



**WORLD
ROWING**
COACHES CONFERENCE

2010 - COPENHAGEN, DENMARK



Optimisation of Rowing Performance and Training

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I have been asked to share some of my personal coaching experiences in four different systems to date:

GDR 1987 – 1990

USA 1991 - 2000

China 2007 - 2008

Germany (again) 2008 - present



- Athlete myself
 - Spare Olympics 1980 – then quit (didn't like the coach)
- Got advanced degree in sports physiology and training
- Development coach from 1981 to 1985
- In 1985 Grobler agreed to let me coach the Elite Women's Sweep Program in Berlin
- National Team Coach 1986 - 1990
- GDR well known for professional training environment, facilities, talent scouting and state support \$
- Medals (8+/2-/4-) at the Olympic Games (OG) Seoul 88 and World Championships (WC) Bled & Tasmania 1989/90



Training principles developed over time



- High all around volume but not just direct correlation between more time spent training but also in regards of intensity profile and preparing for a high training resistance
- Emphasis on individual training – data collection very important – recovery is most important
- Weight training very important (both endurance and dynamic) – for example Bench Pull for Heavy Women: 300 Reps wit 45kg/95Lbs SR 30 – now Strength Training – Max Orientation and Athletic – Core Strength
- On water training based on prognosis Gold medal standard/ pace coach / lactate and HR control
- Emphasis on quality of training (even with high volume!!! / rowing technique has evolved over time
- Taking advantage of time factor! Rowing Technique Training – take time for it – set up the standard – share!



USA 1991 – 2000

- Hired as first coach for Women's Sweep Program in 1991 – before only a committee of coaches rotating between cities every year
- Existing Structures at that point entrenched club programs (two main cities with clubs - Boston and Philly) and no real National Training Centers (Equipment mostly owned by Universities)
- Athletes Semi-Professional meaning having to balance work with training commitments as no full time support
- Athlete pool limited as little or no financial support and only collegiate sport in Ivy League and limited to club athletes and mainly sweep
- Training mostly twice a day, before 8:00 am and after 5 pm. Camps in the winter for two weeks, otherwise training decentralised
- 1996 Olympic games – Atlanta – establishment of one TC 1993-1994
- Olympic TC San Diego (Men Sweep only) – Women's sweep base Chattanooga, TN (near Atlanta) and Sculling base Augusta (near Atlanta)
- Coaching of almost all events (2-/4-/8+...later ltw women and sometimes sculling as well) as well as a lot of admin and even fundraising (one assistant)



USA 1991 – 2000

- Very limited athlete pool in early to mid 90s
- American Selection Tradition - OPEN TRIALS – All Boats can be challenged until right before departure to WC – Sometimes very short time to select best athletes for the boats without trials
- Small boat performance non existent mostly – High Schools and Universities only sweep and then 90% 8+’s only, some 4-’s
- Politics – National Team against the Club system – Coaches only partly supportive after it became clear that central system effective
- Support coaches for the National Team and individual boats only in the Summer (when not needed at their own University)
- Some coaches did not send their best athletes for the Senior selection camps and Pre-elite (U23) Camps – to avoid “ BURN OUT” during summer before university season
- Most scullers switch from Sweep, after the age of 22 after Uni
- Athlete pool in 90s increased dramatically via women's university rowing – US has over 80 Universities who have women’s rowing programs
- Career paths different so national team retained only very focused individuals, true amateur athletes, mentally strong



- Athlete – coach relationship different from GDR – to gain confidence of the athletes had to learn English very quickly and adapt to different mentality and environment for training
- Created individual training schedules to help athletes to improve and buy into the “new system” while balancing with their specific needs around work/life/university
- Understand the existing system, keep the best and add my methods
- Involve club and colleges coaches – build relationships – gain trust !
- Adjust as a coach – listen to athletes – explain reason behind changes
- Why is more better – Minimum (high) training volume is needed to be consistent in competition – higher performance all year every year and only then can improve inside the Olympic Cycle - OG is the goal!
- Individual performance improvements – based on ever increasing international standards – not only national comparison during off season!
- ERGO – SR / SPLIT CHART – ABILITY TO TRAIN/ RACE
- Convince the best athletes to train in one place and see improvements
- American athletes didn't cut corners - very dedicated – very competitive – very open to change
- Few standard tests (only erg really) – very rarely top athletes vo2max test, no step test, limited lactate – basically lots of HR and speed zone
- Much more seeing and adjusting – trial and error – but with times!



Adjustments to Make!

