

lberto Salazar has spent much of two careers—first as an athlete and now as a coach—on the frontlines for the U.S. in a distance running world where excellence has been redefined over three decades by great athletes from other countries.

Salazar—Cuban-born himself—was an Oregon soph in '78 when Pac-10 rival Henry Rono shocked the sport with World Records in the 3000, steeple, 5K and 10K.

Rono was unique, a superman it seemed.

In retrospect, though, he was just a harbinger of what was to come.

Rono's marks were not unworldly faster than the 13:11.93 and 27:25.61 ARs Salazar would set four years later

"It was more just amazing that one guy was that talented and could do all those events," Salazar says. "But I don't think it gave us any inkling of what was about to happen in terms of the inundation of great East African runners, that all of a sudden there was going to be a bunch of these guys that were as good as Rono running

just crazy times."

An über-intense competitor with a shuffling gait, Salazar burned hot as an athlete and by '84, when he placed a disappointed 15th in the Olympic marathon, he was, in his own words, burned out.

Although he stirred up the embers sufficiently in '90 to run 2:09:41 in the Chicago Marathon and in '94 won the 56-mile Comrades Marathon in South Africa, Salazar is the first to say passion trumped reason in his training,

to his detriment.

Today, as the coach of Nike's Oregon Project since its inception in '02, job No. 1 for Salazar is "closing the gap," moving U.S. distance runners closer to the medal stand. Having made measurable strides, Salazar's mantra is to make sure that reason and science guide the process.

In mentoring Amy Begley, Kara Goucher, Dathan Ritzenhein, Galen Rupp and the group's newest member, '10 Tennessee grad Jackie Areson, he says, "We are going to train old-school ways being tough as hell.

"We believe in running 120 miles a week if you can get up to it, and this idea that you're

going to do it on 60 or 70 miles a week is silly. But we've got to do it smart. We've got to use technology, we've got to use science, because we have a limited number of athletes to compete against so many great, gifted athletes."

Incidentally, Salazar still apprises recently departed Oregon Project miler Alan Webb of the group's schedule and Webb has an open invitation to jump in any day he feels a workout will mesh with his plan.

With Ritzenhein having set a 5K AR under his tutelage, Goucher having medaled in the 10K at the '07 World Championships and Rupp having raced the No. 2 all-time U.S. 10K time last year, Salazar says, "When you try doing innovative stuff, some stuff works, some doesn't.

"You get rid of the stuff that doesn't work, but if you never do some stuff that you later think, 'Yeah, that was crazy,' if you're not sometimes throwing stuff away, you're not trying enough new stuff. That's just the way it is "

T&FN checked in with Salazar three days after Goucher's 5th-place finish at the Boston Marathon for a chat about his mission.

We asked about the fortuitous coincidence that as the Oregon Project began Salazar was simultaneously coaching Rupp at Portland's Central Catholic High. In the talented young high schooler, he had a test case. He could

Salazar In A Nutshell

•Personal: Alberto Salazar was born on August 7, 1958, in Havana, Cuba

•Schools: Wayland, Massachusetts High '76; Oregon '81 •PRs: 7:43.79, 13:11.93 (#13A; AR at time), 27:25.61 (#7A; AR at time), 2:08:40+ (#3A; WR at time; negated by short course)

•Major Meet Highs: 5000—9) NC, 7)US; 10,000—3)NC, 2x1) US, 17)WC; Mar—3x1)NYC, 1)Boston, 1)Chicago, 15)OG •World Rankings: 5000—1x (high of 8); 10,000—2x (high of 2); Mar—3x (twice No. 1)

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apply science from the start and measure the results:

Salazar: Galen was kind of in the right place at the right time. To be honest, he is what I would look at as the model of what we should do, if there's a way to do it, in terms of getting kids at a very young age training correctly. Imagine if we could get 30 kids in this country doing that. We would have so many more good runners by the time they got out of college.

T&FN: What do you think is the main thing coaches should be doing differently with young runners?

Salazar: At a young age, the No. 1 thing that they could do is work on proper biomechanics. People can argue about whether you can change mechanics later or not and I agree that it's very hard to change much later.

But why would you not with a kid at a young age try to teach him to run correct biomechanically

In every other sport you teach kids how

to do everything correctly every skill sport; baseball and everything else. Only in running do distance coaches often say, "Whatever it is, it is."

If at a young age—when they don't really have any idea how to run and their bodies haven't adapted to any one way of running just by happenstance—you could teach them to run correctly and they ended up keeping that proper form through their whole career, we'd have so many more successful kids.

At some point bad biomechanics are going to catch up with you, either in terms of injuries or just being a limit on how fast you can run.

Without naming names, I see guys that are top collegiate runners right now that I know as a professional in the sport there's a 90% chance they won't be successful outside of college because they don't have the proper form.

Once your neuromuscular patterning is set in a certain way, it's very hard to change

it. For distance runners, just from all the miles you become wired a certain way, and to change it is very hard. And even if you change it and theoretically you should be faster, you may run into injuries because your body has learned to adapt to that pounding by your peculiar stride. If you try to change it, it might require years of a reduced volume to allow your body to

Alberto's African Adventure

In 1980, Alberto Salazar tried a very unscientific training innovation: a trip to high-altitude Thomson's Falls, Kenya.

He stayed a half-mile from where the Kenyan Army team lodged in two tents next to a dirt track. He only lasted a month.

"I met Peter Koech, who was to become the World Record holder in the steeplechase," Salazar says. "At that point he was a 3:42 guy for 1500.

"When I was leaving, I gave Peter

all my gear and a month-long set of workouts."

