

MAST AND SAIL IN EUROPE AND ASIA

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(ROYAL THAMES YACHT CLUB)

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considerably rockered. The shape is eminently suited to boats which are continually beached in a heavy surf.

The sail *par excellence* of the Mediterranean is the lateen. As noted above, this form of lugsail (for such it is generically) is of Moorish origin, or to be more accurate, it is the adopted sail of the Mohammedan, for as to its true origin there is no evidence at present.



LEGHORN COASTER

Its wide spread from the Ægean to the Atlantic is evidence of the influence which Mohammedanism has exercised upon modern navigation in these waters.

The usual rig of the coasting trader, familiar in all the charming natural harbours along the Spanish, French, and Western Italian coasts, is the one-mast lateen with bowsprit and jib.

A light topmast is often carried, upon which is set a jib-headed topsail, sheeting to the lateen-yard about a quarter of its length in from the peak. The bowsprit is

THE HANDLING OF THE LATEEN 251

so often a long high-pointing spar, upon which one or more outer jibs may be set beyond the usual big equilateral staysail or jib now in general use with the lateen.

The handling of the big lateen mainsail is a science by itself, and may be recommended as an experience likely to bring life to any jaded soul seeking for sensation.

The yard, which is in two or more parts according



GIGLIO TRAWLER, BEATING

to size, spliced or 'fished' together, is hoisted by a halyard which passes in two parts through a pair of masthead sheaves. A four-fold block and a stout rectangular sheave built into the deck, just abaft the mast and standing some feet above the deck, form the tackle for hoisting and lowering the sail. A running parrel holds the yard into the mast. There is generally a peak halyard to assist in taking a portion of the weight off the yard, and in peaking it to the required angle; but the set of sail is really controlled by the heavy

tack-purchase at the heel of the yard and by the main-sheet. In running free a wonderful lifting-power is given to the lateen by taking the sheet forward and letting the tack-purchase run out; the yard then lies across the ship, the triangle being upon its apex, the peak dropping and the tack rising until the strain on



OLD GENOESE VINGO, 1845

the sheet is about equalised. Where a jib-headed topsail is set above the lateen-yard this cannot, of course, be done to the same extent as in the smaller fishing-craft which have but little gear aloft.

When close-hauled the heel of the yard sags out to windward in a way which is at first somewhat embarrassing to the fore-and-aft sailor. Its right posi-

tion is formed, however, when the sheet is into the required extent, and the strain along the foot of the sail asserts itself. The tack tackles are used to prevent the yard from swinging, which it does with considerable violence in a seaway when the peak is being subjected to a series of wild oscillations; one tackle is brought aft and the other forward, or they are spread athwartship as may be necessary as a result of the position of the yard or the direction of its movement.



TRAWLER, OFF ELBA

The sail is as a rule taken in by being furled to the yard, two or more brails being used in the first instance, to spill the wind, the canvas being then furled and tied by a hand upon the yard. The difficulty of the process naturally varies with the size of the vessel, but even in a moderate sea, furling a fifty-footer's lateen sail is no fun if you have had no practice at it and are not possessed of prehensile toes.

The virtue of the lateen, which at first sight seems so ill-suited a sail to such squally coasts as those of the Mediterranean, is that it can always be let go with

a run in a heavy blow; and my grandfather, who did many of his first surveys of that sea in a lateen-rigged *paranzello*, used to speak with emphasis of the handiness of the lateen in this respect. At the same time, the yard is long and inconvenient on deck, and it is better generally to keep it off the deck if possible. In many of the Italian coasters regular chocks are fitted



NAPLES TRAWLER

to receive the long-yard when lowered in bad weather, and a small storm-sail ready bent upon its yard is carried on the opposite side to the big sail all ready to be hoisted when the other is secured in its place.

