HOT TRAINING APPROACHES

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PAQ

GETTING TO 'FAST':
A OPEN-FORUM DISCUSSION ON THE 'HOW'

1.) General overview of trends meant to GENERATE DISCUSSION!

2.) Fads come & go, but Certain Precepts are Universal

4.) Strategy Spectrum – Some Popular Beliefs/Approaches

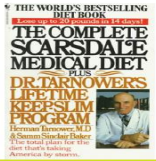
5.) Discussion!

6.) Definitions

7.) What to consider when creating your own approach

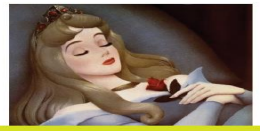
FAD DIET TIMELINE

1970S GRAPE FRUIT
(AKA MAYO CLINIC)



1972 SCARSDALE

1981 BEVERLY HILLS



1976 SLEEPING BEAUTY

1975 COOKIE

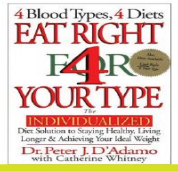
1985 JENNY CRAIG

1990 CABBAGE SOUP

1995 THE ZONE

2003 SOUTH BEACH

2001 ATKINS



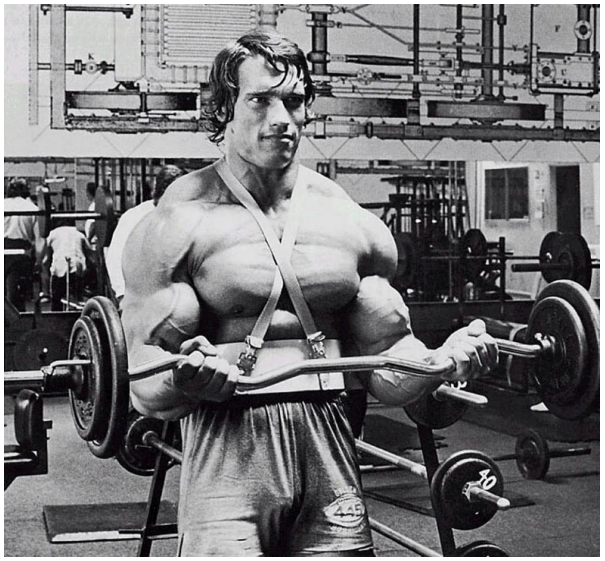
1996 EAT RIGHT FOR YOUR TYPE

2006 MAPLE SYRUP

2010 BABY FOOD

2013 PALEO

WWW.THESAVORY.COM

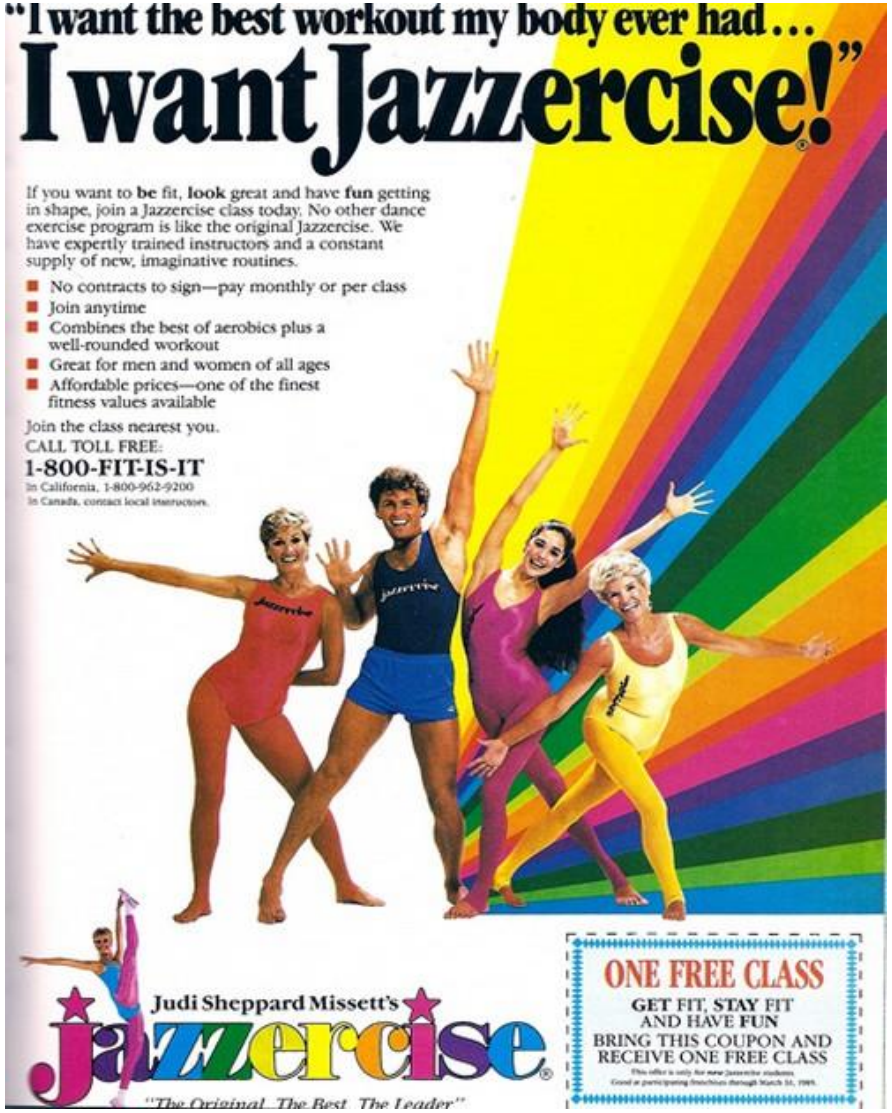


1950's/1960's

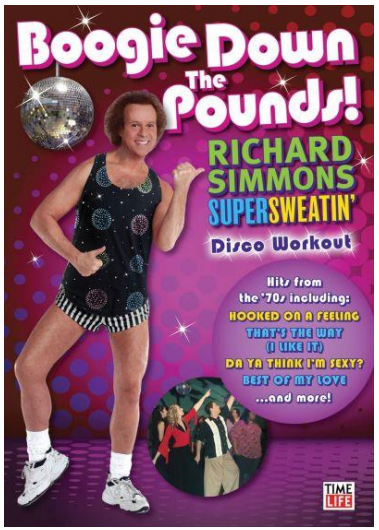
Riding and Rowing Machine in One

SAID to provide the healthy exercise of both rowing and horseback riding, a new machine, shown in use above, has hinged handlebars, foot rests, and seat which move through arcs to simulate the beneficial motions of both sports. A hydraulic piston provides resistance.

