

THE YACHT

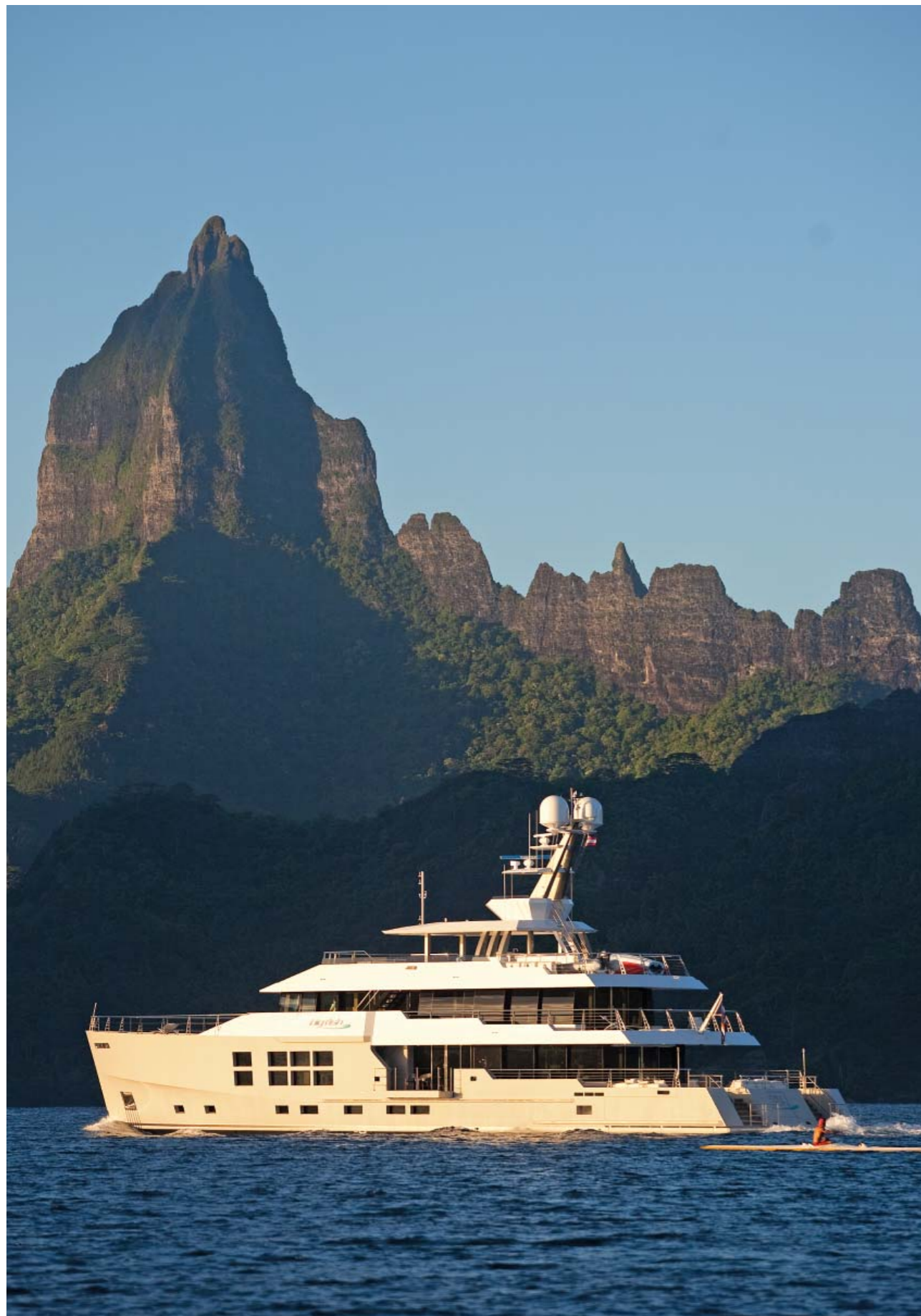
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report

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Catch of the Day

Big Fish

by Justin Ratcliffe

Coined by its developers as a Luxury Expedition Vessel (or LEV for those who like an acronym), the 45-metre Big Fish is designed by Gregory C. Marshall Naval Architect Ltd based in Canada and built by McMullen & Wing in New Zealand for British owner-entrepreneur Richard Beattie, who operates out of Hong Kong. To best exploit what he sees as the huge potential of Greg Marshall's innovative design, Beattie has set up Aquos Yachts to develop and market the concept, and construction is under way in Auckland on a 50-metre sistership codenamed Star Fish. Justin Ratcliffe reports exclusively on the first yacht in the series that left Auckland last July to begin a polar circumnavigation.