The tricks which the skilled lateen-sailor plays with his sail are endless, and can be best seen among the trawlers off the Tuscan coast, where, to suit the varying strength of the wind, upper and lower spinnakers

are set at one moment, and the next the big mainsail is being skilfully emptied of half its wind. When the trawls are hauled the yards are allowed to swing out forward and are brought on deck. No little experience is necessary to keep the sister boats working together on a trawl-net at exactly similar speeds as the changing puffs of wind come up astern, and there is no rest with the sheets or with the small auxiliary sails which are



SQUARE TOPSAIL LATEENER, 1841

constantly being eased or tautened, hoisted, 'spilled,' or taken in. Only the trinchetto sails of the Tagus *muleta* exceed the Tuscan fisherman's in number and variety. But these boats are most beautiful when bending close-hauled to a stiff breeze on the beat-home, when their weatherly qualities will delight any sailor.

My father, who at one time used one of the smaller Tuscan fishing-boats for a cruise of some months' duration, used to speak with pride of the power of his little craft to carry sail in strong winds; but he was un-

fortunate in his crew, which consisted of two men who, whenever it blew hard, first of all besought him to run for a port, and when he refused used to get out their rosaries and go upon their knees in the lee-scuppers, where they remained praying and crying until driven out of their retreat by an opportune green-sea. But these were longshoremen, very different from the generality of Italian fishermen, who are probably the



MOLETA SAILS (TAGUS, 1861)
(FROM A SKETCH BY PROF. STORY-MASKELYNE)

finest mast and sail men of the Mediterranean at the present day, and whose one-masted luggers from the Adriatic coast may be seen as far east as the shores of Egypt.

From the records of the Mediterranean during the beginning of the last century, when, for the first time since the Crusades, it began again to be a sea known to British sailors, it is evident that the old three-masted settee or felucca rig, the rig *par excellence* of that sea,

was then far commoner in comparison to others than is now the case.



SPANISH FELUCCA

The reason is not far to seek. At that time the old methods of warfare were still in vogue, and the three-



GREEK FELUCCA PRIVATEER (FROM AN OLD PRINT, 1819)

masted lateen rig was well adapted to long vessels of easy lines and low freeboard of the galley type, which could be propelled at considerable speeds in calm

weather by a large crew of rowers. For warlike purposes they were used by the old Venetian and Genoese sailors of earlier centuries, by the Moors on the Barbary coast, and by the Greeks during the war of 1819, as well as by all the great sea-fighting nations for their small craft during the Napoleonic wars.

For large cargo carriers and for warfare, steam has



OLD BRIGANTINE (TORRE DI RIO, 1841)
(FROM A SKETCH BY SIR W. WARRINGTON SMYTH)

taken the place of the old long sweeps, and the sail remains for the small coaster and the fisherman where economy in crew is necessary, and seagoing and carrying capacity are required as far as they can be made compatible with restricted size.

For large-sized coasters, therefore, the ordinary fore-and-aft or topsail schooner and the ketch rigs are often seen on the coasts of Italy. In the Adriatic especially, the two-masted lugger is a very frequent friend.

As late as the forties and fifties examples of fair sized three-master lateens were still common—in the beautiful *bragagna* of Dalmatia (a true felucca, or rather settee in build and rig), in the brigantine shown off Torre di Rio, and in the peculiarly rigged *velocera*, which are both from sketches by my father.

The last-named is a development of what used on the Barbary coast to be known as a *xebec*, which was



OLD VELOCERA (ELBA, 1841)

a *felucca* with square yards on the foremast. It was a rig which gradually came into favour for larger vessels, the main and mizen masts retaining the lateen yards.

Not a few old drawings show that the square top-sail was very frequently set during the last century over the lateen, as was done over the gaff mainsail of our old smacks. This was not only the case in the felucca-rigged vessels on fore and main masts, but also in smaller *paranzellos* and others.

But as in northern countries the fore-and-aft jib-

headed topsail has replaced the upper squaresail, so it has happened in the Mediterranean, and the jib-header is seen even over the lateen yard.

The three-masted, or settee rig, without topmast, is still retained in parts of the Mediterranean: one may instance the big coal-carrying *gaiassas* of lower Egypt, and some of the fruit-carrying and other long narrow-built boats in the neighbourhood of Naples.



NEAPOLITAN FRUIT-BOAT

The mizen is undoubtedly less common at the present day with the lateen-sail than it was during the first half of the last century. At Genoa, Leghorn, or Naples, the rig depicted in the Genoese *bovo*, and that of the *paranzello*, are seldom seen, the one-mast rig being the commoner. In some cases a fore-and-aft mizen instead of a lateen may also be met with. It is not easy to account for the lack of popularity of the mizen, as the lateen mizen is easily handled in a wide-

sterned boat, and would be very serviceable in hard weather.

