

BMC NEWS

*Official Journal of the
British Milers' Club*

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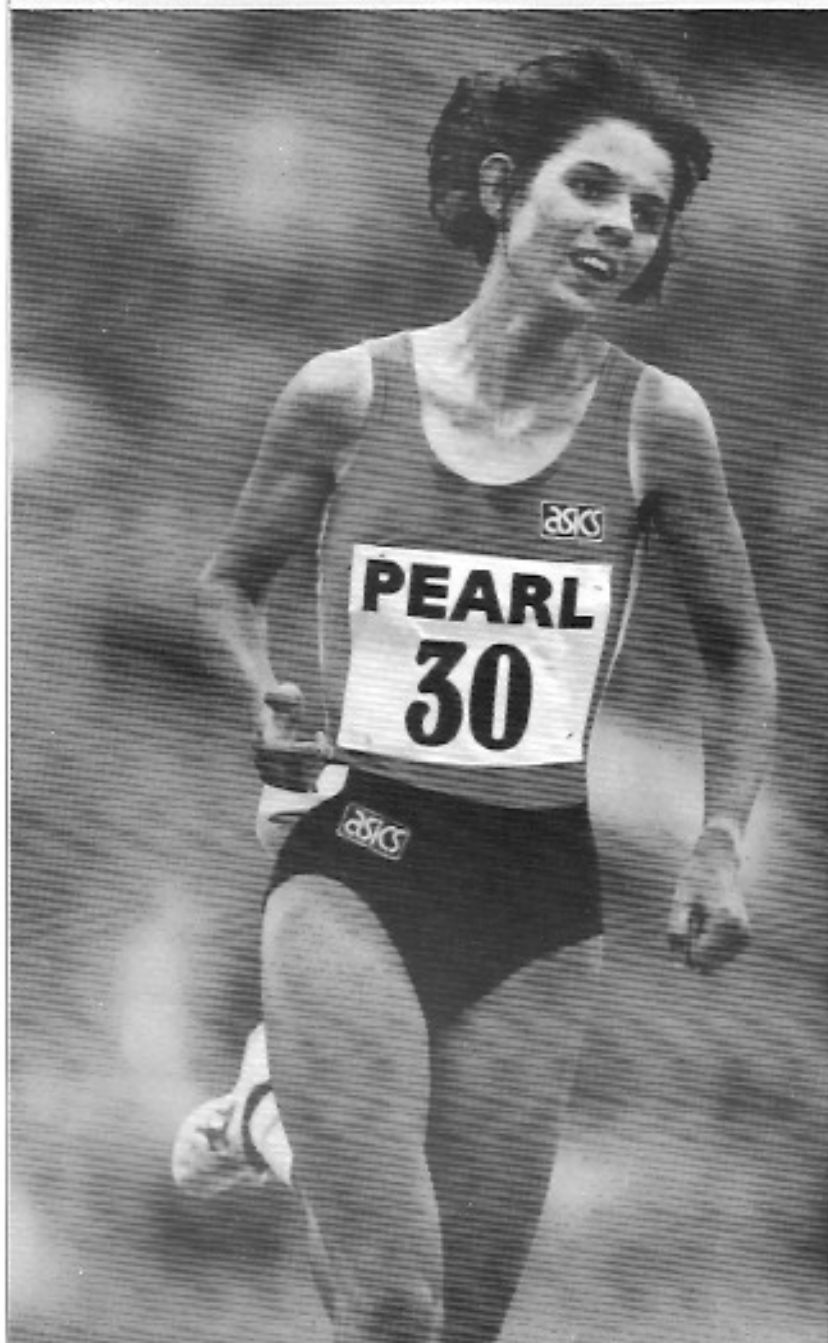


Photo by George Herringshaw, ASP, Leicester

Lisa York
Winner of the 1992 Ladies' National Cross-Country Championships

Peter Coe :
**Ignore Circuit & Weight
Training at Your Peril**

Sharon Winkler :
**A Message about
Massage**

How They Train
- Lisa York

Barcelona Review

UK 800m Lists

The British Milers' Club

Founded 1963

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BMC News is published twice yearly in March and September by the British Milers' Club. BMC News is distributed free to all members. Non-members can subscribe for £10 per annum.

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MEMBERSHIP

Membership is limited to those athletes who have achieved the required qualifying times, and to Senior BSP Coaches. Associate membership is granted to those possessing special qualifications likely to benefit the club.

Members receive the BMC News free twice a year. They are eligible for reduced entry fees to BMC Races and Courses, as well as receiving traveling expenses to some sponsored BMC Races. Coaches receive the quarterly BMC Coaches' Newsletter.

Annual subscriptions of £8 are due 1st January each year. All applications to join the BMC should be sent to the Membership Secretary enclosing a large SAE.

MERCHANDISE

BMC Vests (\$M), £8), BMC Ties (£5) are available from Rannorswood, 553 Rayners Lane, Pinner, Middlesex. The BMC Coaching Directory (£2), back issues of BMC News (£1 each) and the BMC Training Totebags (£1) are available from the Treasurer, Pat Fitzgerald. Please make all cheques payable to 'The British Milers' Club'.

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	800m	1,500m	3,000m	5,000m	10,000m
Senior Men	1:52.0	3:49.0	8:10.0	14:10.0	30:00.0
Junior Men	1:55.0	3:56.0	8:35.0	14:50.0	
Youths	1:59.0	4:05.0	8:45.0		
Boys	2:05.0	4:20.0	9:15.0		
Senior Women	2:12.0	4:28.0	9:35.0	16:50.0	36:00.0
Juniors (U20)	2:14.0	4:35.0	9:50.0	17:10.0	
Intermediates	2:17.0	4:40.0	10:00.0		
Girls (U15)	2:20.0	4:50.0			

BMC News...News...News...

** National Training Day 1992

This year's National Training Day is being held at West London Stadium, Du Cane Road, London W12 on Saturday October 17th 1992, 9.30am - 6pm. Nearest main road is the A40. Nearest tube is East Acton (Central Line). The theme is 'Winter Wizardry for Success'.

Lecturers : Frank Horwill, Senior BAF Coach; Phil Banning, National Coach for Juniors (MD); Harry Wilson, Master Coach; Peter Thompson, Senior BAF Coach.

Interview : Conducted by Tony Ward, Press Officer to the BAF, with Tom Buckner and Robert Denmark, both GB internationals and Olympians.

Training : Conducted by Andy Anderson and Frank Horwill.

AGM : Selection of officers for the BMC and the Coach of the Year Award

Cost : £8 to non-members, £6 to members (please state your membership number). Anyone conveying three athletes to the course is exempted from the course fee.

Applications together with an SAE to : W Anderson, 75 Chichester Road, North End, Portsmouth, Hants., PO2 0AB. Bring a packed lunch. Tea/coffee available free. All cheques payable to "The British Milers' Club". Closing date 15th October 1992.



** 30th Anniversary Dinner

Plans continue for the BMC 30th Anniversary Celebrations. They will be held in Oxford on Saturday 10th July 1993.



Photo by Rondelle

Can you identify these past and present committee members? From left to right, Brian Boulton, Peter Coe, Ian Chalk, Frank Horwill, Matthew Fraser Moat, Maureen Smith, Dave Cocksedge, Tim Hutchings, David Iszatt and Pat Fitzgerald, pictured at Frank's 65th birthday party.

Using the famous Iffley Road track, there will be an attempt at the World 4 x 1 Mile Men's and Women's World Records, a Golden Oldies 4 x 400m and of course the ultimate BMC Handicap Mile for men and women.

There will be a Celebration Dinner at St Hilda's College at 7.30pm. Evening dress shall be worn. All BMC Members and spouses are invited to attend. The cost of the dinner will be approximately £35, and overnight accommodation will be available at a further cost of about £25.

Numbers for the Dinner will be strictly limited to 150, and will be allocated on a first come first served basis. A deposit of £10 per person is required to secure a place. If you wish to attend, please could you complete Page 4 of the enclosed Membership Questionnaire.

The organising committee are Brian Boulton, David Cocksedge, Peter Coe, Frank Horwill, Tim Hutchings, Matthew Fraser Moat and Maureen Smith, but additional help would be most welcome.

It is also planned to hold precisely thirty 30th Anniversary Races throughout the United Kingdom in 1993. If you wish the BMC to hold a race at your local track, please write to the National Secretary, Mike Rezin, by 30th November 1992.

** 30th Anniversary Sponsor

We require a major sponsor for the highlight of our 30th Anniversary Celebrations at Oxford; without one it will be difficult to proceed as planned.

We are seeking up to £5,000 to cover expenditure in advance of the event (deposits for hire of facilities, printing of T-shirts) and also for the expenses of the track meeting (track officials, numbers, competitors' expenses etc). If you are wealthy, or have a generous employer, and wish to sponsor the BMC's 30th Anniversary, please write to Matthew Fraser Moat as soon as possible.

If you wish to sponsor one of the thirty 30th Anniversary Races, the cost will be about £500 per race, to include all competitors' expenses and prizes for exceptional performances.

** BMC Olympic Success

Congratulations to the following BMC members who were selected to represent Great Britain at the 1992 Olympics :

Jack Buckner, Tom Buckner, Robert Denmark, Ian Hamer, Tom McKean, Kirsty Wade and Lisa York.

BMC News...News...News...

** Membership Questionnaire

We are taking the opportunity to update our computer records on all our members, with a four page questionnaire. Page 1 asks you to confirm your address and for details of your running career. Pages 2 and 3 invite you to give your views on the future plans of the BMC, and Page 4 asks for details for the BMC Coaching Directory (if applicable) and also invites you to the 30th Anniversary Dinner.

** 1993 Coaching Directory

The next edition of the BMC Coaching Directory will be produced in Spring 1993. If you wish to be included, please complete Page 4 of the Membership Questionnaire.

** The Best Ever BMC Race?

On the 8th June 1992, at the IAAF Mobil Grand Prix, there was arguably one of the greatest international races featuring BMC Members, the more so in that it was almost completely unexpected.

In the 5,000m that evening, the field of 22 featured the 10,000m World Record holder Arturo Barrios, the reigning World 10,000m Champion Moses Tanui, the reigning Olympic 10,000m Champion and World 5,000m bronze medallist Brahim Boutayeb, the reigning Commonwealth 5,000m Champion Andrew Lloyd and the reigning European 5,000m and 10,000m Champion Salvatore Antibo.

And yet, Ian Hamer won in 13:09.80, Rob Denmark was third in 13:10.24, Jack Buckner was fourth in 13:10.47, and John Mayoek eleventh in a new personal best by 13 secs. When was the last time we had three BMC Members in the top four in a top quality international race? (First three in the Commonwealth Games 1986 - but in much slower times. - Ed)

Best performance this year in a domestically organised BMC race was Adam Duke's 1:48.8 in the 800m at Solihull on 28th July. This rated him ninth in the 1992 World Junior Lists as at 31st August 1992.

** Frank is Retiring!



"Frank Horwill is retiring - Not! He is one of the most generous, fun-loving and cantankerous people we know!" Thus read one of the many messages at Frank's 65th birthday party held at Browns Club, London, on June 19th 1992.

One hundred and fifty friends, colleagues and athletes past and present attended from all over the country, among them Phil Banning, Brian Boulton, Ian Chalk, David Coekesedge, Peter Coe, Janet Cole, Ray Culberson, Pat Fitzgerald, Tim Hutchings, David Iszatt, Eric Nash, Maureen Smith and Alf Wilkins.

Those who were unable to attend but who sent messages of support included Laura and Marc Adam, Sir Roger Bannister, Hugh Barrow, Jack Buckner, Sebastian Coe, Rob Denmark, Jim Douglas, Mike Down and his athletes, Alan Freer, George Gandy, Dr Mark Hirsh, Derek Ibbotson, Derek Johnson, David Moorcroft, Wilf Paish, Vince Regan and Denis Watts.

Wilf Paish wrote: "While many coaches have come and gone with the occasional international athlete, only two have stood the test of time, Frank and myself! Long may he continue to keep those lesser mortals of coaching on their toes."

Tim Hutchings presented Frank with a great multitude of presents, which included a blazer, a word processor, a television and a video recorder. Now that Frank actually has some time to himself, watch out for more outrageous letters, articles and books!

** BMC in Lanzarote - March 1993

We have arranged with Sports Tours International special rates for BMC Members at Club La Santa for 18th March - 1st April 1993. As part of their 30th Anniversary Celebrations, the BMC will be holding precisely 30 high quality races in 1993, and have chosen Lanzarote as the venue of the first three of these races.

The 1993 BMC International Grand Prix will be held at Club La Santa on 29th, 30th and 31st March 1993. The Grand Prix will comprise three races in three days over the following distances: 2 miles, 800m and 1 mile, and non-members will be most welcome to participate. All entry fees for the Grand Prix are included in the price of the trip.

Whether or not athletes wish to participate in the Grand Prix Races, Frank Horwill will be conducting two training sessions each day which all reasonably fit athletes may attend. Sessions will be for runners from 800m to the marathon, as well as bi-athlon and tri-athlon enthusiasts.

In addition to these training sessions Frank will conduct daily lecture/discussion groups about all aspects of training, and, in particular, the use of tactics. These discussions will include what can be learned from the distance events in the recent Olympics.

The course is open to all, but BMC Members will receive an additional discount of £35 provided they quote their membership number. All coaching fees in Lanzarote are included in the price of the trip, and prices start from about £295 including discount for three people sharing an apartment for two weeks or from £212 for one week. For further details, see the advertisement on page 23 or call Vince Regan or Andrew Crossfield of Sports Tours on 061 703 8161.

** Donations

We gratefully acknowledge donations received up to 31st August 1992:

Gerry Barnes, M Barrett, William Graves, Derek Ibbotson and Denis Watts.

BMC News...News...News...

** Merthyr Mawr



After a gap of several years, the BMC returns to Merthyr Mawr on 16th - 17th January 1993. The cost will be about £60. For more details please contact our Welsh Secretary Colin Daley on 0443 407697.

** Committee Meetings

The dates of the next meetings are : Sunday 8th November 1992, Sunday 3rd January 1993, Sunday 7th March 1993 and Sunday 9th May 1993. All meetings take place in the Club House, West London Stadium, and all Vice Presidents are most welcome to attend.

** BMC Vests

Worn your BMC Vest with pride recently? If not, why not?

Of the sixty-five members who have joined in the last twelve months, fewer than five have purchased a BMC Vest.

The National Committee has recently resolved that only athletes who wear BMC Vests will be eligible to claim expenses at sponsored races. With thirty sponsored races next year, members without a vest are going to miss out!

All BMC kit is being sold via mail order at Runnersworld, 333 Rayners Lane, Pinner, Middlesex. Tel 081 868 6997.

** Next Issue

The next issue will be a special issue to mark our 30th Anniversary, and will include a section of members' reminiscences over the 30 years.

There will be the results of the questionnaire, race reports from the best ever BMC races, and the issue would not be complete without a selection of 'Horwillisms' over the years.

Members are therefore invited to contribute articles and photographs to the Editor by 31st January 1993.

The senders of the best article and the best photograph will each receive a free ticket and accommodation to our 30th Anniversary celebrations in Oxford.

