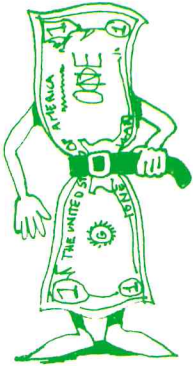


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RUNNER'S WORLD



COVER:

The premise of this issue's cover story is that it's fun to run. It's fun for the socializing these people are doing, and it's fun for the solitude one can find by himself. (Pantovic)

Volume — Eight April, 1973 Number — Four

RUNNER'S WORLD

Mailing: Post Office Box 366
Mountain View, Calif. 94040
Office: 931 Industrial, Palo Alto
Phone: (415) 328-2911

PRESIDENT & PUBLISHER

Bob Anderson

EDITOR

Joe Henderson

ASSISTANT EDITOR

George Beinhorn

BUSINESS MANAGER

Jeff Loughridge

SUBSCRIPTION MANAGER

Rhonda Swan

SHIPPING CLERK

Lyman Dickson

SENIOR CONTRIBUTORS: Hal Higdon; Janet Newman; Wilf Richards (England); Martin Rudow; George Sheehan; Tom Sturak; Pat Tarnawsky.

SPECIAL CONTRIBUTORS: Richard Amery (Australia); Orville Atkins; Walter Boehm; Peter Burkhart; Bob Carman; Percy Cerutti (Australia); Nat Cirulnick; Ted Corbitt; Nick Costes; David Costill; Elliott Denman; Tom Derderian; Jim Dunne; Geoff Fenwick (England); Jack Foster (New Zealand); Fred Grace; Frank Greenberg; Roger Gynn (England); Mick Hamlin (England); William Index; Carolyn King; Pat Lanin; Jerome McFadden; Gabe Mirkin; Des O'Neill; Tom Osler; Dave Prokop (Canada); Natalie Rocha; John Romero; Skip Stolley; Hugh Sweeny; Ken Young.

PHOTOGRAPHERS—Don Chadez; Rich Clarkson; Tony Duffy (England); Donald Duke; Bill Herriot (Canada); Jeff Kroot; Rick Levy; Jay McNally; Steve Murdock; Stan Pantovic; Mark Shearman (England); Paul Sutton; Steve Sutton; Walt Westerholm.

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CONTENTS

- 8 THE NEW FRONTIER—Most of our running isn't done in races. Runners have discovered surprising things about "just running."
- 25 REACHING THE PEAK—Hal Higdon concludes his down-to-earth essay on being racing fit at the right time.
- 31 EUROPE AT YOUR FEET—Skip the tour bus; you can see Europe best in running flats.

Let This Be a Warning	3	European Summer Schedule	32
News and Views	4	First Boston, and Now This	34
Interview: Lyudmila Bragina	6	Penn: The Meet of Meets	36
Wishing He Could Fly	9	Washington Runner's Guide	38
Beyond Fitness	10	Making Time Stand Still	39
Beyond Competition	10	Slogging Through Belgium	40
Big Sport, Little Sport	12	Medical Advice	42
To Think and Talk	13	Classified Notices	43
Programming Fun-Runs	14	Profiles	44
In Search of Oneself	15	Running Shorts	46
Yoga Running	16	Coming Events	48
Mind-Body Regulation	17	1973 Indoor Bests	49
Is the Pain Necessary?	20	Racing Highlights	50
Fun-Runner Personality	21	Readers' Comments	55

FROM THE PUBLISHER

Are you really enjoying running? Are you making it fun? If not, why aren't you? Running is like anything else. Once it isn't fun, you most likely will not do it. What would be that point?

But what is fun? Maybe running hard every workout, a fast race, or a hilly run—all of which could wipe you out. But with the right mental attitude, even this can be fun. But once it is not, why continue? By continuing you might talk yourself into an injury or just get fed up with running all together.

Well, our cover feature this issue is on fun-running, and I think you'll enjoy it. And do keep in mind, are you having fun?

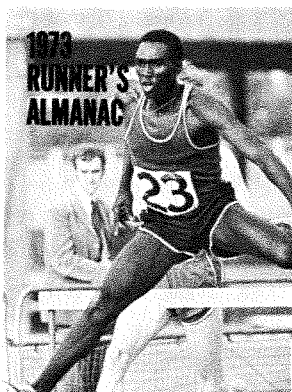
My wife Rita, baby Lisa and I went up to the Trail's End marathon in Seaside, Ore., and had another great time. That little town almost two hours from Portland along the coast attracted nearly 600 runners this year. And what a race it was! We hope to do a feature on the race in our next issue if we can get any pictures.

Starting May 1 we will have a new editorial staff member. Dave Prokop is moving himself and his family down from London, Ontario, to help us out. At first, Dave will be spending most of his time in areas other than running, but you'll see his name creeping into *RW*, too.

Several February issues had pages missing and out of order. We have heard from about 50 people who received such an issue, and we have replaced them. If you received a bad issue, do send it back and we'll send you a new one. Our printer is most sorry.

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LET THIS BE A WARNING

*Runners do die. We learned the hard way,
and don't want it to happen again.*

When he finished the mile in around 10 minutes, he was smiling. He told Bob Anderson, "I'm saving myself for the six-mile."

An hour later, 100 yards from the six-mile finish, beside a big oak tree, George Herzl lay dead. Sheriff's deputies and firemen were working over him, giving him oxygen and chest massage to stimulate his heart. But it was no use. He was already gone. Herzl probably was dead when he pitched forward and hit his head on the pavement.

He was 46. George and his wife Selma had been regulars in the informal weekly runs put on by *Runner's World*. We learned from Mrs. Herzl that her husband had a history of high blood pressure, but apparently he had been cleared by his doctor for this kind of exercise.

Herzl hadn't had the kind of "stress-test" we talked about in the February issue (and a number of times before that). He hadn't taken a medically monitored run on a treadmill. If he had, it probably would have uncovered the hidden problem that killed him. Once a hard run on a warm day uncovered his problem, it was too late.

A doctor on the scene said, "If he had been running through a hospital where all the most advanced equipment was available, it's unlikely we could have saved him."

This was a shocking tragedy to his family and to us. It certainly wasn't the first death to occur during a run, and unfortunately it won't be the last. But it was the first any of us have seen up close. It's something we never want to see again.

We aren't trying to gloss this over or to be macabre about it. To the contrary, we're writing about Herzl's death here in hopes of preventing similar attacks. They are the darkest cloud hanging over running now.

We've repeated and repeated the warnings in our publications. But they haven't had the desired effects. The advice has gone unheeded by the people who need it most, simply because few beginners read this magazine. And we've raised needless fears in the minds of the people—the fit and experienced runner-

subscribers—who probably are perfectly safe.

Advanced runners can help, though, by passing the word of caution down to those who might be running into trouble. They can tell beginners that stress tests are available and that they can detect most of the hidden heart troubles standard medical examinations may miss.

We strongly advise an exercising electrocardiogram for anyone in any of these six groups:

- *Over 30 years old and beginning running.*
- *Starting, regardless of age, from a severely deconditioned state (overweight, short of breath, etc.).*
- *Personal history of high blood pressure, rheumatic fever, diabetes or other chronic illness.*
- *Family history of heart disease (member of immediate family who has suffered a heart attack).*
- *Planning a sudden jump in distance or effort (i.e., from jogging to racing).*
- *Having chest pains, regardless of suspected cause.*

One problem is that doctors are just becoming aware of stress testing and its potential. Testing centers aren't easy to find. The National Jogging Association recently listed 60 such centers in its newsletter across the country, but that leaves them few and far between. (This list was reprinted in the 1973 *Runner's Almanac*, an *RW* publication.)

Readers who are doctors and exercise physiologists can help by making their colleagues aware of the need for this kind of testing, and by making more facilities available at low cost.

After the cover story on testing in the February *RW*, a number of doctors have contacted us, asking for information on setting up these programs. We're happy to give the addresses of nearby centers which are now operating and can serve as models. Write to the *RW* editor.

No test is foolproof, but the stress test is one of the best available. Once a

runner has been rated fit on it, and has trained regularly and progressively, he has few further heart worries.

Dr. Ernst Jokl of the University of Kentucky, one of the world's leading authorities on sports medicine, recently edited a book titled *Exercise and Cardiac Death*. He writes, "Even today, the term 'athlete's heart' conveys an ominous notion to some people. Actually, exercise will *not* damage a normal heart." Jokl says he has not found a single instance where death resulted simply from extreme exertion. In every case of death, the athlete had a pre-existing disease or malfunction in his heart.

We decided immediately that we could continue our Sunday runs, and with the same name: "Fun-Runs." They *are* fun, and they are an overall good force. They bring together 200 people a week who otherwise would be running in isolation. Although we mourn the death of George Herzl and extend our deepest sympathies to his family, we must go on. To cancel the program would be to condemn running and to deny all the positive results that can come from it.

It's foolish to ask for trouble, but equally foolish to be scared away by minimal threats rather than facing them realistically. The odds *against* suffering heart failure are incredibly high. And with proper precautions, they can be even higher. If there was any fault in our program, it was only that we didn't stress the precautions strongly enough. We hope others will learn from our mistake.

We hope too, though, that others will copy our Fun-Running program which on the whole has been enormously successful. (There's an article about it later in the issue.)

In the first two months of Fun-Runs, there were over 2000 individual running efforts. Collectively during our running careers, the *RW* staff members have been in races with perhaps 20,000 runners. This was the first time something like this had happened in one of those races. Yet we've seen hundreds upon hundreds of cases where running changed people's lives for the better.

NEWS AND VIEWS

BOSTON HISTORY

Jerry Nason, sports editor of the *Boston Globe*, has been watching and covering more Boston Marathons than he has missed. He wrote "The Story of the Boston Marathon."

I'm bugged by the general attitude of the present mod marathon set that they somehow "invented" the whole thing, that it was just sitting there waiting for them to come along.

At the Boston last year, a young guy stated to me that "The marathon was nothing until college-trained runners got into it." I told him, "Well, then it was nothing for a long time with them in it, because cross-country runners like Johnny Gallagher of Yale and Tom Grant of Harvard were pacing, and losing, the Boston race 60 years ago."

Ron McDonald, a Boston College undergraduate, won the 1898 Boston. A lot of college-trained guys—Norman Bright, for example—were taking on the Boston years ago, long before John J. Kelley from Boston U. won it in 1957.

The young addicts really owe a helluva lot to what I call the "pioneers." Over the years, I've learned from my research to admire and respect those slow-watch runners of a bygone day.

Are you aware, for instance, that those early Boston races were run over rutty, rocky country roads for the first 20 miles? There was no macadam until the city limits were reached. Those old heroes had an ordeal for themselves.

How a runner was shod at that time was damned important. The sturdiness of the uppers and the toughness of the shoe was vital. Foot blisters were the dreaded peril. Can you picture Frank Shorter or Kenny Moore (who was all upset because there was a stretch of gravel running at Munich) attempting 20 miles of ruts, rocks and pebbles wearing "thin skins"...or running under 2:25 under those conditions and wearing boots?

Before his death, seven-time winner Clarence DeMar told me, "Tom Longboat, the Indian runner of years ago, would have run this (25-mile Boston) course in 2:08 under today's conditions." DeMar said the greatest thing to happen to the Boston race was when the avalanche of accompanying

gas-fuming cars was eliminated in 1947, that it improved a winner's time by 10 minutes.

—JERRY NASON

OXYGEN TESTING

The February issue (page 18) had a long and complicated formula for determining maximum oxygen intake. Physiologist Bruno Balke came up with the mathematics of it, based on a 15-minute run.

There are two easier ways to calculate this capacity. They still require a 15-minute or two-mile run, but the math is reduced to simple chart form.

Sid Toabe, a veteran runner and adult fitness instructor, uses these charts in his work. The first is the 15-minute run, calculated in number of quarter-miles covered. Remember, these are *estimates*. The only way oxygen intake can be checked precisely is under laboratory conditions. (Oxygen intake is measured in milliliters per kilogram of body weight per minute.)

Laps	Max. O ₂	Laps	Max. O ₂
5	34	9	52
5½	37	9¼	53
6	39	9½	54
6½	41	10	56
7	43	10½	58
7½	45	11	60
8	47	11¼	61

According to Bruno Balke, 5½ laps indicates "fair" fitness; 7½ laps is "good"; 8½ is "competition level," 9½ is "excellent," and 11¼ is "superior."

The same results can be obtained from a straight two-mile run on the track.

Using the same oxygen intake standard as the 15-minute test, a time of about 22 minutes is fair; 16 minutes is good, 14 minutes is "competition level," 13 minutes is excellent and below 11 minutes is superior.

Toabe notes that "the quality of the run is as important as the distance traveled. In other words, does the runner reach a steady-state 150-160 heart rate, and does he recover to below 100 within two minutes after the test?"

He says, "These facts should be very important to seniors considering competition to decide whether they are fit enough. You are ready to compete, according to the chart, when you can run two miles at an even pace in 14 minutes, peak out at the finish with a max heart rate of 150-160 and within two minutes recover to below 100."

Exercise physiologist Jack Daniels says, however, that high oxygen intake

alone doesn't insure running success.

"Normally a man with a maximum of over 70 has a good chance of running close to a four-minute mile. However, just having that capacity does not guarantee he will ever run even close to that time—nor will years of dedication and training insure it. Some people seem to be very poor at getting the most out of their capacities. I have tested an athlete who measured over 70 on several occasions, trained for many years and never ran faster than about 4:30 for the mile. Normally, someone with about a 60 max could do this time."

Daniels is concerned now with finding how much training can do for a runner.

"It is felt," he says, "that about a 20% increase in maximum oxygen intake is about all that can be expected. I am presently (and have been for about five years) involved in trying to get as much data as possible on this improvement factor."

The information Daniels wants can be obtained, in most cases, from a two-mile running test. He asks runners to send him their height, weight, age and best time for a two-mile the *first*

For those who've run for one season or more, he'd also like to know average weekly mileage and the average pace of steady runs three miles and longer.

From this data, he says, "I'll try to come up with a prediction as to potential in one-, two-, three- and six-mile times."

Jack Daniels' address is University of Hawaii, 1337 Lower Campus Rd., Honolulu, Hawaii 96822.

PHYSIOLOGICAL GAMES

Carl Foster is an exercise physiologist at the University of Texas in Austin.

The Olympic concept of higher, faster, stronger is not without beauty. The Olympics creates an appreciation for excellence. It should be noted, however, that there are at least two types of excellence in athletic performance. Perhaps there should be an "Olympics" for each type.

Most obvious is the excellence of Frank Shorter destroying a great marathon field, or of Lasse Viren breaking the best world record on the books after falling down in mid-race. They certainly deserve their moment on the top step.

The other excellence is that of athletes with a great love of running and much perseverance, but with the wrong ancestors. Through the accident of their birth, they are effectively banned from

the Olympics of Shorter and Viren.

It is possible, in principle, to have competition where the degree to which a runner approximates his physiological potential for performance becomes the criterion for success or failure. Although I believe that both running and competition are essentially self-rewarding, the fact that we hold the Olympics and similar carnivals indicates humanity wants to know who is best. What about giving the medals to the athletes who best utilize their inherited physiological capabilities?

It is possible, although not yet accomplished, to create a mathematical model of running performance based upon physiological information obtained in laboratory tests. If we could adequately test enough physiological variables for a large number of athletes of widely varying abilities, we could mathematically relate these variables to a measured performance. From this we could predict performance for an individual with a given set of physiological values. The individual's ability to approximate this theoretical performance would be the criterion of success.

Several physiological factors have been investigated as potential sources for variations in performance.

- The ability to transport oxygen to the tissues has long been known to be an important factor in endurance performance. Dr. David Costill has presented evidence that maximal oxygen consumption is, surprisingly, poorly related to competitive performance. Costill has suggested that the relative efficiency in running may be an important determinant of success. At the University of Texas, we have evidence indicating that this suggestion is valid. We have further evidence suggesting that running efficiency, like maximal oxygen consumption, is subject to improvement with training but is ultimately mediated by the individual's heredity.

- Scandinavian physiologists Salin and Hermansen have demonstrated that by a dietary modification muscle glycogen may be increased. They have further shown that athletes ran better following this increase in muscle glycogen.

- Dr. Kenneth Cooper has suggested that the level of certain electrolytes may be important in competitive running.

- The recent controversy concerning "blood doping" raises several questions about the relationship of blood to performance. Although many of these questions are effectively an-

swered during the test of maximal oxygen consumption, changes in the blood may also be important as far as the buffering of metabolic waste products is concerned.

- The entire concept of oxygen debt is in the process of revision. One facet of this appears to be that muscle temperature is important. This becomes especially intriguing in view of reports by the English physiologist, Pugh, that successful (early-finishing) marathon runners have lower post-race temperatures than their less successful competitors.

Each of these factors may be important determinants of performance, but much work remains to be done to determine how strong the relationship is, and how to express it mathematically.

The primary roles of physiologists interested in competitive running will be the elucidation and quantification of physiological factors important to running performance. I see two ends to this goal.

First is the "Physiological Olympics." The idea is purposely somewhat ridiculous. Although the principle remains valid, the administration of such a project is impractical. If the tremendous amount of research ever is finished such that we could develop a satisfactory model, we would then have to test every interested runner and hold the biggest time-trial in history.

Second, and far more important, is that we may eventually be able to help the aspiring competitor to assess realistically his potential, thus removing a potential source of frustration. If we can help the runner understand his physiological limitations, then we can help free him of the psychological pressures

attendant to living up to an externally imposed standard of excellence.

Not very many athletes have inherited the capability to run a 2:10 marathon or a 27:00 six-mile. Hopefully, a runner who understands this will be free of the pressure to run over his head, free to enjoy the race or the run for its own merits.

Maybe this is what the science of running is all about.

—CARL FOSTER

MOB MATCHES

If you're an American, perhaps you've never heard of them. But I reckon that they are truly what competitive running is all about. Here's how this peculiarly British institution works.

Two clubs meet in a dual cross-country race. Each club puts out as many runners of all abilities as it can. The number to score is three less than the smallest number that one of the clubs raises. The advantage is to the club that raises the most runners, as not only does that club have more non-scores but these runners push down the scorers on the other team. Everyone has a role.

The largest field ever to take part in one of these classics was in the Nicholls race of 1928. The South London Harriers raised 124 runners and the Blackheath Harriers 125 for the 7½-mile race. In that encounter, there were more runners for a dual meet than ran the same year in the English cross-country championships.

Pity the poor guy figuring out the scores on that one. South London scored 11,626, Blackheath 12,245.

—MICK HAMLIN

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Tony Duffy photo

LYUDMILA BRAGINA

Lyudmila Bragina was the biggest surprise of last year in women's running. She started the Olympic season as a 4:12 runner at 1500 meters. At least a half-dozen others were faster than that at the time.

But before and during the Games she lowered the world record—in four installments—to 4:01.4. Her bold running at Munich was something to see. In both the heats and semis, she went to the front from the beginning and set world records. In the final, she burst from the pack after two laps and brought the mark down again.

The impression Lyudmila gives is that she doesn't get the same pampering as Soviet sprint champion Valeriy Borzov. He was the product of a carefully-engineered development program lasting six years (see "Scientific Sprinting," Jan. 73).

Bragina started as a high jumper. She turned to running only after the jumping peaked out at about 4'7". She was already 21 then. No talent scout spotted her. She has only one coach, Viktor Kazantsev, and says she works full-time as a school teacher.

Lyudmila is a pale, frail-looking woman of 29. She was in the US during February for a series of indoor meets. We—Eileen Waters, Galina Chadwick and I, all distance runners—interviewed her in San Diego. Although Bragina speaks some English, Galina translated the conversation to and from Russian to make it easier. (Galina was born in the USSR, and came to the United States 20 years ago.)

Some of Lyudmila's answers didn't make it through the language barrier too well. We took the liberty of reprinting comments she had made earlier to these same questions in the booklet 1972 Olympic Games. Coach Kazantsev added several of his own during our talk.

While we talked, Bragina referred repeatedly to her "poor health." She was suffering from a cold. The night

after the interview, she finished second to Francie Larrieu in the mile as Francie broke the world record.

RW: *In what part of the Soviet Union do you live?*

Bragina: I was born in the Ural Mountains. I live now in the south, where it is easier to run. I live there with my mother and brother. The rest of my relatives still live in the Urals. I have three brothers.

RW: *You are not married?*

Bragina: As long as I'm running, I can't get married.

RW: *You can't because you say you can't, or because the government says you can't?*

Bragina: Oh no, the government is not against it. You can marry and continue running. Many of our athletes are married, and are still getting medals. But it very difficult to mix sports and marriage. That's why I don't want to get married yet.

(Viktor Kazantsev: If she were running only for her health, it would be a different story, but running for championships is much harder.)

RW: *How did you happen to start running?*

Bragina: I started running when I was 21 years old... very late. Until then, I was jumping—high jumping. I jumped 1.40 meters (4'7¼"). It was when I could no longer jump any higher that I became a runner.

RW: *Did you choose to run yourself or did someone see that you were capable of running well?*

Bragina: No, I myself decided.

RW: *In your country, are special considerations extended to you—in the way of housing, schooling, or financial support—because you are such a fine runner?*

Bragina: We are not given big things. We get medallions. But big things are not presented. After the Olympics, I got a big medallion which is the highest honor a Soviet citizen can get. It is like your Congressional Medal of Honor. Out of all the athletes

in the country, 10 were chosen for this. And I was one of the 10.

RW: *Do you get any kind of allowance from the government so you won't have to spend all your time working for a living?*

Bragina: I am a teacher. I finished the university and became a teacher. I get my pay from teaching children in the 10th, 11th and 12th grades. I teach sports. Whenever I am gone on a trip and cannot teach, then my club sends me the money. It is called the Dynamo Club, and it gives me my support when I cannot work. Our government helps to find jobs and housing, and it helps us to go around the world (for competition).

RW: *Valeriy Borzov, the sprinting champion, is known to have a team of coaches and scientists training him. Did you have a number of people helping you?*

Bragina: I have had very many coaches and friends who have helped me. But the best trainer I ever had was Viktor Kazantsev. He and I have worked six years together.

RW: *Have you had research done on you, with doctors telling you what you should do to improve yourself?*

Bragina: We are very strict about our health. We take many heart and blood tests. This is done every three months, especially before big track meets.

RW: *What explains your sudden improvement in 1972? Was there something you changed in your approach to running? You had been a good runner, but not the outstanding runner who won in Munich...*

Bragina: For four years, I was preparing—running and running. I dedicated myself to running for four years, and I wanted to be a winner. It was in my mind to become a winner. Then suddenly I became better.

My health as such is not very great. I was not in very good health. But it was all discipline and hard work.

(Kazantsev: The US did not know about her, but she was for four years a

champion in the Soviet Union before she went to the Olympics. You have to be very great in the Soviet Union before you can go to the Olympics. In 1969, she was fourth place in the European Championships. Three times, she was second place in Europe.

RW: During those four years, were you training exclusively for 1500 meters?

Bragina: I have concentrated on the 1500 meters, and I have adapted a training schedule specifically for this event. One should not be surprised by the Munich results, because the 1500 used to be an event favored by dilettantes—especially girls specializing in the 800. This is why the opponent I was most apprehensive of was the Italian, Paola Cacchi, who also knows that the right thing to do is concentrate on the 1500. What she did (third in 4:02.9) after two years of interruption for the birth of a baby is absolutely fantastic.

RW: Can you tell us about your pre-Olympic training?

Bragina: I went up to the mountains in Nov. 1971 for three weeks because of my vacation time. I was running 15-18 kilometers a day in the mountains. It was the same thing I would do at home.

RW: What type of work was this (in the pre-Olympic period)?

Bragina: I did all kinds of different training. Some of it I ran and stopped (interval training). Some of it I went non-stop. I ran cross-country, but not too much. Most of the time I ran short distances on the track.

(The German magazine Leichtathletik recently said of Bragina's training: "She began her preparation for Munich in Nov. 1971 in the Caucasus, at an elevation of 1700 meters, with long runs of about an hour. She trains five times a week, twice a day, and runs up to 30 kilometers a day: mornings around 7 a.m., the same distance she'll run in the afternoon; she runs significantly faster in the afternoon. Besides fast long runs of 15-16 kilometers in an hour—about 6:00 mile pace—she also runs series of 10 x 800m, 10 x 1000m, or 10 x 1200m.")

RW: Why did you run so hard in the preliminaries at the Olympics, setting a world record in both the heats and semifinals when it wasn't necessary to run nearly that fast to qualify?

Bragina: It just happened that

way. I was so ready that for me it was nothing.

RW: In the final, you changed your tactics completely, following the leaders until late in the race. Was it planned this way?

Bragina: In the final, it is very difficult to lead from the start. You get slower at the end and everyone passes you.

I knew that in order to win I had to run anywhere between 4:03 and 4:01. But I knew I couldn't run that fast if I had to make the pace all by myself. This is why I waited for two laps. I was lucky that the race was conducted at such a fast pace at first.

RW: What do you think are the prospects for you, and for women runners in general, in future Olympics?

Bragina: I will try (to run in '76), but I have to watch my health. My health is the only thing that holds me back. It will be very difficult. I'm 29 now. I don't know how my health will be four years from now.

I started competing not so long ago. Having started late, I intend to continue, to satisfy my curiosity and see how far I can go in the 1500 meters as well as the 3000.

As for the future (of all women runners), things are rather simple. We are far from reaching the limits of our potential. My record is only the beginning. I am convinced that in the very near future our objective should be 3:56 (for the 1500)—by the coming Olympics, and perhaps even earlier.

RW: Do you think there will be—or should be—longer distances for wo-

men, longer than the current Olympic limits of 1500 meters?

Bragina: In the European championships, we will run 3000 meters to see what we can do. In Richmond (US-USSR dual), we will run two miles. We have already started going longer. Americans have asked for it. So if Americans do it, we have to do it.

RW: Are you anxious to race here against the Americans?

Bragina: I'm afraid right now I will probably get beat. I'm in such bad condition right now.

RW: Do you like running indoors?

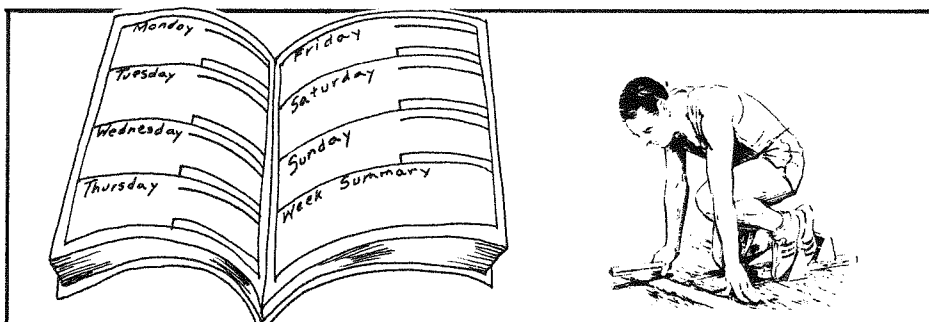
Bragina: Not very much. I don't like the close turns. I have been training all the time in the streets. Now all of a sudden, zoom, I'm in a building with all the turns. I don't like that. In the Soviet Union, we have a special place to train indoors, but I don't do it either. I don't like running in a building.

RW: Do you race cross-country?

Bragina: We would like to, but we don't have a team for the international cross-country race. I love cross-country running.

RW: Is the reason you don't run much cross-country because of your severe winter weather?

Bragina: We always have bad weather, so we've gotten used to it. It doesn't bother me. It is 20 below zero (Centigrade) and we're running. When we came here, it was 43 below zero, and we were still running. We don't have that many cars. We run right in the streets.



RUNNER'S TRAINING DIARY

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George Beinhorn photo

THE NEW FRONTIER

*Going beyond fitness,
beyond competition
to a fresh definition
of running--
"fun-running".*

"We have forgotten that we are talking about play. We are dealing with one of the primary categories of life, one which resists all logical interpretation. Play has a deeper basis than utility. It exists of and for itself."

So writes George Sheehan, who contributes two pieces to this special feature. Other contributors thinking along the same lines are Dr. Howard Mickel, associate professor of religion at Wichita State University; Ona Dobratz, second-place finisher in the US-Canadian cross-country run last fall; Pat Tarnawsky, member of the editorial staff at Reader's Digest; talented runner and philosophy student Garrett Tomczak, and George Beinhorn and Joe Henderson of Runner's World.

WISHING HE COULD FLY

"Gasping at glimpses of gentle free spirit he runs, wishing he could fly."

Stephen Stills

Jonathan Livingston Seagull caught a fresh vision of what flying could be. It wasn't practical and it wasn't popular with fellow gulls, but Jonathan didn't mind. He went ahead and chased his vision anyway.

Richard Bach turned the story of that chase into a best-selling little novel named after the main character. On the surface, it's a simple tale of a bird and his troubles. But it isn't really about birds at all. Bach dedicates the book "to the real Jonathan Seagull, who lives within us all."

It is a book about people who say that liking what they do is reason enough for doing it.

J. L. Seagull like to fly. Flying was his passion, and he wanted it to be more than "flapping around from place to place. A . . . a . . . *mosquito* does that!"

Bach wrote, "Most gulls don't bother to learn more than the simplest facts of flight—how to get from shore to food and back again. For most gulls, it is not flying that matters, but eating. For this gull, though, it was not eating that mattered, but flight. More than anything else, Jonathan Livingston Seagull loved to fly."

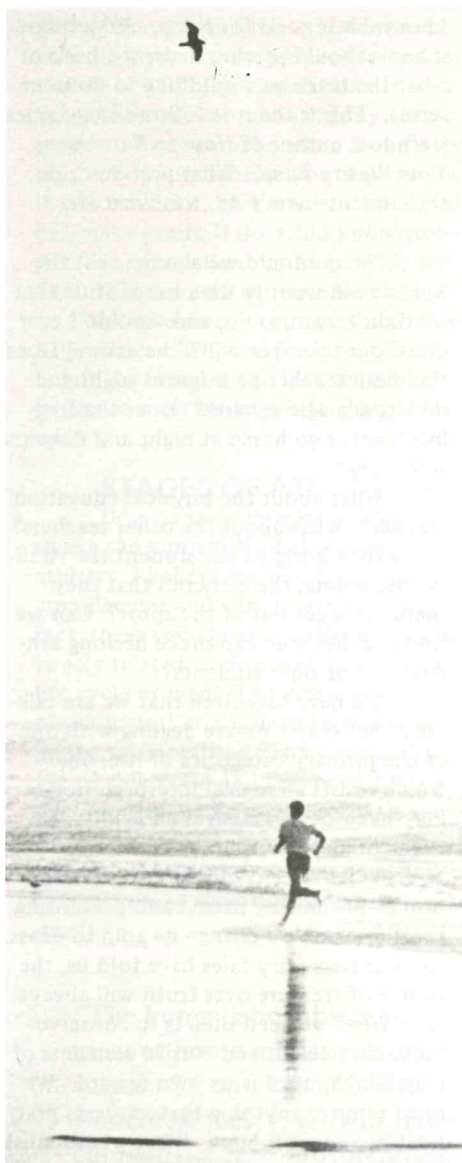
Conventional gulls in the flock decided Jonathan was giving too much time and attention to flying, and they cast him out. He found his way eventually to a community of fliers like himself, all bent on raising flight to the level of art.

"Here were gulls who thought as he thought. For each of them, the most important thing in living was to reach out and touch perfection in that which they most loved to do. And that was to fly. They were magnificent birds, all of them, and they spent hour after hour each day practicing flight, testing advanced aeronautics."

Because he flew best, Jonathan was the teacher.

"He spoke of very simple things—that it is right for a gull to fly, that freedom is the very nature of his being, that whatever stands against that freedom must be set aside, be it ritual or superstition or limitation in any form."

He concentrated on expanding his students' awareness of what flying was



"They are called Fun-Runners. They are the Jonathan Livingston Seagulls of the running world." (George Beinhorn)

and what it could become. The possibilities were beyond most of their imaginations.

"Why is it," Jonathan said, "that the hardest thing in the world is to convince a bird that he is free, and that he can prove it for himself if he'd just spend a little time practicing? Why should it be so hard?"

The running world has its Jonathan Livingston Seagulls—more of them all the time. And they're expanding consciousness of what the activity is and can be. They're pushing back the psychic limits of traditional running.

