

A Giant Awakens

China, the most populous nation on earth, has been aroused in a track & field sense; the question is, what's the secret behind the arousal?

by Jeff Hollobaugh

"The sound of their running shocks the world!" That's how China's *Sports Daily* heralded an unbelievable week of record-shattering performances at the National Games in Beijing in September (see p.8).

'Shock never seemed such an understatement. First came word of Wang Junxia's 29:31.78. News of other records followed: Qu Yunxia's 350.47 at 1500, with Wang on her heels. Five women under Tatyana Kazankina's 3000 mark in the heats. Wang winning the final in a stunning 8:06.11.

The track world groped for answers to the question of the day, 'How?' Hard work, explained the Chinese: hard work and caterpillar fungus potions. There are only a finite number of synonyms for 'unbelievable.' The Chinese explanation earned them all.

At the news conferences in Beijing, leading coach Ma Junren (see box) flamboyantly responded to the world's amazement. 'Some people say we broke the records by too much,' he said, 'I don't think so. I think it was by too little.'

He and his athletes were steamed by charges about drugs. "These people themselves are taking drugs," he said, noting that the only secret substances his athletes indulge in is the concoction made from caterpillar fungus (see box), and a soft-shell turtle stew.

A few days after the meet came the news that the drug tests for the World Record setters, performed at Beijing's IOC-accredited laboratory, came back clean. Weeks later, however, China's news agency announced that 11 athletes had tested positive at the Games, which are a multi-sports competition. No names were released, and indeed, the Chinese didn't even indicate what sport(s) the athletes had competed in.

At this point, it is not clear if any of the runners tested positive, although Wang and Qu were specifically named as not among the guilty. If it turns out that the positive-testing athletes were minor names from track or from other sports, there is already the suspicion that the banned athletes were nailed-perhaps even unfairly-just to lend credibility to all the WR breakers.

Some Western experts were able to make the leap of faith required to accept the Chinese performances as legitimate. Arne Ljungqvist, head of the IAAF medical commission, criticized the cynics by saying, "The attempt to explain it by drug abuse is an unintellectual approach. I tend to look for normal, rational explanations."

The Man Behind It All

If we are to accept the Chinese story at face value, it is this: Ma Junren, a former farmer now in his late 40s coaches 18 female distance runners in Liaoning Province in northeast China. Never a runner himself, Ma has been laughed off in the past by his rivals

Bold and charismatic, he is given to making unrealistic predictions about his athletes-"Ma's Family Army"-which have a habit of coming true. His cocky ways stand out in conservative China, where he is regarded as abrasive.

After leaving the army in 1970, he missed his chance to grow vegetables in a collective farm, and opted for career door No. 2, an 8-month sports training class at a local institution. That led to a teaching position at a sports school. According to IAAF Council Member -ou Dapeng, there are 3575 such sports schools in the country, with more than 100,000 athletes between 8 and 14. The most talented progress to one of the 160 technical sports high schools.

Ma's early athletes could not afford shoes, but did well in local competitions. In '82, two of his runners broke provincial records in the 3000 and competed in the National Games. They bombed out in the prestigious competition.

Ma kept at it, and in '86 was named a professional athletics coach.

Having never been to college, Ma read every training manual he could get his hands on, and decided that most current training methods needed to be rethought. He studied animals. "It's from deer and ostriches that I found the key to success in distance running," he says. There are reports that his athletes practice flapping their arms like wings.

Explains Ma, who now works out of the college at Shenyang, the provincial capital, "I can say my key to success lies in two elements-selection of runners and skills. All of my runners I chose are from the rural areas. They are used to enduring difficulties. "How else would they bear to run a marathon a day at the high altitude of 2236 m [7335 feet]? Who else in the world does this?"

Each year, Ma takes his runners on five or six trips to a national training center in Tibet, where he combines an intense mix of speed work and aerobic altitude training. The women spend up to half the year there, training up to 180M/week.