NEW MEMBERS

Congratulations to the following who have been elected to the BMC since the last issue :

2270	Karen McPherson	Stretford AC	2294	Maureen Jackson	New Marske Harriers
2271	Abigar Bayley	Weymouth St Pauls	2295	Mark Fallows	Edinburgh AC
2272	Pete Clark	Weymouth St Pauls	2296	Stephen Latham	Sale Harriers
2273	Derrick Harding	Wolverhampton & B	2297	Simon Sasby	City of Hull
2274	Lisa Bluett	Wigan Harriers	2298	Richard Findlow	Bradford Airedale AC
2275	Steffan White	Coventry Godiva	2299	Diane Brockley	East Cheshire AC
2276	Ian Bertenshaw	Sale Harriers	2300	Paul Wynn	Warrington AC
2277	Peter Baker	Portsmouth	2301	Abric de Swardt	South Africa
2278	Julie Swann	Wolverhampton & B	2302	William Graysmark	Gloucester AC
2279	David Rankin	Oldham & Royton	2303	David Rowbotham	Copeland AC
2280	Adele Burton	Lancaster & Morecambe	2304	Aidan Walpole	Preston H & AC
2281	Robert Scandon	Coventry Godiva	2305	David Dix	Coventry Godiva
2282	Andrew Wedlake	Bournemouth AC	2306	Richard Lynch	North London
2283	Colin Jacks	Coventry Godiva	2307	Michael Morris	North Shields Poly
2284	Ian Wetherall	Frodsham Harriers	2308	Rachel Jordan	Birchfield Harriers
2285	James Goodall	Altrincham	2309	Alison Parry	Croydon Harriers
2286	Andrew Bell	South Africa	2310	Andrew Walling	Sale Harriers
2287	John Vinard	City of Bath AC	2311	Philip Hogstan	Invicta East Kent
2288	Janet Holt	Trafford AC	2312	Edward Bowan	Leamington C & AC
2289	Sarah Singleton	Liverpool Harriers	2313	Andrew Parker	Scarborough Ryedale H
2290	Joseph Mills	Chelmsford AC	2314	Louise Ireland	Rowntree
2291	Sarah Bentley	Crewe & Nantech	2315	Stephen Johnson	Liverpool Harriers
2292	Ian Mansfield	Lincoln Wellington AC	2316	Colin Tomlin	Invicta East Kent
2293	Jackie Hamsford	Bournemouth AC	2317	Andy Hart	Coventry Godiva

Achilles Writes...

Many years ago Harry Wilson, former National Event Coach for middle-distance running, told an interesting story. He was sitting in the stands watching an Olympic Games and was joined by David Hemery, the 400m hurdles gold medallist. A man sitting behind Harry was delighted to recognise Dave and asked Harry for an introduction.

A conversation ensued and Dave gave forth on his views about British athletes lacking the financial backing that some state controlled athletes enjoyed in other countries. From that day on the man he had talked to began to pour untold amounts of money into British athletics, in particular to the middle-distance events.

That man was Eddie Kulukundis, OBE, the former Chairman and Publisher of *Athletics Today*. He continued his financial support for some 20 years and the amount he gave is incalculable.

He gave it because he loved athletics. Unlike many sponsors he did not seek publicity to advertise a commodity, he remained largely anonymous. Such men are a rare breed. Now, owing to the Lloyds debacle, his support has to be diminished.

Let us hope that those who reaped support from Mr Kulukundis will not forget his steadfast support of British athletics over two decades.

With British distance running at an apparent low, and with those who should know better trying to justify the 'coaching system', another Harry Wilson story comes to mind. Harry was in a hotel bar with the Tancred brothers talking about the benefits of circuit training.

A tall, well-built man approached determined to have his say in the conversation. When challenged, he asserted that he was one of the best football coaches in the country. "Which club?", asked Harry. The man mentioned a First Division club. "But they are

bottom of the League - you can't be a good coach!"

The lesson is there for all to see. It is results that count. Certain well-known coaches do themselves a dis-service by trying to suggest otherwise.

Why do so many athletes reject front running as the tactic for progressing through preliminary rounds to a championship final? Commenting on the failure of the British runners to contribute to the pace of the Olympic 5,000m heats, Brendan Foster opined that "There's no point saving yourself for the final if you don't qualify."

Maybe Matthew Yates didn't make the final but he had the guts to get up there and challenge the others to stay the pace and beat him. Alison Wyeth ran a pb to qualify for her final. What might have happened if others had done the same?

Reportedly Frank Dick, National Director of Coaching, wants pace-makers banned. At the top level there's a lot to be said in his favour (anything to preserve our remaining British World records!), but how are up-and-coming middle-distance athletes going to get the confidence-building experience of running in ever-faster races without this assistance?

Jumpers and throwers get their inspiration to progress by rubbing shoulders with more accomplished competitors against whom, though they may be eliminated early, at least they have three attempts to set a new pb - take Steve Smith for example.

With Olympic finals being run within 2% of world record pace, experience of fast racing is clearly essential for endurance athletes. We're open to suggestions for a better approach but in the meantime BMC races will continue to be paced.

Our Midlands Secretary reports as follows: "A National Coach said to me, 'I don't support the BMC because they keep pushing Frank Horwill's multi-tier system of training.' Who uses this type of training? Answer: (1) Britain's greatest ever middle-distance runner, who broke 12 world records and gained two golds and two silvers in the Olympics; (2) Robert Denmark, 1992 Olympic 5k finalist, who broke the UK indoor record for 3k two years consecutively.



Robert Denmark Photo by Shearman

We now invite this national coach to write in every issue of our magazine putting forward his views as to why he thinks multi-tier training is no good and what he thinks will regain our middle-distance status. Examples of UK record holders he has coached will be useful to explain his theories.

Frank's new-found productivity has sent many athletics editors reaching for the blue pencil! His article on the Olympics, as published in *Athletics Weekly*, had the following deleted: "An official of the UK Coaching Committee boasted a few years ago: Our coaching scheme is the envy of the world; there was not much about it to envy in the 1992 Olympics."

Achilles Writes...

Another part deemed too controversial was: "Our current crop of 10k runners have as much chance of running 5k in sub 13:15 by the next Olympics as the man in the moon. If they cannot do that they have no place in the 10k. The best thing we can do is ask our current crop of 5k runners to move up to the 10k two years before the next Olympics and for our present 10k runners to move up to the marathon or take up race walking."

Also deleted was the remark: "It is inconceivable that the girl with the fastest 3k time in the world in 1992 should display such unbelievable tactics in the Olympic 3k final, knowing the two Russians in the field had outkicked her every time they met."

One that got through, however, was: "A provision should be included that the selection committee reserve the right not to pick automatically one or both of the first two home if it can be shown that they do not possess the right championship temperament based on previous performances on such occasions".

Not everyone agrees with Frank's remarks: Kirsty Wade found even the censored version too tough to swallow, and felt moved to write an article in *Athletics Weekly*, defending British performances at the Olympics. We think that Kirsty rather missed the point of the article, which was to stimulate our athletes to strive for the higher world standards rather than be content with the current domestic levels. The times of 1:55 and 3:55 achieved in Barcelona were clean. For the next issue of *BMC News*, we have asked Kirsty to imagine that she has just been appointed to a fictitious and newly-created post of 'National Event Coach for Women' and outline how she would tackle the role.

We are fast becoming hysterical about drugs in athletics. We must stop the assumption that any athlete with a well-developed musculature must be on drugs. Intelligent weight training done every other day will transform an athlete

in six months. It is not wrong to look strong. However, action is required to ensure the accuracy and reliability of the testing procedures, and to ensure complete understanding of which substances are legitimate.

Let's face it, a drug taker in sport is not a murderer, he harms no-one but himself. We are getting to the point where we view the steroid-taker in a worse light than a drunken driver. The latter can and often does kill innocent people. One gets banned for four years and the other for a year; one gets no fine while the other does. The answer is that both should be banned for four years and fined. If an athlete is found guilty of taking drugs all his earnings and all his sponsorship since his last negative test should be returned from whence it came. If it isn't, the ban should be eight years. This will make potential addicts think twice before they take that pill or injection.

Our race agents have done a wonderful job this year. However, there are still some races being staged where the BMC golden rule is not being observed. The first 800m of a 1,500m or mile must be covered in a maximum time of two minutes. For women the time is 2:20. For the 800m the first lap should be run in 54sec (men) or 62sec (women).

We are now compiling a register of hares. If you wish to volunteer for regular hare work, contact us. Expenses and a small fee will be paid. Race promoters please note - Hares Incorporated has been founded! First members in the South: Messrs Tony Chada, Nick Kearsley and Tony Wong.

Achilles regrets that our research plans for this winter using two groups of female athletes have had to be cancelled owing to lack of support. Both groups were to do the Balke Test (15 minutes run around a 400m track, and record the distance

travelled). One group were to be asked to train five days a week building up their weekly mileage of steady running only month by month, e.g.: Oct - 15 miles per week; Nov - 20 miles; Dec - 25 miles; Jan - 30 miles; Feb - 35 miles; Mar - 40 miles.

The other group were to do four sessions a week specifically aimed at increasing the distance done in the Balke Test (as outlined in the last *BMC News*). It was a case of increasing weekly mileage vs the relative speed of the Balke sessions.

It is obvious that coaches and female athletes in Britain are happy with our results in the Barcelona Olympics and wish to pursue the same old stereotyped training advocated in the compulsory manuals to be read for the Senior Coaching Examination. Achilles thanks all those who expressed interest in this project; they all came from the North of England.

A certain Belgrave coach with a large circumference enjoyed many holidays by the pool at his sponsor's expense whilst his athletes did too much drinking and not enough training. On one such trip, he accosted the *BMC News* Editor and asked him which club he belonged to. On hearing the name 'Serpentine', he sneered, "Ah - the fun runners." Well, Sir, be informed that these so-called fun runners, who only started Track & Field in 1990, won four successive fixtures and got promotion in the Southern League this year.

Rumours that the popular comedian Mr Harry Enfield based one of his characters on the BMC Chairman are certainly not true. Mr "You don't want to do it like that, you want to do it like this" is of course based on the *BMC News* Editor. However, Achilles promises a bottle of champagne to anyone who can correctly guess the number of times that Frank is mentioned in the next issue!

Peter Coe

Ignore Circuit and Weight Training at Your Peril



In the Championship Racing section of the last issue of BMC News (Vol 2 No 3), Peter Coe wrote that circuit and weight training should be ignored at one's peril. Many athletes asked for more details, and so the BMC News is pleased to present the definitive guide to strength training.

The need for strength training

Suppose that you are a successful runner who never does any strength training (as circuit and weight training are generically known). Why, you might ask me, should I bother with it if I get good results without it?

The answer is the same as the one I give to those who say that there is no need to worry about style as the body will naturally develop the style most suited to it. Had they followed a carefully constructed remedial programme they would have been even better: likewise with strength training - a successful runner who never bothers with it would be even more successful if he did.

I have always stressed the fact that to be successful at the highest level a middle-distance runner needs to have good repeatable 400m speed. Any sprint coach

will tell you that over and above the mastery of starting and technique generally, the absolute must for really fast work is raw animal strength. It was the long and careful attention to strength training that enabled a slightly built Seb Coe to run successfully in 400m events and relays (45.5s in Turin).

This was not a casual fill-in activity for Seb but a carefully thought out and strictly maintained programme that started with circuit training to provide the initial all-round strength to safely handle weights. It was started at Loughborough and kept going for the six years he was there, and together with a very good flexibility regime this total physical conditioning was maintained throughout his career - and is practised even now, in a modified form, in his retirement.

Now to dispel a common myth. A correct weight training programme does not make slow runners. Just think, have you ever seen a successful weight-lifter whose lifts were slow? A 'clean-and-jerk' or a 'snatch' are just what they are called. Runners will not become 'muscle-bound'. Exercises to develop strength and endurance are not those used for producing hypertrophy.

It is easily demonstrated that, against a given load, a strong muscle will contract faster than a weaker one, so that, within the constraint of producing the optimum mix of strength, suppleness and endurance, it is obvious that to maximise performance, the athlete should maximise strength. The improved co-ordination required to produce the speed made possible by the increase in strength is one of the benefits of circuit, weight and plyometric training.

Let us now look at how the musculo-skeletal system works in more detail.

Physiological background

Skeletal muscles make up about 40% of body weight (slightly less in women) and

not all of them are prime movers. It follows that the prime movers have a disproportionately large load to carry around - a load that, in their terms, could be considered as dead weight.

The 'prime movers', or *agonists*, are those muscles supplying the major part of the force required to perform the necessary movement. They are most effective when they and the opposing muscles, the *antagonists*, are in perfect co-ordination. The latter must totally relax at speed to prevent muscle tears, while at other times they may be called upon to control more subtle movements. While the co-ordination required for fast running is specific to that activity, there is nevertheless a useful enhancement of co-ordination as a spin-off from comprehensive circuit training. (This is not to say that all skills learned from one activity transfer completely to another; unfortunately they don't.)

We also have *synergist* muscles. These are the muscles that assist the prime movers, and their function is also improved by being strengthened. They play a significant role in helping to combat the effects of the onset of fatigue.

Another important function of skeletal muscle is in maintaining posture and this is best effected by having good muscle tone. Improved balance and co-ordination reduces postural work. Muscles also help to protect joints from injury, and the stronger the muscle the greater the protection. Bad posture puts unnecessary stress on joints, while many problems, such as pains in the lower back, are associated with poor posture. Firm muscles with good tone help to avoid such complaints.

Another problem is that of having weak adductors. A sudden sideways slip of one foot while running in wet or icy conditions can keep a runner out of serious training for a long time. Adductors are notoriously vulnerable; correct exercises to strengthen these muscles are good insurance against long lay-offs from adductor strain.

Athletes are often confused about lactate production and its effect. While it is true that excessive lactate accumulation can seriously inhibit the activity of the enzymes involved in energy production, lactate is also a fuel.

The important thing is that muscles other than prime movers (even in the upper body) can metabolise lactate. A well-developed general musculature from a carefully thought out circuit and weight training programme is very advantageous in coping with lactate production and accumulation.

Continued steady work at circuits and weights ensures an even all-round development in which the tendons are able to keep up with and match the stronger muscles, and here a few cautionary words are not out of place. Apart from ethical considerations and any ill effects on health generally, a serious danger with steroids is that their use permits a rapid increase in muscle bulk and strength that is not matched by the tendons, and thus there is a greater risk of tendon rupture. It is always better and safer to gain strength the slower but honest way.

In addition to an improvement in strength there are other important physiological gains from strength training. The key to muscle function is motor innervation. A motor nerve is made up of many nerve cells which branch out to connect to variable numbers of muscle fibres. A motor unit is a single neuron and all the fibres innervated by it.

Strength training develops better functioning of the muscle. Motor units become better synchronised and recruitable, leading to better team-work amongst motor units. This in turn means that more units are recruited for sub-maximal workloads so that the muscle can function at a lower intensity. Put simply, if for the same load more muscles-fibres are recruited, each fibre and thus the muscle generally is working with less strain.