For sharp-sterned boats, however, such as the majority of the present small traders of the western basin and the Adriatic are, the mizen has its inconvenience if carried, as must be the case with the lateen mainsail, right aft on the taffrail.



FLYING TOPSAIL, SPANISH FELUCCA

It will be noticed that the lateen-sail of the Western Mediterranean differs considerably in shape from that of the Indian Ocean and Red Sea. It is only in the smallest boats that the forward angle is cut off so as to make a piece of square-cut luff. The Arab lateen is almost invariably so cut, and the sail is in truth a four-sided one. Its disadvantage when so cut is apparent

on a wind, when a straight luff is more difficult to maintain, and the heel of the yard is inclined to take charge in a seaway because less controlled than it is by the Mediterranean tack tackles. It appears to be tradition that the old settees, small single-decked vessels of the felucca rig but without topmast, generally carried sails of the quadrilateral Arab pattern.

But the sail of the big lateener of the western basin is usually more nearly an equilateral triangle than that of the dhow, and it is more sober in the amount of



SCANDALISED

peak given to it. The lateen, which is more exuberant in its peak, is of course that of the inland *gaiassa* of lower Egypt.

The western lateen always remains on one side of the mast, and is never shifted for a fresh tack. Its shape enables it to stand inside the rigging of the mast, and not outside at the extreme masthead as is necessary in the case of the Arab *gaiassa*, as a result of the cut of the sail and its high peak. The western lateen is thus far more snug to the mast, and more easily lowered on deck, and is certainly a more seamanlike

and weatherly sail, while it is always made of stout material cut and roped after the European style.

A peculiar form of fore-and-aft mainsail, reminding one of the 'curtain' spritsail of Smyrna and Turkey, is that on the mainmast of the *velocera*, which is still frequently met with in a number of coasters in the Gulf of Genoa and the Tyrrhenian Sea.

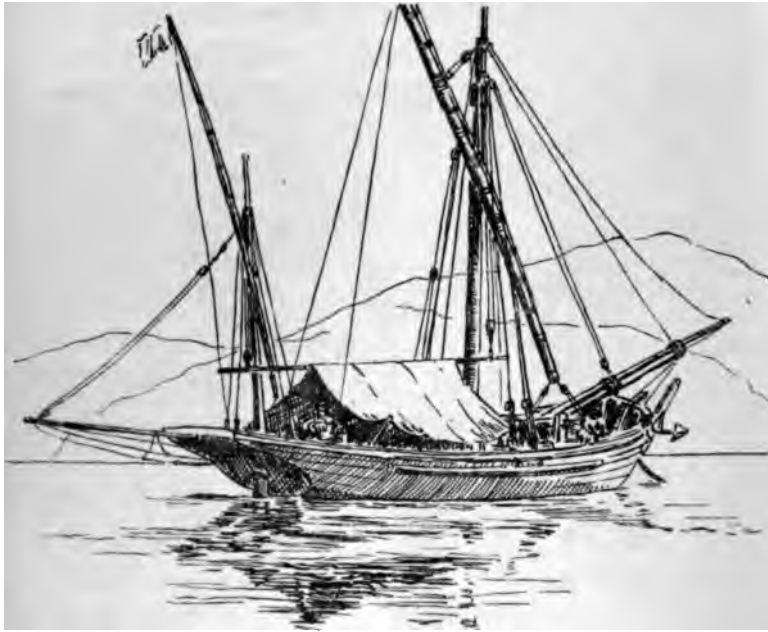


COASTER (GULF OF GENOA)

The gaff is kept standing, and is a very long spar hung from one-third to one-half of the mast's length below the heel of the topmast; the mainsail is hauled out along it, when set, and travels on rings to the peak halyard slings. The peak is controlled by vang's going to each quarter, and no boom is used.