Running is natural, but runners aren't "normal" in an automated era. In the general community, they are odd birds to start with because they run.

They find it necessary to explain why, over and over and over again. The community assumes a man who runs must be running *for* or *from* something, so runners have tended to phrase their answers in those terms.

"For most gulls," Richard Bach wrote, "it is not flying that matters, but eating."

For most runners it is not running that matters, but the results gained. This has been the traditional way of looking at running. It has limited runners' vision to one or perhaps two dimensions.

Until a few years ago, running was a competitive sport—period. A runner raced as long as he was racing well against other runners and the returns justified the investment. Then he stopped.

The fitness scare of the 1960s added a second dimension to running. Thousands of non-athletes and former athletes turned to running in hopes of saving their lives.

Both aims are worthy. Letting ambition run to its limits and reclaiming health and vigor are satisfying in themselves. But they leave a big open space in between for runners who see that fitness is just a beginning, and that big competition isn't everyone's ideal end.

The third dimension—the one between joggers and racers—begs for people to fill it. And they have. For want of a better name, they are called Fun-Runners. They are the Jonathan Livingston Seagulls of the running world. They've caught a fresh vision of what running can be, and they're chasing it. Above all, they like to run.

Fun-Running is an imperfect title. "Fun" brings up the images of things running definitely isn't. Running is seldom a ha-ha thing, even with Fun-Runners. Every minute of it is not joyous. It is seldom pain-free, and the effort is not haphazard. It is not simply an arena for sloggers who lack the ability or commitment to practice running any other way.

Fun-Running is the complete mix of people and experiences, the overall result being deep, quiet personal satisfaction—which fits the definition of fun in its broadest sense.

The Fun-Runner of the 1970s is expanding the definition of running beyond fastness and fitness by going beyond competing and conditioning into an arena of his own. Here he is an experiment of one, free to explore at will.

A community of Fun-Runners is growing up which is showing that running is more than "flapping around from place to place." A . . . a . . . *car* does that!

BEYOND FITNESS

BY GEORGE SHEEHAN

Most recreational directors, physical education instructors, and promoters of exercise-for-your-health programs feel much the same as the fellow who finds it difficult to give away five-dollar bills down on Main Street. People just won't believe it's for real.

The programs they prescribe seem so sensible and so in keeping with our nature it is incredible that people don't accept them. But facts are facts and there is no use railing against them. If the plane won't fly, there's no use appealing that the blueprints said it would. A bridge that insists on collapsing in defiance to all engineering theory will not respond to oaths and imprecations. Nor will our neighbors bestir themselves to physical activity unless we find the proper approach to the problem.

This approach will have to go back to basics. Where did we go wrong and how can we fight it? How can men be motivated to do what's good for them? Motivation is the main factor in the continuation of any activity, and especially in adult athletics where there is no longer the need to continue in compulsory school exercise and sports activity. Indeed it is just that transition period from school to work and marriage which carries with it the critical choice to continue in sport and exercise or not.

This would seem to suggest that exercise and sport and the maximum use of the body is not part of our nature, and that students have not been given (a) adequate instruction in the totality of the body and the role of physical fitness in our mental and psychological development, or (b) sports and activities tailored to their person and personality.

It seems self-evident that the quality of one's life is determined by the state of one's health. From time's beginnings health has been considered the sine qua non of the good life. "When health is absent," wrote Herophilus, the physician to Alexander the Great, "wisdom cannot reveal itself, art cannot become manifest, strength cannot fight, wealth becomes useless, and intelligence cannot be applied."

Strong words, but this seems a poor argument in the current ineffectual campaigns against cigarettes and booze and drugs, and lack of exercise.

Threats fail. Horror stories of future heart attacks, diabetes and strokes have predictably fallen on deaf ears. People are not inclined to do something just

because it is good for them. Athletics in schools should be chosen on the basis of what the teachers would like to do themselves. This is the rule followed by James Herndon, author of *How to Survive in Your Native Land*. What you don't do, the students won't do, was what Herndon found out.

"Why should we assume that the kids would want to do a lot of stuff that we didn't want to do, and wouldn't ever do of our own free will?" he asks. "Does the math teacher go home at night and do a few magic squares? Does the English teacher go home at night and diagram sentences?"

What about the physical education teacher? What about the other teachers? Can't they bring to the student the vitality, the drama, the esthetics that they themselves get out of the sport? Can we find coaches who can make lifelong athletes out of their students?

We have forgotten that we are talking about play. We are dealing with one of the primary categories of life, one which resists all logical interpretation. Play has a deeper basis than utility. It exists of and for itself.

When we expose play to the function of promoting fitness and preventing heart attacks, we change its gold to dross. As countless fairy tales have told us, the choice of treasure over truth will always fail. What we need then is to conserve those mysterious and elusive elements of play which make it its own reward. We must remove anything that suggests practicality and usefulness. What we do must be fun and impractical and useless, or else we won't do it. If we become fit and impervious to heart attacks and all those other dread diseases, it will be because we don't care if we drop dead doing what we like to do.

We should be in sports not because they are practical but because they're not, not because we feel better but because we don't care how we feel, not because our fitness is increased but because we are so interested we don't even notice.

Play is the key. We all love to play. We like only the jobs that have a play element for us. Anything as practical as physical education or physical fitness is not going to get to first base with most of us.

BEYOND COMPETITION

BY DR. HOWARD MICKEL

Through the years, it has gradually

dawned on me that I am a "humanistic" athlete. I run to get more out of life, to increase the human potential. This discovery has been very important to me. In fact, it is one of the best things that has happened to me in the last 12 years.

I used to be primarily a competitive athlete. But by the time I reached 30, I was training very little and sporadically. I gained weight, felt loggy, thought my lack of zest for life was just normal "old age." I felt that a regular exercise program might help. After all kinds of trials and errors, I finally began running longer and longer distances with less fatigue and more enjoyment.

More important, I discovered a new way of looking at and appreciating running. I found myself getting a great kick out of bettering my own earlier performances, transcending my own potential rather than beating opponents. I enjoyed the very feel of my body and its rhythms, the production of sweat, the love affair that developed between myself and Kansas skies, country roads, grass, ponds and wind. I regained the vital thrust I thought I had lost because of "old age." I can body-surf for hours and enjoy it. Roll down a hill with my kids and laugh. Run a mile faster than I did in my high school gym class. I feel physically alive to a degree that I didn't think possible 12 years ago. (However, one of my wise-guy, college-age friends claims it is "fey"—the artificial euphoria that precedes death.) While running, I have met others who have a new lease on life through "humanistic" training. Because of the high promise for individuals as well as athletics as a whole, it seems highly important to carefully assess the ideal of the "humanistic athlete" as compared with the more familiar type, the competitive athlete.

COMPETITIVE ATHLETE

He is primarily concerned with the highest possible athletic success within a competitive social system. His tradition is a long and venerable one—going back to ancient Greece and Rome when the word "athlete" emerged as "one who contends for a prize." The competitor is concerned with winning—rank, records, fame, awards—all types of recognition for accomplishment within the competitive social system. By focusing on athletic success, the competitive athlete must subordinate other areas of his life such as study, work, family and social responsibilities in order to fulfill his dominant goal.

The competitive athlete cannot be

described simply as an alienated man striving for empty, extrinsic rewards, like a donkey following a carrot tied to a stick on his neck. Rather, his training and discipline directly contribute to athletic success and some intrinsic rewards, involving the thrill of participation, the joy of triumph, the glamor of success. There are, in addition, many other human and highly educational values in the life of the competitive athlete: meeting interesting competitors, building a strong body, enriching travel experience, etc.

What distinguishes the competitive athlete from others is that the goal of athletic success within a competitive system and its rewards is dominant in his thinking. He is most at home in the values of Reich's Consciousness II: status, power, success, and—perhaps most important of all—the drive for excellence. The American competitive system has been remarkably effective at stimulating enormous improvements in athletic performance. If you look at world records in such sports as track and field, weight lifting and swimming since World War II, it is clear that most current performances were beyond the imagination of athletes a generation ago.

HUMANISTIC ATHLETE

However great the potential value of the competitive athlete as an ideal type, there are a growing number of well-rehearsed defects in the American competitive system that have helped stimulate the growth of what I call the humanistic athlete. The humanistic athlete, like his competitive counterpart, has developed skill in a sport, exercise, or games requiring physical strength, agility, or stamina.

What distinguishes the humanistic athlete is that he feels the major purpose of athletics is to fulfill the human potential and produce the playful enjoyment and sense of achievement that comes from self-actualizing activity. The values he receives from sport do not depend ultimately on the competitive system. He may, for example, run all of his life without entering a race.

The humanistic athlete is most at home in many of the values of Consciousness III: wonder, honesty, growth, non-competitiveness, brotherhood, play. The point of competition—if indeed he does compete—is not to vanquish another but, by facing worthy opponents, to force oneself to new levels of performance.

This typology does not attempt to cover all types of athletes; merely two kinds—the competitive and the humanistic athlete. It is not my purpose to force everyone into one of two cubbyholes, but to clarify dominant concerns in ath-

letics. One competitive athlete may be so humanistic in his approach to sports that he is hardly distinguishable from a humanistic athlete who is highly competitive. For example, when Ron Daws says, "You run because you want to see if you can do it; you want to see if you can make yourself do it," I am not sure if he is a competitive or humanistic athlete. However, the purpose here is not to be 100% effective in typing athletes, but to provide conceptual tools that can be helpful in bringing the motive and behavior of most athletes into sharper focus.

STAGES OF ATHLETICS

Despite some current conflicts between the humanistic and competitive athletes, I believe the two types can complement and enrich one another. In fact, these two types of athletes may be largely related to different stages in the life cycle of man. The years of maximum physiological strength and speed may be the "competitive years," while the age of childhood and advanced years are the "humanistic years" (though there are college athletes who are humanists and and over-40 runners who are definitely competitors in their orientation to sport).

"The humanistic athlete is most at home in many of the values of Consciousness III: wonder, honesty, growth, non-competitiveness, brotherhood, play." (George Beinhorn)

At the psychological level, the competitive athlete may be fulfilling what Abraham Maslow calls "basic needs"—the need for respect, self-esteem, worth—while the humanistic athlete, typically in the midst of a successful career, may be making headway toward the higher needs of self-actualization, the fulfillment of potentialities.

BOTH/AND

The humanistic and the competitive athlete need one another and can enrich the lives of one another. Since the competitive value system has a dominance in our society, its values are so well-known and strong that I will cite just two.

The humanist needs the competitor, first of all, as an inspiring instance of the drive for excellence (Consciousness II). A great part of the ability to extend one's capacities is mental, a confident belief that training will allow you to surpass previous frontiers of strength and performance. Seeing Frank Shorter run the Olympic marathon in a little over five minutes a mile somehow stimulates my belief in my own middle-aged potentialities.

Second, the humanist needs the new knowledge regarding training techniques, diet, physiology, etc., that is largely being developed by the competitive athlete and his coach.

At the same time, the humanist can make important but less easily recognized contributions to the life of the competitor. For one thing, the humanist can be a gentle reminder to the competitor that there are important val-



ues outside of the competitive social system and its rewards. The way to measure "success" is not only by the standards of the competitive social system, but how athletics contributes to the unfolding of human capacity, growth, joy. Recognition of this fact liberates the competitor from looking at himself as valuable only in terms of the competitive social system's definition of success, and can free him for the task of developing himself to the full extent of his powers *in his own terms*.

Second, the humanistic emphasis upon human values may provide a much needed alternative to unrestrained "winning-at-all-costs" that frequently results in the loss of human values and potential. Some of these human losses include unnecessary athletic injuries, the creation of burned-out athletes, the moral scandals and deceptions that permeate college athletics. Most serious is the production of many athletes living, eating and studying in "athletic ghettos," who appear largely untouched by the college experience because of the demands that drain them of motivation, time and attention.

Third, the humanistic athlete can remind the competitor that college athletics, for example, is but one stage in a life-long involvement in sports that can become increasingly beneficial and enjoyable. All too frequently, the day after the competitive season is over athletic fields are deserted. Was the college athlete running for his school, medals?

The humanistic athlete, by his example and influence, can challenge the college athlete to re-evaluate athletics in terms of its contribution to his own life and others as a human being, rather than a member of a team or school whose value is assumed.

PRACTICAL SUGGESTIONS

A whole spectrum of new possibilities might emerge if we began looking at sport from a new humanistic-competitive perspective. Among these new possibilities might be:

1. The creation of local "total" amateur athletic organizations that would include all ages, sexes, and types of athletes and activities within its flexible structure.

2. More physical education courses designed along humanistic lines that would utilize every activity from yoga to interval running to increase the human potential of the student.

3. The entrance of more humanistic teachers and alumni onto our school and college athletic boards to promote an increased humanistic orientation in competitive sports.

THE FINAL VISION

The steady, breath-taking improvement in world records in all sports, and the amazing conditioning of runners in their 40s, 50s and 60s, is giving a new, exciting vision of what human potential can be. But I am convinced that if we are to achieve the full-orbed completion of this vision, the competitive and humanistic athlete must move toward it together.

Readers of Runner's World who consider themselves humanistic athletes and who would be willing to complete a personality-training profile regarding their fitness program are invited to write the author: Dr. Howard Mickel, Box 76, Wichita State University, Wichita, Kans. 67208.

BIG SPORT, LITTLE SPORT

It happens every Saturday night during the winter. Large crowds fill smoky arenas to see runners on tight little tracks. Indoor track is big busi-

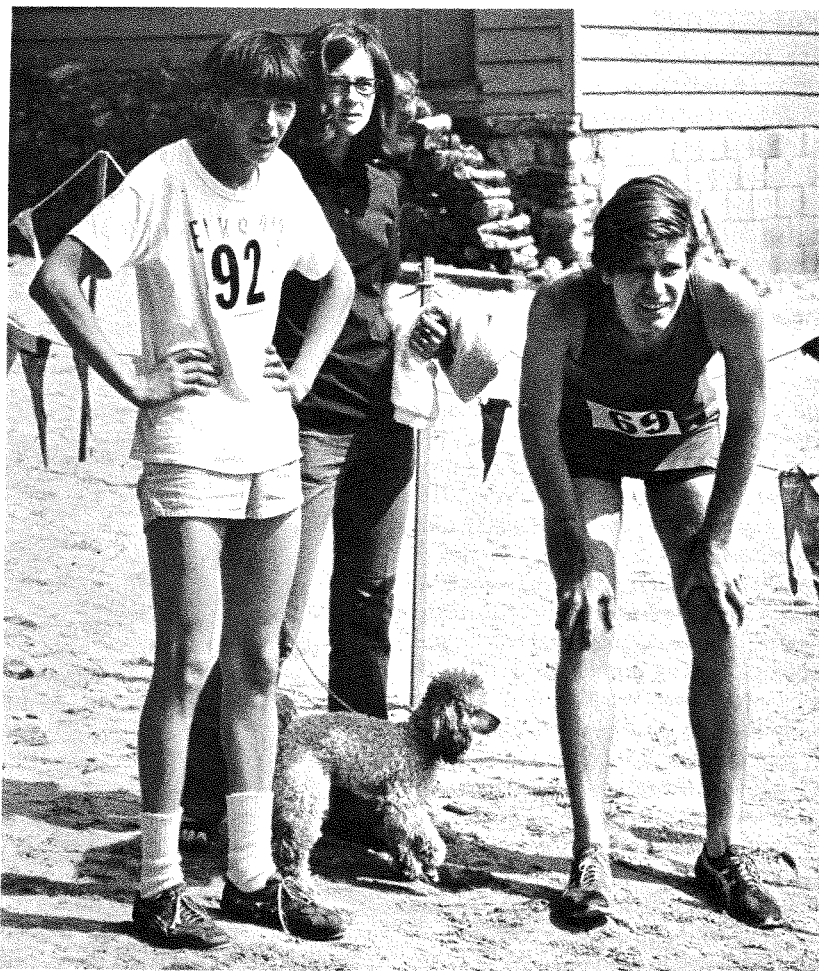
ness. It isn't set up for the athlete, but is packaged for the excitement of the spectator and the profit of the promoter.

It happens every Sunday morning during the winter. A couple of hundred runners gather in the corner of a parking lot for a road run. There are no lines for registration because there is no registration. They don't wait around at the end for results because no results are tabulated. They simply run and the single official calls out times from a watch at the end. The promoters themselves run and there are no spectators except other runners.

Some of the people from both these areas perfect their running, not for the sake of profit but for the sake of the art (much as Jonathan Livingston Seagull did).

Bil Gilbert, who coaches a girls' track team in Pennsylvania, put labels on these three levels of sport in a brilliant year-end article for *Sports Illustrated* called "Gleanings from a Troubled Time."

"There is first True Sport," he says, "the manifestation of man's seemingly innate urge to play. True Sport is organized for and often by participants, and is essentially a private matter like eating or making love.





“True Sport (below left) is to High Sport as a craft is to an art, and Big Sport is to the other two as a plastic angel is to sculpture and pottery.” The race above illustrates either High or Big Sport. (Mary Rosenfeld and Jeff Kroot photos)

“High Sport is True Sport raised to the level of art by the talent, even genius, of its participants. It is public in the sense that all art is public. (Great music, painting, literature or sport is incomplete until that time when it is displayed, judged and acclaimed.)

“Finally, there is Big Sport in which elements of True and High Sport are present but are modified by other considerations, notably commerce and politics.”

In running terms, True Sport is the Sunday morning runs, where no results are recorded or reported. The run itself is the thing.

The big marathons, like Boston or the Olympic Trials, are the next step up to High Sport. The runners there have perfected their form to the point where it attracts some attention and criticism, but not to where it is a paying or political proposition.

The pay and politics are part of the Big Sport circuit, notably in indoor track, at the Olympic Games, and on the new pro track tour.

Political groups and businesses, Gilbert says, start with good intentions but grow rigid and defensive with time.

“Human organizations are created as instruments for achieving some practical end. They are purposeful. . . . But as instruments age and increase in power, they devote less and less of their energies to satisfying the needs for which they were created. They become concerned with perpetuating themselves. In short, they become institutions.

“Instruments are aggressive, flexible, innovative, often both efficient and ruthless. Institutions tend to react slowly and be wasteful, needing more resources to accomplish less. They are characterized by bureaucracies that are fearful of change, and thus enamored with consistency as an operating principle since consistency greatly reduces both the necessity for being ingenious and the element of risk. As time passes, institutions devote increasing energy to self-inflating projects of a public relations nature.”

Gilbert thinks Big Sport inevitably takes on this institutional philosophy. As a result, “the quality of sport almost inevitably declines. Each year play becomes more regimented, conservative and less playful.”

True Sport is the play of children or of adults who for a moment want to be like children again. There is no special preparation needed to play.

Graduating to High Sport means putting the element of work, training, preparation into it.

“High Sport,” Gilbert says, “is the creation of geniuses, the exceptionally talented and passionate. It satisfies the same needs as other arts. It provides a medium and method of expression by which the talented can comment on themselves and their world. High Sport artists also serve their audiences by stimulating them to consider the nature of man and the world.”

Gilbert says True Sport is to High Sport as a craft is to an art, and that Big Sport is to the other two as a “plastic angel (is) to sculpture and pottery.”

He doesn’t see much future in Big Sport.

“Given the tenacity with which all institutions seek to preserve themselves, and the considerable resources of many of our institutions, (the professional and pseudo-amateur circuits may linger for

some time. As they struggle to maintain themselves, it seems probable that they will be decreasingly concerned with sport and become increasingly show-biz operations.”

Gilbert seems to welcome the predicted decline and fall of show-biz sports. He sees no serious consequences in it “since even now they serve little purpose other than perpetuating themselves.”

As for the future of True Sport (and by implication High Sport as well), it “seems to be in as good or better shape than ever. Because True Sport is necessary and useful, it would appear to have about the same survival prospects as those of man himself.”

TO THINK AND TALK

BY GEORGE SHEEHAN

When some people seek contemplation or conversation, they prefer a seat near a roaring fire on a winter’s night. Others choose the seclusion of a sandy dune with the ocean murmuring in the background. Still others desire more commonplace settings. But always the conditions are the same: quiet, beauty, a sense of security, and the world immobile.

This may be right for most people, but it’s not right for me. What I need is motion. Give me an hour’s run and I can rival Aquinas in contemplation and handle the great Sam Johnson in conversation. There on the roads, traffic or not, I have found inexhaustible supplies of two of the rarest commodities in the world today.

One of them, conversation, is rapidly becoming extinct. Man’s verbal instinct is to fight or preach. Argument is our forte, not dialogue. If that fails, we go into a sermon. Unfortunately we find most other kind of talk difficult. So what passes for dialogue or communication is either the verbal ping-pong of the TV talk show, the small talk of the passing-in-corridor variety, or the chatter indulged in at innumerable cocktail parties.

At the least, however, this talking allows the use of the vocal cords and protects them from atrophy. This last is a present danger to the average US household where the TV is on an estimated six hours a day—placing the average American family well on the way to becoming as mute as giraffes.

Running has none of these limitations or hazards. The second wind,

which opens the runner to unknown and unsuspected physiological delights, also reveals unexpected insights into his psyche and his inner self. And at the same time, it makes the conversational juices flow.

I have found this state of perspiration and euphoria can perform minor miracles, can eliminate those feelings of guilt which lead to sarcasm and bitterness, can rid me of the righteousness that produces sermons, and can even dispel the self-consciousness that limits me to talk about the weather and the state of my partner's health.

Running frees me from the monosyllabic inanities of my usual tongue-tied state, liberates me from the polysyllabic jargon of my profession, removes me from the kind of talk which aims at concealing rather than revealing what is in my heart and what I mean to do and be.

For me, no time passes faster than when running with a companion. An hour of conversation on the run is one of the quickest and most satisfying hours ever spent. It is rivaled only by those solitary hours when I've been able to withdraw from the world and be inside myself. Such moments can open doors impervious to force or guile.

A midwestern psychiatrist once wrote me about a withdrawn patient who refused to talk to anyone about what was troubling her. It was only when they started to take runs around the institution's grounds that she suddenly began to reveal her basic problems in great detail.

I'm at a loss to know why this happens to runners and those who run with us, but I surmise it has something to do with our deepest instincts about movement. That, at any rate, is the suggestion of Dr. Thomas Harris who wrote the best-seller, *I'm OK—You're OK*.

Harris divides each of us into three parts: Parent (which is life as it is taught by the rule book), Child (which is life as it is felt or wished) and Adult (which is life as we figure it out for ourselves).

The first Adult act we do, says Harris, is locomotion. The Adult in us begins when we take our first step—our first walk to think things over. From then on we have the recording in our brain that movement is good, that it helps us to see more clearly what our problem is.

Harris is probably right. Walk to clear your mind. Run to clear your mind. If you do, you can see yourself, however imperfect, as a unique adult. When you accept imperfection in yourself, you accept others at face value, too.



PROGRAMMING FUN-RUNS

This isn't a criticism of the AAU road racing scene. *Runner's World* promotes an AAU race each year, and we know all the problems involved in promoting a good event. Our most recent race had 322 runners and as many headaches. That's why we've been supplementing that program since January.

Because of certain limitations in the AAU structure, Fun-Runs began. We have one each Sunday morning and the response to them has been far greater than expected. The average weekly turnout has been close to 200.

The AAU can't be everything to everyone. It was leaving out a lot of runners that the Fun-Runs have picked up. We've made a place for those. . .

1. Who find AAU runs too long for beginners. Rarely is a sanctioned road race in this area less than eight miles. Graduating joggers are either afraid of these distances or unprepared for them. Other more advanced ones simply don't want to be long, long distance runners.

2. Who are turned off by the bureaucracy of big AAU runs. Around here, runners have to arrive at races an hour early to stand in line for signups. Entry fees are a minor irritant. After the races, it takes hours to sort out results, weeks to publish and mail them.

3. Who don't want to drive for several hours to get to races. The AAU program travels a regular circuit, stopping in different cities each week.

4. Who would rather run than hold a clipboard. Big races require an organizational taskforce.

The Fun-Runs center on comparatively short distances, appeal mainly to a local audience, and feature the barest minimum of organizational fuss. These are the main points of our program:

- Runs are held every week, year round, same time and place each week so that frequent announcements aren't necessary.
- No signups or entry fees.
- Distances ranged originally from one to six miles, but we've added a half-mile now.
- All runs are on measured, marked, easy-to-follow, not-too-demanding road courses.

- There are three timed runs each week—a half-mile, a one- or two-mile, and one run from the three- to six-mile range.
- Times are yelled from a running watch. None are recorded.
- Man-to-man competition is de-emphasized. No awards for places are given. We do give color-coded certificates based on set time standards (e.g., five-minute mile is gold, with adjustments for age and sex).
- There is the risk that a new and underconditioned runner will push too hard. It has happened here (see editorial). To prevent it from happening again, we've issued stronger warnings to runners and have added an untimed, carefully controlled "conditioning" mile for beginners.

We've found that once the program was planned the first time and the courses were set, the Fun-Runs take almost no work. We now show up five or 10 minutes before the start. One official—the timer—can handle it all, though it's wise to provide traffic directors both to keep people on the courses and to keep cars away from the runners.

Who runs? All sorts of people for all sorts of reasons: those who are racing all-out, doing basic conditioning, breaking themselves in for longer AAU runs, doing shorter and sharper work for other races, or are truly running for fun at an easy pace.

Almost all of our 200 weekly runners come from within a 10-mile radius of the run site, leading us to think that this program can be duplicated hundreds of other places around the country.

The keys to making it work are (1) regularity; (2) simplicity; (3) minimum time and money investment by the sponsor; (4) easily-controlled courses, and (5) education of beginners on how to race safely.

IN SEARCH OF ONESELF

BY ONA WHITE DOBRATZ

Six miles south of Florence, an abrupt turn to the right off Highway 101 leads you in past Carter Lake, along the outlet to Siltcoos Bay and finally to the ocean. To the north the sun shimmers over the dunes at Honeyman State Park and the waves rough-house on the sand, tossing giant arms of driftwood at the shore.

We are lucky. The February sun is shining on the Oregon coast. Out of the cars. The wind is strong, warm. Sea foam scurries like mice across the beach toward the dunes. Eight students run along the beach. This is the 14th assignment for Dr. Lois Youngen's new "Run for Awareness" class—to run along the beach. No specific distance, no special time; just to be there and run.

One of the students, Eva, runs ahead of the group. She is slim, flowing. Her stride is easy, almost a lope, and her fingers dangle relaxed at her sides. Turning to see if the others are coming, a smile wells up in her then bursts like a wave into laughter. After running two miles she has taken off her shoes: "Boy! It's different! It's really different!" Her short curls bounce lightly around healthy peasant cheeks. To-

day, Eva feels at ease with her body. "I feel like a gazelle, so natural, or like those sandpipers..."

A premise. An increased understanding of, and experiencing of, one's body can aid the individual in establishing a personal harmony and freedom, and can help effect a balance between mind, body and emotion.

Dr. Youngen, of the University of Oregon physical education department, has thought about the meaning of physical activity for a long time. "I remember what my father used to tell us," she spoke excitedly. "You can hide behind your words, but not your movements." One of the students added, "And think how good it will be to be fit when we're older." "Agh!" she turned full face to him, "I'm not getting in shape to live to be 99. I want *tomorrow* to be a full rich day!"

Physical activity—running—is an immediate, vital reality to Dr. Youngen. As a teacher, she wants to offer the possibility of this reality to her students. The question has been how, most effectively. This winter quarter she was given a chance to do some experimenting for an answer.

The physical education department gave the go-ahead on a course to be offered through "Search" (an alternative education program within the university system). Dr. Youngen planned a running course. It was not to be graded,

nor held on a normal time schedule. The key words were non-competitive running and variety.

The students ran at dawn, at dusk, at midnight. They ran in rain, in sunshine, through trees, through traffic. They ran at the ocean, along the river. They ran with radios, talking, silently. They ran blindfolded. All sorts of ways, in all kinds of situations, but they always ran. "It's your body, it's your experience," they were told. "But to have the experience, you have to run, whether for that particular day you like it or not."

Dr. Youngen wondered what would be the best method to try to capture the essence of this non-verbal experience. She did not want the students to intellectualize, but wanted some simple register of what had taken place during the runs. Finally, she decided on a checklist of 30 adjective opposites which she arranged on the page with seven blanks to indicate degree of feeling. Immediately after each experience, the student simply checked off his feelings (in the context of those words) about the run for that day. It took only 30-40 seconds, was done before the student had time to discuss (and so perhaps infect) his experience, and yet provided a simple record of attitude and feeling to which he could refer later when he wanted to talk or think about that particular run.

More than 30 students signed for the course. Eva, one of the 15 women, enrolled because of the promise of variety of running experience. "When I saw the phrases 'run at the ocean' and 'run in the mountains,' I knew I wanted to take it."

Like most of the students Eva didn't think, beyond liking the sound of it, why she was taking this particular course; and Dr. Youngen made no promises that it would effect great personal growth and awarenesses. There was no romanticizing about "running to awareness," though in a quiet, pragmatic way, the title stuck and was believed in. The students, open to the possibilities, were up at dawn for the early morning run or off borrowing a transistor for the radio run.

When they began, after eight weeks, to talk about the course, I found several of them *had* made discoveries about themselves and about physical activity, and they realized that these discoveries had come about because of action.

Eva expressed thoughts that were shared by many:

"The most important thing about this class is that my feelings about run-

ning are changing. I no longer feel that competition is always the goal. Remember those things Doug was saying on the way to the ocean, about running just because you like it? Well, that meant a lot to me. I have begun to understand that I can run just because I like it. Oh, yeah, I might compete anyway, it can be another form of running, but it's not necessarily better.

"Another important thing is that I was watching myself push myself (because I hated to slow down the ones better than me) and I was seeing that I could push myself more than I ever thought before."

Almost all of the students said it helped put a person in tune with himself and other people.

"I feel controlled. My feet are in line with my body—it's good and it carries over to other parts of my life. You know—I've been running in the field and come in: ta dah, ta dah, ta dahhhh—and I want to communicate that to other people, not just keep it in. That energy wants out. You're vibrating and you want to give it off to other people."

"I'm much more aware of how what I eat reacts with my body. I'm eating a lot better food these days, cutting down on carbohydrates, eating a lot more fruit and vegetables."

It's difficult to stop quoting from and painting pictures of a shining proselyte. Those of us who run tend to romanticize, to build magical qualities into running. And writing about it one inevitably begins to reiterate the hundreds of hackneyed phrases. The important thing is that Dr. Youngen has helped broaden the understanding of what it means to be alive physically.

Unfortunately, she is somewhat disappointed in the course. Almost half of the class members were haphazard in their participation, and she faces a realm of skeptical administrators. Whatever, she has one deep satisfaction: there are now 5-10 people who have begun to integrate "PE" into their lives in such a way that it will not lose its relevance after the course is over.

YOGA RUNNING

BY GEORGE BEINHORN

When I started reading about and practicing yoga, I stopped reading science fiction. The reality was so incredibly much more fascinating. I'd gotten hold of Yogananda's *Autobiography of*

a Yogi, and I put it down with a profound sigh. At last, a non-contradictory and intuitively satisfying picture of the universe, from worlds whirling in space to the slightest details of human life. Obviously, that's a big picture, so with great effort I'll restrict myself to those parts of yoga (of which I am aware) that directly concern the runner.

I once watched a talk on TV by Wolfgang Panofsky, roly-poly, bespectacled nuclear physicist who directs the Stanford Linear Accelerator. With bubbling enthusiasm, he cut the atom into little pieces for his audience. What struck me was that the atoms he was dissecting are the same ones through all creation, like basic building blocks.

The atoms in this typewriter, in my hands and the air are made the same, only organized differently—like tract housing. What the yogi discovers by his practices is that human beings are uniquely given an "inner nuclear physics lab" which is built into us. He actually learns to hear the "OM" vibration unceasingly feeding creation with energy, and merge his consciousness in it. This is not hypnosis or auto-suggestion. You keep your present awareness and become conscious of *more*.