Table 1. Suggested format to incorporate Total Body Conditioning into a distance-running programme *

	Wk	
Oct.	4	Complete rest, no running, only easy calisthenics and flexibility exercises
Nov.	8	One circuit training or easy stage training session each week
Dec.	12	Two stage sessions, one easy, one hard, each week
Jan.	16	Two stage training sessions, both hard, each week
Feb.	20	One moderate stage session, one easy weight session using light weights for endurance each week
Mar.	24	One moderate stage session and one endurance weight session using heavier weights each week
Apr.	28	One week with one hard endurance weight session alternating with one week with a pyramid lifting session @ 90%-95%
May	32	One easy endurance weight session, one easy stage session, each week
June	36	Alternating weeks of one easy endurance weight session with one easy stage or circuit session
July	40	One easy circuit or stage session each week
Aug.	44	Mobility work only; competition period
Sept.	48	Mobility work only; competition period
	52	Mobility work only; competition period

* As illustrated, this pattern is for a year long macrocycle; appropriate rearrangement (but not increase in work load) would be required for shorter macrocycles.

Ignore Circuit and Weight Training at Your Peril (Con'd)

With the need for strength training and some fundamentals about the body established, let us now turn to strength training in practice.

Strength training in practice

Definition

Before outlining any schedules some definition of circuit (and stage) training is necessary. (For a more detailed treatment see the section entitled 'Comprehensive conditioning for runners' in *Training Distance Runners*, Martin and Coe, Human Kinetics Publishers, Leeds.)

The idea behind circuit training is that a series of exercises is devised and sequenced so that when performed consecutively they will stimulate strength, power, stamina, agility, flexibility and cardio-vascular conditioning. The use of the word circuit derives from the fact that this type of work is most easily done in a sports hall or gymnasium and the most convenient layout is the one that finishes back where the series of exercises started.

Whereas in circuits the repetitions are relatively few in number over, say, a dozen stations, stage training may use many more reps at fewer stages or stations. The latter lends itself nicely to forming a basic routine with a few exercises using simple room furniture that can easily be maintained when you are away from your usual facility.

Basic ideas

Strength training should not be restricted to the winter months (see Table 1). It is an essential on-going activity, but it does vary in content and intensity as the training year progresses, and tapers off to no more than very light exercises just before the period of serious peaking for the athlete's major goal for the year. For that short period it is only the flexibility routine that is maintained.

When considering the number of repetitions in weight training per station or exercise, be aware that progression may on occasion be more beneficial if achieved via an increase in the number of reps

rather than an increase in the weight or load handled.

The number of reps per station in circuit training may be calculated as follows:

For the easier exercises a 60 sec period is appropriate, and for the harder ones a 45 sec period is suggested. Next, the maximum number of repetitions for each of these periods is established (see below). Then, half the maximum number of repetitions is assigned to each set of exercises.

The number of different exercises, their nature and the duration of the whole session will depend upon the level of fitness and the experience of the athlete. This article assumes that this type of training is new to the reader. Although these sessions can be made extremely arduous, the intent is for the athlete to remain continuously active, be at each station for about the same time, and not become excessively fatigued.

Any branch of strength training or even all of it can become addictive no matter how hard the work becomes. At all times remember what is the main objective of all training for runners - it is to be a better runner and not to be the best weight-lifter or rope climber or to break the record for half squats with only body weight.

Athletes are naturally competitive people and it is easy to lose sight of the main objective when a group of athletes begin to feel competitive in a group activity such as circuit training in a sports hall. By all means train hard but save the controlled aggression that gives one the competitive edge for actual racing.

When you are experienced enough to make a session of circuits or weights a really hard one, make it the main session of the day, especially with weights. Such a session must not be followed by a hard speed endurance run or a long fast run. The following day should be an easier one allowing full recovery.

A brief note on flexibility. As strength is enhanced suppleness must be also. To this end assisted stretching - such as George Gandy applied to Seb at Loughborough -

is invaluable, but a word of caution. The assister must know what he is doing. It is easy to overstretch and hurt an athlete.

Now for suggested and generalised routines for circuit and weight training, and the combination of the two. In individual cases, there may be a shift of emphasis to correct any major weaknesses that are perceived, but the aim, as in the overall training plan, is always to maintain a balance. It is outside the scope of this article to recommend any specific remedial exercises as these should be prescribed with specialist orthopaedic advice or by a good sports physiotherapist.

Circuit training

The table opposite (Table 2) has to reflect the needs of beginners as well as those with some experience or higher levels of all-round strength and fitness. It is therefore compiled to give a comparison between easy, medium and hard sessions.

Footnote (a) mentions 8-12 exercises although only nine are shown in the 'hard' column. Twelve stations are mentioned because they would give a greater diversity to keep the athlete's interest, and at the same time vary the possible combinations of muscle groups to be conditioned. Clearly, to perform four or five circuits of 12 stations with maximum reps would be very very hard and take a long time.

Stage Training

Although stage training may be done at home or in an hotel room instead of in a gymnasium, the word circuit still denotes the completion of all the chosen stages. While this type of training serves as an excellent replacement for circuit work when a gym is not available it does lack some of the variety and all of the agility, and does not engage as many muscle groups.

However, it is very useful if the athlete wants to develop specific local muscular endurance, and to this end Seb Coe would always be combining stage and circuit work for part of the year.

The following is a typical stage set-up and routine that was successfully employed by him for many years :

Half squats :

Ranging from two sets of 5 x 200 to two sets of 500 each, with recovery equal to the duration of one set.

Bent knee sit-ups :

Alternating straight trunk curls with oblique trunk curls, alternate elbows touching the opposite knee; work up to one set of 200 to 250 reps.

Press-ups :

With feet elevated to incline the lower limbs; 5 sets of 20.

Back extensions :

Using a friend or some heavy piece of furniture like a table to stabilise both legs; 3 to 4 x 20 to 30 reps. Even when proficient do no more than 100 per session.

Step-ups :

Done on a box or low sturdy table; 2 x 10 each with alternate legs; then 2 x 20 each with alternate legs. Done as one continuous set. Progression up to 100 continuous step-ups on each leg can soon be achieved.

Stage training can be made as hard or as easy as is thought necessary bearing in mind the progress and development of the athlete and the current period of the training year.

It cannot be stressed too often that if and when a new element or system is introduced, go carefully and treat it with respect. The old adage about sudden changes in training being risk prone is very true. The best and longer-lasting results invariably come from a smooth progression, and not from attempts at

Table 2. Suggestions for comparing light, medium, and hard training sessions using circuit, stage and weight training

The exercises to be performed in each set or circuit are marked with an X	Circuits ^a Number of circuits			Stage training ^b Number of stages		
	2-3 Easy	3-4 Medium	4-5 Hard	5-6 Easy	7-8 Medium	8-10 Hard
Dips		X	X			
Back extensions	X	X		X		
Back extensions over chair			X ^c		X	X ^c
Bent-knee sit-ups, straight raise	X			X		
Bent-knee sit-ups, twisting raise		X			X	
Bent-knee sit-ups, inclined			X			X
Press-ups (push-ups)	X	X		X		
Press-ups, feet elevated			X		X	X
Squat thrusts (frog jumps)	X		X	X		
Burpees		X	X		X	X
Leg raise			X			
Rope climb		X	X			
Chin-ups (pull-ups)	X	X				
Barbell step-ups			X	X	X	X

Strength + endurance weight training	Repetitions/set			Sets		
	Easy	Medium	Hard	Easy	Medium	Hard
Barbell curls	3	6	10	3	4	6
Bent-arm pullovers	2	5	8	3	3	2
Barbell bench press	2	4	6	4	4	4
Barbell half-squats	2	4	6	6	6	6
Barbell alternated front lunge	2	4	6	3	3	6
Vertical rowing	2	3	5	4	5	6
Barbell step-ups (moderate load)	10	15	20	2	4	5-6

^aEach circuit should consist of between about 8 and 12 exercises when athlete is fully accustomed to this kind of training.
^bEach stage is a single exercise done a given number of repetitions.
^cUse caution with this exercise if there is known low-back weakness; as with other exercises, initially always use care.

overnight improvement which are seldom if ever successful and may well be dangerous.

When doing many reps at each stage it is unlikely that the athlete will do, or want to do, more than one circuit, but if the numbers of reps are kept low it is appropriate to perform more than one circuit.

Beginners will certainly ask : "How long should a session last?" The unhelpful answer of course is : "Just as long as it takes to cover the desired programme". A meaningful session will usually take around 1 to 1 1/2 hours as the following simple calculations will show

Some exercises will be harder for some than for others so the following division of

the stations into 'hard' and 'easy' may seem a little arbitrary, but it follows the usual practice.

Consider the column of circuits described as medium in which only seven stations are suggested, and treat the first, second and last as being harder and the rest as being easier. Remember that when it was earlier explained how to assess the number of reps in a set, the number of easier ones was half the maximum number achievable in one minute and the number of harder ones was half the number done in 45 seconds.

The recovery between sets is the same as the work time taken by the set so the time allotted to the work and the recovery adds up to about 19 minutes for three circuits and 25 minutes for four circuits. Next

Ignore Circuit and Weight Training at Your Peril (Con'd)

allow 15 seconds to move smartly from station to station - no hanging about or you will lose the anaerobic content of the session - and you will finish with total times for the main activity of between say 25 minutes and 32 minutes. To this should be added the proper warm-up, stretching and flexibility exercises and a little run off.

On the same basis the times for four or five circuits of the hard session add up to about 40 and 50 minutes respectively excluding warm-up etc.

However, the foregoing only explains the ideal situation. Although the athlete only performs half the maximum number of reps at each station, it is very unlikely that as the session progresses the time taken to do these exercises will be kept to the theoretical 22 1/2 and 30 seconds allowed, because the athlete inevitably tires. This alone will significantly increase the overall times.

One can easily see that such sessions can be as hard or as easy as you need and that this is true of both stage training and weight training. Do not be afraid of really hard work in the gym but start slowly and safely and try to make the work progressive.

It should not need pointing out that the examples given of recovery times are not those of the weight-room, where the whole tempo of the work is slower and extra safety precautions apply.

Weight training

First, some basic rules of weight training which are concerned with safety.

It is always best to have the correct equipment and assistance when handling weights. Injury can often be prevented if you have someone in attendance who can either take away the weights or help to support them if you lose control, especially when occasionally you may be attempting a maximum lift to assess progress in straightforward strength.

A major contribution to safety in any sport is mastering and using the proper techniques. Correct breathing when lifting

is part of this. The traditional view is that it is best to exhale during the action phase and inhale on return. Essentially this is correct, but there are structural and physiological reasons for a modified approach. It is quite appropriate during the maximum effort of the pushing or pulling part to hold one's breath briefly.

This creates a rigid rib cage through an increase in intra-thoracic pressure. This and an accompanying increase in tension in the abdominal muscles provides extra support for the thoracic spine.

A good solid lifter's belt should be worn at all times as should a good pair of proper lifting shoes. Ordinary runner's training shoes, no matter how good, are not equal to good lifting shoes with maximum support and very solid heels. If the latter cannot be acquired it is much better to wear stout well-fitting walking shoes rather than trainers.

The seven lifting exercises shown in Table 2 are not maximum lifts and are designed, as the table indicates, to develop strength plus endurance. So what weights should be employed at each lift?

In a way this training is not unlike interval training, where the best pace is the one that enables you to finish the session not easily but in a well worked way without excessive fatigue.

The same applies to the selection of the starting weight for each exercise. There needs to be a trial period during which the athlete will experiment to find the correct starting weights.

Plyometrics

Those athletes who are able to use a large sports hall for their circuits may wish to incorporate some plyometrics into their conditioning. The main principle behind the use of plyometrics is simply utilising the effect of pre-stretching a muscle immediately before contraction. This gives rise to a greater force from the contraction.

While there can be some quite dramatic gains in dynamic strength it must be said that there is a greater risk of injury.

The simplest exercise is taking long bounding strides as practiced by triple jumpers and sprinters, but with it goes some heavy shock loading and the chance of a turned ankle.

Box bounding or jumping consists mainly of continuous jumping over lower boxes (say just the top sections of vaulting boxes) or jumping from the top of higher boxes to the floor and rebounding back to the same height on the next box, also continuously.

The main safety measures in the latter exercise are always to take off and land evenly with both feet so that neither foot takes the major part of the load.

Because of the increased heights and hence increased shock on landing there is an extra need for good balance and co-ordination to avoid injury. It is acceptable to land on firm mats but not on anything soft or unstable.

There are no firm rules about commencing heights, but they should be determined by the athlete's safety and ability. Experience with distance runners indicates that they tend not to have the same co-ordination and balance as 800m and 1,500m runners.

I also feel that the need to practise plyometrics is inversely proportional to the distance of the athlete's main event, but it can have quite a beneficial effect on hill climbing when competing in genuinely hilly cross-country events.

Like any other type of running training, strength training should be preceded by an adequate warm-up. An easy 2-3 mile run to the gym, or round the block a few times before stage training at home, would do nicely, except in very cold weather.

Complete a good stretching routine before you start and all should be well. Try to maintain your usual easy cool-down to prevent any stiffness as you would after any hard running session.

For those starting strength training for the first time start slowly and then progressively and enjoy your general all-round improvement. To all others, best of luck for your coming season.

How They Train - Lisa York

Age 22
Height 1.68m
Weight 52kg
Coach Bud Baldaro
Club Leicester Corinthian AC

Started running aged 8, been running 14 years.



Pre-race warm-up

Basically 45 mins needed, starting with a very steady longish run up to 15 mins to warm up the muscles. During this I think about race tactics and generally tune myself into the race and forget about everyday things. Then I stretch the various muscle groups in the following order: head, neck, shoulders, arms, back, hamstrings, quads, calves, ankles. Then I go into a series of technique drills, a few bounds and relaxed strides. Then I will take 5 mins for composure - focussing on the race. I then do some gentle jogging followed by 1-2 sharp strides feeling good and fast within myself, then I will sit down or walk or jog depending on how cold it is. The idea is to relax, concentrate and then race.

My warm-up in Barcelona was very different from this. The double report procedures and walking from one zone to another meant that there were a lot of breaks in the routine.

Because of the heat I reduced the warm-up substantially and just concentrated on keeping relaxed, making sure that everything was well stretched. I had also practised taking a lot of water on board in training so that I could cope with this in Barcelona; I was worried that I would need the loo half way round

but the body just shuts down that area thankfully.

Pre-training warm-up and after-training recovery

If it's before a session on track, country or road I would generally do a 20 min relaxed run, chatting to Bud as we go along. Then we would do a few stretches while Bud runs through the session. Then I'd go into a few technique drills and fast strides, concentrating on the session ahead. We basically end all the sessions with a few sprint/strides and a long warm-down, again of 20 mins. Owing to the long journey I face after training I always take an isotonic drink with me - this has been Gatorade in the past but I have now started to experiment with Musashi powder to aid recovery after training and replenish vitamins and minerals lost during training. I'd also eat a banana or something high in carbohydrate in the car, eating something more substantial when I get home.

National Cross-Country Championships and World Cross-Country

Conditioning for the National Cross-Country was not really planned as the training had gone so well early season that we decided I could make the World Cross-Country team without having to peak in the trials. This meant that we would be able to concentrate totally on peaking for the Worlds, which were over a month after the trials.

It was my performance at the World Cross-Country trials only a week before that led me to run the National. In the Worlds trials I had felt so easy in the early stages that I broke away from the field, only to be pulled back later in the race. I had to fight hard to make sure of my place in the team. I was very disappointed with the tactics I had employed and so sought to make amends the following weekend.