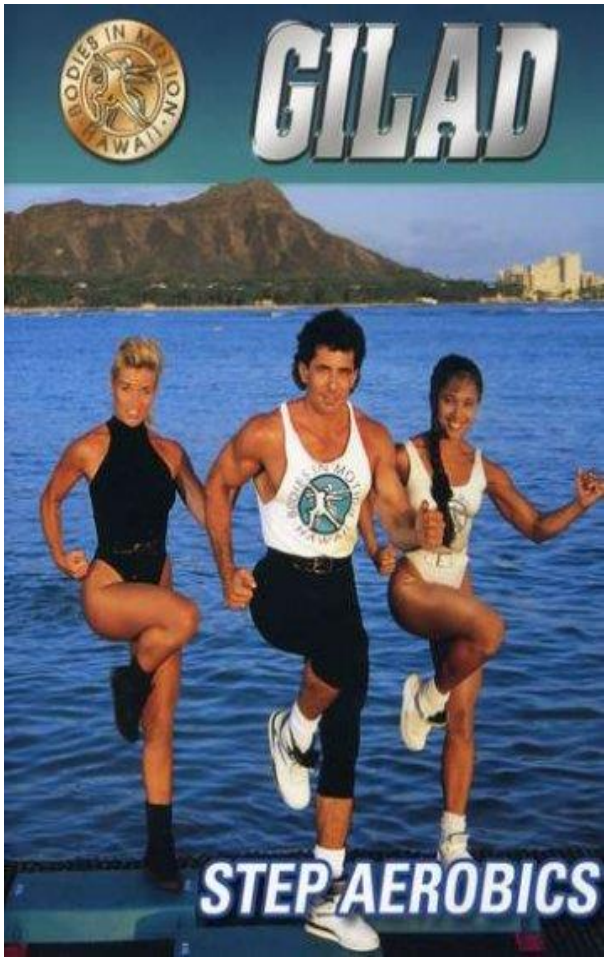
1970's


"I want the best workout my body ever had..."
I want Jazzercise!
If you want to be fit, look great and have fun getting in shape, join a Jazzercise class today. No other dance exercise program is like the original Jazzercise. We have expertly trained instructors and a constant supply of new, imaginative routines.
No contracts to sign—pay monthly or per class
Join anytime
Combines the best of aerobics plus a well-rounded workout
Great for men and women of all ages
Affordable prices—one of the finest fitness values available
Join the class nearest you.
CALL TOLL FREE:
1-800-FIT-IS-IT
In California, 1-800-962-9200
In Canada, contact local instructors.
Judi Sheppard Missett's
Jazzercise
"The Original. The Best. The Leader"
ONE FREE CLASS
GET FIT, STAY FIT AND HAVE FUN
BRING THIS COUPON AND RECEIVE ONE FREE CLASS


JANE FONDA'S
ORIGINAL WORKOUT


Boogie Down The Pounds!
RICHARD SIMMONS
SUPERSWEATIN'
Disco Workout
Hits from the '70s including:
HOOKED ON A FEELING
THAT'S THE WAY (I LIKE IT)
DO YA THINK I'M SEXY?
BEST OF MY LOVE
...and more!
TIME LIFE

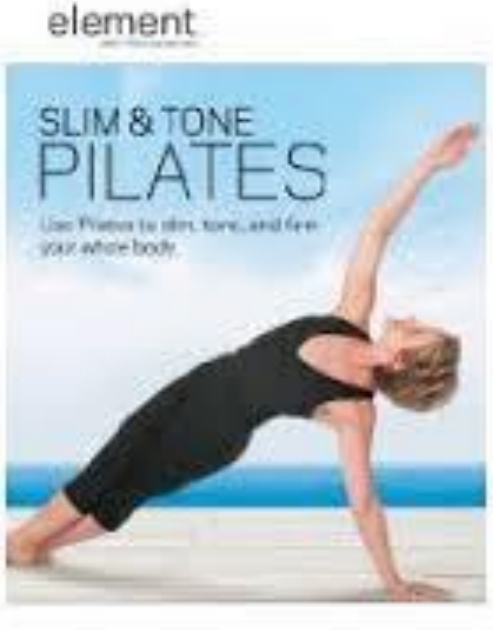
1980's


BODIES IN MOTION HAWAII
GILAD
STEP AEROBICS


"Now you can have shapely thighs in just minutes a day !"
AS SEEN ON TV
SUZANNE SOMERS'
THIGHMASTER™
Balanced resistance coil gives results and is comfortable to use!
Saves time and money... You exercise when you want, without going to a spa!
Strengthens and tones exactly where you need it most!

1990's / 2000's


P90X


element
SLIM & TONE
PILATES

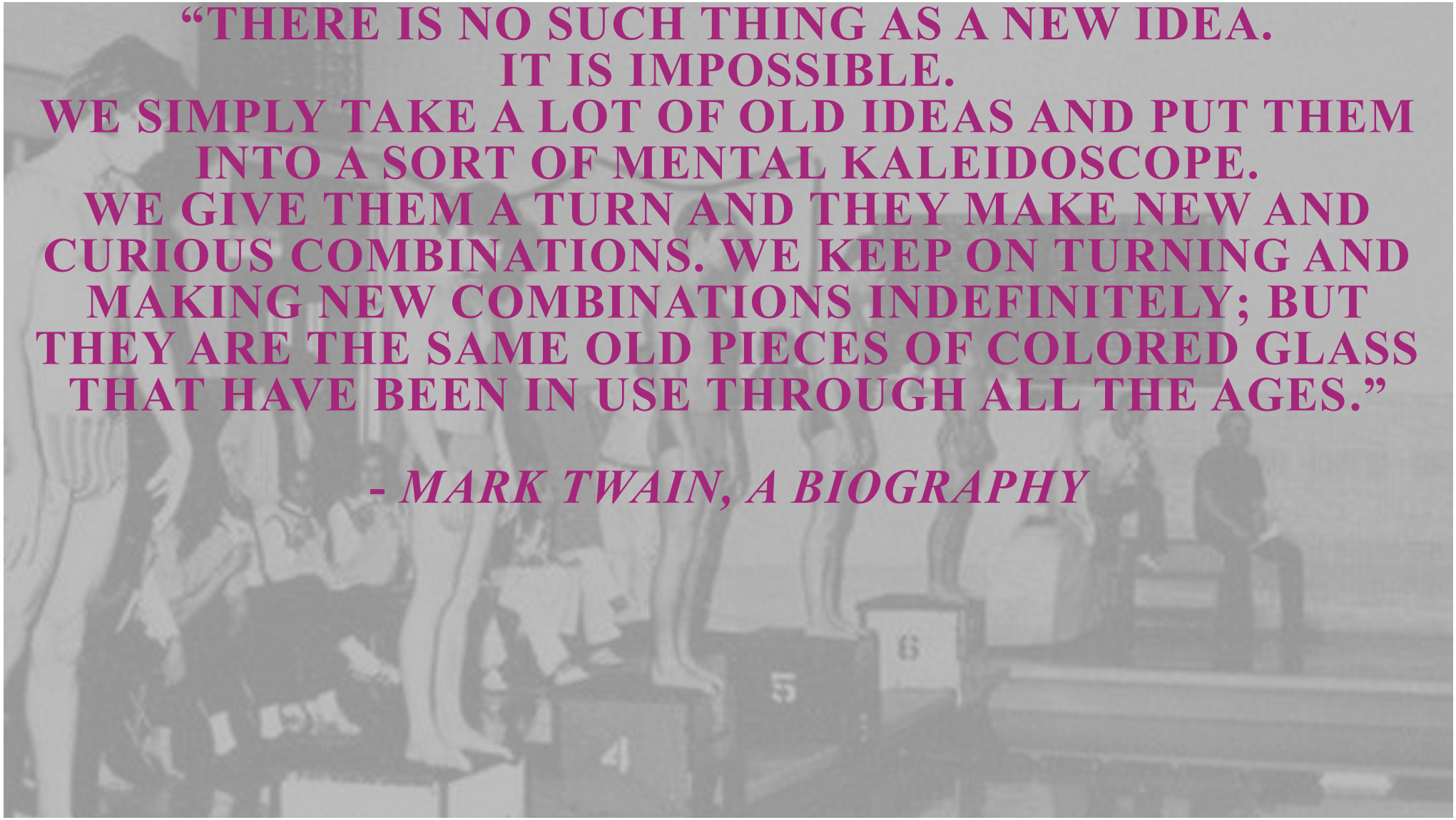
New Age - 2010's


CrossFit


HIIT 56
FIRST CLASS IS
FREE!
WEST BOCA'S HOTTEST HIGH INTENSITY
TRAINING FACILITY FOR ALL FITNESS LEVELS
CALL 954-336-6012
9161 GLADES ROAD, SUITE 125, BOCA RATON, FL 33434
WWW.HIIT56.COM


TRX
Suspension Training

Today



“THERE IS NO SUCH THING AS A NEW IDEA. IT IS IMPOSSIBLE. WE SIMPLY TAKE A LOT OF OLD IDEAS AND PUT THEM INTO A SORT OF MENTAL KALEIDOSCOPE. WE GIVE THEM A TURN AND THEY MAKE NEW AND CURIOUS COMBINATIONS. WE KEEP ON TURNING AND MAKING NEW COMBINATIONS INDEFINITELY; BUT THEY ARE THE SAME OLD PIECES OF COLORED GLASS THAT HAVE BEEN IN USE THROUGH ALL THE AGES.”