So what? Big deal, one thinks. Energy is impersonal. There's something almost demonically inhuman about electricity or, especially, nuclear energy. They seem cold, conscience-less, dangerous. But the OM vibration is experienced as the source of one's being—not just the physical being of the body, but of all our good thoughts and emotions. It is intelligent, personal. OM is the basis for the Hindu conception of God as a Divine Mother. It is the "blissful comforter" referred to by Christ, and the "sound of great waters" experienced by Paul at his conversion.

The point of referring to OM is that there *is* a unity behind all creation that can be experienced by scientific methods of meditation, including distance running.

Most of us are familiar with the brooding, acutely aware peacefulness of some of our best runs. The same blood seems to flow in our veins as in the trees, hills, animals; the sun and skies are subtly friendly.

Meditation methods and certain factors in running are similar: erect spine; calm, even breathing; mental poise, and calm concentration. I've discovered that running helps my yoga practice because I have learned things about meditation through it which I was too restless to be aware of while sitting still. A yogic renunciant monk origin-

ally told me running was an "ideal exercise," and that the monks in his order were advised to run daily.

All the prescriptions for successful yoga practice apply equally to running. This isn't the place to list them, but their general bias is toward "natural living" in choosing your diet, friends, place to live, type of work, etc. Harmonizing all these helps make running—and meditation—more enjoyable. You might find that a copy of the *Yoga Sutras* won't be out of place beside *Thoughts on the Run*.

MIND-BODY REGULATION

BY PAT TARNAWSKY

Though biofeedback is still controversial, it is now safely out of the occult and into the lab. In the past decade, some of the most distinguished research centers in the US have done studies proving that what it can achieve is not fairy tale. But its application to athletics has been little discussed. A rapid survey of what we presently know about biofeedback indicates that its possibilities for runners' use—especially in long distance—might be very real.

What is biofeedback training? Also called biological control, it is the learned voluntary control of physiological functions that we used to think were involuntary. The "feedback" itself is direct information transmitted to the learner from the body through electronic gadgets such as electroencephalographs. The feedback, in the form of flashing lights, tones, graphs, etc., lets the learner know if and how he is voluntarily changing the process in question.

Thus, a person practicing biofeedback can manipulate at will such vital things as heart rate, blood pressure, body temperature, digestion, respiration, the function of kidneys and certain other organs, blood flow, the sensation of pain, etc. All these functions are of special interest to runners.

Another related phenomenon of biofeedback training is a jump in the production of certain brain waves, and the ability to produce them at will. The human brain produces four kinds of waves. They range from the highest-frequency beta waves, associated with normal waking activities, down through alpha and theta, to the low-frequency delta waves given off in dreamless sleep.

The alpha waves, which are con-

nected with deep meditative relaxation, are the ones most commonly involved with biofeedback. The brain may give off bursts of them in conjunction with willed changes in some other area of the body. Researchers are not yet sure whether the alpha waves help cause the voluntary control, or whether they are just a symptom of it.

Currently, biofeedback is being put to broad experimental use in medicine. It has been used successfully to combat such varied ills as neurotic anxiety, insomnia, hypertension, migraine headaches. A few very experimental clinic programs show that it's possible to use biofeedback in regulating arrhythmia, a dangerous cardiac condition. Its enthusiasts, some of whom are among our soberest scientists, predict that someday it may be used to treat everything from mental illness to cancer.

According to the authors of the recent Lippincott book *Biofeedback*, Marvin Karlins and Lewis M. Andrews, it is "man's awesome power to change his own internal destiny."

Actually, despite all the fuss, there is nothing new about biofeedback. We are simply rediscovering some psychic techniques that are as old as the human race.

Every pre-technological culture, whether primitive or advanced, has used biofeedback consciously in some way. The Christian mystic in a self-induced trance, the North American Indian enduring torture cheerfully because he can block out pain—both are using biofeedback. Its historic uses can be said to fall into two broad areas: survival and religion.

As man's technological skills advanced, however, his use of biofeedback declined. Learning it, back in those days before sophisticated lab instruments, was difficult, and he didn't want to unless he really had to. With the arrival of the car, the computer and the tranquilizer, man felt he no longer needed those old skills to survive in his environment. Now, however, with his sneaking suspicion that technology has failed him, he is groping his way back to those primal powers. Best of all, he now appreciates the freedom and dignity they give him, as an antidote to the terrible helplessness that comes with "future shock."

Ironically, having done away with so many folk traditions of biofeedback, modern man is initially dependent on his technology to find biofeedback again. To re-establish direct contact with, say, his own muscles, he must tape himself to the electrodes of an electromyograph

(EMG). He must develop his own mental cues in order to trigger the sound or light signals that tell him he's getting the right results. (Back in the old days, he would have learned these techniques from a monastic teacher, or a shaman, or the ruggedest warrior in the tribe.) Once he has learned them, however, he can throw away the hardware and proceed as in 1000 B.C.

Today's hard-boiled researchers are fascinated by the biofeedback techniques used in the religions of the Far East. I dwell on these not because they are chic, but because one area—Tibet—gives us some hard data on their actual use in running.

Several recent studies tested practitioners of yoga and Zen. They found that these men did indeed do the physiological feats that tradition said they did. The swamis, for their part, were delighted at the opportunity to prove to the world they weren't a fairy tale. One swami "stopped" his heartbeat by making it fillibrate at 300 beats per minute, for several minutes. Another swami was buried alive for nine hours by a research team, slowing his metabolism to survive on the scant available oxygen.

Lesser known than yoga, but more hair-raising, are the ascetic biofeedback practices of Tibet, just north of India. Tibet is also a land where sheer gutsy endurance has extra values. The distances are vast, the terrain is about the wildest on earth, and the climate is full of violence and extremes, especially in winter. Small wonder, then, that Tibet produced what is probably the most extraordinary of feedback-operated long distance runners: the monk trained in the art of *lung-gom*.



According to Tibetan scholar Alexandra David-Neel, *lung-gom* is "a large number of practices which combine mental concentration with various breathing gymnastics and aim at different results, either spiritual or physical."

The long distance running itself, she says, goes back as far as the 13th century. It has its root in a rite called *dubthab*, which was held every 12 years. The idea was to round up all the demons in Tibet and persuade them en masse not to demand human sacrifices.

The runner selected for the round-up, a specially trained monk, was called the *Maheketang*. He would set out from the great monastery of Shalu on Nov. 11, run to Lhasa and several other cities, and be back in Shalu on Nov. 25. Then he would immediately set out again on the second, and longest, leg of his run. Going via Shigatze, he would make a huge tour through the Chang Tang highlands in northern Tibet, returning to Shalu a month later. He was running in winter, mind you, with only light monastic robes, non-stop between cities, no eating or sleeping on the way.

One monk covered more than 300 miles in 30 hours, non-stop. As anthropologist Lyall Watson points out in his forthcoming book *Supernature* (Doubleday), that's averaging about 10 miles an hour over all kinds of terrain, as against more than 12 miles an hour for the best marathoners on a good road. I'd add that this would make about 11½ 2:37 marathons at once, or three consecutive 10-hour 100-milers (the current world 100-mile best is 11 hours 53 minutes). Obviously, something more than mileage and speedwork goes into this kind of performance, and that something has to be biofeedback.

During the years she studied and traveled in Tibet in the early 1900s, David-Neel saw only three *lung-gom* artists. Of these, she saw only two in motion. Such are the rigors of the training that apparently few men become successful in what the Tibetans call *kang gvog ngo dub*, or "success at swiftness of foot." She describes their gait as something between running and race walking—a "peculiar nimble springing."

The first time she saw one was a memorable occasion.

She and her party were traveling horseback across the Chang Tang, that desolate grassy upland. Suddenly they saw a tiny figure in the distance, coming toward them with unbelievable swiftness. It was not a part of Tibet where one ran into people, especially afoot, and they wondered who it might be.

Then her servant, looking through

her binoculars, said, "It looks like a *lung-gom-pa*."

They watched, fascinated, as the man approached.

"I could clearly see his calm impassive face and wide-open eyes with their gaze fixed on some far-distant object..." David-Neel wrote. "He seemed to lift himself from the ground, proceeding by leaps. It looked as if he had been endowed with the elasticity of a ball and rebounded each time his feet touched the ground. . ."

As the monk passed, her servants bowed their heads to the ground. The monk took no notice, being in a trance.

Not wishing to disturb him, they let him get a ways ahead. Then they followed him on horseback, curious to find out where he was going. After two miles, the monk suddenly left the flat. He bounded off up a steep slope like a mountain goat and disappeared. Whether he'd done this to get away from them or whether it was simply his route, they never knew.

David-Neel tried to pry information on *lung-gom* training out of her monastic informants. Since they teach their running secrets only to fit pupils, they were reluctant to talk in detail. But she did learn the following:

The training seemed to be part mental and part physical, with an unknown percentage of direct aerobic exercise. The novice *Maheketang* had to do special breathing exercises in total darkness for 3½ years. In one exercise, he would sit cross-legged, inhaling slowly for a long time, then leap into the air with legs still crossed, not using his hands. He would repeat this leap a number of times during each practice period. If he could leap twice his height, he was considered capable of doing the *Meheketung*. In other words, if he were 5'5" he would have to leap 10'10" to be considered proficient.

"It is difficult to understand that a training which compels a man to remain motionless for years can result in the acquisition of peculiar swiftness," says David-Neel. "However, this is the special training of Shalu, and in other places we meet with apparently more rational methods, including the actual practice of marching. However, it must be understood that the *lung-gom* method does not aim at training the disciple by strengthening his muscles, but by developing in him psychic states that make these extraordinary marches possible."

When he is actually running, the runner repeats to himself a secret *ngag*, or sacred phrase. His breathing must be in rhythm with the phrase, and his

strides keep time with both his breathing and the syllables of the phrase. He does not speak, or look from side to side, but keep his eyes fixed on a distant object. Apparently he reaches a point where he does not feel the weight of his own body, and goes on thus for hours without pain or fatigue.

In winter, these runners would make use of another biofeedback technique called *tumo*, in which they raised their body temperature. The Western runner who must train in icy climates, and pile on the sweats, should be green with envy at *tumo*.

It would be revealing if Dr. Kenneth Cooper could get a *lung-gom* runner onto his treadmill at Dallas. Tragically, these unique athletes—and the tradition that produced them—are now probably lost to science. The Chinese communists did a great job of wrecking the monastic system in Tibet. However, if any of these runners managed to flee Tibet in the 1950s and is living in the West, he's somebody we ought to get in touch with.

But today's research has shown that *tumo*, for instance, is a reality. The biofeedback trainee can both raise and lower his body temperature—not merely all over, but in any limb or skin area he chooses. He can, if he is careful and well-trained, do this without the normal serious risk of damage or death.

Achieving voluntary control of body temperature might be a boon for runners. It would eliminate those collapses and deaths in races on hot humid

days. In fact, right now, certain individual runners who excel at hot-weather running might well be unconsciously using some degree of voluntary control. In other words, then, arriving at the finish fresh as a lettuce, while other well-trained runners keel over might be due not merely to heat training but also biological control.

Conversely, a moderate use of *tumo* might make winter training and racing less of a drag. We could have mid-winter marathons with the runners in their skivvies.

Athletes who suffer from muscle cramps and bad pre-race nerves might well benefit by learning voluntary relaxation. This can be done through breathing feedback. It can also be done via EMG feedback from the muscles. One of the few instances I've been able to find of an athlete being given biofeedback training was at the University of Colorado, in the early 1960s. Dr. Thomas Budzynski, one of the leading biofeedback researchers, went to work on an alpine skier who always "froze" at the starting gate. By EMG training, Budzynski taught the skier to relax his leg muscles, solving his problem.

Two important studies, one in the US and the other in Europe, offer some intriguing information on that enemy of runners, lactic acid.

Both studies investigated groups of people practicing what the yogis call transcendental meditation. It is not a difficult mental state to achieve, and produces a deep relaxation with a jump in alpha-wave activity. The studies de-

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tected very complex physiological changes that, in the view of American researchers Wallace and Genson (their article was published in *Scientific American*) were all mediated by the central nervous system. Oxygen consumption, carbon-dioxide release and respiration volume dropped. Metabolism slowed. Yet blood flow to the muscles increased, and the blood-lactate level dropped sharply.

Many runners think of lactate as the awful product of physical stress. But it is also produced by mental stress. This is shown by a recent Washington University Medical School study, in which infusions of lactate into normal persons brought on anxiety symptoms usually seen only in neurotic persons.

We know from the Far Eastern data that the sub-beta mental states are compatible with aerobic exercise. Certainly the *lung-gom* runner was in alpha or somewhere there, and he was also having minimal problems with fatigue buildup. So . . . it all leaves one wondering if a biofeedback-trained runner utilizing the alpha state could minimize his lactate buildup—in particular that part of it resulting from mental stress.

This is a wild conjecture, I admit, and will remain one until some alpha-trained runner gets on the treadmill to prove it.

Finally, biofeedback adepts can tune out pain. Researchers have gotten some hair-raising proof of this from a Latin American named Ramon Torres and from an American, Jack Schwartz. Both specialize in the age-old fakir trick of pushing spikes through themselves. The Menninger Foundation scientists noted that Schwartz not only did not exhibit the slightest sign of stress when he did this, but he could control the bleeding, close the wound and will away infection afterward.

Schwartz explained the necessary attitudes to *Esquire* writer David Rorvik. "I don't stick a needle through *my* arm," he said. "I stick it through *an* arm. I move outside my body and look at the arm from a distance; with that detachment it becomes an object."

The need to block out pain is already acknowledged by athletes as a basic must. It's part of what they mean when they say that so-and-so has it (or doesn't have it) "upstairs." But it's possible that with biofeedback training, their ability to ward away pain could be extended even further.

So much for the possible joys of biofeedback. Now for the drawbacks. Can it be dangerous? The Far

"One monk covered more than 300 miles in 30 hours, non-stop. . . . That's averaging 10 miles an hour over all kinds of terrain, as against more than 12 miles an hour for the best marathoners on a good road. I'd add that this would make about 11½ 2:37 marathons at once, or three consecutive 10-hour 100-milers. Obviously, something more than mileage and speedwork goes into this kind of performance, and that has to be bio-feedback."

Eastern practitioners insist that it can. They say that sound step-by-step training, and the confidence that comes from it, are absolutely a must. They had a rigorous selection process that admitted only the fittest pupils into the higher levels of asceticism. Their monastic lore is apparently full of stories about monks who goofed up their biosignals and did themselves grave physical and mental harm.

Alexandra David-Neel wanted to stop that first *lung-gom* runner and talk to him, but her companions talked her out of it. They insisted that he might die if his trance was shattered. She later learned from her Tibetan informants that such a state must be eased out of little by little, or else the adept's nervous system gets a cruel jolt.

Once learned, these techniques can become automatic—and they apparently can run away with you. David-Neel once saw another *lung-gom* adept go into an unplanned trance. He started off up a mountainside with that curious springing gait as if he intended to go 200 miles. When he came out of it a few minutes later, he explained to her (a little sheepishly) that a chance association of thoughts and sensations had set him off.

Today's lab tests show the possibility of danger, too. In a Harvard Medical School study, a group with normal blood pressures were learning to manipulate their BPs. Said the *New York Times Magazine*: "Some volunteers mentally boosted their blood pressure alarmingly high, as if they had just run the 100-yard dash. It was plain that a person might do himself considerable damage by thinking."

Another drawback: proper biofeedback training is time-consuming and expensive. Alpha grooving is now such a fad that fly-by-night "clinics" and cheap hardware are flooding the consumer mar-

ket. Unfortunately, with a \$100 machine and no professional instruction, you may get feedback for eyeball movement when you think you're getting alpha.

Quality feedback machines cost anywhere from several hundred to several thousand dollars. And proper learning can take anywhere from two weeks to several months, even with professional help. As with any good thing, there's no shortcut here.

Finally, researchers have observed that not everybody can become skillful at biofeedback. Some people take to it like ducks to water; others struggle. They have also observed that the alpha state, while pleasant for most, is anxious and upsetting for some.

The authors of *Biofeedback* have an excellent chapter on how not to be a sucker if you're interested in this training. They suggest that you make every effort to get yourself into a bonafide clinic, under competent medical supervision. Contact your local university to see if they have a biological-control experiment going and need volunteers—that way you'll get the training for free. By all means, avoid the "mind control" outfits, many of whom don't even use biofeedback equipment.

Would biofeedback be legal in athletics?

Why not? It demands a voluntary effort from the man or woman using it, and voluntary effort is what athletics are all about. Pills, blood doping, etc., are wrong partly because the athlete gets an unfair advantage without making any effort.

Besides, as I said before, who knows how many athletes are already using some form of biofeedback unconsciously? The eerie floating ease of Lasse Viren, the unusual ability to tolerate lactate buildup that Derek Clayton has—who can tell if they are pure physiology or also partly psychic? An athlete today can stumble on these techniques and intuitively use them, just as neolithic man first did.

In recent years, the big breakthroughs in times have been due largely to our new understanding of physiology and its application to athletic training. Is it possible that a sane and careful use of biofeedback will be the key to the future? The sub-four-minute mile for women? The 27-minute 10,000 meter? The two-hour marathon?

Pat Tarnawsky would be interested in hearing from any athletic researchers and runners who are working with biofeedback, for a possible follow-up article.

IS THE PAIN NECESSARY?

BY GARRETT TOMCZAK

"How did philosophers ever come to think that man is an animal which seeks pleasure and avoids pain?"

This is not the introduction to an abstract philosophical essay, but a question from one runner to another at the completion of a staggeringly hot and hilly marathon as an ambulance, siren screaming, drove to the aid of a collapsed runner. In such circumstances, one is inclined to doubt that the search for pleasure and the avoidance of pain are universal characteristics of mankind.

One might ask if there can be any pleasure so laboriously won and so dangerously indistinguishable from pain as is the marathoning experience. Although the majority of runners do not, thank God, suffer the extreme of complete physical incapacitation, the gamut of bodily discomfort (blisters, aches, dispossessed toenails, and all manner of fatigue) make long distance running a highly questionable activity for one who makes pleasure his primary aim.

Marathoning can be extremely demanding, onerous, and sometimes physically dangerous. It cannot be taken as a self-evident source of pleasure (except, of course, by those whose philosophical disposition or physical makeup does not allow pain to be a factor in the marathoning encounter). A marathon demands hours of relatively painful effort, in sometimes very uncomfortable circumstances, when the day might well be spent watching television or sleeping, as an air conditioner softly hums away the heat.

We are generally taught in our society that the healthy man is the normal man, and that the healthy man is free from pain. The problem of pain is usually limited to the question of how to combat it. To be told of someone who welcomes pain is to receive a shock. This is not the way we are accustomed to thinking about ourselves.

The non-runner, convinced that we are masochistic and misguided madmen, watches our efforts in bewilderment and incredulity, as though we were teetering, *en masse*, on a ledge high over a busy intersection rather than merely lining up for the start of a race.

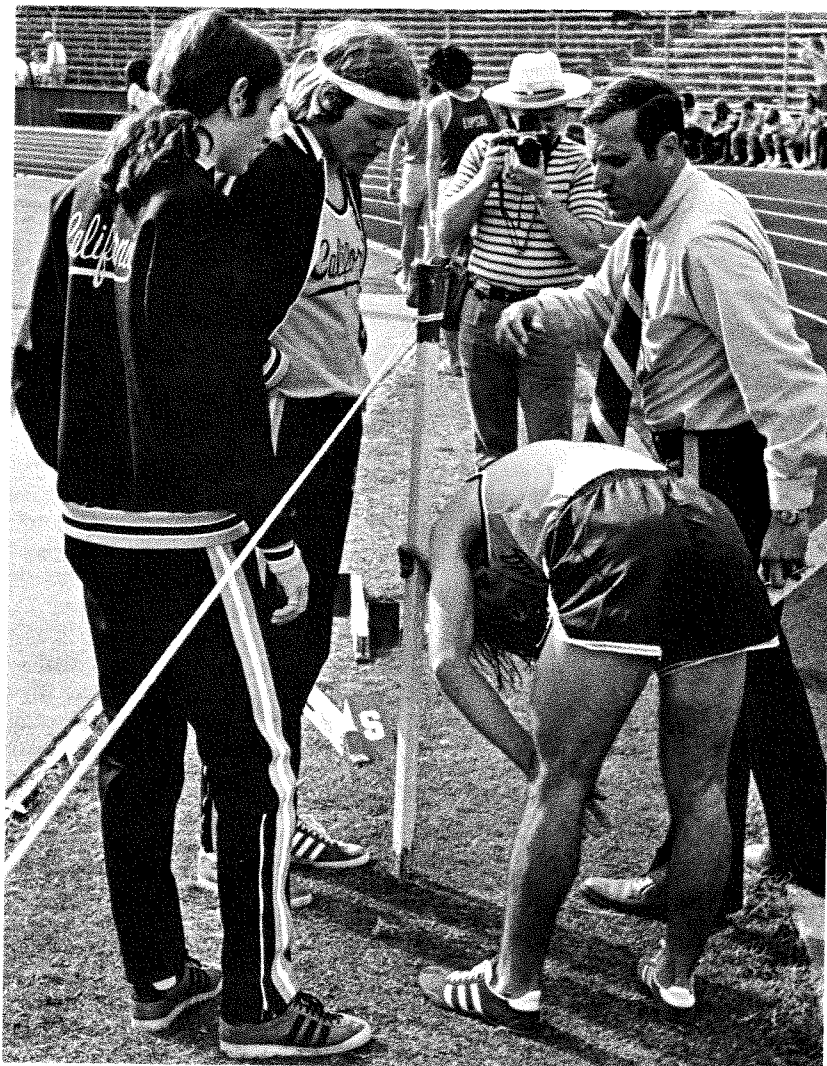
There would be little need to discuss the question of pain at all if marathons actually were masochists. One could simply dismiss the activity as

perverse and emotionally unhealthy and be done with it. Public opinion to the contrary, it doesn't appear to be as easy as all that.

If marathoning is sometimes painful, and a runner accepts that pain as a part of the total experience—whether for a best time, a coveted award, or simply because dropping out could cause more distress than the worst physical pain—does it necessarily follow that he is a masochist? Probably not.

A masochist is one who is confused about what is painful and what is pleasurable. If nothing else, a marathon makes a very clear distinction between the two states. If an individual fails to catch that distinction, perhaps he is a masochist. For the most part, though, those who have experienced pain while running are more than aware of the fact and are unlikely to mistake it for enjoyment.

The danger is not so much that runners may be masochists. It is that, in striving to deny that label, they risk the danger of believing that pain is somehow of no value. While pain is hardly



"We don't grow through fun or pleasure; we grow through pain. Pain is the transition between different and ever higher levels of consciousness."
(George Beinhorn photo)

fun, it should not lead one to think that it is necessarily without significance or importance.

Pain can have relevance in two rather distinct areas: physical health and spiritual awareness.

In the most elementary way, pain is nature's warning, letting the body know something is wrong. It is extremely difficult for an individual to live without pain sensitivity. The congenitally insensitive are known to damage and injure themselves repeatedly and without realization. In some cases, a person unequipped to feel pain can literally chew off his own tongue, choking and bleeding to death in the process. Few congenitally insensitive persons live to adulthood.

There are many cases, though, of adult coaches and runners who can feel

pain but try to act as if it doesn't exist. This myth of the unreality of pain is perpetuated everytime an athlete persists in running on a bum leg or a coach dismisses an injury with, "It's all in your head."

Pain is not something which is strictly "in a person's head." Excluding the deliberate faker, all pain is real and should always be treated as such. Silent and absurdly stoic suffering can frequently lead to much more complicated injuries and the possibility of permanent physical damage (such as ending up at 40 years of age with traumatic arthritis—not an uncommon ex-athlete malady).

In addition to the importance of pain in warning an individual of impending injury, there are other values to pain which can significantly contribute to a person's growth in humanity and awareness. If an individual is rational and intelligent, he will soon recognize and understand his pains—and know which ones are warning lights and which are challenges.

These challenges, or "growing pains," can be seen as the birth-pangs of transition to better things—to a more fully potentiated level of individual existence. We don't grow through fun or pleasure; we grow through pain. Pain is the transition between different and ever higher levels of consciousness. It can open up profound depths whose existence is not even suspected by the man who goes gaily on his way, untried by pain. As Dostoyevski has said, "Suffering is the sole origin of consciousness."

A person may "lose" himself in fun, but can only truly find himself through suffering. A marathon, for example, is way for a man to test his endurance and to seek out his limits. It would be difficult to image that pursuit taking place without a confrontation with pain. A runner (or anyone else for that matter) who never pushes himself to the point of physical discomfort is obviously learning little about the range of his potential.

If a man wants to know if he is awake or dreaming, he pinches himself. No other sensation demonstrates as clearly that he "is there." The marathon is a 26.2-mile pinch. It is not a stroll, a leisurely ride in the country, or a picnic on the grass. It is an experience and a revelation. One discovers things never discovered before.

The complete eradication of pain could result in one-sidedness, uniformity, and consequently human indifference. The mastery of pain has to be learned, and civilized man is rapidly losing the art. Because he is accustomed to the eli-

mination of pain, he is all the more helpless in those cases where it cannot be eliminated.

Pain impels a human being to make a personal decision, an act of will. The individual must decide whether to surrender to it, to suffer if, or to fight it. A man cannot be truly free or have viable options if he is forever a slave to the fear of physical discomfort. The man who drinks beer and watches television all day is not free. He lives a very narrow and cautious existence.

To totally reject pain is to reject life itself. Those runners we suspect of not feeling pain, we refer to as "animals" or "machines". Man's grandeur, in a sense, stems from his knowledge of his own misery. An animal or a machine does not consciously understand itself to be miserable.

Pain is real and it is necessary—both physically and spiritually. Those who don't heed pain's warnings are doing a disservice to their bodies. Those who can't recognize its ability to increase awareness and expand humanity are doing a much greater injustice to their souls.

The marathon is one possible way in which a man can maintain contact with pain, and consequently with the glory which only comes from being a fully aware human being. It is suffering and then glory.

Perhaps, after reading my arguments in justification of pain and suffering, you would like to know how I behave when I am experiencing it.

I am a great coward.

Although I have run many marathons, and plan more in the future, the decision to run yet another is never lightly taken. I fear the pain of a marathon and this, in great part, is what gives it significance. Finishing the race conquers that fear of pain, and facing the formidable gives self-esteem.

And self-esteem is what can make a person a hero—if only to himself. Heroism simply doesn't apply to those who are too cold to know apprehension, too confident to know fear, and too unintelligent to understand pain or danger. I may not have the opportunity to fly to the moon, rescue dragon-besieged damsels (beautiful or otherwise), or hold the Pass at Thermopylae. But I can run the marathon.

I am not arguing that pain is not painful. By definition, pain hurts. I am only saying that a man can choose to explore his capabilities and raise his level of consciousness through the vehicle of suffering.

FUN-RUNNER PERSONALITY

BY JOE HENDERSON

I failed, but I wasn't worried about failing. I was worried that I might pass—that buried drives had been powering me through running all these years, rather than a sincere attachment to running itself. I was wondering if my whole view of running was built on a lie—that Fun-Running was an elaborate rationalization without basis in fact.

Bruce Ogilvie, a psychologist at California State University in San Jose, tests athletic attitudes. In the last decade, he and Thomas Tutko have sampled thousands of athletes from all sports and have a solid idea of what makes up athletic personalities.

While talking with Dr. Ogilvie last year for the booklet *Practical Running Psychology*, I asked to take his test. The Athletic Motivation Inventory has 190 multiple-choice questions. Any athlete can take the test which measures 11 different psychological traits judged important in athletic success. (Testing costs \$3 for high schoolers, \$5 for collegians, and \$10 for all others. You can take it by mail. Write to the Institute for the Study of Athletic Motivation, California State University, San Jose, Calif. 95114.)

Sample questions:

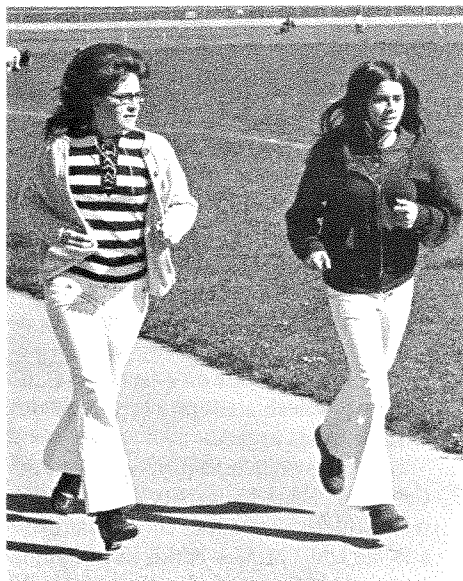
"I like to be praised when I do well: (a) always; (b) often; (c) sometimes."

"I enjoy getting into arguments about athletics: (a) often; (b) sometimes; (c) never."

ISAM's computer scores the tests. It compares the athlete with all others in the same sport and at the same level of competition. It ranks him on a percentile basis. In running terms, ranking in the 80th percentile for a particular psychological trait is akin to placing 20th in a race with 100 runners.

The computer printout gives a detailed analysis of the subject's thinking, and it assesses his chances of cutting it mentally in competition.

I didn't exactly fail, because you don't really pass or fail this thing. As noted in *Practical Running Psychology*, "They (Ogilvie-Tutko) aren't in the predicting business. Nor do they judge individuals as 'good' or 'bad' runners on the basis of their test scores. They're attempting to provide an individualized guide that helps an athlete understand himself and to make the most of his athletic experience."



The comparative percentages told me quite clearly that I'm sub-normal among runners—a running retard. I scored significantly below 50% in all but two of the 11 measured traits. Eight were in the bottom third. And in two areas I ranked in the lowest 10%.

The test was something of a vindication. I'm not a jock at all, and yet have run all this time for other reasons than athletic glory. That's how it appears, anyway.

It's a bit disturbing being psychoanalyzed by computer. The thing that bothers me most, I guess, is that it is so accurate. It seems, with a couple of nitpicking exceptions, to know me better than I know myself.

"This athlete was candid in acknowledging his undesirable attitudes. He did not attempt to make himself look good in answering the test questions, and may have presented a negative image of himself."

Attitudes "undesirable" to whom? "Negative image" by what standard? I'd like to ask the computer that. But it's not programmed to answer.

Oh, well. What does the computer have to say about my traits and their rankings? Start from the bottom.

1. Coachability (5%)—*"Seems to have lost complete respect for coaches. . . This attitude is reflected in his extreme independence to the point of being aloof."*

2. Aggressiveness (10%)—*"Extremely non-aggressive athlete who rarely asserts himself. . . Feels the aggressive elements of sports are unappealing and non-rewarding."*

3. Self-Confidence (20%)—*"Extremely lacking in self-confidence and has almost no faith in his competence. . .*

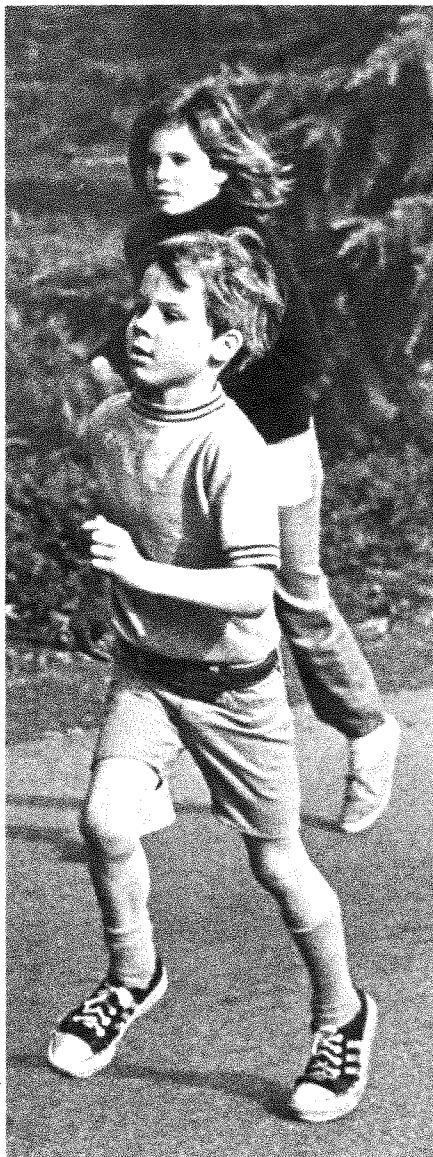
Great deal of difficulty in handling new or unexpected situations."

