

We open a new section in the Newsletter, which will show a close-up portrait of a coach. An emphasis will be made on how the coach uses biomechanics and other sport sciences.

### Biomechanics and Coach: Paul Thompson



Paul Thompson (nickname Thommo) opens this section not only because I have known him quite well for a long time, but also because he is one of the most scientifically oriented coaches I have ever known.

Paul's rowing career begun at Telopea Park High School in Canberra Australia in 1978, when he was 14. Then he moved to nearby Narrabundah college and was coached by well known rowing coach Peter Shakespeare. The coaching must have been effective as Paul won the National Junior Championships. He was selected for the National junior team and came fourth in the pair at the FISA Junior Championships in 1982 in Piediluco, Italy.

In 1985 Paul was a member of the Victorian eight that won the prestigious Kings Cup, a race against all the Australian states. This crew was coached by Brian Richardson who went onto coach many medal winning crews for Australia and Canada. Also in 1985 the Australian Institute of Sport (AIS) in Canberra opened its rowing program and Paul gained a scholarship with it. Coached by one of rowing's most famous "hard men" Reinhold Batschi, Paul won a silver medal in the eight at the 1985 Match des Seniors in the eight and four National titles altogether. That year, Thommo was to encounter sport science for the first time represented by physiologists Dick Telford, Doug Tumulty and Alan Hahn. Physiology testing on a Gjessing ergometer required huge Douglas bags for measuring oxygen consumption.

After a wrist injury in a car accident, Paul ended his athletic career and turned his attentions to completing his studies at Canberra University where he graduated with an Applied Science degree. In 1988, he moved onto a scholarship coach position in AIS under Batschi's mentorship. That year he worked along side Alan Hahn with the pilot Talent Identification Scheme where he identified Megan Still. Paul was to coach Megan through her career to become World and Olympic Champion in the Women's Pair.

In 1990, Paul became a senior coach with the women's squad at the AIS. At this time, sport science was on the move at the AIS. A newly opened building was dedicated to Sport Science and its use rapidly expanded. Paul was able to work with world recognised experts in Physiology, Psychology and Nutrition. Rowing Biomechanics was introduced by Dr. Richard Smith of Sydney University, who brought to Canberra his telemetry system that measured oar force and angle. AIS biomechanist Mario Lamontagne made film-shots from a bridge to define oar angles.

In 1992 AIS acquired its own telemetry system, developed an instrumented ergometer and employed the first full-time rowing biomechanist, Peggy McBride. From that time regular biomechanical testing on water and on ergo was in-

troduced in day-to-day training. That was bits and pieces, which gave very impressive results: during Olympics-1996 in Atlanta Australia became the best rowing nation and won 6 medals, two of them gold. One of the gold crews, the women's pair Slater/Still was coached by Thommo. That was a great success for the young 32 year old coach.

I met Paul in 1998, when I went to work at the AIS. The previous biomechanist, Conny Loshner/Draper, introduced Thommo as a "hardman", but I found it was really interesting and challenging to work with him. He was a coach, who used Biomechanics more than others. With the newly developed Immediate Feedback System ("virtual goggles") we tried to improve the technique of a new pair combination Slater/Taylor, which then won silver in the Sydney Olympics in 2000.

In late 2000 Paul took up a new challenge and was appointed to the position of lead coach (Women) with the Amateur Rowing Association. He achieved success in the UK when the pair of Grainger/Bishop won the World Championships in 2003. Great Britain won three medals in the Women's events at the Athens Olympics, a Silver for Grainger /Bishop in the pair, a silver in the quad and a bronze in the double.

Late in 2004 Paul was promoted to the position of Chief Coach for Women and Lightweight. During the last Olympic cycle, the Women's and Lightweight Squad won 16 Medals at World Championships and at the Beijing Olympics. In Beijing, the squad had six boats in the A final and won Gold, Silver and Bronze medals. During this period Paul coached the Women's quad to three world titles and a silver medal in Beijing.

Paul has continued to use science as a core component of his programme utilising the resources at GB Rowing, at the English Institute of Sport, at the Olympic Medical Centre and at partner institutions such as Imperial College.

Paul works on biomechanics with his crews on the water by developing long strokes and tries to optimise rigging by adjusting it better to the rower's anthropometry (RBN 2001/11). He uses force curves and tries to define the most efficient rowing style (RBN 2001/07). The path of the blade through the water is also very important as it can increase blade efficiency with less slippage. He continuously uses normative boat speeds at various stroke rates by use of spreadsheets (RBN 2004/03, 2005/10). He uses "goggles" for immediate feedback during technical sessions.

Thommo's coaching philosophy includes sport science as a tool to get better insight about the processes which influence the athlete during training and competition. He feels privileged to have worked with some outstanding scientists and coaches that have left their mark on him and on the squad's programme and on their results. He is obviously a "materialist" in this way and tries to use science as effectively as he can. However, he believes in some ideal essence in a human being, and that coaching will never be replaced by an industrial process. Rowing is about moving boats, but people as well. For every successful athlete there is a coach and dedicated support team behind them.

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