Ma says he has figured out exactly how to peak after coming down from altitude, which is why his runners excel in the big meets. The first peak comes three days after finishing altitude training. The next is two weeks later, followed by a third peak in another week. He says he returned his runners to altitude immediately after Stuttgart.

At the World's, Ma told reporters, 'if you come to Beijing at the National Games, you'll see my athletes at their best making new world Records.

Wang Junxia came down from the mountains three days before she became the first woman to break 30:00 in the 10K.

/JH/

Some said the records resulted from hard work and a unique cultural situation. 'Clearly they're in a class by themselves,' admitted Dr. David Martin, one of the U.S.'s top running scientists. "But then, they're in an environment by themselves."

British national coach Frank Dick described it as "a culture whose mental and physical endurance capacity is something we may not find acceptable in Western Society."

Noted Kiwi coach Arthur Lydiard said, 'If only one woman had gone out and had run that fast 3000 time, I'd have been a little skeptical. When five of them do it, I realize they have a [legitimate] program going.'

It is rational to think that the Chinese have suddenly discovered the perfect training regimen? Is it reasonable to conclude that by dint of culture the Chinese women (and not the men) suddenly have a monopoly on hard work? Is it logical to be suspicious of one fast runner but reassured when more appear out of nowhere? True, the possibilities need to be considered, but the probabilities need to be reckoned with. The Chinese have created a revolution in women's distance running. Does their explanation ring true?

TOO MUCH TO BELIEVE

*The Depth-If the times recorded by Qu and Wang seem unbelievable, what happened behind them is more so. Four other women went under old World Records. Five WRs were set, but in actuality, there were 14 performances under the old standards.

The only similar mass thrashing of WRs came in the early days of women's middle distance racing. Five women broke (and one tied) the 1500 WR in the '72 Oly final. Four broke the 800 best in Montreal '76.

In both cases, the women were predominantly from East Bloc programs. The records they beat were weak.

Consider the sudden depth of China's elite: 8 under 1:59 in the 800; 7 under 4:00 in the 1500; 5 under 8:22 in the 3000; 11 under 31:33 in the 10,000. The corresponding numbers at the World Championships, with virtually all the best on the planet in attendance, were 3, 0, 0 and 6.

- Kazankina-Also raising the eyes of skeptics is consideration of the fact that the 1500 and 3000 records by Soviet Tatyana Kazankina were considered to be almost inviolate. Kazankina was the product of a rigidly structured system which worked with a large population (admittedly nothing like China's), meticulously identified talent at a young age, gave it specialized sports training and had a sophisticated doping/detection-avoidance program. While Kazankina herself never tested positive, she did receive a 2-year ban for refusing a test at an international meet

Magic Mushrooms?

The Chinese, by their own admission, may be using performance-enhancing drugs. Not by their definition, and possibly not by the IAAF's. But some observers who at first made light of coach Ma Junren's caterpillar fungus are starting to wonder if it's a joking matter at all.

Says Ma of the potion, "This is what I tell my trainees to drink. This is all natural and Chinese people have been drinking it for hundreds of years." He denies that it contains any banned substances.

Though Chinese medicinals is still a mysterious field for many Western pharmacists and doctors, some experts-in China and abroad--claim that the caterpillar fungus, *dong chong xia cao*; is a potent drug.

Translated literally as "winter insect, summer grass," the substance, according to legend, was discovered over 1500 years ago by herdsman who said their yaks became energized after eating it. Today local farmers collect and sell the dry, twig like caterpillars.

Highly regarded in China, the caterpillars cost \$700/kilo wholesale, a price which doubles by the time it hits the pharmacies.

According to Shen Liansheng of the Institute of Chinese Medicine in Beijing, doctors use it to treat tuberculosis as well as liver and kidney problems. He claims, 'It is used to increase the immune system of the liver as well as the body to keep the person healthy and fit.'

Some U.S.-based adherents also say that the substance can give a short-term boost of strength and endurance.