In conjunction with this low-cut mainsail is a huge jib-headed topsail which hoists on mast-rings up the topmast, but is also laced along the portion of the

lowermast which intervenes between the gaff and the heel of the topmast. When this topsail is taken in, the mainsail left standing is about equivalent to an ordinary sail with three reefs down, and is certainly snug enough for most purposes. This convenience is gained at the expense of a plan of sail-spread which is



BOVO (GENOA)

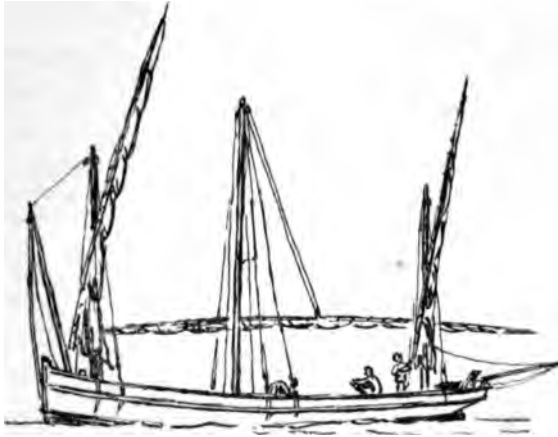
far less efficient in ordinary weather than that of the ordinary long-hoist fore-and-aft sail and topsail.

With this sail the mast is always given considerable rake aft, and while the lowermast is long, the top and the topmast are both rather short. The whole has rather a topple-over-stern air which does not impress the stranger.

Though seldom met with in three-masters at the

present day, this arrangement is generally seen in conjunction with the very old style of foremast, placed right in the eyes of the ship and raking over the bows, upon which the old galleys and feluccas used to set the fore lateen.

While the position of the mast, the old *trinchetto*, has been retained, the heavy lateen yard has been in these vessels taken off, and a large main staysail, set along a stay from the maintop, is substituted.



THREE-MAST LATEEN (NAPLES)

The first record which I have been able to find of the use of this peculiar form of staysail is in a sketch made by my father in 1841, in the neighbourhood of Elba. In this case it is shown fitted to an ordinary felucca-rigged boat, the staysail taking the place of the fore lateen, it having been apparently introduced as a storm-sail, when the fore yard was lowered on deck in order to reduce weight of top hamper.

The bowsprit, taking the place of the old overhanging bow, to which the tack of the lateen worked,

remains in the modern rig in order to carry a jib necessary to give the required head-sail in ordinary weather.

The staysail is of the four-sided type now in common use in square-rigged ships, and is fitted on the foremast with mast-rings. It is a handy sail with good lifting power, easily set and stowed; its centre of effort is low, and it involves no weight of spars aloft. But it is not remarkable for beauty, nor for flatness of set when close hauled, the upper fore angle being difficult to fill effectively on that point of sailing.

Lying in harbour, these vessels at first appear to have a set of very solid jib-booms all 'on end,' but a closer inspection shows that what appears to be a jib-boom is in reality the old-fashioned foremast of history still surviving.

This peculiar rig is largely an outcome of the meteorological conditions prevailing in the Gulf of Lyons and Tyrrhenian Seas, which alternate between calm *bonaccia* weather, occasional *raggiature* or land squalls, and the fierce, cold *mistral* from the north; or again the *labeschades*, south-westerly gales of great violence, which blow home with a big sea of short range and very destructive power.

The Adriatic

The Adriatic provides a new rig to the sailor, for here is the powerful and flat-setting boomed Italian lugsail, which is seen alike in the *trabacola* or coasting trader, and in the gorgeous-sailed *bragozzi*, which is familiar to all lovers of Venice and its colouring.

The weather in this sea is notoriously unstable, and

the harbourless condition of the greater part of the Italian coast has rendered it absolutely necessary to use a powerful rig capable of working out to windward off a lee shore. Both with the *siffante* or south-wester, and with the *bora*, the heavy, westerly blast which has dismasted so many good ships, sudden shifts of wind take place, followed by squalls of such violence and fierceness that a snug sail-plan and a powerful build of hull are alike essential.



