

## SCRA TECHNIQUE WORKSHOP March 2018

### ‘Close Your Eyes And Pull Like A Dog’

Healthy rowing is effective rowing and is relevant to all rowing contexts whether they are recreational, social or competitive.

However I’m sure that we all understand that the inclusive and community oriented nature of our sport brings rowers to the boat who may not be capable of the type and range of movement that we are about to discuss. Maybe we can discuss potential strategies around that in due course.

I’m going to look at the function of each phase of the stroke, what it should look like from the cox’s seat, from alongside and what it should feel like to the rower.

If you find me saying ‘strong and stable’ then I apologise - it’s purely a convenient description of a feature of the optimum rowing posture.

As coaches we are in a fairly unique position as in the main we have to meet the demands of piloting and navigating the boat before we even consider our rowers. We don’t usually have the stability and security of a riverbank or a launch. This is why I think it’s important for us to be able to understand and describe the feel of the stroke so that our rowers are able to some degree to self check.

However we don’t need to shout at our rowers or use a megaphone and we are in a great position to communicate effectively with our rowers.

#### **Posture**

Posture will be a theme of this discussion, in particular the alignment of the head, shoulders and spine. I feel that it’s important for us as coaches to foster an understanding and culture and of good posture.

#### **The physical set up from a stationary start**

Feet spaced apart and in a stable position, legs flexed and braced with the knees below the level of the hips. The spine should be in a neutral position - *explanation of the neutral spine* - the core engaged, shoulders low and relaxed, arms fully extended, hands spaced apart, oar held by the fingers. ‘Sit tall!’ ‘Sit strong!’

#### **Moving towards the catch**

Rock forward through/over the hips until the hands are approximately over the feet. Maintain an engaged core with the head up. If it’s necessary to look at the oar rotate the head without compromising the alignment of the spine and shoulders. The rower should be balanced and controlled throughout this movement. Avoid slumping, dropping the head or over-rotating the shoulders towards the oar. A lunge towards the catch will reduce the potential power of the stroke by disengaging the core and could possibly also check the run of the boat

by loading an opposite force onto the footplate. Once continuous rowing is underway the catch should be seen as the final part of the recovery.

### **The catch**

At the point of the catch the rower should be balanced and feeling strong with the body prepared and aligned to generate a significant force. The oar blade should be placed at right angles in the water with the whole of the blade submerged but without burying the blade deep in the water. The blade should enter the water at the furthest point of the rowers reach, avoid rowing into the stroke and losing some of the potential energy with a partial uncoiling of the spring. The oar depth is controlled by subtle movements of the hands. At the same time as the blade entering the water the rower initiates the drive with a push of the legs, the blade should then lock onto the water. The grip on the oars should be relatively light and with the fingers. The rower will feel a connection with the water.

### **The drive (1)**

It should be remembered that during the drive the rower should be attempting to move the boat past the oar rather than move the oar through the water. The energy should be applied smoothly throughout the drive.

The drive is the power phase of the stroke. It is initiated by a pushing of the feet against the footplate with the heels positioned so as to provide a firm point of contact with the boat. The force applied should be equal on both sides of the body, this equal force should be maintained throughout the drive phase. The flow of power (the uncoiling of the spring) is generated initially through the leg muscles, then through the gluteus to the core and then to the strong muscles of the back. In order to ensure that this flow is efficient the rower should momentarily relax their arms at the very first point of the drive, this will ensure that the strong muscles of the lower half of the body are fully engaged. Encourage the rowers to 'hang on the oar', this will ensure that the lats are engaged which are the largest muscles in the upper body.

The knees should be aligned with the feet and hips during the drive and should not splay out towards the gunwales.

It's very much in the interest of the rower to avoid an early use of the arm muscles in the stroke as this will have the effect of bypassing the strong muscles of the legs and lower body.

The core should be engaged throughout the drive and the back should be held rigid.

### *Steve Redgrave Image*

As the body moves towards the bow it will reach an upright position at which the arms should remain extended. The point at which the most power is delivered to the stroke is when the oar moves through a right angle to the gunwale (this is the

orthogonal). During this arc the rower should be sitting tall and with the movement of the spine and body in line with the keel. The rower will feel that they are rocking over their hips towards the bow.

