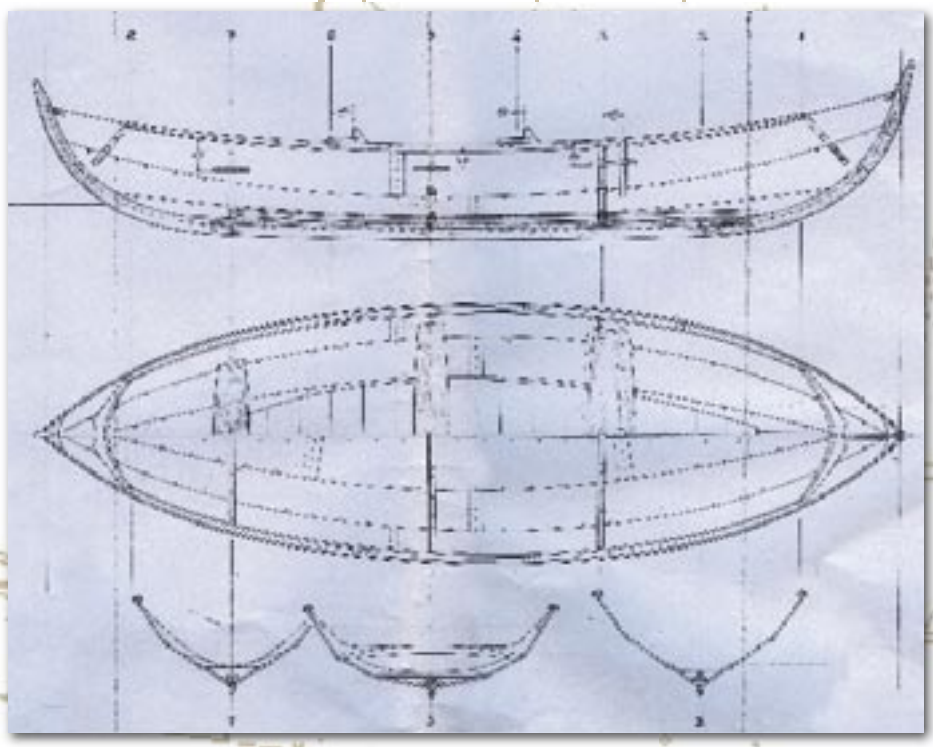
Now open your eyes!

Oughtred's 100th Design

A perfectionist with an incredible eye for detail, Iain Oughtred produces boat plans for Everyman. *Adrian Morgan* had the privilege of building Iain's 100th design



I like sitting at the bow looking out, jumping out when we land and tying up the painter with a round-turn-and-two-half-hitches. I like sailing – holding the tiller and the mainsheet.

Jolyon [aged 5]

***Raineach* goes into the water**

Iain Oughtred's Woodfish, a 15ft (4.6m) Norwegian faering, marked a significant milestone in the designer's career. His 100th design was to have been an essentially tweaked version of his plywood/epoxy Elf for solid timber construction. In fact, in typical Oughtred style, it was completely redrawn. The 'couple of days' work' for which the client paid stretched to a couple of weeks and more, the end result being a sheaf of drawings so meticulous that every rivet was depicted, not as a circle, but as a dot within a circle – with allowance made for perspective. Iain, as anyone who has ever had dealings with him knows, is a perfectionist.

As the builder of Iain's 100th design, the responsibility hung heavy. From the start it was clear that any idea the client may have had for a 'faering style' boat would not do. The boat had to be a faering or nothing, so any suggestion of more strakes than three was soon rejected in Iain's quiet but insistent way, and a laminated stem and stern – as opposed to solid, scarphed oak – didn't stand a chance.

Of course, the idea of building a faering to plans is absurd. There are no such plans. Faerings are built by eye to patterns stored in the ancestral memory of Norwegian boatbuilders, stretching down the centuries. Every faering is slightly different. They are not built over moulds or formers. The shapes of the strakes can be varied at will. The garboard is not parallel, but tapered from amidships to the ends, made in three sections: two triangular kitchen-knife blade-shaped fore and aft sections, and a wide middle section, scarphed on the job. In the old days the twisted fore and aft sections were cut from solid wood using a pitsaw. The twist is now induced by steaming, although some builders still use the old method, and others clamp the steaming boards between moulds.

To watch a faering builder at work is to witness an economy of effort that is remarkable. Aside from the economy in the use of materials, very little physical effort is wasted and precious few tools used – the foremost being a razor-sharp hand axe used to cut the scarphs and plank bevels. The strakes seem to follow the natural desire of the timber to form a hollow vessel and are kept down by sticks from the building shed roof joists, rather than forced out by moulds. The sticks used by faering builders are precious, as they define the precise flare of every strake. What could be more simple?

