Mechanics of the Dragon Boat Stroke

Basic Principles

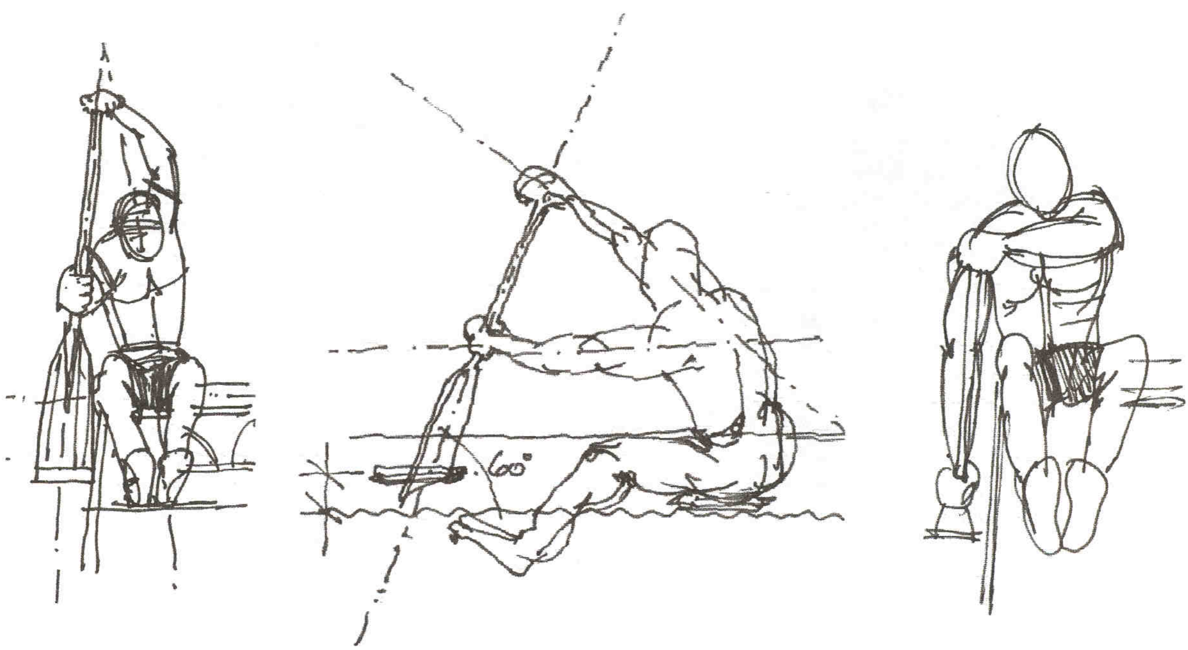
1. The Dragon Boat Stroke should use paddle leverage and body mechanics to the best advantage, to ensure the greatest continual degree of water connection (ie: effective resistance), through all phases of the stroke.

2. Finding the greatest degree of water connection may require a degree of stroke variation from individual to individual. This may depend on athlete height, flexibility and sport specific fitness. It also depends on the seat position in the boat.

3. Proper stroke mechanics is dependent on work intensity. The higher the intensity, the more dynamic the stroke tempo needs to be, therefore requiring each athlete to adjust as necessary and the entire crew as an overall result.

4. The "ideal" stroke must be adaptable to the glide characteristics of the hull, i.e.; different hulls may require a different stroke technique for maximum hull speed (each hull provides different drag co-efficient based upon water displacement, hull shape, reaction to water shockwaves etc.). The following technical framework relates best to the GWN BUK racing hull.

5. Although we will break down the stroke into various phases, it should be seen more as a seamless "one piece" motion of activity resulting in a fluid pull-recover cycle.