Big Fish is designed for a very specific vocation: go-anywhere world cruising. Everything about her steel and aluminium construction stems from this premise and you are unlikely to catch her on the short-hop itineraries typical of the Mediterranean and Caribbean. But instead of designing an explorer-style vessel that could easily have resembled an ocean-going tug, Greg Marshall and his co-workers have come up with a superyacht that is innovative and elegant, seaworthy and sexy.

Yet it might never have happened. Owner Richard Beattie originally intended buying an existing vessel, but as so often with owners looking for something out of the ordinary, he was unable to find what he wanted on the pre-owned market. Beattie had admired the “edginess” of *VuSI*, the 34-metre Greg Marshall design

launched by Alloy Yachts in 2007, and the tipping point came during a hurried meeting at the 2006 Monaco Yacht Show when he was introduced to the designer through Ross Haerle, the captain of his former 94-foot Azimut. Following the meeting, Beattie decided to build his own yacht.

“He’d been looking around for a new yacht, but had found most of the boats out there quite boring”, confirms Marshall. “A lot of them were designed to look in at your stuff, but he wanted to look out at the world. And that was basically the initial brief. He didn’t really care whether the boat was 120 feet or 160 feet, but its design should be dictated by the inspiration. So I spent most of the rest of the day after he left madly sketching on hotel paper and that’s mostly what *Big Fish* looks like.”



Big Fish's owner, Richard Beattie, who wanted design to be dictated by inspiration.

This kind of brief is music to any designer's ears and Marshall took the ball and ran with it. The angular exterior styling, now something of a Marshall signature, is clearly an evolution of *VuSI*, but at 11 metres longer overall the interior volume has expanded exponentially (while still scraping in at just under the 500gt threshold) and the design options available have grown with it. As befits an explorer vessel, the yacht has an air of typically North American robustness, but combined with more European, contemporary styling.

RELIABILITY & REDUNDANCY

"What we wanted", says Marshall, "was to design a boat that was reliable enough and strong enough to take you anywhere in the world – a solid, true expedition vessel, but with the owner's minimalist aesthetic sense. So we did a lot of tank testing with the Oceanic Consulting Corporation and when we finalised the slippery hull form they came back to us and said it was the most efficient hull they had ever tested in that size range." Reliability meant working with proven systems and technology. From gearboxes and navigation systems to water makers and electrical components, care was taken to ensure trouble-free cruising and independence from shore side repair facilities. Hence the Caterpillar 3508B DI-TA main

As befits an explorer vessel, the yacht has an air of typically North American robustness, but combined with more European, contemporary styling.

engines (783kW/1,050hp at 1,600 revs). These prime movers are slow turning, long lasting, fuel efficient, trouble free and require minimal maintenance. They are equipped with an oil system that requires changing only once every 1,000 hours, or perhaps twice per year. With 92,000 litres of fuel (about 40 per cent more than most vessels of equivalent size) cruising range at eight knots is well over 9,000 nautical miles and the yacht can stay on station for up to three months at a time.

In addition, the yacht was designed to incorporate the redundancy necessary for safety and independence. It was even calculated how many oranges need to be stored on board to provide guests with fresh orange juice each morning for weeks at a time. It takes multiple failures before the Hoshizaki refrigeration system of 14 freezers, five refrigerators, three icemakers and five bar fridges is compromised.

"One of the mandates that the owner set out for us was that he wanted the crew to be providing fantastic service, instead of



cleaning and polishing all the time", says Marshall. "So the yacht was designed to be as low maintenance as you can make one of these boats. And then it was laid out so the crew can get through the vessel without having to be seen. So they can go directly from their quarters into the guest areas for servicing without going up onto the main deck, access the engine room without going through the inside of the vessel, service the tender without being seen on deck or go into the garage to restock using the crane without having to drag lots of groceries through the vessel. The boat is conceived to be operating and functioning full tilt without seeing the crew any more than you have to."

