

# Just What Is A Cruising Dinghy? by John Welsford.

Well, that depends ...

*John sets out his thoughts on how to match boats to sailors, with reference to his own designs. This article was written specifically for Dinghy Cruising, but will be published in other places later – including our own website.*

**A**s a designer I have customers frequently ask, 'What's the best open boat for cruising?' Well, if ever there was a question with a million answers that is the one. It leads to a whole lot of questions back from me to the customer, and it's only after I get the answers that I can begin to address the original one.

**So just what are the variables? Climate, prevailing sea and wind conditions, geography, usage, personal preferences, skill levels, resources, (and the latter has more influence than you'd think!) and on and on along the same lines.**

**Generally the customer will have something in mind when they come to me, and that's the 'personal preferences' part of the picture. They will have seen a boat, read a book or a magazine article, fallen in love with a story, or want something like a previous boat but bigger/smaller or with different features. 'I like this boat but want these changes.' That's the starting point.**

I like to talk to the client about where the boat will be used. For example, even within the UK a boat to be sailed in the somewhat sheltered waters around the Thames Estuary can be very different from a boat intended for cruising on the West Coast of Scotland between Mull and Skye. The differences in design approach for each can be considerable, and I make much use of historical information on the small workboats that were used in the areas where my client will be based to give me clues as to what will be required of the new design.

If there are no direct ancestors, I'll search for an area with similar climatic conditions and make those comparisons so I can design appropriately.

Next question, as a designer I don't sell complete boats, just plans. So who will build this paragon? Build it yourself? OK, so how big is your garage then? Is there a flat area just outside the garage door or can you extend the space at all?

There are of course other considerations. Where will the completed boat be stored? What kind of car will tow the boat, big or small, heavy or light? Thus the overall size of the project is set.

What boatbuilding skills has the customer? How well equipped is the 'workshop'? What are the constraints in terms of time, climate (colder areas have issues with glue curing in cool weather if there is no heating available), and so on.

We're beginning to get a picture now, and need to add usage: that's how many in the potential crew, how long the boat is expected to be 'out' on a voyage, how far and in what conditions does the owner's ambitions take her, what standard of comfort and amenities will be required, and so on.

Cruising dinghies are often daysailers too, occasionally raced in the local regattas, usually taken on holidays with the family, often used for purposes other than the primary ambition. In fact the vision of the cruise of a lifetime may only be a 'oncer' and the rest of the boat's life may be spent like a retired racehorse taking the children for rides on a Sunday, so she has to be workable for that use as well as for surviving an onshore gale against an ironbound coast in some far-flung part of the country.

With all of those things in mind we start to make sketches.

The result of the process so briefly outlined is what Naval Architects call 'the brief' and it's the single most important document in the whole design process. I will describe below three of my designs, all around the same length, all open boats designed for cruising and daysailing, and all intended for home construction by beginner builders.

To give the descriptions some veracity, we'll invent some characters to go with the designs.

William the Eco Warrior wants to go engineless, will row when needed, will venture into very open waters and will generally cruise singlehanded but needs to take his spouse and very young children out occasionally to justify the boat to his family.

William will want to explore far places to observe the wildlife and to get away to places that are as natural and unmodified by mankind as possible, so he needs a boat that will cope with open waters but which will only be required to carry a light load.

David and Rose are middle-aged now, sail mostly lakes and estuaries and as youngsters sailed a dinghy with the local club so have some experience to draw upon. They love the look and feel of 'traditional' boats so they go to the Beale Park show each year, and will camp out perhaps two or three nights a year when the DCA has a rally in their area. They like to be comfortable so the seating and size needs to suit their less agile limbs. They will be very concerned that the boat be stable and safe when they take the

grandchildren out for a picnic, and David is wanting to do at least one really adventurous voyage.

Stanley though, has been wandering the marinas looking at tough, capable little world cruisers resting quietly before their next long voyage, reading the books and the stories written by sunburned and craggy old men who've seen it all, and he dreams of sighting the very peak of a windblown mountain as the whitecaps foam around him and the wind screams in his rigging, the cold grey waves bursting into spume as he thrashes along toward his destination. He's a frustrated circumnavigator who will never see Cape Horn in winter, but desperately wants to experience the feel of freedom that he had while reading the tales of Irving Johnstone, Thomas Mulville and Frank Dye (read of course sitting in front of a cosy fire while the rain rattles on the windowpanes).