4. Mental Toughness (20%)—*"Very sensitive, tender-minded athlete who will rarely face reality in a direct, positive manner."*

5. Leadership (20%)—*"Would rather follow than lead. . . and will refrain from assuming responsibility."*

6. Guilt-Proneness (25%)—*"Not inclined to take personal blame when things go wrong. . . Because he is slow to admit errors, it will take longer to modify his negative behavior."*

"It is unfortunate that running isn't everybody's thing. At every level, you could have something for ego-fulfillment for everyone. That's what sport should be about."
(George Beinhorn photos)



These are the lowest six, all in the bottom quarter of the running population. They paint the picture of a pretty miserable character, who can neither live comfortably with himself nor others.

7. Drive (35%)—*"Will set only modest goals for himself. He is not really competitive and will not readily accept challenges."*

8. Conscientiousness (35%)—*"Prone to break or bend rules which are contrary to his desires. . . Will interpret even just demands to be a denial of his individual freedom."*

9. Emotional Control (50%)—*"For the most part is able to handle his feelings. However, when competitive stress runs unusually high, tension may interfere with his performances."*

10. Determination (60%)—*"Will generally put in required amount of time. . . but probably will not devote much extra."*

Still barely in the middle of the pack on these four, but at the same time they tend to temper and brighten the earlier analysis.

11. Trust (85%)—*"Above average capacity to trust, and accepts others without questioning their intentions. . . Not inclined to be jealous."*

Ah. If I had to choose one of the 11 traits where'd I'd most like to look good, this would be it. But what do I believe? Am I extremely aloof and uncooperative (see "coachability," the lowest) or highly open and tolerant (see "trusting," the highest)?

Aside from this apparent contradiction, the conclusions sit well. I'm happy to see I don't have some of the least admirable traits of athletes, that I

apparently haven't surrendered (1) control over my own recreation; (2) respect for fellow runners; (3) human proneness to feel and to fail. I'm not at all sad to see I don't possess unquestioning obedience, killer competitive instinct, or dedication and drive to the point of obsession.

A couple of the points are matters of interpretation.

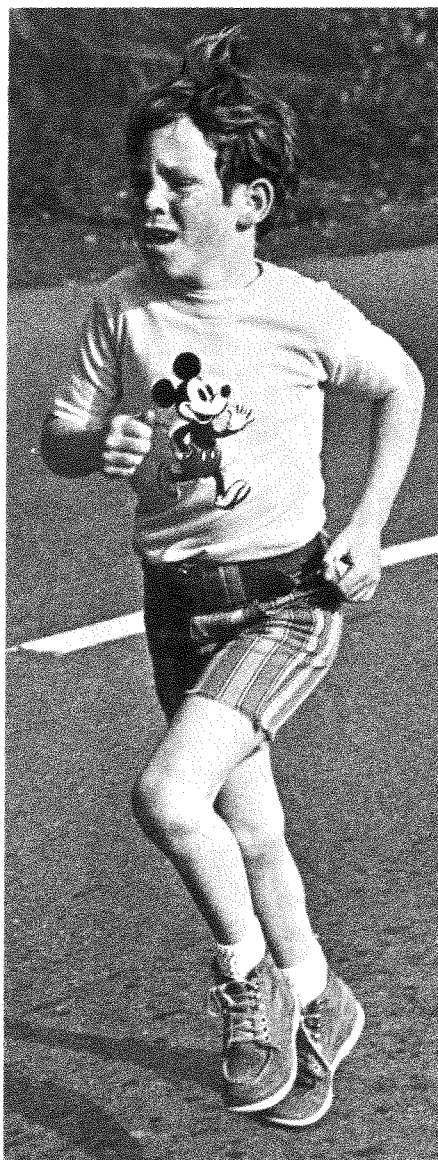
The coachability thing, for instance. I answered that honestly. They asked me if I needed a coach and I said no, in several ways. Put this in context. Once I would have said yes. But hell, I'm almost 30 years old and have been running for more than half of those years; hundreds of races. I wouldn't amount to much if I hadn't learned a little in that time.

And the low score in "self-confidence." They asked me to tell how I rank beside other runners. I told them. I wasn't demeaning myself. I have the facts right here—times, places, splits—to give a realistic accounting. It has little to do with confidence.

But these are small differences. Ogilvie and Tutko would understand them. But would they accept my two disagreements with their testing, which are more fundamental?

I mentioned the first one already: the statement that certain traits are "undesirable" and "negative". By whose standards?

The other disagreement relates to a basic view of sport and its role. The psychologists say at the end of the computer printout, "Please remember that



this test was designed specifically for athletics and may not be applicable to other areas."

I doubt if personality traits can be turned on and off quite that easily. Over-aggressive, over-obsessive behavior isn't likely to stay on the track. And it may not look quite so impressive in civilian clothes.

But this is for the psychologists to decide. They've satisfied me already that there is indeed a Fun-Run personality which doesn't need the traditional success orientation to keep going.

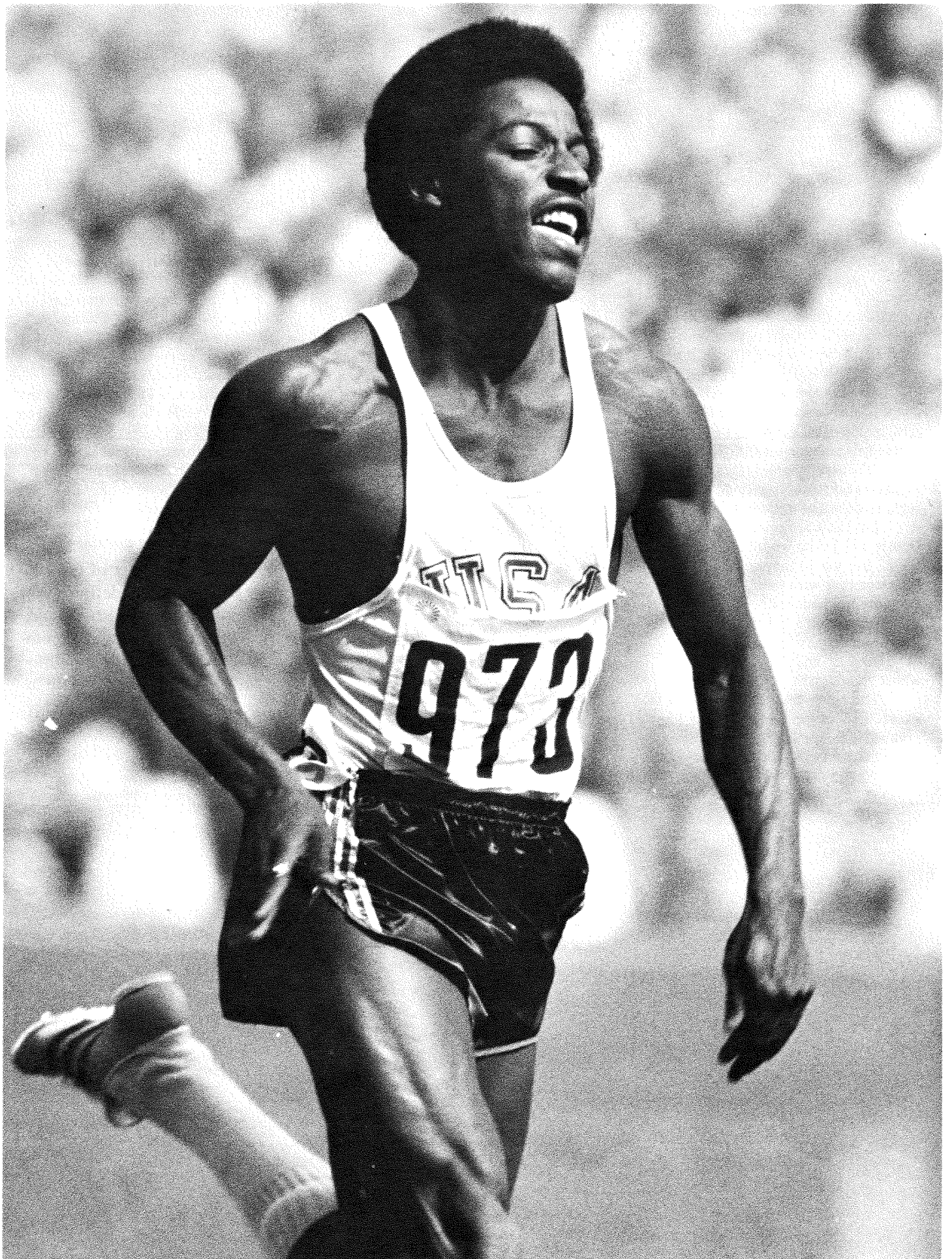
"It is unfortunate," Ogilvie said in *Practical Running Psychology*, "that running isn't everybody's thing. At every level, you could have something for ego-fulfillment for everyone. That's what sport should be about."

Ogilvie and Tutko have said that the new direction in athletics "will be toward helping athletes make personally-chosen modification in behavior, toward the joyous pursuit of esthetic experience, toward a wide variety of personality types and values."

"The Fun-Runner of the 1970s is expanding the definition of running beyond fastness and fitness by going beyond competing and conditioning into an arena of his own. Here he is an experiment of one, free to explore at will."

(George Beinhorn photos)





There was an obvious peak in 1972—the Olympic Games.
Larry Black was there. (Horst Muller photo)

REACHING THE PEAK

*“Pointing” training has sharpened speed. Now it’s time
to bring it out in the big races.*

by Hal Higdon

Hal Higdon talked of “pointing” his training for specific races in the March issue. This is the continuation and conclusion of his article. He concentrates this time on “peaking” for the target races.

During 1972, an important competitive year for me, I did much more than train for track meets. For every hour devoted to running I devoted another half-dozen or more to my work as a free-lance writer. In particular, I was writing a book about auto racing to be called *Finding the Groove*. During one interview, I had asked USAC sprint car champion Sammy Sessions what it felt like to crash.

“It’s not true what they say about your whole life flashing before your eyes when you’re getting ready to die,” Sammy told me. “When you roll a spirit car, you’re asleep when you’re going through it. You don’t realize what’s happening until it’s all over. The spectators in the stands are more scared than you are.”

I never quite believed Sammy until last summer when, accompanying a group of Boy Scouts on a trip to South Dakota, I climbed atop a horse, though I never had ridden one before. Only two days earlier I had won the Longest Day marathon and I was in top running shape. The horse seemed tame enough. After a while I learned to nudge him in the right direction. We started from our campsite for a day’s ride and passed near a friend’s Winnebago parked at one end of the reservoir. “Ride ’em cowboy!” my friend shouted, and I leaned back to give him a jaunty wave.

Suddenly the horse bolted. How do you stop a horse if you’re a city-slicker? You can’t put your foot on a brake pedal. There’s no button to signal the stewardess. You can’t Dial-A-Prayer. I pulled back on the reins, but saw myself bearing down at ram speed on the other Scouts on horses, including my two sons.

Then it happened just the way Sammy Sessions said it always happened. I don’t recall my one-and-a-half gainer with full twist, but I’m sure the judges wouldn’t have awarded me more than 4.5 points on form. I looked up from the ground and recognized our wrangler squatting on his haunches in front of me and just staring. I could hear these gasping animal sounds and when my head cleared I realized the sounds were coming from *me*.

“Take it easy,” said the wrangler. I would live, but I was hurt. I had landed on my shoulder.

We climbed into a pickup truck and they drove me to the hospital in Hot Springs. While I awaited x-rays, the nurse gathered personal data for the records. “Occupation?” she asked.

“Writer,” I responded.

Glancing down I watched as she wrote: “R-I-D-E-R.” Knowing I had fallen from a horse, she apparently thought me a member of some touring rodeo group. Nothing could be further from the truth. Despite the pain, I started to laugh. The nurse looked up, puzzled. Further examination indicated nothing had been broken and after a day’s rest in the hospital I returned to our group. But I had injured myself so severely that I knew I would be unable to compete in the US Masters track meet in San Diego, a meet I had been pointing for all year.

I was forced to shift my target to the US Masters tour of Europe in August and September.

By the time my recovery was more or less complete, I would have lost a month’s hard training. But I didn’t expect this loss to be a critical factor. Unlike those runners who fear to miss a single workout, even the morning of a race, I understand you do not go out of shape overnight. I still had a backlog of training miles run during the spring. I knew I need not repeat those workouts

on that schedule to regain my form. I understood that most important was my mental attitude. The ability and conditioning was there within my body. It was simply a matter of tapping it at the precisely right moment. Higdon’s ninth law is:

● *If you are going to hit a peak, don’t hit it out in the woods during practice.*

Thus everything I did during the months of July and August was motivated by a desire to reach a peak of performance on Aug. 24, the first day of the veteran’s international meeting in London.

During the first six months of the year I had competed on only 10 occasions, on four of those occasions using competition as a form of workout. I raced infrequently mainly because of limitations on my time. A race may only last a few minutes, but can involve an entire day in terms of travel and commitment.

During the summer, however, the number of races not only increases, but they become available nearer to home. I can race nearly every night of the week during July and August without having to drive more than an hour or two. This cornucopia of races provided me with a means toward achieving my end goal.

● *Assuming that you have the necessary long distance background, you can sharpen yourself to a fine competitive point by racing frequently in low-pressure events while awaiting that one major race you want to win. Call this Higdon’s 10th law.*

In peaking in this manner, however, it is important not to lose sight of the actual goal. You can race frequently, and without what might be considered adequate rest, and not run the risk of suffering battle fatigue, only if you attach no importance to the races. And only if you mentally consider them as

being part of your regular week's workout cycle. The minute you begin pointing for these multiple races, psyching up for them, worrying about your time and your place, you waste the competitive juices which you will need later for maximum effort in important competition.

Thus I often confound my friends since I never wear a sign on my back warning people of my psychological moods. At many races I am relaxed before the start. I may stand talking at the starting line about trivial matters until the gun goes off. At an important race, however, I have the glazed look of an addict. I fail to recognize people. Close friends who happen to stand near me on the line are lucky to get even a word of recognition or a limp handshake before the gun goes off. I will be concentrating on my race, plotting each move, thinking about tactics, and I will not wish to talk to them and divert my concentration.

I think of tactics not just minutes before certain races, but days and even weeks. As I write this article I already have begun to consider at which point I will make my move in a race I won't be running for six more weeks. It is not the major race of the year, but it is an important one. I won't devote all of my attention to this one race during the next six weeks, but I will think about it from time to time, and when I go to the line I will be ready.

In the March issue article on "pointing", I described how I had built both my conditioning and my confidence by running a series of timed runs over a half-marathon course. As the summer progressed, while I occasionally ran over portions of that course, I purposely avoided doing so while wearing a watch. The hot weather would have made duplication of my earlier times difficult. For psychological reasons I wanted to avoid comparisons. In addition, during the spring I had been preparing myself for a marathon. In Europe I would be running shorter distances on the track. There was one time I had run during the spring, however, that I thought might be worth trying to duplicate.

On June 3 in a 5000-meter race, I had run 15:27.8, passing three miles in 14:58.0. The metric time had bettered one of Peter Mundle's American veterans records, but it had been achieved on an abominably hot day with the temperature in the 90s. I could have run faster on a better day, but that could be overlooked. I decided to establish that three-mile time as a goal, an index time, one that could help me deter-

mine my condition. Remember: I was playing games with my mind, trying to convince myself that my body was in shape despite a month of lost training. It was all part of a "psych" job to prepare me to race and win in Europe.

Thus I decided the week of July 23 to run a three-mile time trial. In my early career this was the last thing that I would have done in practice, since I believe your best performances should be saved for meets, when they count. (Higdon's ninth law, right?) I always have looked with pity on some runners I know who have recorded personal bests in workouts, yet never have been able to put it together in a race. I always have been the other way. I never could motivate myself to run fast in practice. But here is the log of the week in which I ran not one but *three* three-mile time trials:

July 23—tennis. July 24—mile warmup; several 220s around 30; 3 miles in 15:26.8; some hurdling. July 25 AM—10 miles cross-country, slow; PM—hurdling. July 26—3 miles in 15:03. July 27—7 miles road, easy. July 28—2 miles easy jogging. July 29—3 miles in 15:02.

I told myself that based on that week's work I should be able to run that same pace in a race for double the distance—or run faster for the same distance. Results in Europe a month later would prove me correct.

On Sunday I played badminton in a friend's back yard and didn't exert myself as much as I had the previous week playing tennis. No stiffness. Monday evening I decided to use a five-mile road race as a test of my ability to survive after too fast an early pace. I knew that in Europe I might encounter some runners who wanted to run quick off the marks. Could I go with them and still be around at the finish? Would I be exposing myself to defeat at the hands of a runner who had run at a more steady pace? I didn't want to wait until the gun lap overseas to discover the answers.

In the five-mile, I ignored what should have been the proper pecking order and rolled off the line at a sprint, leading past the mile in a foolish 4:41, then holding on for 14:50 at three miles over a rolling road course. My final time of 25:42 was unimportant, since I'm not certain the course would have passed scrutiny by the RRC certification committee. More important was the comment I wrote in my journal: "Felt strong!!"

Three days later I ran 9:53.8, an American veterans record, for the 3000-meter steeplechase.

The steeplechase race was my first race of that nature in maybe a half-dozen years. I had a leg injury in 1966 that inhibited my running for nearly a year and I don't recall having run many, or any, 'chases since then. I hadn't trained seriously for the race since 1960, when I placed fifth in the Olympic Trials. But once you have developed technique in an event you don't easily forget it. You don't have to relearn the technique; you merely have to regain your timing. In my comeback effort, I found the first few laps difficult, but mainly because I was running behind two other athletes who were good runners but bad steeplechasers. I'd approach the water jump 10 yards behind them and pass them mid-air. They could have used a life guard. Eventually I moved around them to stay and the old rhythm began to return. The last three laps felt smooth. I knew I could go 10-20 seconds faster the next time I tried the event.

I had done some work over low hurdles the previous month, although not much because I hadn't decided yet whether or not to run the steeplechase in Europe. My indecision was caused by the apparent lack of quality in the event. No runners were yet running under 10 minutes. I didn't want to pay a lot of money to go to Europe and finish a half lap ahead. It appeared as though competition in the 5000 would be more exciting. I also hoped to have an opportunity to run 10,000 meters, which would have given me a chance at each of the Olympic long distances on the track.

I still hadn't made up my mind until Aug. 9 when I was jogging along a favorite cross-country route and encountered a tree blocking my way. Whether

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felled by man or by nature, the tree was at almost the exact height as a steeplechase water barrier. I figured that somebody up there was trying to tell me something, so I began to take my steeplechase practice more seriously. During the next week I ran over that same course every day, sometimes twice a day. I ran a loop that enabled me to leap the tree twice per 1.5-mile lap.

I also traveled several times to the high school track and setting out four low hurdles (that's all they had out), ran interval quarters (usually 10 x 440) over the hurdles using an easy 220 jog between. In the course of several workouts I brought my times down from 80 to 71, although when I ran at 71 speed (a pace I would need to hit in my race) I only did 4 x 440. Ideally I should have been practicing over 36- instead of 30-inch hurdles, but you make do with what is available. That tree didn't meet IAAF standards either.

If you are interested in the steeplechase as your main event, you probably should devote one workout a week to hurdle running only. On the other days it's a good idea to include hurdling as part of your warmup. I usually would

A year before the Games, Vince Matthews (r) was barely running. He came from retirement to win the 400. (Horst Muller)

place two hurdles on the grass and spend five minutes running over them at moderate pace. I always used two hurdles because if you use only one there is a tendency to stop hurdling on top of the first one. A second hurdle, however, forces you to follow through and continue down the track. I also would do stretching exercises to make my groin more supple. Which brings us to Higdon's 11th law.

● *Maintain a supple groin. Also avoid jumping over the water barrier except during races. It's too easy to get injured and you can practice the technique just as easily by using a standard barrier set on the grass. Once you master the basic steeplechasing technique, devote most of your attention to learning how to run fast between hurdles.*

We flew to Europe and I lost a night's sleep. While awaiting our hotel room assignments on Monday morning, several of us went for a cross-country workout in a nearby public park. Several of the runners seemed interested in pushing the pace, testing each other, but I cut corners, jogged, walked, chatted, observed the flowers. There is a temptation, particularly when you are a member of an international or all-star team, to try to impress your teammates/opponents in practice.

I learned the hard way that you can easily lose the mental edge you

have spent months nourishing. In 1956 I came to California to run in the inter-service meet and worked out one day with Ken Reiser, also in the Army then and a former NCAA steeplechase champion. I wanted to do 10 x 440 in around 65 seconds. Reiser pushed the first four under 60 and naturally I had to go along to show I was his equal. Then he left. I continued on, finishing 10, doing the last few over 70 on the hot day, but also straining something in my chest. That weekend he beat me in the race.

In 1964 at Tokyo Arthur Lydiard lured Tom O'Hara into a half-mile time trial with Peter Snell. Snell won, of course, because he was a superior short distance runner and for all practical purposes ended O'Hara's career. O'Hara ran poorly in the 1500, a race he might have won. He retired, but had he continued he might have been a world champion at 5000, if not 1500 meters.

But back to the story of our tour. I didn't run on Tuesday. I spent a lot of time sleeping. Wednesday our English hosts had scheduled a five-mile cross-country race. I didn't compete, but did jog behind the runners just to see the course, a challenging one starting along the trails of Epping Forest, up and down hills, along country roads, through back yards, over fences, a true joy.

On Thursday the Veterans International track and field meeting began



at Crystal Palace Sports Centre. After having encountered poor running weather all season, I finally had found perfect conditions: a windless pleasant evening, a Tartan track, and a reason to run fast...

But first, a word about tactics in racing. There is a difference between strategy and tactics. Strategy is the science of planning and directing large scale military operations, particularly maneuvering forces into position. This might be compared to the planning that goes into training, the months of "pointing" described in article one of this series. Tactics is the science of maneuvering forces in action, in battle. In other words, what a runner does in a race.

Tactics are important only if you want to win. Those who run back in the pack, particularly in long road races, wisely eschew tactics, disregard the competition, and run their own race. But when runners of near ability are matched near the front of the pack, victory frequently will go not merely to the swiftest but to the one able to run the best tactical race and outmaneuver his opposition. There are various tactics that a runner can employ:

1. Lead from the start in an attempt to kill off, or discourage, the opposition.
2. Follow your opponent, no matter how slow or fast the pace, and attempt to outkick him on the last lap.
3. Run a steady pace, regardless of the tactics of the opposition, and hope that by achieving a maximum performance it will be fast enough to allow you victory.
4. Control the flow of the race by both leading and following.

Emil Zatopek was a master of the first tactic, as was Ron Clarke. Dave Bedford attempted that tactic in the 10,000 meters at Munich, and failed.

Peter Snell employed tactic two to perfection in most of his 1500 and mile races through 1964. Too many milers, however, use this tactic as a crutch.

In some of Ron Clarke's losses in major races he attempted tactic two when perhaps he should have been using tactic one.

The third tactic works frequently in marathon races and against runners who overreach themselves by attempting tactic one. Ron Daws won the National AAU marathon at Holyoke, Mass., in 1967, and qualified for the Pan American team, when most of the fast runners faded on a hot day.

Vladimir Kuts used tactic four in his 10,000-meter victory over Gordon

Pirie in the 1956 Olympics. Jim Ryun, during his vintage years, also was a good number four tactician.

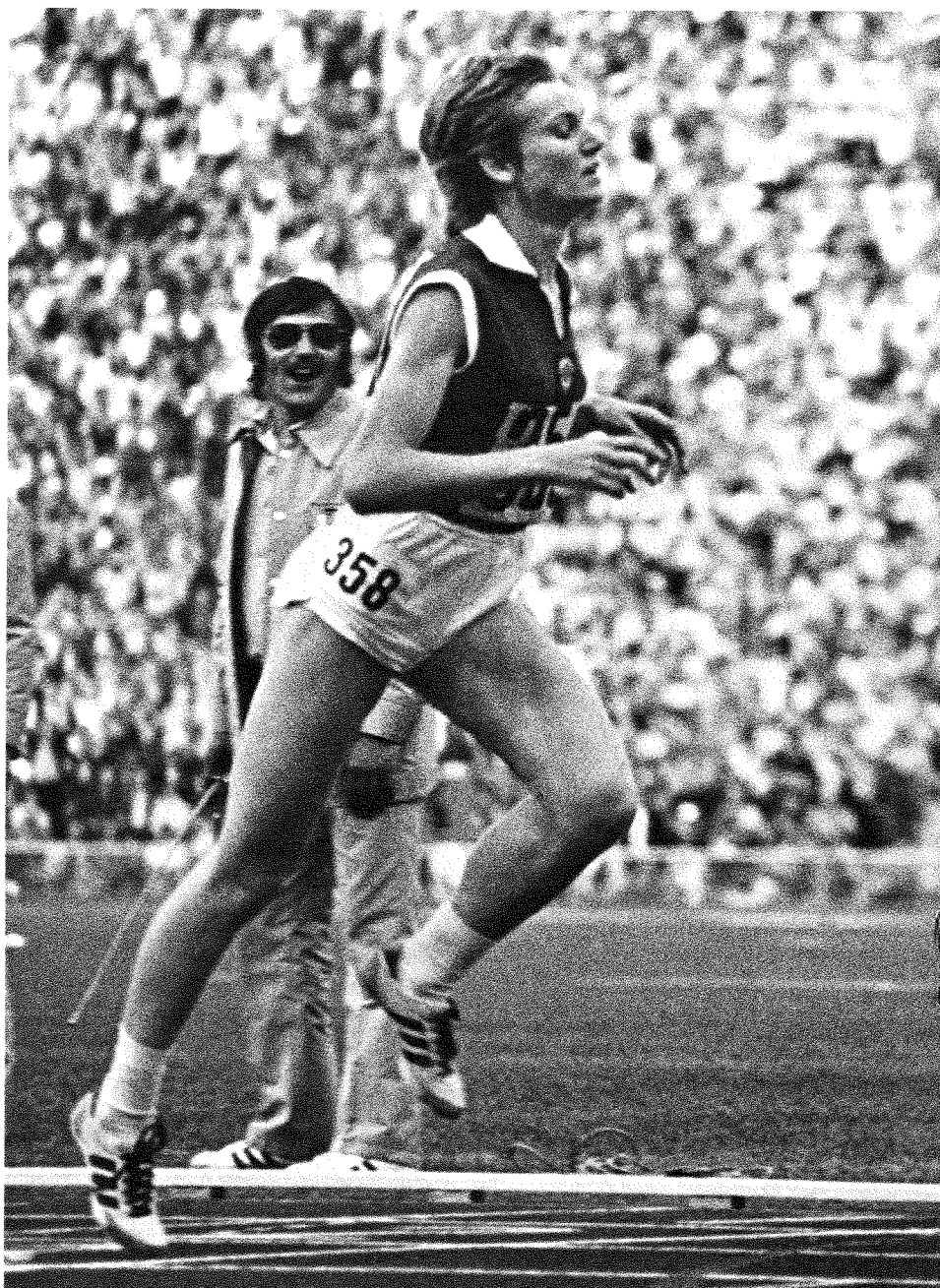
But the ideal position is to be capable of employing any one of those four tactics depending on the strategic situation. Herb Elliott comes to mind.

In my four races in Europe I was to attempt three of those tactics and have the other one employed against me, with mixed results.

In my first race I decided to employ the first tactic, lead from the start, for an important reason. While in races such as the mile it sometimes is tactically advantageous to be a sitter, this is not as true in the steeplechase. If you run in front you have only to worry about

your own ability to take the hurdles and jumps, whereas running behind you have to worry about the abilities of others. If the leader cuts stride you must do the same, or run wide. Getting caught in the middle of a pack in a steeplechase race also creates problems because of crowding over the hurdles. Similar problems occur on rough cross-country courses and runners behind first or second place in board track indoor meets sometimes find themselves experiencing a

A little training edge makes all the difference in a situation like this, where Hildegard Falck (right) edges Niele Sabaite in the Olympic 800. (Tony Duffy)



“whiplash” effect through the turns. The back runners have to slow going in to the turn and find the front runners moving away from them down the straightaway while they are still caught on the banking. There are times to lead.

I sprinted into the lead at the gun and pushed hard to leave my opposition. Only one runner remained with me by the end of the first quarter. Australian Ron Young (perhaps another tactic one devotee) seemed to want to get by on the second lap, but couldn't quite make it. But this caused me great concern since I knew my pace was swift and the fact that someone else could follow it worried me. I had not come these thousands of miles to get second place.

But after the mile reached in 4:57

(pace for maybe a 9:20), Young began to drop away. With two laps to go, I began to relax and take the barriers cautiously, not wanting to lose a certain victory by tripping on a hurdle. My time of 9:36.2 was a world record only in the sense that no veteran has yet run faster. As my prize the meet sponsors awarded me a pewter drinking mug. I rushed quickly to the pub next to the track to make certain it didn't leak.

On Friday, the second evening of the meet, I opted for tactic three (run in a steady pace) in my 5000-meter race for several reasons. The first was the presence of an Englishman named O'Hara, who reportedly had been running under 14:30—a full minute faster

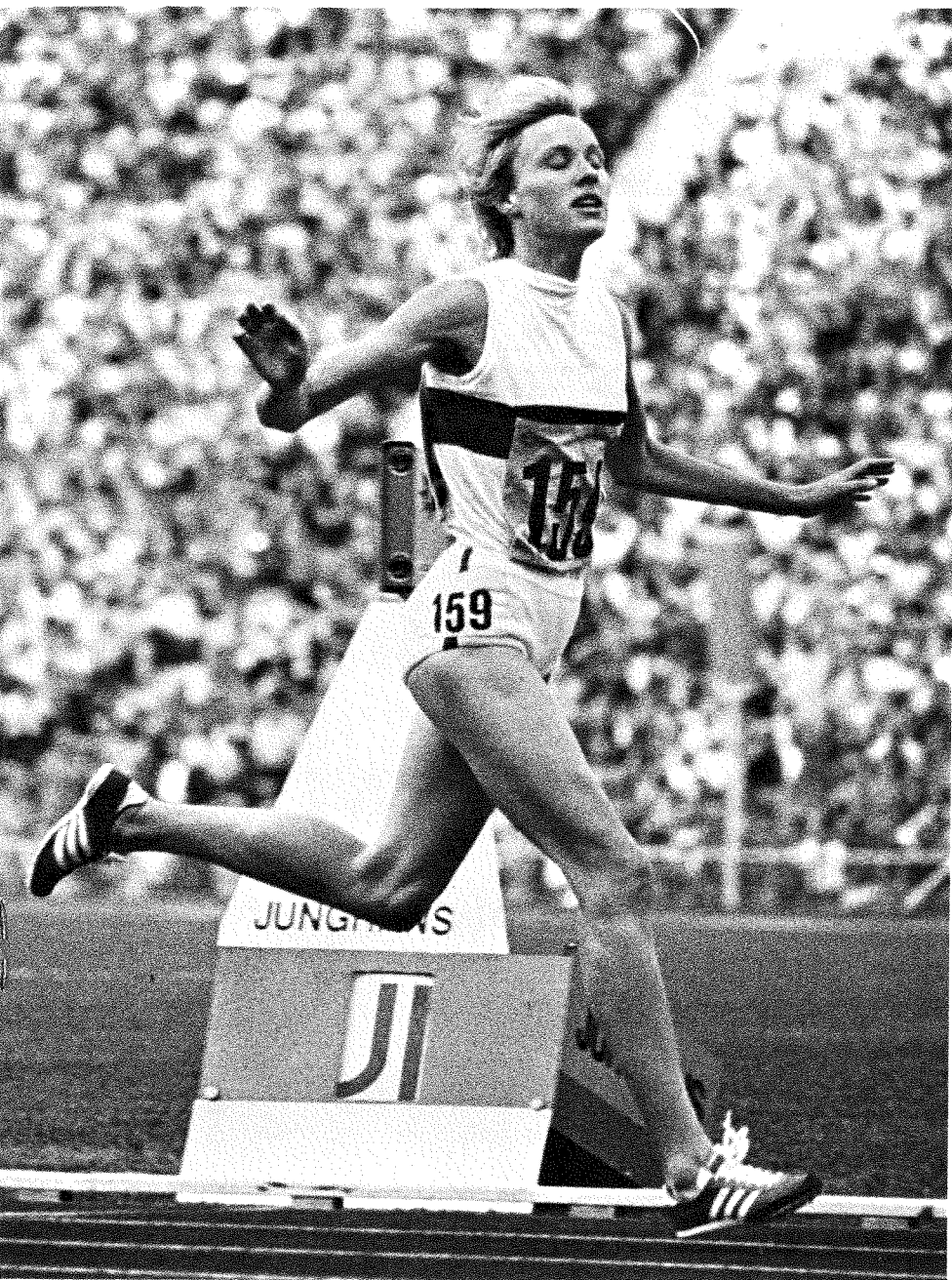
than my best time of the year. I hoped to break 15 minutes, but figured I could best do it by not rushing out. The second reason was that I was fatigued, and a bit stiff, from my steeplechase. In such circumstances it is difficult to get off your marks quickly.

