


The 1st European Race Walking Conference

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National Centre for Race Walking, England Athletics,
Leeds Metropolitan University, United Kingdom

Introduction

The twin pillars of long-term athlete development and coach development were the focus of the 1st European Race Walking Conference, which attracted 75 participants from 16 countries as far afield as Australia, USA and South Africa. The conference, which took place at the National Centre for Race Walking, Leeds Metropolitan University, UK, from Friday 6th to Sunday 7th November 2010, was a part of the European Athletics Coaching Summit Series and received financial support from England Athletics, UK Athletics and European Athletics. In addition, some delegates from the 13 European nations represented were able to take advantage of scholarships provided by European Athletics to help cover the cost of attending.

After a joint opening address by the former Welsh international Rugby Union player Gareth Davies, who is the Dean of the Carnegie Faculty, Leeds Metropolitan University, and former Olympic 20km race walker Martin Rush, who is National Coach Mentor (Endurance), for England Athletics, the programme took up the two themes in a mixture of keynote addresses, lectures, discussions around best practice and practical workshops, which are summarised in this report.



Day 1 – Afternoon Session

Keynote: Planning & Preparation *Ivano Brugnetti*

Antonio La Torre (ITA)

Ivano Brugnetti (ITA) was World Champion in the 50km Race Walk in Seville in 1999 and became Olympic Champion in the 20km Race Walk in Athens in 2004. La Torre, who is Associate Professor in Methods of Educational & Sports Activities at the University of Milan, an Expert Consultant to the Technical Committee of the Italian National Olympic Committee (CONI), a member of Technical-Scientific Committee of the Italian athletics federation (FIDAL) and a Senior Lecturer in the IAAF Coaches Education and Certification System (CECS), described the evidence based decision making process that led to the successful switch of Brugnetti's focus to the 20km distance for 2004.

Brugnetti's technical competence; ability to work at a high basic race walking speed; maximum oxygen uptake ($\dot{V}O_{2max}$), i.e. ~ 70 ml \cdot kg $^{-1}\cdot$ min $^{-1}$; good race walking economy; and high blood lactate tolerance were the factors considered when making the methodological changes in preparation, whereby training quality was increased and volume decreased bringing early success at 10km and 5000m indoors (see Table 1 and Table 2). The key points drawn from the analysis are: a training plan favoring quality vs. quantity; introduction of cutting-edge power stimulus in an already high-performance endurance athlete; training monitoring (utilisation of testing in physiology and biomechanics), the role of different race distances (e.g. 5km to 50km) in the overall preparation.

Table 1: 2004 Altitude strategy: Ivano Brugnetti (ITA)

Altitude Stage	Period	Venue	Altitude	Key sessions
1	Feb - Mar 2004 (24 days)	Albuquerque, New Mexico, USA	1500m	<ul style="list-style-type: none"> • 15km: 1:04:06 (21:30 + 21:26 + 21:10) • 2 x 10km: 44:16 + 41:53 (21:02 + 20:49) • 10 x 1000m: mean of 4:00·km⁻¹ • Long distances: mean of 5 min – 4:55·km⁻¹
2	end June 2004	Courmayeur, Italy	3300m	<p>Torino Hut, LHTH</p> <ul style="list-style-type: none"> • 4 h/day at 1600m (one training session) • 20 h/day at 3300m • 250 steps to reach the hut
3	July 2004, (22 days)	Sestriere, Italy	2090m	<p>LHTH Never under 1354m</p> <ul style="list-style-type: none"> • 12 high-very high intensity training sessions • 3 uphill trainings of 11-15km with extended finishing sprint

Table 2: 2004 Crucial sales: Ivano Brugnetti (ITA)

Competition	Venue	Result	Notes
20.03.04 - IAAF RW Challenge	Tijuana, Mexico	20km, 1st: 1:19:42 (3:59·km ⁻¹)	Personal best; 2nd Italian all-time performance; developed awareness that on right (20km) path
02.05.04 - IAAF RW World Cup	Naumberg, Germany	20km, 6th: 1:20:06 (4:00·km ⁻¹)	Target: self control
29.05.04 - FIDAL Championships	San Giovanni Marignano, Rimini, Italy	20 km, 1st: 1:21:31 (4:04.55·km ⁻¹)	Alone throughout the race (2nd at 3 min 00 sec); 30°C
04.08.04 Italian Summer Race	Saluzzo, Italy	10000m, 1st: 38:23.05 (3:50·km ⁻¹)	Italian Record and 5th world all-time performance
20.08.04 XXVIII Olympic Games	Athens, Greece	20 km, 1st: 1:19:40 (3:59·km ⁻¹)	Personal best; 2nd Italian all-time performance