What do we design for William, David and Rose, and Stanley?

The first is William's boat. Given that he wants to be free of the tyranny of the engine, at least in this part of his life, he needs a boat that rows much better than the average one. That means she must be light in weight, long on the water line, and narrow in the beam. A boat of this configuration will not be able to carry much sail as its narrow beam will mean it's somewhat tender, but we can alleviate that by having the sides flare out wider above the water so when she heels under sail they will provide buoyancy to hold her up when the wind blows.

A rowing boat needs a workspace for the oarsman, a space uncompromised by rigging, mast, centreboard or boom overhead. Rowing is repetitive, 1500 repetitions of the movement of oars an hour, thousands in a day, and any annoyance, chafe or inconvenience grows large in the mind if repeated that often, so we rig the boat differently to the usual.

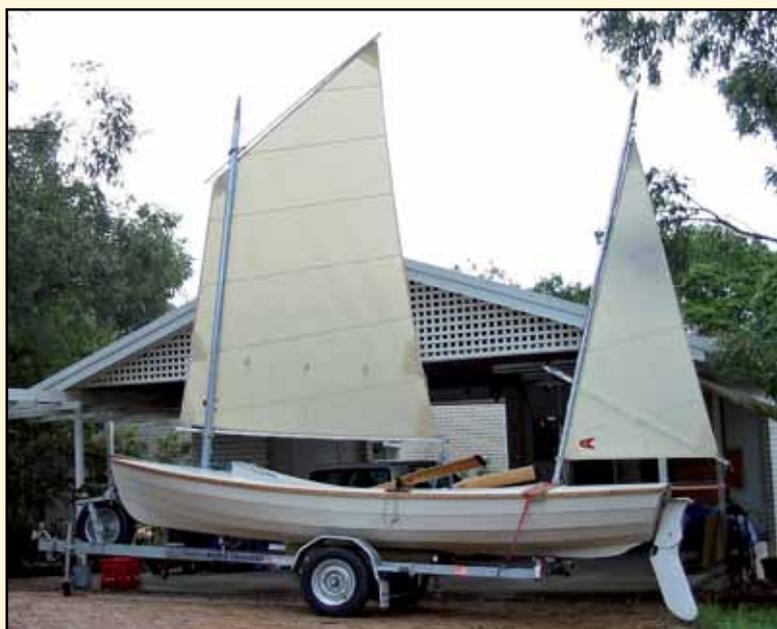
In this case we've put a balance lugsail, possibly the simplest of the really effective sails, well up forward on a free-standing mast. As a singlehanded cruiser he'll want to keep the rig as easy to set up and strike as possible, and the mizzen aft is also a very simple affair. This boat will take about 15 minutes



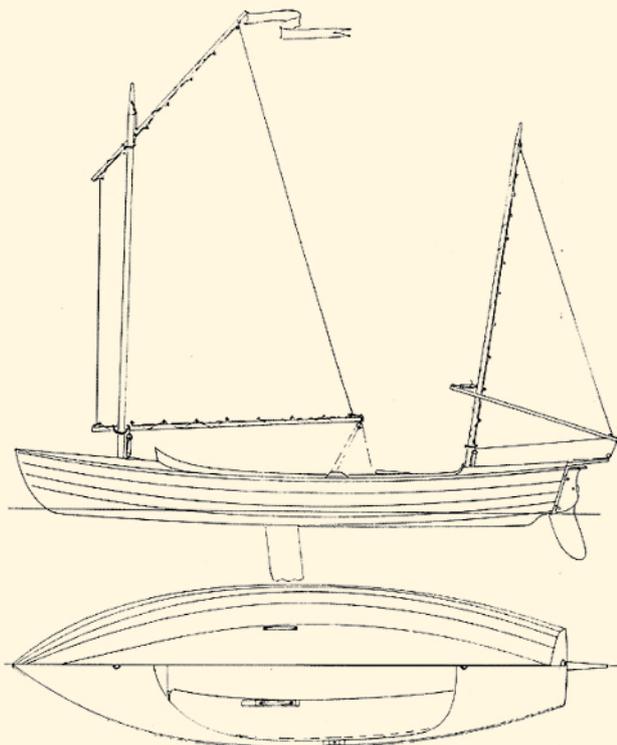
*With the removable rowing seat and foot stretcher lifted out and stowed, WALKABOUT has a very nice comfortable space in which to lie down. Note that builder Wayne Jorgensen found that his WALKABOUT was faster under oars than the JW-designed SEAGULL behind, and that boat's no slug either.*  
© Wayne Jorgensen