O'Hara ran a first lap around 65 and a first mile (actually 1600 meters) in 4:29. I went through in 71 and 4:44 and there were still a dozen runners ahead of me. The runners who had gone with O'Hara then began to fall back one by one. I moved into fourth place by 4800 meters and was given a time of 14:29. I realized that a bit of a kick would bring me home under 15 minutes. I kicked, fell a few seconds short of catching the third-place runner, but managed an American record of 14:59.6.

The kick I mounted raised a tantalizing question: How was I able to run a 30-flat final 200 meters after having run nowhere near that in practice? I had run some 220s near that pace the day I ran my first three-mile time trial in July. I had done 10 x 220 in August, running between 33 and 35. Other than that I had done no speed work. The same thing had occurred the previous year. In 1971 while preparing for the US Masters meet I had run a number of track workouts centered around 3 x 440, as fast as possible, with a full 440 walk between. I had been unable to run faster than 64, yet my last lap at the end of the 10,000 had been 63.8. In the fall of 1971 I had worked my way down to running in the 56s during a 3 x 440 workout, but had abandoned speed work after a slight muscle tear that winter playing basketball. Yet I found the speed when I needed it.

Two nights later in Helsinki I had the opportunity to run 10,000 meters and this time I employed tactic four: control the flow of the race by both leading and following. Unlike my first two races I did not anticipate my tactics in advance. They evolved during the race. I hoped for a fast pace and even asked that I be timed at six miles in anticipation of a record. (I would have set an American three-mile mark in addition to 5000 meters had I similarly anticipated my fast time in London.) Before the race Bill Gookin asked me what pace I planned. “Between 4:50 and 5:00 at the mile,” I told him. That meant if anyone started faster than 4:50 I would let him go, and if the pace went much slower than 5:00 I would take command.

The 10,000-meter field contained maybe 60 runners, a majority of them



members of our tour, but it soon turned into a five-man race: Bill Allen of Canada, Gookin, myself and two Finns. Allen lead since nobody else wanted it. I lay fifth because unless you're on the shoulder of the leader you're better laying slightly back off the pack where you won't get caught as the pack surges and shifts. Particularly was this true in this race since with many slower runners in the field we were lapping people and thus dodging in and out of the second lane almost from the start. On one occasion Gookin got bounced into the infield.

Nobody wanted to give Allen any help, so partially out of a feeling of guilt and to keep the pace honest I took over just before the halfway point. No lap times were being given, but I could see our time on the electric scoreboard and we passed 5000 meters around 15:40. My move to the front had been partly to test the field, to see if a slightly faster pace might drop off one of the other runners. Nobody dropped and Allen, apparently not wanting any help, came around me again.

Although my first move had failed to discourage anybody, I began to notice one of the Finns weakening in the fifth mile. I took the lead again and a quick lap lost him and Gookin as well. Then Allen took over once more, followed by the remaining Finn, who had run in second almost the entire way. Knowing the reputation of the Finns as kickers, I had about conceded the victory to him until he sprinted into the lead with two laps to go. His move apparently had been intended to discourage us by beginning his kick so soon, usually a good tactic. But I reasoned otherwise, figuring that if he had to sprint that soon he might lack confidence in his ability over the last few hundred yards. I tucked in behind him and by the gun lap I knew I could win. I began my kick on the back straightaway and moved steadily away.

As soon as I crossed the finish line I looked back at the straightaway high at the far end of the stadium and saw my time frozen in lights against the dark sky: 31:18.4, beating Ray Hatton's American record. I had broken another of his veterans records at six miles with 30:26.2. Later I computed my time for the last 300 meters at around 46 seconds. Who needs speed workouts?

The victory was sweet and afterwards the Finn came and introduced himself as Paavo Pystenen. I realized he was an old rival. In the Boston marathon in 1964 he had placed fourth, roughly 10 seconds up the road from me.

Now that we're even in the series, we'll have to find one more time to race.

I had achieved what I had come for in Europe: three races, two victories, four records. On Tuesday, I visited Suomi Urheilopisto, the Finnish sports center in Vierumaki to the north, where I once had spent two weeks while on an AAU track tour in 1956. Hypnotized by the surroundings, the winding paths along lakes and through the woods, I took four workouts during one 24-hour period. I didn't do it in anticipation of any future competitors; I simply wanted to run.

On Thursday, Bill Fitzgerald employed tactic two to perfection and gunned me down in the last few yards of a 1500-meter run in Stockholm. (It was my first race as a master in which I had

failed either to win or set a record.) Reflecting on that race afterwards I thought that if I only had pushed the pace sooner I might have lost him before the last lap. But I already had passed my peak and a deposed king was sliding happily down the other side of the mountain.

Hal Higdon, a free-lance writer from Michigan City, Ind., has authored a number of books on running and non-running topics. Among them is his widely acclaimed "On the Run from Dogs and People." The collection of funny and thoughtful running anecdotes is available from Runner's World for \$5.95.

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EUROPE AT YOUR FEET

by Hugh Sweeny

As an undergraduate in college, I felt a certain envy for my schoolmates who—although no more prosperous than I—managed to go to Europe in the summer. I stayed in New Jersey and worked, saving money rather than spending it on what I then considered the costly extravagance of seeing the “old world.”

Besides, I rationalized, I'm on the cross-country team, and I have to train all summer so that I'll be ready to race in the fall.

I'm in graduate school now, and last summer I finally fulfilled my ambition to tour Europe and to go to the Olympics at the same time. To my surprise, I saw that I had been badly mistaken before. My expenses, even with a side trip to Munich, were remarkably low. And I had more than enough time

for training. If only I'd known. All those wasted summers in New Jersey!

Now, although I'm not as qualified as the author of *Europe on \$5 a Day*, I can give some advice which might enable the trotting globe-trotter to get a better run for his money.

Flights: If you're under 25, or are a student of any kind under 30, you can get a discount on your airplane ticket (\$180-220 seems to be the price range, round-trip, from New York to Amsterdam, Luxembourg, or Brussels). Even if you don't have your own student ID card, borrow one from a friend. The agencies don't check closely. And if you're a runner, you're probably skinny enough to look 3-5 years younger than you really are. My impression is that the airlines just want to fill seats, and that age and “student” requirements are rather informal.

Money: How much money will you need? My experience was that you can eat pretty well on \$2 per day by going to grocery stores, even in Paris. But restaurants can be pretty cheap, too, if you stay away from the “quaint little places” which tourists from both sides of the ocean are likely to frequent. Fifteen dollars per week could do it for food, if you try.

Travel: It's tough to carry a backpack around, and find the energy and desire to do much running. How can you get into the countryside, and travel cheaply, when and where you want to go? The same way you'd do it in the old USA, my friend. Get a car!

That's right, a car. The luckiest

Scene from a West German marathon, by Gustav Schroder.



thing I did was to buy myself a 1961 Volkswagen. It was in pretty good shape except for a hole in the floor which allowed water to spray all over the inside when I drove in the rain. I bought it for \$150 at the American Express office in Paris, and sold it for \$125 at the American Express office in Amsterdam: a net cost of \$25 for five weeks' service as my hotel, dressing room and storage facility, not to mention doubling as transportation.

All kinds of cars are bought and sold in front of these American Express offices. Americans sell to Americans. One fellow in Paris made a business of it. He had a different car for sale almost every day, so the turnover is brisk. I sold mine in mid-September, supposedly after the tourists had all gone home. It was taken within 45 minutes after I put up the "For Sale" sign.

Think of the advantages, both to your running and your traveling, of having a car. It's like back-packing without the hassle of waiting for rides. *You* give the rides, and your riders pay for the gas. In cities, you sleep in the car, or in any park. Nobody bothers you if you stay out of sight. (I spent several nights in Munich's Englischer Garten. One morning I woke up to find that I had been sleeping 20 feet from the blue line which marked the marathon course Frank Shorter was to run later that day.)

Outside of almost every city is a tourist camping ground. Europeans don't go to motels. They go to the camping site, where for about 80 cents you can park your car, get a shower, cook, do your wash and meet people. And you can still run twice a day through the European countryside, before bed and on arising. Even in Paris you can find a camping site, in the Bois du Boulogne.

Sightseeing: One of the greatest advantages of being able to run distances is that you can tour almost any European city—quickly, cheaply, interestingly and at your own pace... on foot. Just put on your shorts, lace up your shoes, grab a roadmap of the city, and you're off. . .

Through Les Halles at 6 a.m., where the food distributors are already busy.

Then a quick lap around the Place de la Concorde, deserted at 6:15 but crowded with speeding cars, eight abreast, 2½ hours later.

Next, a run up the Avenue des Champs Elysees, without having to dodge the mobs on the sidewalk.

Through the Arc de Triomphe, you turn left and head for the Palace de Chaillot. As you descend the steps, you notice that the huge fountains are not yet operating. It's only 6:30.

Across the Seine, and under the Tour Eiffel.

Then left again, past the Hotel des Invalides, and back along the left bank of the Seine.

The Louvre is across the river now, to your left.

At Pont Neuf, another left turn, on to the Ile de la Cite.

The Palais de Justice is just ahead, and 200 yards farther you're standing in front of Notre Dame. You've only run four miles, and you're not tired, but here you have to pause and admire the building. It's hard to believe you're really here.

After a workout like this, running in Redfield, Iowa, will never be the same!

Running is the best way to get a general impression of the city. In one pleasant hour, you cover what the tourist needs two days to see. . . or never sees at all.

Equipment: If you wear a jock-strap, bring a good supply. If one breaks or is lost, new ones are hard to come by. At least in Munich they were.

I was running a day in Munich and my jocks were damp all the time. So I headed for a drugstore where I tried to describe to the patient Fraulein behind the counter what I needed. Alas, they only sell drugs at these drug stores. She sent me to a sporting good store on Marienplatz.

The man at the store showed me some kind of device made of cotton which had to be buttoned when you put it on. At another sports store, they tried to sell me one with a built-in plastic cup. I even pulled my wet jock out of my back pocket to show the man

what I wanted. But nothing doing. The Europeans wear "jockey-type" trunks when they run, and there were no jock-straps—no place, no how.

The price of track equipment in Europe seemed comparable to prices charged in the US. You might as well bring your own.

Meeting Runners: Just like in the US, go to a track at 4 p.m. and jog around until somebody shows up. Then if you can speak the language you're all set.

In Paris, I ran every day for a week at 6 p.m. with a group at a track just off Avenue d'Italie, near Pt. d'Ivery. I don't speak French, but my limited experience there indicated that my Spanish was of greater use than my English. After two or three days, they told me about a "competition" to be held that weekend. Three days later I was in my first European track meet. It was along the lines of an all-comers meet in the US.

If you're going to England, send for a copy of *Athletic Weekly* (344 High St., Rochester, Kent, England). The magazine has a list of track meets and road races, and tells the value of prizes to be given. But the race directors seem to want entries in advance. So be safe and make the necessary arrangements early.

It doesn't matter where you are—in an English road race, at Munich during the Olympics, or in Avila, Spain, jogging around a wall which has been standing since the 1200s. If you have your flats and a half-hour of time, you can still run regularly, just like at home. But home was never like this!

EUROPEAN SUMMER SCHEDULE

There are hundreds of running and walking events, all types, in Europe during the summer months. This is the peak of the European season. The ones listed here are simply the major international events. As Hugh Sweeney indicated, any runner traveling in Europe should be able to find competition simply by making contact with local

runners. These are the biggest events during June, July and August.

JUNE

- 2 Track, Ludenscheid
- 2 Track, Turin, Italy
- 2 Marathon, Dulmen, W. Ger.
- 2 Marathon, Nove Mesto, Czech.
- 3 Track, Zagreb
- 3 Track, Brussels, Bel.
- 3 Marathon, Valencia, Spain
- 3-5 Track, Moscow, USSR
- 6 Track, Paris, Fr.
- 6-7 Track, Helsinki, Fin.
- 7 Track, Ostrava, Czech.
- 8-9 100-kilometer, Bienne, Switz.
- 9 Marathon, Neerum, Neth.
- 9 Track, Madrid, Spain
- 9 Track, Trier
- 9 Track, Bratislava, Czech.
- 9-10 Track, Rome, Italy
- 10 Marathon, Husum, W. Ger.
- 12 Track, Stockholm, Swe.

- 13 Track, Bergen, Nor.
- 13 Track, Berlin, E. Ger.
- 13-4 Track, Athens, Gr.
- 14 Track, Paris, Fr.
- 14 Track, Tampere, Fin.
- 14 Track, Malmo, Swe.
- 16 Track, Edinburgh, Scot.
- 16-7 USSR-West Germany, Leningrad, USSR
- 17 Marathon, Debno, Pol.
- 17 25-kilometer, Melnik, Czech
- 18-9 Finland-Kenya-Italy, Helsinki, Fin.
- 19-0 Norway-Sweden, Oslo, Nor.
- 20 Track, Prague, Czech.
- 21 Track, Warsaw, Pol.
- 23 Track, Frankfurt, W. Ger.
- 23 Marathon, Domazlice, Czech.
- 23-4 Track, Paris, Fr.
- 23-4 Track, Saarijarvi, Fin.
- 24-5 Track, Aarhus, Den.
- 26-7 Italy-Czechoslovakia
- 27-8 Track, Helsinki, Fin.
- 29 Track, Vasteras, Swe.
- 29-30 Track, Oslo, Nor.
- 30 European Cup qualifying, Copenhagen
- 30-1 European Cup qualifying, Lisbon, Por.
- 30-1 European Cup qualifying, Athens, Gr.
- 30-1 European Cup qualifying, Brussels, Bel.

JULY

- 1 Marathon, Vranov, Czech.
- 1 Marathon, Laufenburg, Switz.
- 1 European Cup qualifying, Rejika
- 1 Track, Siena, Italy
- 2-3 Track, Stockholm, Swe.
- 4 Track, Koblenz, W. Ger.

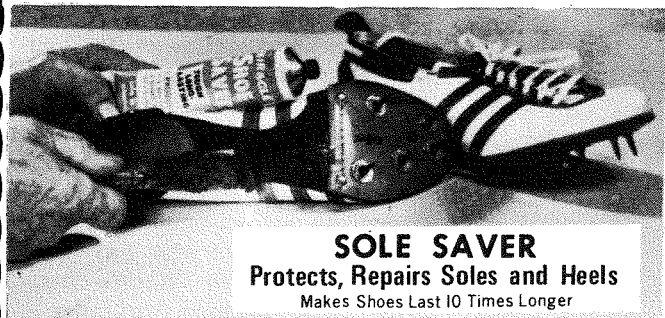
- 5 Track, Oslo, Nor.
- 5 Track, Oulu, Fin.
- 6 Track, Zurich, Switz.
- 7 Marathon, Rotterdam, Neth.
- 7 Marathon, Eschborn, W. Ger.
- 7-8 Bulgaria-East Germany, Sofia, Bul.
- 7-8 France-Poland, Paris, France
- 7-8 Track, Copenhagen, Denmark
- 8 Track, Berlin, W. Ger.
- 10-1 Italian championships
- 10-4 USSR championships, Moscow
- 11-2 US-West Germany-Switzerland, Munich
- 13 Track, Rostock
- 13-4 British championships, London
- 13-4 US-West Germany juniors
- 13-5 Spanish championships, Barcelona
- 14 20-kilometer, Bisheim, Fr.
- 15 Marathon, Dublin, Ire.
- 16-8 US-Italy, Florence, Italy
- 18 Track, Trinec, Czech.
- 18-9 Greece-Britain-Belgium, Athens, Gr.
- 19-2 Hungarian championships, Budapest
- 20 Track, Celje, Yugoslavia
- 20-1 US-Poland juniors, Warsaw, Pol.
- 20-2 East German championships, Dresden
- 20-2 West German championships, West Berlin
- 21 Marathon, Szeged, Hungary
- 21-2 Yugoslavian championships
- 21-2 Romanian championships, Bucharest
- 24-5 US-USSR, Donezk, USSR
- 24-5 Track, Oslo, Nor.
- 26 Track, Stockholm, Swe.
- 26 Track, Turku, Fin.
- 27-8 US-USSR juniors, Kharkov, USSR

- 28 30-kilometer, Banska Bystrica, Czech.
- 28 West Germany-Netherlands-Belgium, Kerkrade
- 28-9 Finland-Sweden-Norway
- 28-9 Danish championships, Aarhus
- 28-9 Poland-Bulgaria, Warsaw, Pol.
- 29 Track, Siena, Italy
- 31 Track, Berlin, E. Ger.

AUGUST

- 3-5 Track, Leningrad, USSR
- 4 Marathon, Upice, Czech.
- 4 European Cup semis, Warsaw
- 4-5 European Cup semis, Oslo, Nor.
- 4-5 European Cup semis, Ljubljana, Yug.
- 4-5 European Cup semis, Nice, Fr.
- 5 European Cup semis, Sittard, Neth.
- 5 European Cup semis, Bucharest, Rom.
- 8 Track, Viareggio, Italy
- 8-9 Switzerland-Romania, Zurich, Switz.
- 10-2 Norwegian championships, Trondheim
- 10-2 Polish championships, Warsaw
- 10-2 Finnish championships, Hyvinkaa
- 16-1 World Student Games, Moscow, USSR
- 17-9 Swedish championships, Vasteras
- 18 25-kilometer, Martin, Czech.
- 18 Track, Edinburgh, Scot.
- 18 International Veterans, Cologne, W. Ger.
- 18-9 Belgian championships, Brussels
- 22-3 Track, Oslo, Nor.
- 24-6 European Junior, Duisburg
- 24-6 Balkan Games, Athens, Gr.
- 25 11-kilometer, La Heutte, Switz.
- 25-6 Czechoslovakia-France, Prague, Czech.
- 25-7 Britain-Hungary, London, Eng.

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Europe is the new target for Kathy Switzer, the woman who "integrated" the big marathon.

FIRST BOSTON, AND NOW THIS

by Jeff Travis

When I saw Kathrine Switzer for the first time, she was limbering up before the 1972 Boston marathon. I couldn't take my eyes off those long, lovely legs. I remember wondering why she wasn't dancing with Balanchine's troupe in New York instead of running a marathon.

Kathy was the first woman, way back in '67, to run officially at Boston. The story of how the officials tried to rip her numbers off and throw her out of the race is ancient history. (Her boyfriend came to her aid and threw the official on his derriere.) Since then, she has been running marathons with a dual passion: to succeed as an athlete and to pioneer the cause of women in distance running.

She is successful at both—amazingly so, in fact. Her personal best of 3:15 puts her among the top women marathoners. And her constant onslaught on formerly for men-only distance races brought its reward last year when the Boston marathon made women official and when the Amateur Athletic Union decided to let women and men race simultaneously.

But the story of Kathy, like Kathy herself, runs on and on. Each step gets a bit more fantastic. Last fall, for instance, she caused ("absolutely unintentionally," she claims) a terrible row in Switzerland's famous Morat to Fribourg 16-kilometer (10-mile) race.

Women are not permitted to run the distance with the 3000 or so men, and Kathy insisted on doing so. Because race directors would not give her a number, she wore her own. ("I'm used to this so I carry a spare," she says). But at the finish line, all hell broke loose. As Kathy ran past the electronic scoring device, the number she wore (which another runner presumably wore also) was registered twice. The entire scoring system was faulted.

Three thousand runners without finish order is no joke for a race director, but Swiss journalists had a field day. "If they had let the lady be official in the first place, there would have been

no problems," read editorials from the *Tribunes* of Lausanne and Geneva.

Kathy herself admits, "I honestly did not do that purposefully. But sometimes, if you wind up going through the back door, you get things accomplished a lot quicker. I'm glad now it happened, because next year women will have to be official or Morat-Fribourg will have the same problems. *Viola!* Saves a lot of legislative bickering, doesn't it?"

After Morat-Fribourg, Kathy began getting many European race invitations. "I think many of the invitations were, at first, in the form of getting publicity for a given race or to satisfy a lot of curious minds," Kathy commented. "I didn't care. I was trying to introduce the concept of distance running for women here in Europe, and I was trying to get in some competitive efforts myself. I feel I've more than succeeded because I've proved that women can be formidable runners and have since received other outstanding international invitations."

And formidable she is. When she

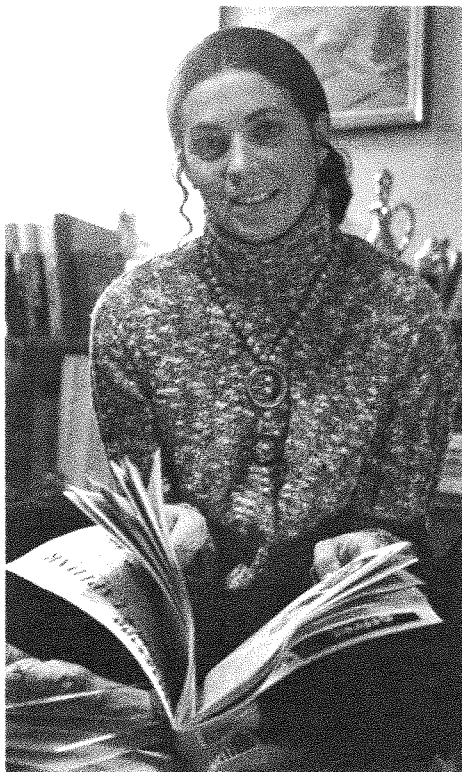
Jeff Travis is an American freelance writer now living in Paris.

agreed to run another Swiss 10-mile race, from Sierra to Montana, she didn't know it was up the side of a mountain. "These fellows told me, 'Oh, no problem with the course. It is a bit hilly.' I figured after a marathon I could handle 10 hilly miles any day. . . but after five kilometers of this race, I knew the joke was to be on me. It was straight up! (Officially, 950 meters of elevation gain.) The whole day, I had visions of these chaps, all wearing mountain boots with spikes, drinking wine at the finish line and awaiting reports of a fainted lady runner. With every step I got more furious and determined, and in the end I wound up beating about a third of the field."

And, to be sure, nobody laughed. On the contrary—when Kathy crossed the finish line, beaming, they were cheering wildly and pressing her with flowers. She had proved her point as a woman, as a runner and as Kathy. And she was on her way to become the Swiss-Myth, a sort of Swiss-American national heroine. Newspaper and magazine articles flourished, radio stations interviewed.

"I've had so many invitations to cheese fondues, I'm turning yellow," she laughed. "But seriously, this is all really opening the way for European women into distance running. If we accomplish in Europe what we've done in the USA, we'll have women's distance races in the Olympics in short order. I'm personally not willing to wait 20 years for an Olympic women's marathon, and feel the sooner we make this point, the better our chances are for '76, or at the latest, 1980."

A women's marathon in the Olympics? It sounds so incredulous. But three weeks after Sierra-Montana, Kathy ran a marathon a Neuf-Brisach, France, with two of Europe's female distance greats—Ingrid Shoving of France and Elfrieda Rapp of West Germany. Of the women, Shoving was first with 3:16, Kathy was second with 3:19 and Rapp was third in 3:25. All three of them beat over a third of the men, and finished in better condition than many of them.



KATHY SWITZER

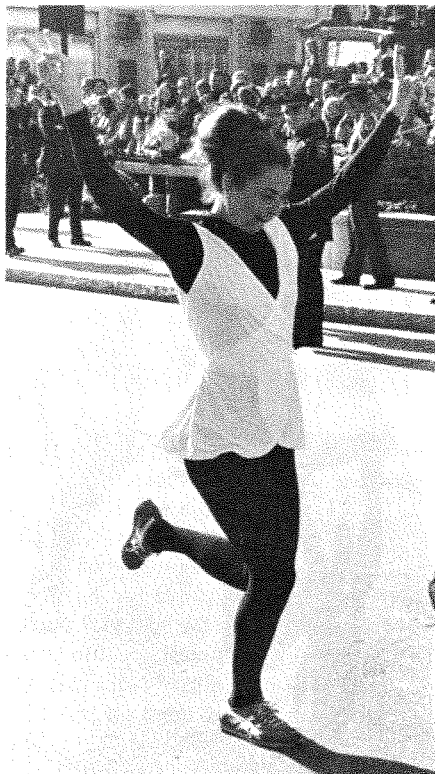
"You see," Kathy exclaimed," the interest *does* exist among women if they are introduced to it. And they can handle the stress as well—and some doctors are now saying *better than*—the men if they are conditioned. It is simply a matter of changing old, unfounded suppositions."

And not being one to talk without implementation, Kathy has set out an incredible voyaging-running pilgrimage. Where she goes, she promotes and she runs. In five months in Europe, her running shoes have left their tread marks around the castle walls of Dubrovnik, in the streets of Istanbul, around the Oslo harbor, in the sands of Portugese beaches and even around the ancient Olympic stadium of Greece.

When I saw her last, she was in my town, Paris, scooting along the bank (left, naturally) of the Seine. Although I knew she was in France, I couldn't believe my luck at finding her like this. I raced after her. I didn't even care how stupid I looked running with briefcase and overcoat. When I finally caught her, she spoke before I could catch my breath.

In French, she said, "Marvelous place, Paris! And running through the city is one of the best ways to see it."

Kathy Switzer during the 1972 Boston marathon.
(Jeff Johnson photo)



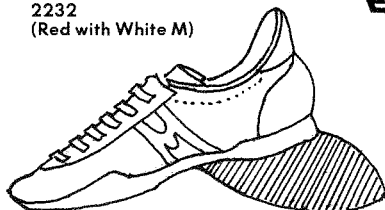
It was as if we'd been on a workout together for the last half-hour. I explained that I had tried to locate her after Neuf-Brisach but was unable to.

She jogged in place awhile looking at the antique books, and said, "I left right after that race and went to Bulgaria, where I didn't get a thing accomplished for distance running, incidentally."

And then, excitedly, she added, "But you know, here in Paris, I've already got a strong nucleus of women *and* men, who are impassioned with the idea of distance. I see it only as a matter of time, and not much at that, until. . ." and in two minutes, she was doing all the talking and I was just trying to keep up.

Early this year, I called Kathy for more information and learned she was flying to Puerto Rico, where she was invited to run the San Blas half-marathon at the end of January. She then planned to return to Europe and train atop a volcano in the Canaries for sun and altitude. And in April, she'd been invited to run 15 miles in Prague. . .

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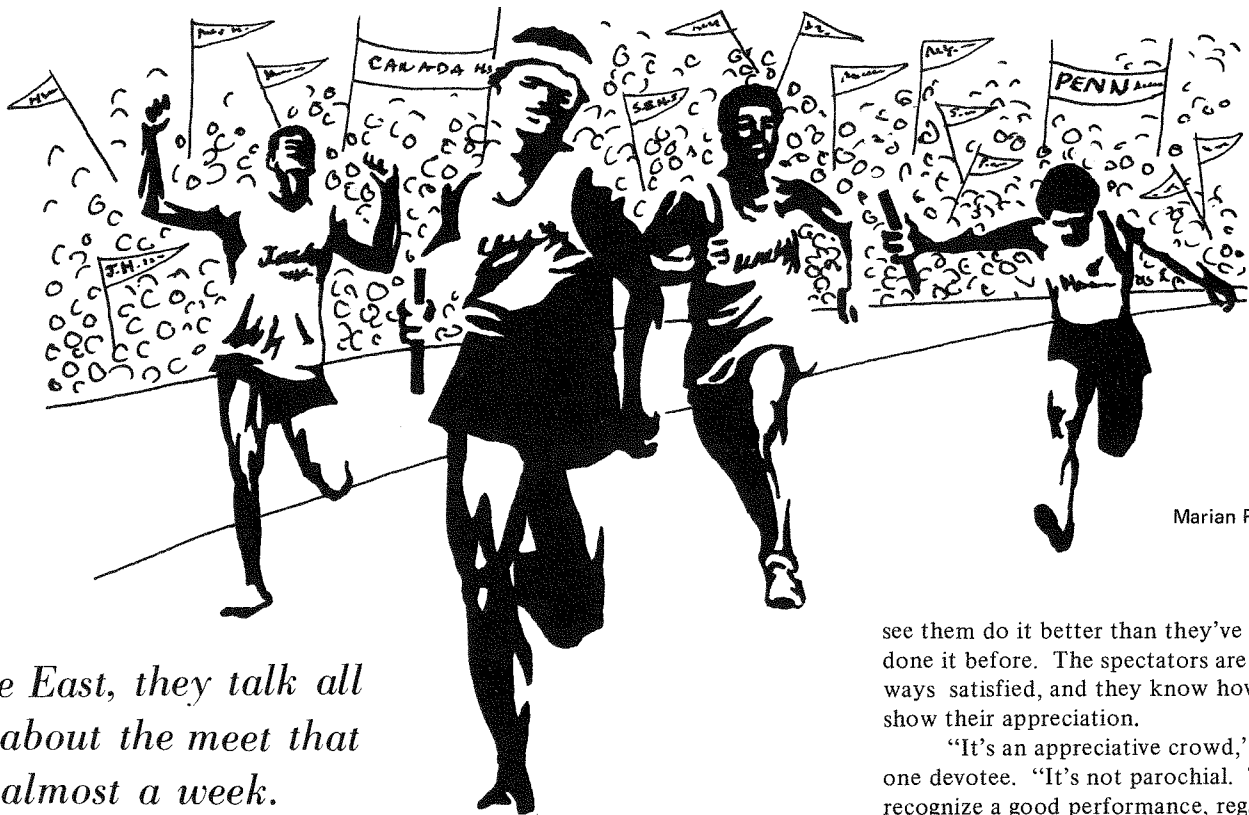
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by Marc Bloom

PENN: THE MEET OF MEETS



Marian Pickman

In the East, they talk all year about the meet that lasts almost a week.

There's a year-around game played by scholastic track followers in the New York City area. It has probably surpassed Monopoly and Scrabble in popularity. Anyone can play, and everyone usually wins. All you need is paper and pencil, maybe not even that.

It is called: Handicapping the High School Distance Medley at the Penn Relays. As part of an advertising display, the name would suffer a bit. It's not exactly Madison Avenue. But, then, it doesn't need publicity. It promotes itself merely by its existence.

The game actually begins in Philadelphia's Franklin Field during the Penn Relays. Immediately after the results of the distance medley have been savored, coaches, athletes and assorted track nuts begin to analyze next year's race.

"Hey, Jones Catholic's got Mulligan and Smith back next year. They'll be tough."

"Yeah, those guys are 1:56 half-milers. Who's gonna run the mile?"

"Proably Smith—Mulligan's got more speed."

"And don't forget Williams, the soph 440 man."

"Right, but if they only had a fourth man..."

The discussions continue for the remainder of the season, then enter their advanced stages during the next cross-country and indoor campaigns as items germane to the race unfold. This kind of talk is not restricted to the New York vicinity, although that is where it flourishes. North to New England and south to the nation's capital, the event is pondered by fans and pointed to by athletes and coaches.

The concern for the distance medley relay represents a general enthusiasm unmatched by any other meet in the East. All involved with the meet share the excitement, but there is a special exuberance in the schoolboy community that has elevated "The Penns" to such psychic heights.

But what really makes the Penn Relays such a unique track meet?

There's that crowd, packed close to 40,000 on Saturday. It seems that the same people attend each year. They know who's competing and what they've done. And they've come, in part, to

Marc Bloom of Brooklyn is one of the East's foremost authorities on high school track and field.

see them do it better than they've ever done it before. The spectators are always satisfied, and they know how to show their appreciation.