- MARK TWAIN, A BIOGRAPHY

SOME TRAINING PRINCIPLES ARE IRREFUTABLE & UNIVERSAL ("IF YOU FAIL TO PLAN, PLAN TO FAIL")

Principle of Progression (Create Stimulus & Manage Adaptations)

- In order to create adaptations, you must create adaptable work
- How you identify & track these progressions is up to you

Principle of Threshold (Pushing the Limits)

- Find both the physiological & mental thresholds of your athletes to create appropriate challenges
- How you define Threshold (en3/vo2max,fast, etc.) & push those limits is up to you

Principle of Periodization (Season Planning & Goal Setting)

- Manipulate variables to avoid overtraining and achieve peak performance
- Plan and cycle through variety of training phases
- Know the short AND long-term goals (meets/times/skill-achievement), Plan from target date & move backwards
- Coordinate with the Periodization in S & C
- How you define your seasonal phases & cycles is up to you

Principle of Function/Application

- Identify the strategy or 'quickest win' to enable your athlete to drop time & succeed
- How you apply that is up to you

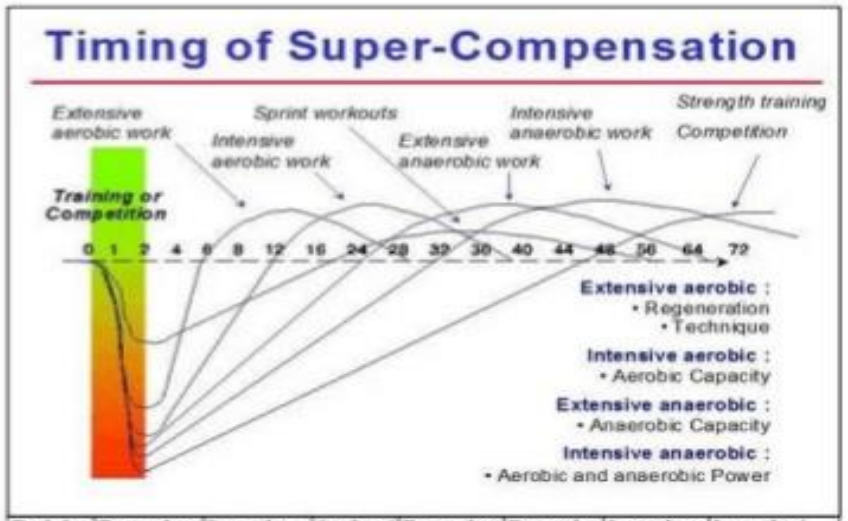
Principle of Individualization (Every Athlete is Different!)

- Every athlete is different physiologically & emotionally, with varied experience/backgrounds
- How you individualize their training is up to you

PRINCIPLE OF ADAPTATION / PROGRESSION

Training

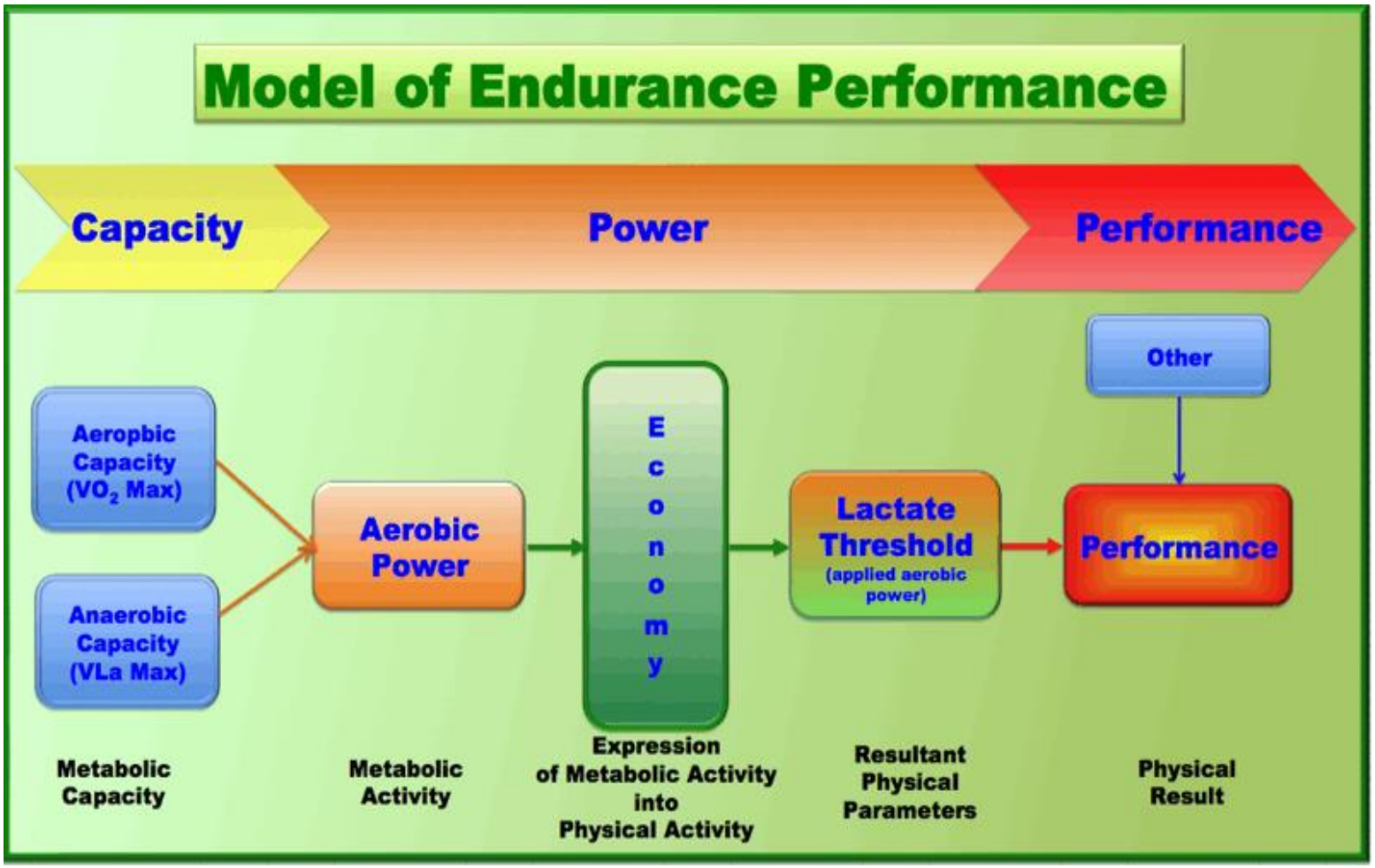
- Training is simply
  - Stimulus–> Adaptation
  - In order to improve, must provide enough stimulus to change, but still can recover and bounce back



Training types	Extensive Endurance	Intensive Endurance	Sprints/ Short Sets	Extensive Anaerobic Training	Extensive Strength Training	Intensive Anaerobic Training	Intensive/ Strength Training/ Competition
From	8	24	30	36	40	40	48
To	12	30	40	48	60	60	72

Source: Science of Winning
Jan Olbrecht

PRINCIPLE OF PROGRESSION



PRINCIPLE OF THRESHOLD

WHAT IS AEROBIC CAPACITY?