### **The drive (2)**

As the shoulders move over the line of the seat the power available to the stroke will start to diminish and it is now time to engage the arm muscles. The hands should move in a level plane towards the line of the solar plexus. An effort should be made to avoid moving the hands upwards during this phase as this will bury the oar and create a more circular stroke. The elbows should pointing downwards and not splayed out (chicken wings! ), if the elbows are too close to the body this may cause the shoulders to hunch. The shoulders should be low, open and square to the stern. The head remains still. The hips should open at this point. The body should not come back to more than 45 deg approx as any movement beyond this is biomechanically redundant. An overreaching lay back at the finish will mean a further distance to move in the recovery phase (involving a faster & possibly less controlled movement of the body). The hands should finish close to the body. A feeling of trying to accelerate the oar handle towards the body and of accelerating the blade through the water.

Avoid collapsing over the oar and dropping the head. It's key to develop a good understanding of the hand and body positions at the finish. There is a strong element of good core control and defining the movement/position may take plenty of practice.

A deep breath out should be made during the drive. It is the extent of the out breath that determines the extent of the in breath!

### **The finish**

At this point the blade should be extracted from the water by a downward movement of the hands. This should be sufficient only to take the blade from the water and to give it enough clearance for a smooth controlled recovery. This movement of the hands should be down and away from the body in order to initiate the recovery.

There should be some residual element of brace left in the legs at the end of the stroke. This will assist balance and a smooth controlled recovery.

### **The recovery**

Conserve momentum  
Set posture  
Synchronise

Ideally the shoulders should be held back in the finish position until the arms are fully extended away from the body. The body should then be lead towards the stern by the outstretched arms. Spine in neutral, shoulders open, head up, sitting tall as the rower comes over the seat - the rower should rock over their hips and

hopefully experience the feeling of the boat moving underneath them. Think of the recovery as being the preparation for the next stroke.

The hands should move in a smooth plane away from the body and the oar should be kept at an even height as close to the water as feasible given the conditions. Delicate adjustments of the hand are needed and this is a separate skill on its own.

It is very important to be continually aware that the boat is likely to travel further during the recovery than it is during the drive and so it is vital to conserve the momentum of the boat by moving in a controlled and disciplined manner, one that will allow the boat to flow.

As the rower approaches the catch they should accelerate slightly and raise the hands gently and smoothly to bring the blade into the water.

Come forward light on the feet, holding the momentum of the recovery in the body or against the footstraps. A lurch forward will push a counter momentum against the footplates and check the boat.

A conscious deep breath inward should be taken during the recovery. This will assist the timing and rhythm of the stroke.

### **Oar depth**

The blade should be covered but if it strays too deep it can be difficult to extract and can cause drag. A blade that strays too deep can be a symptom of a circular stroke. A circular movement of the oar can affect stroke length and create slippage.

### **Timing is paramount!**

Good timing can produce great rowing - at any standard.

Synchronising the stroke is best done through following the body and hands of the stroke rower. If you follow the oar you are looking at the effect of the rower's movements, if you follow the body and hands you are looking at the cause.

### **Amplifying power**

The power in the stroke is generated through the leg drive, this then transfers through to the gluteus and then to the back and then the arms.

In order to optimise this flow of power and the movement that comes from it the rower should try to control the flow in an optimal manner and to time the sequence so that the power flows naturally through the feet to the hands and the oar blades.

### **Skills**

The simple sense of pleasure and achievement in acquiring a new skill. Break down the stroke into more than the four bare elements, the sense of progression will keep the rower engaged in the learning process. This a significant feature of

the St Ayles context - there are so many skills to learn from planning and fund raising, through the build and to rowing and competing.

**Ratio, balance, rhythm, tempo, physical awareness, flow**

**Stroke efficiency, stroke length, metres per stroke, energy leakage**

**Core strength, flexibility**

**Problems/faults/context**

**Coaching strategies**

**BR Rower Development Guide**