from arrival to sailing-ready, and it's quite easy to strike the rig and stow it within the boat to reduce the windage if a long row up a winding creek is anticipated.

To enable William to sail along an exposed coast to visit the really wild places of his imagination we've designed in massive buoyancy which doubles as watertight storage. The prototype boat has been tipped over and righted unaided by its lone skipper, and the sleeping space that is freed up by the removable rowing seat has been tried and found



*Wayne Jorgensen's WALKABOUT ready to take to the water for the first time. The rig is easy to set up and drop and she is a lot quicker under sail than you'd expect from her modest-sized sails.*  
© Wayne Jorgensen



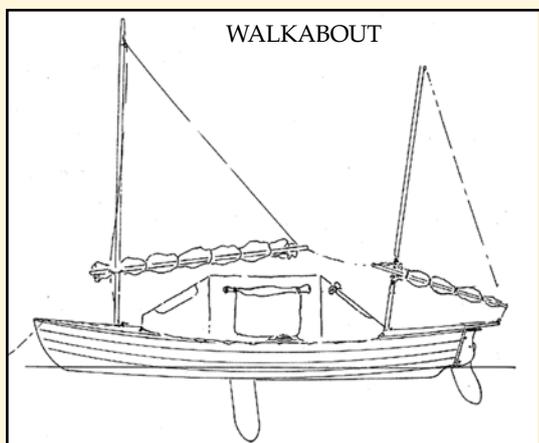
General arrangement of WALKABOUT.

to fit the airbed and sleeping bag, providing much more comfortable accommodation under the fitted tent than most would expect in such a slender craft.

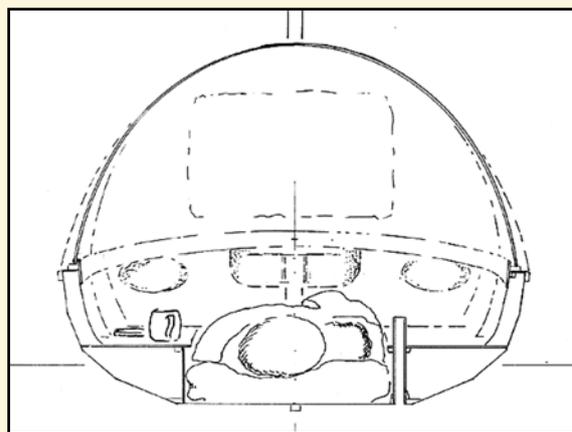
We've given the boat a traditional appearance. It fits William's feeling of the 'good old days' being better than our heavily industrialised present, and coincidentally the lapstrake sides over stringers are an easy way to build a round-sided boat that will work the way we want it to.

'Walkabout' is the Australian name for a journey undertaken for mainly spiritual reasons, a journey with no fixed destination or duration. It suits William the Eco Warrior, as does his boat.

David and Rose though, are mainly fair-weather sailors: afternoons, grandchildren, a little jaunt to the far end of the lake and overnighting perhaps



Her tent is set up on springy hoops in the same way that a modern hiker's tent is. The sides can be rolled up to allow the boat to be rowed with the crew under cover or to ventilate the boat when cooking or in hot weather.