- Weight training changed from strength/max to endurance
- Increased willingness to train more steady state (boring) – as coach had to find ways to bring variety to steady state
- Train by HR and times - not always just row and go all out
- Must pay your own way (why Lucern???- made my first deal)
- College system- generated more and more athletes, but few real talents, not good enough for National team in beginning
- Because late start to rowing (18 at Uni) – no sculling - mostly 8+'s and always competitive side by side (Rowing technique suffers?)
- Camp system – Summer camps – Development camps – to increase the number of potential athletes
- Late selection - focus on M8+ & W8+ Trials: Selection trials – first crew to win two races
- Example 1997: after 8+(4.pl OG) and 4- World Champions they had to race challenger crews from club system for right to start at Olympics (my athletes won)
- Public and media attention mostly only on Men's 8+ but my focus from 1991 always on all events, including small boat performance



USA Lgw 2x World Champion 1998



Monday a.m. 20k steady state	p.m. 18k steady state		Monday a.m. 24 k steady state	p.m. 18k steady state Bike or running 30'
Tuesday a.m. 3 k Warm up 3x3 SR@ 22/ paddle 2k easy	p.m. / 20k steady state SR 22-24 6k ERGO [splits 2.12]		Tuesday a.m. 4x2000m / rest 2k paddle SR 22-24-26-28	p.m. 18 k steady state SR 22
Wednesday a.m. 20k steady state /steady state pressure 1. lap SR @ 22 2. lap SR 24 [750m-1000m-750m on-250m off] 3. lap SR 22-24-26 [750m-1000m-750m on-250m off]	p.m. 20k steady state bike or running 30 minutes after the row		Wednesday a.m. 20 km steady state and drills	p.m. CROSS TRAINING ONLY [Bike-Run 90']
Thursday a.m. 3x3SR 26 power per stroke/ 2k paddle easy	p.m. running [2-3-4-3-2] / bike 60 minutes		Thursday a.m. 24 K steady state, low intensity	p.m. / 18k steady state 1. lap SR 22 / 2. lap 3k drills / 3. lap [750m-1000m-750m on-250m off]
Friday a.m. 24k steady state/ low intensity SR@22-24-26 each lap change SR up or down	p.m. 18k steady state lot of drills		Friday a.m. 3x3 k short pieces /rest paddle 3k 1. piece SR@ 30; 90% pressure 2. piece SR@ 33; 90% pressure 3. piece SR @ 33; full pressure/ 4 rest 5' between pieces 5. use video	p.m. 18 k steady state / drills
Saturday a.m. 3x3k short pieces, only if you have no problems 1. piece SR 26 [30'' on -30'' off] 2. piece SR 22 [60''on -30'' off] 3. piece SR 26 [40'' on - 20'' off]	LONG RUN AND BIKING		Saturday a.m. 20k steady state 8 km ergometer SR@ 22 [splits 2.10] Sunday OFF	run [3-3-4-3-2-1 sprint] late morning or p.m.
Sunday off	OFF		Monday a.m. / 20k steady state 1. lap [SR 24 easy] 2. lap SR @ 26 [750m-1000m-750m on-250m off]	p.m. 20k steady state

Summary of USA Experience



- Flexibility but Quality
- Adjusting and adapt your training methods to existing structures within the system
- Change – but Explain
- Take Risk – Athletes in Mind

- Intensity & Competition
- Seat Racing
- Side by side
- Challenging workouts
- Simple programs (Steady state days, race days)



- More than “ just the 8+”
- But only the Eight
- Difficulty to build whole program beyond the 8+
- Sculling is a challenge

- Coaching Motivation and Intensity and Detailed
- Creating Working Hard and as a Team
- Feel it – Change It –
- Atmosphere – WE CAN



- Garret Klugh San Diego State
- Example of M4x 1996
- Cyrus Beasley switch back and forth sculling sweep
- Results over USA tenure
- WM 1991 Silver 4- / 8+ 4.PI
- OS 1992 Silver 4- / Bronze 2-
- WM 1993 Silver 4-/ 8+ and Bronze
- WM 1994 Silver 4- / 8+
- WM 1995 Gold 8+ / 4- / Lgw 4- Silver 2-
- OS 1996 Silver lgw 2x / 2- / **8+ -4.PI**
- WM 1997 – 1999 WM 10 medals
- OS 2000 – 3. PI Lgw 2x / 3. PI 2- / **8+ 6PI.**



- In the 1990s no direct US Government financial support of the Olympic rowing team – USOC only and some US Rowing Sponsors and selling T-shirts!

