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A few months ago I was discussing cruise planning for this series with Tim and Liz Dodwell, YM readers who voyage around Europe in their 30ft Cornish Crabber Pilot Cutter, *High Barbaree*. It struck me that their choice of boat is unusual, but then, so is mine. My own yacht is a gaff cutter. I asked Tim why on earth they would opt for such an archaic rig over all the conventional sails vying for their custom. His reply delighted me.

'You can develop a convincing rationale if you want to,' he mused, 'but I think Liz and I sail a gaffer because, deep down, we just like it.'

I've been searching my soul over this issue for decades now. I've lectured about the benefits of my lifelong preference; I've even written text books on the subject, but wide experience of mainstream yachts since the late 1970s has shown me that most boats can offer something to somebody. We are all under pressure from a barrage of advertising and our natural human tendency is to 'go with the flow'. A growing number of owners, however, are turning away from the line of least resistance and looking for something more personal. Perhaps it's a boat that will challenge their seamanship, or maybe it's one whose sheer genius of lateral thinking makes sailing her infinitely easier. It might even be a question of perceived beauty, but most likely it's a straightforward desire to try something different.

With all this in mind, let's take a few moments to examine four of the many alternative cruising rigs. One of them might just tickle your fancy and, as my old Grannie used to say, 'A little bit of what you fancy does you good.' It could also change your sailing future.

'Owners are looking for something more personal'

Freedom to be different

Your yacht doesn't have to be powered by a run-of-the-mill Bermudian rig.
Tom Cunliffe explores some alternatives



A 30ft Cornish Pilot Cutter - a modern GRP gaffer - tacks up the Beaulieu River

» GAFF RIG

For a century or more, gaff was the rig of choice for fishing smacks, pilot boats, revenue cutters and all those vernacular small craft that sailed without the big crews demanded by the alternative lug rig. When yachting got under way around 1850, there was no viable alternative for power, ease of handling and close-windedness. A huge library in word and picture tells us how well it functioned, and I'm pleased to advise that it still does. No modern-yacht sailor who's been overtaken by a classy gaffer in full race trim could possibly argue.

Recent technology has made life easier for the gaffer, including the careful use of winches and Spectra or Dyneema rope. We've even seen carbon-fibre gaffs to keep down weight aloft, but purists argue that lightness up there spoils a boat's motion and discourages the sail from coming down. I'd agree with them.

Gaff is thriving and new boats are being built in big numbers - in GRP production runs as well as individually in wood, steel and composite. The lively Old Gaffers' Association has over 2,000 members and many a jaunty cutter is currently voyaging the wide oceans.

BENEFITS

At its best, gaff is downright handsome. It is also highly entertaining to sail, delivering its pearls only to those prepared to work for them. The satisfaction that rewards anyone who really gets a gaffer going is hard to calculate. Gaff is also the saltiest of rigs. From the smartest classic yacht to the hunkiest world-girdler, it's a celebration of the ancient arts of the sailor, with more whippings and splices to the ton than any other set-up.

Gaff's large, low-aspect-ratio sail area is ideal for driving heavy displacement hulls that are not particularly close-winded. Because the short rig confers wider shroud angles, point loadings are minimised, so it's easy on the hull. Sheet loads are also reduced, doing away with the need for massive winches. The low, deep sails have a high stall tolerance, which means you can oversheet them without killing your boatspeed, easing the demands on crew. The



Owning a gaff guarantees a warm welcome at festivals all around the shores of Europe

low-tech spars and fittings can be repaired or replaced almost anywhere. I'm no shipwright, but I once carved a mast out from a tree - and it drove me 10,000 miles and more.

One critical benefit is that, as you reef it, the centre of effort of a gaff sail doesn't move forward like its three-cornered equivalent. This helps a hove-to gaffer point up properly rather than falling away beam-on into

an untenable compromise. Add the typically deep gaffer forefoot and heaving-to becomes the classic formula for

gale survival with all hands turned in safely down below.