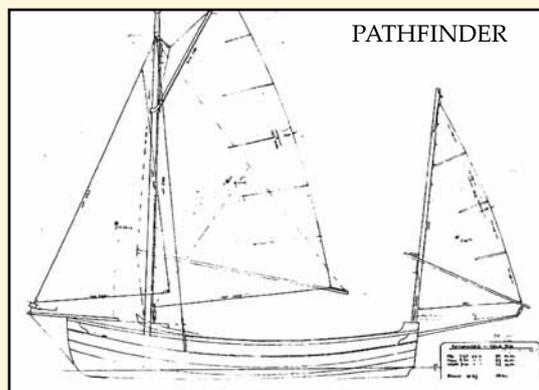


(WALKABOUT) Lying down between the side seats makes for a comfortable and sheltered bunk space. WALKABOUT's plans include a fitted tent with sides that roll up for ventilation and so she can be rowed from within the shelter.

twice a year. David's wish to undertake perhaps one major adventure has to be considered though, so we're looking here at a boat that while used carefully, and for the most part in sheltered waters and good weather, has to be much more capable than most. We need, too, to provide a flat area long and wide enough for two airbeds and sleeping bags, and storage for lots of gear so good meals, changes of clothes, comfortable seating, and a decent boom tent can all be stowed out of the way.

With their dinghy experience, they are expecting reasonably good sailing performance as well; a slow slug won't satisfy them: 'sparkling' is how they said they wanted the boat to sail. 'Fun to sail' is how I put it, something that can really bring a light to an old racing skipper's eyes, so PATHFINDER has a lot of sail for her length and weight, but being fairly light for her length and having the area split between the roller furling jib, reefable main and mizzen, she is still easily managed.

For the grandchildren safety is paramount. Stability is the main issue. Stopping two or three little uns drifting off away while trying to right a 17ft boat is not a good look, so better we have a boat that is both stable and very buoyant when swamped, and as near capsized-proof as possible.



Pathfinder yawl rig, general arrangement. There are other rigs, a single big lugsail, and a gaff sloop for those with different needs and likes.



*There are three guys, each over 100 kg, standing on the gunwale of this PATHFINDER, and she still has a lot of freeboard left. This boat is relatively light for her length but she has enormous stability which helps both safety and speed.*

Rose loves the boats they see at Beale Park. She loves the clinker sides and springy sheerlines. David though wants to have a motor where he can get at it in rough weather without hanging over the transom. Both want a rig that leaves the midsection of the boat as clear as possible and which provides options for reefing and sail reduction should they be caught out.

So we have PATHFINDER. Yawl-rigged so the main and jib are well forward and of modest size, the mizzen so far aft and large enough to hold the boat head to wind when hove to, and the bonus is that with the main down she is perfectly balanced on the two small sails, giving control in very heavy weather should it be needed. There is a conventional cockpit with attention given to seat height and backrest

*Paul Groom built this PATHFINDER. Varuna was his first build and he's done a lovely job on her.*



angles to rest the sore backs that so many of us suffer from, the seats are sealed to provide buoyancy, as is the raised deck area forward of midships that is large enough for the two of them to bed upon, and there is a huge locker under the foredeck where larger items can be stowed behind the hatch to keep them all dry.

Muddy anchors and warps stow in the anchor well under the inboard end of the bowsprit, and at the other end of the boat the little 4 hp outboard lives in a well just inside, its leg folding up through a slot in the transom which also provides a fast outlet for any major water that may come aboard, leaving just the footwell to be bailed.

We designed to suit all of the criteria set by our hypothetical clients. We gave her classical looks, high stability, a traditional gaff yawl rig in modern materials, which is both powerful and practical, and we kept the build within their abilities.

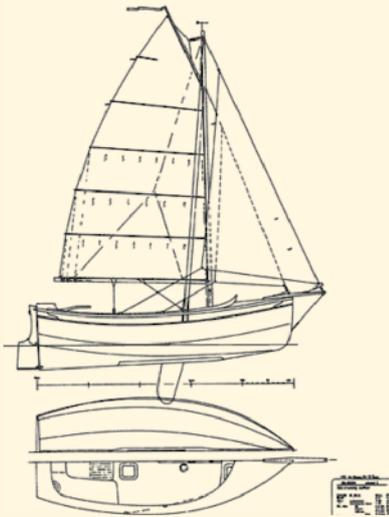
PATHFINDER is a development of several other similar but smaller designs. She has proved to be a very capable cruiser and, as shown in the photographs, has all the stability and space that was required to fill the brief.