Definition:

The ability to provide and sustain energy aerobically

VO2 max:

The maximum amount of oxygen that can be taken in, transported and consumed by the working muscles per minute

PRINCIPLE OF PERIODIZATION: FACTORS & PHASES

Factors affecting competitive performance

Technique	Physical Conditioning	Psychological Conditioning
Stroke technique, coordination Starts and turns …	Aerobic conditioning (endurance) Anaerobic conditioning Flexibility and strength …	Stress control Motivation …
Speed		

Tab. 1 Competitive performance depends primarily on the status of these components.

Cycle	Volume	Intensity	Over-distance	Endurance	Tempo	Lactate threshold	$\dot{V}O_2max$
Preparatory	Moderate to high	Low	60%	30%	5%	5%	0%
Precompetition	Moderate	Moderate to high	55%	25%	5-10%	10-15%	0-10%
Taper	Low to moderate	Moderate to high	55%	25%	5-10%	10-15%	2-5%
Competition	Low to moderate	High	55%	20%	5-10%	5-10%	0-5%
Transition	Low	Low	85%	5-10%	0-5%	0%	0%

PRINCIPLE OF PERIODIZATION:
USA-SWIMMING'S PLANNING TEMPLATE

SAMPLE ANNUAL PLAN

	MONTHS	SEPT				OCT					NOV					DEC					JAN					FEB					MAR					APR					MAY					JUN					JUL				AUG			
DATES	MICROCYCLE	1	2	3	4	5	6	7	8	9	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	WEEK BEGINS																																																									
MEETS	LOCATION																																																									
PERIODIZATION	TRAINING PHASE																																																							
	STRENGTH																																																								
	ENDURANCE																																																								
	SPEED																																																								
	GENERAL DRYLAND																																																								
TESTING DATES																																																									
VOLUME		1	2	3	4	5	6	7	8	9	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
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POSTGRAD / SPRINTER: 2016 TRAINING/TAPER PLAN

	MONTHS	JAN				FEB					MAR				APR				MAY					JUN				JUL
DATES	MESOCYCLE	1											2											3				4
	AER	1	2	2	3	R	3	2	2	R	1/R	3	1	3	2	R	R	2	2	R	1	3	R	2	R	R	R	1
	WEEK BEGINS (Monday)	4-Jan	11-Jan	18-Jan	26-Jan	1-Feb	8-Feb	15-Feb	22-Feb	29-Feb	7-Mar	14-Mar	21-Mar	28-Mar	4-Apr	11-Apr	18-Apr	25-Apr	2-May	9-May	16-May	22-May	30-May	6-Jun	13-Jun	20-Jun	27-Jun	4-Jul
MEETS	LOCATION					LOCAL MEET/CS	local meet?			ARENA PRO-orl	otc +SECTIONALS						local meet?			ARENA/sr circ. FGC		local meet?	ARENA/sr circ. FGC		local meet?	FT. LAUD INVITE		USA Trials - JULY	
	TRAINING PHASE			SPECIFIC		AN1/2			TAPER								transition			SPECIFIC		AN1/2		TAPER				BA 6/27	

TEST SETS LACTATE		L	L-2					L	L-2				L						L										
TEST SETS FAILURE/BRKN			X			X	X	X			X	X					X				X	X							
VOL/WK#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
45G																													
42G																													
40G						40	40	40																					
38G																													
35G					35									35	35	35	35												
32G				32									32					32											
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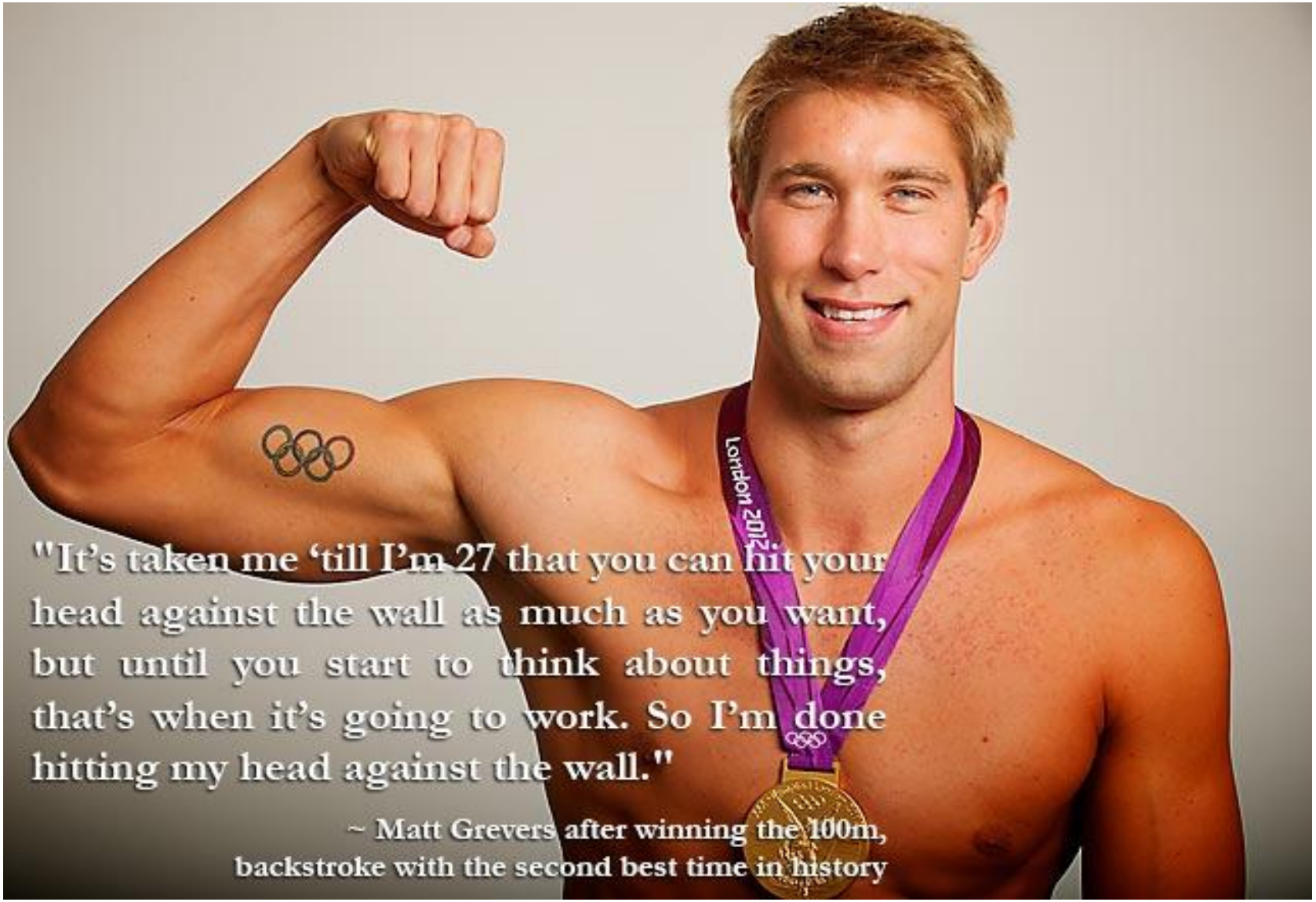
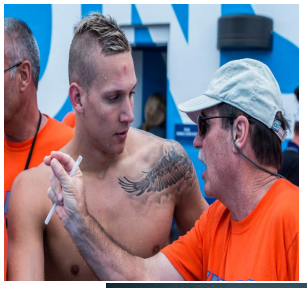