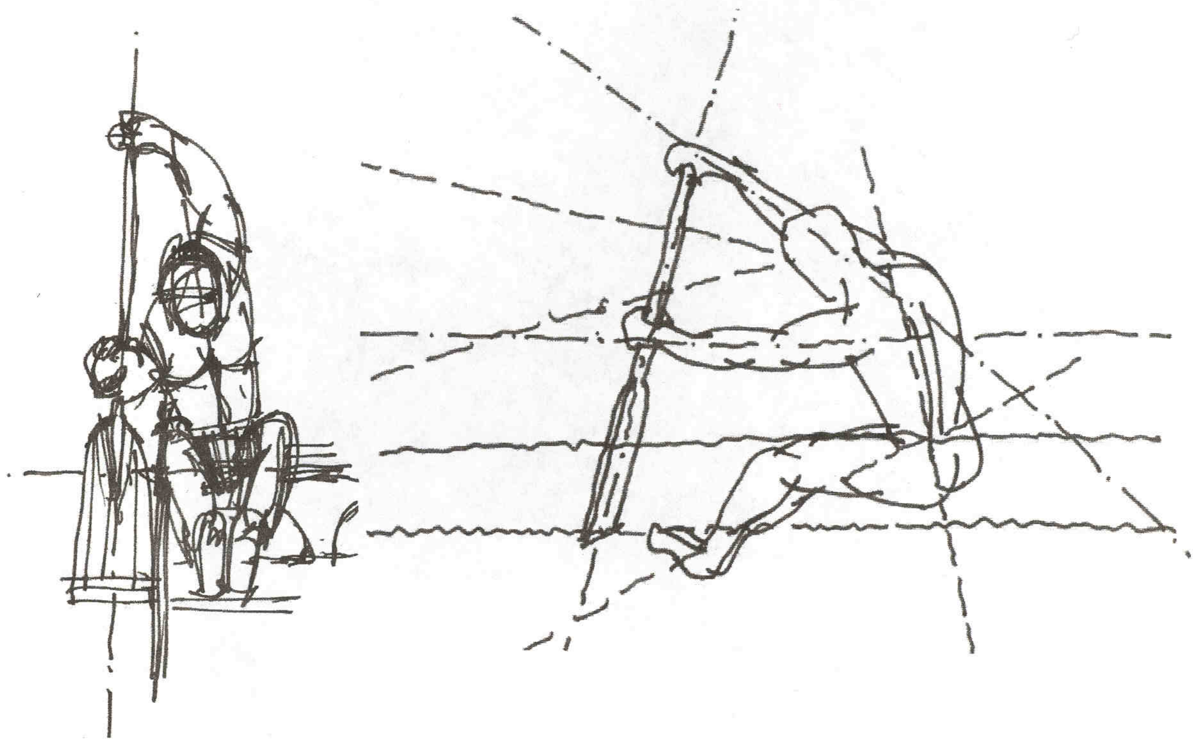
Technique of the Stroke Cycle

Set-up:

- The set-up is generally the typical "A-Frame" in position with a rotated torso 45 degress to the neutral position, (the neutral position being an upright relaxed body position prior to an forward movement with the paddle), stacking the shoulders helps to form this position, and the paddle line is square to the water.

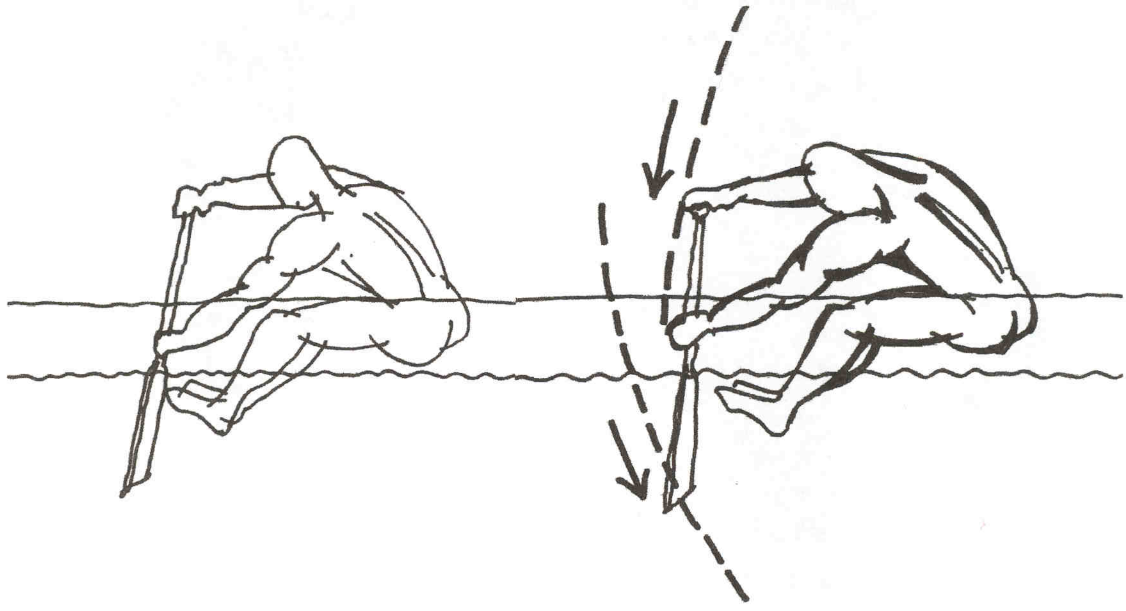
- Paddle position is at a positive angle of 60 degrees to the water with the tip about 4-6" above the water line.