"It's an appreciative crowd," said one devotee. "It's not parochial. They recognize a good performance, regardless of who makes it."

As runners tour the swift Tartan oval (which replaced the cinder track in 1968), the applause follows them, reaching its crescendo at the finish. And that kind of a reception is not reserved only for the loaded sections.

The schoolboys, who outnumber the spectators at most meets, view the crowd with some ambivalence. They love the attention and encouragement, but, man, they're scared.

"I wanted to crawl right into the ground," related a former runner, "when my coach told me I'd run leadoff. It was like a death sentence."

For many Philadelphians, the meet also has social and political overtones. Elaborate dress and hairstyle are conspicuously displayed. Books and flags are peddled. And the grandstands rock with sprinters' soul as bongo drums beat in rhythmic cadence.

But, whether it is Boys High, Roselle Catholic, Hargrave Military or Akiba Hebrew, the respect for success is indicated equally by knowing fans.

At the Penn Relays the competition is more diverse than at any other track meet in the world. Men and women, boys and girls, pre-teens and masters, from the elementary school

shuttle hurdles to the championship mile relay, there are some 140 events. Included are relays of all shapes and sizes, 22 field events for the various levels, individual events that run the gambut of sprints, hurdles, and distances and, for the first time this year, the marathon. And don't forget the over-55 100-yard dash and open three-quarter-mile run. Sixth graders rub elbows with Olympians.

Until recently the meet consumed 15 hours of unrelenting competition over two days. Reporters would joke that the only time they'd get to relieve themselves was during the Ches-Mont High School one-mile relay "championship," event 71 last year at 1:10 on Saturday.

But those 15 hours were not enough. Last year, activity began on Wednesday with the addition of the decathlon, completed the following day along with three other new events, the three-mile and six-mile runs and two-mile walk. The marathon will be staged on Tuesday, April 24, making the Penn Relays a five-day meet and creating the East's greatest "track week." On April 21 there's the Queens-Iona Relays in New York.

"When I ran," recalls a runner-turned-track nut, "my whole year revolved around making the Penn team."

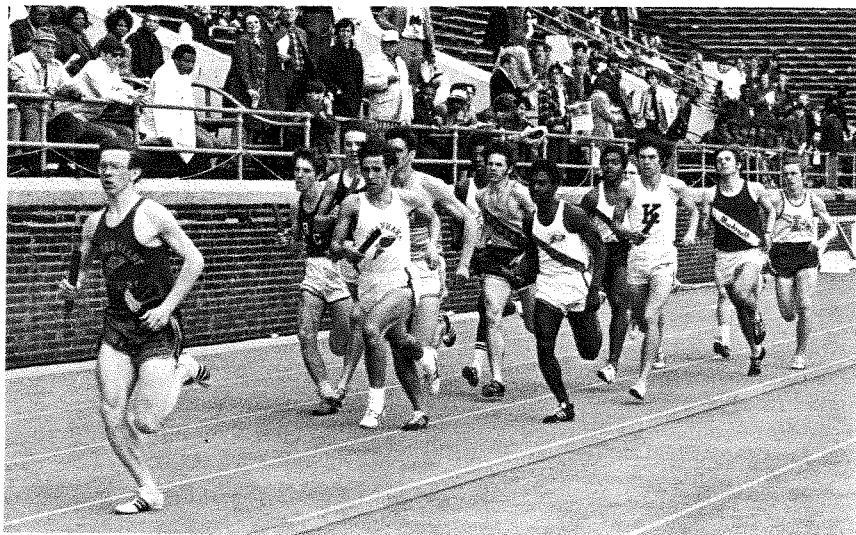
To the schoolboy fortunate enough to make his squad's relay team(s), Penn's panorama of track and field also represents his only chance for an overnight trip. Philadelphia is not the Grand Canyon, but overnight with the guys—from his team and others—is prestigious and enjoyable for any teenage athlete.

He will be joined by athletes from close to 500 high schools from 12 states—from Maine to Virginia—plus the District of Columbia, the Bahamas, the Virgin Islands and the British West Indies.

But what's quantity without quality?

Despite late April being "early-season" for many easterners—although some peak for both Penn and the June championships—outstanding marks are recorded in great numbers. Innumerable thrills can be recalled by veteran spectators, among them national records in the 440 (42.0, Boys of Brooklyn, 1948) and distance medley relays (10:05.6, Essex Catholic of Newark, 1967). The latter mark, the product of a 4:04.1 anchor mile by Marty Liquori, still stands.

Last year Boys captured the 440 (41.8) and mile (4:15.2) and St. Joseph's of Buffalo took the two-mile (7:46) and



distance medley (10:06.4), giving New York a rare state sweep. There were superb marks in the high hurdles (13.7), mile (4:08.7) and two-mile (9:00.6).

The single performance that brought down the house was made by Ronnie Ray, the would-be national 440 record holder. Ray unveiled his "20.7—and then kick!" style with a 45.8 leg. Woefully, his team did not make the final.

The awed schoolboy knows that a spot in a championship relay will bring him the same attention and respect accorded his collegiate counterparts from the Villanovas, UTEPs and North Carolina Centrals.

"For the first time," says one coach, "he's in a meet that is geared to him."

Even if his team doesn't make the championship final—and how many schools can, for example, run a 3:20 mile relay?—a victory in any heat or unseeded section will gain the ultimate prize, a Penn Relays watch.

All of these factors could be severely tarnished if not for the uncanny precision with which the meet is conducted. When the program—in itself

High school relay action at the Penn Relays, where the distance medley is the center of attention. (Paul Sutton)

a masterpiece—says 5:45 for the final event, be alert at 5:44 with your index finger ready to start your watch. They're on time. After 7000 competitors and 140 events, they're on time. This efficient organization, the result of careful and arduous planning, has given the athlete confidence in the meet officials, a rare relationship in track.

Splits are taken for all teams in all relays, and one or two slips in over 100 races in not a bad score. Besides, there are a dozen guys in the press box backing up the timers during the major events.

As the 79th annual meet approaches, the mental paperwork is reaching its climax on the scholastic distance medley, slated for Friday, April 27. The "big money" in New York is wary of a Maryland contingent that excelled in the Eastern States cross-country meet back in November—led by Van Cortlandt course recordbreaker, Dave Sandridge. Followers also mention Wantagh (L.I.), Molloy (Queens), Power Memorial (N.Y. City), Essex Catholic (Newark) and Paramus (N.J.) Catholic as leading contenders.

A classic anchor mile duel is anticipated, one that might finally test Power's Matt Centrowitz, who is expected to be some 50 yards back at the final exchange. Centrowitz, who has had his share of illnesses and injuries, has a habit of running 4:15 miles in poor health.

Healthy or not, coach or athlete, fan or official, the Penn Relays has a way of making you feel better.

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WASHINGTON RUNNER'S GUIDE

The visitor to the nation's capitol need not worry about finding adequate places to train, thanks to the area's colleges, a proliferation of bike paths and the C&O Canal towpath. Most of the terrain used for running courses are located in the northwest section of the city, which is also where most tourists or those here on business are apt to be quartered.

Washington boasts of over 47 miles of bike paths. They vary in composition from compacted gravel, to asphalt, to concrete sidewalks, to solid dirt trails. Depending on the length of the desired run, one of many varied sites can be chosen. Some are even negotiable in the evening.

For the visitor who wants an interval workout, the best bet is probably the Georgetown University track. The track is on the university campus on the edge of the popular and quaint Georgetown section of town. On arriving at the campus, just head for the high ground and there lies the track. I have used it at various hours of the day and have never had any problems gaining entrance.

Not far from the Georgetown track is the historic C&O Canal and its towpath. Easy entry to the towpath is from the base of 34th Street NW, just below M Street. A horse-drawn passenger barge still makes daily runs along the canal in the summer, delighting tourists who anxiously pay to make the trip.

Before a rather devastating flood last year, one could run along the canal for as many miles as they chose—at least a couple of marathons worth—with no obstacles. However, the flood resulted in terrific damage, and the 34th Street starting point one can go only about three miles before encountering some chewed-up terrain.

A nice benefit of the canal is that on the left side (leaving Washington) there are mile marker posts along the way. Of course some are now missing, but when the canal is repaired these will certainly be replaced also.

If you are staying in the downtown area, Rock Creek Park is where you will probably do some of your running. The park has numerous bike trails which are often used by local runners. There are numerous points where you can get on

Jeff Darman (l) and Dave Theall in DC. (E. Horvitz)

the paths in the park. Go to the nearest park entrance and begin exploring the paths from there. Most of the downtown paths are asphalt and are wide enough for a couple of runners. Street crossings are well marked, and usually not too much trouble is encountered crossing them. The leg of the park from P Street Bridge to Memorial Bridge is fairly well lighted in the evening, so training after dark is possible. Entering the park at P Street and going over the Memorial Bridge and back is about a four-mile trip.

If you want a long run during the day, head for the President's Trail which begins at the end of Memorial Bridge on the Virginia side, across from the Lincoln Memorial. The trail on the left leaving the District of Columbia swings out past National Airport to Alexandria. Aside from the section which parallels the airport's runway, this is quite a pleasant place to train. Depending on where you start, you can put together about 14 miles round-trip on this trail and those leading onto it from Rock Creek Park.

Hains Point, a peninsula jutting into the Potomac River, is another pleasant place to train. In fact, numerous races are also held here. The point is one section of what is known as East Potomac Park. The course around the park is a three-mile loop, or more, depending whether you use the sidewalk or the road.

For those hardy souls who like to get in some hill work, a trek over to Massachusetts Avenue, along what is called "Embassy Row," is in order. Here you can climb some very steep hills, while being awed along the way by the presence of the ornate buildings which house the various embassies. By following Massachusetts Avenue to Westmoreland Circle, you will have traveled about 3½ miles over some very impressive grades.



In fact, the first hill you climb is one mile long. On the return, the course can be varied with a quick right turn at the midway mark which will bring you on to the campus of American University. About a quarter-mile down the road you will spot some tennis courts and just off to their left is a cinder track. This is not one of the great tracks you will find, so if you are sensitive to dust steer clear of it.

On Sundays in the metropolitan area, the US Park Service closes off certain streets under its jurisdiction to all but bike riders. And, of course, runners can make adequate use of this convenience. Consult the local papers for information on what streets will be closed and at what times.

Along many of the courses, you are going to pass the city's more impressive memorials, monuments and buildings, not to mention occasionally seeing an important national figure driving by. If you are really lucky, you might even see one *run* by.

*Sixteen years later,
Thane Baker came back.*

MAKING TIME STAND STILL

Time can stand still. Almost, anyway.

Take the case of Thane Baker. In 1952, he ran 200 meters in the Olympic Games at Helsinki. Thane, then 20 years old, finished second to US teammate Andy Stanfield.

Two decades later, almost to the week, Baker was back in Helsinki's Olympic Stadium. He was 40 years old now, a successful executive with the Mobil oil company in Dallas. He weighed the same as he had in 1952. He'd lost only a little of his speed. In his age class, Thane Baker was still running with the best sprinters in the world.

Well, "still" isn't quite the right word; "again" would be better. He had kept racing through 1956. In the '56 Games he won a complete set of medals—bronze in the 200, silver in the 100, and gold in the 400 relay. Thane figured he'd gone as high as he could. He retired after the relay.

"When I took my spikes off that day in Melbourne," he said recently, "I wouldn't run another race for 16 years. I put my shoes on some years to go run around the track a few times. But I never worked out seriously."

When asked, "What influenced you to come back?" He answers the question with one of his own.

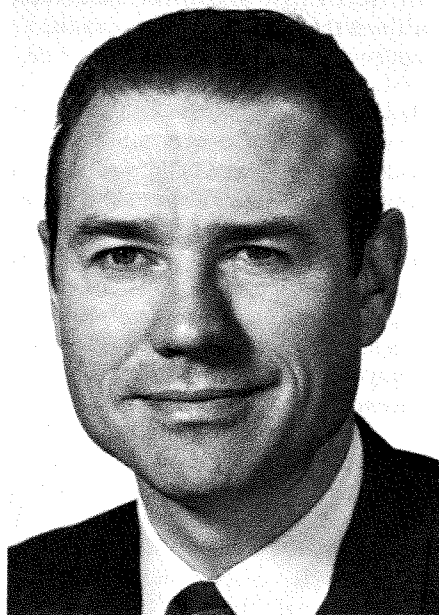
"Did you ever know any athlete that quit while still doing well who didn't down deep want to try it again?" He admits to this feeling, but adds "the push was finding out about the masters meets, and the coaches, friends and my two children wanting me to run again."

Thane started training April 1 last year. Six weeks later he pulled a muscle. He started again in early June. By mid-July he was running 9.8 for 100 yards and 22.6 for 220, both as fast as any 40-year-old had ever traveled. He pulled a thigh muscle in that meet. Two weeks later, he started training again.

In Europe in August, he set world veteran records of 10.7 for 100 meters and 22.5 for 200 (see "Masters of the World," Jan. 73). His metric 100 time was less than a half-second slower than he'd done 20 years earlier.

He says the year was a good experience. "I enjoyed the challenge of determining my workouts and recalling the aches and pains I had forgotten about. But it was hard to work long workouts into my schedule. I couldn't do what I wanted when I wanted to, so training was compromised some."

Baker is a perfectionist in his running, and he apparently doesn't like



THANE BAKER

making compromises. He says, "For everything you do in a workout, there has to be an objective and goal. You don't always achieve it, but you get close. And that is why you keep trying harder. You lace your shoes a certain way, you modify your shoes like an 'old pro' taught you one day in Sweden, you watch the great ones and see how they do it—then you try it."

One thing he has learned is never run slowly. "I never jog," says Baker, who claims he has never run more than 606 yards in a stretch. "I say you cannot learn to run fast by running slow.

"I believe with the correct work you can improve your speed. I do not believe, as some people have told me, that you 'only have so much.' I offer this personal example. My best as a high school senior was 10.0 (for 100 yards). In succeeding years, I ran 9.9, 9.7, 9.5 and 9.4. Three years later I did 9.3." That was the year he retired.

But he seems embarrassed at talking about all of this. Almost apologetically, he says, "Such are the ramblings of an old has-been."

He may be the best veteran sprinter in the world right now, but Thane has no firm plans for future racing. Asked recently about this, he smiled and said, "Check with me in another 16 years."

Walter Thane Baker: Dallas, Tex. 41 years old (born Oct. 4, 1931, at Elkhart, Kans.). 6'0", 165 pounds. Married, two children. Occupation: purchasing agent. Began running in 1948 at age 16; resumed in 1972 at age 40. Currently self-coached.

Racing: 60y—6.1 (1952); 100y—9.3 (56); 100m—10.3 (53); 200m—20.6 (56); 220y (straight)—20.4 (53); 300y—29.4 (56)—440y—46.4 (53). Best times after age 40: 100y—9.8 (72); 100m—10.7 (72); 200m—22.5 (72); 220y—22.6 (72).

Training: once a day, 6 days a week, 6 months a year; "I work out every day for a particular objective, such as to improve speed, develop endurance, improve stride, improve start, improve curve form, etc. I never jog. I am either running a predetermined pace, which is never less than three-fourths speed, or walking. I never run over 330 yards when training for 220 and under. I run repeat distances: 6 x 220 (running one and walking one), all under 23 seconds; or 150-yard runs at seven-eighths speed with 220 walks; or 75s at full speed with 220 walks; or 40s at full speed with 100 walks.

"On days of starts (one or two times a week when in shape), I always run two or three good hard 50-70 yard sprints first. Then I start out of the blocks easy 3-4 times and work up to full-speed starts after a total of perhaps eight. I always run a minimum of 20-30 yards with hard starts and reach full speed. I try to mark where I reach full speed and improve on that."

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SLOGGING THROUGH BELGIUM

by Manfred Steffny

Cross-country season in Europe just ended, with the international championships in Belgium that occurred shortly after this issue went to press. West German Manfred Steffny writes here of another international event in Belgium. Steffny, an Olympic marathoner, ran the race and won a national award for his story. He works for his country's Sports Information Service. George Beinhorn translated the article from German.

The Cologne-Ostende express train is packed. People are standing in the passages and hoping there'll be seats after the next station. The train stops. Workers, secretaries and students flow into the cars. Everyone moves in closer. It's Friday evening and everyone wants to go home for the weekend. Outside it's snowing.

The group of young men with athletic bags have seat tickets. Nevertheless, since the last station it's gotten more crowded in the compartment. One makes room for some girls. Quickly a little chat unfolds, in a cheerful mosaic of languages. German and Flemish, French and English words fall. The conversation hops along that way while iron wheels mash away the snow. And how about that, two of the girls are from the same resort where the young men are going. Triumphant, one of them pulls an invitation to the cross-country run from his jacket pocket. The girls elbow each another. "*Feldloopers!*" one of them cheerfully shouts into the gathering.

There is a transfer and then finally the athletes leave the train. At the station are two gentlemen. Effusively, they take the runners' bags. Talking constantly, they drive to the hotel. A couple of handshakes, the jumble of runners' voices and languages, grand hello, an ample dinner and then out into the stormy night. It is only a few steps to the sea, tossing itself up to a person in wet sand, smelling sharp as a wild animal. A glance up at the lighthouse with its eerie spotlight arm, then quickly back through the sleeping town to the hotel.

The city is waking up. Only once during winter does life prevail in the little resort with many cafes and bistros and its glittery casino: when the runners

come. In the morning, they're already running through the streets in colorful training clothes. "Take a look at the course" is the word right after breakfast. They give the skies a testing look.

Earlier than usual, lunch, because the start is at 2:00. The participants are driven in buses past banners with advertising slogans to the start of the "Criterium of Aces." At the sports field, the open runners are getting ready. Are there a thousand or two thousand of them there? They are turning the thin cover of snow into a field of mud.

The stands are tightly packed. Thousands will escort the runners around the stadium track, over meadows and fields. The television people point their light meters at the sky and make helpless gestures. It is gloomy. They will only be able to deliver mediocre picture quality. But the Belgians are sitting in front of TV screens as if it were a great bicycle race, quivering with their favorites and happy in their warm barroom, while the ones out there in the mud. . .

Start! At maximum speed, the 150 runners of the main event are off. From the broad line of the stadium field, the course goes after barely 200 meters through a little straw-dressed gate onto the fields. It's cross-country. Woe to him who hasn't threaded the needle with the lead group. His hopes for a good place sink to nil.

The snow is melted, the open runners have left behind a deep rut. We sink in almost to our ankles at every step, the mud tries to suck our feet in tight. No matter, up to now it's going very well. Out of the stadium with the first 30.

But what's this? Barely 500 meters are run and somebody has already sweated out a 50-meter lead! The crowd is howling. The one up front is Gaston Roelants, king of the cross-country runners. Small and light, full of bounding strength, the Belgian is sweeping through the mud and slush. He isn't pushing off from the bottomless ground like his competitors whose feet are spinning backwards, he glides ceremoniously over the mud, bent forward with dangling arms, he reminds one a little of a speed skater. Only he will win this race. The crowd will praise him, all along this nine-lap 10-kilometer course.

The sharp initial tempo, the wind, the first obstacles in the form of a barbed-

wire fence and a stream have cost strength. Now comes a singular phase of this race. The tempo slows. One must shake off the acidification of a fast start. And here the much-despised morass proves the runner's friend. Faster than on frozen hard ground, which is rare in this sea climate, legs become supple again. Everyone watches his place jealously. Sure, some slow starters are now battling past. But they'll be caught at the start of lap two when the tempo is pulled tight again.

Cross-country running separates the wheat from the chaff. In every track run you can see ambitious runners overestimating themselves, mixing it up with the leaders for the first half. Not in cross-country. To hold on with the leaders for the first 500 meters, a condition and agility are required that only a class runner possesses. Often enough, the order of the first 10 is the same after nine or 12 kilometers as it was at three. Only the gaps have grown.

But we were still in the middle of the first lap. A fence and a stream have been jumped, then there's a gurgling, bubbling marsh where one sinks almost to the knees. It is the hardest kind of work, this stretch. One rows with his arms, struggles and fidgets with his legs. Are my shoes still on or have they gone down? At last there is something like a path.

Cross-country specialists use up every conceivable chance of a jump. After the crossing of a swamp: burst! After a sharp corner: burst! After a small hill: burst! After jumping an obstacle. . . after. . . And still this second half of the first lap is slow.

Suddenly a railroad embankment appears. It's no mistake, the flags indicate it's part of the course. Away it goes, over the railroad ties of a retired line. Three or four ties at a time? Terrible, inhuman, this race! From the second round on, one looks forward to this section because there's a trailing wind, and also the filth and water run out of your shoes. Then back into the stadium. Obstacles wound with straw thatching wait for the runners. The team attendants call out no splits. That's senseless here. They count, "26th, 27th, 28th. . ."

One lap is gone. What, eight more? Impossible! I have already fallen in the mud. Shirt and pants are completely filthy, a crust of mud is stuck fast to the cheek and in my mouth I still have the sweetish taste of earth that just won't be spit out.

Two laps later there's a fall in the stream. Someone ahead slipped, a missed takeoff and I'm right in the

middle. I just keep running and don't know why. Then I have an earnest word with myself: "This is all crap. This isn't running. I should give up. This is an accident. I'm a runner, not a puppet." But I keep on running, nine laps long.

Few quit in these cross-country runs, although the so-called inner swine is harder to overcome than in track runs. Again and again the will whips the tortured body on: because one is already feeling so bad that it can't get any worse.

The crowd applauds each runner, but the one who stops is no longer considered to be a marvelous athlete, but one of their own. It laughs at his appearance the way it would laugh at a fellow sitter who'd slipped on a banana peel. Suddenly it's fun.

Yes, it is odd. Man is incredibly adaptable, a "creature of habit." War, jail, forced labor, everything can become everyday to him. Just so can he be happy at kilometer six of a cross-country run. The tricks of the ground are more familiar now. Run way over on the left here. Jump off at that spot there. Energy is better distributed. A rhythm is discovered. It all becomes just half as bad, no matter if one is overtaken or passes someone else.

Finally the mud bath is over. We go under the showers in full vestments. The most important utensil is not soap but a knife. You can cut open your running shoes—they can't be removed from their feet any other way—and scrape the mud off arms and legs. After this preliminary work, the soap has its say. It is a genuine long distance shower.

But still there's no rest. It's quick back to the hotel. A Sunday suit is put on, a glance at the mirror to see a face freshened by the ocean wind and glowing eyes. One turns into an aesthete again. Amazing how enjoyable the normal state is after extraordinary exertion. Is that why Indian fakirs lie on beds of nails? Is that why medieval monks whipped themselves? An aperitif at the victory ceremony tastes terrific to the cross-country runner. He feels good in his fresh white shirt. Dinner at the banquet tastes especially good.

At the dance in the casino, it's almost inconceivable to the outsider that these happy and well-groomed young men were running through the mud like idiots only hours ago. One of those who sat in the train from Cologne to Ostende is approached by complete strangers. They recognize him from the TV. Another has met his neighbor on

the train and is dancing with her. Another is talking with a Finnish runner he met last year in Prague. Still another is arguing with two Portuguese and an Englishman about training methods.

The mayor of the place sits beaming at the table of honor and feels happy about the runners from 12 nations who've brought life into the winter. The organizer turns to him and says above the music, "Next year we ought to invite the Australians and Americans, too."

Next morning, the Ostende-Cologne express is rolling through the rain. A pair of sleepy-looking young men sit in their compartment. This evening they will be training hard again. Cross-country is more comfortable for the athletes than "root running" in German forests. No one is injured. They all feel fit. They leaf through papers, looking for their pictures.

I sit there and look out the window. I click my tongue every time a telephone pole whisks by. Seventy-eighth. "Just 78th," they'll say at home. I won't even tell the papers. They wouldn't print it. So what? In three weeks I'll go over again. I won't enter that seedy forest run in Wheresit. Better to be 78th in Belgium.

GLASS CITY MARATHON

TOLEDO, OHIO

SUNDAY, JUNE 17, 1973 (FATHER'S DAY) — 8:00 A.M.

Out-and-back course over flat terrain. Course record: 2:27:06.

Certificates and awards to all finishers. Awards 1st to 50th men, 1st to 3rd women, 1st to 3rd team, 1st to 3rd husband-wife, age group awards. Special Father's Day Awards: 1st to 3rd father-son, 1st grandfather-grandson, 1st three generations, 1st father-daughter. Time limit: 5 hours. Police escorts, frequent refreshments.

Entry fee \$2.00 through June 10th. All entries after June 10th \$5.00. No team or special events entries accepted after June 10th.

Send entry request to: Charles Gerster
1926 West Bancroft St.
Toledo, Ohio 43607

RACE OF CHAMPIONS

1873 HOLYOKE, MASS. 1973
CENTENNIAL

Sunday, June 10, 1973

Time 1 p.m.

World Marathon Runners' Association

NATIONAL CHAMPIONSHIPS

New England A.A.U. Marathon Championships

Write to:

Walter H. Childs
P.O. Box 1484
Springfield, Mass. 01103
(413) 566-3145

by George Sheehan M.D.

MEDICAL ADVICE

RESEARCH FINDINGS

- Three laboratory measurements can determine if a runner is an international class athlete: (1) rate of oxygen consumption; (2) concentration of lactic acid and pyruvic acid in blood plasma; (3) maximum oxygen intake. C.H. Wyndham of South Africa used these tests to predict whether a runner had the ability and training to run a sub-four-minute mile.

- Wyndham's studies indicate that the main effect of training was on anaerobic metabolic process. The maximum oxygen intake at which the lactic acid rises above normal can be raised by 10%. And the extent of the lactic acid increase at high rates of oxygen consumption is much less in the trained than in the untrained state.

- Wyndham could chart no improvement in mechanical efficiency by training, and found that maximum oxygen intake increased only by about 5% with training.

The main physiological characteristic of highly trained marathon runners, Wyndham says, is the ability to run for prolonged periods at 80% of maximum oxygen uptake without much evidence of anaerobic metabolism.

The South African suggests that to attain this state, men have to run 20-25 miles a day at a high proportion of their maximum oxygen intake. The reason for the improvement is not clear.

- Capable endurance runners are unique in their high aerobic power-weight ratio. The average maximum oxygen intake of a 130-pound endurance runner is 27% higher than the average of fit young men of the same weight.

- Prevention of heat problems in endurance running is best done by consuming adequate amounts of cool water. Loss in excess of 2.5% of body weight by experienced runners, or 1% by inexperienced runners, can cause serious rises in core body temperature.

Dr. Carl Gisolfi gave runners running in a temperature of 33° centigrade 6.6 ounces of cold (10°C) water every 20 minutes. This proved more effective than 6.6 ounces at body

temperature. Sponging face and trunk for two minutes every 20 minutes with towels soaked in water at 10° temperature was ineffective.

- Trained athletes develop an anemia which is more apparent than real. According to D.B. Dill and his co-workers at the Desert Research Center in Nevada, the champion athlete has thin blood. But he has so much of it his total hemoglobin exceeds that of non-athletes.

Athletes develop a large blood volume which is composed of an increased red blood cell volume but a much more increased plasma volume. This makes for a lower hemoglobin concentration and what appears to be anemia, but actually is not.

- Unequal leg length is frequently cited as a cause for low back pain. Dr. G.R. Clarke of St. Thomas Hospital, London, used x-ray to confirm that 50 patients had unequal leg length. But only 21 had discrepancies over 10 millimeters (thought to be the level of clinical symptoms.) The main pathological finding is arthritis of hip. Only patients with 10 mm. or more seem to be satisfied by corrective measure.

- Does exotic diet contribute to the endurance feats of the Tarahumara Indians? Reed Clegg M.D. thinks not. He headed a team of specialists who studied this legendary Indian tribe and now reports their diet is extremely simple. Their intake was mostly peas, beans, corn, squash and jerky meat. Clegg thinks heredity, necessity and body conditioning is the answer to their performance.

Clegg notes that running is their only sport, and there are psychological and amusement factors in the motivation to perform well.

- Training of introverted athletes like cross-country runners increases their tolerance to pain, but does not elevate their pain threshold. Pain tolerance and pain thresholds, on the other hand, can both be raised in athletes who are extroverts. M. Ian Phillips of Iowa University found that even untrained extroverts have higher pain tolerance than introverts.

Sheldon, of course, said three decades ago that ectomorphs (the prototype linear, small-boned distance runners) were more sensitive to pain than other body types.

ARCHES

Q: *About two months ago, my lower longitudinal arch fell and I pulled a ten-*

don in my ankle. I have had custom arch supports made, I have frozen my ankle three times a day, I have taped my arches, my ankles and just about everything else I could reach, and I have rested for 10-, 15- and 20-day periods. Yet nothing seems to help. What can I do about it? Lord, I'm going absolutely insane with inactivity. (J. S., Regina, Sask.)

A: From the amount of pain and discomfort you have, it appears that your plantar fascia is in bad trouble. This is usually the last stage in a foot that has been threatening to be in trouble for a long time.

I am surprised, however, that your custom arch supports did not help. I would not give up on podiatric help. Nothing else is going to get to your root problem, which is a biomechanically weak foot.

Many podiatrists use rigid appliances which work for ordinary citizens in their brief travels at home and the office. However, we runners need soft felt, or cork and rubber appliances. This may be the reason the supports failed.

Taping may be hazardous since you may tape your feet in the wrong position.

CRAMPS

Q: *I average 25-45 miles per week and get in one or two 15-20 milers a month. I have run four marathons, but each time my right thigh cramps so severely at 20 miles. I have to stop and walk when I feel the cramp coming on. You can see what that does to my time during the last six miles. How can I avoid that cramp? (B. Z., San Francisco, Calif.)*

A: The most likely cause of leg cramps at that point in a marathon would be salt depletion. If you sweat a good deal and do not replace fluids, or you take fluids without salt, you can get into this sort of trouble.

I would advise you to weigh yourself before and after the marathon and find your total fluid loss. Then arrange to replace this, beginning early in the race, using a solution of sugar-electrolyte like Gatorade, Sportade or ERG. This should also provide necessary sugar if taken at least every 30 minutes.

If you are already acclimated to hot weather running and seem to be having an adequate sugar-fluid electrolyte replacement, I would suggest you try the high-starch diet for 72 hours before your marathon. This gives a twice-normal sugar content to the muscles and may take you past that 20-mile mark without cramping.

CLASSIFIED NOTICES

Reach over 12,000 subscribers with your advertisement in *Runner's World*.
Rates: meet/race notices 15 cents per word; general notices 20 cents/word.
Deadline for May issue was April 5; June deadline is May 4.

FIRST ANNUAL LAGUNA LAKE MARATHON. Sunday, April 15, noon. Located in the smog-free city of San Luis Obispo; through scenic countryside. Trophies to first ten, plus team, women and age group trophies. Certificates to all finishers. T-shirts will be available. Contact: Brian Waterbury, 1320 Foothill Blvd., San Luis Obispo, Ca. 93401. (805) 543-6750.

MID-MICH. TRACK CLUB ANNUAL MEMORIAL DAY RUN. Holt (adjacent to Lansing) High School, Saturday, May 26, 10 a.m. 5-mile and 10-mile road races. Age groups. Trophies to 1/3 of field. Showers/dressing available. Early entry \$1.00, day of race \$1.50. Contact: Gordon Schafer, 4378 W. Holt Rd., Holt, Mich. 48842.

1973 STARTING LINE HANDBOOK, A TRACK & FIELD ANNUAL FOR JUNIOR AGE GROUP ATHLETES. This 60-page Handbook includes: All-time age lists, age 8 thru 17; in-depth listing of Junior Track Clubs in the U.S.A. Photos and more. . . Only \$1.25 + 25 cents postage. Order from: Starting Line, P. O. Box 878, Reseda, Calif. 91335.

PAAVO NURMI MARATHON, Saturday, 11 August 1973 at 8:00 a.m., Hurley, Wisconsin, sponsored by the Hurley Chamber of Commerce in cooperation with Olympia Sports Village. For more information, write to Hurley Chamber of Commerce, Silver Street, Hurley, Wisconsin 54565.

