‘It has the special spring frontrunner, encased boom blocks and many other advanced features. Mattison, one of the top Skeeter pilots in the nation, has an uncanny sense of the wind, which has also made him a top soft water sailor.’ He would go on to win that award 12 more times over the following 24 years.

In the early 1980s, after Willy Boat Shop partner Paul Krueger – who also raced fast cars – blamed a serious iceboat accident on a low boom that limited his vision, the pair designed and built *Honeybucket VII*, their first rear-seater.

Honeybucket VIII, built in 1988, was called out by *Isthmus*, Madison’s weekly newspaper, as Bill’s ‘first new iceboat in four years’, and the reporter said the new design represents a quantum leap in Skeeter construction. ‘Mattison has streamlined [the hull], replacing the old boats’ vertical sides with a rounded, tube-like shell.’

‘This one I made kind of backwards,’ Bill explains. ‘I made a truss down the middle. Basically, there are no sides... to make it light enough you’ve got to get rid of something.’ The truss and the yacht’s 15 bulkheads were built out of Sitka spruce, but the boat’s birch plywood skin ‘looks like a rocket that would disintegrate on re-entry’. In a separate interview about the same boat Bill said that ‘If it’s a thoroughbred racer it’s going to be built right on the brink of disaster.’

But all of his hard work was rewarded when the ice finally came in that winter; the boat won four of its first seven races. And once the next generation arrived *Honeybucket VIII* would even be deemed safe enough for his grandson’s first iceboat ride. (A younger granddaughter got her

GRETCHEN DORIAN



own first ride on a DN one-design.)

By 1991 Bill was building boats and masts out of carbon fibre – and describing himself as ‘the senior citizen of Skeeters... I still win one or two, but usually these young guys are halfway to the weather mark before I get in my boat. If anybody tells you different they’re crazy.’ The next year he won his last big trophy, the Northwestern Ice Yachting Association Skeeter Championship; he’d previously won it in 1969, 1980 and 1989.

Three America’s Cups and no credit needed

Thanks to his good friend Buddy Melges, Bill was a key part of three America’s Cups: 1987’s Heart of America, the victory with America³ in 1992, and the America³ Women’s Team in 1995.

In the mid-1980s, when Melges first asked Bill to head up his shore team for their 1987 Fremantle 12 Metre challenge, he also hired a much younger midwesterner named Dave Navin. ‘Bill was a hands-on, can-do anything guy,’ Navin tells me, ‘and he always had such a great attitude. There was never any this is too hard. He’d just say that sounds like the right thing to do, let’s go get it done.’

‘He was a master craftsman, and he did everything – from painting to reconfiguring the boat,’ Navin continues. And reconfigurations were definitely needed, because when they first went sailing in Australia they realised the 12 Metre they’d built back in the US ‘really wasn’t fast...’

‘So the designers sat down with the whole team to try to figure out: what do we need to do to make the boat faster? In the end we basically cut the transom off and tucked the hull in. Bill worked with a local boatbuilder to implement the design changes, and made sure it got done right. He was a big part of that boat giving a little bit faster...’

Mining in the Heart of America

But still it wasn’t fast enough, explains Navin. ‘The designers said we’ve got to find a way to put more lead down low. We had a winged keel like everybody else, and we added what Buddy referred to as winglets; basically like a little J/24 keel bolted to each wing. But to add that weight we had to get 2-3,000lb out of the boat!’

‘So Bill led the shore team on what he called a “mining expedition”. He had someone there with a scale, and at the end of the day you’d turn in your bucket and see what you’d cut out of the boat. How much weight can we take out if we drill drain holes in balsa core plywood floorboards?’

‘Someone took eight hours to get 2lb out – and he was just so positive! I was like, “OK, I got 1lb” and Bill would say, “It makes a difference. Let’s keep going.” We put holes in the mast and put tape over them... stripped all the hydraulics out of the mast... and Bill was always asking “What else can we do, and where else can we take weight out?”’

