THE ART OF SCULLING

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Introduction

As we all know, a little learning is a dangerous thing. But a great deal of highly specialized learning is also a dangerous thing and may be sometimes even more dangerous than a little learning. One of the major problems of higher education now is how to reconcile the claims of much learning, which is essentially specialized learning, with the claims of little learning, which is the wider but shallower approach to the human's problems in general.

From Aldous Huxley's *"Intergrate Education"*

Huxley voices his concern over the trend towards specialization in education. His anxiety over "much learning" seems to be shared by **Richard Burnell** as it relates to the training of the sculler. In his book, *The Complete Sculler*, Burnell writes that it is not enough for the sculler to be"...just strong, or skillful, fit or well-prepared." The sculler's learning must encompass all aspects of the sport.

The sculler is a skilled athlete, an artist, reaching constantly for more sublime levels of skill and performance. His or her sculling is an art form — beautiful, graceful, powerful, rhythmic and speedy. In the following pages a detailed explanation is offered by which this form can be developed. This is the art of sculling.

A General Concept of the Sculling Stroke

For fifty years, until his death in 1971, **Robert Fitzpatrick** of Canada taught an effective sculling stroke. Fitz thought that it was important for each student-sculler to develop a clear image of the mechanics of sculling "in the mind's eye". In outlining Fitz's general concept, three aspects of the stroke cycle are sketched before moving into the area of specific movements:

i) The Overall Body Motion
ii) The Body Motion in Relation to the Shell
iii) The Bladework

i) *Body Motion*

The body, with the exception of a slight pause of the back and legs at the finish of the drive phase, is constantly in motion. Various writers have referred to this, as "the continuous cycle". Each phase of this cycle is intimately connected to the next, resulting in a very fluid, effortless motion. For the body to move in this manner, symmetry, muscular control, balance, accuracy and good posture are essential. The last characteristic cited may be the most important — posture. **Bill Bowerman,** University of Oregon Track Coach, writes that "Good posture is essential for good body mechanics." The sculler approaching this art as an interminable learning process aligns his body to refine the movements and to utilize his energy effectively. Unnecessary "erratic" and "harsh" movements are eliminated.

ii) *The Body Motion In Relation to the Shell*

Richard Burnell writes, "Rhythm is sculling in harmony with the movement of the shell." The sculler learns to feel and monitor the individual physical movements and the body coordinated with the shell and sculls. This feeling comes through the hands, shoulder-arms, feet and buttocks. With time and practice the sculler begins to blend with his immediate environment — shell, sculls and water. This "complete" athlete, sculler, is synchronized with the run of the shell, applying constant pressure on the drive, and returning with a relaxed effortless recovery. The sculler learns to move his bodyweight effectively throughout all the phases of the stroke.

In the early stages of practice and develpment the athlete must slow the movements of the skill in order to maximize the effect of the body striding. This is true for skating, swimming and sculling. With practice and experience these perfected, rhythmic movements become ingrained and unconscious. **Ernie Arlett** supports the importance of good controlled body movement when he writes "What happens in the boat provides efficient bladework and a controlled recovery that capitalizes on the bladework."

iii) *Bladework*

The importance of the hand grip is usually recognized as the main factor in acquiring good bladework — accuracy, timing, control. The sculls are held in a relaxed fashion between the fingers and the pads of the hands. This hand positioning allows for maximum "play" between the hands and the oar handles without sacrificing control. However, it is equally important to relate the action of the blades to the total body movement. The tendency may be to consider the bladework as an isolated facet of the stroke cycle rather than a natural extension of the overall body motion. If the body movements are effortless, the bladework is probably characterized by an easy flow from feathering to squaring — flexible. The blades are set into the water and removed neatly, accurately and quickly. The blades, like the body motion are continually in motion. There is a definite "blending effect" in the relationship between the sculler, his shell and the sculls. The key to maintaining this delicate relationship is found in the "even pressures" on the blades in the water. **Eugen Herrigel,** in *Zen In the Art of Archery* provides a parallel image. He writes:

> We master archers say: with the upper end of the bow the archer pierces the sky, on the lower end, as though attached by a thread, hangs the earth. If the shot is loosed with a jerk there is a danger of the thread snapping. For purposeful and violent people the rift becomes final, and they are left in the awful center between Heaven and earth.

The power at a constant pressure on the blades is the "thin thread" between sculler, shell and water.

Specific Technical Considerations

"It requires less effort to get fit than to acquire technique...Just as it is necessary to get fit each season, so it is necessary to overhaul and improve technique."

Richard Burnell's words echo the feelings of the master dancer, the ultimate athlete and the old professional sculler. Each season, they concentrate upon evaluating, revising and refining various movements comprising the form.

i) THE STROKE CYCLE

ENTRY

The combination of good, fluid posture and accurate bladework produces an effective beginning. It is understood that the timing between the inboard and outboard is precise; the extended body, seat and blade arrive at "full reach" simultaneously.