Workshop: Race Walking Biomechanics**Brian Hanley (IRL)**

Hanley, a Senior Lecturer in Sport and Exercise Biomechanics, Carnegie Faculty, Leeds Metropolitan University, demonstrated how biomechanics can be used to improve performance in race walking. First, he led the participants through a typical data collection session in the laboratory with the assistance of athletes from the UK Athletics National Centre programme. This involved high-speed video to capture the movement, force plates to measure important features such as braking and propulsion, and electromyography (EMG) to gain an insight into the workings of relevant muscle groups such as the hamstrings and quadriceps. He highlighted how these data can be interpreted to compare and contrast technical aspects between athletes. These tests can be used to identify strengths and weaknesses in an athlete's technique, including recognising where an injury risk might exist. Finally, he demonstrated the use of the h/p/Cosmos Gaitway treadmill, which has indwelling force plates that allow for the analysis of variables of particular interest such as stride width and angle of turn-in of the feet, which are usually very difficult to measure.

Workshop: Athlete Profiling - Effects on Common Race Walking Injuries**Fraser McKinney (GBR)**

McKinney, a Clinical Physiotherapist at the Carnegie Sports Physiotherapy Clinic and the Head Physiotherapist & Lead Sports Science Co-ordinator for Great Britain Basketball, demonstrated two key areas of testing to highlight how to develop a profiling system. His workshop showed how assessment of the kinetic chain could be linked to reductions in injury and improvements in performance. He took the participants through analysis of a tibialis anterior injury due to hip tightness; and a hamstring tightness/injury due to shoulder girdle tightness – these examples were chosen as race walk athletes had presented with need for development in these areas in the Carnegie

Sports Physiotherapy Clinic. He said will consider all components of a muscle and effects: directly on length, on the kinetic chain, and on (individual) athlete performance and his process of gaining physical, mental and skill level information about athletes follows a four-stage process:

- 1) Understanding: Highlight areas for development
- 2) Analysis: Identify the characteristics and desired movements/strength/flexibility patterns
- 3) Interpretation: Screen the athlete
- 4) Delivery: Analysis of the results with aim to develop method of improving that athlete

Lecture: Race Walk Judging**Luis Saladie (ESP) and Peter Marlow (GBR)**

Both Saladie and Marlow are highly respected international race walking judges (IAAF Level 3) and members of the IAAF Race Walking Committee. Saladie is also the Events Manager at the Royal Spanish Athletic Federation and the federation's Race Walking Coordinator while Marlow is the Head of UK Athletics Race Walking Policy & Support Team. They provided an update on international race walking judging. This included a rare and much needed opportunity for coaches to interact and enter into dialogue with representatives of the international judging community.

The speakers gave an overview and update of the rules of race walking and a more in depth discussion around the principles and underpinning philosophies that have been adopted by the international judging panels. They also outlined recent rule changes around the use of cautions. The participants got to sit the video examination that was used at the IAAF Level 3 Examinations in Paris the preceding weekend. This provoked lengthy discussion around the interpretation of the rules of race walking.

Day 2 – Morning Session

Keynote: Transitional Factors in Race Walking

Brent Vallance (AUS)

The conference organisers acknowledged Australia as a nation successful in managing the transition from junior to senior athlete in the race walking events. Vallance, a Senior Athletics Coach for Race Walking at the Australian Institute of Sport (AIS), gave an overview of Australia's Little Athletics programme for children aged 5 to 16 years, which features 1100m and 1500m race walks for 10 & 11 year olds and 12-16 year olds, respectively. These events give race walk exposure to more than 95,000 girls and boys across the continent, each year.

Elsewhere globally, there are 17-year-old athletes (e.g. China) making the IAAF 20km senior ranking lists with "A standard" performances – as Vallance stressed, quite a difference! Australia is a nation with a relatively small talent pool compared to China and Russia and Vallance highlighted Portugal as an example of good practice in managing a small talent pool.

Vallance outlined the needs of a high performance system to support the coaching process required order for successful junior to senior transition to occur:

- a feeder System of athletic talent:
 - From where? (e.g. pockets of excellence linked to active coaches across Australia – large distances involved!),
 - To the AIS or elsewhere?
 - At what age? (e.g. National Youth Program under 17 and under 19 camps);
- provide talent with opportunities:
 - Training camps (e.g. month long January camp at AIS),
 - International touring and competition.
 - Close contact with established seniors.