The next year John Chaplin recruited Koech to Pac-10 arch-rival Washington State. The year after that the Kenyan ran 13:09.50 for 5K and in '88 he won Olympic steeple silver before setting his WR of 8:05.35 in '89.

"Peter told me when I met him again in the U.S. that he had taken my schedule and just used it for the next year," Salazar says. "He would do it for a month and then start it again... The rest is history."

get used to those forces even though they're in a correct way. So that's why it's too late at

that point, often. **T&FN:** With Galen you were able to start that process early enough for it to pay off?

Salazar: Yeah, I think so. He has very few injuries and I think he's biomechanically very sound. There's this one thing that we're still working on with his shoulders. He runs a little hunched with his shoulders and he's got a little

to myself, "This kid looks really good right now, very smooth, very athletic. Don't screw it up; keep it. Don't make him into an uncoordinated distance runner."

T&FN: The main portion of your career concluded when you were just 26. Did your lack of attention to science lead to that early retirement?

Salazar: Absolutely. The workouts that you need to do to run certain times, those are a given.

To run a 27:25 10K you had to run 6 x a mile in 4:20. You had to run 120 miles a week; you had to do certain workouts. Races are predicted by workouts.

So it wasn't that my workouts were too hard. The workouts were what led to those fast times. Just as they do now.

My mistake was I never took a break. I would finish my summer season and go immediately into 10 weeks of marathon training. I would



curvature of the spine there that causes that. So now we're trying to address that.

He's doing Rolfing and different exercises to work the musculature there to straighten out that back problem. Other than that, everything is really nice: his footstrike, his back kick. There's nothing to fix.

With him at a young age, I remember saying

run the Boston Marathon and 3 weeks later I'd be running a 13:40 5K; 5 weeks after that I ran 13:15 at Pre. I never gave my body a period to rest and recover. I just felt I was training year-round.

I'd finish running in the summer, I'd take two days off; that next week I'd run 70 and the next week I'd be up to 120. So my rest was a

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70-mile week; that was my vacation.

That led to me being overtrained and tired and sick. And with overtraining bad biomechanics become worse. So my shuffling

stride pretty soon became one where I didn't even hardly pick my legs up.

You have to counterbalance that; you have to work at it. Take someone like Kara that's a little bit of a shuffler: she hasn't regressed at all because we actively work at keeping her limber and loose.

We're really working on making sure that she doesn't start to become more restricted like I did to where pretty soon she'd be getting no power and no stride length because she's not having any pop off the ground.

Whatever biomechanics you have, however good you can get them, you have to work hard to maintain them.

T&FN: So what is required? State-of-the-art medical and recovery support, stretching?

Salazar: It's all of those things. We do a lot of dynamic flexibility stuff. Three times a year all our athletes are orthopedically evaluated by one of the best football trainers in the country. His name is Lance Walker; he's with the Michael Johnson Performance Center.

He goes through several tests and checklists of things. He tests you on all these different things: step-and-reach, lumbar flexibility, hips, everything. And with this he can monitor how you're doing and see if you're starting to tighten up or not have a proper range of motion in some way.

With that he can then give you corrective exercises at any point if it seems like you're starting to get bound up somewhere. So it's not one of these things like a chiropractor: "Well, we'll just keep snapping you back into place." I don't believe in that. It's, "You're kind of not in place here so we're going to give you exercises to put you back in place."

In other sports, all the stuff that we're doing is commonplace. We've had the Manchester City Premier soccer club here; we've had all the best NFL trainers in the country come here periodically. We had our top 10 Nike NFL players here a couple of weeks ago for a week. We did all this training.

All this stuff that we're doing is done on



We do that with the athletes, and as a result, we are able to keep them from starting to lose their range of motion.

T&FN: What do you say to people who believe you're overemphasizing the science?

Salazar: When people say that, they have no understanding of what happens in other sports.

professional teams. The Manchester City team had GPS units on each athlete. They could monitor exactly how far they'd run in each workout, all the forces, all these different things. It's incredible. I talk to those guys and say, "It's great that you're doing that. Maybe we should look at that."

But in our sport, for whatever reason, people think we don't need science. If you're in one of those sports, they've got these incredible scientists that travel with them that are doing all this stuff. Why shouldn't we do it in our sport?

The old school stuff? We don't forsake any of that. I want my runners to run the maximum number of miles they can safely.

T&FN: How much of the Bill Dellinger program that you trained with at Oregon do you follow now?

Salazar: I would say the philosophy behind what we do is 75% the same as what he did and what Bowerman did. It's just a matter of more volume. The formulas, the basic ideas, haven't really changed. □

Running, But Going Nowhere

We asked "mad scientist" Alberto Salazar which tech innovations have most benefited the Oregon Project. He cites two treadmills, the Alter-G (on which athletes can run with effectively reduced body weight), and the HydroWorx (for running while buoyed up by water).

Salazar bought the first four Alter-Gs sold. "Now these things are all over the country," he says. "They're considered mainstream."

He says people questioned the efficacy of the HydroWorx machines also but "now the U of O's got about a million dollars worth of HydroWorx treadmills at their facilities.

"The second somebody gets sore, we put them

on the Alter-G. We lower the weight to wherever we need to get it so there's no pain.

"We use the HydroWorx as a consistent part of our training. We say, 'OK, Dathan, if we only run you at 95 miles per week, full-weight bearing, you're never going to get injured, but we know you have to run 120 a week consistently to be prepared for the marathon.

"'So what we're going to do is run an extra 35 miles a week on the HydroWorx treadmill where you're only at 25% [of full body weight] so there's no chance of injury.'

"It's pretty much the exact same running motion. In fact, they've done studies that show it really activates all the muscles the same except in a slower medium, the water, so you run at a slightly slower pace."

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