

Stirling Work

With exquisite looks and nippy
upwind performance, Will Stirling's
Integrity has it all. By *Nic Compton*



EMILY HARRIS



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Anyone asked to name the outstanding classic yacht restorations of the past 20 years is likely to include two boats on their list: the 1885 Camper & Nicholson cutter *Marigold* and the 1885 Beavor-Webb cutter *Partridge*. Yet, while there has been a steady stream of replica pilot cutters, J-Class, Herreshoff schooners, and even Fife cutters, few people have attempted to copy this particular type of yacht.

Perhaps it's because this quintessential Victorian design, with its long overhangs, narrow beam and deep keel, is no longer deemed practical. Not everyone can cope with a 10ft (3.1m) draught and 10ft of overhangs (ex bowsprit) on a 60ft (18.3m) hull, à la *Marigold*.

Will Stirling, however, is an idealist. He spent two years researching the design and construction of 18th- and 19th-century revenue cutters when he built his first major project, *Alert*. He subsequently sailed the vessel, with its dipping lug mainsail, to Iceland, and was only prevented from sailing her further by the imminent arrival of his firstborn. When it came to designing his first yacht, he looked back to the distinctive craft that defined the early years of British yacht design.

"The straight-stemmed cutters of this era are particularly graceful," he says. "But whereas with *Alert* I was trying to duplicate an exact historic type, I had a bit more leeway this time. Designers were always trying out different things on yachts. So with the shape

of the cockpit, for instance, I could play around and see what worked best, without being tied to a specific historic shape."

Despite such 'leeway', you get the feeling that every component of the boat has been thoroughly investigated before Will even lifted pencil to paper. Take the rig, for instance. That topsail yard might look the same as *Partridge's* topsail yard to you and me, but Will is quick to point out that the angle of the spar to the topmast became squarer around 1885. *Integrity's* rig, he assures me, is to the older, steeper plan.

A BLEND OF OLD AND NEW

Nonetheless, the design he produced looks remarkably like *Partridge*, with her low sheer and rather austere stem. Yet the figures tell another story. *Partridge* is just 10ft 6in (3.2m) wide for her 49ft (14.9m) length – practically 'plank-on-edge' – whereas *Integrity* is 11ft (3.4m) wide for 43ft (13.1m) length.

Integrity also has more freeboard for her size, a more rounded forefoot, slightly more sheer and a wider stern. The result is a pleasing compromise which looks every bit like a Victorian gentleman's yacht, but is less likely to heel at the slightest breeze and to act like a submarine in a seaway – the true 'plank-on-edge' designs were notoriously tender and wet.

"It's great looking back, because you can pick and choose," says Will. "You can make a judgement about what worked and what didn't, and improve the bits that didn't."

Above: The heavy oak interior wants only some personal touches to bring it to life

Right: The detailing, both below and on deck, is exquisite and uncompromising



WILL STIRLING

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PREVIOUS SPREAD: NIC COMPTON
Previous spread: *Integrity* won the Best Boat Trophy and was People's Choice at the Plymouth Classics
Above: Gloriously authentic, but some will quibble with the date 1879 carved on her counter

INTEGRITY

BUILDER
Stirling & Son

LENGTH ON DECK
43ft (13.1m)

LENGTH OVER SPARS
62ft (18.9m)

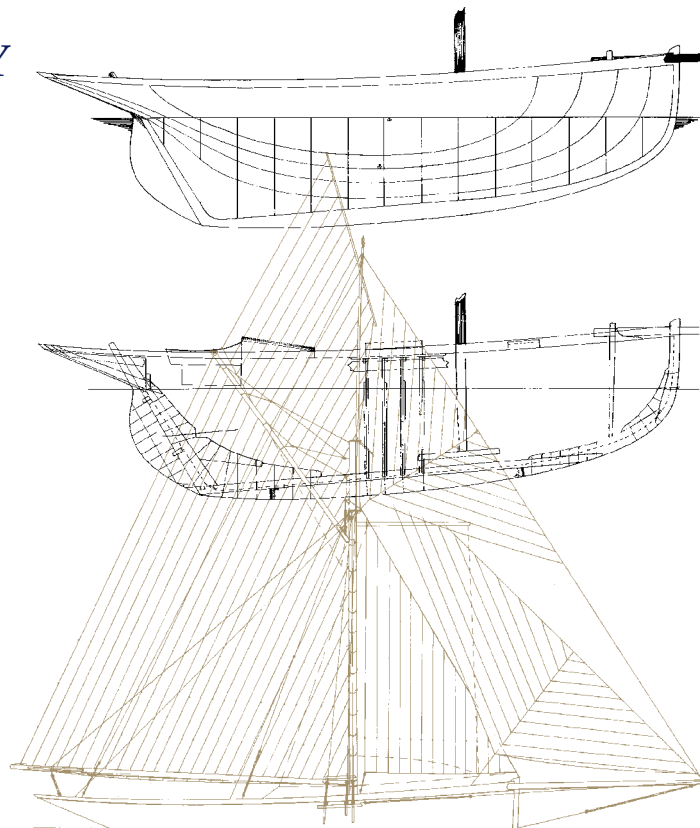
BEAM
11ft (3.4m)