How They Train - Lisa York

In the National I was making no mistakes. I had the finishing speed, there was no reason to break away from the field, so that's what I did and it worked. My conditioning for the World Cross-Country saw a slight reduction in the racing programme to enable me to get back into the mileage that was suiting me so well, along with the inclusion of some faster workouts on simulated cross-country terrain.

The final tuning came just a week before the World event in the GB vs USA indoor match. From winter mileage and long repetitions I ran a UK all-comers record and pb for the mile, winning in 4:33.5. I went to the World event brimming with confidence.

My performance there was 'okay'. I had hoped for a top 25-30. However, the conditions on the day took their toll on me. It was my first year of 'real' mileage, the snow on the ground had turned slippery and sludgy, making footing difficult and adding to the length of time spent running, and so I did tend to struggle in the later stages of the race.

The constant slipping and chopping of stride did not suit my running style and heavier frame - but that is cross-country running - I didn't do too badly and it was a great improvement on my 74th place the year before! Another year of endurance behind me and I should find the distance easy to cope with.

Olympic Games

Bud got me into the right condition for the Olympics by making me 'believe' what I was capable of through racing. There was nothing more that we could do in training to improve the way I would run in Barcelona. Everything had gone superbly, it was just a matter of fine tuning and keeping myself fresh mentally and physically. The month was based around a competitive racing programme that would boost my confidence and give me the extra bit of leg speed that I would need at the Olympic Games.

I ran a pb in my first race this season over 800m in very windy conditions, feeling quite relaxed running 2.03, and was certain that I could run much faster than this. Not many 3,000m girls have this sort of speed, which fed my confidence again.

I then won the European Cup 1,500m in Gateshead; in windy conditions, I adopted the sit in and kick at 400m tactic - feeling easy I ran 62 secs for my last 400m, just failing to beat my pb. I then left for Barcelona. I chose not to race over 3,000m in the few weeks prior to the games because I knew I had a really good performance in me to come. If I did a massive pb before the games it would have taken some of my appetite away for the event.

Barcelona was an experience. I was very confident of making the final, certain that

I could go with any pace that was set and sure of my last lap finishing speed. I was very confident right from the gun, adjusting my position constantly throughout the race in order to remain in contact with the front of the field to cover any breaks that could be made.

I was conscious of running wide quite a lot but not concerned as the pace was well within my capabilities. Just before the bell the field was 'twitching' so I decided that rather than let them steal the 'surprise kick gap' I would take it myself - the extra few metres pinched would see me through to the final.

It was going into the lead just before the bell that I don't think that any coach can prepare you for - it was the first time that I had been conscious of the crowd; they roared as I hit the front which froze me for a split second and made me realise - this is the Olympics and I've just taken the lead!

All the time I was in the lead I wondered where they were, then the Russian came by me 200m from home. I expected the whole field to come by me shortly after this, unconscious of just how fast I was going. Another girl came by, then Patti-Sue Plummer; it was then that I realised that I had to dig again if I was going to make the final, and I had to out-sprint one of the athletes I most respected and had myself tipped for a medal in the final - Patti-Sue.

As you can imagine I was starting to strain the old confidence levels now. Patti-Sue shoved me and my fear turned to annoyance which served to get me going again, our final flurry took us back to the other two girls so that just half a second covered the first four, but I was fourth and I knew it wasn't enough. I had run a 62 last lap and come fourth - that was hard to accept.

I had learnt a lot though, and the confidence gained from matching Patti-Sue stride for stride will remain with me into next summer's season. The experience of leading an Olympic race will remain with me for life. I don't think after my experiences out there in the final lap that I will ever feel 'fear' in a race again. I am certain that had I been totally confident on the last lap, with not a single

Progressions

Age	800m	1,500m	Mile	3,000m	
12	2:21	4:50			
13	2:19	4:45			
14	2:17.3	4:42.4			
15	2:15.3	4:35.1		9:52	
16	2:11.3	4:29.3		9:45	
17	2:09.9				Glandular fever
18	2:07.3	4:22.88		9:44.5	
19	2:07.03	4:15.39		9:09.1	
20	2:06.10	4:14.3			Injured
21	2:04.75	4:11.08		9:01.1	Virus
22	2:03.30	4:09.26	4:27.80	8:47.71	

stray thought, and got on with a 400m time-trial I would have been in the final, but it has kept me hungry for next year.

Training and racing format 1991/1992

I will probably never train to this format again. Firstly, there were a lot more races in this year's campaign than I would ever normally run. It was necessary to do this amount of racing as I needed the confidence, having had such a poor season last year.

When you change coaches you want to know that everything is working out okay; by racing I knew that things were going well, which gave me confidence in Bud and his training. Also, the entire track season was very early this year, which meant that we didn't want to take a long period of time out resting after the winter season and so we opted to run some low-key road races to keep things 'ticking over' without having to strain, whilst the emphasis of the training altered towards summer track speed.

I would also have liked to do more shorter races over 800/400m early season but this was not possible as I needed every available weekend to chase Olympic qualifying times. There was a lot of indecision on my part as to what event to go for in the Olympic games - I started out determined for the 1,500m spot but after Edinburgh I decided my event was definitely the 3,000m. So again, had we known this going into the season it would have cut down on the amount of racing spent chasing 1,500m qualifying times.

All in all, it has been a good year for me - winning the National Cross-Country as well as the Olympic trials 3,000m, and running a pb in the Olympic Games. Now that Bud is aware of my strengths and weaknesses, having been together for just under a year, we can look to fine tune the training towards further large improvements next year.



**BRITISH
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The Training Year

October	Conditioning and mileage base
November	As above and first race to see how things are going
December	Mileage base and a few XC races to test endurance
January	Mileage
February	Mileage/race phase - World XC trials and Nationals
March	Hitting form - World XC
April	Last phase of distance/strength work - low key road races Filtering in contact with speed and end of race speed
May	Track specific including warm weather training
June	Racing phase/Olympic qualifying
July	Hitting form : pb 800m Europa Cup 1,500m win pb Olympic Games
August	Continuation of racing and low-key training
September	Total rest period
Winter mileage	75-80 miles average per week
Summer mileage	55-60 miles per week, tapering off in 'form/racing phase'

The early summer sessions were based upon running 2 mins for 800m i.e. two 60 sec laps. We practised accelerating off 88/89/90 sec pace going through in 58/59 or conversely 61/62, and running 4.04 for 1,500m = 4 x 66 practising at even pace, a fast opening lap, gradual acceleration, fast explosive acceleration or fast then slow then fast. These sessions were designed to ensure that I could cope with any race situation with confidence.

Race Programme

November 3rd	National Road Relay - 1st team
December 28th	Durham XC - 5th
January 4th	Mallusk XC - 5th
January 26th	Midland Championships XC - 1st
February 8th	World XC trials - 2nd
February 15th	National XC - 1st
March 7th	Cinque Mullini XC - 9th
March 14th	GB v USA mile indoors. UK all comers record and pb 4.33.5 - 1st
March 21st	World XC Champs - 34th
April 19th	Reebok Road Race 5km, Sheffield - 1st
April 25th	Luzerne 4.5km road race - Course record - 1st
May 10th	Ekiden World Road Relays - fastest leg
May 17th	Oslo 1,500m Warm weather training, Portugal
May 31st	Loughborough 1,500m. pb 4.10 - 1st
June 6/7th	UK Championships - 1,500m - 3rd; 3,000m - 2nd
June 13th	Dijon 1,500m. pb 4.09 - 3rd, Olympic qualifying time
June 27th/28th	UK Olympic trials 3,000m - 1st
July 10th	Crystal Palace 2,000m - 3rd pb
July 12th	Welsh Games 800m. pb 2.03 - 3rd
July 18/19th	European U-23 Cup 1,500m. 4.09 - 1st
July 31st	Olympic Games. pb 8.47 - 4th in heat
August 14th	Sheffield mile - pb 4.27
August 16th	Koln Grand Prix mile - 4th

Medical Matters

Q. I have heard different views on weight training for women runners. Some say it is dangerous, others say it is a waste of time and some prefer circuit training while others say that time doing either means less running done, and that's what women need, more running. What is your view from a medical stand-point? Ms A. J. Lancs

A. I believe that the term 'weight-training' should not be used by runners, instead talk of 'strength training' which leaves the field open for all types of strength work. Frank Horwill in 1969 published the first ever work on the correlation between strength and performance. He found that the fastest men and women at 400m and 800m had greater all-round muscular strength than the slower runners. In particular he found the leg strength of sub 2:00 female and sub 1:50 male 800m runners much greater than that of runners with lesser times. He also found out that 100m and 200m runners of international class had exceptional leg strength. He used three measurements: 25 metres hop on each leg, the standing broad jump and the sarjent jump. His view was that in order for a female to run sub 2:00 or a male to run sub 1:50 for 800m, they must be able to do fewer than 10 hops for the first, own height plus a half for the second and 50cm for the last.

Personally, I'm more concerned with strength training as a means of preventing injury. Sitting over the edge of a table with a pot of paint hung over the foot and then slowly raising it from the vertical to the horizontal six times daily will build up the strength of the quadriceps and help prevent knee injury. The same equipment can be used for curling the toes towards the shin; this makes the shin muscles stronger and helps to prevent shin soreness. Lying on the back and raising the legs overhead to touch the ground behind, straight-legged, helps prevent lower back trouble, as do bent-knee sit-ups. Sitting on the ground with legs straight ahead, hands grasping under the knees and gradually pulling yourself forward stretches the hamstrings. Face down on a bench with knees over-hanging

the edge and then curling the feet back will strengthen the hamstrings. Since running involves landing on one foot and driving off it again, hopping 25 metres daily on each leg must improve elastic leg strength.

Weight training done every other day during the winter, involving alternating with heavy weights and light reps one day, and lighter weights with many reps another day, is a sure way of rapidly improving all-round strength. Consult an expert of the subject before you start (*and read the article by Peter Coe in this issue - Ed*). Circuit training done every other day increases muscular endurance and some muscular power, but the latter not as much as weight training alone. With circuit training high pulse rates are achieved, which is a good thing for a runner. There is no increase in the size of muscles in women for the first three months of this kind of work, the muscles merely get greater tone, but after this time there is an increase, but this is hidden by the layer of fat that all women possess and men do not. As the great former Chief National AAA Coach Geoff Dyson said, "There is nothing wrong in being strong."

Frank Horwill writes: "Many female 800m runners are too weak for their event; their legs lack drive and therefore speed over 400m. No woman should run the 800m for Britain until she has done 52 sec for 400m, then she will cope with a 56sec first lap and a 60sec second lap. We should ask Sally Gunnell to take up the 800m; within two years she could break the world record."

Q. I am a 10k runner and well ranked in the UK. During the last few months my lymph glands suddenly started to swell, particularly under the armpits, neck and groin. After a few days they disappear. Have you any ideas? T. W. London

A. Unlike many doctors I view swollen lymph glands with suspicion. I have seen subjects with long-standing on-and-off lymph swellings, who have been told that there's nothing to worry about, become very ill - I know, because I

was one such subject! Prof. Han Selye in his book *The Stress of Life* lists swollen glands as an indicator of an advanced state of stress.

My immediate reaction would be to stop training for five days and during that time ensure that a 'Basic Four' meal is consumed every four hours. The Basic Four are: (1) 1-3 pints of milk or equivalent dairy produce a day; (2) one meat meal a day; (3) five cups full of fruit and vegetables; (4) three servings of whole grain cereal or six slices of bread. If after this break the condition persists you need to have a check-up. Glandular fever is usually preceded by swollen lymph glands. If no cause is apparent you should resume training every other day and do a check-list of items which are causing you undue anxiety. Put these in order and your stress load will be reduced, and you can resume daily training.

Q. I'm getting a chronic itch between the toes of one foot which is so bad it sometimes keeps me awake at night. I've tried the various Scholls foot powders without success. Can you recommend something? L. M. London

A. Sounds as though you've got a fungoid infection of the foot. There is one thing that a fungus does not like - chemical sterilisation. Pour an egg-cup full of any bleach into a bowl, and then pour in 20 egg-cups full of water. Sponge the infected parts liberally or immerse the foot in the solution. If burning is felt rinse the foot under a running tap for a few minutes. The same solution can be used to eradicate black fungus caused by damp on ceilings!

Q. I have a complaint which has defied all medical diagnosis despite consultations with my GP, a specialist and a physiotherapist. It is unique. After training and particularly after a race my tongue goes completely numb as though injected with an anaesthetic, and it lasts several hours. I thought I would give you a try! J. B. C. Cheshire

A. Seems pretty straightforward to me. Those you have consulted have

by Hippocrates

forgotten their physiology and biochemistry. Numbness of the tongue can be and usually is caused by a deficiency of calcarea phosphate (phosphate of lime). Up your calcium foods and drink a can or two of coke daily. Or get specific tablets from a good health food chemist.

Q. I'm 19 and run about 40 miles a week all the year round. I have developed acorn sized knots on the bones of both legs, just below the knee. They don't trouble me much except on a long run when they get sore and also if I accidentally bang one. What's going on? J. D. Norfolk

A. You have Osgood-Schlatter's disease (inflammation of the epiphysis, the growing centre of the tibia in that area). When this fuses to the bone the pain will cease. Years ago some doctors used to encase sufferers in plaster fearing that usage would cause a fracture. I suggest you continue to train only every other day for a month.

Q. I've had achilles trouble on and off for years. Can you sum up a procedure each time it returns? P. G. London

A. (a) Take two aspirin tablets every four hours. (b) Pack the tendon in ice for 15 minutes duration every four hours for 48 hours. (c) After two days, use contrast baths (2 mins ice, 2 mins hot water, repeat three times) every four hours. (d) Insert Scholls heel pads in normal and running shoes. (e) Keep off hills. (f) Examine your running shoes for pressure on the tendon. (g) Do wall push-ups with flat feet, i.e. arms-length away, fall forward until nose touching wall, keep heels firmly in touch with ground.

Q. I keep getting hamstring trouble. I can touch my toes easily, so my flexibility is OK. However, whenever I try any relatively fast work my hamstrings become sore in one place in the middle and often I cannot run for several days and require physiotherapy, which is expensive. Can you suggest a cause for this? Miss J. C. London

A. Here is a simple test : get on a hamstring machine and do a one-legged curl into the buttock; start with a light weight of 5kg (11 lbs) and keep adding 5kg until you cannot curl the weight completely to your buttock. Now turn around and use the quadricep part of the machine (sitting knees bent, legs vertically hanging down). Start with 10kg and lift from the vertical to the horizontal one leg at a time until you reach maximum. Now compare your hamstring curl with your quadricep lift.

If you can lift 60lbs on the quadricep curl and only 25lbs on the hamstring curl, your hamstring is not strong enough for speed work, since research has shown that hamstrings must be sixty percent as strong as the quadriceps, and that figure is the minimum. When a hamstring strains it bleeds badly internally; this can often be seen as the extensive bruising that comes out later.

Get ice on the painful site fast and keep it there for 15 mins. Follow this up with a compression bandage, and ideally a physiotherapist should be seen within two hours for anodal galvanism for 45 mins, using low current density and the through-and-through technique.