*Most of us like a comfortable bunk, like this one. The PATHFINDER's sleeping space is long enough to stretch out, wide enough for a big man's shoulders and well sheltered. This pic was taken by Steve Earley who cruises his boat Spartina in the North Carolina banks and Chesapeake Bay area of the USA. © Steve Earley*

Stanley. Sigh! The designer's nightmare in some ways, a man who has dreams he wishes to fulfil, whose ambitions are right out at the edge of the possible, and who will brook no compromises but whose reality is compromised by lack of resources and who comes to the designer wanting the disparity to be solved as well as possible.

We begin with the premise that the boat has to be an achievable build for an amateur with some basic woodworking skills, that the resulting boat has to be within the weight and capability of Stanley's very average 4-cylinder car, that he himself is of an age where the build should not take too long or his age will affect his fitness for the voyages he wishes to undertake.



(Left) For an open boat PILGRIM is a big tough vessel. Although built of modern materials she is closely related to the 1800s small workboats of the Solent and South Coast area of England.

He has a love of the little cutters of the English South Coast, the Itchen Ferry, the Falmouth Oyster Boat, the Solent Punt and the myriad little craft that fished and ferried along the coast from Portland Bill to Dover. Those are uncommonly seaworthy little boats, extremely capable and in fact well suited to Stanley's needs, so out come the books. There is much study of shape and calculation of the critical 'numbers' such as stability curves, curves of areas and sail areas, all those numbers that describe in academic design terms the parameters that make these boats what they are, or were.



A view of the huge interior of Chip Matthews' PILGRIM, the buoyancy tanks under the seats and decks are sufficient to float the boat stable and upright even when fully swamped, an essential for an undecked boat that ventures into open waters. © Chip Matthews

So Stanley's little boat is a full-bodied plywood gaff cutter with wide side decks and high coamings, the rig chosen in part because of its traditional origins, but also because it provides a lot of sail area for its heeling moment, because it is possibly the most seamanlike of all small boat rigs in both heavy and light weather, and because it provides a wide range of options when shortening sail, none of which need any sail changes.

Stanley needs an uncommonly capable boat, powerful and dry beyond the abilities of any ordinary open boat. He wishes to visit places that require a



(Above) Chip Matthews' boat ready for rigging. This is a high volume hull, roomy, stable and solid. While she is a relatively heavy boat for a dinghy the big boat provides comfort and shelter for those wanting to cruise far afield or who just want a comfortable boat in which they don't have to run for shelter at the first hint of bad weather. © Chip Matthews

voyage of many miles in open waters, beyond the range of weather forecasts in terms of time required to make shelter, so he has to be able to cope with whatever comes his way .

He will sleep on board, cook and eat, navigate and perform all the functions of life and sailing for days on end. His boat needs to be both hugely capable and very comfortable, a real big boat in miniature. To this end we use the same interior layout as PATHFINDER with the raised sleeping flat, though having more space under it. There is room for batteries, canned food, water ballast tanks ( if required: it's optional and reduces the amount of fixed ballast required, so lessening the boat's towing weight), and light storage. She has a cook box aft where the stove can be run while at sea, huge buoyancy tanks accessible for storage, and a massive locker up under the foredeck.

Her long keel with substantial lead ballast plus steel centreboard makes her feel and behave like an old-fashioned long-keeled cutter, directionally stable and slow in both roll and pitch, the structure of the keel making her massively strong, which, in addition to the substantial framing and stringers, means she is an extremely tough little craft.

Building Stanley's dreamboat will present few problems, being of fairly simple ply construction. There is nothing complex here, and the rig can be home built which will ease the strain on his budget as well.

PILGRIM, the fabled traveller who journeys to fulfil the dream of his lifetime, is a boat specifically designed to cope with long voyages in waters beyond the safe range of the usual small boat, but the reality is that Stanley's two daughters are looking forward to having grandfather take their children out sailing while they relax on the beach and swap stories about their husbands, and I'm sure that Stanley, with all that space in the boat, and three pretty little girls on board, will thoroughly enjoy a different reality. JW

PLANS for John Welsford's designs are available from:  
**Fyne Boat Kits, Phone: 01539 721 770**  
**Web: [www.fyneboatkits.co.uk](http://www.fyneboatkits.co.uk)**  
**email: [info@fyneboatkits.co.uk](mailto:info@fyneboatkits.co.uk)**  
**Unit 5 Station Yard, Burneside, Kendall. LA9 6QZ**