"It's taken me 'till I'm 27 that you can hit your head against the wall as much as you want, but until you start to think about things, that's when it's going to work. So I'm done hitting my head against the wall."
~ Matt Grevers after winning the 100m, backstroke with the second best time in history
London 2012

PEOPLE WHO THINK! A SPECTRUM OF PHILOSOPHIES

High-volume—low-to-mid intensity

Low-volume—High intensity

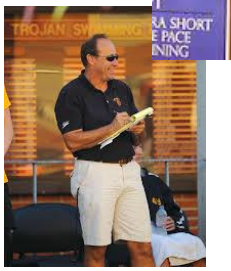











STANDARD (GENERAL) STYLES OF TRAINING

Endurance:

- Highest-volume training emphasizing a long period of oxidative (aerobic) training, Descending sets
- Yardage is high, and intensity varies
- OW & Long-Distance swimming/training

Traditional:

- Aerobic Training: Higher-volume training emphasizing a long period of oxidative (aerobic) training at slower than race pace/sprint pace.
- Can be general or race-specific
- Relies on test-sets to evaluate progress
- Yardage & Intensity Varies widely amongst programs

Speed:

- Low-volume training emphasizing speed/neurological imprinting – Sprint/short distance
- HIT: High-intensity training (HIT) involves performing maximal efforts with long rest. (25s sprint on 3:00)
- HIIT: High-intensity interval training (HIIT) utilizes maximal effort training with short rest. (8×25 @ :10 RI)
- USRPT: Ultra short-rest race pace training (USRPT) uses a similar approach to HIIT, but provides slightly longer recovery for avoidance of fatigue and a larger emphasis on motor skill learning. (30×25@ ~:10–:20RI), emphasizing one biomechanical improvement at a time

VOLUME-BASED TRAINING

DICK SHOULBERG: (from Swimming World Mag., Jan 2007)

- Swimming is a way to instill discipline
- Strong base goes a long way in developing a career foundation
- High-volume workouts (up to 15K/day SCY) that emphasize all 4 strokes

BILL ROSE: (LA Times 1997)

"I don't believe in a lot of the stuff we've done in this country in the past, this trend toward trying to work faster and work less, to save energy and time in the name of efficiency."

- The Over-distance approach pays best dividends
- Allows swimmer to perform better at a later age (when physically fully-developed Allows swimmer to reach stage where they can compete at highest levels of event

"We're talking about totally opposite training philosophies and the ultimate result is where the debate comes in. I think it's clear that a sprint-type training approach with younger swimmers will produce more immediate results, but over-distance base training will give better ultimate results"

"YARDAGE"

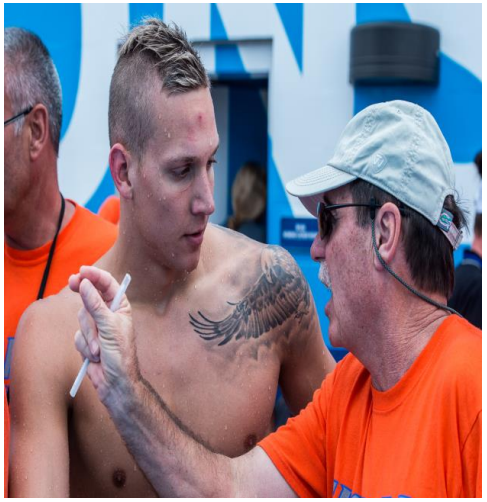
YARDAGE IS NOT GARBAGE!

GREGG TROY:

(ASCA World Clinic 2014 / Garbage Yardage & Other Things That Work)

"It is not all about volume, it is about commitment. There are very few things you do in life that if you put LESS time into it, that you are going to be successful."

- More volume=more commitment
- Over-distance (train 400 for 200, 200 for 200, etc)
- Lifetime mileage base matters for planning late career training
- Must isolate one aspect of swimming to improve that area. Can't train same proportions all year round (specificity)
- Learning moments come from pushing to edge of ability in practice. Not always bad thing to fail.



CREATE A BIG CUP, FILL IT UP

Inspired by Dr. J. Olbrecht's Book

BOB BOWMAN (ASCA World Clinic 2011)

"Capacity is defined as the ability to provide and sustain energy aerobically. Capacity Training is enlarging the size of the cup you have to pour training into and Utilization Training is the work you do to go fast for a specific race."

"Capacity training prepares you for tomorrow, Utilization training prepares you for "next week"

"When you read stories about older elite athletes, what are you reading? The real question is, what were they doing at 10-18. When you are around long enough to trace it, you realize only those who DID capacity training, GET to be successful with Utilization Training."

LO & SLOW (AEROBIC BASE TRAINING)

VS.

MICHAEL LOHBERG:
Successfully trained sprinters and middle-distance swimmers with the same approach. HOW?

Used SCIENTIFIC TESTING
- Aerobic-base identification & gradual buildup
- Aerobic threshold development thru use of lactate testing.
- Established CORRECT training paces for each swimmer so that same workouts worked for many types
- Believed in his athletes ALWAYS

"IT'S SCIENCE, STUPID!"

PLAN FOR MID-D, AND MAKE CHANGES!

Jon Urbanchek's School of Training

Jon with some of his Olympians

1

JON URBANCHEK:

- Known for adding "COLORS" to the USA-Swimming Zone charts
- Believes in aerobic systems and making it simple
- Plans all training for the mid-d swimmer and then specifies
- Uses SCIENCE

"MIXED BAG" APPROACH:
OLD-SCHOOL WITH INNOVATION, EMPHASIS ON TECHNIQUE, & SOME PASSION

EDDIE REESE
(from SwimNews 2006, USASwimming.org 2014)

"I don't know why the things I do, work, but they do!"
I tell my swimmers they have 2 main phases of the season:
1.) Real hard work
2.) (Drop) taper

Trains individuals not for specific races, but for aerobic background
Believes in the passion for racing (strategy)
"90% of potential" – Give athletes the tools, but it comes down to their desire/potential

COLLABORATION, EXPERIMENTATION, & MODERATION

"WELL-ROUNDED ATHLETES"

TERI McKEEVER:

- Cal program is one of 5 in the country that gives swimmers an afternoon off
- Looks for ways to train swimmers that will alleviate the monotony of training: (pilates, boxing, yoga, hip-hop classes)
- Writes highly unique workouts to keep interest high
- Provides swimmers w/ the rationale behind chosen drills and sets
- Asks swimmers for feedback/collaborates

Result: athletes who become more self-determining, and therefore able to find the training tools that work best for them as individuals

"EVERYTHING UNDER 800 IS A SPRINT FOR ME" ~K.L.

BRUCE GEMMELL:

- Specificity builds speed!
- In 2014 worked to teach Katie L to learn to swim the same race multiple ways
- Trains Katie w boys: Hold the Interval!
- REPEATS. REPEATS. REPEATS.

"INTERVALS!"

INTENSITY MATTERS &
MANAGE THE ATHLETE ENVIRONMENT

"CHALLENGE THEM"

DAVID MARSH:

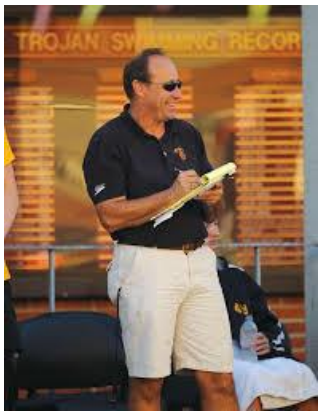
"This approach is the big experiment." (discussing 2016 OT) (Charlotte Observer, May 2014)

- Wants to disrupt monotony of swim-eat-sleep.
- Training variety could make the sport more attractive and help with retention.