Another of Ma's recipes, soft-shell turtle soup, supposedly contains a substance that is used to regulate female hormones and menstruation. If true, the possible use of these drugs lends it self to a 'worst feats' scenario of Chinese doping.

'Brake drugs' as they are called by Don Catlin of the UCLA drug lab, have reportedly been used in the East Bloc-primarily on gymnasts-to slow down maturation in females, keeping weight down and maintaining a more compact body frame.

'This goes beyond drugs,' Patti Sue Plumer said when she learned of the records. Several coaches have clarified that: beyond known drugs. What of the possibility that the Chinese have come up with a new dug in the form of the fungus and/or the other potions, or a new application for a very old one?

The IAAF rules are written so that new drugs, in addition to the items on its banned list, are forbidden if they have a "chemical or pharmacological relationship to named banned substances.' This rule was a weapon in the banning last year of athletes having used clenbuterol.

However, the IAAF says there is no proposal afoot to obtain any of the Chinese potions and test them for efficacy, side effects or detectability. "We don't perform analyses of drugs' Arne Ljungqvist, chair of the IAAF's medical commission, told T&FN

'We conduct drug tests, and if a test comes up positive. we try to figure out what happened. So far the people who have reportedly taken it have not tested positive. That is all we are concerned with.'

Ljungqvist insists, "There is no such doping available that would all of a sudden make you run one minute faster in the 10.000 They are pretty good runners, that's my conclusion."

While it may be easy to laugh off many Chinese traditional medicines-such as crushed rhino horn as an aphrodisiac-it's unlikely that the IAAF's apparent lack of interest in these new substances is going to reassure the many women athletes who fear that the level playing field is gone forever.

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CHINA-cont. from p. 5:

The world's best tried for years in vain to approach Kazankina's marks and for a multitude of runners suddenly to shatter them just stretches credibility beyond the breaking point.

● **The Youth-Chinese** birth records seem almost as confusing as those from East Africa. But going by any set of birthdates still yields the same conclusion. Their female distance runners, as a group, are amazingly young. Of the 18 who comprised the top 8 in the distances, the average age was 21.3. Of many of these athletes, little was known before this year. Wang Yuan, 17, now NJR holder at 800 (157.18) and 1500 (3:59.81), was unheard of before June. Only two were over 25. Statistically, one would expect a more even spread of ages, as the Chinese have had their training setup established for more than a decade.

● **The Training-Ma** Junren told a Chinese journalist before Stuttgart that his charges run about a marathon's worth of distance a day for six months out of the year. In other words, 300K/180M.

The training center is apparently based on the East Bloc model, with athletes living, eating and working out together.

The athletes don't last long unless they are completely devoted to the cause. Says Wang, 'It is for becoming China's best that I've come here. If I fail to reach that goal, all my life and efforts would be a waste.'

Notes Martin, 'I'd hate like hell to hear the comments of those who didn't survive the training camp.'

Some have said this means Western runners will have to work harder. They've forgotten that Western runners have already tried it. A few world-class runners (none of them notable women) have attempted mileage in

that range, all with mixed results.

Former marathon WR holder Derek Clayton and U.S. standout Gerry Lindgren flirted with those numbers. Their training produced outstanding results, but at the cost of severe and frequent injuries.

He Zhenliang, IOC vice-president of China's Olympic Committee, said after the rash of WRs, 'We are not selfish people. We wish to share our experience with others. The coaches and even the athletes of all other countries are welcome to come to China and undergo the same training, if they can endure it.'

Jeff Galloway, a 10K Olympian in 1972, averaged 140M/week (225K) for six years. For three of those years he would try to run near 200M/week (320K) once every six weeks. 'I found that I would get sick or injured every five or six weeks,' he says.

Now more famous for his coaching contribution, Galloway has worked with a number of elite runners. Most who have attempted ultra-high mileage have broken down quickly, he says. A number of others have lasted longer by breaking the rules. He notes, 'Some runners in the past 10 years have confided to me that they handled extended periods of high mileage without breaking down while they were on steroids.'

