101 Developmental Concepts & Workouts for Cross Country Runners

by Jason R. Karp

Cross country running is almost completely neglected by book writers and only every now and then can an article on the topic be found in an athletic journal. This is strange because – as every endurance runner knows – cross country is a discipline with its own laws. Traditionally regarded by distance runners as a useful preparatory activity, there are – apart from the African all-round running talents – only a few cross-country specialists as, for example, the Ukrainian Sergei Lebed, who has so far not replicated his cross country success (eight times European champion) on the track.

Jason Karp, well-known to NSA readers (see his articles in NSA 3/2006, “The limits of running performance”, 2/2008, “Training characteristics of US Olympic marathon trials qualifiers”, and, recently, in NSA 4/2009, “The science of endurance”), is highly qualified to write about cross country running. In 1997, at the age of on 24, he coached the Georgian Court University (NJ) women’s cross-country team to the regional championship and was elected NAIA Northeast Region Coach of the Year. Besides being a man of practice, Karp is also an expert in training science. He received his PhD in exercise physiology with a physiology minor from Indiana University in 2007, his master’s degree in kinesiology from the University of Calgary in 1997, and his bachelor’s degree in exercise and sport science from Pennsylvania State University in 1995. His research has included motor-unit recruitment during eccentric muscle contractions, post-exercise nutrition for optimal recovery in endurance athletes, training characteristics of Olympic marathon trials qualifiers, and the coordination of breathing and stride rate in highly trained distance runners. Karp’s research has been published in highly acknowledged journals such as “Medicine and Science in Sports and Exercise”, “International Journal of Sport Nutrition and Exercise Metabolism”, and “International Journal of Sports Physiology and Performance”.

Karp has divided his book into two parts. Part 1 presents 30 training concepts to help guide cross country runners and their coaches. These concepts form the basis of the 71 workouts presented in Part 2.

As far as the coaching concepts are concerned, it must be admitted that not one of them is really new. However, as a collection they have not been published as clearly and concisely before. A look at a selection illustrates the point:

- **Concept #1**: To run fast, athletes must first spend a lot of time running slow.
- **Concept #2**: Easy runs must be easy.
- **Concept #3**: Time is more important than miles.
- **Concept #6**: Eating immediately following a workout speeds recovery.
- **Concept #7**: Only increase the speed of workouts when the athletes’ races have shown that they have achieved a higher level of fitness.
- **Concept #12**: The human body is great at adapting to stress as long as that stress is applied in small doses.
- **Concept #14**: Every workout should have a specific purpose.
- **Concept #15**: Recovery is just as important as training.
- **Concept #18**: Variation of training is the key.
and long-distance runners can benefit.

There is, however, one principle really specific to cross country running that Karp only mentions indirectly in the introduction to Chapter 8, "Strategy and Tactics Training". What I am thinking of is the tactical problem that in some cross country races runners are forced to start the race very fast to secure a position at the front of the pack very early, because the field of runners cannot be as easily controlled from the rear as in track races. This tactical peculiarity should actually have been mentioned under Concept #29 (see above) but the text under this concept is only three lines, shortest of all texts accompanying the thirty concepts.

Part 2, “Cross Country Running Workouts”, consists of nine chapters:
1. Aerobic Training
2. Acidosis (Lactate) Threshold Training
3. VO2Max Training
4. Anaerobic Capacity Training
5. Hill Training
6. Fartlek Training
7. Strategy and Tactics Training
8. Cross Country Games
9. Supplemental Training

Each of the 70 workouts distributed over these nine chapters includes the following information:
• Objective,
• Description,
• Variations (only when appropriate),
• Coaching Point(s).

In summary, Karp’s book is a good example of connecting research with its practical application. Throughout the text Karp gives proof of his hands-on experience of distance running. He is also highly proficient in communicating his knowledge and experience to the reader because he uses a very understandable language and is able to break down even complex physiological concepts to easily digestible information. But especially because of the wealth of sound training advice presented in a very compact format, every distance runner and coach should read Karp’s book.

Reviewed by Jürgen Schiffer
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