

Greg Palmer: Sailing Qualities of Peter Duck

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Arthur Ransome made some disparaging comments about *Peter Duck* – her sailing qualities, accommodation and general character ‘a marine bathchair for my old age!’ This was unusual for him — he had only praise for his other boats. He sold *Peter Duck* after owning her three years, although that was about average; he kept only *Selina King* for much longer, and she was laid up for most of the time Ransome had her. So what is the truth? How well does *Peter Duck* sail?

She is rigged as a ketch, that is, the sail area is shared between mainmast and a shorter mizzen mast, and she has a long shallow keel, quite unlike a modern racing yacht. It is more usual in a boat of such shallow draft to have a centreboard as *Racundra* had, which could increase her draft from 3½ to 7½ feet.

One would expect a boat of this design to have several built-in disadvantages: she will slide slightly sideways (leeway) when sailing to windward, it will be difficult to go about (to tack), and the rig will be less efficient than a single-masted rig, as a biplane is less efficient than a monoplane. She might also be less manoeuvrable in tight places, under sail or power.

Ransome was quite pleased with the speed of *Peter Duck*. He told the designer, Jack Laurent Giles, at the end of his first summer of sailing that *Peter Duck* was ‘MUCH faster than I ever expected.’

We have found much the same. In a good full-sail breeze, *Peter Duck* makes 3½ to 4½ knots (4-5 miles per hour), and will reach 5 knots with the sheets eased. Of course, if one wants to go directly against the wind, one has to tack. We can point at an angle of 40° to the wind without diminishing the speed too much, and we lose about 5° in leeway; so our course straight into the wind is a succession of right angles. This is a good performance for a boat of *Peter Duck*'s era; the Penguin book *Sailing*, published in 1949, says: ‘most vessels will sail about four points off the wind or roughly 45 degrees to the wind's direction,’ to which about half a point or 5½° of leeway might need to be added. The author, Peter Heaton, gives 4 knots as an average speed for a small boat.

This performance in *Peter Duck* is only achieved in the best possible conditions; if the wind gets much greater or, even worse, dies down to a zephyr, then our performance suffers to a much greater extent than would that of a modern yacht.

Photo: Greg Palmer: then Master and Owner of *Peter Duck*

But one feature of *Peter Duck*'s handling did disappoint Ransome; he had great difficulty going about, that is, tacking or changing direction so as to bring the ship's bow through the eye of the wind. We have been puzzled by his complaint, but it must have had some substance, as he had done so much sailing before in several different boats, one of them a cruising ketch, *Racundra*. He found in *Peter Duck* that he had to back-wind the staysail 'barge-style', and in a rough sea she would not go about even like this. This technique of tacking had been used by Ransome to tack *Racundra*, but in pre-war cutter rigged yachts like *Nancy Blackett* (one mast, two sails *in front* of the mast) it was usual to let the jib fly, then pull it in when the head of the boat was safely round. *Peter Duck*, with her long shallow keel, doesn't turn by spinning on more or less fixed axis like a deep-keeled or centreboard boat, but sails round onto the new tack in a fairly wide arc (more like a tram!) using the momentum her heavy hull gives her to take her through the wind. If the staysail is allowed to flap, the forward momentum is stopped and wind and waves drive the high bow back onto the old tack. Even using the engine does not always help, because of the 'paddlewheel effect'; if the propeller starts turning while the boat is almost stationary, it acts for the first few minutes like a paddlewheel instead of a screw propeller and throws the stern to port, so it can be used only to go about from the starboard to the port tack.

Pre-war yachts were designed with 'weather helm', that is, they were designed slightly unbalanced so that the bow always tried to come up into the wind, and the helmsman had to counteract this tendency with pressure on the tiller. As the wind increased, and the boat heeled, the weather helm increased. Thus if the helm was put down, the vessel shot quickly up into the wind with the sail aflutter, the weather helm helping to spin it onto the new tack. *Peter Duck* was designed evenly balanced and requires no pressure on the helm to sail straight; like Slocum's *Spray* she will sail herself. We trim the sails, put two pins in a pin rail beneath the tiller to stop it over-correcting itself, then check the compass occasionally. Before the War, guard rails were not put on small boats and self-steering was not considered desirable or safe. *Peter Duck* has guard rails and is well balanced. Arthur Ransome had probably never sailed a boat with this quality; *Nancy Blackett* has weather helm, as do the broads boats he had sailed. The evenly balanced helm of *Peter Duck* must have disconcerted him.

The mizzen helps hold a ketch on its course, and therefore can stop it from tacking. Ransome thought that the mizzen might have been the cause of his problem and experimented with it. We have only found it necessary to free the mizzen when tacking with just the mizzen and staysail set, our heavy weather rig.

So in his first season with *Peter Duck*, Ransome didn't master the technique of tacking this new type of sailing boat, a boat with a quite different feel to the

pre-war yachts he was used to. For his next boat, *Lottie Blossom*, he went back to Hillyard's, the builders of *Nancy Blackett*.

Yet *Peter Duck* and other similar boats that Giles designed were the precursors of the modern cruising yacht. Many more are ketches, and even those with a single mast have a mainsail no larger than it would be on a ketch. Before the mast they set a large masthead jib which can be replaced with a small stay-sail in heavy weather as on *Peter Duck*, or can be reefed down to the size of a staysail. Arthur Ransome, in his specification for *Peter Duck*, which follows closely that of *Racundra*, and in his choice of Laurent Giles, the designer of *Wanderer II* built for the yachting writer Eric Hiscock, must have known what he was doing. He wrote in his log at the end of 1947 that the same hull, with a single mast and less obstructed accommodation would be – well, he didn't actually say perfect.

All designs are a compromise. Amazon had a centreboard like *Racundra*, Swallow a straight shallow keel like *Peter Duck*. The Ransomes wanted a boat that they could live in comfortably, but that Arthur could handle alone, to cruise in the shoal waters and tricky tides of the east coast. They got a pretty boat with excellent sailing qualities, but somewhat restricted accommodation. *Peter Duck* is a kind and comfortable boat and the cabin, if a little cramped, at least has period charm!