

Notes on the Sculling Stroke As Performed by Professional Scullers on the Thames River, England

By George Pocock

The art of sculling is like any other art. It is perfected only with constant practice so that each movement is graceful and is done correctly without thinking about it. It takes a lot of thinking about before this can be accomplished however.

Start by checking the length of the slide, so that when the legs are straight down, the back wheels do not touch the back leather stops but are within one half inch of them.

At the beginning and ending of the sculling stroke the body and arms are forward, ready for the catch. The arms must be stretched out fully with the body leaning forward about thirty degrees from the perpendicular, thumbs over the end of the scull handles and the knees under each arm or inside the arms. Never allow the knees to go outside of the arms. Seventy-five percent of the power exerted in the stroke comes from the legs and the more direct the leg drive the more efficient the power.

The hands should be on the handles of the sculls so that the pull is in a direct line with the arms. The wrist should be straight. This position is the pulling position with the blades square in the water.

With the arms straight and the body angle kept the same, drive the legs steadily (extend the legs smoothly) as this is the maximum power drive. The arms are used only as connecting rods to the body.

When the slide has gone half way along the tracks, start bringing the body upright, and at the same time, start using the arms, slowly bending the elbows until the end of the slide has been reached. Finish the pull with a squeeze, the body laying back about thirty degrees, the hands coming in as far as the middle of the body above the hips. As this last squeeze is being exerted, and while the squeeze is on, start turning the wrists and shoot the hands and arms away as quickly as you like, the quicker the better.

There is only an instant in which to take advantage of the aerated water, almost a hole, behind the blade, caused by this last squeeze. This is the reason the wrists must start turning before the power is off, while the bend is still in the loom or shaft of the sculls. Do not expect to turn the blades from square to horizontal at this point; just turn them slightly, relax the grip a bit and the water will kick them flat as the hands and arms shoot away. The scull handles will slip a few degrees in your hands. When the arms are straight after this recovery, as it is called, follow with the body, changing its angle, almost as if the arms draw the body forward; and follow with the slide, as most as if the body angle pulls the slide forward.

Note that all of these movements are smooth, flowing, rhythmic. They must blend. Remember that you are dealing with natural elements; water, waves and wind. They have a rhythm and so must the sculler. He must have his mind on this rhythm to get in tune with his art.

The body, arms and slide are now forwarded again, ready for another stroke; this is the finish of the stroke. Many people think the finish of the stroke is at the point when the blades come out of the water. This is wrong as one misses that clean finish on the aerated water and the shooting of the hands away quickly. The stroke is finished when the sculler is in position for the next stroke. In coming forward with the slide do not rush but come forward slowly so as not to impede the run of the boat.

When putting the squeeze on as the handles are coming into the slides of the body and the body is laying back about thirty degrees from the perpendicular, as the last few inches on the squeeze are reached, bring the body upright, always keeping a firm pressure on the legs. This puts the body in balance without resorting to the sin of pulling on the bootstraps with the feet. A sculler should never pull his body weight up with his toes.* This stops the way of the boat. He should even be conscious of a slight pressure on his feet as the slide comes forward, or at least be neutral, as the arms and body angle are enough to allow the slide to move forward without effort.

When the blades catch the water for a stroke and the blades have to turn from the horizontal, do not for a moment think that the wrists do it all. It is the same principle as when the blades leave the water: let the water do it, turn the wrists slightly, **relax the grip** and start the leg drive. The water

will square the blades if given a chance. Remember the water is constant; use it.

Remember to start the pull with the legs. This sounds funny, but in effect the blade is put in with the legs. Again the scull handles will turn a few degrees in the relaxed hand. As the stroke is coming through never grip the scull handle tightly, but relax the grip and more or less make hooks of the hands. Gripping tires the forearms and is apt to cramp the muscles.

Correct breathing enters into the picture too. Always be conscious of breathing deeply, in and out of the boat, as greater lung capacity can be developed.

It is well to remember that when the arms, body and slide are forward, ready to "put the blade in with the legs," a hesitation is recommended. The boat is running; let all the useful run of the boat be used up before the next stroke. The virtue of that quick recovery pays off here. A shell will not run very long with the weight in the bow but will run out longer when the bow is higher.

The ultimate in sculling is the light racing shell. It weight only thirty one pounds and leaps ahead to the slightest touch of the blades. It requires great artistry to enjoy the pleasures of this boat. A sculler should work up to it from a more stable boat, not only to enjoy the relaxed pleasure of this frail craft but to prevent damage to it. One who has not served his apprenticeship in the wherry can never really enjoy the racing shell as he is always fighting it through lack of proper artistry.

For comfortable sculling, the pitch of the rowlock is very important, and should be checked occasionally. It should be 7 degrees or 8 degrees. The pressure on the fulcrum of the oar is on top, as the hands are on top of the handle. If the hands pulled from the bottom of the handle the pitch would have to be opposite.

***Drill:** One of the best drills for getting the body weight out of the bow via the blades and not the boot straps, is to take the feet **out** of the straps, then you have to **keep** the pull on the blades.

From Paul Enquist

When Brad and I got together after selection camp, the first thing we did in the boat together was a lot of technique work. The main description of the stroke we wanted to row was from these notes written by George Pocock. I had gotten a copy when I bought my first single in 1977 and still had them with me in 1984. At selection camp we only had time to try and blend with all the other scullers and as a result we both felt we needed to get back to basics.

The drill went like this; we would start arms only, feet out, legs pressed down and held down firmly, concentrating on shooting the hands away. This would progress to arms and body, add a little slide until at forty or fifty strokes we would be at full slide, then repeated as many times as desired.

This led to one of favorite practices done about twice a week. MCP or Maximum Concentrated Pressure. 3 x 2000m, at more than full pressure, feet out, max stroke rate of 18. It forces perfect blade and body control. The tiniest mistakes really show up.

All of our warmups and cool downs were done with our feet out. We even did some mental imagery work on the erg. with our feet out and usually without using the handle either. It's very possible, try it.

Believe it or not, our complete warmup for the Olympic final was rowed with our feet out. This included a 40 stroke piece at full race rate and a few starts. We put our feet back in after plugging in at the starting line. Brad even suggested that we row the final with our feet out. I didn't think that was wise in case of an emergency (crab).

Brad and I didn't feel we could win either the Trials or the Olympics on only physical strength and endurance. Our edge would be in mental preparation and technique. George's notes gave us the edge in technique.

Paul