DRAWBACKS

Despite occasional claims to the contrary, gaff is generally tougher to handle than a well-sorted modern bermudian boat. Except in its most refined forms, it doesn't like pointing much above 45 or 50 degrees to the true wind, which can be frustrating if this is what you really want to do on passage in a seaway. Bowsprits are vulnerable in docking situations and certain authorities, in danger of losing their sense of humour, are now demanding payment for them.

On long downwind passages, great care must be taken to avoid chafe. In general, extracting the best from a gaffer demands levels of seamanship that not everyone is interested in acquiring.

'Gaff is thriving and new boats are being built in big numbers'

» AERORIG

This controversial rig operates via an unstayed, carbon-fibre mast with a single boom running right across it at gooseneck level to form a sort of lopsided cross. When the rig is sheeted fore-and-aft, one section of the boom extends aft as usual, the other runs towards the stemhead. There is no gooseneck. Instead, the whole rig, mast and all, rotates under the control of the mainsheet. This means that as the mainsail eases away to leeward, the jib is actually swinging up to weather, maintaining exactly the same aerodynamic relationship with the main.

The clew of the loose-footed mainsail is tuned with an outhaul and a car at the boom end. The 'outhaul' for the roller jib leads down to a short track mounted athwart the foreboom immediately forward of the mast. By shortening or easing this, the slot between jib and main can be adjusted. The main is, in my experience, best hoisted conventionally via a 'stack-pack', but versions exist with other formats.

I'm not going to cause a furore by suggesting that the looks of this rig are a benefit or a drawback. Personally, I loved the thrilling, semi-wing carbon spar of the 60ft Van de Stadt-designed *La Novia*, on which I was privileged to cross the Atlantic a couple of years ago. Others simply cannot get their heads around it.

BENEFITS

This is a great rig if you're short-handed and want a 'real' mainsail. Because the jib goes a fair way to balancing the main, especially off the wind, loads on the single sheet are amazingly light. Reefing is a breeze. No need to change course. On any point of sail, you just let off the sheet and the whole unit swivels to spill wind. As the boat trundles slowly ahead under autopilot, you can stroll forward and winch in your reefs conventionally.

The hi-tech look of the AeroRig suggests that it will generate spectacular close-hauled performance. This is not necessarily the case.

Pointing and speed to windward are comparable to a well set-up bermudian cruising yacht and

will certainly be superior to the average gaffer or junk. However, these issues are often not in the first rank of priorities for ocean cruising boats, and it is off the wind that this rig really sparkles.