‘I believe he helped the designers create those winglets too; he definitely helped make the male plugs for the lead castings. We cut holes in the wings to bolt the things on; just massive surgery to this 12 Metre. We went from one of the slowest boats to probably one of the quickest... in several weeks of just intense work.’

That mining expedition was a watershed moment, Navin says. ‘Yes, we ended up getting eliminated, but we wouldn’t have got as far as we did. Bill was a big part of the success of Heart of America.’

Peter Harken agrees, though in his Hall of Fame nomination letter he remembered the mining expedition as much less of a team project – at least at first. ‘Everyone thought he was nuts, an impossible task, shaking their heads, but Bill kept on, not saying a word, alone in the hull and with

A little more than one hundred years between them but study the history of iceboating, certainly in the American midwest, and what strikes you is how advanced some aspects of those earlier iceboats were when compared to sailing yachts of the same era. Bill Mattison’s last skeeter, *Honeybucket XIV*, is still winning races while the stern-steerer seen here in 1895 on Lake Mendota was similarly one of the lightest crafts of her type at the time. The long extended bowsprit enabled the boat to ‘push out’ the low-aspect jib, the main purpose of which was to balance the boat so that big mainsail could be giving maximum beans

no help. All they could hear was the sound of his saw and his file. So, with no better answers, the rest of the team grabbed saws, files, metal clippers and jumped in...’

When I mention Peter Harken to Navin he says the discussions between the trio known as the Three Iceboat Kings (Bill, Buddy, Peter) were always inspiring. ‘Peter had just got into the big boat winches and bigger boat components for 12 Metres. And Bill would always ask Peter “What do you think of this, how can we make this better?” Just sitting with those guys and brainstorming – it was great just to be a part of that.’

Peter Harken is chuckling again when he tells me another famous Heart of America story, about when the team needed to shorten the mast by several inches to add a hydraulic jack system. ‘Bill always went to these big highfalutin meetings with the engineers and the analysts, and he would just sit there and listen. And I guess right after this meeting, while they were still contemplating what to do with the mast, he just went outside and cut 8 or 10in off the bottom and then started repairing it...’

‘And the boys came out and said, “What the hell are you doing?” And he says, “Well, I’m shortening the mast.” And then they said, “How’d you know to do that? We haven’t concluded what’s to be done.’ And Bill said, “Why is there a question? You take it off the fat part at the bottom, and leave the skinnier part at the top. Why would you take it off the top?” They scratched their heads, then they just turned and walked away. That’s the way he was; he looked at things like well, this is obvious, and then he would just do it.’

From boats to photos

The Heart of America campaign also gave Bill a unique chance to use one of his many other seemingly unrelated skillsets. ‘We’re out training, taking pictures of jibs and mains,’ Navin remembers. ‘It was pre-digital cameras, of course, so Bill would grab the film and run up to the developing shop. One time he walked in and the guy said, “Well, my machine’s down.” Bill asked when it would be fixed and the owner predicted it might take a couple of weeks. So Bill goes, “Do you mind if I take a look?” And the guy looked at him kind of cross-eyed... “Do you know something about this?” And he was like, “Yeah, I know a little bit about these machines.”’



Buddy Melges drives the Chicago Yacht Club's 12 Metre *Heart of America* in Fremantle in 25 knots of early-afternoon breeze. The midwest's 12 Metre was a collaborative design effort from Jim Gretzky, who raced onboard, aero and multihull wunderkind Duncan MacLane and the Chicago design firm of Graham & Schlageter who co-ordinated the programme. The boat performed poorly in the early rounds of the Louis Vuitton Cup until major surgery to her back-end brought a little sparkle. But it was a case of too little too late and the Chrysler/MCI-backed entry finished ninth out of 13 (sic) wannabe Cup challengers in a very long series. Those Sobstad cross-tape sails from the mid-1980s really are things of beauty – and they led the way for much else later on that was even better

A few hours later another team member came looking for Bill: 'He had like a thousand parts spread out on the floor, on top of rags and towels.' But when it was all put back together again 'they ran the film through the machine and the pictures came out perfect. And Bill looks at the owner and says, "So, what do I owe you?"' Navin laughs: 'He still thought he had to pay for the photos – which pretty much summed up who Bill was! That unassuming guy who says, I'll just do what I can do.'