TIGER SHOES. Boston Special \$14.00 pr. 6-12; Close-Out Blue Suede Tahoe \$15.95 pr. 7½-11½; Cortez \$16.95 pr. 7-12½; Olympiad XIX \$16.95 pr. 6-11½; Cougar \$15.95 pr. 6-11½; Add \$1.00/pair postage. Tiger Sport Shoes, James Morris, 1203 E. Warren, Brownfield, Tex. 79316

SYTTENDE MAI MEMORIAL RUN. Madison to Stoughton, Wisc., May 20. Open plus age groups. 20 miles. Contact: Lee Wilcox, 102 W. Prospect, Stoughton, Wisc. 53589.

AVENUE OF THE GIANTS MARATHON. Humboldt Redwoods State Park, near Weott, California. Sunday, May 6, 9:00 a.m. Sponsored by Six Rivers Running Club. Flattish, certified course, shaded by giant redwoods. Dick Meyer, Rt. 1, Box 153-A, Eureka, Calif. 95501.

NAT. AAU CHAMPIONSHIP POSTAL AGE GROUP MILE FOR BOYS, NATIONAL RRC CHAMPIONSHIP POSTAL AGE GROUP MILE FOR GIRLS. Separate boys' and girls' races, 9-U, 10-11, 12-13, 14-15. Saturday, June 2, 1973, 6 sites. Washington, D.C.: Gabe Mirkin, 9900 Georgia Avenue, Silver Spring, Md. 20902. Bakersfield, Ca: Dale Knox, 714 Sixth St., Wasco, Ca. 93280. Denver, Colo.: Dick Haggerty, 5905 Estes, Arvada, Colo. 80002. Saginaw, Mich.: Roger Hanson, 3865 Hospital Rd., Saginaw, Mich. 48603. Gainesville, Fla.: Ken Burnsed, Apt. 252R, Flavet 3, Gainesville, Fla. 32601.

3RD ANNUAL DE ANZA RIDGE RUN. Cupertino, Calif., starts at 9:00 a.m. April 7 at Monte Vista High School on McClellan Rd. 10 miles of beautiful roads and trails. Write: James Woodruff, 531 Benvenue Ave., Los Altos, Ca. 94022, or post register before 8:45 a.m. \$1.00 entry fee. Showers available, bring towel. "Sponsored by NASA Joggernauts." **NEED ENDURANCE?** Try this combo. 100 tablets 400 I.U. water-soluble Vitamin E (natural), 250 tablets high protein/liver extract, 100 tablets R.N.A. complex with metabolically associated B vitamins, minerals, and amino acids. A \$16.00 value for only \$13.50 post-paid. Vitality, 1122 Spruce St., Berkeley, Calif. 94707.

MASTERS NATIONAL AAU CHAMPIONSHIPS AT HONOLULU. Nat'l. Masters Championship medals, 6 places, 5-yr. divisions. Decathlon: 16-17 April—40-44, 45-49, 50-54, 55-59, 60+. Bud Deacon, 3275 Pacific Hts. Rd., Honolulu, Hawaii 96813. 15,000m: 21 April—40-44, 45-49, 50-54, 55-59, 60-64, 65+. Scenic Diamond Head, Kapiolani Park, Waikiki. Hawaiian Int'l. Masters meet 19-20 April. Bob Gardner, 4504-5 Kahala Ave., Honolulu, Hawaii 96816.

MASTERS NATIONAL AAU 15,000-METER CHAMPIONSHIP. Rochester, Minn. June 10 (2 p.m.). Age group awards plus unique award to first 100 finishers. Dwight Pierson, 2704 5th Ave. N.W., Rochester, Minn. 55901.

ALL AMERICAN CHAMPIONSHIPS. 9 June 1973, Drake University, Des Moines, Iowa, sponsored by Olympia Sports Village in cooperation with Sears and designated as the USTFF National Junior Championships. This meet is for both men and women. Write for free brochure to All American Championships, Department of Athletics, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin 53201. (414) 963-5151 or 963-5669.

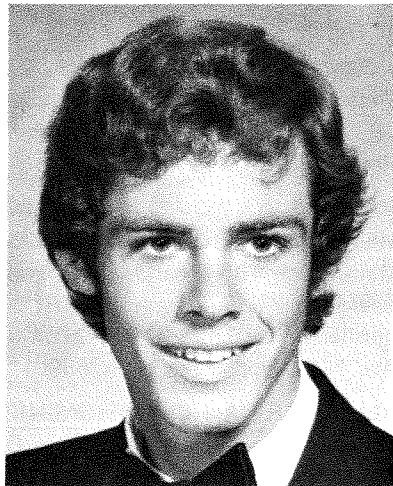
ALL AMERICAN MARATHON, Sunday, 10 June 1973, 8:00 a.m., Milwaukee, Wisconsin, the USTFF Junior National Championships, sponsored by the Mayfair Associates and the University of Wisconsin at Milwaukee Track Club. Write for free brochure to Roger Bodart, Executive Director, Gimbels Mayfair, 2500 North Mayfair Rd., Wauwatosa, Wisconsin 53226. (414) 453-6026.

NIKE - TIGER SPORT SHOES. The largest supply of Nikes and Tigers in the Midwest at the lowest prices available anywhere. Call or write: Nike - Tiger Sport Shoes, Phil Nabil, 1645 Franklin Ave., Kent, Ohio 44240. (216) 673-3431

The Frank Shorter Story

Frank Shorter makes interesting reading. His training, philosophy and Munich experiences are shown here. His personal style comes over as light and fresh as his running form. 52 pp., \$1.00. *Runner's World*, Box 366, Mt. View, Calif. 94040

PROFILES



CLAYTON CRAIG

Two years ago, the *Marathon Handbook* listed no marathons for the state of Florida. Suddenly, that kind of racing is booming there. Florida has five marathons for 1973. The state had three of the top four runners in last year's Olympic Trials. And it has the fastest 17-year-old ever, Clayton Craig.

Craig finished only eighth in his cross-country state meet last year. But he thinks he cheated himself by not doing any speedwork all fall—"a mistake I am now realizing." He added some 440 workouts before a December marathon in Melbourne, and the result was a 2:28:22 race.

"Actually," he says, "the 2:28 is more equal to a 2:26 because I spent two minutes in the woods (I was timed) during two sessions of internal readjustment. Gas pains afflicted me from the 10-mile mark to 20 miles, when I found a secluded enough spot to correct my problem. The pains themselves hindered my performance."

His track times improved suddenly last year—from 4:48 to 4:23 in the mile within five weeks—after Clayton added intervals to his training. "I was on the way to much faster times," he says, "when mono hit me and I was too weak to qualify for the state meet."

The third fastest high school marathoner of all-time is still looking for his best races in conventional high school competition.

Clayton Tracy Craig: Melbourne, Fla. (Eau Gallie High School). 17 years old (born July 6, 1955, at Melbourne, Fla.). 5'10", 140 pounds. Began racing in 1969 at age 13. Coached by Frank Craig (father).

Racing: 880--2:01; mile--4:23; 2 miles--9:44; 10 miles--51:43; marathon--2:28:22.

Training: once a day, 6 days a week, year-round; 55 miles a week; "Sometimes twice a day, usually once, and often skipping a day or two—erratic training. No particular pattern except that I train as much as I can when I am motivated and can discipline myself. Pace of 6-7 minutes a mile, averaging 50-60 miles a week, but sometimes only 30 and others more like 80. Little speedwork, my main problem that prevents me from running fast middle distance times. But runners who can beat me in a middle distance race have trouble coping with my pace in anything over five miles."

(His father-coach adds, "I have checked Clayton's diary for the number of miles he ran prior to his age-group record in the marathon. He averaged 57 miles per week from June 4 to Dec. 29, the day he set the record. Nearly all were steady runs; only two interval workouts in summer—8 x 220, none during cross-country season, and three—10 x 440—in December; no sprints or fartlek work. Clayton usually runs better than six minutes per mile in his workouts.")



ORVILLE ATKINS

Eleven years ago this month, Orville Atkins placed fifth in the Boston marathon. He ran 2:31:17. Six years ago at Boston, he improved his best time to 2:30:26. Two years ago, he ran three races under 2:32—all within two months.

But a sub-2½-hour time eluded him.

Finally, a couple of months ago, after being so close all this time, Orville made it. He ran 2:28:22. The time is a good one for a man almost 37 years old. But it is more than that. It's proof that longevity and success can be compatible, and that a relaxed attitude can lead to a time like this.

He wrote in the Nov. 1971 *RW*, "I have been asked, 'How can I keep two good legs under me till I'm 35 or 40 or 50 and still get good results?' The definition of good results is more or less an individual thing, but to continue to get results near one's best for 10 or 20 years and into the veteran ages relies on continuing to have goals, keeping one's cool, and to some extent luck."

The 2:30 marathon that hung just out of reach for so long was goal enough. Atkins is certainly cool, and he has made his own luck.

If he has any secrets, they are these. He does what he likes. ("I sometimes run when I don't want to, but I never do fast running when I don't want to. Only very occasionally does hard and fast running outside of training bring me pleasure.") And he doesn't do very much, though it has stayed constant over a number of years. ("My actual measured mileage starting in September until the marathon in late January averaged 52 a week.")

Orville Stewart Atkins: Los Angeles, Calif. (Seniors Track Club). 36 years old (born April 27, 1936, at Port Arthur, Ontario, Canada). 5'11", 132 pounds. Single. Occupation: office manager. No coach. Began running in 1954 at age 18.

Racing: 440--57.6 (1960); 880--2:06.1 (63); mile--4:30.6 (61); 2 miles--9:24.8 (61); 3 miles--14:36 (61); 6 miles--30:56 (63); marathon--2:28:22 (72).

Training: usually once a day, 4-6 days a week, year-round; 45-70 miles a week; "I changed it from 'self-coached' to 'no coach' above because no one plans my training or sets schedules for me. I've run too long for that, and have been a slave to schedules, stop watches and repetitions for too many years. I run because I enjoy it and it is my way of life. I therefore do the type of training I want to do. I lack speed and hate strain, so I run fast only *very* occasionally, when the urge hits me—but this usually just happens at the end of a long run. I relish the personal achievements and improvements and competition, but there are many things I will no longer

do in training, even if they may improve my results.

"Two years ago I joined the marathoner-social Palos Verdes Breakfast Group (20 runners who run together each Sunday, and then quaff a great deal of beer with breakfast). This social running group and the fun atmosphere of the Seniors Track Club have kept my interest sharp. I get in enough training if there is someone to run with and don't if no one is available.

"My training has never been the same two years in a row. It has varied from repetitions on the track with Fred Foote (1959-64) in Canada, to the unbelievable doses of repetition work on the grass with Mike Igloi (1965-66), to long slow distance, to short slow distance. I've done it all and *all* have given me at least a 2:32 marathon. So now I do what I enjoy the most—talk while on the run.

"For a year ending last July, I ran 21-25 miles at eight-minute pace on a very hilly course on Saturdays, and 15 miles on Sundays with the Palos Verdes group. This was the backbone of my training. The Sunday run is now. I found the two long runs back-to-back too fatiguing for me.

"I now run the 15 Sunday and a marathon, whenever there is one available, at eight-minute pace—preferably every 4-6 weeks—as my main training. During the week I run on the grass (a 660-yard area) up to about 1½ hours, as I feel. The pace is 7½ minutes per mile, but varies between eight and 6¼. I *never* run as fast as race pace, and in the last couple of years have raced sparingly.

"I attribute my 2:28 to experience, background, confidence, Gookinaid and the high-protein high-carbohydrate diet. These last two are important. I wish we had known about these 10 years ago."



MIKE NIXON

That fellow in Washington wasn't the only Nixon running hard for a national title last November. He didn't even have to run very hard, since he was the "defending champion" so to speak, and the overwhelming favorite.

Mike Nixon didn't have those credentials when he ran the NAIA cross-country race at Liberty, Mo. He definitely was a darkhorse. He had been an All-American in the small college race as a freshman, had missed his sophomore year because of injuries, and had placed fourth as a junior.

Cross-country has always been Mike's stronger season. His best track times have stayed untouched for almost

three years now.

He won the NAIA race with a course record, beating New Zealand Olympian Rex Maddaford.

Michael Paul Nixon: Pittsburg, Kans. (Kansas State College/Pittsburg). 22 years old (born Nov. 10, 1950, at Cherryvale, Kans.). 5'10", 140 pounds. College student. Began racing in 1964 at age 13. Coached by David Seunram.

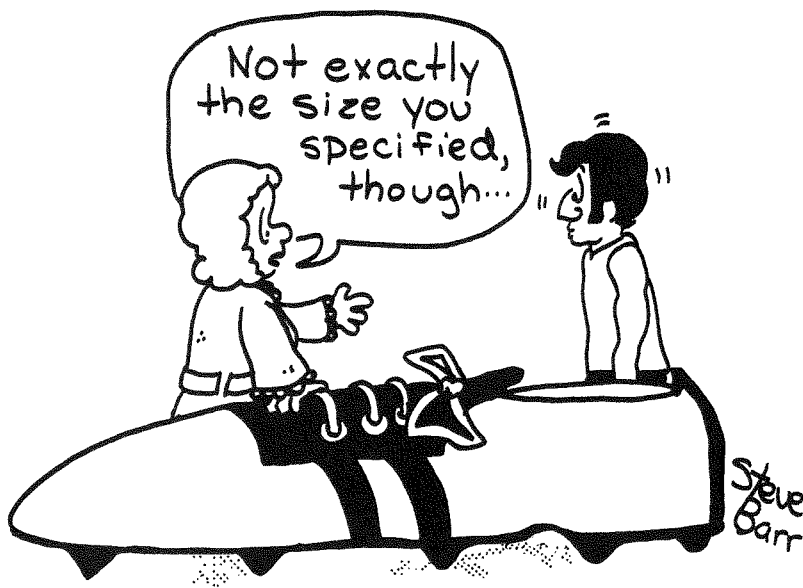
Racing: mile—4:12.4 (1969); 2 miles—8:09.4 (70); 3 miles—14:01 (70).

Training: 10 sessions each week in season, 100 miles a week in fall, tapering to 60-70 in late track season; "Summer—light marathon training, 250-300 miles for entire season, tempo between 6-7 minutes per mile.

"Fall—emphasis on marathon training with alternate days of hard (5:00-5:30 pace), moderate (5:30-6:00) and light (6:00-7:00) tempo; distance covered in each session, 10-15 miles. One day per week of repetition running, e.g. 6 x mile with 4-5 minute interval with miles averaging 4:38, or 20 x 700 at 1:50 with a 40-second interval. Seven days per week with three morning workouts at light or moderate pace.

"Winter—same as fall except a gradual change to more repetition work. Add one day of interval (quantity work) with distances of 300-600 yards and 30-45-second interval.

"Spring—marathon (training) for miles, fast repetition work (440-mile) and races. Get down to 60-70 miles per week by NAIA outdoor. Continue light and moderate running three mornings per week."



RUNNING SHORTS

● Dr. John Pagliano's *Golden West Reporter* tells of a running-related study conducted at the UCLA School of Medicine. Doctors there tested a group of firemen for their responses to sudden bursts of effort. The research was designed to determine whether or not the firemen risked heart attacks in their violent work.

Pagliano says, "31 out of 44 firemen tested developed momentary abnormalities in their electrocardiograms after abruptly starting to run. However, when the firemen were given prior warmup exercises, these abnormalities didn't appear."

In some instances, the heart irregularities might have precipitated heart attacks. But proper warmup greatly reduces the risk. The UCLA doctors advised everyone to jog slowly for 4-5 minutes before engaging in any sudden, strenuous burst of activity.

"Hold the fire until I've taken my warmup."

● Nice things happened to *RW* contributors: Walt Boehm is the State Department's newly-appointed director of international athletics programs. Boehm, a foreign service officer for a

number of years, has been a member of three US international track teams and coached in French-speaking Africa in the early 1960s. Until recently, he was stationed in Korea. (Walt's most recent *RW* article was "Can We Call This An Art?" in the March issue.)

Michael Pollock ("Younger Than Their Years," Feb. 73) has joined the staff of Kenneth Cooper's Institute for Aerobics Research. Pollock has been an exercise physiologist at Wake Forest University. He will primarily be involved with physiological testing and aerobics research at the Institute.

Peter Strudwick is making final arrangements for the publication of his book, *Up the Shining Mountain*. (A small part of that book first appeared in the Nov. 71 *RW*.) Pete is the southern Californian who was born without feet but still runs marathons.

Gabe Mirkin is writing a book on injuries peculiar to runners. "I am convinced," says the medical doctor from Maryland, "that all injuries can be accounted for with less than 20 diagnoses." He wants to collect data from any runner who can "adequately describe an injury which he had, the effective treatment, and his impressions about what caused the injury." He says he can't answer all letters individually, but will give credit for any letter included in the book. Write to Dr. Mirkin at 9900 Georgia Ave., Silver Spring, Md. 20902.

● Note these changes in national championship schedules: The AAU 50-kilometer walk has been switched to May 20, one week later than planned, because of construction on the course at the Iowa State Fairgrounds in Des Moines.

The AAU 50-kilometer run championship—the first one at the distance—wasn't in February as originally announced. It is tentatively set for Sept. 2 at Yonkers Raceway near New York City. The provisional date for the 50-mile championship race in Central Park, New York, is Nov. 3.

● The situation with age-groupings gets weirder and weirder. We're no closer to standardization than ever. The national AAU junior track meet at Gainesville, Fla., this summer will operate on an "age-year" basis. Any athlete born in 1954 or later is eligible, meaning the oldest athletes are no more than 19½. But in road racing, "junior" is anyone under 20 on the day of the race.

One AAU association, the Pacific, now lets anyone born in 1933 compete all year as a master—even if he doesn't turn 40 until Dec. 31. But the World

Veterans 25-kilometer race in Britain this summer says a man must be 40 before he can run. However... in that same race, a "class 2" runner is anyone born in 1922 or earlier, "class 3" begins with 1912, etc. A runner theoretically can be 50 or 60, on race day and still have to compete against people 10 years younger.

● The AAU will be making cross-country a Junior Olympic sport this fall. No site or date for the national championships has been set yet, and details remain to be worked out. But the races probably will be in late November or early December.

The AAU's new age-group long distance running committee will put on the boys' and girls' national AAU mile championship on June 2 (six sites contributing results on a postal basis) and the age-group cross-country (at Van Cortlandt Park, New York City, on Nov. 4). The Road Runners Club had previously sponsored both of these.

The miles will be in Washington, D.C.; Bakersfield, Calif.; Saginaw, Mich.; Houston, Tex.; Denver, Colo., and Gainesville, Fla. (See the classified ad section for addresses of race directors.) Divisions are 9-under, 10-11, 12-13, 14-15.

Ages presumably are as of race day.

● Jim Kinsella, a professional at Dublin's Castle Golf Club, isn't the fastest runner over 18 holes (Bobby Fries holds that "record" at about 38 minutes). But Kinsella's the best golfer of the runners. He ran his home course in 42:18, and shot a two-over-par 73.



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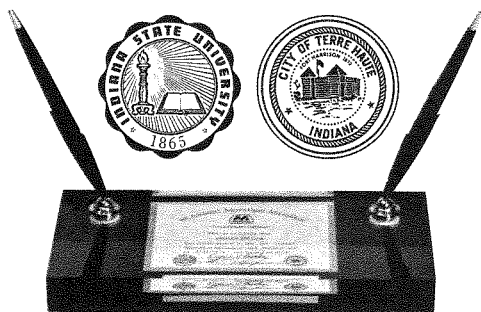
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MAY COMING EVENTS

This page includes all national championships, all AAU association championships, all relay, invitational and conference meets of a major nature, all marathons and selected other races—IF we know about them. Send schedules at least two months in advance of meets to RW, Box 366, Mountain View, Calif. 94040.

These are the known meets in May. Dates for most college conference meets aren't available, as well as the national junior college championships.

Information includes date, name of meet and distance, site, starting point and time, entry restrictions and contact. Write ahead for information before traveling to races, because details often change without notice. Contacts for smaller local runs and walks were listed in the January issue, page 46.

NORTHEAST

- 6 Connecticut AAU 25-kilometer, Middletown, Conn. (open; Bernie O'Rourke, Municipal Building, Middletown, Conn.)
- 11 Pro indoor, Philadelphia, Pa. (Spectrum; ITA pros only)
- 12 Pro indoor, Pittsburgh, Pa. (Civic Arena; ITA pros only)
- 12 Champlain Valley marathon, Rouses Point to Plattsburgh, N.Y. (noon; open; Race Chairman, YMCA, 13 Oak St., Plattsburgh, N.Y. 12901)
- 20 Yonkers marathon, Yonkers, N.Y. (Yonkers Raceway, 11 a.m.; open; Bob Reinertsen, P.O. Box 20, Yonkers, N.Y. 10704)
- 20 First Trust marathon, Liverpool, N.Y. (10 a.m.; open; Mel Slotnik, 401 S. Main St., North Syracuse, N.Y. 13212)
- 27 Plodders' marathon, Brockton, Mass. (2 p.m.; over age 40 or no times faster than 3:00; William Hansbury, 218 Main St., Avon, Mass.)

SOUTHEAST

- 4-5 Quantico Relays, Quantico, Va. (college and invitational; Marine Corps School, Quantico, Va.)

- 5 Pro indoor, Atlanta, Ga. (ITA pros only)
- 13 Martin Luther King Games, Durham, N.C. (invitational)
- 19-0 Missouri Valley Conference, Memphis, Tenn. (Memphis State; college)

MIDWEST

- 4 Pro indoor, Chicago, Ill. (Amphitheater; ITA pros only)
- 13 Midwest RRC 50-mile track, Chicago, Ill. (Stagg Field, 9 a.m.; tentative date and time; Ken Young, c/o Ted Haydon, Track Coach, University of Chicago, Chicago, Ill. 60632)
- 26 Pro indoor, Kansas City, Mo. (ITA pros only)

SOUTHWEST

- 19 Road Runner marathon, Gage, Okla. (7 a.m.; open; Earl Scott, Gage, Okla. 73843)

ROCKIES

- 18-9 Intermountain USTFF track, Logan, Utah (Utah State University; college and invitational; Ralph Maughan, Track Coach, Utah State University, Logan, Utah 84321)
- 25 Pro indoor, Salt Lake City, Utah (ITA pros only)
- 27 Mile-High marathon, Denver, Colo. (Washington Park, 7:30 a.m.; open; Alan Cuniff, 424 S. Clarkson, Denver, Colo. 80209)

WEST

- ? Spokane Expo marathon, Spokane, Wash. (date uncertain, 11 a.m.; open; Ken Hendrix, 51621 McDonald, Opportunity, Wash. 99216)
- 5 San Jose Invitational track, San Jose, Calif. (invitational)
- 6 Avenue of the Giants marathon, Weott, Calif. (9 a.m.; open; Dick Meyer, Rt. 1, Box 153-A, Eureka, Calif. 95501)
- 6 Evergreen marathon, Pullman, Wash. (open; tentative date; Jim Dunne, P.O. Box 133, Pullman, Wash. 99163)
- 12 West Coast Relays, Fresno, Calif. (college and invitational)
- 17-9 Far Western Conference, Sacramento, Calif. (college)
- 18-9 Pacific-8 Conference, Eugene, Ore. (University of Oregon; college)

- 19 Bakersfield Track Classic, Bakersfield, Calif. (Memorial Stadium; invitational; Gil Bishop, P.O. Box 1526, Bakersfield, Calif.)
- 19 Pacific AAU one-hour, Mill Valley, Calif. (Tamalpais H.S., 5 p.m.; open; Richard Perry, 3909 Pepper Tree Ct., Redwood City, Calif. 94064)
- 19 Pro indoor, San Diego, Calif. (Sports Arena, ITA pros only)
- 20 Bay-to-Breakers 7¼-mile road run, San Francisco, Calif. (Embarcadero YMCA, 10 a.m.; open; Frank Geis, 942 Market St., San Francisco, Calif. 94102)
- 26 Golden Gate marathon, Tiburon to San Francisco, Calif. (open; Richard Perry, 3909 Peppertree Ct., Redwood City, Calif. 94061)
- 26 California Relays, Modesto, Calif. (invitational)
- 26 All-California track, Irvine, Calif. (college)
- 28 Memorial Day marathon, Roseburg, Ore. (10 a.m.; open; Stanley Stafford, 744 S.E. Rose St., Roseburg, Ore.)

CANADA

- 5 Pro indoor, Toronto, Ont. (Maple Leaf Gardens; ITA pros only)
- 6 Canadian 15-mile championship, Etobicoke, Ont. (noon; Lorne Buck, 19 Avonmore Sq., Scarboro, Ont., Canada)
- 18 Pro indoor, Vancouver, B.C. (Pacific Coliseum; ITA pros only)
- 20 Canadian 10-mile road championship, Ottawa, Ont. (Parliament Hill, 2 p.m.; Bobbie Fisher, 5 Glencairn Ave., Ottawa, Ont., Canada)
- 26 Lions Gate marathon, Vancouver, B.C. (Stanley Park, 7:30 a.m.; open; Don Basham, No. 602, 1640 Alberni St., Vancouver 5, B.C., Canada)

INTERNATIONAL

- 15 International marathon, Karl-Marx-Stadt, East Germany (invitational; Deutscher Verband für Leichtathletik der DDR, 1005 Berlin, Storkowestr. 118, East Germany)
- 19 International marathon, Ankara, Turkey (invitational; B.T.G. Md. Atletizm Federasyonu, Ankara, Turkey)
- 19 International marathon, Maasliu, Netherlands (invitational; Koninklyke Nederlandsche Athletiek-Unie, Nachtegaalstraat 67, Utrecht, Netherlands)
- 20 World Veterans 25-kilometer, Isle of Man, United Kingdom (ages 40 and over; B. Doughty, Sea View Cottage, Port St. Mary, Isle of Man, United Kingdom)

RACE WALKING

- 5 National AAU Junior 15-kilometer, Portland, Ore. (ages 19 and under; Don Jacobs, Box 23146, Tigard, Ore. 97223)
- 20 National AAU 50-kilometer, Des Moines, Iowa (State Fairgrounds, 8 a.m.; open; Butch Hammer, R.R. 1, Carlisle, Iowa 50047)



1976 Games

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1973 BEST INDOOR PERFORMANCES

These are the best times by Americans—both US citizens and resident non-citizens—during this indoor season. It was all but completed when the issue went to press March 12. The only remaining meet of note in the country was the US-USSR dual.

The men's list includes roughly 10 runners in each standard event, and the women's list has about five per event. Only times from tracks 220 yards and smaller are listed. (Times from bigger tracks aren't recognized by the AAU for record purposes.)

MEN'S

50 YARDS

5.0	Herb Washington (Mich)
5.1	Harrington Jackson (Cal)
5.1	Mel Pender (NY)
5.1	Robert Taylor (Tex)
5.1	Bob Ware (Ky)

60 YARDS

5.9	Hasely Crawford (Mich)
5.9	Tom Whatley (Ala)

(25 runners at 6.0)

300 YARDS

30.3	Danny Buggs (WV)
30.4	William Wallace (Ind)
30.5	Greg Syphax (Mich)
30.6	Brent Webster (Utah)
30.6	Terry Musika (Cal)

440 YARDS

46.7	Fred Newhouse (Wash)
47.8	Stan Vinson (Mich)
48.0	Terry Erickson (Ill)
48.0	William Wallace (Ind)
48.0	Mark Enyeart (Utah)
48.0	Marshall Dill (Mich)
48.2	Bobby Cox (NY)
48.2	Kim Rowe (Mich)
48.3	Terry Musika (Cal)
48.5	Beaufort Brown (Fla)
48.5	John Smith (Cal)
48.5	Winslow Taylor (Ind)
48.5	Tommie Turner (DC)

500 YARDS

56.4	Beaufort Brown (Fla)
56.4	Fred Newhouse (Wash)
56.4	James Redd (Cal)
56.8	John Smith (Cal)

600 YARDS

1:08.2	Bob Cassleman (Mich)
1:09.1	Beaufort Brown (Fla)
1:09.3	Terry Musika (Cal)
1:09.3	Stan Vinson (Mich)
1:09.8	Skip Kent (Wisc)
1:09.9	Nick Leone (Mass)
1:10.0	Mike Valle (Ind)
1:10.2	Tyrone Harbut (Ky)
1:10.4	Fred Sowerby (Ky)
1:10.4	Terry Erickson (Ill)
1:10.4	Dave Kaemerer (Ill)

880 YARDS

1:49.4	Rick Wohlhuter (Ill)
1:49.5	Mark Winzenried (Cal)
1:49.7	Ken Sparks (Ind)
1:50.4	Ken Schappert (Pa)
1:50.6	Ken Popejoy (Mich)

1:50.9	Dave Wottle (Ohio)
1:51.0	Rob Mango (Ill)
1:51.3	Jerald Jones (Idaho)
1:52.0	Al Ramack (Idaho)
1:52.3	John Cordes (Wisc)

1000 YARDS

2:07.9	Mark Winzenried (Cal)
2:08.0	Bob Clayton (Mass)
2:08.1	Mike Boit (NM)
2:08.1	Keith Francis (Mass)
2:08.3	Bob Smith (La)
2:08.5	Juris Luzins (Va)
2:08.5	Ken Sparks (Ind)
2:08.7	Rick Wohlhuter (Ill)
2:08.8	Tom Bach (Ill)
2:08.8	Marcel Philippe (NY)
2:08.8	Bud Couture (Idaho)

MILE

3:58.8	Jim Crawford (NY)
3:59.2	Steve Prefontaine (Ore)
4:00.3	Marty Liquori (Fla)
4:00.5	Bob Wheeler (NC)
4:01.7	Jim Johnson (Wash)
4:01.7	Juris Luzins (Va)
4:01.8	Duncan Macdonald (Hi)
4:02.0	Dave Hill (Ill)
4:02.4	Denis Fikes (Pa)
4:02.7	Howell Michael (Va)

TWO MILES

8:24.6	Steve Prefontaine (Ore)
8:29.0	Jim Crawford (NY)
8:31.2	Tracy Smith (Cal)
8:33.6	Jim Johnson (Wash)
8:35.2	Marty Liquori (Fla)
8:37.6	Barry Brown (Fla)
8:38.0	Don Kardong (Wash)
8:39.6	Mike Keogh (NY)
8:40.2	Peter Kaal (Okla)
8:40.6	Frank Shorter (Fla)

THREE MILES

13:07.2	Tracy Smith (Cal)
13:10.6	Neil Cusack (Tenn)
13:13.4	Jim Crawford (NY)
13:27.4	Gordon Minty (Mich)
13:28.2	Mike Keogh (NY)
13:29.0	Tom Hollander (Mich)
13:29.8	Glenn Herold (Wisc)
13:30.8	Frank Shorter (Fla)
13:35.6	Barry Brown (Fla)
13:36.6	Sid Sink (NY)

50-YARD HURDLES

5.8	Rod Milburn (La)
5.8	Danny Smith (Fla)
5.8	Thomas Hill
5.9	Willie Davenport (La)
5.9	Larry Shipp (La)

60-YARD HURDLES

6.9	Nate Porter (Tenn)
6.9	Rod Milburn (La)
7.0	Larry Shipp (La)
7.0	Willie Davenport (La)
7.0	Thomas Hill
7.0	Allen Misher (La)
7.0	Lance Babb (Cal)

(8 runners at 7.1)

WOMEN'S

50 YARDS

5.5	Iris Davis (Tenn)
-----	-------------------

60 YARDS

6.6	Iris Davis (Tenn)
6.8	Janet Brown (Colo)
6.8	Alfreda Daniels (Mich)
6.8	Mabel Ferguson (Cal)
6.8	Pat Henderson (Tenn)
6.8	Kathie Lawson (Mass)
6.8	Lacey O'Neal (DC)
6.8	Mattline Render (NY)
6.8	Martha Watson (Tenn)

440 YARDS

55.7	Kathy Hammond (Cal)
56.0	Cheryl Toussaint (NY)
56.2	Marilyn Neufville (Cal)
56.3	Christina O'Harrar (Del)
56.6	Beth Warner (Ohio)

500 YARDS

1:05.5	Wendy Koenig (Colo)
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600 YARDS

1:21.6	Cheryl Toussaint (NY)
1:21.8	Wendy Koenig (Colo)

1:23.0	Anne Gallagher (Ariz)
1:24.5	Kathy Hammond (Cal)

880 YARDS

2:08.0	Cheryl Toussaint (NY)
2:08.9	Robin Campbell (DC)
2:10.6	Carol Hudson (NM)
2:11.4	Sue Parks (Mich)
2:11.5	Nancy Shafer (Ohio)

1000 YARDS

2:30.7	Robin Campbell (DC)
2:33.4	Mary Decker (Cal)
2:33.4	Judy Graham (Cal)
2:34.7	Carol Hudson (NM)
2:34.7	Ruth Kleinsasser (Cal)

1500 METERS

4:27.3	Francie Larriue (Cal)
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MILE

4:35.6	Francie Larriue (Cal)
4:46.7	Debbie Heald (Cal)
4:47.7	Mary Decker (Cal)
4:53.6	Debbie Roth (Ore)
4:53.7	Teri Anderson (Kans)

50-YARD HURDLES

6.4	Lacey O'Neal (DC)
6.4	Mamie Rallins (Tenn)

60-YARD HURDLES

7.5	Pat Johnson (Wash)
7.6	Lacey O'Neal (DC)
7.7	Mamie Rallins (Tenn)
7.9	Lavonne Neal (Pa)
7.9	Debbie Lansky (Mich)
7.9	Carol Thomson (Del)
7.9	Lorraine Tummings (NY)

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RACING HIGHLIGHTS

Emiel Puttemans ran the fastest two-mile in history, and Francie Larrieu just missed the best mile—and they were running indoors. Puttemans' two-mile was 8:13.2 (eight-tenths faster than the outdoor record); Larrieu's mile was 4:35.6 (two-tenths slower than the outdoor mark).