TRABACOLA

The burst of a *siffante* on this coast is a thing not to be forgotten. It is a hot morning, and the sun flashes off the windows of the distant city, which bears a little south of west. A long swell comes up from southward, where a bank of threatening cloud lies, the upper edges lit up like the summits of great snow-peaks. We lie up close-hauled on the port tack to a light air from south-west. The aneroid has fallen the part of a tenth since our morning dish of maccaroni,

which, by reason of the swell and the hot sun, was perhaps not greatly appreciated. It is consequently with much impatience that we feel the roll, and long for wind, and eye the threatening horizon. A dull film of cirrus brings a haze over the sky above us, and the whole world seems to silently threaten us with some terrific peril. Not long after, the wind suddenly comes among a few spasmodic white caps on the sea, sighs



ANCONA FISHING-BOAT

through our rigging, and is gone again. Our close-reefed lugsail bangs about over our heads, and strains every rope and strand aloft. Then it comes, first a puff abeam, then one nearly right ahead, and steady and stiffening minute by minute. Night seems to settle down and cover us up. The great strong bow breasts through the short breaking seas, but the force of the wind presses her down until all our lee side is awash, and the mast is at such an angle that the foot of the sail is becalmed by our weather gunwale. We are

making terrific speed, but taking in water everywhere. In the midst of this, and when we are beginning devoutly to wish we had a less heavy boom and roll of reefs to our sail, the mole of the harbour appears soused in heavy sprays under our lee. Gently and cautiously the sheet is slacked away by the strong-



AT ANCONA

handed crew. The few minutes' run is desperately exciting, because we are sailing by the lee, and a gybe is imminent. A steep, fierce sea, showing its angry white teeth, seems to spring down upon the starboard quarter, the main-sheet suddenly falls in folds into the water, and with a bang like a gun's the sail sweeps across above our heads. The sheet and tack part simultaneously, and the sail lies in a bag, pinned

by the gale in the rigging. However, it is a few moments more into the lee of the mole, where with a short sweep we round into the wind's eye. For a few minutes the sail has charge aloft, but as everything is slacked up, it is got in without having broken any arms or legs, as it seemed determined to do. Before night the sun is shining along the low, cloudy sky, and the wind is hard, but moderating. To tell the truth, we felt mighty glad we were so near



ITALIAN FISHING-LUGGER (PORT SAID)

the land, for, while it lasted, there was a fierceness in it, a driving, hitting power which seemed uncanny, and which left us feeling surprised, bruised, and mystified, especially those of us who were new to Eastern seas. The paralysing power of a strong wind, which grips and holds down the limbs, and overpowers the brain, and the stinging, vicious onslaught of the hard, salt spray ceaselessly slapping the eyes and face, if continued for many hours, are able to conquer the stoutest will, and are the direct cause of many a sea tragedy. It is at such a time that one feels their pitiless strength, and

realises why so often shipwrecked crews are unable to do anything to save themselves.

The typical Italian lugsail seen in the Adriatic, and from thence carried to the far corners of the Mediterranean by its enterprising seamen, is what we term a balance-lug—a Chinese lug without the battens, laced to boom as well as yard, and when hoisted ‘set up’ by the tack purchase.



SHIP'S-BOAT, WITH ITALIAN LUGS

To prevent a ‘back sail’ against the mast, and to ensure flatness of set, the Adriatic or Italian sail has its tack purchase brought to the deck at some distance away from the mast.

The *bragozzi*, stern on, and the *topo*, or mouse, of Venice show this peculiarity. If the sail is hoisted on the starboard side of the mast, the tack purchase comes to a point about midway between the line of the mast and the starboard gunwale. I am not aware that this method of setting down the tack of the lugsail is adopted anywhere else.

Of the Adriatic sailing-craft, the best known, because the most seaworthy, and the one which carries the largest proportion of the coast trade, is the two-masted lugsail *trabacola*.

The high bow, the round stern, and the deep rudder hung on the stern-post outside the vessel, are characteristics of this as of most of the purely Mediterranean types of craft.

The mainsail is set on a mast stepped well inboard,



ITALIAN COAST LUGGER

and although generally smaller in actual area than the foresail, it has the power of a mainsail rather than of a mizen. It is of standing-lug cut, and the luff is generally set taut by bowlines.

