SCULLING FROM THE INSIDE OUT

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"The real act of discovery consists not in finding new lands, but seeing with new eyes."
- Marcel Proust

AS A PREFACE: BELIEFS THAT WILL FACILITATE SCULLING "FROM THE INSIDE OUT"

- Embrace the concept that sculling needs to be understood from more than one perspective.
- Prioritize technical development, ever increasing awareness, and ongoing satisfaction.
- Study the "sages" and seek sources of insight outside the world of sculling.

A.) EMBRACE THE CONCEPT THAT SCULLING NEEDS TO BE UNDERSTOOD FROM MORE THAN ONE PERSPECTIVE.

* Exercise and competition are important but the artistry and sheer physical exhilaration of sculling are also immensely valuable. The numerous ways to experience sculling need to be nurtured in a holistic and non-hierarchical way. The age of the sculler and their training environment frequently makes this foundational principle of the learning process very challenging.

B.) PRIORITIZE TECHNICAL DEVELOPMENT, EVER INCREASING AWARENESS, AND ONGOING SATISFACTION.

* Promote the idea and convince the sculler of the fact that skill acquisition is an ongoing, life-long process and that the sculler's subjective, qualitative experience of their sculling is significantly more valuable than quantifiable, competitive achievements. The learning process takes time and a "centered mind". Being in a hurry limits awareness. Strive for quality not quantity. The English sculling coach who prescribed "hundreds and hundreds of miles of sweet sculling" was very wise. It is especially important to remember that technical acuity and optimal conditioning need to be nurtured in concert together!

C.) STUDY THE "SAGES" AND SEEK SOURCES OF INSIGHT OUTSIDE THE WORLD OF SCULLING

* Examples abound and the more eclectic the sculler's base of knowledge and experience the more potential for broad integration and enhanced insight. Especially relevant and helpful is the observation and the study of performing artists; dancers, vocalists and musicians. Seek familiarity with Eastern philosophy and the meditative disciplines. An understanding of the underlying philosophy of movement therapies; The Feldenkrais Method or Alexander Technique for example, can also be very enlightening. Exposure to the field of psychology and an awareness of your internal "dialogue" as it effects your ability to process, gain insight and learn from internal and external feedback is extremely important. For me, quotes from Shunryu Suzuki's book "Zen Mind, Beginners's Mind", have been very powerful and transcendental.

CORE AWARENESS

- Core awareness is fundamental to sculling "from the inside out"
- Definitions of "the core" vary. A good start is to think of the core as the totality of the large muscles of the hips/mid section acting in unison with the muscles of the chest and mid back
- Perform exercises just before sculling to bring awareness to the core

(Suggestion: periodically study charts of the human skeletal and muscular system......to help you visualize how your body is functioning as you perform the following familiar movements)

^{*} squat jumps or hopping-done at less than full intensity for the movement sensation and not primarily for exertion. Hanging on a bar with palms facing away, knees to the chest

^{*} arms hanging at your sides - swing arms together front to back and side to side. Then swing arms in an alternating pattern. Keep fingers loose

^{*} shrugging the shoulders with an awareness of loose, light fingers

 $^{^{}st}$ keeping your weight on the balls of your feet - sway at the hips while maintaining a soft gaze

ON-WATER ENGAGEMENT/ACTIVATION OF THE CORE

- Key exercise: weight shift
- Begin to scull with seat fixed-swinging motion of torso shoulders and arms as one smooth motion
- Fixed seat sculling with "feet out"; the result will be an intuitive activation of the core to facilitate movement; the alternative, pushing and pulling, generates instability, tension and a loss of connection to the foot stretcher and the oarlocks
- Slow, incremental increase of hip flexion until shins are eventually perpendicular to the water

A.) KEY EXERCISE

- * legs extended, sculls perpendicular to the keel feathered on water, feel weight of hands, arms, shoulders RESTING on the handles of the sculls, thumbs lightly in touch with ends of the sculls. Fleshy part of the hands just below the roots of the fingers is where contact is made with the handles of the sculls.
- * on sit bones, stomach and lower back muscles firm, shift weight starboard as far as possible. Hold 1-3 seconds. Shift back to level. Shift weight port as far as possible. Hold. Repeat. Perform this exercise very slowly for at least 1 minute or as long as your level of patience will allow.
- * during this tipping exercise keep your balance through your thumbs which are against the ends of the sculls. DO NOT let your fingers reflexively grip the handles if you feel like you are going to fall out of the shell. "Find" your balance against the oarlocks.
- * sense the continuous pressure that the weight of your upper body exerts on the handles
- * feel the weight of your feet/legs resting on the footstretcher

B.) BEGIN TO SCULL WITH SEAT FIXED-SWINGING MOTION OF TORSO SHOULDERS AND ARMS AS ONE SMOOTH MOTION

- * torso swing when sculls are in the water achieved by smooth contraction of the gluteal and hamstring muscles
- * torso swing when sculls are out of the water by smooth contraction of the hip flexors and abdominal muscles
- * lift elbows upward but keep them slightly lower than the height the handles relative to the surface of the water. Motion of the elbows is parallel to the water surface.
- * let the blades skim the water and remember to maintain the sensation of relaxed weight on the handles as well as the sensation of continuous pressure.
- * review position of the hands and thumbs; NO GRIPPING, LIGHTLY WIGGLE FINGERS AND TOES continuously.