He said that in practical terms, junior athletes accessing the AIS Programme will normally focus their preparations on:

- establishing race walk patterns (5 days/wk);
- establishing twice per day training patterns including strength & conditioning and cross-training;
- developing good training habits; supported by use of AIS services;
- long walks becoming the main part of training diet.

Workshop: Race Walking Drills & Skills

Martin Rush (GBR)

Rush, followed up his opening address with a practical workshop in which he shared knowledge about the uses of drills in race walking. Skill learning was cited as the principal use of event specific drills, with additional roles in skill reinforcement/development (as a tool for fault correction); and the development of mobility, together with general and functional conditioning. The participants discussed when and where to programme these activities within training cycles and/or athlete development stages. Rush also worked with athletes from the National Centre to demonstrate examples.

Lecture: Biomechanics

Brian Hanley (IRL)

Hanley followed up his workshop of the previous day by presenting findings from three kinematic studies on elite race walking. First, he presented results of a study of 90 elite walkers, thirty from each senior race at the 2008 World Race Walking Cup. He said that world class walkers have a stride length of approximately 70% of their height, which allows them to maintain high stride frequencies and prevent visible loss of contact.

He then discussed his findings from a study on elite walkers at the 2007 European Cup Race Walking, where twelve athletes in each senior race had been analysed at four split distances. He showed how loss in walking speed in this longest of athletic events was predominantly due to decreases in stride length and pelvic rotation and increased contact time.

Conference Declaration

- Race Walking as a discipline should be developed in parallel with wider developments in European and international athletics coach development (e.g. CECS) but with specific reference to the needs of race walk athletes and their coaches.
- Race Walking as a discipline should be developed by adopting the principles of Long Term Athlete Development (LTAD) and Long Term Coach Development (LTCD).
- The delegates also confirm the value of periodic Race Walking coach interaction as well as interaction within the wider sphere of athletics.
- Race Walking as a discipline should be developed by adopting evidence based practice and models of good practice.
- In order for race walking as a discipline to develop further and flourish it should be embedded within the structures and programmes of athletics, internationally, nationally and at local levels.
- Race Walking as a discipline should be developed through opportunities for regular and appropriate international competition.
- Race Walking as a discipline should be developed through regular Coaching Conferences/Seminars... These could be attached to EAA/IAAF competitions but event development should also to explore the use of new technology e.g. webinars/podcasts.



Participants at the 1st European Race Walking Conference

The final study presented was on twenty athletes from each of the junior events held at the 2009 European Cup Race Walking. This showed that although the junior athletes had similar attributes to the senior walkers, they tended to have less pelvic rotation and more upper body movements, which made them less efficient.

Day 2 – Afternoon Session

Keynote: Coaching Competence and Qualifications

Pat Duffy (IRL)

Duffy, who is Professor of Sport Coaching, Carnegie Faculty, Leeds Metropolitan University and the Chairman, European Coaching Council, examined models of Long-Term Athlete Development (LTAD) and Long-Term Coach Development (LTCD) and set his work in the context of coaching competence and qualifications, discussing similarities and differences between the European Coaching Council and the IAAF CECS models. Practical implications were drawn from a high performance race walking coach-athlete case study.

He said that coaches need to be able to identify the stages of development for race walkers, i.e. LTAD. Moreover, coaches should identify the key capabilities required for success along the way in the athlete. Related to their own coaching practice the study found that coaches should understand the coaching domains, roles and capabilities, i.e. LTCD in race walking and how these relate to the IAAF CECS. Specifically from the high performance case study Duffy found:

- alignment of coach capability and athlete need;
- knowing the athlete/(self)developing the coach;
- all categories of coaching expertise called upon;
- significance of ‘team’ and ‘environment’ related capabilities;
- transfer rather than retention of athletes?;
- coach capability to ‘pass on’ and to ‘bring up’?

Workshop: Coach Development

Andy Abraham (GBR)

Abraham, a Senior Lecturer in Sport Coaching, Carnegie Faculty, Leeds Metropolitan University, led a workshop on coach development drawing on his work with Professor Dave Collins (University of Central Lancashire). He used a problem-solving task to draw out delegate’s ideas about coaching expertise and decision making.

