

# JRA WEBSITE BEGINNERS' TOUR

Welcome to the Junk Rig Association's website. In autumn 2013 I discovered and joined the 'JRA'. It has been a Voyage of Discovery and I don't think I will ever be the same again!

I have been asked to write of how I have found being a new member, in case, as a first-time visitor, or new member of the JRA, it is of assistance or interest to you; and to explain what to look out for on the site.

This isn't an easy task because I don't know the background to your interest in junk rig. Perhaps you know someone who has a junk and you want to understand why. Perhaps you own a junk-rigged boat and would like some help with its set-up. Maybe, like me, you are now of an age (hopefully with a bit of good sense at last) that has stopped you leaping all over a dark and wet deck, pulling and lifting and winching and trimming to gain the last half knot - in short that you are looking for a different way to go sailing. Maybe you are altogether new to the sport of sailing and are just trying to understand if and in which direction you would like to proceed. Or perhaps you have heard about some of the fantastic voyages undertaken aboard junk-rigged vessels and how eminently suitable the rig is for ocean voyaging: how it works with simple, reliable technology, is repairable with basic materials and tools carried aboard, and best of all, how it won't break the bank.

I came looking for information about junk rigs as I am about to renovate a 42-year old, 23-foot project, in the form of a Bermudian-rigged Hunter 701 sloop. For a while I had been toying with how to furl the foresail remotely. I shy away from roller-reefing, especially so as the boat will be trailed (and the mast lowered) frequently. The roller foil would be more vulnerable to damage than usual, due to its flexing when on the road. The consequence could be an increased risk of failure at sea.

What I needed was a simple way to quickly and remotely lower a foresail. I was trying to devise a cunning down-haul, operated from the cockpit to tame the beast until I could deal with it later. With four young grandchildren under 5 years old, and dodgy knees, I was envisaging how best not to tread on them when operating controls in the cockpit, how to get them involved, to be able to give them achievable tasks for their age, but most importantly not to have to abandon them, while I disappeared on the foredeck under a cloud of sail. I wondered if a junk rig (JR) might be a good idea. *Google* thought so and directed me here.

Within minutes of my first visit to the site, I realised that converting my boat to a junk could solve my problems, with its ease of reefing, no flogging head-sail to reef or stow on dark, wet nights, no winches to trap little fingers, no rapidly approaching invisible boats concealed behind the genoa, no loud, flogging sails to terrify the little loves, and easy tacking without too much rope pulling. I would even be able to let the kids have a go on the helm, and an inadvertent gybe wouldn't be so sudden or alarming.

'Yes that's all very well,' said a voice in my head, advising caution before I got too carried away, 'but they don't go to windward, do they?' Happily that 'voice' has had to eat his words. There has been progress - big progress - on that front, as you will see later.

## WHO WILL YOU MEET ON THE WEB SITE?

You will meet many keen sailors who are proud of their rigs and vessels; they want to spread the word. You will be made very welcome by people who will gladly help you discover a whole new sailing experience. There really is no ulterior motive, no sales pitch at the end, no heavily discounted special offer "if you just sign up now!" Enthusiasm, a very infectious enthusiasm, for 'JR' is the common driving force.

The Association is here to promote junk rig, to answer your questions and provoke thought. Sometimes you will get different opinions and opposing answers, but all - whether Committee or Ordinary members - selflessly give of their time, experimentation and expertise. Some hold firmly to the view that the earlier, flat junk sails - with no camber built into panels - are the most reliable for ocean cruising - while others want

the increased windward performance offered by cambered sails. Some advocate using hinged or bendy battens to induce camber, while others introduce it through the shape of the panels. You can find arguments for (and against!) all of these approaches in the fora, especially the General and Technical fora. As a member, you can participate in these fora, ask questions and express opinions. The fora have ongoing, lively discussions that are very stimulating. In the end, it's a case of 'horses for courses'. We all have different requirements and abilities – so you can 'custom build' your way forward.

The common thread in all these discussions is a shared belief in the many benefits of junk rig, whether for coastal cruising or crossing oceans, pottering gently or pushing to windward around a headland. In a moment, their sails can be reefed or furled, raised and sheeted, without foredeck dramas of any sort. You can tack without needing to crank head-sails (very useful when short-tacking in restricted waters), gybe easily, and run off square without needing to pole out headsails on the foredeck. Junk rig is user friendly.