The ingredients of "good posture" include general body symmetry, extended arms, level wrists and hands, and erect carriage. The upper body is fully extended from the hips.

The hands and feet feel the pressure on the blades, allowing the bodyweight to be used effectively during the drive phase. The blades move quickly, without check, from the recovery into the drive phase; the squaring action and anchoring at blade depth are accomplished quickly and fluidly. In order to initiate this effective entry, the balance achieved during the recovery must be maintained through the brief entry phase.

DRIVE

The beginning of the drive in a sculling boat is theoretically a relatively simple affair; the arms, back and legs move simultaneously. Thus, the action of the body is synergistic with a strong fluid arm pull ably supported by the action of the leg and shoulder muscles. The resulting effect is that the back and legs will finish together, shortly before the final action of the arms. The wrists remain level or flat throughout this phase of the stroke. The modern longer slide bed tends to make the movement of the upper body less pronounced in comparison to the earlier orthodox body swing. A strong steady leg drive gives the stroke length and allows the bodyweight to be employed effectively. The legs commence the drive splayed, ideally with the knees under the armpits. This symmetrical position helps to maintain balance and gives the "internal" body room. The muscle action of the legs is sequential, radiating from the balls of the feet upwards through the calves and thighs. The hands and shoulders remain relatively level. The blade pressure is constant as the blades "grip" or "cup" the water — eliminate slippage. However, the sculler must be conscious that the arm pull during the later stages of the drive is maintaining pace with the speed of the shell.

The tendency is to rush this phase of the stroke and hurry into the recovery. If you wish to control your recovery speed, make your drive more effective by maximizing the power application through the arms, legs and back. This is the thermostat for the stroke cycle.

RELEASE

This is the key to the continuous motion or cyclic nature of the stroke. The release, or rounded motion, is the follow through of the drive. In order to have an effective release, the upper body and legs combine to form a strong, balanced base of support for the controlled, coordinated arm and hand action.

Specifically, the arm action utilizes the ball and socket joint of the shoulder and the hinge joint of the elbow to rotate and extend the arms in a smooth effortless turn. As you refine this motion try to minimize the use of the wrists by allowing the oar handles to "play" in your hands. It is important to keep the wrists level as long as possible.

The movement of the arms, hands, wrists and upper body are performed sequentially in an unhurried fashion. Fairbairn referred to this aspect of the stroke as being elastic. The total body moves from a state of high tension to a state of relaxed control on the recovery.

RECOVERY

The bodyweight is balanced and evenly distributed over the seat. Bob Fitzpatrick, with a twinkle in his eye, would suggest to sit lightly to allow the breeze to blow between the buttocks and seat.

An erect posture originating from the hips allows the body angle to change fluidly throughout the recovery. In the early stages of a sculler's development this is a conscious action but with practice becomes part of the subconscious. The arms and hands move upwards slightly during the final stage of recovery and this counters any pitching of the upper body. The intricate timing of the body, seat and blades is contingent upon this controlled, fluid, body swing. The "swing" is effortless, allowing the body to rest while the shell is "running" unchecked between strokes. The arms during this phase are relaxed at the release end and slightly tensed at the entry end. This recovery of the body and arms is the keystone in the arch.

THE SWING AND FLOW OF THINGS

There are similarities between the sculling stroke and the golf swing. Their motions are timely, controlled and effortless. In the summer of 1976 I was fortunate to witness **Ben Crenshaw** play a round of golf in the Pleasant Valley Classic. Each swing by Crenshaw was a marvelous, awesome display of controlled power. At the time my mind conjectured the speed of the sculler who could harness center and utilize his strength as effectively. Most sportsmen appreciate intrinsically the beauty of a co-odinated swing whether it be from a baseball bat, a golf club, or a pair of sculls.

If an observer wishes to probe more deeply into the intricate structure of the stroke cycle, he or she can discover subtleties and messages that mirror life. The alternating demands of each stroke parallel the vicissitudes of life: the cycle is a symbolic microcosm.

The sculler is poised and ready before entering the stress of the drive phase. The body position is balanced and strong. The arms tighten slightly. All the energy reserves of mind, body and spirit are mustered. This energy is not dissipated suddenly with a brief display of force, rather, it is dispersed in an orderly and sustained fashion. There follows an easy and fluid transition from the stress and tension of the pulling into the recovery phase; the unhurried movements of the drive sets the stage for a controlled recovery. Our poise and control under stress gives us a certain bearing in quieter moments. There is an obvious flow and integration in the sculling motion. We have seen this characteristic in people outside the confines of a crew shell; with a moments reflection each one of us can recall an acquaintance who has this quality. Talented athletes such as Bobby Orr, Gordie Howe, Bob Pearce, Carl Yastremski, have displayed this quality — the presence of mind and body.