Highlights on the roads during the period covered by this issue were Tom Fleming's brilliant third-place race in the San Blas international half-marathon in Puerto Rico, and Mitch Kingery's high school record of 2:23:47 in the marathon. Mitch is only 16 and a sophomore.

In this section, we skim lightly over the results of national track events and give slightly more attention to championship races and marathons at the standard long distances. Please send results to RW, Box 366, Mountain View, Calif. 94040.

Deadline for this issue was March 9. Most results are from February.

NORTHEAST

● Pittsburgh, Pa., Feb. 10—Pittsburgh Classic indoor: 5000m—1. Tom Donnelly (Pa) 14:24.4 (American indoor record); 2. Paul Talkington (Ohio) 14:24.6.

● New York, N.Y., Feb. 11—12-mile road run: 1. Tony Colon (20, NY) 1:01:35; 2. Tom Fleming (21, NJ) 1:01:47; 3. Norbert Sander (30, NY) 1:03:40; 4. Manfred Steffny (31, W Ger) 1:03:48; 5. DeWitt Thomson (28, NY) 1:08:28. . . 11. Joe Burns (42, NJ/1st vet) 1:10:55. . . 64. Nina Kuscsik (32, NY/1st woman) 1:22:49. (111 finished; from Joe Kleinerman).

● New York, N.Y., Feb. 16-17—US Olympic Invitational indoor: 50m—Herb Washington (Mich) 5.6. 400m—Terry Musika (Cal) 49.2. 500m—Beaufort Brown (Fla) 1:03.5. 800m—Byron Dyce (NY/Jamaica) 1:50.7. 1000m—Mike Boit (NM/Kenya) 2:21.4. 1500m—Hailu Ebba (Ore/Ethiopia) 3:46.4. 3000m—Peter Kaal (Okla/South Africa) 8:03.0. 55m hurdles—Rod Milburn (La) 7.0 (tied world and American indoor records). 1600m relay—Adelphi University (NY) 3:16.5. 3200m relay—U. of Chicago TC (Ill) 7:26.0. Women's 50m—Iris Davis (Tenn) 6.2. 400m—Marilyn Neufville (Cal/Jamaica) 56.0.

● Beltsville, Md., Feb. 18—Washington's Birthday marathon: 1. Marshall Adams (28,

NC) 2:24:17.8; 2. Max White (22, Mass) 2:26:17; 3. Heinz Wiegand (24, Md) 2:28:51; 4. Dave Webster (20, Md) 2:31:01; 5. Mike Sabino (33, Md) 2:32:12; 6. Dan Reeks (25, Md) 2:32:30; 7. Bryan Welch (20, Md) 2:32:33; 8. Steve Karpinos (29, DC) 2:34:37; 9. Jim Lee (24, NC) 2:34:53; 10. Lonnie Cole (22, Md) 2:37:01. . . 12. Gar Williams (40, Va/1st vet) 2:42:00. . . 45. Bob Horman (54, DC) 2:56:48. . . 151. Teri Johnson (21, Va/1st woman) 3:57:40. (169 finished; from Larry Noel).

● New York, N.Y., Feb. 23—AAU indoor championships: 60y—Hasely Crawford (Mich/Trinidad) 6.0; 2. Herb Washington (Mchi) 6.0; 3. Valeriy Borzov (Soviet Union) 6.1. 600y—1. Fred Newhouse (Wash) 1:11.0; 2. Wes Williams (Cal) 1:11.6; 3. Dennis Walker (NY) 1:11.6. 1000y—1. Marcelle Philippe (NY) 2:08.8; 2. Yevgeniy Arzhanov (Soviet Union) 2:09.5; 3. Lennox Stewart (NC) 2:09.8. Mile—1. Marty Liguori (Fla) 4:03.5; 2. Reggie McAfee (NC) 4:03.5; 3. Howell Michael (Va) 4:03.7. 3-mile—1. Tracy Smith (Cal) 13:07.2 (world and American indoor records); 2. Neil Cusack (Tenn/Ireland) 13:10.6; 3. Jim Crawford (NY) 13:13.4. 60y hurdles—1. Rod Milburn (La) 7.0; 2. Thomas Hill 7.1; 3. Larry Shipp (La) 7.1. Mile relay—1. Sports International TC (DC) 3:17.9 (Thad Fletcher, Pete Schuder, Bill Barrow, Tommie Turner); 2. Seton Hall (NJ) 3:18.2; 3. United AA (NY) 3:19.1. 2-mile relay—1. U. of Chicago TC 7:29.0 (Tom Bach, John Mock, Lowell Paul, Ken Sparks); 2. Fordham (NY) 7:40.0; 3. Catholic U (DC) 7:44.4.

Women: 60y—1. Iris Davis (Tenn) 6.6; 2. Kathie Lawson (Mass) 6.8; 3. Martha Watson (Cal) 6.8. 220y—1. Rosalyn Bryant 24.6; 2. Irena Szewinska (Poland) 25.0; 3. Janet Brown (Colo) 25.3. 440y—1. Brenda Walsh (Canada) 55.5; 2. Kathy Hammond (Cal) 55.7; 3. Marilyn Neufville (Cal/Jamaica) 56.2. 880y—1. Cheryl Toussaint (NY)

2:08.0; 2. Robin Campbell (14, DC) 2:08.9; 3. Gayle Olinek (Canada) 2:10.9. Mile—1. Lyudmila Bragina (Soviet Union) 4:40.0; 2. Glenda Reiser (Canada) 4:45.1; 3. Debbie Heald (Cal) 4:46.7. 60y hurdles—1. Patty Johnson (Wash) 7.5; 2. Mamie Rallins (Tenn) 7.7; 3. Lacey O'Neal (DC) 7.7. Mile relay) 1. Atoms TC (NY) 3:50.5 (Renee Desandies, Michelle McMillan, Gale Fitzgerald, Cheryl Toussaint); 2. Police AL (NY) 3:53.1; 3. Canton TC (Ohio) 4:02.7.

● New York, N.Y., Feb. 25—20-mile: 1. Tom Fleming (21, NJ) 1:41:27.2; 2. Jim Boyle (32, NY) 1:52:35; 3. Pat Bastick (37, NY) 1:53:20; 4. John Garlepp (34, NY) 1:53:32; 5. Bill Bragg (24, NJ) 1:54:08. . . 19. Joe Burns (42, NJ/1st vet) 2:02:40. . . 65. Nina Kuscsik (32, NY/1st woman) 2:24:36. (103 finished; from Joe Kleinerman).

SOUTHEAST

● Petit Jean, Ark., Feb. 3—Ground Hog Day marathon: 1. Terry Ziegler (Okla) 2:21:55.2; 2. Larry Grecian (Kans) 2:38:04; 3. Hank Brame (Ark) 2:41:40. (38 finished; from Bob Martin).

● Louisville, Ky., Feb. 10—70y—Delano Meriwether (Mass) 6.9. 440y—Beaufort Brown (Fla) 48.5. 880y—Mark Winzenried (Cal) 1:49.5. Mile—Howell Michael (Va) 4:02.7. 2-mile—Nicholas Rose (Ky/GB) 8:47.8. Mile relay—Philadelphia Pioneer Club (Pa) 3:13.8. 2-mile relay—U. of Chicago Track Club 7:23.6 (world and American indoor records; Tom Bach 1:51.0, John Mock 1:51.6, Lowell Paul 1:50.6, Ken sparks 1:50.4). 70y hurdles—Stan Druckery (Wisc) 8.2. Women's 70y—Iris Davis (Tenn) 7.7. 440—Beth Warner (Ohio) 56.6. 70y hurdles—Mamie Rallins (Tenn) 9.0. 880y relay—Tennessee Tigerbelles 1:41.1.

● Boca Raton, Fla., Feb. 18—Gold Coast marathon: 1. Dennis Wuidler (22, Pa) 2:38:50.6; 2. Dave Worthen (37, Fla) 2:53:32. (27 finished; from Ray Russell).

SOUTHWEST

● Houston, Tex., Feb. 10—Astrodome-USTFF indoor: 100y—Don Quarrie (Cal/Jamaica) 9.4. 440y—John Smith (Cal) 47.4. 880y—Ken Swenson (Kans) 1:52.1. Mile—Dave Wottle (Ohio) 4:00.3. 2-mile—John Hartnett (Pa/Ireland) 8:36.2. 120y hurdles—Rod Milburn (La) 13.3 (world and American indoor records). Mile relay—Oklahoma State 3:12.9; Rice (Tex) 3:12.0; Essex County College (NJ) 3:10.4 (winners of three separate sections). 2-mile relay—University of Texas / Austin 7:30.0. Distance medley relay—Oklahoma State 9:44.4.

● Tucson, Ariz., Feb. 10—Arizona Admissions Day marathon: 1. Ron Hall (Ariz) 2:32:24; 2. Leonard Suarez (Ariz) 2:35:49; 3. Tim Wright (Cal) 2:36:04; 4. Jan Ahlberg (Ariz) 2:39:17; 5. Joel Ireland (Ariz) 2:40:37. . . 8. David Cortez (15, Cal) 2:42:28. . . 18. Steve Stephenson (40+, Ariz/1st vet) 2:53:38.



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(88 finished; from J. McGee Evans).

● **Ft. Worth, Tex., Feb. 16**—Coaches Indoor Games: 60y—Zee Simpson 6.1. 300y—Dennis Schultz (Okla) 31.0. 440y—Fred Newhouse (Wash) 46.7. 600y—James Kurrasch (Okla) 1:11.9. 1000y—Mike Manke (Okla) 2:11.3. Mile—Jim Crawford (NY) 3:58.8. Mile relay—University of Texas/Austin 3:16.3. 2-mile relay—Louisiana State University 7:38.0. Distance medley relay—Oklahoma State University 9:54.2.

WEST

● **Inglewood, Calif., Feb. 9**—Los Angeles Times indoor: 50y—Harold Williams 5.4. 60y—Herb Washington (Mich) 6.0. 500y—John Smith (Cal) 57.5. 600y—Martin McGrady (Cal) 1:11.5. 880y—Greg Jones (Cal) 1:55.2. 1000y—Mike Boit (NM/Kenya) 2:08.1. Mile—Steve Prefontaine (Ore) 3:59.2; 2. Giani Del Buono (Italy) 4:00.0; 3. Marty Liquori (Fla) 4:00.3. 2-mile—Grant McLaren (Canada) 8:30.4. 60y hurdles—Rod Milburn (La) 6.9. Mile relay—Cal International TC 3:19.1. 2-mile relay—Long Beach State (Cal) 7:52.0. Women's 60y—Martha Watson (Cal) 6.8. 500y—Wendy Koenig (Colo) 1:05.5. 1000y—Mary Decker (Cal) 2:33.4. 60y hurdles—Pat Johnson (Wash) 7.8.

● **Oakland, Calif., Feb. 10**—50m—Herb Washington (Mich) 5.6. 400m—Fred Newhouse (Wash) 47.9. 800m—Mike Boit (NM/Kenya) 1:50.8. 3000m—Tracy Smith (Cal) 8:05.2. 50m hurdles—Tommy Lee White (Cal) 6.4 (tied American indoor record).

● **Burlingame, Calif., Feb. 11**—West Valley marathon: 1. Ron Zarate (21) 2:23:15.4; 2. Mitch Kingery (16, Cal) 2:23:47 (high school record); 3. Jon Anderson (23, Cal) 2:23:57; 4. Ron Daws (35, Minn) 2:26:58; 5. John Caldwell (22, Cal) 2:28:48; 6. Darren George (24, Cal) 2:29:47; 7. Daryl Zapata (27, Cal) 2:30:58; 8. Geoff Pietsch (35, Fla) 2:31:18; 9. Don Gregory (19, Cal) 2:31:31; 10. Alex Aguilar (17, Cal) 2:33:54. . . 14. Ross Smith (45, Nev) 2:39:23; . . . 60. Paul Reese (55, Cal) 2:57:45. . . 73. Mike Boitano (11, Cal) 3:03:56. . . 123. Norman Bright (63, Wash) 3:34:43; 134. Mary Cortez (19, Cal) 3:35:30 (177 finished; from Jack Leydig).

● **San Diego, Calif., Feb. 17**—San Diego Indoor Games: 60y—Willie Deckard (Cal) 6.0. . . 3. Valeriy Borzov (Soviet Union) 6.0. 500y—James Redd (Cal) 56.2. 1000y—Mark Winzenried (Cal) 2:07.9. Mile—Marty Liquori (Fla) 4:03.4. 2-mile—Jim Crawford (NY) 8:32.2. 60y hurdles—Lance Babb (Cal) 7.2. Women's 60y—Barbara Ferrell (Cal) 7.1. Mile—Francie Larrieu (Cal) 4:35.6 (world and American indoor records); 2. Lyudmila Bragina (Soviet Union) 4:42.0.

● **Pocatello, Idaho, Feb. 17**—Bennion Games indoor: 60y—Steve Odom 6.1. 2-mile—Louis Groarke (Colo/Canada) 8:53.6. 880 relay—Stanford University (Cal) 1:27.4 (world and American records) (Ken Curl, John Kessel, Matt Hogsett, John Anderson). Mile relay—Colorado State 3:16.3. 2-mile

relay—Brigham Young (Utah) 7:30.4. Distance medley relay—Colorado University 9:49.6. Women's 880y—Carol Hudson (NM) 2:10.6. 100m hurdles—Pat Johnson (Wash) 13.4 (world and American records).

● **Seaside, Ore., Feb. 24**—Trail's End marathon: 1. Jerry Tighe (27, Ore/Canada) 2:20:16.4; 2. Phil Camp (26, Cal) 2:24:24; 3. George Oja (29, Ore) 2:25:02; 4. Bruce Shaw (23, Canada) 2:25:02; 5. Curtis Ankeny (20, Ore) 2:25:19; 6. Larry Miller (22, Ore) 2:25:54; 7. William Laughlin (22, Canada) 2:27:48; 8. Jack Taunton (25, Canada) 2:28:38; 9. Richard Hanna (26, Canada) 2:28:51; 10. Guy Renfro (24, Wash) 2:29:22; 11. Wolf Schamberger (27, Canada) 2:29:34. . . 14. Bruce Macrae (19, Canada/1st junior) 2:32:28. . . 32. Bryon Cattell (40, Wash/1st vet) 2:41:19. . . 161. Norman Bright (63, Wash) 3:22:40. . . 183. Debbie Collins (Canada/1st woman) 3:27:15. . . 203. Janet Newman (22, Ore) 3:33:59. (444 finished; from Ralph Davis).

● **Pocatello, Idaho, March 3**—ITA professional indoor: 100m—Warren Edmonson 10.2 (unofficially breaking world indoor record). 600m—Lee Evans 1:16.7 (unofficially breaking world indoor record). Mile—Tom Von Ruden 4:09.6. 60m hurdles—Leon Coleman 7.7.

INTERNATIONAL

● **San Blas, Puerto Rico, January**—International half-marathon: 1. Victor Mora (Colombia) 1:05:11.8; 2. Tapio Kantanen (Finland) 1:06:09; 3. Tom Fleming (US) 1:06:29; 4. Juma (Kenya) 1:07:02; 5. Belete (Ethiopia) 1:07:26.8; 6. Jon Anderson (US) 1:07:27.8. . . 8. Jeff Galloway (US) 1:07:44. . . 11. Lasse Viren (Finland) 1:09:18.4.

● **Moscow, USSR, Feb. 3**—100m—Aleksandr Korneliuk (Soviet Union) 10.3 (tied world indoor record).

● **Kyoto, Japan, Feb. 4**—International marathon: 1. Jack Foster (40, NZ) 2:14:53.4; 2. Yoshiaki Unetani 2:18:20.6. . . 78. Jack Bachelor (US) 2:58.

● **Beppu, Japan, Feb. 4**—International marathon: 1. Kenji Kimihara (Japan) 2:14:55.6; 2. Noriyasu Mizukami (Japan) 2:15:47.8. (from Roger Gynn and Harold DeMoss).

● **Leyden, Holland, Feb. 10**—3000m: Emiel Puttemans (Belgium) 7:45.2 (world indoor record).

● **Berlin, West Germany, Feb. 18**—2-mile: Emiel Puttemans (Belgium) 8:13.2 (world indoor record and fastest two-mile of all-time; also world records at 2000m—5:00.0— and 3000m—7:39.2).

● **Sofia, Bulgaria, Feb. 18**—800m—Svetla Zlateva (Bulgaria) 2:03.5 (world indoor record).

● **Vittel, France, Feb. 18**—60m hurdles: Sylvie Telliez (France) 7.1 (tied world indoor record).

RACE WALKS

● **Inglewood, Calif., Feb. 9**—Los Angeles Times indoor: mile walk—Larry Walker 6:38.7.

● **Oakland, Calif., Feb. 10**—Oakland invitational indoor: 1500m walk—Goetz Klopfer (Cal) 6:10.8. Women's 1500m walk—Sue Brodack (Cal) 7:17.

● **New York, N.Y., Feb. 17**—US Olympic Invitational indoor: 1500m walk—Ron Daniel 5:57.2.

● **San Diego, Calif., Feb. 17**—San Diego Indoor Games: mile walk—Don DeNoon (Cal) 6:37.6.

● **Indio, Calif., Feb. 18**—10-kilometer walk: 1. Bill Ranney (Cal) 47:10; 2. Rudy Haluza (40+, Cal) 47:26; 3. Don DeNoon (Cal) 48:41. (from Martin Rudow).

● **New York, N.Y., Feb. 23**—AAU Indoor championships: mile walk—Ron Daniel 6:22.0; 2. Ron Kulik 6:24.2; 3. Todd Scully 6:25.7; 4. Don DeNoon 6:30.1; 5. Larry Young 6:43.3. Women's mile—1. Lynn Olson 7:39; 2. Ellen Minkow 8:06; 3. Carol Mohanco 8:08.5; 4. Mary Beth Hayford 8:16.5; 5. Laurie Entis 9:06.3.

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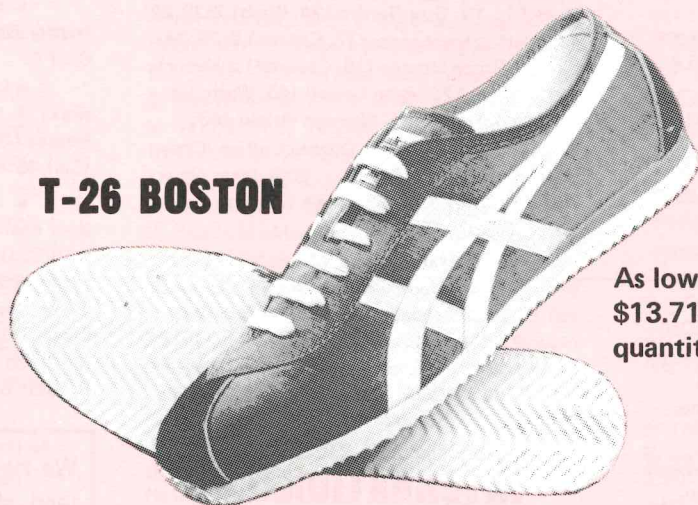
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Tiger (T-24) Cortez	6-13	Leather	White	Training	10.38 oz.	17.95	17.41	16.51	15.97	15.43
Tiger (T-21) Bangkok	3-13	Suede	Blue	Training/Racing	7.36 oz.	15.95	15.47	14.67	14.19	13.71
Tiger (T-6) Vickka II	6-13	Leather	White	Training	12.9 oz.	19.95	19.35	17.75	17.15	16.95
Tiger (T-4) Tahoe	3-13	Suede	Blue	Training/Racing	8.34 oz.	17.95	17.41	16.51	15.97	15.43
Nike Nylon Obori	3-13	Nylon	Blue	Racing	8.18 oz.	15.95	15.47	14.67	14.19	13.71
Lydiard Road Runner	7-12	Suede	Gray	Training	9.79 oz.	19.95	18.95	18.15	17.30	16.95
Bob Wolf Jogger	8-11	Nylon	Blue	Jogging/Racing	8.48 oz.	9.95	7.50	6.25	5.30	4.50
Tiger Helsinki (Spike)	6-13	Suede	Blue	Racing	6.49 oz.	17.95	17.41	16.51	15.72	15.20
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 Niagara AAU Championships
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Features:

- On Saturday night, a welcoming party for runners, their families and the press will be held for the purpose of pre-registration and general socializing. In addition, a buffet will be given after the marathon. IMMEDIATE reply is needed.
- Marathon T-shirts given to all competitors, certificates to all finishers.
- Entertainment and track meet for spectators and families during marathon race.
- 1973 National AAU 56-lb. weight throw championship.

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Sanctioned by: Niagara Association of Amateur Athletic Union.

Course: AAU certified. Rolling countryside, asphalt with ample shoulder; site of 1972 National AAU Marathon. Winner—Edmund Norris.

Report: Griffin Field, Liverpool, NY, 10:30 a.m. for registration. Race begins 11:45 a.m.

Entry Fee: \$2.00 (payable to North Area YMCA). Please enclose with registration. Bring AAU card to pre-registration.

Entries Close: All entries must be postmarked by May 14. Absolutely no post entries.

Lodging: Further information on lodging will be sent upon receipt of your completed application.

Awards: Following the marathon, there will be a convivial buffet gathering and presentation of awards.

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Open	1st place — trophy	2nd & 3rd — medals
30 — 39	1st place — trophy	2nd & 3rd — medals
40 — 49	1st place — trophy	2nd & 3rd — medals
50 & over	1st place — trophy	2nd & 3rd — medals

Plaques will be awarded to next 4 finishers in each age category.

Father & Son 1st place — trophy

NIAGARA DISTRICT CHAMPIONSHIPS

Open	1st place — medal	2nd & 3rd — medals
40 — 49	1st place — medal	2nd & 3rd — medals
50 and over	1st place — medal	2nd & 3rd — medals

EASTERN REGIONAL MARATHON CHAMPIONSHIPS

(Eastern Region is New England, Metropolitan, Niagara, Connecticut, Adirondack, Maine and New Jersey Associations)

Open	1st place — trophy	2nd & 3rd — trophies
Masters 40 — 49	1st place — trophy	2nd & 3rd — medals
50 and over	1st place — trophy	2nd & 3rd — medals

ENTRY BLANK

In consideration of your accepting this entry, I, the undersigned, intending to be legally bound, hereby, for myself, my heirs, executors and administrators, waive and release any and all rights and claims for damages I may have against the above organizations, First Trust and Deposit Company of Syracuse, North Area YMCA of North Syracuse, Greater City of Syracuse, The Syracuse Chargers Track Club and the Niagara Association of the A.A.U., their representatives, successors, and assigns for any and all injuries suffered by me in said events. I attest and verify that I am physically fit and have sufficiently trained for the completion of this marathon of over 26 miles and my physical condition has been verified by a licensed Medical Doctor within 120 days of the race.

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1. _____ Time _____ Place _____

2. _____ Time _____ Place _____

(Use reverse for other accomplishments. Please don't be modest—we need race publicity material).

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READERS' COMMENTS

ALL-AMERICANS?

The January issue confirmed my fears that the NCAA cross-country championships are fast becoming contests with the winner being the college who can afford to import the most talent... The "All-American" award does not fairly belong to a runner who has already represented his own country in the Olympics or has several years of experience over his American counterpart.

*Sheila Dziubinski
Oak Creek, Wisc.*

NO-SALT DIETS

A trend that worries me is the "no-salt" diet. Reading a book on rehabilitation and prevention of muscular injury, they recommend *increasing* salt doses for almost any type of muscular problem. I've had a low-grade groin injury for some time and the extent to which it bothers me is related to my salt intake; low-salt leads to soreness, high-salt almost eliminates it.

*Ken Young
Chicago, Ill.*

PUBLIC IMAGE

Two aspects (of newspaper coverage on the recent Washington's Birthday marathon in Maryland) bother me more than a little. One, the image of runners, at least in the eyes of one major "sports" writer, (as) "nuts," "failures," "losers," etc. The second is focussing exclusively on single personalities, i.e. (Erich) Segal. Frankly, we don't need this kind of publicity. It's a bad rap.

I saw (a *Washington Post* writer) there. He was a fat slob who, I submit, did a lazy man's job of covering a sports event. (He) overdid Segal. That's a lot easier than getting out there and finding out what was happening, like Moses Mayfield setting a blistering pace then fading, 53 guys breaking three hours, etc.

Please think of a thoughtful article on the public image of runners.

*David Theall
McLean, Va.*

WHAT READERS WANT

What are the chances of adding an exercise physiologist to your staff to answer very specific questions related to training, much like Dr. Sheehan an-

swers medical questions?

*Bill Weigle
Carmel-Valley, Calif.*

I would be interested in seeing a short article in each issue about a great runner of the past. Just a sketch on what he is doing now: does he still run or did he quit cold when his competition days ended; what does he think of running today; is he involved in the masters program, etc.

*Dick Trace
Saginaw, Mich.*

WHAT'S LACKING?

The publication that I most looked forward to receiving among some 30-40 track and field and distance running publications was *Racing Report* (an *RW* newsletter, parts of which became part of the new format in January). Therefore, I'd hoped most everything from it would be in *RW*. But judging from the January issue, you may not be using results of many long distance races. Hope you will at least be able to show the state or AAU association championships and races at standard distances on certified courses. (*When we have these results, and when the quality of performances merit, we will include them.*)

*Bob Martin
Tulsa, Okla.*

I see in the magazine a trend which I suppose is inevitable, although disappointing. I refer in particular to the article on the AAU Masters cross-country championships (Jan. 73). Unfortunately, the second-hand third-place finishers in the 60-69 class were not even mentioned. I suppose this is one penalty of growing older.

I suppose it is inevitable that as you (*RW*) grow more successful, we shall have to put up with an inundation of verbiage about the truly great runners to the exclusion of those who make running great. I think that a medalist in a national race for any class deserves better.

I suppose that it is inevitable you will forget your old friends. But so soon? (*There were three finishers in the over-60 division. Norman Tamanaha was second in 46:01, Otto Essig third in 46:22.*)

*Alex Hossack
Longmeadow, Mass.*

NEXT ISSUE: "All in the Family"—the special feature—looks into the positive and negative effects of running on family life.

What's with all this scientific and over-40 stuff? If you are going to try and improve your magazine as far as "class," readership and appeal to most track nuts (leaning towards distance runners), then put that stuff in a booklet of the month. When you started using color, you had the "potential for greatness." But then you put some \$5-if-you-can-guess-his-name nobody on the cover (Feb. 73) instead of one of the top performers on the current scene. . . The little we get in *Racing Highlights* is what should take up the large amount of the magazine, in my opinion.

By the way, seeing as how you have so much info on Brenda Webb, how would you like to send me her address? I want to write to her 'cause I fell in love with that picture!

*Mike Tollefson
Seattle, Wash.*

EXPERIMENTING

The section on testing (Feb. 73) was excellent. This is the type of information we must have in order to conduct our "experiment of one."

*John Hardtla
Tacoma, Wash.*

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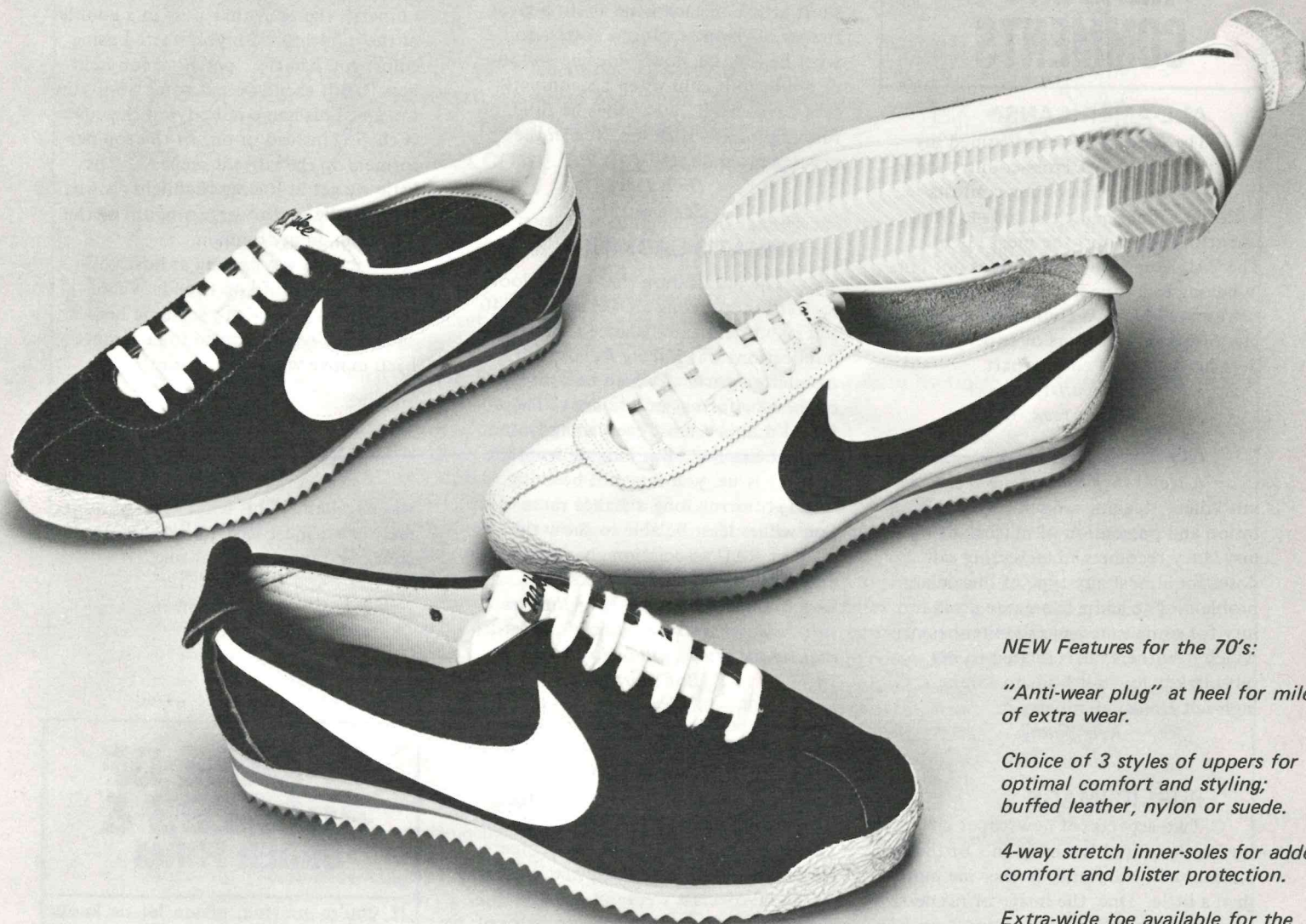
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