C.) FIXED SEAT SCULLING WITH "FEET OUT"; THE RESULT WILL BE AN INTUITIVE ACTIVATION OF THE CORE TO FACILITATE MOVEMENT; THE ALTERNATIVE, PUSHING AND PULLING, GENERATES INSTABILITY, TENSION AND A LOSS OF CONNECTION TO THE FOOTSTRETCHER AND THE OARLOCKS

- * loose feet/toes and light hands/fingers with no gripping.
- * substantially reduce the probability of falling out of the shell by making your shoes loose enough so that your toes are unencumbered and there is about an inch of space between the dorsum (top) of your feet and the inside of the top part of your shoes. Clogs or straps that are loose are also very functional. With either approach the effects of sculling "feet out" is achieved with much less risk of falling out of the shell.
- * loose feet even in the finals of the Olympics !!!
- * SLOW INCREMENTAL INCREASE OF HIP FLEXION UNTIL SHINS ARE EVENTUALLY PERPENDICULAR TO THE WATER

CONTEMPLATE THE FOLLOWING IDEAS/ CONCEPTS OFF THE WATER.

- They all implicitly follow from core awareness/activation.
- Over time they will eventually inform your sculling aptitude on the water and will naturally lead to further insights.
- A generalized mental image while on the water of the ideas/concepts that were abstract thoughts on land is sufficient.
- Think on land, but feel on the water.

CONCEPT A:

- Sculler, sculls, and shell is a unified system.
- Move the system relative to the shoreline not you, the seat, and sculls relative to the shell.

CONCEPT B:

- Search for the timing of the blades leaving the water in a way that leads to a pivot on the sit bones/bow-ward hip thrust of the seat/shell.
- This establishes what coaches frequently refer to as the "body over" position.
- At this point, contraction at the core especially where the hamstring muscles attach to the sit bones and aggressive dorsiflexion of the ankles, in combination with core action of the torso directed laterally to the oarlocks using the sculls, allows the sculler to move the shell bow-ward under the seat.

CONCEPT C:

- Let the sculls always lead.
- To achieve this goal, visualize continuous vertical weight shift (air or water phases of the stroke including the transitions) using a continuously activated core.
- This is a key concept, but can be difficult to achieve because the natural tendency is for the average sculler to try and push the blades through the water or push the handles sternward and reach in preparation for the next stroke.

CONCEPT D:

- Remember that sculling is a way to move over the water.
- Insight into the nature of the movement requires less effort, not more.
- Keep an activated core musculature and aspire to feel all the body parts moving together in concert with the sculls and the shell.
- Avoid segmented movements (legs-back-arms/arms-back-legs).

CONCEPT E:

• Do not struggle for the exact replication of a particularly pleasing stroke, but instead embrace the idea that every stroke is unique and instructive... and continuous change and adaptation is what makes sculling appealing.

CONCEPT F:

- A "good" stroke today will most likely be a "lesser" stroke tomorrow.
- Be an observer and not a judge... and enjoy the moment!

CONCEPT G:

- A light touch, ease of balance, and the possibility for precise timing at the turns is facilitated when you give up holding the sculls.
- Let the whole of your torso rest on the handles and let the sculls rest on the oarlocks.
- The downward force present as a function of the mass of the torso and the sculls holds the oarlocks down and has the added effect of moving the shell bow-ward under the seat.

CONCEPT H:

• The sculls and the foot stretcher are points of reference where weight that is resting on the sit bones is evenly transferred - using the muscular contraction of the core – continuously.

CONCEPT I:

• If you want to go faster: transfer more weight, more quickly to the ends of the sculls soon after the sculls leave the water.

CONCEPT J:

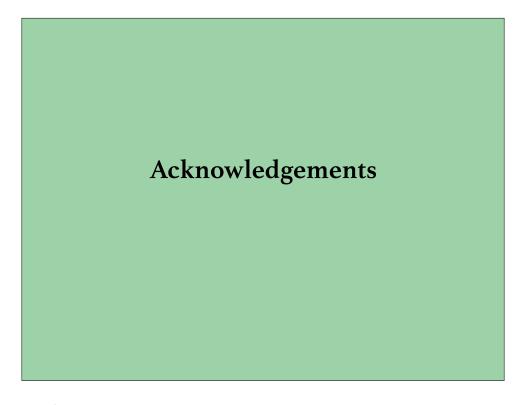
- Discard the idea of sculling "harder" and substitute with the concept of a quicker core contraction.
- A higher cadence will result, as well as a higher average velocity.

CONCEPT K:

- A major key to rhythm is the interaction of core activation with the movement of the blades in the water.
- Study the Concept2 animation.

CONCEPT L:

- Successful use of the core cannot occur if one handle is above the other, because the shell will tip and the weight on the sit bones will be uneven.
- Instead, the sculls will automatically become juxtaposed one to the other as the resultant effect of core activated weight shift between the oarlocks... if sufficient height differential between the oarlocks has been established.
- Sculling is not a perfectly symmetrical activity. The challenges of sculling are very similar to the technical/rhythmic challenges faced by two rowers in a pair.
- Hand/leg dominance has to be taken into consideration. The higher oarlock should be the oarlock that corresponds to the sculler's dominant side.



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