'In every case, they dropped off the edge of the earth at some point, and never returned to their former levels.'

He adds, 'What really allows me to question [the Chinese claims] is that all women I have known who run 90M/week (150K) or more have come down with stress fractures or stress syndrome of some type. I can't imagine a woman handling that without skeletal problems.'

The world-class Chinese have been around for such a short time that injury problems are not evident. Reports of injuries, in any case, would be nearly impossible to obtain.

Brazil's Luiz de Oliveira, coach of Joaquim Crur and other elite runners over the years, rejects the claim that Chinese peasant women can endure the hard work because they are inherently tougher: 'There are peasant women in Kenya, peasant women in Ethiopia. They want just as badly to be fast. Why isn't this happening there?'

The Outside Coaches-Since the fall of the Berlin Wall, rumors have circulated that sports scientists from the former East Germany and other East Bloc nations had been given jobs in China.

'There are no coaches from the former East Germany now in China,' Lou Dapeng, China's IAAF delegate, said in Stuttgart. Lou says only one has been there ever, and that was for a 3-week IAAF coaching course.

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CHINA-cont. from p. 6:

But it was only after the stunning success in Stuttgart that Chinese officials began distancing themselves from any East Germany ties. Last winter, Chinese officials had nothing to hide when they introduced former East Germans to visitors interested in Beijing's Olympic Bid.

The about face has been dynamic, No East Germans were to be seen in Worker's Stadium during the National Games.

Beyond Liaoning-International attention has zeroed in on Liaoning Province and coach Ma. But the revolution in Chinese track goes far beyond Liaoning and Ma's caterpillar fungus milkshakes.

Ma doesn't coach all of the Chinese distance runners responsible for the incredible stats in Beijing. Zhong Huandi, who ran 30:13.37, trains in Yunan Province, more than 1500 M (2414km) away. Runners from other provinces churned out bests of 158.48, 3:58.64 and 8:39.74. In addition to Zhong, six other non-Liaoning women broke 32:00 in the Beijing 10K.

"Nothing extraordinary has happened," insists Ma. "We are only strong in a few events, unlike the U.S. or Russia. We are far behind and should study and learn from them."

But the marks in Beijing show that the explosion in Chinese women's tracks isn't restricted to the distances. Factor in the phenomenal performances in other events there, from 11.02 in the 100, 49.81 in the 400, 53.96 for 400H, to 6750 in the multi-all by athletes from a wide variety of provinces.

There has been a vast improvement throughout women's track in China in the last two years, demonstrating that the technology/training responsible has been disseminated recently, and on a nationwide level.

Says de Oliveira, "The coach made a comment that they have a very good scientific training program. This has to be something that they just discovered two years ago."

"Instead of the IAAF asking me and others to do clinics all over the world, they should be asking [Ma]."

A Case For Doping?

Concerns about the makeup of coach Ma's potions are serious. But it's still difficult to rule out the role of traditional performance-enhancing drugs in China's improvement. The transfer of sophisticated East German doping techniques to China, while difficult to prove conclusively, is certainly a real possibility.

"If they're doing anything illegal," says one Westerner who coached in China, "they're obviously doing it head and shoulders above the others."

Indeed, it's a surprise that scientists (sporting and non-) from around the world aren't beating a path to the Chinese door, as they appear to have come up with the greatest quantum leap in human performance in history.

Anyone who followed the drug-aided rise of Europe's East Bloc women would agree that these new performances are far better than what anyone imagined drugs could allow.

There's an argument, therefore, that drugs can't be involved. Says Martin, "It must be something else: A combination of emotions and a successful program, both interacting in a short period of time."

Socio-cultural theories-and there are a lot of them floating around-don't preclude the possibility of doping, however.

It's intriguing to look at China's women's running records at the end of '91. An athlete running times that modest (e.g., 4:07.71, 8:50.68, 31.27.00) would have had a tough time competing at the National Games just two years later. In the flat events, the best those 1991 NRs would net would be a 5th in the sprints. The 4:07.71 wouldn't even have made the final.

