Middle Distance Racing
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University of Akron XC & Distance Coach
(MENTOR, Teacher, Inspiration, CATALYST)

Young Lady – Old Lady -- Bunch of Lines
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MANTRA’S: Aristotle: “We are what we repeatedly do. Excellence, then, is not an Act, but a Habit.”
Yoda: “Do or Do Not. There is no Try.”
“All skills are transferable” “Character is learned & developed”
“There are always 3 possibilities, + / 0 / -”

What does it take to “WIN” races !!!!!

I use a RACE MODEL that helps BOTH the Coach & Athlete to have common ground and converse with each other about races & racing.

It allows for a BIG picture, little picture & snapshot view of any race. I use this for a race analysis that reveals the strengths & weaknesses of the athlete, both mental & physical as well as MY coaching approach.

There is a Big Learning Curve when it comes to successful racing. So much of it involves making the right decisions, ie. Execute Race Plan Understanding “HOW” to race is as important as “being in shape” to race.

Using the RACE Models help shorten this Learning Curve.
I. What it takes to Compete/RACE:

A. 400m FINISHING SPEED!!!!!! for….. 800-1600/mile-3k/3200m-3k steeple races

( OR: 500-700m if a slow, first ½ of race)

National USA H.S. 60 sec --- 57 sec
NCAA conference  58  56
Top 3: NCAA finals  56  54
USA finals  54  52
World: OLY/WC/WR  52  ..... ?

Is the athlete ready for the Challenge/Journey ??? (Mental vs. Physical)???

B. Race Model 1500/mile-3000m: ( break into 4 components for each race )

World Records: = almost even pace the whole way, every 400 mile=( 55.6-56.0-56.6-55.2 ) 3k=( 2:26.8-2:27.6-2:27.3 )

Championship Wins:  A. fast—slowest—faster—fastest

[ start—settle—pickup—kick ]

2012 Olympic: ( 58.3—60.3---56.1---39.3 [52 /400] ) = 3:34

B. 1st two components slow pace—Pickup and KICK!

2016 Olympic: ( 66.9---69.8---55.3---38.0 [50.6/400] ) = 3:50
800m Race MODEL = Controlled Fade 2 – 4 seconds (400m splits)

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C. Energy Systems = Creatine Phosphate…Lactic System…Aerobic System

Energy Contributions of the Aerobic and Anaerobic Energy Systems to Track Running Events

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<tr>
<th>Event</th>
<th>Males</th>
<th>Females</th>
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<tr>
<td></td>
<td>Aerobic Energy</td>
<td>Anaerobic Energy</td>
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<tr>
<td></td>
<td>Contribution</td>
<td>Contribution</td>
</tr>
<tr>
<td>100 m</td>
<td>21%</td>
<td>79%</td>
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<tr>
<td>200 m</td>
<td>28%</td>
<td>72%</td>
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<td>400 m</td>
<td>41%</td>
<td>59%</td>
</tr>
<tr>
<td>800 m</td>
<td>60%</td>
<td>40%</td>
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<tr>
<td>1500 m</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>3000 m</td>
<td>86%</td>
<td>14%</td>
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</table>

Event       | Aerobic energy system contribution | Anaerobic energy system contribution
<table>
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<tr>
<th></th>
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<tbody>
<tr>
<td>200m</td>
<td>5%</td>
<td>95%</td>
</tr>
<tr>
<td>800m</td>
<td>34%</td>
<td>66%</td>
</tr>
<tr>
<td>1,500m</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>3,000m</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>5,000m</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>10,000m</td>
<td>90%</td>
<td>10%</td>
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</table>

Training Better Distance Runners

Table 3.4
The difference in energy sources that contribute to racing performances in Olympic Distance Events:
800m: Phosphate 5%, Lactate 38%, Aerobic 57%
1500m: Phosphate 2%, Lactate 22%, Aerobic 76%
3000m: Phosphate <1%, Lactate 12%, Aerobic 88%
5000m: Phosphate <1%, Lactate 7%, Aerobic 93%
10000m: Phosphate <1%, Lactate 3%, Aerobic 97%
Marathon: Phosphate <1%, Lactate <1%, Aerobic 99%
D. What time of year to work on these systems:

American:  
- **XC**: (peak aerobic, little lactic, no CP)
- Indoor Track: (maintain aerobic, accelerate lactic, CP)
- Outdoor Track: (Refresh aerobic, finish lactic, high CP)

European:  
- General prep—Special prep—Pre Comp—Comp prep
- Direct Competition—Major Competition

5 PACE Theory: Within a training block; train at 5 different racing paces

(200/400/800/mile/3-5k) (400/800/mile/3-5k/10k)

3 Phases of WORK

1\textsuperscript{st} phase: 67% Aerobic 33% Lactic/CP

2\textsuperscript{nd} phase: 50% Aerobic 50% Lactic/CP

3\textsuperscript{rd} phase: 33% Aerobic 67% Lactic/CP

Example:  
- **XC** = 5-6 x 1 mile pace: 5:00
- Indoor = 3-4 x 1 mile 4:40
- Outdoor = 2-3 x 1 mile 4:20
II. Training for 800 – 1500/mile – 3000 meters:
A. Workouts for Athletes: Train to Race…… DO NOT—Train to Train.

Racing Distance: 400/800 800/mile 800/mile/3000m

Energy system

**Workouts**

CP: flying 60m accelerations 100’s sprint/jog
100-150m sprints 200 repeats

----------100-150m-200 In and outs----------

LACTIC: fast 300’s fast 400’s
5 x 300 progress to 4 x 400 2 x 4 x 400 to 6-10 x 400
Then 3 x 500 to 2-3 x 600 2 x 3 x 500 to 3-5 x 600

-------Cut Downs…..( 4 – 8 x 400’s or 800’s )-------

AEROBIC: 4 x 800 at 70-80% of mile 3 x mile at 70-80% of mile
3 x 1200 at 70-80% 3 x 3000 at 70-80%

-------Cut downs---Steady state pickups---Tempos-----

Best articles on this subject =
B. How to integrate these workouts into a whole race:

1. **old fashion/ tried and true: work each system on seperate days**
   
   Example:  
   Mon: 8 x 400  
   Tues: 4-6 x 200  
   Wed: 3-6 x 1200 @ 70%

2. **modular/tier system:**  
   one day = 3 x 1000----3 x 400----3 x 200
   
   Example:  
   1000’s @ 72/400 = 3:00  
   400’s @ 60  
   200’s @ 26

3. **broken system:**  
   1000 = 500 — jog — 300 — jog — 200
   
   *Use the broken system to establish high intensity work:*

   Example:  
   3 x 1000:  
   500 jog 300 jog 200
   
   pace =  
   100m  
   400m  
   acutal time  
   jogging  
   100-200m  
   100-200m
C. Racing Skillsets:

800: Start—Break—200 200—500  
     500—600—700 700—Finish

1500/mile/3000: Start—Break—300/400 settle-in phase
     PICK IT UP !!! KICK & Last 80-100

Practice Racing Skillsets: (leaning how to multitask for the race)

Physical: Train each skillset according to YOUR race model’s pace

Work on form in practice, eventually it becomes a natural habit in the race

Mental: Train each phase of the race with a group, 2-3 others, around you at the appropriate place on the track.
( Use a rolling start of 10 meters except for the start. )

D. Racing too HARD, too EARLY & too MUCH:

Avoid as often as possible. Biggest Mistake you will make
Who is relaxing under duress???

Note the calmness of the leader and increase in facial strain as place increases.
III. Developing the Character of your athlete:

Psychology & Physiology

Excellence is a HABIT. All Skills are transferable
Mylin Sheath = motor skills & neuromuscular pathways:
Thinking & Choices & Anticipating

Paradox: Athlete, finishing last 100m, hears all 3 persons
Coach= Sam finish! Mom= Sam Kick! Dad= Sam Relax!

A. Learn to relax under duress: Push to Finish... but not too HARD !!!!

How??? ......Give them a workout they can’t finish but are so close...

Lactic system: week #1--2 x 4 x 400 at 60-61 pace 120 sec int./ 5 min break
week #2--same workout but .... 90 sec int./5 min break
week #3--same workout same rest 90 sec int./5 min break
week #4--same workout but .... 60 sec int./5 min break

Athlete has to keep great form and composure, only time can slow down!!
4:02-06 miler #1 = 60-61-60-62 ... #2 = 60-61-63-63

This is mental focus not effort. If one can’t handle week 4...
REPEAT THE 4-WEEK CYCLE!!!