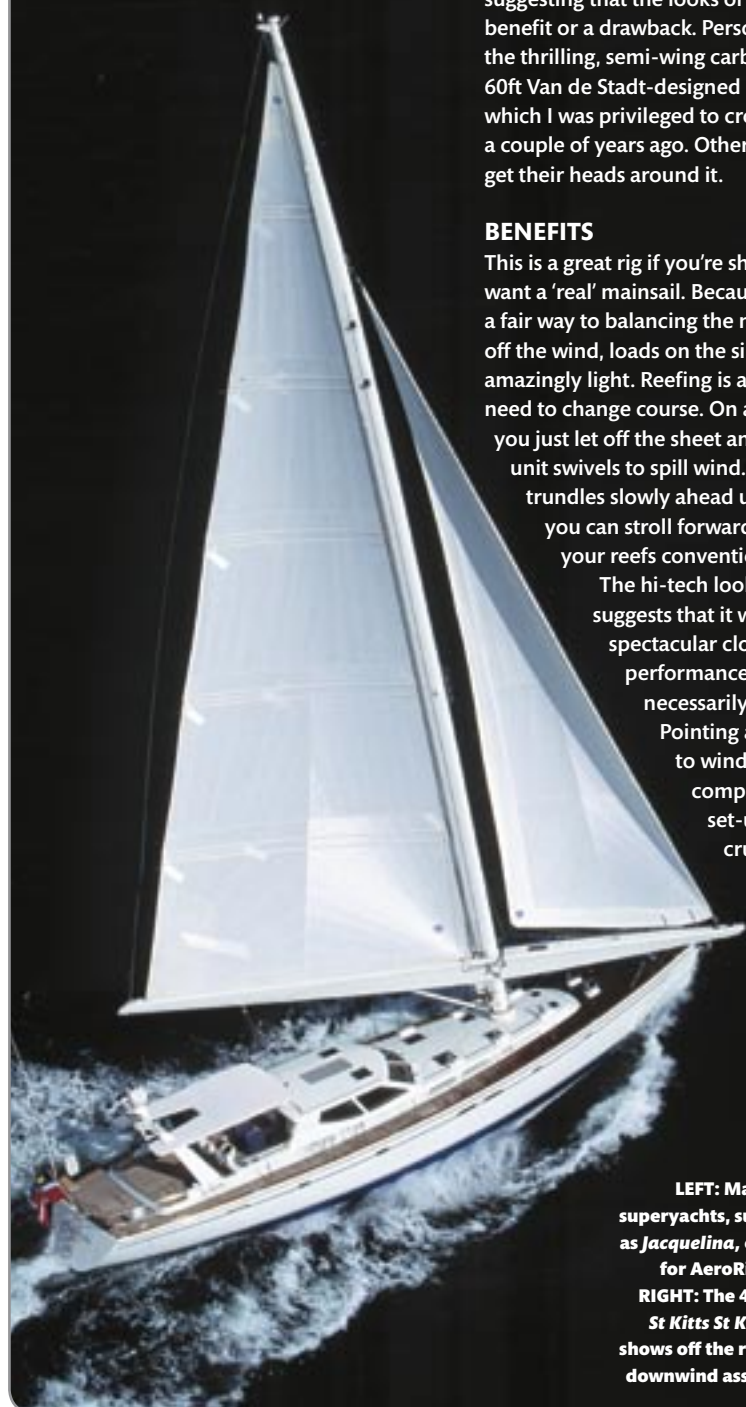
To tack, all you do is steer through the wind. No sheets to bother with at all. Off the wind, these boats fly. As the jib boom moves out to weather with the easing sheet, the rig more or less balances itself. The whole shooting match spreads out like a giant sculpture in the sky, catching everything the trade-wind has to offer with no need for challenging downwind sails. Chafe is non-existent, and if you're hit by a squall at supper-time you've only to ease the sheet to spill as much wind as you like, even on a dead run. The breeze always seems to drop away with the washing-up, so sheet in and off you go again!

An AeroRig will cost a lot more than a conventional sloop, but downwind in the trades, if I could afford it, and wasn't a lifelong sufferer of gaff, I'd have no other rig.

DRAWBACKS

If your predilection is to motor to windward, this is not the rig for you. The big spar hates it. This is a sailor's rig. Obviously, good building, design and maintenance must place the integrity of any unstayed mast beyond question, but technology is leaping ahead all the time and nothing I saw gave me a moment's doubt. The bearings on the swivelling spars also take some stick, but plenty of successful long passages are on record. The original builder of the AeroRig went bust, but the designer Ian Howlett says new methods of construction make them even better.

'It is off the wind that this rig really sparkles'



LEFT: Many superyachts, such as *Jacqueline*, opt for AeroRigs. RIGHT: The 40ft *St Kitts St Kitts* shows off the rig's downwind assets



» JUNK RIG



Schooner-rigged junks work well downwind

When all the shouting is over, it must be said that junk rig satisfied the Chinese for millennia, not just for a few years while it was in fashion. The Western version came into the public eye in 1960, with 'Blondie' Hasler's 25ft folkboat, *Jester*, in the first singlehanded transatlantic race. Numerous cruising yachts followed, including such notables as Annie and Pete Hill with *Badger*. The rig enjoys a continuing popularity among a significant group of serious seafarers.