DRAUGHT
7ft 6in (2.3m)

DISPLACEMENT
12 tons
(12.2 tonnes)

SAIL AREA
1,500sqft
(139m²)

COST
£297,500
(ex VAT)



But while Will might have moderated the design somewhat, he was uncompromising in his choice of materials. *Integrity* is traditionally built from larch planking on sawn oak frames, spaced 15in (38cm) apart, with alternate bronze and oak floors, all fastened with copper and bronze.

The decks are of solid Columbian pine – indeed, Will seemed outraged when asked if there was a plywood subdeck – and the deck furniture is opepe with oak trim. Likewise, the hull seams were all caulked with cotton and putty, and the deck seams with Jeffery's N^o2 marine glue. There is absolutely no plywood in her whatsoever.

Will has also been faithful to many other period details. *Integrity's* deck planks, for instance, have all been individually tapered so they start off parallel, or 'straight laid', along the centreline and gradually narrow at either end so the outermost planks follow the curve of the hull. This means there are the same number of planks at the stern as amidships, with only a few planks being 'nibbed' into the covering boards forward, but there is a slight turn in way of the mast.

It was a feature Will spotted on *Partridge* and decided to replicate here, despite the extra work involved. "It's a Victorian aesthetic which has little regard for labour," he says. "Working out the maths is a complete nightmare!"

He also designed and had patterns made for most of the bronze deck fittings, being adamant he couldn't find what he wanted ready-made. Thus the cleats, deck eyes and fairleads (the latter identical to those on

Partridge) were all custom-made. He even made the mainsheet buffer from scratch, casting the nuts and bolts and oversized shackles, and spacing them with giant rubber washers.

The anchor windlass, too, was assembled using elements of an old winch combined with parts Will had specially cast or welded himself. It has a two-gear mechanism: a 'high' gear for breaking out the anchor, and a 'low' gear for winching in the chain.

It's a mind-boggling amount of work to undertake on top of building an entire boat, and I find it hard to believe most of these fittings aren't available online at a few clicks of a mouse – albeit at a price. But then, as Will says: "At least I've got the patterns now, and I can easily have them cast again for another project."

LAVISHLY PANELLED

Will has taken a similar approach below decks. In keeping with the period, the accommodation is lavishly fitted out with oak panelling and the requisite buttoned leather settees in the saloon. Even the pilot berths on either side of the saloon are panelled in, reducing the apparent width of the cabin.

It's all beautifully crafted and there are some nice details, such as the curved ladder steps with a space on the inside to allow the water through, and the delicately curved leaf supports under the saloon table, which marry perfectly with the curve on the sides of the legs.

Interior décor is a notoriously personal subject, and such a traditional approach won't be everyone's cup of

tea – although it's hard to argue with such a high standard of craftsmanship and authenticity, even down to the accurately replicated panel beading. Certainly, the interior feels slightly church-like at the moment, but it will no doubt come to life once the boat has been sold and the new owner has brought in their personal clutter.

A CONTROVERSIAL DATE

But the detail that many eagle-eyed classic yacht aficionados will pick up on is not the beautiful custom-made deck fittings or the meticulously crafted hatches, but a small number carved into the yacht's stern. Below her name, where yachts such as *Partridge* have the year of their launching, *Integrity* has the date 1879, even though she was launched in 2012.

It's a tiny detail, but one which is bound to get the traditionalists all hot under the collar – as anyone will know who remembers the controversy stirred up when the 'modern Fife' *Savannah* appeared with a Fife dragon carved in her bows.

Will's explanation seems genuine enough: "I did it to prevent confusion. The date is meant to indicate the era the design is based on – it wasn't meant to hoodwink people into thinking she was built then."

