THE YULOH - CHINESE SCULLING OAR

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Upon visiting China, one is always amazed by the ease with which young women and even young children are able to propel huges sampans and junks, simply by sculling with a single oar.

Here again we recognise Chinese ingenuity and long, long experience. Let’s not forget that, when our naval construction was still in its infancy, the Chinese were building 600–1000 tonnes junks. Their construction methods were in fact similar to moulded timber (longitudinal and transversal successive plys). Let’s move on now to our topic of interest: the Chinese sculling oar!

There is only one difference between a standard oar and the yuloh, but this difference is crucial: the handle is not in line with the blade. Instead, the handle is at an angle which is proportional to the distance (height) between the ‘oarlock’ and the waterline (Fig. 1). In fact, the higher the oarlock the greater the angle. We can reduce this angle only if we increase the length of the oar (the reverse also applies). Now, let’s see this in practice:

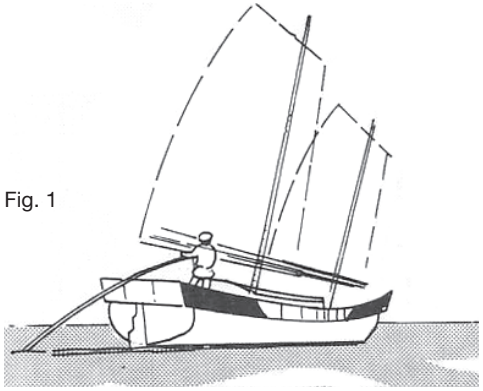


Fig. 1

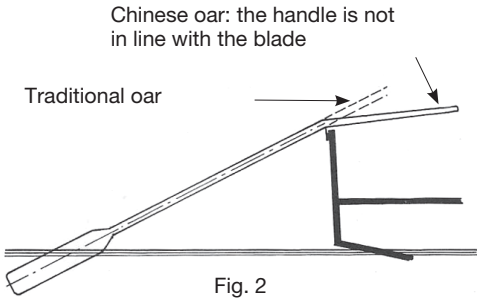
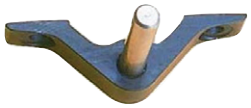


Fig. 2

A rope/lanyard is attached to the handle at one end, and secured by a ring bolt to the deck at the other. The length of this rope is determined so that the handle is at an optimum height (approx. 1 m) for ease of handling and minimum fatigue (Fig. 3A).



Instead of a traditional oarlock, we use a transom pintle (bearing pin) mounted to the gunwale or crossbar. The pintle fits in a recess on the underneath of the oar (Fig. 3B). It is helpful to add a small binding to prevent the oar from coming off, but as you become more proficient at sculling, this will become unecessary.

Once these clever modifications are made, all that is required is to push and pull on the handle for the blade to work at the correct angle and depth. The rope tied to the handle is used to fine tune the efficiency of the yuloh.

If we compare the use of the yuloh with the traditional oar, we realise that most of our effort, when using the latter, is lost as we focus on holding the blade at the correct angle and in the oarlock. More effort is lost as we turn from time to time to ‘see ahead’. This explains why I have adopted the Chinese sculling oar for my sailing junks.

Let’s not forget also that, without any engine, dozens of large boats maneuver at the same time in anchorages which are often more crowded than our ports are.

Thus, if you do not yet have a motor, or in case of sudden break-down, don’t panic, the yuloh is here to help you maneuver without fatigue. You just need to include it in your list!