After the treatment non-weight-bearing exercises should be given, consisting of straight-leg raising in the face down (prone) position. Ten raises, rest, and repeat. In the same position bend the leg (curl) into the buttock and straighten it just off the floor. Ten times, rest, repeat. Then sit over the side of the bed and do knee-bend and stretch 10 times, rest, repeat.

Next day anodal galvanism is repeated and followed by faradism by 5 min periods with a minute's break after each. This is followed by 5 mins of gentle frictions gradually encroaching on the injured part as pain tolerance permits.

On the third day ultrasonics are used for 10 mins followed by frictions. The exercises described above should be done. A gentle jog for 5 mins can be attempted at this stage.

The fourth day should follow the third day procedure but the jog should be faster with a longer stride and last for 5 mins, finishing off with slower jogging. The fifth day sees a weight attached to the foot for the exercises mentioned. If this is not possible a partner should apply light pressure to the heel as the leg is lifted and curled.

The sixth day should see the end of ultrasonics and frictions. Striding faster over 50m should be tried straight ahead - avoid bends in the track. When bend-running is attempted only small amounts should be done at first and then built up. For 14 days after the injury 1,000mg of vitamin C should be taken daily together with 70mg of vitamin E, to aid repair of tissues.

If you cannot get to a physiotherapist quickly, icing every four hours should be done for 15 mins duration, followed by 3 mins of the outlined exercises and a further 15 mins of ice application. Bandage fairly tightly after each ice session. After 48 hours, contrast baths should be used (2 mins ice, 2 mins hot as possible fomentations, for a total of 16 mins every four hours).

Set about strengthening your hamstrings either by machine or by a partner applying increasing pressure to the heel as you curl into the buttocks. The knee is always over the edge of a table when doing this.

Support a hamstring by using strips of plaster 24 inches long and four inches wide; place the middle of the tape over the top of the thigh and cross it in front. Keep doing this all the way down the thigh ensuring that each strip covers two thirds of the previous one. Viewed from the front it will be a series of diagonals crossed in front of the quadriceps. Always put a bandage around the entire area first, otherwise you will have a painful time taking the plaster off later.

Strains occur at the origin (buttock), belly (middle) and insertion (just above the knee). The first is the worst and least common, the second and third being most prevalent.

Frank on Barcelona

(A version of this article was published in Athletics Weekly)



An official of the UK Coaching Committee boasted a few years ago: "Our coaching scheme is the envy of the world"; there was not much to envy about it in the 1992 Olympics.

The selection policy for the 1992 Games was the first two home in the trials and a third to be picked later. This is basically a fair policy, although the trial winners should also be assessed before jumping on the team plane. A provision should be included that the selection committee reserve the right not to pick automatically one or both of the first two home if it can be shown that they do not possess the championship temperament based on previous performances on such occasions.

There are runners who can win most races against their countrymen and must be classed as good domestic athletes. However, the point of being granted a GB vest is to defeat athletes from other countries and if they fail to do this and fail badly on numerous occasions, they should be omitted, particularly from the

Olympics, where the focus of the world is on the best we can produce.

Arthur Lydiard, the noted New Zealand coach, has stated: "The age of tactics is over." One presumes he meant that most middle- and long-distance races in major championships are run in near to world-class times and if an athlete cannot keep up with that pace, tactics will not help much. This was not the case in the women's 3,000m, where the first three laps were run at British club pace (3km: 9.23).

The finishing power of the two CIS athletes in the race is legendary, even off a fast pace, and running such an absurdly slow 1,500m simply handed them the medals. The last 1,000m was covered in 2:44.4, the last 600m in 92sec and the last lap in 59.2, which is the world-class 800m speed. It is inconceivable that the girl with the fastest 3k time in the world should display such unbelievable tactics, knowing that the two Russians in the field had outkicked her every time they met.

It was a great pity that the courageous Lisa York just failed to qualify for the final, as she would never have permitted such a lethargic pace.

Tom McKean was badly jostled three times in the first 600m of his 800m semi-final. He ran tactically well in the heats, as did Steve Heard and Curtis Robb. But statistical history gives us a clue on how 800m semi-finals should be run. Winners of 800m semis are nearly always medal winners.

If we accept that premise there are, really, only two ways to run a semi-final: either get off fast and get in the leading three or stay off the pace and blast round the field in the last lap. Either way, there is less chance of being pilloried. Robb ran a solid semi-final to qualify and did well to place sixth in the final, which saw Johnny Gray of the USA lead through 400m in 49.99sec and 600m in 75sec only to be passed by Tanui and Kiprotich in the last 50m.

The women's 800m final conformed to the pattern of the men's race, the eventual

winner taking the lead 50m from the finish. Ellen van Langen came from fifth place at 200m and clawed her way through the field to pass Lilia Nurutdinova, who had led throughout at world-record pace. Van Langen had run two almost identical laps of 57.7sec each, testimony that level-pace running can pay off if one keeps one's nerve. The Unified Team runner had scorched through the first lap in 26sec at 200m and 55sec at 400m with van Langen nearly 3 secs behind.

Level-pace running is a misnomer. It implies level effort when, in fact, it requires increased effort every 200m. The history of Olympic 800m gold medallists is that in the majority of races the winner took the lead in the last 100m. Van Langen's time was the fastest in the world for 1992. British athletes did not participate in the final and with 30 athletes ahead of them in the 1992 world rankings published before the Olympics, one wonders why they were sent. The qualifying standard is not necessarily the standard by which a team should be selected. Only athletes who had done sub 1:58.0 should have been considered.

In the men's 1,500m final, Britain had no representative. An injured Peter Elliott and a chest-infected Matthew Yates marked the end of our hopes. To his credit, Yates had a go to qualify, but was caught and passed in the last 200m. Strangely, the time he did in his heats was only fractionally slower than the winning time of the final (Yates 3:40.52; Cacho 3:40.12).

The final was a strange affair. The first 800m was slower than the women's first half-mile (women 2:05; men 2:06). Joseph Cheshire led the snail's pace to 1,200m and injected a third-lap jab of 56sec to register 3:02sec. Fermin Cacho took the lead with 250m to go and amazed everyone with his last 300m in 38sec.

His last 800m was run at an estimated 1:47, a similar pace to Coe's 1980 Olympic 1,500m victory. One thing became apparent in this race - not all Kenyans can sprint at world-class pace over 300m.

The women's 1,500m final was one of the great races of the Games. Once again, Britain had no-one to fly the flag and again the wisdom of sending three runners who cannot make the top 25 in the world rankings must be questioned. Britain's fastest 1,500m runner for 1992 was entered for the 3,000m and that in itself is a condemnation of the selection procedure. In order to make the women's final, a time of 4:04.5 was required.

The brave CIS runner Lyudmila Rogachova, who heads the 1992 mile rankings (4:21.30), rattled through the first 800m in 2:05 and reached 1,200m in the good time of 3:09.88, but throughout this blistering pace the Algerian Hassiba Boulmerka was matching her stride for stride and struck for home with 250m to go to record 3:55.30, an African record and the fastest 1,500m in the world this year. Had Rogachova run a 62 sec first lap, the result may have been different. However, her time of 3:56.91 was a great effort.

The women's 10,000m was expected to be a clash between Britain's Liz McColgan and Elana Meyer (RSA). Other runners were not considered. McColgan led through the first mile in 4:53 (30:25 pace for 10km). She reached 3,000m in 9:15.37 (30:50 pace) and 5km in 15:35 (31:15 pace). It was obvious that she was tiring and Meyer took over shortly after, but did not increase the pace, and Deratu Tulu (Eth), who had followed Meyer closely, struck for home in great style to record 31:06.2. One must question the pre-race preparation of McColgan, whose only other 10km race for the season was in the heats a few days before, while Tulu raced the distance five weeks before. *(It later transpired that McColgan had been suffering from anaemia - Ed.)*

The final of the men's 10,000m was a disaster for Britain. While a great deal of fuss was being made in some quarters about staging 10,000m races to get the Olympic qualifying time, this attitude encourages minimal thinking. Britain's selection policy should have been to run 27:50 within a year of the games. A world-class 10km runner needs to be able

to run 5,000m in 13:15 or better. The winner of the 1992 Olympic 10,000m in 27:46.70, Khalid Skah (Mar), has run 13:09.10 for 5,000m this year. Arturo Barrios (Mex), who holds the 10,000m world record, ran 13:10.52 for 5,000m in June, and Salvatore Antibo (Ita), fourth in the Barcelona 10,000m, also ran 13:10.08 on the same day.

Our current crop of 10k runners have as much chance of running 5k in sub 13:15 by the next Olympics as the man in the moon. If they cannot do that they have no place in the 10k. The best thing we can do is to ask our current crop of 5k runners to move up to 10k two years before the next Olympics and for our present 10k runners to move up to the marathon or take up race walking.

Much was expected of our 5,000m men. It was a major disappointment that all three did not make the final. Our sole survivor, Robert Denmark, made sure of qualifying by hanging on to a fast pace in the semi-final. Two of the fastest losers came from this heat, which was won in 13:20.82, and this ruled out Jack Buckner. Dieter Baumann (Ger) won a boring race with a 25 sec last 200m to leave the Kenyans well beaten.

Some expressed surprise at the manner of his victory, but he did run 3:34.18 for 1,500m five weeks before the Olympics. Once again in this race we saw Kenyans out-kicked in the last 300m. Dominic Kirui led through the mile in 4:12.42, then 3km in 7:55 saw Yobes Ondieki in the lead, but Paul Bitok took over with 600m to go, only to be crushed by the German in the final furlong.

There was always a chance that Tom Hanlon would

bring home a bronze medal for Britain in the steeplechase. The final was a Kenyan-dominated race with William Mutwol leading for 2,000m with cumulative lap times of 68 secs, 2:14, 3:17, 4:25 and 5:30. At this point, Matthew Birir took over, to reach the sixth and seventh laps in 6:35 and 7:36; the latter lap was run in 61 secs and the last 200m in 32 secs to record 8:08.84, with Patrick Sang chasing him home and the early leader, Mutwol, in third place. Hanlon ran 8:18.14 to come sixth, 5 secs slower than his best for the season. All three Kenyans ran their best times for the year.

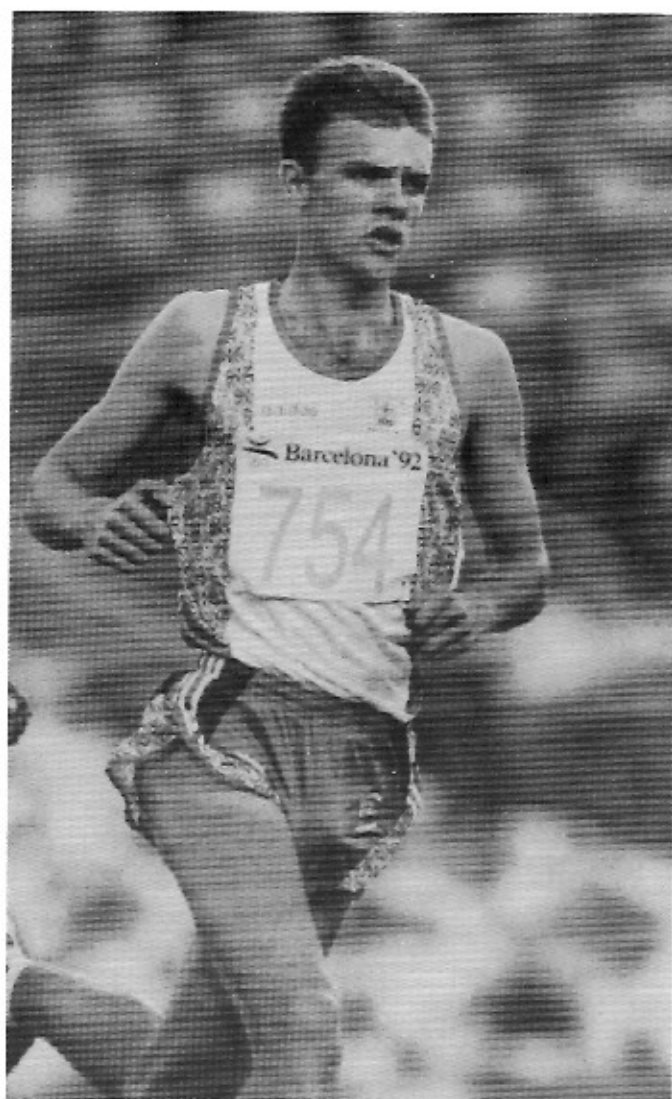
The women's marathon was a battle between Valentina Yegorova (CIS) and Yuko Arimori (Jap), the former leading at



Deratu Tulu and Elana Meyer

Photo by Shearman

Frank on Barcelona



Curtis Robb

Photo by Shearman

37 km in 2:13 with the Japanese in close attention. The awesome hill to the stadium saw the Asian close the gap and share the pace, but with the clock showing 2:29.42, the United Team runner made her effort to come home first.

A recent article by the national team coach for the marathon in the old Soviet Union gives an insight into their training methods. Once a week the athlete has to run for the same time as she achieved in a marathon; this might cover 23 miles. However, the time on the legs is the dominant factor. Four other runs are done weekly at different speeds, for example 10km in 33:00, half-marathon in 70:00, 15

miles in 1:25.00 and extensive hill running. All this is topped off with three visits to altitude for a month at a time in a year. The results are there to be seen. With a month to go before the games, CIS women were ranked first, second and 10th in the world rankings; Japanese were ranked third, fourth and fifth.

The men's marathon saw an Asian invasion of young men. The race developed into an agonising battle between Young C Hwang of Korea and Koichi Morishita of Japan. They injected a 5km section of the race with a time of 15:16 at around 20km to draw clear of Salvatore Bettiol of Italy. The Korean was a superb hill runner and finally broke the Japanese runner midway up the final ascent. The winning time of 2:13.23 was mediocre by world standards, but is worth a good 5 mins faster on a flatter course.

Conclusions

Serious questions must be asked about the UK coaching scheme *modus operandi* with regard to distance running. These questions are:

1. Is it time to appoint a full-time coach for the middle- and long-distance events? The national event coaches are experienced and able, but they can only do so much as part-time coaches.

2. Has too much attention been paid to the top few athletes in each event and not enough to the lower levels? We lack strength in depth. The way to measure a nation's strength in depth is to take the 10th placed athlete in each event and compare the time to similarly placed athletes in other countries. We compare badly. For example, the CIS have five women under 1:58 for 800m, Romania has two.

One must ask how many visits to local clubs the national events coaches have made in the last year. The figure should be at least one a week by arrangement for each coach. The prefix 'national' means the whole nation's athletes need firm direction.

3. I spoke to Kip Keino in Barcelona and asked him the secret of the Kenyan success. He replied: "There is no secret, just hard work."

Have the UK Coaching Committee got this message across to athletes and coaches? For instance, how would our 10,000m men do in a session of 3 x 5km in sub 14min with 100m jog recovery? That is a standard session for top Kenyans. Are we over-concerned with physiological data to the exclusion of gut-work?

4. Is it not time for a series of races to be organised for the top 50 in each event with suitable 'hares'? These races should have a prestigious tone to them which implies compulsory attendance to gain international selection, for example International Build-up Races.

5. Is the UK Coaching Committee lacking democracy? The senior BAF coaches have no direct vote as to its constitution and no say in the way each event should progress. It follows a pattern, the same old pattern for 20 years, which is now showing signs of not being with it.