Linda Lindquist says Bill shared everything: 'Nothing was proprietary. He believed that if you give [knowledge] away, it multiplies. He needed no credit; he didn't even want it. It was just ridiculous how much he did for those America's Cup syndicates, all the breakthroughs and fixes he made.'

America³

When Buddy Melges was hired by Bill Koch to help the America³ team win the 1992 America's Cup Melges once again brought Bill with him.

In 2020, just before Bill was inducted into the National Sailing Hall of Fame, North American DN iceboat champion James 'T' Thieler wrote about one of Bill's key developments for that programme: the kelp cutter. To eliminate the distraction

and drag of a crew member trying to dislodge kelp from the keel fin with a long stick, Bill and fellow iceboater Jeff Kent 'developed a system that would slice the kelp off, basically a utility knife blade that slid down a *very* narrow groove on the front edge of the keel fin. It worked like a charm and certainly was a factor in the close races!' All those years building and sailing Skeeters 'had helped develop the skills needed to be a key part of the shore support team for a delicate, highly strung IACC class yacht', Thieler adds. 'Bill's fingerprints are all over that programme...'

'If you needed Bill you went to the machine shop,' remembers Paul Cronin, who was part of the America³ shore team [and, full disclosure, also happens to be my husband]. 'He helped anyone who needed it. If you wanted to learn he would have you work right there with him. He taught me to use the lathes and the milling machines, and a different way to solve issues; never problems, issues. It was always about the team's success, and doing it with a smile.'

Shortly before America³'s victory *SAIL Magazine* published an article by Knowles Pittman called Fast Forward Since Birth, about Bill and his two Willy Street partners (Paul Krueger and Peter Harken). In her lead editorial Patience Wales called Bill

'an incredibly curious, resourceful man who, when he needs something, simply builds it. In the hours when most of us sleep Mattison thinks, tinkers and plans. When most of us work Mattison does too, at a pace that is simply dazzling... You just stand by for unleashed energy.'

GILLES MARTIN-RAGET

All night long

One reason Bill managed to build and fix so many boats and win so many trophies was because he didn't like to sleep until the job was finished. 'We're down there working on the boat every night,' remembers Dave Navin. 'He'd be the last guy to leave the compound, and one of the first guys back on site.' (It was of course late at night when Bill had his famous 'mermaid' sighting, but that's a story for another day.)

Peter Harken agrees that Bill's work ethic crossed over into everything he did, though he says Bill would only pull an all-nighter when 'there was a problem that really needed to be fixed'.

Working for Kodak, 'he'd be surrounded by engineers who just wanted to go home. But not Bill, he wasn't done; he'd continue on by himself, right through the bloody night. And he did exactly the same with the America's Cup whenever there was a problem. Maybe he picked that up from his circus days, where they just had to



After the Big Boat vs Catamaran hiatus in 1988 Melges and Mattison were both back in the Cup come the first event held in the new IACC monohulls. This time, however, they were at the other end of the fleet, the technical powerhouse put together by America's principal Bill Koch delivering dramatic confirmation that the solution to the IACC puzzle was going to be a narrow one, the relatively slim America's first sailing away from her wider, more flared defence rivals before winning a tough fight with Paul Cayard's *Il Moro di Venezia* in the Match. That early-days Cuben Fibre mainsail was a bit of a glamour as well...

'young man' had definitely decided to join the circus when he grew up, though he 'isn't sure whether he'll be a manager or a performer... My sister is going to work in a circus too,' he declared.'