"Let's make swimming less boring, instead of kids going to school, hair still wet and exhausted," he says. "We're trying to turn these guys into fish."

"A swimmer should always work on distance per stroke first, and once they have the desired stroke rate, and then add in tempo" (SwimSwam April 2016)

SPRINT-SALO IS NOW 'A THING', BUT DON'T FORGET THE YARDAGE BASE

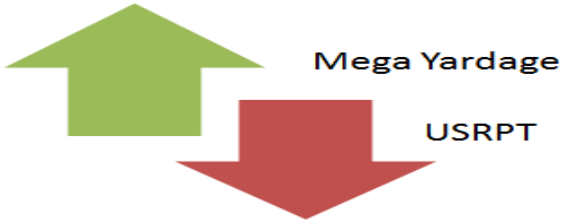


DAVE SALO:
Volume isn't as essential…. Use over-driven athletes to strive for perfection, not over-training

- Quality-based race-pace training
- Power: work per unit of time
- LOTS of resistance work!
- Emphasis on technique/execution
- Data-tracking; make up test sets and do them

USRPT: IT'S NOT NEW

Professor Brent Rushall
Began experimenting in 1960's!
Focused on teaching the technique used for racing
Emphasizes that psychology determines results (mental prep for racing)



Benefits include:

1. Short intervals allow swimmer's body to maintain a low level of lactate in the blood while keeping a high level of glycogen in the muscles.
2. Neuromuscular patterning – will not deplete glycogen levels and as a result will not drastically hinders/prevents the neural learning needed for quality performances.
3. Shorter work intervals (no rest more than 23 seconds) - body is able to sufficiently repay accumulated oxygen debt (AOD) and restore the body's energy systems in a relatively short amount of time

USRPT
ULTRA-SHORT RACE-PACE TRAINING

WHAT'S YOUR VIEWPOINT?

7 Energy Zones
(USA-Swimming)

5 NRG Systems
(European)

Colors
(Michigan/Urbanchek)

RSS/RSP
(Alabama/Skinner)
3s Coaching

Heartrate
BPM or BBM

MANY NAMES; BUT
ALL THE SAME
(SYSTEMS)

TRAINING TO RACE - INTENSITY

CHARACTERISTICS OF ENERGY ZONES
USA Swimming – Genadijus Sokolovas

7 ENERGY ZONE SYSTEM	Set Distance (m)	Set Duration (min)	HR (bpm)	HR (% max)	Work:Rest	Sample Set (*for Sr. Age Group swimmer)
AEROBIC (recovery)	Variable	Variable	< 140	< 70	N/A	600 Easy Swim
AEROBIC DEVELOPMENT (EN1)	1500 - 4000	≥ 15	140 - 160	70 - 80	10 - 30 sec rest	6-10 x 400 Swim/ 10 sec rest
AEROBIC/ANAEROBIC MIX 1 (EN2)	800 - 2000	10 - 40	160 - 180	80 - 90	15 - 30 sec rest	4-6 x 300 Swim 15 sec rest
AEROBIC/ANAEROBIC MIX 2 (EN3)	600 - 1600	8 - 30	180 - Max	90 - 100	30 - 60 sec rest	4-8 x 150 Swim/ 30 sec rest
ANAEROBIC 1 (SP1)	200 - 600	2 - 15	Max	100	2:1 - 1:1	2-3 sets of 6-8x50 race tempo / 10-30 sec rest or 4 x 125 Rotate IM/ 45 sec rest
ANAEROBIC 2 (SP2)	200 - 600	4 - 12	Max	100	1:2 - 1:4	4 x 75 Swim/ 3-4 min rest or 6 x 50/ 2 min rest
SPRINT (SP3)	25 - 100	1 - 2	Max	100	1:3 - 1:4	4-6 x dive 15m/ 1 min rest or 6-8 x 12.5 Swim/ 45 sec rest

ENERGY SYSTEMS AS ZONES

Energy Systems

"Correct use of the training principles will create superior organization and more functional content, means, methods, factors, and training concepts."

Zone	Intensity	Duration	System	Anaerobic	Aerobic
1	1-15 seconds	MAXIMUM	ATP-CP	100-95	0-5
2	15-60 seconds	MAXIMUM	ATP-CP, LA	90-80	10-20.
3	1-6 minutes	SubMAX	LA, Aerobic	70-(40-30)	30-(60-70)
4	6-30 minutes	Medium	Aerobic	(40-30)-10	(60-70)-90
5	30 minutes	Low	Aerobic	5	95

*This chart represents the five zones and their specific energy system involvement

	(time per 100)
ZONE 1 Recovery pace	
ZONE 2 Aerobic base pace	T-pace + 10 sec
ZONE 3 Aerobic tempo pace	T-Pace + 5 sec
ZONE 4 Sub-LT "race" pace	T-Pace
ZONE 5A Super-LT pace	T-Pace
ZONE 5B Anaerobic effort	T-Pace – 5 sec
ZONE 5C All out sprinting effort	

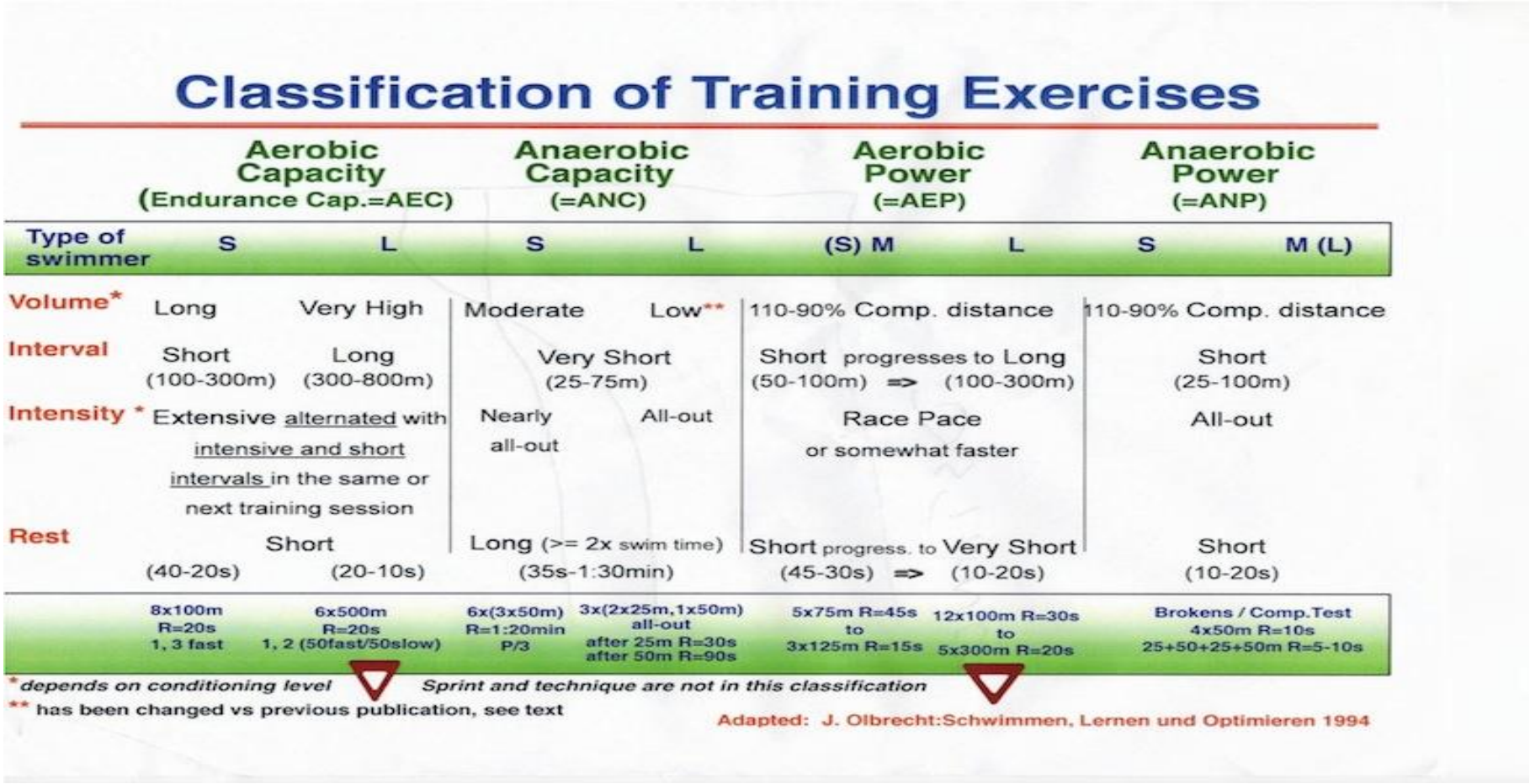
The column on the left features the seven point scale and nomenclature typically used to monitor heart rate while running or cycling—