These questions must be answered now if we are not to decline further in the next Olympics.

Achilles on Barcelona

Even with the benefit of a few weeks of hindsight, Achilles continues to be unimpressed with the standard of the competition at Barcelona. Yes it was a marvellous spectacle, and yes wasn't it great that every nation was present, but there were very few events that captured the imagination, except perhaps Chris Boardman in the cycling and Searle brothers in the rowing.

There were once again the usual selection controversies before the games, where countries were the victims of their own rigid selection procedures. How sad that the Olympic movement has not learned from Seoul, and that as great an athlete as Carl Lewis was unable to defend his Olympic title through illness at the US trials. What has to be done, and by whom, so that we allow defending Olympic champions, world champions, and even all athletes ranked in the world top 10 at the start of the games to participate in Atlanta?

One almost feels sorry for Nike and their advertising campaign. They selected four world champions who appeared totally dominant last year (Bubka, Johnson, Morceli and O'Brien), spent a huge amount of money promoting them, and not one of them finished with a medal, or even a top six placing. Dan O'Brien didn't even get there! What odds would you have got on all four of them not getting a medal back in March? (*About the same as the odds that not one of Aouita, Bile, Coe or Cram would get a medal in the Seoul 1,500m - Ed.*) And how ironic that three out of the four broke their respective world records in the post-Olympic meets.

Nourredine Morceli possibly had the worst performance of all. (Michael Johnson was certainly ill and O'Brien and Bubka could be described as unfortunate.) Morceli displayed uncharacteristic tactical ineptitude in the final, and yet from his performances in Zurich and Rieti he must have been in adequate shape. In a faster race he must surely have won. In the constant intellectual quest to determine the greatest middle-distance runner of all time, this will weigh heavily against Morceli.

The best single performance of the games came from Kevin Young, who ended Ed Moses' 16-year tenure of the 400mH World Record. Young, who had almost been unnoticed when he placed 4th in both Seoul and Tokyo, finally got it right when it mattered. He finished ahead of Graham and Akabusi, and interestingly this trio had finished 4th, 5th and 6th respectively in Seoul, and 4th, 2nd and 3rd in Tokyo.

The worst race was undoubtedly the 1,500m for men, which rivals, if that is possible, the 5,000m in Rome 1987. No athlete appeared to have any plan at all, and the time was a shameful 3:40. Cacho himself was amazed that he got away so easily off such a slow pace. With two poor Olympic finals in a row, the 1,500m now needs a major hero to transform the event. With Britain's apparent demise in the event (a steeplechaser and a 5,000m man finished in the first three in the UK trials - and for the first time ever there were no selection controversies), one almost felt like asking Seb Coe to recommence training, and who knows, had things been just a little different, he might have secured his fourth Olympic title!

In the British team, Curtis Robb has undoubted talent and should be carefully nurtured. David Grindley seems to be strong at the end of 400m and could be well advised to consider doubling up at 800m. Rob Denmark and Tom Hanlon both ran well in their respective finals, but both looked so much better in the heats. Lack of endurance is indicated here, but that is not surprising as Rob is better over 3,000m and Tom over the 2,000m 'chase.

In the 3,000m Alison Wyeth did more than could be expected, and Lisa York was unlucky to be drawn in the first heat. Despite a few tactical errors whilst in the pack, come the final lap she made three very good athletes work very hard for their places in the final. Lisa is also one of the few athletes that Achilles spotted actually smiling at the bell!

The less said about Yvonne Murray the better. She was in shape a few weeks earlier and she had no injury that we had heard of, but she must have known she

wasn't in the same shape and yet she still used the same tactics that caused her disaster in Tokyo. And poor old Tom McKean just didn't get into his race at all. What is it that makes certain athletes lose their clarity of thought in major races?

Of non-middle-distance athletes, Kriss Akabusi deserves a special mention. He is the only British athlete who got a medal in Split, Tokyo and Barcelona, and in each final he broke the British Record. That is consistency, and the mark of a great athlete. His presence will be sorely missed on the international stage.

So many athletes are now becoming 'one year wonders'. History is littered with them, and they are only remembered for the fact that they could not maintain their success, not because they were great athletes in their year. Much has been made of the fact that no male world champion of 1991 was able to convert last year's form into an Olympic title. This is, unfortunately, inevitable with the increased frequency of major championships, and Achilles is certain that the standard of competition is going to suffer.

Achilles is not convinced that it is possible to peak every year for championships, and in championships years no-one is going to chase world records in the Grand Prix. The most prolific years recently for world records in men's middle-distance events were 1981, 1985 and 1989, which just happened to be the last three years without a major championship. The world records of 1992 all came after the Olympics by athletes who had failed in Barcelona, and the old point is still valid - who cares if you break the world record if you can't win the Olympics?

Very soon, athletes are going to decide to miss certain championships to have a rest year, and you will therefore get little or no consistency in the contenders for each event. And do the public want to watch a race when they've never heard of any of the competitors? ..

These are the issues the sport now has to address.

BMC in Lanzarote

by Jane Blunden

I, a beginner runner, joined an illustrious member of Frank Horwill's squad to discover the joys of Club La Santa. It is the most beautiful sports complex by the sea on the remote west coast of Lanzarote, which is the most easterly of the Canary Islands, 70 miles off the coast of Africa. Christopher Columbus sailed past this fiery volcanic island on his way to discover the New World.

You don't have to be an athlete to discover and enjoy La Santa. Only four hours by plane from Gatwick or Manchester, the white buildings appear above the rocky sea-line like a small self-contained village. The modern buildings house some of Europe's finest sporting facilities and welcome some of the world's greatest athletes.

Apart from Frank Horwill's squad, there were three athletes who were to take gold in Barcelona - Linford Christie, Heike Drechsler and Jan Zelezny - as well as Peter Elliot, Jason Livingston, Susan Tiedke and Robin Brew the tri athlete. Linford enthralled us in the gym by lifting what appeared to be 180kg over his head in reps of 10. Linford is quoted as saying about La Santa: "It is fantastic first of all because of the weather and all the

different facilities, but also because I, as a sprinter, have only to go 100m before I am on the track."

The flat-roofed self-catering flats with balconies are clustered around courtyards. If you have a room on the outside there are some splendid views out to the hills, or to the rocky lagoon and the sea beyond. There are eight restaurants, several shops, a supermarket, a disco and a cinema, and for children a really nice play area for sandcastles and paddling (although part of the squad ended up there one evening after a really strenuous disco session).

A typical sporty day might go as follows: 08:00 half marathon, 09:30 breakfast, 10:30 swimming lesson, 12:00 lunch by the pool, 14:00 bike ride up the mountains, 16:00 windsurfing lesson, 17:30 one of Frank's sessions, 19:30 dinner, and in bed by 23:00 fresh for the next day.

For the less sporty type the following might be more attractive: late morning breakfast by the pool after a gentle aerobics session at 08:00 or crazy golf followed by sunbathing or sight-seeing around the island. Car hire is inexpensive and the volcanic mooncape countryside unique. There are many excellent small

fish restaurants along the coast and if the mountain bike ride seems a little energetic you can always hire a camel to Fire Mountain where your food is roasted over live volcanic coals. And of course, there is the 'Joker' at Puerto del Carmen ...

To give a flavour of the week, let's take one day's extract from my diary:

Monday: Trying to remember what happened yesterday - so many things to sort out. The early morning run was a bit strenuous for me as I was feeling a bit vulnerable after our long tour round the island. Returned from the track and caught up on typing after a leisurely breakfast. We then swam and fitted in 10 minutes in the gym. Robin had been there some time watching Linford lift weights. As we left we spotted him by the pool flicking water onto a pretty Danske lady and giving her his room number.

During the afternoon I had the chance to photograph Susan and talk to her and her coach. She was surprisingly approachable - she'd been a little bored. Her mother did the cooking and she'd actually been dying for company - if only we'd known sooner. I then spoke to one of the German wheelchair athletes whom I had admired at a distance. Frank had gone searching for some lost dogs in the dunes.

Came back to the room and did a fast change to join the group for a special dinner for the squad organised by Matthew in the fish restaurant in the village. I had the honour to sit on Frank's right and had Robin and Steve to my right, Paul, Matthew and Kenny opposite and Tony and Caroline on Frank's left. Further along was the rather nice director of Adidas and his pretty wife. Frank took the trouble to analyse my handwriting.

There were speeches, singing and jokes towards the end with Frank, policeman Bob, Adidas and Vince taking the floor. Matthew videoed it all. Bed tired but happy at last.



Frank starts the United Nations squad on yet another rep, closely observed by Linford Christie and Ron Roddan.

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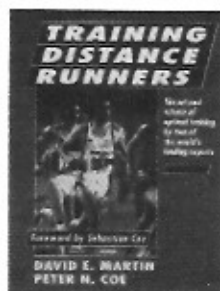
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A Message about Massage by Sharon Winkler

For many people, massage is thought to be a luxury for the rich. What is perhaps less known is that massage is used for remedial purposes - that is for the treatment of injuries and problems relating to the musculo-skeletal system.

It is also used as a serious sportsman's aid to recovery from training and competition, for competition preparation and for general maintenance of the sportsman to keep the body 'well tuned' and able to achieve optimum performance.

Massage has been used extensively for centuries throughout the world - even the ancient Greeks used it. The most significant contribution since then was developed by the Swedes (hence the name Swedish massage), who used it as a relief from exhaustion for cavalry officers after long hours on horseback. Nowadays

athletes, cyclists and other sportsmen use it as part of their training schedule.

Benefits : Post-competition and within training schedules

Training and competing put muscle tissue, tendons and ligaments under strain. This, together with the chemical changes occurring in the body during exercise, often leaves one stiff and sore. A warm-down and stretch routine can ease stiffness but they are not sufficient to bring about full recovery after a very hard session. The mechanical action of massage, i.e. stroking movements towards the heart and squeezing the tissues, is very effective in clearing away the chemicals that cause stiffness.

Massage also helps to relax the muscles that have become over-tight through hard physical activity. This means that recovery time is decreased and the athlete can return to his activity with much less risk of fatigue and injury. Greater mobility and flexibility are also achieved by the stretching and relaxing effect of massage on the tissues, and this leads to greater ease of movement and improved performance. Many sportsmen, including top-class athletes, use massage extensively in their training : Said Aouita, Colin Jackson and Rob de Castella are just a few of them. Athletes of the former East Germany had massage as an integral part of their training. As a result they maintained peak condition and remained injury-free for longer periods than did their competitors.

As another example, riders in the Tour de France take daily massage in readiness

for the next day. With massage, a sportsman can participate in sports with a lower level of stress on the body and at the same time perform with greater endurance and effectiveness.

Pre-competition

Good preparation is vital before any competition. A good warm-up is generally accepted to be of great physiological and psychological value. Massage can also help by improving circulation, thereby raising muscle and body temperature, and by loosening, softening and stretching connective tissue and residual scar tissue.

When massage is applied prior to the event, it is generally brisk and of short duration, the aim being to relax and loosen up the athlete, but at the same time stimulate the limbs in preparation for the activity. The body is thus well prepared for the event and is able to work more efficiently, with less stress. As a result, performance will be enhanced. Massage given after the event is of longer duration and is deeper, with the emphasis on relaxation.

Injury treatment

Massage has immense value in the treatment of injuries. It eases pain - massage has a soothing effect and certain techniques that have an analgesic effect can be employed. Massage reduces swelling; this is achieved by the mechanical pressure of pushing the fluid back into circulation, which encourages drainage of the affected area. Occurrence of muscle spasms is reduced by the effects of pressure and stroking movements - this soothes the nerves that convey messages to the muscle to 'normalise itself'. Healing is encouraged by the increase in blood circulation that is achieved.

When an injury is received, fluids are released from the site of the injury which



can solidify and adhere to the surrounding tissue, creating swelling, pain, or reduced range of movement. These areas are called adhesions. Where adhesions are formed, and also where there has been a build up of scar tissue, massage can be used to physically break them down. Stretching, and movement and manipulative techniques by the therapist, help improve circulation to joints and restore movement and mobility.

Many remedial massage therapists acquire a sensitivity in their hands that allows them to determine the nature of the tissue beneath their hands. Potential problems and areas of injury can therefore be detected and the treatment tailored to the specific needs of the athlete, and advice given about appropriate stretching, precautions etc. The hands are a diagnostic tool and the sensitivity in the therapist's hands is a vital aid to treatment.

Injury prevention

Patello-femoral syndrome or 'runner's knee' is a common condition affecting the middle-distance runner.

In this condition there is inflammation of the soft tissue beneath the patella caused by excessive friction between the back of the patella and the lower end of the femur.

An imbalance of the quadriceps is usually the cause of this syndrome, whereby the vastus medialis muscle, which is relatively weak compared with the other quadriceps muscles, is only used during the final 10 degrees of leg extension.

In distance running, the knee is very rarely fully extended, thereby leading to over-development of the outer quadriceps muscle and a weakening of the vastus medialis. As a result, the patella is pulled laterally, causing patello-femoral friction. Pain and stiffness can be felt behind or below the kneecap, during and after activity.



To rectify this condition, the balance of the muscles needs to be restored. This is achieved with advice on appropriate strengthening exercises and massage to the affected muscles. Massage will help release the over-tightened quadriceps and help heal and nourish the injured and weakened vastus medialis muscle.

Achilles tendinitis, generally an over-use injury, can be precipitated by running on hard surfaces, or by insufficiently cushioned shoes, heel-tabs on shoes, or structural abnormalities of the runner's foot. Repetitive stress to the achilles tendon, which has the dual function of foot leverage and shock absorption, causes inflammation and sometimes swelling around the tendon. Appropriate treatment consists of rest from running, ice, stretching exercises and massage - and identification of the cause.

Massage would be applied to the calf muscle and achilles tendon in order to stretch the tissues and thus relieve stress from the affected part of the tendon. It will also encourage the flow of blood and lymph to and from the area. Deep friction massage would be applied to the site of injury to break down unwanted fibrous and scar tissue and encourage circulation and healing.

Some runners have over the years acquired injuries that periodically cause problems and hinder performance. These are often long-standing injuries : perhaps a hamstring or calf strain or an old ankle injury. Often, if an injury is improperly treated at the time, fibrous, non-elastic scar tissue is formed which restricts the free action of the tissues.

As the muscle becomes fatigued, stress is exerted on the site of the injury, causing further tightening and resulting in pain and stiffness and poor flexibility. In these cases, massage and passive stretching by the therapist of the affected muscle and surrounding muscle groups acting on the affected limb will stretch the tissue and the joint and enable it to function as efficiently as possible. In addition, by working directly on the scar tissue, the therapist can increase its pliability. Thus the runner is able to continue and perform well without stress, despite carrying an underlying injury.

Sharon Winkler is a qualified practitioner of remedial massage and manipulative therapy. She works in private practice and has a particular interest in sports-related injuries. Sharon can be contacted on 081 998 3410.

When Things Go Wrong

by Frank Horwill

There are many things that may adversely affect an athlete's performance - in the main these are :

- (1) Injury;
- (2) Stress;
- (3) Illness;
- (4) Illogical Training.

Of these four, (1) and (2) are the most common offenders with (3) and (4) in a tie-break. The causes of injury can be both known and unknown. A Surrey coach once asserted that all injuries were caused by the training coaches gave to their athletes. If this is the case we coaches are in good company because Coe, Ovett, Cram, Moorcroft, Foster etc have all been plagued with injuries in their time.