You may find experts in aerodynamics, designers of boats and sails, or engineers involved in all things 'boat'. They temper their academic skills with practical, hands-on experiences and have a great depth of knowledge and inventiveness. They are independent-minded individuals, not accepting change 'til proven by tests.' They have conducted trials and experiments at their own cost and continue to do so, in a totally open and 'for the good of us all' manner. All these findings, together with photos, articles and diagrams, are available to you as a JRA member. It's great value for money.

With apologies to anyone I have omitted, may I briefly introduce you to some of the individuals who featured in my 'probation and apprenticeship'? I hope that including them here will enable you to find your bearings sooner. Most are current (March 2014) JRA Committee members; some of these official positions will be taken up by new volunteers after the AGM in May 2014.

**Brian Kerslake** - Webmaster

**Lesley Verbrugge** - Assistant Webmaster

Brian and Lesley, with the assistance of members who volunteer to be moderators, tactfully keep the site running smoothly. They will offer a little nudge in the right direction if your new post would have been better in a different forum or thread. They are happy to help - especially a 'newbie' like you and me. They have a 'full time' job ensuring that the JRA complies with legal requirements, doesn't breach copyright and keeping up with 101 other demands on their time.

**David Tyler** - Magazine Editor and former Chairman. (When you become a member you can send him articles about your projects for inclusion in the magazine.)

The Ocean Cruising Club awarded David their 2012 Rose Medal 'for the most meritorious short-handed ... and exceptional voyage on board *Tystie* [from the UK to New Zealand]. You will have inspired many others, some of whom may well adopt a junk rig.'

David has designed, made and tested (usually across oceans) a variety of junk rigs and wing sails on *Tystie*, and he explains all the pros and cons in articles available on the site. What pleasantly surprised me is that David readily admits if, after miles of ocean testing a new sail, it turns out that he 'got some of it wrong'. He then goes on to describe the changes he will make for our benefit.

His most recent design, which he calls the Fantail rig, returns to the fan-shaped profile of traditional Chinese junks; apparently it is close-winded and develops power from the twist-induced camber of the fan-shaped panels - not only the camber built into each panel. He has made his design variable in dimension. You find the square root of the area you require, apply that to David's factors to obtain dimensions in metres, which enables construction in perfect scale.

**Annie Hill** - Sailing Secretary

Annie has a wealth of sailing experience in many types of vessel, as well as junk rig. She and Pete Hill built *Badger* and she is the author of that wonderful classic, *Voyaging on a Small Income*, and other books. She has explored the Falkland Islands, the Arctic and many other fantastic locations. She ploughs all her experience willingly back into JRA for our benefit.

She converted her current 26 ft. yacht, *Fantail*, to junk rig, making and fitting her own mast and sail. The sail she fitted was the first to David's new, fanned design, which is why it is called the Fantail rig. The process is documented in photographs and articles available to us all ... Annie works very hard to make us all welcome, she is happy to discuss and offer advice about any JR subject.

### **Arne Kverneland**

Arne lives in Norway and is one of the pioneers of cambered junk sails. He now uses shape built into the sail panels, as opposed to hinged and bendy battens - which he has also experimented with. He explains the process in an easy and practical way, with loads of sketches and photos, and doesn't over-complicate the subject. I always feel that he is in a hurry to get out on the water and put it to the test. He is also technically-minded and can hold his own in any theoretical discussion; it makes his opinion worth considering. When I studied his instructions for designing and sewing a sail it made me want to start without delay.

### **Slieve McGalliard**

Slieve has spent a lifetime in the air, with sailing as a hobby and interest. He was formerly responsible for Research & Development within the JRA. He has designed and built a totally new concept known as the **Split Junk** and fitted it to a Westerly Longbow. This is a powerful and weatherly rig, able to compete with Bermudian-rigged vessels. He is a very willing and enthusiastic provider of help and advice in all things junk.

He has studied much of the earlier work carried out by Robin Blain, Bunny Smith, Vincent Reddish, Paul McKay and Joddy Chapman, plus of course looking back at early Chinese designs and the work done by Blondie Hasler and Jock Mcleod (as published in the junk 'bible', **Practical Junk Rig**, often referred to as **PJR**). He has published articles in the Amateur Yacht Research Society magazine and seeks criticism to further advance developments.

## **A BRIEF TOUR OF THE WEBSITE**

### **THE HOME PAGE**

This is where the fun starts. I won't repeat everything that appears on the site, but under the **Welcome to the Junk Rig Association** banner, you will see some junk-related photos followed by a brief history and objectives, where it is stated that the purpose of **JRA** is to promote and encourage interest in the rig, to assist its membership and those wanting to build a junk rig, and to get the rig talked about.