The ATHLETE must be fully rested and willing/mentally ready to try this.
Who is relaxing under duress???

Note the calmness of the leader and increase in facial strain as place increases.
B. Mental side of executing the race plan:
   Athlete will not execute a certain phase of a race plan!

   They are Feeling the Discomfort Zone: .........................!!!!!!!

   Comfort vs. Uncomfortable vs. Discomfort

   What to do?... Have “A” Conversation = ...I Didn’t feel right !!!!

Solution:

1. Keep working on it. Patience. = Next year ..... Maybe
2. Max VO2 or Theshold 1000m workouts = increased Aerobic fitness
   4 x 400m @ pace = middle of race model = lactic system
   Longer rest for the High Intensity work = been working too hard
3. Eating right? ... carb/protein mix after hard days? Vitamins?
   Sleep? / Stress? / Personal problems?

C. FOCUS on Race Positioning:

While keeping their race position, the Athlete is executing the race plan
from the model or race situation.

(Study your opponents racing HABITS to anticipate their moves)
Example Videos

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<tr>
<th>Event</th>
<th>(Slowest)</th>
<th>(2nd Fastest)</th>
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<tbody>
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<td>24.7</td>
<td>26.1</td>
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<tr>
<td>2016 Trials Final</td>
<td>25.0</td>
<td>26.5</td>
</tr>
<tr>
<td>2016 NCAA 1500m Final</td>
<td>26.6</td>
<td>26.7</td>
</tr>
<tr>
<td>2016 Olympic 1500m Final</td>
<td>27.5</td>
<td>27.3</td>
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</table>

NCAA Men 1500m Final 2016

<table>
<thead>
<tr>
<th>Player</th>
<th>300</th>
<th>400</th>
<th>400</th>
<th>400</th>
<th>1500</th>
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<tbody>
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<td>Murphy</td>
<td>42.0 (56.0)</td>
<td>60.6</td>
<td>57.9</td>
<td>55.8</td>
<td>3:36.38</td>
</tr>
<tr>
<td>Yorks</td>
<td>42.13 (56.1)</td>
<td>59.79</td>
<td>57.85</td>
<td>58.30</td>
<td>3:38.06</td>
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<tr>
<td>Wynne</td>
<td>41.84 (55.8)</td>
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<td>57.83</td>
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<td>Kidder</td>
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<td>60.46</td>
<td>58.58</td>
<td>59.33</td>
<td>3:40.67</td>
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IV. Continued Development of the Athlete:

A. Per Season: After the completion of each work phase run longer first. If miles came down for the end of the phase, up they go. As the miles go up…. pace gets slower, refresh yourself!

In the next work phase, race a longer distance first. Don’t go “kill it” right away, race for time. Win as easy as possible. Vary your race distances till your championship meets.

B. Per Year:

To make a yearly advance you need to have a complete log of your workouts/times/rest periods and importantly: splits for their races.

Armed with this information you can set the next years plan easily. Evaluate strenghts 1\textsuperscript{st}, weaknesses 2\textsuperscript{nd}.

Set new goals both Mentally & Physically.

Add supplemental exercises to give you a new load. Stretching, flexibility and mobility exercises; rolling out before during and after workouts. Keep supple muscles.
V. Extra Coaching Resources:

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<th>Author(s)</th>
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<td>The Power of Habit</td>
<td>Charles Duhigg</td>
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<td>Good to Great</td>
<td>Jim Collins</td>
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<td>How They Train: Vol. 1</td>
<td>Fred Wilt</td>
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<td>Winning Running: Successful 800m &amp; 1500m</td>
<td>Peter Coe</td>
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SPECIFIC TRAINING

FOR THE 400-800M RUNNER

https://beaconhillstriders.co.uk/wp-content/uploads/2015/05/Alberto-Juantorena-Training-for-400m-800m.pdf

Mylin sheath http://ezinearticles.com/?Neuromuscular-Pathways-in-the-Body&id=4150888