Some believe that inadequate warm-up (jogging, suppling, stretches and strides) is the cause. However, eight studies of warm-up procedures have stated that limbering-up exercises have no direct effect on injury prevention and seven studies have declared that they do.

One of the greatest stretchers I have known, devoting an hour a day to the regime, has been injured every year of his 12 years of running. The latest view on stretching is that it should be done before and after all training sessions.

Big mileage is blamed for many injuries, but the incidence of injuries in runners doing only 50 miles a week is high. Very recently nutrition has been brought into the argument. There is evidence that lack of calcium in the diet undermines the health of muscles and bones and makes them more prone to damage. Excessive drinking of soft drinks that contain phosphorous will make calcium in the diet non-available. If we drink three tins of Coke a day we need to drink three pints of milk as well if we are to maintain the status quo.

Some runners are 'bangers' - they hit the ground with greater force than others; normal foot strike is 3G, but some register

6G, and the latter group often send up reverberations to the spine which lead to hip and back trouble. Chronic sufferers should wear sorbothane heel and sole inserts in both their running and normal footwear.

Some runners do not have the muscular development to avoid injury. For example, if the hamstrings are not 60% as strong as the quadriceps, the former will strain or even snap. Whatever maximum we can lift on a quadricep machine, if we cannot lift six-tenths face down curling our legs into the buttocks we are in danger.

The traditional times for an increase in injuries are April-May and October-November. The cause is simple - we change from one type of training to another. Those who never train on the track in the winter and then suddenly start doing fast repetitions are tempting fate.

Similarly, those who run 35 miles in a week in the summer and then suddenly switch to 70mpw in the winter may pay a high price for their folly. Athletes who train the same way all year round appear to get fewer injuries (by 'the same way' I mean that if they do three track sessions a week in the summer they ensure that they do one a week in the winter).

Every change in training should be gradual. If we have not run up any hills during the summer we must do very limited amounts at first in the winter.

Even experienced internationals do idiotic things. One sub-four-minute miler suddenly had a brain-storm : "I must get my speed up", he declared with zeal. He rattled off 10 x 150m full out. He did not walk again properly for a week despite receiving daily physiotherapy during that time.

This particular runner has written articles in the athletics press describing how he found the right formula for his success. But there was one thing he omitted to say : he never ran as fast as he did when he was

doing precisely what his coach told him to do, and he never had so many injuries.

When injuries occur we should follow a strict procedure :

1. Apply ice in a plastic bag to the area for 15 minutes immediately. This will stop internal bleeding and swelling. Keep applying ice every four hours for 15 minutes with three minutes of stretching after each application followed by a further 15 minutes of ice each time.

2. After 48 hours of (1) start using contrast baths every four hours. This is two minutes of ice application, two minutes immersion in hot-as-bearable water, repeated for a total of 16 minutes.

3. Take an anti-inflammatory drug (aspirin, neurofen etc) every four hours, or follow the maker's directions to the letter. The maximum period for taking drugs of this kind is five days.

4. We are now in the fifth day of treatment, and if there is no sign of improvement we need to see a sports medicine doctor attached to an athletics clinic.

For this to be done under the NHS you will need to see your GP first; he will give you an introductory letter. If you are rich you can do it privately. Beware of going straight to a physiotherapist for treatment. Physiotherapists are supposed to act on the instructions of a doctor of physical medicine, they are not in the diagnosis business.

I know of an athlete who spent pounds seeing a physio with so-called ilio-psoas strain when in fact he had a sub-inguinal hernia! Always ask for an X-ray or bone scan with stubborn injuries.

5. Some injuries do not respond to physiotherapy but do to an injection of cortisone. Often the results are quite dramatic. Do not have a second injection for the same injury without full discussion with the doctor concerned. Double

injections into the achilles tendon have been known to cause rupture.

6. Resume training every other day for at least a week; then two days consecutively with the third off for a week; then three days together with the fourth off. First week outings should be of 15 minutes' duration; second week, 22 minutes; third week, 33 minutes, etc.

Stress has its own set of symptoms. Repeated sore throats, colds, skin trouble or digestive disorders are a few. Cure the cause and you cure the stress.

Procedure

- (1) Ensure that you get eight hours of sleep at night. If you suffer from insomnia take homoeopathic coffee.
- (2) Eat every four hours.
- (3) Train every other day.
- (4) Change your training surface (e.g. from track to playing fields).

(5) Increase your intake of vitamins C and A and the B complex.

(6) Don't work so long or hard (eight hours' work a day is ample).

(7) If you have a troublesome partner, do your best to patch things up; if this doesn't work, chuck him/her/it!

(8) If you don't feel better after 14 days, take five days off and have a complete medical check-up.

Illness strikes the fit because most of their resistance is taken up acclimatising to training. Glandular fever is common among runners. So also are frequent infections. Often the cause is zinc loss in the sweat: a handful of any type of nuts daily will top up your zinc reserves.

Training is meant to build over a long period of time. Physiologists have found that training every other day for 40 minutes will bring about major changes for the better in 6-12 weeks. Greater benefits occur in the next 12-24 weeks, and a peak is reached around 24-48 weeks,

assuming no loss of training due to injury or illness.

The training pattern should be perceived in days of effort:

- Day 1 - severe effort.
- Day 2 - active rest
(walk or jog a few miles).
- Day 3 - moderately severe
(75% of Day 1).
- Day 4 - light (50% of Day 1).
- Day 5 - severe.

This way we have a recovery after a hard day, then a fairly hard day followed by an easier one. If, when you line up for a race, you say to yourself, "I feel tired for this race", you've got it wrong. If you say and believe, "I want to race, I'm fresh for this one", you've got it right.

We train to get fit to race. This means training hard judiciously and easing back for the races that matter. Athletes who go for a 10-mile run in the morning when there's a race in the afternoon make me puke! They are not runners but drug addicts.

Poetry for Athletics

To get things done an ounce of faith
is worth a ton of experience.

Our first duty is not to hate ourselves
Because to advance we must have faith in ourselves.

Vivekanda

We must believe that the power in us
Is greater than the task ahead.

Obstacles in the pathway of the weak
Become stepping stones in the pathway of the strong.

Carlyle

Great people are just ordinary people with an extraordinary amount of determination.

Compiled by Colin Daley

Maximum Success at Cross-Country Racing

by Frank Horwill

For those sixty-five new members who have joined since Volume 2 Number 2, here is a brief summary of Frank Horwill's definitive Cross-Country training schedules.

The writer over the past 32 years has had much success in coaching athletes to reach their full potential at cross-country. These successes include two silver medals in the World Cross-Country Championships, 16 English Schools Cross-Country Champions, eight National CC Champions, 24 English, Scottish and Welsh cross-country internationals and also Zimbabwe and Eire internationals.

But mileage is not the key to success at cross-country. Adequate mileage - yes. One of Britain's greatest cross-country runners, who was trained by the author, averaged only 70 miles a week during his most successful years. Some of his compatriots were doing double this; he defeated all of them because they lacked one key ingredient - speed at 5,000m.

There are five specific ingredients to cross-country success - the 'Big Five':

1. Twice the distance

This means *working up* to running twice the distance of the National CC Championship distance in your age group. Women should work up to running three times the distance. These runs are slow and should be done once a week. Start with the distance of the race and add a mile a week until the maximum distance is reached.

2. Hill running

Numerous places are lost in races because of the inability to devour gradients, and also to run down them at speed. Once a week run up a long gradual hill so that the

ascents equal half the distance of the championship race. For example, the English National CC is nine miles, hence 4 1/2 miles of ascent running. Vary the characteristics of the hills: short, long; gradual, steep. Start with small amounts and build up in weekly stages to the maximum.

3. Relative speed running

The speed of the National for men is analogous to 10k. The speed of the women's National is 5k pace. Relative speed means one pace faster. For men this is 5k pace, for women 3k pace, for boys and girls 1,500m pace.

You must decide what your best 5k, 3k and 1,500m paces are. The World CC Championships are run at 14 min pace at 5k, the women's at 9 min pace at 3k. Here are some paces for the former (5k): 72/400 = 15 mins, 76/400 = 15:50, 80/400 = 16:40. For 3k, 72/400 = 9 mins, 76/400 = 9:30, 80/400 = 10 mins.

Men should build up to running half the distance of the National (4 1/2 miles) at 5k pace. Women should build up to running half the National at 3k pace. Here is a 5k pace session: 4 x 1,600m in 4:50 with one minute's rest. A 3k session can be 3 x 1,500m in 5 mins with 2 mins rest. These relative speed sessions should be done once a week.

4. An intermediate run

This is the difference between (1) above - 18 miles for men and 10 miles for women - and the distance of the race, nine miles for men, maximum of four miles for women.

This is 13 1/2 miles for men and seven miles for women. This run should be steady to fast and be done weekly.

5. An acceleration run

This is done over the precise distance of the race. For men this is three miles slow, three miles steady, three miles full out. For women it is a mile slow, a mile steady and two miles full out. This actually gets you used to running faster at the end of races, a useful tactic when the opposition is dying on their feet.

Conclusion

The mileages involved in the above are moderate, 55 per week for men and 35 per week for women, but you will have covered all the requirements of the race: stamina, strength, speed, endurance and tactics.

Some runners are never happy unless they can show big mileage returns. So be it: they can do a 30 min run every morning plus the above, but if the above is affected by the morning runs they should restrict them to every other day.

Your schedule will look like this:

Sunday	- 3k/5k work;
Monday	- long run;
Tuesday	- hill running;
Wednesday	- intermediate run;
Thursday	- acceleration run;
Friday	- rest;
Saturday	- race/Gerschler fartlek.

These sessions will transform you.

One BMC athlete used similar schedules to these before she came third in the English Schools Senior Cross-Country Championships. Her previous best position was 67th.

Her coach said to her just before the race, "No one in the country has trained like you have this last six months." She replied, "You can say that again, Frank!"

Book Reviews

Albert Hill - A Proper Perspective by Greg Moon

Reviewed by David Cockedge

Albert Hill deserves a more prominent place in British track and field history. At the age of 31, this man won both the 800m and 1,500m at the 1920 Olympics in Antwerp. Yet somehow his name has never been as celebrated as those of Harold Abrahams and Eric Liddell, who triumphed in the 1924 Paris Games, and were immortalised in the film *Chariots of Fire*. Greg Moon (42), a former BAAB Senior Coach, redresses the balance with this privately published book, the result of four years of exhaustive research.

Hill was born in Southwark, South London (not Tooting as all previous historians have stated), in 1889 and was a railwayman all his working life, which perhaps explains why he has remained such a shadowy character: few outside the privileged Varsity set were recognised or lauded in those days. Moon even relates that Joe Binks, in later life a sports journalist, never forgave Hill for breaking his UK and former World mile record. Let's not forget also that the original AAA laws were framed in 1880 specifically to exclude 'artisans' and other such working-class undesirables!

Hill joined Polytechnic Harriers in 1911 and his career was progressing successfully towards what would have been the 1916 Olympics when Europe was plunged into the devastating war in 1914. He served as a wireless operator for the RFC in France during the conflict, and returned to the track in 1919, aged 30, still hungry for success.

Like Abrahams, Hill was coached by the charismatic 'Sam' Mussabini, and the detailed story of this relationship, plus the build-up to and achievement of double Olympic glory in Antwerp, is vividly recounted by Moon.

Hill later became a highly successful coach, guiding the careers of sprinter Jack London and World mile record holder Sydney Wooderson among others. As a paid professional coach with the Poly and Blackheath Harriers, from 1924 onwards, Hill earned the princely sum of £40 per annum, and could thus never compete again as an amateur.

These 98 pages of original work will be of great interest to all athletics historians, containing as they do detailed accounts of all Hill's important races, plus a wealth of information about that pedestrian era.

Albert Hill never set any World records, but, writes Moon, "it was to be 44 years before anyone would be able to repeat the Olympic 800/1,500m double. Many of today's much feted and highly remunerated performers have been unable to match this - and they have not lost their best years through war."

Albert Hill - A Proper Perspective is available from Greg Moon at Old Forge Cottage, Shipton Orliffe, Cheltenham, Glos., GL54 4HU. Price £4.50, including postage to anywhere in the UK. Greg will make a 50p donation to the BMC for every copy sold.

More than Winning by Alastair Aitken

Reviewed by Frank Horwill

This book consists of a compilation of interviews conducted by the author with some of the world's greatest athletes, mostly runners. The book spans a period of 30 years of discussions with the famous, who themselves cover two generations of competition, starting with the diminutive World mile and half-mile record holder, Britain's Sydney Wooderson of Blackheath Harriers, who was born in 1914.

Wooderson reveals that he never ran against the great Rudolf Harbig of

Germany, and that, if he had, Harbig would have won, because Sydney considers him to be one of the greatest two-lappers of all time (he held both the 400m and 800m World records, the latter lasting for 16 years).

Wooderson reflects sadly on the demise of club spirit in the cross-country season. In his day, a club could turn out three packs of a score each for training. Now, they go out in twos and threes. The book's reference, on Page 18, to Wooderson's best mile time contains a misprint: the time given of 4:14.2 should of course read 4:04.2, which was achieved when he was 31 years old against the great Swedish runner Arne Anderson, before a crowd of 54,000 at the old, now demolished White City stadium. In that same stadium, 20 years later, Ron Clarke of Australia became the first man to break 13 minutes for three miles, and of course Alastair interviews him in the book also.

The book has 32 photographs of good quality, including pictures of the late Lillian Board, Gaston Roelants, Janis Lusic, Henry Carr, Tommie Smith, Lynn Davies, Lee Evans, Irena Szewinska, Dave Hemery, Edwin Moses and most of the world's greatest runners from 800m to the marathon.

The final chapter, 'Some athletics philosophy', is a masterpiece: there are quotes from great runners on training and competition, motivation, coaching and officiating. For the mature, this book is a wonderful trip down memory lane; for the young, it will inspire them to greater efforts.

Parents can do no better for their offspring interested in athletics than to buy this book for their Christmas stockings. Once you start reading it you cannot put it down, such is the interest it engenders.

More Than Winning is available from Jeremy Hemming, 40 Balvernie Grove, London SW18 5RU. Price £6.95. Published by Temple House Books, Sussex.