Dimitri Le Forestier

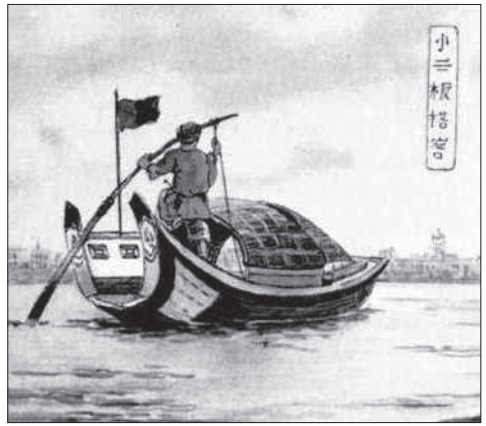
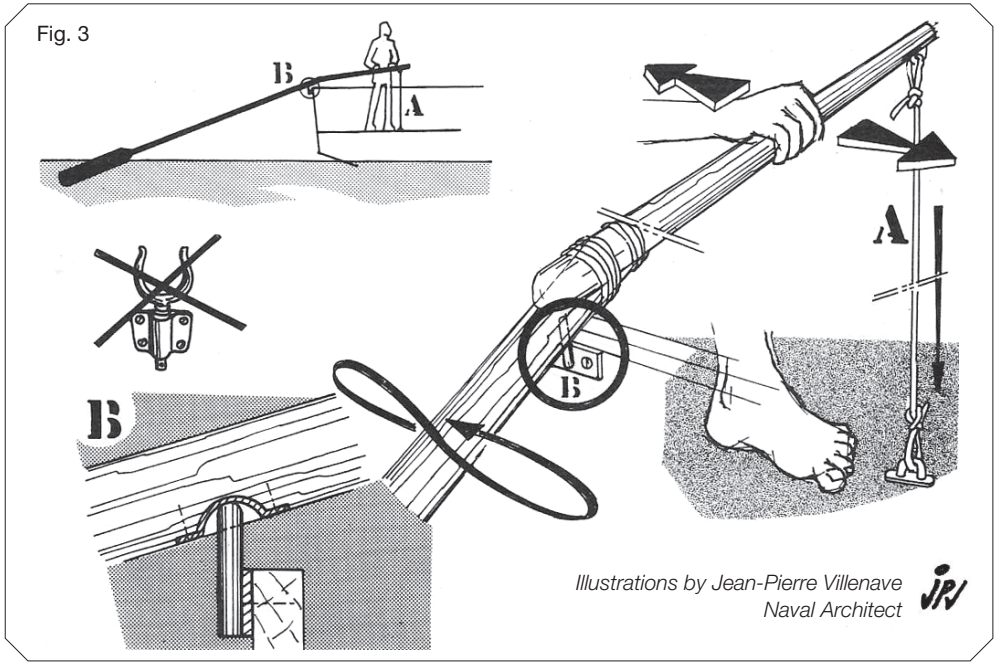


Fig. 3



Illustrations by Jean-Pierre Villenave
Naval Architect

L'AVIRON CHINOIS **Construction & Handling**

Construction:

A 3.30 m sculling oar, as indicated in the equipment list, is modified to make the yuloh. First, work out what the length of the loom should be, so that the blade is always in the water, and the handle is at a comfortable height. Once the position of the angle is determined, it is scarfed with a generous overlap to give an angle of 10° minimum. You can increase this angle provided you also reduce the length of the oar; or you can eliminate it altogether, i.e. the angle is required if seated, but it is not an absolute necessity if standing.

The crossbar or gunwale is fitted with a pintle (bearing pin) onto which the yuloh will rest and pivot. The lanyard, which is attached to the handle and secured by a ring bolt to the deck, helps prevent the yuloh from coming off the pintle and counter-balances its weight.

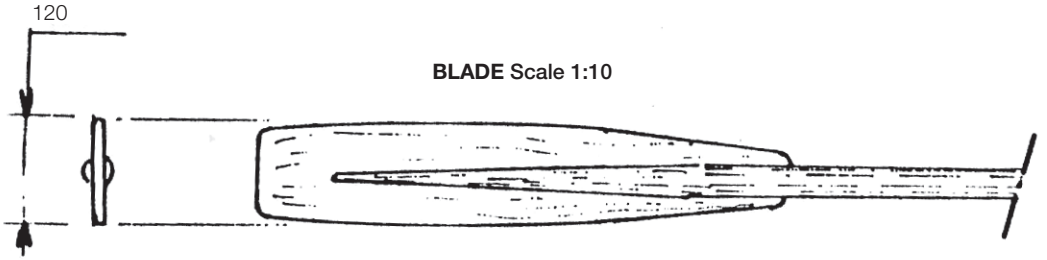
Handling:

On sampans, yulohs are held at head level and the lanyard hand works at chest height. The yuloh tends to have a longer blade and is operated with two hands: One on the handle and one on the lanyard. The lanyard hand leads the handle hand.