The junk rig uses full-length battens to shape and control the sails, which are 'semi-balanced', with a small proportion of their area forward of the unstayed masts. It generally appears in sloop or schooner form.

ADVANTAGES

Junk means low-stress yachting. Its looks grow on you, and those lovely elliptical leeches work well, too. It's probably the lowest-tech of all wind engines. It's cheap to build and easy to repair at DIY level. Many junk rigs have been entirely home-constructed, including the sails. Loads are light because the sails are multi-sheeted from each batten. Chafe is not as non-existent as with an AeroRig, but it's a lot

'Junk rigs are cheap to build, easy to repair and loads are light'

better than gaff. Reefing is child's play, with the sail flaking into its lazyjacks like a window blind. The rig is not notably light because most versions have comparatively heavy wooden masts but, as with gaff, on the right hull this actually makes for an easier motion. The schooner form is handy on a run because it can readily be sailed wing-and-wing.

DRAWBACKS

Many examples lack power when close-hauled, compared with a bermudian sloop, although care in design, a hull that can point, and attention to battens can offset this. Sail areas are often not great, and you can't do a lot to increase this with lightweight kites because the junk's mast is usually quite short. On the other hand, some would argue that you don't really want a kite for ocean cruising, anyway, because the ever-present swell reduces its effectiveness.



One-sail sloop simplicity



A working junk in Hong Kong

» **FREEDOM RIG**

The Freedom Rig was developed in the mid-1970s. Early boats featured a 'cat ketch' rig, more like two windsurfer rigs in tandem than anything else. The free-standing spars maintained a low centre of effort, while the vang-less, windsurfer-style booms were satisfyingly efficient. Downwind they winged out, one each side. The original Freedom 40 had a distinctive hull, well suited to the rig. Over a hundred were launched and she was soon followed by the UK-built Freedom 35. The concept was altered in 1987 with the Freedom 30 and her larger sisters. The original radical wishbone sails were replaced by a more conventional mainsail, but the unstayed carbon-fibre mast remained, often powered up by a self-tacking jib.

Other forms also flourished, such as Nonsuch yachts and Wyliecats. These are generously canvassed cat-rigged sloops (mast stepped right forward) which stick to the wishbone boom. The Nonsuch range are fine beamy craft, they are said to be well-balanced and are certainly striking to look at.

ADVANTAGES

The first Freedoms were very quick and easy to sail downwind, and their windward performance was adequate for cruising. Close-hauled performance improved further with boomed mainsails and a jib. All the boats can tack with no more effort than it takes to steer through the wind. I well recall watching an early one beat into the Tobago Keys. No winches grinding and rattling. Bliss!

Like all unstayed rigs, chafe isn't an issue. Reefing is generally by conventional slab, and many Freedom-style yachts can be shortened down easily from the cockpit.

DRAWBACKS

So long as there are unstayed rigs, people will shout about them being unsafe, but I'm inclined to be convinced by one of the Freedom's designers.

When asked if a lack of rigging isn't dangerous, he observed, 'Orville and Wilbur Wright used wires. Boeing doesn't.'



The high performance Wylie Cat 44



The rig of this Freedom 35 looks more conventional than some of its predecessors

'Free-standing spars maintain a low centre of effort'

» **CONCLUSION**

This article began and ended with quotes. At one extreme we have high technology, developed by a designer who points out that the cutting edge brings us ever-nearer to perfection. Not all new ideas work out in practice, but anyone who disagrees with the principles of progress deserves to be

living in a cave without fire to warm his bones or a stone axe to facilitate topping up the meat-safe.

At the other end of the spectrum is our own reader, opting for a simple, old-fashioned rig just because he likes it. What better motivation can anyone have? ▲

NEXT MONTH: Fog can come down quickly and leave you sightless at sea. Discover the fog tactics to keep you safe. April issue on sale 14 Feb

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