LOOKING OUT, NOT IN

With the owner's insistence on looking out in mind, the amount of glass on board is remarkable: 159 individual panes for a total of 204m² weighing some 8.5 tonnes in total and varying between 48 and 56mm in thickness. According to Glasshape, the Auckland manufacturer who installed the windows, the largest pane is 6m² and weighs in at 470kg. At the time, Germanischer Lloyd was reviewing its glass standards and it took a year for McMullen & Wing to receive a definition of what was required.

"As always, the supply of glass to a superyacht brings along the challenges of offering the ultimate in strength, clarity, noise reduction and safety regardless of curvature and the thickness of glass", says Andrew Forrest, CEO of Glasshape. "Our technical team assessed the requirements of the build with special attention to the glazing position, optical qualities achievable, weight-savings and, of course, Class requirements. The glass fitted in *Big Fish* was a combination of heat-strengthened glass layers to gain the best optics, and laminated with a special polyacrylic interlayer developed by us, resulting in a 500 per cent strength gain over standard toughened glass. The glass panels were then tested up to 25 tons/m², and witnessed by the Class Societies in accordance to their requirements."

Another striking and original feature, in addition to the now customary balconies on either side of the main deck dining area, are the fold-down bulwarks in the yacht's stern quarters. At more than 12 metres, they offer the widest and most spacious swim

platform ever seen on a 45-metre yacht and when fully unfolded can support numerous water and boating activities.

"Those came from the first 15 minutes of sketching, because the owner described how he wanted to be as close to the water as possible", continues Marshall. "Initially we left it as a large transom platform, but it didn't look right with the rest of the boat and we so drew these giant folding beaches. As it turned out they are fantastic. You end up with about 100 linear feet of usable dock space around the boat; you can tie sea planes to it and the big tender and jet skis and still have lots of room for jumping in the water."

INNOVATIVE ENGINEERING

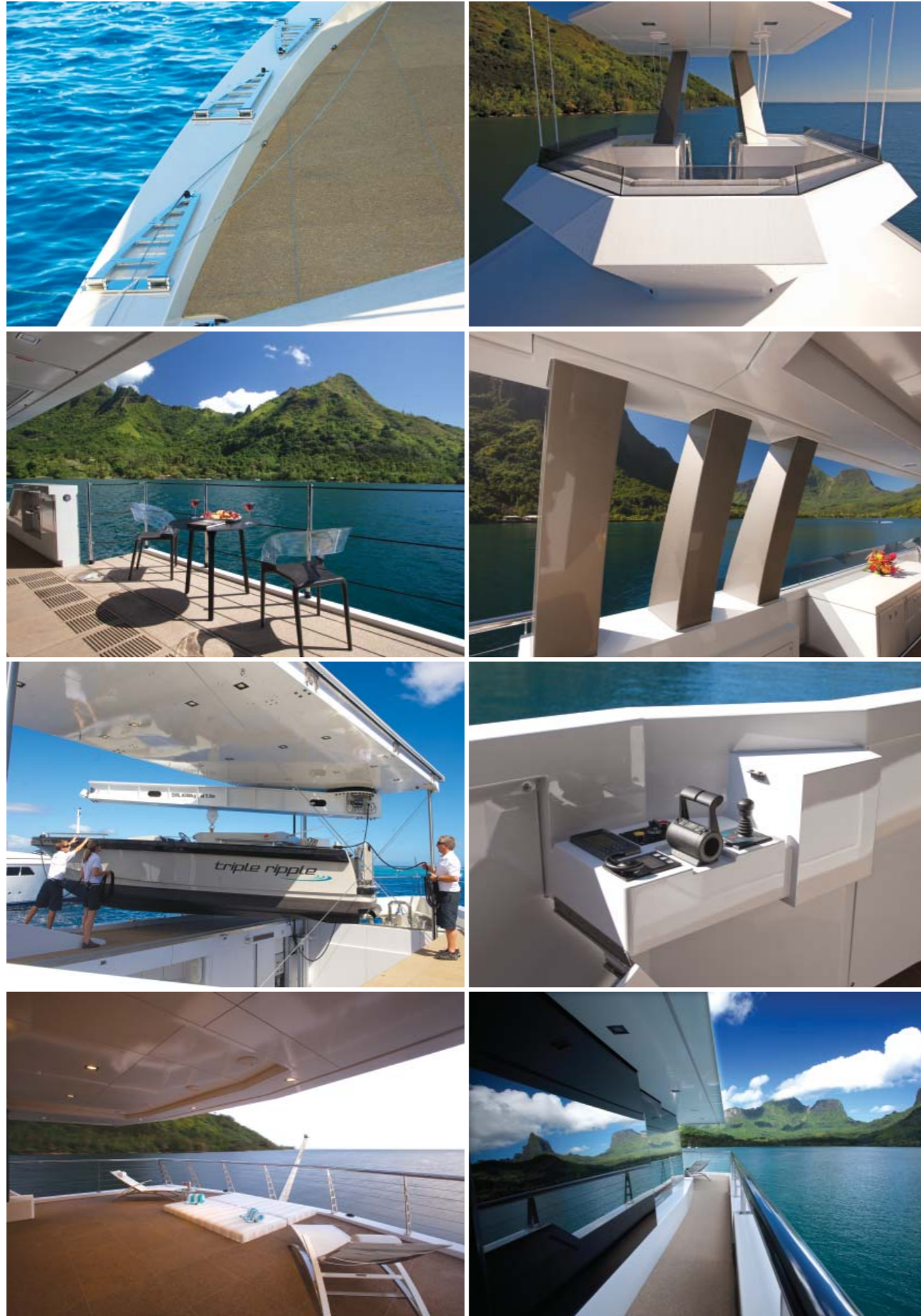
Mechanical features such as this require some hardcore engineering, which was initially conceived by the naval architects and executed in-house by McMullen & Wing, who also perfected the hydraulic system for the tender bay in the foredeck and the 5,000kg-capacity crane. Described somewhat diffidently by David Porter, co-owner and MD of McMullen & Wing, as "a technical challenge", the mechanism consists of four laser-guided