And I believe he did carve the date out of naivety – or perhaps insecurity, thinking his design wouldn't stand up to scrutiny unless it had its historic provenance spelled out, quite literally, on its transom. After all, how was he to know then she would turn out to be such a beauty, quite deserving her place in any classic yacht circuit, whether

Above: Finished in June, the hull was trucked 20 miles to Plymouth for launch day
Top right: One of Will's shipwrights addresses the mast step
Above right: Detail from the hatch housing, showing the built-in drain

Matters of detail

Rigging: The traditional galvanised steel rigging was spliced by TS Rigging. Running rigging is three-strand matt polyester from English Braid – more expensive than other simulated hemp ropes, but less likely to stretch.

Sails: North Sea Sails provided the period detail on the Clipper Canvas sails, including stitching the boltropes on the port side of the sail. Why? So you can tell which way round it is in the dark – maybe.

Blocks: Following a recipe by Claude Worth, the Danish-made ash blocks were stripped, soaked in linseed oil for three weeks, then hung up to dry for three months, before being revarnished.

Fittings: All cast by Major Castings in Fowey, who also welded the copper stem band.

Ballast keel: A 17ft (5.2m) long female mould was built in steel and a fire lit under it so the lead could be melted and set in one go. The keel itself is 12in (31cm) wide, tapering to 6in (15cm) at both ends, giving a wide faying surface to minimise torque. About half the ballast is in the bilges, to produce a better motion at sea.

Engine: A 57hp Beta Marine diesel, with feathering prop and rope-cutter. She carries 47gal (215lt) of diesel and 74gal (335lt) of water, both in rigid plastic Vetus tanks.

Interior: To avoid a shiny varnished finish, Will stained the oak using Van Dyke crystals, a traditional recipe made from crushed walnut husks, which is mixed with water before use. The wood was then sealed with beeswax to produce a soft finish.



SARA STIRLING



WILL STIRLING




NIC COMPTON

built in 1879 or 2012? The average knowledgeable sailor is likely to be less forgiving, however. The view from one seasoned sailor on the dock was: “That will have to go. Before he sells her, he’ll have to fill the date in or there’ll be hell to pay!”

It took Will and his team just over two years to build *Integrity*. Although the shed she was built in is a stone’s throw from the water, the boat had to be trailed for 20 miles to a suitable launching place in Plymouth – a feat which necessitated lopping a few branches along the way with a chainsaw.

Launched on 12 June, she was officially named by Will’s mother, Elizabeth Barlow, two weeks later. The ceremony took place just a few hundred yards away from where, 114 years before, Elizabeth’s great-great-great-grandmother, Eliza Barlow, had named the 80-gun warship HMS *Foudroyant*.

Will has achieved a rare thing in *Integrity*. He has managed to design a boat which is imbued with the character of a period yacht without becoming a slave to historical detail. *Integrity*’s sheer is as sweet and clean as any yacht designed during that era, and yet the whole boat has its own distinct 21st century personality. It’s an astonishing achievement for only his second major build and one which bodes well for the future.

I suspect Elizabeth Barlow is going to be every bit as busy and successful as her illustrious forebear. 

Above left: *Integrity* picks up way in a breath of wind

Top right: The deck is laid the Victorian way, with planks joggled into the devil board

Above right: Will and Sara Stirling

Sailing with the Stirlings

Integrity was in Cowes for Panerai British Classic Week and, though Will had no intention of racing, he was called out by two comparable gaff cutters: 45ft (13.7m) *Thalia* and *Aeolus*, 42ft (12.8m) and plank-on-edge. Despite thunder and hail, *Integrity* and her borrowed crew won convincingly.

It’s the middle of August when I finally get aboard in Plymouth Sound. Will has carved a mighty tiller, with a cuboctahedron (that’s a cube with the corners cut off) apparently inspired by Dixon Kemp, and the impression is of steering a much larger vessel – or perhaps it’s that 7ft 6in (2.3m) draught that makes her slightly heavy on the helm.

Not that the boat is sluggish – quite the opposite. With her jackyard topsail up, she sets nearly 1,500sqft (139m²) of sail, which pushes her along in the slightest breeze. As you’d expect of a Victorian gaff cutter, *Integrity* doesn’t like sailing too close to the wind. That said, on the evidence from Cowes, Will’s tinkering with Victorian design principles has paid off.

Coming back into harbour, *Integrity* has the innermost berth, and I hand the helm back to Will rather than risk ploughing 12 tons of unyielding oak and bronze through a line of tupperware. He knows exactly what he’s doing and makes an awkward manoeuvre look very easy.

The secret, I decide, is to use warps rather than rely on the engine. With the best will in the world, there’s only so much an engine and a rudder can do to turn around that amount of wetted surface area.