URBANCHEK'S COLOR ZONES (with ESTABLISHD PACES)

Name	100	200	300	400	500
Zone 1 (white)	:56.84	1:54.91	2:53.44	3:52.28	4:51.34
Zone 2 (pink)	:55.03	1:52.78	2:51.55	3:50.98	4:50.91
Zone 3 (red)	:53.98	1:49.13	2:44.72	3:40.59	4:36.68
Zone 4 (blue)	:52.41	1:47.07	2:42.58	3:38.64	4:35.11
Zone 5 (purple)	:50.31	1:43.08	2:36.79	3:31.10	4:25.86

How-To: Enter your average 100 pace for your best 500 freestyle performance
Type in the set that you want + the "color zone" of the effort for each part of the set + approx. amt of rest
The "set parser" would then evaluate your set and give you intervals that matched the training capabilities.

OLBRECHT'S PHILOSOPHY & CLASSIFICATIONS



EXAMPLE 3S ENERGY SYSTEMS

Online Coach Program

- ✓ Computerized periodization for volume, intensity, and density
- ✓ Individualized based on athlete's performance level
- ✓ Flexible – allows for coach alteration
- ✓ Research-based
- ✓ Coaches' user group via email

	ZONE	ZONE DESCRIPTION	TIME LIMITS	HR
Creatine Phosphate / Anaerobic Alactic	Va	This is your maximal, all-out effort. Thankfully it won't last longer than 12 seconds!	8-12 sec	**<143**
	Vb	Same as above, with emphasis on how long you can keep your maximum effort without loosing much speed.	12-40 sec	**143 - 182**
ANAEROBIC	IVa	This zone is not for the faint of heart, and is used primarily during the competition phase of your season to improve both anaerobic and aerobic capacity. Allow plenty recovery time!!!	40-100 sec	**182 - 192**
	IVb	Pretty much the same as above with emphasis on improving your ability to tolerate "pain" at suggested speed levels.	100-180sec	**192 - 191**
	IIIa	This is the zone for classic interval workouts. Purely anaerobic. Expect possible muscle soreness and "heavy legs (arms)" after exercising in this zone.	3-7 min	**191 - 188**
	IIIb	Same as the above with emphasis on improving your ability to repeat intervals without losing speed in each repetition.	7-15 min	**188 - 181**
	II	This zone marks the transition between aerobic and anaerobic exercise. The lower number of your Heart Rate (in red at right) is a good indicator for your "Anaerobic Threshold" (LT).	15-30 min	**181 - 169**
Calculated Anaerobic Threshold (LT)				
AEROBIC	Ia	Aerobic Sub-zone. The upper level of suggested Heart Rate (at right) is the lower boundary of your "Anaerobic Threshold".	30-60 min	**169 - 151**
	Ib	Exercise in this zone is a pure aerobic effort and is the best place for exercise with the goal of losing excess weight.	>1 hour	**<151**

EXERCISE ZONES USING HEART-RATE

BEATS PER MINUTE

	AGE 20	25	30	35	40	45	50	55	65	70
100%	200	195	190	185	180	175	170	165	155	150
VO2 Max (Maximum effort)										
90%	180	176	171	167	162	158	153	149	140	135
Anaerobic (Hardcore training)										
80%	160	156	152	148	144	140	136	132	124	120
Aerobic (Cardio training / Endurance)										
70%	140	137	133	130	126	123	119	116	109	105
Weight control (Fitness / Fat burn)										
60%	120	117	114	111	108	105	102	99	93	90
Moderate activity (Maintenance / Warm up)										
50%	100	98	95	93	90	88	85	83	78	75

WHERE DO YOU FALL ON THIS SPECTRUM?

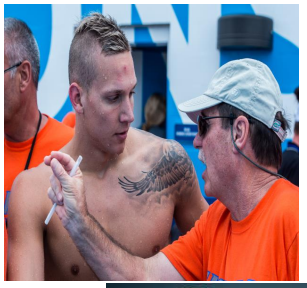
High-volume—low-to-mid intensity

???

YOU

???

Low-volume—High intensity

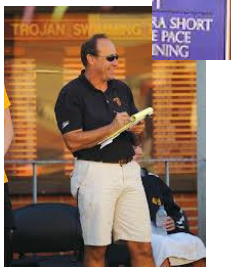







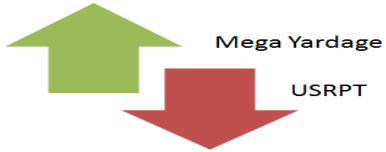




FACTORS IN CREATING YOUR APPROACH

- Volume
- Athlete's experience level & mental capacity
- Density (% or amt of time) spent on something
- Intensity classification scale (NRG zones/hr/etc)
- S&C / Dryland considerations
- Priorities…
  - Technique-based?
  - Interval-based?
  - Specificity?