Greg Marshall, the designer: "We wanted to design a boat that was reliable enough and strong enough to take you anywhere in the world – a solid, true expedition vessel"

Members of the Aquos team and McMullen & Wing, David Porter, Terry Porter, and Richard Beattie (right)





pistons that lift the tender hatch three vertical metres above the foredeck, whereby the crane can swing outboard on its traveller to launch or retrieve *Triple Ripple*, the 28-foot aluminium custom tender. A late request from the owner was to link up the tender bay to the yacht's audio-visual system so it can also be transformed into a party space.

The list of *Big Fish's* distinguishing exterior features continues with her crow's nest or observation pod below the radar mast, which Greg Marshall had previously introduced aboard the 105ft expedition yacht *Calixas*.

"The owner was aboard *Calixas* and we took him up to the pod and he asked if he could have one on *Big Fish*", recounts Marshall. "On sea trials we were up there having a conversation and there was no wind, no motion, you could see the whole world from 35 feet or so above the water. And so on the next boat, on *Star Fish*, we're putting in a larger pod because it's such a fantastic personal spot to be in."

At this point it should be explained that Aquos Yachts has a very specific mission statement that comes at a critical moment for the yachting industry that is still readjusting in the wake of the economic recession:

"At Aquos Yachts, we believe passionately that luxury yachting isn't just about looking great in a glamorous destination", says the company website. "We believe that the highest purpose of a yacht is to provide our owners and guests with extraordinary experiences in places few ever visit... By re-defining design and construction processes at every step of the way, Aquos is all about delivering an inspirational new vision for luxury yachts."

Inspirational words indeed, and words that have been said in similar shape or form before. So does *Big Fish* deliver on the Aquos promise, does the boat live up to the branding? *TYR* has yet to see the yacht in her finished state, although we did go aboard in Auckland last March just as she was about to be launched in preparation for outfitting. The yacht will be at the top of our list of appointments at the Fort Lauderdale Boat Show in October, but until then we are obliged to withhold judgement.

AQUOS YACHTS

Acting as marketing consultant for Aquos Yachts is Jim Gilbert, the founder and former owner of *ShowBoats International* magazine, who has been instrumental in establishing the 'barefoot luxury' philosophy of Aquos Yachts.