Those of us who have never built a faering, let alone 100 or more, can never hope to learn the old ways all at once. Iain's Woodfish may be a faering in shape and construction, but the method of building is entirely conventional. Five moulds were made from Iain's plans and set up on the backbone, braced to the ceiling, and the strakes were hung in the normal way. The moulds, moreover, were not round-edged, but coin-shaped to coincide with the lands, so there was no scope for in-build tweaking of strake shapes or, indeed, spiling. Instead,

The backbone is made up of five parts

The single-piece garboard is offered up

The second strake is fitted

Iain Oughtred's design thoughts

When Roland Harris approached Adrian, he wanted a boat with something of the character of a faering – that sort of style.

I said I was seriously interested, but only if he could accept us creating the most authentic faering we could manage. That meant fitting the traditional kabes – *keip* – and not chopping off the aft horn to make it easier to use a normal tiller.

The experience of the 'Galloway Faering' was tremendously useful, and I reckoned this one would be a simple conversion of the plywood Elf design (see CB140-3), but somehow she became a completely new design, built up around the traditional structure. In fact, I got a little carried away, partly because of my fascination with the timeless gracefulness of what was appearing, and also because this happened to be my 100th design – the centenary!

"I decided to work up the best set of drawings I could do"

So I decided to work up the best set of drawings I could, and it would take as long as it would take. Somehow the design acquired the name 'Woodfish'.

Trad boats, of course, do vary according to specific requirements, and for this one we simplified the construction in two small ways:

The backbone is made of a separate hog and keel, which is easier than shaping a tee-shaped keel, and less wasteful of wood. The beams below the thwarts are normally made up of long-grown knees – a long-armed one going across the boat, opposite a short one, alternating the other way on the next frame. But thinking it would be less difficult to find shorter grown knees, we have a shorter one of more usual proportion on each side – not unprecedented.

Faerings are occasionally built around 15ft (4.6m), often with two oars. They tend to look less graceful than the longer ones, having relatively greater freeboard and usually a flatter sheer, needing to be more burdensome workboats than our 'recreational' faerings.

The sailing rig is, however, different. A simple, safe and efficient sail was required, especially for the young and inexperienced crew members who would be learning to sail on her. The sail is similar in style to those used by many of the Nordland boats, with a short high-peaked yard – but here with the addition of a boom, making it a user-friendly balanced lug. Maybe later, for fun, by unshipping the boom, it could be set like the Norse 'asymmetric square' sail.

Adrian had a number of questions and uncertainties along the way: Why on earth do they? Surely we could... etc. I kept trying to say they've been doing it this way for 1,000 years. Perhaps in the end he felt something of what I realised when fitting out and rigging a Yorkshire coble: after setting up all these incomprehensible bits, suddenly it all works, and you think 'Yeah, those guys really knew what they were doing.' He seems to have created a beautiful boat, anyway; I couldn't wait to get at her.

plywood patterns were made for each of the strakes, and trial clamped on the moulds before the strakes proper were got out of 7/16th larch.

Before that, of course, the backbone had to be made, and again the traditional gave way to the practical. Old faerings had a one-piece keel/hog, carved from solid, including the vital faying surface fore and aft where the garboard flares back into stem and stern. The keel and hog of Iain's Woodfish were separate, glued and screwed together, the hog shaped at those vital points by chisel. The old faering builders could induce a hollow in the forefoot by carving the garboard in a way that was not possible using the 'modern' method. And yet it was a good deal simpler.

"The method of building is entirely conventional"

Also simpler was the absence of rabbets; a faering's garboards are bevelled where they meet keel, stem and stern, riveted to the keel and screwed to the latter faces in a way that looks weak, but has survived the test of time. And that dodgy-looking scarph halfway up the stem and stern, where the oak pieces meet, fastened by a single rivet? The wide second strake supports the scarph perfectly – a neat and empirical engineering solution. That middle strake that initially looked so strange and wide to my eyes, now made sense. And in more ways than that. All three strakes, a total of seven separate pieces, would come out of a couple of wide parallel boards with little or no wastage, and with timber to spare for gunwales.

As the faering progressed I began to see more reasons why the Norwegians built them the way they did. Once the garboard and first strake are hung (with the assistance of those measured sticks to keep them down) the bottom section of the two joggled frames are fitted. Once riveted down they then define the shape of the bottom, and before the sheerstrake is fitted the sticks have done their job. Every piece of the frame is precisely balanced for strength, lightness and effectiveness. The curving cross piece sits atop the bottom frame loosely, and knees then support the sheerstrake.