The fore-lug is more of the character of a balance-lug proper, for it has a considerable length of boom and area of sail forward of the mast. The tack-rope is often so slackened up as to allow a large portion of the sail to swing out forward, giving the sail an odd appearance, suggesting that it requires setting up; but on certain angles of wind it is considered to draw better

when thus set. The pilot-boats of Alexandria are rigged in this fashion, and it is an excellent rig for open or ships' boats which require short spars and modest sail-spread. But they would be the better in general for a light bowsprit and jib on most points of sailing.

The bowsprit of the *trabacola*, like so many of those in the Mediterranean, is topped up at a high angle, and carries one or more jibs.



ADRIATIC LUGGER

These boats are of beautiful lines and great power, and constitute one of the finest forms of sea-going luggers in the world.

Another form of lugger very similar to this occurs in the big two-masted traders of the Spanish coast, which appears to be an outcome of the same ideas, and like the two-masted lateen *felucca*, also in use there, it shows evident connection with the general mast and sail plan adopted by the French and other Latins.

They both carry the somewhat long-yarded but square-headed lugsail which the southern races often substitute for the lateen. Both show the same tendency to obtain the balance of sail by placing the foremast right forward, and setting a lugsail upon it, sometimes a little larger even than the mainsail, thus avoiding the need of the stay foresail so generally



IN THE LAGOON

adopted by the northern races, who place the forward mast well back from the stem-head. The bowsprit and jib are modern adjuncts both with the Norse and the Latin races, and only came into general use during the nineteenth century. The jib has proved itself so useful a sail that it is now almost universal with lateen and lug-rigged vessels alike.

The Venetian boats are remarkable for the very slight draught forward, and consequently they carry the

centre of effort of their sail area very far aft. Many of the small fishing-craft, like the *topo*, may be seen sailing with what looks like a large mizen, only stepped well inboard. At first one feels a keen desire to present their owners with a foremast and headsail after the usual proportions. But further consideration soon



BRAGOZZI

shows that the sail is correctly placed relatively to the centre of lateral resistance, which is much further aft than in most boats.

The insignificance of the foremast and foresail of the *bragozzi*, and the importance of the large, gaily coloured mainsail, are due to this cause.

The *trabacola* and other deep-water craft have necessarily far more underwater body forward, and

thus can carry a sail-plan more suited to sea-going purposes. But the light craft of the Lagoon of Venice are of the flat-bottomed, mud-larking type, capable of navigating shoal-waters with a minimum of draught and a maximum of carrying power. Wherever their owner



SAIL PATTERNS, VENICE

can wade they must carry him and his wares or his fish. Deep channels are far between. And they are quick to turn with the stroke of a long oar, light to move by an air of wind or by a pair of arms, steady to carry heavy weight of goods, and not to flinch at a squall of wind, and at the short ripple which soon gets up in the wide Lagoon waters.

What beautiful memories that little *topo* under sail brings back! The wide grey waters under a grey sky, rimmed by low grey islands and tall grey towers; or the sparkling blue of a sunny day, with the far city, so long unchallenged mistress of the sea-world, in all its colouring, and the snow-white, distant range, on the far sky-line; the lapping of the tide along the piles,



BRAGOZZI

and the cheery voice of my friend Antonio instructing me in short cuts across the flats, the character of his friends, or stories of the days of the old Republic's greatness.

The big single-mast lugger of Ancona and the *puth* is in build a smaller *trabacola* fitted with one mast in place of two. Her big mainsail is of the same

pattern as that of her big sister, and her bowsprit



TOPO (VENICE)

stands up at the same truculent angle. Capable,



TOPO (MOUSE)

wandering sea-boats, they are to be seen heading up

a *gregale* off Malta, or away down east running with dry decks before the long roll of a *Levanter*.

The Eastern Basin

The Italian form of lugsail takes us among the modern Greek fishermen, who use it in many of their sponge-boats and other fishing-craft, and in their small traders of the Archipelago.

But the Greeks, although they built and fitted out



GREEK LUGGER

quite a fleet of felucca-rigged privateers in the early wars of the nineteenth century, are not really sailors at heart. Our own seamen in times past had a very poor opinion of the seamanship of the *pukka* Greek, and a naval officer who spent three years of one commission in and about the Aegean, declared that he could never get any information out of a Greek pilot except long lists of omens foreboding bad weather, or of ports to run to when the wind should freshen up.

It must in justice be admitted that navigation