I got involved with Aquos Yachts almost out of guilt. When I sold *ShowBoats* and had some time to reflect on my career there, I realised that in the process of trying to be the industry's biggest advocate I, like many of my peers, had lost my way in the pursuit of 'bigger is better' or at least more newsworthy. Looking back, I think everyone in the industry, and not just the press, got carried away by the sensationalism of the extreme high end of the market, which was producing such remarkable boats as *Maltese Falcon*, *Pelorus*, *Octopus*, etc. Everyone was chasing clients who were more interested in the experience of owning a beautiful yacht than the experience of yachting itself. The damage to the industry is that, in the process of chasing the two or three dozen clients who could build US\$100 million-plus yachts, we forgot about the thousands of people who are more interested in where they could go and what they could do and see with a beautiful boat, rather than simply owning one.

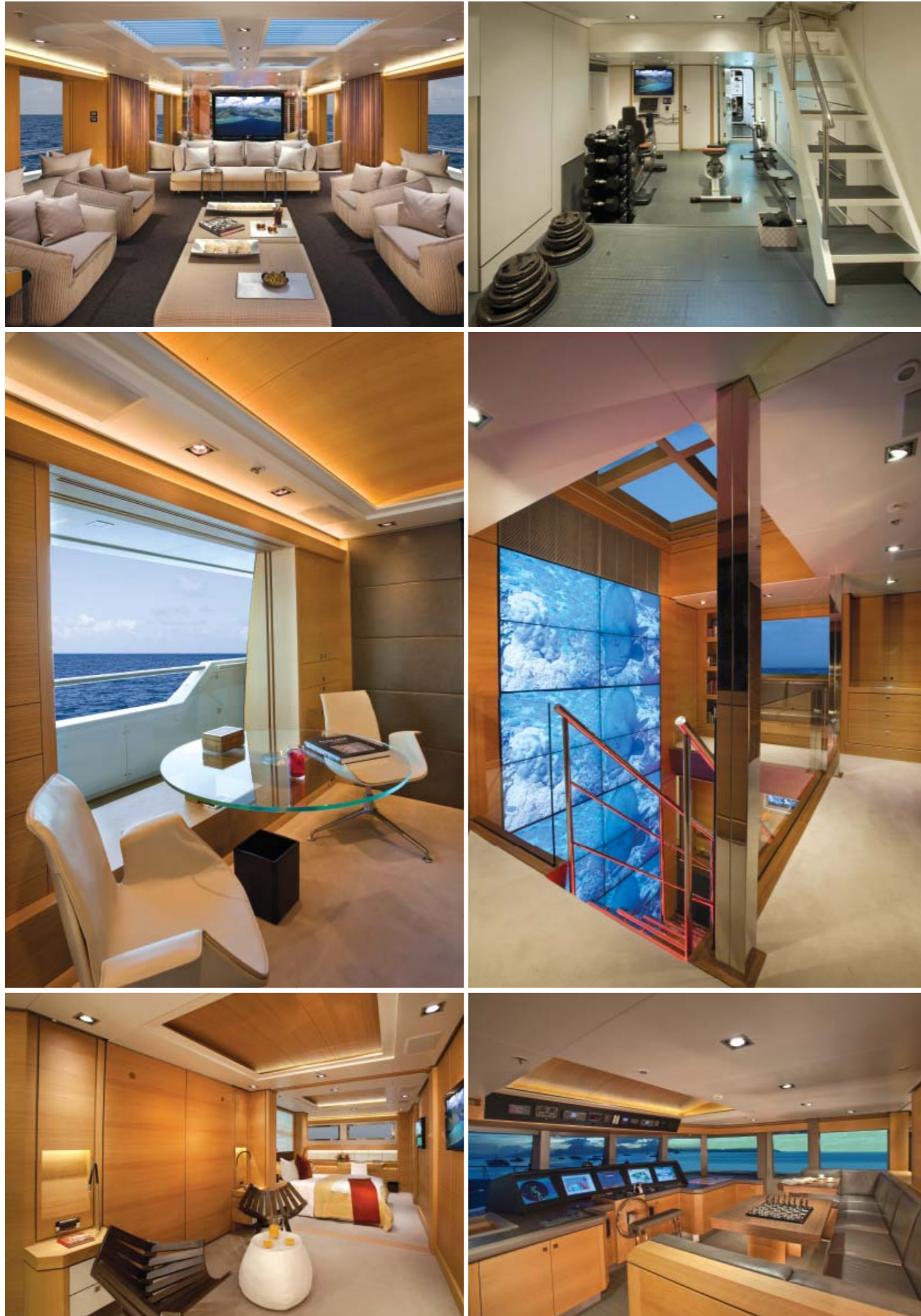


In *Big Fish* and Aquos Yachts, I see a return to the roots of yachting, where the boat itself – beautiful and seaworthy and innovative as it is – is secondary to the experience that the boat can impart. It's a return to the dream of sailing off to pleasure and adventure and a departure from the more stuffy and traditional form of yachting that most modern yachts embrace. I think the idea of barefoot luxury, of viewing and marketing yachts as a means to an expansive end, rather than an end in itself, is one whose time has come and can help attract an entirely new wave of ownership into the yacht industry. www.aquosyachts.com

The indications are promising, however, not least because her owner has insisted on reducing the yacht's environmental impact to a minimum still compatible with the concept of a superyacht.

ECO-FRIENDLY EFFICIENCY

"One of the first requests of the owner was to push the envelope of environmentally friendly yachts", explains Marshall. "And so we did an awful lot of research into materials and we looked at all sorts of emerging technologies. At the time a number of the ideas that we and the owner wanted to incorporate just weren't viable at that point in their development." LEDs, for example, are becoming more widespread as an energy-efficient light source on superyachts, but when *Big Fish* was in the design phase they were still a novelty. Nonetheless, Richard Beattie was



keen to install them on his yacht. This required considerable R&D for the builder who turned to New Zealand-based Halcyon Lights to develop the dimmable LEDs that have been employed throughout, except in specific areas such as the galley and technical spaces where the higher lumen output of halogen bulbs is required.