Under the sub-heading **Get Started** is a *pdf* document, **Fifty Advantages of the Junk Rig**, an eye-opening article that was compiled by Annie Hill from members' posts on this topic in the General Forum. If you are not convinced to buy a junk-rigged boat or to 'junk' yours, you will be by the time you have read this.

There is also a *YouTube* video called **The Junk Rig**. David Tyler created this slide presentation to assist him when giving talks about junk rig to sailing clubs. This is where my re-education commenced. The photographs are fantastic and the bullet points deliver the basic message: junk rig is very user friendly, recent developments have significantly improved windward performance, and in my case at least, the benefits are all very pertinent - I will leave you to consider them for yourself.

I recommend you view the article, **Junk Rig for Beginners**, by Arne Kverneland, which is also under the **Get Started** sub-heading. Arne is a prolific source of new ideas, tried and tested and written about in a very readable, down to earth, practical fashion. I will describe a little later how to locate all his work, together with that of Slieve McGalliard and others, who have continued to push, develop and experiment with recent JR developments.

Towards the bottom of the **HOME PAGE** is a selection of **recent posts** to the fora which updates daily – clicking on a topic that interests you allows you to read all the posts on that topic. There is also a search box, courtesy of *Google*, that allows you to locate postings on other topics in the 'public' fora, for example the Technical and General fora. All of these posts are read-only until you become a member, after which you can participate in all the fora, ask questions and express your opinions. They are invaluable.

On the left side of the **HOME PAGE** you will find a menu - the 'portals' to enter the site. Step through this small aperture into a world of junk treats. I hope you enjoy it as much as I did. The following comments review some of these pages.

## ABOUT US

**ABOUT US** tells you a little about the hundreds of pages of archived information and photographs available to you. It mentions **Junk Dates**, where you can make contact with JRA members who are prepared to offer crewing opportunities aboard junk-rigged vessels, and you can find out the nearest members to you, anywhere in the world. (The JRA is a fantastic, world-wide Association.)

The blue and white photo of *Peregrine*, on the cover page of Magazine No 57, immediately took my attention. What a beautiful vessel. This is a sample *pdf* of the magazine which you can download for free. Once you become a member you will receive three copies of this magazine every year, either in *pdf* format or in print, depending on your subscription. Downloading this sample of the magazine, and reading it cover to cover, was so exciting for me. Let me explain...

Nearly 40 years ago I sailed a junk-rigged Newbridge Coromandel for a few months – I loved its strength and simplicity, but hated having to use the engine in light airs to windward. It was great in so many ways, but sadly lacked the vital ability of being able to undo my pilotage mistakes when I waltzed downwind into the wrong leg of an estuary, or needed to beat upwind in light airs with small wavelets, hoping to arrive before "Last Orders Please". So I sadly deserted junk rig.

And now here, in Issue 57, were these fascinating articles about the latest cambered junk sails that sailed to windward as well as Bermudian rigs. I was so excited I just had to investigate further.

## JUNK INFORMATION

On the **HOME PAGE** menu, go to **JUNK INFORMATION >Public Domain Files by...** This will take you to a selection of files, freely available thanks to the generosity and enthusiasm of Slieve and Arne, containing years of their work, with their objectives and results clearly stated. Their articles include photographs, detailed explanations and step by step instructions. Here you will find explanations of how to put camber in sails and reports of closer tacking angles and increased power in light airs.

Having had a quick look at their files, I decided that I had to join the **Junk Rig Association**. For someone interested in learning about or converting a yacht to junk rig, membership of the JRA is a must.

## JOIN UP

If you decide, like me, that you want to join the Association after exploring this website, you will find **JOIN UP** on the **HOME PAGE** menu. Prices (March 2014) start from £7, which includes an online subscription to the magazine. You can also choose to receive three printed editions of the magazine each year for an

additional fee.

## MEMBERS' AREA

When you log in as a member, you will be taken to the **MEMBERS' AREA** page, where additional resources will now be available.

One great resource to be found here is the **New Articles** section. If you missed it above, have a look at **Fifty Advantages of Junk Rig**, compiled by Annie Hill, in which she reports on members' discussions on this topic. Articles that appear here usually end up in the Magazine.

You will also have access to many more technical articles. The menu on the left side of the page now has a **MEMBERS' AREA** sub-menu. In **MEMBERS' AREA>Documents>Technical Articles**, you will find, in addition to Arne and Slieve's articles available in the **Public Domain Files** mentioned above, more of their work plus that created by many other members. Topics covered include: building masts, creating and testing Aerojunk sails, using a Yuloh, the merits of flat cut sails, electrical motors and ways to tune and adjust sails with built-in camber.