Interestingly enough, the distinct phases tend to complement one another. The timing of the entry improves with an improvement in the timing of the release; the control of the recovery is indirectly related to the controlled dispensing of power during the drive. Herein lies the paradox of the cycle. Where you expect a relaxed state, some tension occurs and is needed; the opposite occurs where there is a need to relax under stress in order to move effectively. It is these very paradoxes that add so much color, balance, vitality and beauty to sport, sculling and life itself. I am reminded of Frankl finding meaning in life and the horrors of Auschwitz and Coningsby Dawson's Living Bayonets, which provides an account of the severely wounded soldier smiling, as he is carried from the battlefield in France of 1918.

It is easy to reduce these four phases, entry, drive, release and recovery to simple efficient physical movements. But we can choose to elevate the skill to more sublime levels that heighten our psycho-physical awareness and consciousness. In the process we are transformed to more sensitive human beings. The body movement in the shell is something more than the index of our training and experience, it can indicate the level of sculling and the sculling mentality.

THE SCULLING MENTALITY — "The eager mind in the lithe body."

The purpose of the complete sculler is to refine the movements, so that they are fluid and controlled. Obviously, this process has a pronounced impact upon both mind and body: an effortless physical motion is achieved so too is an increase in awareness, confidence and sensitivity along with an effortless physical motion. In regard to the development of mental sensitivity, I recall a situation that involved Bob Fitzpatrick and one of his pupils. During a particular practice Bob reached for the megaphone to make a comment to the sculler. He observed Bob's movement and almost immediately made the necessary technical adjustment without a syllable having been uttered. According to the impeccable Fitzpatrick, this amazing development occured on two more occasions during the course of the practice — a beautiful example of intelligent sculling and coaching. Thus, the sculler "plays" at a conscious level to refine movements that overlay a whole strata of subconscious rudimentary motions. The sculler strives to achieve higher levels of performance much in the manner of the artist. Nureyev writes, "I cannot sit. I must dance. I must reach for those newer and newer and still newer levels of exultation." Fitzpatrick recognizes the key to those more sublime states of performance lay in technical improvement.

This suggests very emphatically that an Ivanov at 28 years was significantly improved as a sculler over the Ivanov of 18 years. And every serious sculler ought to recognize that this art involves prolonged and intensive study. **Jim Barker** of Philadelphia Undine tells his students: "Learning to scull is similar to a four year college education." Each season brings not only invaluable new racing experience but also new technical challenges as there are 'many levels to sculling'! With this in mind, the sculler is well-advised to approach this art with humility, appreciation and attachment. The latter quality suggests his ability to concentrate and center his total mental and physical energy upon the learning process. The important presuppositions are that the sculler realizes how much there is to learn, that he or she desires to learn, and has a deep appreciation of the skill involved.

In this intensive study the mind and muscle (proprioception) are trained to be sensitive to the individual movements and the movement of the body in the shell. This awareness or sensitivity is largely centered in the hands as they monitor the neat, accurate entry of the blade and fluid even pressure throughout the drive. Other specific locations in the body, namely the shoulders and legs, will also feel the effect of efficient, productive bladework. At the more advanced levels of sculling a very high degree of monitoring and bio-feedback is occuring. The coach merely reaffirms the skill of the performing artist. He is the rather odd combination of parent, video and choreographer.

Both principals, tutor and student employ the utmost degree of patience and self-control so that this transformation can proceed smoothly. Again, all the participants seem to be developing a certain "presence of mind." Eugen Herrigel wrote: "Wait patiently and see what comes — and how it comes."

The learning process cannot be hurried. Fitzpatrick felt that you were working with nature; human nature in the broadest sense — mind, body, spirit. With the full development over the years of each of these aspects of "fitness", the basic bodily movements are easier to perform, appear unhurried and relaxed. With this type of approach the learning process is enjoyable and there is a high degree of self-realization on the part of the student and teacher that progress has been made. However, "time does run out each season", as the competitive phase creeps in and the artistic skills become secondary to the art of racing. In the face of this new demand it is worthwhile to step back and weigh the words of Shivas Irons, the protagonist in Golf in the Kingdom. "I see the distorted swings, the hurried rounds, note the electric carts tae (that) ruin the courses and rob us of our exercise. And the configuration o' physique that shows me how twisted lives twist our bodies." Despite the demands of competition, attention must be given to the means, the technical development. Shivas is really telling us to be attentive to the pace of the shell, the race and life. Many a coach has exhorted his crew and scullers to row their own race. **Karppinen** seemed to display this ability at Montreal.

It is implicit that as much skill and fitness competence as possible must be developed before a person is scheduled to race. The young sculler can be easily demoralized if he or she is raced without the benefits of adequate training. This competence and confidence are developed by miles upon miles of good "sweet" sculling until the move become more automatic and the mind is attuned to the totality of the situation. The early practice sessions each spring are primarily concerned with improving the kinetics and as the racing season approaches, the psycho-physiological aspects become even more important. There is a definite symbiotic relationship between these two aspects of the skill development, that is,