Big Fish also features an engine/generator exhaust heat recovery system for providing hot water, which supplants the traditional power-hungry electric water heaters typically found aboard large yachts. Since gensets are in operation around the clock, this ensures a plentiful, energy-efficient supply of hot water without generating additional electricity. In addition, the Gen-Kleen system is a pollution-control technology for marine gensets that works by separating the cooling water from the exhaust gases. While the dry exhaust gases are vented to the atmosphere, the raw cooling water is scrubbed by a filtration system. The filters are impregnated with a patented formula that binds and captures hydrocarbons while allowing clean water to pass through. Clean water is then returned to the environment.

On a more mundane level, charter vessels can get through literally hundreds of plastic water bottles per week, so plastic bottles are simply not allowed on board. Guests receive their own, reusable bottles when they come on board.

For the same eco-friendly motives, the owner eschewed teak and turned to what perhaps has become the yacht's most unique and talked about exterior feature: stone decking made of epoxy-impregnated granite tiles supplied by Stone Decking Systems in the US.

"The natural stone we use is selectively chosen and then infused using a proprietary process", explains company founder Jeff Homchick. "The idea for SDS came about by the forward thinking owner during a conversation with David Darwent, the project manager on *Big Fish*. David was aware of our capabilities with infusion processes, and from there we put a year-and-a-half into R&D to come up with our methods."

Homchick goes on to list the advantages of SDS as more environmentally friendly, comparable in weight but longer lasting

than teak, 95 per cent impervious to staining and maintenance free (and to support these claims he also provides a lifetime warranty on the product). Not surprisingly, *Star Fish* will also feature SDS decking.

"From a builder's point of view it's great", enthuses David Porter. "First I love the product and the ethos, but the speed and lack of drama in laying it are amazing. Four decks can be laid in three or four days – about one tenth of the time compared with teak."

ON THE INSIDE

So much for the exterior, but the interior of *Big Fish* is just as innovative in terms of layout and design. A full-size mock-up was built – not just of a corner of a cabin but of the whole main deck – so the owner could walk through it with a magic marker pen to indicate any alterations. The stone decking, for instance, penetrates the main dining area to diminish the inside-outside boundary and helps create the Aquos brand of "barefoot luxury" and informal, relaxed cruising. Unusually, the working area of the open-plan galley can be closed off by a sliding partition; a solution that works well during charters when American guests, for example, often appreciate the informal, breakfast bar atmosphere of home, but other nationalities may expect more privacy