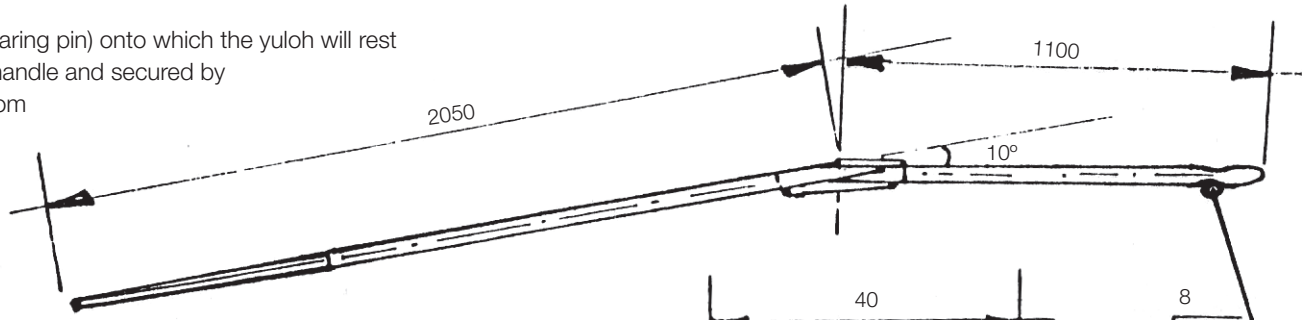
By pushing and pulling the handle with the palm of the hand the yuloh pivots freely until the resistance of the lanyard comes into play and reverses the pitch of the blade (no wrist action). The water pressure on the blade should be sufficient to hold the yuloh on the pintle. However, if the stroke is too long or the pitch too great, the yuloh tends to come off... it just takes practice.

On the Jonquinette:

The handle of the yuloh is set much lower for ease of handling and minimum fatigue.



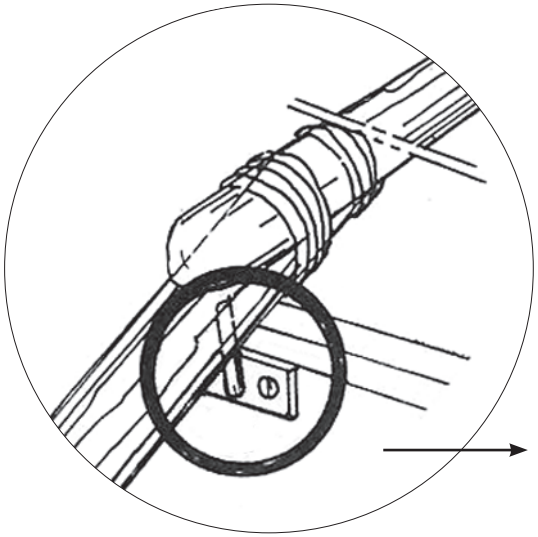
BLADE Scale 1:10

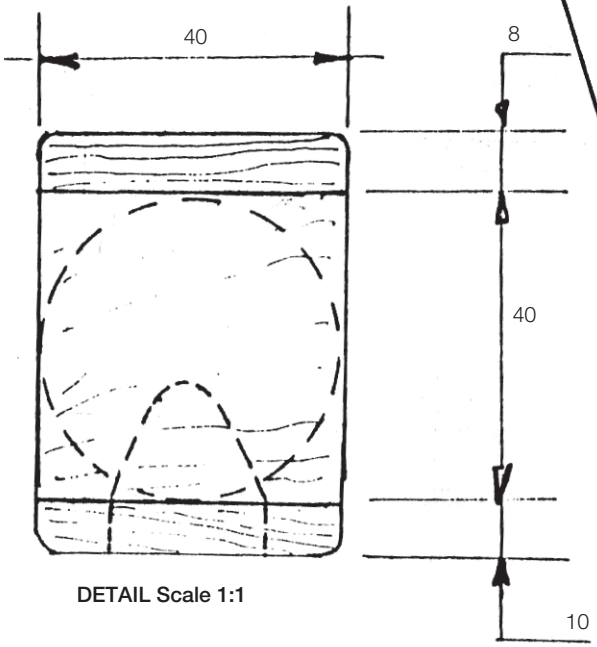


DETAIL

Scale 1:20

MODIFICATIONS FOR THE CHINESE SCULLING OAR (YULOH)





DETAIL Scale 1:1

Rope fixed vertically to the deck, its final length will be determined during the first trial, not too short, not too long.