Seventy-five years later another journalist would be even more impressed by the breadth and detail of Bill's creations. 'A visit to Mattison's workshop is an immersion in all things circus,' stated the winter 2017 magazine of the Wisconsin Academy of Sciences, Arts & Letters. 'On the table behind him is the blacksmith's tent. There blacksmiths repair wagon wheels and shoe horses, while others work metal over glowing forges as smoke curls skyward.' There was even a model of Cinderella's carriage, finished with gold leaf, it said: 'Her glass slipper rests on a pillow, and the carriage lanterns have working lights.'

This Depression-era kid was 'always resourceful', the article continued. 'Mattison used whatever he could find – tin cans, old cardboard, modelling clay... [he] did his woodwork using old, discarded razor blades with glued-on handles and drilled holes with a hand-turned pin vice and a needle.'

And everything works, just as it would in real life. 'All doors, springs, wheels and hinges open, close, turn or move in whatever ways the actual circus wagons or vehicles would require. The trap doors and clean-out mechanisms on the cage wagons are built as if to remove waste from tiny,

get tents and everything else built that night – or from the army.' Even back home, for his fellow iceboaters 'he would regularly be sharpening runners at night; the house basement was chock full of machinery'.

Of course that basement was also where Bill's miniature circus lived – which Harken calls 'a real treasure. When he wasn't working on the iceboat he would be working on the circus... but he'd always be working on something.'

Life's a circus

For eight decades, in the hours left over after laying up innovative iceboats and fixing up his competitors' crashed craft – and his 9-5 job, building and running Star

Photo – Bill continually added to the circus he'd started as a child. At a scale of half-inch to the foot, everything – tents, wagons, tools, figures, animals – was meticulously decorated and detailed to replicate a 1920s Ringling Brothers circus. In June 1942, when the *Wisconsin State Journal* called out the 13-year-old as 'owner, manager, inventor, electrician and promoter of a miniature circus containing more than 300 pieces and covering a wide area', the reporter claimed Bill had been working on this hobby since he was six. He continued to add pieces into his 90s. 'I drove my family nuts when I first started,' Bill told that 1942 journalist, 'but they got used to it.'

The article also mentioned that the



live animals.’ Though Bill occasionally bought pre-manufactured animals most of the horses were hand-cast in latex rubber – each with a different pose. And ‘each one is correctly harnessed’. Of course.

Peter Harken hopes Bill’s circus can be saved somehow – especially the calliope, a working collection of steam-powered brass whistles powered by a tiny 100psi stainless steel boiler. ‘That thing is an absolute treasure. He machined all the little hinges and doors out of thin brass stock, with these very small jeweller’s lathes and milling machines. And all the animals; you would think that they had just been shrunken down, that they were alive. It looks absolutely real.’

The miniature scale is stunning, he adds. ‘I never could figure out how he did this really fine painting of faces, and decorations on circus wagons, with those big fingers full of carbon fibre and glue and everything else. Just so big and clumsy, and yet he could hold a tiny brush and sit there and concentrate. The guy had unbelievable patience.’

Soft water and more repurposing

Bill is best-known around the Great Lakes for his incredible string of iceboat victories, but on their own those might not have convinced the salt-water-focused National Sailing Hall of Fame committee to include him in their Class of 2020. Harken says he and other midwesterners had to lobby quite hard for Bill. ‘He was a good sailor on the soft water,’ Harken says. ‘Not as good as he was on the ice, but pretty good.’ Over four decades of sailing various Scows Bill won more trophies than any other member of the Mendota Yacht Club, which is located on the biggest of Madison’s four lakes. So, yes, pretty good.

‘He got into an A Scow with a friend,’ Harken says, ‘and they fixed that thing up. Bill never bought anything new! He always took stuff that was badly damaged, stuff that was supposed to be thrown



away, and put it back together.’ Linda Lindquist, a midwest native who now lives in Newport, credits Bill’s efforts with today’s revitalised A Scow fleet. ‘So much of what he designed in Scows and iceboats is what has created this excellence, in a fairly unknown community,’ she says.