INTENSITY VS. VOLUME DEBATE

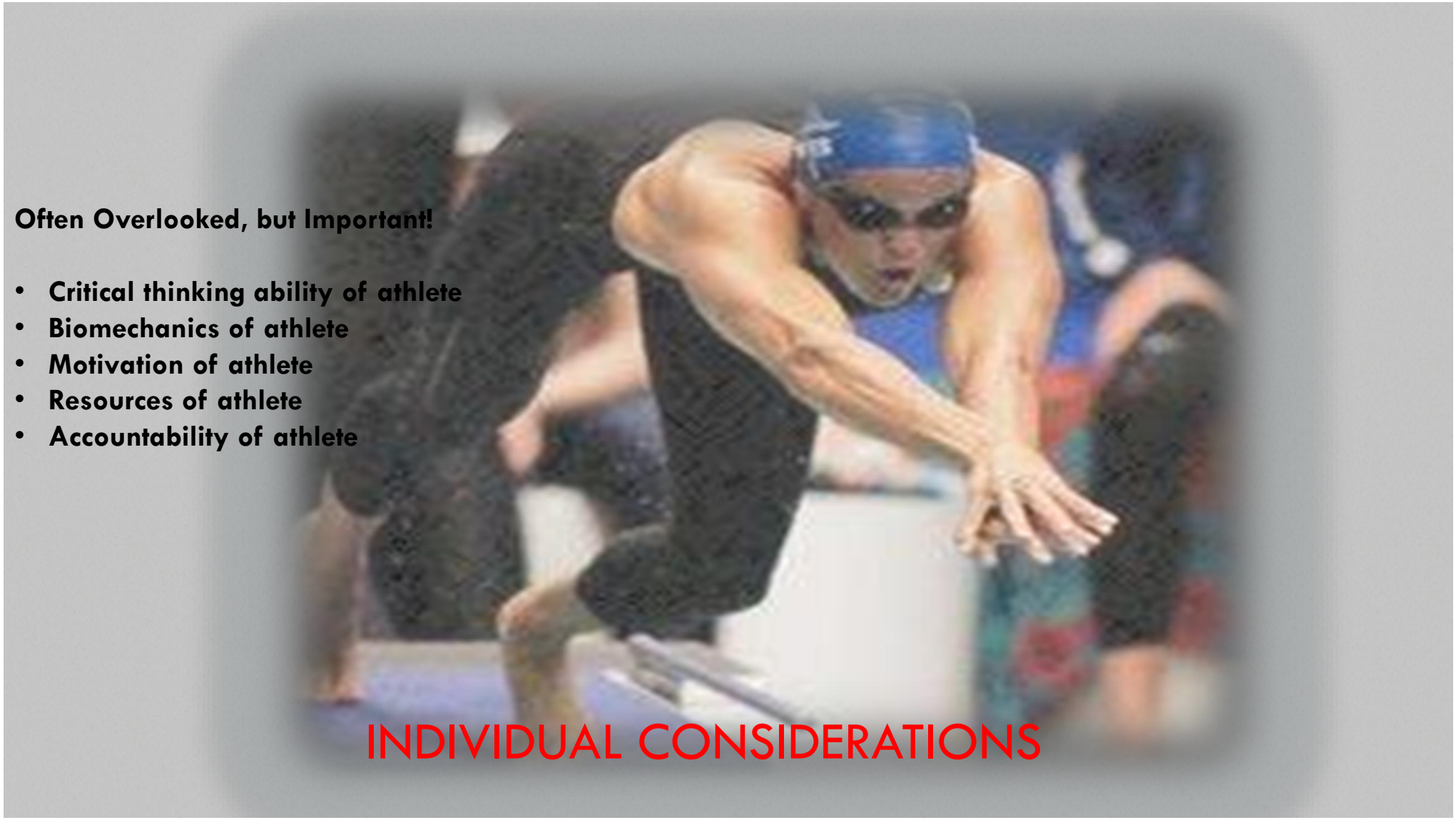
Systematic manipulation of **INTENSITY**

- Intensity is the required speed for each segment of the workout (Training Zones)
- Aerobic markers
  - Best times - average pace
    - T15, T20, T25, T30, Mile time, 500 time
- Anaerobic markers
  - Front end & Back end - Best times / Goal times
    - 50, 100, 200
      - VO2 max, 2nd 50 of 100 pace
    - Top End Speed for25, 15, 12 1/2

Systematic manipulation of **VOLUME**, with intensity

Volume

- What are the endurance capabilities of your athletes?
  - Learn thru Testing – T30/20 or test sets
- What is a reasonable maximum per workout
- What does the buildup look like?



Often Overlooked, but Important!

- **Critical thinking ability of athlete**
- **Biomechanics of athlete**
- **Motivation of athlete**
- **Resources of athlete**
- **Accountability of athlete**

INDIVIDUAL CONSIDERATIONS

In Summary…
"You know nothing, Jon Snow"

TRAINING TRENDS WILL COME AND GO (JUST LIKE FASHION TRENDS)

Best course is to review past history and compare to current trends, to see what others are doing

Decide how that applies to you & your athletes

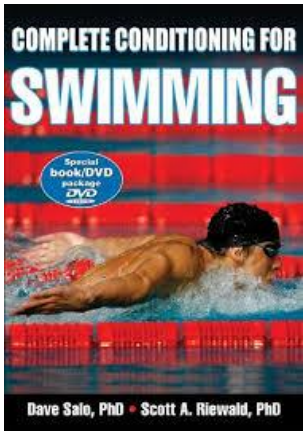
SUCCESS comes from how the athlete is actually receiving the training program, not the program or even the coach giving the program. It's all about the athlete – so understand what they need.

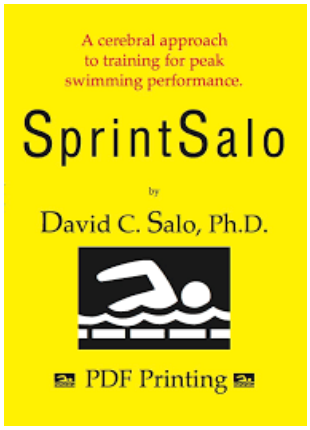
TO DEFINE YOUR OWN APPROACH: TAKE WHAT YOU LIKE AND LEAVE THE REST

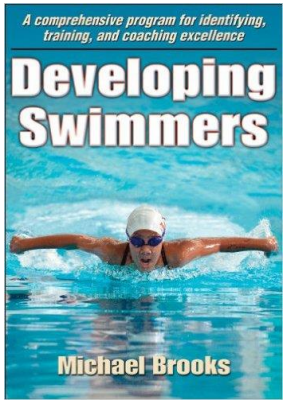
Make your own season plans, use your own language, define yourself.

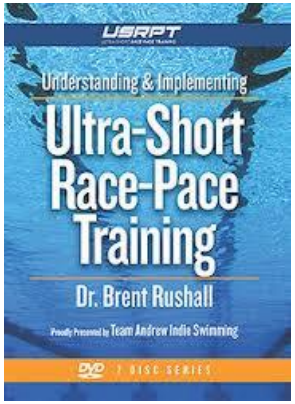
Share ideas/successes/failures with your peers to continue learning

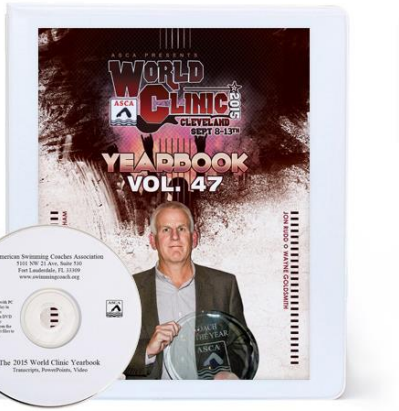
RECOMMENDED READING



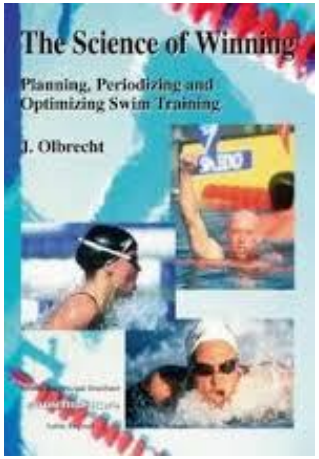


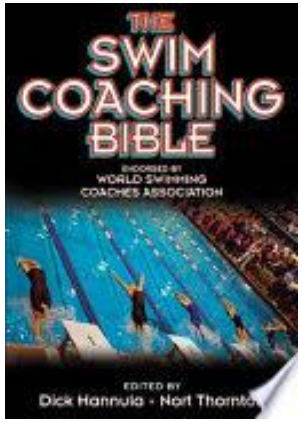


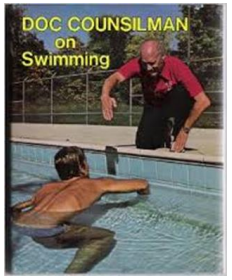




ASCA Clinic Talk, 2011







THANK YOU:

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