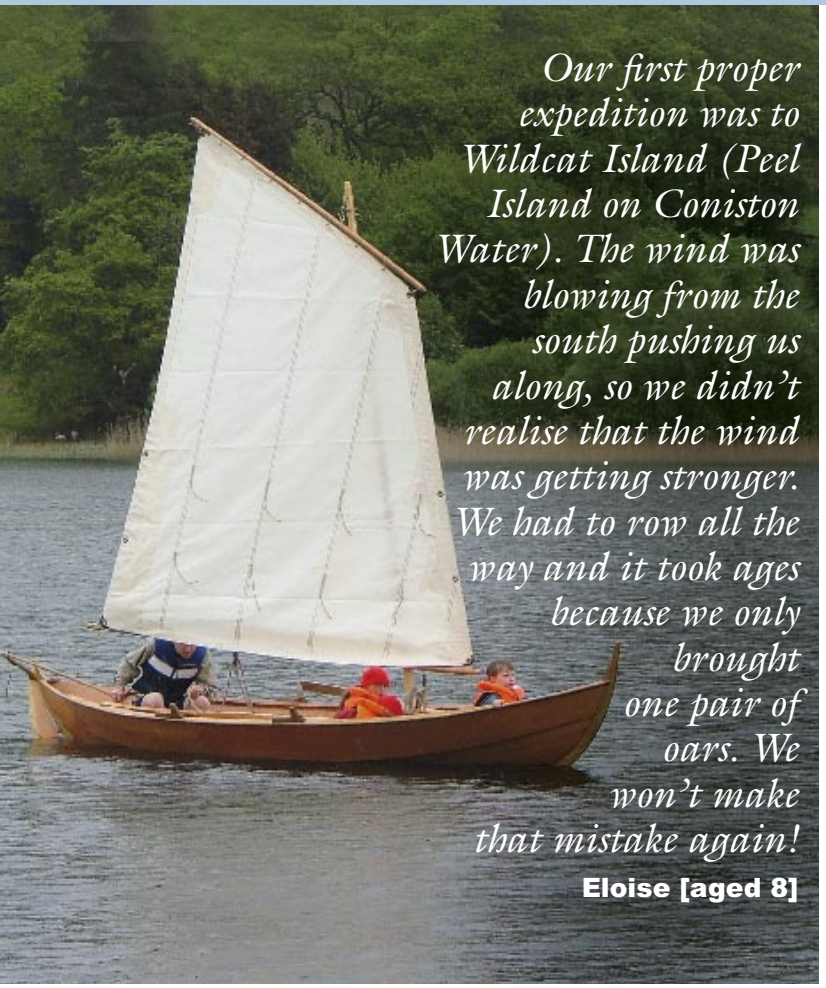
The old faerings would have used crooks for the curved cross pieces, incorporating one knee, the other knee riveted on separately. The crooks would also be handed – ie, the separate knees would be on opposite sides, again for strength.

Iain's Woodfish could be faithful to the old structure in a way that the plywood version is not. In short, he drew a traditional faering, based on a hardanger/oselver model, that could be built by anyone familiar with the normal method of constructing a clinker boat. The result is a faering that, to the eye, is all but indistinguishable from one built using sticks from the joists and that clever angle-setting device the builders still use to set the garboards, and thus

Five moulds were used to define the shape

All planked up, frames fitted

Nearly finished



Our first proper expedition was to Wildcat Island (Peel Island on Coniston Water). The wind was blowing from the south pushing us along, so we didn't realise that the wind was getting stronger. We had to row all the way and it took ages because we only brought one pair of oars. We won't make that mistake again!

Eloise [aged 8]

Diane, Iain and the kids on the pontoon

Rowing on Coniston Water

define the shape of the boat, its stability and overall suitability for the role it will be called upon to play.

Working with Iain was a privilege only occasionally tinged with frustration at the lengths to which he would go, even during the building process, to refine and modify. A day or so after the curved cross pieces had been laminated (another departure from the traditional) an envelope arrived from Struan Cottage. A modification that only after placing the new sheet over the old elicited any difference – a difference of ⅜in (9.5mm) in the thickness of the cross member, and a difference that would have made no difference in strength. Iain's modification did, however, look a wee bit more elegant and was a smidgen lighter. It was too late to change, and I noticed Iain gave it a quiet, quick look when he first saw the boat. Although he said nothing.

Nor did he say anything about my un-tapered gunwales and, crucially, the horns, which differed markedly from those drawn.

Iain Oughtred – 100 not out

Perhaps surprisingly, Iain was born in Australia in 1939. He learnt to sail in Sydney Harbour. He dates his boat-designing career precisely, from "06 06 66 when I got a job as a draughtsman with Len Hughes, an English naval architect working in Australia".