Harken now owns a Bertram Moppie powerboat that Bill had saved from the dumpster. ‘Before he closed down the shop he said, “I want you to have this.” When he bought it, it had been in a car accident or something and was lying on the road in two halves. They were of course gonna throw the whole thing away. And Bill said, “No, I’ll take it. I’ll fix it up.”’

But he didn’t just fix it up, Harken continues; when Bill was finished you couldn’t tell the boat had ever been damaged. ‘It looks like it just came out of the mould.’

‘And that’s what he did with every project: Scows that slid off a trailer onto the highway. Broken masts; he would fix those right and left, whether they were carbon or wood. He would just do it! The guy was amazing. People would always say, well, nobody can fix this. And someone else would respond, “If you guys can’t fix it just take it to Bill and he’ll fix it.” And that’s what he did. Like I said earlier, they broke the mould when they built him.’

Over when it’s over

‘I started iceboating because it was fun, and that’s still the major reason I sail,’ Bill told *Madison Magazine* in 1980. ‘Once you’ve been out on hard ice with a good blow and the wind hits you broadside, lifting you off the lake 4 or 5ft, as you make the turn down the home stretch you’ll be an ice sailor from then on.’

But after five decades the moment finally came when he could no longer push-start his own Skeeter. ‘He always said that the day he needs a pusher because he can’t run with the boat any more, that’s the day he’d quit,’ Harken explains.

On the first day of winter in 2008 some

When required those ‘great big hands’ of Bill Mattison, as Peter Harken describes them, could work equally well at a minute scale. Here, in one shot Mattison is seen hand-painting tiny details on a coach and horses for his model circus and in the other laminating just the right amount of spring into an iceboat runner-plank. As Mattison said, you can never have too many clamps if you are building iceboats

80 people attended a ‘decommissioning party’ in Bill’s honour, appropriately held on hard water on a perfect iceboating day.

A few months later Bill and partner Paul Kreuger closed the Willy Street Boat Shop. The blade-sharpening grinder went to Pewaukee, but many of the tools and memorabilia collected over more than three decades had to be tossed into the dumpster. Don Sanford, one of the few people who’d made it onto the shop wall’s handwritten list of frequently dialled phone numbers (‘right there with Buddy’s!’), wrote a touching remembrance of the place on iceboat.org (as well as a book about the social history of Lake Mendota). ‘Sailors... call on each other from time to time when many hands are needed for a short burst of work.’

‘Over the years I’ve attended several of Bill’s gluing parties, baffled at how he could possibly turn this wreck of a sailboat or iceboat into a lightning-fast work of art. I’ve wondered how he knew how much carbon fibre, coring and resin were needed to glue up a mast so it would be light and bendy yet not self-destruct out on the lake. His willingness to share his time, ideas, skills, equipment and materials has truly made Madison into the iceboating capital of the universe... in Bill’s shop I’ve seen what can only be described as the evolution of sailboat and iceboat design and technology.’

‘If iceboating were a business all of this would have gone to a museum just as Edison’s lab did. But for Bill this was just a hobby so the museum will have to live on for us in our mind’s eye.’

Though Bill was always trying to go faster, competition was never his main driving force. ‘I try to win,’ he said in 1980. ‘I don’t get worked up. I give it my best shot...’ but he quickly admits that ‘it’s flat out every time’. Eight years later he told a different reporter: ‘The second you think you’ve got it all figured out somebody’s going to knock the socks right off of you.’ He also admitted to his daughter Lynn that he had as much fun working on boats as he did racing them.

Bill never actually joined the circus as he originally intended; instead he integrated his own ‘circus minimus’ into a long and rich life of kindness, innovation and always attention to detail.

Shortly after his passing Linda Lindquist posted a tribute to Bill that makes a better closing than anything I could possibly come up with: ‘I know you are up there tweaking and testing with Olaf [Harken] and others on the eternal ice and water,’ she said. ‘God Speed and Sharp Blades.’