Race Results 1992

25th March	Lanzarote	Mile M	P. Galloway	(Blackheath)	4:23.0
11th April	Redditch	Mile M	P. Freary	(Bolton)	4:11.3
28th April	Trafford	800m M	M. Russell	(Rotherham)	1:54.0
		800m W	J. Spark	(Altrincham)	2:10.2
29th April	Millfield	1,000m M	G. Grant	(Camb H)	2:25.8
		2,000m M	N. Smart	(Westbury)	5:20.5
29th April	Plymouth	800m M	J. Scott	(Newquay)	2:01.0
		800m W	M. Wooldridge	(Newquay)	2:23.5
2nd May	Yate	800m M	P. Delvin J	(Bideford)	1:57.9
		3,000m M	R. Nerurkar	(Bingley)	8:09.9
19th May	Trafford	1,500m M	R. Findlow	(Bradford)	3:50.2
20th May	Ealing	1,500m M	P. Burnett	(A F & D)	3:55.0
24th May	Exeter	1,500m M	B. Creed	(Bath)	3:55.6
		1,500m W	V. Kirk	(Wells)	4:35.9
1st June	Plymouth	1,500m M	J. Scott	(Newquay)	4:03.7
		1,500m W	S. Salmon	(Newquay)	4:42.1
3rd June	West London	1,000m M	R. Lynch	(N London)	2:22.0
		800m M	J. Jones	(Southampton)	2:10.8
9th June	Trafford	800m M	G. Stewart	(Glas Univ)	1:52.3
		800m W	V. Lawrence	(B & F)	2:14.0
17th June	Ealing	800m M	A. Rosen	(Haringey)	1:55.1
		800m W	T. Maloney	(Ealing & S)	2:17.3
30th June	Trafford	1,500m M	I. Grime	(O & R)	3:47.8
		1,500m W	S. Carter	(Leeds)	4:32.9
8th July	Plymouth	800m M	S. Paterson	(Liverpool Pem)	1:57.7
		800m W	M. Wooldridge	(Newquay)	2:16.1
21st July	Trafford	800m M	M. Hibberd J	(Leicester)	1:49.2
			I. Grime	(O & R)	1:49.7
		800m W	S. Parker	(Sale)	2:09.2
			D. Brockley	(E Cheshire)	2:09.7
22nd July	Ealing	1,500m M	R. Hough	(Medway)	3:46.0
		1,500m W	J. Jones	(Southampton)	4:34.9
22nd July	Swindon	800m M	A. Duke J	(Yeovil)	1:49.8
		1,500m W	D. Gunning	(Swindon)	4:20.1
29th July	Solihull	800m M	A. Hart	(Coventry)	1:48.5
			A. Duke J	(Yeovil)	1:48.8
			M. Russell	(Rotherham)	1:49.2
2nd August	Stoke	Mile M	P. Walker J	(Liverpool)	1:49.9
5th August	Swindon	3,000m M	M. Barker	(Leicester)	4:08.04
			J. Harrison	(Australia)	8:07.3
			I. Manners	(Highgate)	8:08.5
		800m W	L. Gibson	(Oxford City)	2:04.8
			L. Robinson	(Coventry)	2:06.7
			D. Gunning	(Swindon)	2:08.5
			J. Hansford	(Bournemouth)	2:09.5
5th August	Plymouth	Mile M	J. Scott	(Newquay)	4:23.0
		Mile W	M. Wooldridge	(Newquay)	5:05.2
11th August	Trafford	1,500 m M	M. Russell	(Rotherham)	3:48.5
		1,500 m W	J. Spark	(Altrincham)	4:24.6
19th August	Ealing	800m M	T. Balogun	(Woodford Gn)	1:52.0
		800m W	S. Read-Cayton	(K & P)	2:11.8
26th August	Solihull	800m M	M. Barker	(Leicester)	1:50.5
31st August	Welwyn	1,500m M	D. Heath	(Blackheath)	3:44.6
6th September	Southampton (GP)	Mile M	M. de Freitas	(Portsmouth)	4:04.9
8th September	Trafford	800m M	P. Hackley	(Trafford)	1:49.9
		800m W	D. Brockley	(E Cheshire)	2:10.9
9th September	Swindon (GP)	1,500m M	M. de Freitas	(Portsmouth)	3:42.7
			M. Barker	(Leicester)	3:43.6
			D. Heath	(Blackheath)	3:44.2
			I. Gillespie	(Birchfield)	3:44.8
12th September	Cardiff (GP)	1,500m M	D. Heath	(Blackheath)	3:43.48
			M. de Freitas	(Portsmouth)	3:43.80
		1,500m W	M. Cole	(Ealing & S)	4:36.86
16th September	Ealing	Mile M	J. Orr	(London Irish)	4:19.5
			M. Gooch	(Grimsby)	4:19.5
16th September	Bristol (GP)	Mile M	D. Heath	(Blackheath)	4:01.1
			R. Whalley	(Staffs Poly)	4:02.1
			M. Barker	(Leicester)	4:02.3
			I. Gillespie	(Birchfield)	4:02.4
			B. Glenton	(Southampton)	4:02.7

Your Letters

From Ray Thompson

David Cocksedge is not the only person to write to *BMC News*! First, congratulations to the editorial team and contributors for an excellent issue. Lots of news and material and Dave's sub-four-minute register quite fascinating. I wonder how many middle-distance coaches - me included - knew that there were 130 men under four minutes?

If the UK best for the mile is Steve Cram's 3:46.32 and Zola Budd's 4:17.57 (4:19.71 Kirsty Wade), a difference of 31.25 secs, it seems reasonable to say that an equivalent four-minute mile for women would be 4:00 plus 31.25, which is 4:31.25. Now, the question is, how many women have run under 4:31.25? Will it be more than 130? My records will not tell me this so get your books out again, Dave.

While David Iszatt's AGM lecture 'Running in the Year 2000' dealt largely with men, it would have been informative to hear his views on women's running in the Year 2000.

While accepting that there was a glam photograph of Elena Meyer, *BMC News* does seem to emphasise the male side, and I would respectfully suggest that the editorial board could give more attention to women's middle-distance running.

Perhaps I will be told that this reflects the BMC membership; as likewise is said for less valuable prizes for the same event, the second-string reporting of results, television and press coverage (Fatima excluded) and the BAF coaching structure.

For if those of us - and surely I am not alone - who are interested in and working at raising the level of women's middle-distance running cannot expect a push from the BMC on this front, the situation does look rather bleak.

David Cocksedge replies : Precious few women have seen the inside of 4:31 - exactly 15 in fact (lists as at 1st January 1992).

4:17.57	Zola Budd	21-Aug-85
4:19.41	Kirsty Wade	27-Jul-85
4:22.64	Christina Cahill	07-Sep-84
4:23.08	Yvonne Murray	05-Sep-86
4:24.57	Christine Benning	07-Sep-84
4:24.87	Alison Wyeth	06-Jul-91
4:26.11	Liz McColgan	10-Jul-87
4:26.16	Teena Colebrook	14-Jul-90
4:27.19	Bev Nicholson	01-Sep-89
4:28.07	Wendy Sly	18-Aug-84
4:28.8	Karen Hutcheson	20-Aug-89
4:29.15	Suzanne Morley	18-Aug-84
4:30.08	Lynn MacIntyre	07-Sep-84
4:30.29	Jane Shields	09-Sep-83
4:30.80	Ruth Partridge	18-Aug-84

Achilles replies : We prefer to use the relative percentage method to convert times and to use the world records. Using the records of Steve Cram and Paula Ivan (4:15.61) we divide 255.61 by 226.32 (= 112.94%) and apply this factor to 240 secs to get 4:31.06. Different formula - same result!

The Editor writes : Ray makes a fair point about women in the BMC, and historically the BMC News has been rather male orientated. This does, however, reflect our racing membership. We invite all ladies to write their views on the future of ladies' MD in Britain. Please send your articles to me by January 31st 1993.

From Malcolm McCausland

You appear to have omitted Peter McColgan from the list of UK sub-four-minute milers included in your Spring 1992 edition. Peter ran 3:59.37 in 1986. The Northern Ireland all-time list reads as follows :

3:55.0	J McGuinness
3:56.36	S Martin
3:57.81	P Lawther
3:58.42	S O'Neill
3:59.24	D Graham
3:59.37	P McColgan
3:59.67	M Kirk
3:59.84	S McCann (Rep of Ireland)
3:59.9	D Wilson

With Gary Lough, Brian Tracy and Bobby Farren knocking on the door, hopefully Northern Ireland will have at least 10 sub-four-minute milers by the end of 1992 - not bad for a population of 1.5 million!

David Cocksedge replies : I have to plead guilty - McColgan's 1986 Mark was unfortunately missed. NI's tally, however, is not that impressive - Surrey alone has 13 and Yorkshire 11!



From left to right, Dave Cocksedge, Alf Wilkins and Tim Hutchings, pictured at Frank's 65th Birthday Party.
Photo by Rondelle

UK 800m Lists

Compiled by David Cocksedge as at 31st August 1992

Men

1	Sebastian Coe	1:41.734	10-Jun-81
2	Stephen Cram	1:42.88	21-Aug-85
3	Peter Elliott	1:42.97	30-May-90
4	Thomas McKean	1:43.88	28-Jun-89
5	David Sharpe	1:43.98	19-Aug-92
6	Steven Ovett	1:44.09	31-Aug-78
7	Garry Cook	1:44.55	29-Aug-84
8	Anthony Morrell	1:44.59	02-Jun-88
9	Iken Baly	1:44.65	21-Jul-84
10	Stephen Heard	1:44.65	26-Aug-92
11	Matthew Yates	1:45.05	26-Aug-92
12	Andrew Carter	1:45.12	14-Jul-90
13	Christopher McGeorge	1:45.14	28-Jun-83
14	John Gladwin	1:45.14	22-Jul-86
15	Curtis Robb	1:45.16	28-Jun-92
16	Robert Harrison	1:45.31	21-Jul-84
17	Kevin McKay	1:45.35	16-Aug-92
18	Neil Horfield	1:45.44	28-Jul-90
19	Brian Whittle	1:45.47	20-Jul-90
20	Graham Williamson	1:45.6	17-Jun-83
21	Paul Forbes	1:45.66	08-Jun-83
22	Frank Clement	1:45.76	10-Jul-76
23	Stephen Crabb	1:45.80	18-Aug-84
24	David Strang	1:45.85	13-Jun-92
25	Colin Campbell	1:46.1	26-Jul-72
26	Gary Marlow	1:46.13	27-Jul-88
27	Gareth Brown	1:46.16	02-Jul-84
28	David Warren	1:46.20	29-Jun-80
29	Peter Browne	1:46.21	14-Jul-73
30	Martin Steele	1:46.26	30-May-92
31	Christopher Carter	1:46.30	04-Sep-66
32	Philip Lewis	1:46.30	27-Jan-74
33	Paul Herbert	1:46.33	10-Jul-87
34	Andrew Lill	1:46.37	28-Jun-92
35	John Boucher	1:46.5	18-Jun-66
36	Derek Johnson	1:46.6	09-Aug-57
37	Peter Hoffman	1:46.63	11-Jun-78
38	David Mooncroft	1:46.64	25-Jul-82
39	Stephen Caldwell	1:46.65	31-May-82
40	John Davies	1:46.7 *	03-Jun-68
41	Ailee Douglas	1:46.70	09-Jun-88
42	Malcolm Edwards	1:46.72	13-Sep-82
43	Robert Adams	1:46.8	09-Aug-69
44	David Cropper	1:46.8	01-Jul-73
45	David McMeekin	1:46.8	06-Jun-74
46	Colin Sawed	1:46.92	07-Aug-82
47	Mark Kirk	1:46.94	20-Jul-87
48	Brian Hewson	1:47.0	13-Sep-58
49	Michael Rawson	1:47.0	13-Sep-58
50	Nicholas Brooks	1:47.01	12-Apr-80
51	Philip Norgate	1:47.04	25-Jul-82
52	Paul Larkins	1:47.13	20-May-84
53	Paul Rowbotham	1:47.14	25-Jul-89
54	Paul Williams	1:47.17	14-Sep-91
55	Gary Brown	1:47.18	27-Jun-92
56	Anthony Settle	1:47.2	16-Aug-75
57	John Griffiths	1:47.2	23-Aug-89
58	William Cornell	1:47.4 *	22-Jun-63
59	Robbie Brightwell	1:47.4 *	18-May-64
60	Stuart Paton	1:47.43	06-Aug-88

Women

1	Kirsty Wade	1:57.42	24-Jun-85
2	Diane Edwards	1:58.65	14-Jul-90
3	Shireen Bailey	1:58.97	15-Sep-87
4	Christina Cabill	1:59.05	04-Aug-79
5	Loeraime Baker	1:59.67	15-Aug-86
6	Paula Fryer	1:59.76	17-Jul-91
7	Ann Williams	1:59.88	29-Jun-91
8	Rosemary Wright	2:00.15	03-Sep-72
9	Anne Purvis	2:00.20	07-Jul-82
10	Cherry van der Zande	2:00.30	25-Jul-81
11	Beverley Nicholson	2:00.39	28-Aug-88
12	Lane Finch	2:00.6	09-Jul-77
13	Yvonne Murray	2:00.80	10-Jul-87
14	Ann Brightwell	2:01.1	20-Oct-64
15	Lynne MacDougall	2:01.11	18-Aug-84
16	Joan Allison	2:01.2	01-Jul-73
17	Christine Whittingham	2:01.2	26-Aug-78
18	Christine Benning	2:01.24	28-Jul-79
19	Elizabeth Laban	2:01.35	10-Jul-76
20	Gillian Dainty	2:01.36	31-Aug-83
21	Janet Bell	2:01.40	10-Jul-87
22	Lesley Foley	2:01.48	11-Jun-77
23	Lillian Board	2:01.50	18-Sep-69
24	Teena Colbrook	2:01.65	21-Jul-84
25	Patricia Cropper	2:01.66	12-Aug-71
26	Ann Middle	2:01.7	28-Aug-91
27	Helen Daniel	2:01.86	10-Jul-87
28	Dawn Gandy	2:01.87	19-Jun-88
29	Susan Bevan	2:01.93	19-Jul-91
30	Margaret Coomber	2:02.0	01-Jul-73
31	Josephine White	2:02.0	13-Aug-77
32	Lynne Robinson	2:02.0	26-Jul-89
33	Lynn Gibson	2:02.34	1992
34	Janet Marlow	2:02.7	23-Jul-79
35	Mary Katson	2:02.83	21-Jul-91
36	Sheila Carey	2:02.9	10-Sep-71
37	Carol Sharp	2:02.91	07-Jul-82
38	Mary Cotton	2:03.11	11-Jun-78
39	Paula Newnham	2:03.18	17-Jun-78
40	Verona Elder	2:03.18	10-Jun-79
41	Anne Smith	2:03.2 *	02-Jul-66
42	Lisa York	2:03.30	12-Jul-92
43	Tonia Howland	2:03.44	13-Sep-87
44	Angela Creamer	2:03.48	23-Jul-76
45	Una English	2:03.5	20-May-92
46	Wendy Sly	2:03.69	14-Jun-87
47	Alison Parry	2:03.88	14-Jul-91
48	Kelly Holmes	2:03.94	1992
49	Linda Keough	2:03.97	27-Jul-91
50	Suzanne Morley	2:04.0	11-Aug-84
51	Pamela Percy	2:04.1	04-Sep-66
52	Elizabeth MacArthur	2:04.11	28-May-84
53	Evelyn McMeekin	2:04.15	11-Aug-79
54	Thelwyn Bateman	2:04.4	25-Jul-71
55	Karin Steer	2:04.47	07-Sep-84
56	Susan Smith	2:04.5	03-Jul-76
57	Pamela Whitter	2:04.78	23-Aug-81
58	Penelope Fosse	2:04.8	23-Jul-80
59	Alison Wyeth	2:04.8	30-Jul-89
60	Louise Parker	2:04.85	28-Jul-79

Married names are used where known

+ Time recorded via photo electric cell (Coe's manual time was 1:41.6)

* Imperial Conversion - 880 yards time less 0.7 secs (men) or 0.8 secs (women)

** En route to 880 yards (2:04.2)

Any additions/amendments gratefully received by:

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