One of Slieve's files I want to draw attention to is a *pdf* called **Some Thoughts**, which I thought was great, and for me really hit the nail on the head. It is found in **MEMBERS AREA>Documents>Technical Articles>McGalliard, Slieve>Some Thoughts**. He explains the effects of camber; consequential pressure differences on the 'upper and lower sides of the sail' (don't forget he used to drive planes), the effect of *upwash* and its benefit of higher pointing and tacking through smaller angles whilst still providing good forward thrust. To me *upwash* is a really 'good guy'; he provides a permanently freeing wind shift that lets you point higher, and then when you tack, the freeing shift comes with you to benefit your heading on the new tack as well. It is all attributable to camber.

Of course pointing high is easy – all you have to do is sheet right in, but with a flat-cut Hasler/McLeod sail you are likely to end up merely skidding sideways. We need to point and have good forward thrust, the 'new' water flowing towards our keel will initially offer good lateral resistance and – *bar of wet soap squeezed between two fingers* – we will squirt forwards powerfully, somewhere towards to our objective. Can a junk sail with camber really do this? I hope so. There is plenty of evidence that it can and does. I hope to get out before too long and experience it for myself.

I am in the process of swotting up, comparing the various options for inducing camber, making models and paper tracings to help me decide. My sail will either use Arne's design (a cambered-panel 'Hasler McLeod' sail with a transitional panel between the parallel and fanned battens), Slieve's 'Split Junk' or David's 'Fantail' design.

Unfortunately I am not in the position now to spare the time for the actual work – but the plus side is that it gives me a great opportunity to get right up to date with all the evidence available before settling on which rig option to go for.

There is so much information available; I am still making discoveries; it is very exciting. We all have totally different interests and requirements so will come to the site seeking different answers. Consequently there is little point in my detailing to you every step I took – even if I could remember them! I will just mention a few last points of a general nature if I may.

## VOCABULARY

When you hear a term you haven't heard before, you can research it by going to **MEMBERS AREA>Junk FAQs>Vocabulary**. This page is an on-going project where some members are compiling a list of terms used by junk rig sailors. I hear that, in due course, it may move into a 'Wiki' format.

## MAGAZINES

I touched on magazines briefly earlier. They can be downloaded from **MEMBERS AREA>JRA Magazines>Index**. Issue number 64 was published in February 2014. It contains an article about Roger Taylor and his work on *Mingming II* – an Achilles 24. Roger is converting her to junk rig in preparation for more lengthy cruises in Arctic waters. He has completed some amazing voyages in his former junk-rigged Coribee 21, *Mingming*, and written 3 excellent books – so far. The JRA aims to publish its Magazine three times a year.

I recently read Newsletter (NL) 38 from July 2001, with articles from David Harding of Practical Boat Owner magazine and Robin Blain, and also NL 40 from March 2003, with David Tyler's great article. Browsing through earlier copies is very worthwhile.

## HALL OF FAME

The **HALL OF FAME** is compiled by Graham Cox, a JRA member in Australia. This ever-expanding feature provides great history and very interesting reading. Graham is steadily working through the 'names' who have made great voyages under the junk rig. Some you will have heard of; and some you will probably not have. It can be accessed from the menu on the **Members' Area** page.

## MEMBERSHIP LIST and BOAT LOCATION Maps

These can be found in **MEMBERS AREA>Directories>Membership List and MEMBERS' AREA> Directories>Members' Boat Locations**, as is anything else that could be thought of as a 'Directory', or 'list'.

## YACHT CLUB BAR

**MEMBERS AREA> All the Fora> The Yacht Club Bar** is where you can go to 'buy your new friends a drink'. It is a forum where you can relax with friends on a wide range of topics. Pop in for a pint and a chat. If you have just joined, come and introduce yourself. But be warned: if you get up to mischief or drift 'off topic' or more importantly into something that newer members than you might discover more easily if it was discussed in, say, the technical forum, one of the site's moderators will step in and move your post or ask you to do that. It is a good idea to read the JRA's forum policy notes which are in **Members' Area> All the Fora< Forum Policies**.

Well that's about the end of my **Beginners Tour**, except to say that in mentioning so many names I risk the wrath those who are omitted. The JRA was formed in 1979, but for years before that the Westernised Junk had been evolving. There have been many whose goodwill and efforts have moved junk rig forward and I fully acknowledge their contribution. The good thing is that many of their names are mentioned alongside their work within this site.

Good luck and *Bon Voyage*

*Ash Woods*