BIG FISH – SPECIFICATION

LOA	45.00m
LWL	42.90m
Beam (max)	9.00m
Draught	2.56m
Construction	Steel and aluminium
Class and LY2 compliance	GL Maltese Cross
Displacement	420 tonnes
Gross Tonnage	498 tons
Shipyard	McMullen & Wing, New Zealand
Naval architect	Greg C Marshall Naval Architects, Victoria, Canada
Exterior design	Greg C Marshall Naval Architects, Victoria, Canada
Interior design	Greg C Marshall Naval Architects, Victoria, Canada
On-site interior consultant	Ann Motion Design
Main engines	2 x Caterpillar 3508B DFTA, 783 kw (1,050 hp)
Speed (maximum)	16 knots
Fuel capacity	92,000 litres
Range at cruising speed	9,200 miles at 8 knots, 5,000 miles at 15 knots
Water capacity	11,400 litres
Tenders	14ft Nautica RIB/28ft custom tender from McMullen & Wing

and separation from crew activities. Again with flexibility in mind and for more intimate cruises, three of the five luxury cabins can be converted into larger suites.

WOW POWER

But the most audacious and technically challenging interior feature aboard *Big Fish* is to be found in the centre of the yacht in the main stairwell, where a video wall of multiple plasma screens has been installed that extends over three deck levels.

“We were struggling with what to do with the wall”, Marshall admits. “The owner made it clear that he wanted to have this spectacular feature spanning all three decks and we went through various evolutions, including a backlit glass feature and a huge aquarium. The hard part was that the owner wanted the look

to be able to change, so during daylight it would have one kind of appearance, at night time a different appearance and in party mode yet another. We messed about with it for about 18 months and then came up with the video wall concept.”

Drawing on the technological know-how of AV Concepts & Design and Planar, two consultant firms based in the US, the 20-x 46-inch HD plasma screens can function individually or as one giant image and McMullen & Wing engineered the staircase so the bottom section can fold out of the way for un-obscured viewing.

“It’s an entire microcosm in itself”, marvels Marshall. “It has its own ventilation and cooling system built into it and mounting all the screens was a challenge. Then you have



all the wiring and cabling and getting them all to talk to each other so they can act as a single unit. It’s actually quite a feat of electrical engineering. As I understand it, the only other TV wall of its kind is in the White House.”

What is refreshing about *Big Fish* is that it is a yacht designed for a discerning owner with his specific lifestyle in mind. Chartering considerations were important, but secondary insofar as they had to comply with the owner’s go-anywhere mandate. The result is a yacht with character that pushes traditional notions of what modern motorcruising is all about, with the premise that “luxury yachting isn’t just about looking great in a glamorous destination”.

I have long been in favour of ‘pocket’ superyachts of 50 metres or less (especially when they are sub-500gt) as opposed to the white, wedding cake behemoths. One reason is that smaller vessels are more economical to build and operate and usually more attractive to look at on the water.

They are also more versatile with greater range and better able to enter places that gigayachts cannot even approach. But most importantly, if well designed they can provide just about all the conveniences and comforts of larger yachts, especially as the majority of owners spend only a few short weeks aboard during the course of the year. A final and increasingly relevant observation is that in a struggling world economy where prospective owners might balk at the prospect of ordering a new megayacht, surely an efficient,

45-metre explorer yacht is a less conspicuous extravagance and more in tune with the times?

“As a designer, the first thing that really appeals to me about *Big Fish* is it is first and foremost a serious ship; it’s not a toy boat”,

“It’s a really exciting, clean, minimalist vessel and you rarely see the two mixed together.”

concludes Marshall. “Secondly, you look at it and realise it’s a really exciting, clean, minimalist vessel and you rarely see the two mixed together. And then the third most important thing for me is that the owner is so excited and the fact he’s building more is commercially wonderful, but also satisfying because you have an owner who is enthusiastic and willing to take a risk. And he’s actually going to use the heck out of the thing.”

Images by Neil Rabinowitz and Tim McKenna

We will be welcoming Richard Beattie as our keynote speaker at the Global Superyacht Forum, 15-17 November. Discussing the yacht, the business plan behind it as well as his experiences of this industry this keynote session will kick-start what promises to be an enlightening, challenging and valuable meeting of the key players in the superyacht industry. Register your place as a delegate at www.superyachtevents.com/gsf/gsf2010/ or call a member of the events team on +44 (0)207 924 4004.



big fish

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