Workshop: Nutrition

Louise Sutton (GBR)

Sutton, the Principal Lecturer in Sport and Exercise Nutrition, Carnegie Faculty, Leeds Metropolitan University, reviewed the consensus on nutrition and athletic performance and shared experiences in delivering a nutrition education programme to race walkers. Providing performance nutrition for race walking, is not ‘rocket science’ but ‘common sense’ and the successful practice requires focussed application and effort on the part of the athlete.

Her workshop highlighted that nutritional strategies/recommendations should:

- be based on scientific evidence;
- consider the physiology of the event;
- be realistic and achievable;
- take account of the rules and regulations.

Workshop: Athlete Development

Pat Ryan (IRL)

Ryan, who is Director of Development for Athletics Ireland, led a discussion around how to develop race walking based on the Athletics Ireland (AI) Model and current practices and strategies in other countries. Ryan outlined how his federation had attempted to capitalise on a golden generation of Irish race walkers, who had achieved success at the highest international level over the last decade. He advocated that race walking be embedded into athletics programmes and structures as opposed to the ‘Separatist Approach’ that has been in

the ascendancy in other countries, such as the UK, which considers race walking to be a sport in its own right.

He also outlined the Irish approach of ensuring race walking was part of the competitions structure of club league based competitions; the schools athletics programme; and other community athletics competitions/structures. Another feature of the strategy has been to make sure that race walking is embedded in coaching courses and education. This is ensured by making sure that it is a component of the curriculum of Level 1 Coaching Awards. Future developments include the need to develop a nationwide pool of officials who are competent race walking judges to support the competition programme.

Day 3 – Morning Session

Keynote: Planning & Preparation - Jared Tallent

Brent Vallance (AUS)

Vallance's second presentation at the conference was a case study of double Olympic medallist Jared Tallent's development from competing at the World Youth Championships in 2001 to date. From his early training in his home of Ballarat in which he was mixing swimming, athletics and triathlon, Jared entered the Australian Institute of Sport programme in 2003 and made his first World Championships Team in 2005, placing 18th in the 20km walk. At 23, with a string ranking of 40th on the 2007 Performance Rankings, he was disqualified at 16km of the world championships 20km when in 5th position. These two performances evidenced championship capabilities.

In his presentation, Vallance highlighted the "Australian Dilemma", i.e. the non-alignment of the country's competitive season with a European summer, which requires multiple performance peaks that most athletes do not have in their programmes. He also described in detail the Australian Institute of Sport's altitude training support for Jared and how this is utilised,

in particular the role of the Altitude House at the AIS.

Lecture: Evidence Based Practice

Andrew Drake (GBR)

Drake is the Head Coach at the National Centre for Race Walking, England Athletics. He drew on a range of evidence to support the work of the conference speakers/leaders and reviewed the coaching and scientific literature related to athletic programme characteristics; race walk athlete development; and nurturing race walk talent. He described the National Centre for Race Walking's plan to impact on the race walk events: establish a clear strategy/objective; create an environment in which talent can thrive; and identify the athlete base. The strategies/objectives are driven by a passion for developing talent towards championship teams and fulfilling potential. The environment in which athletes can thrive is key to the success of any programme. There is already a team in place at Carnegie who have experience of working with National Race Walk Squads/Teams and who are expert in their own fields, e.g. sport science support, strength & conditioning, physiotherapy and coach education. Moreover the programme engages with overseas squads and coaches who share their expertise. The final phase of establishing the programme has been to work with the athletes - often seen as the starting point of a programme launch; however it is typically without the crucial first two stages being fully developed/implemented! In short as the programme gathers momentum it will begin to make a difference.

Day 3 – Afternoon session

Plenary Session/Round Table

The conference closed with a plenary session and round table discussion featuring the speakers, presenters and contributors from the weekend, which was led by Malcolm Brown (GBR), Olympic Performance Manager for British Triathlon, Great Britain Athletics Team

Coach and the former Director of Sport & Associate Dean, Carnegie Faculty, Leeds Metropolitan University, together with Ian Richards (GBR) from the Carnegie Faculty, Leeds Metropolitan University. A number of the issues raised during the conference were discussed in this session.

As this was the first conference of its type, the opportunity was taken to develop an agreed standpoint of the views of the participants through a conference declaration (see box). The declaration was signed by all the participants and it is hoped this will drive the agenda of race walking coaching across Europe and be used as a blueprint for future discipline specific conferences.

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