Iain came to Europe in 1968 and travelled about, including two trips to Norway. "I became fascinated with boats there – I took lots of photographs and made some drawings. His first workshop was in Bristol, where he drew and built his first design, a 15ft (4.6m) dory, in 1980. Then came Cookham, on the Thames, and the Acorn 12ft (3.7m) skiff; a period working with Fabian Bush in Essex, and the editing of a *Directory of Boatbuilders* for Conway Maritime in 1985, as well as six months on *WoodenBoat* magazine in Maine. "The Wooden Boat Show at Greenwich was a great turning-point – a lot of ordinary people realised wooden boats could be built and there were boatbuilders to build them."

Iain moved to Scotland around 1989, in 1995 to Findhorn, and, six years later, to Skye. During this time he started building the double-enders for which he is best known, including the 19ft (5.8m) Ness Yawl. "I began to get more sailing experience, and the raids were beginning – great experience, a whole season's worth of sailing stuffed into one week, and a chance to look at a lot of interesting boats."

The kids can't wait to get on board

Launching Raineach

BY IMOGEN HARRIS (AGED 10)

I had been waiting all winter for *Raineach* and was at the gate in the evening when she came. As I opened the gate I thought "she's lovely and she's ours!".

Adrian, Iain and Rona had driven from Ullapool to our holiday cottage on Coniston Water, but wanted to launch *Raineach* straight away. Iain and Adrian unhitched the trailer and pulled *Raineach* to the water with my brothers, sister and me on board (we are very light). We climbed out before she was pulled down the slipway. *Raineach* was afloat! Daddy and us children rowed on her maiden voyage across the lake. Back on shore the champagne cork popped – a bit late.

The next morning Adrian rigged the sail, burning his fingers while melting the ends of ropes with a cigarette lighter. Then we were afloat again, this time sailing. The best rowing boat and the best sailing boat – I still can't believe it!

Steve Hall of North Sea Sails at work

Adrian attaches a cleat to the mast

Iain has clear ideas about the shape of his stems and sterns, and the shape of the horns was defined precisely. My excuse was simple: if a builder cannot add something of his personality to his boat, then it merely becomes building by numbers. A traditional faering is organic, and her shape changes by the day. That was not possible in this case. To build as close as possible to Iain's plans was one thing; to reproduce slavishly every detail, was another, so Iain's Woodfish has my stem and stern horns (and a few other subtle features that only we would know about).

Iain can be accused of over-designing. His response is that he produces plans for Everyman, and that means defining everything to achieve a result that pleases the owner and does not disgrace the designer. He wants every boat he draws to be built as drawn; anything less, you sense, pains his eye. For plywood/epoxy construction, that is achievable; less so in solid timber. Plywood is inert, dead; it goes where it is told. Timber has a life of its own; hence, when it came to getting out the fore and aft frames – or rangs – the fitted versions bore little resemblance to the drawn versions where they met the strakes. Luckily, I suspected that would be the case, and they were joggled on the job.

Working with Iain was both a delight and a challenge: the challenge being to create in timber what Iain laid down on paper, while leaving a little room for personal interpretation. The result is open for anyone to criticise. Purists would bemoan the lack of scribed lines to define the line of rivets. Personally, they look like weakening lines, an encouragement for splits. Others would object to the gluing of the stem and stern scarphs, but I have read about faering scarphs working and loosening. Whatever they say about being able to 'wobble' a good faering by its stempost, surely a slightly more rigid structure is better in the long run? Time will tell.

"I like pulling the string down to pull the sail up"

Piers [aged 2… well, nearly 3]

As for the rig, a sprit gave way to a balanced lug – more elegant, if less easy to ship. The plans showed an optional daggerboard, which to my eye looked wrong, so the keel was given a few more inches' depth. She makes to windward, but not as efficiently as with a board. Upwind, a faering is better rowed, and Iain persuaded me to make two pairs of oars to the old non-feathering pattern, and fit oak kabes rather than galvanised rowlocks. The oars took the best part of a week to make, to Iain's meticulous dimensions and sections, which run from flat (curved) narrow blade to squared off ellipse, to true ellipse, to rounded-off triangle (where they engage the kabes), to round handles. The only modification to the kabes (in the absence of grown crooks) was to insert a metal pin up the bearing face to strengthen the grain. Iain nodded, which suggested tacit approval.

Iain's 100th was duly delivered and launched at Coniston in May to the delight of her owners, Roland and Diane, and their four children, all mad-keen Arthur Ransome fans. In red woolly hats they made a wonderful sight rowing across the lake, handling the balanced, springy faering oars like little Vikings. Iain watched intently from the bank. "Are you happy with her?" I asked. "Oh, I think so," he said.