A look at graphs (see box) of Chinese women's improvements in selected events over that last few years is boggling.

Another problem is the Chinese men. Like any nations, they have their standouts. But the improvement curve that has taken the women to the stratosphere has left the men languishing in the cellar of world-class track, leading cynics to point to the fact that the major performance-enhancing drugs have a far greater effect on women than on men.

The Chinese have to do better than Lou's explanation that "So many coaches prefer to work with the gins, who are more obedient, disciplined and hard-working than the boys." He adds that because women mature earlier, their talent is easier to identify in the developmental system.

Another question is why did the Chinese leave some any top athletes home from Stuttgart? The Beijing results indicate that 28 possible women's WC finalists did not make the trip; 11 of them would have been medal contenders.

It's hard to believe that all of them were injured three weeks earlier. To what extent was the drug testing in Stuttgart a consideration?

Weng Quingzhong, a Chinese sports medicine official, claims that steroids are difficult to obtain in China. But obviously, it's not impossible-in the several years prior to the National Games, 7 tracksters were nabbed by the drug testers.

Now 11 other athletes have been caught. Critics can now point to the fact that significant drug use has been detected within the state-supported, centralized development

bureaucracy. Given the lack of individual liberty in China and the drastic penalties involved for relatively minor crimes, the empirical evidence is that doping in China has to have an official sanction.

The IAAF random squads, which have open visas to enter the nation, have visited three times in the last 1 1/2% years. Out of 50 total tests they found three positives.

What The Future Holds

Look for the IAAF's random-testing program to come under more pressure. Just the fact that so many questions have been raised about the Chinese indicates the program is not calming fears the way it ideally should.

Says de Oliveira, "They have only come to test my athletes once. They don't want to catch anyone." Unless the program generated more credibility, he feels, "We'll just be talking and talking." Medical commission member Manfred Donike has said that in terms of testing coverage, "All of Asia is unknown."

According to the IAAF, soon there will be more money for the flying squads. The doping control budget of \$1.3 million will be raised by \$250,000 next year, most of it to be spent on random tests in countries such as China.

There remains, unfortunately, the nagging question of how effective the random-testing process is as presently constituted. Say on Catlin of the IOC's medical subcommission, the odds of catching cheaters are low "unless notice is truly short-hours, even minutes."

Highly efficient flushing/masking agents obviously exist. One need look no farther than Ben Johnson-who passed many tests over the years while dirty-for confirmation of this.

Obviously the IAAF can't force anyone to compete where they don't want, but most athletes would feel a lot better if the Chinese were regularly appearing on the GP Circuit and enduring that regular testing program. As it is, they can come to a Stuttgart with a far more remote chance of having been tested recently than other medal contenders. Also looming are the specters of untestable substances like human growth hormone (HGH) and erythropoietin (EPO), or the illegal technique of blood doping, which can't be detected.

The IAAF has also received pressure from some quarters to improve sex-testing procedures, not that there has been any significant challenge to the Chinese women on this front. The thought has popped up, though.

The coming years may hold many surprises for the world of track & field. What will the Chinese do next season? And what will it

prove? Nothing, probably. "If they never begin to duplicate these performances, will we be left saying they were on drugs?" Asks Martin. "What if they run even faster next year? What then?"

One thing is sure. If the Chinese want to dominate women's distance running, they can. There are dozens of Chinese women who theoretically are at the developmental stage that Wang and Qu were at, just a year ago. Given China's population of 1.2 billion and the fact that its scientists and coaches have taken 20-year-old athletes from mortal levels to superhuman status in just a year, one can only conclude that more are probably on the way.

The coming weeks may be interesting too. Ma says he is preparing Wang and his other top runners to compete in the World Cup Marathon on October 31 in San Sebastian, Spain.

"I believe I can definitely break the record," says Wang of Kristiansen's 2:21.06 global standard.

Who's going to doubt her? •