- Top arm should be relatively straight to prepare for the support weight of the catch press.



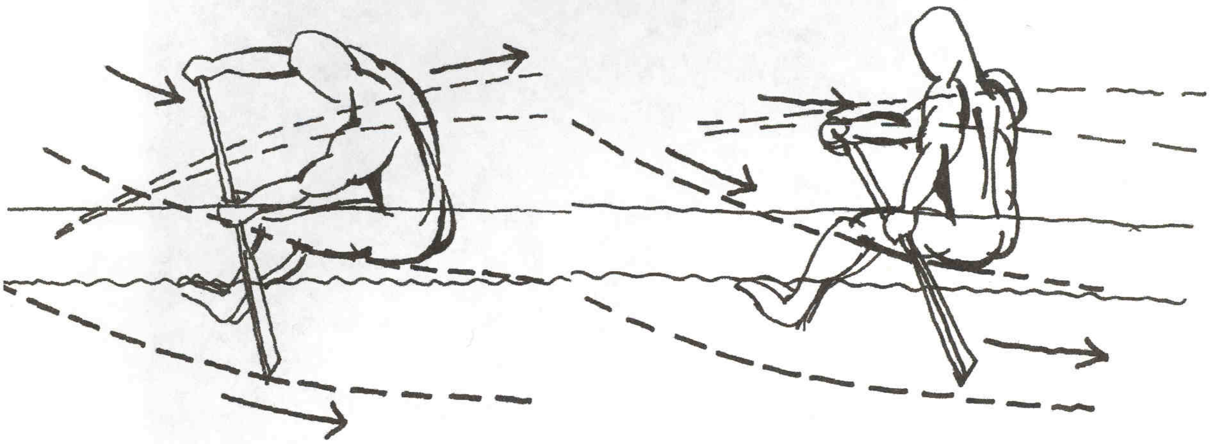
Catch

- The catch is a marriage of body momentum and arm speed working together to ensure the best possible point of impact.
- A sense of slight muscle pre-contraction helps to load up the internal body support to ensure the initial connection to the water is of the highest quality.
- Care must be taken to ensure that the paddle does not arc to the water but goes as straight down as possible to preserve stroke length and blade angle.
- The body and arms should feel the catch with a balanced load to ensure all the big movers (back and core), are prepared to contribute in the mid-phase pull.
- The blade should maintain some positive angle press to move the boat forward during the catch, much like the sculling motion of a freestyle swim stroke catch.
- The paddler is also trying to produce a balance between the downward pressure exerted by both arms driving the paddle into the water - too much top hand pressure may result in early de-rotation and loss of positive blade angle.



Pull

- The first half of the pull phase should ensure the paddle tip continues to down to the lowest point of the stroke arc, with the body beginning to de-rotate.
- Proper pre-contraction (core and shoulder) helps to set the body support to begin to sit-up. This feels like the stroke is being pressed down as the body goes up, much like a pole vaulter going over the pole. Care must be taken not to drop too much or the body cannot sit up fast enough.
- The back half of the pull phase uses the final part of de-rotation and sitting up to ensure that the connection to the water is maintained in an accelerated motion.
- The back half of the stroke requires a degree of leg push, continued core support and outside arm support (maintaining a straighter outside arm), to continue to press for resistance as the body weight support is finished. The paddle should feel like it is fully buried until the last possible moment.



Exit / Recovery

- The exit will be quick as the speed of the final part of the pull phase initiates the paddle leaving the water.
- The shoulders will be back to a level position and the upper arm will roll in to allow the maximum relaxation during the recovery.
- The front half of the recovery phase will allow a slowing down of the body and arm speed to ensure that the correct set-up and pre-contraction is engaged for the next stroke.
- The essence of the recovery is for a fast preliminary exit to allow for a deliberate and dynamic set-up position. "Exit quick - set-up slow"